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PEA*+IDA*: An Improved Hybrid Memory-Restricted Algorithm

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ABSTRACT

It is well-known that the search algorithms A^* and Iterative Deepening A^* (IDA^*) can fail to solve state-space tasks optimally due to time and memory limits. The former typically fails in memory-restricted scenarios and the latter in time-restricted scenarios. Therefore, several algorithms were proposed to solve state-space tasks optimally using less memory than A^* and less time than IDA^*, such as A^*+IDA^*, a hybrid memory-restricted algorithm that combines A^* and IDA^*. In this work, we present a hybrid memory-restricted algorithm that combines Partial Expansion A^* (PEA^*) and IDA^*. This new algorithm has two phases, the same structure as the A^*+IDA^* algorithm. The first phase of PEA^*+IDA^* runs PEA^* until it reaches a memory limit, and the second phase runs IDA^* without duplicate detection on each node of the `Open` of PEA^*. First, we present a model that shows how PEA^*+IDA^* can perform better than A^*+IDA^* although pure PEA^* usually makes more expansions than pure A^*. Later, we perform an experimental evaluation using three memory limits and show that compared to A^*+IDA^* on classical planning domains, PEA^*+IDA^* has higher coverage and expands fewer nodes. Finally, we experimentally analyze both algorithms and show that having higher F-limits and better priority-queue composition given by PEA^* have a considerable impact on the performance of the algorithms.

Keywords: Artificial intelligence. Heuristic search. Search algorithms. Memory-restricted. Classical planning.

PEA*+IDA*: Um Algoritmo Híbrido de Memória Limitada Melhorado

RESUMO

É bem conhecido que os algoritmos de busca A* e Aprofundamento Iterativo A* (IDA* em inglês) podem falhar em resolver otimamente tarefas de busca em espaços de estado devido a limites de tempo e memória. O primeiro tipicamente falha em cenários de memória limitada e o segundo em cenários de tempo limitado. Portanto, diversos algoritmos foram propostos para resolver otimamente tarefas de busca em espaços de estado usando menos memória que A* e menos tempo que IDA*, como por exemplo A*+IDA*, um algoritmo híbrido de memória limitada que combina A* e IDA*. Nesse artigo, nós apresentamos um algoritmo híbrido de memória limita que combina o A* de Expansões Parciais (PEA* em inglês) com IDA*. Este novo algoritmo possui duas fases, mesma estrutura que o algoritmo A*+IDA*. A primeira fase do PEA*+IDA* roda PEA* até o limite de memória ser alcançado, e a segunda fase roda IDA*, sem detecção de duplicatas, em cada nó da `Open` do PEA*. Primeiramente nós apresentamos um modelo que mostra como PEA*+IDA* pode performar melhor que A*+IDA* apesar do PEA* puro normalmente fazer mais expansões que o A* puro. Depois nós apresentamos uma avaliação experimental usando três limites de memória e mostramos que comparado ao A*+IDA*, em domínios de planejamento clássico, PEA*+IDA* tem uma cobertura maior e expande menos nós. Por fim nós analisamos experimentalmente ambos algoritmos e mostramos que ter um F-limite maior e ter a fila de prioridades com melhor composição por conta do PEA* causa um impacto considerável na performance dos algoritmos.

Palavras-chave: Inteligência artificial. Busca heurística. Algoritmos de busca. Memória limitada. Planejamento clássico .

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1 INTRODUCTION

A* (HART; NILSSON; RAPHAEL, 1968) is one of the most popular best-first heuristic search algorithms due to its capability to solve time-efficiently state-space tasks optimally while being intuitive and simple to understand. It expands first nodes with better estimates and stores all generated nodes until expanding and replacing the stored nodes with their children. Since the node estimates given by efficient heuristic functions are imperfect, A* often fails to solve challenging state-space tasks, even in scenarios with large memory limits. Iterative Deepening A* (IDA*) overcomes the memory limitations of A* (KORF, 1985).

IDA* is a heuristic search algorithm with low memory requirement, linear in the depth of the search. However, IDA* has no duplicate detection without using extra memory. Thus, it may frequently expand nodes with the same states. Also, it requires multiple re-expansions of the same nodes due to its iterative behavior, especially those close to the root node. Thus, pure IDA* needs, frequently, orders of magnitude more expansions than A* to solve optimality challenging state-space tasks.

Many algorithms were proposed to solve state-space tasks optimally using less memory than A* and making fewer node expansions than IDA*, such as MREC (SEN; BAGCHI, 1989), MA* (CHAKRABARTI et al., 1989), SMA* (RUSSELL, 1992), SMAG* (KAINDL; KHORSAND, 1994), BAI (KAINDL et al., 1995), BIDA* (MANZINI, 1995), AL* (STERN et al., 2010; BU et al., 2014) and PEA* (YOSHIZUMI; MIURA; ISHIDA, 2000). Some of them have a high polynomial-time overhead per node expansion or generation compared to A*, such as MA*, SMA*, and SMAG*. Some have the performance depending on hyper-parameter value quality that is hard to define, such as the AL* algorithm. Others like PEA* (YOSHIZUMI; MIURA; ISHIDA, 2000) can not be restricted to a specific memory limit. Finally, many are relatively difficult to understand or to implement. Because of all these issues combined, these algorithms are less frequently used in practice.

BU; KORF (2019) presented a new algorithm combining A* and IDA* in a hybrid algorithm with two phases called A*+IDA*. Their new approach does not have the mentioned disadvantages since it is simple to understand, easy to implement, has low overhead per node, and limits the memory required. A*+IDA* can achieve speed-ups around five times over IDA* for specific domains. BU; KORF explain that the main advantage of A*+IDA* is that it starts performing IDA* iterations from nodes with higher depth than

the pure IDA* algorithm (which starts from the root node). They assert that avoiding some IDA* iteration is less impactful since the last two iterations of IDA* dominates the search. Although the A*+IDA* algorithm avoids failing due to memory limits, its second phase still has the drawbacks of the pure IDA* algorithm.

In this work, we propose the use of the Partial Expansion A* (PEA*) as the first phase algorithm (instead of A*), creating the PEA*+IDA* algorithm. Partial Expansion A* is an algorithm based on A* that avoids storing all generated children of expanded nodes, thus reducing its memory requirements. PEA*+IDA* is a new hybrid algorithm that is as simple and intuitive as A*+IDA*. With the trade-off of possibly having more expansions in the first phase, PEA*+IDA* generally reduces the numbers of IDA* iterations and expansions in the second phase. We present a model that shows how PEA*+IDA* can perform better than A*+IDA*. We compare the PEA*+IDA* algorithm with the A*+IDA* algorithm on several domains of the International Planning Competition (IPC) with three different memory limits. The experiments show a reduction in the total number of expansions and an increase in coverage. We also analyze which aspects can yield speed-ups of PEA*+IDA* over A*+IDA* and we found that the F-values of the nodes in `Open` and its node composition are important aspects. Our analysis generally improves the understanding of hybrid memory-restricted algorithms and presents new research directions for efficient hybrid algorithms.

2 BACKGROUND

2.1 State-Space Search

A state-space task is a tuple $\Theta = \langle S, A, T, c, s_0, S_G \rangle$ (STURTEVANT; HELMERT, 2019), where S is a finite set of states, A is a finite set of *actions*, $T \subseteq S \times A \times S$ is a set of *transitions* between states, $c : A \rightarrow \mathbb{R}_{\geq 0}$ is a *cost function* that maps actions to non-negative real costs, $s_0 \in S$ is the *initial state* and $S_G \subseteq S$ is the set of *goal states*.

The objective in *optimal* state-space search is to find a minimal cost *solution*, i.e., a path of transitions $\pi = \langle \langle s_0, a_1, s_1 \rangle, \langle s_1, a_2, s_2 \rangle, \ldots, \langle s_{n-1}, a_n, s_n \rangle \rangle$ from the initial state to any goal state such that $\sum_{i=1}^{n} c(a_i)$ is minimal.

A *heuristic function* $h : S \rightarrow \mathbb{R}_{\geq 0} \cup \{\infty\}$ maps all states to their h-values. The h-value of a state s estimates the minimal cost path from s to any goal state. The *perfect* heuristic function h^* estimates that cost correctly for all states, assigning $h^*(s) = \infty$ to states s for which no such path exists. A heuristic is *admissible* if and only if $h(s) \leq h^*(s)$ for all $s \in S$. The f-value of a state s estimates the cost of a solution going through s and is defined as $f(s) = g(s) + h(s)$, where $g(s)$ is the current cost from s_0 to s.

A *search node* n is data structure that contains a state s, its g, h and f-values, and its parent node ($\perp$ for the root node). We assume that the search algorithms have access to the state-space task through a *black-box* interface i.e. they do not have access to a declarative representation of task. The *black-box* interface provides the following methods: `make_root()` generates a node n_0 with the initial state s_0, `is_goal(n)` tests if n contains a goal state, `extract_path(n)` generates the path of transitions from s_0 to $n.state$, `succ(n)` generates all nodes n' such that $n'.state$ is children of $n.state$ (i.e., states s' such that $\langle n.state, a, s' \rangle \in T$). When `succ(n)` is invoked, the node n is *expanded* and all its children are *generated*.

2.2 A* Algorithm

The A* algorithm (HART; NILSSON; RAPHAEL, 1968) (shown in Algorithm 1) process first nodes in `Open` with least f-value. It initializes `Open` with `make_root()` (line 1) and repeatedly removes nodes from `Open` (line 4) until it removes a node that contains a goal state (lines 5–6). At each iteration it removes a node n, generates the children nodes of n (line 7), and n is added to `Closed` with its g-value (line 10).

Algorithm 1: A*

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1 Open := {**make_root**()}
2 Closed := $\emptyset$

3 **while** Open $\neq \emptyset$ **do**
4   Remove node n from Open with minimum $n.f$
5   **if is_goal**(n) **then**
6   **return extract_path**(n)
7   Children := **succ(n)**
8   **foreach** $n' \in$ Children **do**
9   **process_child**(n')
10   Insert n in Closed

11 **return** $\bot$

    /* Auxiliary Method to Process Children Nodes   */
12 **Method process_child**(n')**:**
13   **if** $n'.state \neq n.state$ **then**
14   **if** $n'.state \in$ Open **then**
15   **if** $n'.g <$ Open($n'.state$).g **then**
16   Open($n'.state$).$update(n'.parent, n'.g, n'.f)$
17   **else if** $n'.state \in$ Closed **then**
18   **if** $n'.g <$ Closed($n'.state$).g **then**
19   Remove $n'.state$ from Closed
20   Insert n' in Open
21   **else**
22   Insert n' in Open

For each generated child n', if $n'.state \notin$ Open and $n'.state \notin$ Closed, then n' is inserted in Open (line 22). If $n'.state \in$ Open and $n'.g <$ Open($n.state$).g then its g-value and parent are updated (line 16). If $n'.state \in$ Closed and $n'.g <$ Closed($n.state$).g then $n'.state$ is removed from Closed and n' is inserted in Open (lines 19–20).

2.3 Iterative Deepening A* Algorithm

The Iterative Deepening A* (IDA*) (KORF, 1985) algorithm (shown in Algorithm 2) performs iterations bounded by an increasing f-limit. At each iteration, starting from the root node, IDA* expands nodes recursively discarding generated nodes with f-values greater than the current f-limit. If a node containing a goal state with f-value equal to the f-limit is generated during an iteration, the algorithm terminates finding a solution. At the end of the iteration, the minimal f-value among generated discarded nodes is set to be the next f-limit (if there is at least one lower than ∞, otherwise the search ends by task unsolvability).

IDA* is a linear-space search algorithm. The trade-off is that it may frequently expand nodes with the same states and requires multiple re-expansions of the same nodes.

Transposition Tables (TTs) (REINEFELD; MARSLAND, 1994; AKAGI; KISHI-MOTO; FUKUNAGA, 2010) and other methods reduce the number of re-expansions

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Algorithm 2: IDA*

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1   $n_0 := \textbf{make\_root}()$

2   **while** $n_0.f < \infty$ **do**
3   `solution_path`, $new\_f\_limit := \textbf{IDA}^*(n_0, n_0.f)$
4   **if** `solution_path` $\neq \perp$ **then**
5   **return** `solution_path`
6      $n_0.f := new\_f\_limit$

7   **return** $\perp$

    /* IDA* Recursive Module with Cycling Avoidance   */
8   **Method** $\textbf{IDA}^*(n, f\_limit)$:
9   **if** $\textbf{is\_goal}(n)$ **then**
10   **return** $\textbf{extract\_path}(n), \perp$
11      $new\_f\_limit := \infty$
12      $\text{Children} := \textbf{succ}(\textbf{n})$
13   **foreach** $n' \in \text{Children}$ **do**
14   **if** $\neg\textbf{has\_cycled}(n')$ **then**
15   **if** $n'.f > f\_limit$ **then**
16                $new\_f\_limit := \min\{new\_f\_limit, n'.f\}$
17   **else**
18   `solution_path`, $rec\_new\_f\_limit := \textbf{IDA}^*(n', f\_limit)$
19   **if** `solution_path` $\neq \perp$ **then**
20   **return** `solution_path`, $\perp$
21                $new\_f\_limit := \min\{new\_f\_limit, rec\_new\_f\_limit\}$
22   **return** $\perp, new\_f\_limit$

---

aiming to approximate the performance of A*. We assume that IDA* prunes cycles in expanded paths and that it process children sorted by lower f-value and lower h-value.

2.4 A*+IDA* Algorithm

A*+IDA* (BU; KORF, 2019) algorithm has two phases. The first phase runs A* until it finds a solution or reaches a memory limit. If A* reaches a memory limit, A*+IDA* starts the second phase. The second phase removes a node n from `Open`, using the A* order, and performs an IDA* iteration starting from n and using as f-limit $n.f$. If the iteration finds a solution, the search ends. Otherwise, the node n is inserted in `Open` with f-value updated. The new f-value of n is the new f-limit returned by IDA*. This process repeats until a solution is found.

A*+IDA* is a memory-restricted algorithm that finds optimal solutions for states-space tasks using specific memory limits. Unfortunately, A*+IDA*'s second phase has the drawbacks of being an IDA* search. However, BU; KORF reported that A*+IDA* is empirically superior to other methods such as TT for specific domains.

2.5 Partial Expansion A* Algorithm

Partial Expansion A* (PEA*) (YOSHIZUMI; MIURA; ISHIDA, 2000) is an algorithm that reduces the memory consumption of the `Open` of A* with a trade-off of possibly requiring multiple re-expansions of nodes. PEA* process first nodes with least F-value instead of a node with least f-value. The F-value of a node is defined to be equal to its f-value until it is updated to another value. When expanding a node n, the algorithm discards all its children that have F-values greater than its $n.F$. PEA* re-inserts n in `Open` with F-value updated to the minimal finite F-value of the discarded children if there is at least one. Otherwise, node n is inserted in `Closed`.

The original version of PEA* allows defining a parameter C, such that it only discards children of a node n that have F-values greater than $n.F + C$. In this work, we assume $C = 0$, which is most frequently used. When using $C = 0$, no node with f-value greater than $h^*(s_0)$ is ever stored.

YOSHIZUMI; MIURA; ISHIDA (2000) showed that using Partial Expansion on domains with large branching factors, such as the multiple sequence alignment problem, yields great reduction on the memory requirements of A*. For example, PEA* required on average only 4.7% of the amount of memory required by A*, when they experimented using both algorithms to solve tasks of aligning sets of 7 sequences.

GOLDENBERG et al. (2014) presented further improvements to A* by introducing the Enhanced Partial Expansion A* (EPEA*) which avoids generating the nodes PEA* discards, when dealing with some specific domains or heuristics. We, however, don't use EPEA* in our work, as its scope will be to measure improvements by comparing the number of total expansions each algorithm make (at a limited amount of stored nodes), ignoring details as the real time spent to solve a task (which EPEA* improves).

3 PEA*+IDA* ALGORITHM

In this section, we introduce the PEA*+IDA* hybrid memory-restricted algorithm. We show its high-level description and how to modify it to use as A*+IDA*, or as the pure algorithms PEA*, A* or IDA*. We then present a proof sketch of its soundness and completeness. Finally, we present a model that shows how PEA*+IDA* can perform better than A*+IDA*. The PEA*+IDA* algorithm has two phases. The first phase runs PEA* until it reaches a memory limit. Our aim to use PEA* as the first phase algorithm is to reduce the drawbacks of its IDA* phase. Using PEA* instead of A* may extend the first phase, since PEA* reduces the `Open` size of A*.

3.1 High-Level Description

Algorithm 3 shows PEA*+IDA* with its two phases: PEA* (lines 3–21) and IDA* (lines 22–31).

3.1.1 First Phase (lines 3–21)

PEA*+IDA* removes from the `Open` first a node n with least F-value (line 4) and not least f-value. Note that the F-value of a node can be updated through the execution of the algorithm. When expanding the node n, the algorithm divides the generated children nodes from `succ(`n`)` into two sets `Children`$_\leq$ and `Children`$_>$. The set `Children`$_\leq$ (line 7) stores nodes with F-values lower or equal to $n.F$. The set `Children`$_>$ (line 78 stores nodes F-values greater than $n.F$. PEA*+IDA* terminates the first phase (lines 9–11) if the memory (`Open` size) required to expand the node n is greater than the predetermined limit. Line 13 invokes the typical method of A* that processes generated nodes in `Children`$_\leq$. Lines 14–21 process `Children`$_>$, if there is no child with finite F-value greater than $n.F$, then the node n is inserted in `Closed`. Otherwise if there is more than one node in `Children`$_>$ the node n is re-inserted in `Open` with F-value equals to the minimum finite F-value of nodes in `Children`$_>$. We propose a minor modification of the original PEA* that reduces expansions of PEA*+IDA* in our experiments: if `Children`$_>$ has only one child node n', then it is processed as a child node with F-value lower or equal to $n.F$, and the node n is then inserted in `Closed`. We

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Algorithm 3: PEA*+IDA*

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1 Open := {**make_root**()}
2 Closed := $\emptyset$

/* First Phase: Restricted PEA* */
3 **while** Open $\neq \emptyset$ **do**
4   Remove node n from Open with minimum $n.F$
5   **if is_goal**(n) **then**
6   **return extract_path**(n)
7   Children$_\leq$:= $\{n' \mid n' \in \mathbf{succ(n)} \land n'.F \leq n.F\}$
8   Children$_>$:= $\{n' \mid n' \in \mathbf{succ(n)} \land n'.F > n.F\}$
9   **if** $|$Open$| + |$Children$_\leq| + \min(|$Children$_>|, 1) >$ MEMORY_LIMIT **then**
10   Insert n in Open
11   **break**
12   **foreach** $n' \in$ Children$_\leq$ **do**
13   **process_child**(n')
14 $n.F := \min\{n'.F \mid n' \in$ Children$_>\}$
15   **if** $n.F = \infty$ **then**
16   Insert n in Closed
17   **else if** $|$Children$_>| = 1$ **then**
18   **process_child**(n') $\mid n' \in$ Children$_>$
19   Insert n in Closed
20   **else**
21   Insert n in Open

/* Second Phase: IDA* */
22 **while** Open $\neq \emptyset$ **do**
23   Remove node n from Open with minimum $n.F$
24   solution_path, new_F_limit := **IDA***($n, n.F$)
25   **if** solution_path $\neq \perp$ **then**
26   **return** solution_path
27   **if** $new\_F\_limit = \infty$ **then**
28   Insert n in Closed
29   **else**
30 $n.F := new\_F\_limit$
31   Insert n in Open

32 **return** $\perp$

/* Auxiliary Method to Process Children Nodes   */
33 **Method process_child**(n'):
34   **if** $n'.state \neq n.state$ **then**
35   **if** $n'.state \in$ Open **then**
36   **if** $n'.g <$ Open($n'.state$)$.g$ **then**
37   Open($n'.state$)$.update(n'.parent, n'.g, n'.F)$
38   **else if** $n'.state \in$ Closed **then**
39   **if** $n'.g <$ Closed($n'.state$)$.g$ **then**
40   Remove $n'.state$ from Closed
41   Insert n' in Open
42   **else**
43   Insert n' in Open

/* IDA* Recursive Module with Cycling Avoidance   */
44 **Method IDA***(n, F_limit):
45   **if is_goal**(n) **then**
46   **return extract_path**(n), $\perp$
47 $new\_F\_limit := \infty$
48   Children := **succ(n)**
49   **foreach** $n' \in$ Children **do**
50   **if** $\neg$**has_cycled**(n') **then**
51   **if** $n'.F > F\_limit$ **then**
52 $new\_F\_limit := \min\{new\_F\_limit, n'.F\}$
53   **else**
54   solution_path, $rec\_new\_F\_limit$:= **IDA***(n', F_limit)
55   **if** solution_path $\neq \perp$ **then**
56   **return** solution_path, $\perp$
57 $new\_F\_limit := \min\{new\_F\_limit, rec\_new\_F\_limit\}$
58   **return** $\perp$, new_F_limit

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do that because in this case processing n' and closing n completes the expansion without changing the overall size of the `Open`.

3.1.2 Second Phase (lines 22–31)

PEA*+IDA* again removes from the `Open` first a node n using the same order from the first phase. Line 24 invokes a standard iteration of IDA* starting with node n and using as F-limit the F-value of node n. At the end of the iteration, if IDA* finds a solution, the algorithm returns it. If the new F-limit returned by the IDA* iteration is infinite, node n is inserted in `Closed`. Otherwise it is re-inserted in `Open` updating its F-value to the new F-limit.

3.1.3 Obtaining Other Algorithms

We can obtain other algorithms by performing minor changes in PEA*+IDA*. To obtain IDA*, we can set `MEMORY_LIMIT` to zero since PEA*+IDA* would fail to make an expansion in the first phase, going then straight to the second phase. To obtain PEA*, we can set `MEMORY_LIMIT` to ∞ since it would never go to the second phase. To obtain the A*+IDA* algorithm, it is sufficient to insert all children nodes into `Children`$_\leq$, instead of splitting them into `Children`$_\leq$ and `Children`$_>$. Lastly, to obtain the A* algorithm is sufficient to simultaneously perform both the conversion procedures to obtain PEA* and obtain A*+IDA*.

3.2 Soundness and Completeness

Here we present a proof sketch of the soundness and completeness of PEA*+IDA* (not considering all effects of having the `Open` and `Closed` duplicate detection).

Theorem 1. *For a state-space task* Θ*, PEA*+IDA* with an admissible heuristic function h returns an optimal solution if one exists and terminates otherwise.*

Proof sketch. Before any node removal of the `Open` there is a node n such that there is an optimal solution going through $n.state$ with cost at least $n.F$. This is valid at the start because the `Open` starts with n_0 (whose state is s_0) and $n_0.F = n_0.f$. The property remains valid until n is removed from `Open`. When n is removed, if n is a goal,

Figure 3.1 – On the left: an example of a state-space task. Each circle is a node set that contains nodes with the same g and h-values. The number at the right of a node set is its nodes h-value, while the number inside is its size. The depth of a node set is its nodes g-value. Node sets with nodes g-values greater than 6 are omitted. On the right: an illustration of the Open of hybrid algorithms.

(a) Example state-space task.

(b) Illustration of the Open of hybrid algorithms.

PEA*+IDA*
$4 \rightarrow 5$

PEA*+IDA*
$5 \rightarrow 6$

A*+IDA*
$4 \rightarrow 5$

A*+IDA*
$5 \rightarrow 6$
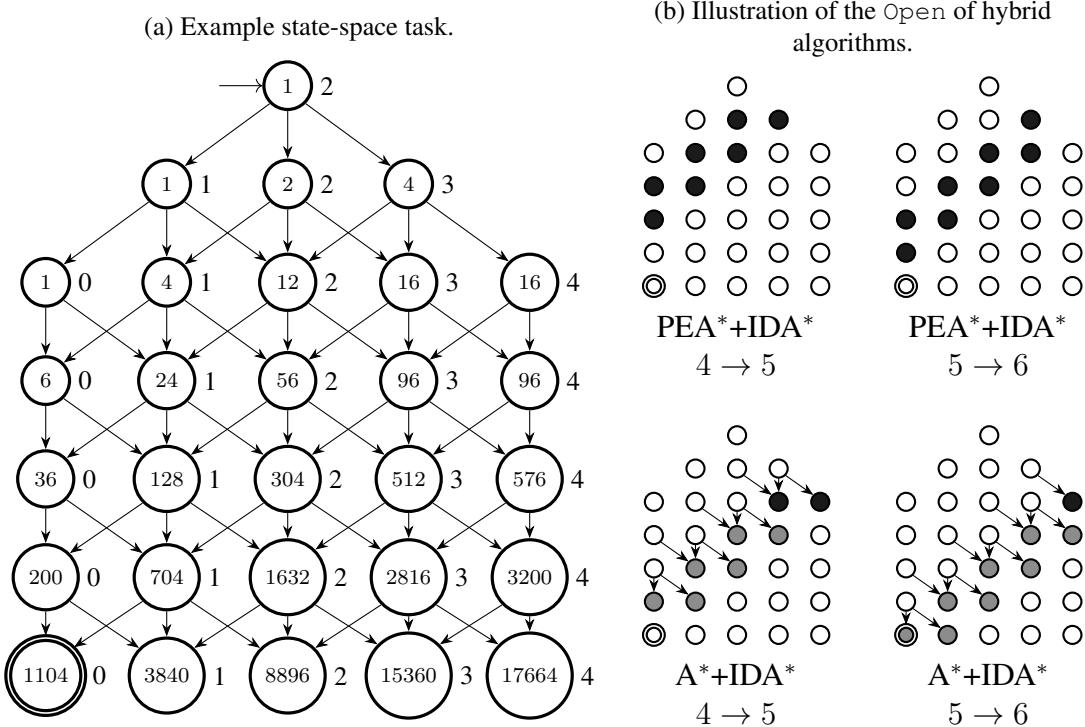
the search successfully ends. Otherwise, n has a child n' with an optimal solution going through $n'.state$. If $n'.F = n'.f > n.F$, then n will be re-inserted with $n.F$ increased to some value at most $n'.f$, and since $n'.f$ is a lower bound to the optimal solution cost, the new $n.F$ also would be, maintaining the property. If $n'.F = n'.f \leq n.F$, n' would be simply inserted in Open in first phase, thus also maintaining the property. If n is removed in the second phase and a solution is not found, the *new-F-limit* assigned to $n.F$ is still a lower bound to the optimal solution cost, maintaining the property. So, the property remains true during the whole search. It remains to be proved that the algorithm terminates. The first phase terminates because eventually, all states with finite h-value will be stored in Closed and because the number of times that the F-value of a node can be updated is finite. The second phase terminates because nodes that form a cycle are pruned. Thus each iteration of IDA* terminates expanding at most nodes with depth $|S|$.

∎

3.3 `Open` Size and Composition Model

We now present a simplified model of size and composition of the `Open` of the hybrid algorithms A*+IDA* and PEA*+IDA* when the minimum node F-value transitions from x to $x + 1$. In this work, the F-value of A*+IDA* is always equal to the f-value. The model of KORF; REID (1998) serves as inspiration for our model. In this model, h-values range from l^- to l^+, the initial node has h-value equals to $h(n_0.state)$ and the transitions have unitary cost. In addition, a node n generates γ_1 children with h-value equals to $n.h - 1$, γ_2 children with h-value equals to $n.h$, and γ_3 children with h-value equals to $n.h + 1$. With the model we can compute the number of nodes with g-value $\mathbf{g}$ and h-value $\mathbf{h}$ using Equation 3.1.

$$|N_{\mathbf{g},\mathbf{h}}| = \begin{cases} \gamma_1 \cdot |N_{\mathbf{g}-1,\mathbf{h}+1}| + \\ \gamma_2 \cdot |N_{\mathbf{g}-1,\mathbf{h}}| + \\ \gamma_3 \cdot |N_{\mathbf{g}-1,\mathbf{h}-1}| & \text{if } \mathbf{g} > 0 \wedge l^- \leq \mathbf{h} \leq l^+; \\ 1 & \text{if } \mathbf{g} = 0 \wedge \mathbf{h} = h(n_0.state); \text{ and} \\ 0 & \text{else.} \end{cases} \quad (3.1)$$

Suppose that the hybrid algorithm does not require its IDA* phase yet. Then, we can determine the nodes that are in `Open` at the instant of the transition of minimum node F-value, i.e., `Open` only contains nodes with F-values equal to at least $x + 1$. For PEA*+IDA* the nodes in `Open` are the ones with f-values (original F-values) at most x that have children nodes with f-values at least $x + 1$. Since nodes with f-values greater than x would still not be generated without being discarded, and since nodes without children nodes with f-values at least $x + 1$ would have already been inserted in `Closed`. For $x = \mathbf{x}$ using Equation 3.2 we can compute the number of nodes in the `Open` of PEA*+IDA*.

$$\sum_{\mathbf{h}=l^-}^{l^+} \left(|N_{(\mathbf{x}-1)-\mathbf{h},\mathbf{h}}| + |N_{\mathbf{x}-\mathbf{h},\mathbf{h}}| \right). \quad (3.2)$$

For the A*+IDA* algorithm the nodes in `Open` are the ones with f-values at least $x + 1$ that are children of nodes with f-value at most x. Since nodes with f-values lower than $x + 1$ would have already been expanded, and since children of nodes with f-values greater than x would have not been generated yet as their parents' nodes would have not

been expanded. For $x = \mathbf{x}$ using Equation 3.3 we can compute the number of nodes in the Open of A*+IDA*.

$$\gamma_2 \cdot \sum_{\mathbf{h}=l^-}^{l^+} |N_{\mathbf{x}-\mathbf{h},\mathbf{h}}| + \gamma_3 \cdot \sum_{\mathbf{h}=l^-}^{l^+-1} (|N_{(\mathbf{x}-1)-\mathbf{h},\mathbf{h}}| + |N_{\mathbf{x}-\mathbf{h},\mathbf{h}}|). \tag{3.3}$$

3.3.1 Example

Using the model we can create a state-space task that exemplifies the behavior of the hybrid algorithms. Figure 3.1a shows a task from a model with $l^- = 0$, $l^+ = 4$, $h(n_0.state) = 2$, $\gamma_1 = 1$, $\gamma_2 = 2$ and $\gamma_3 = 4$, i.e.; a node n generates one child node with h-value one less than its h-value, two children nodes with h-value equals to its h-value and four children nodes with h-value one more than its h-value. In this example, the optimal solution cost is 6. This example aims to emulate a space-state with a heuristic that maps few states to small h-values since generally few nodes are near goal states.

Therefore, for $x = 4$, PEA*+IDA* has nodes in Open with f-values equal to 3 and 4, thus $(6 + 4 + 2) + (36 + 24 + 12 + 4) = 12 + 76 = 88$ nodes. Figure 3.1a shows these node sets in the second and third diagonals. For $x = 5$, PEA*+IDA* has the nodes in Open with f-values equal to 4 and 5, thus $76 + (200 + 128 + 56 + 16) = 76 + 400 = 476$ nodes. The Figure 3.1b shows in black, in the upper quadrants, the node sets in the Open of PEA*+IDA* respectively for $x = 4$ and $x = 5$.

For $x = 4$, A*+IDA* has in Open the nodes with f-values 5 and 6 that are children of nodes with f-values equal to 3 and 4, thus $4 \cdot 12 + (2 + 4) \cdot 76 = 504$ nodes. For $x = 5$, A*+IDA* has in Open the nodes with f-values 6 and 7 that are children of nodes with f-values equal to 4 and 5, thus $4 \cdot 76 + (2 + 4) \cdot 400 = 2704$ nodes. Figure 3.1b shows in black, in the lower quadrants, the node sets in the Open of A*+IDA* respectively for $x = 4$ and $x = 5$, and in gray the node sets partly in the Open also respectively for $x = 4$ and $x = 5$.

Note that for a memory limit of 500 nodes in Open, A*+IDA* would run out of memory while still having a node with F-value equals to 4 in Open, while PEA*+IDA* would only run out of memory after having in Open only nodes with F-values at least 6. Thus, the IDA* phase of the former would have two more iterations than the one of the latter, providing an intuition of why the PEA*+IDA* algorithm may overcome the A*+IDA* algorithm.

4 EMPIRICAL ANALYSIS

Table 4.1 – Coverage and expansion of hybrid algorithms with three memory limits.

	10%		50%		90%		100%
	A*+IDA*	PEA*+IDA*	A*+IDA*	PEA*+IDA*	A*+IDA*	PEA*+IDA*	A*
Airport (2/50)	550.12	**188.08**	**203.10**	222.65	357.35	**222.65**	225.23
Blocks (10/35)	**240,000.11**	303,167.28	**80,140.34**	88,138.08	**68,379.02**	88,138.08	65,289.24
Data (5/20)	**8,336.52**	9,324.62	761.03	**354.03**	364.96	**354.03**	198.66
Depot (2/22)	176,769,920.28	330,564,205.82	9,079,604.03	**63,273.51**	8,336,532.09	**63,273.51**	43,714.30
Driverlog (7/20)	**353,027.00**	355,316.06	37,090.26	**3,870.23**	13,384.08	**3,870.23**	3,058.45
Floortile (5/40)	**9,305,926.90**	105,582,630.60	212,129.06	**52,701.43**	38,791.11	52,701.43	27,076.91
Ged (3/20)	**7,538,420.51**	26,099,969.19	7,390,286.96	**3,144,679.91**	4,301,733.40	**3,062,482.32**	1,189,195.66
Grid (1/5)	**331,728.00**	477,407.00	**89,609.00**	109,367.00	**83,421.00**	109,367.00	77,087.00
Logistics (2/63)	123,874.46	**224.89**	123,466.65	**197.76**	67,944.39	**197.76**	198.60
Miconic (88/150)	**176.25**	192.27	**178.24**	198.29	199.46	**198.29**	197.23
Mprime (7/35)	2,523.22	**1,538.02**	1,454.54	**940.29**	1,280.12	**940.29**	1,179.63
Mystery (3/30)	3,795.93	**2,571.29**	2,737.18	**2,412.23**	1,608.95	2,412.23	1,604.75
Nomystery (6/20)	**24,013.89**	45,142.01	8,656.94	**4,295.07**	5,164.24	**4,295.07**	3,605.23
Organic (6/40)	**3,793.40**	4,027.65	2,627.25	**2,444.08**	1,908.00	**1,769.03**	1,215.96
Parcprinter (11/50)	338.37	**235.08**	178.82	**62.64**	142.03	**62.64**	58.09
Parking (5/40)	**81,800.03**	143,549.56	38,201.43	**29,697.52**	**29,176.07**	29,697.52	24,403.73
Pipesworld (8/150)	**1,178,041.72**	1,334,953.82	187,687.76	**54,576.45**	143,275.27	**54,576.45**	43,618.91
Rovers (2/40)	**127,806,277.14**	404,719,674.94	9,457,675.29	**22,380.37**	4,270,003.52	**22,380.37**	19,372.25
Satellite (3/36)	416,020.76	**93,620.68**	130,167.48	**8,935.48**	53,907.99	**8,935.48**	7,998.70
Scanalyzer (10/50)	14.75	14.75	14.75	**13.73**	14.75	**13.73**	13.73
Sokoban (4/50)	15,288.69	15,288.69	4,392.19	**4,389.60**	1,261.99	**1,261.77**	458.47
Spider (2/20)	2,618,833.90	**1,627,121.33**	357,970.47	**101,673.37**	217,937.53	**101,673.37**	95,343.66
Storage (1/30)	**6,235,135.00**	13,994,290.00	857,116.00	**215,483.00**	447,060.00	**215,483.00**	155,763.00
Tidybot (8/40)	344,327.02	351,201.46	60,675.40	**49,726.79**	31,632.19	**27,813.47**	20,395.35
Trucks (3/30)	**396,319.29**	4,267,495.44	125,630.81	**14,434.11**	39,035.29	**14,434.11**	13,200.95
Visitall (3/40)	2,731,101.66	**2,854,595.28**	**583,648.34**	743,880.72	**451,482.65**	477,201.25	362,538.65
Woodworking (16/50)	349,930.71	**20,802.60**	82,080.16	**2,130.67**	39,287.60	**2,130.67**	1,564.30
Zenotravel (6/20)	623,588.04	**21,778.24**	411,994.10	**8,191.97**	189,333.18	**8,191.97**	8,628.04
Avg. Expansions	120,149.30	**97,360.36**	33,711.26	**7,750.89**	20,332.87	**7,058.26**	5,449.18
Coverage	239	**243**	255	**295**	264	**306**	

In this section, we aim to understand better A*+IDA* and PEA*+IDA*. Thus, we compare them using three different memory limits. We measure time as the number of expanded nodes because it avoids differences that result from implementation details. Aiming to measure memory consumption fairly, we use the number of nodes stored in `Open` instead of real memory, as it is the main source of memory consumption of these algorithms. In addition, the `Open` usually grows faster and consumes more memory per node than the `Closed`. Finally, as we will show, PEA*+IDA* typically has a smaller `Closed` than A*+IDA*. Thus its advantage would increase if we consider the memory consumption of the `Closed`.

We use the STRIPS (NILSSON; FIKES, 1971) optimal benchmark of 1877 tasks of the International Planning Competition (IPC). We obtain the memory limits by solving tasks using pure A* with h^{LMCut} (HELMERT; DOMSHLAK, 2009) saving the peak number of nodes in the `Open` of A* for each solved task. We remove from our experiments tasks that are too "hard" or too "easy", i.e., not solved by pure A* with h^{LMCut} in 10 minutes with 2 GB of memory, or solved by pure A* with blind heuristic function with the same limits. We ran all experiments with a Ryzen 3900X, and all algorithms use as tie-breakers for the `Open` first lower h-value followed by the greater depth and finally

lower generation order. We use the Fast Downward (HELMERT, 2006) framework to implement all our algorithms.

A* with h^{LMCut} does not solve 934 tasks, 115 failed by memory, 815 by time and four by being unsolvable, fully removing *Agricola* and *Childsnack* domains both with with 20 tasks. The 815 tasks that failed by time in pure A* should not be solved by any other algorithm (unless tie-breakers luckily benefit some algorithm in some task). The other algorithms may solve the 115 tasks that failed by memory, but we removed them because we do not have the `Open` size peak information. A* with the blind heuristic solves 629 tasks, and fails by memory in 314 of the 943 remaining tasks, removing the domains (with theirs respective number of tasks in parenthesis): *Barman* (34), *Gripper* (20), *Hiking* (20), *Movie* (30), *Openstacks* (100), *Pegsol* (50), *Snake* (20), *Termes* (20) and *Tetris* (17).

We compare the algorithms using the remaining 314 tasks limiting the `Open` size to 10%, 50% and 90% of peak size of the `Open` of A*. We use h^{LMCut} in all the remaining experiments. Note that tie-breakers may cause A* to have more expansions than some of the hybrid algorithms. Also, note that the removals from the `Open` in the second phase of the hybrid algorithms are not expansions and that the total number of expansions of the hybrid algorithms account for all expansions made during each IDA* iteration.

4.1 A*+IDA* vs. PEA*+IDA*

We now compare the hybrid algorithms. In addition to the previously defined limits, the algorithms could not solve some tasks within six hours. For PEA*+IDA* the number of failures is respectively 71, 19 and 8 at 10%, 50% and 90% memory limits, while for A*+IDA* is respectively 75, 59 and 50. At 10% there are nine tasks that only PEA*+IDA* failed to solve, and 13 tasks that only A*+IDA* failed to solve. At 50% and 90% only PEA*+IDA* failed respectively on three and zero tasks, while only A*+IDA* failed respectively on 43 and 42 tasks. Table 4.1 shows the coverage of both hybrid algorithms for the memory limits. Since both hybrid algorithms have a very similar cost per iteration in the first phase and the same cost per expansion in the second phase, the higher coverage of PEA*+IDA* shows that it is generally superior.

In order to compare expansions, we remove tasks failed to be solved by any experiment, remaining 229 tasks, and removing the domains (with number of tasks in parenthesis) *Elevators* (50), *Freecell* (80), *Pathways* (30), *Petri* (20), *PSR* (50), *TPP* (30) and

Transport (70). Table 4.1 shows as (x/y) the total number y and the number x of the remaining tasks of each domain after all filtering. The experiments further made did not result in any new failure or removal. Table 4.1 shows the geometric mean expansions for each algorithm and memory limit. It also shows the expansions of pure A* for reference. To compute the expansions, we increment by one the values before doing the mean (and decremented by one after) to deal with zero values of IDA* expansions. We use a geometric mean in all average calculations since it avoids overweighting hard domains, reduces the effect that some domains have more remaining tasks than others. In per-domain expansions, at 10% memory limit, the hybrid algorithms are comparable. At 50% and 90% memory limit, PEA*+IDA* wins in almost all domains respectively 23 vs. 5 and 22 vs. 6.

Figure 4.1 shows the number of expansions for each task of Table 4.1. It shows that for most tasks, the first phase of PEA*+IDA* is extended, especially at 10% where memory is critical, and that few tasks require the second phase at higher memory limits. Figure 4.1 also shows that outliers often occur for A*+IDA*, having much more total expansions. In some tasks, it requires more than 10,000 more expansions than PEA*+IDA*. We believe that tasks which A*+IDA* failed to solve would have significantly more expansions than the tasks that PEA*+IDA* failed to solve. However, since those tasks were removed from all Figures and Tables, and running them to the end could be prohibitive, we present lower bounds to the mean number of expansions in the 252 tasks that at least one of the two algorithms solved at all three memory limits. The lower bounds consider the number of expansions made up to the time limit of six hours. For the limits of 10%, 50% and 90%, PEA*+IDA* has a respectively lower bound on the number of expansions of 209,090.99, 12,486.61 and 10,182.03, while A*+IDA* has a respectively lower bound of 420,738.71, 119,111.53 and 58,203.64. Thus, an estimate of the speed-up of PEA*+IDA* for the respective limits is 2.01, 9.54, and 5.72.

Table 4.2 shows geometric mean information over domains and tasks of Table 4.1 for the hybrid algorithms. As expected, PEA*+IDA* has a higher number of only first phase expansions, and it dramatically reduces the number of second phase expansions and IDA* iterations. Table 4.2 shows that on average PEA*+IDA* has a smaller `Closed` peak supporting the claim that if we were to consider also the memory consumption of the `Closed` the advantage of PEA*+IDA* would increase.

Figure 4.1 – PEA*+IDA* (vertical axis) vs. A*+IDA* (horizontal axis) number of expansions for each task.

(a) Total expansions.

(b) Only 1st phase expansions.

(c) Only 2nd phase expansions.
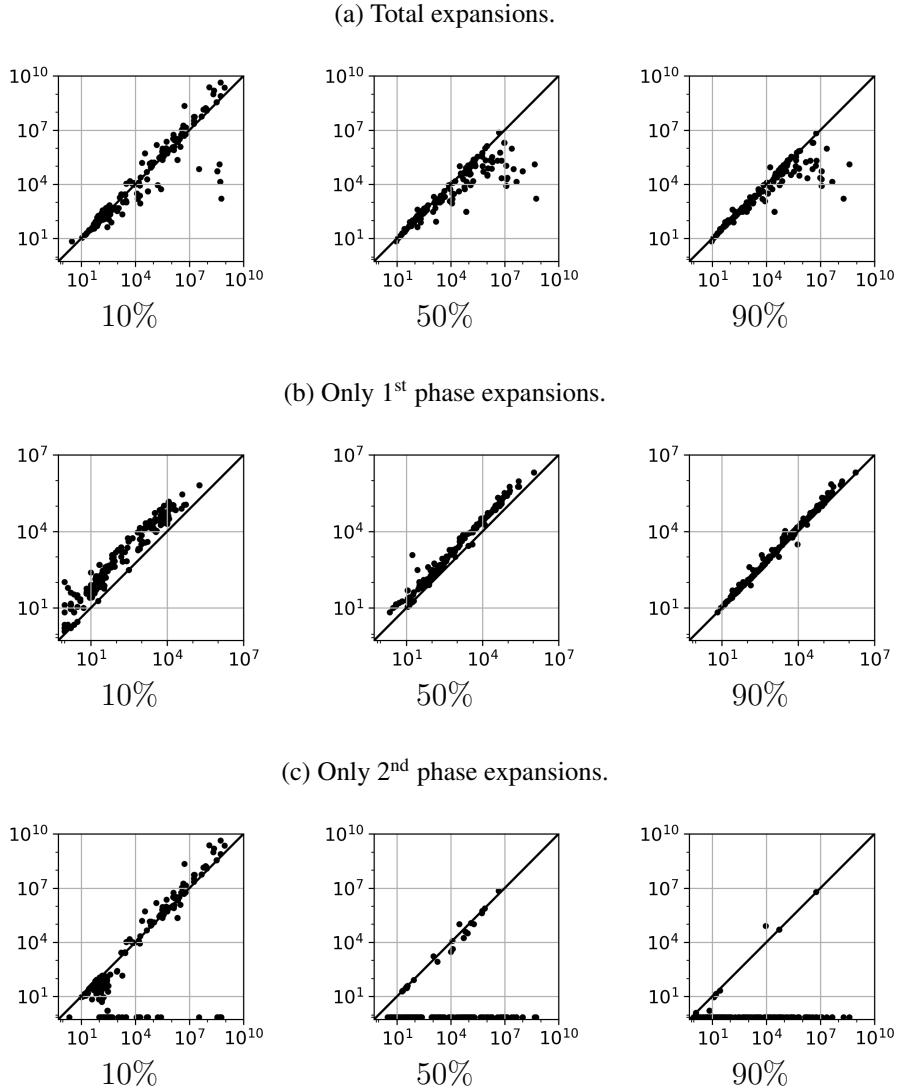
4.2 Better `Open` Composition

We now analyze information about F-values of nodes in `Open` when memory reaches the limit (requiring the second phase). We focus on the memory limit of 10% since it provides the highest number of tasks that both algorithms reach the memory limit. The minimum, mean, maximum F-values in `Open` for A*+IDA* is respectively 37.28, 40.30 and 45.07 while for PEA*+IDA* is 39.27, 41.11 and 44.87. The percentage of nodes with minimum F-values for A*+IDA* is 19% and for PEA*+IDA* is 30%. Therefore, PEA*+IDA* has a more homogeneous `Open` when memory reaches the limit and that it also has a higher starting F-limit to the IDA* iterations. Thus, the higher starting

Table 4.2 – Mean first phase and second phase number of expansions, `Closed` size and IDA*
number of iterations for hybrid algorithms, and A*+IDA*$^\uparrow$.

	A*+IDA*	PEA*+IDA*	A*+IDA*$^\uparrow$
		10%	
1st Phase Exp.	442.75	2,185.47	442.75
2nd Phase Exp.	116,447.96	24,113.45	50,644.85
`Closed` Peak	414.28	115.95	414.27
IDA* Iterations	1,004.17	196.62	678.01
		50%	
1st Phase Exp.	2,313.47	5,716.05	2,313.47
2nd Phase Exp.	25,278.76	4.33	234.50
`Closed` Peak	2,276.37	355.75	2,274.84
IDA* Iterations	918.66	1.58	47.38
		90%	
1st Phase Exp.	4,661.25	6,446.94	4,661.25
2nd Phase Exp.	6,968.40	0.77	63.32
`Closed` Peak	4,613.62	403.22	4,612.91
IDA* Iterations	262.17	0.33	18.70

F-limit could explain the better performance of PEA*+IDA*. However, PEA*+IDA*,
besides reducing the number IDA* iterations, also reduces (at 50% and 90%) the number
of expansions of each iteration. The number of second phase expansions per iteration
for PEA*+IDA* and the three limits is respectively 122.64, 2.74, and 2.33, while for
A*+IDA* is 115.96, 27.52, and 26.58. Thus, the better `Open` composition of PEA*+IDA*
is partially responsible for its performance.

4.3 Higher Initial F-Limit

To evaluate the effect of the higher F-limit of PEA*+IDA*, we artificially modi-
fied A*+IDA* into what we call "A*+IDA*$^\uparrow$". A*+IDA*$^\uparrow$ runs A* as A*+IDA*, but, when
memory reaches the limit and before the second phase, all nodes in `Open` with F-values
lower than a value $F^\uparrow$ have their F-values updated to $F^\uparrow$. We define $F^\uparrow$ as the minimal F-
value of the `Open` of PEA*+IDA* at its first IDA* iteration if it required the second phase
to solve the task, or as the $h^*(n_0.state)$, otherwise. Table 4.2 shows that A*+IDA*$^\uparrow$ has a
dramatic reduction of IDA* phase expansions and iterations when compared to A*+IDA*
in all memory limits. This indicates that higher F-limits have a considerable impact on
the second phase of the algorithm, although the last two iterations of IDA* dominate the
number of expansions.

We also used A*+IDA*$^\uparrow$ to measure the impact of the `Open` node composition
of PEA*+IDA* against the one of A*+IDA*, when memory reaches the limit. Since
A*+IDA*$^\uparrow$ has a F-limit at first IDA* iteration greater or equal to PEA*+IDA*, and ap-

proximately the same `Open` size due to the memory limits, we could expect that the former would perform at least as better as the latter in the second phase. However, Table 4.2 shows otherwise, PEA*+IDA* is still superior concerning second phase expansions and IDA* iterations.

5 CONCLUSION AND FUTURE WORK

In this work, we proposed an improved hybrid memory-restricted algorithm combining PEA* and IDA*. We showed that we could increase the minimum F-value in the `Open` at fixed memory limit by using PEA* instead of A* as the first phase algorithm. Our experiments show that PEA*+IDA* reduces the number of IDA* iterations and expansions, generally reducing the number of total expansions and increasing the coverage. Our analysis shows that higher minimum F-values do not entirely explain the improvement obtained by the algorithm and that the `Open` composition is also an important aspect. We plan to refine our model to understand better each component of hybrid memory-restricted algorithms in the future. Also, we plan to investigate further the role of the composition of the `Open` in the performance of IDA* iterations.

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APPENDIX A — SEARCH RESULT

A.1 agricola

A.1.1 agricola-opt18-strips

Table A.1 – Search Result, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Timeout	-
p02	-	-	-	-	-	-	-	-	-	Timeout	-
p03	-	-	-	-	-	-	-	-	-	Timeout	-
p04	-	-	-	-	-	-	-	-	-	Timeout	-
p05	-	-	-	-	-	-	-	-	-	Timeout	-
p06	-	-	-	-	-	-	-	-	-	Timeout	-
p07	-	-	-	-	-	-	-	-	-	Timeout	-
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.2 airport

A.2.1 airport

Table A.2 – Search Result, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-airport1-p1	-	-	-	-	-	-	-	-	-	Solved	Solved
p02-airport1-p1	-	-	-	-	-	-	-	-	-	Solved	Solved
p03-airport1-p2	-	-	-	-	-	-	-	-	-	Solved	Solved
p04-airport2-p1	-	-	-	-	-	-	-	-	-	Solved	Solved
p05-airport2-p1	-	-	-	-	-	-	-	-	-	Solved	Solved
p06-airport2-p2	-	-	-	-	-	-	-	-	-	Solved	Solved
p07-airport2-p2	-	-	-	-	-	-	-	-	-	Solved	Solved
p08-airport2-p3	-	-	-	-	-	-	-	-	-	Solved	Solved
p09-airport2-p4	-	-	-	-	-	-	-	-	-	Solved	Solved
p10-airport3-p1	-	-	-	-	-	-	-	-	-	Solved	Solved
p11-airport3-p1	-	-	-	-	-	-	-	-	-	Solved	Solved
p12-airport3-p2	-	-	-	-	-	-	-	-	-	Solved	Solved
p13-airport3-p2	-	-	-	-	-	-	-	-	-	Solved	Solved
p14-airport3-p3	-	-	-	-	-	-	-	-	-	Solved	Solved
p15-airport3-p3	-	-	-	-	-	-	-	-	-	Solved	Solved
p16-airport3-p4	-	-	-	-	-	-	-	-	-	Solved	Solved
p17-airport3-p5	-	-	-	-	-	-	-	-	-	Solved	Solved
p18-airport3-p6	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Solved	Solved	Memory-out
p19-airport3-p6	-	-	-	-	-	-	-	-	-	Solved	Solved
p20-airport3-p7	Timeout	-	Timeout	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Memory-out
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	Solved	Solved
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	Solved	Solved
p23-airport4halfMUC-p4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p24-airport4halfMUC-p4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	Timeout	-
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	Timeout	-
p27-airport4halfMUC-p6	Solved	Solved	Solved	Timeout	-	Solved	Solved	Solved	Solved	Solved	Memory-out
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	Timeout	-
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	Timeout	-
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	Timeout	-
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	Timeout	-
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	Timeout	-
p33-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	Timeout	-
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	Timeout	-
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	Timeout	-
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	Solved	Solved
p37-airport5MUC-p3	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Solved	Solved	Memory-out
p38-airport5MUC-p3	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Solved	Solved	Memory-out
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	Timeout	-
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	Timeout	-
p41-airport5MUC-p4	-	-	-	-	-	-	-	-	-	Timeout	-
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	Timeout	-
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	Timeout	-
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	Timeout	-
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	Timeout	-
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	Timeout	-
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	Timeout	-
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	Timeout	-
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	Timeout	-
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	Timeout	-

A.3 barman

A.3.1 barman-opt11-strips

Table A.3 – Search Result, barman, barman-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
pfile01-001	-	-	-	-	-	-	-	-	-	Solved	Solved
pfile01-002	-	-	-	-	-	-	-	-	-	Solved	Solved
pfile01-003	-	-	-	-	-	-	-	-	-	Solved	Solved
pfile01-004	-	-	-	-	-	-	-	-	-	Solved	Solved
pfile02-005	-	-	-	-	-	-	-	-	-	Timeout	Timeout
pfile02-006	-	-	-	-	-	-	-	-	-	Timeout	-
pfile02-007	-	-	-	-	-	-	-	-	-	Timeout	-
pfile02-008	-	-	-	-	-	-	-	-	-	Timeout	-
pfile03-009	-	-	-	-	-	-	-	-	-	Timeout	-
pfile03-010	-	-	-	-	-	-	-	-	-	Timeout	-
pfile03-011	-	-	-	-	-	-	-	-	-	Timeout	-
pfile03-012	-	-	-	-	-	-	-	-	-	Timeout	-
pfile04-013	-	-	-	-	-	-	-	-	-	Timeout	-
pfile04-014	-	-	-	-	-	-	-	-	-	Timeout	-
pfile04-015	-	-	-	-	-	-	-	-	-	Timeout	-
pfile05-016	-	-	-	-	-	-	-	-	-	Timeout	-
pfile05-017	-	-	-	-	-	-	-	-	-	Timeout	-
pfile05-018	-	-	-	-	-	-	-	-	-	Timeout	-
pfile05-019	-	-	-	-	-	-	-	-	-	Timeout	-
pfile05-020	-	-	-	-	-	-	-	-	-	Timeout	-

A.3.2 barman-opt14-strips

Table A.4 – Search Result, barman, barman-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p435-1	-	-	-	-	-	-	-	-	-	Timeout	-
p435-2	-	-	-	-	-	-	-	-	-	Timeout	-
p435-3	-	-	-	-	-	-	-	-	-	Timeout	-
p536-1	-	-	-	-	-	-	-	-	-	Timeout	-
p536-2	-	-	-	-	-	-	-	-	-	Timeout	-
p536-3	-	-	-	-	-	-	-	-	-	Timeout	-
p638-1	-	-	-	-	-	-	-	-	-	Timeout	-
p638-2	-	-	-	-	-	-	-	-	-	Timeout	-
p638-3	-	-	-	-	-	-	-	-	-	Timeout	-
p739-1	-	-	-	-	-	-	-	-	-	Timeout	-
p739-2	-	-	-	-	-	-	-	-	-	Timeout	-
p739-3	-	-	-	-	-	-	-	-	-	Timeout	-
p839-1	-	-	-	-	-	-	-	-	-	Timeout	-
p839-2	-	-	-	-	-	-	-	-	-	Timeout	-

A.4 blocks

A.4.1 blocks

Table A.5 – Search Result, blocks, blocks

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
probBLOCKS-10-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probBLOCKS-10-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probBLOCKS-10-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probBLOCKS-11-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probBLOCKS-11-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probBLOCKS-11-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probBLOCKS-12-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probBLOCKS-12-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	Timeout	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	Timeout	-
probBLOCKS-14-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probBLOCKS-14-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	Timeout	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	Timeout	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	Timeout	-
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	Timeout	-
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	Timeout	-
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	Solved	Solved
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	Solved	Solved

A.5 childsnack

A.5.1 childsnack-opt14-strips

Table A.6 – Search Result, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
child-snack_pfile01	-	-	-	-	-	-	-	-	-	Memory-out	-
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	Memory-out	-
child-snack_pfile02	-	-	-	-	-	-	-	-	-	Memory-out	-
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	Memory-out	-
child-snack_pfile03	-	-	-	-	-	-	-	-	-	Memory-out	-
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	Memory-out	-
child-snack_pfile04	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile05	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile06	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile07	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile08	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile09	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile10	-	-	-	-	-	-	-	-	-	Timeout	-
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	Timeout	-

A.6 data

A.6.1 data-network-opt18-strips

Table A.7 – Search Result, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p04	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p05	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06	-	-	-	-	-	-	-	-	-	Timeout	-
p07	-	-	-	-	-	-	-	-	-	Timeout	-
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p13	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Solved	Solved
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.7 depot

A.7.1 depot

Table A.8 – Search Result, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	Timeout	-	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p05	-	-	-	-	-	-	-	-	-	Timeout	-
p06	-	-	-	-	-	-	-	-	-	Timeout	-
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Timeout	-
p22	-	-	-	-	-	-	-	-	-	Timeout	-

A.8 driverlog

A.8.1 driverlog

Table A.9 – Search Result, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p09	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p10	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p11	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p14	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.9 elevators

A.9.1 elevators-opt08-strips

Table A.10 – Search Result, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p06	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p07	-	-	-	-	-	-	-	-	-	Memory-out	-
p08	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p09	-	-	-	-	-	-	-	-	-	Memory-out	-
p10	-	-	-	-	-	-	-	-	-	Memory-out	-
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p15	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p18	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Solved	Solved
p22	-	-	-	-	-	-	-	-	-	Solved	Solved
p23	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p24	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p25	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p26	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p27	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p28	-	-	-	-	-	-	-	-	-	Timeout	-
p29	-	-	-	-	-	-	-	-	-	Timeout	-
p30	-	-	-	-	-	-	-	-	-	Timeout	-

A.9.2 elevators-opt11-strips

Table A.11 – Search Result, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p08	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p13	-	-	-	-	-	-	-	-	-	Memory-out	-
p14	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p15	-	-	-	-	-	-	-	-	-	Memory-out	-
p16	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p17	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p18	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p19	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p20	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out

A.10 floortile

A.10.1 floortile-opt11-strips

Table A.12 – Search Result, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind A^*$
opt-p01-001	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
opt-p01-002	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
opt-p02-003	Solved	Solved	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
opt-p02-004	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
opt-p03-005	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
opt-p03-006	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
opt-p04-007	Timeout	-	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
opt-p04-008	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p05-009	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p05-010	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p06-011	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p06-012	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p07-013	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p07-014	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p08-015	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p08-016	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p09-017	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p09-018	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p10-019	-	-	-	-	-	-	-	-	-	Timeout	-
opt-p10-020	-	-	-	-	-	-	-	-	-	Timeout	-

A.10.2 floortile-opt14-strips

Table A.13 – Search Result, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind A^*$
p01-4-3-2	Solved	Solved	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p01-4-4-2	-	-	-	-	-	-	-	-	-	Timeout	-
p01-5-3-2	Solved	Solved	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p01-5-4-2	-	-	-	-	-	-	-	-	-	Timeout	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	Timeout	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	Timeout	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	Timeout	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	Timeout	-
p02-5-3-2	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p02-5-4-2	-	-	-	-	-	-	-	-	-	Timeout	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	Timeout	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	Timeout	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	Timeout	-
p03-4-3-2	Solved	Solved	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p03-4-4-2	-	-	-	-	-	-	-	-	-	Timeout	-
p03-5-3-2	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p03-5-5-2	-	-	-	-	-	-	-	-	-	Timeout	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	Timeout	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	Timeout	-

A.11 freecell

A.11.1 freecell

Table A.14 – Search Result, freecell, freecell

	10%			50%			90%			100%	
	A^*+IDA^*	$A^*+IDA^*\uparrow$	PEA^*+IDA^*	A^*+IDA^*	$A^*+IDA^*\uparrow$	PEA^*+IDA^*	A^*+IDA^*	$A^*+IDA^*\uparrow$	PEA^*+IDA^*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06	-	-	-	-	-	-	-	-	-	Timeout	-
p07	-	-	-	-	-	-	-	-	-	Timeout	-
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-10-1	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-10-2	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-10-3	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-10-4	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-10-5	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-11-1	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-11-2	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-11-3	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-11-4	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-11-5	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-12-1	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-12-2	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-12-3	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-12-4	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-12-5	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-13-1	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-13-2	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-13-3	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-13-4	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-13-5	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-2-1	-	-	-	-	-	-	-	-	-	Solved	Solved
probfreecell-2-2	-	-	-	-	-	-	-	-	-	Solved	Solved
probfreecell-2-3	-	-	-	-	-	-	-	-	-	Solved	Solved
probfreecell-2-4	-	-	-	-	-	-	-	-	-	Solved	Solved
probfreecell-2-5	-	-	-	-	-	-	-	-	-	Solved	Solved
probfreecell-3-1	-	-	-	-	-	-	-	-	-	Solved	Solved
probfreecell-3-2	-	-	-	-	-	-	-	-	-	Solved	Solved
probfreecell-3-3	-	-	-	-	-	-	-	-	-	Solved	Solved
probfreecell-3-4	-	-	-	-	-	-	-	-	-	Solved	Solved
probfreecell-3-5	-	-	-	-	-	-	-	-	-	Solved	Solved
probfreecell-4-1	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-4-2	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-4-3	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-4-4	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-4-5	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-5-1	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-5-2	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-5-3	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-5-4	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-5-5	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-6-1	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-6-2	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-6-3	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-6-4	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-6-5	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-7-1	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-7-2	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-7-3	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-7-4	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-7-5	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-8-1	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-8-2	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-8-3	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-8-4	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-8-5	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-9-1	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-9-2	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-9-3	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-9-4	-	-	-	-	-	-	-	-	-	Timeout	-
probfreecell-9-5	-	-	-	-	-	-	-	-	-	Timeout	-

A.12 ged

A.12.1 ged-opt14-strips

Table A.15 – Search Result, ged, ged-opt14-strips

	10%			50%			90%			100%	
	A^*+IDA^*	$A^*+IDA^*\uparrow$	PEA^*+IDA^*	A^*+IDA^*	$A^*+IDA^*\uparrow$	PEA^*+IDA^*	A^*+IDA^*	$A^*+IDA^*\uparrow$	PEA^*+IDA^*	A^*	Blind A^*
d-1-2	-	-	-	-	-	-	-	-	-	Solved	Solved
d-1-3	-	-	-	-	-	-	-	-	-	Solved	Solved
d-1-4	-	-	-	-	-	-	-	-	-	Solved	Solved
d-1-8	-	-	-	-	-	-	-	-	-	Solved	Solved
d-2-1	-	-	-	-	-	-	-	-	-	Solved	Solved
d-2-3	-	-	-	-	-	-	-	-	-	Solved	Solved
d-2-4	-	-	-	-	-	-	-	-	-	Solved	Solved
d-2-8	-	-	-	-	-	-	-	-	-	Memory-out	-
d-3-1	-	-	-	-	-	-	-	-	-	Solved	Solved
d-3-2	-	-	-	-	-	-	-	-	-	Solved	Solved
d-3-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved
d-4-2	-	-	-	-	-	-	-	-	-	Solved	Solved
d-4-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
d-4-8	-	-	-	-	-	-	-	-	-	Memory-out	-
d-7-5	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
d-7-6	-	-	-	-	-	-	-	-	-	Solved	Solved
d-8-1	-	-	-	-	-	-	-	-	-	Solved	Solved
d-8-2	-	-	-	-	-	-	-	-	-	Memory-out	-
d-8-4	-	-	-	-	-	-	-	-	-	Memory-out	-
d-8-9	-	-	-	-	-	-	-	-	-	Memory-out	-

A.13 grid

A.13.1 grid

Table A.16 – Search Result, grid, grid

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	Solved	Solved
prob02	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob03	-	-	-	-	-	-	-	-	-	Timeout	-
prob04	-	-	-	-	-	-	-	-	-	Timeout	-
prob05	-	-	-	-	-	-	-	-	-	Timeout	-

A.14 gripper

A.14.1 gripper

Table A.17 – Search Result, gripper, gripper

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	Solved	Solved
prob02	-	-	-	-	-	-	-	-	-	Solved	Solved
prob03	-	-	-	-	-	-	-	-	-	Solved	Solved
prob04	-	-	-	-	-	-	-	-	-	Solved	Solved
prob05	-	-	-	-	-	-	-	-	-	Solved	Solved
prob06	-	-	-	-	-	-	-	-	-	Solved	Solved
prob07	-	-	-	-	-	-	-	-	-	Solved	Solved
prob08	-	-	-	-	-	-	-	-	-	Memory-out	-
prob09	-	-	-	-	-	-	-	-	-	Timeout	-
prob10	-	-	-	-	-	-	-	-	-	Timeout	-
prob11	-	-	-	-	-	-	-	-	-	Timeout	-
prob12	-	-	-	-	-	-	-	-	-	Timeout	-
prob13	-	-	-	-	-	-	-	-	-	Timeout	-
prob14	-	-	-	-	-	-	-	-	-	Timeout	-
prob15	-	-	-	-	-	-	-	-	-	Timeout	-
prob16	-	-	-	-	-	-	-	-	-	Timeout	-
prob17	-	-	-	-	-	-	-	-	-	Timeout	-
prob18	-	-	-	-	-	-	-	-	-	Timeout	-
prob19	-	-	-	-	-	-	-	-	-	Timeout	-
prob20	-	-	-	-	-	-	-	-	-	Timeout	-

A.15 hiking

A.15.1 hiking-opt14-strips

Table A.18 – Search Result, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	Solved	Solved
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	Solved	Solved
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	Solved	Solved
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	Solved	Solved
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	Solved	Solved
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	Solved	Solved
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	Solved	Solved
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	Timeout	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	Timeout	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	Timeout	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	Timeout	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	Solved	Solved
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	Timeout	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	Timeout	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	Timeout	-
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	Solved	Solved
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	Timeout	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	Timeout	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	Timeout	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	Timeout	-

A.16 logistics

A.16.1 logistics00

Table A.19 – Search Result, logistics, logistics00

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
probLOGISTICS-10-0	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
probLOGISTICS-10-1	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
probLOGISTICS-11-0	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	Timeout	-
probLOGISTICS-12-0	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	Timeout	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	Timeout	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	Timeout	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	Timeout	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	Timeout	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	Timeout	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	Timeout	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	Solved	Solved
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	Solved	Solved
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	Solved	Solved
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	Solved	Solved
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	Solved	Solved
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	Solved	Solved
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	Solved	Solved
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	Solved	Solved
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	Solved	Solved
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	Solved	Solved
probLOGISTICS-7-0	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probLOGISTICS-7-1	Timeout	-	Timeout	Timeout	-	Solved	Solved	Solved	Solved	Solved	Memory-out
probLOGISTICS-8-0	Solved	Solved	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probLOGISTICS-8-1	Timeout	-	Timeout	Timeout	-	Solved	Solved	Solved	Solved	Solved	Memory-out
probLOGISTICS-9-0	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
probLOGISTICS-9-1	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out

A.16.2 logistics98

Table A.20 – Search Result, logistics, logistics98

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob02	-	-	-	-	-	-	-	-	-	Timeout	-
prob03	-	-	-	-	-	-	-	-	-	Timeout	-
prob04	-	-	-	-	-	-	-	-	-	Timeout	-
prob05	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob06	-	-	-	-	-	-	-	-	-	Timeout	-
prob07	-	-	-	-	-	-	-	-	-	Timeout	-
prob08	-	-	-	-	-	-	-	-	-	Timeout	-
prob09	-	-	-	-	-	-	-	-	-	Timeout	-
prob10	-	-	-	-	-	-	-	-	-	Timeout	-
prob11	-	-	-	-	-	-	-	-	-	Timeout	-
prob12	-	-	-	-	-	-	-	-	-	Timeout	-
prob13	-	-	-	-	-	-	-	-	-	Timeout	-
prob14	-	-	-	-	-	-	-	-	-	Timeout	-
prob15	-	-	-	-	-	-	-	-	-	Timeout	-
prob16	-	-	-	-	-	-	-	-	-	Timeout	-
prob17	-	-	-	-	-	-	-	-	-	Timeout	-
prob18	-	-	-	-	-	-	-	-	-	Timeout	-
prob19	-	-	-	-	-	-	-	-	-	Timeout	-
prob20	-	-	-	-	-	-	-	-	-	Timeout	-
prob21	-	-	-	-	-	-	-	-	-	Timeout	-
prob22	-	-	-	-	-	-	-	-	-	Timeout	-
prob23	-	-	-	-	-	-	-	-	-	Timeout	-
prob24	-	-	-	-	-	-	-	-	-	Timeout	-
prob25	-	-	-	-	-	-	-	-	-	Timeout	-
prob26	-	-	-	-	-	-	-	-	-	Timeout	-
prob27	-	-	-	-	-	-	-	-	-	Timeout	-
prob28	-	-	-	-	-	-	-	-	-	Timeout	-
prob29	-	-	-	-	-	-	-	-	-	Timeout	-
prob30	-	-	-	-	-	-	-	-	-	Timeout	-
prob31	-	-	-	-	-	-	-	-	-	Solved	Solved
prob32	-	-	-	-	-	-	-	-	-	Solved	Solved
prob33	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
prob34	-	-	-	-	-	-	-	-	-	Timeout	-
prob35	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out

A.17 miconic

A.17.1 miconic

Table A.21 – Search Result, miconic, miconic

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
s1-0	-	-	-	-	-	-	-	-	-	Solved	Solved
s1-1	-	-	-	-	-	-	-	-	-	Solved	Solved
s1-2	-	-	-	-	-	-	-	-	-	Solved	Solved
s1-3	-	-	-	-	-	-	-	-	-	Solved	Solved
s1-4	-	-	-	-	-	-	-	-	-	Solved	Solved
s10-0	-	-	-	-	-	-	-	-	-	Solved	Solved
s10-1	-	-	-	-	-	-	-	-	-	Solved	Solved
s10-2	-	-	-	-	-	-	-	-	-	Solved	Solved
s10-3	-	-	-	-	-	-	-	-	-	Solved	Solved
s10-4	-	-	-	-	-	-	-	-	-	Solved	Solved
s11-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s11-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s11-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s11-3	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
s11-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s12-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s12-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s12-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s12-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s12-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s13-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s13-1	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
s13-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s13-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s13-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s14-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s14-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s14-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s14-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s14-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s15-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s15-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s15-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s15-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s15-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s16-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s16-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s16-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s16-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s16-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s17-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s17-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s17-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s17-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s17-4	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
s18-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s18-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s18-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s18-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s18-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s19-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s19-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s19-2	-	-	-	-	-	-	-	-	-	Timeout	-
s19-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s19-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s2-0	-	-	-	-	-	-	-	-	-	Solved	Solved
s2-1	-	-	-	-	-	-	-	-	-	Solved	Solved
s2-2	-	-	-	-	-	-	-	-	-	Solved	Solved
s2-3	-	-	-	-	-	-	-	-	-	Solved	Solved
s2-4	-	-	-	-	-	-	-	-	-	Solved	Solved
s20-0	-	-	-	-	-	-	-	-	-	Timeout	-
s20-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s20-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s20-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s20-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s21-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s21-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s21-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s21-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s21-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s22-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s22-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s22-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s22-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s22-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s23-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s23-1	-	-	-	-	-	-	-	-	-	Timeout	-
s23-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s23-3	-	-	-	-	-	-	-	-	-	Timeout	-
s23-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s24-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s24-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s24-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s24-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s24-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s25-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s25-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s25-2	-	-	-	-	-	-	-	-	-	Timeout	-
s25-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s25-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s26-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s26-1	-	-	-	-	-	-	-	-	-	Timeout	-
s26-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s26-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s26-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s27-0	-	-	-	-	-	-	-	-	-	Timeout	-
s27-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s27-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s27-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s27-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s28-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s28-1	-	-	-	-	-	-	-	-	-	Timeout	-
s28-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s28-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s28-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s29-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s29-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s29-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s29-3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s29-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s3-0	-	-	-	-	-	-	-	-	-	Solved	Solved
s3-1	-	-	-	-	-	-	-	-	-	Solved	Solved
s3-2	-	-	-	-	-	-	-	-	-	Solved	Solved
s3-3	-	-	-	-	-	-	-	-	-	Solved	Solved
s3-4	-	-	-	-	-	-	-	-	-	Solved	Solved
s30-0	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s30-1	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s30-2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s30-3	-	-	-	-	-	-	-	-	-	Timeout	-
s30-4	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
s4-0	-	-	-	-	-	-	-	-	-	Solved	Solved
s4-1	-	-	-	-	-	-	-	-	-	Solved	Solved
s4-2	-	-	-	-	-	-	-	-	-	Solved	Solved
s4-3	-	-	-	-	-	-	-	-	-	Solved	Solved
s4-4	-	-	-	-	-	-	-	-	-	Solved	Solved
s5-0	-	-	-	-	-	-	-	-	-	Solved	Solved
s5-1	-	-	-	-	-	-	-	-	-	Solved	Solved
s5-2	-	-	-	-	-	-	-	-	-	Solved	Solved
s5-3	-	-	-	-	-	-	-	-	-	Solved	Solved
s5-4	-	-	-	-	-	-	-	-	-	Solved	Solved
s6-0	-	-	-	-	-	-	-	-	-	Solved	Solved
s6-1	-	-	-	-	-	-	-	-	-	Solved	Solved
s6-2	-	-	-	-	-	-	-	-	-	Solved	Solved
s6-3	-	-	-	-	-	-	-	-	-	Solved	Solved
s6-4	-	-	-	-	-	-	-	-	-	Solved	Solved
s7-0	-	-	-	-	-	-	-	-	-	Solved	Solved
s7-1	-	-	-	-	-	-	-	-	-	Solved	Solved
s7-2	-	-	-	-	-	-	-	-	-	Solved	Solved
s7-3	-	-	-	-	-	-	-	-	-	Solved	Solved
s7-4	-	-	-	-	-	-	-	-	-	Solved	Solved
s8-0	-	-	-	-	-	-	-	-	-	Solved	Solved
s8-1	-	-	-	-	-	-	-	-	-	Solved	Solved
s8-2	-	-	-	-	-	-	-	-	-	Solved	Solved
s8-3	-	-	-	-	-	-	-	-	-	Solved	Solved
s8-4	-	-	-	-	-	-	-	-	-	Solved	Solved
s9-0	-	-	-	-	-	-	-	-	-	Solved	Solved
s9-1	-	-	-	-	-	-	-	-	-	Solved	Solved
s9-2	-	-	-	-	-	-	-	-	-	Solved	Solved
s9-3	-	-	-	-	-	-	-	-	-	Solved	Solved
s9-4	-	-	-	-	-	-	-	-	-	Solved	Solved

A.18 movie

A.18.1 movie

Table A.22 – Search Result, movie, movie

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	Solved	Solved
prob02	-	-	-	-	-	-	-	-	-	Solved	Solved
prob03	-	-	-	-	-	-	-	-	-	Solved	Solved
prob04	-	-	-	-	-	-	-	-	-	Solved	Solved
prob05	-	-	-	-	-	-	-	-	-	Solved	Solved
prob06	-	-	-	-	-	-	-	-	-	Solved	Solved
prob07	-	-	-	-	-	-	-	-	-	Solved	Solved
prob08	-	-	-	-	-	-	-	-	-	Solved	Solved
prob09	-	-	-	-	-	-	-	-	-	Solved	Solved
prob10	-	-	-	-	-	-	-	-	-	Solved	Solved
prob11	-	-	-	-	-	-	-	-	-	Solved	Solved
prob12	-	-	-	-	-	-	-	-	-	Solved	Solved
prob13	-	-	-	-	-	-	-	-	-	Solved	Solved
prob14	-	-	-	-	-	-	-	-	-	Solved	Solved
prob15	-	-	-	-	-	-	-	-	-	Solved	Solved
prob16	-	-	-	-	-	-	-	-	-	Solved	Solved
prob17	-	-	-	-	-	-	-	-	-	Solved	Solved
prob18	-	-	-	-	-	-	-	-	-	Solved	Solved
prob19	-	-	-	-	-	-	-	-	-	Solved	Solved
prob20	-	-	-	-	-	-	-	-	-	Solved	Solved
prob21	-	-	-	-	-	-	-	-	-	Solved	Solved
prob22	-	-	-	-	-	-	-	-	-	Solved	Solved
prob23	-	-	-	-	-	-	-	-	-	Solved	Solved
prob24	-	-	-	-	-	-	-	-	-	Solved	Solved
prob25	-	-	-	-	-	-	-	-	-	Solved	Solved
prob26	-	-	-	-	-	-	-	-	-	Solved	Solved
prob27	-	-	-	-	-	-	-	-	-	Solved	Solved
prob28	-	-	-	-	-	-	-	-	-	Solved	Solved
prob29	-	-	-	-	-	-	-	-	-	Solved	Solved
prob30	-	-	-	-	-	-	-	-	-	Solved	Solved

A.19 mprime

A.19.1 mprime

Table A.23 – Search Result, mprime, mprime

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	Solved	Solved
prob02	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob03	-	-	-	-	-	-	-	-	-	Solved	Solved
prob04	-	-	-	-	-	-	-	-	-	Solved	Solved
prob05	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob06	-	-	-	-	-	-	-	-	-	Timeout	-
prob07	-	-	-	-	-	-	-	-	-	Solved	Solved
prob08	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob09	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob10	-	-	-	-	-	-	-	-	-	Timeout	-
prob11	-	-	-	-	-	-	-	-	-	Solved	Solved
prob12	-	-	-	-	-	-	-	-	-	Solved	Solved
prob13	-	-	-	-	-	-	-	-	-	Timeout	-
prob14	-	-	-	-	-	-	-	-	-	Timeout	-
prob15	-	-	-	-	-	-	-	-	-	Timeout	-
prob16	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob17	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob18	-	-	-	-	-	-	-	-	-	Timeout	-
prob19	-	-	-	-	-	-	-	-	-	Timeout	-
prob20	-	-	-	-	-	-	-	-	-	Timeout	-
prob21	-	-	-	-	-	-	-	-	-	Solved	Solved
prob22	-	-	-	-	-	-	-	-	-	Timeout	-
prob23	-	-	-	-	-	-	-	-	-	Timeout	-
prob24	-	-	-	-	-	-	-	-	-	Timeout	-
prob25	-	-	-	-	-	-	-	-	-	Solved	Solved
prob26	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob27	-	-	-	-	-	-	-	-	-	Solved	Solved
prob28	-	-	-	-	-	-	-	-	-	Solved	Solved
prob29	-	-	-	-	-	-	-	-	-	Solved	Solved
prob30	-	-	-	-	-	-	-	-	-	Timeout	-
prob31	-	-	-	-	-	-	-	-	-	Solved	Solved
prob32	-	-	-	-	-	-	-	-	-	Solved	Solved
prob33	-	-	-	-	-	-	-	-	-	Timeout	-
prob34	-	-	-	-	-	-	-	-	-	Solved	Solved
prob35	-	-	-	-	-	-	-	-	-	Solved	Solved

A.20 mystery

A.20.1 mystery

Table A.24 – Search Result, mystery, mystery

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	Solved	Solved
prob02	-	-	-	-	-	-	-	-	-	Solved	Solved
prob03	-	-	-	-	-	-	-	-	-	Solved	Solved
prob04	-	-	-	-	-	-	-	-	-	Unsolvable	-
prob05	-	-	-	-	-	-	-	-	-	Timeout	-
prob06	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob07	-	-	-	-	-	-	-	-	-	Unsolvable	-
prob08	-	-	-	-	-	-	-	-	-	Timeout	-
prob09	-	-	-	-	-	-	-	-	-	Solved	Solved
prob10	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob11	-	-	-	-	-	-	-	-	-	Solved	Solved
prob12	-	-	-	-	-	-	-	-	-	Unsolvable	-
prob13	-	-	-	-	-	-	-	-	-	Timeout	-
prob14	-	-	-	-	-	-	-	-	-	Timeout	-
prob15	-	-	-	-	-	-	-	-	-	Solved	Solved
prob16	-	-	-	-	-	-	-	-	-	Timeout	-
prob17	-	-	-	-	-	-	-	-	-	Solved	Solved
prob18	-	-	-	-	-	-	-	-	-	Unsolvable	-
prob19	-	-	-	-	-	-	-	-	-	Solved	Solved
prob20	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
prob21	-	-	-	-	-	-	-	-	-	Timeout	-
prob22	-	-	-	-	-	-	-	-	-	Timeout	-
prob23	-	-	-	-	-	-	-	-	-	Timeout	-
prob24	-	-	-	-	-	-	-	-	-	Timeout	-
prob25	-	-	-	-	-	-	-	-	-	Solved	Solved
prob26	-	-	-	-	-	-	-	-	-	Solved	Solved
prob27	-	-	-	-	-	-	-	-	-	Solved	Solved
prob28	-	-	-	-	-	-	-	-	-	Solved	Solved
prob29	-	-	-	-	-	-	-	-	-	Solved	Solved
prob30	-	-	-	-	-	-	-	-	-	Solved	Solved

A.21 nomystery

A.21.1 nomystery-opt11-strips

Table A.25 – Search Result, nomystery, nomystery-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p07	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Solved	Solved
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p16	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p17	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.22 openstacks

A.22.1 openstacks-opt08-strips

Table A.26 – Search Result, openstacks, openstacks-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Solved	Solved
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	-	-	-	-	-	-	-	-	-	Solved	Solved
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Solved	Solved
p16	-	-	-	-	-	-	-	-	-	Solved	Solved
p17	-	-	-	-	-	-	-	-	-	Solved	Solved
p18	-	-	-	-	-	-	-	-	-	Solved	Solved
p19	-	-	-	-	-	-	-	-	-	Solved	Solved
p20	-	-	-	-	-	-	-	-	-	Solved	Solved
p21	-	-	-	-	-	-	-	-	-	Solved	Solved
p22	-	-	-	-	-	-	-	-	-	Solved	Solved
p23	-	-	-	-	-	-	-	-	-	Solved	Solved
p24	-	-	-	-	-	-	-	-	-	Memory-out	-
p25	-	-	-	-	-	-	-	-	-	Solved	Solved
p26	-	-	-	-	-	-	-	-	-	Memory-out	-
p27	-	-	-	-	-	-	-	-	-	Memory-out	-
p28	-	-	-	-	-	-	-	-	-	Memory-out	-
p29	-	-	-	-	-	-	-	-	-	Memory-out	-
p30	-	-	-	-	-	-	-	-	-	Memory-out	-

A.22.2 openstacks-opt11-strips

Table A.27 – Search Result, openstacks, openstacks-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Solved	Solved
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	-	-	-	-	-	-	-	-	-	Solved	Solved
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Solved	Solved
p16	-	-	-	-	-	-	-	-	-	Solved	Solved
p17	-	-	-	-	-	-	-	-	-	Solved	Solved
p18	-	-	-	-	-	-	-	-	-	Solved	-
p19	-	-	-	-	-	-	-	-	-	Memory-out	-
p20	-	-	-	-	-	-	-	-	-	Solved	Solved

A.22.3 openstacks-opt14-strips

Table A.28 – Search Result, openstacks, openstacks-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p20_1	-	-	-	-	-	-	-	-	-	Solved	Solved
p20_2	-	-	-	-	-	-	-	-	-	Solved	Solved
p20_3	-	-	-	-	-	-	-	-	-	Solved	Solved
p25_1	-	-	-	-	-	-	-	-	-	Memory-out	-
p25_3	-	-	-	-	-	-	-	-	-	Memory-out	-
p30_1	-	-	-	-	-	-	-	-	-	Memory-out	-
p30_2	-	-	-	-	-	-	-	-	-	Memory-out	-
p30_3	-	-	-	-	-	-	-	-	-	Memory-out	-
p35_1	-	-	-	-	-	-	-	-	-	Memory-out	-
p35_2	-	-	-	-	-	-	-	-	-	Memory-out	-
p35_3	-	-	-	-	-	-	-	-	-	Memory-out	-
p40_1	-	-	-	-	-	-	-	-	-	Memory-out	-
p40_2	-	-	-	-	-	-	-	-	-	Memory-out	-
p40_3	-	-	-	-	-	-	-	-	-	Memory-out	-
p45_1	-	-	-	-	-	-	-	-	-	Memory-out	-
p45_2	-	-	-	-	-	-	-	-	-	Memory-out	-
p45_3	-	-	-	-	-	-	-	-	-	Timeout	-
p50_1	-	-	-	-	-	-	-	-	-	Memory-out	-
p50_2	-	-	-	-	-	-	-	-	-	Memory-out	-
p50_3	-	-	-	-	-	-	-	-	-	Timeout	-

A.22.4 openstacks-strips

Table A.29 – Search Result, openstacks, openstacks-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Timeout	-
p22	-	-	-	-	-	-	-	-	-	Timeout	-
p23	-	-	-	-	-	-	-	-	-	Timeout	-
p24	-	-	-	-	-	-	-	-	-	Timeout	-
p25	-	-	-	-	-	-	-	-	-	Timeout	-
p26	-	-	-	-	-	-	-	-	-	Timeout	-
p27	-	-	-	-	-	-	-	-	-	Timeout	-
p28	-	-	-	-	-	-	-	-	-	Timeout	-
p29	-	-	-	-	-	-	-	-	-	Timeout	-
p30	-	-	-	-	-	-	-	-	-	Timeout	-

A.23 organic

A.23.1 organic-synthesis-opt18-strips

Table A.30 – Search Result, organic, organic-synthesis-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Memory-out	-
p05	-	-	-	-	-	-	-	-	-	Memory-out	-
p06	-	-	-	-	-	-	-	-	-	Memory-out	-
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Memory-out	-
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	-	-	-	-	-	-	-	-	-	Solved	Solved
p11	-	-	-	-	-	-	-	-	-	Memory-out	-
p12	-	-	-	-	-	-	-	-	-	Memory-out	-
p13	-	-	-	-	-	-	-	-	-	Memory-out	-
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Memory-out	-
p16	-	-	-	-	-	-	-	-	-	Memory-out	-
p17	-	-	-	-	-	-	-	-	-	Memory-out	-
p18	-	-	-	-	-	-	-	-	-	Memory-out	-
p19	-	-	-	-	-	-	-	-	-	Memory-out	-
p20	-	-	-	-	-	-	-	-	-	Memory-out	-

A.23.2 organic-synthesis-split-opt18-strips

Table A.31 – Search Result, organic, organic-synthesis-split-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	-	-	-	-	-	-	-	-	-	Solved	Solved
p11	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p12	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p13	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.24 parcprinter

A.24.1 parcprinter-08-strips

Table A.32 – Search Result, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p05	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p07	-	-	-	-	-	-	-	-	-	Timeout	-
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Solved	Solved	Memory-out
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Solved	Solved
p22	-	-	-	-	-	-	-	-	-	Solved	Solved
p23	-	-	-	-	-	-	-	-	-	Solved	Solved
p24	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p25	Timeout	Timeout	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p26	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p27	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p28	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p29	-	-	-	-	-	-	-	-	-	Timeout	-
p30	-	-	-	-	-	-	-	-	-	Timeout	-

A.24.2 parcprinter-opt11-strips

Table A.33 – Search Result, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p07	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p11	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p12	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Solved	Solved	Memory-out
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out

A.25 parking

A.25.1 parking-opt11-strips

Table A.34 – Search Result, parking, parking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
pfile03-011	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
pfile03-012	-	-	-	-	-	-	-	-	-	Timeout	-
pfile04-013	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
pfile04-014	-	-	-	-	-	-	-	-	-	Timeout	-
pfile04-015	-	-	-	-	-	-	-	-	-	Timeout	-
pfile04-016	-	-	-	-	-	-	-	-	-	Timeout	-
pfile05-017	-	-	-	-	-	-	-	-	-	Timeout	-
pfile05-018	-	-	-	-	-	-	-	-	-	Timeout	-
pfile05-019	-	-	-	-	-	-	-	-	-	Timeout	-
pfile05-020	-	-	-	-	-	-	-	-	-	Timeout	-
pfile06-021	-	-	-	-	-	-	-	-	-	Timeout	-
pfile06-022	-	-	-	-	-	-	-	-	-	Timeout	-
pfile06-023	-	-	-	-	-	-	-	-	-	Timeout	-
pfile06-024	-	-	-	-	-	-	-	-	-	Timeout	-
pfile07-025	-	-	-	-	-	-	-	-	-	Timeout	-
pfile07-026	-	-	-	-	-	-	-	-	-	Timeout	-
pfile07-027	-	-	-	-	-	-	-	-	-	Timeout	-
pfile07-028	-	-	-	-	-	-	-	-	-	Timeout	-
pfile08-029	-	-	-	-	-	-	-	-	-	Timeout	-
pfile08-030	-	-	-	-	-	-	-	-	-	Timeout	-

A.25.2 parking-opt14-strips

Table A.35 – Search Result, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind A^*$
p_12_7-01	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p_12_7-02	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p_12_7-03	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p_12_7-04	-	-	-	-	-	-	-	-	-	Timeout	-
p_14_8-01	-	-	-	-	-	-	-	-	-	Timeout	-
p_14_8-02	-	-	-	-	-	-	-	-	-	Timeout	-
p_14_8-03	-	-	-	-	-	-	-	-	-	Timeout	-
p_14_8-04	-	-	-	-	-	-	-	-	-	Timeout	-
p_16_9-01	-	-	-	-	-	-	-	-	-	Timeout	-
p_16_9-02	-	-	-	-	-	-	-	-	-	Timeout	-
p_16_9-03	-	-	-	-	-	-	-	-	-	Timeout	-
p_16_9-04	-	-	-	-	-	-	-	-	-	Timeout	-
p_18_10-01	-	-	-	-	-	-	-	-	-	Timeout	-
p_18_10-02	-	-	-	-	-	-	-	-	-	Timeout	-
p_18_10-03	-	-	-	-	-	-	-	-	-	Timeout	-
p_18_10-04	-	-	-	-	-	-	-	-	-	Timeout	-
p_20_11-01	-	-	-	-	-	-	-	-	-	Timeout	-
p_20_11-02	-	-	-	-	-	-	-	-	-	Timeout	-
p_20_11-03	-	-	-	-	-	-	-	-	-	Timeout	-
p_20_11-04	-	-	-	-	-	-	-	-	-	Timeout	-

A.26 pathways

A.26.1 pathways

Table A.36 – Search Result, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	Timeout	-	Solved	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p06	-	-	-	-	-	-	-	-	-	Timeout	-
p07	-	-	-	-	-	-	-	-	-	Timeout	-
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Timeout	-
p22	-	-	-	-	-	-	-	-	-	Timeout	-
p23	-	-	-	-	-	-	-	-	-	Timeout	-
p24	-	-	-	-	-	-	-	-	-	Timeout	-
p25	-	-	-	-	-	-	-	-	-	Timeout	-
p26	-	-	-	-	-	-	-	-	-	Timeout	-
p27	-	-	-	-	-	-	-	-	-	Timeout	-
p28	-	-	-	-	-	-	-	-	-	Timeout	-
p29	-	-	-	-	-	-	-	-	-	Timeout	-
p30	-	-	-	-	-	-	-	-	-	Timeout	-

A.27 pegsol

A.27.1 pegsol-08-strips

Table A.37 – Search Result, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Solved	Solved
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	-	-	-	-	-	-	-	-	-	Solved	Solved
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Solved	Solved
p16	-	-	-	-	-	-	-	-	-	Solved	Solved
p17	-	-	-	-	-	-	-	-	-	Solved	Solved
p18	-	-	-	-	-	-	-	-	-	Solved	Solved
p19	-	-	-	-	-	-	-	-	-	Solved	Solved
p20	-	-	-	-	-	-	-	-	-	Solved	Solved
p21	-	-	-	-	-	-	-	-	-	Solved	Solved
p22	-	-	-	-	-	-	-	-	-	Solved	Solved
p23	-	-	-	-	-	-	-	-	-	Solved	Solved
p24	-	-	-	-	-	-	-	-	-	Solved	Solved
p25	-	-	-	-	-	-	-	-	-	Solved	Solved
p26	-	-	-	-	-	-	-	-	-	Solved	Solved
p27	-	-	-	-	-	-	-	-	-	Solved	Solved
p28	-	-	-	-	-	-	-	-	-	Memory-out	-
p29	-	-	-	-	-	-	-	-	-	Memory-out	-
p30	-	-	-	-	-	-	-	-	-	Memory-out	-

A.27.2 pegsol-opt11-strips

Table A.38 – Search Result, pegsol, pegsol-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{\uparrow}$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{\uparrow}$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{\uparrow}$	$PEA^*{}_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Solved	Solved
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	-	-	-	-	-	-	-	-	-	Solved	Solved
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Solved	Solved
p16	-	-	-	-	-	-	-	-	-	Solved	Solved
p17	-	-	-	-	-	-	-	-	-	Solved	Solved
p18	-	-	-	-	-	-	-	-	-	Memory-out	-
p19	-	-	-	-	-	-	-	-	-	Memory-out	-
p20	-	-	-	-	-	-	-	-	-	Memory-out	-

A.28 petri

A.28.1 petri-net-alignment-opt18-strips

Table A.39 – Search Result, petri, petri-net-alignment-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{\uparrow}$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{\uparrow}$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{\uparrow}$	$PEA^*{}_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	Timeout	-	Timeout	Solved	Solved	Timeout	Solved	Solved	Solved	Solved	Memory-out
p04	Timeout	-	Timeout	Solved	Solved	Timeout	Solved	Solved	Solved	Solved	Memory-out
p05	Solved	Solved	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p07	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08	Timeout	-	Timeout	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Memory-out
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	Solved	Solved	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.29 pipesworld

A.29.1 pipesworld-notankage

Table A.40 – Search Result, pipesworld, pipesworld-notankage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	Solved	Solved
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	Solved	Solved
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	Solved	Solved
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	Solved	Solved
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	Solved	Solved
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	Solved	Solved
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	Solved	Solved
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	Solved	Solved
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	Solved	Solved
p10-net1-b14-g8	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	Solved	Solved
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	Solved	Solved
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	Solved	Solved
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	Timeout	
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	Solved	Solved
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	Timeout	-
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	Timeout	-
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	Timeout	-
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	Timeout	-
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	Timeout	-
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	Solved	Solved
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	Timeout	-
p23-net3-b14-g3	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	Timeout	-
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	Timeout	-
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	Timeout	-
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	Timeout	-
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	Timeout	-
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	Timeout	-
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	Timeout	-
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	Timeout	-
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	Timeout	-
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	Timeout	-
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	Timeout	-
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	Timeout	-
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	Timeout	-
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	Timeout	-
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	Timeout	-
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	Timeout	-
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	Timeout	-
p41-net5-b22-g2	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	Timeout	-
p43-net5-b24-g3	-	-	-	-	-	-	-	-	-	Timeout	-
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	Timeout	-
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	Timeout	-
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	Timeout	-
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	Timeout	-
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	Timeout	-
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	Timeout	-
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	Timeout	-

A.29.2 pipesworld-tankage

Table A.41 – Search Result, pipesworld, pipesworld-tankage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	Solved	Solved
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	Solved	Solved
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	Solved	Solved
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	Solved	Solved
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	Solved	Solved
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	Solved	Solved
p07-net1-b12-g5-t80	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08-net1-b12-g7-t80	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	Solved	Solved
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	Timeout	-
p13-net2-b12-g3-t70	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	Timeout	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	Timeout	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	Timeout	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	Timeout	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	Timeout	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	Timeout	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	Timeout	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	Solved	Solved
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	Timeout	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	Timeout	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	Timeout	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	Timeout	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	Timeout	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	Timeout	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	Timeout	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	Timeout	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	Timeout	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	Solved	Solved
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	Timeout	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	Timeout	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	Timeout	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	Timeout	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	Timeout	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	Timeout	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	Timeout	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	Timeout	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	Timeout	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	Timeout	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	Timeout	-

A.29.3 pipesworld-tankage-nosplit

Table A.42 – Search Result, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	Solved	Solved
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	Solved	Solved
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	Solved	Solved
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	Solved	Solved
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	Solved	Solved
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	Solved	Solved
p07-net1-b12-g5-t80	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08-net1-b12-g7-t80	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	Timeout	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	Timeout	-
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	Memory-out	-
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	Memory-out	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	Memory-out	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	Memory-out	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	Memory-out	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	Memory-out	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	Memory-out	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	Memory-out	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	Memory-out	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	Memory-out	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	Memory-out	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	Timeout	-
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	Memory-out	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	Memory-out	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	Memory-out	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	Memory-out	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	Memory-out	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	Memory-out	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	Memory-out	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	Memory-out	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	Memory-out	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	Memory-out	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	Memory-out	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	Memory-out	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	Memory-out	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	Memory-out	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	Memory-out	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	Memory-out	-

A.30 psr

A.30.1 psr-small

Table A.43 – Search Result, psr, psr-small

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	Solved	Solved
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	Solved	Solved
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	Solved	Solved
p16-s29-n2-l5-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p17-s30-n2-l5-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p19-s33-n3-l2-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p20-s34-n3-l2-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p22-s37-n3-l3-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	Solved	Solved
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p31-s49-n4-l2-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p35-s57-n5-l2-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p36-s65-n6-l2-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p38-s78-n3-l3-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p40-s80-n3-l4-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p44-s89-n4-l2-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	Solved	Solved
p46-s97-n5-l2-f30	-	-	-	-	-	-	-	-	-	Solved	Solved
p47-s98-n5-l2-f70	-	-	-	-	-	-	-	-	-	Solved	Solved
p48-s101-n5-l3-f30	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	Memory-out	-
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	Solved	Solved

48

A.31 rovers

A.31.1 rovers

Table A.44 – Search Result, rovers, rovers

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Memory-out	-
p07	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08	-	-	-	-	-	-	-	-	-	Memory-out	-
p09	-	-	-	-	-	-	-	-	-	Memory-out	-
p10	-	-	-	-	-	-	-	-	-	Memory-out	-
p11	-	-	-	-	-	-	-	-	-	Memory-out	-
p12	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Memory-out	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Timeout	-
p22	-	-	-	-	-	-	-	-	-	Timeout	-
p23	-	-	-	-	-	-	-	-	-	Timeout	-
p24	-	-	-	-	-	-	-	-	-	Timeout	-
p25	-	-	-	-	-	-	-	-	-	Timeout	-
p26	-	-	-	-	-	-	-	-	-	Timeout	-
p27	-	-	-	-	-	-	-	-	-	Timeout	-
p28	-	-	-	-	-	-	-	-	-	Timeout	-
p29	-	-	-	-	-	-	-	-	-	Timeout	-
p30	-	-	-	-	-	-	-	-	-	Timeout	-
p31	-	-	-	-	-	-	-	-	-	Timeout	-
p32	-	-	-	-	-	-	-	-	-	Timeout	-
p33	-	-	-	-	-	-	-	-	-	Timeout	-
p34	-	-	-	-	-	-	-	-	-	Timeout	-
p35	-	-	-	-	-	-	-	-	-	Timeout	-
p36	-	-	-	-	-	-	-	-	-	Timeout	-
p37	-	-	-	-	-	-	-	-	-	Timeout	-
p38	-	-	-	-	-	-	-	-	-	Timeout	-
p39	-	-	-	-	-	-	-	-	-	Timeout	-
p40	-	-	-	-	-	-	-	-	-	Timeout	-

A.32 satellite

A.32.1 satellite

Table A.45 – Search Result, satellite, satellite

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-pfile1	-	-	-	-	-	-	-	-	-	Solved	Solved
p02-pfile2	-	-	-	-	-	-	-	-	-	Solved	Solved
p03-pfile3	-	-	-	-	-	-	-	-	-	Solved	Solved
p04-pfile4	-	-	-	-	-	-	-	-	-	Solved	Solved
p05-pfile5	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06-pfile6	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p07-pfile7	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08-pfile8	-	-	-	-	-	-	-	-	-	Memory-out	-
p09-pfile9	-	-	-	-	-	-	-	-	-	Timeout	-
p10-pfile10	-	-	-	-	-	-	-	-	-	Timeout	-
p11-pfile11	-	-	-	-	-	-	-	-	-	Timeout	-
p12-pfile12	-	-	-	-	-	-	-	-	-	Timeout	-
p13-pfile13	-	-	-	-	-	-	-	-	-	Timeout	-
p14-pfile14	-	-	-	-	-	-	-	-	-	Timeout	-
p15-pfile15	-	-	-	-	-	-	-	-	-	Timeout	-
p16-pfile16	-	-	-	-	-	-	-	-	-	Timeout	-
p17-pfile17	-	-	-	-	-	-	-	-	-	Timeout	-
p18-pfile18	-	-	-	-	-	-	-	-	-	Timeout	-
p19-pfile19	-	-	-	-	-	-	-	-	-	Timeout	-
p20-pfile20	-	-	-	-	-	-	-	-	-	Timeout	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	Timeout	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	Timeout	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	Timeout	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	Timeout	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	Timeout	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	Timeout	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	Timeout	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	Timeout	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	Timeout	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	Timeout	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	Timeout	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	Timeout	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	Memory-out	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	Timeout	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	Timeout	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	Timeout	-

A.33 scanalyzer

A.33.1 scanalyzer-08-strips

Table A.46 – Search Result, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	-
p06	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Timeout	Memory-out
p07	-	-	-	-	-	-	-	-	-	Solved	-
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Solved	Memory-out
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Solved	Memory-out
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Solved	Memory-out
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Solved	Memory-out
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Timeout	-
p22	-	-	-	-	-	-	-	-	-	Solved	Solved
p23	-	-	-	-	-	-	-	-	-	Solved	Solved
p24	-	-	-	-	-	-	-	-	-	Solved	Solved
p25	-	-	-	-	-	-	-	-	-	Solved	Solved
p26	-	-	-	-	-	-	-	-	-	Solved	-
p27	-	-	-	-	-	-	-	-	-	Timeout	-
p28	-	-	-	-	-	-	-	-	-	Memory-out	-
p29	-	-	-	-	-	-	-	-	-	Timeout	-
p30	-	-	-	-	-	-	-	-	-	Timeout	-

A.33.2 scanalyzer-opt11-strips

Table A.47 – Search Result, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p09	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p10	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Memory-out	-

A.34 snake

A.34.1 snake-opt18-strips

Table A.48 – Search Result, snake, snake-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Timeout	-
p03	-	-	-	-	-	-	-	-	-	Timeout	-
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Timeout	-
p07	-	-	-	-	-	-	-	-	-	Timeout	-
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	-	-	-	-	-	-	-	-	-	Solved	Solved
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Solved	Solved
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.35 sokoban

A.35.1 sokoban-opt08-strips

Table A.49 – Search Result, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Memory-out
p05	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Solved	Solved
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	-	-	-	-	-	-	-	-	-	Solved	Solved
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Solved	Solved
p16	-	-	-	-	-	-	-	-	-	Solved	Solved
p17	-	-	-	-	-	-	-	-	-	Solved	Solved
p18	-	-	-	-	-	-	-	-	-	Solved	Solved
p19	-	-	-	-	-	-	-	-	-	Solved	Solved
p20	-	-	-	-	-	-	-	-	-	Solved	Solved
p21	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p22	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Timeout	Solved	Memory-out
p23	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Timeout	Solved	Memory-out
p24	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Timeout	Solved	Memory-out
p25	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Timeout	Solved	Memory-out
p26	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Timeout	Solved	Memory-out
p27	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p28	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Timeout	Solved	Memory-out
p29	Timeout	-	Timeout	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Memory-out
p30	-	-	-	-	-	-	-	-	-	Timeout	-

A.35.2 sokoban-opt11-strips

Table A.50 – Search Result, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Solved	Solved
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Solved	Solved
p16	-	-	-	-	-	-	-	-	-	Solved	Solved
p17	-	-	-	-	-	-	-	-	-	Solved	Solved
p18	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p19	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Timeout	Solved	Memory-out
p20	Timeout	-	Timeout	Timeout	-	Timeout	Timeout	-	Timeout	Solved	Memory-out

A.36 spider

A.36.1 spider-opt18-strips

Table A.51 – Search Result, spider, spider-opt18-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Timeout	-
p06	-	-	-	-	-	-	-	-	-	Timeout	-
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Solved	Solved
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p11	-	-	-	-	-	-	-	-	-	Timeout	Memory-out
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Solved	Solved
p16	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.37 storage

A.37.1 storage

Table A.52 – Search Result, storage, storage

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Solved	Solved
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	-	-	-	-	-	-	-	-	-	Solved	Solved
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Timeout	-
p22	-	-	-	-	-	-	-	-	-	Timeout	-
p23	-	-	-	-	-	-	-	-	-	Timeout	-
p24	-	-	-	-	-	-	-	-	-	Timeout	-
p25	-	-	-	-	-	-	-	-	-	Timeout	-
p26	-	-	-	-	-	-	-	-	-	Timeout	-
p27	-	-	-	-	-	-	-	-	-	Timeout	-
p28	-	-	-	-	-	-	-	-	-	Timeout	-
p29	-	-	-	-	-	-	-	-	-	Timeout	-
p30	-	-	-	-	-	-	-	-	-	Timeout	-

A.38 termes

A.38.1 termes-opt18-strips

Table A.53 – Search Result, termes, termes-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Timeout	-
p04	-	-	-	-	-	-	-	-	-	Timeout	-
p05	-	-	-	-	-	-	-	-	-	Timeout	-
p06	-	-	-	-	-	-	-	-	-	Timeout	-
p07	-	-	-	-	-	-	-	-	-	Timeout	-
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.39 tetris

A.39.1 tetris-opt14-strips

Table A.54 – Search Result, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01-10	-	-	-	-	-	-	-	-	-	Timeout	-
p01-6	-	-	-	-	-	-	-	-	-	Timeout	-
p01-8	-	-	-	-	-	-	-	-	-	Solved	Solved
p02-10	-	-	-	-	-	-	-	-	-	Timeout	-
p02-4	-	-	-	-	-	-	-	-	-	Solved	Solved
p02-6	-	-	-	-	-	-	-	-	-	Solved	Solved
p02-8	-	-	-	-	-	-	-	-	-	Timeout	-
p03-10	-	-	-	-	-	-	-	-	-	Timeout	-
p03-4	-	-	-	-	-	-	-	-	-	Solved	Solved
p03-6	-	-	-	-	-	-	-	-	-	Timeout	-
p03-8	-	-	-	-	-	-	-	-	-	Timeout	-
p04-10	-	-	-	-	-	-	-	-	-	Timeout	-
p04-6	-	-	-	-	-	-	-	-	-	Timeout	-
p05-10	-	-	-	-	-	-	-	-	-	Timeout	-
p05-6	-	-	-	-	-	-	-	-	-	Solved	Solved
p05-8	-	-	-	-	-	-	-	-	-	Timeout	-

A.40 tidybot

A.40.1 tidybot-opt11-strips

Table A.55 – Search Result, tidybot, tidybot-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	-
p05	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Solved	Solved
p09	-	-	-	-	-	-	-	-	-	Solved	Solved
p10	-	-	-	-	-	-	-	-	-	Solved	Solved
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p13	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.40.2 tidybot-opt14-strips

Table A.56 – Search Result, tidybot, tidybot-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01	-	-	-	-	-	-	-	-	-	Timeout	-
p02	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p03	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Timeout	-
p06	-	-	-	-	-	-	-	-	-	Timeout	-
p07	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08	-	-	-	-	-	-	-	-	-	Solved	Solved
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p13	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p14	-	-	-	-	-	-	-	-	-	Solved	Solved
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.41 tpp

A.41.1 tpp

Table A.57 – Search Result, tpp, tpp

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	Timeout	-	Timeout	Timeout	-	Solved	Timeout	-	Solved	Solved	Memory-out
p07	-	-	-	-	-	-	-	-	-	Memory-out	-
p08	-	-	-	-	-	-	-	-	-	Memory-out	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Timeout	-
p22	-	-	-	-	-	-	-	-	-	Timeout	-
p23	-	-	-	-	-	-	-	-	-	Timeout	-
p24	-	-	-	-	-	-	-	-	-	Timeout	-
p25	-	-	-	-	-	-	-	-	-	Timeout	-
p26	-	-	-	-	-	-	-	-	-	Timeout	-
p27	-	-	-	-	-	-	-	-	-	Timeout	-
p28	-	-	-	-	-	-	-	-	-	Timeout	-
p29	-	-	-	-	-	-	-	-	-	Timeout	-
p30	-	-	-	-	-	-	-	-	-	Timeout	-

A.42 transport

A.42.1 transport-opt08-strips

Table A.58 – Search Result, transport, transport-opt08-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Timeout	-
p06	-	-	-	-	-	-	-	-	-	Timeout	-
p07	-	-	-	-	-	-	-	-	-	Timeout	-
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Solved	Solved
p22	-	-	-	-	-	-	-	-	-	Solved	Solved
p23	-	-	-	-	-	-	-	-	-	Solved	Solved
p24	-	-	-	-	-	-	-	-	-	Solved	Solved
p25	-	-	-	-	-	-	-	-	-	Timeout	-
p26	-	-	-	-	-	-	-	-	-	Timeout	-
p27	-	-	-	-	-	-	-	-	-	Timeout	-
p28	-	-	-	-	-	-	-	-	-	Timeout	-
p29	-	-	-	-	-	-	-	-	-	Timeout	-
p30	-	-	-	-	-	-	-	-	-	Timeout	-

A.42.2 transport-opt11-strips

Table A.59 – Search Result, transport, transport-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	-	-	-	-	-	-	-	-	-	Timeout	-
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.42.3 transport-opt14-strips

Table A.60 – Search Result, transport, transport-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	Timeout	-	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p04	-	-	-	-	-	-	-	-	-	Timeout	-
p05	-	-	-	-	-	-	-	-	-	Timeout	-
p06	-	-	-	-	-	-	-	-	-	Timeout	-
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Solved	Solved
p14	Timeout	-	Timeout	Timeout	-	Solved	Solved	Solved	Solved	Solved	Memory-out
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.43 trucks

A.43.1 trucks-strips

Table A.61 – Search Result, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06	Solved	Solved	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p09	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p10	Solved	Solved	Timeout	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Timeout	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Timeout	-
p22	-	-	-	-	-	-	-	-	-	Timeout	-
p23	-	-	-	-	-	-	-	-	-	Timeout	-
p24	-	-	-	-	-	-	-	-	-	Timeout	-
p25	-	-	-	-	-	-	-	-	-	Timeout	-
p26	-	-	-	-	-	-	-	-	-	Timeout	-
p27	-	-	-	-	-	-	-	-	-	Timeout	-
p28	-	-	-	-	-	-	-	-	-	Timeout	-
p29	-	-	-	-	-	-	-	-	-	Timeout	-
p30	-	-	-	-	-	-	-	-	-	Timeout	-

A.44 visitall

A.44.1 visitall-opt11-strips

Table A.62 – Search Result, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
problem02-full	-	-	-	-	-	-	-	-	-	Solved	Solved
problem02-half	-	-	-	-	-	-	-	-	-	Solved	Solved
problem03-full	-	-	-	-	-	-	-	-	-	Solved	Solved
problem03-half	-	-	-	-	-	-	-	-	-	Solved	Solved
problem04-full	-	-	-	-	-	-	-	-	-	Solved	Solved
problem04-half	-	-	-	-	-	-	-	-	-	Solved	Solved
problem05-full	-	-	-	-	-	-	-	-	-	Solved	Solved
problem05-half	-	-	-	-	-	-	-	-	-	Solved	Solved
problem06-full	-	-	-	-	-	-	-	-	-	Memory-out	-
problem06-half	-	-	-	-	-	-	-	-	-	Solved	Solved
problem07-full	-	-	-	-	-	-	-	-	-	Timeout	-
problem07-half	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
problem08-full	-	-	-	-	-	-	-	-	-	Timeout	-
problem08-half	-	-	-	-	-	-	-	-	-	Timeout	-
problem09-full	-	-	-	-	-	-	-	-	-	Timeout	-
problem09-half	-	-	-	-	-	-	-	-	-	Timeout	-
problem10-full	-	-	-	-	-	-	-	-	-	Timeout	-
problem10-half	-	-	-	-	-	-	-	-	-	Timeout	-
problem11-full	-	-	-	-	-	-	-	-	-	Timeout	-
problem11-half	-	-	-	-	-	-	-	-	-	Timeout	-

A.44.2 visitall-opt14-strips

Table A.63 – Search Result, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p-05-10	-	-	-	-	-	-	-	-	-	Timeout	Solved
p-05-5	-	-	-	-	-	-	-	-	-	Solved	Solved
p-05-6	-	-	-	-	-	-	-	-	-	Solved	Solved
p-05-7	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p-05-8	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p-05-9	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-10	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-11	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-12	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-13	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-14	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-15	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-16	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-17	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-18	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-5	-	-	-	-	-	-	-	-	-	Solved	Solved
p-1-6	-	-	-	-	-	-	-	-	-	Memory-out	-
p-1-7	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-8	-	-	-	-	-	-	-	-	-	Timeout	-
p-1-9	-	-	-	-	-	-	-	-	-	Timeout	-

A.45 woodworking

A.45.1 woodworking-opt08-strips

Table A.64 – Search Result, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p04	Timeout	-	Timeout	Timeout	-	Solved	Solved	Solved	Solved	Solved	Memory-out
p05	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06	-	-	-	-	-	-	-	-	-	Memory-out	-
p07	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08	-	-	-	-	-	-	-	-	-	Timeout	-
p09	-	-	-	-	-	-	-	-	-	Timeout	-
p10	-	-	-	-	-	-	-	-	-	Timeout	-
p11	-	-	-	-	-	-	-	-	-	Solved	Solved
p12	-	-	-	-	-	-	-	-	-	Solved	Solved
p13	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p14	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	-
p15	-	-	-	-	-	-	-	-	-	Memory-out	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-
p21	-	-	-	-	-	-	-	-	-	Solved	Solved
p22	-	-	-	-	-	-	-	-	-	Solved	Solved
p23	-	-	-	-	-	-	-	-	-	Solved	Solved
p24	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p25	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p26	-	-	-	-	-	-	-	-	-	Timeout	-
p27	-	-	-	-	-	-	-	-	-	Timeout	-
p28	-	-	-	-	-	-	-	-	-	Timeout	-
p29	-	-	-	-	-	-	-	-	-	Timeout	-
p30	-	-	-	-	-	-	-	-	-	Timeout	-

A.45.2 woodworking-opt11-strips

Table A.65 – Search Result, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p04	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p05	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p06	Timeout	-	Timeout	Timeout	-	Solved	Solved	Solved	Solved	Solved	Memory-out
p07	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p08	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p09	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p10	-	-	-	-	-	-	-	-	-	Memory-out	-
p11	-	-	-	-	-	-	-	-	-	Timeout	-
p12	-	-	-	-	-	-	-	-	-	Timeout	-
p13	-	-	-	-	-	-	-	-	-	Memory-out	-
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p16	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

A.46 zenotravel

A.46.1 zenotravel

Table A.66 – Search Result, zenotravel, zenotravel

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	Solved	Solved
p02	-	-	-	-	-	-	-	-	-	Solved	Solved
p03	-	-	-	-	-	-	-	-	-	Solved	Solved
p04	-	-	-	-	-	-	-	-	-	Solved	Solved
p05	-	-	-	-	-	-	-	-	-	Solved	Solved
p06	-	-	-	-	-	-	-	-	-	Solved	Solved
p07	-	-	-	-	-	-	-	-	-	Solved	Solved
p08	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p09	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p10	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p11	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p12	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p13	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Memory-out
p14	-	-	-	-	-	-	-	-	-	Timeout	-
p15	-	-	-	-	-	-	-	-	-	Timeout	-
p16	-	-	-	-	-	-	-	-	-	Timeout	-
p17	-	-	-	-	-	-	-	-	-	Timeout	-
p18	-	-	-	-	-	-	-	-	-	Timeout	-
p19	-	-	-	-	-	-	-	-	-	Timeout	-
p20	-	-	-	-	-	-	-	-	-	Timeout	-

APPENDIX B — SOLUTION COST

B.1 agricola

B.1.1 agricola-opt18-strips

Table B.1 – Solution Cost, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	-
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.2 airport

B.2.1 airport

Table B.2 – Solution Cost, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-airport1-p1	-	-	-	-	-	-	-	-	-	8.00	8.00
p02-airport1-p1	-	-	-	-	-	-	-	-	-	9.00	9.00
p03-airport1-p2	-	-	-	-	-	-	-	-	-	17.00	17.00
p04-airport2-p1	-	-	-	-	-	-	-	-	-	20.00	20.00
p05-airport2-p1	-	-	-	-	-	-	-	-	-	21.00	21.00
p06-airport2-p2	-	-	-	-	-	-	-	-	-	41.00	41.00
p07-airport2-p2	-	-	-	-	-	-	-	-	-	41.00	41.00
p08-airport2-p3	-	-	-	-	-	-	-	-	-	62.00	62.00
p09-airport2-p4	-	-	-	-	-	-	-	-	-	71.00	71.00
p10-airport3-p1	-	-	-	-	-	-	-	-	-	18.00	18.00
p11-airport3-p1	-	-	-	-	-	-	-	-	-	21.00	21.00
p12-airport3-p2	-	-	-	-	-	-	-	-	-	39.00	39.00
p13-airport3-p2	-	-	-	-	-	-	-	-	-	37.00	37.00
p14-airport3-p3	-	-	-	-	-	-	-	-	-	60.00	60.00
p15-airport3-p3	-	-	-	-	-	-	-	-	-	58.00	58.00
p16-airport3-p4	-	-	-	-	-	-	-	-	-	79.00	79.00
p17-airport3-p5	-	-	-	-	-	-	-	-	-	88.00	88.00
p18-airport3-p6	-	-	-	-	-	-	-	-	107.00	107.00	?
p19-airport3-p6	?	-	?	?	-	?	?	-	-	90.00	90.00
p20-airport3-p7	?	-	?	?	-	?	115.00	115.00	115.00	101.00	101.00
p21-airport4half|MUC-p2	-	-	-	-	-	-	-	-	-	148.00	148.00
p22-airport4half|MUC-p3	-	-	-	-	-	-	-	-	-	148.00	148.00
p23-airport4half|MUC-p4	168.00	168.00	168.00	168.00	168.00	168.00	168.00	168.00	168.00	168.00	?
p24-airport4half|MUC-p4	162.00	162.00	162.00	162.00	162.00	162.00	162.00	162.00	162.00	162.00	?
p25-airport4half|MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p26-airport4half|MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p27-airport4half|MUC-p6	246.00	246.00	246.00	?	-	246.00	246.00	246.00	246.00	246.00	?
p28-airport4half|MUC-p7	-	-	-	-	-	-	-	-	-	?	-
p29-airport4half|MUC-p8	-	-	-	-	-	-	-	-	-	?	-
p30-airport4half|MUC-p8	-	-	-	-	-	-	-	-	-	?	-
p31-airport4half|MUC-p9	-	-	-	-	-	-	-	-	-	?	-
p32-airport4half|MUC-p10	-	-	-	-	-	-	-	-	-	?	-
p33-airport4half|MUC-p10	-	-	-	-	-	-	-	-	-	?	-
p34-airport4half|MUC-p11	-	-	-	-	-	-	-	-	-	?	-
p35-airport4MUC-p12	-	-	-	-	-	-	-	-	-	?	-
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	109.00	109.00
p37-airport5MUC-p3	?	-	?	?	-	?	?	-	142.00	142.00	?
p38-airport5MUC-p3	?	-	?	?	-	?	?	-	155.00	155.00	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p41-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	?	-
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	?	-
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	?	-
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	?	-

B.3 barman

B.3.1 barman-opt11-strips

Table B.3 – Solution Cost, barman, barman-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
pfile01-001	-	-	-	-	-	-	-	-	-	90.00	90.00
pfile01-002	-	-	-	-	-	-	-	-	-	90.00	90.00
pfile01-003	-	-	-	-	-	-	-	-	-	90.00	90.00
pfile01-004	-	-	-	-	-	-	-	-	-	90.00	90.00
pfile02-005	-	-	-	-	-	-	-	-	-	?	-
pfile02-006	-	-	-	-	-	-	-	-	-	?	-
pfile02-007	-	-	-	-	-	-	-	-	-	?	-
pfile02-008	-	-	-	-	-	-	-	-	-	?	-
pfile03-009	-	-	-	-	-	-	-	-	-	?	-
pfile03-010	-	-	-	-	-	-	-	-	-	?	-
pfile03-011	-	-	-	-	-	-	-	-	-	?	-
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	-	-	-	-	-	-	-	-	-	?	-
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-

B.3.2 barman-opt14-strips

Table B.4 – Solution Cost, barman, barman-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p435-1	-	-	-	-	-	-	-	-	-	?	-
p435-2	-	-	-	-	-	-	-	-	-	?	-
p435-3	-	-	-	-	-	-	-	-	-	?	-
p536-1	-	-	-	-	-	-	-	-	-	?	-
p536-2	-	-	-	-	-	-	-	-	-	?	-
p536-3	-	-	-	-	-	-	-	-	-	?	-
p638-1	-	-	-	-	-	-	-	-	-	?	-
p638-2	-	-	-	-	-	-	-	-	-	?	-
p638-3	-	-	-	-	-	-	-	-	-	?	-
p739-1	-	-	-	-	-	-	-	-	-	?	-
p739-2	-	-	-	-	-	-	-	-	-	?	-
p739-3	-	-	-	-	-	-	-	-	-	?	-
p839-1	-	-	-	-	-	-	-	-	-	?	-
p839-2	-	-	-	-	-	-	-	-	-	?	-

B.4 blocks

B.4.1 blocks

Table B.5 – Solution Cost, blocks, blocks

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probBLOCKS-10-0	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	?
probBLOCKS-10-1	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	?
probBLOCKS-10-2	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	?
probBLOCKS-11-0	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	?
probBLOCKS-11-1	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?
probBLOCKS-11-2	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	?
probBLOCKS-12-0	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	?
probBLOCKS-12-1	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	?
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-14-0	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	?
probBLOCKS-14-1	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	?
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	6.00	6.00
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	10.00	10.00
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	6.00	6.00
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	12.00	12.00
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	10.00	10.00
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	16.00	16.00
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	12.00	12.00
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	10.00	10.00
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	20.00	20.00
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	20.00	20.00
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	22.00	22.00
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	20.00	20.00
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	18.00	18.00
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	20.00	20.00
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	16.00	16.00
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	30.00	30.00
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	28.00	28.00
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	26.00	26.00

B.5 childsnack

B.5.1 childsnack-opt14-strips

Table B.6 – Solution Cost, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
child-snack_pfile01	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile02	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile03	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile04	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile05	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile06	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile07	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile08	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile09	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile10	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	?	

B.6 data

B.6.1 data-network-opt18-strips

Table B.7 – Solution Cost, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	105.00	105.00
p02	-	-	-	-	-	-	-	-	-	73.00	73.00
p03	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	?
p04	?	-	?	121.00	121.00	121.00	121.00	121.00	121.00	121.00	?
p05	104.00	104.00	104.00	104.00	104.00	104.00	104.00	104.00	104.00	104.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	73.00	73.00
p10	-	-	-	105.00	105.00	105.00	105.00	105.00	105.00	105.00	?
p11	-	-	-	-	-	-	-	-	-	47.00	47.00
p12	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	?
p13	104.00	104.00	104.00	104.00	104.00	104.00	104.00	104.00	104.00	104.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	50.00	50.00
p16	-	-	-	-	-	-	-	-	-	?	-
p17	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.7 depot

B.7.1 depot

Table B.8 – Solution Cost, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	10.00	10.00
p02	-	-	-	-	-	-	-	-	-	15.00	15.00
p03	-	-	-	-	-	-	-	-	-	27.00	27.00
p04	?	-	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	21.00	21.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-

B.8 driverlog

B.8.1 driverlog

Table B.9 – Solution Cost, driverlog, driverlog

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	7.00	7.00
p02	-	-	-	-	-	-	-	-	-	19.00	19.00
p03	-	-	-	-	-	-	-	-	-	12.00	12.00
p04	-	-	-	-	-	-	-	-	-	16.00	16.00
p05	-	-	-	-	-	-	-	-	-	18.00	18.00
p06	-	-	-	-	-	-	-	-	-	11.00	11.00
p07	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	?
p08	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	?
p09	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	?
p10	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	?
p11	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	?
p14	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

B.9 elevators

B.9.1 elevators-opt08-strips

Table B.10 – Solution Cost, elevators, elevators-opt08-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	42.00	42.00
p02	-	-	-	-	-	-	-	-	-	26.00	26.00
p03	-	-	-	-	-	-	-	-	-	55.00	55.00
p04	-	-	-	-	-	-	-	-	-	40.00	40.00
p05	?	-	?	?	-	55.00	?	-	55.00	55.00	?
p06	?	-	?	?	-	53.00	?	-	53.00	53.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	?	-	?	?	-	53.00	?	-	53.00	53.00	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	56.00	56.00
p12	-	-	-	-	-	-	-	-	-	54.00	54.00
p13	-	-	-	-	-	-	-	-	-	59.00	59.00
p14	?	-	63.00	?	-	63.00	?	-	63.00	63.00	?
p15	?	-	?	?	-	66.00	?	-	66.00	66.00	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	?	-	?	?	-	78.00	?	-	78.00	78.00	?
p18	?	-	61.00	?	-	61.00	?	-	61.00	61.00	?
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	48.00	48.00
p22	-	-	-	-	-	-	-	-	-	54.00	54.00
p23	?	-	?	?	-	69.00	?	-	69.00	69.00	?
p24	?	-	56.00	?	-	56.00	?	-	56.00	56.00	?
p25	?	-	?	?	-	63.00	?	-	63.00	63.00	?
p26	?	-	48.00	?	-	48.00	?	-	48.00	48.00	?
p27	?	-	?	?	-	82.00	?	-	82.00	82.00	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.9.2 elevators-opt11-strips

Table B.11 – Solution Cost, elevators, elevators-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	56.00	56.00
p02	-	-	-	-	-	-	-	-	-	48.00	48.00
p03	-	-	-	-	-	-	-	-	-	54.00	54.00
p04	-	-	-	-	-	-	-	-	-	55.00	55.00
p05	-	-	-	-	-	-	-	-	-	59.00	59.00
p06	-	-	-	-	-	-	-	-	-	40.00	40.00
p07	?	-	48.00	?	-	48.00	?	-	48.00	48.00	?
p08	?	-	?	?	-	55.00	?	-	55.00	55.00	?
p09	-	-	-	-	-	-	-	-	-	54.00	54.00
p10	?	-	63.00	?	-	63.00	?	-	63.00	63.00	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	?	-	?	?	-	53.00	?	-	53.00	53.00	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	?	-	?	?	-	53.00	?	-	53.00	53.00	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	?	-	?	?	-	66.00	?	-	66.00	66.00	?
p17	?	-	?	?	-	78.00	?	-	78.00	78.00	?
p18	?	-	61.00	?	-	61.00	?	-	61.00	61.00	?
p19	?	-	?	?	-	69.00	?	-	69.00	69.00	?
p20	?	-	56.00	?	-	56.00	?	-	56.00	56.00	?

B.10 floortile

B.10.1 floortile-opt11-strips

Table B.12 – Solution Cost, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
opt-p01-001	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	?
opt-p01-002	33.00	33.00	33.00	33.00	33.00	33.00	33.00	33.00	33.00	33.00	?
opt-p02-003	62.00	62.00	?	62.00	62.00	62.00	62.00	62.00	62.00	62.00	?
opt-p02-004	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	?
opt-p03-005	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	?
opt-p03-006	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	?
opt-p04-007	?	-	?	66.00	66.00	66.00	66.00	66.00	66.00	66.00	?
opt-p04-008	-	-	-	-	-	-	-	-	-	?	-
opt-p05-009	-	-	-	-	-	-	-	-	-	?	-
opt-p05-010	-	-	-	-	-	-	-	-	-	?	-
opt-p06-011	-	-	-	-	-	-	-	-	-	?	-
opt-p06-012	-	-	-	-	-	-	-	-	-	?	-
opt-p07-013	-	-	-	-	-	-	-	-	-	?	-
opt-p07-014	-	-	-	-	-	-	-	-	-	?	-
opt-p08-015	-	-	-	-	-	-	-	-	-	?	-
opt-p08-016	-	-	-	-	-	-	-	-	-	?	-
opt-p09-017	-	-	-	-	-	-	-	-	-	?	-
opt-p09-018	-	-	-	-	-	-	-	-	-	?	-
opt-p10-019	-	-	-	-	-	-	-	-	-	?	-
opt-p10-020	-	-	-	-	-	-	-	-	-	?	-

B.10.2 floortile-opt14-strips

Table B.13 – Solution Cost, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-4-3-2	56.00	56.00	?	56.00	56.00	56.00	56.00	56.00	56.00	56.00	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-3-2	63.00	63.00	?	63.00	63.00	63.00	63.00	63.00	63.00	63.00	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-3-2	?	-	?	65.00	65.00	65.00	65.00	65.00	65.00	65.00	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-4-3-2	56.00	56.00	?	56.00	56.00	56.00	56.00	56.00	56.00	56.00	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-3-2	?	-	?	65.00	65.00	65.00	65.00	65.00	65.00	65.00	?
p03-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	?	-

B.11 freecell

B.11.1 freecell

Table B.14 – Solution Cost, freecell, freecell

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	8.00	8.00
p02	-	-	-	-	-	-	-	-	-	14.00	14.00
p03	-	-	-	-	-	-	-	-	-	18.00	18.00
p04	-	-	-	-	-	-	-	-	-	26.00	26.00
p05	?	-	?	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-2-1	-	-	-	-	-	-	-	-	-	9.00	9.00
probfreecell-2-2	-	-	-	-	-	-	-	-	-	8.00	8.00
probfreecell-2-3	-	-	-	-	-	-	-	-	-	8.00	8.00
probfreecell-2-4	-	-	-	-	-	-	-	-	-	8.00	8.00
probfreecell-2-5	-	-	-	-	-	-	-	-	-	9.00	9.00
probfreecell-3-1	-	-	-	-	-	-	-	-	-	14.00	14.00
probfreecell-3-2	-	-	-	-	-	-	-	-	-	13.00	13.00
probfreecell-3-3	-	-	-	-	-	-	-	-	-	12.00	12.00
probfreecell-3-4	-	-	-	-	-	-	-	-	-	12.00	12.00
probfreecell-3-5	-	-	-	-	-	-	-	-	-	13.00	13.00
probfreecell-4-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-5	-	-	-	-	-	-	-	-	-	?	-

B.12 ged

B.12.1 ged-opt14-strips

Table B.15 – Solution Cost, ged, ged-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
d-1-2	-	-	-	-	-	-	-	-	-	1.00	1.00
d-1-3	-	-	-	-	-	-	-	-	-	4.00	4.00
d-1-4	-	-	-	-	-	-	-	-	-	1.00	1.00
d-1-8	-	-	-	-	-	-	-	-	-	4.00	4.00
d-2-1	-	-	-	-	-	-	-	-	-	1.00	1.00
d-2-3	-	-	-	-	-	-	-	-	-	3.00	3.00
d-2-4	-	-	-	-	-	-	-	-	-	2.00	2.00
d-2-8	-	-	-	-	-	-	-	-	-	?	-
d-3-1	-	-	-	-	-	-	-	-	-	4.00	4.00
d-3-2	-	-	-	-	-	-	-	-	-	3.00	3.00
d-3-4	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	?
d-4-2	-	-	-	-	-	-	-	-	-	2.00	2.00
d-4-3	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	?
d-4-8	-	-	-	-	-	-	-	-	-	?	-
d-7-5	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	?
d-7-6	-	-	-	-	-	-	-	-	-	4.00	4.00
d-8-1	-	-	-	-	-	-	-	-	-	4.00	4.00
d-8-2	-	-	-	-	-	-	-	-	-	?	-
d-8-4	-	-	-	-	-	-	-	-	-	?	-
d-8-9	-	-	-	-	-	-	-	-	-	?	-

B.13 grid

B.13.1 grid

Table B.16 – Solution Cost, grid, grid

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	14.00	14.00
prob02	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	?
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	-	-	-	-	-	-	-	-	-	?	-

B.14 gripper

B.14.1 gripper

Table B.17 – Solution Cost, gripper, gripper

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	11.00	11.00
prob02	-	-	-	-	-	-	-	-	-	17.00	17.00
prob03	-	-	-	-	-	-	-	-	-	23.00	23.00
prob04	-	-	-	-	-	-	-	-	-	29.00	29.00
prob05	-	-	-	-	-	-	-	-	-	35.00	35.00
prob06	-	-	-	-	-	-	-	-	-	41.00	41.00
prob07	-	-	-	-	-	-	-	-	-	47.00	47.00
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-

B.15 hiking

B.15.1 hiking-opt14-strips

Table B.18 – Solution Cost, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	11.00	11.00
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	17.00	17.00
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	25.00	25.00
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	38.00	38.00
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	45.00	45.00
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	10.00	10.00
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	16.00	16.00
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	17.00	17.00
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	10.00	10.00
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	?	-

B.16 logistics

B.16.1 logistics00

Table B.19 – Solution Cost, logistics, logistics00

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
probLOGISTICS-10-0	?	-	?	?	-	45.00	?	-	45.00	45.00	?
probLOGISTICS-10-1	?	-	?	?	-	42.00	?	-	42.00	42.00	?
probLOGISTICS-11-0	?	-	?	?	-	48.00	?	-	48.00	48.00	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-12-0	?	-	?	?	-	42.00	?	-	42.00	42.00	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	20.00	20.00
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	19.00	19.00
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	15.00	15.00
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	27.00	27.00
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	17.00	17.00
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	8.00	8.00
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	25.00	25.00
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	14.00	14.00
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	25.00	25.00
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	24.00	24.00
probLOGISTICS-7-0	?	-	?	36.00	36.00	36.00	36.00	36.00	36.00	36.00	?
probLOGISTICS-7-1	?	-	?	?	-	44.00	44.00	44.00	44.00	44.00	?
probLOGISTICS-8-0	31.00	31.00	?	31.00	31.00	31.00	31.00	31.00	31.00	31.00	?
probLOGISTICS-8-1	?	-	?	?	-	44.00	44.00	44.00	44.00	44.00	?
probLOGISTICS-9-0	?	-	?	36.00	36.00	36.00	36.00	36.00	36.00	36.00	?
probLOGISTICS-9-1	?	-	30.00	?	-	30.00	?	-	30.00	30.00	?

B.16.2 logistics98

Table B.20 – Solution Cost, logistics, logistics98

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	?	-	?	26.00	26.00	26.00	26.00	26.00	26.00	26.00	?
prob02	-	-	-	-	-	-	-	-	-	?	-
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	-	-	-	-	-	-	-	-	-	?	-
prob27	-	-	-	-	-	-	-	-	-	?	-
prob28	-	-	-	-	-	-	-	-	-	?	-
prob29	-	-	-	-	-	-	-	-	-	?	-
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	13.00	13.00
prob32	-	-	-	-	-	-	-	-	-	20.00	20.00
prob33	?	-	?	?	-	27.00	?	-	27.00	27.00	?
prob34	-	-	-	-	-	-	-	-	-	?	-
prob35	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?

B.17 miconic

B.17.1 miconic

Table B.21 – Solution Cost, miconic, miconic

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
s1-0	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-1	-	-	-	-	-	-	-	-	-	3.00	3.00
s1-2	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-3	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-4	-	-	-	-	-	-	-	-	-	4.00	4.00
s10-0	-	-	-	-	-	-	-	-	-	33.00	33.00
s10-1	-	-	-	-	-	-	-	-	-	32.00	32.00
s10-2	-	-	-	-	-	-	-	-	-	32.00	32.00
s10-3	-	-	-	-	-	-	-	-	-	34.00	34.00
s10-4	-	-	-	-	-	-	-	-	-	33.00	33.00
s11-0	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	?
s11-1	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	?
s11-2	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	?
s11-3	?	-	?	-	-	38.00	?	-	38.00	38.00	?
s11-4	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	?
s12-0	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	?
s12-1	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	?
s12-2	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	?
s12-3	39.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00	?
s12-4	41.00	41.00	41.00	41.00	41.00	41.00	41.00	41.00	41.00	41.00	?
s13-0	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	?
s13-1	?	-	42.00	?	-	42.00	?	-	42.00	42.00	?
s13-2	46.00	46.00	46.00	46.00	46.00	46.00	46.00	46.00	46.00	46.00	?
s13-3	43.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00	?
s13-4	41.00	41.00	41.00	41.00	41.00	41.00	41.00	41.00	41.00	41.00	?
s14-0	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	?
s14-1	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	?
s14-2	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	?
s14-3	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	?
s14-4	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	?
s15-0	46.00	46.00	46.00	46.00	46.00	46.00	46.00	46.00	46.00	46.00	?
s15-1	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	?
s15-2	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	?
s15-3	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	?
s15-4	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	?
s16-0	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	?
s16-1	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	?
s16-2	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	?
s16-3	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	?
s16-4	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	?
s17-0	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	?
s17-1	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	?
s17-2	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	?
s17-3	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	?
s17-4	?	-	55.00	?	-	55.00	?	-	55.00	55.00	?
s18-0	59.00	59.00	59.00	59.00	59.00	59.00	59.00	59.00	59.00	59.00	?
s18-1	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	?
s18-2	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	?
s18-3	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	?
s18-4	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00	?
s19-0	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	?
s19-1	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	?
s19-2	-	-	-	-	-	-	-	-	-	?	?
s19-3	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	?
s19-4	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00	?
s2-0	-	-	-	-	-	-	-	-	-	7.00	7.00
s2-1	-	-	-	-	-	-	-	-	-	7.00	7.00
s2-2	-	-	-	-	-	-	-	-	-	7.00	7.00
s2-3	-	-	-	-	-	-	-	-	-	7.00	7.00
s2-4	-	-	-	-	-	-	-	-	-	7.00	7.00
s20-0	-	-	-	-	-	-	-	-	-	?	?
s20-1	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	?
s20-2	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00	?
s20-3	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00	?
s20-4	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	?
s21-0	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	?
s21-1	69.00	69.00	69.00	69.00	69.00	69.00	69.00	69.00	69.00	69.00	?
s21-2	69.00	69.00	69.00	69.00	69.00	69.00	69.00	69.00	69.00	69.00	?
s21-3	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	?
s21-4	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	?
s22-0	73.00	73.00	73.00	73.00	73.00	73.00	73.00	73.00	73.00	73.00	?
s22-1	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	?
s22-2	71.00	71.00	71.00	71.00	71.00	71.00	71.00	71.00	71.00	71.00	?
s22-3	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	?
s22-4	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	?
s23-0	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	?
s23-1	-	-	-	-	-	-	-	-	-	?	?
s23-2	73.00	73.00	73.00	73.00	73.00	73.00	73.00	73.00	73.00	73.00	?
s23-3	-	-	-	-	-	-	-	-	-	?	?
s23-4	74.00	74.00	74.00	74.00	74.00	74.00	74.00	74.00	74.00	74.00	?
s24-0	79.00	79.00	79.00	79.00	79.00	79.00	79.00	79.00	79.00	79.00	?
s24-1	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	?
s24-2	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	?
s24-3	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	?
s24-4	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	78.00	?
s25-0	81.00	81.00	81.00	81.00	81.00	81.00	81.00	81.00	81.00	81.00	?
s25-1	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	?
s25-2	-	-	-	-	-	-	-	-	-	?	?
s25-3	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	?
s25-4	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	?
s26-0	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	?
s26-1	-	-	-	-	-	-	-	-	-	-	-
s26-2	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	?
s26-3	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	?
s26-4	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	?
s27-0	-	-	-	-	-	-	-	-	-	?	?
s27-1	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	?
s27-2	87.00	87.00	87.00	87.00	87.00	87.00	87.00	87.00	87.00	87.00	?
s27-3	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	?
s27-4	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	?
s28-0	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	?
s28-1	-	-	-	-	-	-	-	-	-	?	?
s28-2	94.00	94.00	94.00	94.00	94.00	94.00	94.00	94.00	94.00	94.00	?
s28-3	87.00	87.00	87.00	87.00	87.00	87.00	87.00	87.00	87.00	87.00	?
s28-4	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	?
s29-0	94.00	94.00	94.00	94.00	94.00	94.00	94.00	94.00	94.00	94.00	?
s29-1	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	?
s29-2	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	?
s29-3	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	?
s29-4	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	?
s3-0	-	-	-	-	-	-	-	-	-	10.00	10.00
s3-1	-	-	-	-	-	-	-	-	-	11.00	11.00
s3-2	-	-	-	-	-	-	-	-	-	10.00	10.00
s3-3	-	-	-	-	-	-	-	-	-	10.00	10.00
s3-4	-	-	-	-	-	-	-	-	-	10.00	10.00
s30-0	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	?
s30-1	98.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00	?
s30-2	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	97.00	?
s30-3	-	-	-	-	-	-	-	-	-	?	?
s30-4	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	?
s4-0	-	-	-	-	-	-	-	-	-	14.00	14.00
s4-1	-	-	-	-	-	-	-	-	-	13.00	13.00
s4-2	-	-	-	-	-	-	-	-	-	15.00	15.00
s4-3	-	-	-	-	-	-	-	-	-	15.00	15.00
s4-4	-	-	-	-	-	-	-	-	-	15.00	15.00
s5-0	-	-	-	-	-	-	-	-	-	17.00	17.00
s5-1	-	-	-	-	-	-	-	-	-	15.00	15.00
s5-2	-	-	-	-	-	-	-	-	-	15.00	15.00
s5-3	-	-	-	-	-	-	-	-	-	17.00	17.00
s5-4	-	-	-	-	-	-	-	-	-	18.00	18.00
s6-0	-	-	-	-	-	-	-	-	-	19.00	19.00
s6-1	-	-	-	-	-	-	-	-	-	19.00	19.00
s6-2	-	-	-	-	-	-	-	-	-	20.00	20.00
s6-3	-	-	-	-	-	-	-	-	-	20.00	20.00
s6-4	-	-	-	-	-	-	-	-	-	21.00	21.00
s7-0	-	-	-	-	-	-	-	-	-	23.00	23.00
s7-1	-	-	-	-	-	-	-	-	-	24.00	24.00
s7-2	-	-	-	-	-	-	-	-	-	22.00	22.00
s7-3	-	-	-	-	-	-	-	-	-	25.00	25.00
s7-4	-	-	-	-	-	-	-	-	-	25.00	25.00
s8-0	-	-	-	-	-	-	-	-	-	27.00	27.00
s8-1	-	-	-	-	-	-	-	-	-	27.00	27.00
s8-2	-	-	-	-	-	-	-	-	-	26.00	26.00
s8-3	-	-	-	-	-	-	-	-	-	28.00	28.00
s8-4	-	-	-	-	-	-	-	-	-	27.00	27.00
s9-0	-	-	-	-	-	-	-	-	-	31.00	31.00
s9-1	-	-	-	-	-	-	-	-	-	30.00	30.00
s9-2	-	-	-	-	-	-	-	-	-	30.00	30.00
s9-3	-	-	-	-	-	-	-	-	-	32.00	32.00
s9-4	-	-	-	-	-	-	-	-	-	28.00	28.00

B.18 movie

B.18.1 movie

Table B.22 – Solution Cost, movie, movie

| | 10% | | | 50% | | | 90% | | | 100% | |
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	7.00	7.00
prob02	-	-	-	-	-	-	-	-	-	7.00	7.00
prob03	-	-	-	-	-	-	-	-	-	7.00	7.00
prob04	-	-	-	-	-	-	-	-	-	7.00	7.00
prob05	-	-	-	-	-	-	-	-	-	7.00	7.00
prob06	-	-	-	-	-	-	-	-	-	7.00	7.00
prob07	-	-	-	-	-	-	-	-	-	7.00	7.00
prob08	-	-	-	-	-	-	-	-	-	7.00	7.00
prob09	-	-	-	-	-	-	-	-	-	7.00	7.00
prob10	-	-	-	-	-	-	-	-	-	7.00	7.00
prob11	-	-	-	-	-	-	-	-	-	7.00	7.00
prob12	-	-	-	-	-	-	-	-	-	7.00	7.00
prob13	-	-	-	-	-	-	-	-	-	7.00	7.00
prob14	-	-	-	-	-	-	-	-	-	7.00	7.00
prob15	-	-	-	-	-	-	-	-	-	7.00	7.00
prob16	-	-	-	-	-	-	-	-	-	7.00	7.00
prob17	-	-	-	-	-	-	-	-	-	7.00	7.00
prob18	-	-	-	-	-	-	-	-	-	7.00	7.00
prob19	-	-	-	-	-	-	-	-	-	7.00	7.00
prob20	-	-	-	-	-	-	-	-	-	7.00	7.00
prob21	-	-	-	-	-	-	-	-	-	7.00	7.00
prob22	-	-	-	-	-	-	-	-	-	7.00	7.00
prob23	-	-	-	-	-	-	-	-	-	7.00	7.00
prob24	-	-	-	-	-	-	-	-	-	7.00	7.00
prob25	-	-	-	-	-	-	-	-	-	7.00	7.00
prob26	-	-	-	-	-	-	-	-	-	7.00	7.00
prob27	-	-	-	-	-	-	-	-	-	7.00	7.00
prob28	-	-	-	-	-	-	-	-	-	7.00	7.00
prob29	-	-	-	-	-	-	-	-	-	7.00	7.00
prob30	-	-	-	-	-	-	-	-	-	7.00	7.00

B.19 mprime

B.19.1 mprime

Table B.23 – Solution Cost, mprime, mprime

| | 10% | | | 50% | | | 90% | | | 100% | |
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	5.00	5.00
prob02	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	?
prob03	-	-	-	-	-	-	-	-	-	4.00	4.00
prob04	-	-	-	-	-	-	-	-	-	8.00	8.00
prob05	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	5.00	5.00
prob08	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	?
prob09	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	?
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	7.00	7.00
prob12	-	-	-	-	-	-	-	-	-	6.00	6.00
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	?
prob17	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	?
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	6.00	6.00
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	4.00	4.00
prob26	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	?
prob27	-	-	-	-	-	-	-	-	-	5.00	5.00
prob28	-	-	-	-	-	-	-	-	-	7.00	7.00
prob29	-	-	-	-	-	-	-	-	-	4.00	4.00
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	4.00	4.00
prob32	-	-	-	-	-	-	-	-	-	7.00	7.00
prob33	-	-	-	-	-	-	-	-	-	?	-
prob34	-	-	-	-	-	-	-	-	-	4.00	4.00
prob35	-	-	-	-	-	-	-	-	-	5.00	5.00

B.20 mystery

B.20.1 mystery

Table B.24 – Solution Cost, mystery, mystery

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	5.00	5.00
prob02	-	-	-	-	-	-	-	-	-	7.00	7.00
prob03	-	-	-	-	-	-	-	-	-	4.00	4.00
prob04	-	-	-	-	-	-	-	-	-	Inf.	-
prob05	-	-	-	-	-	-	-	-	-	?	-
prob06	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	?
prob07	-	-	-	-	-	-	-	-	-	Inf.	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	8.00	8.00
prob10	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	?
prob11	-	-	-	-	-	-	-	-	-	7.00	7.00
prob12	-	-	-	-	-	-	-	-	-	Inf.	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	6.00	6.00
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	4.00	4.00
prob18	-	-	-	-	-	-	-	-	-	Inf.	-
prob19	-	-	-	-	-	-	-	-	-	6.00	6.00
prob20	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	?
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	4.00	4.00
prob26	-	-	-	-	-	-	-	-	-	6.00	6.00
prob27	-	-	-	-	-	-	-	-	-	5.00	5.00
prob28	-	-	-	-	-	-	-	-	-	7.00	7.00
prob29	-	-	-	-	-	-	-	-	-	4.00	4.00
prob30	-	-	-	-	-	-	-	-	-	9.00	9.00

B.21 nomystery

B.21.1 nomystery-opt11-strips

Table B.25 – Solution Cost, nomystery, nomystery-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A
p01	-	-	-	-	-	-	-	-	-	11.00	11.00
p02	-	-	-	-	-	-	-	-	-	14.00	14.00
p03	-	-	-	-	-	-	-	-	-	15.00	15.00
p04	-	-	-	-	-	-	-	-	-	19.00	19.00
p05	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	?
p06	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	?
p07	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	12.00	12.00
p12	-	-	-	-	-	-	-	-	-	14.00	14.00
p13	-	-	-	-	-	-	-	-	-	15.00	15.00
p14	-	-	-	-	-	-	-	-	-	19.00	19.00
p15	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	?
p16	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	?
p17	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.22 openstacks

B.22.1 openstacks-opt08-strips

Table B.26 – Solution Cost, openstacks, openstacks-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	2.00	2.00
p02	-	-	-	-	-	-	-	-	-	2.00	2.00
p03	-	-	-	-	-	-	-	-	-	2.00	2.00
p04	-	-	-	-	-	-	-	-	-	3.00	3.00
p05	-	-	-	-	-	-	-	-	-	4.00	4.00
p06	-	-	-	-	-	-	-	-	-	2.00	2.00
p07	-	-	-	-	-	-	-	-	-	5.00	5.00
p08	-	-	-	-	-	-	-	-	-	5.00	5.00
p09	-	-	-	-	-	-	-	-	-	3.00	3.00
p10	-	-	-	-	-	-	-	-	-	3.00	3.00
p11	-	-	-	-	-	-	-	-	-	4.00	4.00
p12	-	-	-	-	-	-	-	-	-	3.00	3.00
p13	-	-	-	-	-	-	-	-	-	4.00	4.00
p14	-	-	-	-	-	-	-	-	-	4.00	4.00
p15	-	-	-	-	-	-	-	-	-	4.00	4.00
p16	-	-	-	-	-	-	-	-	-	4.00	4.00
p17	-	-	-	-	-	-	-	-	-	4.00	4.00
p18	-	-	-	-	-	-	-	-	-	3.00	3.00
p19	-	-	-	-	-	-	-	-	-	4.00	4.00
p20	-	-	-	-	-	-	-	-	-	4.00	4.00
p21	-	-	-	-	-	-	-	-	-	3.00	3.00
p22	-	-	-	-	-	-	-	-	-	4.00	4.00
p23	-	-	-	-	-	-	-	-	-	4.00	4.00
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	4.00	4.00
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.22.2 openstacks-opt11-strips

Table B.27 – Solution Cost, openstacks, openstacks-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	2.00	2.00
p02	-	-	-	-	-	-	-	-	-	5.00	5.00
p03	-	-	-	-	-	-	-	-	-	5.00	5.00
p04	-	-	-	-	-	-	-	-	-	3.00	3.00
p05	-	-	-	-	-	-	-	-	-	3.00	3.00
p06	-	-	-	-	-	-	-	-	-	4.00	4.00
p07	-	-	-	-	-	-	-	-	-	3.00	3.00
p08	-	-	-	-	-	-	-	-	-	4.00	4.00
p09	-	-	-	-	-	-	-	-	-	4.00	4.00
p10	-	-	-	-	-	-	-	-	-	4.00	4.00
p11	-	-	-	-	-	-	-	-	-	4.00	4.00
p12	-	-	-	-	-	-	-	-	-	4.00	4.00
p13	-	-	-	-	-	-	-	-	-	4.00	4.00
p14	-	-	-	-	-	-	-	-	-	3.00	3.00
p15	-	-	-	-	-	-	-	-	-	4.00	4.00
p16	-	-	-	-	-	-	-	-	-	3.00	3.00
p17	-	-	-	-	-	-	-	-	-	4.00	4.00
p18	-	-	-	-	-	-	-	-	-	4.00	4.00
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	4.00	4.00

B.22.3 openstacks-opt14-strips

Table B.28 – Solution Cost, openstacks, openstacks-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p20_1	-	-	-	-	-	-	-	-	-	3.00	3.00
p20_2	-	-	-	-	-	-	-	-	-	4.00	4.00
p20_3	-	-	-	-	-	-	-	-	-	6.00	6.00
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_2	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p35_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	?	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	?	-

B.22.4 openstacks-strips

Table B.29 – Solution Cost, openstacks, openstacks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	23.00	23.00
p02	-	-	-	-	-	-	-	-	-	23.00	23.00
p03	-	-	-	-	-	-	-	-	-	23.00	23.00
p04	-	-	-	-	-	-	-	-	-	23.00	23.00
p05	-	-	-	-	-	-	-	-	-	23.00	23.00
p06	-	-	-	-	-	-	-	-	-	45.00	45.00
p07	-	-	-	-	-	-	-	-	-	46.00	46.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.23 organic

B.23.1 organic-synthesis-opt18-strips

Table B.30 – Solution Cost, organic, organic-synthesis-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	1.00	1.00
p02	-	-	-	-	-	-	-	-	-	1.00	1.00
p03	-	-	-	-	-	-	-	-	-	2.00	2.00
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	2.00	2.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	2.00	2.00
p10	-	-	-	-	-	-	-	-	-	2.00	2.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	2.00	2.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.23.2 organic-synthesis-split-opt18-strips

Table B.31 – Solution Cost, organic, organic-synthesis-split-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	41.00	41.00
p02	-	-	-	-	-	-	-	-	-	41.00	41.00
p03	-	-	-	-	-	-	-	-	-	252.00	252.00
p04	-	-	-	-	-	-	-	-	-	252.00	252.00
p05	-	-	-	-	-	-	-	-	-	252.00	252.00
p06	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	?
p07	-	-	-	-	-	-	-	-	-	252.00	252.00
p08	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	?
p09	-	-	-	-	-	-	-	-	-	82.00	82.00
p10	-	-	-	-	-	-	-	-	-	82.00	82.00
p11	82.00	82.00	82.00	82.00	82.00	82.00	82.00	82.00	82.00	82.00	?
p12	82.00	82.00	82.00	82.00	82.00	82.00	82.00	82.00	82.00	82.00	?
p13	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	?
p14	-	-	-	-	-	-	-	-	-	82.00	82.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	252.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.24 parcprinter

B.24.1 parcprinter-08-strips

Table B.32 – Solution Cost, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	169009.00	169009.00
p02	-	-	-	-	-	-	-	-	-	438047.00	438047.00
p03	-	-	-	-	-	-	-	-	-	807114.00	807114.00
p04	876094.00	876094.00	876094.00	876094.00	876094.00	876094.00	876094.00	876094.00	876094.00	876094.00	?
p05	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	?
p06	?	-	?	?	-	1514199.00	?	-	1514199.00	1514199.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	182808.00	182808.00
p12	-	-	-	-	-	-	-	-	-	510256.00	510256.00
p13	-	-	-	-	-	-	-	-	-	693064.00	693064.00
p14	?	-	?	?	-	?	?	-	1020512.00	1020512.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	143411.00	143411.00
p22	-	-	-	-	-	-	-	-	-	375821.00	375821.00
p23	-	-	-	-	-	-	-	-	-	519232.00	519232.00
p24	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	?
p25	-	-	-	-	-	1215839.00	-	-	1215839.00	1215839.00	?
p26	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	?
p27	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	?
p28	1681282.00	1681282.00	1681282.00	1681282.00	1681282.00	1681282.00	1681282.00	1681282.00	1681282.00	1681282.00	?
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.24.2 parcprinter-opt11-strips

Table B.33 – Solution Cost, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	375821.00	375821.00
p02	-	-	-	-	-	-	-	-	-	438047.00	438047.00
p03	-	-	-	-	-	-	-	-	-	510256.00	510256.00
p04	876094.00	876094.00	876094.00	876094.00	876094.00	876094.00	876094.00	876094.00	876094.00	876094.00	?
p05	-	-	-	-	-	1514199.00	-	-	1514199.00	519232.00	519232.00
p06	?	-	?	?	-	1514199.00	?	-	1514199.00	1514199.00	?
p07	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	1145132.00	?
p08	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	?
p09	-	-	-	-	-	-	-	-	-	693064.00	693064.00
p10	?	-	?	?	-	1215839.00	?	-	1215839.00	1215839.00	?
p11	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	?
p12	?	-	?	?	-	?	?	-	1020512.00	1020512.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	?

B.25 parking

B.25.1 parking-opt11-strips

Table B.34 – Solution Cost, parking, parking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
pfile03-011	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	?
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	?
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-
pfile06-021	-	-	-	-	-	-	-	-	-	?	-
pfile06-022	-	-	-	-	-	-	-	-	-	?	-
pfile06-023	-	-	-	-	-	-	-	-	-	?	-
pfile06-024	-	-	-	-	-	-	-	-	-	?	-
pfile07-025	-	-	-	-	-	-	-	-	-	?	-
pfile07-026	-	-	-	-	-	-	-	-	-	?	-
pfile07-027	-	-	-	-	-	-	-	-	-	?	-
pfile07-028	-	-	-	-	-	-	-	-	-	?	-
pfile08-029	-	-	-	-	-	-	-	-	-	?	-
pfile08-030	-	-	-	-	-	-	-	-	-	?	-

B.25.2 parking-opt14-strips

Table B.35 – Solution Cost, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p_12_7-01	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	?
p_12_7-02	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	?
p_12_7-03	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	?
p_12_7-04	-	-	-	-	-	-	-	-	-	?	-
p_14_8-01	-	-	-	-	-	-	-	-	-	?	-
p_14_8-02	-	-	-	-	-	-	-	-	-	?	-
p_14_8-03	-	-	-	-	-	-	-	-	-	?	-
p_14_8-04	-	-	-	-	-	-	-	-	-	?	-
p_16_9-01	-	-	-	-	-	-	-	-	-	?	-
p_16_9-02	-	-	-	-	-	-	-	-	-	?	-
p_16_9-03	-	-	-	-	-	-	-	-	-	?	-
p_16_9-04	-	-	-	-	-	-	-	-	-	?	-
p_18_10-01	-	-	-	-	-	-	-	-	-	?	-
p_18_10-02	-	-	-	-	-	-	-	-	-	?	-
p_18_10-03	-	-	-	-	-	-	-	-	-	?	-
p_18_10-04	-	-	-	-	-	-	-	-	-	?	-
p_20_11-01	-	-	-	-	-	-	-	-	-	?	-
p_20_11-02	-	-	-	-	-	-	-	-	-	?	-
p_20_11-03	-	-	-	-	-	-	-	-	-	?	-
p_30_11-04	-	-	-	-	-	-	-	-	-	?	-

B.26 pathways

B.26.1 pathways

Table B.36 – Solution Cost, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	6.00	6.00
p02	-	-	-	-	-	-	-	-	-	12.00	12.00
p03	-	-	-	-	-	-	-	-	-	18.00	18.00
p04	-	-	-	-	-	-	-	-	-	17.00	17.00
p05	?	-	30.00	?	-	30.00	?	-	30.00	30.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.27 pegsol

B.27.1 pegsol-08-strips

Table B.37 – Solution Cost, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	2.00	2.00
p02	-	-	-	-	-	-	-	-	-	5.00	5.00
p03	-	-	-	-	-	-	-	-	-	4.00	4.00
p04	-	-	-	-	-	-	-	-	-	4.00	4.00
p05	-	-	-	-	-	-	-	-	-	4.00	4.00
p06	-	-	-	-	-	-	-	-	-	4.00	4.00
p07	-	-	-	-	-	-	-	-	-	3.00	3.00
p08	-	-	-	-	-	-	-	-	-	6.00	6.00
p09	-	-	-	-	-	-	-	-	-	5.00	5.00
p10	-	-	-	-	-	-	-	-	-	6.00	6.00
p11	-	-	-	-	-	-	-	-	-	7.00	7.00
p12	-	-	-	-	-	-	-	-	-	8.00	8.00
p13	-	-	-	-	-	-	-	-	-	9.00	9.00
p14	-	-	-	-	-	-	-	-	-	7.00	7.00
p15	-	-	-	-	-	-	-	-	-	8.00	8.00
p16	-	-	-	-	-	-	-	-	-	8.00	8.00
p17	-	-	-	-	-	-	-	-	-	10.00	10.00
p18	-	-	-	-	-	-	-	-	-	7.00	7.00
p19	-	-	-	-	-	-	-	-	-	8.00	8.00
p20	-	-	-	-	-	-	-	-	-	7.00	7.00
p21	-	-	-	-	-	-	-	-	-	8.00	8.00
p22	-	-	-	-	-	-	-	-	-	6.00	6.00
p23	-	-	-	-	-	-	-	-	-	8.00	8.00
p24	-	-	-	-	-	-	-	-	-	8.00	8.00
p25	-	-	-	-	-	-	-	-	-	8.00	8.00
p26	-	-	-	-	-	-	-	-	-	9.00	9.00
p27	-	-	-	-	-	-	-	-	-	7.00	7.00
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.27.2 pegsol-opt11-strips

Table B.38 – Solution Cost, pegsol, pegsol-opt11-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	3.00	3.00
p02	-	-	-	-	-	-	-	-	-	10.00	10.00
p03	-	-	-	-	-	-	-	-	-	7.00	7.00
p04	-	-	-	-	-	-	-	-	-	8.00	8.00
p05	-	-	-	-	-	-	-	-	-	12.00	12.00
p06	-	-	-	-	-	-	-	-	-	9.00	9.00
p07	-	-	-	-	-	-	-	-	-	7.00	7.00
p08	-	-	-	-	-	-	-	-	-	7.00	7.00
p09	-	-	-	-	-	-	-	-	-	8.00	8.00
p10	-	-	-	-	-	-	-	-	-	8.00	8.00
p11	-	-	-	-	-	-	-	-	-	6.00	6.00
p12	-	-	-	-	-	-	-	-	-	11.00	11.00
p13	-	-	-	-	-	-	-	-	-	8.00	8.00
p14	-	-	-	-	-	-	-	-	-	8.00	8.00
p15	-	-	-	-	-	-	-	-	-	8.00	8.00
p16	-	-	-	-	-	-	-	-	-	9.00	9.00
p17	-	-	-	-	-	-	-	-	-	7.00	7.00
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.28 petri

B.28.1 petri-net-alignment-opt18-strips

Table B.39 – Solution Cost, petri, petri-net-alignment-opt18-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	16.00	16.00
p02	-	-	-	-	-	-	-	-	-	35.00	35.00
p03	-	-	-	64.00	64.00	?	64.00	64.00	64.00	64.00	?
p04	?	-	?	79.00	79.00	?	79.00	79.00	79.00	79.00	?
p05	66.00	66.00	?	66.00	66.00	66.00	66.00	66.00	66.00	66.00	?
p06	?	-	?	95.00	95.00	95.00	95.00	95.00	95.00	95.00	?
p07	?	-	?	106.00	106.00	106.00	106.00	106.00	106.00	106.00	?
p08	?	-	?	?	-	?	111.00	111.00	111.00	111.00	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	187.00	187.00	?	187.00	187.00	187.00	187.00	187.00	187.00	187.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.29 pipesworld

B.29.1 pipesworld-notankage

Table B.40 – Solution Cost, pipesworld, pipesworld-notankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	5.00	5.00
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	12.00	12.00
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	8.00	8.00
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	11.00	11.00
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	8.00	8.00
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	10.00	10.00
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	8.00	8.00
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	10.00	10.00
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	13.00	13.00
p10-net1-b14-g8	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	20.00	20.00
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	24.00	24.00
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	16.00	16.00
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	26.00	26.00
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	14.00	14.00
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	?	-

B.29.2 pipesworld-tankage

Table B.41 – Solution Cost, pipesworld, pipesworld-tankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	5.00	5.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	12.00	12.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	8.00	8.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	11.00	11.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	8.00	8.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	10.00	10.00
p07-net1-b12-g5-t80	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	?
p08-net1-b12-g7-t80	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	22.00	22.00
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	?
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	14.00	14.00
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	39.00	39.00
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

B.29.3 pipesworld-tankage-nosplit

Table B.42 – Solution Cost, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	5.00	5.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	12.00	12.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	8.00	8.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	11.00	11.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	8.00	8.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	10.00	10.00
p07-net1-b12-g5-t80	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	?
p08-net1-b12-g7-t80	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	-
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	?	-
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	-
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

B.30 psr

B.30.1 psr-small

Table B.43 – Solution Cost, psr, psr-small

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	8.00	8.00
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	11.00	11.00
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	11.00	11.00
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	10.00	10.00
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	11.00	11.00
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	8.00	8.00
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	11.00	11.00
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	8.00	8.00
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	8.00	8.00
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	7.00	7.00
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	19.00	19.00
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	16.00	16.00
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	15.00	15.00
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	9.00	9.00
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	10.00	10.00
p16-s29-n2-l5-f30	-	-	-	-	-	-	-	-	-	25.00	25.00
p17-s30-n2-l5-f50	-	-	-	-	-	-	-	-	-	9.00	9.00
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	12.00	12.00
p19-s33-n3-l2-f50	-	-	-	-	-	-	-	-	-	25.00	25.00
p20-s34-n3-l2-f50	-	-	-	-	-	-	-	-	-	17.00	17.00
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	10.00	10.00
p22-s37-n3-l3-f30	-	-	-	-	-	-	-	-	-	33.00	33.00
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	12.00	12.00
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	10.00	10.00
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	9.00	9.00
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	17.00	17.00
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	21.00	21.00
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	14.00	14.00
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	21.00	21.00
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	22.00	22.00
p31-s49-n4-l2-f90	-	-	-	-	-	-	-	-	-	19.00	19.00
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	24.00	24.00
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	21.00	21.00
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	21.00	21.00
p35-s57-n5-l2-f30	-	-	-	-	-	-	-	-	-	22.00	22.00
p36-s65-n6-l2-f30	-	-	-	-	-	-	-	-	-	22.00	22.00
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	23.00	23.00
p38-s78-n3-l3-f50	-	-	-	-	-	-	-	-	-	13.00	13.00
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	23.00	23.00
p40-s80-n3-l4-f10	-	-	-	-	-	-	-	-	-	20.00	20.00
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	10.00	10.00
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	30.00	30.00
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	20.00	20.00
p44-s89-n4-l2-f30	-	-	-	-	-	-	-	-	-	19.00	19.00
p45-s94-n4-l1-f50	-	-	-	-	-	-	-	-	-	20.00	20.00
p46-s97-n5-l2-f30	-	-	-	-	-	-	-	-	-	34.00	34.00
p47-s98-n5-l2-f50	-	-	-	-	-	-	-	-	-	27.00	27.00
p48-s101-n5-l3-f30	?	-	?	37.00	37.00	37.00	37.00	37.00	37.00	37.00	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	-
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	23.00	23.00

B.31 rovers

B.31.1 rovers

Table B.44 – Solution Cost, rovers, rovers

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	10.00	10.00
p02	-	-	-	-	-	-	-	-	-	8.00	8.00
p03	-	-	-	-	-	-	-	-	-	11.00	11.00
p04	-	-	-	-	-	-	-	-	-	8.00	8.00
p05	-	-	-	-	-	-	-	-	-	22.00	22.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-
p31	-	-	-	-	-	-	-	-	-	?	-
p32	-	-	-	-	-	-	-	-	-	?	-
p33	-	-	-	-	-	-	-	-	-	?	-
p34	-	-	-	-	-	-	-	-	-	?	-
p35	-	-	-	-	-	-	-	-	-	?	-
p36	-	-	-	-	-	-	-	-	-	?	-
p37	-	-	-	-	-	-	-	-	-	?	-
p38	-	-	-	-	-	-	-	-	-	?	-
p39	-	-	-	-	-	-	-	-	-	?	-
p40	-	-	-	-	-	-	-	-	-	?	-

B.32 satellite

B.32.1 satellite

Table B.45 – Solution Cost, satellite, satellite

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01-pfile1	-	-	-	-	-	-	-	-	-	9.00	9.00
p02-pfile2	-	-	-	-	-	-	-	-	-	13.00	13.00
p03-pfile3	-	-	-	-	-	-	-	-	-	11.00	11.00
p04-pfile4	-	-	-	-	-	-	-	-	-	17.00	17.00
p05-pfile5	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	?
p06-pfile6	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	?
p07-pfile7	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	?	-
p10-pfile10	-	-	-	-	-	-	-	-	-	?	-
p11-pfile11	-	-	-	-	-	-	-	-	-	?	-
p12-pfile12	-	-	-	-	-	-	-	-	-	?	-
p13-pfile13	-	-	-	-	-	-	-	-	-	?	-
p14-pfile14	-	-	-	-	-	-	-	-	-	?	-
p15-pfile15	-	-	-	-	-	-	-	-	-	?	-
p16-pfile16	-	-	-	-	-	-	-	-	-	?	-
p17-pfile17	-	-	-	-	-	-	-	-	-	?	-
p18-pfile18	-	-	-	-	-	-	-	-	-	?	-
p19-pfile19	-	-	-	-	-	-	-	-	-	?	-
p20-pfile20	-	-	-	-	-	-	-	-	-	?	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	?	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	?	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	?	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	?	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	?	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	?	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	?	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	?	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	?	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	?	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	?	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	?	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	?	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	?	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	?	-

B.33 scanalyzer

B.33.1 scanalyzer-08-strips

Table B.46 – Solution Cost, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	18.00	18.00
p02	-	-	-	-	-	-	-	-	-	22.00	22.00
p03	-	-	-	-	-	-	-	-	-	26.00	26.00
p04	-	-	-	-	-	-	-	-	-	24.00	24.00
p05	-	-	-	-	-	-	-	-	-	30.00	30.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	?
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	13.00	13.00
p23	-	-	-	-	-	-	-	-	-	13.00	13.00
p24	-	-	-	-	-	-	-	-	-	13.00	13.00
p25	-	-	-	-	-	-	-	-	-	26.00	26.00
p26	-	-	-	-	-	-	-	-	-	30.00	30.00
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.33.2 scanalyzer-opt11-strips

Table B.47 – Solution Cost, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	13.00	13.00
p02	-	-	-	-	-	-	-	-	-	22.00	22.00
p03	-	-	-	-	-	-	-	-	-	26.00	26.00
p04	-	-	-	-	-	-	-	-	-	24.00	24.00
p05	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?
p06	-	-	-	-	-	-	-	-	-	30.00	30.00
p07	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00	?
p08	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	?
p09	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	?
p10	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	?
p11	-	-	-	-	-	-	-	-	-	26.00	26.00
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	30.00	30.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.34 snake

B.34.1 snake-opt18-strips

Table B.48 – Solution Cost, snake, snake-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	24.00	24.00
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	12.00	12.00
p05	-	-	-	-	-	-	-	-	-	17.00	17.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	20.00	20.00
p10	-	-	-	-	-	-	-	-	-	27.00	27.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	25.00	25.00
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.35 sokoban

B.35.1 sokoban-opt08-strips

Table B.49 – Solution Cost, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	11.00	11.00
p02	-	-	-	-	-	-	-	-	-	9.00	9.00
p03	-	-	-	-	-	-	-	-	-	10.00	10.00
p04	-	-	-	-	-	-	-	-	-	29.00	29.00
p05	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	?
p06	-	-	-	-	-	-	-	-	-	9.00	9.00
p07	-	-	-	-	-	-	-	-	-	15.00	15.00
p08	-	-	-	-	-	-	-	-	-	31.00	31.00
p09	-	-	-	-	-	-	-	-	-	19.00	19.00
p10	-	-	-	-	-	-	-	-	-	30.00	30.00
p11	-	-	-	-	-	-	-	-	-	35.00	35.00
p12	-	-	-	-	-	-	-	-	-	32.00	32.00
p13	-	-	-	-	-	-	-	-	-	20.00	20.00
p14	-	-	-	-	-	-	-	-	-	29.00	29.00
p15	-	-	-	-	-	-	-	-	-	76.00	76.00
p16	-	-	-	-	-	-	-	-	-	50.00	50.00
p17	-	-	-	-	-	-	-	-	-	37.00	37.00
p18	-	-	-	-	-	-	-	-	-	49.00	49.00
p19	-	-	-	-	-	-	-	-	-	47.00	47.00
p20	-	-	-	-	-	-	-	-	-	2.00	2.00
p21	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	?
p22	?	-	?	?	-	?	?	-	?	44.00	?
p23	?	-	?	?	-	?	?	-	?	31.00	?
p24	?	-	?	?	-	?	?	-	?	50.00	?
p25	?	-	?	?	-	?	?	-	?	39.00	?
p26	?	-	?	?	-	?	?	-	?	33.00	?
p27	?	-	?	23.00	23.00	?	23.00	23.00	23.00	23.00	?
p28	?	-	?	?	-	?	?	-	?	43.00	?
p29	?	-	?	?	-	?	18.00	18.00	18.00	18.00	?
p30	-	-	-	-	-	-	-	-	-	?	?

B.35.2 sokoban-opt11-strips

Table B.50 – Solution Cost, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	9.00	9.00
p02	-	-	-	-	-	-	-	-	-	37.00	37.00
p03	-	-	-	-	-	-	-	-	-	29.00	29.00
p04	-	-	-	-	-	-	-	-	-	29.00	29.00
p05	-	-	-	-	-	-	-	-	-	50.00	50.00
p06	-	-	-	-	-	-	-	-	-	35.00	35.00
p07	-	-	-	-	-	-	-	-	-	30.00	30.00
p08	-	-	-	-	-	-	-	-	-	19.00	19.00
p09	-	-	-	-	-	-	-	-	-	15.00	15.00
p10	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	?
p11	-	-	-	-	-	-	-	-	-	20.00	20.00
p12	-	-	-	-	-	-	-	-	-	2.00	2.00
p13	-	-	-	-	-	-	-	-	-	31.00	31.00
p14	-	-	-	-	-	-	-	-	-	32.00	32.00
p15	-	-	-	-	-	-	-	-	-	49.00	49.00
p16	-	-	-	-	-	-	-	-	-	76.00	76.00
p17	-	-	-	-	-	-	-	-	-	47.00	47.00
p18	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	?
p19	?	-	?	?	-	?	?	-	?	44.00	?
p20	?	-	?	?	-	?	?	-	?	31.00	?

B.36 spider

B.36.1 spider-opt18-strips

Table B.51 – Solution Cost, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	16.00	16.00
p02	-	-	-	-	-	-	-	-	-	23.00	23.00
p03	-	-	-	-	-	-	-	-	-	22.00	22.00
p04	-	-	-	-	-	-	-	-	-	31.00	31.00
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	16.00	16.00
p08	-	-	-	-	-	-	-	-	-	18.00	18.00
p09	-	-	-	-	-	-	-	-	-	25.00	25.00
p10	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	10.00	10.00
p15	-	-	-	-	-	-	-	-	-	17.00	17.00
p16	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

B.37 storage

B.37.1 storage

Table B.52 – Solution Cost, storage, storage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	3.00	3.00
p02	-	-	-	-	-	-	-	-	-	3.00	3.00
p03	-	-	-	-	-	-	-	-	-	3.00	3.00
p04	-	-	-	-	-	-	-	-	-	8.00	8.00
p05	-	-	-	-	-	-	-	-	-	8.00	8.00
p06	-	-	-	-	-	-	-	-	-	8.00	8.00
p07	-	-	-	-	-	-	-	-	-	14.00	14.00
p08	-	-	-	-	-	-	-	-	-	12.00	12.00
p09	-	-	-	-	-	-	-	-	-	11.00	11.00
p10	-	-	-	-	-	-	-	-	-	18.00	18.00
p11	-	-	-	-	-	-	-	-	-	17.00	17.00
p12	-	-	-	-	-	-	-	-	-	16.00	16.00
p13	-	-	-	-	-	-	-	-	-	18.00	18.00
p14	-	-	-	-	-	-	-	-	-	19.00	19.00
p15	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.38 termes

B.38.1 termes-opt18-strips

Table B.53 – Solution Cost, termes, termes-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	36.00	36.00
p02	-	-	-	-	-	-	-	-	-	54.00	54.00
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	66.00	66.00
p12	-	-	-	-	-	-	-	-	-	46.00	46.00
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.39 tetris

B.39.1 tetris-opt14-strips

Table B.54 – Solution Cost, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-10	-	-	-	-	-	-	-	-	-	?	-
p01-6	-	-	-	-	-	-	-	-	-	?	-
p01-8	-	-	-	-	-	-	-	-	-	36.00	36.00
p02-10	-	-	-	-	-	-	-	-	-	?	-
p02-4	-	-	-	-	-	-	-	-	-	10.00	10.00
p02-6	-	-	-	-	-	-	-	-	-	30.00	30.00
p02-8	-	-	-	-	-	-	-	-	-	?	-
p03-10	-	-	-	-	-	-	-	-	-	?	-
p03-4	-	-	-	-	-	-	-	-	-	11.00	11.00
p03-6	-	-	-	-	-	-	-	-	-	?	-
p03-8	-	-	-	-	-	-	-	-	-	?	-
p04-10	-	-	-	-	-	-	-	-	-	?	-
p04-6	-	-	-	-	-	-	-	-	-	?	-
p04-8	-	-	-	-	-	-	-	-	-	?	-
p05-10	-	-	-	-	-	-	-	-	-	19.00	19.00
p05-6	-	-	-	-	-	-	-	-	-	?	-
p05-8	-	-	-	-	-	-	-	-	-	?	-

B.40 tidybot

B.40.1 tidybot-opt11-strips

Table B.55 – Solution Cost, tidybot, tidybot-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	4.00	4.00
p02	-	-	-	-	-	-	-	-	-	33.00	33.00
p03	-	-	-	-	-	-	-	-	-	16.00	16.00
p04	-	-	-	-	-	-	-	-	-	32.00	32.00
p05	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	?
p06	-	-	-	-	-	-	-	-	-	32.00	32.00
p07	-	-	-	-	-	-	-	-	-	17.00	17.00
p08	-	-	-	-	-	-	-	-	-	37.00	37.00
p09	-	-	-	-	-	-	-	-	-	27.00	27.00
p10	-	-	-	-	-	-	-	-	-	29.00	29.00
p11	-	-	-	-	-	-	-	-	-	29.00	29.00
p12	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	?
p13	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?
p14	-	-	-	-	-	-	-	-	-	25.00	25.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.40.2 tidybot-opt14-strips

Table B.56 – Solution Cost, tidybot, tidybot-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	-
p02	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	?
p03	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?
p04	-	-	-	-	-	-	-	-	-	24.00	24.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	?
p08	-	-	-	-	-	-	-	-	-	25.00	25.00
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	29.00	29.00
p12	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	?
p13	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?
p14	-	-	-	-	-	-	-	-	-	25.00	25.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.41 tpp

B.41.1 tpp

Table B.57 – Solution Cost, tpp, tpp

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	5.00	5.00
p02	-	-	-	-	-	-	-	-	-	8.00	8.00
p03	-	-	-	-	-	-	-	-	-	11.00	11.00
p04	-	-	-	-	-	-	-	-	-	14.00	14.00
p05	-	-	-	-	-	-	-	-	-	19.00	19.00
p06	?	-	?	?	-	25.00	?	-	25.00	25.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.42 transport

B.42.1 transport-opt08-strips

Table B.58 – Solution Cost, transport, transport-opt08-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	54.00	54.00
p02	-	-	-	-	-	-	-	-	-	131.00	131.00
p03	-	-	-	-	-	-	-	-	-	250.00	250.00
p04	-	-	-	-	-	-	-	-	-	318.00	318.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	456.00	456.00
p12	-	-	-	-	-	-	-	-	-	594.00	594.00
p13	-	-	-	-	-	-	-	-	-	550.00	550.00
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	478.00	478.00
p22	-	-	-	-	-	-	-	-	-	632.00	632.00
p23	-	-	-	-	-	-	-	-	-	630.00	630.00
p24	-	-	-	-	-	-	-	-	-	614.00	614.00
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.42.2 transport-opt11-strips

Table B.59 – Solution Cost, transport, transport-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	630.00	630.00
p02	-	-	-	-	-	-	-	-	-	250.00	250.00
p03	-	-	-	-	-	-	-	-	-	594.00	594.00
p04	-	-	-	-	-	-	-	-	-	550.00	550.00
p05	-	-	-	-	-	-	-	-	-	614.00	614.00
p06	-	-	-	-	-	-	-	-	-	318.00	318.00
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.42.3 transport-opt14-strips

Table B.60 – Solution Cost, transport, transport-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	148.00	148.00
p02	-	-	-	-	-	-	-	-	-	191.00	191.00
p03	?	-	?	300.00	300.00	300.00	300.00	300.00	300.00	300.00	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	967.00	967.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	594.00	594.00
p14	?	-	?	?	-	526.00	526.00	526.00	526.00	526.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.43 trucks

B.43.1 trucks-strips

Table B.61 – Solution Cost, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	13.00	13.00
p02	-	-	-	-	-	-	-	-	-	17.00	17.00
p03	-	-	-	-	-	-	-	-	-	20.00	20.00
p04	-	-	-	-	-	-	-	-	-	23.00	23.00
p05	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	?
p06	30.00	30.00	?	30.00	30.00	30.00	30.00	30.00	30.00	30.00	?
p07	-	-	-	-	-	-	-	-	-	23.00	23.00
p08	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	?
p09	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	?
p10	34.00	34.00	?	34.00	34.00	34.00	34.00	34.00	34.00	34.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.44 visitall

B.44.1 visitall-opt11-strips

Table B.62 – Solution Cost, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
problem02-full	-	-	-	-	-	-	-	-	-	3.00	3.00
problem02-half	-	-	-	-	-	-	-	-	-	1.00	1.00
problem03-full	-	-	-	-	-	-	-	-	-	8.00	8.00
problem03-half	-	-	-	-	-	-	-	-	-	6.00	6.00
problem04-full	-	-	-	-	-	-	-	-	-	15.00	15.00
problem04-half	-	-	-	-	-	-	-	-	-	11.00	11.00
problem05-full	-	-	-	-	-	-	-	-	-	24.00	24.00
problem05-half	-	-	-	-	-	-	-	-	-	18.00	18.00
problem06-full	-	-	-	-	-	-	-	-	-	?	-
problem06-half	-	-	-	-	-	-	-	-	-	23.00	23.00
problem07-full	-	-	-	-	-	-	-	-	-	?	-
problem07-half	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	?
problem08-full	-	-	-	-	-	-	-	-	-	?	-
problem08-half	-	-	-	-	-	-	-	-	-	?	-
problem09-full	-	-	-	-	-	-	-	-	-	?	-
problem09-half	-	-	-	-	-	-	-	-	-	?	-
problem10-full	-	-	-	-	-	-	-	-	-	?	-
problem10-half	-	-	-	-	-	-	-	-	-	?	-
problem11-full	-	-	-	-	-	-	-	-	-	?	-
problem11-half	-	-	-	-	-	-	-	-	-	?	-

B.44.2 visitall-opt14-strips

Table B.63 – Solution Cost, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p-05-10	-	-	-	-	-	-	-	-	-	?	21.00
p-05-5	-	-	-	-	-	-	-	-	-	21.00	21.00
p-05-6	-	-	-	-	-	-	-	-	-	25.00	25.00
p-05-7	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	?
p-05-8	43.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00	?
p-05-9	-	-	-	-	-	-	-	-	-	?	-
p-1-10	-	-	-	-	-	-	-	-	-	?	-
p-1-11	-	-	-	-	-	-	-	-	-	?	-
p-1-12	-	-	-	-	-	-	-	-	-	?	-
p-1-13	-	-	-	-	-	-	-	-	-	?	-
p-1-14	-	-	-	-	-	-	-	-	-	?	-
p-1-15	-	-	-	-	-	-	-	-	-	?	-
p-1-16	-	-	-	-	-	-	-	-	-	?	-
p-1-17	-	-	-	-	-	-	-	-	-	?	-
p-1-18	-	-	-	-	-	-	-	-	-	?	-
p-1-5	-	-	-	-	-	-	-	-	-	24.00	24.00
p-1-6	-	-	-	-	-	-	-	-	-	?	-
p-1-7	-	-	-	-	-	-	-	-	-	?	-
p-1-8	-	-	-	-	-	-	-	-	-	?	-
p-1-9	-	-	-	-	-	-	-	-	-	?	-

B.45 woodworking

B.45.1 woodworking-opt08-strips

Table B.64 – Solution Cost, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	$A^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}{\uparrow}$	$PEA^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}{\uparrow}$	$PEA^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}{\uparrow}$	$PEA^*{}_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	170.00	170.00
p02	-	-	-	-	-	-	-	-	-	185.00	185.00
p03	275.00	275.00	275.00	275.00	275.00	275.00	275.00	275.00	275.00	275.00	?
p04	?	-	?	?	-	280.00	280.00	280.00	280.00	280.00	?
p05	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	130.00	130.00
p12	-	-	-	-	-	-	-	-	-	225.00	225.00
p13	215.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00	?
p14	225.00	225.00	225.00	225.00	225.00	225.00	225.00	225.00	225.00	225.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	95.00	95.00
p22	-	-	-	-	-	-	-	-	-	185.00	185.00
p23	-	-	-	-	-	-	-	-	-	195.00	195.00
p24	245.00	245.00	245.00	245.00	245.00	245.00	245.00	245.00	245.00	245.00	?
p25	380.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00	?
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

B.45.2 woodworking-opt11-strips

Table B.65 – Solution Cost, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	$A^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}{\uparrow}$	$PEA^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}{\uparrow}$	$PEA^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}{\uparrow}$	$PEA^*{}_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	195.00	195.00
p02	-	-	-	-	-	-	-	-	-	225.00	225.00
p03	215.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00	?
p04	275.00	275.00	275.00	275.00	275.00	275.00	275.00	275.00	275.00	275.00	?
p05	245.00	245.00	245.00	245.00	245.00	245.00	245.00	245.00	245.00	245.00	?
p06	?	-	?	?	-	280.00	280.00	280.00	280.00	280.00	?
p07	225.00	225.00	225.00	225.00	225.00	225.00	225.00	225.00	225.00	225.00	?
p08	380.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00	?
p09	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	?
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	290.00	?
p16	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

B.46 zenotravel

B.46.1 zenotravel

Table B.66 – Solution Cost, zenotravel, zenotravel

	10%			50%			90%			100%	
	$A^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}{\uparrow}$	$PEA^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}{\uparrow}$	$PEA^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}$	$A^*{}_{+IDA^*}{\uparrow}$	$PEA^*{}_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	1.00	1.00
p02	-	-	-	-	-	-	-	-	-	6.00	6.00
p03	-	-	-	-	-	-	-	-	-	6.00	6.00
p04	-	-	-	-	-	-	-	-	-	8.00	8.00
p05	-	-	-	-	-	-	-	-	-	11.00	11.00
p06	-	-	-	-	-	-	-	-	-	11.00	11.00
p07	-	-	-	-	-	-	-	-	-	15.00	15.00
p08	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	?
p09	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	?
p10	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	?
p11	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	?
p12	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	?
p13	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

APPENDIX C — SEARCH TIME

C.1 agricola

C.1.1 agricola-opt18-strips

Table C.1 – Search Time, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	600.01	-
p02	-	-	-	-	-	-	-	-	-	600.02	-
p03	-	-	-	-	-	-	-	-	-	600.03	-
p04	-	-	-	-	-	-	-	-	-	600.02	-
p05	-	-	-	-	-	-	-	-	-	600.07	-
p06	-	-	-	-	-	-	-	-	-	600.09	-
p07	-	-	-	-	-	-	-	-	-	600.02	-
p08	-	-	-	-	-	-	-	-	-	600.05	-
p09	-	-	-	-	-	-	-	-	-	600.09	-
p10	-	-	-	-	-	-	-	-	-	600.04	-
p11	-	-	-	-	-	-	-	-	-	600.06	-
p12	-	-	-	-	-	-	-	-	-	600.15	-
p13	-	-	-	-	-	-	-	-	-	600.04	-
p14	-	-	-	-	-	-	-	-	-	600.20	-
p15	-	-	-	-	-	-	-	-	-	600.19	-
p16	-	-	-	-	-	-	-	-	-	600.05	-
p17	-	-	-	-	-	-	-	-	-	600.11	-
p18	-	-	-	-	-	-	-	-	-	600.18	-
p19	-	-	-	-	-	-	-	-	-	600.07	-
p20	-	-	-	-	-	-	-	-	-	600.15	-

C.2 airport

C.2.1 airport

Table C.2 – Search Time, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-airport1-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-airport1-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-airport1-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-airport2-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-airport2-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-airport2-p2	-	-	-	-	-	-	-	-	-	0.01	0.00
p07-airport2-p2	-	-	-	-	-	-	-	-	-	0.01	0.00
p08-airport2-p3	-	-	-	-	-	-	-	-	-	0.06	0.14
p09-airport2-p4	-	-	-	-	-	-	-	-	-	0.49	1.01
p10-airport3-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p11-airport3-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p12-airport3-p2	-	-	-	-	-	-	-	-	-	0.01	0.00
p13-airport3-p2	-	-	-	-	-	-	-	-	-	0.01	0.00
p14-airport3-p3	-	-	-	-	-	-	-	-	-	0.03	0.19
p15-airport3-p3	-	-	-	-	-	-	-	-	-	0.08	0.19
p16-airport3-p4	-	-	-	-	-	-	-	-	-	0.44	8.82
p17-airport3-p5	-	-	-	-	-	-	-	-	-	3.81	84.50
p18-airport3-p6	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	25.52	25.84	?
p19-airport3-p6	-	-	-	-	-	-	-	-	-	4.06	89.08
p20-airport3-p7	21600.00	-	21600.00	21600.00	-	21600.00	147.90	37.87	38.86	39.42	?
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	0.25	0.24
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	4.30	44.65
p23-airport4halfMUC-p4	3.66	3.02	4.28	4.34	4.20	5.48	5.07	5.01	5.60	5.41	?
p24-airport4halfMUC-p4	2.52	2.42	2.55	2.87	2.79	2.90	3.27	3.29	3.31	3.49	?
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	600.02	-
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	600.03	-
p27-airport4halfMUC-p6	13.06	12.94	13.77	21600.00	-	55.88	55.01	54.11	55.34	57.28	?
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	600.04	-
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	600.06	-
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	600.06	-
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	600.07	-
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	600.08	-
p33-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	600.08	-
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	600.10	-
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	600.13	-
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	0.41	1.01
p37-airport5MUC-p3	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	82.11	86.31	?
p38-airport5MUC-p3	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	112.06	107.75	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	600.02	-
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	600.02	-
p41-airport5MUC-p4	-	-	-	-	-	-	-	-	-	600.02	-
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	600.03	-
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	600.03	-
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	600.02	-
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	600.04	-
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	600.05	-
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	600.09	-
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	600.15	-
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	600.17	-
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	600.40	-

C.3 barman

C.3.1 barman-opt11-strips

Table C.3 – Search Time, barman, barman-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
pfile01-001	-	-	-	-	-	-	-	-	-	125.88	26.28
pfile01-002	-	-	-	-	-	-	-	-	-	112.94	27.06
pfile01-003	-	-	-	-	-	-	-	-	-	113.83	26.85
pfile01-004	-	-	-	-	-	-	-	-	-	112.88	26.71
pfile02-005	-	-	-	-	-	-	-	-	-	600.00	-
pfile02-006	-	-	-	-	-	-	-	-	-	600.00	-
pfile02-007	-	-	-	-	-	-	-	-	-	600.00	-
pfile02-008	-	-	-	-	-	-	-	-	-	600.00	-
pfile03-009	-	-	-	-	-	-	-	-	-	600.00	-
pfile03-010	-	-	-	-	-	-	-	-	-	600.00	-
pfile03-011	-	-	-	-	-	-	-	-	-	600.00	-
pfile03-012	-	-	-	-	-	-	-	-	-	600.00	-
pfile04-013	-	-	-	-	-	-	-	-	-	600.00	-
pfile04-014	-	-	-	-	-	-	-	-	-	600.00	-
pfile04-015	-	-	-	-	-	-	-	-	-	600.00	-
pfile04-016	-	-	-	-	-	-	-	-	-	600.00	-
pfile05-017	-	-	-	-	-	-	-	-	-	600.00	-
pfile05-018	-	-	-	-	-	-	-	-	-	600.00	-
pfile05-019	-	-	-	-	-	-	-	-	-	600.00	-
pfile05-020	-	-	-	-	-	-	-	-	-	600.00	-

C.3.2 barman-opt14-strips

Table C.4 – Search Time, barman, barman-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p435-1	-	-	-	-	-	-	-	-	-	600.00	-
p435-2	-	-	-	-	-	-	-	-	-	600.00	-
p435-3	-	-	-	-	-	-	-	-	-	600.00	-
p536-1	-	-	-	-	-	-	-	-	-	600.00	-
p536-2	-	-	-	-	-	-	-	-	-	600.00	-
p536-3	-	-	-	-	-	-	-	-	-	600.00	-
p638-1	-	-	-	-	-	-	-	-	-	600.00	-
p638-2	-	-	-	-	-	-	-	-	-	600.00	-
p638-3	-	-	-	-	-	-	-	-	-	600.00	-
p739-1	-	-	-	-	-	-	-	-	-	600.00	-
p739-2	-	-	-	-	-	-	-	-	-	600.00	-
p739-3	-	-	-	-	-	-	-	-	-	600.00	-
p839-1	-	-	-	-	-	-	-	-	-	600.00	-
p839-2	-	-	-	-	-	-	-	-	-	600.00	-

C.4 blocks

C.4.1 blocks

Table C.5 – Search Time, blocks, blocks

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probBLOCKS-10-0	32.55	30.82	28.86	28.77	26.03	29.83	29.96	28.69	30.11	28.59	?
probBLOCKS-10-1	4.46	4.33	4.45	4.15	2.35	4.35	4.28	4.07	4.19	4.31	?
probBLOCKS-10-2	12.75	12.03	12.91	12.70	6.21	12.17	12.49	10.86	12.07	12.53	?
probBLOCKS-11-0	12.14	11.22	12.22	11.47	5.42	11.60	11.34	9.70	11.50	11.43	?
probBLOCKS-11-1	13.81	13.09	13.54	13.00	6.10	13.10	13.02	11.68	13.69	13.41	?
probBLOCKS-11-2	10.68	11.15	11.85	9.64	4.53	9.68	9.73	8.46	9.68	9.74	?
probBLOCKS-12-0	14.99	14.05	15.28	14.35	6.96	14.22	14.11	12.21	14.19	14.61	?
probBLOCKS-12-1	1.73	1.63	1.48	1.42	0.79	1.46	1.44	1.33	1.44	1.50	?
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	600.00	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	600.00	-
probBLOCKS-14-0	44.92	44.19	45.37	43.81	20.90	43.11	43.31	38.03	43.10	45.29	?
probBLOCKS-14-1	86.61	83.80	87.24	87.49	40.64	86.01	89.00	78.24	85.99	89.46	?
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	600.00	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	600.00	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	600.00	-
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	600.00	-
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	600.00	-
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	0.00	0.01
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	0.00	0.01
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	0.01	0.02
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	0.00	0.12
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	0.05	0.17
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	0.01	0.17
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	0.01	1.66
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	0.06	2.00
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	0.00	1.18
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	1.20	26.74
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	0.03	21.41
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	0.06	19.52

C.5 childsnack

C.5.1 childsnack-opt14-strips

Table C.6 – Search Time, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
child-snack_pfile01	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile02	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile03	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile04	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile05	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile06	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile07	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile08	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile09	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile10	-	-	-	-	-	-	-	-	-	600.00	-
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	600.00	-

C.6 data

C.6.1 data-network-opt18-strips

Table C.7 – Search Time, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.01	0.04
p02	-	-	-	-	-	-	-	-	-	0.08	0.03
p03	0.04	0.04	0.05	0.04	0.04	0.05	0.04	0.04	0.05	0.04	?
p04	21600.00	-	21600.00	6047.16	7.68	17.40	151.62	13.64	17.82	16.01	?
p05	2.11	2.01	1.73	0.79	0.43	0.73	0.73	0.73	0.74	0.73	?
p06	-	-	-	-	-	-	-	-	-	600.00	-
p07	-	-	-	-	-	-	-	-	-	600.00	-
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	1.14	0.26
p10	21600.00	-	21600.00	1240.14	575.03	8.90	11.67	7.90	8.90	9.21	?
p11	-	-	-	-	-	-	-	-	-	0.02	0.04
p12	0.04	0.02	0.03	0.04	0.04	0.03	0.04	0.04	0.03	0.04	?
p13	0.40	0.38	0.41	0.35	0.23	0.34	0.34	0.34	0.34	0.35	?
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	0.01	27.99
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	33.66	30.60	38.64	22.60	11.98	22.46	22.37	19.74	22.34	23.12	?
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-

C.7 depot

C.7.1 depot

Table C.8 – Search Time, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.02	0.07
p03	-	-	-	-	-	-	-	-	-	8.74	16.66
p04	21600.00	-	8267.61	290.65	75.09	168.13	176.36	140.15	167.71	168.80	?
p05	-	-	-	-	-	-	-	-	-	600.00	-
p06	-	-	-	-	-	-	-	-	-	600.00	-
p07	-	-	-	-	-	-	-	-	-	5.79	42.90
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	3631.38	3590.41	6728.08	124.19	39.69	83.37	131.66	68.80	82.82	83.41	?
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	-	-	-	-	-	-	-	-	-	600.00	-
p13	495.19	583.06	1130.90	122.76	7.86	16.79	114.21	14.32	16.65	17.08	?
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-
p21	-	-	-	-	-	-	-	-	-	600.00	-
p22	-	-	-	-	-	-	-	-	-	600.02	-

C.8 driverlog

C.8.1 driverlog

Table C.9 – Search Time, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.31	0.25
p03	-	-	-	-	-	-	-	-	-	0.00	0.06
p04	-	-	-	-	-	-	-	-	-	0.16	6.24
p05	-	-	-	-	-	-	-	-	-	0.10	33.78
p06	-	-	-	-	-	-	-	-	-	0.03	3.34
p07	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	?
p08	720.11	569.94	1048.41	57.50	14.70	32.91	49.53	27.47	33.28	33.41	?
p09	21.57	17.62	28.14	2.97	1.02	2.27	2.56	1.90	2.26	2.28	?
p10	0.06	0.06	0.05	0.04	0.02	0.03	0.03	0.03	0.03	0.04	?
p11	0.39	0.39	0.15	0.11	0.05	0.10	0.11	0.09	0.10	0.11	?
p12	-	-	-	-	-	-	-	-	-	600.00	?
p13	135.26	130.20	171.16	31.47	12.29	27.86	29.32	23.16	27.83	28.40	?
p14	201.30	198.47	313.67	77.06	31.33	68.31	72.54	58.94	67.77	69.95	?
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.01	-
p20	-	-	-	-	-	-	-	-	-	600.01	-

C.9 elevators

C.9.1 elevators-opt08-strips

Table C.10 – Search Time, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.08	0.27
p02	-	-	-	-	-	-	-	-	-	0.02	0.24
p03	-	-	-	-	-	-	-	-	-	0.98	8.94
p04	-	-	-	-	-	-	-	-	-	1.93	18.89
p05	21600.00	-	21600.00	21600.00	-	12.81	21600.00	-	12.83	12.99	?
p06	21600.00	-	21600.00	21600.00	-	19.70	21600.00	-	19.83	20.52	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	21600.00	-	21600.00	21600.00	-	194.10	21600.00	-	193.92	201.48	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	0.27	1.99
p12	-	-	-	-	-	-	-	-	-	1.11	3.06
p13	-	-	-	-	-	-	-	-	-	1.99	27.80
p14	21600.00	-	6.45	21600.00	-	6.39	21600.00	-	6.50	6.55	?
p15	21600.00	-	21600.00	21600.00	-	3.81	21600.00	-	3.80	3.95	?
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	21600.00	-	21600.00	21600.00	-	426.04	21600.00	-	430.80	435.51	?
p18	21600.00	-	79.66	21600.00	-	80.64	21600.00	-	79.47	81.37	?
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-
p21	-	-	-	-	-	-	-	-	-	0.84	2.78
p22	-	-	-	-	-	-	-	-	-	12.15	39.64
p23	21600.00	-	21600.00	21600.00	-	73.93	21600.00	-	74.44	75.52	?
p24	21600.00	-	43.12	21600.00	-	43.38	21600.00	-	43.42	44.19	?
p25	21600.00	-	21600.00	21600.00	-	18.93	21600.00	-	19.22	19.23	?
p26	21600.00	-	31.19	21600.00	-	31.15	21600.00	-	31.54	32.59	?
p27	21600.00	-	21600.00	21600.00	-	397.72	21600.00	-	392.38	401.61	?
p28	-	-	-	-	-	-	-	-	-	600.00	-
p29	-	-	-	-	-	-	-	-	-	600.00	-
p30	-	-	-	-	-	-	-	-	-	600.00	-

C.9.2 elevators-opt11-strips

Table C.11 – Search Time, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.27	1.82
p02	-	-	-	-	-	-	-	-	-	0.85	2.82
p03	-	-	-	-	-	-	-	-	-	1.10	3.02
p04	-	-	-	-	-	-	-	-	-	0.97	9.02
p05	-	-	-	-	-	-	-	-	-	1.98	28.31
p06	-	-	-	-	-	-	-	-	-	1.94	18.98
p07	21600.00	-	31.36	21600.00	-	31.35	21600.00	-	31.33	31.95	?
p08	21600.00	-	21600.00	21600.00	-	12.83	21600.00	-	12.81	13.00	?
p09	-	-	-	-	-	-	-	-	-	12.14	38.93
p10	21600.00	-	6.40	21600.00	-	6.41	21600.00	-	6.45	6.58	?
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	21600.00	-	21600.00	21600.00	-	19.82	21600.00	-	19.87	20.39	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	21600.00	-	21600.00	21600.00	-	192.28	21600.00	-	192.71	200.01	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	21600.00	-	21600.00	21600.00	-	3.79	21600.00	-	3.79	3.89	?
p17	21600.00	-	21600.00	21600.00	-	430.84	21600.00	-	426.40	442.50	?
p18	21600.00	-	79.83	21600.00	-	79.33	21600.00	-	79.40	82.06	?
p19	21600.00	-	21600.00	21600.00	-	74.61	21600.00	-	74.05	75.93	?
p20	21600.00	-	43.33	21600.00	-	43.28	21600.00	-	43.93	44.13	?

C.10 floortile

C.10.1 floortile-opt11-strips

Table C.12 – Search Time, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
opt-p01-001	0.95	0.91	6.70	0.39	0.17	0.37	0.36	0.30	0.37	0.36	?
opt-p01-002	0.29	0.28	2.86	0.16	0.07	0.16	0.16	0.13	0.16	0.16	?
opt-p02-003	7206.99	7377.24	21600.00	91.64	66.27	400.54	31.25	25.52	32.35	31.35	?
opt-p02-004	935.79	1152.99	6586.93	18.01	5.47	12.72	12.18	10.25	12.56	12.45	?
opt-p03-005	574.28	689.81	13398.40	38.74	14.49	31.69	31.13	26.13	31.39	31.66	?
opt-p03-006	2292.35	2268.94	19291.30	75.96	22.77	50.36	49.79	41.59	50.01	50.08	?
opt-p04-007	21600.00	-	21600.00	779.42	243.86	545.60	528.02	438.11	548.18	537.96	?
opt-p04-008	-	-	-	-	-	-	-	-	-	600.00	-
opt-p05-009	-	-	-	-	-	-	-	-	-	600.00	-
opt-p05-010	-	-	-	-	-	-	-	-	-	600.00	-
opt-p06-011	-	-	-	-	-	-	-	-	-	600.00	-
opt-p06-012	-	-	-	-	-	-	-	-	-	600.00	-
opt-p07-013	-	-	-	-	-	-	-	-	-	600.00	-
opt-p07-014	-	-	-	-	-	-	-	-	-	600.00	-
opt-p08-015	-	-	-	-	-	-	-	-	-	600.00	-
opt-p08-016	-	-	-	-	-	-	-	-	-	600.00	-
opt-p09-017	-	-	-	-	-	-	-	-	-	600.00	-
opt-p09-018	-	-	-	-	-	-	-	-	-	600.00	-
opt-p10-019	-	-	-	-	-	-	-	-	-	600.00	-
opt-p10-020	-	-	-	-	-	-	-	-	-	600.00	-

C.10.2 floortile-opt14-strips

Table C.13 – Search Time, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-4-3-2	2338.69	2128.80	21600.00	27.82	25.18	183.45	18.86	15.47	19.53	19.13	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	600.00	-
p01-5-3-2	17005.80	15462.70	21600.00	152.31	42.67	94.39	91.73	76.62	94.38	91.76	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	600.00	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	600.00	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	600.00	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	600.00	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	600.00	-
p02-5-3-2	21600.00	-	21600.00	226.22	201.60	1097.29	134.72	111.05	139.21	134.91	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	600.00	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	600.00	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	600.00	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	600.00	-
p03-4-3-2	2295.84	2119.59	21600.00	46.29	40.30	283.45	26.59	21.81	27.54	26.87	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	600.00	-
p03-5-3-2	21600.00	-	21600.00	235.52	207.82	1063.30	139.39	116.29	145.80	139.50	?
p03-5-4-2	-	-	-	-	-	-	-	-	-	600.00	-
p03-5-5-2	-	-	-	-	-	-	-	-	-	600.00	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	600.00	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	600.00	-

C.11 freecell

C.11.1 freecell

Table C.14 – Search Time, freecell, freecell

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.05	0.01
p02	-	-	-	-	-	-	-	-	-	5.45	0.67
p03	-	-	-	-	-	-	-	-	-	33.32	5.17
p04	-	-	-	-	-	-	-	-	-	62.33	18.16
p05	21600.00	-	21600.00	2024.14	108.08	189.41	195.99	191.12	186.74	202.43	?
p06	-	-	-	-	-	-	-	-	-	600.00	-
p07	-	-	-	-	-	-	-	-	-	600.00	-
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	-	-	-	-	-	-	-	-	-	600.00	-
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	-	-	-	-	-	-	-	-	-	600.00	-
p13	-	-	-	-	-	-	-	-	-	600.00	-
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.01	-
p16	-	-	-	-	-	-	-	-	-	600.01	-
p17	-	-	-	-	-	-	-	-	-	600.01	-
p18	-	-	-	-	-	-	-	-	-	600.01	-
p19	-	-	-	-	-	-	-	-	-	600.02	-
p20	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-10-1	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-10-2	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-10-3	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-10-4	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-10-5	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-11-1	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-11-2	-	-	-	-	-	-	-	-	-	600.01	?
probfreecell-11-3	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-11-4	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-11-5	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-12-1	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-12-2	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-12-3	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-12-4	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-12-5	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-13-1	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-13-2	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-13-3	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-13-4	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-13-5	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-2-1	-	-	-	-	-	-	-	-	-	0.71	0.03
probfreecell-2-2	-	-	-	-	-	-	-	-	-	0.50	0.03
probfreecell-2-3	-	-	-	-	-	-	-	-	-	0.41	0.03
probfreecell-2-4	-	-	-	-	-	-	-	-	-	0.50	0.04
probfreecell-2-5	-	-	-	-	-	-	-	-	-	0.87	0.03
probfreecell-3-1	-	-	-	-	-	-	-	-	-	188.28	4.81
probfreecell-3-2	-	-	-	-	-	-	-	-	-	126.06	4.30
probfreecell-3-3	-	-	-	-	-	-	-	-	-	99.07	4.21
probfreecell-3-4	-	-	-	-	-	-	-	-	-	109.58	5.21
probfreecell-3-5	-	-	-	-	-	-	-	-	-	155.05	4.78
probfreecell-4-1	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-4-2	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-4-3	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-4-4	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-4-5	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-5-1	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-5-2	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-5-3	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-5-4	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-5-5	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-6-1	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-6-2	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-6-3	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-6-4	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-6-5	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-7-1	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-7-2	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-7-3	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-7-4	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-7-5	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-8-1	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-8-2	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-8-3	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-8-4	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-8-5	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-9-1	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-9-2	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-9-3	-	-	-	-	-	-	-	-	-	600.00	-
probfreecell-9-4	-	-	-	-	-	-	-	-	-	600.01	-
probfreecell-9-5	-	-	-	-	-	-	-	-	-	600.00	-

C.12 ged

C.12.1 ged-opt14-strips

Table C.15 – Search Time, ged, ged-opt14-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
d-1-2	-	-	-	-	-	-	-	-	-	0.00	0.00
d-1-3	-	-	-	-	-	-	-	-	-	2.05	1.18
d-1-4	-	-	-	-	-	-	-	-	-	0.00	0.00
d-1-8	-	-	-	-	-	-	-	-	-	9.92	16.29
d-2-1	-	-	-	-	-	-	-	-	-	0.00	0.00
d-2-3	-	-	-	-	-	-	-	-	-	0.07	0.11
d-2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
d-2-8	-	-	-	-	-	-	-	-	-	?	-
d-3-1	-	-	-	-	-	-	-	-	-	1.95	1.16
d-3-2	-	-	-	-	-	-	-	-	-	0.07	0.11
d-3-4	138.59	126.89	169.06	83.28	35.50	69.34	73.08	61.76	70.57	72.18	?
d-4-2	-	-	-	-	-	-	-	-	-	0.00	0.00
d-4-3	97.99	91.20	171.37	84.97	38.60	70.38	76.42	64.41	70.01	74.12	?
d-4-8	-	-	-	-	-	-	-	-	-	?	-
d-7-5	22.21	21.02	55.66	64.85	60.05	75.12	70.34	68.29	75.04	10.16	?
d-7-6	-	-	-	-	-	-	-	-	-	2.35	3.65
d-8-1	-	-	-	-	-	-	-	-	-	9.95	16.05
d-8-2	-	-	-	-	-	-	-	-	-	?	-
d-8-4	-	-	-	-	-	-	-	-	-	?	-
d-8-9	-	-	-	-	-	-	-	-	-	?	-

C.13 grid

C.13.1 grid

Table C.16 – Search Time, grid, grid

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	0.04	0.02
prob02	126.33	126.88	126.61	127.81	60.13	126.11	125.09	105.79	124.02	127.18	?
prob03	-	-	-	-	-	-	-	-	-	600.00	-
prob04	-	-	-	-	-	-	-	-	-	600.00	-
prob05	-	-	-	-	-	-	-	-	-	600.01	-

C.14 gripper

C.14.1 gripper

Table C.17 – Search Time, gripper, gripper

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	-	-	-	-	-	-	-	-	-	0.01	0.00
prob03	-	-	-	-	-	-	-	-	-	0.13	0.03
prob04	-	-	-	-	-	-	-	-	-	0.96	0.20
prob05	-	-	-	-	-	-	-	-	-	6.85	1.23
prob06	-	-	-	-	-	-	-	-	-	46.41	6.97
prob07	-	-	-	-	-	-	-	-	-	271.84	36.75
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	600.00	-
prob10	-	-	-	-	-	-	-	-	-	600.00	-
prob11	-	-	-	-	-	-	-	-	-	600.00	-
prob12	-	-	-	-	-	-	-	-	-	600.00	-
prob13	-	-	-	-	-	-	-	-	-	600.00	-
prob14	-	-	-	-	-	-	-	-	-	600.00	-
prob15	-	-	-	-	-	-	-	-	-	600.00	-
prob16	-	-	-	-	-	-	-	-	-	600.00	-
prob17	-	-	-	-	-	-	-	-	-	600.00	-
prob18	-	-	-	-	-	-	-	-	-	600.00	-
prob19	-	-	-	-	-	-	-	-	-	600.00	-
prob20	-	-	-	-	-	-	-	-	-	600.00	-

C.15 hiking

C.15.1 hiking-opt14-strips

Table C.18 – Search Time, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	0.01	0.00
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	0.06	0.01
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	0.34	0.04
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	4.81	0.32
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	14.97	0.73
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	0.83	0.43
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	64.69	13.16
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	600.00	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	600.00	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	600.00	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	600.00	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	326.03	62.53
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	600.00	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	600.00	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	600.00	-
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	8.12	4.10
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	600.00	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	600.00	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	600.00	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	600.00	-

C.16 logistics

C.16.1 logistics00

Table C.19 – Search Time, logistics, logistics00

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probLOGISTICS-10-0	21600.00	-	21600.00	21600.00	-	52.27	21600.00	-	52.78	52.73	?
probLOGISTICS-10-1	21600.00	-	21600.00	21600.00	-	44.24	21600.00	-	44.40	45.59	?
probLOGISTICS-11-0	21600.00	-	21600.00	21600.00	-	64.75	21600.00	-	64.58	65.44	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	600.00	-
probLOGISTICS-12-0	21600.00	-	21600.00	21600.00	-	47.47	21600.00	-	48.04	48.73	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	600.00	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	600.00	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	600.00	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	600.00	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	600.00	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	600.00	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	600.00	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	0.00	0.04
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	0.00	0.03
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	0.00	0.01
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	0.03	0.45
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	0.01	0.09
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	0.04	2.11
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	0.00	0.12
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	0.03	2.11
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	0.02	1.91
probLOGISTICS-7-0	21600.00	-	21600.00	3426.62	0.38	0.86	1418.32	0.73	0.86	0.85	?
probLOGISTICS-7-1	21600.00	-	21600.00	21600.00	-	14.24	16987.90	10.98	14.01	14.12	?
probLOGISTICS-8-0	19889.00	19324.20	21600.00	458.75	0.17	0.39	295.45	0.34	0.39	0.40	?
probLOGISTICS-8-1	21600.00	-	21600.00	21600.00	-	6.02	13624.00	5.03	6.05	6.16	?
probLOGISTICS-9-0	21600.00	-	21600.00	13258.80	0.97	2.29	15813.10	1.91	2.27	2.33	?
probLOGISTICS-9-1	21600.00	-	21020.80	21600.00	-	0.14	21600.00	-	0.14	0.14	?

C.16.2 logistics98

Table C.20 – Search Time, logistics, logistics98

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	21600.00	-	21600.00	7649.72	2.05	4.81	7466.13	4.02	4.80	4.97	?
prob02	-	-	-	-	-	-	-	-	-	600.00	-
prob03	-	-	-	-	-	-	-	-	-	600.00	-
prob04	-	-	-	-	-	-	-	-	-	600.00	-
prob05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	?
prob06	-	-	-	-	-	-	-	-	-	600.00	-
prob07	-	-	-	-	-	-	-	-	-	600.00	-
prob08	-	-	-	-	-	-	-	-	-	600.00	-
prob09	-	-	-	-	-	-	-	-	-	600.00	-
prob10	-	-	-	-	-	-	-	-	-	600.00	-
prob11	-	-	-	-	-	-	-	-	-	600.00	-
prob12	-	-	-	-	-	-	-	-	-	600.00	-
prob13	-	-	-	-	-	-	-	-	-	600.01	-
prob14	-	-	-	-	-	-	-	-	-	600.01	-
prob15	-	-	-	-	-	-	-	-	-	600.00	-
prob16	-	-	-	-	-	-	-	-	-	600.00	-
prob17	-	-	-	-	-	-	-	-	-	600.00	-
prob18	-	-	-	-	-	-	-	-	-	600.03	-
prob19	-	-	-	-	-	-	-	-	-	600.02	-
prob20	-	-	-	-	-	-	-	-	-	600.02	-
prob21	-	-	-	-	-	-	-	-	-	600.01	-
prob22	-	-	-	-	-	-	-	-	-	600.24	-
prob23	-	-	-	-	-	-	-	-	-	600.00	-
prob24	-	-	-	-	-	-	-	-	-	600.00	-
prob25	-	-	-	-	-	-	-	-	-	600.06	-
prob26	-	-	-	-	-	-	-	-	-	600.05	-
prob27	-	-	-	-	-	-	-	-	-	600.03	-
prob28	-	-	-	-	-	-	-	-	-	601.13	-
prob29	-	-	-	-	-	-	-	-	-	600.39	-
prob30	-	-	-	-	-	-	-	-	-	600.04	-
prob31	-	-	-	-	-	-	-	-	-	0.01	1.24
prob32	-	-	-	-	-	-	-	-	-	0.01	1.37
prob33	21600.00	-	21600.00	21600.00	-	30.57	21600.00	-	30.75	31.49	?
prob34	-	-	-	-	-	-	-	-	-	600.00	-
prob35	8772.29	0.32	3.87	11268.30	1.72	3.89	2937.63	3.41	3.91	4.00	?

C.17 miconic

C.17.1 miconic

Table C.21 – Search Time, miconic, miconic

	10% $A^*_{+IDA^*}$	10% $A^*_{+IDA^*}\uparrow$	10% $PEA^*_{+IDA^*}$	50% $A^*_{+IDA^*}$	50% $A^*_{+IDA^*}\uparrow$	50% $PEA^*_{+IDA^*}$	90% $A^*_{+IDA^*}$	90% $A^*_{+IDA^*}\uparrow$	90% $PEA^*_{+IDA^*}$	100% A^*	100% Blind A^*
s1-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s10-0	-	-	-	-	-	-	-	-	-	0.02	128.73
s10-1	-	-	-	-	-	-	-	-	-	0.03	131.46
s10-2	-	-	-	-	-	-	-	-	-	0.03	122.42
s10-3	-	-	-	-	-	-	-	-	-	0.02	131.47
s10-4	-	-	-	-	-	-	-	-	-	0.02	129.68
s11-0	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	?
s11-1	0.03	0.03	0.02	0.02	0.02	0.03	0.03	0.02	0.03	0.03	?
s11-2	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	?
s11-3	21600.00	-	21600.00	21600.00	-	6.38	21600.00	-	6.54	6.53	?
s11-4	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	?
s12-0	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.03	0.04	0.04	?
s12-1	0.03	0.03	0.03	0.04	0.04	0.05	0.05	0.05	0.05	0.05	?
s12-2	0.03	0.03	0.05	0.05	0.05	0.06	0.05	0.04	0.06	0.05	?
s12-3	0.04	0.04	0.05	0.04	0.04	0.05	0.05	0.05	0.05	0.05	?
s12-4	0.05	0.05	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.03	?
s13-0	0.06	0.06	0.05	0.06	0.06	0.07	0.07	0.07	0.07	0.07	?
s13-1	21600.00	-	18.97	21600.00	-	18.52	21600.00	-	18.55	19.12	?
s13-2	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.06	0.07	0.07	?
s13-3	0.05	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	?
s13-4	0.06	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.07	?
s14-0	0.10	0.09	0.12	0.08	0.08	0.07	0.08	0.07	0.08	0.08	?
s14-1	0.17	0.16	0.11	0.08	0.08	0.10	0.10	0.09	0.10	0.10	?
s14-2	0.17	0.16	0.18	0.21	0.20	0.18	0.17	0.17	0.18	0.18	?
s14-3	0.10	0.10	0.09	0.08	0.07	0.09	0.09	0.09	0.09	0.09	?
s14-4	0.08	0.07	0.12	0.12	0.11	0.13	0.13	0.13	0.13	0.13	?
s15-0	0.10	0.09	0.13	0.13	0.12	0.14	0.14	0.13	0.14	0.14	?
s15-1	0.12	0.11	0.30	0.23	0.22	0.30	0.30	0.28	0.30	0.31	?
s15-2	0.22	0.21	0.12	0.15	0.14	0.17	0.17	0.16	0.17	0.17	?
s15-3	0.10	0.10	0.20	0.18	0.17	0.21	0.21	0.21	0.22	0.22	?
s15-4	0.16	0.15	0.22	0.19	0.18	0.22	0.22	0.21	0.22	0.23	?
s16-0	0.20	0.19	0.22	0.18	0.17	0.15	0.15	0.14	0.15	0.15	?
s16-1	0.16	0.16	0.15	0.15	0.14	0.15	0.14	0.14	0.14	0.14	?
s16-2	0.18	0.17	0.16	0.19	0.18	0.22	0.22	0.21	0.22	0.22	?
s16-3	0.19	0.17	0.46	0.34	0.33	0.44	0.44	0.42	0.45	0.44	?
s16-4	0.22	0.21	0.18	0.19	0.17	0.21	0.21	0.19	0.21	0.19	?
s17-0	0.27	0.26	0.36	0.32	0.30	0.37	0.38	0.36	0.38	0.38	?
s17-1	0.41	0.39	0.43	0.39	0.37	0.43	0.46	0.41	0.43	0.45	?
s17-2	0.30	0.28	0.36	0.33	0.31	0.35	0.35	0.34	0.36	0.36	?
s17-3	0.16	0.15	0.15	0.15	0.14	0.16	0.16	0.15	0.16	0.16	?
s17-4	21600.00	-	187.13	21600.00	-	182.74	21600.00	-	183.05	183.59	?
s18-0	0.67	0.65	0.52	0.47	0.44	0.54	0.53	0.51	0.54	0.55	?
s18-1	0.47	0.45	0.55	0.45	0.41	0.55	0.56	0.51	0.55	0.57	?
s18-2	0.46	0.42	0.55	0.52	0.49	0.58	0.57	0.55	0.58	0.58	?
s18-3	0.38	0.36	0.32	0.32	0.30	0.36	0.35	0.33	0.39	0.37	?
s18-4	0.19	0.18	0.38	0.31	0.30	0.38	0.37	0.35	0.37	0.38	?
s19-0	0.68	0.68	0.50	0.54	0.51	0.55	0.57	0.51	0.55	0.55	?
s19-1	0.39	0.39	0.55	0.54	0.50	0.59	0.62	0.57	0.59	0.61	?
s19-2	-	-	-	-	-	-	-	-	-	600.00	-
s19-3	0.79	0.76	0.54	0.57	0.56	0.59	0.59	0.55	0.59	0.60	?
s19-4	0.41	0.39	0.49	0.52	0.49	0.56	0.55	0.53	0.57	0.56	?
s2-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s20-0	-	-	-	-	-	-	-	-	-	600.00	-
s20-1	0.58	0.57	0.45	0.42	0.39	0.43	0.43	0.40	0.43	0.44	?
s20-2	1.33	1.27	2.81	2.44	2.25	2.75	3.00	2.92	2.87	2.76	?
s20-3	0.50	0.48	1.03	0.89	0.85	1.05	1.05	1.04	1.03	1.08	?
s20-4	1.15	1.00	0.76	0.82	0.77	0.75	0.72	0.69	0.75	0.73	?
s21-0	0.70	0.67	1.15	1.07	0.99	1.17	1.15	1.15	1.18	1.22	?
s21-1	0.72	0.69	0.70	0.66	0.65	0.71	0.72	0.66	0.69	0.73	?
s21-2	0.93	0.92	0.64	0.44	0.43	0.48	0.47	0.46	0.50	0.48	?
s21-3	0.94	0.92	0.71	0.63	0.58	0.75	0.71	0.67	0.71	0.76	?
s21-4	0.75	0.72	0.54	0.61	0.56	0.68	0.70	0.63	0.68	0.69	?
s22-0	1.16	1.09	1.79	1.64	1.57	1.83	1.84	1.68	1.86	1.80	?
s22-1	1.58	1.48	1.77	1.87	1.79	1.70	1.74	1.75	1.80	1.84	?
s22-2	0.83	0.83	2.25	1.77	1.77	2.25	2.20	2.32	2.16	2.34	?
s22-3	0.84	0.74	0.79	0.57	0.52	0.63	0.62	0.56	0.60	0.63	?
s22-4	0.92	0.88	1.03	0.85	0.85	0.97	1.04	0.98	0.98	1.00	?
s23-0	0.67	0.66	1.34	1.18	1.07	1.51	1.40	1.36	1.39	1.44	?
s23-1	-	-	-	-	-	-	-	-	-	600.00	-
s23-2	2.44	2.27	1.51	1.62	1.64	1.55	1.46	1.44	1.56	1.56	?
s23-3	-	-	-	-	-	-	-	-	-	600.00	-
s23-4	1.35	1.32	1.71	1.54	1.49	1.76	1.79	1.78	1.68	1.68	?
s24-0	1.35	1.27	2.36	2.22	2.21	2.23	2.35	2.21	2.35	2.28	?
s24-1	1.87	1.86	2.30	2.63	2.34	2.25	2.42	2.21	2.35	2.48	?
s24-2	1.72	1.61	2.20	1.72	1.63	2.29	2.18	2.04	2.12	2.14	?
s24-3	2.02	2.13	1.62	1.57	1.50	1.58	1.53	1.57	1.55	1.72	?
s24-4	1.54	1.40	1.91	1.73	1.75	1.95	1.90	1.82	1.86	2.03	?
s25-0	1.81	1.79	3.97	3.13	2.88	4.00	4.08	3.52	3.64	4.00	?
s25-1	2.59	2.45	6.03	4.77	4.34	5.75	5.82	5.66	5.69	5.84	?
s25-2	-	-	-	-	-	-	-	-	-	600.00	-
s25-3	1.95	1.95	1.87	1.87	1.73	1.97	2.08	2.00	2.00	2.01	?
s25-4	1.28	1.19	2.84	2.20	2.17	2.76	3.01	2.65	2.75	2.89	?
s26-0	3.39	3.11	4.28	3.59	3.33	4.41	4.19	4.21	4.13	4.59	?
s26-1	-	-	-	-	-	-	-	-	-	600.00	-
s26-2	2.18	1.99	2.88	2.78	2.59	2.79	2.82	2.81	2.67	2.84	?
s26-3	3.15	3.25	5.13	4.20	4.25	5.19	5.19	4.70	4.82	5.12	?
s26-4	3.43	3.42	1.57	1.52	1.41	1.80	1.89	1.74	1.85	1.86	?
s27-0	-	-	-	-	-	-	-	-	-	600.00	-
s27-1	5.46	5.19	2.50	1.87	1.81	2.10	2.10	2.02	2.10	2.22	?
s27-2	4.41	4.26	11.21	8.51	8.44	11.83	12.08	11.13	12.12	12.27	?
s27-3	4.42	4.27	3.63	3.05	2.80	3.52	3.55	3.50	3.68	3.71	?
s27-4	2.38	2.17	6.67	5.08	4.88	6.75	6.56	6.09	6.60	6.67	?
s28-0	2.66	2.58	3.40	3.39	3.22	3.68	3.84	3.56	3.72	3.87	?
s28-1	-	-	-	-	-	-	-	-	-	600.00	-
s28-2	3.28	3.05	4.84	3.77	3.64	4.64	4.78	4.50	4.71	5.08	?
s28-3	3.74	3.66	6.71	5.44	5.08	6.64	6.79	6.69	6.88	6.75	?
s28-4	2.79	2.61	4.12	3.58	3.47	4.15	4.15	4.05	4.09	4.40	?
s29-0	3.79	3.64	3.48	3.54	3.22	3.23	3.37	3.14	3.31	3.23	?
s29-1	6.50	6.26	7.57	6.80	6.67	7.66	7.85	7.43	7.68	7.58	?
s29-2	6.36	5.88	7.88	6.30	5.96	8.03	7.93	7.36	8.16	8.31	?
s29-3	6.89	6.28	7.46	6.82	6.40	7.32	7.38	6.94	7.57	7.69	?
s29-4	5.08	4.61	7.63	5.89	5.73	7.32	7.53	7.38	7.56	8.05	?
s3-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s30-0	7.18	6.90	5.93	4.76	4.51	5.84	5.86	5.62	5.98	6.07	?
s30-1	4.76	4.70	7.84	6.07	5.85	7.77	7.87	7.47	7.99	7.99	?
s30-2	8.45	8.17	6.61	7.08	6.73	6.85	6.70	6.41	6.82	6.97	?
s30-3	-	-	-	-	-	-	-	-	-	600.00	-
s30-4	3.37	3.07	6.83	5.51	5.38	6.72	6.83	6.50	6.96	7.09	?
s4-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s4-1	-	-	-	-	-	-	-	-	-	0.00	0.01
s4-2	-	-	-	-	-	-	-	-	-	0.00	0.01
s4-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s4-4	-	-	-	-	-	-	-	-	-	0.00	0.01
s5-0	-	-	-	-	-	-	-	-	-	0.00	0.03
s5-1	-	-	-	-	-	-	-	-	-	0.00	0.03
s5-2	-	-	-	-	-	-	-	-	-	0.00	0.03
s5-3	-	-	-	-	-	-	-	-	-	0.00	0.03
s5-4	-	-	-	-	-	-	-	-	-	0.00	0.15
s6-0	-	-	-	-	-	-	-	-	-	0.00	0.15
s6-1	-	-	-	-	-	-	-	-	-	0.00	0.15
s6-2	-	-	-	-	-	-	-	-	-	0.01	0.15
s6-3	-	-	-	-	-	-	-	-	-	0.01	0.15
s6-4	-	-	-	-	-	-	-	-	-	0.00	0.17
s7-0	-	-	-	-	-	-	-	-	-	0.00	0.83
s7-1	-	-	-	-	-	-	-	-	-	0.00	0.83
s7-2	-	-	-	-	-	-	-	-	-	0.00	0.89
s7-3	-	-	-	-	-	-	-	-	-	0.00	0.83
s7-4	-	-	-	-	-	-	-	-	-	0.00	0.94
s8-0	-	-	-	-	-	-	-	-	-	0.01	4.69
s8-1	-	-	-	-	-	-	-	-	-	0.07	4.97
s8-2	-	-	-	-	-	-	-	-	-	0.01	4.35
s8-3	-	-	-	-	-	-	-	-	-	0.01	5.05
s8-4	-	-	-	-	-	-	-	-	-	0.01	5.03
s9-0	-	-	-	-	-	-	-	-	-	0.01	25.69
s9-1	-	-	-	-	-	-	-	-	-	0.01	25.62
s9-2	-	-	-	-	-	-	-	-	-	0.01	24.37
s9-3	-	-	-	-	-	-	-	-	-	0.01	27.93
s9-4	-	-	-	-	-	-	-	-	-	0.15	25.94

C.18 movie

C.18.1 movie

Table C.22 – Search Time, movie, movie

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	-	-	-	-	-	-	-	-	-	0.00	0.00
prob03	-	-	-	-	-	-	-	-	-	0.00	0.00
prob04	-	-	-	-	-	-	-	-	-	0.00	0.00
prob05	-	-	-	-	-	-	-	-	-	0.00	0.00
prob06	-	-	-	-	-	-	-	-	-	0.00	0.00
prob07	-	-	-	-	-	-	-	-	-	0.00	0.00
prob08	-	-	-	-	-	-	-	-	-	0.00	0.00
prob09	-	-	-	-	-	-	-	-	-	0.00	0.00
prob10	-	-	-	-	-	-	-	-	-	0.00	0.00
prob11	-	-	-	-	-	-	-	-	-	0.00	0.00
prob12	-	-	-	-	-	-	-	-	-	0.00	0.00
prob13	-	-	-	-	-	-	-	-	-	0.00	0.00
prob14	-	-	-	-	-	-	-	-	-	0.00	0.00
prob15	-	-	-	-	-	-	-	-	-	0.00	0.00
prob16	-	-	-	-	-	-	-	-	-	0.00	0.00
prob17	-	-	-	-	-	-	-	-	-	0.00	0.00
prob18	-	-	-	-	-	-	-	-	-	0.00	0.00
prob19	-	-	-	-	-	-	-	-	-	0.00	0.00
prob20	-	-	-	-	-	-	-	-	-	0.00	0.00
prob21	-	-	-	-	-	-	-	-	-	0.00	0.00
prob22	-	-	-	-	-	-	-	-	-	0.00	0.00
prob23	-	-	-	-	-	-	-	-	-	0.00	0.00
prob24	-	-	-	-	-	-	-	-	-	0.00	0.00
prob25	-	-	-	-	-	-	-	-	-	0.00	0.00
prob26	-	-	-	-	-	-	-	-	-	0.00	0.00
prob27	-	-	-	-	-	-	-	-	-	0.00	0.00
prob28	-	-	-	-	-	-	-	-	-	0.00	0.00
prob29	-	-	-	-	-	-	-	-	-	0.00	0.00
prob30	-	-	-	-	-	-	-	-	-	0.00	0.01

C.19 mprime

C.19.1 mprime

Table C.23 – Search Time, mprime, mprime

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	0.01	0.03
prob02	36.80	35.69	11.63	36.58	35.77	11.27	36.35	35.48	11.33	36.98	?
prob03	-	-	-	-	-	-	-	-	-	0.08	0.39
prob04	-	-	-	-	-	-	-	-	-	0.40	12.15
prob05	210.53	207.71	227.75	214.69	123.97	199.64	185.01	178.25	197.15	194.30	?
prob06	-	-	-	-	-	-	-	-	-	600.01	-
prob07	-	-	-	-	-	-	-	-	-	0.01	0.07
prob08	53.87	52.18	30.15	53.65	51.75	30.30	53.69	52.76	30.33	54.32	?
prob09	13.97	13.26	2.98	3.13	1.80	2.98	3.11	3.08	2.97	3.24	-
prob10	-	-	-	-	-	-	-	-	-	600.01	-
prob11	-	-	-	-	-	-	-	-	-	0.24	2.93
prob12	-	-	-	-	-	-	-	-	-	0.72	3.95
prob13	-	-	-	-	-	-	-	-	-	600.01	-
prob14	-	-	-	-	-	-	-	-	-	600.01	-
prob15	-	-	-	-	-	-	-	-	-	600.00	-
prob16	5.86	5.38	5.96	5.94	5.76	6.00	5.90	5.73	6.02	6.14	?
prob17	0.89	0.89	1.97	1.96	1.96	1.97	2.02	1.91	1.96	2.26	?
prob18	-	-	-	-	-	-	-	-	-	600.00	-
prob19	-	-	-	-	-	-	-	-	-	600.00	-
prob20	-	-	-	-	-	-	-	-	-	600.00	-
prob21	-	-	-	-	-	-	-	-	-	93.88	33.38
prob22	-	-	-	-	-	-	-	-	-	600.02	-
prob23	-	-	-	-	-	-	-	-	-	600.00	-
prob24	-	-	-	-	-	-	-	-	-	600.00	-
prob25	-	-	-	-	-	-	-	-	-	0.00	0.00
prob26	3.82	3.55	4.20	3.86	3.74	4.17	3.82	3.75	4.17	3.96	?
prob27	-	-	-	-	-	-	-	-	-	0.13	1.53
prob28	-	-	-	-	-	-	-	-	-	0.05	0.10
prob29	-	-	-	-	-	-	-	-	-	0.11	0.17
prob30	-	-	-	-	-	-	-	-	-	600.00	-
prob31	-	-	-	-	-	-	-	-	-	0.14	0.09
prob32	-	-	-	-	-	-	-	-	-	0.15	1.35
prob33	-	-	-	-	-	-	-	-	-	600.00	-
prob34	-	-	-	-	-	-	-	-	-	0.13	0.12
prob35	-	-	-	-	-	-	-	-	-	0.03	0.06

C.20 mystery

C.20.1 mystery

Table C.24 – Search Time, mystery, mystery

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	-	-	-	-	-	-	-	-	-	0.32	15.31
prob03	-	-	-	-	-	-	-	-	-	0.00	0.00
prob04	-	-	-	-	-	-	-	-	-	149.63	-
prob05	-	-	-	-	-	-	-	-	-	600.00	-
prob06	258.38	99.33	206.61	360.20	315.93	204.99	320.75	306.79	205.32	328.15	?
prob07	-	-	-	-	-	-	-	-	-	0.00	-
prob08	-	-	-	-	-	-	-	-	-	600.00	-
prob09	-	-	-	-	-	-	-	-	-	0.07	3.05
prob10	75.56	74.84	100.64	104.27	101.46	100.42	79.22	75.02	100.62	79.49	?
prob11	-	-	-	-	-	-	-	-	-	0.00	0.00
prob12	-	-	-	-	-	-	-	-	-	19.38	-
prob13	-	-	-	-	-	-	-	-	-	600.00	-
prob14	-	-	-	-	-	-	-	-	-	600.01	-
prob15	-	-	-	-	-	-	-	-	-	9.79	17.62
prob16	-	-	-	-	-	-	-	-	-	600.00	-
prob17	-	-	-	-	-	-	-	-	-	0.13	0.11
prob18	-	-	-	-	-	-	-	-	-	0.00	-
prob19	-	-	-	-	-	-	-	-	-	1.09	2.02
prob20	5.15	4.90	3.93	1.64	1.60	4.00	1.66	1.60	4.04	1.73	?
prob21	-	-	-	-	-	-	-	-	-	600.00	-
prob22	-	-	-	-	-	-	-	-	-	600.00	-
prob23	-	-	-	-	-	-	-	-	-	600.00	-
prob24	-	-	-	-	-	-	-	-	-	600.00	-
prob25	-	-	-	-	-	-	-	-	-	0.00	0.00
prob26	-	-	-	-	-	-	-	-	-	0.05	0.11
prob27	-	-	-	-	-	-	-	-	-	0.01	0.02
prob28	-	-	-	-	-	-	-	-	-	0.00	0.00
prob29	-	-	-	-	-	-	-	-	-	0.00	0.00
prob30	-	-	-	-	-	-	-	-	-	12.63	13.00

C.21 nomystery

C.21.1 nomystery-opt11-strips

Table C.25 – Search Time, nomystery, nomystery-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.01
p02	-	-	-	-	-	-	-	-	-	0.01	0.19
p03	-	-	-	-	-	-	-	-	-	0.01	0.51
p04	-	-	-	-	-	-	-	-	-	0.15	29.76
p05	3.19	3.38	2.71	2.70	1.49	2.72	2.71	2.45	2.70	2.73	?
p06	4.72	4.55	3.12	3.04	2.10	3.24	3.07	3.02	3.24	3.24	?
p07	92.97	89.03	86.62	84.90	40.82	84.98	85.12	73.96	84.97	87.46	?
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	-	-	-	-	-	-	-	-	-	600.00	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.01	0.04
p13	-	-	-	-	-	-	-	-	-	0.01	0.10
p14	-	-	-	-	-	-	-	-	-	0.10	5.24
p15	1.64	1.58	1.51	1.48	0.82	1.49	1.50	1.40	1.52	1.53	?
p16	2.84	2.64	1.89	1.86	1.27	1.95	1.88	1.83	1.97	1.94	?
p17	117.25	105.18	61.40	44.02	21.18	43.65	43.32	37.53	42.95	44.27	?
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-

C.22 openstacks

C.22.1 openstacks-opt08-strips

Table C.26 – Search Time, openstacks, openstacks-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	-	-
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.01	0.01
p05	-	-	-	-	-	-	-	-	-	0.03	0.02
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.53	0.25
p08	-	-	-	-	-	-	-	-	-	0.61	0.26
p09	-	-	-	-	-	-	-	-	-	0.03	0.01
p10	-	-	-	-	-	-	-	-	-	0.05	0.02
p11	-	-	-	-	-	-	-	-	-	1.12	0.40
p12	-	-	-	-	-	-	-	-	-	0.09	0.03
p13	-	-	-	-	-	-	-	-	-	5.52	1.88
p14	-	-	-	-	-	-	-	-	-	2.21	0.70
p15	-	-	-	-	-	-	-	-	-	11.69	3.30
p16	-	-	-	-	-	-	-	-	-	5.78	1.56
p17	-	-	-	-	-	-	-	-	-	7.45	2.09
p18	-	-	-	-	-	-	-	-	-	0.28	0.06
p19	-	-	-	-	-	-	-	-	-	17.67	3.72
p20	-	-	-	-	-	-	-	-	-	96.86	21.90
p21	-	-	-	-	-	-	-	-	-	9.43	2.13
p22	-	-	-	-	-	-	-	-	-	3.32	0.57
p23	-	-	-	-	-	-	-	-	-	55.86	10.43
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	37.72	6.00
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

C.22.2 openstacks-opt11-strips

Table C.27 – Search Time, openstacks, openstacks-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.53	0.25
p03	-	-	-	-	-	-	-	-	-	0.61	0.27
p04	-	-	-	-	-	-	-	-	-	0.03	0.01
p05	-	-	-	-	-	-	-	-	-	0.05	0.02
p06	-	-	-	-	-	-	-	-	-	1.16	0.41
p07	-	-	-	-	-	-	-	-	-	0.09	0.03
p08	-	-	-	-	-	-	-	-	-	5.55	1.89
p09	-	-	-	-	-	-	-	-	-	2.21	0.73
p10	-	-	-	-	-	-	-	-	-	3.10	0.55
p11	-	-	-	-	-	-	-	-	-	11.16	3.36
p12	-	-	-	-	-	-	-	-	-	5.83	1.67
p13	-	-	-	-	-	-	-	-	-	7.47	1.93
p14	-	-	-	-	-	-	-	-	-	0.28	0.06
p15	-	-	-	-	-	-	-	-	-	15.75	3.75
p16	-	-	-	-	-	-	-	-	-	9.53	2.14
p17	-	-	-	-	-	-	-	-	-	95.63	22.23
p18	-	-	-	-	-	-	-	-	-	55.16	10.31
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	37.02	5.92

C.22.3 openstacks-opt14-strips

Table C.28 – Search Time, openstacks, openstacks-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p20_1	-	-	-	-	-	-	-	-	-	12.51	3.80
p20_2	-	-	-	-	-	-	-	-	-	22.41	6.55
p20_3	-	-	-	-	-	-	-	-	-	1.63	0.39
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p35_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	600.00	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	600.00	-

C.22.4 openstacks-strips

Table C.29 – Search Time, openstacks, openstacks-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.05	0.01
p02	-	-	-	-	-	-	-	-	-	0.05	0.01
p03	-	-	-	-	-	-	-	-	-	0.04	0.01
p04	-	-	-	-	-	-	-	-	-	0.05	0.01
p05	-	-	-	-	-	-	-	-	-	0.05	0.01
p06	-	-	-	-	-	-	-	-	-	36.92	3.09
p07	-	-	-	-	-	-	-	-	-	38.71	2.97
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	-	-	-	-	-	-	-	-	-	600.00	-
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	-	-	-	-	-	-	-	-	-	600.00	-
p13	-	-	-	-	-	-	-	-	-	600.00	-
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.01	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-
p21	-	-	-	-	-	-	-	-	-	600.00	-
p22	-	-	-	-	-	-	-	-	-	600.00	-
p23	-	-	-	-	-	-	-	-	-	600.00	-
p24	-	-	-	-	-	-	-	-	-	600.06	-
p25	-	-	-	-	-	-	-	-	-	600.04	-
p26	-	-	-	-	-	-	-	-	-	600.01	-
p27	-	-	-	-	-	-	-	-	-	600.09	-
p28	-	-	-	-	-	-	-	-	-	600.88	-
p29	-	-	-	-	-	-	-	-	-	601.28	-
p30	-	-	-	-	-	-	-	-	-	600.64	-

C.23 organic

C.23.1 organic-synthesis-opt18-strips

Table C.30 – Search Time, organic, organic-synthesis-opt18-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

C.23.2 organic-synthesis-split-opt18-strips

Table C.31 – Search Time, organic, organic-synthesis-split-opt18-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.02
p02	-	-	-	-	-	-	-	-	-	0.01	0.03
p03	-	-	-	-	-	-	-	-	-	0.31	0.70
p04	-	-	-	-	-	-	-	-	-	0.19	26.65
p05	-	-	-	-	-	-	-	-	-	1.17	5.79
p06	0.88	0.86	0.88	1.08	1.09	1.09	1.13	1.12	1.12	1.17	?
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	107.98	159.36	104.81	100.95	102.21	104.38	100.20	124.66	102.84	209.84	?
p09	-	-	-	-	-	-	-	-	-	0.05	0.22
p10	-	-	-	-	-	-	-	-	-	0.07	0.35
p11	144.08	140.62	143.01	145.32	142.47	142.77	145.08	52.10	148.99	156.42	?
p12	89.41	89.14	89.47	88.94	88.19	90.03	87.70	107.01	90.39	90.82	?
p13	372.70	390.37	363.38	369.61	127.53	372.25	364.11	141.00	369.50	399.40	?
p14	-	-	-	-	-	-	-	-	-	0.30	1.30
p15	-	-	-	-	-	-	-	-	-	600.70	-
p16	166.59	203.62	165.61	166.73	164.32	168.07	155.80	149.81	150.97	195.34	?
p17	-	-	-	-	-	-	-	-	-	601.19	-
p18	-	-	-	-	-	-	-	-	-	601.24	-
p19	-	-	-	-	-	-	-	-	-	600.20	-
p20	-	-	-	-	-	-	-	-	-	600.64	-

C.24 parcprinter

C.24.1 parcprinter-08-strips

Table C.32 – Search Time, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.01
p03	-	-	-	-	-	-	-	-	-	0.00	0.02
p04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	?
p05	7.51	7.34	0.83	0.36	0.05	0.07	0.19	0.06	0.07	0.07	?
p06	21600.00	-	21600.00	21600.00	-	11.57	21600.00	-	11.58	11.84	?
p07	-	-	-	-	-	-	-	-	-	600.00	-
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	-	-	-	-	-	-	-	-	-	600.00	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.02	0.03
p13	-	-	-	-	-	-	-	-	-	0.78	10.16
p14	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	49.49	49.32	?
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.01
p23	-	-	-	-	-	-	-	-	-	0.00	2.39
p24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	?
p25	21600.00	-	21600.00	21600.00	-	6.62	21600.00	-	6.61	6.76	?
p26	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	?
p27	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	?
p28	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	?
p29	-	-	-	-	-	-	-	-	-	600.00	-
p30	-	-	-	-	-	-	-	-	-	600.00	-

C.24.2 parcprinter-opt11-strips

Table C.33 – Search Time, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.01
p02	-	-	-	-	-	-	-	-	-	0.00	0.01
p03	-	-	-	-	-	-	-	-	-	0.02	0.02
p04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	?
p05	-	-	-	-	-	-	-	-	-	0.00	2.29
p06	21600.00	-	21600.00	21600.00	-	11.67	21600.00	-	11.61	11.84	?
p07	7.55	7.20	0.97	0.31	0.05	0.07	0.18	0.06	0.07	0.07	?
p08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	?
p09	-	-	-	-	-	-	-	-	-	0.80	9.92
p10	21600.00	-	21600.00	21600.00	-	6.66	21600.00	-	6.63	6.81	?
p11	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	?
p12	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	49.03	49.01	?
p13	-	-	-	-	-	-	-	-	-	600.00	-
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	?

C.25 parking

C.25.1 parking-opt11-strips

Table C.34 – Search Time, parking, parking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
pfile03-011	10.54	10.19	10.45	10.39	4.78	10.40	10.53	8.94	10.59	10.77	?
pfile03-012	-	-	-	-	-	-	-	-	-	600.00	-
pfile04-013	418.56	400.42	343.07	339.45	155.01	344.05	338.66	296.35	342.25	355.25	?
pfile04-014	-	-	-	-	-	-	-	-	-	600.00	-
pfile04-015	-	-	-	-	-	-	-	-	-	600.00	-
pfile04-016	-	-	-	-	-	-	-	-	-	600.00	-
pfile05-017	-	-	-	-	-	-	-	-	-	600.00	-
pfile05-018	-	-	-	-	-	-	-	-	-	600.00	-
pfile05-019	-	-	-	-	-	-	-	-	-	600.00	-
pfile05-020	-	-	-	-	-	-	-	-	-	600.00	-
pfile06-021	-	-	-	-	-	-	-	-	-	600.01	-
pfile06-022	-	-	-	-	-	-	-	-	-	600.01	-
pfile06-023	-	-	-	-	-	-	-	-	-	600.00	-
pfile06-024	-	-	-	-	-	-	-	-	-	600.00	-
pfile07-025	-	-	-	-	-	-	-	-	-	600.01	-
pfile07-026	-	-	-	-	-	-	-	-	-	600.01	-
pfile07-027	-	-	-	-	-	-	-	-	-	600.01	-
pfile07-028	-	-	-	-	-	-	-	-	-	600.01	-
pfile08-029	-	-	-	-	-	-	-	-	-	600.01	-
pfile08-030	-	-	-	-	-	-	-	-	-	600.01	-

C.25.2 parking-opt14-strips

Table C.35 – Search Time, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p_12_7-01	167.49	163.50	167.83	162.53	74.82	162.69	162.42	143.47	164.62	165.37	?
p_12_7-02	324.93	320.46	328.36	320.33	146.12	319.13	318.54	276.81	320.33	334.90	?
p_12_7-03	83.66	82.99	83.18	82.68	37.84	81.78	84.27	72.02	83.20	82.84	?
p_12_7-04	-	-	-	-	-	-	-	-	-	600.00	-
p_14_8-01	-	-	-	-	-	-	-	-	-	600.00	-
p_14_8-02	-	-	-	-	-	-	-	-	-	600.00	-
p_14_8-03	-	-	-	-	-	-	-	-	-	600.00	-
p_14_8-04	-	-	-	-	-	-	-	-	-	600.00	-
p_16_9-01	-	-	-	-	-	-	-	-	-	600.00	-
p_16_9-02	-	-	-	-	-	-	-	-	-	600.00	-
p_16_9-03	-	-	-	-	-	-	-	-	-	600.00	-
p_16_9-04	-	-	-	-	-	-	-	-	-	600.00	-
p_18_10-01	-	-	-	-	-	-	-	-	-	600.01	-
p_18_10-02	-	-	-	-	-	-	-	-	-	600.00	-
p_18_10-03	-	-	-	-	-	-	-	-	-	600.00	-
p_18_10-04	-	-	-	-	-	-	-	-	-	600.00	-
p_20_11-01	-	-	-	-	-	-	-	-	-	600.01	-
p_20_11-02	-	-	-	-	-	-	-	-	-	600.00	-
p_20_11-03	-	-	-	-	-	-	-	-	-	600.01	-
p_20_11-04	-	-	-	-	-	-	-	-	-	600.01	-

C.26 pathways

C.26.1 pathways

Table C.36 – Search Time, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.01
p03	-	-	-	-	-	-	-	-	-	0.01	0.39
p04	-	-	-	-	-	-	-	-	-	0.02	2.89
p05	21600.00	-	30.46	21600.00	-	29.87	21600.00	-	29.01	30.81	?
p06	-	-	-	-	-	-	-	-	-	600.00	-
p07	-	-	-	-	-	-	-	-	-	600.00	-
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	-	-	-	-	-	-	-	-	-	600.00	-
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	-	-	-	-	-	-	-	-	-	600.00	-
p13	-	-	-	-	-	-	-	-	-	600.00	-
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-
p21	-	-	-	-	-	-	-	-	-	600.00	-
p22	-	-	-	-	-	-	-	-	-	600.00	-
p23	-	-	-	-	-	-	-	-	-	600.00	-
p24	-	-	-	-	-	-	-	-	-	600.00	-
p25	-	-	-	-	-	-	-	-	-	600.00	-
p26	-	-	-	-	-	-	-	-	-	600.00	-
p27	-	-	-	-	-	-	-	-	-	600.00	-
p28	-	-	-	-	-	-	-	-	-	600.00	-
p29	-	-	-	-	-	-	-	-	-	600.00	-
p30	-	-	-	-	-	-	-	-	-	600.00	-

C.27 pegsol

C.27.1 pegsol-08-strips

Table C.37 – Search Time, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.01	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.12	0.07
p09	-	-	-	-	-	-	-	-	-	0.01	0.01
p10	-	-	-	-	-	-	-	-	-	0.13	0.08
p11	-	-	-	-	-	-	-	-	-	0.06	0.04
p12	-	-	-	-	-	-	-	-	-	0.27	0.11
p13	-	-	-	-	-	-	-	-	-	0.20	0.08
p14	-	-	-	-	-	-	-	-	-	0.28	0.15
p15	-	-	-	-	-	-	-	-	-	0.49	0.19
p16	-	-	-	-	-	-	-	-	-	0.07	0.03
p17	-	-	-	-	-	-	-	-	-	3.08	0.94
p18	-	-	-	-	-	-	-	-	-	0.08	0.14
p19	-	-	-	-	-	-	-	-	-	1.33	0.80
p20	-	-	-	-	-	-	-	-	-	1.47	1.24
p21	-	-	-	-	-	-	-	-	-	2.52	1.59
p22	-	-	-	-	-	-	-	-	-	0.33	0.15
p23	-	-	-	-	-	-	-	-	-	4.14	3.52
p24	-	-	-	-	-	-	-	-	-	6.72	5.00
p25	-	-	-	-	-	-	-	-	-	4.12	3.48
p26	-	-	-	-	-	-	-	-	-	43.65	26.60
p27	-	-	-	-	-	-	-	-	-	4.47	13.77
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	

C.27.2 pegsol-opt11-strips

Table C.38 – Search Time, pegsol, pegsol-opt11-strips

	10%			50%			90%			100%	
	$A^*{+}IDA^*$	$A^*{+}IDA^*{\uparrow}$	$PEA^*{+}IDA^*$	$A^*{+}IDA^*$	$A^*{+}IDA^*{\uparrow}$	$PEA^*{+}IDA^*$	$A^*{+}IDA^*$	$A^*{+}IDA^*{\uparrow}$	$PEA^*{+}IDA^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	3.11	0.92
p03	-	-	-	-	-	-	-	-	-	0.08	0.14
p04	-	-	-	-	-	-	-	-	-	1.31	0.80
p05	-	-	-	-	-	-	-	-	-	0.47	0.25
p06	-	-	-	-	-	-	-	-	-	2.30	0.80
p07	-	-	-	-	-	-	-	-	-	0.71	0.69
p08	-	-	-	-	-	-	-	-	-	1.38	1.22
p09	-	-	-	-	-	-	-	-	-	1.80	1.20
p10	-	-	-	-	-	-	-	-	-	2.51	1.58
p11	-	-	-	-	-	-	-	-	-	0.34	0.15
p12	-	-	-	-	-	-	-	-	-	0.20	0.10
p13	-	-	-	-	-	-	-	-	-	4.13	3.71
p14	-	-	-	-	-	-	-	-	-	6.63	4.71
p15	-	-	-	-	-	-	-	-	-	4.18	3.47
p16	-	-	-	-	-	-	-	-	-	44.09	27.80
p17	-	-	-	-	-	-	-	-	-	4.46	13.55
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

C.28 petri

C.28.1 petri-net-alignment-opt18-strips

Table C.39 – Search Time, petri, petri-net-alignment-opt18-strips

	10%			50%			90%			100%	
	$A^*{+}IDA^*$	$A^*{+}IDA^*{\uparrow}$	$PEA^*{+}IDA^*$	$A^*{+}IDA^*$	$A^*{+}IDA^*{\uparrow}$	$PEA^*{+}IDA^*$	$A^*{+}IDA^*$	$A^*{+}IDA^*{\uparrow}$	$PEA^*{+}IDA^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.46	4.84
p02	-	-	-	-	-	-	-	-	-	0.80	8.34
p03	21600.00	-	21600.00	1669.53	1628.11	21600.00	35.97	4.30	4.93	4.85	?
p04	21600.00	-	21600.00	5405.15	5337.70	21600.00	352.53	15.62	17.90	17.92	?
p05	3645.12	3534.29	21600.00	29.64	9.42	16.39	16.77	13.49	16.59	16.58	?
p06	21600.00	-	21600.00	798.85	12.93	18.99	20.84	16.28	18.77	19.63	?
p07	21600.00	-	21600.00	26.74	14.19	17.82	18.35	15.95	17.63	18.09	?
p08	21600.00	-	21600.00	21600.00	-	21600.00	7606.45	222.59	265.26	267.03	?
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	-	-	-	-	-	-	-	-	-	600.00	-
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	1097.00	789.09	21600.00	96.43	66.95	82.48	83.88	77.31	83.14	86.51	?
p13	-	-	-	-	-	-	-	-	-	600.00	-
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-

C.29 pipesworld

C.29.1 pipesworld-notankage

Table C.40 – Search Time, pipesworld, pipesworld-notankage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	0.02	0.01
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	0.02	0.02
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	0.08	0.06
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	0.02	0.07
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	0.14	0.32
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	0.05	0.21
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	0.49	1.39
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	3.49	51.30
p10-net1-b14-g8	6729.45	6169.77	17849.90	455.23	129.75	285.80	449.31	245.76	290.53	292.99	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	15.46	3.24
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	67.88	13.96
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	3.11	2.91
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	600.00	-
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	107.17	27.19
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	600.00	-
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	600.00	-
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	600.00	-
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	600.00	-
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	600.00	-
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	2.10	0.85
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	600.00	-
p23-net3-b14-g3	109.30	108.65	119.93	98.68	45.07	97.42	96.31	80.89	97.27	101.31	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	600.00	-
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	600.00	-
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	600.00	-
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	600.00	-
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	600.00	-
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	600.00	-
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	600.00	-
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	600.00	-
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	600.00	-
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	600.00	-
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	600.00	-
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	600.00	-
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	600.00	-
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	600.00	-
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	600.00	-
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	600.00	-
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	600.00	-
p41-net5-b22-g2	186.92	181.36	212.57	202.03	113.58	203.73	205.16	202.38	203.01	214.32	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	600.00	-
p43-net5-b24-g3	-	-	-	-	-	-	-	-	-	600.00	-
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	600.00	-
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	600.00	-
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	600.01	-
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	600.00	-
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	600.01	-
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	600.01	-
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	600.01	-

C.29.2 pipesworld-tankage

Table C.41 – Search Time, pipesworld, pipesworld-tankage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	0.01	0.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	0.41	0.39
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	2.23	1.86
p05-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	0.07	0.21
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	0.51	0.71
p07-net1-b12-g5-t80	15.60	14.13	9.90	9.37	9.26	9.82	9.14	8.95	9.96	9.38	?
p08-net1-b12-g7-t80	425.51	423.63	618.88	406.88	181.98	360.31	391.46	333.48	365.20	362.60	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	600.00	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	600.00	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	190.46	19.71
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	600.00	-
p13-net2-b12-g3-t70	568.77	551.40	577.97	552.90	250.63	548.69	544.03	469.04	548.87	561.47	?
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	600.00	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	600.00	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	600.00	-
p17-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	600.00	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	600.00	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	600.00	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	600.00	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	59.49	41.25
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	600.00	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	600.00	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	600.00	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	600.00	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	600.00	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	600.00	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	600.01	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	600.01	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	600.00	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	413.96	8.43
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	600.00	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	600.00	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	600.00	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	600.01	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	600.01	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	600.01	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	600.00	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	600.01	-
p40-net5-b22-g2-t50	-	-	-	-	-	-	-	-	-	600.01	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	600.00	-
p42-net5-b22-g4-t20	-	-	-	-	-	-	-	-	-	600.01	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	600.06	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	600.05	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	600.02	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	600.03	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	600.07	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	600.03	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	600.03	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	600.08	-

C.29.3 pipesworld-tankage-nosplit

Table C.42 – Search Time, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	0.01	0.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	0.41	0.39
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	2.28	1.87
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	0.07	0.20
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	0.51	0.74
p07-net1-b12-g5-t80	15.55	13.80	9.87	9.29	9.13	9.91	9.37	9.16	9.84	9.51	?
p08-net1-b12-g7-t80	444.96	421.42	621.34	396.58	183.95	354.45	406.96	341.22	355.16	364.32	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	600.00	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	600.00	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	600.09	-
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	?	-
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	-
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	600.13	-
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

C.30 psr

C.30.1 psr-small

Table C.43 – Search Time, psr, psr-small

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	0.00	0.00
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	0.05	0.01
p16-s29-n2-l5-f30	-	-	-	-	-	-	-	-	-	0.02	0.01
p17-s30-n2-l5-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p19-s33-n3-l2-f30	-	-	-	-	-	-	-	-	-	0.11	0.03
p20-s34-n3-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p22-s37-n3-l3-f30	-	-	-	-	-	-	-	-	-	2.05	0.61
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	0.99	0.05
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	1.71	0.86
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	0.02	0.01
p31-s49-n4-l2-f30	-	-	-	-	-	-	-	-	-	0.70	0.19
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	0.01	0.01
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p35-s57-n5-l2-f30	-	-	-	-	-	-	-	-	-	0.52	0.47
p36-s65-n6-l2-f30	-	-	-	-	-	-	-	-	-	12.56	6.25
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	0.01	0.00
p38-s78-n3-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	0.02	0.01
p40-s80-n3-l4-f10	-	-	-	-	-	-	-	-	-	9.98	5.12
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	0.02	0.01
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p44-s89-n4-l2-f30	-	-	-	-	-	-	-	-	-	0.03	0.01
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p46-s97-n5-l2-f50	-	-	-	-	-	-	-	-	-	0.77	0.24
p47-s98-n5-l2-f50	-	-	-	-	-	-	-	-	-	0.04	0.01
p48-s101-n5-l3-f30	21600.00	-	21600.00	1259.18	60.35	198.14	200.92	150.17	197.97	192.34	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	-
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	0.01	0.00

C.31 rovers

C.31.1 rovers

Table C.44 – Search Time, rovers, rovers

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{↑}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{↑}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{↑}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.02
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	3.79	64.44
p06	-	-	-	-	-	-	-	-	-	?	-
p07	1256.61	1204.75	5705.94	82.85	0.77	1.81	59.06	1.51	1.79	1.89	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	639.83	566.82	1697.00	55.12	1.44	3.41	24.51	2.95	3.36	3.51	?
p13	-	-	-	-	-	-	-	-	-	600.00	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-
p21	-	-	-	-	-	-	-	-	-	600.00	-
p22	-	-	-	-	-	-	-	-	-	600.00	-
p23	-	-	-	-	-	-	-	-	-	600.00	-
p24	-	-	-	-	-	-	-	-	-	600.00	-
p25	-	-	-	-	-	-	-	-	-	600.00	-
p26	-	-	-	-	-	-	-	-	-	600.00	-
p27	-	-	-	-	-	-	-	-	-	600.00	-
p28	-	-	-	-	-	-	-	-	-	600.00	-
p29	-	-	-	-	-	-	-	-	-	600.00	-
p30	-	-	-	-	-	-	-	-	-	600.00	-
p31	-	-	-	-	-	-	-	-	-	600.01	-
p32	-	-	-	-	-	-	-	-	-	600.01	-
p33	-	-	-	-	-	-	-	-	-	600.02	-
p34	-	-	-	-	-	-	-	-	-	600.01	-
p35	-	-	-	-	-	-	-	-	-	600.03	-
p36	-	-	-	-	-	-	-	-	-	600.02	-
p37	-	-	-	-	-	-	-	-	-	600.04	-
p38	-	-	-	-	-	-	-	-	-	600.04	-
p39	-	-	-	-	-	-	-	-	-	600.04	-
p40	-	-	-	-	-	-	-	-	-	600.06	

C.32 satellite

C.32.1 satellite

Table C.45 – Search Time, satellite, satellite

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{↑}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{↑}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{↑}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-pfile1	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-pfile2	-	-	-	-	-	-	-	-	-	0.00	0.01
p03-pfile3	-	-	-	-	-	-	-	-	-	0.00	0.11
p04-pfile4	-	-	-	-	-	-	-	-	-	0.01	2.53
p05-pfile5	0.35	0.36	0.36	0.37	0.36	0.36	0.36	0.34	0.36	0.36	?
p06-pfile6	4.57	0.16	1.32	2.02	0.56	1.32	1.52	1.06	1.32	1.32	?
p07-pfile7	1824.25	1865.49	2353.02	338.21	16.42	41.40	175.60	35.07	40.63	41.36	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	600.00	-
p10-pfile10	-	-	-	-	-	-	-	-	-	600.00	-
p11-pfile11	-	-	-	-	-	-	-	-	-	600.00	-
p12-pfile12	-	-	-	-	-	-	-	-	-	600.00	-
p13-pfile13	-	-	-	-	-	-	-	-	-	600.00	-
p14-pfile14	-	-	-	-	-	-	-	-	-	600.00	-
p15-pfile15	-	-	-	-	-	-	-	-	-	600.00	-
p16-pfile16	-	-	-	-	-	-	-	-	-	600.00	-
p17-pfile17	-	-	-	-	-	-	-	-	-	600.00	-
p18-pfile18	-	-	-	-	-	-	-	-	-	600.00	-
p19-pfile19	-	-	-	-	-	-	-	-	-	600.00	-
p20-pfile20	-	-	-	-	-	-	-	-	-	600.00	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	600.00	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	600.01	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	600.01	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	600.14	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	600.04	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	600.04	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	600.08	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	600.70	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	601.37	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	602.10	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	603.23	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	607.75	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	601.85	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	604.59	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	603.82	

C.33 scanalyzer

C.33.1 scanalyzer-08-strips

Table C.46 – Search Time, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.31
p02	-	-	-	-	-	-	-	-	-	0.41	0.24
p03	-	-	-	-	-	-	-	-	-	1.23	0.22
p04	-	-	-	-	-	-	-	-	-	0.03	215.19
p05	-	-	-	-	-	-	-	-	-	383.75	152.97
p06	-	-	-	-	-	-	-	-	-	600.00	-
p07	0.14	0.14	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.15	?
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	0.56	0.56	0.56	0.59	0.58	0.56	0.57	0.56	0.56	0.58	?
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	-	-	-	-	-	-	-	-	-	600.00	-
p13	1.86	1.89	1.80	1.89	1.84	1.81	1.79	1.78	1.80	1.86	?
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	5.05	5.08	4.87	4.95	4.85	4.92	4.87	4.85	4.91	5.94	?
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	12.33	12.71	13.02	12.70	12.14	12.21	12.07	12.01	12.31	22.75	?
p20	-	-	-	-	-	-	-	-	-	600.01	-
p21	-	-	-	-	-	-	-	-	-	600.01	-
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	-	-	-	-	-	-	-	-	-	0.00	0.00
p25	-	-	-	-	-	-	-	-	-	14.49	94.08
p26	-	-	-	-	-	-	-	-	-	305.74	79.37
p27	-	-	-	-	-	-	-	-	-	600.01	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	600.30	-
p30	-	-	-	-	-	-	-	-	-	600.17	-

C.33.2 scanalyzer-opt11-strips

Table C.47 – Search Time, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.42	0.24
p03	-	-	-	-	-	-	-	-	-	1.23	0.22
p04	-	-	-	-	-	-	-	-	-	0.03	204.39
p05	0.14	0.14	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.15	?
p06	-	-	-	-	-	-	-	-	-	377.12	152.74
p07	12.45	12.81	12.45	12.72	12.15	12.45	12.30	12.03	12.10	16.38	?
p08	0.57	0.58	0.57	0.59	0.58	0.56	0.57	0.56	0.56	0.58	?
p09	1.87	1.85	1.80	1.86	1.83	1.82	1.79	1.81	1.80	1.89	?
p10	5.03	5.00	4.87	4.87	4.88	4.96	4.97	4.87	4.86	5.32	?
p11	-	-	-	-	-	-	-	-	-	14.38	91.86
p12	-	-	-	-	-	-	-	-	-	600.00	-
p13	-	-	-	-	-	-	-	-	-	600.00	-
p14	-	-	-	-	-	-	-	-	-	302.92	81.71
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.01	-
p20	-	-	-	-	-	-	-	-	-	?	-

C.34 snake

C.34.1 snake-opt18-strips

Table C.48 – Search Time, snake, snake-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	33.24	0.97
p02	-	-	-	-	-	-	-	-	-	600.00	-
p03	-	-	-	-	-	-	-	-	-	600.00	-
p04	-	-	-	-	-	-	-	-	-	0.15	0.01
p05	-	-	-	-	-	-	-	-	-	2.37	0.08
p06	-	-	-	-	-	-	-	-	-	600.00	-
p07	-	-	-	-	-	-	-	-	-	600.00	-
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	7.92	0.23
p10	-	-	-	-	-	-	-	-	-	256.93	4.93
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	-	-	-	-	-	-	-	-	-	600.01	-
p13	-	-	-	-	-	-	-	-	-	600.01	-
p14	-	-	-	-	-	-	-	-	-	600.01	-
p15	-	-	-	-	-	-	-	-	-	212.88	3.51
p16	-	-	-	-	-	-	-	-	-	600.01	-
p17	-	-	-	-	-	-	-	-	-	600.01	-
p18	-	-	-	-	-	-	-	-	-	600.01	-
p19	-	-	-	-	-	-	-	-	-	600.01	-
p20	-	-	-	-	-	-	-	-	-	600.01	-

C.35 sokoban

C.35.1 sokoban-opt08-strips

Table C.49 – Search Time, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.58	1.16
p05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	?
p06	-	-	-	-	-	-	-	-	-	0.01	0.03
p07	-	-	-	-	-	-	-	-	-	0.14	1.32
p08	-	-	-	-	-	-	-	-	-	18.18	63.65
p09	-	-	-	-	-	-	-	-	-	0.31	3.51
p10	-	-	-	-	-	-	-	-	-	0.43	3.11
p11	-	-	-	-	-	-	-	-	-	6.55	2.37
p12	-	-	-	-	-	-	-	-	-	1.11	23.37
p13	-	-	-	-	-	-	-	-	-	2.61	8.93
p14	-	-	-	-	-	-	-	-	-	0.21	0.94
p15	-	-	-	-	-	-	-	-	-	150.70	130.99
p16	-	-	-	-	-	-	-	-	-	8.20	4.23
p17	-	-	-	-	-	-	-	-	-	0.80	1.24
p18	-	-	-	-	-	-	-	-	-	5.87	35.99
p19	-	-	-	-	-	-	-	-	-	46.11	119.61
p20	-	-	-	-	-	-	-	-	-	0.01	0.00
p21	21.52	20.71	21.54	3.00	2.97	3.01	1.28	1.27	1.29	1.17	?
p22	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	21600.00	48.27	?
p23	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	21600.00	12.43	?
p24	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	21600.00	36.82	?
p25	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	21600.00	161.71	?
p26	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	21600.00	117.81	?
p27	21600.00	-	21600.00	16860.30	16743.80	21600.00	1110.98	1101.12	831.70	48.67	?
p28	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	21600.00	575.19	?
p29	21600.00	-	21600.00	21600.00	-	21600.00	144.66	9.02	10.23	10.74	?
p30	-	-	-	-	-	-	-	-	-	600.00	-

C.35.2 sokoban-opt11-strips

Table C.50 – Search Time, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.01	0.03
p02	-	-	-	-	-	-	-	-	-	0.80	1.23
p03	-	-	-	-	-	-	-	-	-	0.21	0.90
p04	-	-	-	-	-	-	-	-	-	0.60	1.18
p05	-	-	-	-	-	-	-	-	-	8.20	4.13
p06	-	-	-	-	-	-	-	-	-	6.50	2.36
p07	-	-	-	-	-	-	-	-	-	0.44	3.09
p08	-	-	-	-	-	-	-	-	-	0.31	3.60
p09	-	-	-	-	-	-	-	-	-	0.14	1.28
p10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	?
p11	-	-	-	-	-	-	-	-	-	2.61	8.91
p12	-	-	-	-	-	-	-	-	-	0.01	0.00
p13	-	-	-	-	-	-	-	-	-	18.34	63.58
p14	-	-	-	-	-	-	-	-	-	1.09	23.03
p15	-	-	-	-	-	-	-	-	-	5.95	36.43
p16	-	-	-	-	-	-	-	-	-	147.10	130.31
p17	-	-	-	-	-	-	-	-	-	44.82	116.96
p18	21.46	20.84	21.44	3.03	2.95	3.01	1.29	1.25	1.28	1.15	?
p19	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	21600.00	47.30	?
p20	21600.00	-	21600.00	21600.00	-	21600.00	21600.00	-	21600.00	12.48	?

C.36 spider

C.36.1 spider-opt18-strips

Table C.51 – Search Time, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.53	0.05
p02	-	-	-	-	-	-	-	-	-	1.63	0.04
p03	-	-	-	-	-	-	-	-	-	65.71	22.04
p04	-	-	-	-	-	-	-	-	-	146.89	27.62
p05	-	-	-	-	-	-	-	-	-	600.01	-
p06	-	-	-	-	-	-	-	-	-	600.02	-
p07	-	-	-	-	-	-	-	-	-	0.44	0.02
p08	-	-	-	-	-	-	-	-	-	1.94	0.31
p09	-	-	-	-	-	-	-	-	-	42.85	12.28
p10	329.89	323.03	314.80	310.80	157.06	313.40	310.20	277.27	311.08	315.94	?
p11	-	-	-	-	-	-	-	-	-	600.01	-
p12	-	-	-	-	-	-	-	-	-	600.03	-
p13	-	-	-	-	-	-	-	-	-	600.05	-
p14	-	-	-	-	-	-	-	-	-	0.37	0.07
p15	-	-	-	-	-	-	-	-	-	0.23	0.01
p16	128.91	126.71	129.27	120.20	56.69	121.98	122.41	105.30	118.10	123.02	?
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.01	-
p19	-	-	-	-	-	-	-	-	-	600.01	-
p20	-	-	-	-	-	-	-	-	-	600.02	-

C.37 storage

C.37.1 storage

Table C.52 – Search Time, storage, storage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.07	0.03
p09	-	-	-	-	-	-	-	-	-	0.13	0.17
p10	-	-	-	-	-	-	-	-	-	0.11	0.09
p11	-	-	-	-	-	-	-	-	-	2.27	1.34
p12	-	-	-	-	-	-	-	-	-	10.63	10.68
p13	-	-	-	-	-	-	-	-	-	0.59	1.96
p14	-	-	-	-	-	-	-	-	-	8.71	30.85
p15	144.66	142.84	202.19	110.22	51.23	104.48	106.75	97.45	106.86	106.44	?
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-
p21	-	-	-	-	-	-	-	-	-	600.00	-
p22	-	-	-	-	-	-	-	-	-	600.00	-
p23	-	-	-	-	-	-	-	-	-	600.00	-
p24	-	-	-	-	-	-	-	-	-	600.00	-
p25	-	-	-	-	-	-	-	-	-	600.01	-
p26	-	-	-	-	-	-	-	-	-	600.01	-
p27	-	-	-	-	-	-	-	-	-	600.01	-
p28	-	-	-	-	-	-	-	-	-	600.02	-
p29	-	-	-	-	-	-	-	-	-	600.01	-
p30	-	-	-	-	-	-	-	-	-	600.02	-

C.38 termes

C.38.1 termes-opt18-strips

Table C.53 – Search Time, termes, termes-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	8.24	1.69
p02	-	-	-	-	-	-	-	-	-	99.23	17.51
p03	-	-	-	-	-	-	-	-	-	600.00	-
p04	-	-	-	-	-	-	-	-	-	600.00	-
p05	-	-	-	-	-	-	-	-	-	600.00	-
p06	-	-	-	-	-	-	-	-	-	600.00	-
p07	-	-	-	-	-	-	-	-	-	600.00	-
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	-	-	-	-	-	-	-	-	-	600.00	-
p11	-	-	-	-	-	-	-	-	-	380.25	50.81
p12	-	-	-	-	-	-	-	-	-	34.14	7.25
p13	-	-	-	-	-	-	-	-	-	600.00	-
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-

C.39 tetris

C.39.1 tetris-opt14-strips

Table C.54 – Search Time, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-10	-	-	-	-	-	-	-	-	-	600.00	-
p01-6	-	-	-	-	-	-	-	-	-	600.00	-
p01-8	-	-	-	-	-	-	-	-	-	294.30	2.68
p02-10	-	-	-	-	-	-	-	-	-	600.00	-
p02-4	-	-	-	-	-	-	-	-	-	0.02	0.00
p02-6	-	-	-	-	-	-	-	-	-	228.06	3.92
p02-8	-	-	-	-	-	-	-	-	-	600.00	-
p03-10	-	-	-	-	-	-	-	-	-	600.03	-
p03-4	-	-	-	-	-	-	-	-	-	0.61	0.08
p03-6	-	-	-	-	-	-	-	-	-	600.00	-
p03-8	-	-	-	-	-	-	-	-	-	600.01	-
p04-10	-	-	-	-	-	-	-	-	-	600.02	-
p04-6	-	-	-	-	-	-	-	-	-	600.00	-
p04-8	-	-	-	-	-	-	-	-	-	600.01	-
p05-10	-	-	-	-	-	-	-	-	-	600.01	-
p05-6	-	-	-	-	-	-	-	-	-	10.73	0.34
p05-8	-	-	-	-	-	-	-	-	-	600.01	-

C.40 tidybot

C.40.1 tidybot-opt11-strips

Table C.55 – Search Time, tidybot, tidybot-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	5.71	2.94
p03	-	-	-	-	-	-	-	-	-	0.22	0.05
p04	-	-	-	-	-	-	-	-	-	3.03	2.00
p05	80.62	79.97	81.51	78.01	76.71	78.38	78.22	68.19	78.45	81.36	?
p06	-	-	-	-	-	-	-	-	-	2.32	5.74
p07	-	-	-	-	-	-	-	-	-	0.42	0.08
p08	-	-	-	-	-	-	-	-	-	46.36	37.84
p09	-	-	-	-	-	-	-	-	-	31.99	7.29
p10	-	-	-	-	-	-	-	-	-	10.44	31.56
p11	-	-	-	-	-	-	-	-	-	38.99	38.99
p12	362.36	355.88	359.80	359.53	348.06	357.25	356.09	309.57	356.37	365.69	?
p13	116.24	115.06	116.04	114.30	113.39	114.50	115.45	94.92	116.04	116.17	?
p14	-	-	-	-	-	-	-	-	-	20.68	20.43
p15	-	-	-	-	-	-	-	-	-	600.01	-
p16	-	-	-	-	-	-	-	-	-	600.02	-
p17	-	-	-	-	-	-	-	-	-	600.01	-
p18	-	-	-	-	-	-	-	-	-	600.01	-
p19	-	-	-	-	-	-	-	-	-	600.01	-
p20	-	-	-	-	-	-	-	-	-	600.01	-

C.40.2 tidybot-opt14-strips

Table C.56 – Search Time, tidybot, tidybot-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	600.02	-
p02	119.77	117.03	118.85	119.19	117.29	118.45	119.42	101.61	118.81	122.14	?
p03	97.27	96.09	97.30	97.64	161.54	96.38	98.41	83.14	96.85	98.78	?
p04	-	-	-	-	-	-	-	-	-	85.29	14.60
p05	-	-	-	-	-	-	-	-	-	600.01	-
p06	-	-	-	-	-	-	-	-	-	600.01	-
p07	534.91	552.43	532.68	536.99	596.08	534.50	530.50	455.94	528.16	547.99	?
p08	-	-	-	-	-	-	-	-	-	59.94	28.08
p09	-	-	-	-	-	-	-	-	-	600.02	-
p10	-	-	-	-	-	-	-	-	-	600.04	-
p11	-	-	-	-	-	-	-	-	-	39.08	38.57
p12	361.79	355.50	358.59	359.52	379.88	354.72	355.22	310.56	354.73	360.39	?
p13	116.38	118.14	116.45	114.54	112.70	114.66	115.75	96.70	114.76	162.96	?
p14	-	-	-	-	-	-	-	-	-	20.38	20.83
p15	-	-	-	-	-	-	-	-	-	600.01	-
p16	-	-	-	-	-	-	-	-	-	600.01	-
p17	-	-	-	-	-	-	-	-	-	600.01	-
p18	-	-	-	-	-	-	-	-	-	600.01	-
p19	-	-	-	-	-	-	-	-	-	600.02	-
p20	-	-	-	-	-	-	-	-	-	600.01	-

C.41 tpp

C.41.1 tpp

Table C.57 – Search Time, tpp, tpp

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.01	0.08
p06	21600.00	-	21600.00	21600.00	-	2.74	21600.00	-	2.77	2.79	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	-	-	-	-	-	-	-	-	-	600.00	-
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	-	-	-	-	-	-	-	-	-	600.00	-
p13	-	-	-	-	-	-	-	-	-	600.00	-
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.01	-
p21	-	-	-	-	-	-	-	-	-	600.01	-
p22	-	-	-	-	-	-	-	-	-	600.01	-
p23	-	-	-	-	-	-	-	-	-	600.01	-
p24	-	-	-	-	-	-	-	-	-	600.01	-
p25	-	-	-	-	-	-	-	-	-	600.02	-
p26	-	-	-	-	-	-	-	-	-	600.02	-
p27	-	-	-	-	-	-	-	-	-	600.03	-
p28	-	-	-	-	-	-	-	-	-	600.03	-
p29	-	-	-	-	-	-	-	-	-	600.07	-
p30	-	-	-	-	-	-	-	-	-	600.08	-

C.42 transport

C.42.1 transport-opt08-strips

Table C.58 – Search Time, transport, transport-opt08-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.01	0.01
p03	-	-	-	-	-	-	-	-	-	3.33	3.53
p04	-	-	-	-	-	-	-	-	-	37.45	54.87
p05	-	-	-	-	-	-	-	-	-	600.00	-
p06	-	-	-	-	-	-	-	-	-	600.00	-
p07	-	-	-	-	-	-	-	-	-	600.01	-
p08	-	-	-	-	-	-	-	-	-	600.01	-
p09	-	-	-	-	-	-	-	-	-	600.01	-
p10	-	-	-	-	-	-	-	-	-	600.02	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.08	0.08
p13	-	-	-	-	-	-	-	-	-	1.55	4.20
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.01	-
p17	-	-	-	-	-	-	-	-	-	600.01	-
p18	-	-	-	-	-	-	-	-	-	600.02	-
p19	-	-	-	-	-	-	-	-	-	600.02	-
p20	-	-	-	-	-	-	-	-	-	600.02	-
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.08	0.04
p23	-	-	-	-	-	-	-	-	-	0.77	0.86
p24	-	-	-	-	-	-	-	-	-	17.01	19.12
p25	-	-	-	-	-	-	-	-	-	600.00	-
p26	-	-	-	-	-	-	-	-	-	600.00	-
p27	-	-	-	-	-	-	-	-	-	600.01	-
p28	-	-	-	-	-	-	-	-	-	600.01	-
p29	-	-	-	-	-	-	-	-	-	600.01	-
p30	-	-	-	-	-	-	-	-	-	600.01	-

C.42.2 transport-opt11-strips

Table C.59 – Search Time, transport, transport-opt11-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.76	0.86
p02	-	-	-	-	-	-	-	-	-	3.39	3.77
p03	-	-	-	-	-	-	-	-	-	0.08	0.08
p04	-	-	-	-	-	-	-	-	-	1.56	4.33
p05	-	-	-	-	-	-	-	-	-	16.70	19.43
p06	-	-	-	-	-	-	-	-	-	36.95	56.67
p07	-	-	-	-	-	-	-	-	-	600.00	-
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	-	-	-	-	-	-	-	-	-	600.00	-
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	-	-	-	-	-	-	-	-	-	600.00	-
p13	-	-	-	-	-	-	-	-	-	600.00	-
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-

C.42.3 transport-opt14-strips

Table C.60 – Search Time, transport, transport-opt14-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.08	0.15
p02	-	-	-	-	-	-	-	-	-	11.92	6.47
p03	21600.00	-	21600.00	632.36	21.86	42.83	42.77	38.05	43.36	44.17	?
p04	-	-	-	-	-	-	-	-	-	600.00	-
p05	-	-	-	-	-	-	-	-	-	600.00	-
p06	-	-	-	-	-	-	-	-	-	600.00	-
p07	-	-	-	-	-	-	-	-	-	107.11	12.55
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	600.01	-
p10	-	-	-	-	-	-	-	-	-	600.01	-
p11	-	-	-	-	-	-	-	-	-	600.01	-
p12	-	-	-	-	-	-	-	-	-	600.01	-
p13	-	-	-	-	-	-	-	-	-	2.64	5.03
p14	21600.00	-	21600.00	21600.00	-	109.55	111.03	93.30	109.29	108.25	?
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.01	-
p17	-	-	-	-	-	-	-	-	-	600.02	-
p18	-	-	-	-	-	-	-	-	-	600.02	-
p19	-	-	-	-	-	-	-	-	-	600.02	-
p20	-	-	-	-	-	-	-	-	-	600.02	-

C.43 trucks

C.43.1 trucks-strips

Table C.61 – Search Time, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.02
p02	-	-	-	-	-	-	-	-	-	0.02	0.10
p03	-	-	-	-	-	-	-	-	-	0.13	2.05
p04	-	-	-	-	-	-	-	-	-	0.54	15.86
p05	1.45	1.43	3.86	1.36	0.51	1.16	1.20	0.99	1.16	1.21	?
p06	2268.48	2224.64	21600.00	203.64	202.08	8239.47	74.44	31.76	39.63	39.70	?
p07	-	-	-	-	-	-	-	-	-	2.57	72.97
p08	16.08	15.91	36.29	9.66	3.91	9.05	8.90	7.61	8.91	8.97	?
p09	116.91	134.19	2463.44	78.95	29.04	55.29	61.41	58.31	54.69	57.10	?
p10	4097.28	3248.81	21600.00	238.97	118.71	230.18	225.81	192.78	224.92	233.80	?
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	-	-	-	-	-	-	-	-	-	600.00	-
p13	-	-	-	-	-	-	-	-	-	600.00	-
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-
p21	-	-	-	-	-	-	-	-	-	600.00	-
p22	-	-	-	-	-	-	-	-	-	600.00	-
p23	-	-	-	-	-	-	-	-	-	600.01	-
p24	-	-	-	-	-	-	-	-	-	600.01	-
p25	-	-	-	-	-	-	-	-	-	600.01	-
p26	-	-	-	-	-	-	-	-	-	600.01	-
p27	-	-	-	-	-	-	-	-	-	600.01	-
p28	-	-	-	-	-	-	-	-	-	600.01	-
p29	-	-	-	-	-	-	-	-	-	600.02	-
p30	-	-	-	-	-	-	-	-	-	600.03	-

C.44 visitall

C.44.1 visitall-opt11-strips

Table C.62 – Search Time, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
problem02-full	-	-	-	-	-	-	-	-	-	0.00	0.00
problem02-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem03-full	-	-	-	-	-	-	-	-	-	0.00	0.00
problem03-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem04-full	-	-	-	-	-	-	-	-	-	0.02	0.14
problem04-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem05-full	-	-	-	-	-	-	-	-	-	2.69	50.74
problem05-half	-	-	-	-	-	-	-	-	-	0.03	0.22
problem06-full	-	-	-	-	-	-	-	-	-	?	-
problem06-half	-	-	-	-	-	-	-	-	-	0.05	1.17
problem07-full	-	-	-	-	-	-	-	-	-	600.00	-
problem07-half	58.37	58.22	59.76	54.14	53.32	54.91	54.97	47.75	54.24	55.43	?
problem08-full	-	-	-	-	-	-	-	-	-	600.00	-
problem08-half	-	-	-	-	-	-	-	-	-	600.00	-
problem09-full	-	-	-	-	-	-	-	-	-	600.00	-
problem09-half	-	-	-	-	-	-	-	-	-	600.00	-
problem10-full	-	-	-	-	-	-	-	-	-	600.00	-
problem10-half	-	-	-	-	-	-	-	-	-	600.00	-
problem11-full	-	-	-	-	-	-	-	-	-	600.00	-
problem11-half	-	-	-	-	-	-	-	-	-	600.00	-

C.44.2 visitall-opt14-strips

Table C.63 – Search Time, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p-05-10	-	-	-	-	-	-	-	-	-	600.00	-
p-05-5	-	-	-	-	-	-	-	-	-	0.20	2.06
p-05-6	-	-	-	-	-	-	-	-	-	0.41	6.09
p-05-7	12.75	12.06	12.83	10.41	9.91	10.45	10.17	8.65	10.23	10.64	?
p-05-8	86.49	83.17	89.60	80.35	79.68	80.93	79.23	66.74	79.81	81.95	?
p-05-9	-	-	-	-	-	-	-	-	-	600.00	-
p-1-10	-	-	-	-	-	-	-	-	-	600.00	-
p-1-11	-	-	-	-	-	-	-	-	-	600.00	-
p-1-12	-	-	-	-	-	-	-	-	-	600.00	-
p-1-13	-	-	-	-	-	-	-	-	-	600.00	-
p-1-14	-	-	-	-	-	-	-	-	-	600.00	-
p-1-15	-	-	-	-	-	-	-	-	-	600.00	-
p-1-16	-	-	-	-	-	-	-	-	-	600.00	-
p-1-17	-	-	-	-	-	-	-	-	-	600.00	-
p-1-18	-	-	-	-	-	-	-	-	-	2.65	51.99
p-1-5	-	-	-	-	-	-	-	-	-	?	-
p-1-6	-	-	-	-	-	-	-	-	-	600.00	-
p-1-7	-	-	-	-	-	-	-	-	-	600.00	-
p-1-8	-	-	-	-	-	-	-	-	-	600.00	-
p-1-9	-	-	-	-	-	-	-	-	-	600.00	-

C.45 woodworking

C.45.1 woodworking-opt08-strips

Table C.64 – Search Time, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.05
p02	-	-	-	-	-	-	-	-	-	0.00	0.15
p03	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02	?
p04	21600.00	-	21600.00	21600.00	-	68.67	16041.30	56.73	68.40	69.08	?
p05	1.80	2.38	2.13	2.07	2.07	2.11	2.14	2.02	2.15	2.07	?
p06	-	-	-	-	-	-	-	-	-	?	
p07	5850.99	21.53	207.76	2172.65	106.70	207.85	383.99	178.72	203.95	201.57	?
p08	-	-	-	-	-	-	-	-	-	600.00	-
p09	-	-	-	-	-	-	-	-	-	600.00	-
p10	-	-	-	-	-	-	-	-	-	600.00	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.02
p12	-	-	-	-	-	-	-	-	-	0.01	20.35
p13	437.95	315.14	449.04	97.06	1.06	2.37	116.75	1.97	2.40	2.37	?
p14	3140.95	2416.56	4261.92	20.42	9.02	6.99	8.96	8.68	7.02	6.74	?
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	16.36	6.54	22.23	19.18	15.64	22.82	19.50	18.02	22.53	18.99	?
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.01	1.95
p23	-	-	-	-	-	-	-	-	-	0.01	12.98
p24	6641.35	0.65	6.70	476.63	3.30	6.50	577.50	5.77	6.77	6.67	?
p25	0.08	0.08	0.09	0.08	0.08	0.08	0.08	0.08	0.09	0.09	?
p26	-	-	-	-	-	-	-	-	-	600.00	-
p27	-	-	-	-	-	-	-	-	-	600.00	-
p28	-	-	-	-	-	-	-	-	-	600.00	-
p29	-	-	-	-	-	-	-	-	-	600.00	-
p30	-	-	-	-	-	-	-	-	-	600.00	-

C.45.2 woodworking-opt11-strips

Table C.65 – Search Time, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.01	13.19
p02	-	-	-	-	-	-	-	-	-	0.01	20.19
p03	358.81	311.79	440.81	95.39	1.05	2.42	93.09	2.04	2.35	2.40	?
p04	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.02	?
p05	5293.72	0.66	6.54	587.39	3.24	6.76	462.09	5.78	6.72	6.64	?
p06	21600.00	-	21600.00	21600.00	-	68.19	20073.70	56.86	68.57	68.53	?
p07	3081.77	2410.58	3450.83	17.47	8.99	7.14	8.84	8.88	7.07	6.66	?
p08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.08	0.09	0.09	?
p09	1.87	2.37	2.08	2.10	2.03	2.07	2.02	1.97	2.07	2.17	?
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	600.00	-
p12	-	-	-	-	-	-	-	-	-	600.00	-
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	16.31	6.30	22.98	18.97	15.35	22.38	18.99	18.71	22.45	19.61	?
p16	7207.04	20.56	205.75	2161.73	106.30	201.98	425.44	184.57	203.93	196.33	?
p17	-	-	-	-	-	-	-	-	-	600.00	-
p18	-	-	-	-	-	-	-	-	-	600.00	-
p19	-	-	-	-	-	-	-	-	-	600.00	-
p20	-	-	-	-	-	-	-	-	-	600.00	-

C.46 zenotravel

C.46.1 zenotravel

Table C.66 – Search Time, zenotravel, zenotravel

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.02
p04	-	-	-	-	-	-	-	-	-	0.00	0.04
p05	-	-	-	-	-	-	-	-	-	0.01	0.31
p06	-	-	-	-	-	-	-	-	-	0.02	2.88
p07	-	-	-	-	-	-	-	-	-	0.11	2.96
p08	0.17	0.17	0.07	0.13	0.13	0.07	0.13	0.12	0.07	0.13	?
p09	63.79	61.40	128.61	37.20	12.72	26.31	32.72	23.14	26.60	27.41	?
p10	21.10	4.91	16.80	17.60	8.24	16.83	17.03	14.38	16.49	16.68	?
p11	2.86	0.27	2.74	2.84	1.25	2.67	2.79	2.49	2.73	2.77	?
p12	580.11	22.83	137.43	664.82	72.17	137.38	189.66	130.06	139.54	143.66	?
p13	7613.02	38.95	450.37	9432.09	194.96	446.88	6702.51	412.67	455.02	473.32	?
p14	-	-	-	-	-	-	-	-	-	600.00	-
p15	-	-	-	-	-	-	-	-	-	600.00	-
p16	-	-	-	-	-	-	-	-	-	600.00	-
p17	-	-	-	-	-	-	-	-	-	600.01	-
p18	-	-	-	-	-	-	-	-	-	600.01	-
p19	-	-	-	-	-	-	-	-	-	600.01	-
p20	-	-	-	-	-	-	-	-	-	600.02	-

APPENDIX D — TOTAL EXPANSIONS

D.1 agricola

D.1.1 agricola-opt18-strips

Table D.1 – Total Expansions, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	102383.00	-
p02	-	-	-	-	-	-	-	-	-	31959.00	-
p03	-	-	-	-	-	-	-	-	-	21788.00	-
p04	-	-	-	-	-	-	-	-	-	61727.00	-
p05	-	-	-	-	-	-	-	-	-	8679.00	-
p06	-	-	-	-	-	-	-	-	-	5711.00	-
p07	-	-	-	-	-	-	-	-	-	24752.00	-
p08	-	-	-	-	-	-	-	-	-	13179.00	-
p09	-	-	-	-	-	-	-	-	-	5038.00	-
p10	-	-	-	-	-	-	-	-	-	13303.00	-
p11	-	-	-	-	-	-	-	-	-	6455.00	-
p12	-	-	-	-	-	-	-	-	-	3065.00	-
p13	-	-	-	-	-	-	-	-	-	11767.00	-
p14	-	-	-	-	-	-	-	-	-	4245.00	-
p15	-	-	-	-	-	-	-	-	-	3236.00	-
p16	-	-	-	-	-	-	-	-	-	10573.00	-
p17	-	-	-	-	-	-	-	-	-	3947.00	-
p18	-	-	-	-	-	-	-	-	-	2150.00	-
p19	-	-	-	-	-	-	-	-	-	7208.00	-
p20	-	-	-	-	-	-	-	-	-	3884.00	-

D.2 airport

D.2.1 airport

Table D.2 – Total Expansions, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-airport1-p1	-	-	-	-	-	-	-	-	-	8.00	10.00
p02-airport1-p1	-	-	-	-	-	-	-	-	-	9.00	15.00
p03-airport1-p2	-	-	-	-	-	-	-	-	-	19.00	169.00
p04-airport2-p1	-	-	-	-	-	-	-	-	-	20.00	22.00
p05-airport2-p1	-	-	-	-	-	-	-	-	-	21.00	30.00
p06-airport2-p1	-	-	-	-	-	-	-	-	-	41.00	753.00
p07-airport2-p2	-	-	-	-	-	-	-	-	-	64.00	756.00
p08-airport2-p3	-	-	-	-	-	-	-	-	-	119.00	27307.00
p09-airport2-p4	-	-	-	-	-	-	-	-	-	759.00	175995.00
p10-airport3-p1	-	-	-	-	-	-	-	-	-	18.00	21.00
p11-airport3-p1	-	-	-	-	-	-	-	-	-	21.00	30.00
p12-airport3-p2	-	-	-	-	-	-	-	-	-	39.00	906.00
p13-airport3-p2	-	-	-	-	-	-	-	-	-	49.00	843.00
p14-airport3-p3	-	-	-	-	-	-	-	-	-	60.00	35922.00
p15-airport3-p3	-	-	-	-	-	-	-	-	-	138.00	34099.00
p16-airport3-p4	-	-	-	-	-	-	-	-	-	328.00	1241109.00
p17-airport3-p5	-	-	-	-	-	-	-	-	-	2431.00	10749400.00
p18-airport3-p6	2858409559.00	-	3112889734.00	3051484174.00	-	3155521987.00	3218166315.00	-	11840.00	9736.00	?
p19-airport3-p6	-	-	-	-	-	-	-	-	-	3588.00	10658571.00
p20-airport3-p7	2714040299.00	-	2774979332.00	2750701140.00	-	2923263491.00	13394048.00	80182.00	15628.00	11583.00	?
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	101.00	18810.00
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	1042.00	2493184.00
p23-airport4halfMUC-p4	1851.00	188.00	217.00	253.00	244.00	304.00	782.00	308.00	304.00	313.00	?
p24-airport4halfMUC-p4	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	162.00	?
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	25171.00	-
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	28807.00	-
p27-airport4halfMUC-p6	247.00	247.00	247.00	696351479.00	-	1014.00	1026.00	1013.00	1014.00	1012.00	?
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	10784.00	-
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	5009.00	-
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	5363.00	-
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	5270.00	-
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	3070.00	-
p33-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	3444.00	-
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	1663.00	-
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	861.00	-
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	109.00	64178.00
p37-airport5MUC-p3	905789549.00	-	877887310.00	890211750.00	-	888766329.00	897948050.00	-	8138.00	7953.00	?
p38-airport5MUC-p3	1011147220.00	-	1050435939.00	1044069356.00	-	1007402055.00	1029522652.00	-	12001.00	9021.00	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	22661.00	-
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	28192.00	-
p41-airport5MUC-p4	-	-	-	-	-	-	-	-	-	25351.00	-
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	10711.00	-
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	19278.00	-
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	8945.00	-
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	5682.00	-
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	7660.00	-
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	1935.00	-
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	868.00	-
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	971.00	-
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	133.00	-

D.3 barman

D.3.1 barman-opt11-strips

Table D.3 – Total Expansions, barman, barman-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
pfile01-001	-	-	-	-	-	-	-	-	-	1354993.00	5976293.00
pfile01-002	-	-	-	-	-	-	-	-	-	1242604.00	5990063.00
pfile01-003	-	-	-	-	-	-	-	-	-	1228985.00	5967282.00
pfile01-004	-	-	-	-	-	-	-	-	-	1243140.00	5990063.00
pfile02-005	-	-	-	-	-	-	-	-	-	3795825.00	-
pfile02-006	-	-	-	-	-	-	-	-	-	3736269.00	-
pfile02-007	-	-	-	-	-	-	-	-	-	3620489.00	-
pfile02-008	-	-	-	-	-	-	-	-	-	3905458.00	-
pfile03-009	-	-	-	-	-	-	-	-	-	2522920.00	-
pfile03-010	-	-	-	-	-	-	-	-	-	2548983.00	-
pfile03-011	-	-	-	-	-	-	-	-	-	2510306.00	-
pfile03-012	-	-	-	-	-	-	-	-	-	2623474.00	-
pfile04-013	-	-	-	-	-	-	-	-	-	1350991.00	-
pfile04-014	-	-	-	-	-	-	-	-	-	1372240.00	-
pfile04-015	-	-	-	-	-	-	-	-	-	1221313.00	-
pfile04-016	-	-	-	-	-	-	-	-	-	1427141.00	-
pfile05-017	-	-	-	-	-	-	-	-	-	1428741.00	-
pfile05-018	-	-	-	-	-	-	-	-	-	1424899.00	-
pfile05-019	-	-	-	-	-	-	-	-	-	1553328.00	-
pfile05-020	-	-	-	-	-	-	-	-	-	1524809.00	-

D.3.2 barman-opt14-strips

Table D.4 – Total Expansions, barman, barman-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p435-1	-	-	-	-	-	-	-	-	-	3227934.00	-
p435-2	-	-	-	-	-	-	-	-	-	3144172.00	-
p435-3	-	-	-	-	-	-	-	-	-	3250033.00	-
p536-1	-	-	-	-	-	-	-	-	-	1811617.00	-
p536-2	-	-	-	-	-	-	-	-	-	1762766.00	-
p536-3	-	-	-	-	-	-	-	-	-	1889349.00	-
p638-1	-	-	-	-	-	-	-	-	-	898300.00	-
p638-2	-	-	-	-	-	-	-	-	-	1049741.00	-
p638-3	-	-	-	-	-	-	-	-	-	946701.00	-
p739-1	-	-	-	-	-	-	-	-	-	782616.00	-
p739-2	-	-	-	-	-	-	-	-	-	751761.00	-
p739-3	-	-	-	-	-	-	-	-	-	682752.00	-
p839-1	-	-	-	-	-	-	-	-	-	627531.00	-
p839-2	-	-	-	-	-	-	-	-	-	709777.00	-

D.4 blocks

D.4.1 blocks

Table D.5 – Total Expansions, blocks, blocks

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
probBLOCKS-10-0	1184470.00	1181707.00	1124940.00	305437.00	263765.00	340727.00	239619.00	239619.00	340727.00	238956.00	?
probBLOCKS-10-1	82017.00	82362.00	103574.00	35547.00	18151.00	40491.00	31317.00	31317.00	40491.00	30665.00	?
probBLOCKS-10-2	316774.00	306828.00	459501.00	107069.00	46813.00	117057.00	90317.00	82180.00	117057.00	85656.00	?
probBLOCKS-11-0	311658.00	303579.00	356759.00	84757.00	34414.00	88228.00	69215.00	59391.00	88228.00	65768.00	?
probBLOCKS-11-1	208280.00	204633.00	291435.00	81098.00	31940.00	88710.00	70105.00	59260.00	88710.00	66787.00	?
probBLOCKS-11-2	243912.00	265602.00	341739.00	67819.00	28357.00	80992.00	60164.00	55281.00	80992.00	58253.00	?
probBLOCKS-12-0	288365.00	281606.00	348698.00	79293.00	30229.00	82839.00	66587.00	54173.00	82839.00	61798.00	?
probBLOCKS-12-1	19053.00	18303.00	23738.00	7481.00	3721.00	8830.00	6753.00	6255.00	8830.00	6492.00	?
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	1906154.00	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	1851185.00	-
probBLOCKS-14-0	533346.00	523559.00	697831.00	150552.00	55580.00	151236.00	126776.00	98447.00	151236.00	113539.00	?
probBLOCKS-14-1	444061.00	444061.00	596878.00	225765.00	93011.00	249782.00	198105.00	171674.00	249782.00	192362.00	?
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	1223614.00	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	1190272.00	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	980902.00	-
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	1183576.00	-
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	654543.00	-
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	6.00	99.00
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	11.00	52.00
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	7.00	47.00
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	19.00	543.00
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	16.00	570.00
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	39.00	742.00
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	16.00	2028.00
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	11.00	4862.00
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	229.00	6642.00
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	59.00	38073.00
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	1074.00	64087.00
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	186.00	58984.00
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	149.00	521072.00
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	1034.00	618821.00
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	55.00	356611.00
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	12419.00	7955169.00
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	361.00	5846429.00
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	615.00	5297062.00

D.5 childsnack

D.5.1 childsnack-opt14-strips

Table D.6 – Total Expansions, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
child-snack_pfile01	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile02	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile03	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile04	-	-	-	-	-	-	-	-	-	70621.00	-
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	71712.00	-
child-snack_pfile05	-	-	-	-	-	-	-	-	-	9633.00	-
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	9764.00	-
child-snack_pfile06	-	-	-	-	-	-	-	-	-	4265.00	-
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	2673.00	-
child-snack_pfile07	-	-	-	-	-	-	-	-	-	1655.00	-
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	1492.00	-
child-snack_pfile08	-	-	-	-	-	-	-	-	-	910.00	-
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	890.00	-
child-snack_pfile09	-	-	-	-	-	-	-	-	-	489.00	-
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	496.00	-
child-snack_pfile10	-	-	-	-	-	-	-	-	-	315.00	-
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	310.00	-

D.6 data

D.6.1 data-network-opt18-strips

Table D.7 – Total Expansions, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	13.00	4664.00
p02	-	-	-	-	-	-	-	-	-	251.00	3701.00
p03	401.00	246.00	213.00	50.00	48.00	82.00	51.00	51.00	82.00	49.00	?
p04	3156912473.00	-	3758725889.00	949583685.00	5605.00	25216.00	26963532.00	10787.00	25216.00	12312.00	?
p05	321199.00	309318.00	227682.00	11697.00	272.00	866.00	1758.00	434.00	866.00	447.00	?
p06	-	-	-	-	-	-	-	-	-	1002308.00	-
p07	-	-	-	-	-	-	-	-	-	590886.00	-
p08	-	-	-	-	-	-	-	-	-	522736.00	-
p09	-	-	-	-	-	-	-	-	-	3375.00	24697.00
p10	4431939158.00	-	4500669349.00	253276820.00	118246977.00	38408.00	456388.00	13861.00	38408.00	14621.00	?
p11	-	-	-	-	-	-	-	-	-	13.00	4090.00
p12	43.00	13.00	34.00	25.00	25.00	33.00	26.00	26.00	33.00	25.00	?
p13	4854.00	4660.00	14897.00	301.00	111.00	314.00	170.00	170.00	314.00	167.00	?
p14	-	-	-	-	-	-	-	-	-	142383.00	-
p15	-	-	-	-	-	-	-	-	-	8.00	1061408.00
p16	-	-	-	-	-	-	-	-	-	183855.00	-
p17	1460632.00	1105487.00	2776177.00	54851.00	1658.00	7318.00	15543.00	2800.00	7318.00	3242.00	?
p18	-	-	-	-	-	-	-	-	-	68947.00	-
p19	-	-	-	-	-	-	-	-	-	25150.00	-
p20	-	-	-	-	-	-	-	-	-	30706.00	-

D.7 depot

D.7.1 depot

Table D.8 – Total Expansions, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	12.00	373.00
p02	-	-	-	-	-	-	-	-	-	138.00	15694.00
p03	-	-	-	-	-	-	-	-	-	38049.00	3046900.00
p04	4074499546.00	-	1842923013.00	28444024.00	203556.00	827715.00	2984693.00	388671.00	827715.00	484024.00	?
p05	-	-	-	-	-	-	-	-	-	723050.00	-
p06	-	-	-	-	-	-	-	-	-	254828.00	-
p07	-	-	-	-	-	-	-	-	-	17980.00	6894719.00
p08	-	-	-	-	-	-	-	-	-	441004.00	-
p09	-	-	-	-	-	-	-	-	-	129283.00	-
p10	533718696.00	532600638.00	791443222.00	6459120.00	59772.00	207701.00	6006018.00	98746.00	207701.00	132415.00	?
p11	-	-	-	-	-	-	-	-	-	162240.00	-
p12	-	-	-	-	-	-	-	-	-	75402.00	-
p13	58546955.00	58131055.00	138067635.00	12763226.00	5953.00	19275.00	11571355.00	11719.00	19275.00	14431.00	?
p14	-	-	-	-	-	-	-	-	-	185052.00	-
p15	-	-	-	-	-	-	-	-	-	39009.00	-
p16	-	-	-	-	-	-	-	-	-	259397.00	-
p17	-	-	-	-	-	-	-	-	-	67006.00	-
p18	-	-	-	-	-	-	-	-	-	14279.00	-
p19	-	-	-	-	-	-	-	-	-	71492.00	-
p20	-	-	-	-	-	-	-	-	-	15851.00	-
p21	-	-	-	-	-	-	-	-	-	5688.00	-
p22	-	-	-	-	-	-	-	-	-	1303.00	-

D.8 driverlog

D.8.1 driverlog

Table D.9 – Total Expansions, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	8.00	148.00
p02	-	-	-	-	-	-	-	-	-	8099.00	68741.00
p03	-	-	-	-	-	-	-	-	-	19.00	13314.00
p04	-	-	-	-	-	-	-	-	-	1743.00	1131498.00
p05	-	-	-	-	-	-	-	-	-	770.00	5176010.00
p06	-	-	-	-	-	-	-	-	-	151.00	446484.00
p07	271.00	96.00	43.00	137.00	26.00	42.00	38.00	38.00	42.00	37.00	?
p08	83922126.00	81535503.00	153665113.00	3942693.00	63178.00	207140.00	2760076.00	125213.00	207140.00	149799.00	?
p09	3459761.00	3454156.00	5540334.00	169667.00	4692.00	14813.00	75281.00	8930.00	14813.00	10335.00	?
p10	1611.00	1611.00	2777.00	1440.00	37.00	85.00	90.00	71.00	85.00	78.00	?
p11	17493.00	17374.00	8562.00	989.00	111.00	298.00	490.00	226.00	298.00	252.00	?
p12	-	-	-	-	-	-	-	-	-	789588.00	?
p13	17208647.00	16596008.00	23104326.00	626769.00	16145.00	49939.00	337154.00	30414.00	49939.00	36122.00	?
p14	17830827.00	17657225.00	34729369.00	1170096.00	27006.00	76898.00	630547.00	51813.00	76898.00	59063.00	?
p15	-	-	-	-	-	-	-	-	-	141514.00	-
p16	-	-	-	-	-	-	-	-	-	29725.00	-
p17	-	-	-	-	-	-	-	-	-	16359.00	-
p18	-	-	-	-	-	-	-	-	-	14664.00	-
p19	-	-	-	-	-	-	-	-	-	7103.00	-
p20	-	-	-	-	-	-	-	-	-	2086.00	-

D.9 elevators

D.9.1 elevators-opt08-strips

Table D.10 – Total Expansions, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	458.00	27569.00
p02	-	-	-	-	-	-	-	-	-	52.00	14233.00
p03	-	-	-	-	-	-	-	-	-	4209.00	612356.00
p04	-	-	-	-	-	-	-	-	-	4873.00	833348.00
p05	3321129484.00	-	3107930012.00	3049905038.00	-	74541.00	3010026412.00	-	74541.00	44124.00	?
p06	2549157186.00	-	2015553561.00	2510883656.00	-	61687.00	2431380968.00	-	61687.00	38051.00	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	1884162728.00	-	2515615391.00	2446705854.00	-	561331.00	1955764076.00	-	561331.00	344298.00	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	707.00	147654.00
p12	-	-	-	-	-	-	-	-	-	1518.00	148942.00
p13	-	-	-	-	-	-	-	-	-	4234.00	1459029.00
p14	2135913843.00	-	13333.00	1765777051.00	-	13333.00	2098154191.00	-	13333.00	8156.00	?
p15	2693296158.00	-	2779257359.00	2532927829.00	-	9748.00	2680806036.00	-	9748.00	6246.00	?
p16	-	-	-	-	-	-	-	-	-	600696.00	-
p17	2515137582.00	-	2149269131.00	2444796762.00	-	1015532.00	2129374735.00	-	1015532.00	623114.00	?
p18	2038590442.00	-	82091.00	2131104277.00	-	82091.00	1516056589.00	-	82091.00	58132.00	?
p19	-	-	-	-	-	-	-	-	-	578227.00	-
p20	-	-	-	-	-	-	-	-	-	341712.00	-
p21	-	-	-	-	-	-	-	-	-	2159.00	185042.00
p22	-	-	-	-	-	-	-	-	-	19393.00	1456411.00
p23	2417948401.00	-	2268931120.00	1879112888.00	-	319785.00	1936343547.00	-	319785.00	161515.00	?
p24	1816779343.00	-	92937.00	1830950680.00	-	92937.00	1927795354.00	-	92937.00	50485.00	?
p25	2259674923.00	-	2001029525.00	2323951588.00	-	55292.00	2494931787.00	-	55292.00	29908.00	?
p26	1755383389.00	-	40386.00	1785033637.00	-	40386.00	1514331204.00	-	40386.00	26434.00	?
p27	2241439995.00	-	1910622833.00	2441196192.00	-	1010372.00	2356153381.00	-	1010372.00	513018.00	?
p28	-	-	-	-	-	-	-	-	-	342652.00	-
p29	-	-	-	-	-	-	-	-	-	652579.00	-
p30	-	-	-	-	-	-	-	-	-	253885.00	-

D.9.2 elevators-opt11-strips

Table D.11 – Total Expansions, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	707.00	147654.00
p02	-	-	-	-	-	-	-	-	-	2159.00	185042.00
p03	-	-	-	-	-	-	-	-	-	1518.00	148942.00
p04	-	-	-	-	-	-	-	-	-	4209.00	612356.00
p05	-	-	-	-	-	-	-	-	-	4234.00	1459029.00
p06	-	-	-	-	-	-	-	-	-	4873.00	833348.00
p07	1749567762.00	-	40386.00	1457707392.00	-	40386.00	1874783911.00	-	40386.00	26434.00	?
p08	3275654302.00	-	2567032984.00	3048101506.00	-	74541.00	2514101408.00	-	74541.00	44124.00	?
p09	-	-	-	-	-	-	-	-	-	19393.00	1456411.00
p10	1741753204.00	-	13333.00	2173996420.00	-	13333.00	2071340499.00	-	13333.00	8156.00	?
p11	-	-	-	-	-	-	-	-	-	340059.00	-
p12	2507008607.00	-	2402761275.00	2506650788.00	-	61687.00	2426037678.00	-	61687.00	38051.00	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	2401048577.00	-	2530253041.00	2049284225.00	-	561331.00	2319405586.00	-	561331.00	344298.00	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	2188657780.00	-	2244950685.00	2500019587.00	-	9748.00	2691393293.00	-	9748.00	6246.00	?
p17	2491350249.00	-	2621357117.00	2475602731.00	-	1015532.00	2143794165.00	-	1015532.00	623114.00	?
p18	2094436543.00	-	82091.00	2153690928.00	-	82091.00	1815172242.00	-	82091.00	58132.00	?
p19	1994314520.00	-	1881319369.00	2238770983.00	-	319785.00	2412433355.00	-	319785.00	161515.00	?
p20	1767550158.00	-	92937.00	1773070858.00	-	92937.00	1850570755.00	-	92937.00	50485.00	?

D.10 floortile

D.10.1 floortile-opt11-strips

Table D.12 – Total Expansions, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
opt-p01-001	146065.00	142864.00	1490266.00	8876.00	1260.00	5464.00	3611.00	2388.00	5464.00	2863.00	?
opt-p01-002	32908.00	30724.00	513587.00	2886.00	494.00	1898.00	1219.00	915.00	1898.00	1057.00	?
opt-p02-003	1724273571.00	1723690582.00	5159325018.00	12370335.00	9493768.00	67528783.00	470424.00	243304.00	645739.00	306804.00	?
opt-p02-004	223636128.00	223392472.00	1581953139.00	1574395.00	40524.00	210760.00	152201.00	84724.00	210760.00	101749.00	?
opt-p03-005	121984488.00	121761200.00	2430083489.00	1949020.00	72727.00	330692.00	269572.00	145057.00	330692.00	167425.00	?
opt-p03-006	532216109.00	531026364.00	4459320116.00	5462199.00	117069.00	562111.00	485861.00	241924.00	562111.00	282006.00	?
opt-p04-007	3985272114.00	-	4808356662.00	57125538.00	1153079.00	5888629.00	4773828.00	2397175.00	5888629.00	2876515.00	?
opt-p04-008	-	-	-	-	-	-	-	-	-	3233016.00	-
opt-p05-009	-	-	-	-	-	-	-	-	-	1780565.00	-
opt-p05-010	-	-	-	-	-	-	-	-	-	1729309.00	-
opt-p06-011	-	-	-	-	-	-	-	-	-	1064988.00	-
opt-p06-012	-	-	-	-	-	-	-	-	-	1103304.00	-
opt-p07-013	-	-	-	-	-	-	-	-	-	888678.00	-
opt-p07-014	-	-	-	-	-	-	-	-	-	982105.00	-
opt-p08-015	-	-	-	-	-	-	-	-	-	272732.00	-
opt-p08-016	-	-	-	-	-	-	-	-	-	256582.00	-
opt-p09-017	-	-	-	-	-	-	-	-	-	111512.00	-
opt-p09-018	-	-	-	-	-	-	-	-	-	89579.00	-
opt-p10-019	-	-	-	-	-	-	-	-	-	189418.00	-
opt-p10-020	-	-	-	-	-	-	-	-	-	149603.00	-

D.10.2 floortile-opt14-strips

Table D.13 – Total Expansions, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01-4-3-2	587324665.00	587185835.00	5170338523.00	2464010.00	1983038.00	31705539.00	250512.00	139787.00	358477.00	171237.00	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	3326256.00	-
p01-5-3-2	3864162855.00	3863715079.00	4017043865.00	14079680.00	246022.00	1243778.00	982219.00	512931.00	1243778.00	606822.00	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	1845314.00	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	983267.00	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	1103176.00	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	622738.00	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	3205296.00	-
p02-5-3-2	4147886658.00	-	4826098713.00	22484583.00	18411328.00	224239399.00	1554900.00	775063.00	1919898.00	928548.00	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	1814122.00	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	892941.00	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	1186255.00	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	587031.00	-
p03-4-3-2	537457467.00	537319931.00	4167031324.00	5123801.00	4026512.00	58863697.00	361572.00	189847.00	498649.00	240946.00	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	3203807.00	-
p03-5-3-2	4121029133.00	-	5033686795.00	23280006.00	19022677.00	217134109.00	1616561.00	820065.00	2009520.00	977001.00	?
p03-5-4-2	-	-	-	-	-	-	-	-	-	1780738.00	-
p03-5-5-2	-	-	-	-	-	-	-	-	-	872051.00	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	1156447.00	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	575590.00	-

D.11 freecell

D.11.1 freecell

Table D.14 – Total Expansions, freecell, freecell

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	425.00	3344.00
p02	-	-	-	-	-	-	-	-	-	26407.00	129001.00
p03	-	-	-	-	-	-	-	-	-	103852.00	927315.00
p04	-	-	-	-	-	-	-	-	-	143326.00	3188931.00
p05	4286144463.00	-	5092716453.00	370228199.00	110986.00	269437.00	205694.00	205694.00	269437.00	197385.00	?
p06	-	-	-	-	-	-	-	-	-	278817.00	-
p07	-	-	-	-	-	-	-	-	-	384621.00	-
p08	-	-	-	-	-	-	-	-	-	199811.00	-
p09	-	-	-	-	-	-	-	-	-	174677.00	-
p10	-	-	-	-	-	-	-	-	-	89257.00	-
p11	-	-	-	-	-	-	-	-	-	153178.00	-
p12	-	-	-	-	-	-	-	-	-	141627.00	-
p13	-	-	-	-	-	-	-	-	-	87922.00	-
p14	-	-	-	-	-	-	-	-	-	65646.00	-
p15	-	-	-	-	-	-	-	-	-	55695.00	-
p16	-	-	-	-	-	-	-	-	-	54354.00	-
p17	-	-	-	-	-	-	-	-	-	33377.00	-
p18	-	-	-	-	-	-	-	-	-	58740.00	-
p19	-	-	-	-	-	-	-	-	-	37943.00	-
p20	-	-	-	-	-	-	-	-	-	32675.00	-
probfreecell-10-1	-	-	-	-	-	-	-	-	-	43510.00	-
probfreecell-10-2	-	-	-	-	-	-	-	-	-	43297.00	-
probfreecell-10-3	-	-	-	-	-	-	-	-	-	40024.00	-
probfreecell-10-4	-	-	-	-	-	-	-	-	-	41697.00	-
probfreecell-10-5	-	-	-	-	-	-	-	-	-	42886.00	-
probfreecell-11-1	-	-	-	-	-	-	-	-	-	39180.00	-
probfreecell-11-2	-	-	-	-	-	-	-	-	-	40016.00	-
probfreecell-11-3	-	-	-	-	-	-	-	-	-	40115.00	-
probfreecell-11-4	-	-	-	-	-	-	-	-	-	40561.00	-
probfreecell-11-5	-	-	-	-	-	-	-	-	-	35527.00	-
probfreecell-12-1	-	-	-	-	-	-	-	-	-	42981.00	-
probfreecell-12-2	-	-	-	-	-	-	-	-	-	29026.00	-
probfreecell-12-3	-	-	-	-	-	-	-	-	-	34866.00	-
probfreecell-12-4	-	-	-	-	-	-	-	-	-	42909.00	-
probfreecell-12-5	-	-	-	-	-	-	-	-	-	37063.00	-
probfreecell-13-1	-	-	-	-	-	-	-	-	-	34720.00	-
probfreecell-13-2	-	-	-	-	-	-	-	-	-	39441.00	-
probfreecell-13-3	-	-	-	-	-	-	-	-	-	33064.00	-
probfreecell-13-4	-	-	-	-	-	-	-	-	-	36075.00	-
probfreecell-13-5	-	-	-	-	-	-	-	-	-	26485.00	-
probfreecell-2-1	-	-	-	-	-	-	-	-	-	1383.00	5549.00
probfreecell-2-2	-	-	-	-	-	-	-	-	-	719.00	5324.00
probfreecell-2-3	-	-	-	-	-	-	-	-	-	559.00	5253.00
probfreecell-2-4	-	-	-	-	-	-	-	-	-	872.00	6694.00
probfreecell-2-5	-	-	-	-	-	-	-	-	-	1879.00	6303.00
probfreecell-3-1	-	-	-	-	-	-	-	-	-	247961.00	623814.00
probfreecell-3-2	-	-	-	-	-	-	-	-	-	146495.00	548424.00
probfreecell-3-3	-	-	-	-	-	-	-	-	-	84114.00	544799.00
probfreecell-3-4	-	-	-	-	-	-	-	-	-	114112.00	674078.00
probfreecell-3-5	-	-	-	-	-	-	-	-	-	173426.00	607262.00
probfreecell-4-1	-	-	-	-	-	-	-	-	-	158480.00	-
probfreecell-4-2	-	-	-	-	-	-	-	-	-	217397.00	-
probfreecell-4-3	-	-	-	-	-	-	-	-	-	173246.00	-
probfreecell-4-4	-	-	-	-	-	-	-	-	-	218121.00	-
probfreecell-4-5	-	-	-	-	-	-	-	-	-	208798.00	-
probfreecell-5-1	-	-	-	-	-	-	-	-	-	96712.00	-
probfreecell-5-2	-	-	-	-	-	-	-	-	-	110629.00	-
probfreecell-5-3	-	-	-	-	-	-	-	-	-	107467.00	-
probfreecell-5-4	-	-	-	-	-	-	-	-	-	114641.00	-
probfreecell-5-5	-	-	-	-	-	-	-	-	-	93188.00	-
probfreecell-6-1	-	-	-	-	-	-	-	-	-	73495.00	-
probfreecell-6-2	-	-	-	-	-	-	-	-	-	82457.00	-
probfreecell-6-3	-	-	-	-	-	-	-	-	-	70644.00	-
probfreecell-6-4	-	-	-	-	-	-	-	-	-	72267.00	-
probfreecell-6-5	-	-	-	-	-	-	-	-	-	66648.00	-
probfreecell-7-1	-	-	-	-	-	-	-	-	-	63595.00	-
probfreecell-7-2	-	-	-	-	-	-	-	-	-	60655.00	-
probfreecell-7-3	-	-	-	-	-	-	-	-	-	61452.00	-
probfreecell-7-4	-	-	-	-	-	-	-	-	-	61742.00	-
probfreecell-7-5	-	-	-	-	-	-	-	-	-	56434.00	-
probfreecell-8-1	-	-	-	-	-	-	-	-	-	55356.00	-
probfreecell-8-2	-	-	-	-	-	-	-	-	-	52968.00	-
probfreecell-8-3	-	-	-	-	-	-	-	-	-	49704.00	-
probfreecell-8-4	-	-	-	-	-	-	-	-	-	45772.00	-
probfreecell-8-5	-	-	-	-	-	-	-	-	-	44938.00	-
probfreecell-9-1	-	-	-	-	-	-	-	-	-	41464.00	-
probfreecell-9-2	-	-	-	-	-	-	-	-	-	43514.00	-
probfreecell-9-3	-	-	-	-	-	-	-	-	-	43543.00	-
probfreecell-9-4	-	-	-	-	-	-	-	-	-	44284.00	-
probfreecell-9-5	-	-	-	-	-	-	-	-	-	41199.00	-

D.12 ged

D.12.1 ged-opt14-strips

Table D.15 – Total Expansions, ged, ged-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
d-1-2	-	-	-	-	-	-	-	-	-	1.00	111.00
d-1-3	-	-	-	-	-	-	-	-	-	72858.00	266331.00
d-1-4	-	-	-	-	-	-	-	-	-	1.00	111.00
d-1-8	-	-	-	-	-	-	-	-	-	339263.00	2814778.00
d-2-1	-	-	-	-	-	-	-	-	-	1.00	111.00
d-2-3	-	-	-	-	-	-	-	-	-	3208.00	29917.00
d-2-4	-	-	-	-	-	-	-	-	-	98.00	784.00
d-2-8	-	-	-	-	-	-	-	-	-	?	?
d-3-1	-	-	-	-	-	-	-	-	-	72874.00	264175.00
d-3-2	-	-	-	-	-	-	-	-	-	3272.00	29824.00
d-3-4	18963265.00	18077343.00	557599955.00	9165856.00	1138211.00	2047465.00	3558321.00	1891905.00	2047465.00	2064595.00	?
d-4-2	-	-	-	-	-	-	-	-	-	100.00	739.00
d-4-3	17297364.00	17131240.00	55917709.00	9341543.00	1360054.00	2042897.00	3863209.00	2108221.00	2042897.00	2273061.00	?
d-4-8	-	-	-	-	-	-	-	-	-	?	-
d-7-5	1306014.00	1306014.00	5702275.00	4714029.00	4242581.00	7434749.00	5790781.00	5676913.00	6866853.00	358355.00	?
d-7-6	-	-	-	-	-	-	-	-	-	93457.00	786068.00
d-8-1	-	-	-	-	-	-	-	-	-	338879.00	2789132.00
d-8-2	-	-	-	-	-	-	-	-	-	?	-
d-8-4	-	-	-	-	-	-	-	-	-	?	-
d-8-9	-	-	-	-	-	-	-	-	-	?	-

D.13 grid

D.13.1 grid

Table D.16 – Total Expansions, grid, grid

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	50.00	5767.00
prob02	331728.00	329384.00	477407.00	89609.00	37522.00	109367.00	83421.00	67861.00	109367.00	77087.00	?
prob03	-	-	-	-	-	-	-	-	-	161640.00	-
prob04	-	-	-	-	-	-	-	-	-	1112195.00	-
prob05	-	-	-	-	-	-	-	-	-	62808.00	-

D.14 gripper

D.14.1 gripper

Table D.17 – Total Expansions, gripper, gripper

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	114.00	235.00
prob02	-	-	-	-	-	-	-	-	-	1373.00	1825.00
prob03	-	-	-	-	-	-	-	-	-	10638.00	11735.00
prob04	-	-	-	-	-	-	-	-	-	66380.00	68557.00
prob05	-	-	-	-	-	-	-	-	-	372716.00	376771.00
prob06	-	-	-	-	-	-	-	-	-	1975785.00	1982393.00
prob07	-	-	-	-	-	-	-	-	-	10082674.00	10092463.00
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	7561611.00	-
prob10	-	-	-	-	-	-	-	-	-	7548800.00	-
prob11	-	-	-	-	-	-	-	-	-	5403336.00	-
prob12	-	-	-	-	-	-	-	-	-	4122693.00	-
prob13	-	-	-	-	-	-	-	-	-	2281596.00	-
prob14	-	-	-	-	-	-	-	-	-	1740457.00	-
prob15	-	-	-	-	-	-	-	-	-	1535416.00	-
prob16	-	-	-	-	-	-	-	-	-	1808139.00	-
prob17	-	-	-	-	-	-	-	-	-	2161094.00	-
prob18	-	-	-	-	-	-	-	-	-	2591459.00	-
prob19	-	-	-	-	-	-	-	-	-	2103434.00	-
prob20	-	-	-	-	-	-	-	-	-	1814907.00	-

D.15 hiking

D.15.1 hiking-opt14-strips

Table D.18 – Total Expansions, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	271.00	494.00
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	2073.00	3008.00
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	8705.00	11406.00
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	65571.00	77960.00
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	141345.00	163452.00
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	4064.00	59118.00
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	215156.00	1618319.00
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	738357.00	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	209067.00	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	95930.00	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	44407.00	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	810850.00	5761664.00
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	259002.00	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	94586.00	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	46714.00	-
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	19453.00	339557.00
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	719943.00	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	162977.00	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	56569.00	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	21967.00	-

114

D.16 logistics

D.16.1 logistics00

Table D.19 – Total Expansions, logistics, logistics00

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probLOGISTICS-10-0	2385008254.00	-	2331848656.00	2857538112.00	-	243861.00	2944997950.00	-	243861.00	193846.00	?
probLOGISTICS-10-1	3147777489.00	-	2740340767.00	3352556865.00	-	194305.00	3323938791.00	-	194305.00	165006.00	?
probLOGISTICS-11-0	2286100755.00	-	2935816796.00	3046121894.00	-	186145.00	3049043565.00	-	186145.00	156585.00	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	1472787.00	-
probLOGISTICS-12-0	2282803072.00	-	2989799345.00	2915004126.00	-	137736.00	2941702890.00	-	137736.00	116555.00	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	982136.00	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	235343.00	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	289814.00	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	306074.00	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	205521.00	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	164127.00	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	207807.00	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	76.00	11963.00
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	194.00	9658.00
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	50.00	3971.00
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	935.00	114019.00
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	181.00	23777.00
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	8.00	764.00
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	933.00	477118.00
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	34.00	29649.00
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	514.00	473780.00
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	536.00	420002.00
probLOGISTICS-7-0	4061339708.00	-	3261987988.00	519211229.00	3510.00	9212.00	211765388.00	7072.00	9212.00	7739.00	?
probLOGISTICS-7-1	4128902415.00	-	4155069737.00	3839417632.00	-	197858.00	3016131549.00	113429.00	197858.00	155138.00	?
probLOGISTICS-8-0	4089789584.00	4070316788.00	3622321295.00	76170264.00	1434.00	3683.00	61350679.00	2947.00	3683.00	3269.00	?
probLOGISTICS-8-1	2972840041.00	-	2989686766.00	2997499283.00	-	50701.00	2293916151.00	34454.00	50701.00	43663.00	?
probLOGISTICS-9-0	3993494105.00	-	3947268627.00	2293401187.00	5456.00	17309.00	2231961097.00	11969.00	17309.00	14089.00	?
probLOGISTICS-9-1	4183091183.00	-	4010790447.00	4127872249.00	-	704.00	3379979573.00	-	704.00	707.00	?

D.16.2 logistics98

Table D.20 – Total Expansions, logistics, logistics98

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	1910453296.00	-	2379939731.00	843013337.00	4857.00	13602.00	826898660.00	10646.00	13602.00	12645.00	?
prob02	-	-	-	-	-	-	-	-	-	342546.00	-
prob03	-	-	-	-	-	-	-	-	-	37031.00	-
prob04	-	-	-	-	-	-	-	-	-	7748.00	-
prob05	26.00	26.00	30.00	26.00	26.00	23.00	24.00	24.00	23.00	23.00	?
prob06	-	-	-	-	-	-	-	-	-	5990.00	-
prob07	-	-	-	-	-	-	-	-	-	90572.00	-
prob08	-	-	-	-	-	-	-	-	-	11680.00	-
prob09	-	-	-	-	-	-	-	-	-	1362.00	-
prob10	-	-	-	-	-	-	-	-	-	2429.00	-
prob11	-	-	-	-	-	-	-	-	-	85901.00	-
prob12	-	-	-	-	-	-	-	-	-	1249.00	-
prob13	-	-	-	-	-	-	-	-	-	820.00	-
prob14	-	-	-	-	-	-	-	-	-	1110.00	-
prob15	-	-	-	-	-	-	-	-	-	24325.00	-
prob16	-	-	-	-	-	-	-	-	-	1950.00	-
prob17	-	-	-	-	-	-	-	-	-	9605.00	-
prob18	-	-	-	-	-	-	-	-	-	113.00	-
prob19	-	-	-	-	-	-	-	-	-	233.00	-
prob20	-	-	-	-	-	-	-	-	-	121.00	-
prob21	-	-	-	-	-	-	-	-	-	197.00	-
prob22	-	-	-	-	-	-	-	-	-	12.00	-
prob23	-	-	-	-	-	-	-	-	-	3632.00	-
prob24	-	-	-	-	-	-	-	-	-	824.00	-
prob25	-	-	-	-	-	-	-	-	-	23.00	-
prob26	-	-	-	-	-	-	-	-	-	116.00	-
prob27	-	-	-	-	-	-	-	-	-	74.00	-
prob28	-	-	-	-	-	-	-	-	-	1.00	-
prob29	-	-	-	-	-	-	-	-	-	17.00	-
prob30	-	-	-	-	-	-	-	-	-	25.00	-
prob31	-	-	-	-	-	-	-	-	-	68.00	185361.00
prob32	-	-	-	-	-	-	-	-	-	117.00	254234.00
prob33	2661639061.00	-	2101418608.00	2634795345.00	-	98028.00	2594646798.00	-	98028.00	92698.00	?
prob34	-	-	-	-	-	-	-	-	-	209408.00	-
prob35	568338110.00	176.00	1645.00	564602237.00	831.00	1645.00	184663060.00	1508.00	1645.00	1659.00	?

D.17 miconic

D.17.1 miconic

Table D.21 – Total Expansions, miconic, miconic

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
s1-0	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-1	-	-	-	-	-	-	-	-	-	3.00	4.00
s1-2	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-3	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-4	-	-	-	-	-	-	-	-	-	4.00	4.00
s10-0	-	-	-	-	-	-	-	-	-	57.00	16194641.00
s10-1	-	-	-	-	-	-	-	-	-	64.00	16519524.00
s10-2	-	-	-	-	-	-	-	-	-	74.00	15369517.00
s10-3	-	-	-	-	-	-	-	-	-	52.00	16822223.00
s10-4	-	-	-	-	-	-	-	-	-	44.00	16481293.00
s11-0	49.00	49.00	61.00	70.00	70.00	79.00	78.00	78.00	79.00	78.00	?
s11-1	75.00	75.00	50.00	54.00	54.00	57.00	56.00	56.00	57.00	57.00	?
s11-2	63.00	63.00	68.00	85.00	85.00	96.00	97.00	97.00	96.00	95.00	?
s11-3	2395349202.00	-	2442630690.00	2428580801.00	-	18048.00	1965020856.00	-	18048.00	18047.00	-
s11-4	84.00	84.00	100.00	91.00	91.00	77.00	77.00	77.00	77.00	76.00	?
s12-0	83.00	83.00	61.00	65.00	65.00	54.00	55.00	55.00	54.00	54.00	?
s12-1	54.00	54.00	56.00	69.00	69.00	85.00	85.00	85.00	85.00	85.00	?
s12-2	62.00	60.00	76.00	84.00	84.00	103.00	75.00	75.00	103.00	76.00	?
s12-3	57.00	57.00	76.00	71.00	71.00	81.00	81.00	81.00	81.00	80.00	?
s12-4	79.00	79.00	96.00	55.00	55.00	61.00	61.00	61.00	61.00	61.00	?
s13-0	80.00	80.00	72.00	80.00	80.00	80.00	80.00	80.00	80.00	79.00	?
s13-1	1925544524.00	-	19829.00	1628029414.00	-	19829.00	19671735725.00	-	19829.00	19827.00	?
s13-2	84.00	84.00	98.00	112.00	112.00	117.00	116.00	116.00	117.00	117.00	?
s13-3	53.00	53.00	57.00	66.00	66.00	74.00	73.00	73.00	74.00	74.00	?
s13-4	63.00	63.00	82.00	67.00	67.00	74.00	75.00	75.00	74.00	74.00	?
s14-0	106.00	106.00	138.00	73.00	73.00	70.00	71.00	71.00	70.00	70.00	?
s14-1	162.00	162.00	111.00	73.00	73.00	83.00	84.00	84.00	83.00	83.00	?
s14-2	187.00	187.00	119.00	203.00	203.00	127.00	122.00	122.00	127.00	127.00	?
s14-3	100.00	100.00	87.00	74.00	74.00	101.00	101.00	101.00	101.00	101.00	?
s14-4	83.00	83.00	112.00	114.00	114.00	118.00	118.00	118.00	118.00	118.00	?
s15-0	76.00	76.00	98.00	103.00	103.00	109.00	108.00	108.00	109.00	109.00	?
s15-1	85.00	85.00	183.00	131.00	131.00	184.00	182.00	182.00	184.00	183.00	?
s15-2	333.00	333.00	114.00	181.00	181.00	155.00	153.00	153.00	155.00	154.00	?
s15-3	91.00	91.00	156.00	143.00	143.00	167.00	164.00	164.00	167.00	167.00	?
s15-4	109.00	109.00	158.00	132.00	132.00	157.00	162.00	162.00	157.00	156.00	?
s16-0	125.00	125.00	145.00	130.00	130.00	111.00	110.00	110.00	111.00	111.00	?
s16-1	102.00	102.00	105.00	112.00	112.00	111.00	110.00	110.00	111.00	111.00	?
s16-2	107.00	107.00	98.00	115.00	115.00	137.00	134.00	134.00	137.00	136.00	?
s16-3	131.00	131.00	212.00	194.00	194.00	212.00	232.00	232.00	212.00	217.00	?
s16-4	141.00	141.00	107.00	109.00	109.00	137.00	134.00	134.00	137.00	137.00	?
s17-0	143.00	143.00	162.00	146.00	146.00	168.00	174.00	174.00	168.00	167.00	?
s17-1	193.00	193.00	174.00	153.00	153.00	174.00	174.00	174.00	174.00	174.00	?
s17-2	142.00	142.00	178.00	159.00	159.00	179.00	176.00	176.00	179.00	179.00	?
s17-3	83.00	83.00	89.00	105.00	105.00	116.00	116.00	116.00	116.00	115.00	?
s17-4	1577626053.00	-	86742.00	1573948947.00	-	86742.00	1319426458.00	-	86742.00	86727.00	?
s18-0	253.00	253.00	170.00	155.00	155.00	182.00	184.00	184.00	182.00	182.00	?
s18-1	195.00	195.00	216.00	175.00	175.00	213.00	216.00	216.00	213.00	213.00	?
s18-2	162.00	162.00	187.00	173.00	173.00	187.00	189.00	189.00	187.00	187.00	?
s18-3	158.00	158.00	131.00	128.00	128.00	166.00	160.00	160.00	166.00	165.00	?
s18-4	73.00	73.00	143.00	121.00	121.00	145.00	146.00	146.00	145.00	144.00	?
s19-0	205.00	205.00	171.00	186.00	186.00	202.00	205.00	205.00	202.00	202.00	?
s19-1	152.00	152.00	186.00	186.00	186.00	216.00	215.00	215.00	216.00	216.00	?
s19-2	-	-	-	-	-	-	-	-	-	247976.00	-
s19-3	306.00	306.00	174.00	185.00	185.00	207.00	209.00	209.00	207.00	206.00	?
s19-4	154.00	154.00	146.00	159.00	159.00	161.00	161.00	161.00	161.00	160.00	?
s2-0	-	-	-	-	-	-	-	-	-	8.00	27.00
s2-1	-	-	-	-	-	-	-	-	-	8.00	29.00
s2-2	-	-	-	-	-	-	-	-	-	8.00	33.00
s2-3	-	-	-	-	-	-	-	-	-	7.00	25.00
s2-4	-	-	-	-	-	-	-	-	-	10.00	26.00
s20-0	-	-	-	-	-	-	-	-	-	204409.00	-
s20-1	170.00	170.00	150.00	144.00	144.00	158.00	159.00	159.00	158.00	158.00	?
s20-2	1173.00	1173.00	482.00	1341.00	1341.00	482.00	1067.00	1067.00	482.00	481.00	?
s20-3	133.00	133.00	267.00	222.00	222.00	267.00	263.00	263.00	267.00	267.00	?
s20-4	275.00	275.00	234.00	221.00	221.00	194.00	191.00	191.00	194.00	193.00	?
s21-0	172.00	172.00	248.00	230.00	230.00	251.00	247.00	247.00	251.00	250.00	?
s21-1	155.00	155.00	199.00	199.00	199.00	208.00	210.00	210.00	208.00	208.00	?
s21-2	232.00	232.00	163.00	117.00	117.00	136.00	135.00	135.00	136.00	136.00	?
s21-3	230.00	230.00	193.00	168.00	168.00	197.00	200.00	200.00	197.00	196.00	?
s21-4	168.00	168.00	142.00	144.00	144.00	166.00	164.00	164.00	166.00	166.00	?
s22-0	197.00	197.00	339.00	295.00	295.00	339.00	344.00	344.00	339.00	338.00	?
s22-1	245.00	245.00	288.00	287.00	287.00	288.00	278.00	278.00	288.00	288.00	?
s22-2	151.00	151.00	356.00	280.00	280.00	356.00	348.00	348.00	356.00	356.00	?
s22-3	166.00	166.00	175.00	153.00	153.00	183.00	181.00	181.00	183.00	182.00	?
s22-4	191.00	191.00	197.00	167.00	167.00	188.00	189.00	189.00	188.00	187.00	?
s23-0	123.00	123.00	224.00	189.00	189.00	236.00	235.00	235.00	236.00	235.00	?
s23-1	-	-	-	-	-	-	-	-	-	162526.00	-
s23-2	377.00	377.00	244.00	280.00	280.00	244.00	240.00	240.00	244.00	244.00	?
s23-3	-	-	-	-	-	-	-	-	-	66674.00	-
s23-4	204.00	204.00	245.00	207.00	207.00	245.00	244.00	244.00	245.00	245.00	?
s24-0	181.00	181.00	235.00	248.00	248.00	223.00	243.00	243.00	223.00	223.00	?
s24-1	237.00	237.00	289.00	344.00	344.00	289.00	329.00	329.00	289.00	289.00	?
s24-2	269.00	269.00	284.00	218.00	218.00	284.00	283.00	283.00	284.00	283.00	?
s24-3	287.00	287.00	241.00	228.00	228.00	274.00	269.00	269.00	274.00	273.00	?
s24-4	210.00	210.00	271.00	269.00	269.00	271.00	268.00	268.00	271.00	270.00	?
s25-0	221.00	221.00	435.00	343.00	343.00	435.00	450.00	450.00	435.00	435.00	?
s25-1	284.00	284.00	551.00	433.00	433.00	551.00	551.00	551.00	551.00	551.00	?
s25-2	-	-	-	-	-	-	-	-	-	70181.00	-
s25-3	244.00	244.00	244.00	243.00	243.00	275.00	271.00	271.00	275.00	274.00	?
s25-4	176.00	176.00	333.00	248.00	248.00	333.00	349.00	349.00	333.00	332.00	?
s26-0	432.00	432.00	403.00	294.00	294.00	403.00	388.00	388.00	403.00	402.00	?
s26-1	-	-	-	-	-	-	-	-	-	104110.00	-
s26-2	291.00	291.00	297.00	292.00	292.00	305.00	304.00	304.00	305.00	305.00	?
s26-3	349.00	349.00	455.00	412.00	412.00	455.00	436.00	436.00	455.00	455.00	?
s26-4	353.00	353.00	195.00	183.00	183.00	245.00	237.00	237.00	245.00	244.00	?
s27-0	-	-	-	-	-	-	-	-	-	63168.00	-
s27-1	984.00	984.00	333.00	172.00	172.00	233.00	224.00	224.00	233.00	233.00	?
s27-2	367.00	367.00	686.00	520.00	520.00	686.00	705.00	705.00	686.00	686.00	?
s27-3	329.00	329.00	340.00	252.00	252.00	339.00	334.00	334.00	339.00	339.00	?
s27-4	224.00	224.00	486.00	358.00	358.00	486.00	467.00	467.00	486.00	485.00	?
s28-0	186.00	186.00	290.00	273.00	273.00	363.00	348.00	348.00	363.00	362.00	?
s28-1	-	-	-	-	-	-	-	-	-	74156.00	-
s28-2	261.00	261.00	416.00	313.00	313.00	416.00	411.00	411.00	416.00	415.00	?
s28-3	284.00	284.00	418.00	340.00	340.00	418.00	480.00	480.00	418.00	418.00	?
s28-4	215.00	215.00	344.00	296.00	296.00	344.00	346.00	346.00	344.00	344.00	?
s29-0	284.00	284.00	245.00	244.00	244.00	238.00	234.00	234.00	238.00	238.00	?
s29-1	441.00	441.00	378.00	335.00	335.00	378.00	380.00	380.00	378.00	378.00	?
s29-2	342.00	342.00	427.00	330.00	330.00	427.00	424.00	424.00	427.00	427.00	?
s29-3	557.00	557.00	405.00	348.00	348.00	405.00	388.00	388.00	405.00	404.00	?
s29-4	360.00	360.00	463.00	310.00	310.00	463.00	449.00	449.00	463.00	463.00	?
s3-0	-	-	-	-	-	-	-	-	-	17.00	200.00
s3-1	-	-	-	-	-	-	-	-	-	22.00	219.00
s3-2	-	-	-	-	-	-	-	-	-	16.00	190.00
s3-3	-	-	-	-	-	-	-	-	-	12.00	208.00
s3-4	-	-	-	-	-	-	-	-	-	12.00	211.00
s30-0	423.00	423.00	354.00	271.00	271.00	354.00	345.00	345.00	354.00	354.00	?
s30-1	315.00	315.00	452.00	377.00	377.00	452.00	469.00	469.00	452.00	452.00	?
s30-2	460.00	460.00	378.00	449.00	449.00	378.00	387.00	387.00	378.00	377.00	?
s30-3	-	-	-	-	-	-	-	-	-	4436161.00	-
s30-4	259.00	259.00	393.00	321.00	321.00	393.00	376.00	376.00	393.00	393.00	?
s4-0	-	-	-	-	-	-	-	-	-	15.00	1284.00
s4-1	-	-	-	-	-	-	-	-	-	16.00	1323.00
s4-2	-	-	-	-	-	-	-	-	-	18.00	1353.00
s4-3	-	-	-	-	-	-	-	-	-	22.00	1308.00
s4-4	-	-	-	-	-	-	-	-	-	29.00	1354.00
s5-0	-	-	-	-	-	-	-	-	-	29.00	6645.00
s5-1	-	-	-	-	-	-	-	-	-	24.00	6852.00
s5-2	-	-	-	-	-	-	-	-	-	23.00	5965.00
s5-3	-	-	-	-	-	-	-	-	-	19.00	6132.00
s5-4	-	-	-	-	-	-	-	-	-	27.00	7203.00
s6-0	-	-	-	-	-	-	-	-	-	43.00	32338.00
s6-1	-	-	-	-	-	-	-	-	-	21.00	31992.00
s6-2	-	-	-	-	-	-	-	-	-	30.00	31964.00
s6-3	-	-	-	-	-	-	-	-	-	131.00	33385.00
s6-4	-	-	-	-	-	-	-	-	-	29.00	36044.00
s7-0	-	-	-	-	-	-	-	-	-	32.00	156769.00
s7-1	-	-	-	-	-	-	-	-	-	49.00	155377.00
s7-2	-	-	-	-	-	-	-	-	-	23.00	167160.00
s7-3	-	-	-	-	-	-	-	-	-	33.00	156728.00
s7-4	-	-	-	-	-	-	-	-	-	45.00	174779.00
s8-0	-	-	-	-	-	-	-	-	-	38.00	754501.00
s8-1	-	-	-	-	-	-	-	-	-	555.00	784004.00
s8-2	-	-	-	-	-	-	-	-	-	55.00	710644.00
s8-3	-	-	-	-	-	-	-	-	-	49.00	815253.00
s8-4	-	-	-	-	-	-	-	-	-	44.00	795232.00
s9-0	-	-	-	-	-	-	-	-	-	61.00	3630265.00
s9-1	-	-	-	-	-	-	-	-	-	66.00	3638478.00
s9-2	-	-	-	-	-	-	-	-	-	57.00	3489961.00
s9-3	-	-	-	-	-	-	-	-	-	36.00	3917908.00
s9-4	-	-	-	-	-	-	-	-	-	476.00	3678050.00

D.18 movie

D.18.1 movie

Table D.22 – Total Expansions, movie, movie

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	8.00	121.00
prob02	-	-	-	-	-	-	-	-	-	8.00	121.00
prob03	-	-	-	-	-	-	-	-	-	8.00	121.00
prob04	-	-	-	-	-	-	-	-	-	8.00	121.00
prob05	-	-	-	-	-	-	-	-	-	8.00	121.00
prob06	-	-	-	-	-	-	-	-	-	8.00	121.00
prob07	-	-	-	-	-	-	-	-	-	8.00	121.00
prob08	-	-	-	-	-	-	-	-	-	8.00	121.00
prob09	-	-	-	-	-	-	-	-	-	8.00	121.00
prob10	-	-	-	-	-	-	-	-	-	8.00	121.00
prob11	-	-	-	-	-	-	-	-	-	8.00	121.00
prob12	-	-	-	-	-	-	-	-	-	8.00	121.00
prob13	-	-	-	-	-	-	-	-	-	8.00	121.00
prob14	-	-	-	-	-	-	-	-	-	8.00	121.00
prob15	-	-	-	-	-	-	-	-	-	8.00	121.00
prob16	-	-	-	-	-	-	-	-	-	8.00	121.00
prob17	-	-	-	-	-	-	-	-	-	8.00	121.00
prob18	-	-	-	-	-	-	-	-	-	8.00	121.00
prob19	-	-	-	-	-	-	-	-	-	8.00	121.00
prob20	-	-	-	-	-	-	-	-	-	8.00	121.00
prob21	-	-	-	-	-	-	-	-	-	8.00	121.00
prob22	-	-	-	-	-	-	-	-	-	8.00	121.00
prob23	-	-	-	-	-	-	-	-	-	8.00	121.00
prob24	-	-	-	-	-	-	-	-	-	8.00	121.00
prob25	-	-	-	-	-	-	-	-	-	8.00	121.00
prob26	-	-	-	-	-	-	-	-	-	8.00	121.00
prob27	-	-	-	-	-	-	-	-	-	8.00	121.00
prob28	-	-	-	-	-	-	-	-	-	8.00	121.00
prob29	-	-	-	-	-	-	-	-	-	8.00	121.00
prob30	-	-	-	-	-	-	-	-	-	8.00	121.00

D.19 mprime

D.19.1 mprime

Table D.23 – Total Expansions, mprime, mprime

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	7.00	3137.00
prob02	12158.00	12158.00	3128.00	12133.00	12133.00	3128.00	12128.00	12128.00	3128.00	12115.00	?
prob03	-	-	-	-	-	-	-	-	-	8.00	10518.00
prob04	-	-	-	-	-	-	-	-	-	426.00	599999.00
prob05	1199986.00	1180227.00	3327493.00	231070.00	56539.00	106525.00	137034.00	79972.00	106525.00	86386.00	?
prob06	-	-	-	-	-	-	-	-	-	3090.00	-
prob07	-	-	-	-	-	-	-	-	-	5.00	4705.00
prob08	2017.00	2017.00	1008.00	1918.00	1918.00	1008.00	1891.00	1891.00	1008.00	1890.00	?
prob09	18176.00	17035.00	880.00	1273.00	513.00	880.00	891.00	891.00	880.00	890.00	?
prob10	-	-	-	-	-	-	-	-	-	1369.00	-
prob11	-	-	-	-	-	-	-	-	-	329.00	179813.00
prob12	-	-	-	-	-	-	-	-	-	349.00	203501.00
prob13	-	-	-	-	-	-	-	-	-	1213.00	-
prob14	-	-	-	-	-	-	-	-	-	919.00	-
prob15	-	-	-	-	-	-	-	-	-	2297.00	-
prob16	458.00	404.00	494.00	460.00	460.00	494.00	460.00	460.00	494.00	460.00	?
prob17	5.00	5.00	8.00	9.00	9.00	8.00	9.00	9.00	8.00	8.00	?
prob18	-	-	-	-	-	-	-	-	-	1831.00	-
prob19	-	-	-	-	-	-	-	-	-	28894.00	-
prob20	-	-	-	-	-	-	-	-	-	2383.00	-
prob21	-	-	-	-	-	-	-	-	-	8546.00	1084131.00
prob22	-	-	-	-	-	-	-	-	-	893.00	-
prob23	-	-	-	-	-	-	-	-	-	5952.00	-
prob24	-	-	-	-	-	-	-	-	-	20218.00	-
prob25	-	-	-	-	-	-	-	-	-	4.00	277.00
prob26	442.00	394.00	495.00	437.00	437.00	495.00	437.00	437.00	495.00	436.00	?
prob27	-	-	-	-	-	-	-	-	-	9.00	61377.00
prob28	-	-	-	-	-	-	-	-	-	131.00	12035.00
prob29	-	-	-	-	-	-	-	-	-	10.00	7428.00
prob30	-	-	-	-	-	-	-	-	-	14088.00	-
prob31	-	-	-	-	-	-	-	-	-	13.00	4786.00
prob32	-	-	-	-	-	-	-	-	-	163.00	117811.00
prob33	-	-	-	-	-	-	-	-	-	15666.00	-
prob34	-	-	-	-	-	-	-	-	-	16.00	6081.00
prob35	-	-	-	-	-	-	-	-	-	30.00	5342.00

D.20 mystery

D.20.1 mystery

Table D.24 – Total Expansions, mystery, mystery

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	7.00	39.00
prob02	-	-	-	-	-	-	-	-	-	85.00	961139.00
prob03	-	-	-	-	-	-	-	-	-	4.00	394.00
prob04	-	-	-	-	-	-	-	-	-	5898125.00	-
prob05	-	-	-	-	-	-	-	-	-	1108109.00	-
prob06	44663.00	8022.00	18692.00	48203.00	24126.00	18692.00	24339.00	24339.00	18692.00	24338.00	?
prob07	-	-	-	-	-	-	-	-	-	0.00	-
prob08	-	-	-	-	-	-	-	-	-	1502612.00	-
prob09	-	-	-	-	-	-	-	-	-	42.00	345677.00
prob10	1314.00	1313.00	1888.00	3063.00	3063.00	1888.00	1328.00	1328.00	1888.00	1328.00	?
prob11	-	-	-	-	-	-	-	-	-	10.00	658.00
prob12	-	-	-	-	-	-	-	-	-	521397.00	-
prob13	-	-	-	-	-	-	-	-	-	22001.00	-
prob14	-	-	-	-	-	-	-	-	-	4906.00	-
prob15	-	-	-	-	-	-	-	-	-	432.00	703075.00
prob16	-	-	-	-	-	-	-	-	-	1777238.00	-
prob17	-	-	-	-	-	-	-	-	-	5.00	4710.00
prob18	-	-	-	-	-	-	-	-	-	0.00	-
prob19	-	-	-	-	-	-	-	-	-	199.00	136917.00
prob20	931.00	904.00	481.00	138.00	138.00	397.00	128.00	128.00	397.00	127.00	?
prob21	-	-	-	-	-	-	-	-	-	319612.00	-
prob22	-	-	-	-	-	-	-	-	-	10858.00	-
prob23	-	-	-	-	-	-	-	-	-	73512.00	-
prob24	-	-	-	-	-	-	-	-	-	292531.00	-
prob25	-	-	-	-	-	-	-	-	-	4.00	45.00
prob26	-	-	-	-	-	-	-	-	-	42.00	13551.00
prob27	-	-	-	-	-	-	-	-	-	9.00	2503.00
prob28	-	-	-	-	-	-	-	-	-	9.00	910.00
prob29	-	-	-	-	-	-	-	-	-	4.00	68.00
prob30	-	-	-	-	-	-	-	-	-	4582.00	1066132.00

D.21 nomystery

D.21.1 nomystery-opt11-strips

Table D.25 – Total Expansions, nomystery, nomystery-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	47.00	2290.00
p02	-	-	-	-	-	-	-	-	-	61.00	65577.00
p03	-	-	-	-	-	-	-	-	-	42.00	171972.00
p04	-	-	-	-	-	-	-	-	-	275.00	7814123.00
p05	6952.00	7110.00	11070.00	4470.00	905.00	2066.00	2423.00	1729.00	2066.00	1904.00	?
p06	3137.00	3137.00	10734.00	1224.00	681.00	1031.00	807.00	807.00	1031.00	797.00	?
p07	325498.00	298873.00	744083.00	126001.00	15150.00	39094.00	75993.00	28387.00	39094.00	32639.00	?
p08	-	-	-	-	-	-	-	-	-	157166.00	-
p09	-	-	-	-	-	-	-	-	-	93608.00	-
p10	-	-	-	-	-	-	-	-	-	112563.00	-
p11	-	-	-	-	-	-	-	-	-	76.00	1313.00
p12	-	-	-	-	-	-	-	-	-	71.00	16654.00
p13	-	-	-	-	-	-	-	-	-	38.00	38750.00
p14	-	-	-	-	-	-	-	-	-	446.00	1745088.00
p15	6504.00	6236.00	11115.00	4470.00	903.00	2066.00	2429.00	1720.00	2066.00	1904.00	?
p16	3137.00	3137.00	10734.00	1226.00	680.00	1031.00	809.00	809.00	1031.00	797.00	?
p17	1323149.00	1201631.00	802012.00	111254.00	13374.00	35339.00	64822.00	25421.00	35339.00	29158.00	?
p18	-	-	-	-	-	-	-	-	-	324372.00	-
p19	-	-	-	-	-	-	-	-	-	179292.00	-
p20	-	-	-	-	-	-	-	-	-	232172.00	-

D.22 openstacks

D.22.1 openstacks-opt08-strips

Table D.26 – Total Expansions, openstacks, openstacks-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	17.00	27.00
p02	-	-	-	-	-	-	-	-	-	87.00	133.00
p03	-	-	-	-	-	-	-	-	-	230.00	293.00
p04	-	-	-	-	-	-	-	-	-	1991.00	2086.00
p05	-	-	-	-	-	-	-	-	-	3725.00	4183.00
p06	-	-	-	-	-	-	-	-	-	32.00	74.00
p07	-	-	-	-	-	-	-	-	-	57597.00	61184.00
p08	-	-	-	-	-	-	-	-	-	52981.00	61184.00
p09	-	-	-	-	-	-	-	-	-	1315.00	3148.00
p10	-	-	-	-	-	-	-	-	-	2555.00	4771.00
p11	-	-	-	-	-	-	-	-	-	80076.00	96779.00
p12	-	-	-	-	-	-	-	-	-	3754.00	7216.00
p13	-	-	-	-	-	-	-	-	-	345816.00	392535.00
p14	-	-	-	-	-	-	-	-	-	109852.00	156130.00
p15	-	-	-	-	-	-	-	-	-	581361.00	701282.00
p16	-	-	-	-	-	-	-	-	-	225545.00	350399.00
p17	-	-	-	-	-	-	-	-	-	286540.00	412749.00
p18	-	-	-	-	-	-	-	-	-	5130.00	16083.00
p19	-	-	-	-	-	-	-	-	-	529270.00	756244.00
p20	-	-	-	-	-	-	-	-	-	3330130.00	4309328.00
p21	-	-	-	-	-	-	-	-	-	233139.00	454359.00
p22	-	-	-	-	-	-	-	-	-	55239.00	131087.00
p23	-	-	-	-	-	-	-	-	-	1205215.00	2064911.00
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	585809.00	1235466.00
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

D.22.2 openstacks-opt11-strips

Table D.27 – Total Expansions, openstacks, openstacks-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	32.00	74.00
p02	-	-	-	-	-	-	-	-	-	57597.00	61184.00
p03	-	-	-	-	-	-	-	-	-	52981.00	61184.00
p04	-	-	-	-	-	-	-	-	-	1315.00	3148.00
p05	-	-	-	-	-	-	-	-	-	2555.00	4771.00
p06	-	-	-	-	-	-	-	-	-	80076.00	96779.00
p07	-	-	-	-	-	-	-	-	-	3754.00	7216.00
p08	-	-	-	-	-	-	-	-	-	345816.00	392535.00
p09	-	-	-	-	-	-	-	-	-	109852.00	156130.00
p10	-	-	-	-	-	-	-	-	-	55239.00	131087.00
p11	-	-	-	-	-	-	-	-	-	581361.00	701282.00
p12	-	-	-	-	-	-	-	-	-	225545.00	350399.00
p13	-	-	-	-	-	-	-	-	-	286540.00	412749.00
p14	-	-	-	-	-	-	-	-	-	5130.00	16083.00
p15	-	-	-	-	-	-	-	-	-	529270.00	756244.00
p16	-	-	-	-	-	-	-	-	-	233139.00	454359.00
p17	-	-	-	-	-	-	-	-	-	3330130.00	4309328.00
p18	-	-	-	-	-	-	-	-	-	1205215.00	2064911.00
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	585809.00	1235466.00

D.22.3 openstacks-opt14-strips

Table D.28 – Total Expansions, openstacks, openstacks-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p20_1	-	-	-	-	-	-	-	-	-	615176.00	771334.00
p20_2	-	-	-	-	-	-	-	-	-	1043976.00	1322567.00
p20_3	-	-	-	-	-	-	-	-	-	35748.00	84746.00
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p35_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	882231.00	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	850840.00	-

D.22.4 openstacks-strips

Table D.29 – Total Expansions, openstacks, openstacks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	1773.00	4659.00
p02	-	-	-	-	-	-	-	-	-	2038.00	5331.00
p03	-	-	-	-	-	-	-	-	-	1793.00	4659.00
p04	-	-	-	-	-	-	-	-	-	1766.00	4659.00
p05	-	-	-	-	-	-	-	-	-	1775.00	4659.00
p06	-	-	-	-	-	-	-	-	-	435923.00	871242.00
p07	-	-	-	-	-	-	-	-	-	469318.00	838564.00
p08	-	-	-	-	-	-	-	-	-	60577.00	-
p09	-	-	-	-	-	-	-	-	-	250092.00	-
p10	-	-	-	-	-	-	-	-	-	143045.00	-
p11	-	-	-	-	-	-	-	-	-	140605.00	-
p12	-	-	-	-	-	-	-	-	-	192351.00	-
p13	-	-	-	-	-	-	-	-	-	190996.00	-
p14	-	-	-	-	-	-	-	-	-	177198.00	-
p15	-	-	-	-	-	-	-	-	-	69248.00	-
p16	-	-	-	-	-	-	-	-	-	45743.00	-
p17	-	-	-	-	-	-	-	-	-	14879.00	-
p18	-	-	-	-	-	-	-	-	-	2232.00	-
p19	-	-	-	-	-	-	-	-	-	94332.00	-
p20	-	-	-	-	-	-	-	-	-	43324.00	-
p21	-	-	-	-	-	-	-	-	-	40318.00	-
p22	-	-	-	-	-	-	-	-	-	41340.00	-
p23	-	-	-	-	-	-	-	-	-	30541.00	-
p24	-	-	-	-	-	-	-	-	-	738.00	-
p25	-	-	-	-	-	-	-	-	-	1039.00	-
p26	-	-	-	-	-	-	-	-	-	791.00	-
p27	-	-	-	-	-	-	-	-	-	141.00	-
p28	-	-	-	-	-	-	-	-	-	10.00	-
p29	-	-	-	-	-	-	-	-	-	9.00	-
p30	-	-	-	-	-	-	-	-	-	67.00	-

D.23 organic

D.23.1 organic-synthesis-opt18-strips

Table D.30 – Total Expansions, organic, organic-synthesis-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	1.00	1.00
p02	-	-	-	-	-	-	-	-	-	1.00	1.00
p03	-	-	-	-	-	-	-	-	-	2.00	2.00
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	2.00	2.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	2.00	2.00
p10	-	-	-	-	-	-	-	-	-	2.00	2.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	2.00	3.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

D.23.2 organic-synthesis-split-opt18-strips

Table D.31 – Total Expansions, organic, organic-synthesis-split-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	10.00	5978.00
p02	-	-	-	-	-	-	-	-	-	17.00	8823.00
p03	-	-	-	-	-	-	-	-	-	52.00	84842.00
p04	-	-	-	-	-	-	-	-	-	20.00	3159513.00
p05	-	-	-	-	-	-	-	-	-	51.00	518997.00
p06	50.00	33.00	35.00	49.00	49.00	51.00	51.00	51.00	52.00	50.00	?
p07	-	-	-	-	-	-	-	-	-	33.00	140.00
p08	2685.00	2685.00	2596.00	1889.00	1743.00	1396.00	1231.00	711.00	994.00	991.00	?
p09	-	-	-	-	-	-	-	-	-	36.00	42943.00
p10	-	-	-	-	-	-	-	-	-	42.00	70165.00
p11	14961.00	14758.00	12356.00	12148.00	12112.00	12048.00	10945.00	3079.00	10386.00	10203.00	?
p12	62661.00	62661.00	138730.00	29946.00	29922.00	103877.00	15769.00	15769.00	89416.00	10437.00	?
p13	9144.00	9143.00	9485.00	8754.00	451.00	1177.00	8448.00	393.00	1177.00	1165.00	?
p14	-	-	-	-	-	-	-	-	-	120.00	254735.00
p15	-	-	-	-	-	-	-	-	-	1016.00	-
p16	2540.00	2539.00	2811.00	1094.00	1081.00	1994.00	517.00	517.00	532.00	516.00	?
p17	-	-	-	-	-	-	-	-	-	1499.00	-
p18	-	-	-	-	-	-	-	-	-	384.00	-
p19	-	-	-	-	-	-	-	-	-	3102.00	-
p20	-	-	-	-	-	-	-	-	-	1082.00	-

D.24 parcprinter

D.24.1 parcprinter-08-strips

Table D.32 – Total Expansions, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind A^*$
p01	-	-	-	-	-	-	-	-	-	11.00	23.00
p02	-	-	-	-	-	-	-	-	-	18.00	1502.00
p03	-	-	-	-	-	-	-	-	-	22.00	5086.00
p04	62.00	62.00	84.00	60.00	36.00	49.00	43.00	42.00	49.00	41.00	?
p05	2181806.00	2162375.00	223388.00	70509.00	112.00	297.00	28052.00	230.00	297.00	256.00	?
p06	4926828487.00	-	5858572730.00	5933783744.00	-	69030.00	5121415216.00	-	69030.00	52156.00	?
p07	-	-	-	-	-	-	-	-	-	1183022.00	-
p08	-	-	-	-	-	-	-	-	-	1969473.00	-
p09	-	-	-	-	-	-	-	-	-	959276.00	-
p10	-	-	-	-	-	-	-	-	-	1784817.00	-
p11	-	-	-	-	-	-	-	-	-	10.00	30.00
p12	-	-	-	-	-	-	-	-	-	302.00	5829.00
p13	-	-	-	-	-	-	-	-	-	6175.00	1210792.00
p14	6338620114.00	-	6722459094.00	5634906635.00	-	7428977168.00	8275472250.00	-	458564.00	218594.00	?
p15	-	-	-	-	-	-	-	-	-	1242311.00	-
p16	-	-	-	-	-	-	-	-	-	562708.00	-
p17	-	-	-	-	-	-	-	-	-	307709.00	-
p18	-	-	-	-	-	-	-	-	-	179746.00	-
p19	-	-	-	-	-	-	-	-	-	103063.00	-
p20	-	-	-	-	-	-	-	-	-	64495.00	-
p21	-	-	-	-	-	-	-	-	-	8.00	19.00
p22	-	-	-	-	-	-	-	-	-	15.00	2946.00
p23	-	-	-	-	-	-	-	-	-	22.00	313470.00
p24	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	29.00	?
p25	6260447415.00	-	7732262810.00	4892299820.00	-	29978.00	6877530303.00	-	29978.00	21961.00	?
p26	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	43.00	?
p27	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	50.00	?
p28	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	57.00	?
p29	-	-	-	-	-	-	-	-	-	413954.00	-
p30	-	-	-	-	-	-	-	-	-	615234.00	-

D.24.2 parcprinter-opt11-strips

Table D.33 – Total Expansions, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind A^*$
p01	-	-	-	-	-	-	-	-	-	15.00	2946.00
p02	-	-	-	-	-	-	-	-	-	18.00	5829.00
p03	-	-	-	-	-	-	-	-	-	302.00	5829.00
p04	62.00	62.00	84.00	60.00	36.00	49.00	43.00	42.00	49.00	41.00	?
p05	-	-	-	-	-	-	-	-	-	22.00	313470.00
p06	5758760562.00	-	5845565384.00	5970114940.00	-	69030.00	6007297686.00	-	69030.00	52156.00	?
p07	2181806.00	2162375.00	223388.00	70509.00	112.00	297.00	28052.00	230.00	297.00	256.00	?
p08	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	29.00	?
p09	-	-	-	-	-	-	-	-	-	6175.00	1210792.00
p10	7494499212.00	-	7772315844.00	4841727430.00	-	29978.00	6975551977.00	-	29978.00	21961.00	?
p11	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	43.00	?
p12	5312052304.00	-	6709275177.00	6555182891.00	-	7311697973.00	8276601665.00	-	458564.00	218594.00	?
p13	-	-	-	-	-	-	-	-	-	1184842.00	-
p14	-	-	-	-	-	-	-	-	-	1993477.00	-
p15	-	-	-	-	-	-	-	-	-	962412.00	-
p16	-	-	-	-	-	-	-	-	-	1800785.00	-
p17	-	-	-	-	-	-	-	-	-	1210090.00	-
p18	-	-	-	-	-	-	-	-	-	560636.00	-
p19	-	-	-	-	-	-	-	-	-	310610.00	-
p20	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	50.00	?

D.25 parking

D.25.1 parking-opt11-strips

Table D.34 – Total Expansions, parking, parking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind A^*$
pfile03-011	8004.00	7298.00	11844.00	4335.00	1518.00	4249.00	3763.00	2942.00	4249.00	3395.00	?
pfile03-012	-	-	-	-	-	-	-	-	-	187483.00	-
pfile04-013	108680.00	106796.00	159357.00	55649.00	17766.00	45445.00	46261.00	34526.00	45445.00	39865.00	?
pfile04-014	-	-	-	-	-	-	-	-	-	75146.00	-
pfile04-015	-	-	-	-	-	-	-	-	-	79625.00	-
pfile04-016	-	-	-	-	-	-	-	-	-	75213.00	-
pfile05-017	-	-	-	-	-	-	-	-	-	38058.00	-
pfile05-018	-	-	-	-	-	-	-	-	-	44588.00	-
pfile05-019	-	-	-	-	-	-	-	-	-	31418.00	-
pfile05-020	-	-	-	-	-	-	-	-	-	36056.00	-
pfile06-021	-	-	-	-	-	-	-	-	-	19106.00	-
pfile06-022	-	-	-	-	-	-	-	-	-	16910.00	-
pfile06-023	-	-	-	-	-	-	-	-	-	17774.00	-
pfile06-024	-	-	-	-	-	-	-	-	-	20347.00	-
pfile07-025	-	-	-	-	-	-	-	-	-	10092.00	-
pfile07-026	-	-	-	-	-	-	-	-	-	11450.00	-
pfile07-027	-	-	-	-	-	-	-	-	-	10869.00	-
pfile08-028	-	-	-	-	-	-	-	-	-	8789.00	-
pfile08-029	-	-	-	-	-	-	-	-	-	6638.00	-
pfile08-030	-	-	-	-	-	-	-	-	-	5854.00	-

D.25.2 parking-opt14-strips

Table D.35 – Total Expansions, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p_12_7-01	299563.00	282986.00	661198.00	101540.00	24742.00	65306.00	61867.00	46547.00	65306.00	51674.00	?
p_12_7-02	502499.00	471399.00	1016458.00	208788.00	45933.00	132826.00	145509.00	93202.00	132826.00	106539.00	?
p_12_7-03	77562.00	73207.00	158760.00	39116.00	10894.00	29466.00	29824.00	21297.00	29466.00	24360.00	?
p_12_7-04	-	-	-	-	-	-	-	-	-	212366.00	-
p_14_8-01	-	-	-	-	-	-	-	-	-	81456.00	-
p_14_8-02	-	-	-	-	-	-	-	-	-	73007.00	-
p_14_8-03	-	-	-	-	-	-	-	-	-	71078.00	-
p_14_8-04	-	-	-	-	-	-	-	-	-	84521.00	-
p_16_9-01	-	-	-	-	-	-	-	-	-	37279.00	-
p_16_9-02	-	-	-	-	-	-	-	-	-	36182.00	-
p_16_9-03	-	-	-	-	-	-	-	-	-	38074.00	-
p_16_9-04	-	-	-	-	-	-	-	-	-	35229.00	-
p_18_10-01	-	-	-	-	-	-	-	-	-	17343.00	-
p_18_10-02	-	-	-	-	-	-	-	-	-	17447.00	-
p_18_10-03	-	-	-	-	-	-	-	-	-	18474.00	-
p_18_10-04	-	-	-	-	-	-	-	-	-	20090.00	-
p_20_11-01	-	-	-	-	-	-	-	-	-	10081.00	-
p_20_11-02	-	-	-	-	-	-	-	-	-	10678.00	-
p_20_11-03	-	-	-	-	-	-	-	-	-	9908.00	-
p_20_11-04	-	-	-	-	-	-	-	-	-	9591.00	-

D.26 pathways

D.26.1 pathways

Table D.36 – Total Expansions, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	6.00	1648.00
p02	-	-	-	-	-	-	-	-	-	12.00	3061.00
p03	-	-	-	-	-	-	-	-	-	151.00	76528.00
p04	-	-	-	-	-	-	-	-	-	251.00	453455.00
p05	1513889692.00	-	75982.00	1503072070.00	-	75982.00	1524020313.00	-	75982.00	72688.00	?
p06	-	-	-	-	-	-	-	-	-	472710.00	-
p07	-	-	-	-	-	-	-	-	-	314484.00	-
p08	-	-	-	-	-	-	-	-	-	113812.00	-
p09	-	-	-	-	-	-	-	-	-	180752.00	-
p10	-	-	-	-	-	-	-	-	-	173959.00	-
p11	-	-	-	-	-	-	-	-	-	129228.00	-
p12	-	-	-	-	-	-	-	-	-	93572.00	-
p13	-	-	-	-	-	-	-	-	-	79550.00	-
p14	-	-	-	-	-	-	-	-	-	118303.00	-
p15	-	-	-	-	-	-	-	-	-	67501.00	-
p16	-	-	-	-	-	-	-	-	-	25360.00	-
p17	-	-	-	-	-	-	-	-	-	17279.00	-
p18	-	-	-	-	-	-	-	-	-	39853.00	-
p19	-	-	-	-	-	-	-	-	-	16391.00	-
p20	-	-	-	-	-	-	-	-	-	27353.00	-
p21	-	-	-	-	-	-	-	-	-	16482.00	-
p22	-	-	-	-	-	-	-	-	-	21238.00	-
p23	-	-	-	-	-	-	-	-	-	20153.00	-
p24	-	-	-	-	-	-	-	-	-	18119.00	-
p25	-	-	-	-	-	-	-	-	-	7579.00	-
p26	-	-	-	-	-	-	-	-	-	7003.00	-
p27	-	-	-	-	-	-	-	-	-	9147.00	-
p28	-	-	-	-	-	-	-	-	-	7606.00	-
p29	-	-	-	-	-	-	-	-	-	12917.00	-
p30	-	-	-	-	-	-	-	-	-	12044.00	-

D.27 pegsol

D.27.1 pegsol-08-strips

Table D.37 – Total Expansions, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	5.00	11.00
p02	-	-	-	-	-	-	-	-	-	23.00	84.00
p03	-	-	-	-	-	-	-	-	-	23.00	215.00
p04	-	-	-	-	-	-	-	-	-	23.00	179.00
p05	-	-	-	-	-	-	-	-	-	60.00	277.00
p06	-	-	-	-	-	-	-	-	-	215.00	992.00
p07	-	-	-	-	-	-	-	-	-	15.00	113.00
p08	-	-	-	-	-	-	-	-	-	4555.00	25703.00
p09	-	-	-	-	-	-	-	-	-	472.00	3950.00
p10	-	-	-	-	-	-	-	-	-	4302.00	30044.00
p11	-	-	-	-	-	-	-	-	-	2657.00	13608.00
p12	-	-	-	-	-	-	-	-	-	11533.00	39360.00
p13	-	-	-	-	-	-	-	-	-	7539.00	33386.00
p14	-	-	-	-	-	-	-	-	-	10248.00	55828.00
p15	-	-	-	-	-	-	-	-	-	17397.00	74215.00
p16	-	-	-	-	-	-	-	-	-	2322.00	10599.00
p17	-	-	-	-	-	-	-	-	-	161711.00	301020.00
p18	-	-	-	-	-	-	-	-	-	2061.00	49937.00
p19	-	-	-	-	-	-	-	-	-	46179.00	257321.00
p20	-	-	-	-	-	-	-	-	-	43152.00	341728.00
p21	-	-	-	-	-	-	-	-	-	80174.00	491049.00
p22	-	-	-	-	-	-	-	-	-	11464.00	47882.00
p23	-	-	-	-	-	-	-	-	-	126783.00	968389.00
p24	-	-	-	-	-	-	-	-	-	194933.00	1324204.00
p25	-	-	-	-	-	-	-	-	-	127942.00	931245.00
p26	-	-	-	-	-	-	-	-	-	1406120.00	6940656.00
p27	-	-	-	-	-	-	-	-	-	90996.00	2766746.00
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

D.27.2 pegsol-opt11-strips

Table D.38 – Total Expansions, pegsol, pegsol-opt11-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	52.00	209.00
p02	-	-	-	-	-	-	-	-	-	161711.00	301020.00
p03	-	-	-	-	-	-	-	-	-	2061.00	49937.00
p04	-	-	-	-	-	-	-	-	-	46179.00	257321.00
p05	-	-	-	-	-	-	-	-	-	17425.00	90055.00
p06	-	-	-	-	-	-	-	-	-	95711.00	263005.00
p07	-	-	-	-	-	-	-	-	-	18675.00	210856.00
p08	-	-	-	-	-	-	-	-	-	43152.00	341728.00
p09	-	-	-	-	-	-	-	-	-	56523.00	367911.00
p10	-	-	-	-	-	-	-	-	-	80174.00	491049.00
p11	-	-	-	-	-	-	-	-	-	11464.00	47882.00
p12	-	-	-	-	-	-	-	-	-	9275.00	40040.00
p13	-	-	-	-	-	-	-	-	-	126783.00	968389.00
p14	-	-	-	-	-	-	-	-	-	194933.00	1324204.00
p15	-	-	-	-	-	-	-	-	-	127942.00	931245.00
p16	-	-	-	-	-	-	-	-	-	1406120.00	6940656.00
p17	-	-	-	-	-	-	-	-	-	90996.00	2766746.00
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

D.28 petri

D.28.1 petri-net-alignment-opt18-strips

Table D.39 – Total Expansions, petri, petri-net-alignment-opt18-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	4107.00	523309.00
p02	-	-	-	-	-	-	-	-	-	2486.00	1325136.00
p03	5196373877.00	-	5590816273.00	315837584.00	315837584.00	5562519210.00	6237141.00	10421.00	13558.00	11577.00	?
p04	3401876067.00	-	5316363380.00	986333676.00	9685808846.00	3653880730.00	54652399.00	51600.00	81468.00	58495.00	?
p05	698940031.00	698924401.00	4748018566.00	2377770.00	14444.00	35532.00	154743.00	22082.00	35532.00	26126.00	?
p06	3639399858.00	-	5065242119.00	151866549.00	17165.00	35051.00	441485.00	24082.00	35051.00	26562.00	?
p07	6154631425.00	-	5963047153.00	1816550.00	18255.00	29533.00	149378.00	21717.00	29533.00	23101.00	?
p08	3643466640.00	-	4170108870.00	3629577531.00	-	3817398787.00	1314443177.00	303883.00	570610.00	359394.00	?
p09	-	-	-	-	-	-	-	-	-	460779.00	-
p10	-	-	-	-	-	-	-	-	-	498954.00	-
p11	-	-	-	-	-	-	-	-	-	395771.00	-
p12	158150371.00	116634076.00	4652201398.00	1791539.00	54034.00	77994.00	364340.00	61583.00	77994.00	64411.00	?
p13	-	-	-	-	-	-	-	-	-	442595.00	-
p14	-	-	-	-	-	-	-	-	-	373603.00	-
p15	-	-	-	-	-	-	-	-	-	288187.00	-
p16	-	-	-	-	-	-	-	-	-	487617.00	-
p17	-	-	-	-	-	-	-	-	-	376802.00	-
p18	-	-	-	-	-	-	-	-	-	226058.00	-
p19	-	-	-	-	-	-	-	-	-	219526.00	-
p20	-	-	-	-	-	-	-	-	-	196270.00	-

D.29 pipesworld

D.29.1 pipesworld-notankage

Table D.40 – Total Expansions, pipesworld, pipesworld-notankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	5.00	84.00
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	489.00	1698.00
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	165.00	3667.00
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	941.00	12361.00
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	89.00	10941.00
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	533.00	51278.00
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	114.00	25601.00
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	1055.00	175342.00
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	6115.00	5373125.00
p10-net1-b14-g8	8641148371.00	862876616.00	2320515644.00	24049858.00	266161.00	951718.00	22509840.00	535383.00	951718.00	662725.00	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	42378.00	679688.00
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	200504.00	2759069.00
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	5636.00	484965.00
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	9692400.00	-
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	212678.00	4923940.00
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	938754.00	-
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	646392.00	-
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	548896.00	-
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	393205.00	-
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	343317.00	-
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	2979.00	123323.00
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	705494.00	-
p23-net3-b14-g3	1972768.00	1953987.00	3281020.00	136485.00	31227.00	104039.00	114379.00	55442.00	104039.00	70394.00	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	379741.00	-
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	201105.00	-
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	189527.00	-
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	108132.00	-
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	90864.00	-
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	87791.00	-
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	84895.00	-
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	320009.00	-
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	251147.00	-
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	231858.00	-
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	153120.00	-
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	82094.00	-
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	84345.00	-
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	81093.00	-
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	78967.00	-
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	40482.00	-
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	33524.00	-
p41-net5-b22-g2	314803.00	298977.00	941592.00	71425.00	18208.00	40388.00	32255.00	32255.00	40388.00	31535.00	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	52913.00	-
p43-net5-b24-g3	-	-	-	-	-	-	-	-	-	37536.00	-
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	34002.00	-
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	20742.00	-
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	20311.00	-
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	16670.00	-
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	16665.00	-
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	14382.00	-
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	13419.00	-

D.29.2 pipesworld-tankage

Table D.41 – Total Expansions, pipesworld, pipesworld-tankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	8.00	130.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	432.00	1038.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	1111.00	52182.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	9535.00	274176.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	123.00	25184.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	1187.00	96433.00
p07-net1-b12-g5-t80	17260.00	13391.00	2361.00	2705.00	2705.00	2361.00	2252.00	2252.00	2361.00	2028.00	?
p08-net1-b12-g7-t80	4431109.00	4372824.00	18169778.00	2029788.00	62163.00	167356.00	1537940.00	134213.00	167356.00	145701.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	196704.00	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	171690.00	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	382586.00	4232401.00
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	509169.00	-
p13-net2-b12-g3-t70	5032668.00	4990313.00	4922304.00	551366.00	112737.00	345809.00	433493.00	211079.00	345809.00	258589.00	?
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	565108.00	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	802485.00	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	108911.00	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	783892.00	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	71703.00	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	67038.00	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	17820.00	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	31836.00	4957248.00
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	217180.00	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	59584.00	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	52270.00	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	13028.00	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	10797.00	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	8575.00	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	7510.00	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	4313.00	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	5188.00	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	713071.00	1780491.00
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	102484.00	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	47310.00	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	20067.00	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	7867.00	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	6169.00	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	9375.00	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	8262.00	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	4184.00	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	3625.00	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	34681.00	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	5333.00	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	646.00	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	589.00	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	1064.00	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	994.00	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	361.00	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	625.00	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	316.00	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	301.00	-

D.29.3 pipesworld-tankage-nosplit

Table D.42 – Total Expansions, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	8.00	130.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	432.00	1038.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	1111.00	52182.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	9535.00	274176.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	123.00	25184.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	1187.00	96433.00
p07-net1-b12-g5-t80	17260.00	13391.00	2361.00	2705.00	2705.00	2361.00	2252.00	2252.00	2361.00	2028.00	?
p08-net1-b12-g7-t80	4431109.00	4372824.00	18169778.00	2029788.00	62163.00	167356.00	1537940.00	134213.00	167356.00	145701.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	199824.00	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	173809.00	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	2597.00	-
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	?	-
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net3-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	-
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	6246.00	-
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

D.30 psr

D.30.1 psr-small

Table D.43 – Total Expansions, psr, psr-small

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	8.00	10.00
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	46.00	70.00
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	30.00	32.00
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	63.00	299.00
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	58.00	147.00
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	8.00	10.00
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	53.00	117.00
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	22.00	103.00
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	14.00	45.00
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	107.00	994.00
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	143.00	152.00
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	112.00	147.00
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	84.00	94.00
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	16.00	26.00
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	152.00	3451.00
p16-s29-n2-l5-f30	-	-	-	-	-	-	-	-	-	1659.00	2744.00
p17-s30-n2-l5-f50	-	-	-	-	-	-	-	-	-	13.00	15.00
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	71.00	154.00
p19-s33-n3-l2-f30	-	-	-	-	-	-	-	-	-	5947.00	9151.00
p20-s34-n3-l2-f50	-	-	-	-	-	-	-	-	-	75.00	83.00
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	25.00	37.00
p22-s37-n3-l3-f30	-	-	-	-	-	-	-	-	-	130154.00	192678.00
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	80.00	217.00
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	25.00	37.00
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	87.00	10515.00
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	138.00	176.00
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	490.00	776.00
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	79.00	101.00
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	67634.00	244712.00
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	1346.00	2449.00
p31-s49-n4-l2-f30	-	-	-	-	-	-	-	-	-	3235.00	54380.00
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	427.00	434.00
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	761.00	2133.00
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	215.00	226.00
p35-s57-n5-l2-f30	-	-	-	-	-	-	-	-	-	17160.00	149455.00
p36-s65-n6-l2-f30	-	-	-	-	-	-	-	-	-	134834.00	1633567.00
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	1162.00	1551.00
p38-s78-n3-l3-f50	-	-	-	-	-	-	-	-	-	206.00	586.00
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	1611.00	4091.00
p40-s80-n3-l4-f10	-	-	-	-	-	-	-	-	-	25302.00	1198571.00
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	30.00	65.00
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	1566.00	1919.00
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	312.00	332.00
p44-s89-n4-l2-f30	-	-	-	-	-	-	-	-	-	2235.00	4119.00
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	316.00	439.00
p46-s97-n5-l2-f30	-	-	-	-	-	-	-	-	-	45057.00	83279.00
p47-s98-n5-l2-f50	-	-	-	-	-	-	-	-	-	3399.00	5010.00
p48-s101-n5-l3-f30	2916009628.00	-	3601709685.00	163956257.00	1538394.00	6507577.00	6838686.00	4463615.00	6507577.00	5858418.00	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	-
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	616.00	690.00

D.31 rovers

D.31.1 rovers

Table D.44 – Total Expansions, rovers, rovers

| | 10% | | | 50% | | | 90% | | | 100% | |
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	29.00	1020.00
p02	-	-	-	-	-	-	-	-	-	9.00	250.00
p03	-	-	-	-	-	-	-	-	-	30.00	4426.00
p04	-	-	-	-	-	-	-	-	-	8.00	1049.00
p05	-	-	-	-	-	-	-	-	-	71234.00	8495232.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	210612183.00	210058553.00	972764774.00	13578574.00	8026.00	22787.00	9586726.00	16592.00	22787.00	19544.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	77556978.00	77446702.00	168383991.00	6587409.00	7680.00	21981.00	1901893.00	16572.00	21981.00	19202.00	?
p13	-	-	-	-	-	-	-	-	-	827721.00	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	755705.00	-
p16	-	-	-	-	-	-	-	-	-	662421.00	-
p17	-	-	-	-	-	-	-	-	-	207276.00	-
p18	-	-	-	-	-	-	-	-	-	101611.00	-
p19	-	-	-	-	-	-	-	-	-	40197.00	-
p20	-	-	-	-	-	-	-	-	-	15330.00	-
p21	-	-	-	-	-	-	-	-	-	23452.00	-
p22	-	-	-	-	-	-	-	-	-	19110.00	-
p23	-	-	-	-	-	-	-	-	-	11146.00	-
p24	-	-	-	-	-	-	-	-	-	7427.00	-
p25	-	-	-	-	-	-	-	-	-	26205.00	-
p26	-	-	-	-	-	-	-	-	-	22521.00	-
p27	-	-	-	-	-	-	-	-	-	11651.00	-
p28	-	-	-	-	-	-	-	-	-	6057.00	-
p29	-	-	-	-	-	-	-	-	-	4780.00	-
p30	-	-	-	-	-	-	-	-	-	2834.00	-
p31	-	-	-	-	-	-	-	-	-	3176.00	-
p32	-	-	-	-	-	-	-	-	-	1023.00	-
p33	-	-	-	-	-	-	-	-	-	847.00	-
p34	-	-	-	-	-	-	-	-	-	1044.00	-
p35	-	-	-	-	-	-	-	-	-	416.00	-
p36	-	-	-	-	-	-	-	-	-	668.00	-
p37	-	-	-	-	-	-	-	-	-	312.00	-
p38	-	-	-	-	-	-	-	-	-	249.00	-
p39	-	-	-	-	-	-	-	-	-	289.00	-
p40	-	-	-	-	-	-	-	-	-	156.00	-

D.32 satellite

D.32.1 satellite

Table D.45 – Total Expansions, satellite, satellite

| | 10% | | | 50% | | | 90% | | | 100% | |
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-pfile1	-	-	-	-	-	-	-	-	-	9.00	94.00
p02-pfile2	-	-	-	-	-	-	-	-	-	13.00	1663.00
p03-pfile3	-	-	-	-	-	-	-	-	-	25.00	18398.00
p04-pfile4	-	-	-	-	-	-	-	-	-	33.00	316161.00
p05-pfile5	3004.00	2859.00	1214.00	3068.00	3068.00	1214.00	1329.00	1329.00	1214.00	1095.00	?
p06-pfile6	264619.00	811.00	5469.00	59568.00	2010.00	5469.00	21171.00	3905.00	5469.00	4866.00	?
p07-pfile7	90548446.00	90321571.00	123471193.00	12064248.00	32491.00	107382.00	5563780.00	76308.00	107382.00	95972.00	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	256748.00	-
p10-pfile10	-	-	-	-	-	-	-	-	-	262506.00	-
p11-pfile11	-	-	-	-	-	-	-	-	-	181430.00	-
p12-pfile12	-	-	-	-	-	-	-	-	-	18412.00	-
p13-pfile13	-	-	-	-	-	-	-	-	-	7886.00	-
p14-pfile14	-	-	-	-	-	-	-	-	-	19916.00	-
p15-pfile15	-	-	-	-	-	-	-	-	-	6166.00	-
p16-pfile16	-	-	-	-	-	-	-	-	-	3443.00	-
p17-pfile17	-	-	-	-	-	-	-	-	-	2532.00	-
p18-pfile18	-	-	-	-	-	-	-	-	-	50829.00	-
p19-pfile19	-	-	-	-	-	-	-	-	-	13708.00	-
p20-pfile20	-	-	-	-	-	-	-	-	-	9234.00	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	1521.00	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	749.00	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	812.00	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	17.00	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	55.00	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	24.00	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	21.00	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	2.00	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	1.00	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	1.00	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	1.00	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	1.00	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	1.00	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	1.00	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	1.00	-

D.33 scanalyzer

D.33.1 scanalyzer-08-strips

Table D.46 – Total Expansions, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	6.00	44046.00
p02	-	-	-	-	-	-	-	-	-	2439.00	45528.00
p03	-	-	-	-	-	-	-	-	-	16966.00	45881.00
p04	-	-	-	-	-	-	-	-	-	8.00	10175656.00
p05	-	-	-	-	-	-	-	-	-	699188.00	10310816.00
p06	-	-	-	-	-	-	-	-	-	1720599.00	-
p07	11.00	11.00	11.00	11.00	11.00	10.00	11.00	11.00	10.00	10.00	?
p08	-	-	-	-	-	-	-	-	-	144408.00	-
p09	-	-	-	-	-	-	-	-	-	168365.00	-
p10	13.00	13.00	13.00	13.00	13.00	12.00	13.00	13.00	12.00	12.00	?
p11	-	-	-	-	-	-	-	-	-	38137.00	-
p12	-	-	-	-	-	-	-	-	-	42298.00	-
p13	15.00	15.00	15.00	15.00	15.00	14.00	15.00	15.00	14.00	14.00	?
p14	-	-	-	-	-	-	-	-	-	13553.00	-
p15	-	-	-	-	-	-	-	-	-	12940.00	-
p16	17.00	17.00	17.00	17.00	17.00	16.00	17.00	17.00	16.00	16.00	?
p17	-	-	-	-	-	-	-	-	-	5621.00	-
p18	-	-	-	-	-	-	-	-	-	5132.00	-
p19	19.00	19.00	19.00	19.00	19.00	18.00	19.00	19.00	18.00	18.00	?
p20	-	-	-	-	-	-	-	-	-	2645.00	-
p21	-	-	-	-	-	-	-	-	-	2093.00	-
p22	-	-	-	-	-	-	-	-	-	5.00	53.00
p23	-	-	-	-	-	-	-	-	-	5.00	53.00
p24	-	-	-	-	-	-	-	-	-	5.00	53.00
p25	-	-	-	-	-	-	-	-	-	516.00	10170979.00
p26	-	-	-	-	-	-	-	-	-	21859.00	10254739.00
p27	-	-	-	-	-	-	-	-	-	52925.00	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	480.00	-
p30	-	-	-	-	-	-	-	-	-	502.00	-

D.33.2 scanalyzer-opt11-strips

Table D.47 – Total Expansions, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	5.00	53.00
p02	-	-	-	-	-	-	-	-	-	2439.00	45528.00
p03	-	-	-	-	-	-	-	-	-	16966.00	45881.00
p04	-	-	-	-	-	-	-	-	-	8.00	10175656.00
p05	11.00	11.00	11.00	11.00	11.00	10.00	11.00	11.00	10.00	10.00	?
p06	-	-	-	-	-	-	-	-	-	699188.00	10310816.00
p07	19.00	19.00	19.00	19.00	19.00	18.00	19.00	19.00	18.00	18.00	?
p08	13.00	13.00	13.00	13.00	13.00	12.00	13.00	13.00	12.00	12.00	?
p09	15.00	15.00	15.00	15.00	15.00	14.00	15.00	15.00	14.00	14.00	?
p10	17.00	17.00	17.00	17.00	17.00	16.00	17.00	17.00	16.00	16.00	?
p11	-	-	-	-	-	-	-	-	-	516.00	10170979.00
p12	-	-	-	-	-	-	-	-	-	1700750.00	-
p13	-	-	-	-	-	-	-	-	-	52526.00	-
p14	-	-	-	-	-	-	-	-	-	21859.00	10254739.00
p15	-	-	-	-	-	-	-	-	-	142248.00	-
p16	-	-	-	-	-	-	-	-	-	38163.00	-
p17	-	-	-	-	-	-	-	-	-	13757.00	-
p18	-	-	-	-	-	-	-	-	-	5640.00	-
p19	-	-	-	-	-	-	-	-	-	2610.00	-
p20	-	-	-	-	-	-	-	-	-	?	-

D.34 snake

D.34.1 snake-opt18-strips

Table D.48 – Total Expansions, snake, snake-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	16649.00	186263.00
p02	-	-	-	-	-	-	-	-	-	313646.00	-
p03	-	-	-	-	-	-	-	-	-	302190.00	-
p04	-	-	-	-	-	-	-	-	-	66.00	1928.00
p05	-	-	-	-	-	-	-	-	-	1246.00	15571.00
p06	-	-	-	-	-	-	-	-	-	195244.00	-
p07	-	-	-	-	-	-	-	-	-	182334.00	-
p08	-	-	-	-	-	-	-	-	-	178143.00	-
p09	-	-	-	-	-	-	-	-	-	2633.00	44585.00
p10	-	-	-	-	-	-	-	-	-	90898.00	840139.00
p11	-	-	-	-	-	-	-	-	-	127854.00	-
p12	-	-	-	-	-	-	-	-	-	119873.00	-
p13	-	-	-	-	-	-	-	-	-	104492.00	-
p14	-	-	-	-	-	-	-	-	-	111207.00	-
p15	-	-	-	-	-	-	-	-	-	45293.00	575019.00
p16	-	-	-	-	-	-	-	-	-	88660.00	-
p17	-	-	-	-	-	-	-	-	-	84158.00	-
p18	-	-	-	-	-	-	-	-	-	74394.00	-
p19	-	-	-	-	-	-	-	-	-	69960.00	-
p20	-	-	-	-	-	-	-	-	-	86792.00	-

D.35 sokoban

D.35.1 sokoban-opt08-strips

Table D.49 – Total Expansions, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	178.00	1763.00
p02	-	-	-	-	-	-	-	-	-	148.00	1365.00
p03	-	-	-	-	-	-	-	-	-	159.00	1227.00
p04	-	-	-	-	-	-	-	-	-	14819.00	321263.00
p05	39.00	39.00	39.00	34.00	34.00	34.00	27.00	27.00	27.00	26.00	?
p06	-	-	-	-	-	-	-	-	-	422.00	11356.00
p07	-	-	-	-	-	-	-	-	-	3462.00	326689.00
p08	-	-	-	-	-	-	-	-	-	358870.00	13592778.00
p09	-	-	-	-	-	-	-	-	-	7667.00	887363.00
p10	-	-	-	-	-	-	-	-	-	12898.00	853521.00
p11	-	-	-	-	-	-	-	-	-	114320.00	547854.00
p12	-	-	-	-	-	-	-	-	-	21234.00	5113496.00
p13	-	-	-	-	-	-	-	-	-	75258.00	2331196.00
p14	-	-	-	-	-	-	-	-	-	6202.00	260680.00
p15	-	-	-	-	-	-	-	-	-	1071354.00	21562476.00
p16	-	-	-	-	-	-	-	-	-	180971.00	936056.00
p17	-	-	-	-	-	-	-	-	-	22340.00	330912.00
p18	-	-	-	-	-	-	-	-	-	91641.00	7337254.00
p19	-	-	-	-	-	-	-	-	-	525925.00	23308574.00
p20	-	-	-	-	-	-	-	-	-	429.00	647.00
p21	5844363.00	5844363.00	5844363.00	551431.00	551431.00	550781.00	56968.00	56968.00	56949.00	7818.00	?
p22	6143893039.00	-	6091184546.00	5437091930.00	-	5183671053.00	6041676947.00	-	6289641637.00	44816.00	?
p23	8136173638.00	-	8132926075.00	7970221415.00	-	7878242864.00	7576250198.00	-	7702010166.00	219325.00	?
p24	7134916197.00	-	6884019950.00	5640593390.00	-	5696505715.00	5542293084.00	-	5520702336.00	495109.00	?
p25	6399251424.00	-	6347797629.00	6438313138.00	-	6525425203.00	6118610535.00	-	6168212331.00	2124310.00	?
p26	6583684100.00	-	6351448262.00	5658677831.00	-	5325169968.00	5469893901.00	-	5279711773.00	1319706.00	?
p27	7340682459.00	-	7415484291.00	5606050903.00	5606050903.00	7166187029.00	357391848.00	357391848.00	263710797.00	646489.00	?
p28	6210938508.00	-	5758933474.00	5598050141.00	-	5272621986.00	5324993738.00	-	5076936550.00	6956089.00	?
p29	5301056505.00	-	5330324121.00	5107441944.00	-	5344467115.00	33160103.00	33537.00	37404.00	37048.00	?
p30	-	-	-	-	-	-	-	-	-	1943368.00	-

D.35.2 sokoban-opt11-strips

Table D.50 – Total Expansions, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	422.00	11356.00
p02	-	-	-	-	-	-	-	-	-	22340.00	330912.00
p03	-	-	-	-	-	-	-	-	-	6302.00	260680.00
p04	-	-	-	-	-	-	-	-	-	14819.00	321263.00
p05	-	-	-	-	-	-	-	-	-	180971.00	936056.00
p06	-	-	-	-	-	-	-	-	-	114320.00	547854.00
p07	-	-	-	-	-	-	-	-	-	12898.00	853521.00
p08	-	-	-	-	-	-	-	-	-	7667.00	887363.00
p09	-	-	-	-	-	-	-	-	-	3462.00	326689.00
p10	39.00	39.00	39.00	34.00	34.00	34.00	27.00	27.00	27.00	26.00	?
p11	-	-	-	-	-	-	-	-	-	75258.00	2331196.00
p12	-	-	-	-	-	-	-	-	-	429.00	647.00
p13	-	-	-	-	-	-	-	-	-	358870.00	13592778.00
p14	-	-	-	-	-	-	-	-	-	21234.00	5113496.00
p15	-	-	-	-	-	-	-	-	-	91641.00	7337254.00
p16	-	-	-	-	-	-	-	-	-	1071354.00	21562476.00
p17	-	-	-	-	-	-	-	-	-	525925.00	23308574.00
p18	5844363.00	5844363.00	5844363.00	551431.00	551431.00	550781.00	56968.00	56968.00	56949.00	7818.00	?
p19	6385057187.00	-	6443194865.00	5469145281.00	-	5372777111.00	6251175458.00	-	6133009494.00	444016.00	?
p20	7644478666.00	-	8091310573.00	7953352001.00	-	7695910451.00	7325791542.00	-	7691012870.00	219325.00	?

D.36 spider

D.36.1 spider-opt18-strips

Table D.51 – Total Expansions, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	883.00	11771.00
p02	-	-	-	-	-	-	-	-	-	1401.00	7677.00
p03	-	-	-	-	-	-	-	-	-	32681.00	2960984.00
p04	-	-	-	-	-	-	-	-	-	42207.00	3202484.00
p05	-	-	-	-	-	-	-	-	-	89880.00	-
p06	-	-	-	-	-	-	-	-	-	40499.00	-
p07	-	-	-	-	-	-	-	-	-	1622.00	4389.00
p08	-	-	-	-	-	-	-	-	-	2376.00	57167.00
p09	-	-	-	-	-	-	-	-	-	17517.00	1637573.00
p10	3056936.00	3048333.00	1219075.00	224557.00	47532.00	100180.00	113076.00	84826.00	100180.00	93257.00	?
p11	-	-	-	-	-	-	-	-	-	85775.00	-
p12	-	-	-	-	-	-	-	-	-	34255.00	-
p13	-	-	-	-	-	-	-	-	-	18952.00	-
p14	-	-	-	-	-	-	-	-	-	1045.00	15195.00
p15	-	-	-	-	-	-	-	-	-	350.00	1438.00
p16	2243518.00	2236007.00	2171748.00	570647.00	46761.00	103189.00	420042.00	88767.00	103189.00	97477.00	?
p17	-	-	-	-	-	-	-	-	-	294666.00	-
p18	-	-	-	-	-	-	-	-	-	94397.00	-
p19	-	-	-	-	-	-	-	-	-	51862.00	-
p20	-	-	-	-	-	-	-	-	-	35738.00	-

D.37 storage

D.37.1 storage

Table D.52 – Total Expansions, storage, storage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	3.00	3.00
p02	-	-	-	-	-	-	-	-	-	3.00	3.00
p03	-	-	-	-	-	-	-	-	-	3.00	3.00
p04	-	-	-	-	-	-	-	-	-	13.00	51.00
p05	-	-	-	-	-	-	-	-	-	41.00	172.00
p06	-	-	-	-	-	-	-	-	-	41.00	364.00
p07	-	-	-	-	-	-	-	-	-	94.00	791.00
p08	-	-	-	-	-	-	-	-	-	568.00	7567.00
p09	-	-	-	-	-	-	-	-	-	657.00	33574.00
p10	-	-	-	-	-	-	-	-	-	1217.00	26558.00
p11	-	-	-	-	-	-	-	-	-	13830.00	314011.00
p12	-	-	-	-	-	-	-	-	-	31562.00	1839736.00
p13	-	-	-	-	-	-	-	-	-	3532.00	603489.00
p14	-	-	-	-	-	-	-	-	-	21188.00	6275399.00
p15	6235135.00	5880227.00	13994290.00	857116.00	69968.00	215483.00	447060.00	147116.00	215483.00	155763.00	?
p16	-	-	-	-	-	-	-	-	-	361150.00	-
p17	-	-	-	-	-	-	-	-	-	241151.00	-
p18	-	-	-	-	-	-	-	-	-	137568.00	-
p19	-	-	-	-	-	-	-	-	-	90494.00	-
p20	-	-	-	-	-	-	-	-	-	57985.00	-
p21	-	-	-	-	-	-	-	-	-	28096.00	-
p22	-	-	-	-	-	-	-	-	-	14189.00	-
p23	-	-	-	-	-	-	-	-	-	17059.00	-
p24	-	-	-	-	-	-	-	-	-	13449.00	-
p25	-	-	-	-	-	-	-	-	-	10901.00	-
p26	-	-	-	-	-	-	-	-	-	3172.00	-
p27	-	-	-	-	-	-	-	-	-	5203.00	-
p28	-	-	-	-	-	-	-	-	-	2439.00	-
p29	-	-	-	-	-	-	-	-	-	3260.00	-
p30	-	-	-	-	-	-	-	-	-	1697.00	-

D.38 termes

D.38.1 termes-opt18-strips

Table D.53 – Total Expansions, termes, termes-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	86359.00	516599.00
p02	-	-	-	-	-	-	-	-	-	918919.00	4949482.00
p03	-	-	-	-	-	-	-	-	-	4218158.00	-
p04	-	-	-	-	-	-	-	-	-	3935504.00	-
p05	-	-	-	-	-	-	-	-	-	3217225.00	-
p06	-	-	-	-	-	-	-	-	-	2819623.00	-
p07	-	-	-	-	-	-	-	-	-	2551278.00	-
p08	-	-	-	-	-	-	-	-	-	2524056.00	-
p09	-	-	-	-	-	-	-	-	-	2123701.00	-
p10	-	-	-	-	-	-	-	-	-	2079730.00	-
p11	-	-	-	-	-	-	-	-	-	3339806.00	14121924.00
p12	-	-	-	-	-	-	-	-	-	317316.00	2031771.00
p13	-	-	-	-	-	-	-	-	-	3672274.00	-
p14	-	-	-	-	-	-	-	-	-	3716226.00	-
p15	-	-	-	-	-	-	-	-	-	2820956.00	-
p16	-	-	-	-	-	-	-	-	-	2713213.00	-
p17	-	-	-	-	-	-	-	-	-	4626202.00	-
p18	-	-	-	-	-	-	-	-	-	5240651.00	-
p19	-	-	-	-	-	-	-	-	-	3705413.00	-
p20	-	-	-	-	-	-	-	-	-	3687476.00	-

D.39 tetris

D.39.1 tetris-opt14-strips

Table D.54 – Total Expansions, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-10	-	-	-	-	-	-	-	-	-	50387.00	-
p01-6	-	-	-	-	-	-	-	-	-	192464.00	-
p01-8	-	-	-	-	-	-	-	-	-	73431.00	206957.00
p02-10	-	-	-	-	-	-	-	-	-	49826.00	-
p02-4	-	-	-	-	-	-	-	-	-	28.00	179.00
p02-6	-	-	-	-	-	-	-	-	-	64093.00	304013.00
p02-8	-	-	-	-	-	-	-	-	-	56130.00	-
p03-10	-	-	-	-	-	-	-	-	-	12996.00	-
p03-4	-	-	-	-	-	-	-	-	-	876.00	10020.00
p03-6	-	-	-	-	-	-	-	-	-	275643.00	-
p03-8	-	-	-	-	-	-	-	-	-	40900.00	-
p04-10	-	-	-	-	-	-	-	-	-	11978.00	-
p04-6	-	-	-	-	-	-	-	-	-	238288.00	-
p04-8	-	-	-	-	-	-	-	-	-	31344.00	-
p05-10	-	-	-	-	-	-	-	-	-	28052.00	-
p05-6	-	-	-	-	-	-	-	-	-	6689.00	35192.00
p05-8	-	-	-	-	-	-	-	-	-	22435.00	-

D.40 tidybot

D.40.1 tidybot-opt11-strips

Table D.55 – Total Expansions, tidybot, tidybot-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	4.00	63.00
p02	-	-	-	-	-	-	-	-	-	3370.00	554161.00
p03	-	-	-	-	-	-	-	-	-	142.00	9565.00
p04	-	-	-	-	-	-	-	-	-	1603.00	378963.00
p05	768119.00	763821.00	845725.00	93952.00	82799.00	52925.00	38224.00	15450.00	24000.00	17829.00	?
p06	-	-	-	-	-	-	-	-	-	451.00	912332.00
p07	-	-	-	-	-	-	-	-	-	142.00	13926.00
p08	-	-	-	-	-	-	-	-	-	11360.00	5854494.00
p09	-	-	-	-	-	-	-	-	-	5637.00	923305.00
p10	-	-	-	-	-	-	-	-	-	1140.00	4402535.00
p11	-	-	-	-	-	-	-	-	-	5565.00	5090600.00
p12	361360.00	356082.00	352403.00	71374.00	66769.00	72418.00	49406.00	40159.00	60120.00	44404.00	?
p13	582188.00	580727.00	523923.00	70080.00	61725.00	56539.00	26323.00	13298.00	21778.00	15669.00	?
p14	-	-	-	-	-	-	-	-	-	1689.00	2352962.00
p15	-	-	-	-	-	-	-	-	-	38248.00	-
p16	-	-	-	-	-	-	-	-	-	36510.00	-
p17	-	-	-	-	-	-	-	-	-	39617.00	-
p18	-	-	-	-	-	-	-	-	-	49102.00	-
p19	-	-	-	-	-	-	-	-	-	40882.00	-
p20	-	-	-	-	-	-	-	-	-	38862.00	-

D.40.2 tidybot-opt14-strips

Table D.56 – Total Expansions, tidybot, tidybot-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	32095.00	-
p02	42335.00	42097.00	48248.00	13719.00	11982.00	12535.00	9020.00	6679.00	10492.00	7896.00	?
p03	70400.00	69961.00	85511.00	17132.00	16637.00	15313.00	10459.00	7956.00	12358.00	9070.00	?
p04	-	-	-	-	-	-	-	-	-	6478.00	1596567.00
p05	-	-	-	-	-	-	-	-	-	46296.00	-
p06	-	-	-	-	-	-	-	-	-	39702.00	-
p07	779301.00	777893.00	827661.00	202504.00	194090.00	150454.00	121624.00	32975.00	52151.00	37596.00	?
p08	-	-	-	-	-	-	-	-	-	4921.00	3193497.00
p09	-	-	-	-	-	-	-	-	-	24334.00	-
p10	-	-	-	-	-	-	-	-	-	20479.00	-
p11	-	-	-	-	-	-	-	-	-	5565.00	5090600.00
p12	361360.00	356082.00	352403.00	71374.00	66769.00	72418.00	49406.00	40159.00	60120.00	44404.00	?
p13	582188.00	580727.00	523923.00	70080.00	61725.00	56539.00	26323.00	13298.00	21778.00	15669.00	?
p14	-	-	-	-	-	-	-	-	-	1689.00	2352962.00
p15	-	-	-	-	-	-	-	-	-	41366.00	-
p16	-	-	-	-	-	-	-	-	-	35080.00	-
p17	-	-	-	-	-	-	-	-	-	41960.00	-
p18	-	-	-	-	-	-	-	-	-	43193.00	-
p19	-	-	-	-	-	-	-	-	-	40062.00	-
p20	-	-	-	-	-	-	-	-	-	38298.00	-

D.41 tpp

D.41.1 tpp

Table D.57 – Total Expansions, tpp, tpp

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	5.00	6.00
p02	-	-	-	-	-	-	-	-	-	8.00	26.00
p03	-	-	-	-	-	-	-	-	-	11.00	116.00
p04	-	-	-	-	-	-	-	-	-	14.00	493.00
p05	-	-	-	-	-	-	-	-	-	224.00	26436.00
p06	8604292676.00	-	8517971863.00	6068169868.00	-	38512.00	7356741158.00	-	38512.00	29426.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	874440.00	-
p10	-	-	-	-	-	-	-	-	-	636408.00	-
p11	-	-	-	-	-	-	-	-	-	729337.00	-
p12	-	-	-	-	-	-	-	-	-	450273.00	-
p13	-	-	-	-	-	-	-	-	-	153344.00	-
p14	-	-	-	-	-	-	-	-	-	109939.00	-
p15	-	-	-	-	-	-	-	-	-	76934.00	-
p16	-	-	-	-	-	-	-	-	-	31824.00	-
p17	-	-	-	-	-	-	-	-	-	19721.00	-
p18	-	-	-	-	-	-	-	-	-	19532.00	-
p19	-	-	-	-	-	-	-	-	-	10081.00	-
p20	-	-	-	-	-	-	-	-	-	8924.00	-
p21	-	-	-	-	-	-	-	-	-	6113.00	-
p22	-	-	-	-	-	-	-	-	-	5405.00	-
p23	-	-	-	-	-	-	-	-	-	4025.00	-
p24	-	-	-	-	-	-	-	-	-	4399.00	-
p25	-	-	-	-	-	-	-	-	-	3355.00	-
p26	-	-	-	-	-	-	-	-	-	1759.00	-
p27	-	-	-	-	-	-	-	-	-	1643.00	-
p28	-	-	-	-	-	-	-	-	-	1372.00	-
p29	-	-	-	-	-	-	-	-	-	825.00	-
p30	-	-	-	-	-	-	-	-	-	855.00	-

D.42 transport

D.42.1 transport-opt08-strips

Table D.58 – Total Expansions, transport, transport-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	5.00	64.00
p02	-	-	-	-	-	-	-	-	-	36.00	2328.00
p03	-	-	-	-	-	-	-	-	-	6495.00	421283.00
p04	-	-	-	-	-	-	-	-	-	27919.00	4481981.00
p05	-	-	-	-	-	-	-	-	-	202023.00	-
p06	-	-	-	-	-	-	-	-	-	39218.00	-
p07	-	-	-	-	-	-	-	-	-	28324.00	-
p08	-	-	-	-	-	-	-	-	-	21083.00	-
p09	-	-	-	-	-	-	-	-	-	12391.00	-
p10	-	-	-	-	-	-	-	-	-	5132.00	-
p11	-	-	-	-	-	-	-	-	-	17.00	159.00
p12	-	-	-	-	-	-	-	-	-	289.00	15434.00
p13	-	-	-	-	-	-	-	-	-	1574.00	439851.00
p14	-	-	-	-	-	-	-	-	-	370235.00	-
p15	-	-	-	-	-	-	-	-	-	132944.00	-
p16	-	-	-	-	-	-	-	-	-	16864.00	-
p17	-	-	-	-	-	-	-	-	-	16466.00	-
p18	-	-	-	-	-	-	-	-	-	12643.00	-
p19	-	-	-	-	-	-	-	-	-	11106.00	-
p20	-	-	-	-	-	-	-	-	-	8409.00	-
p21	-	-	-	-	-	-	-	-	-	14.00	119.00
p22	-	-	-	-	-	-	-	-	-	482.00	7675.00
p23	-	-	-	-	-	-	-	-	-	1658.00	107396.00
p24	-	-	-	-	-	-	-	-	-	18305.00	1737042.00
p25	-	-	-	-	-	-	-	-	-	366403.00	-
p26	-	-	-	-	-	-	-	-	-	44843.00	-
p27	-	-	-	-	-	-	-	-	-	33152.00	-
p28	-	-	-	-	-	-	-	-	-	16021.00	-
p29	-	-	-	-	-	-	-	-	-	7203.00	-
p30	-	-	-	-	-	-	-	-	-	6008.00	-

D.42.2 transport-opt11-strips

Table D.59 – Total Expansions, transport, transport-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	1658.00	107396.00
p02	-	-	-	-	-	-	-	-	-	6495.00	421283.00
p03	-	-	-	-	-	-	-	-	-	289.00	15434.00
p04	-	-	-	-	-	-	-	-	-	1574.00	439851.00
p05	-	-	-	-	-	-	-	-	-	18305.00	1737042.00
p06	-	-	-	-	-	-	-	-	-	27919.00	4481981.00
p07	-	-	-	-	-	-	-	-	-	330295.00	-
p08	-	-	-	-	-	-	-	-	-	109943.00	-
p09	-	-	-	-	-	-	-	-	-	254237.00	-
p10	-	-	-	-	-	-	-	-	-	84287.00	-
p11	-	-	-	-	-	-	-	-	-	105434.00	-
p12	-	-	-	-	-	-	-	-	-	43072.00	-
p13	-	-	-	-	-	-	-	-	-	198603.00	-
p14	-	-	-	-	-	-	-	-	-	58544.00	-
p15	-	-	-	-	-	-	-	-	-	102676.00	-
p16	-	-	-	-	-	-	-	-	-	46653.00	-
p17	-	-	-	-	-	-	-	-	-	199914.00	-
p18	-	-	-	-	-	-	-	-	-	368431.00	-
p19	-	-	-	-	-	-	-	-	-	352011.00	-
p20	-	-	-	-	-	-	-	-	-	39447.00	-

D.42.3 transport-opt14-strips

Table D.60 – Total Expansions, transport, transport-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	405.00	27517.00
p02	-	-	-	-	-	-	-	-	-	22384.00	614636.00
p03	4175571074.00	-	3644345634.00	120216185.00	16499.00	63570.00	60354.00	25079.00	63570.00	27930.00	?
p04	-	-	-	-	-	-	-	-	-	164030.00	-
p05	-	-	-	-	-	-	-	-	-	45080.00	-
p06	-	-	-	-	-	-	-	-	-	65063.00	-
p07	-	-	-	-	-	-	-	-	-	417041.00	1563206.00
p08	-	-	-	-	-	-	-	-	-	424683.00	-
p09	-	-	-	-	-	-	-	-	-	95746.00	-
p10	-	-	-	-	-	-	-	-	-	40642.00	-
p11	-	-	-	-	-	-	-	-	-	22731.00	-
p12	-	-	-	-	-	-	-	-	-	20486.00	-
p13	-	-	-	-	-	-	-	-	-	2897.00	518336.00
p14	3438298226.00	-	4086138535.00	3572504484.00	-	115519.00	629920.00	35323.00	115519.00	41277.00	?
p15	-	-	-	-	-	-	-	-	-	98671.00	-
p16	-	-	-	-	-	-	-	-	-	17543.00	-
p17	-	-	-	-	-	-	-	-	-	9193.00	-
p18	-	-	-	-	-	-	-	-	-	8440.00	-
p19	-	-	-	-	-	-	-	-	-	6583.00	-
p20	-	-	-	-	-	-	-	-	-	6589.00	-

D.43 trucks

D.43.1 trucks-strips

Table D.61 – Total Expansions, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	98.00	4881.00
p02	-	-	-	-	-	-	-	-	-	514.00	28762.00
p03	-	-	-	-	-	-	-	-	-	1335.00	427025.00
p04	-	-	-	-	-	-	-	-	-	3157.00	2879237.00
p05	22870.00	22855.00	154956.00	14326.00	1278.00	2937.00	3917.00	2334.00	2937.00	2703.00	?
p06	284685112.00	284685112.00	3071989061.00	17591247.00	17591247.00	1118073144.00	2284295.00	111411.00	157122.00	132026.00	?
p07	-	-	-	-	-	-	-	-	-	13096.00	11919217.00
p08	535564.00	534385.00	2266603.00	75013.00	5703.00	13955.00	24302.00	10825.00	13955.00	12362.00	?
p09	5082080.00	5079409.00	221275153.00	1845020.00	194921.00	73357.00	624713.00	610829.00	73357.00	68830.00	?
p10	352526960.00	352221392.00	3116250234.00	1245662.00	249781.00	445933.00	491553.00	354092.00	445933.00	384584.00	?
p11	-	-	-	-	-	-	-	-	-	279674.00	-
p12	-	-	-	-	-	-	-	-	-	292474.00	-
p13	-	-	-	-	-	-	-	-	-	276562.00	-
p14	-	-	-	-	-	-	-	-	-	229759.00	-
p15	-	-	-	-	-	-	-	-	-	176266.00	-
p16	-	-	-	-	-	-	-	-	-	165275.00	-
p17	-	-	-	-	-	-	-	-	-	47088.00	-
p18	-	-	-	-	-	-	-	-	-	35308.00	-
p19	-	-	-	-	-	-	-	-	-	59275.00	-
p20	-	-	-	-	-	-	-	-	-	35787.00	-
p21	-	-	-	-	-	-	-	-	-	33323.00	-
p22	-	-	-	-	-	-	-	-	-	28027.00	-
p23	-	-	-	-	-	-	-	-	-	9824.00	-
p24	-	-	-	-	-	-	-	-	-	13719.00	-
p25	-	-	-	-	-	-	-	-	-	15192.00	-
p26	-	-	-	-	-	-	-	-	-	7181.00	-
p27	-	-	-	-	-	-	-	-	-	6347.00	-
p28	-	-	-	-	-	-	-	-	-	9460.00	-
p29	-	-	-	-	-	-	-	-	-	3507.00	-
p30	-	-	-	-	-	-	-	-	-	4025.00	-

D.44 visitall

D.44.1 visitall-opt11-strips

Table D.62 – Total Expansions, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
problem02-full	-	-	-	-	-	-	-	-	-	3.00	4.00
problem02-half	-	-	-	-	-	-	-	-	-	1.00	1.00
problem03-full	-	-	-	-	-	-	-	-	-	21.00	354.00
problem03-half	-	-	-	-	-	-	-	-	-	14.00	48.00
problem04-full	-	-	-	-	-	-	-	-	-	726.00	50489.00
problem04-half	-	-	-	-	-	-	-	-	-	15.00	667.00
problem05-full	-	-	-	-	-	-	-	-	-	69724.00	14650221.00
problem05-half	-	-	-	-	-	-	-	-	-	1032.00	74672.00
problem06-full	-	-	-	-	-	-	-	-	-	?	
problem06-half	-	-	-	-	-	-	-	-	-	1044.00	368703.00
problem07-full	-	-	-	-	-	-	-	-	-	5155405.00	-
problem07-half	2778790.00	2778790.00	3244224.00	784465.00	784465.00	983738.00	618018.00	466619.00	681365.00	519032.00	?
problem08-full	-	-	-	-	-	-	-	-	-	3351295.00	-
problem08-half	-	-	-	-	-	-	-	-	-	4189798.00	-
problem09-full	-	-	-	-	-	-	-	-	-	2440024.00	-
problem09-half	-	-	-	-	-	-	-	-	-	2493066.00	-
problem10-full	-	-	-	-	-	-	-	-	-	1623291.00	-
problem10-half	-	-	-	-	-	-	-	-	-	1926128.00	-
problem11-full	-	-	-	-	-	-	-	-	-	1013007.00	-
problem11-half	-	-	-	-	-	-	-	-	-	1196960.00	-

D.44.2 visitall-opt14-strips

Table D.63 – Total Expansions, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p-05-10	-	-	-	-	-	-	-	-	-	2049752.00	-
p-05-5	-	-	-	-	-	-	-	-	-	5817.00	642555.00
p-05-6	-	-	-	-	-	-	-	-	-	8157.00	1887803.00
p-05-7	1429599.00	1423027.00	1189007.00	183754.00	183754.00	238009.00	147599.00	103074.00	154504.00	116186.00	?
p-05-8	5039944.00	5039944.00	5306058.00	1026172.00	1026172.00	1329414.00	737017.00	497744.00	722946.00	551917.00	?
p-05-9	-	-	-	-	-	-	-	-	-	2718712.00	-
p-1-10	-	-	-	-	-	-	-	-	-	1612842.00	-
p-1-11	-	-	-	-	-	-	-	-	-	1008240.00	-
p-1-12	-	-	-	-	-	-	-	-	-	1035777.00	-
p-1-13	-	-	-	-	-	-	-	-	-	855245.00	-
p-1-14	-	-	-	-	-	-	-	-	-	796725.00	-
p-1-15	-	-	-	-	-	-	-	-	-	348569.00	-
p-1-16	-	-	-	-	-	-	-	-	-	241622.00	-
p-1-17	-	-	-	-	-	-	-	-	-	302803.00	-
p-1-18	-	-	-	-	-	-	-	-	-	191827.00	-
p-1-5	-	-	-	-	-	-	-	-	-	69724.00	14650221.00
p-1-6	-	-	-	-	-	-	-	-	-	?	
p-1-7	-	-	-	-	-	-	-	-	-	5246262.00	-
p-1-8	-	-	-	-	-	-	-	-	-	3333453.00	-
p-1-9	-	-	-	-	-	-	-	-	-	2421021.00	-

D.45 woodworking

D.45.1 woodworking-opt08-strips

Table D.64 – Total Expansions, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	12.00	9797.00
p02	-	-	-	-	-	-	-	-	-	9.00	23287.00
p03	20.00	19.00	20.00	19.00	19.00	19.00	19.00	19.00	19.00	18.00	?
p04	2991894575.00	-	2435656791.00	2943937425.00	-	335427.00	2141396750.00	156067.00	335427.00	172076.00	?
p05	3101.00	49410.00	991.00	2449.00	2449.00	991.00	1243.00	1243.00	991.00	769.00	?
p06	-	-	-	-	-	-	-	-	-	?	
p07	351075441.00	3466.00	53830.00	97423038.00	41686.00	53830.00	11408910.00	50653.00	53830.00	33892.00	?
p08	-	-	-	-	-	-	-	-	-	130812.00	
p09	-	-	-	-	-	-	-	-	-	119724.00	
p10	-	-	-	-	-	-	-	-	-	33380.00	
p11	-	-	-	-	-	-	-	-	-	7.00	4150.00
p12	-	-	-	-	-	-	-	-	-	12.00	1939645.00
p13	46312091.00	40065348.00	57343767.00	12204533.00	2618.00	8096.00	11736833.00	5200.00	8096.00	5948.00	?
p14	316463679.00	249593339.00	348870895.00	1073430.00	348760.00	32693.00	229855.00	229855.00	32693.00	17348.00	?
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	391095.00	-
p17	49185.00	1750.00	4088.00	27200.00	8629.00	4088.00	6250.00	6250.00	4088.00	2743.00	?
p18	-	-	-	-	-	-	-	-	-	86197.00	-
p19	-	-	-	-	-	-	-	-	-	77282.00	-
p20	-	-	-	-	-	-	-	-	-	47363.00	-
p21	-	-	-	-	-	-	-	-	-	6.00	265.00
p22	-	-	-	-	-	-	-	-	-	21.00	191221.00
p23	-	-	-	-	-	-	-	-	-	17.00	1057916.00
p24	505104626.00	844.00	13658.00	44858632.00	4517.00	13658.00	43925645.00	8614.00	13658.00	9870.00	?
p25	26.00	26.00	27.00	26.00	26.00	26.00	26.00	26.00	26.00	25.00	?
p26	-	-	-	-	-	-	-	-	-	399576.00	-
p27	-	-	-	-	-	-	-	-	-	213221.00	-
p28	-	-	-	-	-	-	-	-	-	100566.00	-
p29	-	-	-	-	-	-	-	-	-	68542.00	-
p30	-	-	-	-	-	-	-	-	-	26588.00	-

D.45.2 woodworking-opt11-strips

Table D.65 – Total Expansions, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	17.00	1057916.00
p02	-	-	-	-	-	-	-	-	-	12.00	1939645.00
p03	46312091.00	40065348.00	57343767.00	12204533.00	2618.00	8096.00	11736833.00	5200.00	8096.00	5948.00	?
p04	20.00	19.00	20.00	19.00	19.00	19.00	19.00	19.00	19.00	18.00	?
p05	505104626.00	844.00	13658.00	44858632.00	4517.00	13658.00	43925645.00	8614.00	13658.00	9870.00	?
p06	2983715367.00	-	3049616226.00	2901024194.00	-	335427.00	2141396750.00	156067.00	335427.00	172076.00	?
p07	316463679.00	249593339.00	348870895.00	1073430.00	348760.00	32693.00	229855.00	229855.00	32693.00	17548.00	?
p08	26.00	26.00	27.00	26.00	26.00	26.00	26.00	26.00	26.00	25.00	?
p09	3101.00	49410.00	991.00	2449.00	2449.00	991.00	1243.00	1243.00	991.00	769.00	?
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	399114.00	-
p12	-	-	-	-	-	-	-	-	-	381510.00	-
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	213814.00	-
p15	49185.00	1750.00	4088.00	27200.00	8629.00	4088.00	6250.00	6250.00	4088.00	2743.00	?
p16	351075441.00	3466.00	53830.00	97423038.00	41686.00	53830.00	11408910.00	50653.00	53830.00	33892.00	?
p17	-	-	-	-	-	-	-	-	-	101413.00	-
p18	-	-	-	-	-	-	-	-	-	85480.00	-
p19	-	-	-	-	-	-	-	-	-	132760.00	-
p20	-	-	-	-	-	-	-	-	-	68426.00	-

D.46 zenotravel

D.46.1 zenotravel

Table D.66 – Total Expansions, zenotravel, zenotravel

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	1.00	1.00
p02	-	-	-	-	-	-	-	-	-	15.00	56.00
p03	-	-	-	-	-	-	-	-	-	10.00	2298.00
p04	-	-	-	-	-	-	-	-	-	20.00	7174.00
p05	-	-	-	-	-	-	-	-	-	20.00	50738.00
p06	-	-	-	-	-	-	-	-	-	57.00	374610.00
p07	-	-	-	-	-	-	-	-	-	666.00	438741.00
p08	455.00	440.00	78.00	211.00	211.00	78.00	152.00	152.00	78.00	144.00	?
p09	3698906.00	3671884.00	10744690.00	1072026.00	11913.00	30449.00	663486.00	23105.00	30449.00	27545.00	?
p10	172510.00	35414.00	9193.00	123413.00	4233.00	9193.00	52332.00	7940.00	9193.00	8606.00	?
p11	13156.00	100.00	1509.00	12123.00	614.00	1509.00	5955.00	1268.00	1509.00	1437.00	?
p12	33023789.00	45706.00	69381.00	31278117.00	41824.00	69381.00	3603834.00	70533.00	69381.00	67263.00	?
p13	465106065.00	11124.00	130528.00	4597790211.00	55331.00	130528.00	403975592.00	106207.00	130528.00	124151.00	?
p14	-	-	-	-	-	-	-	-	-	17203.00	-
p15	-	-	-	-	-	-	-	-	-	15758.00	-
p16	-	-	-	-	-	-	-	-	-	2450.00	-
p17	-	-	-	-	-	-	-	-	-	1914.00	-
p18	-	-	-	-	-	-	-	-	-	2527.00	-
p19	-	-	-	-	-	-	-	-	-	1279.00	-
p20	-	-	-	-	-	-	-	-	-	845.00	-

APPENDIX E — FIRST PHASE EXPANSIONS

E.1 agricola

E.1.1 agricola-opt18-strips

Table E.1 – First Phase Expansions, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	-
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.2 airport

E.2.1 airport

Table E.2 – First Phase Expansions, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-airport1-p1	-	-	-	-	-	-	-	-	-	8.00	10.00
p02-airport1-p1	-	-	-	-	-	-	-	-	-	9.00	15.00
p03-airport1-p2	-	-	-	-	-	-	-	-	-	19.00	169.00
p04-airport2-p1	-	-	-	-	-	-	-	-	-	20.00	22.00
p05-airport2-p1	-	-	-	-	-	-	-	-	-	21.00	30.00
p06-airport2-p2	-	-	-	-	-	-	-	-	-	41.00	753.00
p07-airport2-p2	-	-	-	-	-	-	-	-	-	64.00	756.00
p08-airport2-p3	-	-	-	-	-	-	-	-	-	119.00	27307.00
p09-airport2-p4	-	-	-	-	-	-	-	-	-	759.00	175995.00
p10-airport3-p1	-	-	-	-	-	-	-	-	-	18.00	21.00
p11-airport3-p1	-	-	-	-	-	-	-	-	-	21.00	30.00
p12-airport3-p2	-	-	-	-	-	-	-	-	-	39.00	906.00
p13-airport3-p2	-	-	-	-	-	-	-	-	-	49.00	843.00
p14-airport3-p3	-	-	-	-	-	-	-	-	-	60.00	35922.00
p15-airport3-p3	-	-	-	-	-	-	-	-	-	138.00	34099.00
p16-airport3-p4	-	-	-	-	-	-	-	-	-	328.00	1241109.00
p17-airport3-p5	-	-	-	-	-	-	-	-	-	2431.00	10749400.00
p18-airport3-p6	?	-	?	?	-	?	?	-	11840.00	9736.00	?
p19-airport3-p6	-	-	-	-	-	-	-	-	-	3588.00	10658571.00
p20-airport3-p7	?	-	?	?	-	?	10405.00	10405.00	15628.00	11583.00	?
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	101.00	18810.00
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	1042.042	2493184.00
p23-airport4halfMUC-p4	34.00	34.00	74.00	174.00	174.00	304.00	283.00	283.00	304.00	313.00	?
p24-airport4halfMUC-p4	19.00	19.00	19.00	78.00	78.00	81.00	137.00	137.00	142.00	162.00	?
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	?	-
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	?	-
p27-airport4halfMUC-p6	59.00	59.00	63.00	?	-	1014.00	874.00	874.00	1014.00	1012.00	?
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	?	-
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	?	-
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p33-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	?	-
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	?	-
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	109.00	64178.00
p37-airport5MUC-p3	?	-	?	?	-	?	?	-	8138.00	7953.00	?
p38-airport5MUC-p3	?	-	?	?	-	?	?	-	12001.00	9021.00	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p41-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	?	-
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	?	-
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	?	-
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	?	-

E.3 barman

E.3.1 barman-opt11-strips

Table E.3 – First Phase Expansions, barman, barman-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
pfile01-001	-	-	-	-	-	-	-	-	-	1354993.00	5976293.00
pfile01-002	-	-	-	-	-	-	-	-	-	1242604.00	5990063.00
pfile01-003	-	-	-	-	-	-	-	-	-	1228985.00	5967282.00
pfile01-004	-	-	-	-	-	-	-	-	-	1243140.00	5990063.00
pfile02-005	-	-	-	-	-	-	-	-	-	?	-
pfile02-006	-	-	-	-	-	-	-	-	-	?	-
pfile02-007	-	-	-	-	-	-	-	-	-	?	-
pfile02-008	-	-	-	-	-	-	-	-	-	?	-
pfile03-009	-	-	-	-	-	-	-	-	-	?	-
pfile03-010	-	-	-	-	-	-	-	-	-	?	-
pfile03-011	-	-	-	-	-	-	-	-	-	?	-
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	-	-	-	-	-	-	-	-	-	?	-
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-

E.3.2 barman-opt14-strips

Table E.4 – First Phase Expansions, barman, barman-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p435-1	-	-	-	-	-	-	-	-	-	?	-
p435-2	-	-	-	-	-	-	-	-	-	?	-
p435-3	-	-	-	-	-	-	-	-	-	?	-
p536-1	-	-	-	-	-	-	-	-	-	?	-
p536-2	-	-	-	-	-	-	-	-	-	?	-
p536-3	-	-	-	-	-	-	-	-	-	?	-
p638-1	-	-	-	-	-	-	-	-	-	?	-
p638-2	-	-	-	-	-	-	-	-	-	?	-
p638-3	-	-	-	-	-	-	-	-	-	?	-
p739-1	-	-	-	-	-	-	-	-	-	?	-
p739-2	-	-	-	-	-	-	-	-	-	?	-
p739-3	-	-	-	-	-	-	-	-	-	?	-
p839-1	-	-	-	-	-	-	-	-	-	?	-
p839-2	-	-	-	-	-	-	-	-	-	?	-

E.4 blocks

E.4.1 blocks

Table E.5 – First Phase Expansions, blocks, blocks

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
probBLOCKS-10-0	21064.00	21064.00	69732.00	110966.00	110966.00	340727.00	214971.00	214971.00	340727.00	238956.00	?
probBLOCKS-10-1	3312.00	3312.00	10114.00	15114.00	15114.00	40491.00	28258.00	28258.00	40491.00	30665.00	?
probBLOCKS-10-2	8150.00	8150.00	28376.00	41753.00	41753.00	117057.00	74975.00	74975.00	117057.00	85656.00	?
probBLOCKS-11-0	7467.00	7467.00	22846.00	34403.00	34403.00	88228.00	59380.00	59380.00	88228.00	65768.00	?
probBLOCKS-11-1	5874.00	5874.00	21641.00	31416.00	31416.00	88710.00	58824.00	58824.00	88710.00	66787.00	?
probBLOCKS-11-2	5536.00	5536.00	17953.00	28340.00	28340.00	80992.00	52259.00	52259.00	80992.00	58253.00	?
probBLOCKS-12-0	6067.00	6067.00	20639.00	30225.00	30225.00	82839.00	54169.00	54169.00	82839.00	61798.00	?
probBLOCKS-12-1	741.00	741.00	2061.00	3233.00	3233.00	8830.00	5778.00	5778.00	8830.00	6492.00	?
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-14-0	11113.00	11113.00	40875.00	55565.00	55565.00	151236.00	98432.00	98432.00	151236.00	113539.00	?
probBLOCKS-14-1	18574.00	18574.00	74472.00	92284.00	92284.00	249782.00	171092.00	171092.00	249782.00	192362.00	?
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	6.00	99.00
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	11.00	52.00
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	7.00	47.00
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	19.00	543.00
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	16.00	570.00
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	39.00	742.00
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	16.00	2028.00
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	11.00	4862.00
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	229.00	6642.00
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	59.00	38073.00
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	1074.00	64087.00
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	186.00	59984.00
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	149.00	521072.00
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	1034.00	618821.00
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	55.00	356611.00
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	12419.00	7955169.00
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	361.00	5846429.00
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	615.00	5297062.00

E.5 childsnack

E.5.1 childsnack-opt14-strips

Table E.6 – First Phase Expansions, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
child-snack_pfile01	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile02	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile03	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile04	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile05	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile06	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile07	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile08	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile09	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile10	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	-	?

E.6 data

E.6.1 data-network-opt18-strips

Table E.7 – First Phase Expansions, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	13.00	4664.00
p02	-	-	-	-	-	-	-	-	-	251.00	3701.00
p03	10.00	10.00	49.00	38.00	38.00	82.00	47.00	47.00	82.00	49.00	?
p04	?	-	?	5601.00	5601.00	25216.00	10783.00	10783.00	25216.00	12312.00	?
p05	47.00	47.00	358.00	257.00	257.00	866.00	421.00	421.00	866.00	447.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	3375.00	24697.00
p10	-	-	-	7001.00	7001.00	38408.00	12987.00	12987.00	38408.00	14621.00	?
p11	?	-	?	-	-	-	-	-	-	13.00	4090.00
p12	5.00	5.00	26.00	18.00	18.00	33.00	25.00	25.00	33.00	25.00	?
p13	28.00	28.00	144.00	101.00	101.00	314.00	163.00	163.00	314.00	167.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	8.00	1061408.00
p16	-	-	-	-	-	-	-	-	-	?	-
p17	329.00	329.00	4710.00	1653.00	1653.00	7318.00	2795.00	2795.00	7318.00	3242.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.7 depot

E.7.1 depot

Table E.8 – First Phase Expansions, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	12.00	373.00
p02	-	-	-	-	-	-	-	-	-	138.00	15694.00
p03	-	-	-	-	-	-	-	-	-	38049.00	3046900.00
p04	?	-	157619.00	203504.00	203504.00	827715.00	388629.00	388629.00	827715.00	484024.00	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	17980.00	6894719.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	10472.00	10472.00	53494.00	59769.00	59769.00	207701.00	98743.00	98743.00	207701.00	132415.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	975.00	975.00	7192.00	5898.00	5898.00	19275.00	11664.00	11664.00	19275.00	14431.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-

E.8 driverlog

E.8.1 driverlog

Table E.9 – First Phase Expansions, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	8.00	148.00
p02	-	-	-	-	-	-	-	-	-	8099.00	68741.00
p03	-	-	-	-	-	-	-	-	-	19.00	13314.00
p04	-	-	-	-	-	-	-	-	-	1743.00	1131498.00
p05	-	-	-	-	-	-	-	-	-	770.00	5176010.00
p06	-	-	-	-	-	-	-	-	-	151.00	446484.00
p07	3.00	3.00	40.00	19.00	19.00	42.00	34.00	34.00	42.00	37.00	?
p08	10856.00	10856.00	113033.00	63176.00	63176.00	207140.00	125211.00	125211.00	207140.00	149799.00	?
p09	825.00	825.00	4976.00	4690.00	4690.00	14813.00	8928.00	8928.00	14813.00	10335.00	?
p10	8.00	8.00	57.00	33.00	33.00	85.00	67.00	67.00	85.00	78.00	?
p11	15.00	15.00	136.00	103.00	103.00	298.00	218.00	218.00	298.00	252.00	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	3138.00	3138.00	23871.00	16141.00	16141.00	49939.00	30410.00	30410.00	49939.00	36122.00	?
p14	5413.00	5413.00	44206.00	26532.00	26532.00	76898.00	51388.00	51388.00	76898.00	59063.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.9 elevators

E.9.1 elevators-opt08-strips

Table E.10 – First Phase Expansions, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	458.00	27569.00
p02	-	-	-	-	-	-	-	-	-	52.00	14233.00
p03	-	-	-	-	-	-	-	-	-	4209.00	612356.00
p04	-	-	-	-	-	-	-	-	-	4873.00	833348.00
p05	?	-	?	?	-	74541.00	?	-	74541.00	44124.00	?
p06	?	-	?	?	-	61687.00	?	-	61687.00	38051.00	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	?	-	?	?	-	561331.00	?	-	561331.00	344298.00	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	707.00	147654.00
p12	-	-	-	-	-	-	-	-	-	1518.00	148942.00
p13	-	-	-	-	-	-	-	-	-	4234.00	1459029.00
p14	?	-	13333.00	?	-	13333.00	?	-	13333.00	8156.00	?
p15	?	-	?	?	-	9748.00	?	-	9748.00	6246.00	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	?	-	?	?	-	1015532.00	?	-	1015532.00	623114.00	?
p18	?	-	82091.00	?	-	82091.00	?	-	82091.00	58132.00	?
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	2159.00	185042.00
p22	-	-	-	-	-	-	-	-	-	19393.00	1456411.00
p23	?	-	?	?	-	319785.00	?	-	319785.00	161515.00	?
p24	?	-	92937.00	?	-	92937.00	?	-	92937.00	50485.00	?
p25	?	-	?	?	-	55292.00	?	-	55292.00	29908.00	?
p26	?	-	40386.00	?	-	40386.00	?	-	40386.00	26434.00	?
p27	?	-	?	?	-	1010372.00	?	-	1010372.00	513018.00	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.9.2 elevators-opt11-strips

Table E.11 – First Phase Expansions, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	707.00	147654.00
p02	-	-	-	-	-	-	-	-	-	2159.00	185042.00
p03	-	-	-	-	-	-	-	-	-	1518.00	148942.00
p04	-	-	-	-	-	-	-	-	-	4209.00	612356.00
p05	-	-	-	-	-	-	-	-	-	4234.00	1459029.00
p06	-	-	-	-	-	-	-	-	-	4873.00	833348.00
p07	?	-	40386.00	?	-	40386.00	?	-	40386.00	26434.00	?
p08	?	-	?	?	-	74541.00	?	-	74541.00	44124.00	?
p09	-	-	-	-	-	-	-	-	-	19393.00	1456411.00
p10	?	-	13333.00	?	-	13333.00	?	-	13333.00	8156.00	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	?	-	?	?	-	61687.00	?	-	61687.00	38051.00	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	?	-	?	?	-	561331.00	?	-	561331.00	344298.00	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	?	-	?	?	-	9748.00	?	-	9748.00	6246.00	?
p17	?	-	?	?	-	1015532.00	?	-	1015532.00	623114.00	?
p18	?	-	82091.00	?	-	82091.00	?	-	82091.00	58132.00	?
p19	?	-	?	?	-	319785.00	?	-	319785.00	161515.00	?
p20	?	-	92937.00	?	-	92937.00	?	-	92937.00	50485.00	?

E.10 floortile

E.10.1 floortile-opt11-strips

Table E.12 – First Phase Expansions, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
opt-p01-001	215.00	215.00	1546.00	1254.00	1254.00	5464.00	2384.00	2384.00	5464.00	2863.00	?
opt-p01-002	83.00	83.00	700.00	488.00	488.00	1898.00	911.00	911.00	1898.00	1057.00	?
opt-p02-003	16316.00	16316.00	?	106353.00	106353.00	553571.00	243300.00	243300.00	645739.00	306804.00	?
opt-p02-004	6552.00	6552.00	38980.00	40497.00	40497.00	210760.00	84720.00	84720.00	210760.00	101749.00	?
opt-p03-005	11579.00	11579.00	70945.00	72700.00	72700.00	330692.00	145053.00	145053.00	330692.00	167425.00	?
opt-p03-006	17506.00	17506.00	107911.00	117042.00	117042.00	562111.00	241920.00	241920.00	562111.00	282006.00	?
opt-p04-007	?	-	?	1153064.00	1153064.00	5888629.00	2397158.00	2397158.00	5888629.00	2876515.00	?
opt-p04-008	-	-	-	-	-	-	-	-	-	?	-
opt-p05-009	-	-	-	-	-	-	-	-	-	?	-
opt-p05-010	-	-	-	-	-	-	-	-	-	?	-
opt-p06-011	-	-	-	-	-	-	-	-	-	?	-
opt-p06-012	-	-	-	-	-	-	-	-	-	?	-
opt-p07-013	-	-	-	-	-	-	-	-	-	?	-
opt-p07-014	-	-	-	-	-	-	-	-	-	?	-
opt-p08-015	-	-	-	-	-	-	-	-	-	?	-
opt-p08-016	-	-	-	-	-	-	-	-	-	?	-
opt-p09-017	-	-	-	-	-	-	-	-	-	?	-
opt-p09-018	-	-	-	-	-	-	-	-	-	?	-
opt-p10-019	-	-	-	-	-	-	-	-	-	?	-
opt-p10-020	-	-	-	-	-	-	-	-	-	?	-

E.10.2 floortile-opt14-strips

Table E.13 – First Phase Expansions, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-4-3-2	9864.00	9864.00	?	66496.00	66496.00	350075.00	139783.00	139783.00	358477.00	171237.00	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-3-2	36356.00	36356.00	?	245995.00	245995.00	1243778.00	512927.00	512927.00	1243778.00	606822.00	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-3-2	?	-	?	367055.00	367055.00	1768664.00	775059.00	775059.00	1919898.00	928548.00	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-4-3-2	11775.00	11775.00	?	86519.00	86519.00	454660.00	189843.00	189843.00	498649.00	240946.00	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-3-2	?	-	?	387844.00	387844.00	1841786.00	820061.00	820061.00	2009520.00	977001.00	?
p03-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	?	-

E.11 freecell

E.11.1 freecell

Table E.14 – First Phase Expansions, freecell, freecell

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	425.00	3344.00
p02	-	-	-	-	-	-	-	-	-	26407.00	129001.00
p03	-	-	-	-	-	-	-	-	-	103852.00	927315.00
p04	-	-	-	-	-	-	-	-	-	143326.00	3188931.00
p05	?	-	?	94215.00	94215.00	269437.00	183851.00	183851.00	269437.00	197385.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-2-1	-	-	-	-	-	-	-	-	-	1383.00	5549.00
probfreecell-2-2	-	-	-	-	-	-	-	-	-	719.00	5324.00
probfreecell-2-3	-	-	-	-	-	-	-	-	-	559.00	5253.00
probfreecell-2-4	-	-	-	-	-	-	-	-	-	872.00	6694.00
probfreecell-2-5	-	-	-	-	-	-	-	-	-	1879.00	6303.00
probfreecell-3-1	-	-	-	-	-	-	-	-	-	247961.00	623814.00
probfreecell-3-2	-	-	-	-	-	-	-	-	-	146495.00	548424.00
probfreecell-3-3	-	-	-	-	-	-	-	-	-	84114.00	544799.00
probfreecell-3-4	-	-	-	-	-	-	-	-	-	114112.00	674078.00
probfreecell-3-5	-	-	-	-	-	-	-	-	-	173326.00	607262.00
probfreecell-4-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-5	-	-	-	-	-	-	-	-	-	?	-

E.12 ged

E.12.1 ged-opt14-strips

Table E.15 – First Phase Expansions, ged, ged-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
d-1-2	-	-	-	-	-	-	-	-	-	1.00	111.00
d-1-3	-	-	-	-	-	-	-	-	-	72858.00	266331.00
d-1-4	-	-	-	-	-	-	-	-	-	1.00	111.00
d-1-8	-	-	-	-	-	-	-	-	-	339263.00	2814778.00
d-2-1	-	-	-	-	-	-	-	-	-	1.00	111.00
d-2-3	-	-	-	-	-	-	-	-	-	3208.00	29917.00
d-2-4	-	-	-	-	-	-	-	-	-	98.00	784.00
d-2-8	-	-	-	-	-	-	-	-	-	?	-
d-3-1	-	-	-	-	-	-	-	-	-	72874.00	264175.00
d-3-2	-	-	-	-	-	-	-	-	-	3272.00	29824.00
d-3-4	182194.00	182194.00	649809.00	1060808.00	1060808.00	2047465.00	1811476.00	1811476.00	2047465.00	2064595.00	?
d-4-2	-	-	-	-	-	-	-	-	-	100.00	739.00
d-4-3	181963.00	181963.00	650910.00	1062877.00	1062877.00	2042897.00	1812536.00	1812536.00	2042897.00	2273061.00	?
d-4-8	-	-	-	-	-	-	-	-	-	?	-
d-7-5	36628.00	36628.00	77744.00	117462.00	117462.00	400287.00	198268.00	198268.00	717944.00	358355.00	?
d-7-6	-	-	-	-	-	-	-	-	-	93457.00	786068.00
d-8-1	-	-	-	-	-	-	-	-	-	338879.00	2789132.00
d-8-2	-	-	-	-	-	-	-	-	-	?	-
d-8-4	-	-	-	-	-	-	-	-	-	?	-
d-8-9	-	-	-	-	-	-	-	-	-	?	-

E.13 grid

E.13.1 grid

Table E.16 – First Phase Expansions, grid, grid

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind A^*$
prob01	-	-	-	-	-	-	-	-	-	50.00	5767.00
prob02	6457.00	6457.00	20627.00	37429.00	37429.00	109367.00	67579.00	67579.00	109367.00	77087.00	?
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	-	-	-	-	-	-	-	-	-	?	-

E.14 gripper

E.14.1 gripper

Table E.17 – First Phase Expansions, gripper, gripper

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind A^*$
prob01	-	-	-	-	-	-	-	-	-	114.00	235.00
prob02	-	-	-	-	-	-	-	-	-	1373.00	1825.00
prob03	-	-	-	-	-	-	-	-	-	10638.00	11735.00
prob04	-	-	-	-	-	-	-	-	-	66380.00	68557.00
prob05	-	-	-	-	-	-	-	-	-	372716.00	376771.00
prob06	-	-	-	-	-	-	-	-	-	1975785.00	1982393.00
prob07	-	-	-	-	-	-	-	-	-	10082674.00	10092463.00
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-

E.15 hiking

E.15.1 hiking-opt14-strips

Table E.18 – First Phase Expansions, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind A^*$
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	271.00	494.00
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	2073.00	3008.00
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	8705.00	11406.00
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	65571.00	77960.00
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	141345.00	163452.00
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	4064.00	59118.00
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	215156.00	1618319.00
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	810850.00	5761664.00
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	19453.00	339557.00
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	?	-

E.16 logistics

E.16.1 logistics00

Table E.19 – First Phase Expansions, logistics, logistics00

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probLOGISTICS-10-0	?	-	?	?	-	243861.00	?	-	243861.00	193846.00	?
probLOGISTICS-10-1	?	-	?	?	-	194305.00	?	-	194305.00	165006.00	?
probLOGISTICS-11-0	?	-	?	?	-	186145.00	?	-	186145.00	156585.00	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-12-0	?	-	?	?	-	137736.00	?	-	137736.00	116555.00	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	76.00	11963.00
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	194.00	9658.00
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	50.00	3971.00
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	935.00	114019.00
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	181.00	23777.00
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	8.00	764.00
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	933.00	477118.00
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	34.00	29649.00
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	514.00	473780.00
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	536.00	420002.00
probLOGISTICS-7-0	?	-	?	2743.00	2743.00	9212.00	6305.00	6305.00	9212.00	7739.00	?
probLOGISTICS-7-1	?	-	-	?	-	197858.00	113152.00	113152.00	197858.00	155138.00	?
probLOGISTICS-8-0	182.00	182.00	?	1421.00	1421.00	3683.00	2934.00	2934.00	3683.00	3269.00	?
probLOGISTICS-8-1	?	-	?	?	-	50701.00	34431.00	34431.00	50701.00	43663.00	?
probLOGISTICS-9-0	?	-	?	5446.00	5446.00	17309.00	11959.00	11959.00	17309.00	14089.00	?
probLOGISTICS-9-1	?	-	449.00	?	-	704.00	?	-	704.00	707.00	?

E.16.2 logistics98

Table E.20 – First Phase Expansions, logistics, logistics98

	10%			50%			90%			100%	
	A^*_{+IDA}	$A^*_{+IDA}{\uparrow}$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}{\uparrow}$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}{\uparrow}$	PEA^*_{+IDA}	A^*	Blind A^*
prob01	?	-	?	4848.00	4848.00	13602.00	10635.00	10635.00	13602.00	12645.00	?
prob02	-	-	-	-	-	-	-	-	-	?	-
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	3.00	3.00	15.00	11.00	11.00	23.00	21.00	21.00	23.00	23.00	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	-	-	-	-	-	-	-	-	-	?	-
prob27	-	-	-	-	-	-	-	-	-	?	-
prob28	-	-	-	-	-	-	-	-	-	?	-
prob29	-	-	-	-	-	-	-	-	-	?	-
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	68.00	185361.00
prob32	-	-	-	-	-	-	-	-	-	117.00	254234.00
prob33	?	-	?	?	-	98028.00	?	-	98028.00	92698.00	?
prob34	-	-	-	-	-	-	-	-	-	?	-
prob35	153.00	153.00	1645.00	808.00	808.00	1645.00	1485.00	1485.00	1645.00	1659.00	?

E.17 miconic

E.17.1 miconic

Table E.21 – First Phase Expansions, miconic, miconic

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
s1-0	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-1	-	-	-	-	-	-	-	-	-	3.00	4.00
s1-2	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-3	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-4	-	-	-	-	-	-	-	-	-	4.00	4.00
s10-0	-	-	-	-	-	-	-	-	-	57.00	16194641.00
s10-1	-	-	-	-	-	-	-	-	-	64.00	16519524.00
s10-2	-	-	-	-	-	-	-	-	-	74.00	15369517.00
s10-3	-	-	-	-	-	-	-	-	-	52.00	16822223.00
s10-4	-	-	-	-	-	-	-	-	-	44.00	16481293.00
s11-0	9.00	9.00	28.00	42.00	42.00	79.00	72.00	72.00	79.00	78.00	?
s11-1	6.00	6.00	22.00	31.00	31.00	57.00	51.00	51.00	57.00	57.00	?
s11-2	12.00	12.00	37.00	55.00	55.00	96.00	88.00	88.00	96.00	95.00	?
s11-3	?	-	?	-	-	18048.00	?	-	18048.00	18047.00	?
s11-4	9.00	9.00	38.00	45.00	45.00	77.00	71.00	71.00	77.00	76.00	?
s12-0	5.00	5.00	11.00	29.00	29.00	54.00	50.00	50.00	54.00	54.00	?
s12-1	9.00	9.00	25.00	47.00	47.00	85.00	78.00	78.00	85.00	85.00	?
s12-2	4.00	4.00	34.00	32.00	32.00	103.00	68.00	68.00	103.00	76.00	?
s12-3	8.00	8.00	36.00	45.00	45.00	81.00	74.00	74.00	81.00	80.00	?
s12-4	7.00	7.00	10.00	38.00	38.00	61.00	55.00	55.00	61.00	61.00	?
s13-0	11.00	11.00	26.00	43.00	43.00	80.00	73.00	73.00	80.00	79.00	?
s13-1	?	-	19829.00	?	-	19829.00	?	-	19829.00	19827.00	?
s13-2	14.00	14.00	37.00	67.00	67.00	117.00	107.00	107.00	117.00	117.00	?
s13-3	6.00	6.00	19.00	41.00	41.00	74.00	68.00	68.00	74.00	74.00	?
s13-4	5.00	5.00	32.00	38.00	38.00	74.00	68.00	68.00	74.00	74.00	?
s14-0	5.00	5.00	26.00	32.00	32.00	70.00	62.00	62.00	70.00	70.00	?
s14-1	9.00	9.00	33.00	46.00	46.00	83.00	75.00	75.00	83.00	83.00	?
s14-2	10.00	10.00	60.00	47.00	47.00	127.00	103.00	103.00	127.00	127.00	?
s14-3	11.00	11.00	70.00	52.00	52.00	101.00	94.00	94.00	101.00	101.00	?
s14-4	12.00	12.00	77.00	65.00	65.00	118.00	105.00	105.00	118.00	118.00	?
s15-0	10.00	10.00	79.00	61.00	61.00	109.00	99.00	99.00	109.00	109.00	?
s15-1	19.00	19.00	170.00	95.00	95.00	184.00	166.00	166.00	184.00	183.00	?
s15-2	28.00	28.00	96.00	103.00	103.00	155.00	144.00	144.00	155.00	154.00	?
s15-3	27.00	27.00	124.00	102.00	102.00	167.00	155.00	155.00	167.00	167.00	?
s15-4	16.00	16.00	150.00	85.00	85.00	157.00	142.00	142.00	157.00	156.00	?
s16-0	10.00	10.00	39.00	52.00	52.00	111.00	101.00	101.00	111.00	111.00	?
s16-1	8.00	8.00	42.00	62.00	62.00	111.00	103.00	103.00	111.00	111.00	?
s16-2	16.00	16.00	50.00	71.00	71.00	137.00	120.00	120.00	137.00	136.00	?
s16-3	34.00	34.00	212.00	118.00	118.00	212.00	195.00	195.00	212.00	217.00	?
s16-4	16.00	16.00	67.00	72.00	72.00	137.00	127.00	127.00	137.00	137.00	?
s17-0	20.00	20.00	134.00	92.00	92.00	168.00	151.00	151.00	168.00	167.00	?
s17-1	16.00	16.00	174.00	91.00	91.00	174.00	160.00	160.00	174.00	174.00	?
s17-2	20.00	20.00	161.00	96.00	96.00	179.00	164.00	164.00	179.00	179.00	?
s17-3	9.00	9.00	27.00	72.00	72.00	116.00	109.00	109.00	116.00	115.00	?
s17-4	?	-	86742.00	?	-	86742.00	?	-	86742.00	86727.00	?
s18-0	21.00	21.00	138.00	87.00	87.00	182.00	164.00	164.00	182.00	182.00	?
s18-1	26.00	26.00	207.00	121.00	121.00	213.00	196.00	196.00	213.00	213.00	?
s18-2	17.00	17.00	179.00	94.00	94.00	187.00	171.00	171.00	187.00	187.00	?
s18-3	20.00	20.00	86.00	91.00	91.00	166.00	152.00	152.00	166.00	165.00	?
s18-4	17.00	17.00	120.00	79.00	79.00	145.00	132.00	132.00	145.00	144.00	?
s19-0	17.00	17.00	134.00	110.00	110.00	216.00	187.00	187.00	202.00	202.00	?
s19-1	16.00	16.00	116.00	112.00	112.00	216.00	194.00	194.00	216.00	216.00	?
s19-2	-	-	-	-	-	-	-	-	-	?	-
s19-3	24.00	24.00	133.00	103.00	103.00	207.00	188.00	188.00	207.00	206.00	?
s19-4	16.00	16.00	97.00	87.00	87.00	161.00	147.00	147.00	161.00	160.00	?
s2-0	-	-	-	-	-	-	-	-	-	8.00	27.00
s2-1	-	-	-	-	-	-	-	-	-	8.00	29.00
s2-2	-	-	-	-	-	-	-	-	-	8.00	33.00
s2-3	-	-	-	-	-	-	-	-	-	7.00	25.00
s2-4	-	-	-	-	-	-	-	-	-	10.00	26.00
s20-0	-	-	-	-	-	-	-	-	-	?	?
s20-1	22.00	22.00	66.00	89.00	89.00	158.00	149.00	149.00	158.00	158.00	?
s20-2	62.00	62.00	482.00	253.00	253.00	482.00	426.00	426.00	482.00	481.00	?
s20-3	33.00	33.00	267.00	145.00	145.00	267.00	244.00	244.00	267.00	267.00	?
s20-4	20.00	20.00	147.00	105.00	105.00	194.00	176.00	176.00	194.00	193.00	?
s21-0	34.00	34.00	241.00	137.00	137.00	251.00	229.00	229.00	251.00	250.00	?
s21-1	26.00	26.00	123.00	129.00	129.00	208.00	192.00	192.00	208.00	208.00	?
s21-2	9.00	9.00	30.00	66.00	66.00	136.00	123.00	123.00	136.00	136.00	?
s21-3	25.00	25.00	158.00	124.00	124.00	197.00	182.00	182.00	197.00	196.00	?
s21-4	13.00	13.00	68.00	92.00	92.00	166.00	151.00	151.00	166.00	166.00	?
s22-0	46.00	46.00	339.00	198.00	198.00	339.00	313.00	313.00	339.00	338.00	?
s22-1	29.00	29.00	288.00	152.00	152.00	288.00	264.00	264.00	288.00	288.00	?
s22-2	44.00	44.00	356.00	194.00	194.00	356.00	320.00	320.00	356.00	356.00	?
s22-3	33.00	33.00	57.00	120.00	120.00	183.00	171.00	171.00	183.00	182.00	?
s22-4	29.00	29.00	128.00	100.00	100.00	188.00	172.00	172.00	188.00	187.00	?
s23-0	33.00	33.00	183.00	133.00	133.00	236.00	209.00	209.00	236.00	235.00	?
s23-1	-	-	-	-	-	-	-	-	-	?	-
s23-2	30.00	30.00	244.00	129.00	129.00	244.00	224.00	224.00	244.00	244.00	?
s23-3	-	-	-	-	-	-	-	-	-	?	-
s23-4	30.00	30.00	245.00	126.00	126.00	245.00	219.00	219.00	245.00	245.00	?
s24-0	28.00	28.00	208.00	114.00	114.00	208.00	201.00	201.00	223.00	223.00	?
s24-1	31.00	31.00	289.00	144.00	144.00	289.00	266.00	266.00	289.00	289.00	?
s24-2	45.00	45.00	284.00	165.00	165.00	284.00	263.00	263.00	284.00	283.00	?
s24-3	21.00	21.00	171.00	150.00	150.00	274.00	257.00	257.00	274.00	273.00	?
s24-4	39.00	39.00	271.00	160.00	160.00	271.00	246.00	246.00	271.00	270.00	?
s25-0	53.00	53.00	435.00	234.00	234.00	435.00	402.00	402.00	435.00	435.00	?
s25-1	67.00	67.00	551.00	302.00	302.00	551.00	498.00	498.00	551.00	551.00	?
s25-2	-	-	-	-	-	-	-	-	-	?	-
s25-3	29.00	29.00	165.00	162.00	162.00	275.00	252.00	252.00	275.00	274.00	?
s25-4	43.00	43.00	333.00	195.00	195.00	333.00	309.00	309.00	333.00	332.00	?
s26-0	39.00	39.00	403.00	213.00	213.00	403.00	366.00	366.00	403.00	402.00	?
s26-1	-	-	-	-	-	-	-	-	-	?	-
s26-2	35.00	35.00	175.00	153.00	153.00	305.00	276.00	276.00	305.00	305.00	?
s26-3	66.00	66.00	455.00	252.00	252.00	455.00	402.00	402.00	455.00	455.00	?
s26-4	39.00	39.00	156.00	141.00	141.00	245.00	220.00	220.00	245.00	244.00	?
s27-0	-	-	-	-	-	-	-	-	-	?	-
s27-1	14.00	14.00	69.00	118.00	118.00	233.00	207.00	207.00	233.00	233.00	?
s27-2	84.00	84.00	686.00	370.00	370.00	686.00	624.00	624.00	686.00	686.00	?
s27-3	43.00	43.00	337.00	182.00	182.00	339.00	311.00	311.00	339.00	339.00	?
s27-4	75.00	75.00	486.00	260.00	260.00	486.00	443.00	443.00	486.00	485.00	?
s28-0	28.00	28.00	227.00	200.00	200.00	363.00	333.00	333.00	363.00	362.00	?
s28-1	-	-	-	-	-	-	-	-	-	?	-
s28-2	48.00	48.00	416.00	238.00	238.00	416.00	384.00	384.00	416.00	415.00	?
s28-3	58.00	58.00	418.00	229.00	229.00	418.00	379.00	379.00	418.00	418.00	?
s28-4	41.00	41.00	344.00	204.00	204.00	344.00	320.00	320.00	344.00	344.00	?
s29-0	27.00	27.00	144.00	128.00	128.00	238.00	216.00	216.00	238.00	238.00	?
s29-1	38.00	38.00	378.00	192.00	192.00	378.00	343.00	343.00	378.00	378.00	?
s29-2	43.00	43.00	427.00	221.00	221.00	427.00	385.00	385.00	427.00	427.00	?
s29-3	37.00	37.00	405.00	200.00	200.00	405.00	368.00	368.00	405.00	404.00	?
s29-4	50.00	50.00	463.00	237.00	237.00	463.00	425.00	425.00	463.00	463.00	?
s3-0	-	-	-	-	-	-	-	-	-	17.00	200.00
s3-1	-	-	-	-	-	-	-	-	-	22.00	219.00
s3-2	-	-	-	-	-	-	-	-	-	16.00	190.00
s3-3	-	-	-	-	-	-	-	-	-	12.00	208.00
s3-4	-	-	-	-	-	-	-	-	-	12.00	211.00
s30-0	42.00	42.00	354.00	213.00	213.00	354.00	328.00	328.00	354.00	354.00	?
s30-1	74.00	74.00	452.00	276.00	276.00	452.00	416.00	416.00	452.00	452.00	?
s30-2	55.00	55.00	378.00	206.00	206.00	378.00	347.00	347.00	378.00	377.00	?
s30-3	-	-	-	-	-	-	-	-	-	?	-
s30-4	64.00	64.00	393.00	220.00	220.00	393.00	360.00	360.00	393.00	393.00	?
s4-0	-	-	-	-	-	-	-	-	-	15.00	1284.00
s4-1	-	-	-	-	-	-	-	-	-	16.00	1323.00
s4-2	-	-	-	-	-	-	-	-	-	18.00	1353.00
s4-3	-	-	-	-	-	-	-	-	-	22.00	1308.00
s4-4	-	-	-	-	-	-	-	-	-	29.00	1354.00
s5-0	-	-	-	-	-	-	-	-	-	29.00	6645.00
s5-1	-	-	-	-	-	-	-	-	-	24.00	6852.00
s5-2	-	-	-	-	-	-	-	-	-	23.00	5965.00
s5-3	-	-	-	-	-	-	-	-	-	19.00	6132.00
s5-4	-	-	-	-	-	-	-	-	-	27.00	7203.00
s6-0	-	-	-	-	-	-	-	-	-	43.00	32338.00
s6-1	-	-	-	-	-	-	-	-	-	21.00	31992.00
s6-2	-	-	-	-	-	-	-	-	-	30.00	31964.00
s6-3	-	-	-	-	-	-	-	-	-	131.00	33385.00
s6-4	-	-	-	-	-	-	-	-	-	29.00	36044.00
s7-0	-	-	-	-	-	-	-	-	-	32.00	156769.00
s7-1	-	-	-	-	-	-	-	-	-	49.00	155377.00
s7-2	-	-	-	-	-	-	-	-	-	23.00	167160.00
s7-3	-	-	-	-	-	-	-	-	-	33.00	156728.00
s7-4	-	-	-	-	-	-	-	-	-	45.00	174779.00
s8-0	-	-	-	-	-	-	-	-	-	38.00	754501.00
s8-1	-	-	-	-	-	-	-	-	-	555.00	784004.00
s8-2	-	-	-	-	-	-	-	-	-	55.00	710644.00
s8-3	-	-	-	-	-	-	-	-	-	49.00	815253.00
s8-4	-	-	-	-	-	-	-	-	-	44.00	795232.00
s9-0	-	-	-	-	-	-	-	-	-	61.00	3630265.00
s9-1	-	-	-	-	-	-	-	-	-	66.00	3638478.00
s9-2	-	-	-	-	-	-	-	-	-	57.00	3489961.00
s9-3	-	-	-	-	-	-	-	-	-	36.00	3917908.00
s9-4	-	-	-	-	-	-	-	-	-	476.00	3678050.00

E.18 movie

E.18.1 movie

Table E.22 – First Phase Expansions, movie, movie

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	8.00	121.00
prob02	-	-	-	-	-	-	-	-	-	8.00	121.00
prob03	-	-	-	-	-	-	-	-	-	8.00	121.00
prob04	-	-	-	-	-	-	-	-	-	8.00	121.00
prob05	-	-	-	-	-	-	-	-	-	8.00	121.00
prob06	-	-	-	-	-	-	-	-	-	8.00	121.00
prob07	-	-	-	-	-	-	-	-	-	8.00	121.00
prob08	-	-	-	-	-	-	-	-	-	8.00	121.00
prob09	-	-	-	-	-	-	-	-	-	8.00	121.00
prob10	-	-	-	-	-	-	-	-	-	8.00	121.00
prob11	-	-	-	-	-	-	-	-	-	8.00	121.00
prob12	-	-	-	-	-	-	-	-	-	8.00	121.00
prob13	-	-	-	-	-	-	-	-	-	8.00	121.00
prob14	-	-	-	-	-	-	-	-	-	8.00	121.00
prob15	-	-	-	-	-	-	-	-	-	8.00	121.00
prob16	-	-	-	-	-	-	-	-	-	8.00	121.00
prob17	-	-	-	-	-	-	-	-	-	8.00	121.00
prob18	-	-	-	-	-	-	-	-	-	8.00	121.00
prob19	-	-	-	-	-	-	-	-	-	8.00	121.00
prob20	-	-	-	-	-	-	-	-	-	8.00	121.00
prob21	-	-	-	-	-	-	-	-	-	8.00	121.00
prob22	-	-	-	-	-	-	-	-	-	8.00	121.00
prob23	-	-	-	-	-	-	-	-	-	8.00	121.00
prob24	-	-	-	-	-	-	-	-	-	8.00	121.00
prob25	-	-	-	-	-	-	-	-	-	8.00	121.00
prob26	-	-	-	-	-	-	-	-	-	8.00	121.00
prob27	-	-	-	-	-	-	-	-	-	8.00	121.00
prob28	-	-	-	-	-	-	-	-	-	8.00	121.00
prob29	-	-	-	-	-	-	-	-	-	8.00	121.00
prob30	-	-	-	-	-	-	-	-	-	8.00	121.00

E.19 mprime

E.19.1 mprime

Table E.23 – First Phase Expansions, mprime, mprime

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	7.00	3137.00
prob02	941.00	941.00	3128.00	3908.00	3908.00	3128.00	9411.00	9411.00	3128.00	12115.00	?
prob03	-	-	-	-	-	-	-	-	-	8.00	10518.00
prob04	-	-	-	-	-	-	-	-	-	426.00	595999.00
prob05	5972.00	5972.00	72658.00	34739.00	34739.00	106525.00	77302.00	77302.00	106525.00	86386.00	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	5.00	4705.00
prob08	155.00	155.00	1008.00	840.00	840.00	1008.00	1714.00	1714.00	1008.00	1890.00	?
prob09	68.00	68.00	880.00	404.00	404.00	880.00	791.00	791.00	880.00	890.00	?
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	329.00	179813.00
prob12	-	-	-	-	-	-	-	-	-	349.00	203501.00
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	21.00	21.00	494.00	222.00	222.00	494.00	419.00	419.00	494.00	460.00	?
prob17	1.00	1.00	8.00	4.00	4.00	8.00	8.00	8.00	8.00	8.00	?
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	8546.00	1084131.00
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	4.00	277.00
prob26	22.00	22.00	495.00	207.00	207.00	495.00	394.00	394.00	495.00	436.00	?
prob27	-	-	-	-	-	-	-	-	-	9.00	61377.00
prob28	-	-	-	-	-	-	-	-	-	131.00	12035.00
prob29	-	-	-	-	-	-	-	-	-	10.00	7428.00
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	13.00	4786.00
prob32	-	-	-	-	-	-	-	-	-	163.00	117811.00
prob33	-	-	-	-	-	-	-	-	-	?	-
prob34	-	-	-	-	-	-	-	-	-	16.00	6081.00
prob35	-	-	-	-	-	-	-	-	-	30.00	5342.00

E.20 mystery

E.20.1 mystery

Table E.24 – First Phase Expansions, mystery, mystery

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	7.00	39.00
prob02	-	-	-	-	-	-	-	-	-	85.00	961139.00
prob03	-	-	-	-	-	-	-	-	-	4.00	394.00
prob04	-	-	-	-	-	-	-	-	-	5898125.00	-
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	2225.00	2225.00	18692.00	12075.00	12075.00	18692.00	22175.00	22175.00	18692.00	24338.00	?
prob07	-	-	-	-	-	-	-	-	-	0.00	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	42.00	345677.00
prob10	116.00	116.00	1888.00	629.00	629.00	1888.00	1214.00	1214.00	1888.00	1328.00	?
prob11	-	-	-	-	-	-	-	-	-	10.00	658.00
prob12	-	-	-	-	-	-	-	-	-	521397.00	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	432.00	703075.00
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	5.00	4710.00
prob18	-	-	-	-	-	-	-	-	-	0.00	-
prob19	-	-	-	-	-	-	-	-	-	199.00	136917.00
prob20	10.00	10.00	243.00	70.00	70.00	397.00	118.00	118.00	397.00	127.00	?
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	4.00	45.00
prob26	-	-	-	-	-	-	-	-	-	42.00	13551.00
prob27	-	-	-	-	-	-	-	-	-	9.00	2503.00
prob28	-	-	-	-	-	-	-	-	-	9.00	910.00
prob29	-	-	-	-	-	-	-	-	-	4.00	68.00
prob30	-	-	-	-	-	-	-	-	-	4582.00	1066132.00

E.21 nomystery

E.21.1 nomystery-opt11-strips

Table E.25 – First Phase Expansions, nomystery, nomystery-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	47.00	2290.00
p02	-	-	-	-	-	-	-	-	-	61.00	65577.00
p03	-	-	-	-	-	-	-	-	-	42.00	171972.00
p04	-	-	-	-	-	-	-	-	-	275.00	7814123.00
p05	176.00	176.00	656.00	871.00	871.00	2066.00	1690.00	1690.00	2066.00	1904.00	?
p06	85.00	85.00	416.00	375.00	375.00	1031.00	730.00	730.00	1031.00	797.00	?
p07	2911.00	2911.00	13434.00	15095.00	15095.00	39094.00	28323.00	28323.00	39094.00	32639.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	76.00	1313.00
p12	-	-	-	-	-	-	-	-	-	71.00	16654.00
p13	-	-	-	-	-	-	-	-	-	38.00	38750.00
p14	-	-	-	-	-	-	-	-	-	446.00	1745088.00
p15	175.00	175.00	655.00	869.00	869.00	2066.00	1681.00	1681.00	2066.00	1904.00	?
p16	85.00	85.00	416.00	374.00	374.00	1031.00	728.00	728.00	1031.00	797.00	?
p17	2599.00	2599.00	11939.00	13336.00	13336.00	35339.00	25389.00	25389.00	35339.00	29158.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.22 openstacks

E.22.1 openstacks-opt08-strips

Table E.26 – First Phase Expansions, openstacks, openstacks-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	17.00	27.00
p02	-	-	-	-	-	-	-	-	-	87.00	133.00
p03	-	-	-	-	-	-	-	-	-	230.00	293.00
p04	-	-	-	-	-	-	-	-	-	1991.091	2086.00
p05	-	-	-	-	-	-	-	-	-	3725.00	4183.00
p06	-	-	-	-	-	-	-	-	-	32.00	74.00
p07	-	-	-	-	-	-	-	-	-	57597.00	61184.00
p08	-	-	-	-	-	-	-	-	-	52981.00	61184.00
p09	-	-	-	-	-	-	-	-	-	1315.00	3148.00
p10	-	-	-	-	-	-	-	-	-	2555.00	4771.00
p11	-	-	-	-	-	-	-	-	-	80076.00	96779.00
p12	-	-	-	-	-	-	-	-	-	3754.00	7216.00
p13	-	-	-	-	-	-	-	-	-	345816.00	392535.00
p14	-	-	-	-	-	-	-	-	-	109852.00	156130.00
p15	-	-	-	-	-	-	-	-	-	581361.00	701282.00
p16	-	-	-	-	-	-	-	-	-	225545.00	350399.00
p17	-	-	-	-	-	-	-	-	-	286540.00	412749.00
p18	-	-	-	-	-	-	-	-	-	5130.00	16083.00
p19	-	-	-	-	-	-	-	-	-	529270.00	756244.00
p20	-	-	-	-	-	-	-	-	-	3330130.00	4309328.00
p21	-	-	-	-	-	-	-	-	-	233139.00	454359.00
p22	-	-	-	-	-	-	-	-	-	55239.00	131087.00
p23	-	-	-	-	-	-	-	-	-	1205215.00	2064911.00
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	585809.00	1235466.00
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.22.2 openstacks-opt11-strips

Table E.27 – First Phase Expansions, openstacks, openstacks-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	32.00	74.00
p02	-	-	-	-	-	-	-	-	-	57597.00	61184.00
p03	-	-	-	-	-	-	-	-	-	52981.00	61184.00
p04	-	-	-	-	-	-	-	-	-	1315.00	3148.00
p05	-	-	-	-	-	-	-	-	-	2555.00	4771.00
p06	-	-	-	-	-	-	-	-	-	80076.00	96779.00
p07	-	-	-	-	-	-	-	-	-	3754.00	7216.00
p08	-	-	-	-	-	-	-	-	-	345816.00	392535.00
p09	-	-	-	-	-	-	-	-	-	109852.00	156130.00
p10	-	-	-	-	-	-	-	-	-	55239.00	131087.00
p11	-	-	-	-	-	-	-	-	-	581361.00	701282.00
p12	-	-	-	-	-	-	-	-	-	225545.00	350399.00
p13	-	-	-	-	-	-	-	-	-	286540.00	412749.00
p14	-	-	-	-	-	-	-	-	-	5130.00	16083.00
p15	-	-	-	-	-	-	-	-	-	529270.00	756244.00
p16	-	-	-	-	-	-	-	-	-	233139.00	454359.00
p17	-	-	-	-	-	-	-	-	-	3330130.00	4309328.00
p18	-	-	-	-	-	-	-	-	-	1205215.00	2064911.00
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	585809.00	1235466.00

E.22.3 openstacks-opt14-strips

Table E.28 – First Phase Expansions, openstacks, openstacks-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p20_1	-	-	-	-	-	-	-	-	-	615176.00	771334.00
p20_2	-	-	-	-	-	-	-	-	-	1043976.00	1322567.00
p20_3	-	-	-	-	-	-	-	-	-	35748.00	84746.00
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p35_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	?	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	?	-

E.22.4 openstacks-strips

Table E.29 – First Phase Expansions, openstacks, openstacks-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	1773.00	4659.00
p02	-	-	-	-	-	-	-	-	-	2038.00	5331.00
p03	-	-	-	-	-	-	-	-	-	1793.00	4659.00
p04	-	-	-	-	-	-	-	-	-	1766.00	4659.00
p05	-	-	-	-	-	-	-	-	-	1775.00	4659.00
p06	-	-	-	-	-	-	-	-	-	435923.00	871242.00
p07	-	-	-	-	-	-	-	-	-	469318.00	838564.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.23 organic

E.23.1 organic-synthesis-opt18-strips

Table E.30 – First Phase Expansions, organic, organic-synthesis-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	1.00	1.00
p02	-	-	-	-	-	-	-	-	-	1.00	1.00
p03	-	-	-	-	-	-	-	-	-	2.00	2.00
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	2.00	2.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	2.00	2.00
p10	-	-	-	-	-	-	-	-	-	2.00	2.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	2.00	3.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.23.2 organic-synthesis-split-opt18-strips

Table E.31 – First Phase Expansions, organic, organic-synthesis-split-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	10.00	5978.00
p02	-	-	-	-	-	-	-	-	-	17.00	8823.00
p03	-	-	-	-	-	-	-	-	-	52.00	84842.00
p04	-	-	-	-	-	-	-	-	-	20.00	3159513.00
p05	-	-	-	-	-	-	-	-	-	51.00	518997.00
p06	1.00	1.00	13.00	14.00	14.00	22.00	40.00	40.00	52.00	50.00	?
p07	-	-	-	-	-	-	-	-	-	33.00	148.00
p08	2.00	2.00	61.00	122.00	122.00	552.00	702.00	702.00	994.00	991.00	?
p09	-	-	-	-	-	-	-	-	-	36.00	42943.00
p10	-	-	-	-	-	-	-	-	-	42.00	70165.00
p11	1.00	1.00	103.00	215.00	215.00	301.00	3038.00	3038.00	10386.00	10203.00	?
p12	11.00	11.00	28.00	129.00	129.00	503.00	6865.00	6865.00	7648.00	10437.00	?
p13	1.00	1.00	4.00	17.00	17.00	1177.00	367.00	367.00	1177.00	1165.00	?
p14	-	-	-	-	-	-	-	-	-	120.00	254735.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	1.00	1.00	3.00	27.00	27.00	311.00	494.00	494.00	532.00	516.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.24 parcprinter

E.24.1 parcprinter-08-strips

Table E.32 – First Phase Expansions, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	11.00	23.00
p02	-	-	-	-	-	-	-	-	-	18.00	1502.00
p03	-	-	-	-	-	-	-	-	-	22.00	5086.00
p04	3.00	3.00	13.00	11.00	11.00	49.00	26.00	26.00	49.00	41.00	?
p05	16.00	16.00	86.00	89.00	89.00	297.00	223.00	223.00	297.00	256.00	?
p06	?	-	?	?	-	69030.00	?	-	69030.00	52156.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	-	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	10.00	30.00
p12	-	-	-	-	-	-	-	-	-	302.00	5829.00
p13	-	-	-	-	-	-	-	-	-	6175.00	1210792.00
p14	?	-	?	?	-	?	?	-	458564.00	218594.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	8.00	19.00
p22	-	-	-	-	-	-	-	-	-	15.00	2946.00
p23	-	-	-	-	-	-	-	-	-	22.00	313470.00
p24	3.00	3.00	3.00	11.00	11.00	11.00	22.00	22.00	27.00	29.00	?
p25	?	-	?	?	-	29978.00	?	-	29978.00	21961.00	?
p26	4.00	4.00	4.00	14.00	14.00	15.00	32.00	32.00	35.00	43.00	?
p27	4.00	4.00	4.00	17.00	17.00	17.00	36.00	36.00	39.00	50.00	?
p28	5.00	5.00	5.00	19.00	19.00	19.00	42.00	42.00	44.00	57.00	?
p29	-	-	-	-	-	-	-	-	-	-	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.24.2 parcprinter-opt11-strips

Table E.33 – First Phase Expansions, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	15.00	2946.00
p02	-	-	-	-	-	-	-	-	-	18.00	1502.00
p03	-	-	-	-	-	-	-	-	-	302.00	5829.00
p04	3.00	3.00	13.00	11.00	11.00	49.00	26.00	26.00	49.00	41.00	?
p05	-	-	-	-	-	69030.00	-	-	69030.00	22.00	313470.00
p06	?	-	?	?	-	69030.00	?	-	69030.00	52156.00	?
p07	16.00	16.00	86.00	89.00	89.00	297.00	223.00	223.00	297.00	256.00	?
p08	3.00	3.00	3.00	11.00	11.00	11.00	22.00	22.00	27.00	29.00	?
p09	-	-	-	-	-	-	-	-	-	6175.00	1210792.00
p10	?	-	?	?	-	29978.00	?	-	29978.00	21961.00	?
p11	4.00	4.00	4.00	14.00	14.00	15.00	32.00	32.00	35.00	43.00	?
p12	?	-	?	?	-	?	?	-	458564.00	218594.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	4.00	4.00	4.00	17.00	17.00	17.00	36.00	36.00	39.00	50.00	?

E.25 parking

E.25.1 parking-opt11-strips

Table E.34 – First Phase Expansions, parking, parking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
pfile03-011	271.00	271.00	2303.00	1495.00	1495.00	4249.00	2924.00	2924.00	4249.00	3395.00	?
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	3346.00	3346.00	30875.00	17746.00	17746.00	45445.00	34506.00	34506.00	45445.00	39865.00	?
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-
pfile06-021	-	-	-	-	-	-	-	-	-	?	-
pfile06-022	-	-	-	-	-	-	-	-	-	?	-
pfile06-023	-	-	-	-	-	-	-	-	-	?	-
pfile06-024	-	-	-	-	-	-	-	-	-	?	-
pfile07-025	-	-	-	-	-	-	-	-	-	?	-
pfile07-026	-	-	-	-	-	-	-	-	-	?	-
pfile07-027	-	-	-	-	-	-	-	-	-	?	-
pfile07-028	-	-	-	-	-	-	-	-	-	?	-
pfile08-029	-	-	-	-	-	-	-	-	-	?	-
pfile08-030	-	-	-	-	-	-	-	-	-	?	-

E.25.2 parking-opt14-strips

Table E.35 – First Phase Expansions, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p_12_7-01	4341.00	4341.00	28901.00	24677.00	24677.00	65306.00	46481.00	46481.00	65306.00	51674.00	?
p_12_7-02	7915.00	7915.00	57239.00	45927.00	45927.00	132826.00	93199.00	93199.00	132826.00	106539.00	?
p_12_7-03	1959.00	1959.00	14899.00	10891.00	10891.00	29466.00	21294.00	21294.00	29466.00	24360.00	?
p_12_7-04	-	-	-	-	-	-	-	-	-	?	-
p_14_8-01	-	-	-	-	-	-	-	-	-	?	-
p_14_8-02	-	-	-	-	-	-	-	-	-	?	-
p_14_8-03	-	-	-	-	-	-	-	-	-	?	-
p_14_8-04	-	-	-	-	-	-	-	-	-	?	-
p_16_9-01	-	-	-	-	-	-	-	-	-	?	-
p_16_9-02	-	-	-	-	-	-	-	-	-	?	-
p_16_9-03	-	-	-	-	-	-	-	-	-	?	-
p_16_9-04	-	-	-	-	-	-	-	-	-	?	-
p_18_10-01	-	-	-	-	-	-	-	-	-	?	-
p_18_10-02	-	-	-	-	-	-	-	-	-	?	-
p_18_10-03	-	-	-	-	-	-	-	-	-	?	-
p_18_10-04	-	-	-	-	-	-	-	-	-	?	-
p_20_11-01	-	-	-	-	-	-	-	-	-	?	-
p_20_11-02	-	-	-	-	-	-	-	-	-	?	-
p_20_11-03	-	-	-	-	-	-	-	-	-	?	-
p_20_11-04	-	-	-	-	-	-	-	-	-	?	-

E.26 pathways

E.26.1 pathways

Table E.36 – First Phase Expansions, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	6.00	1648.00
p02	-	-	-	-	-	-	-	-	-	12.00	3061.00
p03	-	-	-	-	-	-	-	-	-	151.00	76528.00
p04	-	-	-	-	-	-	-	-	-	251.00	453455.00
p05	?	-	75982.00	?	-	75982.00	?	-	75982.00	72688.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.27 pegsol

E.27.1 pegsol-08-strips

Table E.37 – First Phase Expansions, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	5.00	11.00
p02	-	-	-	-	-	-	-	-	-	23.00	84.00
p03	-	-	-	-	-	-	-	-	-	23.00	215.00
p04	-	-	-	-	-	-	-	-	-	23.00	179.00
p05	-	-	-	-	-	-	-	-	-	60.00	277.00
p06	-	-	-	-	-	-	-	-	-	215.00	992.00
p07	-	-	-	-	-	-	-	-	-	15.00	113.00
p08	-	-	-	-	-	-	-	-	-	4555.00	25703.00
p09	-	-	-	-	-	-	-	-	-	472.00	3950.00
p10	-	-	-	-	-	-	-	-	-	4302.00	30044.00
p11	-	-	-	-	-	-	-	-	-	2657.00	13608.00
p12	-	-	-	-	-	-	-	-	-	11533.00	39360.00
p13	-	-	-	-	-	-	-	-	-	7539.00	33386.00
p14	-	-	-	-	-	-	-	-	-	10248.00	55828.00
p15	-	-	-	-	-	-	-	-	-	17397.00	74215.00
p16	-	-	-	-	-	-	-	-	-	2322.00	10599.00
p17	-	-	-	-	-	-	-	-	-	161711.00	301020.00
p18	-	-	-	-	-	-	-	-	-	2061.00	49937.00
p19	-	-	-	-	-	-	-	-	-	46179.00	257321.00
p20	-	-	-	-	-	-	-	-	-	43152.00	341728.00
p21	-	-	-	-	-	-	-	-	-	80174.00	491049.00
p22	-	-	-	-	-	-	-	-	-	11464.00	47882.00
p23	-	-	-	-	-	-	-	-	-	126783.00	968389.00
p24	-	-	-	-	-	-	-	-	-	194933.00	1324204.00
p25	-	-	-	-	-	-	-	-	-	127942.00	931245.00
p26	-	-	-	-	-	-	-	-	-	1406120.00	6940656.00
p27	-	-	-	-	-	-	-	-	-	90996.00	2766746.00
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.27.2 pegsol-opt11-strips

Table E.38 – First Phase Expansions, pegsol, pegsol-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	52.00	209.00
p02	-	-	-	-	-	-	-	-	-	161711.00	301020.00
p03	-	-	-	-	-	-	-	-	-	2061.00	49937.00
p04	-	-	-	-	-	-	-	-	-	46179.00	257321.00
p05	-	-	-	-	-	-	-	-	-	17425.00	90055.00
p06	-	-	-	-	-	-	-	-	-	95711.00	263005.00
p07	-	-	-	-	-	-	-	-	-	18675.00	210856.00
p08	-	-	-	-	-	-	-	-	-	43152.00	341728.00
p09	-	-	-	-	-	-	-	-	-	56523.00	367911.00
p10	-	-	-	-	-	-	-	-	-	80174.00	491049.00
p11	-	-	-	-	-	-	-	-	-	11464.00	47882.00
p12	-	-	-	-	-	-	-	-	-	9275.00	40040.00
p13	-	-	-	-	-	-	-	-	-	126783.00	968389.00
p14	-	-	-	-	-	-	-	-	-	194933.00	1324204.00
p15	-	-	-	-	-	-	-	-	-	127942.00	931245.00
p16	-	-	-	-	-	-	-	-	-	1406120.00	6940656.00
p17	-	-	-	-	-	-	-	-	-	90996.00	2766746.00
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

E.28 petri

E.28.1 petri-net-alignment-opt18-strips

Table E.39 – First Phase Expansions, petri, petri-net-alignment-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	4107.00	523309.00
p02	-	-	-	-	-	-	-	-	-	2486.00	1325136.00
p03	?	-	?	8539.00	8539.00	?	10380.00	10380.00	13558.00	11577.00	?
p04	?	-	?	31952.00	31952.00	?	51597.00	51597.00	81468.00	58495.00	?
p05	3410.00	3410.00	?	14394.00	14394.00	35532.00	22079.00	22079.00	35532.00	26126.00	?
p06	?	-	?	17121.00	17121.00	35051.00	24079.00	24079.00	35051.00	26562.00	?
p07	?	-	?	18212.00	18212.00	29533.00	21714.00	21714.00	29533.00	23101.00	?
p08	?	-	?	?	-	?	303852.00	303852.00	570610.00	359394.00	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	45927.00	45927.00	?	53987.00	53987.00	77994.00	61545.00	61545.00	77994.00	64411.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.29 pipesworld

E.29.1 pipesworld-notankage

Table E.40 – First Phase Expansions, pipesworld, pipesworld-notankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	5.00	84.00
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	489.00	1698.00
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	165.00	3667.00
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	941.00	12361.00
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	89.00	10941.00
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	533.00	51278.00
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	114.00	25601.00
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	1055.00	175342.00
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	6115.00	5373125.00
p10-net1-b14-g8	38637.00	38637.00	283854.00	266160.00	266160.00	951718.00	535382.00	535382.00	951718.00	662725.00	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	42378.00	679688.00
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	200504.00	2759069.00
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	5636.00	484965.00
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	212678.00	4923940.00
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	2979.00	123323.00
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3	4676.00	4676.00	26199.00	31222.00	31222.00	104039.00	55437.00	55437.00	104039.00	70394.00	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	?	
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2	2659.00	2659.00	19100.00	15564.00	15564.00	40388.00	29609.00	29609.00	40388.00	31535.00	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	?	

E.29.2 pipesworld-tankage

Table E.41 – First Phase Expansions, pipesworld, pipesworld-tankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	8.00	130.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	432.00	1038.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	1111.00	52182.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	9535.01	274176.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	123.00	25184.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	1187.00	96433.00
p07-net1-b12-g5-t80	155.00	155.00	2361.00	1092.00	1092.00	2361.00	1775.00	1775.00	2361.00	2028.00	?
p08-net1-b12-g7-t80	11307.00	11307.00	147686.00	56222.00	56222.00	167356.00	127419.00	127419.00	167356.00	145701.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	382586.00	4232401.00
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	
p13-net2-b12-g3-t70	16870.00	16870.00	109600.00	112713.00	112713.00	345809.00	211075.00	211075.00	345809.00	258589.00	?
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	-	
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	31836.00	4957248.00
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	-	
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	713071.00	1780491.00
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	
p40-net5-b22-g5-t50	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g5-t50	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	

E.29.3 pipesworld-tankage-nosplit

Table E.42 – First Phase Expansions, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	8.00	130.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	432.00	1038.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	1111.00	52182.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	9535.00	274176.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	123.00	25184.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	1187.00	96433.00
p07-net1-b12-g5-t80	155.00	155.00	2361.00	1092.00	1092.00	2361.00	1775.00	1775.00	2361.00	2028.00	?
p08-net1-b12-g7-t80	11307.00	11307.00	147686.00	56222.00	56222.00	167356.00	127419.00	127419.00	167356.00	145701.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	-
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	?	-
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	-
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

E.30 psr

E.30.1 psr-small

Table E.43 – First Phase Expansions, psr, psr-small

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	8.00	10.00
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	46.00	70.00
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	30.00	32.00
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	63.00	299.00
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	58.00	147.00
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	8.00	10.00
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	53.00	117.00
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	22.00	103.00
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	14.00	45.00
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	107.00	994.00
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	143.00	152.00
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	112.00	147.00
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	84.00	94.00
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	16.00	26.00
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	152.00	3451.00
p16-s29-n2-l5-f30	-	-	-	-	-	-	-	-	-	1659.00	2744.00
p17-s30-n2-l5-f50	-	-	-	-	-	-	-	-	-	13.00	15.00
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	71.00	154.00
p19-s33-n3-l2-f30	-	-	-	-	-	-	-	-	-	5947.00	9151.00
p20-s34-n3-l2-f50	-	-	-	-	-	-	-	-	-	75.00	83.00
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	25.00	37.00
p22-s37-n3-l3-f30	-	-	-	-	-	-	-	-	-	130154.00	192678.00
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	80.00	217.00
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	25.00	37.00
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	87.00	10515.00
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	138.00	176.00
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	490.00	776.00
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	79.00	101.00
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	67634.00	244712.00
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	1346.00	2449.00
p31-s49-n4-l2-f30	-	-	-	-	-	-	-	-	-	3235.00	54380.00
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	427.00	434.00
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	761.00	2133.00
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	215.00	226.00
p35-s57-n5-l2-f30	-	-	-	-	-	-	-	-	-	17160.00	149455.00
p36-s65-n6-l2-f50	-	-	-	-	-	-	-	-	-	134834.00	1633567.00
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	1162.00	1551.00
p38-s78-n3-l3-f50	-	-	-	-	-	-	-	-	-	206.00	586.00
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	1611.00	4091.00
p40-s80-n3-l4-f10	-	-	-	-	-	-	-	-	-	25302.00	1198571.00
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	30.00	65.00
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	1566.00	1919.00
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	312.00	332.00
p44-s89-n4-l2-f30	-	-	-	-	-	-	-	-	-	2235.00	4119.00
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	316.00	439.00
p46-s97-n5-l2-f10	-	-	-	-	-	-	-	-	-	45057.00	83279.00
p47-s98-n5-l2-f50	-	-	-	-	-	-	-	-	-	3399.00	5010.00
p48-s101-n5-l3-f30	?	-	?	1537802.00	1537802.00	6507577.00	4463604.00	4463604.00	6507577.00	5858418.00	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	-
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	616.00	690.00

E.31 rovers

E.31.1 rovers

Table E.44 – First Phase Expansions, rovers, rovers

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	29.00	1020.00
p02	-	-	-	-	-	-	-	-	-	9.00	250.00
p03	-	-	-	-	-	-	-	-	-	30.00	4426.00
p04	-	-	-	-	-	-	-	-	-	8.00	1049.00
p05	-	-	-	-	-	-	-	-	-	71234.00	8495232.00
p06	-	-	-	-	-	-	-	-	-	?	?
p07	1297.00	1297.00	11865.00	8021.00	8021.00	22787.00	16587.00	16587.00	22787.00	19544.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	1294.00	1294.00	13654.00	7673.00	7673.00	21981.00	16565.00	16565.00	21981.00	19202.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-
p31	-	-	-	-	-	-	-	-	-	?	-
p32	-	-	-	-	-	-	-	-	-	?	-
p33	-	-	-	-	-	-	-	-	-	?	-
p34	-	-	-	-	-	-	-	-	-	?	-
p35	-	-	-	-	-	-	-	-	-	?	-
p36	-	-	-	-	-	-	-	-	-	?	-
p37	-	-	-	-	-	-	-	-	-	?	-
p38	-	-	-	-	-	-	-	-	-	?	-
p39	-	-	-	-	-	-	-	-	-	?	-
p40	-	-	-	-	-	-	-	-	-	?	-

E.32 satellite

E.32.1 satellite

Table E.45 – First Phase Expansions, satellite, satellite

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01-pfile1	-	-	-	-	-	-	-	-	-	9.00	94.00
p02-pfile2	-	-	-	-	-	-	-	-	-	13.00	1663.00
p03-pfile3	-	-	-	-	-	-	-	-	-	25.00	18398.00
p04-pfile4	-	-	-	-	-	-	-	-	-	33.00	316161.00
p05-pfile5	67.00	67.00	1214.00	526.00	526.00	1214.00	1029.00	1029.00	1214.00	1095.00	?
p06-pfile6	283.00	283.00	5469.00	2005.00	2005.00	5469.00	3900.00	3900.00	5469.00	4866.00	?
p07-pfile7	7365.00	7365.00	103395.00	32324.00	32324.00	107382.00	76098.00	76098.00	107382.00	95972.00	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	?	-
p10-pfile10	-	-	-	-	-	-	-	-	-	?	-
p11-pfile11	-	-	-	-	-	-	-	-	-	?	-
p12-pfile12	-	-	-	-	-	-	-	-	-	?	-
p13-pfile13	-	-	-	-	-	-	-	-	-	?	-
p14-pfile14	-	-	-	-	-	-	-	-	-	?	-
p15-pfile15	-	-	-	-	-	-	-	-	-	?	-
p16-pfile16	-	-	-	-	-	-	-	-	-	?	-
p17-pfile17	-	-	-	-	-	-	-	-	-	?	-
p18-pfile18	-	-	-	-	-	-	-	-	-	?	-
p19-pfile19	-	-	-	-	-	-	-	-	-	?	-
p20-pfile20	-	-	-	-	-	-	-	-	-	?	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	?	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	?	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	?	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	?	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	?	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	?	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	?	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	?	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	?	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	?	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	?	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	?	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	?	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	?	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	?	-

E.33 scanalyzer

E.33.1 scanalyzer-08-strips

Table E.46 – First Phase Expansions, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	6.00	44046.00
p02	-	-	-	-	-	-	-	-	-	2439.00	45528.00
p03	-	-	-	-	-	-	-	-	-	16966.00	45881.00
p04	-	-	-	-	-	-	-	-	-	8.00	10175656.00
p05	-	-	-	-	-	-	-	-	-	699188.00	10310816.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	1.00	1.00	2.00	5.00	5.00	10.00	9.00	9.00	10.00	10.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	-	-
p10	1.00	1.00	3.00	6.00	6.00	12.00	11.00	11.00	12.00	12.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	2.00	2.00	3.00	6.00	6.00	14.00	13.00	13.00	14.00	14.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	2.00	2.00	3.00	7.00	7.00	16.00	14.00	14.00	16.00	16.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	-	-
p19	2.00	2.00	4.00	8.00	8.00	18.00	16.00	16.00	18.00	18.00	?
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	5.00	53.00
p23	-	-	-	-	-	-	-	-	-	5.00	53.00
p24	-	-	-	-	-	-	-	-	-	5.00	53.00
p25	-	-	-	-	-	-	-	-	-	516.00	10170979.00
p26	-	-	-	-	-	-	-	-	-	21859.00	10254739.00
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.33.2 scanalyzer-opt11-strips

Table E.47 – First Phase Expansions, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	5.00	53.00
p02	-	-	-	-	-	-	-	-	-	2439.00	45528.00
p03	-	-	-	-	-	-	-	-	-	16966.00	45881.00
p04	-	-	-	-	-	-	-	-	-	8.00	10175656.00
p05	1.00	1.00	2.00	5.00	5.00	10.00	9.00	9.00	10.00	10.00	?
p06	-	-	-	-	-	-	-	-	-	699188.00	10310816.00
p07	2.00	2.00	4.00	8.00	8.00	18.00	16.00	16.00	18.00	18.00	?
p08	1.00	1.00	3.00	6.00	6.00	12.00	11.00	11.00	12.00	12.00	?
p09	2.00	2.00	3.00	6.00	6.00	14.00	13.00	13.00	14.00	14.00	?
p10	2.00	2.00	3.00	7.00	7.00	16.00	14.00	14.00	16.00	16.00	?
p11	-	-	-	-	-	-	-	-	-	516.00	10170979.00
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	21859.00	10254739.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.34 snake

E.34.1 snake-opt18-strips

Table E.48 – First Phase Expansions, snake, snake-opt18-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	16649.00	186263.00
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	66.00	1928.00
p05	-	-	-	-	-	-	-	-	-	1246.00	15571.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	2633.00	44585.00
p10	-	-	-	-	-	-	-	-	-	90898.00	840139.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	45293.00	575019.00
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.35 sokoban

E.35.1 sokoban-opt08-strips

Table E.49 – First Phase Expansions, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	178.00	1763.00
p02	-	-	-	-	-	-	-	-	-	148.00	1365.00
p03	-	-	-	-	-	-	-	-	-	159.00	1227.00
p04	-	-	-	-	-	-	-	-	-	14819.00	321263.00
p05	5.00	5.00	5.00	13.00	13.00	13.00	25.00	25.00	25.00	26.00	?
p06	-	-	-	-	-	-	-	-	-	422.00	11356.00
p07	-	-	-	-	-	-	-	-	-	3462.00	326689.00
p08	-	-	-	-	-	-	-	-	-	358870.00	13592778.00
p09	-	-	-	-	-	-	-	-	-	7667.00	887363.00
p10	-	-	-	-	-	-	-	-	-	12898.00	853521.00
p11	-	-	-	-	-	-	-	-	-	114320.00	547854.00
p12	-	-	-	-	-	-	-	-	-	21234.00	5113496.00
p13	-	-	-	-	-	-	-	-	-	75258.00	2331196.00
p14	-	-	-	-	-	-	-	-	-	6202.00	260680.00
p15	-	-	-	-	-	-	-	-	-	1071354.00	21562476.00
p16	-	-	-	-	-	-	-	-	-	180971.00	936056.00
p17	-	-	-	-	-	-	-	-	-	22340.00	330912.00
p18	-	-	-	-	-	-	-	-	-	91641.00	7337254.00
p19	-	-	-	-	-	-	-	-	-	525925.00	23308574.00
p20	-	-	-	-	-	-	-	-	-	429.00	647.00
p21	307.00	307.00	307.00	2704.00	2704.00	2734.00	5823.00	5823.00	5848.00	7818.00	?
p22	?	-	?	?	-	?	?	-	?	444016.00	?
p23	?	-	?	?	-	?	?	-	?	219325.00	?
p24	?	-	?	?	-	?	?	-	?	495109.00	?
p25	?	-	?	?	-	?	?	-	?	2124310.00	?
p26	?	-	?	?	-	?	?	-	?	1319706.00	?
p27	?	-	?	283263.00	283263.00	?	551609.00	551609.00	600134.00	646489.00	?
p28	?	-	?	?	-	?	?	-	?	6956089.00	?
p29	?	-	?	?	-	?	33442.00	33442.00	37404.00	37048.00	?
p30	-	-	-	-	-	-	-	-	-	?	

E.35.2 sokoban-opt11-strips

Table E.50 – First Phase Expansions, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	422.00	11356.00
p02	-	-	-	-	-	-	-	-	-	22340.00	330912.00
p03	-	-	-	-	-	-	-	-	-	6202.00	260680.00
p04	-	-	-	-	-	-	-	-	-	14819.00	321263.00
p05	-	-	-	-	-	-	-	-	-	180971.00	936056.00
p06	-	-	-	-	-	-	-	-	-	114320.00	547854.00
p07	-	-	-	-	-	-	-	-	-	12898.00	853521.00
p08	-	-	-	-	-	-	-	-	-	7667.00	887363.00
p09	-	-	-	-	-	-	-	-	-	3462.00	326689.00
p10	5.00	5.00	5.00	13.00	13.00	13.00	25.00	25.00	25.00	26.00	?
p11	-	-	-	-	-	-	-	-	-	75258.00	2331196.00
p12	-	-	-	-	-	-	-	-	-	429.00	647.00
p13	-	-	-	-	-	-	-	-	-	358870.00	13592778.00
p14	-	-	-	-	-	-	-	-	-	21234.00	5113496.00
p15	-	-	-	-	-	-	-	-	-	91641.00	7337254.00
p16	-	-	-	-	-	-	-	-	-	1071354.00	21562476.00
p17	-	-	-	-	-	-	-	-	-	525925.00	23308574.00
p18	307.00	307.00	307.00	2704.00	2704.00	2734.00	5823.00	5823.00	5848.00	7818.00	?
p19	?	-	?	?	-	?	?	-	?	444016.00	?
p20	?	-	?	?	-	?	?	-	?	219325.00	?

E.36 spider

E.36.1 spider-opt18-strips

Table E.51 – First Phase Expansions, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	883.00	11771.00
p02	-	-	-	-	-	-	-	-	-	1401.00	7677.00
p03	-	-	-	-	-	-	-	-	-	32681.00	2960984.00
p04	-	-	-	-	-	-	-	-	-	42207.00	3202484.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	-	-
p07	-	-	-	-	-	-	-	-	-	1622.00	4389.00
p08	-	-	-	-	-	-	-	-	-	2376.00	57167.00
p09	-	-	-	-	-	-	-	-	-	17517.00	1637573.00
p10	9964.00	9964.00	20062.00	47376.00	47376.00	100180.00	84218.00	84218.00	100180.00	93257.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	1045.00	15195.00
p15	-	-	-	-	-	-	-	-	-	350.00	1438.00
p16	11924.00	11924.00	31373.00	46553.00	46553.00	103189.00	88517.00	88517.00	103189.00	97477.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.37 storage

E.37.1 storage

Table E.52 – First Phase Expansions, storage, storage

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	3.00	3.00
p02	-	-	-	-	-	-	-	-	-	3.00	3.00
p03	-	-	-	-	-	-	-	-	-	3.00	3.00
p04	-	-	-	-	-	-	-	-	-	13.00	51.00
p05	-	-	-	-	-	-	-	-	-	41.00	172.00
p06	-	-	-	-	-	-	-	-	-	41.00	364.00
p07	-	-	-	-	-	-	-	-	-	94.00	791.00
p08	-	-	-	-	-	-	-	-	-	568.00	7567.00
p09	-	-	-	-	-	-	-	-	-	657.00	33574.00
p10	-	-	-	-	-	-	-	-	-	1217.00	26558.00
p11	-	-	-	-	-	-	-	-	-	13830.00	314011.00
p12	-	-	-	-	-	-	-	-	-	31562.00	1839736.00
p13	-	-	-	-	-	-	-	-	-	3532.00	603489.00
p14	-	-	-	-	-	-	-	-	-	21188.00	6275399.00
p15	12811.00	12811.00	116034.00	63817.00	63817.00	215483.00	140641.00	140641.00	215483.00	155763.00	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.38 termes

E.38.1 termes-opt18-strips

Table E.53 – First Phase Expansions, termes, termes-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	86359.00	516599.00
p02	-	-	-	-	-	-	-	-	-	918919.00	4949482.00
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	3339806.00	14121924.00
p12	-	-	-	-	-	-	-	-	-	317316.00	2031771.00
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.39 tetris

E.39.1 tetris-opt14-strips

Table E.54 – First Phase Expansions, tetris, tetris-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01-10	-	-	-	-	-	-	-	-	-	?	-
p01-6	-	-	-	-	-	-	-	-	-	?	-
p01-8	-	-	-	-	-	-	-	-	-	73431.00	206957.00
p02-10	-	-	-	-	-	-	-	-	-	?	-
p02-4	-	-	-	-	-	-	-	-	-	28.00	179.00
p02-6	-	-	-	-	-	-	-	-	-	64093.00	304013.00
p02-8	-	-	-	-	-	-	-	-	-	?	-
p03-10	-	-	-	-	-	-	-	-	-	?	-
p03-4	-	-	-	-	-	-	-	-	-	876.00	10020.00
p03-6	-	-	-	-	-	-	-	-	-	?	-
p03-8	-	-	-	-	-	-	-	-	-	?	-
p04-10	-	-	-	-	-	-	-	-	-	?	-
p04-6	-	-	-	-	-	-	-	-	-	?	-
p04-8	-	-	-	-	-	-	-	-	-	?	-
p05-10	-	-	-	-	-	-	-	-	-	?	-
p05-6	-	-	-	-	-	-	-	-	-	6689.00	35192.00
p05-8	-	-	-	-	-	-	-	-	-	?	-

E.40 tidybot

E.40.1 tidybot-opt11-strips

Table E.55 – First Phase Expansions, tidybot, tidybot-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	4.00	63.00
p02	-	-	-	-	-	-	-	-	-	3370.00	554161.00
p03	-	-	-	-	-	-	-	-	-	142.00	9565.00
p04	-	-	-	-	-	-	-	-	-	1603.00	378963.00
p05	1695.00	1695.00	3911.00	8345.00	8345.00	21883.00	15446.00	15446.00	24000.00	17829.00	?
p06	-	-	-	-	-	-	-	-	-	451.00	912332.00
p07	-	-	-	-	-	-	-	-	-	142.00	13926.00
p08	-	-	-	-	-	-	-	-	-	11360.00	5854494.00
p09	-	-	-	-	-	-	-	-	-	5637.00	923305.00
p10	-	-	-	-	-	-	-	-	-	1140.00	4402535.00
p11	-	-	-	-	-	-	-	-	-	5565.00	5090600.00
p12	3838.00	3838.00	10703.00	21363.00	21363.00	55484.00	40153.00	40153.00	60120.00	44404.00	?
p13	1318.00	1318.00	3645.00	7111.00	7111.00	18387.00	13294.00	13294.00	21778.00	15669.00	?
p14	-	-	-	-	-	-	-	-	-	1689.00	2352962.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.40.2 tidybot-opt14-strips

Table E.56 – First Phase Expansions, tidybot, tidybot-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	-
p02	698.00	698.00	1810.00	3586.00	3586.00	9541.00	6675.00	6675.00	10492.00	7896.00	?
p03	841.00	841.00	2064.00	4420.00	4420.00	11124.00	7917.00	7917.00	12358.00	9070.00	?
p04	-	-	-	-	-	-	-	-	-	6478.00	1596567.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	3540.00	3540.00	9685.00	17822.00	17822.00	48122.00	32971.00	32971.00	52151.00	37596.00	?
p08	-	-	-	-	-	-	-	-	-	4921.00	3193497.00
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	5565.00	5090600.00
p12	3838.00	3838.00	10703.00	21363.00	21363.00	55484.00	40153.00	40153.00	60120.00	44404.00	?
p13	1318.00	1318.00	3645.00	7111.00	7111.00	18387.00	13294.00	13294.00	21778.00	15669.00	?
p14	-	-	-	-	-	-	-	-	-	1689.00	2352962.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.41 tpp

E.41.1 tpp

Table E.57 – First Phase Expansions, tpp, tpp

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	5.00	6.00
p02	-	-	-	-	-	-	-	-	-	8.00	26.00
p03	-	-	-	-	-	-	-	-	-	11.00	116.00
p04	-	-	-	-	-	-	-	-	-	14.00	493.00
p05	-	-	-	-	-	-	-	-	-	224.00	26436.00
p06	?	-	?	?	-	38512.00	?	-	38512.00	29426.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.42 transport

E.42.1 transport-opt08-strips

Table E.58 – First Phase Expansions, transport, transport-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	5.00	64.00
p02	-	-	-	-	-	-	-	-	-	36.00	2328.00
p03	-	-	-	-	-	-	-	-	-	6495.00	421283.00
p04	-	-	-	-	-	-	-	-	-	27919.00	4481981.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	17.00	159.00
p12	-	-	-	-	-	-	-	-	-	289.00	15434.00
p13	-	-	-	-	-	-	-	-	-	1574.00	439851.00
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	14.00	119.00
p22	-	-	-	-	-	-	-	-	-	482.00	7675.00
p23	-	-	-	-	-	-	-	-	-	1658.00	107396.00
p24	-	-	-	-	-	-	-	-	-	18305.00	1737042.00
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.42.2 transport-opt11-strips

Table E.59 – First Phase Expansions, transport, transport-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	1658.00	107396.00
p02	-	-	-	-	-	-	-	-	-	6495.00	421283.00
p03	-	-	-	-	-	-	-	-	-	289.00	15434.00
p04	-	-	-	-	-	-	-	-	-	1574.00	439851.00
p05	-	-	-	-	-	-	-	-	-	18305.00	1737042.00
p06	-	-	-	-	-	-	-	-	-	27919.00	4481981.00
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.42.3 transport-opt14-strips

Table E.60 – First Phase Expansions, transport, transport-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	405.00	27517.00
p02	-	-	-	-	-	-	-	-	-	22384.00	614636.00
p03	?	-	?	14188.00	14188.00	63570.00	25064.00	25064.00	63570.00	27930.00	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	417041.00	1563206.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	2897.00	518336.00
p14	?	-	?	?	-	115519.00	35320.00	35320.00	115519.00	41277.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.43 trucks

E.43.1 trucks-strips

Table E.61 – First Phase Expansions, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	98.00	4881.00
p02	-	-	-	-	-	-	-	-	-	514.00	28762.00
p03	-	-	-	-	-	-	-	-	-	1335.00	427025.00
p04	-	-	-	-	-	-	-	-	-	3157.00	2879237.00
p05	253.00	253.00	672.00	1230.00	1230.00	2937.00	2326.00	2326.00	2937.00	2703.00	?
p06	8914.00	8914.00	?	54082.00	54082.00	124556.00	111407.00	111407.00	157122.00	132026.00	?
p07	-	-	-	-	-	-	-	-	-	13096.00	11919217.00
p08	975.00	975.00	4167.00	5698.00	5698.00	13955.00	10820.00	10820.00	13955.00	12362.00	?
p09	5790.00	5790.00	24558.00	32337.00	32337.00	73357.00	60498.00	60498.00	73357.00	68830.00	?
p10	17721.00	17721.00	?	249777.00	249777.00	445933.00	354088.00	354088.00	445933.00	384584.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.44 visitall

E.44.1 visitall-opt11-strips

Table E.62 – First Phase Expansions, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
problem02-full	-	-	-	-	-	-	-	-	-	3.00	4.00
problem02-half	-	-	-	-	-	-	-	-	-	1.00	1.00
problem03-full	-	-	-	-	-	-	-	-	-	21.00	354.00
problem03-half	-	-	-	-	-	-	-	-	-	14.00	48.00
problem04-full	-	-	-	-	-	-	-	-	-	726.00	50489.00
problem04-half	-	-	-	-	-	-	-	-	-	15.00	667.00
problem05-full	-	-	-	-	-	-	-	-	-	69724.00	14650221.00
problem05-half	-	-	-	-	-	-	-	-	-	1032.00	74672.00
problem06-full	-	-	-	-	-	-	-	-	-	?	-
problem06-half	-	-	-	-	-	-	-	-	-	1044.00	368703.00
problem07-full	-	-	-	-	-	-	-	-	-	?	-
problem07-half	46090.00	46090.00	107952.00	250505.00	250505.00	564976.00	466612.00	466612.00	681365.00	519032.00	?
problem08-full	-	-	-	-	-	-	-	-	-	?	-
problem08-half	-	-	-	-	-	-	-	-	-	?	-
problem09-full	-	-	-	-	-	-	-	-	-	?	-
problem09-half	-	-	-	-	-	-	-	-	-	?	-
problem10-full	-	-	-	-	-	-	-	-	-	?	-
problem10-half	-	-	-	-	-	-	-	-	-	?	-
problem11-full	-	-	-	-	-	-	-	-	-	?	-
problem11-half	-	-	-	-	-	-	-	-	-	?	-

E.44.2 visitall-opt14-strips

Table E.63 – First Phase Expansions, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p-05-10	-	-	-	-	-	-	-	-	-	?	642555.00
p-05-5	-	-	-	-	-	-	-	-	-	5817.00	1887803.00
p-05-6	-	-	-	-	-	-	-	-	-	8157.00	?
p-05-7	9931.00	9931.00	22408.00	55366.00	55366.00	121919.00	103053.00	103053.00	154504.00	116186.00	?
p-05-8	53638.00	53638.00	113917.00	270177.00	270177.00	577445.00	497742.00	497742.00	722946.00	551917.00	?
p-05-9	-	-	-	-	-	-	-	-	-	?	-
p-1-10	-	-	-	-	-	-	-	-	-	?	-
p-1-11	-	-	-	-	-	-	-	-	-	?	-
p-1-12	-	-	-	-	-	-	-	-	-	?	-
p-1-13	-	-	-	-	-	-	-	-	-	?	-
p-1-14	-	-	-	-	-	-	-	-	-	?	-
p-1-15	-	-	-	-	-	-	-	-	-	?	-
p-1-16	-	-	-	-	-	-	-	-	-	?	-
p-1-17	-	-	-	-	-	-	-	-	-	?	-
p-1-18	-	-	-	-	-	-	-	-	-	?	-
p-1-5	-	-	-	-	-	-	-	-	-	69724.00	14650221.00
p-1-6	-	-	-	-	-	-	-	-	-	?	-
p-1-7	-	-	-	-	-	-	-	-	-	?	-
p-1-8	-	-	-	-	-	-	-	-	-	?	-
p-1-9	-	-	-	-	-	-	-	-	-	?	-

E.45 woodworking

E.45.1 woodworking-opt08-strips

Table E.64 – First Phase Expansions, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	12.00	9797.00
p02	-	-	-	-	-	-	-	-	-	9.00	23287.00
p03	3.00	3.00	9.00	11.00	11.00	19.00	17.00	17.00	19.00	18.00	?
p04	?	-	?	?	-	335427.00	152222.00	152222.00	335427.00	172076.00	?
p05	78.00	78.00	991.00	366.00	366.00	991.00	692.00	692.00	991.00	769.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	3220.00	3220.00	53830.00	15870.00	15870.00	53830.00	30065.00	30065.00	53830.00	33892.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	7.00	4150.00
p12	-	-	-	-	-	-	-	-	-	12.00	1939645.00
p13	431.00	431.00	5535.00	2604.00	2604.00	8096.00	5186.00	5186.00	8096.00	5948.00	?
p14	1397.00	1397.00	21247.00	8654.00	8654.00	32693.00	15589.00	15589.00	32693.00	17348.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	296.00	296.00	4088.00	1253.00	1253.00	4088.00	2447.00	2447.00	4088.00	2743.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	6.00	265.00
p22	-	-	-	-	-	-	-	-	-	21.00	191221.00
p23	-	-	-	-	-	-	-	-	-	17.00	1057916.00
p24	842.00	842.00	13658.00	4515.00	4515.00	13658.00	8612.00	8612.00	13658.00	9870.00	?
p25	4.00	4.00	8.00	13.00	13.00	26.00	22.00	22.00	26.00	25.00	?
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

E.45.2 woodworking-opt11-strips

Table E.65 – First Phase Expansions, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	17.00	1057916.00
p02	-	-	-	-	-	-	-	-	-	12.00	1939645.00
p03	431.00	431.00	5535.00	2604.00	2604.00	8096.00	5186.00	5186.00	8096.00	5948.00	?
p04	3.00	3.00	9.00	11.00	11.00	19.00	17.00	17.00	19.00	18.00	?
p05	842.00	842.00	13658.00	4515.00	4515.00	13658.00	8612.00	8612.00	13658.00	9870.00	?
p06	?	-	?	?	-	335427.00	152222.00	152222.00	335427.00	172076.00	?
p07	1397.00	1397.00	21247.00	8654.00	8654.00	32693.00	15589.00	15589.00	32693.00	17348.00	?
p08	4.00	4.00	8.00	13.00	13.00	26.00	22.00	22.00	26.00	25.00	?
p09	78.00	78.00	991.00	366.00	366.00	991.00	692.00	692.00	991.00	769.00	?
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	296.00	296.00	4088.00	1253.00	1253.00	4088.00	2447.00	2447.00	4088.00	2743.00	?
p16	3220.00	3220.00	53830.00	15870.00	15870.00	53830.00	30065.00	30065.00	53830.00	33892.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

E.46 zenotravel

E.46.1 zenotravel

Table E.66 – First Phase Expansions, zenotravel, zenotravel

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	1.00	1.00
p02	-	-	-	-	-	-	-	-	-	15.00	56.00
p03	-	-	-	-	-	-	-	-	-	10.00	2298.00
p04	-	-	-	-	-	-	-	-	-	20.00	7174.00
p05	-	-	-	-	-	-	-	-	-	20.00	50738.00
p06	-	-	-	-	-	-	-	-	-	57.00	374610.00
p07	-	-	-	-	-	-	-	-	-	666.00	438741.00
p08	11.00	11.00	78.00	63.00	63.00	78.00	136.00	136.00	78.00	144.00	?
p09	2113.00	2113.00	26090.00	11910.00	11910.00	30449.00	23100.00	23100.00	30449.00	27545.00	?
p10	676.00	676.00	9193.00	4078.00	4078.00	9193.00	7779.00	7779.00	9193.00	8606.00	?
p11	95.00	95.00	1509.00	609.00	609.00	1509.00	1263.00	1263.00	1509.00	1437.00	?
p12	5014.00	5014.00	69381.00	31385.00	31385.00	69381.00	59684.00	59684.00	69381.00	67263.00	?
p13	11104.00	11104.00	130528.00	55311.00	55311.00	130528.00	106197.00	106197.00	130528.00	124151.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

APPENDIX F — SECOND PHASE EXPANSIONS

F.1 agricola

F.1.1 agricola-opt18-strips

Table F.1 – Second Phase Expansions, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	-
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.2 airport

F.2.1 airport

Table F.2 – Second Phase Expansions, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-airport1-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-airport1-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-airport1-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-airport2-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-airport2-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-airport2-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p07-airport2-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p08-airport2-p3	-	-	-	-	-	-	-	-	-	0.00	0.00
p09-airport2-p4	-	-	-	-	-	-	-	-	-	0.00	0.00
p10-airport3-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p11-airport3-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p12-airport3-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p13-airport3-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p14-airport3-p3	-	-	-	-	-	-	-	-	-	0.00	0.00
p15-airport3-p3	-	-	-	-	-	-	-	-	-	0.00	0.00
p16-airport3-p4	-	-	-	-	-	-	-	-	-	0.00	0.00
p17-airport3-p4	-	-	-	-	-	-	-	-	-	0.00	0.00
p18-airport3-p6	-	-	-	-	-	-	-	-	0.00	0.00	?
p19-airport3-p6	?	-	?	?	-	?	?	-	-	0.00	0.00
p20-airport3-p7	?	-	?	?	-	?	13383643.00	69777.00	0.00	0.00	?
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	0.00	0.00
p23-airport4halfMUC-p4	1817.00	154.00	143.00	79.00	70.00	0.00	499.00	25.00	0.00	0.00	?
p24-airport4halfMUC-p4	144.00	144.00	144.00	85.00	85.00	82.00	26.00	26.00	21.00	0.00	?
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	0.00	?
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	?	-
p27-airport4halfMUC-p6	188.00	188.00	184.00	?	-	0.00	152.00	139.00	0.00	0.00	?
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	?	-
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	?	-
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p33-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	?	-
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	?	-
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p37-airport5MUC-p3	?	-	?	?	-	?	?	-	0.00	0.00	?
p38-airport5MUC-p3	?	-	?	?	-	?	?	-	0.00	0.00	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p41-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	?	-
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	?	-
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	?	-
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	?	-

F.3 barman

F.3.1 barman-opt11-strips

Table F.3 – Second Phase Expansions, barman, barman-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
pfile01-001	-	-	-	-	-	-	-	-	-	0.00	0.00
pfile01-002	-	-	-	-	-	-	-	-	-	0.00	0.00
pfile01-003	-	-	-	-	-	-	-	-	-	0.00	0.00
pfile01-004	-	-	-	-	-	-	-	-	-	0.00	0.00
pfile02-005	-	-	-	-	-	-	-	-	-	?	-
pfile02-006	-	-	-	-	-	-	-	-	-	?	-
pfile02-007	-	-	-	-	-	-	-	-	-	?	-
pfile02-008	-	-	-	-	-	-	-	-	-	?	-
pfile03-009	-	-	-	-	-	-	-	-	-	?	-
pfile03-010	-	-	-	-	-	-	-	-	-	?	-
pfile03-011	-	-	-	-	-	-	-	-	-	?	-
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	-	-	-	-	-	-	-	-	-	?	-
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-

F.3.2 barman-opt14-strips

Table F.4 – Second Phase Expansions, barman, barman-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p435-1	-	-	-	-	-	-	-	-	-	?	-
p435-2	-	-	-	-	-	-	-	-	-	?	-
p435-3	-	-	-	-	-	-	-	-	-	?	-
p536-1	-	-	-	-	-	-	-	-	-	?	-
p536-2	-	-	-	-	-	-	-	-	-	?	-
p536-3	-	-	-	-	-	-	-	-	-	?	-
p638-1	-	-	-	-	-	-	-	-	-	?	-
p638-2	-	-	-	-	-	-	-	-	-	?	-
p638-3	-	-	-	-	-	-	-	-	-	?	-
p739-1	-	-	-	-	-	-	-	-	-	?	-
p739-2	-	-	-	-	-	-	-	-	-	?	-
p739-3	-	-	-	-	-	-	-	-	-	?	-
p839-1	-	-	-	-	-	-	-	-	-	?	-
p839-2	-	-	-	-	-	-	-	-	-	?	-

F.4 blocks

F.4.1 blocks

Table F.5 – Second Phase Expansions, blocks, blocks

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probBLOCKS-10-0	1163406.00	1160643.00	1055208.00	194471.00	152799.00	0.00	24648.00	24648.00	0.00	0.00	?
probBLOCKS-10-1	78705.00	79050.00	93460.00	20433.00	3037.00	0.00	3059.00	3059.00	0.00	0.00	?
probBLOCKS-10-2	308624.00	298678.00	431125.00	65316.00	5060.00	0.00	15342.00	7205.00	0.00	0.00	?
probBLOCKS-11-0	304191.00	296112.00	333913.00	50354.00	11.00	0.00	9835.00	11.00	0.00	0.00	?
probBLOCKS-11-1	202406.00	198759.00	269794.00	49682.00	524.00	0.00	11281.00	436.00	0.00	0.00	?
probBLOCKS-11-2	238376.00	260066.00	323786.00	39479.00	17.00	0.00	7905.00	22.00	0.00	0.00	?
probBLOCKS-12-0	282298.00	275539.00	328059.00	49068.00	4.00	0.00	12418.00	4.00	0.00	0.00	?
probBLOCKS-12-1	18312.00	17562.00	21677.00	4248.00	488.00	0.00	975.00	477.00	0.00	0.00	?
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-14-0	522233.00	512446.00	656956.00	94987.00	15.00	0.00	28344.00	15.00	0.00	0.00	?
probBLOCKS-14-1	425487.00	425487.00	522406.00	133481.00	727.00	0.00	27013.00	582.00	0.00	0.00	?
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	0.00	0.00

F.5 childsnack

F.5.1 childsnack-opt14-strips

Table F.6 – Second Phase Expansions, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
child-snack_pfile01	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile02	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile03	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile04	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile05	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile06	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile07	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile08	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile09	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile10	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	?	-

F.6 data

F.6.1 data-network-opt18-strips

Table F.7 – Second Phase Expansions, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	391.00	236.00	164.00	12.00	10.00	0.00	4.00	4.00	0.00	0.00	0.00
p04	?	-	?	949578084.00	4.00	0.00	269952749.00	4.00	0.00	0.00	?
p05	321152.00	309271.00	227324.00	11440.00	15.00	0.00	1337.00	13.00	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	253269819.00	118239976.00	0.00	443401.00	874.00	0.00	0.00	?
p11	?	8.00	?	-	-	-	-	-	-	0.00	0.00
p12	38.00	8.00	8.00	7.00	7.00	0.00	1.00	1.00	0.00	0.00	?
p13	4826.00	4632.00	14753.00	200.00	10.00	0.00	7.00	7.00	0.00	0.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	?	-
p17	1460303.00	1105158.00	2771467.00	53198.00	5.00	0.00	12748.00	5.00	0.00	0.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.7 depot

F.7.1 depot

Table F.8 – Second Phase Expansions, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	?	-	1842765394.00	28240520.00	52.00	0.00	2596064.00	42.00	0.00	0.00	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	-	-
p10	533708224.00	532590166.00	791389728.00	6399351.00	3.00	0.00	5907275.00	3.00	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	58545980.00	58130080.00	138060443.00	12757328.00	55.00	0.00	11559691.00	55.00	0.00	0.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-

F.8 driverlog

F.8.1 driverlog

Table F.9 – Second Phase Expansions, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	268.00	93.00	3.00	118.00	7.00	0.00	4.00	4.00	0.00	0.00	?
p08	83911270.00	81524647.00	153552080.00	3879517.00	2.00	0.00	2634865.00	2.00	0.00	0.00	?
p09	3458936.00	3453331.00	5535358.00	164977.00	2.00	0.00	66353.00	2.00	0.00	0.00	?
p10	1603.00	1603.00	2720.00	1407.00	4.00	0.00	23.00	4.00	0.00	0.00	?
p11	17478.00	17359.00	8426.00	886.00	8.00	0.00	272.00	8.00	0.00	0.00	?
p12	-	-	-	-	-	-	-	-	-	-	?
p13	17205509.00	16592870.00	23080455.00	610628.00	4.00	0.00	306744.00	4.00	0.00	0.00	?
p14	17825414.00	17651812.00	34685163.00	1143564.00	474.00	0.00	579159.00	425.00	0.00	0.00	?
p15	-	-	-	-	-	-	-	-	-	-	?
p16	-	-	-	-	-	-	-	-	-	-	?
p17	-	-	-	-	-	-	-	-	-	-	?
p18	-	-	-	-	-	-	-	-	-	-	?
p19	-	-	-	-	-	-	-	-	-	-	?
p20	-	-	-	-	-	-	-	-	-	-	?

F.9 elevators

F.9.1 elevators-opt08-strips

Table F.10 – Second Phase Expansions, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p06	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p15	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p18	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p24	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p25	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p26	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p27	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

F.9.2 elevators-opt11-strips

Table F.11 – Second Phase Expansions, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p08	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	?	-	-	0.00	?	-	0.00	0.00	?
p17	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p18	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p19	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p20	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?

F.10 floortile

F.10.1 floortile-opt11-strips

Table F.12 – Second Phase Expansions, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
opt-p01-001	145850.00	142649.00	1488720.00	7622.00	6.00	0.00	1227.00	4.00	0.00	0.00	?
opt-p01-002	32825.00	30641.00	512887.00	2398.00	6.00	0.00	308.00	4.00	0.00	0.00	?
opt-p02-003	1724257255.00	1723674266.00	?	122639982.00	9387415.00	66975212.00	227124.00	4.00	0.00	0.00	?
opt-p02-004	223629576.00	223385920.00	1581914159.00	1533898.00	27.00	0.00	67481.00	4.00	0.00	0.00	?
opt-p03-005	121972909.00	121749621.00	2430012544.00	1876320.00	27.00	0.00	124519.00	4.00	0.00	0.00	?
opt-p03-006	532198603.00	531008858.00	4459212205.00	5345157.00	27.00	0.00	243941.00	4.00	0.00	0.00	?
opt-p04-007	?	-	?	55972474.00	15.00	0.00	2376670.00	17.00	0.00	0.00	?
opt-p04-008	-	-	-	-	-	-	-	-	-	?	-
opt-p05-009	-	-	-	-	-	-	-	-	-	?	-
opt-p05-010	-	-	-	-	-	-	-	-	-	?	-
opt-p06-011	-	-	-	-	-	-	-	-	-	?	-
opt-p06-012	-	-	-	-	-	-	-	-	-	?	-
opt-p07-013	-	-	-	-	-	-	-	-	-	?	-
opt-p07-014	-	-	-	-	-	-	-	-	-	?	-
opt-p08-015	-	-	-	-	-	-	-	-	-	?	-
opt-p08-016	-	-	-	-	-	-	-	-	-	?	-
opt-p09-017	-	-	-	-	-	-	-	-	-	?	-
opt-p09-018	-	-	-	-	-	-	-	-	-	?	-
opt-p10-019	-	-	-	-	-	-	-	-	-	?	-
opt-p10-020	-	-	-	-	-	-	-	-	-	?	-

F.10.2 floortile-opt14-strips

Table F.13 – Second Phase Expansions, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-4-3-2	587314801.00	587175971.00	?	2397514.00	1916542.00	31355464.00	110729.00	4.00	0.00	0.00	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-3-2	3864126499.00	3863678723.00	?	13833685.00	27.00	0.00	469292.00	4.00	0.00	0.00	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-3-2	?	-	?	22117528.00	18044273.00	222470735.00	779841.00	4.00	0.00	0.00	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-4-3-2	5374445692.00	537308156.00	?	5037282.00	3939993.00	58409037.00	171729.00	4.00	0.00	0.00	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-3-2	?	-	?	22892162.00	18634833.00	215292323.00	796500.00	4.00	0.00	0.00	?
p03-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	?	-

F.11 freecell

F.11.1 freecell

Table F.14 – Second Phase Expansions, freecell, freecell

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	?	-	?	370133984.00	16771.00	0.00	21843.00	21843.00	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-2-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-2-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-2-3	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-2-5	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-3-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-3-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-3-3	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-3-4	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-3-5	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-4-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-5	?	-	-	-	-	-	-	-	-	?	-

F.12 ged

F.12.1 ged-opt14-strips

Table F.15 – Second Phase Expansions, ged, ged-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
d-1-2	-	-	-	-	-	-	-	-	-	0.00	0.00
d-1-3	-	-	-	-	-	-	-	-	-	0.00	0.00
d-1-4	-	-	-	-	-	-	-	-	-	0.00	0.00
d-1-8	-	-	-	-	-	-	-	-	-	0.00	0.00
d-2-1	-	-	-	-	-	-	-	-	-	0.00	0.00
d-2-3	-	-	-	-	-	-	-	-	-	0.00	0.00
d-2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
d-2-8	-	-	-	-	-	-	-	-	-	?	-
d-3-1	-	-	-	-	-	-	-	-	-	0.00	0.00
d-3-2	-	-	-	-	-	-	-	-	-	0.00	0.00
d-3-4	18781071.00	17895149.00	55110146.00	8105048.00	77403.00	0.00	1746845.00	80429.00	0.00	0.00	?
d-4-2	-	-	-	-	-	-	-	-	-	0.00	0.00
d-4-3	17115401.00	16949277.00	55266799.00	8278666.00	297177.00	0.00	2050673.00	295685.00	0.00	0.00	?
d-4-8	-	-	-	-	-	-	-	-	-	?	-
d-7-5	1269386.00	1269386.00	5624531.00	4596567.00	4125119.00	7034462.00	5592513.00	5478645.00	6148909.00	0.00	?
d-7-6	-	-	-	-	-	-	-	-	-	0.00	0.00
d-8-1	-	-	-	-	-	-	-	-	-	0.00	0.00
d-8-2	-	-	-	-	-	-	-	-	-	?	-
d-8-4	-	-	-	-	-	-	-	-	-	?	-
d-8-9	-	-	-	-	-	-	-	-	-	?	-

F.13 grid

F.13.1 grid

Table F.16 – Second Phase Expansions, grid, grid

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	325271.00	322927.00	456780.00	52180.00	93.00	0.00	15842.00	282.00	0.00	0.00	?
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	-	-	-	-	-	-	-	-	-	?	-

F.14 gripper

F.14.1 gripper

Table F.17 – Second Phase Expansions, gripper, gripper

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	-	-	-	-	-	-	-	-	-	0.00	0.00
prob03	-	-	-	-	-	-	-	-	-	0.00	0.00
prob04	-	-	-	-	-	-	-	-	-	0.00	0.00
prob05	-	-	-	-	-	-	-	-	-	0.00	0.00
prob06	-	-	-	-	-	-	-	-	-	0.00	0.00
prob07	-	-	-	-	-	-	-	-	-	0.00	0.00
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-

F.15 hiking

F.15.1 hiking-opt14-strips

Table F.18 – Second Phase Expansions, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	?	-

F.16 logistics

F.16.1 logistics00

Table F.19 – Second Phase Expansions, logistics, logistics00

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
probLOGISTICS-10-0	?	-	?	?	-	0.00	?	-	0.00	0.00	?
probLOGISTICS-10-1	?	-	?	?	-	0.00	?	-	0.00	0.00	?
probLOGISTICS-11-0	?	-	?	?	-	0.00	?	-	0.00	0.00	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-12-0	?	-	?	?	-	0.00	?	-	0.00	0.00	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-7-0	?	-	?	519208486.00	767.00	0.00	211759083.00	767.00	0.00	0.00	?
probLOGISTICS-7-1	?	-	?	?	-	0.00	30160183397.00	277.00	0.00	0.00	?
probLOGISTICS-8-0	4089789402.00	4070316606.00	?	76168843.00	13.00	0.00	61347745.00	13.00	0.00	0.00	?
probLOGISTICS-8-1	?	-	?	?	-	0.00	2293881720.00	23.00	0.00	0.00	?
probLOGISTICS-9-0	?	-	?	2293395741.00	10.00	0.00	2231949138.00	10.00	0.00	0.00	?
probLOGISTICS-9-1	?	-	4010789998.00	?	-	0.00	?	-	0.00	0.00	?

F.16.2 logistics98

Table F.20 – Second Phase Expansions, logistics, logistics98

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	?	-	?	843008489.00	9.00	0.00	826888025.00	11.00	0.00	0.00	?
prob02	-	-	-	-	-	-	-	-	-	?	-
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	23.00	23.00	15.00	15.00	15.00	0.00	3.00	3.00	0.00	0.00	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	-	-	-	-	-	-	-	-	-	?	-
prob27	-	-	-	-	-	-	-	-	-	?	-
prob28	-	-	-	-	-	-	-	-	-	?	-
prob29	-	-	-	-	-	-	-	-	-	?	-
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	0.00	0.00
prob32	-	-	-	-	-	-	-	-	-	0.00	0.00
prob33	?	-	?	?	-	0.00	?	-	0.00	0.00	?
prob34	-	-	-	-	-	-	-	-	-	?	-
prob35	568337957.00	23.00	0.00	564601429.00	23.00	0.00	184661575.00	23.00	0.00	0.00	?

F.17 miconic

F.17.1 miconic

Table F.21 – Second Phase Expansions, miconic, miconic

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
s1-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s10-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s10-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s10-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s10-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s10-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s11-0	40.00	40.00	33.00	28.00	28.00	0.00	6.00	6.00	0.00	0.00	?
s11-1	69.00	69.00	28.00	23.00	23.00	0.00	5.00	5.00	0.00	0.00	?
s11-2	51.00	51.00	31.00	30.00	30.00	0.00	9.00	9.00	0.00	0.00	?
s11-3	?		?			0.00	?		0.00	0.00	?
s11-4	75.00	75.00	62.00	46.00	46.00	0.00	6.00	6.00	0.00	0.00	?
s12-0	78.00	78.00	50.00	36.00	36.00	0.00	5.00	5.00	0.00	0.00	?
s12-1	45.00	45.00	31.00	22.00	22.00	0.00	7.00	7.00	0.00	0.00	?
s12-2	58.00	56.00	42.00	52.00	52.00	0.00	7.00	7.00	0.00	0.00	?
s12-3	49.00	49.00	40.00	26.00	26.00	0.00	7.00	7.00	0.00	0.00	?
s12-4	72.00	72.00	86.00	17.00	17.00	0.00	6.00	6.00	0.00	0.00	?
s13-0	69.00	69.00	46.00	37.00	37.00	0.00	7.00	7.00	0.00	0.00	?
s13-1	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
s13-2	70.00	70.00	61.00	45.00	45.00	0.00	9.00	9.00	0.00	0.00	?
s13-3	47.00	47.00	38.00	25.00	25.00	0.00	5.00	5.00	0.00	0.00	?
s13-4	58.00	58.00	50.00	29.00	29.00	0.00	7.00	7.00	0.00	0.00	?
s14-0	101.00	101.00	112.00	41.00	41.00	0.00	9.00	9.00	0.00	0.00	?
s14-1	153.00	153.00	78.00	27.00	27.00	0.00	9.00	9.00	0.00	0.00	?
s14-2	177.00	177.00	59.00	156.00	156.00	0.00	19.00	19.00	0.00	0.00	?
s14-3	89.00	89.00	17.00	22.00	22.00	0.00	7.00	7.00	0.00	0.00	?
s14-4	71.00	71.00	35.00	49.00	49.00	0.00	13.00	13.00	0.00	0.00	?
s15-0	66.00	66.00	19.00	42.00	42.00	0.00	9.00	9.00	0.00	0.00	?
s15-1	66.00	66.00	13.00	36.00	36.00	0.00	16.00	16.00	0.00	0.00	?
s15-2	305.00	305.00	18.00	78.00	78.00	0.00	9.00	9.00	0.00	0.00	?
s15-3	64.00	64.00	32.00	41.00	41.00	0.00	9.00	9.00	0.00	0.00	?
s15-4	93.00	93.00	8.00	47.00	47.00	0.00	20.00	20.00	0.00	0.00	?
s16-0	115.00	115.00	106.00	78.00	78.00	0.00	9.00	9.00	0.00	0.00	?
s16-1	94.00	94.00	63.00	50.00	50.00	0.00	7.00	7.00	0.00	0.00	?
s16-2	91.00	91.00	48.00	44.00	44.00	0.00	14.00	14.00	0.00	0.00	?
s16-3	97.00	97.00	0.00	76.00	76.00	0.00	37.00	37.00	0.00	0.00	?
s16-4	125.00	125.00	40.00	37.00	37.00	0.00	7.00	7.00	0.00	0.00	?
s17-0	123.00	123.00	28.00	54.00	54.00	0.00	23.00	23.00	0.00	0.00	?
s17-1	177.00	177.00	0.00	62.00	62.00	0.00	25.00	25.00	0.00	0.00	?
s17-2	122.00	122.00	17.00	63.00	63.00	0.00	12.00	12.00	0.00	0.00	?
s17-3	74.00	74.00	62.00	33.00	33.00	0.00	7.00	7.00	0.00	0.00	?
s17-4	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
s18-0	232.00	232.00	32.00	68.00	68.00	0.00	20.00	20.00	0.00	0.00	?
s18-1	169.00	169.00	9.00	54.00	54.00	0.00	20.00	20.00	0.00	0.00	?
s18-2	145.00	145.00	8.00	79.00	79.00	0.00	18.00	18.00	0.00	0.00	?
s18-3	138.00	138.00	45.00	37.00	37.00	0.00	8.00	8.00	0.00	0.00	?
s18-4	56.00	56.00	23.00	42.00	42.00	0.00	14.00	14.00	0.00	0.00	?
s19-0	188.00	188.00	37.00	76.00	76.00	0.00	18.00	18.00	0.00	0.00	?
s19-1	136.00	136.00	70.00	74.00	74.00	0.00	21.00	21.00	0.00	0.00	?
s19-2	-	-	-	-	-	-	-	-	-	?	
s19-3	282.00	282.00	41.00	82.00	82.00	0.00	21.00	21.00	0.00	0.00	?
s19-4	138.00	138.00	49.00	72.00	72.00	0.00	14.00	14.00	0.00	0.00	?
s2-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s20-0	-	-	-	-	-	-	-	-	-	?	
s20-1	148.00	148.00	84.00	55.00	55.00	0.00	10.00	10.00	0.00	0.00	?
s20-2	1111.00	1111.00	0.00	1088.00	1088.00	0.00	641.00	641.00	0.00	0.00	?
s20-3	100.00	100.00	0.00	77.00	77.00	0.00	19.00	19.00	0.00	0.00	?
s20-4	255.00	255.00	87.00	116.00	116.00	0.00	15.00	15.00	0.00	0.00	?
s21-0	138.00	138.00	7.00	93.00	93.00	0.00	18.00	18.00	0.00	0.00	?
s21-1	129.00	129.00	76.00	70.00	70.00	0.00	18.00	18.00	0.00	0.00	?
s21-2	223.00	223.00	133.00	51.00	51.00	0.00	12.00	12.00	0.00	0.00	?
s21-3	205.00	205.00	35.00	44.00	44.00	0.00	18.00	18.00	0.00	0.00	?
s21-4	155.00	155.00	74.00	52.00	52.00	0.00	13.00	13.00	0.00	0.00	?
s22-0	151.00	151.00	0.00	97.00	97.00	0.00	31.00	31.00	0.00	0.00	?
s22-1	216.00	216.00	0.00	135.00	135.00	0.00	14.00	14.00	0.00	0.00	?
s22-2	107.00	107.00	0.00	86.00	86.00	0.00	28.00	28.00	0.00	0.00	?
s22-3	133.00	133.00	118.00	33.00	33.00	0.00	10.00	10.00	0.00	0.00	?
s22-4	162.00	162.00	69.00	67.00	67.00	0.00	17.00	17.00	0.00	0.00	?
s23-0	90.00	90.00	41.00	56.00	56.00	0.00	26.00	26.00	0.00	0.00	?
s23-1	-	-	-	-	-	-	-	-	-	?	
s23-2	347.00	347.00	0.00	151.00	151.00	0.00	16.00	16.00	0.00	0.00	?
s23-3	-	-	-	-	-	-	-	-	-	?	
s23-4	174.00	174.00	0.00	81.00	81.00	0.00	25.00	25.00	0.00	0.00	?
s24-0	153.00	153.00	27.00	134.00	134.00	0.00	42.00	42.00	0.00	0.00	?
s24-1	206.00	206.00	0.00	200.00	200.00	0.00	63.00	63.00	0.00	0.00	?
s24-2	224.00	224.00	0.00	53.00	53.00	0.00	20.00	20.00	0.00	0.00	?
s24-3	266.00	266.00	70.00	78.00	78.00	0.00	12.00	12.00	0.00	0.00	?
s24-4	171.00	171.00	0.00	109.00	109.00	0.00	22.00	22.00	0.00	0.00	?
s25-0	168.00	168.00	0.00	109.00	109.00	0.00	48.00	48.00	0.00	0.00	?
s25-1	217.00	217.00	0.00	131.00	131.00	0.00	53.00	53.00	0.00	0.00	?
s25-2	-	-	-	-	-	-	-	-	-	?	
s25-3	215.00	215.00	79.00	81.00	81.00	0.00	19.00	19.00	0.00	0.00	?
s25-4	133.00	133.00	0.00	53.00	53.00	0.00	40.00	40.00	0.00	0.00	?
s26-0	393.00	393.00	0.00	81.00	81.00	0.00	22.00	22.00	0.00	0.00	?
s26-1	-	-	-	-	-	-	-	-	-	?	
s26-2	256.00	256.00	122.00	139.00	139.00	0.00	28.00	28.00	0.00	0.00	?
s26-3	283.00	283.00	0.00	160.00	160.00	0.00	34.00	34.00	0.00	0.00	?
s26-4	314.00	314.00	39.00	42.00	42.00	0.00	17.00	17.00	0.00	0.00	?
s27-0	-	-	-	-	-	-	-	-	-	?	
s27-1	970.00	970.00	264.00	54.00	54.00	0.00	17.00	17.00	0.00	0.00	?
s27-2	283.00	283.00	0.00	150.00	150.00	0.00	81.00	81.00	0.00	0.00	?
s27-3	286.00	286.00	3.00	70.00	70.00	0.00	23.00	23.00	0.00	0.00	?
s27-4	149.00	149.00	0.00	98.00	98.00	0.00	24.00	24.00	0.00	0.00	?
s28-0	158.00	158.00	63.00	73.00	73.00	0.00	15.00	15.00	0.00	0.00	?
s28-1	-	-	-	-	-	-	-	-	-	?	
s28-2	213.00	213.00	0.00	75.00	75.00	0.00	27.00	27.00	0.00	0.00	?
s28-3	226.00	226.00	0.00	111.00	111.00	0.00	101.00	101.00	0.00	0.00	?
s28-4	174.00	174.00	0.00	92.00	92.00	0.00	26.00	26.00	0.00	0.00	?
s29-0	257.00	257.00	101.00	116.00	116.00	0.00	18.00	18.00	0.00	0.00	?
s29-1	403.00	403.00	0.00	143.00	143.00	0.00	37.00	37.00	0.00	0.00	?
s29-2	299.00	299.00	0.00	109.00	109.00	0.00	39.00	39.00	0.00	0.00	?
s29-3	520.00	520.00	0.00	148.00	148.00	0.00	20.00	20.00	0.00	0.00	?
s29-4	310.00	310.00	0.00	73.00	73.00	0.00	24.00	24.00	0.00	0.00	?
s3-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s30-0	381.00	381.00	0.00	58.00	58.00	0.00	17.00	17.00	0.00	0.00	?
s30-1	241.00	241.00	0.00	101.00	101.00	0.00	53.00	53.00	0.00	0.00	?
s30-2	405.00	405.00	0.00	243.00	243.00	0.00	40.00	40.00	0.00	0.00	?
s30-3	-	-	-	-	-	-	-	-	-	?	
s30-4	195.00	195.00	0.00	101.00	101.00	0.00	16.00	16.00	0.00	0.00	?
s4-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s4-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s4-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s4-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s4-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s5-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s5-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s5-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s5-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s5-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s6-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s6-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s6-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s6-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s6-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s7-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s7-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s7-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s7-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s7-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s8-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s8-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s8-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s8-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s8-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s9-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s9-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s9-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s9-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s9-4	-	-	-	-	-	-	-	-	-	0.00	0.00

F.18 movie

F.18.1 movie

Table F.22 – Second Phase Expansions, movie, movie

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	-	-	-	-	-	-	-	-	-	0.00	0.00
prob03	-	-	-	-	-	-	-	-	-	0.00	0.00
prob04	-	-	-	-	-	-	-	-	-	0.00	0.00
prob05	-	-	-	-	-	-	-	-	-	0.00	0.00
prob06	-	-	-	-	-	-	-	-	-	0.00	0.00
prob07	-	-	-	-	-	-	-	-	-	0.00	0.00
prob08	-	-	-	-	-	-	-	-	-	0.00	0.00
prob09	-	-	-	-	-	-	-	-	-	0.00	0.00
prob10	-	-	-	-	-	-	-	-	-	0.00	0.00
prob11	-	-	-	-	-	-	-	-	-	0.00	0.00
prob12	-	-	-	-	-	-	-	-	-	0.00	0.00
prob13	-	-	-	-	-	-	-	-	-	0.00	0.00
prob14	-	-	-	-	-	-	-	-	-	0.00	0.00
prob15	-	-	-	-	-	-	-	-	-	0.00	0.00
prob16	-	-	-	-	-	-	-	-	-	0.00	0.00
prob17	-	-	-	-	-	-	-	-	-	0.00	0.00
prob18	-	-	-	-	-	-	-	-	-	0.00	0.00
prob19	-	-	-	-	-	-	-	-	-	0.00	0.00
prob20	-	-	-	-	-	-	-	-	-	0.00	0.00
prob21	-	-	-	-	-	-	-	-	-	0.00	0.00
prob22	-	-	-	-	-	-	-	-	-	0.00	0.00
prob23	-	-	-	-	-	-	-	-	-	0.00	0.00
prob24	-	-	-	-	-	-	-	-	-	0.00	0.00
prob25	-	-	-	-	-	-	-	-	-	0.00	0.00
prob26	-	-	-	-	-	-	-	-	-	0.00	0.00
prob27	-	-	-	-	-	-	-	-	-	0.00	0.00
prob28	-	-	-	-	-	-	-	-	-	0.00	0.00
prob29	-	-	-	-	-	-	-	-	-	0.00	0.00
prob30	-	-	-	-	-	-	-	-	-	0.00	0.00

F.19 mprime

F.19.1 mprime

Table F.23 – Second Phase Expansions, mprime, mprime

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	11217.00	11217.00	0.00	8225.00	8225.00	0.00	2717.00	2717.00	0.00	0.00	?
prob03	-	-	-	-	-	-	-	-	-	0.00	0.00
prob04	-	-	-	-	-	-	-	-	-	0.00	0.00
prob05	1194014.00	1174255.00	3254835.00	196331.00	21800.00	0.00	59732.00	2670.00	0.00	0.00	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	0.00	0.00
prob08	1862.00	1862.00	0.00	1078.00	1078.00	0.00	177.00	177.00	0.00	0.00	?
prob09	18108.00	16967.00	0.00	869.00	109.00	0.00	100.00	100.00	0.00	0.00	?
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	0.00	0.00
prob12	-	-	-	-	-	-	-	-	-	0.00	0.00
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	437.00	383.00	0.00	238.00	238.00	0.00	41.00	41.00	0.00	0.00	?
prob17	4.00	4.00	0.00	5.00	5.00	0.00	1.00	1.00	0.00	0.00	?
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	0.00	0.00
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	420.00	372.00	0.00	230.00	230.00	0.00	43.00	43.00	0.00	0.00	?
prob27	-	-	-	-	-	-	-	-	-	0.00	0.00
prob28	-	-	-	-	-	-	-	-	-	0.00	0.00
prob29	-	-	-	-	-	-	-	-	-	0.00	0.00
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	0.00	0.00
prob32	-	-	-	-	-	-	-	-	-	0.00	0.00
prob33	-	-	-	-	-	-	-	-	-	?	-
prob34	-	-	-	-	-	-	-	-	-	0.00	0.00
prob35	-	-	-	-	-	-	-	-	-	0.00	0.00

F.20 mystery

F.20.1 mystery

Table F.24 – Second Phase Expansions, mystery, mystery

	10%			50%			90%			100%	
	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*\uparrow$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*\uparrow$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*\uparrow$	$PEA^*{}_{+IDA}{}^*$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	-	-	-	-	-	-	-	-	-	0.00	0.00
prob03	-	-	-	-	-	-	-	-	-	0.00	0.00
prob04	-	-	-	-	-	-	-	-	-	0.00	-
prob05	-	-	-	-	-	-	-	-	-	?	-
prob06	42438.00	5797.00	0.00	36128.00	12051.00	0.00	2164.00	2164.00	0.00	0.00	?
prob07	-	-	-	-	-	-	-	-	-	0.00	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	0.00	0.00
prob10	1198.00	1197.00	0.00	2434.00	2434.00	0.00	114.00	114.00	0.00	0.00	?
prob11	-	-	-	-	-	-	-	-	-	0.00	0.00
prob12	-	-	-	-	-	-	-	-	-	0.00	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	0.00	0.00
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	0.00	0.00
prob18	-	-	-	-	-	-	-	-	-	0.00	-
prob19	-	-	-	-	-	-	-	-	-	0.00	0.00
prob20	921.00	894.00	238.00	68.00	68.00	0.00	10.00	10.00	0.00	0.00	?
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	0.00	0.00
prob26	-	-	-	-	-	-	-	-	-	0.00	0.00
prob27	-	-	-	-	-	-	-	-	-	0.00	0.00
prob28	-	-	-	-	-	-	-	-	-	0.00	0.00
prob29	-	-	-	-	-	-	-	-	-	0.00	0.00
prob30	-	-	-	-	-	-	-	-	-	0.00	0.00

F.21 nomystery

F.21.1 nomystery-opt11-strips

Table F.25 – Second Phase Expansions, nomystery, nomystery-opt11-strips

	10%			50%			90%			100%	
	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*\uparrow$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*\uparrow$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*\uparrow$	$PEA^*{}_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	6776.00	6934.00	10414.00	3599.00	34.00	0.00	733.00	39.00	0.00	0.00	?
p06	3052.00	3052.00	10318.00	849.00	306.00	0.00	77.00	77.00	0.00	0.00	?
p07	322587.00	295962.00	730649.00	110906.00	55.00	0.00	47670.00	64.00	0.00	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	6329.00	6061.00	10460.00	3601.00	34.00	0.00	748.00	39.00	0.00	0.00	?
p16	3052.00	3052.00	10318.00	852.00	306.00	0.00	81.00	81.00	0.00	0.00	?
p17	1320550.00	1199032.00	790073.00	97918.00	38.00	0.00	39433.00	32.00	0.00	0.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.22 openstacks

F.22.1 openstacks-opt08-strips

Table F.26 – Second Phase Expansions, openstacks, openstacks-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	-	-	-	-	-	-	-	-	-	0.00	0.00
p19	-	-	-	-	-	-	-	-	-	0.00	0.00
p20	-	-	-	-	-	-	-	-	-	0.00	0.00
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	0.00	0.00
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

F.22.2 openstacks-opt11-strips

Table F.27 – Second Phase Expansions, openstacks, openstacks-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	-	-	-	-	-	-	-	-	-	0.00	0.00
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	0.00	0.00

F.22.3 openstacks-opt14-strips

Table F.28 – Second Phase Expansions, openstacks, openstacks-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p20_1	-	-	-	-	-	-	-	-	-	0.00	0.00
p20_2	-	-	-	-	-	-	-	-	-	0.00	0.00
p20_3	-	-	-	-	-	-	-	-	-	0.00	0.00
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p35_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	?	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	?	-

F.22.4 openstacks-strips

Table F.29 – Second Phase Expansions, openstacks, openstacks-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	
p21	-	-	-	-	-	-	-	-	-	?	
p22	-	-	-	-	-	-	-	-	-	?	
p23	-	-	-	-	-	-	-	-	-	?	
p24	-	-	-	-	-	-	-	-	-	?	
p25	-	-	-	-	-	-	-	-	-	?	
p26	-	-	-	-	-	-	-	-	-	?	
p27	-	-	-	-	-	-	-	-	-	?	
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	

F.23 organic

F.23.1 organic-synthesis-opt18-strips

Table F.30 – Second Phase Expansions, organic, organic-synthesis-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.23.2 organic-synthesis-split-opt18-strips

Table F.31 – Second Phase Expansions, organic, organic-synthesis-split-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	49.00	32.00	22.00	35.00	35.00	29.00	11.00	11.00	0.00	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	2683.00	2683.00	2535.00	1767.00	1621.00	844.00	529.00	9.00	0.00	0.00	?
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	14960.00	14757.00	12253.00	11933.00	11897.00	11747.00	7907.00	41.00	0.00	0.00	?
p12	62650.00	62650.00	138702.00	29817.00	29793.00	103374.00	8904.00	8904.00	81768.00	0.00	?
p13	9143.00	9142.00	9481.00	8737.00	434.00	0.00	8081.00	26.00	0.00	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	2539.00	2538.00	2808.00	1067.00	1054.00	1683.00	23.00	23.00	0.00	0.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.24 parcprinter

F.24.1 parcprinter-08-strips

Table F.32 – Second Phase Expansions, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	59.00	59.00	71.00	49.00	25.00	0.00	17.00	16.00	0.00	0.00	0.00
p05	2181790.00	2162359.00	223302.00	70420.00	23.00	0.00	27829.00	7.00	0.00	0.00	?
p06	?	-	?	-	-	0.00	?	-	0.00	0.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	?	?	-	?	?	-	0.00	0.00	?
p15	?	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	27.00	27.00	27.00	19.00	19.00	19.00	8.00	8.00	3.00	0.00	?
p25	?	-	?	-	-	-	?	-	0.00	0.00	?
p26	40.00	40.00	40.00	30.00	30.00	29.00	12.00	12.00	9.00	0.00	?
p27	47.00	47.00	47.00	34.00	34.00	34.00	15.00	15.00	12.00	0.00	?
p28	53.00	53.00	53.00	39.00	39.00	39.00	16.00	16.00	14.00	0.00	?
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

F.24.2 parcprinter-opt11-strips

Table F.33 – Second Phase Expansions, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	59.00	59.00	71.00	49.00	25.00	0.00	17.00	16.00	0.00	0.00	?
p05	-	-	-	-	-	0.00	-	-	0.00	0.00	0.00
p06	?	-	?	-	-	0.00	?	-	0.00	0.00	?
p07	2181790.00	2162359.00	223302.00	70420.00	23.00	0.00	27829.00	7.00	0.00	0.00	?
p08	27.00	27.00	27.00	19.00	19.00	19.00	8.00	8.00	3.00	0.00	?
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p11	40.00	40.00	40.00	30.00	30.00	29.00	12.00	12.00	9.00	0.00	?
p12	?	-	?	?	-	?	?	-	0.00	0.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	47.00	47.00	47.00	34.00	34.00	34.00	15.00	15.00	12.00	0.00	?

F.25 parking

F.25.1 parking-opt11-strips

Table F.34 – Second Phase Expansions, parking, parking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
pfile03-011	7733.00	7027.00	9541.00	2840.00	23.00	0.00	839.00	18.00	0.00	0.00	?
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	105334.00	103450.00	128482.00	37903.00	20.00	0.00	11755.00	20.00	0.00	0.00	?
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-
pfile06-021	-	-	-	-	-	-	-	-	-	?	-
pfile06-022	-	-	-	-	-	-	-	-	-	?	-
pfile06-023	-	-	-	-	-	-	-	-	-	?	-
pfile06-024	-	-	-	-	-	-	-	-	-	?	-
pfile07-025	-	-	-	-	-	-	-	-	-	?	-
pfile07-026	-	-	-	-	-	-	-	-	-	?	-
pfile07-027	-	-	-	-	-	-	-	-	-	?	-
pfile07-028	-	-	-	-	-	-	-	-	-	?	-
pfile08-029	-	-	-	-	-	-	-	-	-	?	-
pfile08-030	-	-	-	-	-	-	-	-	-	?	-

F.25.2 parking-opt14-strips

Table F.35 – Second Phase Expansions, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p_12_7-01	295222.00	278645.00	632297.00	76863.00	65.00	0.00	15386.00	66.00	0.00	0.00	?
p_12_7-02	494584.00	463484.00	959219.00	162861.00	6.00	0.00	52310.00	3.00	0.00	0.00	?
p_12_7-03	75603.00	71248.00	143861.00	28225.00	3.00	0.00	8530.00	3.00	0.00	0.00	?
p_12_7-04	-	-	-	-	-	-	-	-	-	?	-
p_14_8-01	-	-	-	-	-	-	-	-	-	?	-
p_14_8-02	-	-	-	-	-	-	-	-	-	?	-
p_14_8-03	-	-	-	-	-	-	-	-	-	?	-
p_14_8-04	-	-	-	-	-	-	-	-	-	?	-
p_16_9-01	-	-	-	-	-	-	-	-	-	?	-
p_16_9-02	-	-	-	-	-	-	-	-	-	?	-
p_16_9-03	-	-	-	-	-	-	-	-	-	?	-
p_16_9-04	-	-	-	-	-	-	-	-	-	?	-
p_18_10-01	-	-	-	-	-	-	-	-	-	?	-
p_18_10-02	-	-	-	-	-	-	-	-	-	?	-
p_18_10-03	-	-	-	-	-	-	-	-	-	?	-
p_18_10-04	-	-	-	-	-	-	-	-	-	?	-
p_20_11-01	-	-	-	-	-	-	-	-	-	?	-
p_20_11-02	-	-	-	-	-	-	-	-	-	?	-
p_20_11-03	-	-	-	-	-	-	-	-	-	?	-
p_20_11-04	-	-	-	-	-	-	-	-	-	?	-

F.26 pathways

F.26.1 pathways

Table F.36 – Second Phase Expansions, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

F.27 pegsol

F.27.1 pegsol-08-strips

Table F.37 – Second Phase Expansions, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	-	-	-	-	-	-	-	-	-	0.00	0.00
p19	-	-	-	-	-	-	-	-	-	0.00	0.00
p20	-	-	-	-	-	-	-	-	-	0.00	0.00
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	-	-	-	-	-	-	-	-	-	0.00	0.00
p25	-	-	-	-	-	-	-	-	-	0.00	0.00
p26	-	-	-	-	-	-	-	-	-	0.00	0.00
p27	-	-	-	-	-	-	-	-	-	0.00	0.00
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

F.27.2 pegsol-opt11-strips

Table F.38 – Second Phase Expansions, pegsol, pegsol-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.28 petri

F.28.1 petri-net-alignment-opt18-strips

Table F.39 – Second Phase Expansions, petri, petri-net-alignment-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	?	-	?	315829045.00	315829045.00	?	6226761.00	41.00	0.00	0.00	?
p04	?	-	?	986301724.00	968548894.00	?	54600802.00	3.00	0.00	0.00	?
p05	698936621.00	698920991.00	?	2363376.00	50.00	0.00	132664.00	3.00	0.00	0.00	?
p06	?	-	?	151849428.00	44.00	0.00	417406.00	3.00	0.00	0.00	?
p07	?	-	?	1798338.00	43.00	0.00	127664.00	3.00	0.00	0.00	?
p08	?	-	?	?	-	?	1314139325.00	31.00	0.00	0.00	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	158104444.00	116588149.00	?	1737552.00	47.00	0.00	302795.00	38.00	0.00	0.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.29 pipesworld

F.29.1 pipesworld-notankage

Table F.40 – Second Phase Expansions, pipesworld, pipesworld-notankage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	0.00	0.00
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	0.00	0.00
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	0.00	0.00
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	0.00	0.00
p10-net1-b14-g8	864109734.00	862837979.00	2320231790.00	23783698.00	1.00	0.00	21974458.00	1.00	0.00	0.00	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	0.00	0.00
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	0.00	0.00
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	0.00	0.00
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	0.00	0.00
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	0.00	0.00
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3	1968092.00	1949311.00	3254821.00	105263.00	5.00	0.00	58942.00	5.00	0.00	0.00	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2	312144.00	296318.00	922492.00	55861.00	2644.00	0.00	2646.00	2646.00	0.00	0.00	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	?	-

F.29.2 pipesworld-tankage

Table F.41 – Second Phase Expansions, pipesworld, pipesworld-tankage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p07-net1-b12-g5-t80	17105.00	13236.00	0.00	1613.00	1613.00	0.00	477.00	477.00	0.00	0.00	?
p08-net1-b12-g7-t80	4419802.00	4361517.00	18022092.00	1973566.00	5941.00	0.00	1410521.00	6794.00	0.00	0.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	0.00	0.00
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	5015798.00	4973443.00	4812704.00	438653.00	24.00	0.00	222418.00	4.00	0.00	0.00	?
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	0.00	0.00
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	0.00	0.00
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

F.29.3 pipesworld-tankage-nosplit

Table F.42 – Second Phase Expansions, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p07-net1-b12-g5-t80	17105.00	13236.00	0.00	1613.00	1613.00	0.00	477.00	477.00	0.00	0.00	?
p08-net1-b12-g7-t80	4419802.00	4361517.00	18022092.00	1973566.00	5941.00	0.00	1410521.00	6794.00	0.00	0.00	?
p09-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	-
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	?	-
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	-
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

F.30 psr

F.30.1 psr-small

Table F.43 – Second Phase Expansions, psr, psr-small

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	0.00	0.00
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	0.00	0.00
p16-s29-n2-l5-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p17-s30-n2-l5-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p19-s33-n3-l2-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p20-s34-n3-l2-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p22-s37-n3-l3-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	0.00	0.00
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p31-s49-n4-l2-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p35-s57-n5-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p36-s65-n6-l2-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p38-s78-n3-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p40-s80-n3-l4-f10	-	-	-	-	-	-	-	-	-	0.00	0.00
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p44-s89-n4-l2-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p46-s97-n5-l2-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p47-s98-n5-l2-f50	-	-	-	-	-	-	-	-	-	0.00	?
p48-s101-n5-l3-f30	?	-	?	162418455.00	592.00	0.00	2375082.00	11.00	0.00	0.00	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	-
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	0.00	0.00

F.31 rovers

F.31.1 rovers

Table F.44 – Second Phase Expansions, rovers, rovers

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	210610886.00	210057256.00	972752909.00	13570553.00	5.00	0.00	9570139.00	5.00	0.00	0.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	77555684.00	77445408.00	168370337.00	6579736.00	7.00	0.00	1885328.00	7.00	0.00	0.00	?
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	
p21	-	-	-	-	-	-	-	-	-	?	
p22	-	-	-	-	-	-	-	-	-	?	
p23	-	-	-	-	-	-	-	-	-	?	
p24	-	-	-	-	-	-	-	-	-	?	
p25	-	-	-	-	-	-	-	-	-	?	
p26	-	-	-	-	-	-	-	-	-	?	
p27	-	-	-	-	-	-	-	-	-	?	
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	
p31	-	-	-	-	-	-	-	-	-	?	
p32	-	-	-	-	-	-	-	-	-	?	
p33	-	-	-	-	-	-	-	-	-	?	
p34	-	-	-	-	-	-	-	-	-	?	
p35	-	-	-	-	-	-	-	-	-	?	
p36	-	-	-	-	-	-	-	-	-	?	
p37	-	-	-	-	-	-	-	-	-	?	
p38	-	-	-	-	-	-	-	-	-	?	
p39	-	-	-	-	-	-	-	-	-	?	
p40	-	-	-	-	-	-	-	-	-	?	

F.32 satellite

F.32.1 satellite

Table F.45 – Second Phase Expansions, satellite, satellite

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-pfile1	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-pfile2	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-pfile3	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-pfile4	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-pfile5	2937.00	2792.00	0.00	2542.00	2542.00	0.00	300.00	300.00	0.00	0.00	?
p06-pfile6	264336.00	528.00	0.00	57563.00	5.00	0.00	17271.00	5.00	0.00	0.00	?
p07-pfile7	90541081.00	90314206.00	123367798.00	12031924.00	167.00	0.00	5487682.00	210.00	0.00	0.00	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	?	
p10-pfile10	-	-	-	-	-	-	-	-	-	?	
p11-pfile11	-	-	-	-	-	-	-	-	-	?	
p12-pfile12	-	-	-	-	-	-	-	-	-	?	
p13-pfile13	-	-	-	-	-	-	-	-	-	?	
p14-pfile14	-	-	-	-	-	-	-	-	-	?	
p15-pfile15	-	-	-	-	-	-	-	-	-	?	
p16-pfile16	-	-	-	-	-	-	-	-	-	?	
p17-pfile17	-	-	-	-	-	-	-	-	-	?	
p18-pfile18	-	-	-	-	-	-	-	-	-	?	
p19-pfile19	-	-	-	-	-	-	-	-	-	?	
p20-pfile20	-	-	-	-	-	-	-	-	-	?	
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	?	
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	?	
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	?	
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	?	
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	?	
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	?	
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	?	
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	?	
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	?	
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	?	
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	?	
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	?	
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	?	
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	?	
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	?	

F.33 scanalyzer

F.33.1 scanalyzer-08-strips

Table F.46 – Second Phase Expansions, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	?	
p07	10.00	10.00	9.00	6.00	6.00	0.00	2.00	2.00	0.00	0.00	?
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	12.00	12.00	10.00	7.00	7.00	0.00	2.00	2.00	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	13.00	13.00	12.00	9.00	9.00	0.00	2.00	2.00	0.00	0.00	?
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	15.00	15.00	14.00	10.00	10.00	0.00	3.00	3.00	0.00	0.00	?
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	17.00	17.00	15.00	11.00	11.00	0.00	3.00	3.00	0.00	0.00	?
p20	-	-	-	-	-	-	-	-	-	?	
p21	-	-	-	-	-	-	-	-	-	?	
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	-	-	-	-	-	-	-	-	-	0.00	0.00
p25	-	-	-	-	-	-	-	-	-	0.00	0.00
p26	-	-	-	-	-	-	-	-	-	0.00	0.00
p27	-	-	-	-	-	-	-	-	-	?	
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	

F.33.2 scanalyzer-opt11-strips

Table F.47 – Second Phase Expansions, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	10.00	10.00	9.00	6.00	6.00	0.00	2.00	2.00	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	0.00	?
p07	17.00	17.00	15.00	11.00	11.00	0.00	3.00	3.00	0.00	0.00	?
p08	12.00	12.00	10.00	7.00	7.00	0.00	2.00	2.00	0.00	0.00	?
p09	13.00	13.00	12.00	9.00	9.00	0.00	2.00	2.00	0.00	0.00	?
p10	15.00	15.00	14.00	10.00	10.00	0.00	3.00	3.00	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

F.34 snake

F.34.1 snake-opt18-strips

Table F.48 – Second Phase Expansions, snake, snake-opt18-strips

	10%			50%			90%			100%	
	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	?	
p03	-	-	-	-	-	-	-	-	-	?	
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	?	
p07	-	-	-	-	-	-	-	-	-	?	
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

F.35 sokoban

F.35.1 sokoban-opt08-strips

Table F.49 – Second Phase Expansions, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	34.00	34.00	34.00	21.00	21.00	21.00	2.00	2.00	2.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	-	-	-	-	-	-	-	-	-	0.00	0.00
p19	-	-	-	-	-	-	-	-	-	0.00	0.00
p20	-	-	-	-	-	-	-	-	-	0.00	0.00
p21	5844056.00	5844056.00	5844056.00	548727.00	548727.00	548047.00	51145.00	51145.00	51101.00	0.00	?
p22	?	-	?	?	-	?	?	-	?	0.00	?
p23	?	-	?	?	-	?	?	-	?	0.00	?
p24	?	-	?	?	-	?	?	-	?	0.00	?
p25	?	-	?	?	-	?	?	-	?	0.00	?
p26	?	-	?	?	-	?	?	-	?	0.00	?
p27	?	-	?	5605767640.00	5605767640.00	?	356840239.00	356840239.00	263110663.00	0.00	?
p28	?	-	?	?	-	?	?	-	?	0.00	?
p29	?	-	?	?	-	?	33126661.00	95.00	0.00	0.00	?
p30	-	-	-	-	-	-	-	-	-	?	-

F.35.2 sokoban-opt11-strips

Table F.50 – Second Phase Expansions, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	34.00	34.00	34.00	21.00	21.00	21.00	2.00	2.00	2.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	5844056.00	5844056.00	5844056.00	548727.00	548727.00	548047.00	51145.00	51145.00	51101.00	0.00	?
p19	?	-	?	?	-	?	?	-	?	0.00	?
p20	?	-	?	?	-	?	?	-	?	0.00	?

F.36 spider

F.36.1 spider-opt18-strips

Table F.51 – Second Phase Expansions, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	3046972.00	3038369.00	1199013.00	177181.00	156.00	0.00	28858.00	608.00	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	2231594.00	2224083.00	2140375.00	524094.00	208.00	0.00	331525.00	250.00	0.00	0.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.37 storage

F.37.1 storage

Table F.52 – Second Phase Expansions, storage, storage

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	6222324.00	5867416.00	13878256.00	793299.00	6151.00	0.00	306419.00	6475.00	0.00	0.00	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

F.38 termes

F.38.1 termes-opt18-strips

Table F.53 – Second Phase Expansions, termes, termes-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.39 tetris

F.39.1 tetris-opt14-strips

Table F.54 – Second Phase Expansions, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01-10	-	-	-	-	-	-	-	-	-	?	-
p01-6	-	-	-	-	-	-	-	-	-	?	-
p01-8	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-10	-	-	-	-	-	-	-	-	-	?	-
p02-4	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-6	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-8	-	-	-	-	-	-	-	-	-	?	-
p03-10	-	-	-	-	-	-	-	-	-	?	-
p03-4	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-6	-	-	-	-	-	-	-	-	-	?	-
p03-8	-	-	-	-	-	-	-	-	-	?	-
p04-10	-	-	-	-	-	-	-	-	-	?	-
p04-6	-	-	-	-	-	-	-	-	-	?	-
p04-8	-	-	-	-	-	-	-	-	-	?	-
p05-10	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-6	-	-	-	-	-	-	-	-	-	?	-
p05-8	-	-	-	-	-	-	-	-	-	?	-

182

F.40 tidybot

F.40.1 tidybot-opt11-strips

Table F.55 – Second Phase Expansions, tidybot, tidybot-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	766424.00	762126.00	841814.00	85607.00	74454.00	31042.00	22778.00	4.00	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	357522.00	352244.00	341700.00	50011.00	45406.00	16934.00	9253.00	6.00	0.00	0.00	?
p13	580870.00	579409.00	520278.00	62969.00	54614.00	38152.00	13029.00	4.00	0.00	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

F.40.2 tidybot-opt14-strips

Table F.56 – Second Phase Expansions, tidybot, tidybot-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	
p02	41637.00	41399.00	46438.00	10133.00	8396.00	2994.00	2345.00	4.00	0.00	0.00	?
p03	69559.00	69120.00	83447.00	12712.00	12217.00	4189.00	2542.00	39.00	0.00	0.00	?
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	?	
p06	-	-	-	-	-	-	-	-	-	?	
p07	775761.00	774353.00	817976.00	184682.00	176268.00	102332.00	88653.00	4.00	0.00	0.00	?
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	357522.00	352244.00	341700.00	50011.00	45406.00	16934.00	9253.00	6.00	0.00	0.00	?
p13	580870.00	579409.00	520278.00	62969.00	54614.00	38152.00	13029.00	4.00	0.00	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

F.41 tpp

F.41.1 tpp

Table F.57 – Second Phase Expansions, tpp, tpp

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p07	-	-	-	-	-	-	-	-	-	?	
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	
p21	-	-	-	-	-	-	-	-	-	?	
p22	-	-	-	-	-	-	-	-	-	?	
p23	-	-	-	-	-	-	-	-	-	?	
p24	-	-	-	-	-	-	-	-	-	?	
p25	-	-	-	-	-	-	-	-	-	?	
p26	-	-	-	-	-	-	-	-	-	?	
p27	-	-	-	-	-	-	-	-	-	?	
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	

F.42 transport

F.42.1 transport-opt08-strips

Table F.58 – Second Phase Expansions, transport, transport-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	-	-	-	-	-	-	-	-	-	0.00	0.00
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

F.42.2 transport-opt11-strips

Table F.59 – Second Phase Expansions, transport, transport-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.42.3 transport-opt14-strips

Table F.60 – Second Phase Expansions, transport, transport-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	?	-	?	120201997.00	2311.00	0.00	35290.00	15.00	0.00	0.00	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	?	-	?	?	-	0.00	594600.00	3.00	0.00	0.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.43 trucks

F.43.1 trucks-strips

Table F.61 – Second Phase Expansions, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	22617.00	22602.00	154284.00	13096.00	48.00	0.00	1591.00	8.00	0.00	0.00	?
p06	284676198.00	284676198.00	?	17537165.00	17537165.00	1117948588.00	2172888.00	4.00	0.00	0.00	?
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	534589.00	533410.00	2262436.00	69315.00	5.00	0.00	13482.00	5.00	0.00	0.00	?
p09	5076290.00	5073619.00	221250595.00	1812683.00	162584.00	0.00	564215.00	550331.00	0.00	0.00	?
p10	352509239.00	352203671.00	?	995885.00	4.00	0.00	137465.00	4.00	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

F.44 visitall

F.44.1 visitall-opt11-strips

Table F.62 – Second Phase Expansions, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
problem02-full	-	-	-	-	-	-	-	-	-	0.00	0.00
problem02-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem03-full	-	-	-	-	-	-	-	-	-	0.00	0.00
problem03-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem04-full	-	-	-	-	-	-	-	-	-	0.00	0.00
problem04-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem05-full	-	-	-	-	-	-	-	-	-	0.00	0.00
problem05-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem06-full	-	-	-	-	-	-	-	-	-	?	-
problem06-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem07-full	-	-	-	-	-	-	-	-	-	?	-
problem07-half	2732700.00	2732700.00	3136272.00	533960.00	533960.00	418762.00	151406.00	7.00	0.00	0.00	?
problem08-full	-	-	-	-	-	-	-	-	-	?	-
problem08-half	-	-	-	-	-	-	-	-	-	?	-
problem09-full	-	-	-	-	-	-	-	-	-	?	-
problem09-half	-	-	-	-	-	-	-	-	-	?	-
problem10-full	-	-	-	-	-	-	-	-	-	?	-
problem10-half	-	-	-	-	-	-	-	-	-	?	-
problem11-full	-	-	-	-	-	-	-	-	-	?	-
problem11-half	-	-	-	-	-	-	-	-	-	?	-

F.44.2 visitall-opt14-strips

Table F.63 – Second Phase Expansions, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p-05-10	-	-	-	-	-	-	-	-	-	?	-
p-05-5	-	-	-	-	-	-	-	-	-	0.00	0.00
p-05-6	-	-	-	-	-	-	-	-	-	0.00	0.00
p-05-7	1419668.00	1413096.00	1166599.00	128388.00	128388.00	116090.00	44546.00	21.00	0.00	0.00	?
p-05-8	4986306.00	4986306.00	5192141.00	755995.00	755995.00	751969.00	239275.00	2.00	0.00	0.00	?
p-05-9	-	-	-	-	-	-	-	-	-	?	-
p-1-10	-	-	-	-	-	-	-	-	-	?	-
p-1-11	-	-	-	-	-	-	-	-	-	?	-
p-1-12	-	-	-	-	-	-	-	-	-	?	-
p-1-13	-	-	-	-	-	-	-	-	-	?	-
p-1-14	-	-	-	-	-	-	-	-	-	?	-
p-1-15	-	-	-	-	-	-	-	-	-	?	-
p-1-16	-	-	-	-	-	-	-	-	-	?	-
p-1-17	-	-	-	-	-	-	-	-	-	?	-
p-1-18	-	-	-	-	-	-	-	-	-	?	-
p-1-5	-	-	-	-	-	-	-	-	-	0.00	0.00
p-1-6	-	-	-	-	-	-	-	-	-	?	-
p-1-7	-	-	-	-	-	-	-	-	-	?	-
p-1-8	-	-	-	-	-	-	-	-	-	?	-
p-1-9	-	-	-	-	-	-	-	-	-	?	-

F.45 woodworking

F.45.1 woodworking-opt08-strips

Table F.64 – Second Phase Expansions, woodworking, woodworking-opt08-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	17.00	16.00	11.00	8.00	8.00	0.00	2.00	2.00	0.00	0.00	?
p04	?	49332.00	?	2083.00	?	0.00	2141244528.00	3845.00	0.00	0.00	?
p05	3023.00	49332.00	0.00	2083.00	2083.00	0.00	551.00	551.00	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	351072221.00	246.00	0.00	97407168.00	25816.00	0.00	11378845.00	20588.00	0.00	0.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	46311660.00	40064917.00	57338232.00	12201929.00	14.00	0.00	11731647.00	14.00	0.00	0.00	?
p14	316462282.00	249591942.00	348849648.00	1064776.00	340106.00	0.00	214266.00	214266.00	0.00	0.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	48889.00	1454.00	0.00	25947.00	7376.00	0.00	3803.00	3803.00	0.00	0.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	505103784.00	2.00	0.00	44854117.00	2.00	0.00	43917033.00	2.00	0.00	0.00	?
p25	22.00	22.00	19.00	13.00	13.00	0.00	4.00	4.00	0.00	0.00	?
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

F.45.2 woodworking-opt11-strips

Table F.65 – Second Phase Expansions, woodworking, woodworking-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	46311660.00	40064917.00	57338232.00	12201929.00	14.00	0.00	11731647.00	14.00	0.00	0.00	?
p04	17.00	16.00	11.00	8.00	8.00	0.00	2.00	2.00	0.00	0.00	?
p05	505103784.00	2.00	0.00	44854117.00	2.00	0.00	43917033.00	2.00	0.00	0.00	?
p06	?	-	?	?	-	0.00	2141244528.00	3845.00	0.00	0.00	?
p07	316462282.00	249591942.00	348849648.00	1064776.00	340106.00	0.00	214266.00	214266.00	0.00	0.00	?
p08	22.00	22.00	19.00	13.00	13.00	0.00	4.00	4.00	0.00	0.00	?
p09	3023.00	49332.00	0.00	2083.00	2083.00	0.00	551.00	551.00	0.00	0.00	?
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	48889.00	1454.00	0.00	25947.00	7376.00	0.00	3803.00	3803.00	0.00	0.00	?
p16	351072221.00	246.00	0.00	97407168.00	25816.00	0.00	11378845.00	20588.00	0.00	0.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

F.46 zenotravel

F.46.1 zenotravel

Table F.66 – Second Phase Expansions, zenotravel, zenotravel

| | 10% | | | 50% | | | 90% | | | 100% | |
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	444.00	429.00	0.00	148.00	148.00	0.00	16.00	16.00	0.00	0.00	?
p09	3696793.00	3669771.00	10718600.00	1060116.00	3.00	0.00	640386.00	3.00	0.00	0.00	?
p10	171834.00	34738.00	0.00	119335.00	155.00	0.00	44553.00	161.00	0.00	0.00	?
p11	13061.00	5.00	0.00	11514.00	5.00	0.00	4692.00	5.00	0.00	0.00	?
p12	33018775.00	40692.00	0.00	31246732.00	10439.00	0.00	3544150.00	10849.00	0.00	0.00	?
p13	465094961.00	20.00	0.00	459734900.00	20.00	0.00	403869395.00	10.00	0.00	0.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

APPENDIX G — IDA* ITERATIONS

G.1 agricola

G.1.1 agricola-opt18-strips

Table G.1 – IDA* Iterations, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	?	-
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.2 airport

G.2.1 airport

Table G.2 – IDA* Iterations, airport, airport

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-airport1-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-airport1-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-airport1-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-airport2-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-airport2-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-airport2-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p07-airport2-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p08-airport2-p3	-	-	-	-	-	-	-	-	-	0.00	0.00
p09-airport2-p4	-	-	-	-	-	-	-	-	-	0.00	0.00
p10-airport3-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p11-airport3-p1	-	-	-	-	-	-	-	-	-	0.00	0.00
p12-airport3-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p13-airport3-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p14-airport3-p3	-	-	-	-	-	-	-	-	-	0.00	0.00
p15-airport3-p3	-	-	-	-	-	-	-	-	-	0.00	0.00
p16-airport3-p4	-	-	-	-	-	-	-	-	-	0.00	0.00
p17-airport3-p5	-	-	-	-	-	-	-	-	-	0.00	0.00
p18-airport3-p6	-	-	-	-	-	-	-	-	0.00	0.00	?
p19-airport3-p6	?	-	?	?	-	?	?	-	-	0.00	0.00
p20-airport3-p7	?	-	?	?	-	?	52.00	18.00	0.00	0.00	?
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	0.00	0.00
p23-airport4halfMUC-p4	2.00	1.00	1.00	2.00	1.00	0.00	3.00	1.00	0.00	0.00	?
p24-airport4halfMUC-p4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	?
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	?	-
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	?	-
p27-airport4halfMUC-p6	1.00	1.00	1.00	?	-	0.00	2.00	1.00	0.00	0.00	?
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	?	-
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	?	-
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p33-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	?	-
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	?	-
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	0.00	0.00
p37-airport5MUC-p3	?	-	?	?	-	?	?	-	0.00	0.00	?
p38-airport5MUC-p3	?	-	?	?	-	?	?	-	0.00	0.00	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p41-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	?	-
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	?	-
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	?	-
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	?	-

G.3 barman

G.3.1 barman-opt11-strips

Table G.3 – IDA* Iterations, barman, barman-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
pfile01-001	-	-	-	-	-	-	-	-	-	0.00	0.00
pfile01-002	-	-	-	-	-	-	-	-	-	0.00	0.00
pfile01-003	-	-	-	-	-	-	-	-	-	0.00	0.00
pfile01-004	-	-	-	-	-	-	-	-	-	0.00	0.00
pfile02-005	-	-	-	-	-	-	-	-	-	?	-
pfile02-006	-	-	-	-	-	-	-	-	-	?	-
pfile02-007	-	-	-	-	-	-	-	-	-	?	-
pfile02-008	-	-	-	-	-	-	-	-	-	?	-
pfile03-009	-	-	-	-	-	-	-	-	-	?	-
pfile03-010	-	-	-	-	-	-	-	-	-	?	-
pfile03-011	-	-	-	-	-	-	-	-	-	?	-
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	-	-	-	-	-	-	-	-	-	?	-
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-

G.3.2 barman-opt14-strips

Table G.4 – IDA* Iterations, barman, barman-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p435-1	-	-	-	-	-	-	-	-	-	?	-
p435-2	-	-	-	-	-	-	-	-	-	?	-
p435-3	-	-	-	-	-	-	-	-	-	?	-
p536-1	-	-	-	-	-	-	-	-	-	?	-
p536-2	-	-	-	-	-	-	-	-	-	?	-
p536-3	-	-	-	-	-	-	-	-	-	?	-
p638-1	-	-	-	-	-	-	-	-	-	?	-
p638-2	-	-	-	-	-	-	-	-	-	?	-
p638-3	-	-	-	-	-	-	-	-	-	?	-
p739-1	-	-	-	-	-	-	-	-	-	?	-
p739-2	-	-	-	-	-	-	-	-	-	?	-
p739-3	-	-	-	-	-	-	-	-	-	?	-
p839-1	-	-	-	-	-	-	-	-	-	?	-
p839-2	-	-	-	-	-	-	-	-	-	?	-

G.4 blocks

G.4.1 blocks

Table G.5 – IDA* Iterations, blocks, blocks

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probBLOCKS-10-0	84096.00	82209.00	51696.00	93732.00	77144.00	0.00	22975.00	22975.00	0.00	0.00	?
probBLOCKS-10-1	9723.00	8965.00	6387.00	9753.00	1393.00	0.00	1285.00	1285.00	0.00	0.00	?
probBLOCKS-10-2	28963.00	25618.00	19308.00	31688.00	2901.00	0.00	7519.00	3817.00	0.00	0.00	?
probBLOCKS-11-0	22330.00	18902.00	14492.00	21245.00	5.00	0.00	4921.00	5.00	0.00	0.00	?
probBLOCKS-11-1	21525.00	20380.00	14046.00	22148.00	257.00	0.00	4503.00	219.00	0.00	0.00	?
probBLOCKS-11-2	21480.00	17609.00	16349.00	22500.00	3.00	0.00	4884.00	8.00	0.00	0.00	?
probBLOCKS-12-0	20177.00	18051.00	13663.00	20261.00	1.00	0.00	5049.00	1.00	0.00	0.00	?
probBLOCKS-12-1	2395.00	2194.00	1380.00	2366.00	249.00	0.00	555.00	244.00	0.00	0.00	?
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-14-0	39362.00	36625.00	25073.00	38395.00	5.00	0.00	10163.00	5.00	0.00	0.00	?
probBLOCKS-14-1	66718.00	66718.00	42521.00	58012.00	317.00	0.00	10483.00	260.00	0.00	0.00	?
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	0.00	0.00

G.5 childsnack

G.5.1 childsnack-opt14-strips

Table G.6 – IDA* Iterations, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
child-snack_pfile01	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile02	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile03	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile04	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile05	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile06	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile07	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile08	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile09	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile10	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	-	?

G.6 data

G.6.1 data-network-opt18-strips

Table G.7 – IDA* Iterations, data, data-network-opt18-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	17.00	8.00	12.00	2.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
p04	?	-	?	5277.00	1.00	0.00	1189.00	1.00	0.00	0.00	?
p05	296.00	199.00	244.00	151.00	1.00	0.00	15.00	1.00	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	?	-	?	13805.00	2432.00	0.00	1603.00	33.00	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	12.00	1.00	1.00	2.00	2.00	0.00	1.00	1.00	0.00	0.00	?
p13	147.00	115.00	104.00	46.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	?	-
p17	4938.00	1533.00	1771.00	2053.00	1.00	0.00	374.00	1.00	0.00	0.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.7 depot

G.7.1 depot

Table G.8 – IDA* Iterations, depot, depot

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	?	-	181753.00	238294.00	19.00	0.00	76122.00	40.00	0.00	0.00	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	57077.00	46737.00	42595.00	60781.00	1.00	0.00	28395.00	1.00	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	5538.00	3703.00	2862.00	5138.00	50.00	0.00	1955.00	50.00	0.00	0.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-

G.8 driverlog

G.8.1 driverlog

Table G.9 – IDA* Iterations, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	11.00	5.00	1.00	4.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p08	103951.00	76291.00	28135.00	76963.00	1.00	0.00	21552.00	1.00	0.00	0.00	?
p09	4922.00	4669.00	3165.00	4121.00	1.00	0.00	989.00	1.00	0.00	0.00	?
p10	26.00	26.00	9.00	23.00	1.00	0.00	6.00	1.00	0.00	0.00	?
p11	144.00	126.00	29.00	88.00	3.00	0.00	21.00	3.00	0.00	0.00	?
p12	-	-	-	-	-	-	-	-	-	0.00	?
p13	19715.00	13655.00	7508.00	14867.00	2.00	0.00	4239.00	2.00	0.00	0.00	?
p14	23023.00	17699.00	7484.00	21465.00	167.00	0.00	3893.00	159.00	0.00	0.00	?
p15	-	-	?	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

G.9 elevators

G.9.1 elevators-opt08-strips

Table G.10 – IDA* Iterations, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p06	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p07	-	-	-	-	-	-	-	-	-	?	
p08	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p15	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p16	-	-	-	-	-	-	-	-	-	?	
p17	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p18	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p24	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p25	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p26	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p27	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	

G.9.2 elevators-opt11-strips

Table G.11 – IDA* Iterations, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p08	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	?	
p12	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p13	-	-	-	-	-	-	-	-	-	?	
p14	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	?	?	-	0.00	?	-	0.00	0.00	?
p17	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p18	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p19	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p20	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?

G.10 floortile

G.10.1 floortile-opt11-strips

Table G.12 – IDA* Iterations, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
opt-p01-001	2047.00	1666.00	1550.00	1547.00	1.00	0.00	420.00	1.00	0.00	0.00	?
opt-p01-002	667.00	438.00	467.00	480.00	1.00	0.00	119.00	1.00	0.00	0.00	?
opt-p02-003	245179.00	214128.00	?	275463.00	125498.00	59860.00	56427.00	1.00	0.00	0.00	?
opt-p02-004	80205.00	69908.00	69039.00	71019.00	5.00	0.00	14883.00	1.00	0.00	0.00	?
opt-p03-005	117978.00	101711.00	101482.00	97168.00	5.00	0.00	19263.00	1.00	0.00	0.00	?
opt-p03-006	200874.00	164894.00	176243.00	177807.00	5.00	0.00	34786.00	1.00	0.00	0.00	?
opt-p04-007	?	-	?	1989932.00	1.00	0.00	420355.00	4.00	0.00	0.00	?
opt-p04-008	-	-	-	-	-	-	-	-	-	?	-
opt-p05-009	-	-	-	-	-	-	-	-	-	?	-
opt-p05-010	-	-	-	-	-	-	-	-	-	?	-
opt-p06-011	-	-	-	-	-	-	-	-	-	?	-
opt-p06-012	-	-	-	-	-	-	-	-	-	?	-
opt-p07-013	-	-	-	-	-	-	-	-	-	?	-
opt-p07-014	-	-	-	-	-	-	-	-	-	?	-
opt-p08-015	-	-	-	-	-	-	-	-	-	?	-
opt-p08-016	-	-	-	-	-	-	-	-	-	?	-
opt-p09-017	-	-	-	-	-	-	-	-	-	?	-
opt-p09-018	-	-	-	-	-	-	-	-	-	?	-
opt-p10-019	-	-	-	-	-	-	-	-	-	?	-
opt-p10-020	-	-	-	-	-	-	-	-	-	?	-

G.10.2 floortile-opt14-strips

Table G.13 – IDA* Iterations, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-4-3-2	141757.00	129855.00	?	127733.00	67923.00	5791.00	27678.00	1.00	0.00	0.00	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-3-2	462242.00	429415.00	?	433261.00	5.00	0.00	83336.00	1.00	0.00	0.00	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-3-2	?	-	?	692915.00	361141.00	97586.00	136302.00	1.00	0.00	0.00	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-4-3-2	180481.00	167381.00	?	189386.00	98486.00	29602.00	45029.00	1.00	0.00	0.00	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-3-2	?	-	?	722247.00	374954.00	106725.00	138446.00	1.00	0.00	0.00	?
p03-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	?	-

G.11 freecell

G.11.1 freecell

Table G.14 – IDA* Iterations, freecell, freecell

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	?	-	?	38197.00	8441.00	0.00	10172.00	10172.00	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-2-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-2-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-2-3	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-2-5	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-3-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-3-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-3-3	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-3-4	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-3-5	-	-	-	-	-	-	-	-	-	0.00	0.00
probfreecell-4-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-5	-	-	-	-	-	-	-	-	-	?	-

G.12 ged

G.12.1 ged-opt14-strips

Table G.15 – IDA* Iterations, ged, ged-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
d-1-2	-	-	-	-	-	-	-	-	-	0.00	0.00
d-1-3	-	-	-	-	-	-	-	-	-	0.00	0.00
d-1-4	-	-	-	-	-	-	-	-	-	0.00	0.00
d-1-8	-	-	-	-	-	-	-	-	-	0.00	0.00
d-2-1	-	-	-	-	-	-	-	-	-	0.00	0.00
d-2-3	-	-	-	-	-	-	-	-	-	0.00	0.00
d-2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
d-2-8	-	-	-	-	-	-	-	-	-	?	-
d-3-1	-	-	-	-	-	-	-	-	-	0.00	0.00
d-3-2	-	-	-	-	-	-	-	-	-	0.00	0.00
d-3-4	76373.00	73721.00	39673.00	36272.00	13897.00	0.00	22505.00	14622.00	0.00	0.00	?
d-4-2	-	-	-	-	-	-	-	-	-	0.00	0.00
d-4-3	68393.00	67924.00	40028.00	84433.00	61979.00	0.00	70179.00	62144.00	0.00	0.00	?
d-4-8	-	-	-	-	-	-	-	-	-	?	-
d-7-5	4688.00	4688.00	10850.00	35135.00	33844.00	18817.00	59576.00	59171.00	16427.00	0.00	?
d-7-6	-	-	-	-	-	-	-	-	-	0.00	0.00
d-8-1	-	-	-	-	-	-	-	-	-	0.00	0.00
d-8-2	-	-	-	-	-	-	-	-	-	?	-
d-8-4	-	-	-	-	-	-	-	-	-	?	-
d-8-9	-	-	-	-	-	-	-	-	-	?	-

G.13 grid

G.13.1 grid

Table G.16 – IDA* Iterations, grid, grid

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	26142.00	25291.00	20660.00	28092.00	84.00	0.00	5658.00	267.00	0.00	0.00	?
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	-	-	-	-	-	-	-	-	-	?	-

G.14 gripper

G.14.1 gripper

Table G.17 – IDA* Iterations, gripper, gripper

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	-	-	-	-	-	-	-	-	-	0.00	0.00
prob03	-	-	-	-	-	-	-	-	-	0.00	0.00
prob04	-	-	-	-	-	-	-	-	-	0.00	0.00
prob05	-	-	-	-	-	-	-	-	-	0.00	0.00
prob06	-	-	-	-	-	-	-	-	-	0.00	0.00
prob07	-	-	-	-	-	-	-	-	-	0.00	0.00
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-

G.15 hiking

G.15.1 hiking-opt14-strips

Table G.18 – IDA* Iterations, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	0.00	0.00
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	?	-

G.16 logistics

G.16.1 logistics00

Table G.19 – IDA* Iterations, logistics, logistics00

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
probLOGISTICS-10-0	?	-	?	?	-	0.00	?	-	0.00	0.00	?
probLOGISTICS-10-1	?	-	?	?	-	0.00	?	-	0.00	0.00	?
probLOGISTICS-11-0	?	-	?	?	-	0.00	?	-	0.00	0.00	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-12-0	?	-	?	?	-	0.00	?	-	0.00	0.00	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	0.00	0.00
probLOGISTICS-7-0	?	-	?	3722.00	62.00	0.00	1228.00	62.00	0.00	0.00	?
probLOGISTICS-7-1	?	-	?	?	-	0.00	37456.00	65.00	0.00	0.00	?
probLOGISTICS-8-0	741.00	731.00	?	1172.00	4.00	0.00	222.00	4.00	0.00	0.00	?
probLOGISTICS-8-1	?	-	?	?	-	0.00	7512.00	3.00	0.00	0.00	?
probLOGISTICS-9-0	?	-	?	6870.00	2.00	0.00	1859.00	2.00	0.00	0.00	?
probLOGISTICS-9-1	?	-	16.00	?	-	0.00	?	-	0.00	0.00	?

G.16.2 logistics98

Table G.20 – IDA* Iterations, logistics, logistics98

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	?	-	?	6000.00	7.00	0.00	1683.00	9.00	0.00	0.00	?
prob02	-	-	-	-	-	-	-	-	-	?	-
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	-	-	-	-	-	-	-	-	-	?	-
prob27	-	-	-	-	-	-	-	-	-	?	-
prob28	-	-	-	-	-	-	-	-	-	?	-
prob29	-	-	-	-	-	-	-	-	-	?	-
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	0.00	0.00
prob32	-	-	-	-	-	-	-	-	-	0.00	0.00
prob33	?	-	?	?	-	0.00	?	-	0.00	0.00	?
prob34	-	-	-	-	-	-	-	-	-	?	-
prob35	42.00	18.00	0.00	38.00	18.00	0.00	27.00	18.00	0.00	0.00	?

G.17 miconic

G.17.1 miconic

Table G.21 – IDA* Iterations, miconic, miconic

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
s1-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s1-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s10-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s10-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s10-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s10-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s10-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s11-0	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s11-1	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s11-2	5.00	5.00	1.00	4.00	4.00	0.00	1.00	1.00	0.00	0.00	?
s11-3	?	-	?	-	-	0.00	?	-	0.00	0.00	?
s11-4	3.00	3.00	1.00	5.00	5.00	0.00	1.00	1.00	0.00	0.00	?
s12-0	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s12-1	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s12-2	2.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s12-3	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s12-4	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s13-0	1.00	1.00	1.00	3.00	3.00	0.00	1.00	1.00	0.00	0.00	?
s13-1	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
s13-2	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s13-3	1.00	1.00	1.00	4.00	4.00	0.00	1.00	1.00	0.00	0.00	?
s13-4	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s14-0	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s14-1	2.00	2.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s14-2	5.00	5.00	1.00	3.00	3.00	0.00	1.00	1.00	0.00	0.00	?
s14-3	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s14-4	1.00	1.00	1.00	5.00	5.00	0.00	1.00	1.00	0.00	0.00	?
s15-0	1.00	1.00	1.00	4.00	4.00	0.00	1.00	1.00	0.00	0.00	?
s15-1	4.00	4.00	1.00	3.00	3.00	0.00	2.00	2.00	0.00	0.00	?
s15-2	1.00	1.00	1.00	8.00	8.00	0.00	1.00	1.00	0.00	0.00	?
s15-3	5.00	5.00	1.00	3.00	3.00	0.00	1.00	1.00	0.00	0.00	?
s15-4	5.00	5.00	1.00	4.00	4.00	0.00	4.00	4.00	0.00	0.00	?
s16-0	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s16-1	1.00	1.00	1.00	2.00	2.00	0.00	2.00	2.00	0.00	0.00	?
s16-2	3.00	3.00	1.00	5.00	5.00	0.00	1.00	1.00	0.00	0.00	?
s16-3	2.00	2.00	0.00	9.00	9.00	0.00	1.00	1.00	0.00	0.00	?
s16-4	3.00	3.00	2.00	6.00	6.00	0.00	1.00	1.00	0.00	0.00	3
s17-0	1.00	1.00	1.00	4.00	4.00	0.00	3.00	3.00	0.00	0.00	?
s17-1	3.00	3.00	0.00	5.00	5.00	0.00	3.00	3.00	0.00	0.00	?
s17-2	2.00	2.00	1.00	6.00	6.00	0.00	2.00	2.00	0.00	0.00	?
s17-3	1.00	1.00	1.00	2.00	2.00	0.00	1.00	1.00	0.00	0.00	?
s17-4	?	-	0.00	?	-	0.00	-	-	0.00	0.00	?
s18-0	5.00	5.00	1.00	2.00	2.00	0.00	1.00	1.00	0.00	0.00	?
s18-1	5.00	5.00	1.00	5.00	5.00	0.00	1.00	1.00	0.00	0.00	?
s18-2	2.00	2.00	1.00	3.00	3.00	0.00	3.00	3.00	0.00	0.00	?
s18-3	2.00	2.00	1.00	4.00	4.00	0.00	1.00	1.00	0.00	0.00	?
s18-4	2.00	2.00	4.00	7.00	7.00	0.00	3.00	3.00	0.00	0.00	?
s19-0	10.00	10.00	1.00	1.00	1.00	0.00	2.00	2.00	0.00	0.00	?
s19-1	4.00	4.00	1.00	3.00	3.00	0.00	1.00	1.00	0.00	0.00	?
s19-2	-	-	-	-	-	-	-	-	-	0.00	?
s19-3	2.00	2.00	1.00	6.00	-	-	3.00	3.00	0.00	0.00	?
s19-4	4.00	4.00	1.00	2.00	2.00	0.00	1.00	1.00	0.00	0.00	?
s2-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s2-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s20-0	-	-	-	-	-	-	-	-	-	0.00	?
s20-1	6.00	6.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s20-2	7.00	7.00	0.00	16.00	16.00	0.00	7.00	7.00	0.00	0.00	?
s20-3	6.00	6.00	0.00	7.00	7.00	0.00	3.00	3.00	0.00	0.00	?
s20-4	1.00	1.00	3.00	3.00	3.00	0.00	1.00	1.00	0.00	0.00	?
s21-0	1.00	1.00	1.00	6.00	6.00	0.00	2.00	2.00	0.00	0.00	?
s21-1	2.00	2.00	8.00	6.00	6.00	0.00	1.00	1.00	0.00	0.00	?
s21-2	1.00	1.00	4.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s21-3	3.00	3.00	6.00	3.00	3.00	0.00	2.00	2.00	0.00	0.00	?
s21-4	1.00	1.00	3.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s22-0	1.00	1.00	1.00	1.00	1.00	0.00	6.00	6.00	0.00	0.00	?
s22-1	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s22-2	3.00	3.00	0.00	7.00	7.00	0.00	2.00	2.00	0.00	0.00	3
s22-3	1.00	1.00	1.00	1.00	1.00	0.00	2.00	2.00	0.00	0.00	?
s22-4	1.00	1.00	3.00	3.00	3.00	0.00	1.00	1.00	0.00	0.00	?
s23-0	4.00	4.00	3.00	3.00	3.00	0.00	1.00	1.00	0.00	0.00	?
s23-1	-	-	-	-	-	-	-	-	-	0.00	?
s23-2	1.00	1.00	0.00	4.00	4.00	0.00	1.00	1.00	0.00	0.00	?
s23-3	-	-	-	-	-	-	-	-	-	0.00	?
s23-4	3.00	3.00	0.00	6.00	6.00	0.00	1.00	1.00	0.00	0.00	?
s24-0	4.00	4.00	1.00	6.00	6.00	0.00	1.00	1.00	0.00	0.00	?
s24-1	1.00	1.00	0.00	8.00	8.00	0.00	5.00	5.00	0.00	0.00	?
s24-2	7.00	7.00	0.00	1.00	1.00	0.00	3.00	3.00	0.00	0.00	?
s24-3	2.00	2.00	1.00	5.00	5.00	0.00	1.00	1.00	0.00	0.00	?
s24-4	1.00	1.00	0.00	9.00	9.00	0.00	3.00	3.00	0.00	0.00	?
s25-0	7.00	7.00	0.00	13.00	13.00	0.00	5.00	5.00	0.00	0.00	?
s25-1	5.00	5.00	0.00	15.00	15.00	0.00	10.00	10.00	0.00	0.00	?
s25-2	-	-	-	-	-	-	-	-	-	0.00	?
s25-3	4.00	4.00	1.00	2.00	2.00	0.00	1.00	1.00	0.00	0.00	?
s25-4	4.00	4.00	0.00	1.00	1.00	0.00	5.00	5.00	0.00	0.00	?
s26-0	10.00	10.00	0.00	9.00	9.00	0.00	3.00	3.00	0.00	0.00	?
s26-1	-	-	-	-	-	-	-	-	-	0.00	?
s26-2	1.00	1.00	1.00	2.00	2.00	0.00	1.00	1.00	0.00	0.00	?
s26-3	1.00	1.00	0.00	3.00	3.00	0.00	1.00	1.00	0.00	0.00	?
s26-4	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s27-0	-	-	-	-	-	-	-	-	-	0.00	?
s27-1	2.00	2.00	1.00	2.00	2.00	0.00	1.00	1.00	0.00	0.00	?
s27-2	7.00	7.00	0.00	7.00	7.00	0.00	5.00	5.00	0.00	0.00	?
s27-3	5.00	5.00	1.00	1.00	1.00	0.00	3.00	3.00	0.00	0.00	?
s27-4	5.00	5.00	0.00	7.00	7.00	0.00	6.00	6.00	0.00	0.00	?
s28-0	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
s28-1	-	-	-	-	-	-	-	-	-	0.00	?
s28-2	4.00	4.00	0.00	6.00	6.00	0.00	3.00	3.00	0.00	0.00	?
s28-3	9.00	9.00	0.00	7.00	7.00	0.00	7.00	7.00	0.00	0.00	?
s28-4	7.00	7.00	0.00	4.00	4.00	0.00	1.00	1.00	0.00	0.00	?
s29-0	2.00	2.00	1.00	6.00	6.00	0.00	1.00	1.00	0.00	0.00	?
s29-1	3.00	3.00	0.00	5.00	5.00	0.00	7.00	7.00	0.00	0.00	?
s29-2	1.00	1.00	0.00	6.00	6.00	0.00	3.00	3.00	0.00	0.00	?
s29-3	7.00	7.00	0.00	4.00	4.00	0.00	1.00	1.00	0.00	0.00	?
s29-4	3.00	3.00	0.00	3.00	3.00	0.00	2.00	2.00	0.00	0.00	?
s3-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s3-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s30-0	1.00	1.00	0.00	6.00	6.00	0.00	1.00	1.00	0.00	0.00	?
s30-1	1.00	1.00	0.00	3.00	3.00	0.00	3.00	3.00	0.00	0.00	?
s30-2	3.00	3.00	0.00	4.00	4.00	0.00	1.00	1.00	0.00	0.00	?
s30-3	-	-	-	-	-	-	-	-	-	0.00	?
s30-4	1.00	1.00	0.00	5.00	5.00	0.00	1.00	1.00	0.00	0.00	-
s4-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s4-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s4-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s4-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s4-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s5-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s5-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s5-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s5-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s5-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s6-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s6-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s6-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s6-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s6-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s7-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s7-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s7-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s7-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s7-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s8-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s8-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s8-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s8-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s8-4	-	-	-	-	-	-	-	-	-	0.00	0.00
s9-0	-	-	-	-	-	-	-	-	-	0.00	0.00
s9-1	-	-	-	-	-	-	-	-	-	0.00	0.00
s9-2	-	-	-	-	-	-	-	-	-	0.00	0.00
s9-3	-	-	-	-	-	-	-	-	-	0.00	0.00
s9-4	-	-	-	-	-	-	-	-	-	0.00	0.00

G.18 movie

G.18.1 movie

Table G.22 – IDA* Iterations, movie, movie

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	-	-	-	-	-	-	-	-	-	0.00	0.00
prob03	-	-	-	-	-	-	-	-	-	0.00	0.00
prob04	-	-	-	-	-	-	-	-	-	0.00	0.00
prob05	-	-	-	-	-	-	-	-	-	0.00	0.00
prob06	-	-	-	-	-	-	-	-	-	0.00	0.00
prob07	-	-	-	-	-	-	-	-	-	0.00	0.00
prob08	-	-	-	-	-	-	-	-	-	0.00	0.00
prob09	-	-	-	-	-	-	-	-	-	0.00	0.00
prob10	-	-	-	-	-	-	-	-	-	0.00	0.00
prob11	-	-	-	-	-	-	-	-	-	0.00	0.00
prob12	-	-	-	-	-	-	-	-	-	0.00	0.00
prob13	-	-	-	-	-	-	-	-	-	0.00	0.00
prob14	-	-	-	-	-	-	-	-	-	0.00	0.00
prob15	-	-	-	-	-	-	-	-	-	0.00	0.00
prob16	-	-	-	-	-	-	-	-	-	0.00	0.00
prob17	-	-	-	-	-	-	-	-	-	0.00	0.00
prob18	-	-	-	-	-	-	-	-	-	0.00	0.00
prob19	-	-	-	-	-	-	-	-	-	0.00	0.00
prob20	-	-	-	-	-	-	-	-	-	0.00	0.00
prob21	-	-	-	-	-	-	-	-	-	0.00	0.00
prob22	-	-	-	-	-	-	-	-	-	0.00	0.00
prob23	-	-	-	-	-	-	-	-	-	0.00	0.00
prob24	-	-	-	-	-	-	-	-	-	0.00	0.00
prob25	-	-	-	-	-	-	-	-	-	0.00	0.00
prob26	-	-	-	-	-	-	-	-	-	0.00	0.00
prob27	-	-	-	-	-	-	-	-	-	0.00	0.00
prob28	-	-	-	-	-	-	-	-	-	0.00	0.00
prob29	-	-	-	-	-	-	-	-	-	0.00	0.00
prob30	-	-	-	-	-	-	-	-	-	0.00	0.00

G.19 mprime

G.19.1 mprime

Table G.23 – IDA* Iterations, mprime, mprime

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	11159.00	11159.00	0.00	8197.00	8197.00	0.00	2695.00	2695.00	0.00	0.00	0.00
prob03	-	-	-	-	-	-	-	-	-	0.00	0.00
prob04	-	-	-	-	-	-	-	-	-	0.00	0.00
prob05	48923.00	43457.00	4414.00	64885.00	21798.00	0.00	4925.00	2668.00	0.00	0.00	?
prob06	-	-	-	-	-	-	-	-	-	?	
prob07	-	-	-	-	-	-	-	-	-	0.00	0.00
prob08	1732.00	1732.00	0.00	1047.00	1047.00	0.00	174.00	174.00	0.00	0.00	?
prob09	1271.00	637.00	0.00	432.00	107.00	0.00	98.00	98.00	0.00	0.00	?
prob10	-	-	-	-	-	-	-	-	-	?	
prob11	-	-	-	-	-	-	-	-	-	0.00	0.00
prob12	-	-	-	-	-	-	-	-	-	0.00	0.00
prob13	-	-	-	-	-	-	-	-	-	?	
prob14	-	-	-	-	-	-	-	-	-	?	
prob15	-	-	-	-	-	-	-	-	-	?	
prob16	434.00	380.00	0.00	235.00	235.00	0.00	38.00	38.00	0.00	0.00	?
prob17	1.00	1.00	0.00	3.00	3.00	0.00	1.00	1.00	0.00	0.00	?
prob18	-	-	-	-	-	-	-	-	-	?	
prob19	-	-	-	-	-	-	-	-	-	?	
prob20	-	-	-	-	-	-	-	-	-	?	
prob21	-	-	-	-	-	-	-	-	-	0.00	0.00
prob22	-	-	-	-	-	-	-	-	-	?	
prob23	-	-	-	-	-	-	-	-	-	?	
prob24	-	-	-	-	-	-	-	-	-	?	
prob25	-	-	-	-	-	-	-	-	-	0.00	0.00
prob26	405.00	357.00	0.00	227.00	227.00	0.00	40.00	40.00	0.00	0.00	?
prob27	-	-	-	-	-	-	-	-	-	0.00	0.00
prob28	-	-	-	-	-	-	-	-	-	0.00	0.00
prob29	-	-	-	-	-	-	-	-	-	0.00	0.00
prob30	-	-	-	-	-	-	-	-	-	?	
prob31	-	-	-	-	-	-	-	-	-	0.00	0.00
prob32	-	-	-	-	-	-	-	-	-	0.00	0.00
prob33	-	-	-	-	-	-	-	-	-	?	
prob34	-	-	-	-	-	-	-	-	-	0.00	0.00
prob35	-	-	-	-	-	-	-	-	-	0.00	0.00

G.20 mystery

G.20.1 mystery

Table G.24 – IDA* Iterations, mystery, mystery

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	0.00	0.00
prob02	-	-	-	-	-	-	-	-	-	0.00	0.00
prob03	-	-	-	-	-	-	-	-	-	0.00	0.00
prob04	-	-	-	-	-	-	-	-	-	0.00	-
prob05	-	-	-	-	-	-	-	-	-	?	-
prob06	16658.00	3382.00	0.00	15570.00	12047.00	0.00	2160.00	2160.00	0.00	0.00	?
prob07	-	-	-	-	-	-	-	-	-	0.00	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	0.00	0.00
prob10	1178.00	1177.00	0.00	1183.00	1183.00	0.00	106.00	106.00	0.00	0.00	?
prob11	-	-	-	-	-	-	-	-	-	0.00	0.00
prob12	-	-	-	-	-	-	-	-	-	0.00	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	0.00	0.00
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	0.00	0.00
prob18	-	-	-	-	-	-	-	-	-	0.00	-
prob19	-	-	-	-	-	-	-	-	-	0.00	0.00
prob20	243.00	222.00	6.00	44.00	44.00	0.00	3.00	3.00	0.00	0.00	?
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	0.00	0.00
prob26	-	-	-	-	-	-	-	-	-	0.00	0.00
prob27	-	-	-	-	-	-	-	-	-	0.00	0.00
prob28	-	-	-	-	-	-	-	-	-	0.00	0.00
prob29	-	-	-	-	-	-	-	-	-	0.00	0.00
prob30	-	-	-	-	-	-	-	-	-	0.00	0.00

G.21 nomystery

G.21.1 nomystery-opt11-strips

Table G.25 – IDA* Iterations, nomystery, nomystery-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	324.00	345.00	124.00	132.00	12.00	0.00	21.00	14.00	0.00	0.00	?
p06	122.00	122.00	109.00	128.00	106.00	0.00	24.00	24.00	0.00	0.00	?
p07	4868.00	4598.00	2939.00	2956.00	20.00	0.00	154.00	27.00	0.00	0.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	299.00	286.00	123.00	131.00	12.00	0.00	24.00	14.00	0.00	0.00	?
p16	122.00	122.00	109.00	128.00	106.00	0.00	26.00	26.00	0.00	0.00	?
p17	9351.00	9096.00	6542.00	3007.00	20.00	0.00	117.00	14.00	0.00	0.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.22 openstacks

G.22.1 openstacks-opt08-strips

Table G.26 – IDA* Iterations, openstacks, openstacks-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	-	-	-	-	-	-	-	-	-	0.00	0.00
p19	-	-	-	-	-	-	-	-	-	0.00	0.00
p20	-	-	-	-	-	-	-	-	-	0.00	0.00
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	0.00	0.00
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

G.22.2 openstacks-opt11-strips

Table G.27 – IDA* Iterations, openstacks, openstacks-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	-	-	-	-	-	-	-	-	-	0.00	0.00
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	0.00	0.00

G.22.3 openstacks-opt14-strips

Table G.28 – IDA* Iterations, openstacks, openstacks-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p20_1	-	-	-	-	-	-	-	-	-	0.00	0.00
p20_2	-	-	-	-	-	-	-	-	-	0.00	0.00
p20_3	-	-	-	-	-	-	-	-	-	0.00	0.00
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p35_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	?	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	?	-

G.22.4 openstacks-strips

Table G.29 – IDA* Iterations, openstacks, openstacks-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	
p21	-	-	-	-	-	-	-	-	-	?	
p22	-	-	-	-	-	-	-	-	-	?	
p23	-	-	-	-	-	-	-	-	-	?	
p24	-	-	-	-	-	-	-	-	-	?	
p25	-	-	-	-	-	-	-	-	-	?	
p26	-	-	-	-	-	-	-	-	-	?	
p27	-	-	-	-	-	-	-	-	-	?	
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	

G.23 organic

G.23.1 organic-synthesis-opt18-strips

Table G.30 – IDA* Iterations, organic, organic-synthesis-opt18-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.23.2 organic-synthesis-split-opt18-strips

Table G.31 – IDA* Iterations, organic, organic-synthesis-split-opt18-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	4.00	1.00	1.00	2.00	2.00	3.00	1.00	1.00	0.00	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	4.00	4.00	10.00	19.00	16.00	8.00	8.00	1.00	0.00	0.00	?
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	8.00	4.00	54.00	211.00	209.00	252.00	241.00	1.00	0.00	0.00	?
p12	115.00	115.00	180.00	524.00	520.00	481.00	482.00	482.00	493.00	0.00	?
p13	5.00	4.00	14.00	31.00	14.00	0.00	12.00	1.00	0.00	0.00	?
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	7.00	6.00	7.00	31.00	26.00	4.00	1.00	1.00	0.00	0.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.24 parcprinter

G.24.1 parcprinter-08-strips

Table G.32 – IDA* Iterations, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	2.00	2.00	7.00	8.00	1.00	0.00	2.00	1.00	0.00	0.00	0.00
p05	17.00	10.00	7.00	15.00	1.00	0.00	4.00	1.00	0.00	0.00	?
p06	?	-	?	?	-	0.00	?	-	-	0.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	?	-	-	?	?	-	0.00	0.00	?
p15	?	-	-	?	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	?
p25	?	-	-	?	-	0.00	?	-	-	0.00	?
p26	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	?
p27	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	?
p28	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	?
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

G.24.2 parcprinter-opt11-strips

Table G.33 – IDA* Iterations, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	2.00	2.00	7.00	8.00	1.00	0.00	2.00	1.00	0.00	0.00	?
p05	-	-	-	?	-	0.00	?	-	0.00	0.00	0.00
p06	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p07	17.00	10.00	7.00	15.00	1.00	0.00	4.00	1.00	0.00	0.00	?
p08	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	?
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p11	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	?
p12	?	-	?	?	-	?	?	-	0.00	0.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	?

G.25 parking

G.25.1 parking-opt11-strips

Table G.34 – IDA* Iterations, parking, parking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
pfile03-011	1600.00	1207.00	386.00	1395.00	11.00	0.00	290.00	7.00	0.00	0.00	?
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	15214.00	14918.00	934.00	7512.00	16.00	0.00	1357.00	16.00	0.00	0.00	?
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-
pfile06-021	-	-	-	-	-	-	-	-	-	?	-
pfile06-022	-	-	-	-	-	-	-	-	-	?	-
pfile06-023	-	-	-	-	-	-	-	-	-	?	-
pfile06-024	-	-	-	-	-	-	-	-	-	?	-
pfile07-025	-	-	-	-	-	-	-	-	-	?	-
pfile07-026	-	-	-	-	-	-	-	-	-	?	-
pfile07-027	-	-	-	-	-	-	-	-	-	?	-
pfile07-028	-	-	-	-	-	-	-	-	-	?	-
pfile08-029	-	-	-	-	-	-	-	-	-	?	-
pfile08-030	-	-	-	-	-	-	-	-	-	?	-

G.25.2 parking-opt14-strips

Table G.35 – IDA* Iterations, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p_12_7-01	16871.00	13558.00	6413.00	13586.00	50.00	0.00	1678.00	53.00	0.00	0.00	?
p_12_7-02	34163.00	26627.00	13444.00	33280.00	4.00	0.00	4736.00	1.00	0.00	0.00	?
p_12_7-03	7148.00	6111.00	1995.00	6765.00	1.00	0.00	988.00	1.00	0.00	0.00	?
p_12_7-04	-	-	-	-	-	-	-	-	-	?	-
p_14_8-01	-	-	-	-	-	-	-	-	-	?	-
p_14_8-02	-	-	-	-	-	-	-	-	-	?	-
p_14_8-03	-	-	-	-	-	-	-	-	-	?	-
p_14_8-04	-	-	-	-	-	-	-	-	-	?	-
p_16_9-01	-	-	-	-	-	-	-	-	-	?	-
p_16_9-02	-	-	-	-	-	-	-	-	-	?	-
p_16_9-03	-	-	-	-	-	-	-	-	-	?	-
p_16_9-04	-	-	-	-	-	-	-	-	-	?	-
p_18_10-01	-	-	-	-	-	-	-	-	-	?	-
p_18_10-02	-	-	-	-	-	-	-	-	-	?	-
p_18_10-03	-	-	-	-	-	-	-	-	-	?	-
p_18_10-04	-	-	-	-	-	-	-	-	-	?	-
p_20_11-01	-	-	-	-	-	-	-	-	-	?	-
p_20_11-02	-	-	-	-	-	-	-	-	-	?	-
p_20_11-03	-	-	-	-	-	-	-	-	-	?	-
p_20_11-04	-	-	-	-	-	-	-	-	-	?	-

G.26 pathways

G.26.1 pathways

Table G.36 – IDA* Iterations, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	?	-	0.00	?	-	0.00	?	-	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

G.27 pegsol

G.27.1 pegsol-08-strips

Table G.37 – IDA* Iterations, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	-	-	-	-	-	-	-	-	-	0.00	0.00
p19	-	-	-	-	-	-	-	-	-	0.00	0.00
p20	-	-	-	-	-	-	-	-	-	0.00	0.00
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	-	-	-	-	-	-	-	-	-	0.00	0.00
p25	-	-	-	-	-	-	-	-	-	0.00	0.00
p26	-	-	-	-	-	-	-	-	-	0.00	0.00
p27	-	-	-	-	-	-	-	-	-	0.00	0.00
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

G.27.2 pegsol-opt11-strips

Table G.38 – IDA* Iterations, pegsol, pegsol-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.28 petri

G.28.1 petri-net-alignment-opt18-strips

Table G.39 – IDA* Iterations, petri, petri-net-alignment-opt18-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	?	-	?	1388.00	1388.00	?	482.00	1.00	0.00	0.00	?
p04	?	-	?	17061.00	12428.00	?	4016.00	1.00	0.00	0.00	?
p05	8483.00	7384.00	?	6181.00	2.00	0.00	1981.00	1.00	0.00	0.00	?
p06	?	-	?	4545.00	2.00	0.00	985.00	1.00	0.00	0.00	?
p07	?	-	?	2150.00	1.00	?	543.00	1.00	0.00	0.00	?
p08	?	-	?	?	-	?	32870.00	1.00	0.00	0.00	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	4685.00	3956.00	?	5012.00	1.00	0.00	1378.00	1.00	0.00	0.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.29 pipesworld

G.29.1 pipesworld-notankage

Table G.40 – IDA* Iterations, pipesworld, pipesworld-notankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	0.00	0.00
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	0.00	0.00
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	0.00	0.00
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	0.00	0.00
p10-net1-b14-g8	255264.00	240065.00	191612.00	287306.00	1.00	0.00	74224.00	1.00	0.00	0.00	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	0.00	0.00
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	0.00	0.00
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	0.00	0.00
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	0.00	0.00
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	0.00	0.00
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3	32808.00	27151.00	21192.00	34460.00	4.00	0.00	13444.00	4.00	0.00	0.00	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	?	
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2	14890.00	9904.00	5283.00	14645.00	2109.00	0.00	1919.00	1919.00	0.00	0.00	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	?	

G.29.2 pipesworld-tankage

Table G.41 – IDA* Iterations, pipesworld, pipesworld-tankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p07-net1-b12-g5-t80	2073.00	2020.00	0.00	815.00	815.00	0.00	208.00	208.00	0.00	0.00	?
p08-net1-b12-g7-t80	44657.00	44439.00	1132.00	32754.00	4941.00	0.00	8757.00	4628.00	0.00	0.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	0.00	0.00
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	
p13-net2-b12-g3-t70	97579.00	92009.00	63340.00	104703.00	23.00	0.00	35490.00	3.00	0.00	0.00	?
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	0.00	0.00
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	0.00	0.00
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	

G.29.3 pipesworld-tankage-nosplit

Table G.42 – IDA* Iterations, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	0.00	0.00
p07-net1-b12-g5-t80	2073.00	2020.00	0.00	815.00	815.00	0.00	208.00	208.00	0.00	0.00	?
p08-net1-b12-g7-t80	44657.00	44439.00	1132.00	32754.00	4941.00	0.00	8757.00	4628.00	0.00	0.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	-
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	?	-
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	-
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

G.30 psr

G.30.1 psr-small

Table G.43 – IDA* Iterations, psr, psr-small

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	0.00	0.00
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	0.00	0.00
p16-s29-n2-l5-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p17-s30-n2-l5-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p19-s33-n3-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p20-s34-n3-l2-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p21-s35-n3-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p22-s37-n3-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p23-s38-n3-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	0.00	0.00
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p31-s49-n4-l2-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p35-s57-n5-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p36-s65-n6-l2-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p38-s78-n3-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p40-s80-n3-l4-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	0.00	0.00
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	0.00	0.00
p44-s89-n4-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p46-s97-n5-l2-f90	-	-	-	-	-	-	-	-	-	0.00	0.00
p47-s98-n5-l2-f50	-	-	-	-	-	-	-	-	-	0.00	0.00
p48-s101-n5-l3-f30	?	-	?	2670375.00	31.00	0.00	710998.00	9.00	0.00	0.00	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	-
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	0.00	0.00

G.31 rovers

G.31.1 rovers

Table G.44 – IDA* Iterations, rovers, rovers

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	7307.00	6361.00	1853.00	8388.00	3.00	0.00	2210.00	3.00	0.00	0.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	9635.00	8567.00	1328.00	10044.00	5.00	0.00	1939.00	5.00	0.00	0.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-
p31	-	-	-	-	-	-	-	-	-	?	-
p32	-	-	-	-	-	-	-	-	-	?	-
p33	-	-	-	-	-	-	-	-	-	?	-
p34	-	-	-	-	-	-	-	-	-	?	-
p35	-	-	-	-	-	-	-	-	-	?	-
p36	-	-	-	-	-	-	-	-	-	?	-
p37	-	-	-	-	-	-	-	-	-	?	-
p38	-	-	-	-	-	-	-	-	-	?	-
p39	-	-	-	-	-	-	-	-	-	?	-
p40	-	-	-	-	-	-	-	-	-	?	-

G.32 satellite

G.32.1 satellite

Table G.45 – IDA* Iterations, satellite, satellite

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-pfile1	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-pfile2	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-pfile3	-	-	-	-	-	-	-	-	-	0.00	0.00
p04-pfile4	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-pfile5	552.00	543.00	0.00	281.00	281.00	0.00	9.00	9.00	0.00	0.00	?
p06-pfile6	3158.00	28.00	0.00	2715.00	1.00	0.00	958.00	1.00	0.00	0.00	?
p07-pfile7	103798.00	101655.00	516.00	59191.00	159.00	0.00	17926.00	181.00	0.00	0.00	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	?	-
p10-pfile10	-	-	-	-	-	-	-	-	-	?	-
p11-pfile11	-	-	-	-	-	-	-	-	-	?	-
p12-pfile12	-	-	-	-	-	-	-	-	-	?	-
p13-pfile13	-	-	-	-	-	-	-	-	-	?	-
p14-pfile14	-	-	-	-	-	-	-	-	-	?	-
p15-pfile15	-	-	-	-	-	-	-	-	-	?	-
p16-pfile16	-	-	-	-	-	-	-	-	-	?	-
p17-pfile17	-	-	-	-	-	-	-	-	-	?	-
p18-pfile18	-	-	-	-	-	-	-	-	-	?	-
p19-pfile19	-	-	-	-	-	-	-	-	-	?	-
p20-pfile20	-	-	-	-	-	-	-	-	-	?	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	?	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	?	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	?	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	?	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	?	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	?	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	?	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	?	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	?	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	?	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	?	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	?	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	?	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	?	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	?	-

G.33 scanalyzer

G.33.1 scanalyzer-08-strips

Table G.46 – IDA* Iterations, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	?	
p07	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p20	-	-	-	-	-	-	-	-	-	?	
p21	-	-	-	-	-	-	-	-	-	?	
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	-	-	-	-	-	-	-	-	-	0.00	0.00
p25	-	-	-	-	-	-	-	-	-	0.00	0.00
p26	-	-	-	-	-	-	-	-	-	0.00	0.00
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

G.33.2 scanalyzer-opt11-strips

Table G.47 – IDA* Iterations, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	?
p05	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p08	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p09	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p10	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.34 snake

G.34.1 snake-opt18-strips

Table G.48 – IDA* Iterations, snake, snake-opt18-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.35 sokoban

G.35.1 sokoban-opt08-strips

Table G.49 – IDA* Iterations, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	-	-	-	-	-	-	-	-	-	0.00	0.00
p19	-	-	-	-	-	-	-	-	-	0.00	0.00
p20	-	-	-	-	-	-	-	-	-	0.00	0.00
p21	262.00	262.00	262.00	382.00	382.00	380.00	153.00	153.00	152.00	0.00	?
p22	?	-	?	?	-	?	?	-	?	0.00	?
p23	?	-	?	?	-	?	?	-	?	0.00	?
p24	?	-	?	?	-	?	?	-	?	0.00	?
p25	?	-	?	?	-	?	?	-	?	0.00	?
p26	?	-	?	?	-	?	?	-	?	0.00	?
p27	?	-	?	25276.00	25276.00	?	8360.00	8360.00	4499.00	0.00	?
p28	?	-	?	?	-	?	?	-	?	0.00	?
p29	?	-	?	?	-	?	28.00	1.00	0.00	0.00	?
p30	-	-	-	-	-	-	-	-	-	?	?

G.35.2 sokoban-opt11-strips

Table G.50 – IDA* Iterations, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	-	-	-	-	-	-	-	-	-	0.00	0.00
p17	-	-	-	-	-	-	-	-	-	0.00	0.00
p18	262.00	262.00	262.00	382.00	382.00	380.00	153.00	153.00	152.00	0.00	?
p19	?	-	?	?	-	?	?	-	?	0.00	?
p20	?	-	?	?	-	?	?	-	?	0.00	?

G.36 spider

G.36.1 spider-opt18-strips

Table G.51 – IDA* Iterations, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	5954.00	5495.00	4679.00	7136.00	1.00	0.00	1297.00	58.00	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	0.00	0.00
p16	6005.00	5901.00	3730.00	6047.00	29.00	0.00	642.00	35.00	0.00	0.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.37 storage

G.37.1 storage

Table G.52 – IDA* Iterations, storage, storage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	84385.00	61138.00	27788.00	72802.00	4774.00	0.00	12671.00	5078.00	0.00	0.00	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

G.38 termes

G.38.1 termes-opt18-strips

Table G.53 – IDA* Iterations, termes, termes-opt18-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.39 tetris

G.39.1 tetris-opt14-strips

Table G.54 – IDA* Iterations, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-10	-	-	-	-	-	-	-	-	-	?	-
p01-6	-	-	-	-	-	-	-	-	-	?	-
p01-8	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-10	-	-	-	-	-	-	-	-	-	?	-
p02-4	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-6	-	-	-	-	-	-	-	-	-	0.00	0.00
p02-8	-	-	-	-	-	-	-	-	-	?	-
p03-10	-	-	-	-	-	-	-	-	-	?	-
p03-4	-	-	-	-	-	-	-	-	-	0.00	0.00
p03-6	-	-	-	-	-	-	-	-	-	?	-
p03-8	-	-	-	-	-	-	-	-	-	?	-
p04-10	-	-	-	-	-	-	-	-	-	?	-
p04-6	-	-	-	-	-	-	-	-	-	?	-
p04-8	-	-	-	-	-	-	-	-	-	?	-
p05-10	-	-	-	-	-	-	-	-	-	0.00	0.00
p05-6	-	-	-	-	-	-	-	-	-	?	-
p05-8	-	-	-	-	-	-	-	-	-		

G.40 tidybot

G.40.1 tidybot-opt11-strips

Table G.55 – IDA* Iterations, tidybot, tidybot-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	6457.00	6032.00	5312.00	7780.00	5687.00	758.00	1415.00	1.00	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	0.00	0.00
p10	-	-	-	-	-	-	-	-	-	0.00	0.00
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	15023.00	13067.00	11453.00	15505.00	14059.00	1496.00	2318.00	1.00	0.00	0.00	?
p13	5297.00	5070.00	4098.00	5696.00	4887.00	1184.00	1485.00	1.00	0.00	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	0.00	0.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.40.2 tidybot-opt14-strips

Table G.56 – IDA* Iterations, tidybot, tidybot-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	-
p02	2779.00	2705.00	2132.00	3138.00	2496.00	327.00	769.00	1.00	0.00	0.00	?
p03	2655.00	2473.00	2293.00	2937.00	2807.00	440.00	740.00	9.00	0.00	0.00	?
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	12220.00	11945.00	9837.00	12176.00	10574.00	1251.00	2495.00	1.00	0.00	0.00	?
p08	-	-	-	-	-	-	-	-	-	0.00	0.00
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	15023.00	13067.00	11453.00	15505.00	14059.00	1496.00	2318.00	1.00	0.00	0.00	?
p13	5297.00	5070.00	4098.00	5696.00	4887.00	1184.00	1485.00	1.00	0.00	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.41 tpp

G.41.1 tpp

Table G.57 – IDA* Iterations, tpp, tpp

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	?	-	?	?	-	0.00	?	-	0.00	0.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

G.42 transport

G.42.1 transport-opt08-strips

Table G.58 – IDA* Iterations, transport, transport-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	-	-	-	-	-	-	-	-	-	0.00	0.00
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

G.42.2 transport-opt11-strips

Table G.59 – IDA* Iterations, transport, transport-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.42.3 transport-opt14-strips

Table G.60 – IDA* Iterations, transport, transport-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	?	-	?	22361.00	169.00	0.00	2673.00	9.00	0.00	0.00	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	0.00	0.00
p14	?	-	?	?	-	0.00	9653.00	1.00	0.00	0.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.43 trucks

G.43.1 trucks-strips

Table G.61 – IDA* Iterations, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	381.00	379.00	198.00	261.00	5.00	0.00	78.00	1.00	0.00	0.00	?
p06	19277.00	19277.00	?	27239.00	27239.00	8632.00	8337.00	1.00	0.00	0.00	?
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	2969.00	2848.00	1021.00	1899.00	1.00	0.00	468.00	1.00	0.00	0.00	?
p09	12983.00	12938.00	5746.00	8767.00	2077.00	0.00	4249.00	4047.00	0.00	0.00	?
p10	64593.00	58282.00	?	40584.00	1.00	0.00	7565.00	1.00	0.00	0.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

G.44 visitall

G.44.1 visitall-opt11-strips

Table G.62 – IDA* Iterations, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
problem02-full	-	-	-	-	-	-	-	-	-	0.00	0.00
problem02-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem03-full	-	-	-	-	-	-	-	-	-	0.00	0.00
problem03-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem04-full	-	-	-	-	-	-	-	-	-	0.00	0.00
problem04-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem05-full	-	-	-	-	-	-	-	-	-	0.00	0.00
problem05-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem06-full	-	-	-	-	-	-	-	-	-	?	-
problem06-half	-	-	-	-	-	-	-	-	-	0.00	0.00
problem07-full	-	-	-	-	-	-	-	-	-	?	-
problem07-half	95351.00	95351.00	89703.00	94631.00	94631.00	15804.00	7202.00	3.00	0.00	0.00	?
problem08-full	-	-	-	-	-	-	-	-	-	?	-
problem08-half	-	-	-	-	-	-	-	-	-	?	-
problem09-full	-	-	-	-	-	-	-	-	-	?	-
problem09-half	-	-	-	-	-	-	-	-	-	?	-
problem10-full	-	-	-	-	-	-	-	-	-	?	-
problem10-half	-	-	-	-	-	-	-	-	-	?	-
problem11-full	-	-	-	-	-	-	-	-	-	?	-
problem11-half	-	-	-	-	-	-	-	-	-	?	-

G.44.2 visitall-opt14-strips

Table G.63 – IDA* Iterations, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p-05-10	-	-	-	-	-	-	-	-	-	?	-
p-05-5	-	-	-	-	-	-	-	-	-	0.00	0.00
p-05-6	-	-	-	-	-	-	-	-	-	0.00	0.00
p-05-7	25887.00	25571.00	23373.00	27962.00	27962.00	7756.00	3384.00	9.00	0.00	0.00	?
p-05-8	85324.00	85324.00	85408.00	85353.00	85353.00	18084.00	5779.00	1.00	0.00	0.00	?
p-05-9	-	-	-	-	-	-	-	-	-	?	-
p-1-10	-	-	-	-	-	-	-	-	-	?	-
p-1-11	-	-	-	-	-	-	-	-	-	?	-
p-1-12	-	-	-	-	-	-	-	-	-	?	-
p-1-13	-	-	-	-	-	-	-	-	-	?	-
p-1-14	-	-	-	-	-	-	-	-	-	?	-
p-1-15	-	-	-	-	-	-	-	-	-	?	-
p-1-16	-	-	-	-	-	-	-	-	-	?	-
p-1-17	-	-	-	-	-	-	-	-	-	?	-
p-1-18	-	-	-	-	-	-	-	-	-	?	-
p-1-5	-	-	-	-	-	-	-	-	-	0.00	0.00
p-1-6	-	-	-	-	-	-	-	-	-	?	-
p-1-7	-	-	-	-	-	-	-	-	-	?	-
p-1-8	-	-	-	-	-	-	-	-	-	?	-
p-1-9	-	-	-	-	-	-	-	-	-	?	-

G.45 woodworking

G.45.1 woodworking-opt08-strips

Table G.64 – IDA* Iterations, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	2.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p04	?	-	?	?	-	0.00	15271.00	2160.00	0.00	0.00	?
p05	257.00	108.00	0.00	134.00	134.00	0.00	31.00	31.00	0.00	0.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	30885.00	53.00	0.00	20245.00	1721.00	0.00	3687.00	1421.00	0.00	0.00	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	0.00	0.00
p12	-	-	-	-	-	-	-	-	-	0.00	0.00
p13	1557.00	1363.00	604.00	2850.00	13.00	0.00	667.00	13.00	0.00	0.00	?
p14	12815.00	7809.00	5798.00	7958.00	4525.00	0.00	1493.00	1493.00	0.00	0.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	680.00	82.00	0.00	796.00	463.00	0.00	88.00	88.00	0.00	0.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	0.00	0.00
p22	-	-	-	-	-	-	-	-	-	0.00	0.00
p23	-	-	-	-	-	-	-	-	-	0.00	0.00
p24	806.00	1.00	0.00	4170.00	1.00	0.00	973.00	1.00	0.00	0.00	?
p25	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

G.45.2 woodworking-opt11-strips

Table G.65 – IDA* Iterations, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	1557.00	1363.00	604.00	2850.00	13.00	0.00	667.00	13.00	0.00	0.00	?
p04	2.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p05	806.00	1.00	0.00	4170.00	1.00	0.00	973.00	1.00	0.00	0.00	?
p06	?	-	?	?	-	0.00	15271.00	2160.00	0.00	0.00	?
p07	12815.00	7809.00	5798.00	7958.00	4525.00	0.00	1493.00	1493.00	0.00	0.00	?
p08	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	?
p09	257.00	108.00	0.00	134.00	134.00	0.00	31.00	31.00	0.00	0.00	?
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	680.00	82.00	0.00	796.00	463.00	0.00	88.00	88.00	0.00	0.00	?
p16	30885.00	53.00	0.00	20245.00	1721.00	0.00	3687.00	1421.00	0.00	0.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

G.46 zenotravel

G.46.1 zenotravel

Table G.66 – IDA* Iterations, zenotravel, zenotravel

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	0.00	0.00
p02	-	-	-	-	-	-	-	-	-	0.00	0.00
p03	-	-	-	-	-	-	-	-	-	0.00	0.00
p04	-	-	-	-	-	-	-	-	-	0.00	0.00
p05	-	-	-	-	-	-	-	-	-	0.00	0.00
p06	-	-	-	-	-	-	-	-	-	0.00	0.00
p07	-	-	-	-	-	-	-	-	-	0.00	0.00
p08	100.00	93.00	0.00	44.00	44.00	0.00	1.00	1.00	0.00	0.00	?
p09	11433.00	11296.00	560.00	9182.00	1.00	0.00	2679.00	1.00	0.00	0.00	?
p10	5571.00	859.00	0.00	2387.00	36.00	0.00	268.00	39.00	0.00	0.00	?
p11	847.00	1.00	0.00	441.00	1.00	0.00	84.00	3.00	0.00	0.00	?
p12	37252.00	5408.00	0.00	18805.00	3171.00	0.00	4265.00	3281.00	0.00	0.00	?
p13	46491.00	16.00	0.00	28116.00	16.00	0.00	8862.00	6.00	0.00	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

APPENDIX H — OPEN SIZE PEAK

H.1 agricola

H.1.1 agricola-opt18-strips

Table H.1 – Open Size Peak, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	-	?
p02	-	-	-	-	-	-	-	-	-	-	?
p03	-	-	-	-	-	-	-	-	-	-	?
p04	-	-	-	-	-	-	-	-	-	-	?
p05	-	-	-	-	-	-	-	-	-	-	?
p06	-	-	-	-	-	-	-	-	-	-	?
p07	-	-	-	-	-	-	-	-	-	-	?
p08	-	-	-	-	-	-	-	-	-	-	?
p09	-	-	-	-	-	-	-	-	-	-	?
p10	-	-	-	-	-	-	-	-	-	-	?
p11	-	-	-	-	-	-	-	-	-	-	?
p12	-	-	-	-	-	-	-	-	-	-	?
p13	-	-	-	-	-	-	-	-	-	-	?
p14	-	-	-	-	-	-	-	-	-	-	?
p15	-	-	-	-	-	-	-	-	-	-	?
p16	-	-	-	-	-	-	-	-	-	-	?
p17	-	-	-	-	-	-	-	-	-	-	?
p18	-	-	-	-	-	-	-	-	-	-	?
p19	-	-	-	-	-	-	-	-	-	-	?
p20	-	-	-	-	-	-	-	-	-	-	?

H.2 airport

H.2.1 airport

Table H.2 – Open Size Peak, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01-airport1-p1	-	-	-	-	-	-	-	-	-	2.00	2.00
p02-airport1-p1	-	-	-	-	-	-	-	-	-	2.00	5.00
p03-airport1-p2	-	-	-	-	-	-	-	-	-	12.00	19.00
p04-airport1-p1	-	-	-	-	-	-	-	-	-	1.00	2.00
p05-airport2-p1	-	-	-	-	-	-	-	-	-	3.00	6.00
p06-airport2-p1	-	-	-	-	-	-	-	-	-	22.00	31.00
p07-airport2-p2	-	-	-	-	-	-	-	-	-	49.00	31.00
p08-airport2-p3	-	-	-	-	-	-	-	-	-	121.00	669.00
p09-airport2-p4	-	-	-	-	-	-	-	-	-	597.00	4160.00
p10-airport3-p1	-	-	-	-	-	-	-	-	-	1.00	4.00
p11-airport3-p1	-	-	-	-	-	-	-	-	-	3.00	6.00
p12-airport3-p2	-	-	-	-	-	-	-	-	-	21.00	53.00
p13-airport3-p2	-	-	-	-	-	-	-	-	-	43.00	44.00
p14-airport3-p3	-	-	-	-	-	-	-	-	-	61.00	918.00
p15-airport3-p3	-	-	-	-	-	-	-	-	-	184.00	875.00
p16-airport3-p4	-	-	-	-	-	-	-	-	-	489.00	25884.00
p17-airport3-p5	-	-	-	-	-	-	-	-	-	2375.00	200356.00
p18-airport3-p6	?	-	?	?	-	?	?	-	8435.00	14370.00	?
p19-airport3-p6	-	-	-	-	-	-	-	-	-	3838.00	196401.00
p20-airport3-p7	?	-	?	?	-	?	12926.00	12926.00	9632.00	14365.00	?
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	107.00	578.00
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	632.00	64095.00
p23-airport4halfMUC-p4	89.00	89.00	89.00	451.00	451.00	421.00	813.00	813.00	421.00	904.00	?
p24-airport4halfMUC-p4	55.00	55.00	55.00	277.00	277.00	279.00	500.00	500.00	500.00	557.00	?
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	?	-
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	?	-
p27-airport4halfMUC-p6	331.00	331.00	331.00	?	-	1513.00	2979.00	2979.00	1513.00	3310.00	?
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	?	-
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	?	-
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p33-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	?	-
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	?	-
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	?	-
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	115.00	1237.00
p37-airport5MUC-p3	?	-	?	?	-	?	?	-	5530.00	8739.00	?
p38-airport5MUC-p3	?	-	?	?	-	?	?	-	6290.00	9923.00	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p41-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	?	-
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	?	-
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	?	-
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	?	-

H.3 barman

H.3.1 barman-opt11-strips

Table H.3 – Open Size Peak, barman, barman-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
pfile01-001	-	-	-	-	-	-	-	-	-	255509.00	334751.00
pfile01-002	-	-	-	-	-	-	-	-	-	237365.00	327504.00
pfile01-003	-	-	-	-	-	-	-	-	-	246044.00	327504.00
pfile01-004	-	-	-	-	-	-	-	-	-	237342.00	327504.00
pfile02-005	-	-	-	-	-	-	-	-	-	?	-
pfile02-006	-	-	-	-	-	-	-	-	-	?	-
pfile02-007	-	-	-	-	-	-	-	-	-	?	-
pfile02-008	-	-	-	-	-	-	-	-	-	?	-
pfile03-009	-	-	-	-	-	-	-	-	-	?	-
pfile03-010	-	-	-	-	-	-	-	-	-	?	-
pfile03-011	-	-	-	-	-	-	-	-	-	?	-
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	-	-	-	-	-	-	-	-	-	?	-
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-

H.3.2 barman-opt14-strips

Table H.4 – Open Size Peak, barman, barman-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p435-1	-	-	-	-	-	-	-	-	-	?	-
p435-2	-	-	-	-	-	-	-	-	-	?	-
p435-3	-	-	-	-	-	-	-	-	-	?	-
p536-1	-	-	-	-	-	-	-	-	-	?	-
p536-2	-	-	-	-	-	-	-	-	-	?	-
p536-3	-	-	-	-	-	-	-	-	-	?	-
p638-1	-	-	-	-	-	-	-	-	-	?	-
p638-2	-	-	-	-	-	-	-	-	-	?	-
p638-3	-	-	-	-	-	-	-	-	-	?	-
p739-1	-	-	-	-	-	-	-	-	-	?	-
p739-2	-	-	-	-	-	-	-	-	-	?	-
p739-3	-	-	-	-	-	-	-	-	-	?	-
p839-1	-	-	-	-	-	-	-	-	-	?	-
p839-2	-	-	-	-	-	-	-	-	-	?	-

H.4 blocks

H.4.1 blocks

Table H.5 – Open Size Peak, blocks, blocks

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
probBLOCKS-10-0	34480.00	34480.00	34479.00	172399.00	172399.00	156624.00	310316.00	310316.00	156624.00	344798.00	?
probBLOCKS-10-1	5112.00	5112.00	5112.00	25559.00	25559.00	20770.00	46004.00	46004.00	20770.00	51118.00	?
probBLOCKS-10-2	15353.00	15353.00	15355.00	76771.00	76771.00	61510.00	138187.00	138187.00	61510.00	153541.00	?
probBLOCKS-11-0	10763.00	10763.00	10763.00	53813.00	53813.00	43752.00	96865.00	96865.00	43752.00	107628.00	?
probBLOCKS-11-1	12970.00	12970.00	12972.00	64857.00	64857.00	50574.00	116746.00	116746.00	50574.00	129718.00	?
probBLOCKS-11-2	8565.00	8565.00	8566.00	42826.00	42826.00	38310.00	77086.00	77086.00	38310.00	85651.00	?
probBLOCKS-12-0	11145.00	11145.00	11144.00	55721.00	55721.00	43931.00	100296.00	100296.00	43931.00	111441.00	?
probBLOCKS-12-1	1112.00	1112.00	1113.00	5562.00	5562.00	4417.00	10014.00	10014.00	4417.00	11126.00	?
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-14-0	23390.00	23390.00	23390.00	116946.00	116946.00	84689.00	210502.00	210502.00	84689.00	233891.00	?
probBLOCKS-14-1	46962.00	46962.00	46963.00	234810.00	234810.00	154822.00	422662.00	422662.00	154822.00	469624.00	?
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	8.00	36.00
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	7.00	22.00
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	8.00	23.00
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	14.00	165.00
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	19.00	169.00
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	31.00	162.00
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	18.00	1127.00
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	22.00	1452.00
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	258.00	1250.00
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	82.00	10270.00
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	1313.00	11018.00
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	210.00	10981.00
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	256.00	112778.00
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	1374.00	112616.00
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	109.00	114686.00
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	17214.00	1145436.00
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	453.00	1177353.00
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	1029.00	1144563.00

H.5 childsnack

H.5.1 childsnack-opt14-strips

Table H.6 – Open Size Peak, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
child-snack_pfile01	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile02	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile03	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile04	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile05	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile06	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile07	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile08	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile09	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile10	-	-	-	-	-	-	-	-	-	-	?
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	-	?

H.6 data

H.6.1 data-network-opt18-strips

Table H.7 – Open Size Peak, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	58.00	9615.00
p02	-	-	-	-	-	-	-	-	-	442.00	11347.00
p03	24.00	24.00	27.00	130.00	130.00	79.00	239.00	239.00	79.00	270.00	?
p04	?	-	?	33963.00	33963.00	13942.00	61136.00	61136.00	13942.00	67951.00	?
p05	181.00	181.00	181.00	905.00	905.00	452.00	1631.00	1631.00	452.00	1816.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	6304.00	55265.00
p10	-	-	?	28131.00	28131.00	14270.00	50635.00	50635.00	14270.00	56261.00	?
p11	?	-	-	-	-	-	-	-	-	103.00	13498.00
p12	13.00	13.00	14.00	72.00	72.00	30.00	132.00	132.00	30.00	146.00	?
p13	67.00	67.00	67.00	332.00	332.00	173.00	586.00	586.00	173.00	663.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	78.00	7185357.00
p16	-	-	-	-	-	-	-	-	-	?	-
p17	2032.00	2032.00	2033.00	10156.00	10156.00	3246.00	18281.00	18281.00	3246.00	20323.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.7 depot

H.7.1 depot

Table H.8 – Open Size Peak, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	47.00	98.00
p02	-	-	-	-	-	-	-	-	-	349.00	4797.00
p03	-	-	-	-	-	-	-	-	-	54910.00	460968.00
p04	?	-	70060.00	350296.00	350296.00	327701.00	630534.00	630534.00	327701.00	700595.00	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	42415.00	2676860.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	30660.00	30660.00	30673.00	153355.00	153355.00	105629.00	276054.00	276054.00	105629.00	306729.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	5396.00	5396.00	5396.00	26978.00	26978.00	13481.00	48553.00	48553.00	13481.00	53956.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-

H.8 driverlog

H.8.1 driverlog

Table H.9 – `Open` Size Peak, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	40.00	114.00
p02	-	-	-	-	-	-	-	-	-	10516.00	11008.00
p03	-	-	-	-	-	-	-	-	-	77.00	8621.00
p04	-	-	-	-	-	-	-	-	-	7129.00	266726.00
p05	-	-	-	-	-	-	-	-	-	4082.00	1848850.00
p06	-	-	-	-	-	-	-	-	-	1308.00	600778.00
p07	32.00	32.00	40.00	188.00	188.00	44.00	346.00	346.00	44.00	391.00	?
p08	79742.00	79742.00	79743.00	398705.00	398705.00	139780.00	717676.00	717676.00	139780.00	797424.00	?
p09	3266.00	3266.00	3268.00	16338.00	16338.00	9121.00	29410.00	29410.00	9121.00	32677.00	?
p10	57.00	57.00	59.00	293.00	293.00	80.00	526.00	526.00	80.00	585.00	?
p11	110.00	110.00	118.00	583.00	583.00	253.00	1056.00	1056.00	253.00	1173.00	?
p12	-	-	-	-	-	-	-	-	-	?	-
p13	16467.00	16467.00	16466.00	82336.00	82336.00	33188.00	148211.00	148211.00	33188.00	164680.00	?
p14	33756.00	33756.00	33756.00	168789.00	168789.00	56549.00	303823.00	303823.00	56549.00	337583.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.9 elevators

H.9.1 elevators-opt08-strips

Table H.10 – `Open` Size Peak, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	2562.00	60127.00
p02	-	-	-	-	-	-	-	-	-	737.00	99874.00
p03	-	-	-	-	-	-	-	-	-	24778.00	979247.00
p04	-	-	-	-	-	-	-	-	-	53781.00	3496589.00
p05	?	-	?	?	-	44206.00	?	-	44206.00	265005.00	?
p06	?	-	?	?	-	37872.00	?	-	37872.00	342302.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	?	-	?	?	-	343557.00	?	-	343557.00	3070654.00	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	5753.00	262261.00
p12	-	-	-	-	-	-	-	-	-	19804.00	740418.00
p13	-	-	-	-	-	-	-	-	-	28767.00	4126613.00
p14	?	-	8129.00	?	-	8129.00	?	-	8129.00	92479.00	?
p15	?	-	?	?	-	6199.00	?	-	6199.00	58857.00	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	?	-	?	?	-	619694.00	?	-	619694.00	4314203.00	?
p18	?	-	57981.00	?	-	57981.00	?	-	57981.00	830581.00	?
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	17882.00	439741.00
p22	-	-	-	-	-	-	-	-	-	198940.00	6121869.00
p23	?	-	?	?	-	160303.00	?	-	160303.00	1081636.00	?
p24	?	-	50436.00	?	-	50436.00	?	-	50436.00	607788.00	?
p25	?	-	?	?	-	30433.00	?	-	30433.00	245824.00	?
p26	?	-	26491.00	?	-	26491.00	?	-	26491.00	420913.00	?
p27	?	-	?	?	-	510777.00	?	-	510777.00	3840574.00	?
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.9.2 elevators-opt11-strips

Table H.11 – `Open` Size Peak, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	5753.00	262261.00
p02	-	-	-	-	-	-	-	-	-	17882.00	439741.00
p03	-	-	-	-	-	-	-	-	-	19804.00	740418.00
p04	-	-	-	-	-	-	-	-	-	24778.00	979247.00
p05	-	-	-	-	-	-	-	-	-	28767.00	4126613.00
p06	-	-	-	-	-	-	-	-	-	53781.00	3496589.00
p07	?	-	26491.00	?	-	26491.00	?	-	26491.00	420913.00	?
p08	?	-	?	?	-	44206.00	?	-	44206.00	265005.00	?
p09	-	-	-	-	-	-	-	-	-	198940.00	6121869.00
p10	?	-	8129.00	?	-	8129.00	?	-	8129.00	92479.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	?	-	?	?	-	37872.00	?	-	37872.00	342302.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	?	-	?	?	-	343557.00	?	-	343557.00	3070654.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	?	-	?	?	-	6199.00	?	-	6199.00	58857.00	?
p17	?	-	?	?	-	619694.00	?	-	619694.00	4314203.00	?
p18	?	-	57981.00	?	-	57981.00	?	-	57981.00	830581.00	?
p19	?	-	?	?	-	160303.00	?	-	160303.00	1081636.00	?
p20	?	-	50436.00	?	-	50436.00	?	-	50436.00	607788.00	?

H.10 floortile

H.10.1 floortile-opt11-strips

Table H.12 – Open Size Peak, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
opt-p01-001	847.00	847.00	848.00	4238.00	4238.00	2692.00	7627.00	7627.00	2692.00	8477.00	?
opt-p01-002	394.00	394.00	396.00	1978.00	1978.00	1053.00	3564.00	3564.00	1053.00	3960.00	?
opt-p02-003	41600.00	41600.00	?	208016.00	208016.00	208016.00	374428.00	374428.00	227574.00	416031.00	?
opt-p02-004	17794.00	17794.00	17795.00	88972.00	88972.00	83357.00	160151.00	160151.00	83357.00	177945.00	?
opt-p03-005	35598.00	35598.00	35597.00	177990.00	177990.00	147036.00	320382.00	320382.00	147036.00	355979.00	?
opt-p03-006	53073.00	53073.00	53072.00	265370.00	265370.00	238823.00	477661.00	477661.00	238823.00	530740.00	?
opt-p04-007	?	-	?	-	-	-	-	-	-	?	?
opt-p04-008	-	-	-	2407517.00	2407517.00	2301009.00	4333527.00	4333527.00	2301009.00	4815033.00	?
opt-p05-009	-	-	-	-	-	-	-	-	-	?	?
opt-p05-010	-	-	-	-	-	-	-	-	-	?	?
opt-p06-011	-	-	-	-	-	-	-	-	-	?	?
opt-p06-012	-	-	-	-	-	-	-	-	-	?	?
opt-p07-013	-	-	-	-	-	-	-	-	-	?	?
opt-p07-014	-	-	-	-	-	-	-	-	-	?	?
opt-p08-015	-	-	-	-	-	-	-	-	-	?	?
opt-p08-016	-	-	-	-	-	-	-	-	-	?	?
opt-p09-017	-	-	-	-	-	-	-	-	-	?	?
opt-p09-018	-	-	-	-	-	-	-	-	-	?	?
opt-p10-019	-	-	-	-	-	-	-	-	-	?	?
opt-p10-020	-	-	-	-	-	-	-	-	-	?	?

H.10.2 floortile-opt14-strips

Table H.13 – Open Size Peak, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-4-3-2	26948.00	26948.00	?	134743.00	134743.00	134744.00	242540.00	242540.00	135465.00	269488.00	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-3-2	94045.00	94045.00	?	470245.00	470245.00	463433.00	846444.00	846444.00	463433.00	940493.00	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-3-2	?	-	?	655325.00	655325.00	655326.00	1179586.00	1179586.00	686489.00	1310652.00	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-4-3-2	37491.00	37491.00	?	187454.00	187454.00	187451.00	337416.00	337416.00	194679.00	374907.00	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-3-2	?	-	?	680488.00	680488.00	680488.00	1224877.00	1224877.00	718006.00	1360975.00	-
p03-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	?	-

H.11 freecell

H.11.1 freecell

Table H.14 – Open Size Peak, freecell, freecell

| | 10% | | | 50% | | | 90% | | | 100% | |
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	988.00	1288.00
p02	-	-	-	-	-	-	-	-	-	31931.00	27864.00
p03	-	-	-	-	-	-	-	-	-	129975.00	194459.00
p04	-	-	-	-	-	-	-	-	-	150349.00	588150.00
p05	?	-	?	151103.00	151103.00	120018.00	271983.00	271983.00	120018.00	302206.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-2-1	-	-	-	-	-	-	-	-	-	2428.00	2041.00
probfreecell-2-2	-	-	-	-	-	-	-	-	-	1902.00	1842.00
probfreecell-2-3	-	-	-	-	-	-	-	-	-	1599.00	2070.00
probfreecell-2-4	-	-	-	-	-	-	-	-	-	1830.00	2302.00
probfreecell-2-5	-	-	-	-	-	-	-	-	-	2734.00	2017.00
probfreecell-3-1	-	-	-	-	-	-	-	-	-	229664.00	173347.00
probfreecell-3-2	-	-	-	-	-	-	-	-	-	171654.00	148878.00
probfreecell-3-3	-	-	-	-	-	-	-	-	-	166697.00	152323.00
probfreecell-3-4	-	-	-	-	-	-	-	-	-	167258.00	199340.00
probfreecell-3-5	-	-	-	-	-	-	-	-	-	217445.00	160281.00
probfreecell-4-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-5	-	-	-	-	-	-	-	-	-	?	-

H.12 ged

H.12.1 ged-opt14-strips

Table H.15 – Open Size Peak, ged, ged-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
d-1-2	-	-	-	-	-	-	-	-	-	6.00	64.00
d-1-3	-	-	-	-	-	-	-	-	-	46687.00	281906.00
d-1-4	-	-	-	-	-	-	-	-	-	6.00	64.00
d-1-8	-	-	-	-	-	-	-	-	-	154124.00	4170754.00
d-2-1	-	-	-	-	-	-	-	-	-	6.00	64.00
d-2-3	-	-	-	-	-	-	-	-	-	2014.00	30120.00
d-2-4	-	-	-	-	-	-	-	-	-	60.00	577.00
d-2-8	-	-	-	-	-	-	-	-	-	?	-
d-3-1	-	-	-	-	-	-	-	-	-	46691.00	281529.00
d-3-2	-	-	-	-	-	-	-	-	-	1993.00	30142.00
d-3-4	126587.00	126587.00	126587.00	632930.00	632930.00	374462.00	1139279.00	1139279.00	374462.00	1265869.00	?
d-4-2	-	-	-	-	-	-	-	-	-	60.00	577.00
d-4-3	126537.00	126537.00	126539.00	632691.00	632691.00	372566.00	1138851.00	1138851.00	372566.00	1265390.00	?
d-4-8	-	-	-	-	-	-	-	-	-	?	-
d-7-5	15410.00	15410.00	15414.00	77058.00	77058.00	77066.00	138712.00	138712.00	138718.00	154131.00	?
d-7-6	-	-	-	-	-	-	-	-	-	46546.00	645786.00
d-8-1	-	-	-	-	-	-	-	-	-	154124.00	4118622.00
d-8-2	-	-	-	-	-	-	-	-	-	?	-
d-8-4	-	-	-	-	-	-	-	-	-	?	-
d-8-9	-	-	-	-	-	-	-	-	-	?	-

H.13 grid

H.13.1 grid

Table H.16 – Open Size Peak, grid, grid

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	99.00	5394.00
prob02	11232.00	11232.00	11232.00	56156.00	56156.00	55857.00	101081.00	101081.00	55857.00	112312.00	?
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	-	-	-	-	-	-	-	-	-	?	-

H.14 gripper

H.14.1 gripper

Table H.17 – Open Size Peak, gripper, gripper

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
prob01	-	-	-	-	-	-	-	-	-	61.00	52.00
prob02	-	-	-	-	-	-	-	-	-	396.00	313.00
prob03	-	-	-	-	-	-	-	-	-	2439.00	1757.00
prob04	-	-	-	-	-	-	-	-	-	13573.00	9087.00
prob05	-	-	-	-	-	-	-	-	-	65779.00	46207.00
prob06	-	-	-	-	-	-	-	-	-	277767.00	218656.00
prob07	-	-	-	-	-	-	-	-	-	1356375.00	1062537.00
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-

H.15 hiking

H.15.1 hiking-opt14-strips

Table H.18 – Open Size Peak, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	203.00	152.00
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	841.00	531.00
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	2301.00	1502.00
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	10928.00	6633.00
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	20494.00	12007.00
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	10437.00	17450.00
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	279766.00	304451.00
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	906889.00	1101716.00
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	-	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	58060.00	99709.00
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	?	-

H.16 logistics

H.16.1 logistics00

Table H.19 – Open Size Peak, logistics, logistics00

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
probLOGISTICS-10-0	?	-	?	?	-	185606.00	?	-	185606.00	697636.00	?
probLOGISTICS-10-1	?	-	?	?	-	161383.00	?	-	161383.00	697326.00	?
probLOGISTICS-11-0	?	-	?	?	-	154083.00	?	-	154083.00	824083.00	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-12-0	?	-	?	?	-	114896.00	?	-	114896.00	652796.00	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	224.00	1607.00
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	375.00	1606.00
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	110.00	1156.00
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	1863.00	10310.00
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	464.00	7208.00
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	48.00	534.00
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	2463.00	68152.00
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	166.00	13305.00
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	1377.00	67617.00
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	1084.00	67617.00
probLOGISTICS-7-0	?	-	?	12344.00	12344.00	7512.00	22217.00	22217.00	7512.00	24689.00	?
probLOGISTICS-7-1	?	-	?	?	-	117405.00	273523.00	273523.00	117405.00	303914.00	?
probLOGISTICS-8-0	1169.00	1169.00	?	5859.00	5859.00	3243.00	10557.00	10557.00	3243.00	11730.00	?
probLOGISTICS-8-1	?	-	?	?	-	38964.00	105704.00	105704.00	38964.00	117448.00	?
probLOGISTICS-9-0	?	-	?	28874.00	28874.00	13771.00	51975.00	51975.00	13771.00	57750.00	?
probLOGISTICS-9-1	?	-	463.00	?	-	715.00	?	-	715.00	4641.00	?

H.16.2 logistics98

Table H.20 – Open Size Peak, logistics, logistics98

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
prob01	?	-	?	53681.00	53681.00	12651.00	96626.00	96626.00	12651.00	107367.00	?
prob02	-	-	-	-	-	-	-	-	-	?	-
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	43.00	43.00	42.00	203.00	203.00	57.00	376.00	376.00	57.00	432.00	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	-	-	-	-	-	-	-	-	-	?	-
prob27	-	-	-	-	-	-	-	-	-	?	-
prob28	-	-	-	-	-	-	-	-	-	?	-
prob29	-	-	-	-	-	-	-	-	-	?	-
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	570.00	86602.00
prob32	-	-	-	-	-	-	-	-	-	699.00	38989.00
prob33	?	-	?	?	-	92714.00	?	-	92714.00	750189.00	?
prob34	-	-	-	-	-	-	-	-	-	?	-
prob35	5113.00	5113.00	1672.00	25618.00	25618.00	1672.00	46120.00	46120.00	1672.00	51260.00	?

H.17 miconic

H.17.1 miconic

Table H.21 – Open Size Peak, miconic, miconic

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
s1-0	-	-	-	-	-	-	-	-	-	1.00	1.00
s1-1	-	-	-	-	-	-	-	-	-	2.00	2.00
s1-2	-	-	-	-	-	-	-	-	-	1.00	1.00
s1-3	-	-	-	-	-	-	-	-	-	1.00	1.00
s1-4	-	-	-	-	-	-	-	-	-	1.00	1.00
s10-0	-	-	-	-	-	-	-	-	-	473.00	1391122.00
s10-1	-	-	-	-	-	-	-	-	-	687.00	1422353.00
s10-2	-	-	-	-	-	-	-	-	-	775.00	1448684.00
s10-3	-	-	-	-	-	-	-	-	-	498.00	1375034.00
s10-4	-	-	-	-	-	-	-	-	-	405.00	1420834.00
s11-0	62.00	62.00	64.00	337.00	337.00	161.00	617.00	617.00	161.00	699.00	?
s11-1	62.00	62.00	63.00	305.00	305.00	122.00	556.00	556.00	122.00	638.00	?
s11-2	80.00	80.00	84.00	410.00	410.00	185.00	755.00	755.00	185.00	858.00	?
s11-3	?	?	?	?	?	18049.00	?	?	18049.00	125352.00	?
s11-4	60.00	60.00	77.00	376.00	376.00	142.00	691.00	691.00	142.00	774.00	?
s12-0	46.00	46.00	67.00	337.00	337.00	176.00	608.00	608.00	176.00	676.00	?
s12-1	67.00	67.00	84.00	439.00	439.00	187.00	797.00	797.00	187.00	886.00	?
s12-2	70.00	70.00	74.00	356.00	356.00	188.00	645.00	645.00	188.00	739.00	?
s12-3	91.00	91.00	93.00	468.00	468.00	172.00	854.00	854.00	172.00	969.00	?
s12-4	44.00	44.00	52.00	305.00	305.00	191.00	556.00	556.00	191.00	621.00	?
s13-0	97.00	97.00	96.00	483.00	483.00	220.00	874.00	874.00	220.00	971.00	?
s13-1	?	?	19834.00	?	?	19834.00	?	?	19834.00	267506.00	?
s13-2	66.00	66.00	86.00	404.00	404.00	254.00	760.00	760.00	254.00	852.00	?
s13-3	75.00	75.00	73.00	381.00	381.00	197.00	697.00	697.00	197.00	795.00	?
s13-4	78.00	78.00	97.00	488.00	488.00	174.00	905.00	905.00	174.00	1005.00	?
s14-0	82.00	82.00	92.00	450.00	450.00	202.00	821.00	821.00	202.00	924.00	?
s14-1	105.00	105.00	117.00	605.00	605.00	248.00	1086.00	1086.00	248.00	1217.00	?
s14-2	163.00	163.00	170.00	880.00	880.00	308.00	1561.00	1561.00	308.00	1759.00	?
s14-3	105.00	105.00	126.00	630.00	630.00	169.00	1125.00	1125.00	169.00	1259.00	?
s14-4	159.00	159.00	161.00	809.00	809.00	229.00	1475.00	1475.00	229.00	1659.00	?
s15-0	145.00	145.00	166.00	849.00	849.00	215.00	1537.00	1537.00	215.00	1710.00	?
s15-1	283.00	283.00	308.00	1532.00	1532.00	331.00	2752.00	2752.00	331.00	3071.00	?
s15-2	215.00	215.00	229.00	1139.00	1139.00	308.00	2083.00	2083.00	308.00	2323.00	?
s15-3	246.00	246.00	245.00	1222.00	1222.00	311.00	2196.00	2196.00	311.00	2457.00	?
s15-4	227.00	227.00	238.00	1180.00	1180.00	251.00	2119.00	2119.00	251.00	2379.00	?
s16-0	121.00	121.00	117.00	597.00	597.00	286.00	1065.00	1065.00	286.00	1215.00	?
s16-1	125.00	125.00	141.00	684.00	684.00	272.00	1256.00	1256.00	272.00	1408.00	?
s16-2	179.00	179.00	190.00	926.00	926.00	349.00	1684.00	1684.00	349.00	1891.00	?
s16-3	384.00	384.00	350.00	1969.00	1969.00	350.00	3556.00	3556.00	350.00	3959.00	?
s16-4	180.00	180.00	183.00	892.00	892.00	306.00	1647.00	1647.00	306.00	1829.00	?
s17-0	288.00	288.00	312.00	1549.00	1549.00	364.00	2784.00	2784.00	364.00	3113.00	?
s17-1	362.00	362.00	341.00	1788.00	1788.00	341.00	3252.00	3252.00	341.00	3620.00	?
s17-2	289.00	289.00	292.00	1443.00	1443.00	317.00	2637.00	2637.00	317.00	2931.00	?
s17-3	96.00	96.00	126.00	615.00	615.00	399.00	1126.00	1126.00	399.00	1254.00	?
s17-4	?	?	86750.00	?	?	86750.00	?	?	86750.00	1323310.00	?
s18-0	306.00	306.00	313.00	1576.00	1576.00	386.00	2840.00	2840.00	386.00	3183.00	?
s18-1	372.00	372.00	372.00	1864.00	1864.00	383.00	3351.00	3351.00	383.00	3732.00	?
s18-2	345.00	345.00	363.00	1819.00	1819.00	377.00	3265.00	3265.00	377.00	3647.00	?
s18-3	234.00	234.00	252.00	1251.00	1251.00	390.00	2240.00	2240.00	390.00	2516.00	?
s18-4	277.00	277.00	305.00	1518.00	1518.00	339.00	2730.00	2730.00	339.00	3045.00	?
s19-0	289.00	289.00	296.00	1494.00	1494.00	402.00	2716.00	2716.00	402.00	3045.00	?
s19-1	292.00	292.00	324.00	1604.00	1604.00	481.00	2894.00	2894.00	481.00	3254.00	?
s19-2	-	-	-	-	-	-	-	-	-	?	-
s19-3	321.00	321.00	323.00	1612.00	1612.00	459.00	2907.00	2907.00	459.00	3233.00	?
s19-4	292.00	292.00	315.00	1593.00	1593.00	429.00	2868.00	2868.00	429.00	3201.00	?
s2-0	-	-	-	-	-	-	-	-	-	10.00	10.00
s2-1	-	-	-	-	-	-	-	-	-	11.00	9.00
s2-2	-	-	-	-	-	-	-	-	-	11.00	10.00
s2-3	-	-	-	-	-	-	-	-	-	11.00	9.00
s2-4	-	-	-	-	-	-	-	-	-	12.00	10.00
s20-0	-	-	-	-	-	-	-	-	-	?	?
s20-1	221.00	221.00	221.00	1123.00	1123.00	429.00	2029.00	2029.00	429.00	2260.00	?
s20-2	1384.00	1384.00	667.00	6924.00	6924.00	667.00	12466.00	12466.00	667.00	13873.00	?
s20-3	569.00	569.00	457.00	2988.00	2988.00	457.00	5375.00	5375.00	457.00	5998.00	?
s20-4	344.00	344.00	372.00	1830.00	1830.00	440.00	3330.00	3330.00	440.00	3716.00	?
s21-0	518.00	518.00	546.00	2726.00	2726.00	559.00	4906.00	4906.00	559.00	5480.00	?
s21-1	364.00	364.00	377.00	1857.00	1857.00	493.00	3353.00	3353.00	493.00	3761.00	?
s21-2	205.00	205.00	224.00	1078.00	1078.00	451.00	1994.00	1994.00	451.00	2233.00	?
s21-3	358.00	358.00	386.00	1906.00	1906.00	440.00	3443.00	3443.00	440.00	3856.00	?
s21-4	286.00	286.00	321.00	1597.00	1597.00	503.00	2889.00	2889.00	503.00	3211.00	?
s22-0	705.00	705.00	629.00	3639.00	3639.00	629.00	6566.00	6566.00	629.00	7339.00	?
s22-1	635.00	635.00	529.00	3242.00	3242.00	529.00	5869.00	5869.00	529.00	6555.00	?
s22-2	795.00	795.00	595.00	4080.00	4080.00	595.00	7351.00	7351.00	595.00	8203.00	?
s22-3	237.00	237.00	264.00	1296.00	1296.00	604.00	2349.00	2349.00	604.00	2647.00	?
s22-4	414.00	414.00	424.00	2107.00	2107.00	526.00	3805.00	3805.00	526.00	4234.00	?
s23-0	476.00	476.00	503.00	2498.00	2498.00	598.00	4500.00	4500.00	598.00	5029.00	?
s23-1	-	-	-	-	-	-	-	-	-	?	-
s23-2	573.00	573.00	538.00	2915.00	2915.00	538.00	5268.00	5268.00	538.00	5901.00	?
s23-3	-	-	-	-	-	-	-	-	-	?	?
s23-4	526.00	526.00	556.00	2784.00	2784.00	556.00	5046.00	5046.00	556.00	5620.00	?
s24-0	599.00	599.00	615.00	3059.00	3059.00	650.00	5528.00	5528.00	650.00	6182.00	?
s24-1	645.00	645.00	638.00	3416.00	3416.00	638.00	6139.00	6139.00	638.00	6840.00	?
s24-2	630.00	630.00	627.00	3202.00	3202.00	627.00	5759.00	5759.00	627.00	6413.00	?
s24-3	415.00	415.00	452.00	2258.00	2258.00	646.00	4086.00	4086.00	646.00	4554.00	?
s24-4	685.00	685.00	635.00	3398.00	3398.00	635.00	6156.00	6156.00	635.00	6857.00	?
s25-0	1052.00	1052.00	741.00	5327.00	5327.00	741.00	9613.00	9613.00	741.00	10688.00	?
s25-1	1487.00	1487.00	964.00	7557.00	7557.00	964.00	13566.00	13566.00	964.00	15120.00	?
s25-2	-	-	-	-	-	-	-	-	-	?	?
s25-3	475.00	475.00	500.00	2547.00	2547.00	752.00	4611.00	4611.00	752.00	5141.00	?
s25-4	860.00	860.00	767.00	4464.00	4464.00	767.00	8055.00	8055.00	767.00	8989.00	?
s26-0	906.00	906.00	748.00	4684.00	4684.00	748.00	8504.00	8504.00	748.00	9458.00	?
s26-1	-	-	-	-	-	-	-	-	-	?	-
s26-2	540.00	540.00	559.00	2772.00	2772.00	870.00	4992.00	4992.00	870.00	5587.00	?
s26-3	1029.00	1029.00	902.00	5319.00	5319.00	902.00	9547.00	9547.00	902.00	10644.00	?
s26-4	436.00	436.00	455.00	2314.00	2314.00	614.00	4170.00	4170.00	614.00	4669.00	?
s27-0	-	-	-	-	-	-	-	-	-	?	?
s27-1	422.00	422.00	462.00	2324.00	2324.00	816.00	4135.00	4135.00	816.00	4650.00	?
s27-2	2405.00	2405.00	1053.00	12168.00	12168.00	1053.00	21911.00	21911.00	1053.00	24345.00	?
s27-3	771.00	771.00	806.00	3985.00	3985.00	809.00	7213.00	7213.00	809.00	8055.00	?
s27-4	1389.00	1389.00	924.00	6983.00	6983.00	924.00	12647.00	12647.00	924.00	14067.00	?
s28-0	706.00	706.00	690.00	3505.00	3505.00	932.00	6294.00	6294.00	932.00	7051.00	?
s28-1	-	-	-	-	-	-	-	-	-	?	?
s28-2	964.00	964.00	942.00	4811.00	4811.00	942.00	8649.00	8649.00	942.00	9632.00	?
s28-3	1462.00	1462.00	811.00	7517.00	7517.00	811.00	13592.00	13592.00	811.00	15132.00	?
s28-4	859.00	859.00	858.00	4512.00	4512.00	858.00	8097.00	8097.00	858.00	9033.00	?
s29-0	557.00	557.00	570.00	2848.00	2848.00	795.00	5086.00	5086.00	795.00	5705.00	?
s29-1	1358.00	1358.00	848.00	7015.00	7015.00	848.00	12683.00	12683.00	848.00	14102.00	?
s29-2	1237.00	1237.00	949.00	6226.00	6226.00	949.00	11174.00	11174.00	949.00	12473.00	?
s29-3	1068.00	1068.00	1001.00	5492.00	5492.00	1001.00	9921.00	9921.00	1001.00	11047.00	?
s29-4	1229.00	1229.00	1103.00	6211.00	6211.00	1103.00	11188.00	11188.00	1103.00	12490.00	?
s3-0	-	-	-	-	-	-	-	-	-	47.00	54.00
s3-1	-	-	-	-	-	-	-	-	-	47.00	53.00
s3-2	-	-	-	-	-	-	-	-	-	48.00	55.00
s3-3	-	-	-	-	-	-	-	-	-	27.00	55.00
s3-4	-	-	-	-	-	-	-	-	-	32.00	52.00
s30-0	987.00	987.00	842.00	5144.00	5144.00	842.00	9243.00	9243.00	842.00	10301.00	?
s30-1	1491.00	1491.00	1028.00	7478.00	7478.00	1028.00	13459.00	13459.00	1028.00	14998.00	?
s30-2	969.00	969.00	910.00	5027.00	5027.00	910.00	9096.00	9096.00	910.00	10156.00	?
s30-3	-	-	-	-	-	-	-	-	-	?	?
s30-4	1141.00	1141.00	1008.00	5791.00	5791.00	1008.00	10524.00	10524.00	1008.00	11694.00	?
s4-0	-	-	-	-	-	-	-	-	-	52.00	235.00
s4-1	-	-	-	-	-	-	-	-	-	51.00	227.00
s4-2	-	-	-	-	-	-	-	-	-	48.00	217.00
s4-3	-	-	-	-	-	-	-	-	-	60.00	221.00
s4-4	-	-	-	-	-	-	-	-	-	69.00	224.00
s5-0	-	-	-	-	-	-	-	-	-	95.00	1003.00
s5-1	-	-	-	-	-	-	-	-	-	94.00	968.00
s5-2	-	-	-	-	-	-	-	-	-	119.00	1084.00
s5-3	-	-	-	-	-	-	-	-	-	95.00	989.00
s5-4	-	-	-	-	-	-	-	-	-	86.00	960.00
s6-0	-	-	-	-	-	-	-	-	-	242.00	4485.00
s6-1	-	-	-	-	-	-	-	-	-	128.00	4394.00
s6-2	-	-	-	-	-	-	-	-	-	156.00	4363.00
s6-3	-	-	-	-	-	-	-	-	-	652.00	4483.00
s6-4	-	-	-	-	-	-	-	-	-	119.00	4205.00
s7-0	-	-	-	-	-	-	-	-	-	213.00	19054.00
s7-1	-	-	-	-	-	-	-	-	-	264.00	17943.00
s7-2	-	-	-	-	-	-	-	-	-	182.00	19055.00
s7-3	-	-	-	-	-	-	-	-	-	211.00	18739.00
s7-4	-	-	-	-	-	-	-	-	-	168.00	18457.00
s8-0	-	-	-	-	-	-	-	-	-	304.00	79011.00
s8-1	-	-	-	-	-	-	-	-	-	3144.00	78466.00
s8-2	-	-	-	-	-	-	-	-	-	417.00	82354.00
s8-3	-	-	-	-	-	-	-	-	-	404.00	75369.00
s8-4	-	-	-	-	-	-	-	-	-	380.00	78338.00
s9-0	-	-	-	-	-	-	-	-	-	594.00	328795.00
s9-1	-	-	-	-	-	-	-	-	-	467.00	331290.00
s9-2	-	-	-	-	-	-	-	-	-	477.00	331372.00
s9-3	-	-	-	-	-	-	-	-	-	294.00	316628.00
s9-4	-	-	-	-	-	-	-	-	-	5271.00	361591.00

H.18 movie

H.18.1 movie

Table H.22 – Open Size Peak, movie, movie

	10%			50%			90%			100%	
	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	22.00	45.00
prob02	-	-	-	-	-	-	-	-	-	22.00	45.00
prob03	-	-	-	-	-	-	-	-	-	22.00	45.00
prob04	-	-	-	-	-	-	-	-	-	22.00	45.00
prob05	-	-	-	-	-	-	-	-	-	22.00	45.00
prob06	-	-	-	-	-	-	-	-	-	22.00	45.00
prob07	-	-	-	-	-	-	-	-	-	22.00	45.00
prob08	-	-	-	-	-	-	-	-	-	22.00	45.00
prob09	-	-	-	-	-	-	-	-	-	22.00	45.00
prob10	-	-	-	-	-	-	-	-	-	22.00	45.00
prob11	-	-	-	-	-	-	-	-	-	22.00	45.00
prob12	-	-	-	-	-	-	-	-	-	22.00	45.00
prob13	-	-	-	-	-	-	-	-	-	22.00	45.00
prob14	-	-	-	-	-	-	-	-	-	22.00	45.00
prob15	-	-	-	-	-	-	-	-	-	22.00	45.00
prob16	-	-	-	-	-	-	-	-	-	22.00	45.00
prob17	-	-	-	-	-	-	-	-	-	22.00	45.00
prob18	-	-	-	-	-	-	-	-	-	22.00	45.00
prob19	-	-	-	-	-	-	-	-	-	22.00	45.00
prob20	-	-	-	-	-	-	-	-	-	22.00	45.00
prob21	-	-	-	-	-	-	-	-	-	22.00	45.00
prob22	-	-	-	-	-	-	-	-	-	22.00	45.00
prob23	-	-	-	-	-	-	-	-	-	22.00	45.00
prob24	-	-	-	-	-	-	-	-	-	22.00	45.00
prob25	-	-	-	-	-	-	-	-	-	22.00	45.00
prob26	-	-	-	-	-	-	-	-	-	22.00	45.00
prob27	-	-	-	-	-	-	-	-	-	22.00	45.00
prob28	-	-	-	-	-	-	-	-	-	22.00	45.00
prob29	-	-	-	-	-	-	-	-	-	22.00	45.00
prob30	-	-	-	-	-	-	-	-	-	22.00	45.00

H.19 mprime

H.19.1 mprime

Table H.23 – Open Size Peak, mprime, mprime

	10%			50%			90%			100%	
	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}*\uparrow$	PEA^*_{+IDA}	A^*	$Blind\ A^*$
prob01	12321.00	12321.00	2927.00	61610.00	61610.00	2927.00	110900.00	110900.00	2927.00	162.00	6970.00
prob02	-	-	-	-	-	-	-	-	-	123235.00	?
prob03	-	-	-	-	-	-	-	-	-	564.00	128858.00
prob04	-	-	-	-	-	-	-	-	-	5223.00	1266901.00
prob05	62702.00	62702.00	62710.00	313551.00	313551.00	89979.00	564391.00	564391.00	89979.00	627102.00	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	181.00	21731.00
prob08	7462.00	7462.00	1115.00	37689.00	37689.00	1115.00	67817.00	67817.00	1115.00	75405.00	?
prob09	1214.00	1214.00	842.00	6106.00	6106.00	842.00	11020.00	11020.00	842.00	12254.00	?
prob10	-	-	-	-	-	-	-	-	-	?	?
prob11	-	-	-	-	-	-	-	-	-	2199.00	383609.00
prob12	-	-	-	-	-	-	-	-	-	4226.00	775953.00
prob13	-	-	-	-	-	-	-	-	-	?	?
prob14	-	-	-	-	-	-	-	-	-	?	?
prob15	-	-	-	-	-	-	-	-	-	?	?
prob16	1249.00	1249.00	554.00	6271.00	6271.00	554.00	11310.00	11310.00	554.00	12576.00	?
prob17	1.00	1.00	9.00	678.00	678.00	9.00	1517.00	1517.00	9.00	1733.00	?
prob18	-	-	-	-	-	-	-	-	-	?	?
prob19	-	-	-	-	-	-	-	-	-	?	?
prob20	-	-	-	-	-	-	-	-	-	?	?
prob21	-	-	-	-	-	-	-	-	-	105765.00	7105887.00
prob22	-	-	-	-	-	-	-	-	-	?	?
prob23	-	-	-	-	-	-	-	-	-	?	?
prob24	-	-	-	-	-	-	-	-	-	?	?
prob25	-	-	-	-	-	-	-	-	-	49.00	882.00
prob26	1093.00	1093.00	548.00	5499.00	5499.00	548.00	9901.00	9901.00	548.00	11006.00	?
prob27	-	-	-	-	-	-	-	-	-	410.00	374988.00
prob28	-	-	-	-	-	-	-	-	-	561.00	23109.00
prob29	-	-	-	-	-	-	-	-	-	487.00	56849.00
prob30	-	-	-	-	-	-	-	-	-	?	?
prob31	-	-	-	-	-	-	-	-	-	401.00	36935.00
prob32	-	-	-	-	-	-	-	-	-	1105.00	259697.00
prob33	-	-	-	-	-	-	-	-	-	?	?
prob34	-	-	-	-	-	-	-	-	-	432.00	51914.00
prob35	-	-	-	-	-	-	-	-	-	385.00	17930.00

H.20 mystery

H.20.1 mystery

Table H.24 – $\texttt{Open}$ Size Peak, mystery, mystery

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	15.00	58.00
prob02	-	-	-	-	-	-	-	-	-	1203.00	5027510.00
prob03	-	-	-	-	-	-	-	-	-	49.00	1970.00
prob04	-	-	-	-	-	-	-	-	-	956427.00	-
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	28450.00	28450.00	16506.00	142267.00	142267.00	16506.00	256077.00	256077.00	16506.00	284536.00	?
prob07	-	-	-	-	-	-	-	-	-	0.00	-
prob08	-	-	-	-	-	-	-	-	-	?	?
prob09	-	-	-	-	-	-	-	-	-	415.00	735777.00
prob10	2711.00	2711.00	1787.00	13629.00	13629.00	1787.00	24558.00	24558.00	1787.00	27286.00	?
prob11	-	-	-	-	-	-	-	-	-	24.00	1327.00
prob12	-	-	-	-	-	-	-	-	-	162093.00	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	?
prob15	-	-	-	-	-	-	-	-	-	6814.00	4589180.00
prob16	-	-	-	-	-	-	-	-	-	?	?
prob17	-	-	-	-	-	-	-	-	-	157.00	50714.00
prob18	-	-	-	-	-	-	-	-	-	0.00	-
prob19	-	-	-	-	-	-	-	-	-	2391.00	565074.00
prob20	229.00	229.00	227.00	1243.00	1243.00	379.00	2228.00	2228.00	379.00	2487.00	?
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	21.00	119.00
prob26	-	-	-	-	-	-	-	-	-	353.00	37108.00
prob27	-	-	-	-	-	-	-	-	-	86.00	8481.00
prob28	-	-	-	-	-	-	-	-	-	23.00	1257.00
prob29	-	-	-	-	-	-	-	-	-	32.00	270.00
prob30	-	-	-	-	-	-	-	-	-	33383.00	3605235.00

H.21 nomystery

H.21.1 nomystery-opt11-strips

Table H.25 – $\texttt{Open}$ Size Peak, nomystery, nomystery-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	87.00	658.00
p02	-	-	-	-	-	-	-	-	-	169.00	24145.00
p03	-	-	-	-	-	-	-	-	-	150.00	47799.00
p04	-	-	-	-	-	-	-	-	-	966.00	2879403.00
p05	579.00	579.00	580.00	2896.00	2896.00	1825.00	5214.00	5214.00	1825.00	5793.00	?
p06	350.00	350.00	351.00	1760.00	1760.00	821.00	3168.00	3168.00	821.00	3521.00	?
p07	10692.00	10692.00	10692.00	53458.00	53458.00	30915.00	96225.00	96225.00	30915.00	106918.00	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	77.00	252.00
p12	-	-	-	-	-	-	-	-	-	145.00	3515.00
p13	-	-	-	-	-	-	-	-	-	123.00	7016.00
p14	-	-	-	-	-	-	-	-	-	1402.00	332577.00
p15	574.00	574.00	578.00	2889.00	2889.00	1825.00	5200.00	5200.00	1825.00	5778.00	?
p16	350.00	350.00	351.00	1756.00	1756.00	820.00	3160.00	3160.00	820.00	3514.00	?
p17	9513.00	9513.00	9512.00	47562.00	47562.00	27493.00	85614.00	85614.00	27493.00	95129.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.22 openstacks

H.22.1 openstacks-opt08-strips

Table H.26 – Open Size Peak, openstacks, openstacks-opt08-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	36.00	34.00
p02	-	-	-	-	-	-	-	-	-	121.00	133.00
p03	-	-	-	-	-	-	-	-	-	295.00	293.00
p04	-	-	-	-	-	-	-	-	-	1824.00	1736.00
p05	-	-	-	-	-	-	-	-	-	3812.00	3676.00
p06	-	-	-	-	-	-	-	-	-	106.00	104.00
p07	-	-	-	-	-	-	-	-	-	47656.00	45345.00
p08	-	-	-	-	-	-	-	-	-	51956.00	49097.00
p09	-	-	-	-	-	-	-	-	-	2841.00	3059.00
p10	-	-	-	-	-	-	-	-	-	4304.00	4622.00
p11	-	-	-	-	-	-	-	-	-	89328.00	86684.00
p12	-	-	-	-	-	-	-	-	-	6528.00	6884.00
p13	-	-	-	-	-	-	-	-	-	375968.00	369708.00
p14	-	-	-	-	-	-	-	-	-	147760.00	148822.00
p15	-	-	-	-	-	-	-	-	-	651968.00	637036.00
p16	-	-	-	-	-	-	-	-	-	321952.00	328105.00
p17	-	-	-	-	-	-	-	-	-	394912.00	395676.00
p18	-	-	-	-	-	-	-	-	-	13802.00	16014.00
p19	-	-	-	-	-	-	-	-	-	721376.00	730099.00
p20	-	-	-	-	-	-	-	-	-	4060672.00	4026910.00
p21	-	-	-	-	-	-	-	-	-	408285.00	454218.00
p22	-	-	-	-	-	-	-	-	-	123184.00	124898.00
p23	-	-	-	-	-	-	-	-	-	1958528.00	1999760.00
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	1154400.00	1198704.00
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.22.2 openstacks-opt11-strips

Table H.27 – Open Size Peak, openstacks, openstacks-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	106.00	104.00
p02	-	-	-	-	-	-	-	-	-	47656.00	45345.00
p03	-	-	-	-	-	-	-	-	-	51956.00	49097.00
p04	-	-	-	-	-	-	-	-	-	2841.00	3059.00
p05	-	-	-	-	-	-	-	-	-	4304.00	4622.00
p06	-	-	-	-	-	-	-	-	-	89328.00	86684.00
p07	-	-	-	-	-	-	-	-	-	6528.00	6884.00
p08	-	-	-	-	-	-	-	-	-	375968.00	369708.00
p09	-	-	-	-	-	-	-	-	-	147760.00	148822.00
p10	-	-	-	-	-	-	-	-	-	123184.00	124898.00
p11	-	-	-	-	-	-	-	-	-	651968.00	637036.00
p12	-	-	-	-	-	-	-	-	-	321952.00	328105.00
p13	-	-	-	-	-	-	-	-	-	394912.00	395676.00
p14	-	-	-	-	-	-	-	-	-	13802.00	16014.00
p15	-	-	-	-	-	-	-	-	-	721376.00	730099.00
p16	-	-	-	-	-	-	-	-	-	408285.00	454218.00
p17	-	-	-	-	-	-	-	-	-	4060672.00	4026910.00
p18	-	-	-	-	-	-	-	-	-	1958528.00	1999760.00
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	1154400.00	1198704.00

H.22.3 openstacks-opt14-strips

Table H.28 – Open Size Peak, openstacks, openstacks-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p20_1	-	-	-	-	-	-	-	-	-	755584.00	769544.00
p20_2	-	-	-	-	-	-	-	-	-	1265024.00	1271180.00
p20_3	-	-	-	-	-	-	-	-	-	78556.00	68338.00
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p35_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	?	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	?	-

H.22.4 openstacks-strips

Table H.29 – Open Size Peak, openstacks, openstacks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	1046.00	406.00
p02	-	-	-	-	-	-	-	-	-	1241.00	499.00
p03	-	-	-	-	-	-	-	-	-	1070.00	406.00
p04	-	-	-	-	-	-	-	-	-	1054.00	406.00
p05	-	-	-	-	-	-	-	-	-	1067.00	406.00
p06	-	-	-	-	-	-	-	-	-	105918.00	38546.00
p07	-	-	-	-	-	-	-	-	-	96143.00	35171.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.23 organic

H.23.1 organic-synthesis-opt18-strips

Table H.30 – Open Size Peak, organic, organic-synthesis-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	1.00	1.00
p02	-	-	-	-	-	-	-	-	-	1.00	2.00
p03	-	-	-	-	-	-	-	-	-	1.00	8.00
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	2.00	5.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	1.00	2.00
p10	-	-	-	-	-	-	-	-	-	1.00	2.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	2.00	10.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.23.2 organic-synthesis-split-opt18-strips

Table H.31 – Open Size Peak, organic, organic-synthesis-split-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	3.00	1813.00
p02	-	-	-	-	-	-	-	-	-	5.00	3032.00
p03	-	-	-	-	-	-	-	-	-	11.00	13005.00
p04	-	-	-	-	-	-	-	-	-	10.00	663922.00
p05	-	-	-	-	-	-	-	-	-	6.00	71336.00
p06	1.00	1.00	2.00	8.00	8.00	9.00	16.00	16.00	15.00	17.00	?
p07	-	-	-	-	-	-	-	-	-	4.00	56.00
p08	5.00	5.00	9.00	43.00	43.00	43.00	77.00	77.00	55.00	85.00	?
p09	-	-	-	-	-	-	-	-	-	8.00	9034.00
p10	-	-	-	-	-	-	-	-	-	11.00	13166.00
p11	1.00	1.00	27.00	147.00	147.00	148.00	266.00	266.00	208.00	295.00	?
p12	29.00	29.00	29.00	149.00	149.00	152.00	273.00	273.00	273.00	303.00	?
p13	1.00	1.00	5.00	23.00	23.00	20.00	39.00	39.00	20.00	45.00	?
p14	-	-	-	-	-	-	-	-	-	14.00	75988.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	1.00	1.00	2.00	25.00	25.00	25.00	45.00	45.00	39.00	49.00	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.24 parcprinter

H.24.1 parcprinter-08-strips

Table H.32 – Open Size Peak, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	A^*_{+IDA}*	A^*_{+IDA}*↑	PEA^*_{+IDA}*	A^*_{+IDA}*	A^*_{+IDA}*↑	PEA^*_{+IDA}*	A^*_{+IDA}*	A^*_{+IDA}*↑	PEA^*_{+IDA}*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	2.00	6.00
p02	-	-	-	-	-	-	-	-	-	12.00	358.00
p03	-	-	-	-	-	-	-	-	-	25.00	744.00
p04	8.00	8.00	11.00	51.00	51.00	38.00	97.00	97.00	38.00	107.00	?
p05	88.00	88.00	87.00	439.00	439.00	256.00	793.00	793.00	256.00	883.00	?
p06	?	-	?	?	-	49428.00	?	-	49428.00	118871.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	7.00	12.00
p12	-	-	-	-	-	-	-	-	-	270.00	2462.00
p13	-	-	-	-	-	-	-	-	-	8514.00	834366.00
p14	?	-	?	?	-	?	?	-	179264.00	334424.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	6.00	11.00
p22	-	-	-	-	-	-	-	-	-	18.00	1936.00
p23	-	-	-	-	-	-	-	-	-	37.00	330865.00
p24	4.00	4.00	4.00	32.00	32.00	31.00	57.00	57.00	57.00	63.00	?
p25	?	-	?	?	-	21524.00	?	-	21524.00	77228.00	?
p26	12.00	12.00	12.00	64.00	64.00	68.00	122.00	122.00	123.00	136.00	?
p27	14.00	14.00	14.00	92.00	92.00	90.00	164.00	164.00	164.00	183.00	?
p28	24.00	24.00	24.00	119.00	119.00	117.00	214.00	214.00	214.00	237.00	?
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.24.2 parcprinter-opt11-strips

Table H.33 – Open Size Peak, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	A^*_{+IDA}*	A^*_{+IDA}*↑	PEA^*_{+IDA}*	A^*_{+IDA}*	A^*_{+IDA}*↑	PEA^*_{+IDA}*	A^*_{+IDA}*	A^*_{+IDA}*↑	PEA^*_{+IDA}*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	18.00	1936.00
p02	-	-	-	-	-	-	-	-	-	12.00	358.00
p03	-	-	-	-	-	-	-	-	-	270.00	2462.00
p04	8.00	8.00	11.00	51.00	51.00	38.00	97.00	97.00	38.00	107.00	?
p05	-	-	-	-	-	-	-	-	-	37.00	330865.00
p06	?	-	?	?	-	49428.00	?	-	49428.00	118871.00	?
p07	88.00	88.00	87.00	439.00	439.00	256.00	793.00	793.00	256.00	883.00	?
p08	4.00	4.00	4.00	32.00	32.00	31.00	57.00	57.00	57.00	63.00	?
p09	-	-	-	-	-	-	-	-	-	8514.00	834366.00
p10	?	-	?	?	-	21524.00	?	-	21524.00	77228.00	?
p11	12.00	12.00	12.00	64.00	64.00	68.00	122.00	122.00	123.00	136.00	?
p12	?	-	?	?	-	?	?	-	179264.00	334424.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	14.00	14.00	14.00	92.00	92.00	90.00	164.00	164.00	164.00	183.00	?

H.25 parking

H.25.1 parking-opt11-strips

Table H.34 – Open Size Peak, parking, parking-opt11-strips

	10%			50%			90%			100%	
	A^*_{+IDA}*	A^*_{+IDA}*↑	PEA^*_{+IDA}*	A^*_{+IDA}*	A^*_{+IDA}*↑	PEA^*_{+IDA}*	A^*_{+IDA}*	A^*_{+IDA}*↑	PEA^*_{+IDA}*	A^*	Blind A^*
pfile03-011	1718.00	1718.00	1717.00	8583.00	8583.00	3121.00	15456.00	15456.00	3121.00	17174.00	?
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	26379.00	26379.00	26383.00	131914.00	131914.00	39077.00	237445.00	237445.00	39077.00	263830.00	?
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-
pfile06-021	-	-	-	-	-	-	-	-	-	?	-
pfile06-022	-	-	-	-	-	-	-	-	-	?	-
pfile06-023	-	-	-	-	-	-	-	-	-	?	-
pfile06-024	-	-	-	-	-	-	-	-	-	?	-
pfile07-025	-	-	-	-	-	-	-	-	-	?	-
pfile07-026	-	-	-	-	-	-	-	-	-	?	-
pfile07-027	-	-	-	-	-	-	-	-	-	?	-
pfile07-028	-	-	-	-	-	-	-	-	-	?	-
pfile08-029	-	-	-	-	-	-	-	-	-	?	-
pfile08-030	-	-	-	-	-	-	-	-	-	?	-

H.25.2 parking-opt14-strips

Table H.35 – Open Size Peak, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p_12_7-01	21321.00	21321.00	21327.00	106640.00	106640.00	48919.00	191950.00	191950.00	48919.00	213279.00	?
p_12_7-02	43144.00	43144.00	43147.00	215735.00	215735.00	99644.00	388322.00	388322.00	99644.00	431469.00	?
p_12_7-03	11621.00	11621.00	11621.00	58099.00	58099.00	23149.00	104584.00	104584.00	23149.00	116210.00	?
p_12_7-04	-	-	-	-	-	-	-	-	-	?	
p_14_8-01	-	-	-	-	-	-	-	-	-	?	
p_14_8-02	-	-	-	-	-	-	-	-	-	?	
p_14_8-03	-	-	-	-	-	-	-	-	-	?	
p_14_8-04	-	-	-	-	-	-	-	-	-	?	
p_16_9-01	-	-	-	-	-	-	-	-	-	?	
p_16_9-02	-	-	-	-	-	-	-	-	-	?	
p_16_9-03	-	-	-	-	-	-	-	-	-	?	
p_16_9-04	-	-	-	-	-	-	-	-	-	?	
p_18_10-01	-	-	-	-	-	-	-	-	-	?	
p_18_10-02	-	-	-	-	-	-	-	-	-	?	
p_18_10-03	-	-	-	-	-	-	-	-	-	?	
p_18_10-04	-	-	-	-	-	-	-	-	-	?	
p_20_11-01	-	-	-	-	-	-	-	-	-	?	
p_20_11-02	-	-	-	-	-	-	-	-	-	?	
p_20_11-03	-	-	-	-	-	-	-	-	-	?	
p_20_11-04	-	-	-	-	-	-	-	-	-	?	

H.26 pathways

H.26.1 pathways

Table H.36 – Open Size Peak, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	89.00	737.00
p02	-	-	-	-	-	-	-	-	-	57.00	762.00
p03	-	-	-	-	-	-	-	-	-	274.00	22235.00
p04	-	-	-	-	-	-	-	-	-	649.00	170596.00
p05	?	-	70794.00	?	-	70794.00	?	-	70794.00	829650.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.27 pegsol

H.27.1 pegsol-08-strips

Table H.37 – Open Size Peak, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	3.00	3.00
p02	-	-	-	-	-	-	-	-	-	7.00	23.00
p03	-	-	-	-	-	-	-	-	-	11.00	54.00
p04	-	-	-	-	-	-	-	-	-	27.00	67.00
p05	-	-	-	-	-	-	-	-	-	36.00	59.00
p06	-	-	-	-	-	-	-	-	-	164.00	340.00
p07	-	-	-	-	-	-	-	-	-	16.00	71.00
p08	-	-	-	-	-	-	-	-	-	3600.00	8223.00
p09	-	-	-	-	-	-	-	-	-	450.00	915.00
p10	-	-	-	-	-	-	-	-	-	4839.00	9649.00
p11	-	-	-	-	-	-	-	-	-	1159.00	2799.00
p12	-	-	-	-	-	-	-	-	-	5793.00	8645.00
p13	-	-	-	-	-	-	-	-	-	2764.00	6229.00
p14	-	-	-	-	-	-	-	-	-	6156.00	12670.00
p15	-	-	-	-	-	-	-	-	-	10145.00	13526.00
p16	-	-	-	-	-	-	-	-	-	1421.00	1934.00
p17	-	-	-	-	-	-	-	-	-	46009.00	43854.00
p18	-	-	-	-	-	-	-	-	-	2430.00	13487.00
p19	-	-	-	-	-	-	-	-	-	28230.00	53959.00
p20	-	-	-	-	-	-	-	-	-	52061.00	138580.00
p21	-	-	-	-	-	-	-	-	-	66767.00	120540.00
p22	-	-	-	-	-	-	-	-	-	11601.00	17234.00
p23	-	-	-	-	-	-	-	-	-	122786.00	294863.00
p24	-	-	-	-	-	-	-	-	-	201147.00	365207.00
p25	-	-	-	-	-	-	-	-	-	132209.00	302072.00
p26	-	-	-	-	-	-	-	-	-	1207294.00	2071467.00
p27	-	-	-	-	-	-	-	-	-	182904.00	2587485.00
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.27.2 pegsol-opt11-strips

Table H.38 – Open Size Peak, pegsol, pegsol-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	35.00	61.00
p02	-	-	-	-	-	-	-	-	-	46009.00	43854.00
p03	-	-	-	-	-	-	-	-	-	2430.00	13487.00
p04	-	-	-	-	-	-	-	-	-	28230.00	53959.00
p05	-	-	-	-	-	-	-	-	-	4229.00	15513.00
p06	-	-	-	-	-	-	-	-	-	33737.00	48934.00
p07	-	-	-	-	-	-	-	-	-	23320.00	60688.00
p08	-	-	-	-	-	-	-	-	-	52061.00	138580.00
p09	-	-	-	-	-	-	-	-	-	49547.00	89441.00
p10	-	-	-	-	-	-	-	-	-	66767.00	120540.00
p11	-	-	-	-	-	-	-	-	-	11601.00	17234.00
p12	-	-	-	-	-	-	-	-	-	1875.00	6487.00
p13	-	-	-	-	-	-	-	-	-	122786.00	294863.00
p14	-	-	-	-	-	-	-	-	-	201147.00	365207.00
p15	-	-	-	-	-	-	-	-	-	132209.00	302072.00
p16	-	-	-	-	-	-	-	-	-	1207294.00	2071467.00
p17	-	-	-	-	-	-	-	-	-	182904.00	2587485.00
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.28 petri

H.28.1 petri-net-alignment-opt18-strips

Table H.39 – Open Size Peak, petri, petri-net-alignment-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	6753.00	408615.00
p02	-	-	-	-	-	-	-	-	-	1660.00	117825.00
p03	?	-	?	2669.00	2669.00	?	4804.00	4804.00	3170.00	5344.00	?
p04	?	-	?	30211.00	30211.00	?	54377.00	54377.00	32929.00	60422.00	?
p05	3050.00	3050.00	?	15250.00	15250.00	12786.00	27448.00	27448.00	12786.00	30500.00	?
p06	?	-	?	12857.00	12857.00	11961.00	23140.00	23140.00	11961.00	25713.00	?
p07	?	-	?	6163.00	6163.00	5372.00	11096.00	11096.00	5372.00	12328.00	?
p08	?	-	?	?	?	?	166383.00	166383.00	121157.00	184871.00	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	3452.00	3452.00	?	17259.00	17259.00	14423.00	31066.00	31066.00	14423.00	34518.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.29 pipesworld

H.29.1 pipesworld-notankage

Table H.40 – `Open` Size Peak, pipesworld, pipesworld-notankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	20.00	84.00
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	336.00	375.00
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	468.00	3041.00
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	1560.00	5697.00
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	424.00	14019.00
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	2271.00	43571.00
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	788.00	45230.00
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	6714.00	215049.00
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	29177.00	4283967.00
p10-net1-b14-g8	197056.00	197056.00	197054.00	985282.00	985282.00	602144.00	1773512.00	1773512.00	602144.00	1970569.00	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	52010.00	237458.00
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	181682.00	972281.00
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	8559.00	362344.00
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	226637.00	1939677.00
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	5893.00	98350.00
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3	15955.00	15955.00	15954.00	79782.00	79782.00	54960.00	143606.00	143606.00	54960.00	159566.00	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g8	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	?	
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2	13027.00	13027.00	13025.00	65155.00	65155.00	28149.00	117274.00	117274.00	28149.00	130310.00	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	?	

H.29.2 pipesworld-tankage

Table H.41 – `Open` Size Peak, pipesworld, pipesworld-tankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	25.00	118.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	243.00	209.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	5973.00	51381.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	24680.00	112817.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	924.00	27051.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	5117.00	65878.00
p07-net1-b12-g5-t80	4677.00	4677.00	2237.00	23388.00	23388.00	2237.00	42110.00	42110.00	2237.00	46789.00	?
p08-net1-b12-g7-t80	127988.00	127988.00	127992.00	639979.00	639979.00	145000.00	1151977.00	1151977.00	145000.00	1279980.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	326120.00	1308193.00
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	
p13-net2-b12-g3-t70	74190.00	74190.00	74191.00	370948.00	370948.00	220011.00	667711.00	667711.00	220011.00	741901.00	?
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	98398.00	4438189.00
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	134395.00	113309.00
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	

H.29.3 pipesworld-tankage-nosplit

Table H.42 – Open Size Peak, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	25.00	118.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	243.00	209.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	5973.00	51381.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	24680.00	112817.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	924.00	27051.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	5117.00	65878.00
p07-net1-b12-g5-t80	4677.00	4677.00	2237.00	23388.00	23388.00	2237.00	42110.00	42110.00	2237.00	46789.00	?
p08-net1-b12-g7-t80	127988.00	127988.00	127992.00	639979.00	639979.00	145000.00	1151977.00	1151977.00	145000.00	1279980.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	-
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	?	-
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	-
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

H.30 psr

H.30.1 psr-small

Table H.43 – Open Size Peak, psr, psr-small

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	2.00	2.00
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	19.00	19.00
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	7.00	7.00
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	102.00	171.00
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	35.00	44.00
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	2.00	2.00
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	28.00	33.00
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	30.00	68.00
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	14.00	18.00
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	286.00	922.00
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	31.00	26.00
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	35.00	24.00
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	22.00	15.00
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	10.00	9.00
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	676.00	3524.00
p16-s29-n2-l5-f30	-	-	-	-	-	-	-	-	-	286.00	376.00
p17-s30-n2-l5-f50	-	-	-	-	-	-	-	-	-	3.00	3.00
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	41.00	44.00
p19-s33-n3-l2-f30	-	-	-	-	-	-	-	-	-	770.00	921.00
p20-s34-n3-l2-f50	-	-	-	-	-	-	-	-	-	20.00	11.00
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	13.00	11.00
p22-s37-n3-l3-f30	-	-	-	-	-	-	-	-	-	22321.00	17596.00
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	73.00	81.00
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	13.00	11.00
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	649.00	16745.00
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	42.00	28.00
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	149.00	120.00
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	22.00	19.00
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	34275.00	31180.00
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	365.00	339.00
p31-s49-n4-l2-f30	-	-	-	-	-	-	-	-	-	5093.00	19445.00
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	85.00	72.00
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	380.00	435.00
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	40.00	32.00
p35-s57-n5-l2-f30	-	-	-	-	-	-	-	-	-	18529.00	37234.00
p36-s65-n6-l2-f30	-	-	-	-	-	-	-	-	-	150941.00	351688.00
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	354.00	194.00
p38-s78-n3-l3-f50	-	-	-	-	-	-	-	-	-	177.00	135.00
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	641.00	673.00
p40-s80-n3-l4-f10	-	-	-	-	-	-	-	-	-	64968.00	523041.00
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	22.00	23.00
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	128.00	210.00
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	55.00	42.00
p44-s89-n4-l2-f30	-	-	-	-	-	-	-	-	-	820.00	570.00
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	93.00	65.00
p46-s97-n5-l2-f00	-	-	-	-	-	-	-	-	-	10862.00	8217.00
p47-s98-n5-l2-f50	-	-	-	-	-	-	-	-	-	960.00	586.00
p48-s101-n5-l3-f30	?	-	?	1118778.00	1118778.00	657237.00	2013814.00	2013814.00	657237.00	2237579.00	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	-
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	107.00	81.00

H.31 rovers

H.31.1 rovers

Table H.44 – Open Size Peak, rovers, rovers

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	72.00	443.00
p02	-	-	-	-	-	-	-	-	-	43.00	82.00
p03	-	-	-	-	-	-	-	-	-	107.00	1842.00
p04	-	-	-	-	-	-	-	-	-	42.00	639.00
p05	-	-	-	-	-	-	-	-	-	207924.00	1741845.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	10397.00	10397.00	10395.00	51994.00	51994.00	19108.00	93615.00	93615.00	19108.00	104016.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	12096.00	12096.00	12098.00	60515.00	60515.00	18765.00	108927.00	108927.00	18765.00	121030.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-
p31	-	-	-	-	-	-	-	-	-	?	-
p32	-	-	-	-	-	-	-	-	-	?	-
p33	-	-	-	-	-	-	-	-	-	?	-
p34	-	-	-	-	-	-	-	-	-	?	-
p35	-	-	-	-	-	-	-	-	-	?	-
p36	-	-	-	-	-	-	-	-	-	?	-
p37	-	-	-	-	-	-	-	-	-	?	-
p38	-	-	-	-	-	-	-	-	-	?	-
p39	-	-	-	-	-	-	-	-	-	?	-
p40	-	-	-	-	-	-	-	-	-	?	-

H.32 satellite

H.32.1 satellite

Table H.45 – Open Size Peak, satellite, satellite

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-pfile1	-	-	-	-	-	-	-	-	-	33.00	48.00
p02-pfile2	-	-	-	-	-	-	-	-	-	55.00	440.00
p03-pfile3	-	-	-	-	-	-	-	-	-	259.00	7455.00
p04-pfile4	-	-	-	-	-	-	-	-	-	399.00	74708.00
p05-pfile5	1258.00	1258.00	1143.00	6350.00	6350.00	1143.00	11470.00	11470.00	1143.00	12747.00	?
p06-pfile6	5300.00	5300.00	4837.00	26598.00	26598.00	4837.00	47867.00	47867.00	4837.00	53196.00	?
p07-pfile7	92154.00	92154.00	92151.00	460774.00	460774.00	95513.00	829411.00	829411.00	95513.00	921571.00	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	?	-
p10-pfile10	-	-	-	-	-	-	-	-	-	?	-
p11-pfile11	-	-	-	-	-	-	-	-	-	?	-
p12-pfile12	-	-	-	-	-	-	-	-	-	?	-
p13-pfile13	-	-	-	-	-	-	-	-	-	?	-
p14-pfile14	-	-	-	-	-	-	-	-	-	?	-
p15-pfile15	-	-	-	-	-	-	-	-	-	?	-
p16-pfile16	-	-	-	-	-	-	-	-	-	?	-
p17-pfile17	-	-	-	-	-	-	-	-	-	?	-
p18-pfile18	-	-	-	-	-	-	-	-	-	?	-
p19-pfile19	-	-	-	-	-	-	-	-	-	?	-
p20-pfile20	-	-	-	-	-	-	-	-	-	?	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	?	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	?	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	?	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	?	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	?	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	?	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	?	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	?	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	?	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	?	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	?	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	?	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	?	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	?	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	?	-

H.33 scanalyzer

H.33.1 scanalyzer-08-strips

Table H.46 – Open Size Peak, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	85.00	17444.00
p02	-	-	-	-	-	-	-	-	-	9969.00	11917.00
p03	-	-	-	-	-	-	-	-	-	22708.00	9515.00
p04	-	-	-	-	-	-	-	-	-	201.00	3634811.00
p05	-	-	-	-	-	-	-	-	-	3045845.00	2402659.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	1.00	1.00	26.00	187.00	187.00	91.00	333.00	333.00	91.00	391.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	-	-
p10	1.00	1.00	63.00	332.00	332.00	153.00	591.00	591.00	153.00	673.00	?
p11	-	-	-	-	-	-	-	-	-	-	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	98.00	98.00	87.00	458.00	458.00	239.00	955.00	955.00	239.00	1065.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	128.00	128.00	115.00	715.00	715.00	353.00	1364.00	1364.00	353.00	1585.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	162.00	162.00	211.00	1047.00	1047.00	499.00	1975.00	1975.00	499.00	2251.00	?
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	5.00	19.00
p23	-	-	-	-	-	-	-	-	-	5.00	19.00
p24	-	-	-	-	-	-	-	-	-	5.00	19.00
p25	-	-	-	-	-	-	-	-	-	3108.00	3008581.00
p26	-	-	-	-	-	-	-	-	-	68569.00	2077963.00
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.33.2 scanalyzer-opt11-strips

Table H.47 – Open Size Peak, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	5.00	19.00
p02	-	-	-	-	-	-	-	-	-	9969.00	11917.00
p03	-	-	-	-	-	-	-	-	-	22708.00	9515.00
p04	-	-	-	-	-	-	-	-	-	201.00	3634811.00
p05	1.00	1.00	26.00	187.00	187.00	91.00	333.00	333.00	91.00	391.00	?
p06	-	-	-	-	-	-	-	-	-	3045845.00	2402659.00
p07	162.00	162.00	211.00	1047.00	1047.00	499.00	1975.00	1975.00	499.00	2251.00	?
p08	1.00	1.00	63.00	332.00	332.00	153.00	591.00	591.00	153.00	673.00	?
p09	98.00	98.00	87.00	458.00	458.00	239.00	955.00	955.00	239.00	1065.00	?
p10	128.00	128.00	115.00	715.00	715.00	353.00	1364.00	1364.00	353.00	1585.00	?
p11	-	-	-	-	-	-	-	-	-	3108.00	3008581.00
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	68569.00	2077963.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.34 snake

H.34.1 snake-opt18-strips

Table H.48 – Open Size Peak, snake, snake-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	11393.00	70880.00
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	83.00	1295.00
p05	-	-	-	-	-	-	-	-	-	1043.00	9155.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	1941.00	23801.00
p10	-	-	-	-	-	-	-	-	-	55955.00	318639.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	28549.00	225928.00
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.35 sokoban

H.35.1 sokoban-opt08-strips

Table H.49 – Open Size Peak, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01	-	-	-	-	-	-	-	-	-	12.00	31.00
p02	-	-	-	-	-	-	-	-	-	25.00	83.00
p03	-	-	-	-	-	-	-	-	-	5.00	36.00
p04	-	-	-	-	-	-	-	-	-	388.00	3210.00
p05	3.00	3.00	3.00	12.00	12.00	12.00	22.00	22.00	22.00	24.00	?
p06	-	-	-	-	-	-	-	-	-	23.00	335.00
p07	-	-	-	-	-	-	-	-	-	204.00	5723.00
p08	-	-	-	-	-	-	-	-	-	14933.00	151437.00
p09	-	-	-	-	-	-	-	-	-	244.00	16175.00
p10	-	-	-	-	-	-	-	-	-	177.00	8307.00
p11	-	-	-	-	-	-	-	-	-	946.00	1309.00
p12	-	-	-	-	-	-	-	-	-	231.00	42729.00
p13	-	-	-	-	-	-	-	-	-	3103.00	36485.00
p14	-	-	-	-	-	-	-	-	-	102.00	1377.00
p15	-	-	-	-	-	-	-	-	-	21886.00	69549.00
p16	-	-	-	-	-	-	-	-	-	938.00	4015.00
p17	-	-	-	-	-	-	-	-	-	131.00	1572.00
p18	-	-	-	-	-	-	-	-	-	523.00	23888.00
p19	-	-	-	-	-	-	-	-	-	17340.00	130894.00
p20	-	-	-	-	-	-	-	-	-	2.00	4.00
p21	72.00	72.00	72.00	360.00	360.00	360.00	648.00	648.00	648.00	719.00	?
p22	?	-	?	?	-	?	?	-	?	14640.00	?
p23	?	-	?	?	-	?	?	-	?	14753.00	?
p24	?	-	?	?	-	?	?	-	?	7435.00	?
p25	?	-	?	?	-	?	?	-	?	68280.00	?
p26	?	-	?	?	-	?	?	-	?	55854.00	?
p27	?	-	?	22083.00	22083.00	?	39752.00	39752.00	39752.00	44168.00	?
p28	?	-	?	?	-	?	?	-	?	189046.00	?
p29	?	-	?	?	-	?	11501.00	11501.00	9683.00	12778.00	?
p30	-	-	-	-	-	-	-	-	-	?	-

H.35.2 sokoban-opt11-strips

Table H.50 – Open Size Peak, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01	-	-	-	-	-	-	-	-	-	23.00	335.00
p02	-	-	-	-	-	-	-	-	-	131.00	1572.00
p03	-	-	-	-	-	-	-	-	-	102.00	1377.00
p04	-	-	-	-	-	-	-	-	-	388.00	3210.00
p05	-	-	-	-	-	-	-	-	-	938.00	4015.00
p06	-	-	-	-	-	-	-	-	-	946.00	1309.00
p07	-	-	-	-	-	-	-	-	-	177.00	8307.00
p08	-	-	-	-	-	-	-	-	-	244.00	16175.00
p09	-	-	-	-	-	-	-	-	-	204.00	5723.00
p10	3.00	3.00	3.00	12.00	12.00	12.00	22.00	22.00	22.00	24.00	?
p11	-	-	-	-	-	-	-	-	-	3103.00	36485.00
p12	-	-	-	-	-	-	-	-	-	2.00	4.00
p13	-	-	-	-	-	-	-	-	-	14933.00	151437.00
p14	-	-	-	-	-	-	-	-	-	231.00	42729.00
p15	-	-	-	-	-	-	-	-	-	523.00	23888.00
p16	-	-	-	-	-	-	-	-	-	21886.00	69549.00
p17	-	-	-	-	-	-	-	-	-	17340.00	130894.00
p18	72.00	72.00	72.00	360.00	360.00	360.00	648.00	648.00	648.00	719.00	?
p19	?	-	?	?	-	?	?	-	?	14640.00	?
p20	?	-	?	?	-	?	?	-	?	14753.00	?

H.36 spider

H.36.1 spider-opt18-strips

Table H.51 – Open Size Peak, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01	-	-	-	-	-	-	-	-	-	136.00	845.00
p02	-	-	-	-	-	-	-	-	-	147.00	292.00
p03	-	-	-	-	-	-	-	-	-	4100.00	261077.00
p04	-	-	-	-	-	-	-	-	-	5860.00	157056.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	163.00	495.00
p08	-	-	-	-	-	-	-	-	-	364.00	5008.00
p09	-	-	-	-	-	-	-	-	-	2744.00	164611.00
p10	1757.00	1757.00	1762.00	8813.00	8813.00	8199.00	15864.00	15864.00	8199.00	17627.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	236.00	6142.00
p15	-	-	-	-	-	-	-	-	-	36.00	171.00
p16	3874.00	3874.00	3874.00	19369.00	19369.00	11836.00	34860.00	34860.00	11836.00	38738.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.37 storage

H.37.1 storage

Table H.52 – Open Size Peak, storage, storage

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	3.00	3.00
p02	-	-	-	-	-	-	-	-	-	5.00	5.00
p03	-	-	-	-	-	-	-	-	-	7.00	7.00
p04	-	-	-	-	-	-	-	-	-	23.00	24.00
p05	-	-	-	-	-	-	-	-	-	96.00	143.00
p06	-	-	-	-	-	-	-	-	-	131.00	436.00
p07	-	-	-	-	-	-	-	-	-	195.00	456.00
p08	-	-	-	-	-	-	-	-	-	1773.00	5337.00
p09	-	-	-	-	-	-	-	-	-	2516.00	29753.00
p10	-	-	-	-	-	-	-	-	-	2986.00	11705.00
p11	-	-	-	-	-	-	-	-	-	30560.00	146175.00
p12	-	-	-	-	-	-	-	-	-	108031.00	1184308.00
p13	-	-	-	-	-	-	-	-	-	9950.00	264582.00
p14	-	-	-	-	-	-	-	-	-	85328.00	4010075.00
p15	82559.00	82559.00	82561.00	412801.00	412801.00	145037.00	743042.00	743042.00	145037.00	825605.00	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.38 termes

H.38.1 termes-opt18-strips

Table H.53 – Open Size Peak, termes, termes-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	25884.00	88666.00
p02	-	-	-	-	-	-	-	-	-	188987.00	521867.00
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	524768.00	1029617.00
p12	-	-	-	-	-	-	-	-	-	77788.00	265097.00
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.39 tetris

H.39.1 tetris-opt14-strips

Table H.54 – Open Size Peak, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01-10	-	-	-	-	-	-	-	-	-	?	-
p01-6	-	-	-	-	-	-	-	-	-	?	-
p01-8	-	-	-	-	-	-	-	-	-	66973.00	78151.00
p02-10	-	-	-	-	-	-	-	-	-	?	-
p02-4	-	-	-	-	-	-	-	-	-	66.00	273.00
p02-6	-	-	-	-	-	-	-	-	-	93992.00	188886.00
p02-8	-	-	-	-	-	-	-	-	-	?	-
p03-10	-	-	-	-	-	-	-	-	-	?	-
p03-4	-	-	-	-	-	-	-	-	-	1767.00	13339.00
p03-6	-	-	-	-	-	-	-	-	-	?	-
p03-8	-	-	-	-	-	-	-	-	-	?	-
p04-10	-	-	-	-	-	-	-	-	-	?	-
p04-8	-	-	-	-	-	-	-	-	-	?	-
p05-10	-	-	-	-	-	-	-	-	-	?	-
p05-6	-	-	-	-	-	-	-	-	-	13331.00	38967.00
p05-8	-	-	-	-	-	-	-	-	-	?	-

H.40 tidybot

H.40.1 tidybot-opt11-strips

Table H.55 – Open Size Peak, tidybot, tidybot-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	19.00	52.00
p02	-	-	-	-	-	-	-	-	-	2391.00	243322.00
p03	-	-	-	-	-	-	-	-	-	172.00	4375.00
p04	-	-	-	-	-	-	-	-	-	1389.00	170675.00
p05	1621.00	1621.00	1620.00	8103.00	8103.00	8104.00	14588.00	14588.00	8733.00	16208.00	?
p06	-	-	-	-	-	-	-	-	-	522.00	484167.00
p07	-	-	-	-	-	-	-	-	-	155.00	6613.00
p08	-	-	-	-	-	-	-	-	-	8219.00	2582711.00
p09	-	-	-	-	-	-	-	-	-	5796.00	533602.00
p10	-	-	-	-	-	-	-	-	-	1420.00	2415576.00
p11	-	-	-	-	-	-	-	-	-	4982.00	2813754.00
p12	4535.00	4535.00	4536.00	22677.00	22677.00	22678.00	40820.00	40820.00	24564.00	45355.00	?
p13	1510.00	1510.00	1510.00	7547.00	7547.00	7547.00	13585.00	13585.00	8572.00	15095.00	?
p14	-	-	-	-	-	-	-	-	-	1856.00	1407512.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.40.2 tidybot-opt14-strips

Table H.56 – Open Size Peak, tidybot, tidybot-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	-
p02	826.00	826.00	826.00	4126.00	4126.00	4126.00	7425.00	7425.00	4399.00	8251.00	?
p03	979.00	979.00	981.00	4902.00	4902.00	4902.00	8823.00	8823.00	5380.00	9803.00	?
p04	-	-	-	-	-	-	-	-	-	8428.00	990975.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	3907.00	3907.00	3908.00	19538.00	19538.00	19538.00	35168.00	35168.00	20965.00	39075.00	?
p08	-	-	-	-	-	-	-	-	-	6176.00	2064482.00
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	4982.00	2813754.00
p12	4535.00	4535.00	4536.00	22677.00	22677.00	22678.00	40820.00	40820.00	24564.00	45355.00	?
p13	1510.00	1510.00	1510.00	7547.00	7547.00	7547.00	13585.00	13585.00	8572.00	15095.00	?
p14	-	-	-	-	-	-	-	-	-	1856.00	1407512.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.41 tpp

H.41.1 tpp

Table H.57 – Open Size Peak, tpp, tpp

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	2.00	2.00
p02	-	-	-	-	-	-	-	-	-	8.00	6.00
p03	-	-	-	-	-	-	-	-	-	17.00	22.00
p04	-	-	-	-	-	-	-	-	-	29.00	83.00
p05	-	-	-	-	-	-	-	-	-	689.00	3993.00
p06	?	-	?	?	-	26922.00	?	-	26922.00	68309.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.42 transport

H.42.1 transport-opt08-strips

Table H.58 – Open Size Peak, transport, transport-opt08-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	14.00	61.00
p02	-	-	-	-	-	-	-	-	-	84.00	2147.00
p03	-	-	-	-	-	-	-	-	-	14388.00	218142.00
p04	-	-	-	-	-	-	-	-	-	67537.00	4686563.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	33.00	118.00
p12	-	-	-	-	-	-	-	-	-	754.00	9906.00
p13	-	-	-	-	-	-	-	-	-	3813.00	496149.00
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	39.00	98.00
p22	-	-	-	-	-	-	-	-	-	856.00	4964.00
p23	-	-	-	-	-	-	-	-	-	3571.00	124177.00
p24	-	-	-	-	-	-	-	-	-	37454.00	2249539.00
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.42.2 transport-opt11-strips

Table H.59 – Open Size Peak, transport, transport-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	3571.00	124177.00
p02	-	-	-	-	-	-	-	-	-	14388.00	218142.00
p03	-	-	-	-	-	-	-	-	-	754.00	9906.00
p04	-	-	-	-	-	-	-	-	-	3813.00	496149.00
p05	-	-	-	-	-	-	-	-	-	37454.00	2249539.00
p06	-	-	-	-	-	-	-	-	-	67537.00	4686563.00
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.42.3 transport-opt14-strips

Table H.60 – Open Size Peak, transport, transport-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	1158.00	18209.00
p02	-	-	-	-	-	-	-	-	-	40621.00	385754.00
p03	?	-	?	50076.00	50076.00	25632.00	90142.00	90142.00	25632.00	100161.00	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	207574.00	288904.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	4326.00	559334.00
p14	?	-	?	?	-	34848.00	69499.00	69499.00	34848.00	77221.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.43 trucks

H.43.1 trucks-strips

Table H.61 – Open Size Peak, trucks, trucks-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	114.00	992.00
p02	-	-	-	-	-	-	-	-	-	229.00	4515.00
p03	-	-	-	-	-	-	-	-	-	817.00	60655.00
p04	-	-	-	-	-	-	-	-	-	5346.00	369199.00
p05	586.00	586.00	585.00	2927.00	2927.00	2560.00	5270.00	5270.00	2560.00	5855.00	?
p06	18838.00	18838.00	?	94189.00	94189.00	94191.00	169544.00	169544.00	112530.00	188382.00	?
p07	-	-	-	-	-	-	-	-	-	21007.00	1643719.00
p08	3677.00	3677.00	3681.00	18405.00	18405.00	11765.00	33127.00	33127.00	11765.00	36816.00	?
p09	22053.00	22053.00	22053.00	110259.00	110259.00	63431.00	198474.00	198474.00	63431.00	220526.00	?
p10	39928.00	39928.00	?	199636.00	199636.00	193146.00	359343.00	359343.00	193146.00	399272.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.44 visitall

H.44.1 visitall-opt11-strips

Table H.62 – Open Size Peak, visitall, visitall-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
problem02-full	-	-	-	-	-	-	-	-	-	4.00	5.00
problem02-half	-	-	-	-	-	-	-	-	-	2.00	2.00
problem03-full	-	-	-	-	-	-	-	-	-	32.00	194.00
problem03-half	-	-	-	-	-	-	-	-	-	14.00	23.00
problem04-full	-	-	-	-	-	-	-	-	-	983.00	12455.00
problem04-half	-	-	-	-	-	-	-	-	-	20.00	229.00
problem05-full	-	-	-	-	-	-	-	-	-	78117.00	2862838.00
problem05-half	-	-	-	-	-	-	-	-	-	1098.00	19348.00
problem06-full	-	-	-	-	-	-	-	-	-	?	-
problem06-half	-	-	-	-	-	-	-	-	-	1054.00	70895.00
problem07-full	-	-	-	-	-	-	-	-	-	?	-
problem07-half	57756.00	57756.00	57757.00	288785.00	288785.00	288785.00	519813.00	519813.00	349621.00	577570.00	?
problem08-full	-	-	-	-	-	-	-	-	-	?	-
problem08-half	-	-	-	-	-	-	-	-	-	?	-
problem09-full	-	-	-	-	-	-	-	-	-	?	-
problem09-half	-	-	-	-	-	-	-	-	-	?	-
problem10-full	-	-	-	-	-	-	-	-	-	?	-
problem10-half	-	-	-	-	-	-	-	-	-	?	-
problem11-full	-	-	-	-	-	-	-	-	-	?	-
problem11-half	-	-	-	-	-	-	-	-	-	?	-

H.44.2 visitall-opt14-strips

Table H.63 – Open Size Peak, visitall, visitall-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p-05-10	-	-	-	-	-	-	-	-	-	?	-
p-05-5	-	-	-	-	-	-	-	-	-	6863.00	124025.00
p-05-6	-	-	-	-	-	-	-	-	-	8385.00	290514.00
p-05-7	11533.00	11533.00	11533.00	57662.00	57662.00	57664.00	103795.00	103795.00	71752.00	115327.00	?
p-05-8	58185.00	58185.00	58185.00	290925.00	290925.00	290925.00	523663.00	523663.00	365265.00	581849.00	?
p-05-9	-	-	-	-	-	-	-	-	-	?	-
p-1-10	-	-	-	-	-	-	-	-	-	?	-
p-1-11	-	-	-	-	-	-	-	-	-	?	-
p-1-12	-	-	-	-	-	-	-	-	-	?	-
p-1-13	-	-	-	-	-	-	-	-	-	?	-
p-1-14	-	-	-	-	-	-	-	-	-	?	-
p-1-15	-	-	-	-	-	-	-	-	-	?	-
p-1-16	-	-	-	-	-	-	-	-	-	?	-
p-1-17	-	-	-	-	-	-	-	-	-	?	-
p-1-18	-	-	-	-	-	-	-	-	-	?	-
p-1-5	-	-	-	-	-	-	-	-	-	78117.00	2862838.00
p-1-6	-	-	-	-	-	-	-	-	-	?	-
p-1-7	-	-	-	-	-	-	-	-	-	?	-
p-1-8	-	-	-	-	-	-	-	-	-	?	-
p-1-9	-	-	-	-	-	-	-	-	-	?	-

H.45 woodworking

H.45.1 woodworking-opt08-strips

Table H.64 – Open Size Peak, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	78.00	3968.00
p02	-	-	-	-	-	-	-	-	-	99.00	17106.00
p03	23.00	23.00	23.00	125.00	125.00	58.00	227.00	227.00	58.00	252.00	?
p04	?	-	?	?	-	176922.00	964574.00	964574.00	176922.00	1071749.00	?
p05	1279.00	1279.00	832.00	6445.00	6445.00	832.00	11620.00	11620.00	832.00	12920.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	66954.00	66954.00	35220.00	334840.00	334840.00	35220.00	602720.00	602720.00	35220.00	669700.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	63.00	5137.00
p12	-	-	-	-	-	-	-	-	-	138.00	1939314.00
p13	4059.00	4059.00	4061.00	20308.00	20308.00	6022.00	36562.00	36562.00	6022.00	40628.00	?
p14	12376.00	12376.00	12381.00	61903.00	61903.00	18666.00	111429.00	111429.00	18666.00	123814.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	6508.00	6508.00	3550.00	32592.00	32592.00	3550.00	58653.00	58653.00	3550.00	65184.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	45.00	493.00
p22	-	-	-	-	-	-	-	-	-	151.00	341450.00
p23	-	-	-	-	-	-	-	-	-	154.00	1344072.00
p24	11220.00	11220.00	9999.00	56126.00	56126.00	9999.00	101039.00	101039.00	9999.00	112266.00	?
p25	52.00	52.00	66.00	357.00	357.00	244.00	638.00	638.00	244.00	738.00	?
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

H.45.2 woodworking-opt11-strips

Table H.65 – Open Size Peak, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	154.00	1344072.00
p02	-	-	-	-	-	-	-	-	-	138.00	1939314.00
p03	4059.00	4059.00	4061.00	20308.00	20308.00	6022.00	36562.00	36562.00	6022.00	40628.00	?
p04	23.00	23.00	23.00	125.00	125.00	58.00	227.00	227.00	58.00	252.00	?
p05	11220.00	11220.00	9999.00	56126.00	56126.00	9999.00	101039.00	101039.00	9999.00	112266.00	?
p06	?	-	?	?	-	176922.00	964574.00	964574.00	176922.00	1071749.00	?
p07	12376.00	12376.00	12381.00	61903.00	61903.00	18666.00	111429.00	111429.00	18666.00	123814.00	?
p08	52.00	52.00	66.00	357.00	357.00	244.00	638.00	638.00	244.00	738.00	?
p09	1279.00	1279.00	832.00	6445.00	6445.00	832.00	11620.00	11620.00	832.00	12920.00	?
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	6508.00	6508.00	3550.00	32592.00	32592.00	3550.00	58653.00	58653.00	3550.00	65184.00	?
p16	66954.00	66954.00	35220.00	334840.00	334840.00	35220.00	602720.00	602720.00	35220.00	669700.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

H.46 zenotravel

H.46.1 zenotravel

Table H.66 – Open Size Peak, zenotravel, zenotravel

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	5.00	5.00
p02	-	-	-	-	-	-	-	-	-	21.00	27.00
p03	-	-	-	-	-	-	-	-	-	114.00	4669.00
p04	-	-	-	-	-	-	-	-	-	103.00	6896.00
p05	-	-	-	-	-	-	-	-	-	158.00	40026.00
p06	-	-	-	-	-	-	-	-	-	692.00	298625.00
p07	-	-	-	-	-	-	-	-	-	2737.00	255324.00
p08	179.00	179.00	90.00	933.00	933.00	90.00	1695.00	1695.00	90.00	1883.00	?
p09	23697.00	23697.00	23708.00	118533.00	118533.00	27412.00	213357.00	213357.00	27412.00	237071.00	?
p10	12813.00	12813.00	8702.00	64087.00	64087.00	8702.00	115367.00	115367.00	8702.00	128185.00	?
p11	2787.00	2787.00	1453.00	13926.00	13926.00	1453.00	25078.00	25078.00	1453.00	27868.00	?
p12	100659.00	100659.00	65010.00	503297.00	503297.00	65010.00	905933.00	905933.00	65010.00	1006601.00	?
p13	251250.00	251250.00	123893.00	1256248.00	1256248.00	123893.00	2261287.00	2261287.00	123893.00	2512544.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

APPENDIX I — CLOSED SIZE PEAK

I.1 agricola

I.1.1 agricola-opt18-strips

Table I.1 – Closed Size Peak, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	-
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.2 airport

I.2.1 airport

Table I.2 – Closed Size Peak, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01-airport1-p1	-	-	-	-	-	-	-	-	-	8.00	10.00
p02-airport1-p1	-	-	-	-	-	-	-	-	-	9.00	15.00
p03-airport1-p2	-	-	-	-	-	-	-	-	-	19.00	169.00
p04-airport2-p1	-	-	-	-	-	-	-	-	-	20.00	22.00
p05-airport2-p1	-	-	-	-	-	-	-	-	-	21.00	30.00
p06-airport2-p2	-	-	-	-	-	-	-	-	-	41.00	753.00
p07-airport2-p2	-	-	-	-	-	-	-	-	-	64.00	756.00
p08-airport2-p3	-	-	-	-	-	-	-	-	-	119.00	27307.00
p09-airport2-p4	-	-	-	-	-	-	-	-	-	759.00	175995.00
p10-airport3-p1	-	-	-	-	-	-	-	-	-	18.00	21.00
p11-airport3-p1	-	-	-	-	-	-	-	-	-	21.00	30.00
p12-airport3-p2	-	-	-	-	-	-	-	-	-	39.00	906.00
p13-airport3-p2	-	-	-	-	-	-	-	-	-	49.00	843.00
p14-airport3-p3	-	-	-	-	-	-	-	-	-	60.00	35922.00
p15-airport3-p3	-	-	-	-	-	-	-	-	-	138.00	34099.00
p16-airport3-p4	-	-	-	-	-	-	-	-	-	328.00	1241109.00
p17-airport3-p5	-	-	-	-	-	-	-	-	-	2431.00	10749400.00
p18-airport3-p6	-	-	-	-	-	-	-	-	4040.00	9736.00	?
p19-airport3-p6	-	-	-	-	-	-	-	-	-	3588.00	10658571.00
p20-airport3-p7	?	-	?	?	-	?	10404.00	10404.00	6733.00	11583.00	?
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	101.00	18810.00
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	1042.00	2493184.00
p23-airport4halfMUC-p4	33.00	33.00	12.00	173.00	173.00	78.00	282.00	282.00	78.00	313.00	?
p24-airport4halfMUC-p4	18.00	18.00	18.00	77.00	77.00	71.00	136.00	136.00	126.00	162.00	?
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	?	-
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	?	-
p27-airport4halfMUC-p6	58.00	58.00	45.00	?	-	188.00	873.00	873.00	188.00	1012.00	?
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	?	-
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	?	-
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p33-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	?	-
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	?	-
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	109.00	64178.00
p37-airport5MUC-p3	?	-	?	?	-	?	-	-	5046.00	7953.00	?
p38-airport5MUC-p3	?	-	?	?	-	?	-	-	5705.00	9021.00	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p41-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	?	-
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	?	-
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	?	-
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	?	-

I.3 barman

I.3.1 barman-opt11-strips

Table I.3 – `Closed` Size Peak, barman, barman-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
pfile01-001	-	-	-	-	-	-	-	-	-	1296547.00	5976293.00
pfile01-002	-	-	-	-	-	-	-	-	-	1196284.00	5990063.00
pfile01-003	-	-	-	-	-	-	-	-	-	1179522.00	5967282.00
pfile01-004	-	-	-	-	-	-	-	-	-	1196501.00	5990063.00
pfile02-005	-	-	-	-	-	-	-	-	-	?	-
pfile02-006	-	-	-	-	-	-	-	-	-	?	-
pfile02-007	-	-	-	-	-	-	-	-	-	?	-
pfile02-008	-	-	-	-	-	-	-	-	-	?	-
pfile03-009	-	-	-	-	-	-	-	-	-	?	-
pfile03-010	-	-	-	-	-	-	-	-	-	?	-
pfile03-011	-	-	-	-	-	-	-	-	-	?	-
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	-	-	-	-	-	-	-	-	-	?	-
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-

I.3.2 barman-opt14-strips

Table I.4 – `Closed` Size Peak, barman, barman-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p435-1	-	-	-	-	-	-	-	-	-	?	-
p435-2	-	-	-	-	-	-	-	-	-	?	-
p435-3	-	-	-	-	-	-	-	-	-	?	-
p536-1	-	-	-	-	-	-	-	-	-	?	-
p536-2	-	-	-	-	-	-	-	-	-	?	-
p536-3	-	-	-	-	-	-	-	-	-	?	-
p638-1	-	-	-	-	-	-	-	-	-	?	-
p638-2	-	-	-	-	-	-	-	-	-	?	-
p638-3	-	-	-	-	-	-	-	-	-	?	-
p739-1	-	-	-	-	-	-	-	-	-	?	-
p739-2	-	-	-	-	-	-	-	-	-	?	-
p739-3	-	-	-	-	-	-	-	-	-	?	-
p839-1	-	-	-	-	-	-	-	-	-	?	-
p839-2	-	-	-	-	-	-	-	-	-	?	-

I.4 blocks

I.4.1 blocks

Table I.5 – `Closed` Size Peak, blocks, blocks

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
probBLOCKS-10-0	21077.00	21077.00	21780.00	110973.00	110973.00	109339.00	214970.00	214970.00	109339.00	238956.00	?
probBLOCKS-10-1	3327.00	3327.00	3370.00	15124.00	15113.00	13146.00	28257.00	28257.00	13146.00	30665.00	?
probBLOCKS-10-2	8167.00	8167.00	7538.00	41763.00	41751.00	34182.00	74983.00	74973.00	34182.00	85655.00	?
probBLOCKS-11-0	7484.00	7484.00	7947.00	34412.00	34402.00	29005.00	59379.00	59379.00	29005.00	65768.00	?
probBLOCKS-11-1	5872.00	5872.00	4773.00	31410.00	31410.00	22296.00	58817.00	58817.00	22296.00	66780.00	?
probBLOCKS-11-2	5546.00	5546.00	5940.00	28341.00	28336.00	27711.00	52252.00	52252.00	27711.00	58247.00	?
probBLOCKS-12-0	6081.00	6081.00	5882.00	30229.00	30223.00	24336.00	54169.00	54166.00	24336.00	61796.00	?
probBLOCKS-12-1	744.00	744.00	661.00	3234.00	3232.00	2835.00	5779.00	5777.00	2835.00	6492.00	?
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-14-0	11117.00	11117.00	9913.00	55562.00	55557.00	39128.00	98427.00	98422.00	39128.00	113526.00	?
probBLOCKS-14-1	18572.00	18572.00	13797.00	92277.00	92277.00	49495.00	171075.00	171075.00	49495.00	192344.00	?
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	6.00	99.00
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	11.00	52.00
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	7.00	47.00
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	19.00	543.00
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	16.00	570.00
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	39.00	742.00
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	16.00	2028.00
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	11.00	4862.00
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	229.00	6642.00
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	59.00	38073.00
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	1074.00	64087.00
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	186.00	58984.00
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	149.00	521072.00
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	1034.00	618821.00
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	55.00	356611.00
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	12419.00	7955169.00
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	361.00	5846429.00
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	615.00	5297062.00

I.5 childsnack

I.5.1 childsnack-opt14-strips

Table I.6 – `Closed` Size Peak, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
child-snack_pfile01	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile02	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile03	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile04	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile05	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile06	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile07	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile08	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile09	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile10	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	?	-

I.6 data

I.6.1 data-network-opt18-strips

Table I.7 – `Closed` Size Peak, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	13.00	4664.00
p02	-	-	-	-	-	-	-	-	-	251.00	3701.00
p03	8.00	8.00	5.00	35.00	35.00	6.00	44.00	44.00	6.00	47.00	?
p04	?	-	?	5575.00	5575.00	250.00	10757.00	10757.00	250.00	12267.00	?
p05	46.00	46.00	10.00	248.00	248.00	31.00	411.00	411.00	31.00	438.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	3375.00	24697.00
p10	-	-	-	7000.00	7000.00	1244.00	12986.00	12986.00	1244.00	14621.00	?
p11	?	-	?	-	-	-	-	-	-	13.00	4090.00
p12	4.00	4.00	3.00	17.00	17.00	3.00	24.00	24.00	3.00	25.00	?
p13	27.00	27.00	14.00	100.00	100.00	28.00	162.00	162.00	28.00	167.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	8.00	1061408.00
p16	-	-	-	-	-	-	-	-	-	?	-
p17	328.00	328.00	154.00	1646.00	1646.00	274.00	2788.00	2788.00	274.00	3229.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.7 depot

I.7.1 depot

Table I.8 – `Closed` Size Peak, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	12.00	373.00
p02	-	-	-	-	-	-	-	-	-	138.00	15694.00
p03	-	-	-	-	-	-	-	-	-	36611.00	3046900.00
p04	?	-	30982.00	200515.00	200515.00	188584.00	382919.00	382919.00	188584.00	476165.00	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	17585.00	6894719.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	10339.00	10339.00	5182.00	58725.00	58725.00	29160.00	97331.00	97331.00	29160.00	130356.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	973.00	973.00	174.00	5848.00	5848.00	966.00	11456.00	11456.00	966.00	14185.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-

I.8 driverlog

I.8.1 driverlog

Table I.9 – `Closed` Size Peak, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	8.00	148.00
p02	-	-	-	-	-	-	-	-	-	8087.00	68741.00
p03	-	-	-	-	-	-	-	-	-	19.00	13314.00
p04	-	-	-	-	-	-	-	-	-	1742.00	1131498.00
p05	-	-	-	-	-	-	-	-	-	770.00	5176010.00
p06	-	-	-	-	-	-	-	-	-	151.00	446484.00
p07	2.00	2.00	0.00	18.00	18.00	0.00	33.00	33.00	0.00	37.00	?
p08	10849.00	10849.00	4621.00	63131.00	63131.00	11555.00	125150.00	125150.00	11555.00	149712.00	?
p09	822.00	822.00	469.00	4679.00	4679.00	1707.00	8913.00	8913.00	1707.00	10316.00	?
p10	7.00	7.00	0.00	32.00	32.00	1.00	66.00	66.00	1.00	78.00	?
p11	14.00	14.00	0.00	102.00	102.00	7.00	217.00	217.00	7.00	252.00	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	3123.00	3123.00	1342.00	16690.00	16690.00	3869.00	30283.00	30283.00	3869.00	35972.00	?
p14	5406.00	5406.00	1139.00	26460.00	26460.00	3318.00	51148.00	51148.00	3318.00	58754.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.9 elevators

I.9.1 elevators-opt08-strips

Table I.10 – `Closed` Size Peak, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	458.00	27569.00
p02	-	-	-	-	-	-	-	-	-	52.00	142233.00
p03	-	-	-	-	-	-	-	-	-	4209.00	612356.00
p04	-	-	-	-	-	-	-	-	-	4873.00	833348.00
p05	?	-	?	?	-	191.00	?	-	191.00	44124.00	?
p06	?	-	?	?	-	159.00	?	-	159.00	37952.00	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	?	-	?	?	-	563.00	?	-	563.00	343667.00	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	707.00	147654.00
p12	-	-	-	-	-	-	-	-	-	1518.00	148942.00
p13	-	-	-	-	-	-	-	-	-	4234.00	1459029.00
p14	?	-	0.00	?	-	0.00	?	-	0.00	8123.00	?
p15	?	-	?	?	-	3.00	?	-	3.00	6239.00	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	?	-	?	?	-	1541.00	?	-	1541.00	619924.00	?
p18	?	-	0.00	?	-	0.00	?	-	0.00	57951.00	?
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	2159.00	185042.00
p22	-	-	-	-	-	-	-	-	-	19383.00	1456411.00
p23	?	-	?	?	-	1032.00	?	-	1032.00	160912.00	?
p24	?	-	0.00	?	-	0.00	?	-	0.00	50418.00	?
p25	?	-	?	?	-	56.00	?	-	56.00	29889.00	?
p26	?	-	0.00	?	-	0.00	?	-	0.00	26434.00	?
p27	?	-	?	?	-	962.00	?	-	962.00	511320.00	?
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.9.2 elevators-opt11-strips

Table I.11 – `Closed` Size Peak, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	707.00	147654.00
p02	-	-	-	-	-	-	-	-	-	2159.00	185042.00
p03	-	-	-	-	-	-	-	-	-	1518.00	148942.00
p04	-	-	-	-	-	-	-	-	-	4209.00	612356.00
p05	-	-	-	-	-	-	-	-	-	4234.00	1459029.00
p06	-	-	-	-	-	-	-	-	-	4873.00	833348.00
p07	?	-	0.00	?	-	0.00	?	-	0.00	26434.00	?
p08	?	-	?	?	-	191.00	?	-	191.00	44124.00	?
p09	-	-	-	-	-	-	-	-	-	19383.00	1456411.00
p10	?	-	0.00	?	-	0.00	?	-	0.00	8123.00	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	?	-	?	?	-	159.00	?	-	159.00	37952.00	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	?	-	?	?	-	563.00	?	-	563.00	343667.00	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	?	-	?	?	-	3.00	?	-	3.00	6239.00	?
p17	?	-	?	?	-	1541.00	?	-	1541.00	619924.00	?
p18	?	-	0.00	?	-	0.00	?	-	0.00	57951.00	?
p19	?	-	?	?	-	1032.00	?	-	1032.00	160912.00	?
p20	?	-	0.00	?	-	0.00	?	-	0.00	50418.00	?

I.10 floortile

I.10.1 floortile-opt11-strips

Table I.12 – `Closed` Size Peak, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
opt-p01-001	214.00	214.00	19.00	1252.00	1252.00	281.00	2382.00	2382.00	281.00	2862.00	?
opt-p01-002	82.00	82.00	0.00	486.00	486.00	19.00	909.00	909.00	19.00	1056.00	?
opt-p02-003	16304.00	16304.00	?	106316.00	106316.00	86008.00	243194.00	243194.00	115862.00	306648.00	?
opt-p02-004	6551.00	6551.00	3012.00	40474.00	40474.00	28008.00	84646.00	84646.00	28008.00	101648.00	?
opt-p03-005	11567.00	11567.00	4247.00	72663.00	72663.00	34829.00	144983.00	144983.00	34829.00	167353.00	?
opt-p03-006	17468.00	17468.00	7638.00	116925.00	116925.00	71657.00	241732.00	241732.00	71657.00	281799.00	?
opt-p04-007	?	-	?	1152514.00	1152514.00	879325.00	2396008.00	2396008.00	879325.00	2874979.00	?
opt-p04-008	-	-	-	-	-	-	-	-	-	?	-
opt-p05-009	-	-	-	-	-	-	-	-	-	?	-
opt-p05-010	-	-	-	-	-	-	-	-	-	?	-
opt-p06-011	-	-	-	-	-	-	-	-	-	?	-
opt-p06-012	-	-	-	-	-	-	-	-	-	?	-
opt-p07-013	-	-	-	-	-	-	-	-	-	?	-
opt-p07-014	-	-	-	-	-	-	-	-	-	?	-
opt-p08-015	-	-	-	-	-	-	-	-	-	?	-
opt-p08-016	-	-	-	-	-	-	-	-	-	?	-
opt-p09-017	-	-	-	-	-	-	-	-	-	?	-
opt-p09-018	-	-	-	-	-	-	-	-	-	?	-
opt-p10-019	-	-	-	-	-	-	-	-	-	?	-
opt-p10-020	-	-	-	-	-	-	-	-	-	?	-

I.10.2 floortile-opt14-strips

Table I.13 – `Closed` Size Peak, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-4-3-2	9863.00	9863.00	?	66473.00	66473.00	51265.00	139718.00	139718.00	55108.00	171158.00	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-3-2	36335.00	36335.00	?	245869.00	245869.00	211689.00	512659.00	512659.00	211689.00	606513.00	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-3-2	?	-	?	366811.00	366811.00	308137.00	774558.00	774558.00	357063.00	927974.00	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-4-3-2	11765.00	11765.00	?	86490.00	86490.00	58027.00	189761.00	189761.00	74143.00	240818.00	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-3-2	?	-	?	387579.00	387579.00	330289.00	819504.00	819504.00	382381.00	976347.00	?
p03-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	?	-

I.11 freecell

I.11.1 freecell

Table I.14 – `Closed` Size Peak, freecell, freecell

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	423.00	3344.00
p02	-	-	-	-	-	-	-	-	-	26018.00	129001.00
p03	-	-	-	-	-	-	-	-	-	101013.00	927315.00
p04	-	-	-	-	-	-	-	-	-	125048.00	3188931.00
p05	?	-	?	84186.00	84180.00	64229.00	163072.00	163072.00	64229.00	176607.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-2-1	-	-	-	-	-	-	-	-	-	1383.00	5549.00
probfreecell-2-2	-	-	-	-	-	-	-	-	-	719.00	5324.00
probfreecell-2-3	-	-	-	-	-	-	-	-	-	559.00	5253.00
probfreecell-2-4	-	-	-	-	-	-	-	-	-	872.00	6694.00
probfreecell-2-5	-	-	-	-	-	-	-	-	-	1879.00	6303.00
probfreecell-3-1	-	-	-	-	-	-	-	-	-	247882.00	623814.00
probfreecell-3-2	-	-	-	-	-	-	-	-	-	146494.00	548424.00
probfreecell-3-3	-	-	-	-	-	-	-	-	-	84089.00	544799.00
probfreecell-3-4	-	-	-	-	-	-	-	-	-	114089.00	674078.00
probfreecell-3-5	-	-	-	-	-	-	-	-	-	173426.00	607262.00
probfreecell-4-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-5	-	-	-	-	-	-	-	-	-	?	-

I.12 ged

I.12.1 ged-opt14-strips

Table I.15 – `Closed` Size Peak, ged, ged-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
d-1-2	-	-	-	-	-	-	-	-	-	1.00	111.00
d-1-3	-	-	-	-	-	-	-	-	-	72858.00	266331.00
d-1-4	-	-	-	-	-	-	-	-	-	1.00	111.00
d-1-8	-	-	-	-	-	-	-	-	-	339263.00	2814778.00
d-2-1	-	-	-	-	-	-	-	-	-	1.00	111.00
d-2-3	-	-	-	-	-	-	-	-	-	3208.00	29917.00
d-2-4	-	-	-	-	-	-	-	-	-	98.00	784.00
d-2-8	-	-	-	-	-	-	-	-	-	?	-
d-3-1	-	-	-	-	-	-	-	-	-	72874.00	264175.00
d-3-2	-	-	-	-	-	-	-	-	-	3272.00	29824.00
d-3-4	185709.00	185359.00	587970.00	1062559.00	1060842.00	1842547.00	1812138.00	1811510.00	1842547.00	2064595.00	?
d-4-2	-	-	-	-	-	-	-	-	-	100.00	739.00
d-4-3	183967.00	183936.00	589006.00	1064729.00	1063016.00	1838624.00	1813320.00	1812675.00	1838624.00	2273061.00	?
d-4-8	-	-	-	-	-	-	-	-	-	?	-
d-7-5	36788.00	36788.00	70564.00	117778.00	117756.00	361999.00	198613.00	198538.00	649834.00	358355.00	?
d-7-6	-	-	-	-	-	-	-	-	-	93457.00	786068.00
d-8-1	-	-	-	-	-	-	-	-	-	338879.00	2789132.00
d-8-2	-	-	-	-	-	-	-	-	-	?	-
d-8-4	-	-	-	-	-	-	-	-	-	?	-
d-8-9	-	-	-	-	-	-	-	-	-	?	-

I.13 grid

I.13.1 grid

Table I.16 – `Closed` Size Peak, grid, grid

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	50.00	5767.00
prob02	6464.00	6464.00	5937.00	37457.00	37409.00	35980.00	67555.00	67540.00	35980.00	77012.00	?
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	-	-	-	-	-	-	-	-	-	?	-

I.14 gripper

I.14.1 gripper

Table I.17 – `Closed` Size Peak, gripper, gripper

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	114.00	235.00
prob02	-	-	-	-	-	-	-	-	-	1373.00	1825.00
prob03	-	-	-	-	-	-	-	-	-	10638.00	11735.00
prob04	-	-	-	-	-	-	-	-	-	66380.00	68557.00
prob05	-	-	-	-	-	-	-	-	-	372716.00	376771.00
prob06	-	-	-	-	-	-	-	-	-	1975785.00	1982393.00
prob07	-	-	-	-	-	-	-	-	-	10082674.00	10092463.00
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-

I.15 hiking

I.15.1 hiking-opt14-strips

Table I.18 – `Closed` Size Peak, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	271.00	494.00
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	2073.00	3008.00
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	8663.00	11406.00
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	64971.00	77960.00
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	139889.00	163452.00
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	4039.00	59118.00
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	212422.00	1618319.00
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	800702.00	5761664.00
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	-	-
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	19229.00	339557.00
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	?	-

I.16 logistics

I.16.1 logistics00

Table I.19 – `Closed` Size Peak, logistics, logistics00

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probLOGISTICS-10-0	?	-	?	?	-	17851.00	?	-	17851.00	193846.00	?
probLOGISTICS-10-1	?	-	?	?	-	10280.00	?	-	10280.00	165006.00	?
probLOGISTICS-11-0	?	-	?	?	-	3712.00	?	-	3712.00	156585.00	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-12-0	?	-	?	?	-	1880.00	?	-	1880.00	116555.00	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	76.00	11963.00
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	194.00	9658.00
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	50.00	3971.00
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	935.00	114019.00
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	181.00	23777.00
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	8.00	764.00
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	933.00	477118.00
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	34.00	29649.00
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	514.00	473780.00
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	536.00	420002.00
probLOGISTICS-7-0	?	-	?	2742.00	2742.00	1039.00	6304.00	6304.00	1039.00	7739.00	?
probLOGISTICS-7-1	?	-	-	?	-	43446.00	113151.00	113151.00	43446.00	155138.00	?
probLOGISTICS-8-0	181.00	181.00	?	1420.00	1420.00	224.00	2933.00	2933.00	224.00	3269.00	?
probLOGISTICS-8-1	?	-	?	?	-	6818.00	34430.00	34430.00	6818.00	43663.00	?
probLOGISTICS-9-0	?	-	?	5445.00	5445.00	532.00	11958.00	11958.00	532.00	14089.00	?
probLOGISTICS-9-1	?	-	0.00	?	-	0.00	?	-	0.00	707.00	?

I.16.2 logistics98

Table I.20 – `Closed` Size Peak, logistics, logistics98

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	?	-	?	4847.00	4847.00	48.00	10634.00	10634.00	48.00	12645.00	?
prob02	-	-	-	-	-	-	-	-	-	?	-
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	2.00	2.00	0.00	10.00	10.00	0.00	20.00	20.00	0.00	23.00	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	-	-	-	-	-	-	-	-	-	?	-
prob27	-	-	-	-	-	-	-	-	-	?	-
prob28	-	-	-	-	-	-	-	-	-	?	-
prob29	-	-	-	-	-	-	-	-	-	?	-
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	68.00	185361.00
prob32	-	-	-	-	-	-	-	-	-	117.00	254234.00
prob33	?	-	?	?	-	700.00	?	-	700.00	92698.00	?
prob34	-	-	-	-	-	-	-	-	-	?	-
prob35	152.00	152.00	0.00	807.00	807.00	0.00	1484.00	1484.00	0.00	1659.00	?

I.17 miconic

I.17.1 miconic

Table I.21 – `Closed` Size Peak, miconic, miconic

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
s1-0	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-1	-	-	-	-	-	-	-	-	-	3.00	4.00
s1-2	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-3	-	-	-	-	-	-	-	-	-	4.00	4.00
s1-4	-	-	-	-	-	-	-	-	-	4.00	4.00
s10-0	-	-	-	-	-	-	-	-	-	57.00	16194641.00
s10-1	-	-	-	-	-	-	-	-	-	64.00	16519524.00
s10-2	-	-	-	-	-	-	-	-	-	74.00	15369517.00
s10-3	-	-	-	-	-	-	-	-	-	52.00	16822223.00
s10-4	-	-	-	-	-	-	-	-	-	44.00	16481293.00
s11-0	8.00	8.00	0.00	41.00	41.00	0.00	71.00	71.00	0.00	78.00	?
s11-1	5.00	5.00	0.00	30.00	30.00	0.00	50.00	50.00	0.00	57.00	?
s11-2	11.00	11.00	0.00	54.00	54.00	0.00	87.00	87.00	0.00	95.00	?
s11-3	?	-	?	?	-	0.00	?	-	0.00	18047.00	?
s11-4	8.00	8.00	0.00	44.00	44.00	0.00	70.00	70.00	0.00	76.00	?
s12-0	4.00	4.00	0.00	28.00	28.00	0.00	49.00	49.00	0.00	54.00	?
s12-1	8.00	8.00	0.00	46.00	46.00	0.00	77.00	77.00	0.00	85.00	?
s12-2	3.00	3.00	0.00	31.00	31.00	0.00	67.00	67.00	0.00	76.00	?
s12-3	7.00	7.00	0.00	44.00	44.00	0.00	73.00	73.00	0.00	80.00	?
s12-4	6.00	6.00	0.00	37.00	37.00	0.00	54.00	54.00	0.00	61.00	?
s13-0	10.00	10.00	0.00	42.00	42.00	0.00	72.00	72.00	0.00	79.00	?
s13-1	?	-	0.00	?	-	0.00	?	-	0.00	19827.00	?
s13-2	13.00	13.00	0.00	66.00	66.00	0.00	106.00	106.00	0.00	117.00	?
s13-3	5.00	5.00	0.00	40.00	40.00	0.00	67.00	67.00	0.00	74.00	?
s13-4	4.00	4.00	0.00	37.00	37.00	0.00	67.00	67.00	0.00	74.00	?
s14-0	4.00	4.00	0.00	31.00	31.00	0.00	61.00	61.00	0.00	70.00	?
s14-1	8.00	8.00	0.00	45.00	45.00	0.00	74.00	74.00	0.00	83.00	?
s14-2	9.00	9.00	0.00	46.00	46.00	0.00	102.00	102.00	0.00	127.00	?
s14-3	10.00	10.00	0.00	51.00	51.00	0.00	93.00	93.00	0.00	101.00	?
s14-4	11.00	11.00	0.00	64.00	64.00	0.00	104.00	104.00	0.00	118.00	?
s15-0	9.00	9.00	0.00	60.00	60.00	0.00	98.00	98.00	0.00	109.00	?
s15-1	18.00	18.00	0.00	94.00	94.00	0.00	165.00	165.00	0.00	183.00	?
s15-2	27.00	27.00	0.00	102.00	102.00	0.00	143.00	143.00	0.00	154.00	?
s15-3	26.00	26.00	0.00	101.00	101.00	0.00	154.00	154.00	0.00	167.00	?
s15-4	15.00	15.00	0.00	84.00	84.00	0.00	141.00	141.00	0.00	156.00	?
s16-0	9.00	9.00	0.00	51.00	51.00	0.00	100.00	100.00	0.00	111.00	?
s16-1	7.00	7.00	0.00	61.00	61.00	0.00	102.00	102.00	0.00	111.00	?
s16-2	15.00	15.00	0.00	70.00	70.00	0.00	119.00	119.00	0.00	136.00	?
s16-3	33.00	33.00	0.00	117.00	117.00	0.00	194.00	194.00	0.00	217.00	?
s16-4	15.00	15.00	0.00	71.00	71.00	0.00	126.00	126.00	0.00	137.00	?
s17-0	19.00	19.00	0.00	91.00	91.00	0.00	150.00	150.00	0.00	167.00	?
s17-1	15.00	15.00	0.00	90.00	90.00	0.00	159.00	159.00	0.00	174.00	?
s17-2	19.00	19.00	0.00	95.00	95.00	0.00	163.00	163.00	0.00	179.00	?
s17-3	8.00	8.00	0.00	71.00	71.00	0.00	108.00	108.00	0.00	115.00	?
s17-4	?	-	0.00	?	-	0.00	?	-	0.00	86727.00	-
s18-0	20.00	20.00	0.00	86.00	86.00	0.00	163.00	163.00	0.00	182.00	?
s18-1	25.00	25.00	0.00	120.00	120.00	0.00	195.00	195.00	0.00	213.00	?
s18-2	16.00	16.00	0.00	93.00	93.00	0.00	170.00	170.00	0.00	187.00	?
s18-3	19.00	19.00	0.00	90.00	90.00	0.00	151.00	151.00	0.00	165.00	?
s18-4	16.00	16.00	0.00	78.00	78.00	0.00	131.00	131.00	0.00	144.00	?
s19-0	16.00	16.00	0.00	109.00	109.00	0.00	186.00	186.00	0.00	202.00	?
s19-1	15.00	15.00	0.00	111.00	111.00	0.00	193.00	193.00	0.00	216.00	?
s19-2	-	-	-	-	-	-	-	-	-	?	-
s19-3	23.00	23.00	0.00	102.00	102.00	0.00	187.00	187.00	0.00	206.00	?
s19-4	15.00	15.00	0.00	86.00	86.00	0.00	146.00	146.00	0.00	160.00	?
s2-0	-	-	-	-	-	-	-	-	-	8.00	27.00
s2-1	-	-	-	-	-	-	-	-	-	8.00	29.00
s2-2	-	-	-	-	-	-	-	-	-	8.00	33.00
s2-3	-	-	-	-	-	-	-	-	-	7.00	25.00
s2-4	-	-	-	-	-	-	-	-	-	10.00	26.00
s20-0	-	-	-	-	-	-	-	-	-	?	?
s20-1	21.00	21.00	0.00	88.00	88.00	0.00	148.00	148.00	0.00	158.00	?
s20-2	61.00	61.00	0.00	252.00	252.00	0.00	425.00	425.00	0.00	481.00	?
s20-3	32.00	32.00	0.00	144.00	144.00	0.00	243.00	243.00	0.00	267.00	?
s20-4	19.00	19.00	0.00	104.00	104.00	0.00	175.00	175.00	0.00	193.00	?
s21-0	33.00	33.00	0.00	136.00	136.00	0.00	228.00	228.00	0.00	250.00	?
s21-1	25.00	25.00	0.00	128.00	128.00	0.00	191.00	191.00	0.00	208.00	?
s21-2	8.00	8.00	0.00	65.00	65.00	0.00	122.00	122.00	0.00	136.00	?
s21-3	24.00	24.00	0.00	123.00	123.00	0.00	181.00	181.00	0.00	196.00	?
s21-4	12.00	12.00	0.00	91.00	91.00	0.00	150.00	150.00	0.00	166.00	?
s22-0	45.00	45.00	0.00	197.00	197.00	0.00	312.00	312.00	0.00	338.00	?
s22-1	28.00	28.00	0.00	151.00	151.00	0.00	263.00	263.00	0.00	288.00	?
s22-2	43.00	43.00	0.00	193.00	193.00	0.00	319.00	319.00	0.00	356.00	?
s22-3	32.00	32.00	0.00	119.00	119.00	0.00	170.00	170.00	0.00	182.00	?
s22-4	28.00	28.00	0.00	99.00	99.00	0.00	171.00	171.00	0.00	187.00	?
s23-0	32.00	32.00	0.00	132.00	132.00	0.00	208.00	208.00	0.00	235.00	?
s23-1	-	-	-	-	-	-	-	-	-	?	-
s23-2	29.00	29.00	0.00	128.00	128.00	0.00	223.00	223.00	0.00	244.00	?
s23-3	-	-	-	-	-	-	-	-	-	?	-
s23-4	29.00	29.00	0.00	125.00	125.00	0.00	218.00	218.00	0.00	245.00	?
s24-0	27.00	27.00	0.00	113.00	113.00	0.00	200.00	200.00	0.00	223.00	?
s24-1	30.00	30.00	0.00	143.00	143.00	0.00	265.00	265.00	0.00	289.00	?
s24-2	44.00	44.00	0.00	164.00	164.00	0.00	262.00	262.00	0.00	283.00	?
s24-3	20.00	20.00	0.00	149.00	149.00	0.00	256.00	256.00	0.00	273.00	?
s24-4	38.00	38.00	0.00	159.00	159.00	0.00	245.00	245.00	0.00	270.00	?
s25-0	52.00	52.00	0.00	233.00	233.00	0.00	401.00	401.00	0.00	435.00	?
s25-1	66.00	66.00	0.00	301.00	301.00	0.00	497.00	497.00	0.00	551.00	?
s25-2	-	-	-	-	-	-	-	-	-	?	-
s25-3	28.00	28.00	0.00	161.00	161.00	0.00	251.00	251.00	0.00	274.00	?
s25-4	42.00	42.00	0.00	194.00	194.00	0.00	308.00	308.00	0.00	332.00	?
s26-0	38.00	38.00	0.00	212.00	212.00	0.00	365.00	365.00	0.00	402.00	?
s26-1	-	-	-	-	-	-	-	-	-	?	-
s26-2	34.00	34.00	0.00	152.00	152.00	0.00	275.00	275.00	0.00	305.00	?
s26-3	65.00	65.00	0.00	251.00	251.00	0.00	401.00	401.00	0.00	455.00	?
s26-4	38.00	38.00	0.00	140.00	140.00	0.00	219.00	219.00	0.00	244.00	?
s27-0	-	-	-	-	-	-	-	-	-	?	-
s27-1	13.00	13.00	0.00	117.00	117.00	0.00	206.00	206.00	0.00	233.00	?
s27-2	83.00	83.00	0.00	369.00	369.00	0.00	623.00	623.00	0.00	686.00	?
s27-3	42.00	42.00	0.00	181.00	181.00	0.00	310.00	310.00	0.00	339.00	?
s27-4	74.00	74.00	0.00	259.00	259.00	0.00	442.00	442.00	0.00	485.00	?
s28-0	27.00	27.00	0.00	199.00	199.00	0.00	332.00	332.00	0.00	362.00	?
s28-1	-	-	-	-	-	-	-	-	-	?	-
s28-2	47.00	47.00	0.00	237.00	237.00	0.00	383.00	383.00	0.00	415.00	?
s28-3	57.00	57.00	0.00	228.00	228.00	0.00	378.00	378.00	0.00	418.00	?
s28-4	40.00	40.00	0.00	203.00	203.00	0.00	319.00	319.00	0.00	344.00	?
s29-0	26.00	26.00	0.00	127.00	127.00	0.00	215.00	215.00	0.00	238.00	?
s29-1	37.00	37.00	0.00	191.00	191.00	0.00	342.00	342.00	0.00	378.00	?
s29-2	42.00	42.00	0.00	220.00	220.00	0.00	384.00	384.00	0.00	427.00	?
s29-3	36.00	36.00	0.00	199.00	199.00	0.00	367.00	367.00	0.00	404.00	?
s29-4	49.00	49.00	0.00	236.00	236.00	0.00	424.00	424.00	0.00	463.00	?
s3-0	-	-	-	-	-	-	-	-	-	17.00	200.00
s3-1	-	-	-	-	-	-	-	-	-	22.00	219.00
s3-2	-	-	-	-	-	-	-	-	-	16.00	190.00
s3-3	-	-	-	-	-	-	-	-	-	12.00	208.00
s3-4	-	-	-	-	-	-	-	-	-	12.00	211.00
s30-0	41.00	41.00	0.00	212.00	212.00	0.00	327.00	327.00	0.00	354.00	?
s30-1	73.00	73.00	0.00	275.00	275.00	0.00	415.00	415.00	0.00	452.00	?
s30-2	54.00	54.00	0.00	205.00	205.00	0.00	346.00	346.00	0.00	377.00	?
s30-3	-	-	-	-	-	-	-	-	-	?	-
s30-4	63.00	63.00	0.00	219.00	219.00	0.00	359.00	359.00	0.00	393.00	?
s4-0	-	-	-	-	-	-	-	-	-	15.00	1284.00
s4-1	-	-	-	-	-	-	-	-	-	16.00	1323.00
s4-2	-	-	-	-	-	-	-	-	-	18.00	1353.00
s4-3	-	-	-	-	-	-	-	-	-	22.00	1308.00
s4-4	-	-	-	-	-	-	-	-	-	29.00	1354.00
s5-0	-	-	-	-	-	-	-	-	-	29.00	6645.00
s5-1	-	-	-	-	-	-	-	-	-	24.00	6852.00
s5-2	-	-	-	-	-	-	-	-	-	23.00	5965.00
s5-3	-	-	-	-	-	-	-	-	-	19.00	6132.00
s5-4	-	-	-	-	-	-	-	-	-	27.00	7203.00
s6-0	-	-	-	-	-	-	-	-	-	43.00	32338.00
s6-1	-	-	-	-	-	-	-	-	-	21.00	31992.00
s6-2	-	-	-	-	-	-	-	-	-	30.00	31964.00
s6-3	-	-	-	-	-	-	-	-	-	131.00	33385.00
s6-4	-	-	-	-	-	-	-	-	-	29.00	36044.00
s7-0	-	-	-	-	-	-	-	-	-	32.00	156769.00
s7-1	-	-	-	-	-	-	-	-	-	49.00	155377.00
s7-2	-	-	-	-	-	-	-	-	-	23.00	167160.00
s7-3	-	-	-	-	-	-	-	-	-	33.00	156728.00
s7-4	-	-	-	-	-	-	-	-	-	45.00	174779.00
s8-0	-	-	-	-	-	-	-	-	-	38.00	754501.00
s8-1	-	-	-	-	-	-	-	-	-	555.00	784004.00
s8-2	-	-	-	-	-	-	-	-	-	55.00	710644.00
s8-3	-	-	-	-	-	-	-	-	-	49.00	815253.00
s8-4	-	-	-	-	-	-	-	-	-	44.00	795232.00
s9-0	-	-	-	-	-	-	-	-	-	61.00	3630265.00
s9-1	-	-	-	-	-	-	-	-	-	66.00	3638478.00
s9-2	-	-	-	-	-	-	-	-	-	57.00	3489961.00
s9-3	-	-	-	-	-	-	-	-	-	36.00	3917908.00
s9-4	-	-	-	-	-	-	-	-	-	476.00	3678050.00

I.18 movie

I.18.1 movie

Table I.22 – `Closed` Size Peak, movie, movie

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	8.00	121.00
prob02	-	-	-	-	-	-	-	-	-	8.00	121.00
prob03	-	-	-	-	-	-	-	-	-	8.00	121.00
prob04	-	-	-	-	-	-	-	-	-	8.00	121.00
prob05	-	-	-	-	-	-	-	-	-	8.00	121.00
prob06	-	-	-	-	-	-	-	-	-	8.00	121.00
prob07	-	-	-	-	-	-	-	-	-	8.00	121.00
prob08	-	-	-	-	-	-	-	-	-	8.00	121.00
prob09	-	-	-	-	-	-	-	-	-	8.00	121.00
prob10	-	-	-	-	-	-	-	-	-	8.00	121.00
prob11	-	-	-	-	-	-	-	-	-	8.00	121.00
prob12	-	-	-	-	-	-	-	-	-	8.00	121.00
prob13	-	-	-	-	-	-	-	-	-	8.00	121.00
prob14	-	-	-	-	-	-	-	-	-	8.00	121.00
prob15	-	-	-	-	-	-	-	-	-	8.00	121.00
prob16	-	-	-	-	-	-	-	-	-	8.00	121.00
prob17	-	-	-	-	-	-	-	-	-	8.00	121.00
prob18	-	-	-	-	-	-	-	-	-	8.00	121.00
prob19	-	-	-	-	-	-	-	-	-	8.00	121.00
prob20	-	-	-	-	-	-	-	-	-	8.00	121.00
prob21	-	-	-	-	-	-	-	-	-	8.00	121.00
prob22	-	-	-	-	-	-	-	-	-	8.00	121.00
prob23	-	-	-	-	-	-	-	-	-	8.00	121.00
prob24	-	-	-	-	-	-	-	-	-	8.00	121.00
prob25	-	-	-	-	-	-	-	-	-	8.00	121.00
prob26	-	-	-	-	-	-	-	-	-	8.00	121.00
prob27	-	-	-	-	-	-	-	-	-	8.00	121.00
prob28	-	-	-	-	-	-	-	-	-	8.00	121.00
prob29	-	-	-	-	-	-	-	-	-	8.00	121.00
prob30	-	-	-	-	-	-	-	-	-	8.00	121.00

I.19 mprime

I.19.1 mprime

Table I.23 – `Closed` Size Peak, mprime, mprime

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	7.00	3137.00
prob02	940.00	940.00	105.00	3907.00	3907.00	105.00	9410.00	9410.00	105.00	12115.00	?
prob03	-	-	-	-	-	-	-	-	-	8.00	10518.00
prob04	-	-	-	-	-	-	-	-	-	426.00	599999.00
prob05	5971.00	5971.00	663.00	34714.00	34714.00	3188.00	77221.00	77221.00	3188.00	86303.00	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	5.00	4705.00
prob08	154.00	154.00	1.00	839.00	839.00	1.00	1713.00	1713.00	1.00	1890.00	?
prob09	67.00	67.00	1.00	403.00	403.00	1.00	790.00	790.00	1.00	890.00	?
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	329.00	179813.00
prob12	-	-	-	-	-	-	-	-	-	349.00	203501.00
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	20.00	20.00	4.00	221.00	221.00	4.00	418.00	418.00	4.00	460.00	?
prob17	0.00	0.00	0.00	3.00	3.00	0.00	7.00	7.00	0.00	8.00	?
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	8546.00	1084131.00
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	4.00	277.00
prob26	21.00	21.00	5.00	206.00	206.00	5.00	393.00	393.00	5.00	436.00	?
prob27	-	-	-	-	-	-	-	-	-	9.00	61377.00
prob28	-	-	-	-	-	-	-	-	-	131.00	12035.00
prob29	-	-	-	-	-	-	-	-	-	10.00	7428.00
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	13.00	4786.00
prob32	-	-	-	-	-	-	-	-	-	163.00	117811.00
prob33	-	-	-	-	-	-	-	-	-	?	-
prob34	-	-	-	-	-	-	-	-	-	16.00	6081.00
prob35	-	-	-	-	-	-	-	-	-	30.00	5342.00

I.20 mystery

I.20.1 mystery

Table I.24 – `Closed` Size Peak, mystery, mystery

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	7.00	39.00
prob02	-	-	-	-	-	-	-	-	-	85.00	961139.00
prob03	-	-	-	-	-	-	-	-	-	4.00	394.00
prob04	-	-	-	-	-	-	-	-	-	5898125.00	-
prob05	-	-	-	-	-	-	-	-	-	?	-
prob06	2224.00	2224.00	307.00	12074.00	12074.00	307.00	22174.00	22174.00	307.00	24338.00	?
prob07	-	-	-	-	-	-	-	-	-	0.00	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	42.00	345677.00
prob10	115.00	115.00	0.00	628.00	628.00	0.00	1213.00	1213.00	0.00	1328.00	?
prob11	-	-	-	-	-	-	-	-	-	10.00	658.00
prob12	-	-	-	-	-	-	-	-	-	521382.00	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	432.00	703075.00
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	5.00	4710.00
prob18	-	-	-	-	-	-	-	-	-	0.00	-
prob19	-	-	-	-	-	-	-	-	-	199.00	136917.00
prob20	9.00	9.00	6.00	69.00	69.00	12.00	117.00	117.00	12.00	127.00	?
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	4.00	45.00
prob26	-	-	-	-	-	-	-	-	-	42.00	13551.00
prob27	-	-	-	-	-	-	-	-	-	9.00	2503.00
prob28	-	-	-	-	-	-	-	-	-	9.00	910.00
prob29	-	-	-	-	-	-	-	-	-	4.00	68.00
prob30	-	-	-	-	-	-	-	-	-	4582.00	1066132.00

I.21 nomystery

I.21.1 nomystery-opt11-strips

Table I.25 – `Closed` Size Peak, nomystery, nomystery-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	47.00	2290.00
p02	-	-	-	-	-	-	-	-	-	61.00	65577.00
p03	-	-	-	-	-	-	-	-	-	42.00	171972.00
p04	-	-	-	-	-	-	-	-	-	275.00	7814123.00
p05	175.00	175.00	45.00	870.00	870.00	174.00	1685.00	1685.00	174.00	1896.00	?
p06	84.00	84.00	9.00	374.00	374.00	28.00	729.00	729.00	28.00	797.00	?
p07	2908.00	2908.00	1030.00	15052.00	15052.00	3604.00	28046.00	28046.00	3604.00	31811.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	76.00	1313.00
p12	-	-	-	-	-	-	-	-	-	71.00	16654.00
p13	-	-	-	-	-	-	-	-	-	38.00	38750.00
p14	-	-	-	-	-	-	-	-	-	446.00	1745088.00
p15	174.00	174.00	44.00	868.00	868.00	175.00	1676.00	1676.00	175.00	1896.00	?
p16	84.00	84.00	9.00	373.00	373.00	31.00	727.00	727.00	31.00	797.00	?
p17	2596.00	2596.00	948.00	13293.00	13293.00	3300.00	25107.00	25107.00	3300.00	28348.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.22 openstacks

I.22.1 openstacks-opt08-strips

Table I.26 – `Closed` Size Peak, openstacks, openstacks-opt08-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	17.00	27.00
p02	-	-	-	-	-	-	-	-	-	87.00	133.00
p03	-	-	-	-	-	-	-	-	-	230.00	293.00
p04	-	-	-	-	-	-	-	-	-	1991.00	2086.00
p05	-	-	-	-	-	-	-	-	-	3725.00	4183.00
p06	-	-	-	-	-	-	-	-	-	32.00	74.00
p07	-	-	-	-	-	-	-	-	-	57597.00	61184.00
p08	-	-	-	-	-	-	-	-	-	52981.00	61184.00
p09	-	-	-	-	-	-	-	-	-	1315.00	3148.00
p10	-	-	-	-	-	-	-	-	-	2555.00	4771.00
p11	-	-	-	-	-	-	-	-	-	80076.00	96779.00
p12	-	-	-	-	-	-	-	-	-	3754.00	7216.00
p13	-	-	-	-	-	-	-	-	-	345816.00	392535.00
p14	-	-	-	-	-	-	-	-	-	109852.00	156130.00
p15	-	-	-	-	-	-	-	-	-	581361.00	701282.00
p16	-	-	-	-	-	-	-	-	-	225545.00	350399.00
p17	-	-	-	-	-	-	-	-	-	286540.00	412749.00
p18	-	-	-	-	-	-	-	-	-	5130.00	16083.00
p19	-	-	-	-	-	-	-	-	-	529270.00	756244.00
p20	-	-	-	-	-	-	-	-	-	3330130.00	4309328.00
p21	-	-	-	-	-	-	-	-	-	233139.00	454359.00
p22	-	-	-	-	-	-	-	-	-	55239.00	131087.00
p23	-	-	-	-	-	-	-	-	-	1205215.00	2064911.00
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	585809.00	1235466.00
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.22.2 openstacks-opt11-strips

Table I.27 – `Closed` Size Peak, openstacks, openstacks-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	32.00	74.00
p02	-	-	-	-	-	-	-	-	-	57597.00	61184.00
p03	-	-	-	-	-	-	-	-	-	52981.00	61184.00
p04	-	-	-	-	-	-	-	-	-	1315.00	3148.00
p05	-	-	-	-	-	-	-	-	-	2555.00	4771.00
p06	-	-	-	-	-	-	-	-	-	80076.00	96779.00
p07	-	-	-	-	-	-	-	-	-	3754.00	7216.00
p08	-	-	-	-	-	-	-	-	-	345816.00	392535.00
p09	-	-	-	-	-	-	-	-	-	109852.00	156130.00
p10	-	-	-	-	-	-	-	-	-	55239.00	131087.00
p11	-	-	-	-	-	-	-	-	-	581361.00	701282.00
p12	-	-	-	-	-	-	-	-	-	225545.00	350399.00
p13	-	-	-	-	-	-	-	-	-	286540.00	412749.00
p14	-	-	-	-	-	-	-	-	-	5130.00	16083.00
p15	-	-	-	-	-	-	-	-	-	529270.00	756244.00
p16	-	-	-	-	-	-	-	-	-	233139.00	454359.00
p17	-	-	-	-	-	-	-	-	-	3330130.00	4309328.00
p18	-	-	-	-	-	-	-	-	-	1205215.00	2064911.00
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	585809.00	1235466.00

I.22.3 openstacks-opt14-strips

Table I.28 – `Closed` Size Peak, openstacks, openstacks-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p20_1	-	-	-	-	-	-	-	-	-	615176.00	771334.00
p20_2	-	-	-	-	-	-	-	-	-	1043976.00	1322567.00
p20_3	-	-	-	-	-	-	-	-	-	35748.00	84746.00
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p15_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	?	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	?	-

I.22.4 openstacks-strips

Table I.29 – `Closed` Size Peak, openstacks, openstacks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	1773.00	4659.00
p02	-	-	-	-	-	-	-	-	-	2038.00	5331.00
p03	-	-	-	-	-	-	-	-	-	1793.00	4659.00
p04	-	-	-	-	-	-	-	-	-	1766.00	4659.00
p05	-	-	-	-	-	-	-	-	-	1775.00	4659.00
p06	-	-	-	-	-	-	-	-	-	435923.00	871242.00
p07	-	-	-	-	-	-	-	-	-	469318.00	838564.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.23 organic

I.23.1 organic-synthesis-opt18-strips

Table I.30 – `Closed` Size Peak, organic, organic-synthesis-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	1.00	1.00
p02	-	-	-	-	-	-	-	-	-	1.00	1.00
p03	-	-	-	-	-	-	-	-	-	2.00	2.00
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	2.00	2.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	2.00	2.00
p10	-	-	-	-	-	-	-	-	-	2.00	2.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	2.00	3.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.23.2 organic-synthesis-split-opt18-strips

Table I.31 – `Closed` Size Peak, organic, organic-synthesis-split-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^{*\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A$
p01	-	-	-	-	-	-	-	-	-	10.00	5978.00
p02	-	-	-	-	-	-	-	-	-	17.00	8823.00
p03	-	-	-	-	-	-	-	-	-	52.00	84842.00
p04	-	-	-	-	-	-	-	-	-	20.00	3159513.00
p05	-	-	-	-	-	-	-	-	-	51.00	518997.00
p06	0.00	0.00	9.00	13.00	13.00	17.00	39.00	39.00	48.00	50.00	?
p07	-	-	-	-	-	-	-	-	-	33.00	140.00
p08	1.00	1.00	54.00	121.00	121.00	537.00	701.00	701.00	975.00	991.00	?
p09	-	-	-	-	-	-	-	-	-	36.00	42943.00
p10	-	-	-	-	-	-	-	-	-	42.00	70165.00
p11	0.00	0.00	96.00	214.00	214.00	281.00	3037.00	3037.00	10238.00	10203.00	?
p12	25.00	25.00	21.00	143.00	143.00	464.00	6879.00	6879.00	7593.00	10437.00	?
p13	0.00	0.00	1.00	16.00	16.00	1159.00	366.00	366.00	1159.00	1165.00	?
p14	-	-	-	-	-	-	-	-	-	120.00	254735.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	0.00	0.00	0.00	26.00	26.00	295.00	493.00	493.00	513.00	516.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.24 parcprinter

I.24.1 parcprinter-08-strips

Table I.32 – `Closed` Size Peak, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	A^*	$Blind\,A^*$
p01	-	-	-	-	-	-	-	-	-	11.00	23.00
p02	-	-	-	-	-	-	-	-	-	18.00	1502.00
p03	-	-	-	-	-	-	-	-	-	22.00	5086.00
p04	2.00	2.00	1.00	10.00	10.00	22.00	25.00	25.00	22.00	41.00	?
p05	15.00	15.00	1.00	88.00	88.00	13.00	222.00	222.00	13.00	256.00	?
p06	?	-	?	?	-	8984.00	?	-	8984.00	52104.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	10.00	30.00
p12	-	-	-	-	-	-	-	-	-	302.00	5829.00
p13	-	-	-	-	-	-	-	-	-	6175.00	1210792.00
p14	?	-	?	?	-	?	?	-	101093.00	218594.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	8.00	19.00
p22	-	-	-	-	-	-	-	-	-	15.00	2946.00
p23	-	-	-	-	-	-	-	-	-	22.00	313470.00
p24	2.00	2.00	2.00	10.00	10.00	9.00	21.00	21.00	23.00	29.00	?
p25	?	-	?	?	-	2277.00	?	-	2277.00	21961.00	?
p26	3.00	3.00	3.00	13.00	13.00	12.00	31.00	31.00	30.00	43.00	?
p27	3.00	3.00	3.00	16.00	16.00	14.00	35.00	35.00	33.00	50.00	?
p28	4.00	4.00	4.00	18.00	18.00	16.00	41.00	41.00	37.00	57.00	?
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.24.2 parcprinter-opt11-strips

Table I.33 – `Closed` Size Peak, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	A^*	$Blind\,A^*$
p01	-	-	-	-	-	-	-	-	-	15.00	2946.00
p02	-	-	-	-	-	-	-	-	-	18.00	1502.00
p03	-	-	-	-	-	-	-	-	-	302.00	5829.00
p04	2.00	2.00	1.00	10.00	10.00	22.00	25.00	25.00	22.00	41.00	?
p05	-	-	-	-	-	-	-	-	-	22.00	313470.00
p06	?	-	?	?	-	8984.00	?	-	8984.00	52104.00	?
p07	15.00	15.00	1.00	88.00	88.00	13.00	222.00	222.00	13.00	256.00	?
p08	2.00	2.00	2.00	10.00	10.00	9.00	21.00	21.00	23.00	29.00	?
p09	-	-	-	-	-	-	-	-	-	6175.00	1210792.00
p10	?	-	?	?	-	2277.00	?	-	2277.00	21961.00	?
p11	3.00	3.00	3.00	13.00	13.00	12.00	31.00	31.00	30.00	43.00	?
p12	?	-	?	?	-	?	?	-	101093.00	218594.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	3.00	3.00	3.00	16.00	16.00	14.00	35.00	35.00	33.00	50.00	?

I.25 parking

I.25.1 parking-opt11-strips

Table I.34 – `Closed` Size Peak, parking, parking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	A^*	$Blind\,A^*$
pfile03-011	270.00	270.00	125.00	1491.00	1491.00	282.00	2914.00	2914.00	282.00	3386.00	?
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	3344.00	3344.00	472.00	17738.00	17738.00	910.00	34488.00	34488.00	910.00	39815.00	?
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-
pfile06-021	-	-	-	-	-	-	-	-	-	?	-
pfile06-022	-	-	-	-	-	-	-	-	-	?	-
pfile06-023	-	-	-	-	-	-	-	-	-	?	-
pfile06-024	-	-	-	-	-	-	-	-	-	?	-
pfile07-025	-	-	-	-	-	-	-	-	-	?	-
pfile07-026	-	-	-	-	-	-	-	-	-	?	-
pfile07-027	-	-	-	-	-	-	-	-	-	?	-
pfile08-028	-	-	-	-	-	-	-	-	-	?	-
pfile08-029	-	-	-	-	-	-	-	-	-	?	-
pfile08-030	-	-	-	-	-	-	-	-	-	?	-

I.25.2 parking-opt14-strips

Table I.35 – `Closed` Size Peak, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p_12_7-01	4335.00	4335.00	1064.00	24653.00	24653.00	3328.00	46433.00	46433.00	3328.00	51616.00	?
p_12_7-02	7876.00	7876.00	2193.00	45704.00	45704.00	7369.00	92645.00	92645.00	7369.00	105778.00	?
p_12_7-03	1950.00	1950.00	469.00	10844.00	10844.00	1344.00	21193.00	21193.00	1344.00	24242.00	?
p_12_7-04	-	-	-	-	-	-	-	-	-	?	-
p_14_8-01	-	-	-	-	-	-	-	-	-	?	-
p_14_8-02	-	-	-	-	-	-	-	-	-	?	-
p_14_8-03	-	-	-	-	-	-	-	-	-	?	-
p_14_8-04	-	-	-	-	-	-	-	-	-	?	-
p_16_9-01	-	-	-	-	-	-	-	-	-	?	-
p_16_9-02	-	-	-	-	-	-	-	-	-	?	-
p_16_9-03	-	-	-	-	-	-	-	-	-	?	-
p_16_9-04	-	-	-	-	-	-	-	-	-	?	-
p_18_10-01	-	-	-	-	-	-	-	-	-	?	-
p_18_10-02	-	-	-	-	-	-	-	-	-	?	-
p_18_10-03	-	-	-	-	-	-	-	-	-	?	-
p_18_10-04	-	-	-	-	-	-	-	-	-	?	-
p_20_11-01	-	-	-	-	-	-	-	-	-	?	-
p_20_11-02	-	-	-	-	-	-	-	-	-	?	-
p_20_11-03	-	-	-	-	-	-	-	-	-	?	-
p_20_11-04	-	-	-	-	-	-	-	-	-	?	-

I.26 pathways

I.26.1 pathways

Table I.36 – `Closed` Size Peak, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01	-	-	-	-	-	-	-	-	-	6.00	1648.00
p02	-	-	-	-	-	-	-	-	-	12.00	3061.00
p03	-	-	-	-	-	-	-	-	-	151.00	76528.00
p04	-	-	-	-	-	-	-	-	-	251.00	453455.00
p05	?	-	3044.00	?	-	3044.00	?	-	3044.00	72688.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.27 pegsol

I.27.1 pegsol-08-strips

Table I.37 – `Closed` Size Peak, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01	-	-	-	-	-	-	-	-	-	5.00	11.00
p02	-	-	-	-	-	-	-	-	-	23.00	84.00
p03	-	-	-	-	-	-	-	-	-	23.00	215.00
p04	-	-	-	-	-	-	-	-	-	23.00	179.00
p05	-	-	-	-	-	-	-	-	-	60.00	277.00
p06	-	-	-	-	-	-	-	-	-	215.00	992.00
p07	-	-	-	-	-	-	-	-	-	15.00	113.00
p08	-	-	-	-	-	-	-	-	-	4553.00	25703.00
p09	-	-	-	-	-	-	-	-	-	472.00	3950.00
p10	-	-	-	-	-	-	-	-	-	4291.00	30044.00
p11	-	-	-	-	-	-	-	-	-	2632.00	13608.00
p12	-	-	-	-	-	-	-	-	-	11464.00	39360.00
p13	-	-	-	-	-	-	-	-	-	7440.00	33386.00
p14	-	-	-	-	-	-	-	-	-	10130.00	55828.00
p15	-	-	-	-	-	-	-	-	-	17263.00	74215.00
p16	-	-	-	-	-	-	-	-	-	2268.00	10599.00
p17	-	-	-	-	-	-	-	-	-	160993.00	301020.00
p18	-	-	-	-	-	-	-	-	-	2016.00	49937.00
p19	-	-	-	-	-	-	-	-	-	45842.00	257321.00
p20	-	-	-	-	-	-	-	-	-	42940.00	341728.00
p21	-	-	-	-	-	-	-	-	-	79244.00	491049.00
p22	-	-	-	-	-	-	-	-	-	11385.00	47882.00
p23	-	-	-	-	-	-	-	-	-	126374.00	968389.00
p24	-	-	-	-	-	-	-	-	-	192043.00	1324204.00
p25	-	-	-	-	-	-	-	-	-	126571.00	931245.00
p26	-	-	-	-	-	-	-	-	-	1398981.00	6940656.00
p27	-	-	-	-	-	-	-	-	-	89091.00	2766746.00
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.27.2 pegsol-opt11-strips

Table I.38 – `Closed` Size Peak, pegsol, pegsol-opt11-strips

	10%			50%			90%			100%	
	A^*_{+IDA}	$A^*_{+IDA}\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}\uparrow$	PEA^*_{+IDA}	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	52.00	209.00
p02	-	-	-	-	-	-	-	-	-	160993.00	301020.00
p03	-	-	-	-	-	-	-	-	-	2016.00	49937.00
p04	-	-	-	-	-	-	-	-	-	45842.00	257321.00
p05	-	-	-	-	-	-	-	-	-	17249.00	90055.00
p06	-	-	-	-	-	-	-	-	-	95088.00	263005.00
p07	-	-	-	-	-	-	-	-	-	18595.00	210856.00
p08	-	-	-	-	-	-	-	-	-	429340.00	341728.00
p09	-	-	-	-	-	-	-	-	-	55976.00	367911.00
p10	-	-	-	-	-	-	-	-	-	79244.00	491049.00
p11	-	-	-	-	-	-	-	-	-	11385.00	47882.00
p12	-	-	-	-	-	-	-	-	-	8947.00	40040.00
p13	-	-	-	-	-	-	-	-	-	126374.00	968389.00
p14	-	-	-	-	-	-	-	-	-	192043.00	1324204.00
p15	-	-	-	-	-	-	-	-	-	126571.00	931245.00
p16	-	-	-	-	-	-	-	-	-	1398981.00	6940656.00
p17	-	-	-	-	-	-	-	-	-	89091.00	2766746.00
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

I.28 petri

I.28.1 petri-net-alignment-opt18-strips

Table I.39 – `Closed` Size Peak, petri, petri-net-alignment-opt18-strips

	10%			50%			90%			100%	
	A^*_{+IDA}	$A^*_{+IDA}\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}\uparrow$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}\uparrow$	PEA^*_{+IDA}	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	4107.00	523309.00
p02	-	-	-	-	-	-	-	-	-	2486.00	1325136.00
p03	?	-	?	8538.00	8538.00	?	10379.00	10379.00	9781.00	11577.00	?
p04	?	-	?	31937.00	31937.00	?	51582.00	51582.00	31327.00	58462.00	?
p05	3409.00	3409.00	?	14381.00	14381.00	15586.00	22051.00	22051.00	15586.00	26086.00	?
p06	?	-	?	17093.00	17093.00	16400.00	24016.00	24016.00	16400.00	26490.00	?
p07	?	-	?	18186.00	18186.00	18611.00	21682.00	21682.00	18611.00	23070.00	?
p08	?	-	?	?	-	?	303278.00	303277.00	271062.00	358691.00	?
p09	-	-	?	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	45797.00	45797.00	?	53832.00	53832.00	51735.00	61370.00	61370.00	51735.00	64235.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.29 pipesworld

I.29.1 pipesworld-notankage

Table I.40 – `Closed` Size Peak, pipesworld, pipesworld-notankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	5.00	84.00
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	489.00	1698.00
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	165.00	3667.00
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	941.00	12361.00
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	89.00	10941.00
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	533.00	51278.00
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	114.00	25601.00
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	1051.00	175342.00
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	6111.00	5373125.00
p10-net1-b14-g8	38621.00	38621.00	14977.00	265618.00	265618.00	77508.00	534535.00	534535.00	77508.00	660486.00	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	42378.00	679688.00
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	200504.00	2759069.00
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	5636.00	484965.00
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	212678.00	4923940.00
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	2979.00	123323.00
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3	4675.00	4675.00	3580.00	31221.00	31221.00	21623.00	55436.00	55436.00	21623.00	70394.00	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	?	
p30-net4-b20-g8	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	?	
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2	2658.00	2658.00	2335.00	15562.00	15562.00	4832.00	29607.00	29607.00	4832.00	31534.00	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	?	

I.29.2 pipesworld-tankage

Table I.41 – `Closed` Size Peak, pipesworld, pipesworld-tankage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	8.00	130.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	432.00	1038.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	1111.00	52182.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	9535.00	274176.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	123.00	25184.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	1186.00	96433.00
p07-net1-b12-g5-t80	154.00	154.00	1.00	1091.00	1091.00	1.00	1774.00	1774.00	1.00	2028.00	?
p08-net1-b12-g7-t80	11306.00	11306.00	251.00	56197.00	56197.00	406.00	127010.00	127010.00	406.00	145207.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	382586.00	4232401.00
p12-net2-b10-g4-t50	-	-	-	-	-	-	-	-	-	?	
p13-net2-b12-g3-t70	16869.00	16869.00	12487.00	112712.00	112712.00	49910.00	211074.00	211074.00	49910.00	258589.00	?
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	31836.00	4957248.00
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5-t80	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	712949.00	1780491.00
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g5-t50	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	

I.29.3 pipesworld-tankage-nosplit

Table I.42 – `Closed` Size Peak, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	8.00	130.00
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	432.00	1038.00
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	1111.00	52182.00
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	9535.00	274176.00
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	123.00	25184.00
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	1186.00	96433.00
p07-net1-b12-g5-t80	154.00	154.00	1.00	1091.00	1091.00	1.00	1774.00	1774.00	1.00	2028.00	?
p08-net1-b12-g7-t80	11306.00	11306.00	251.00	56197.00	56197.00	406.00	127010.00	127010.00	406.00	145207.00	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	-
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	?	-
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	-
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

I.30 psr

I.30.1 psr-small

Table I.43 – `Closed` Size Peak, psr, psr-small

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	8.00	10.00
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	46.00	70.00
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	30.00	32.00
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	63.00	299.00
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	58.00	147.00
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	8.00	10.00
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	53.00	117.00
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	22.00	103.00
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	14.00	45.00
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	107.00	994.00
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	143.00	152.00
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	112.00	147.00
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	84.00	94.00
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	16.00	26.00
p15-s25-n2-l4-f10	-	-	-	-	-	-	-	-	-	152.00	3451.00
p16-s29-n2-l5-f30	-	-	-	-	-	-	-	-	-	1659.00	2744.00
p17-s30-n2-l5-f50	-	-	-	-	-	-	-	-	-	13.00	15.00
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	71.00	154.00
p19-s33-n3-l2-f70	-	-	-	-	-	-	-	-	-	5947.00	9151.00
p20-s34-n3-l2-f50	-	-	-	-	-	-	-	-	-	75.00	83.00
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	25.00	37.00
p22-s37-n3-l3-f30	-	-	-	-	-	-	-	-	-	130154.00	192678.00
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	80.00	217.00
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	25.00	37.00
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	87.00	10515.00
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	138.00	176.00
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	490.00	776.00
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	79.00	101.00
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	67634.00	244712.00
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	1346.00	2449.00
p31-s49-n4-l2-f30	-	-	-	-	-	-	-	-	-	3235.00	54380.00
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	427.00	434.00
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	761.00	2133.00
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	215.00	226.00
p35-s57-n5-l2-f30	-	-	-	-	-	-	-	-	-	17160.00	149455.00
p36-s65-n6-l2-f50	-	-	-	-	-	-	-	-	-	134834.00	1633567.00
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	1162.00	1551.00
p38-s78-n3-l3-f80	-	-	-	-	-	-	-	-	-	206.00	586.00
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	1611.00	4091.00
p40-s80-n3-l4-f10	-	-	-	-	-	-	-	-	-	25302.00	1198571.00
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	30.00	65.00
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	1566.00	1919.00
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	312.00	312.00
p44-s89-n4-l2-f30	-	-	-	-	-	-	-	-	-	2235.00	4119.00
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	316.00	439.00
p46-s97-n5-l2-f10	-	-	-	-	-	-	-	-	-	45057.00	83279.00
p47-s98-n5-l2-f50	-	-	-	-	-	-	-	-	-	3399.00	5010.00
p48-s101-n5-l3-f30	?	-	?	1783619.00	1537804.00	5691411.00	4611630.00	4463603.00	5691411.00	5858418.00	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	616.00	690.00

I.31 rovers

I.31.1 rovers

Table I.44 – `Closed` Size Peak, rovers, rovers

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	29.00	1020.00
p02	-	-	-	-	-	-	-	-	-	9.00	250.00
p03	-	-	-	-	-	-	-	-	-	30.00	4426.00
p04	-	-	-	-	-	-	-	-	-	8.00	1049.00
p05	-	-	-	-	-	-	-	-	-	71234.00	8495232.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	1296.00	1296.00	176.00	8020.00	8020.00	891.00	16586.00	16586.00	891.00	19544.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	1293.00	1293.00	355.00	7672.00	7672.00	1103.00	16564.00	16564.00	1103.00	19202.00	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-
p31	-	-	-	-	-	-	-	-	-	?	-
p32	-	-	-	-	-	-	-	-	-	?	-
p33	-	-	-	-	-	-	-	-	-	?	-
p34	-	-	-	-	-	-	-	-	-	?	-
p35	-	-	-	-	-	-	-	-	-	?	-
p36	-	-	-	-	-	-	-	-	-	?	-
p37	-	-	-	-	-	-	-	-	-	?	-
p38	-	-	-	-	-	-	-	-	-	?	-
p39	-	-	-	-	-	-	-	-	-	?	-
p40	-	-	-	-	-	-	-	-	-	?	-

I.32 satellite

I.32.1 satellite

Table I.45 – `Closed` Size Peak, satellite, satellite

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01-pfile1	-	-	-	-	-	-	-	-	-	9.00	94.00
p02-pfile2	-	-	-	-	-	-	-	-	-	13.00	1663.00
p03-pfile3	-	-	-	-	-	-	-	-	-	25.00	18398.00
p04-pfile4	-	-	-	-	-	-	-	-	-	33.00	316161.00
p05-pfile5	66.00	66.00	0.00	525.00	525.00	0.00	1028.00	1028.00	0.00	1095.00	?
p06-pfile6	282.00	282.00	55.00	2004.00	2004.00	55.00	3899.00	3899.00	55.00	4866.00	?
p07-pfile7	7364.00	7364.00	335.00	32323.00	32323.00	498.00	76097.00	76097.00	498.00	95972.00	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	?	-
p10-pfile10	-	-	-	-	-	-	-	-	-	?	-
p11-pfile11	-	-	-	-	-	-	-	-	-	?	-
p12-pfile12	-	-	-	-	-	-	-	-	-	?	-
p13-pfile13	-	-	-	-	-	-	-	-	-	?	-
p14-pfile14	-	-	-	-	-	-	-	-	-	?	-
p15-pfile15	-	-	-	-	-	-	-	-	-	?	-
p16-pfile16	-	-	-	-	-	-	-	-	-	?	-
p17-pfile17	-	-	-	-	-	-	-	-	-	?	-
p18-pfile18	-	-	-	-	-	-	-	-	-	?	-
p19-pfile19	-	-	-	-	-	-	-	-	-	?	-
p20-pfile20	-	-	-	-	-	-	-	-	-	?	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	?	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	?	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	?	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	?	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	?	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	?	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	?	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	?	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	?	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	?	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	?	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	?	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	?	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	?	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	?	-

I.33 scanalyzer

I.33.1 scanalyzer-08-strips

Table I.46 – `Closed` Size Peak, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	6.00	44046.00
p02	-	-	-	-	-	-	-	-	-	2439.00	45528.00
p03	-	-	-	-	-	-	-	-	-	16964.00	45881.00
p04	-	-	-	-	-	-	-	-	-	8.00	10175656.00
p05	-	-	-	-	-	-	-	-	-	699152.00	10310816.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	0.00	0.00	0.00	4.00	4.00	0.00	8.00	8.00	0.00	10.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	0.00	0.00	0.00	5.00	5.00	0.00	10.00	10.00	0.00	12.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	1.00	1.00	0.00	5.00	5.00	0.00	12.00	12.00	0.00	14.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	1.00	1.00	0.00	6.00	6.00	0.00	13.00	13.00	0.00	16.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	1.00	1.00	0.00	7.00	7.00	0.00	15.00	15.00	0.00	18.00	?
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	5.00	53.00
p23	-	-	-	-	-	-	-	-	-	5.00	53.00
p24	-	-	-	-	-	-	-	-	-	5.00	53.00
p25	-	-	-	-	-	-	-	-	-	516.00	10170979.00
p26	-	-	-	-	-	-	-	-	-	21859.00	10254739.00
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.33.2 scanalyzer-opt11-strips

Table I.47 – `Closed` Size Peak, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	5.00	53.00
p02	-	-	-	-	-	-	-	-	-	2439.00	45528.00
p03	-	-	-	-	-	-	-	-	-	16964.00	45881.00
p04	-	-	-	-	-	-	-	-	-	8.00	10175656.00
p05	0.00	0.00	0.00	4.00	4.00	0.00	8.00	8.00	0.00	10.00	?
p06	-	-	-	-	-	-	-	-	-	699152.00	10310816.00
p07	1.00	1.00	0.00	7.00	7.00	0.00	15.00	15.00	0.00	18.00	?
p08	0.00	0.00	0.00	5.00	5.00	0.00	10.00	10.00	0.00	12.00	?
p09	1.00	1.00	0.00	5.00	5.00	0.00	12.00	12.00	0.00	14.00	?
p10	1.00	1.00	0.00	6.00	6.00	0.00	13.00	13.00	0.00	16.00	?
p11	-	-	-	-	-	-	-	-	-	516.00	10170979.00
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	21859.00	10254739.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.34 snake

I.34.1 snake-opt18-strips

Table I.48 – `Closed` Size Peak, snake, snake-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	16646.00	186263.00
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	66.00	1928.00
p05	-	-	-	-	-	-	-	-	-	1246.00	15571.00
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	2632.00	44585.00
p10	-	-	-	-	-	-	-	-	-	90865.00	840139.00
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	45265.00	575019.00
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.35 sokoban

I.35.1 sokoban-opt08-strips

Table I.49 – `Closed` Size Peak, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	178.00	1763.00
p02	-	-	-	-	-	-	-	-	-	148.00	1365.00
p03	-	-	-	-	-	-	-	-	-	159.00	1227.00
p04	-	-	-	-	-	-	-	-	-	14806.00	321263.00
p05	4.00	4.00	4.00	12.00	12.00	12.00	24.00	24.00	24.00	26.00	?
p06	-	-	-	-	-	-	-	-	-	422.00	11356.00
p07	-	-	-	-	-	-	-	-	-	3462.00	326689.00
p08	-	-	-	-	-	-	-	-	-	358476.00	13592778.00
p09	-	-	-	-	-	-	-	-	-	7667.00	887363.00
p10	-	-	-	-	-	-	-	-	-	12898.00	853521.00
p11	-	-	-	-	-	-	-	-	-	114244.00	547854.00
p12	-	-	-	-	-	-	-	-	-	21234.00	5113496.00
p13	-	-	-	-	-	-	-	-	-	75258.00	2331196.00
p14	-	-	-	-	-	-	-	-	-	6202.00	260680.00
p15	-	-	-	-	-	-	-	-	-	1067611.00	21562476.00
p16	-	-	-	-	-	-	-	-	-	180971.00	936056.00
p17	-	-	-	-	-	-	-	-	-	22340.00	330912.00
p18	-	-	-	-	-	-	-	-	-	91053.00	7337254.00
p19	-	-	-	-	-	-	-	-	-	518114.00	23308574.00
p20	-	-	-	-	-	-	-	-	-	429.00	647.00
p21	306.00	306.00	306.00	2705.00	2705.00	2733.00	5827.00	5827.00	5845.00	7818.00	?
p22	?	-	?	?	-	?	?	-	?	436406.00	?
p23	?	-	?	?	-	?	?	-	?	218863.00	?
p24	?	-	?	?	-	?	?	-	?	494807.00	?
p25	?	-	?	?	-	?	?	-	?	2088593.00	?
p26	?	-	?	?	-	?	?	-	?	1315571.00	?
p27	?	-	?	283620.00	283620.00	?	551718.00	551718.00	593870.00	646393.00	?
p28	?	-	?	?	-	?	?	-	?	6949387.00	?
p29	?	-	?	?	-	?	33441.00	33441.00	34048.00	37048.00	?
p30	-	-	-	-	-	-	-	-	-	?	?

I.35.2 sokoban-opt11-strips

Table I.50 – `Closed` Size Peak, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	422.00	11356.00
p02	-	-	-	-	-	-	-	-	-	22340.00	330912.00
p03	-	-	-	-	-	-	-	-	-	6202.00	260680.00
p04	-	-	-	-	-	-	-	-	-	14806.00	321263.00
p05	-	-	-	-	-	-	-	-	-	180971.00	936056.00
p06	-	-	-	-	-	-	-	-	-	114244.00	547854.00
p07	-	-	-	-	-	-	-	-	-	12898.00	853521.00
p08	-	-	-	-	-	-	-	-	-	7667.00	887363.00
p09	-	-	-	-	-	-	-	-	-	3462.00	326689.00
p10	4.00	4.00	4.00	12.00	12.00	12.00	24.00	24.00	24.00	26.00	?
p11	-	-	-	-	-	-	-	-	-	75258.00	2331196.00
p12	-	-	-	-	-	-	-	-	-	429.00	647.00
p13	-	-	-	-	-	-	-	-	-	358476.00	13592778.00
p14	-	-	-	-	-	-	-	-	-	21234.00	5113496.00
p15	-	-	-	-	-	-	-	-	-	91053.00	7337254.00
p16	-	-	-	-	-	-	-	-	-	1067611.00	21562476.00
p17	-	-	-	-	-	-	-	-	-	518114.00	23308574.00
p18	306.00	306.00	306.00	2705.00	2705.00	2733.00	5827.00	5827.00	5845.00	7818.00	?
p19	?	-	?	?	-	?	?	-	?	436406.00	?
p20	?	-	?	?	-	?	?	-	?	218863.00	?

I.36 spider

I.36.1 spider-opt18-strips

Table I.51 – `Closed` Size Peak, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	871.00	11771.00
p02	-	-	-	-	-	-	-	-	-	1398.00	7677.00
p03	-	-	-	-	-	-	-	-	-	32022.00	2960984.00
p04	-	-	-	-	-	-	-	-	-	40262.00	3202484.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	1610.00	4389.00
p08	-	-	-	-	-	-	-	-	-	2343.00	57167.00
p09	-	-	-	-	-	-	-	-	-	16810.00	1637573.00
p10	9977.00	9977.00	17801.00	47577.00	46664.00	87786.00	83161.00	82964.00	87786.00	91737.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	1043.00	15195.00
p15	-	-	-	-	-	-	-	-	-	349.00	1438.00
p16	12136.00	12136.00	26853.00	46255.00	45659.00	87691.00	86670.00	86608.00	87691.00	95141.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.37 storage

I.37.1 storage

Table I.52 – `Closed` Size Peak, storage, storage

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	3.00	3.00
p02	-	-	-	-	-	-	-	-	-	3.00	3.00
p03	-	-	-	-	-	-	-	-	-	3.00	3.00
p04	-	-	-	-	-	-	-	-	-	13.00	51.00
p05	-	-	-	-	-	-	-	-	-	41.00	172.00
p06	-	-	-	-	-	-	-	-	-	41.00	364.00
p07	-	-	-	-	-	-	-	-	-	94.00	791.00
p08	-	-	-	-	-	-	-	-	-	568.00	7567.00
p09	-	-	-	-	-	-	-	-	-	657.00	33574.00
p10	-	-	-	-	-	-	-	-	-	1217.00	26558.00
p11	-	-	-	-	-	-	-	-	-	13830.00	314011.00
p12	-	-	-	-	-	-	-	-	-	31562.00	1839736.00
p13	-	-	-	-	-	-	-	-	-	3532.00	603489.00
p14	-	-	-	-	-	-	-	-	-	21188.00	6275399.00
p15	12810.00	12810.00	4735.00	63756.00	63756.00	16204.00	140580.00	140580.00	16204.00	155703.00	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.38 termes

I.38.1 termes-opt18-strips

Table I.53 – `Closed` Size Peak, termes, termes-opt18-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	86020.00	516599.00
p02	-	-	-	-	-	-	-	-	-	914876.00	4949482.00
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	3320252.00	14121924.00
p12	-	-	-	-	-	-	-	-	-	316138.00	2031771.00
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.39 tetris

I.39.1 tetris-opt14-strips

Table I.54 – `Closed` Size Peak, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-10	-	-	-	-	-	-	-	-	-	?	-
p01-6	-	-	-	-	-	-	-	-	-	?	-
p01-8	-	-	-	-	-	-	-	-	-	73412.00	206957.00
p02-10	-	-	-	-	-	-	-	-	-	?	-
p02-4	-	-	-	-	-	-	-	-	-	28.00	179.00
p02-6	-	-	-	-	-	-	-	-	-	64072.00	304013.00
p02-8	-	-	-	-	-	-	-	-	-	?	-
p03-10	-	-	-	-	-	-	-	-	-	?	-
p03-4	-	-	-	-	-	-	-	-	-	876.00	10020.00
p03-6	-	-	-	-	-	-	-	-	-	?	-
p03-8	-	-	-	-	-	-	-	-	-	?	-
p04-10	-	-	-	-	-	-	-	-	-	?	-
p04-6	-	-	-	-	-	-	-	-	-	?	-
p04-8	-	-	-	-	-	-	-	-	-	?	-
p05-10	-	-	-	-	-	-	-	-	-	?	-
p05-6	-	-	-	-	-	-	-	-	-	6689.00	35192.00
p05-8	-	-	-	-	-	-	-	-	-	?	-

I.40 tidybot

I.40.1 tidybot-opt11-strips

Table I.55 – `Closed` Size Peak, tidybot, tidybot-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	4.00	63.00
p02	-	-	-	-	-	-	-	-	-	3370.00	554161.00
p03	-	-	-	-	-	-	-	-	-	142.00	9565.00
p04	-	-	-	-	-	-	-	-	-	1603.00	378963.00
p05	1709.00	1709.00	1742.00	8436.00	8436.00	10439.00	15484.00	15445.00	11732.00	17829.00	?
p06	-	-	-	-	-	-	-	-	-	451.00	912332.00
p07	-	-	-	-	-	-	-	-	-	142.00	13926.00
p08	-	-	-	-	-	-	-	-	-	11356.00	5854494.00
p09	-	-	-	-	-	-	-	-	-	5637.00	923305.00
p10	-	-	-	-	-	-	-	-	-	1140.00	4402535.00
p11	-	-	-	-	-	-	-	-	-	5559.00	5090600.00
p12	3943.00	3943.00	4931.00	21719.00	21719.00	26095.00	40205.00	40138.00	28237.00	44390.00	?
p13	1332.00	1332.00	1581.00	7157.00	7157.00	8082.00	13309.00	13291.00	10065.00	15654.00	?
p14	-	-	-	-	-	-	-	-	-	1689.00	2352962.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.40.2 tidybot-opt14-strips

Table I.56 – `Closed` Size Peak, tidybot, tidybot-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	-
p02	704.00	704.00	830.00	3621.00	3621.00	4300.00	6688.00	6673.00	4899.00	7894.00	?
p03	870.00	870.00	898.00	4473.00	4473.00	4912.00	7932.00	7916.00	5552.00	9070.00	?
p04	-	-	-	-	-	-	-	-	-	6478.00	1596567.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	3648.00	3648.00	4184.00	18117.00	18117.00	20390.00	33037.00	32890.00	22320.00	37492.00	?
p08	-	-	-	-	-	-	-	-	-	4921.00	3193497.00
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	5559.00	5090600.00
p12	3943.00	3943.00	4931.00	21719.00	21719.00	26095.00	40205.00	40138.00	28237.00	44390.00	?
p13	1332.00	1332.00	1581.00	7157.00	7157.00	8082.00	13309.00	13291.00	10065.00	15654.00	?
p14	-	-	-	-	-	-	-	-	-	1689.00	2352962.00
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.41 tpp

I.41.1 tpp

Table I.57 – `Closed` Size Peak, tpp, tpp

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	5.00	6.00
p02	-	-	-	-	-	-	-	-	-	8.00	26.00
p03	-	-	-	-	-	-	-	-	-	11.00	116.00
p04	-	-	-	-	-	-	-	-	-	14.00	493.00
p05	-	-	-	-	-	-	-	-	-	224.00	26436.00
p06	?	-	?	?	-	5169.00	?	-	5169.00	29426.00	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.42 transport

I.42.1 transport-opt08-strips

Table I.58 – `Closed` Size Peak, transport, transport-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	5.00	64.00
p02	-	-	-	-	-	-	-	-	-	36.00	2328.00
p03	-	-	-	-	-	-	-	-	-	6422.00	421283.00
p04	-	-	-	-	-	-	-	-	-	27744.00	4481981.00
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	17.00	159.00
p12	-	-	-	-	-	-	-	-	-	288.00	15434.00
p13	-	-	-	-	-	-	-	-	-	1561.00	439851.00
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	14.00	119.00
p22	-	-	-	-	-	-	-	-	-	482.00	7675.00
p23	-	-	-	-	-	-	-	-	-	1653.00	107396.00
p24	-	-	-	-	-	-	-	-	-	18126.00	1737042.00
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.42.2 transport-opt11-strips

Table I.59 – `Closed` Size Peak, transport, transport-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	1653.00	107396.00
p02	-	-	-	-	-	-	-	-	-	6422.00	421283.00
p03	-	-	-	-	-	-	-	-	-	288.00	15434.00
p04	-	-	-	-	-	-	-	-	-	1561.00	439851.00
p05	-	-	-	-	-	-	-	-	-	18126.00	1737042.00
p06	-	-	-	-	-	-	-	-	-	27744.00	4481981.00
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.42.3 transport-opt14-strips

Table I.60 – `Closed` Size Peak, transport, transport-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	405.00	27517.00
p02	-	-	-	-	-	-	-	-	-	22083.00	614636.00
p03	?	-	?	13957.00	13957.00	3014.00	24680.00	24680.00	3014.00	27503.00	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	411774.00	1563206.00
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	2897.00	518336.00
p14	?	-	?	?	-	14064.00	35279.00	35279.00	14064.00	41220.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.43 trucks

I.43.1 trucks-strips

Table I.61 – `Closed` Size Peak, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	98.00	4881.00
p02	-	-	-	-	-	-	-	-	-	514.00	28762.00
p03	-	-	-	-	-	-	-	-	-	1335.00	427025.00
p04	-	-	-	-	-	-	-	-	-	3157.00	2879237.00
p05	252.00	252.00	134.00	1229.00	1229.00	703.00	2325.00	2325.00	703.00	2703.00	?
p06	8913.00	8913.00	?	54081.00	54081.00	32181.00	111406.00	111406.00	44123.00	132026.00	?
p07	-	-	-	-	-	-	-	-	-	13096.00	11919217.00
p08	974.00	974.00	78.00	5697.00	5697.00	726.00	10819.00	10819.00	726.00	12362.00	?
p09	5789.00	5789.00	418.00	32336.00	32336.00	3317.00	60497.00	60497.00	3317.00	68830.00	?
p10	19428.00	19428.00	?	250835.00	249776.00	250290.00	354087.00	354087.00	250290.00	384584.00	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.44 visitall

I.44.1 visitall-opt11-strips

Table I.62 – `Closed` Size Peak, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
problem02-full	-	-	-	-	-	-	-	-	-	3.00	4.00
problem02-half	-	-	-	-	-	-	-	-	-	1.00	1.00
problem03-full	-	-	-	-	-	-	-	-	-	21.00	354.00
problem03-half	-	-	-	-	-	-	-	-	-	14.00	48.00
problem04-full	-	-	-	-	-	-	-	-	-	726.00	50489.00
problem04-half	-	-	-	-	-	-	-	-	-	15.00	667.00
problem05-full	-	-	-	-	-	-	-	-	-	69675.00	14650221.00
problem05-half	-	-	-	-	-	-	-	-	-	1029.00	74672.00
problem06-full	-	-	-	-	-	-	-	-	-	?	-
problem06-half	-	-	-	-	-	-	-	-	-	1044.00	368703.00
problem07-full	-	-	-	-	-	-	-	-	-	?	-
problem07-half	45857.00	45857.00	45248.00	248849.00	248849.00	245008.00	463680.00	463680.00	297332.00	514946.00	?
problem08-full	-	-	-	-	-	-	-	-	-	?	-
problem08-half	-	-	-	-	-	-	-	-	-	?	-
problem09-full	-	-	-	-	-	-	-	-	-	?	-
problem09-half	-	-	-	-	-	-	-	-	-	?	-
problem10-full	-	-	-	-	-	-	-	-	-	?	-
problem10-half	-	-	-	-	-	-	-	-	-	?	-
problem11-full	-	-	-	-	-	-	-	-	-	?	-
problem11-half	-	-	-	-	-	-	-	-	-	?	-

I.44.2 visitall-opt14-strips

Table I.63 – `Closed` Size Peak, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p-05-10	-	-	-	-	-	-	-	-	-	5813.00	642555.00
p-05-5	-	-	-	-	-	-	-	-	-	8149.00	1887803.00
p-05-6	-	-	-	-	-	-	-	-	-	?	?
p-05-7	9875.00	9875.00	9544.00	55049.00	55049.00	55655.00	102631.00	102631.00	72377.00	115533.00	?
p-05-8	53324.00	53324.00	51768.00	268326.00	268326.00	261066.00	494331.00	494331.00	328392.00	547751.00	?
p-05-9	-	-	-	-	-	-	-	-	-	?	-
p-1-10	-	-	-	-	-	-	-	-	-	?	-
p-1-11	-	-	-	-	-	-	-	-	-	?	-
p-1-12	-	-	-	-	-	-	-	-	-	?	-
p-1-13	-	-	-	-	-	-	-	-	-	?	-
p-1-14	-	-	-	-	-	-	-	-	-	?	-
p-1-15	-	-	-	-	-	-	-	-	-	?	-
p-1-16	-	-	-	-	-	-	-	-	-	?	-
p-1-17	-	-	-	-	-	-	-	-	-	?	-
p-1-18	-	-	-	-	-	-	-	-	-	?	-
p-1-5	-	-	-	-	-	-	-	-	-	69675.00	14650221.00
p-1-6	-	-	-	-	-	-	-	-	-	?	-
p-1-7	-	-	-	-	-	-	-	-	-	?	-
p-1-8	-	-	-	-	-	-	-	-	-	?	-
p-1-9	-	-	-	-	-	-	-	-	-	?	-

I.45 woodworking

I.45.1 woodworking-opt08-strips

Table I.64 – `Closed` Size Peak, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	12.00	9797.00
p02	-	-	-	-	-	-	-	-	-	9.00	23287.00
p03	2.00	2.00	0.00	10.00	10.00	0.00	16.00	16.00	0.00	18.00	?
p04	?	-	?	?	-	21.00	152221.00	152221.00	21.00	172076.00	?
p05	77.00	77.00	0.00	365.00	365.00	0.00	691.00	691.00	0.00	769.00	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	3219.00	3219.00	0.00	15869.00	15869.00	0.00	30064.00	30064.00	0.00	33892.00	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	7.00	4150.00
p12	-	-	-	-	-	-	-	-	-	12.00	1939645.00
p13	430.00	430.00	1.00	2603.00	2603.00	1.00	5185.00	5185.00	1.00	5948.00	?
p14	1396.00	1396.00	33.00	8653.00	8653.00	73.00	15588.00	15588.00	73.00	17348.00	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	295.00	295.00	0.00	1252.00	1252.00	0.00	2446.00	2446.00	0.00	2743.00	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	6.00	265.00
p22	-	-	-	-	-	-	-	-	-	21.00	191221.00
p23	-	-	-	-	-	-	-	-	-	17.00	1057916.00
p24	841.00	841.00	3.00	4514.00	4514.00	3.00	8611.00	8611.00	3.00	9870.00	?
p25	3.00	3.00	0.00	12.00	12.00	0.00	21.00	21.00	0.00	25.00	?
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

I.45.2 woodworking-opt11-strips

Table I.65 – `Closed` Size Peak, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	17.00	1057916.00
p02	-	-	-	-	-	-	-	-	-	12.00	1939645.00
p03	430.00	430.00	1.00	2603.00	2603.00	1.00	5185.00	5185.00	1.00	5948.00	?
p04	2.00	2.00	0.00	10.00	10.00	0.00	16.00	16.00	0.00	18.00	?
p05	841.00	841.00	3.00	4514.00	4514.00	3.00	8611.00	8611.00	3.00	9870.00	?
p06	?	-	?	?	-	21.00	152221.00	152221.00	21.00	172076.00	?
p07	1396.00	1396.00	33.00	8653.00	8653.00	73.00	15588.00	15588.00	73.00	17348.00	?
p08	3.00	3.00	0.00	12.00	12.00	0.00	21.00	21.00	0.00	25.00	?
p09	77.00	77.00	0.00	365.00	365.00	0.00	691.00	691.00	0.00	769.00	?
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	295.00	295.00	0.00	1252.00	1252.00	0.00	2446.00	2446.00	0.00	2743.00	?
p16	3219.00	3219.00	0.00	15869.00	15869.00	0.00	30064.00	30064.00	0.00	33892.00	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

I.46 zenotravel

I.46.1 zenotravel

Table I.66 – `Closed` Size Peak, zenotravel, zenotravel

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	1.00	1.00
p02	-	-	-	-	-	-	-	-	-	15.00	56.00
p03	-	-	-	-	-	-	-	-	-	10.00	2298.00
p04	-	-	-	-	-	-	-	-	-	20.00	7174.00
p05	-	-	-	-	-	-	-	-	-	20.00	50738.00
p06	-	-	-	-	-	-	-	-	-	57.00	374610.00
p07	-	-	-	-	-	-	-	-	-	666.00	4438741.00
p08	10.00	10.00	0.00	62.00	62.00	0.00	135.00	135.00	0.00	144.00	?
p09	2112.00	2112.00	49.00	11909.00	11909.00	167.00	23097.00	23097.00	167.00	27543.00	?
p10	675.00	675.00	0.00	4077.00	4077.00	0.00	7778.00	7778.00	0.00	8606.00	?
p11	94.00	94.00	0.00	608.00	608.00	0.00	1260.00	1260.00	0.00	1435.00	?
p12	5007.00	5007.00	26.00	31378.00	31378.00	26.00	59597.00	59597.00	26.00	67115.00	?
p13	11103.00	11103.00	105.00	55279.00	55279.00	105.00	106049.00	106049.00	105.00	123908.00	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

APPENDIX J — MINIMUM Open F-VALUE WHEN PHASE CHANGES

J.1 agricola

J.1.1 agricola-opt18-strips

Table J.1 – Minimum Open F-Value when Phase Changes, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	-
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

J.2 airport

J.2.1 airport

Table J.2 – Minimum Open F-Value when Phase Changes, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-airport1-p1	-	-	-	-	-	-	-	-	-	?	?
p02-airport1-p1	-	-	-	-	-	-	-	-	-	?	?
p03-airport1-p2	-	-	-	-	-	-	-	-	-	?	?
p04-airport2-p1	-	-	-	-	-	-	-	-	-	?	?
p05-airport2-p1	-	-	-	-	-	-	-	-	-	?	?
p06-airport2-p2	-	-	-	-	-	-	-	-	-	?	?
p07-airport2-p2	-	-	-	-	-	-	-	-	-	?	?
p08-airport2-p3	-	-	-	-	-	-	-	-	-	?	?
p09-airport2-p4	-	-	-	-	-	-	-	-	-	?	?
p10-airport3-p1	-	-	-	-	-	-	-	-	-	?	?
p11-airport3-p1	-	-	-	-	-	-	-	-	-	?	?
p12-airport3-p2	-	-	-	-	-	-	-	-	-	?	?
p13-airport3-p2	-	-	-	-	-	-	-	-	-	?	?
p14-airport3-p3	-	-	-	-	-	-	-	-	-	?	?
p15-airport3-p3	-	-	-	-	-	-	-	-	-	?	?
p16-airport3-p4	-	-	-	-	-	-	-	-	-	?	?
p17-airport3-p5	-	-	-	-	-	-	-	-	-	?	?
p18-airport3-p6	106.00	-	106.00	107.00	-	107.00	107.00	-	?	?	?
p19-airport3-p6	-	-	-	-	-	-	-	-	-	?	?
p20-airport3-p7	113.00	-	114.00	114.00	-	115.00	114.00	114.00	?	?	?
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	?	?
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	?	?
p23-airport4halfMUC-p4	167.00	167.00	168.00	167.00	167.00	?	167.00	167.00	?	?	?
p24-airport4halfMUC-p4	162.00	162.00	162.00	162.00	162.00	162.00	162.00	162.00	162.00	?	?
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	?	?
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	?	?
p27-airport4halfMUC-p6	246.00	246.00	246.00	245.00	-	?	245.00	245.00	?	?	?
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	?	-
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	?	-
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p33-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	?	-
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	?	-
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	?	-
p37-airport5MUC-p3	141.00	-	141.00	141.00	-	141.00	141.00	-	?	?	?
p38-airport5MUC-p3	153.00	-	153.00	153.00	-	154.00	154.00	-	?	?	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	?
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p41-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	?	-
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	?	-
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	?	-
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	?	-

J.3 barman

J.3.1 barman-opt11-strips

Table J.3 – Minimum `Open` F-Value when Phase Changes, barman, barman-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
pfile01-001	-	-	-	-	-	-	-	-	-	?	?
pfile01-002	-	-	-	-	-	-	-	-	-	?	?
pfile01-003	-	-	-	-	-	-	-	-	-	?	?
pfile01-004	-	-	-	-	-	-	-	-	-	?	?
pfile02-005	-	-	-	-	-	-	-	-	-	?	-
pfile02-006	-	-	-	-	-	-	-	-	-	?	-
pfile02-007	-	-	-	-	-	-	-	-	-	?	-
pfile02-008	-	-	-	-	-	-	-	-	-	?	-
pfile03-009	-	-	-	-	-	-	-	-	-	?	-
pfile03-010	-	-	-	-	-	-	-	-	-	?	-
pfile03-011	-	-	-	-	-	-	-	-	-	?	-
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	-	-	-	-	-	-	-	-	-	?	-
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-

J.3.2 barman-opt14-strips

Table J.4 – Minimum `Open` F-Value when Phase Changes, barman, barman-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p435-1	-	-	-	-	-	-	-	-	-	?	-
p435-2	-	-	-	-	-	-	-	-	-	?	-
p435-3	-	-	-	-	-	-	-	-	-	?	-
p536-1	-	-	-	-	-	-	-	-	-	?	-
p536-2	-	-	-	-	-	-	-	-	-	?	-
p536-3	-	-	-	-	-	-	-	-	-	?	-
p638-1	-	-	-	-	-	-	-	-	-	?	-
p638-2	-	-	-	-	-	-	-	-	-	?	-
p638-3	-	-	-	-	-	-	-	-	-	?	-
p739-1	-	-	-	-	-	-	-	-	-	?	-
p739-2	-	-	-	-	-	-	-	-	-	?	-
p739-3	-	-	-	-	-	-	-	-	-	?	-
p839-1	-	-	-	-	-	-	-	-	-	?	-
p839-2	-	-	-	-	-	-	-	-	-	?	-

J.4 blocks

J.4.1 blocks

Table J.5 – Minimum `Open` F-Value when Phase Changes, blocks, blocks

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probBLOCKS-10-0	31.00	31.00	32.00	33.00	33.00	?	34.00	34.00	?	?	?
probBLOCKS-10-1	29.00	29.00	30.00	31.00	31.00	?	32.00	32.00	?	?	?
probBLOCKS-10-2	31.00	31.00	32.00	33.00	33.00	?	33.00	33.00	?	?	?
probBLOCKS-11-0	29.00	29.00	30.00	31.00	31.00	?	31.00	31.00	?	?	?
probBLOCKS-11-1	27.00	27.00	28.00	29.00	29.00	?	29.00	29.00	?	?	?
probBLOCKS-11-2	31.00	31.00	32.00	33.00	33.00	?	33.00	33.00	?	?	?
probBLOCKS-12-0	31.00	31.00	32.00	33.00	33.00	?	33.00	33.00	?	?	?
probBLOCKS-12-1	31.00	31.00	32.00	33.00	33.00	?	33.00	33.00	?	?	?
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-14-0	35.00	35.00	36.00	37.00	37.00	?	37.00	37.00	?	?	?
probBLOCKS-14-1	34.00	34.00	34.00	35.00	35.00	?	35.00	35.00	?	?	?
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	?	?

J.5 childsnack

J.5.1 childsnack-opt14-strips

Table J.6 – Minimum `Open` F-Value when Phase Changes, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
child-snack_pfile01	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile02	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile03	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile04	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile05	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile06	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile07	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile08	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile09	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile10	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	?	

J.6 data

J.6.1 data-network-opt18-strips

Table J.7 – Minimum `Open` F-Value when Phase Changes, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	73.00	73.00	77.00	77.00	77.00	-	78.00	78.00	-	?	?
p04	117.00	-	119.00	119.00	119.00	?	120.00	120.00	?	?	?
p05	96.00	96.00	101.00	102.00	102.00	-	103.00	103.00	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	96.00	-	101.00	102.00	102.00	?	104.00	104.00	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	59.00	59.00	62.00	62.00	62.00	?	62.00	62.00	?	?	?
p13	96.00	96.00	100.00	103.00	103.00	?	104.00	104.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	113.00	113.00	125.00	123.00	123.00	?	126.00	126.00	?	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

J.7 depot

J.7.1 depot

Table J.8 – Minimum `Open` F-Value when Phase Changes, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	24.00	-	27.00	28.00	28.00	?	29.00	29.00	?	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	21.00	21.00	22.00	23.00	23.00	?	23.00	23.00	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	23.00	23.00	24.00	24.00	24.00	?	24.00	24.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?

J.8 driverlog

J.8.1 driverlog

Table J.9 – Minimum `Open` F-Value when Phase Changes, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	12.00	12.00	13.00	12.00	12.00	?	13.00	13.00	-	?	?
p08	19.00	19.00	21.00	21.00	21.00	?	21.00	21.00	?	?	?
p09	19.00	19.00	20.00	21.00	21.00	?	21.00	21.00	?	?	?
p10	16.00	16.00	16.00	16.00	16.00	?	16.00	16.00	?	?	?
p11	17.00	17.00	18.00	18.00	18.00	?	18.00	18.00	?	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	23.00	23.00	25.00	25.00	25.00	?	25.00	25.00	?	?	?
p14	26.00	26.00	27.00	27.00	27.00	?	27.00	27.00	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

J.9 elevators

J.9.1 elevators-opt08-strips

Table J.10 – Minimum `Open` F-Value when Phase Changes, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	46.00	-	53.00	52.00	-	?	54.00	-	?	?	?
p06	44.00	-	52.00	51.00	-	?	52.00	-	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	45.00	-	52.00	50.00	-	?	52.00	-	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	55.00	-	?	60.00	-	?	62.00	-	?	?	?
p15	57.00	-	65.00	63.00	-	?	65.00	-	?	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	69.00	-	76.00	75.00	-	?	74.00	-	?	?	?
p18	47.00	-	?	58.00	-	?	60.00	-	?	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	56.00	-	67.00	65.00	-	?	68.00	-	?	?	?
p24	47.00	-	?	53.00	-	?	55.00	-	?	?	?
p25	54.00	-	62.00	60.00	-	?	62.00	-	?	?	?
p26	41.00	-	?	46.00	-	?	47.00	-	?	?	?
p27	72.00	-	80.00	78.00	-	?	81.00	-	?	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

J.9.2 elevators-opt11-strips

Table J.11 – Minimum `Open` F-Value when Phase Changes, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	41.00	-	?	46.00	-	?	47.00	-	?	?	?
p08	46.00	-	53.00	52.00	-	?	54.00	-	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	55.00	-	?	60.00	-	?	62.00	-	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	44.00	-	52.00	51.00	-	?	52.00	-	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	45.00	-	52.00	50.00	-	?	52.00	-	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	57.00	-	65.00	63.00	-	?	65.00	-	?	?	?
p17	69.00	-	76.00	75.00	-	?	74.00	-	?	?	?
p18	47.00	-	?	58.00	-	?	60.00	-	?	?	?
p19	56.00	-	67.00	65.00	-	?	68.00	-	?	?	?
p20	47.00	-	?	53.00	-	?	55.00	-	?	?	?

J.10 floortile

J.10.1 floortile-opt11-strips

Table J.12 – Minimum Open F-Value when Phase Changes, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
opt-p01-001	32.00	32.00	35.00	36.00	36.00	?	37.00	37.00	?	?	?
opt-p01-002	28.00	28.00	31.00	31.00	31.00	?	32.00	32.00	?	?	?
opt-p02-003	53.00	53.00	56.00	58.00	58.00	61.00	61.00	61.00	?	?	?
opt-p02-004	45.00	45.00	48.00	50.00	50.00	?	52.00	52.00	?	?	?
opt-p03-005	52.00	52.00	54.00	55.00	55.00	?	57.00	57.00	?	?	?
opt-p03-006	53.00	53.00	56.00	57.00	57.00	?	59.00	59.00	?	?	?
opt-p04-007	58.00	-	61.00	63.00	63.00	?	65.00	65.00	?	?	?
opt-p04-008	-	-	-	-	-	-	-	-	-	?	-
opt-p05-009	-	-	-	-	-	-	-	-	-	?	-
opt-p05-010	-	-	-	-	-	-	-	-	-	?	-
opt-p06-011	-	-	-	-	-	-	-	-	-	?	-
opt-p06-012	-	-	-	-	-	-	-	-	-	?	-
opt-p07-013	-	-	-	-	-	-	-	-	-	?	-
opt-p07-014	-	-	-	-	-	-	-	-	-	?	-
opt-p08-015	-	-	-	-	-	-	-	-	-	?	-
opt-p08-016	-	-	-	-	-	-	-	-	-	?	-
opt-p09-017	-	-	-	-	-	-	-	-	-	?	-
opt-p09-018	-	-	-	-	-	-	-	-	-	?	-
opt-p10-019	-	-	-	-	-	-	-	-	-	?	-
opt-p10-020	-	-	-	-	-	-	-	-	-	?	-

J.10.2 floortile-opt14-strips

Table J.13 – Minimum Open F-Value when Phase Changes, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-4-3-2	47.00	47.00	50.00	53.00	53.00	55.00	55.00	55.00	?	?	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-3-2	53.00	53.00	57.00	60.00	60.00	?	62.00	62.00	?	?	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-3-2	56.00	-	59.00	62.00	62.00	64.00	64.00	64.00	?	?	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-4-3-2	48.00	48.00	50.00	52.00	52.00	55.00	55.00	55.00	?	?	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-3-2	56.00	-	59.00	62.00	62.00	64.00	64.00	64.00	?	?	?
p03-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	?	-

J.11 freecell

J.11.1 freecell

Table J.14 – Minimum `Open` F-Value when Phase Changes, freecell, freecell

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	27.00	-	28.00	29.00	29.00	?	30.00	30.00	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-2-1	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-2	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-3	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-4	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-5	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-1	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-2	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-3	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-3-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-5	-	-	-	-	-	-	-	-	-	?	-

J.12 ged

J.12.1 ged-opt14-strips

Table J.15 – Minimum `Open` F-Value when Phase Changes, ged, ged-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
d-1-2	-	-	-	-	-	-	-	-	-	?	?
d-1-3	-	-	-	-	-	-	-	-	-	?	?
d-1-4	-	-	-	-	-	-	-	-	-	?	?
d-1-8	-	-	-	-	-	-	-	-	-	?	?
d-2-1	-	-	-	-	-	-	-	-	-	?	?
d-2-3	-	-	-	-	-	-	-	-	-	?	?
d-2-4	-	-	-	-	-	-	-	-	-	?	?
d-2-8	-	-	-	-	-	-	-	-	-	?	?
d-3-1	-	-	-	-	-	-	-	-	-	?	?
d-3-2	-	-	-	-	-	-	-	-	-	?	?
d-3-4	3.00	3.00	4.00	4.00	4.00	?	4.00	4.00	?	?	?
d-4-2	-	-	-	-	-	-	-	-	-	?	?
d-4-3	3.00	3.00	4.00	4.00	4.00	?	4.00	4.00	?	?	?
d-4-8	-	-	-	-	-	-	-	-	-	?	?
d-7-5	3.00	3.00	3.00	3.00	3.00	4.00	3.00	3.00	4.00	?	?
d-7-6	-	-	-	-	-	-	-	-	-	?	?
d-8-1	-	-	-	-	-	-	-	-	-	?	?
d-8-2	-	-	-	-	-	-	-	-	-	?	?
d-8-4	-	-	-	-	-	-	-	-	-	?	?
d-8-9	-	-	-	-	-	-	-	-	-	?	?

J.13 grid

J.13.1 grid

Table J.16 – Minimum `Open` F-Value when Phase Changes, grid, grid

	10%			50%			90%			100%	
	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	21.00	21.00	23.00	25.00	25.00	?	25.00	25.00	?	?	?
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	-	-	-	-	-	-	-	-	-	?	-

J.14 gripper

J.14.1 gripper

Table J.17 – Minimum `Open` F-Value when Phase Changes, gripper, gripper

	10%			50%			90%			100%	
	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	-	-	-	-	-	-	-	-	-	?	?
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-

J.15 hiking

J.15.1 hiking-opt14-strips

Table J.18 – Minimum `Open` F-Value when Phase Changes, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	A^*	Blind A^*
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	?	-

J.16 logistics

J.16.1 logistics00

Table J.19 – Minimum `Open` F-Value when Phase Changes, logistics, logistics00

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
probLOGISTICS-10-0	43.00	-	44.00	44.00	-	?	44.00	-	?	?	?
probLOGISTICS-10-1	40.00	-	41.00	41.00	-	?	41.00	-	?	?	?
probLOGISTICS-11-0	46.00	-	47.00	47.00	-	?	47.00	-	?	?	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-12-0	40.00	-	41.00	41.00	-	?	41.00	-	?	?	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-7-0	34.00	-	35.00	35.00	35.00	?	35.00	35.00	?	?	?
probLOGISTICS-7-1	42.00	-	42.00	43.00	-	?	43.00	43.00	?	?	?
probLOGISTICS-8-0	29.00	29.00	30.00	30.00	30.00	?	30.00	30.00	?	?	?
probLOGISTICS-8-1	42.00	-	43.00	43.00	-	?	43.00	43.00	?	?	?
probLOGISTICS-9-0	34.00	-	35.00	35.00	35.00	?	35.00	35.00	?	?	?
probLOGISTICS-9-1	29.00	-	29.00	29.00	-	?	29.00	-	?	?	?

J.16.2 logistics98

Table J.20 – Minimum `Open` F-Value when Phase Changes, logistics, logistics98

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	24.00	-	25.00	25.00	25.00	?	25.00	25.00	?	?	?
prob02	-	-	-	-	-	-	-	-	-	?	-
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	22.00	22.00	22.00	22.00	22.00	?	22.00	22.00	?	?	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	-	-	-	-	-	-	-	-	-	?	-
prob27	-	-	-	-	-	-	-	-	-	?	-
prob28	-	-	-	-	-	-	-	-	-	?	-
prob29	-	-	-	-	-	-	-	-	-	?	-
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	?	?
prob32	-	-	-	-	-	-	-	-	-	?	?
prob33	26.00	-	26.00	26.00	-	?	26.00	-	?	?	?
prob34	-	-	-	-	-	-	-	-	-	?	?
prob35	29.00	29.00	?	29.00	29.00	?	29.00	29.00	?	?	?

J.17 miconic

J.17.1 miconic

Table J.21 – Minimum `Open` F-Value when Phase Changes, miconic, miconic

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
s1-0	-	-	-	-	-	-	-	-	-	?	?
s1-1	-	-	-	-	-	-	-	-	-	?	?
s1-2	-	-	-	-	-	-	-	-	-	?	?
s1-3	-	-	-	-	-	-	-	-	-	?	?
s1-4	-	-	-	-	-	-	-	-	-	?	?
s10-0	-	-	-	-	-	-	-	-	-	?	?
s10-1	-	-	-	-	-	-	-	-	-	?	?
s10-2	-	-	-	-	-	-	-	-	-	?	?
s10-3	-	-	-	-	-	-	-	-	-	?	?
s10-4	-	-	-	-	-	-	-	-	-	?	?
s11-0	37.00	37.00	37.00	37.00	37.00	?	37.00	37.00	?	?	?
s11-1	34.00	34.00	34.00	34.00	34.00	?	34.00	34.00	?	?	?
s11-2	38.00	38.00	38.00	38.00	38.00	?	38.00	38.00	?	?	?
s11-3	37.00	-	37.00	37.00	-	?	37.00	-	?	?	?
s11-4	35.00	35.00	35.00	35.00	35.00	?	35.00	35.00	?	?	?
s12-0	40.00	40.00	40.00	40.00	40.00	?	40.00	40.00	?	?	?
s12-1	40.00	40.00	40.00	40.00	40.00	?	40.00	40.00	?	?	?
s12-2	39.00	39.00	40.00	40.00	40.00	?	40.00	40.00	?	?	?
s12-3	39.00	39.00	39.00	39.00	39.00	?	39.00	39.00	?	?	?
s12-4	41.00	41.00	41.00	41.00	41.00	?	41.00	41.00	?	?	?
s13-0	44.00	44.00	44.00	44.00	44.00	?	44.00	44.00	?	?	?
s13-1	41.00	-	-	41.00	-	-	41.00	-	-	?	?
s13-2	46.00	46.00	46.00	46.00	46.00	?	46.00	46.00	?	?	?
s13-3	43.00	43.00	43.00	43.00	43.00	?	43.00	43.00	?	?	?
s13-4	41.00	41.00	41.00	41.00	41.00	?	41.00	41.00	?	?	?
s14-0	45.00	45.00	45.00	45.00	45.00	?	45.00	45.00	?	?	?
s14-1	47.00	47.00	47.00	47.00	47.00	?	47.00	47.00	?	?	?
s14-2	49.00	49.00	49.00	49.00	49.00	?	49.00	49.00	?	?	?
s14-3	42.00	42.00	42.00	42.00	42.00	?	42.00	42.00	?	?	?
s14-4	45.00	45.00	45.00	45.00	45.00	?	45.00	45.00	?	?	?
s15-0	46.00	46.00	46.00	46.00	46.00	?	46.00	46.00	?	?	?
s15-1	50.00	50.00	50.00	50.00	50.00	?	50.00	50.00	?	?	?
s15-2	50.00	50.00	50.00	50.00	50.00	?	50.00	50.00	?	?	?
s15-3	50.00	50.00	50.00	50.00	50.00	?	50.00	50.00	?	?	?
s15-4	47.00	47.00	47.00	47.00	47.00	?	47.00	47.00	?	?	?
s16-0	53.00	53.00	53.00	53.00	53.00	?	53.00	53.00	?	?	?
s16-1	52.00	52.00	52.00	52.00	52.00	?	52.00	52.00	?	?	?
s16-2	55.00	55.00	55.00	55.00	55.00	?	55.00	55.00	?	?	?
s16-3	52.00	52.00	?	52.00	52.00	?	52.00	52.00	?	?	?
s16-4	53.00	53.00	53.00	53.00	53.00	?	53.00	53.00	?	?	?
s17-0	56.00	56.00	56.00	56.00	56.00	?	56.00	56.00	?	?	?
s17-1	54.00	54.00	?	54.00	54.00	?	54.00	54.00	?	?	?
s17-2	54.00	54.00	54.00	54.00	54.00	?	54.00	54.00	?	?	?
s17-3	60.00	60.00	60.00	60.00	60.00	?	60.00	60.00	?	?	?
s17-4	54.00	-	-	54.00	-	-	54.00	-	-	?	?
s18-0	59.00	59.00	59.00	59.00	59.00	?	59.00	59.00	?	?	?
s18-1	58.00	58.00	58.00	58.00	58.00	?	58.00	58.00	?	?	?
s18-2	58.00	58.00	58.00	58.00	58.00	?	58.00	58.00	?	?	?
s18-3	60.00	60.00	60.00	60.00	60.00	?	60.00	60.00	?	?	?
s18-4	57.00	57.00	57.00	57.00	57.00	?	57.00	57.00	?	?	?
s19-0	62.00	62.00	62.00	62.00	62.00	?	62.00	62.00	?	?	?
s19-1	65.00	65.00	65.00	65.00	65.00	?	65.00	65.00	?	?	?
s19-2	-	-	-	-	-	-	-	-	-	?	?
s19-3	64.00	64.00	64.00	64.00	64.00	?	64.00	64.00	?	?	?
s19-4	63.00	63.00	63.00	63.00	63.00	?	63.00	63.00	?	?	?
s2-0	-	-	-	-	-	-	-	-	-	?	?
s2-1	-	-	-	-	-	-	-	-	-	?	?
s2-2	-	-	-	-	-	-	-	-	-	?	?
s2-3	-	-	-	-	-	-	-	-	-	?	?
s2-4	-	-	-	-	-	-	-	-	-	?	?
s20-0	-	-	-	-	-	-	-	-	-	?	?
s20-1	66.00	66.00	66.00	66.00	66.00	?	66.00	66.00	?	?	?
s20-2	63.00	63.00	63.00	63.00	63.00	?	63.00	63.00	?	?	?
s20-3	63.00	63.00	?	63.00	63.00	?	63.00	63.00	?	?	?
s20-4	65.00	65.00	65.00	65.00	65.00	?	65.00	65.00	?	?	?
s21-0	70.00	70.00	70.00	70.00	70.00	?	70.00	70.00	?	?	?
s21-1	69.00	69.00	69.00	69.00	69.00	?	69.00	69.00	?	?	?
s21-2	69.00	69.00	69.00	69.00	69.00	?	69.00	69.00	?	?	?
s21-3	67.00	67.00	67.00	67.00	67.00	?	67.00	67.00	?	?	?
s21-4	70.00	70.00	70.00	70.00	70.00	?	70.00	70.00	?	?	?
s22-0	73.00	73.00	?	73.00	73.00	?	73.00	73.00	?	?	?
s22-1	70.00	70.00	?	70.00	70.00	?	70.00	70.00	?	?	?
s22-2	71.00	71.00	?	71.00	71.00	?	71.00	71.00	?	?	?
s22-3	76.00	76.00	76.00	76.00	76.00	?	76.00	76.00	?	?	?
s22-4	72.00	72.00	72.00	72.00	72.00	?	72.00	72.00	?	?	?
s23-0	76.00	76.00	76.00	76.00	76.00	?	76.00	76.00	?	?	?
s23-1	-	-	-	-	-	-	-	-	-	?	?
s23-2	73.00	73.00	?	73.00	73.00	?	73.00	73.00	?	?	?
s23-3	-	-	-	-	-	-	-	-	-	?	?
s23-4	74.00	74.00	?	74.00	74.00	?	74.00	74.00	?	?	?
s24-0	79.00	79.00	79.00	79.00	79.00	?	79.00	79.00	?	?	?
s24-1	78.00	78.00	?	78.00	78.00	?	78.00	78.00	?	?	?
s24-2	78.00	78.00	?	78.00	78.00	?	78.00	78.00	?	?	?
s24-3	80.00	80.00	80.00	80.00	80.00	?	80.00	80.00	?	?	?
s24-4	78.00	78.00	?	78.00	78.00	?	78.00	78.00	?	?	?
s25-0	81.00	81.00	?	81.00	81.00	?	81.00	81.00	?	?	?
s25-1	85.00	85.00	?	85.00	85.00	?	85.00	85.00	?	?	?
s25-2	-	-	-	-	-	-	-	-	-	?	?
s25-3	85.00	85.00	85.00	85.00	85.00	?	85.00	85.00	?	?	?
s25-4	83.00	83.00	?	83.00	83.00	?	83.00	83.00	?	?	?
s26-0	84.00	84.00	?	84.00	84.00	?	84.00	84.00	?	?	?
s26-1	-	-	-	-	-	-	-	-	-	?	?
s26-2	90.00	90.00	90.00	90.00	90.00	?	90.00	90.00	?	?	?
s26-3	88.00	88.00	?	88.00	88.00	?	88.00	88.00	?	?	?
s26-4	83.00	83.00	83.00	83.00	83.00	?	83.00	83.00	?	?	?
s27-0	-	-	-	-	-	-	-	-	-	?	?
s27-1	91.00	91.00	91.00	91.00	91.00	?	91.00	91.00	?	?	?
s27-2	87.00	87.00	?	87.00	87.00	?	87.00	87.00	?	?	?
s27-3	89.00	89.00	89.00	89.00	89.00	?	89.00	89.00	?	?	?
s27-4	89.00	89.00	?	89.00	89.00	?	89.00	89.00	?	?	?
s28-0	95.00	95.00	95.00	95.00	95.00	?	95.00	95.00	?	?	?
s28-1	-	-	-	-	-	-	-	-	-	?	?
s28-2	94.00	94.00	?	94.00	94.00	?	94.00	94.00	?	?	?
s28-3	87.00	87.00	?	87.00	87.00	?	87.00	87.00	?	?	?
s28-4	92.00	92.00	?	92.00	92.00	?	92.00	92.00	?	?	?
s29-0	94.00	94.00	94.00	94.00	94.00	?	94.00	94.00	?	?	?
s29-1	91.00	91.00	?	91.00	91.00	?	91.00	91.00	?	?	?
s29-2	95.00	95.00	?	95.00	95.00	?	95.00	95.00	?	?	?
s29-3	97.00	97.00	?	97.00	97.00	?	97.00	97.00	?	?	?
s29-4	99.00	99.00	?	99.00	99.00	?	99.00	99.00	?	?	?
s3-0	-	-	-	-	-	-	-	-	-	?	?
s3-1	-	-	-	-	-	-	-	-	-	?	?
s3-2	-	-	-	-	-	-	-	-	-	?	?
s3-3	-	-	-	-	-	-	-	-	-	?	?
s3-4	-	-	-	-	-	-	-	-	-	?	?
s30-0	95.00	95.00	?	95.00	95.00	?	95.00	95.00	?	?	?
s30-1	98.00	98.00	?	98.00	98.00	?	98.00	98.00	?	?	?
s30-2	97.00	97.00	?	97.00	97.00	?	97.00	97.00	?	?	?
s30-3	-	-	-	-	-	-	-	-	-	?	?
s30-4	99.00	99.00	?	99.00	99.00	?	99.00	99.00	?	?	?
s4-0	-	-	-	-	-	-	-	-	-	?	?
s4-1	-	-	-	-	-	-	-	-	-	?	?
s4-2	-	-	-	-	-	-	-	-	-	?	?
s4-3	-	-	-	-	-	-	-	-	-	?	?
s4-4	-	-	-	-	-	-	-	-	-	?	?
s5-0	-	-	-	-	-	-	-	-	-	?	?
s5-1	-	-	-	-	-	-	-	-	-	?	?
s5-2	-	-	-	-	-	-	-	-	-	?	?
s5-3	-	-	-	-	-	-	-	-	-	?	?
s5-4	-	-	-	-	-	-	-	-	-	?	?
s6-0	-	-	-	-	-	-	-	-	-	?	?
s6-1	-	-	-	-	-	-	-	-	-	?	?
s6-2	-	-	-	-	-	-	-	-	-	?	?
s6-3	-	-	-	-	-	-	-	-	-	?	?
s6-4	-	-	-	-	-	-	-	-	-	?	?
s7-0	-	-	-	-	-	-	-	-	-	?	?
s7-1	-	-	-	-	-	-	-	-	-	?	?
s7-2	-	-	-	-	-	-	-	-	-	?	?
s7-3	-	-	-	-	-	-	-	-	-	?	?
s7-4	-	-	-	-	-	-	-	-	-	?	?
s8-0	-	-	-	-	-	-	-	-	-	?	?
s8-1	-	-	-	-	-	-	-	-	-	?	?
s8-2	-	-	-	-	-	-	-	-	-	?	?
s8-3	-	-	-	-	-	-	-	-	-	?	?
s8-4	-	-	-	-	-	-	-	-	-	?	?
s9-0	-	-	-	-	-	-	-	-	-	?	?
s9-1	-	-	-	-	-	-	-	-	-	?	?
s9-2	-	-	-	-	-	-	-	-	-	?	?
s9-3	-	-	-	-	-	-	-	-	-	?	?
s9-4	-	-	-	-	-	-	-	-	-	?	?

J.18 movie

J.18.1 movie

Table J.22 – Minimum `Open` F-Value when Phase Changes, movie, movie

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	-	-	-	-	-	-	-	-	-	?	?
prob09	-	-	-	-	-	-	-	-	-	?	?
prob10	-	-	-	-	-	-	-	-	-	?	?
prob11	-	-	-	-	-	-	-	-	-	?	?
prob12	-	-	-	-	-	-	-	-	-	?	?
prob13	-	-	-	-	-	-	-	-	-	?	?
prob14	-	-	-	-	-	-	-	-	-	?	?
prob15	-	-	-	-	-	-	-	-	-	?	?
prob16	-	-	-	-	-	-	-	-	-	?	?
prob17	-	-	-	-	-	-	-	-	-	?	?
prob18	-	-	-	-	-	-	-	-	-	?	?
prob19	-	-	-	-	-	-	-	-	-	?	?
prob20	-	-	-	-	-	-	-	-	-	?	?
prob21	-	-	-	-	-	-	-	-	-	?	?
prob22	-	-	-	-	-	-	-	-	-	?	?
prob23	-	-	-	-	-	-	-	-	-	?	?
prob24	-	-	-	-	-	-	-	-	-	?	?
prob25	-	-	-	-	-	-	-	-	-	?	?
prob26	-	-	-	-	-	-	-	-	-	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	?
prob29	-	-	-	-	-	-	-	-	-	?	?
prob30	-	-	-	-	-	-	-	-	-	?	?

J.19 mprime

J.19.1 mprime

Table J.23 – Minimum `Open` F-Value when Phase Changes, mprime, mprime

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	7.00	7.00	?	7.00	7.00	?	7.00	7.00	?	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	9.00	9.00	10.00	10.00	10.00	?	10.00	10.00	?	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	6.00	6.00	?	6.00	6.00	?	6.00	6.00	?	?	?
prob09	7.00	7.00	?	7.00	7.00	?	8.00	8.00	?	?	?
prob10	-	-	-	-	-	-	-	-	-	?	?
prob11	-	-	-	-	-	-	-	-	-	?	?
prob12	-	-	-	-	-	-	-	-	-	?	?
prob13	-	-	-	-	-	-	-	-	-	?	?
prob14	-	-	-	-	-	-	-	-	-	?	?
prob15	-	-	-	-	-	-	-	-	-	?	?
prob16	5.00	5.00	?	6.00	6.00	?	6.00	6.00	?	?	?
prob17	4.00	4.00	?	4.00	4.00	?	4.00	4.00	?	?	?
prob18	-	-	-	-	-	-	-	-	-	?	?
prob19	-	-	-	-	-	-	-	-	-	?	?
prob20	-	-	-	-	-	-	-	-	-	?	?
prob21	-	-	-	-	-	-	-	-	-	?	?
prob22	-	-	-	-	-	-	-	-	-	?	?
prob23	-	-	-	-	-	-	-	-	-	?	?
prob24	-	-	-	-	-	-	-	-	-	?	?
prob25	-	-	-	-	-	-	-	-	-	?	?
prob26	5.00	5.00	?	6.00	6.00	?	6.00	6.00	?	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	?
prob29	-	-	-	-	-	-	-	-	-	?	?
prob30	-	-	-	-	-	-	-	-	-	?	?
prob31	-	-	-	-	-	-	-	-	-	?	?
prob32	-	-	-	-	-	-	-	-	-	?	?
prob33	-	-	-	-	-	-	-	-	-	?	?
prob34	-	-	-	-	-	-	-	-	-	?	?
prob35	-	-	-	-	-	-	-	-	-	?	?

J.20 mystery

J.20.1 mystery

Table J.24 – Minimum `Open` F-Value when Phase Changes, mystery, mystery

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	10.00	10.00	?	10.00	10.00	?	11.00	11.00	?	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	-	-	-	-	-	-	-	-	-	?	?
prob09	-	-	-	-	-	-	-	-	-	?	?
prob10	7.00	7.00	?	8.00	8.00	?	8.00	8.00	?	?	?
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	?
prob16	-	-	-	-	-	-	-	-	-	?	?
prob17	-	-	-	-	-	-	-	-	-	?	?
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	6.00	6.00	7.00	7.00	7.00	?	7.00	7.00	?	?	?
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	?
prob26	-	-	-	-	-	-	-	-	-	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	?
prob29	-	-	-	-	-	-	-	-	-	?	?
prob30	-	-	-	-	-	-	-	-	-	?	?

J.21 nomystery

J.21.1 nomystery-opt11-strips

Table J.25 – Minimum `Open` F-Value when Phase Changes, nomystery, nomystery-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	21.00	21.00	22.00	22.00	22.00	?	22.00	22.00	?	?	?
p06	25.00	25.00	25.00	25.00	25.00	?	26.00	26.00	?	?	?
p07	27.00	27.00	29.00	28.00	28.00	-	29.00	29.00	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	21.00	21.00	22.00	22.00	22.00	?	22.00	22.00	?	?	?
p16	25.00	25.00	25.00	25.00	25.00	?	26.00	26.00	?	?	?
p17	28.00	28.00	29.00	28.00	28.00	?	29.00	29.00	?	?	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

J.22 openstacks

J.22.1 openstacks-opt08-strips

Table J.26 – Minimum `Open` F-Value when Phase Changes, openstacks, openstacks-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

J.22.2 openstacks-opt11-strips

Table J.27 – Minimum `Open` F-Value when Phase Changes, openstacks, openstacks-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

J.22.3 openstacks-opt14-strips

Table J.28 – Minimum `Open` F-Value when Phase Changes, openstacks, openstacks-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p20_1	-	-	-	-	-	-	-	-	-	?	?
p20_2	-	-	-	-	-	-	-	-	-	?	?
p20_3	-	-	-	-	-	-	-	-	-	?	?
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p35_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	?	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	?	-

J.22.4 openstacks-strips

Table J.29 – Minimum `Open` F-Value when Phase Changes, openstacks, openstacks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

J.23 organic

J.23.1 organic-synthesis-opt18-strips

Table J.30 – Minimum `Open` F-Value when Phase Changes, organic, organic-synthesis-opt18-strips

	10%			50%			90%			100%	
	A^*_{+IDA}	$A^*_{+IDA}{\uparrow}$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}{\uparrow}$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}{\uparrow}$	PEA^*_{+IDA}	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

J.23.2 organic-synthesis-split-opt18-strips

Table J.31 – Minimum `Open` F-Value when Phase Changes, organic, organic-synthesis-split-opt18-strips

	10%			50%			90%			100%	
	A^*_{+IDA}	$A^*_{+IDA}{\uparrow}$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}{\uparrow}$	PEA^*_{+IDA}	A^*_{+IDA}	$A^*_{+IDA}{\uparrow}$	PEA^*_{+IDA}	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	212.00	212.00	252.00	252.00	252.00	252.00	252.00	252.00	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	240.00	240.00	240.00	240.00	240.00	251.00	251.00	251.00	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	-
p11	54.00	54.00	79.00	79.00	79.00	80.00	80.00	80.00	?	?	?
p12	41.00	41.00	41.00	41.00	41.00	45.00	46.00	46.00	46.00	?	?
p13	208.00	208.00	234.00	234.00	234.00	?	248.00	248.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	98.00	98.00	126.00	134.00	134.00	138.00	252.00	252.00	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

J.24 parcprinter

J.24.1 parcprinter-08-strips

Table J.32 – Minimum `Open` F-Value when Phase Changes, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	-	?
p04	871096.00	871096.00	723085.00	723085.00	723085.00	-	838098.00	838098.00	-	?	?
p05	1140134.00	1140134.00	1143132.00	903093.00	903093.00	?	1143132.00	1143132.00	?	?	?
p06	1272160.00	-	1272160.00	1509201.00	-	?	1477201.00	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	-	?
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	-	?
p13	-	-	-	-	-	-	-	-	-	-	?
p14	914695.00	-	945491.00	979206.00	-	1015549.00	1013203.00	-	?	?	?
p15	-	-	-	-	-	-	-	-	-	-	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	-	-
p18	-	-	-	-	-	-	-	-	-	-	-
p19	-	-	-	-	-	-	-	-	-	-	-
p20	-	-	-	-	-	-	-	-	-	-	-
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	?	?
p25	1193842.00	-	1196841.00	1201842.00	-	?	1210840.00	-	?	?	?
p26	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	?	?
p27	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	?	?
p28	1681282.00	1681282.00	1681282.00	1681282.00	1681282.00	1681282.00	1681282.00	1681282.00	1681282.00	?	?
p29	-	-	-	-	-	-	-	-	-	-	
p30	-	-	-	-	-	-	-	-	-	?	

J.24.2 parcprinter-opt11-strips

Table J.33 – Minimum `Open` F-Value when Phase Changes, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	871096.00	871096.00	723085.00	723085.00	723085.00	?	838098.00	838098.00	?	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	1272160.00	-	1272160.00	1509201.00	-	?	1477201.00	-	?	?	?
p07	1140134.00	1140134.00	1143132.00	903093.00	903093.00	?	1143132.00	1143132.00	?	?	?
p08	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	751642.00	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	1193842.00	-	1196841.00	1201842.00	-	?	1210840.00	-	?	?	?
p11	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	1216462.00	?	?
p12	914695.00	-	945491.00	979206.00	-	1015549.00	1013203.00	-	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	1270874.00	?	?

J.25 parking

J.25.1 parking-opt11-strips

Table J.34 – Minimum `Open` F-Value when Phase Changes, parking, parking-opt11-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
pfile03-011	12.00	12.00	13.00	13.00	13.00	?	13.00	13.00	?	?	?
pfile03-012	-	-	-	-	-	-	-	-	-	?	
pfile04-013	18.00	18.00	19.00	19.00	19.00	?	19.00	19.00	?	?	?
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-
pfile06-021	-	-	-	-	-	-	-	-	-	?	-
pfile06-022	-	-	-	-	-	-	-	-	-	?	-
pfile06-023	-	-	-	-	-	-	-	-	-	?	-
pfile06-024	-	-	-	-	-	-	-	-	-	?	-
pfile07-025	-	-	-	-	-	-	-	-	-	?	-
pfile07-026	-	-	-	-	-	-	-	-	-	?	-
pfile07-027	-	-	-	-	-	-	-	-	-	?	-
pfile07-028	-	-	-	-	-	-	-	-	-	?	-
pfile08-029	-	-	-	-	-	-	-	-	-	?	-
pfile08-030	-	-	-	-	-	-	-	-	-	?	-

J.25.2 parking-opt14-strips

Table J.35 – Minimum `Open` F-Value when Phase Changes, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p_12_7-01	16.00	16.00	17.00	17.00	17.00	?	17.00	17.00	?	?	?
p_12_7-02	16.00	16.00	17.00	17.00	17.00	?	17.00	17.00	?	?	?
p_12_7-03	15.00	15.00	16.00	16.00	16.00	?	16.00	16.00	?	?	?
p_12_7-04	-	-	-	-	-	-	-	-	-	?	-
p_14_8-01	-	-	-	-	-	-	-	-	-	?	-
p_14_8-02	-	-	-	-	-	-	-	-	-	?	-
p_14_8-03	-	-	-	-	-	-	-	-	-	?	-
p_14_8-04	-	-	-	-	-	-	-	-	-	?	-
p_16_9-01	-	-	-	-	-	-	-	-	-	?	-
p_16_9-02	-	-	-	-	-	-	-	-	-	?	-
p_16_9-03	-	-	-	-	-	-	-	-	-	?	-
p_16_9-04	-	-	-	-	-	-	-	-	-	?	-
p_18_10-01	-	-	-	-	-	-	-	-	-	?	-
p_18_10-02	-	-	-	-	-	-	-	-	-	?	-
p_18_10-03	-	-	-	-	-	-	-	-	-	?	-
p_18_10-04	-	-	-	-	-	-	-	-	-	?	-
p_20_11-01	-	-	-	-	-	-	-	-	-	?	-
p_20_11-02	-	-	-	-	-	-	-	-	-	?	-
p_20_11-03	-	-	-	-	-	-	-	-	-	?	-
p_20_11-04	-	-	-	-	-	-	-	-	-	?	-

J.26 pathways

J.26.1 pathways

Table J.36 – Minimum `Open` F-Value when Phase Changes, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	29.00	-	?	29.00	-	?	29.00	-	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

J.27 pegsol

J.27.1 pegsol-08-strips

Table J.37 – Minimum `Open` F-Value when Phase Changes, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

J.27.2 pegsol-opt11-strips

Table J.38 – Minimum `Open` F-Value when Phase Changes, pegsol, pegsol-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

J.28 petri

J.28.1 petri-net-alignment-opt18-strips

Table J.39 – Minimum `Open` F-Value when Phase Changes, petri, petri-net-alignment-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	47.00	-	48.00	62.00	62.00	62.00	63.00	63.00	?	?	?
p04	73.00	-	75.00	77.00	77.00	78.00	78.00	78.00	?	?	?
p05	57.00	57.00	61.00	64.00	64.00	?	65.00	65.00	?	?	?
p06	88.00	-	91.00	93.00	93.00	?	94.00	94.00	?	?	?
p07	83.00	-	97.00	104.00	104.00	?	105.00	105.00	?	?	?
p08	100.00	-	102.00	107.00	-	109.00	110.00	110.00	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	181.00	181.00	183.00	185.00	185.00	?	186.00	186.00	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

J.29 pipesworld

J.29.1 pipesworld-notankage

Table J.40 – Minimum `Open` F-Value when Phase Changes, pipesworld, pipesworld-notankage

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	?	?
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	?	?
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	?	?
p10-net1-b14-g8	14.00	14.00	16.00	17.00	17.00	?	17.00	17.00	?	?	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	?	?
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	?	?
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	?	?
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	?	?
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	?	?
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	?	?
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3	15.00	15.00	16.00	17.00	17.00	?	17.00	17.00	?	?	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2	10.00	10.00	11.00	11.00	11.00	?	12.00	12.00	?	?	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b22-g3	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	?	-

J.29.2 pipesworld-tankage

Table J.41 – Minimum `Open` F-Value when Phase Changes, pipesworld, pipesworld-tankage

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5-t80	7.00	7.00	?	8.00	8.00	?	8.00	8.00	?	?	?
p08-net1-b12-g7-t80	9.00	9.00	10.00	10.00	10.00	?	10.00	10.00	?	?	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	?
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	13.00	13.00	14.00	15.00	15.00	?	15.00	15.00	?	?	?
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	?
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	?
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

J.29.3 pipesworld-tankage-nosplit

Table J.42 – Minimum `Open` F-Value when Phase Changes, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5-t80	7.00	7.00	?	8.00	8.00	?	8.00	8.00	?	?	?
p08-net1-b12-g7-t80	9.00	9.00	10.00	10.00	10.00	?	10.00	10.00	?	?	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	?	
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	

J.30 psr

J.30.1 psr-small

Table J.43 – Minimum `Open` F-Value when Phase Changes, psr, psr-small

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	?	?
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	?	?
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	?	?
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p11-s18-n2-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p16-s29-n2-l5-f30	-	-	-	-	-	-	-	-	-	?	?
p17-s30-n2-l5-f50	-	-	-	-	-	-	-	-	-	?	?
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	?	?
p19-s33-n3-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p20-s34-n3-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p22-s37-n3-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	?	?
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	?	?
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	?	?
p31-s49-n4-l2-f90	-	-	-	-	-	-	-	-	-	?	?
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p35-s57-n5-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p36-s65-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p38-s78-n3-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p40-s80-n3-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	?	?
p44-s89-n4-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p46-s97-n5-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p47-s98-n5-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p48-s101-n5-l3-f30	28.00	-	32.00	33.00	33.00	?	36.00	36.00	?	?	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	?	?

J.31 rovers

J.31.1 rovers

Table J.44 – Minimum `Open` F-Value when Phase Changes, rovers, rovers

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	16.00	16.00	17.00	17.00	17.00	?	17.00	17.00	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	17.00	17.00	18.00	18.00	18.00	?	18.00	18.00	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-
p31	-	-	-	-	-	-	-	-	-	?	-
p32	-	-	-	-	-	-	-	-	-	?	-
p33	-	-	-	-	-	-	-	-	-	?	-
p34	-	-	-	-	-	-	-	-	-	?	-
p35	-	-	-	-	-	-	-	-	-	?	-
p36	-	-	-	-	-	-	-	-	-	?	-
p37	-	-	-	-	-	-	-	-	-	?	-
p38	-	-	-	-	-	-	-	-	-	?	-
p39	-	-	-	-	-	-	-	-	-	?	-
p40	-	-	-	-	-	-	-	-	-	?	-

J.32 satellite

J.32.1 satellite

Table J.45 – Minimum `Open` F-Value when Phase Changes, satellite, satellite

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01-pfile1	-	-	-	-	-	-	-	-	-	?	?
p02-pfile2	-	-	-	-	-	-	-	-	-	?	?
p03-pfile3	-	-	-	-	-	-	-	-	-	?	?
p04-pfile4	-	-	-	-	-	-	-	-	-	?	?
p05-pfile5	14.00	14.00	?	15.00	15.00	?	15.00	15.00	?	?	?
p06-pfile6	18.00	18.00	?	19.00	19.00	?	19.00	19.00	?	?	?
p07-pfile7	19.00	19.00	20.00	20.00	20.00	?	20.00	20.00	?	?	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	?	-
p10-pfile10	-	-	-	-	-	-	-	-	-	?	-
p11-pfile11	-	-	-	-	-	-	-	-	-	?	-
p12-pfile12	-	-	-	-	-	-	-	-	-	?	-
p13-pfile13	-	-	-	-	-	-	-	-	-	?	-
p14-pfile14	-	-	-	-	-	-	-	-	-	?	-
p15-pfile15	-	-	-	-	-	-	-	-	-	?	-
p16-pfile16	-	-	-	-	-	-	-	-	-	?	-
p17-pfile17	-	-	-	-	-	-	-	-	-	?	-
p18-pfile18	-	-	-	-	-	-	-	-	-	?	-
p19-pfile19	-	-	-	-	-	-	-	-	-	?	-
p20-pfile20	-	-	-	-	-	-	-	-	-	?	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	?	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	?	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	?	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	?	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	?	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	?	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	?	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	?	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	?	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	?	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	?	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	?	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	?	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	?	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	?	-

J.33 scanalyzer

J.33.1 scanalyzer-08-strips

Table J.46 – Minimum `Open` F-Value when Phase Changes, scanalyzer, scanalyzer-08-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	30.00	30.00	30.00	30.00	30.00	?	30.00	30.00	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	36.00	36.00	36.00	36.00	36.00	?	36.00	36.00	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	42.00	42.00	42.00	42.00	42.00	?	42.00	42.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	48.00	48.00	48.00	48.00	48.00	?	48.00	48.00	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	54.00	54.00	54.00	54.00	54.00	?	54.00	54.00	?	?	?
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

J.33.2 scanalyzer-opt11-strips

Table J.47 – Minimum `Open` F-Value when Phase Changes, scanalyzer, scanalyzer-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	30.00	30.00	30.00	30.00	30.00	?	30.00	30.00	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	54.00	54.00	54.00	54.00	54.00	?	54.00	54.00	?	?	?
p08	36.00	36.00	36.00	36.00	36.00	?	36.00	36.00	?	?	?
p09	42.00	42.00	42.00	42.00	42.00	?	42.00	42.00	?	?	?
p10	48.00	48.00	48.00	48.00	48.00	?	48.00	48.00	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

J.34 snake

J.34.1 snake-opt18-strips

Table J.48 – Minimum `Open` F-Value when Phase Changes, snake, snake-opt18-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

J.35 sokoban

J.35.1 sokoban-opt08-strips

Table J.49 – Minimum Open F-Value when Phase Changes, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	5.00	5.00	5.00	8.00	8.00	8.00	9.00	9.00	9.00	?	?
p22	38.00	-	38.00	42.00	-	42.00	43.00	-	42.00	?	?
p23	26.00	-	26.00	28.00	-	29.00	30.00	-	30.00	?	?
p24	26.00	-	27.00	42.00	-	43.00	49.00	-	49.00	?	?
p25	32.00	-	32.00	34.00	-	35.00	38.00	-	37.00	?	?
p26	26.00	-	26.00	30.00	-	30.00	32.00	-	32.00	?	?
p27	18.00	-	18.00	21.00	21.00	21.00	22.00	22.00	22.00	?	?
p28	32.00	-	33.00	39.00	-	39.00	41.00	-	42.00	?	?
p29	16.00	-	17.00	17.00	-	17.00	17.00	17.00	?	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

J.35.2 sokoban-opt11-strips

Table J.50 – Minimum Open F-Value when Phase Changes, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	5.00	5.00	5.00	8.00	8.00	8.00	9.00	9.00	9.00	?	?
p19	38.00	-	38.00	42.00	-	42.00	43.00	-	42.00	?	?
p20	26.00	-	26.00	28.00	-	29.00	30.00	-	30.00	?	?

J.36 spider

J.36.1 spider-opt18-strips

Table J.51 – Minimum Open F-Value when Phase Changes, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	22.00	22.00	23.00	23.00	23.00	?	26.00	26.00	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	14.00	14.00	15.00	16.00	16.00	?	14.00	14.00	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

J.37 storage

J.37.1 storage

Table J.52 – Minimum `Open` F-Value when Phase Changes, storage, storage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	16.00	16.00	17.00	17.00	17.00	?	17.00	17.00	?	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

J.38 termes

J.38.1 termes-opt18-strips

Table J.53 – Minimum `Open` F-Value when Phase Changes, termes, termes-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	
p04	-	-	-	-	-	-	-	-	-	?	
p05	-	-	-	-	-	-	-	-	-	?	
p06	-	-	-	-	-	-	-	-	-	?	
p07	-	-	-	-	-	-	-	-	-	?	
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

J.39 tetris

J.39.1 tetris-opt14-strips

Table J.54 – Minimum `Open` F-Value when Phase Changes, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-10	-	-	-	-	-	-	-	-	-	?	-
p01-6	-	-	-	-	-	-	-	-	-	?	-
p01-8	-	-	-	-	-	-	-	-	-	?	?
p02-10	-	-	-	-	-	-	-	-	-	?	-
p02-4	-	-	-	-	-	-	-	-	-	?	?
p02-6	-	-	-	-	-	-	-	-	-	?	?
p02-8	-	-	-	-	-	-	-	-	-	?	-
p03-10	-	-	-	-	-	-	-	-	-	?	-
p03-4	-	-	-	-	-	-	-	-	-	?	?
p03-6	-	-	-	-	-	-	-	-	-	?	-
p03-8	-	-	-	-	-	-	-	-	-	?	-
p04-10	-	-	-	-	-	-	-	-	-	?	-
p04-6	-	-	-	-	-	-	-	-	-	?	-
p04-8	-	-	-	-	-	-	-	-	-	?	-
p05-10	-	-	-	-	-	-	-	-	-	?	?
p05-6	-	-	-	-	-	-	-	-	-	?	-
p05-8	-	-	-	-	-	-	-	-	-	?	?

J.40 tidybot

J.40.1 tidybot-opt11-strips

Table J.55 – Minimum `Open` F-Value when Phase Changes, tidybot, tidybot-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	33.00	33.00	34.00	36.00	36.00	37.00	36.00	36.00	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	29.00	29.00	32.00	33.00	33.00	34.00	34.00	34.00	?	?	?
p13	25.00	25.00	26.00	28.00	28.00	29.00	29.00	29.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

J.40.2 tidybot-opt14-strips

Table J.56 – Minimum `Open` F-Value when Phase Changes, tidybot, tidybot-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	29.00	29.00	31.00	33.00	33.00	34.00	34.00	34.00	?	?	?
p03	26.00	26.00	27.00	28.00	28.00	29.00	29.00	29.00	?	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	33.00	33.00	34.00	36.00	36.00	37.00	37.00	37.00	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	29.00	29.00	32.00	33.00	33.00	34.00	34.00	34.00	-	?	?
p13	25.00	25.00	26.00	28.00	28.00	29.00	29.00	29.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

J.41 tpp

J.41.1 tpp

Table J.57 – Minimum `Open` F-Value when Phase Changes, tpp, tpp

	10%			50%			90%			100%	
	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	$A^*_{+IDA}*$	$A^*_{+IDA}*\uparrow$	$PEA^*_{+IDA}*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	23.00	-	23.00	24.00	-	?	24.00	-	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

J.42 transport

J.42.1 transport-opt08-strips

Table J.58 – Minimum `Open` F-Value when Phase Changes, transport, transport-opt08-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	
p06	-	-	-	-	-	-	-	-	-	?	
p07	-	-	-	-	-	-	-	-	-	?	
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	
p25	-	-	-	-	-	-	-	-	-	?	
p26	-	-	-	-	-	-	-	-	-	?	
p27	-	-	-	-	-	-	-	-	-	?	
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	

J.42.2 transport-opt11-strips

Table J.59 – Minimum `Open` F-Value when Phase Changes, transport, transport-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

J.42.3 transport-opt14-strips

Table J.60 – Minimum `Open` F-Value when Phase Changes, transport, transport-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	259.00	-	285.00	289.00	289.00	?	298.00	298.00	?	?	?
p04	-	-	-	-	-	-	-	-	-	?	
p05	-	-	-	-	-	-	-	-	-	?	
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	462.00	-	486.00	501.00	-	?	521.00	521.00	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

J.43 trucks

J.43.1 trucks-strips

Table J.61 – Minimum Open F-Value when Phase Changes, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	23.00	23.00	24.00	24.00	24.00	?	24.00	24.00	?	?	?
p06	28.00	28.00	28.00	29.00	29.00	29.00	29.00	29.00	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	23.00	23.00	24.00	24.00	24.00	?	24.00	24.00	?	?	?
p09	26.00	26.00	27.00	27.00	27.00	?	27.00	27.00	?	?	?
p10	31.00	31.00	32.00	33.00	33.00	?	33.00	33.00	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

J.44 visitall

J.44.1 visitall-opt11-strips

Table J.62 – Minimum Open F-Value when Phase Changes, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
problem02-full	-	-	-	-	-	-	-	-	-	?	?
problem02-half	-	-	-	-	-	-	-	-	-	?	?
problem03-full	-	-	-	-	-	-	-	-	-	?	?
problem03-half	-	-	-	-	-	-	-	-	-	?	?
problem04-full	-	-	-	-	-	-	-	-	-	?	?
problem04-half	-	-	-	-	-	-	-	-	-	?	?
problem05-full	-	-	-	-	-	-	-	-	-	?	?
problem05-half	-	-	-	-	-	-	-	-	-	?	?
problem06-full	-	-	-	-	-	-	-	-	-	?	?
problem06-half	-	-	-	-	-	-	-	-	-	?	?
problem07-full	-	-	-	-	-	-	-	-	-	?	?
problem07-half	33.00	33.00	33.00	35.00	35.00	35.00	34.00	34.00	?	?	?
problem08-full	-	-	-	-	-	-	-	-	-	?	-
problem08-half	-	-	-	-	-	-	-	-	-	?	-
problem09-full	-	-	-	-	-	-	-	-	-	?	-
problem09-half	-	-	-	-	-	-	-	-	-	?	-
problem10-full	-	-	-	-	-	-	-	-	-	?	-
problem10-half	-	-	-	-	-	-	-	-	-	?	-
problem11-full	-	-	-	-	-	-	-	-	-	?	-
problem11-half	-	-	-	-	-	-	-	-	-	?	-

J.44.2 visitall-opt14-strips

Table J.63 – Minimum Open F-Value when Phase Changes, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p-05-10	-	-	-	-	-	-	-	-	-	?	-
p-05-5	-	-	-	-	-	-	-	-	-	?	?
p-05-6	-	-	-	-	-	-	-	-	-	?	?
p-05-7	30.00	30.00	31.00	32.00	32.00	33.00	33.00	33.00	?	?	?
p-05-8	40.00	40.00	39.00	42.00	42.00	42.00	42.00	42.00	?	?	?
p-05-9	-	-	-	-	-	-	-	-	-	?	-
p-1-10	-	-	-	-	-	-	-	-	-	?	-
p-1-11	-	-	-	-	-	-	-	-	-	?	-
p-1-12	-	-	-	-	-	-	-	-	-	?	-
p-1-13	-	-	-	-	-	-	-	-	-	?	-
p-1-14	-	-	-	-	-	-	-	-	-	?	-
p-1-15	-	-	-	-	-	-	-	-	-	?	-
p-1-16	-	-	-	-	-	-	-	-	-	?	-
p-1-17	-	-	-	-	-	-	-	-	-	?	-
p-1-18	-	-	-	-	-	-	-	-	-	?	?
p-1-5	-	-	-	-	-	-	-	-	-	?	-
p-1-6	-	-	-	-	-	-	-	-	-	?	-
p-1-7	-	-	-	-	-	-	-	-	-	?	-
p-1-8	-	-	-	-	-	-	-	-	-	?	-
p-1-9	-	-	-	-	-	-	-	-	-	?	-

J.45 woodworking

J.45.1 woodworking-opt08-strips

Table J.64 – Minimum `Open` F-Value when Phase Changes, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\!\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\!\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\!\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	265.00	265.00	275.00	275.00	275.00	?	275.00	275.00	?	?	?
p04	245.00	-	270.00	265.00	-	?	275.00	275.00	?	?	?
p05	255.00	255.00	-	270.00	270.00	?	270.00	270.00	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	380.00	380.00	?	390.00	390.00	?	395.00	395.00	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	195.00	195.00	210.00	210.00	210.00	?	210.00	210.00	?	?	?
p14	205.00	205.00	220.00	220.00	220.00	?	225.00	225.00	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	270.00	270.00	?	280.00	280.00	?	290.00	290.00	?	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	235.00	235.00	?	240.00	240.00	?	240.00	240.00	?	?	?
p25	380.00	380.00	380.00	380.00	380.00	?	380.00	380.00	?	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

J.45.2 woodworking-opt11-strips

Table J.65 – Minimum `Open` F-Value when Phase Changes, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\!\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\!\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\!\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	195.00	195.00	210.00	210.00	210.00	?	210.00	210.00	?	?	?
p04	265.00	265.00	275.00	275.00	275.00	?	275.00	275.00	?	?	?
p05	235.00	235.00	-	240.00	240.00	?	240.00	240.00	?	?	?
p06	245.00	-	270.00	265.00	-	?	275.00	275.00	?	?	?
p07	205.00	205.00	220.00	220.00	220.00	?	225.00	225.00	?	?	?
p08	380.00	380.00	380.00	380.00	380.00	?	380.00	380.00	?	?	?
p09	255.00	255.00	?	270.00	270.00	?	270.00	270.00	?	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	270.00	270.00	?	280.00	280.00	?	290.00	290.00	?	?	?
p16	380.00	380.00	?	390.00	390.00	?	395.00	395.00	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

J.46 zenotravel

J.46.1 zenotravel

Table J.66 – Minimum `Open` F-Value when Phase Changes, zenotravel, zenotravel

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\!\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\!\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\!\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	10.00	10.00	?	11.00	11.00	?	11.00	11.00	?	?	?
p09	19.00	19.00	20.00	20.00	20.00	?	20.00	20.00	?	?	?
p10	21.00	21.00	?	21.00	21.00	?	21.00	21.00	?	?	?
p11	13.00	13.00	?	13.00	13.00	?	13.00	13.00	?	?	?
p12	20.00	20.00	?	20.00	20.00	?	20.00	20.00	?	?	?
p13	25.00	25.00	?	25.00	25.00	?	25.00	25.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

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APPENDIX K — MEAN OPEN F-VALUE WHEN PHASE CHANGES

K.1 agricola

K.1.1 agricola-opt18-strips

Table K.1 – Mean Open F-Value when Phase Changes, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	-
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

K.2 airport

K.2.1 airport

Table K.2 – Mean Open F-Value when Phase Changes, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-airport1-p1	-	-	-	-	-	-	-	-	-	?	?
p02-airport1-p1	-	-	-	-	-	-	-	-	-	?	?
p03-airport1-p2	-	-	-	-	-	-	-	-	-	?	?
p04-airport2-p1	-	-	-	-	-	-	-	-	-	?	?
p05-airport2-p1	-	-	-	-	-	-	-	-	-	?	?
p06-airport2-p2	-	-	-	-	-	-	-	-	-	?	?
p07-airport2-p2	-	-	-	-	-	-	-	-	-	?	?
p08-airport2-p3	-	-	-	-	-	-	-	-	-	?	?
p09-airport2-p4	-	-	-	-	-	-	-	-	-	?	?
p10-airport3-p1	-	-	-	-	-	-	-	-	-	?	?
p11-airport3-p1	-	-	-	-	-	-	-	-	-	?	?
p12-airport3-p2	-	-	-	-	-	-	-	-	-	?	?
p13-airport3-p2	-	-	-	-	-	-	-	-	-	?	?
p14-airport3-p3	-	-	-	-	-	-	-	-	-	?	?
p15-airport3-p3	-	-	-	-	-	-	-	-	-	?	?
p16-airport3-p4	-	-	-	-	-	-	-	-	-	?	?
p17-airport3-p5	-	-	-	-	-	-	-	-	-	?	?
p18-airport3-p6	107.10	-	107.44	107.96	-	107.97	109.20	-	?	?	?
p19-airport3-p6	-	-	-	-	-	-	-	-	-	?	?
p20-airport3-p7	114.96	-	114.36	115.69	-	115.61	116.11	116.11	?	?	?
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	?	?
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	?	?
p23-airport4halfMUC-p4	168.30	168.30	168.11	168.35	168.35	?	175.82	175.82	?	?	?
p24-airport4halfMUC-p4	162.00	162.00	162.00	162.56	162.56	162.50	167.94	167.94	167.77	?	?
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	?	?
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	?	?
p27-airport4halfMUC-p6	246.44	246.44	246.31	246.54	-	?	246.57	246.57	?	?	?
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	?	?
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	?
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	?
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	?	?
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	?
p33-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	?
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	?	?
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	?	?
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	?	?
p37-airport5MUC-p3	151.10	-	145.04	145.00	-	143.21	144.26	-	?	?	?
p38-airport5MUC-p3	154.86	-	153.97	155.72	-	154.79	156.42	-	?	?	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	?
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	?
p41-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	?
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	?
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	?
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	?
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	?
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	?
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	?	?
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	?	?
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	?	?
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	?	?

K.3 barman

K.3.1 barman-opt11-strips

Table K.3 – Mean `Open` F-Value when Phase Changes, barman, barman-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
pfile01-001	-	-	-	-	-	-	-	-	-	?	-
pfile01-002	-	-	-	-	-	-	-	-	-	?	?
pfile01-003	-	-	-	-	-	-	-	-	-	?	?
pfile01-004	-	-	-	-	-	-	-	-	-	?	?
pfile02-005	-	-	-	-	-	-	-	-	-	?	-
pfile02-006	-	-	-	-	-	-	-	-	-	?	-
pfile02-007	-	-	-	-	-	-	-	-	-	?	-
pfile02-008	-	-	-	-	-	-	-	-	-	?	-
pfile03-009	-	-	-	-	-	-	-	-	-	?	-
pfile03-010	-	-	-	-	-	-	-	-	-	?	-
pfile03-011	-	-	-	-	-	-	-	-	-	?	-
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	-	-	-	-	-	-	-	-	-	?	-
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-

K.3.2 barman-opt14-strips

Table K.4 – Mean `Open` F-Value when Phase Changes, barman, barman-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p435-1	-	-	-	-	-	-	-	-	-	?	-
p435-2	-	-	-	-	-	-	-	-	-	?	-
p435-3	-	-	-	-	-	-	-	-	-	?	-
p536-1	-	-	-	-	-	-	-	-	-	?	-
p536-2	-	-	-	-	-	-	-	-	-	?	-
p536-3	-	-	-	-	-	-	-	-	-	?	-
p638-1	-	-	-	-	-	-	-	-	-	?	-
p638-2	-	-	-	-	-	-	-	-	-	?	-
p638-3	-	-	-	-	-	-	-	-	-	?	-
p739-1	-	-	-	-	-	-	-	-	-	?	-
p739-2	-	-	-	-	-	-	-	-	-	?	-
p739-3	-	-	-	-	-	-	-	-	-	?	-
p839-1	-	-	-	-	-	-	-	-	-	?	-
p839-2	-	-	-	-	-	-	-	-	-	?	-

K.4 blocks

K.4.1 blocks

Table K.5 – Mean `Open` F-Value when Phase Changes, blocks, blocks

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
probBLOCKS-10-0	32.32	32.32	33.07	34.28	34.28	?	35.10	35.10	?	?	?
probBLOCKS-10-1	30.15	30.15	30.80	31.93	31.93	?	32.42	32.42	?	?	?
probBLOCKS-10-2	32.11	32.11	32.77	33.80	33.80	?	34.37	34.37	?	?	?
probBLOCKS-11-0	29.83	29.83	30.63	31.78	31.78	?	32.38	32.38	?	?	?
probBLOCKS-11-1	28.32	28.32	28.93	29.89	29.89	?	30.38	30.38	?	?	?
probBLOCKS-11-2	31.52	31.52	32.34	33.50	33.50	?	34.29	34.29	?	?	?
probBLOCKS-12-0	32.15	32.15	32.77	33.82	33.82	?	34.39	34.39	?	?	?
probBLOCKS-12-1	32.05	32.05	32.79	33.72	33.72	?	34.29	34.29	?	?	?
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-14-0	36.26	36.26	36.93	37.91	37.91	?	38.41	38.41	?	?	?
probBLOCKS-14-1	34.57	34.57	35.10	36.05	36.05	?	36.44	36.44	?	?	?
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	?	?

K.5 childsnack

K.5.1 childsnack-opt14-strips

Table K.6 – Mean `Open` F-Value when Phase Changes, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
child-snack_pfile01	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile02	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile03	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile04	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile05	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile06	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile07	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile08	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile09	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile10	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	?	

K.6 data

K.6.1 data-network-opt18-strips

Table K.7 – Mean `Open` F-Value when Phase Changes, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	79.33	79.33	78.04	83.93	83.93	?	83.94	83.94	?	?	?
p04	125.03	-	120.71	127.44	127.44	?	128.51	128.51	?	?	?
p05	106.45	106.45	103.10	110.33	110.33	?	111.45	111.45	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	103.05	-	102.46	109.44	109.44	?	111.92	111.92	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	62.69	62.69	63.43	66.51	66.51	?	66.11	66.11	?	?	?
p13	102.95	102.95	102.92	110.62	110.62	?	111.70	111.70	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	145.22	145.22	134.17	152.80	152.80	?	153.99	153.99	?	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

K.7 depot

K.7.1 depot

Table K.8 – Mean `Open` F-Value when Phase Changes, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	26.82	-	27.41	29.64	29.64	?	30.75	30.75	?	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	22.32	22.32	22.61	24.08	24.08	?	24.79	24.79	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	24.38	24.38	24.49	25.58	25.58	?	25.86	25.86	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?

K.8 driverlog

K.8.1 driverlog

Table K.9 – Mean `Open` F-Value when Phase Changes, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	13.28	13.28	13.28	13.57	13.57	?	13.84	13.84	-	?	?
p08	20.70	20.70	21.66	22.16	22.16	?	22.65	22.65	?	?	?
p09	20.51	20.51	21.03	22.10	22.10	?	22.61	22.61	?	?	?
p10	16.74	16.74	16.92	17.59	17.59	?	17.62	17.62	?	?	?
p11	18.65	18.65	18.79	19.41	19.41	?	19.63	19.63	?	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	24.83	24.83	25.58	26.34	26.34	?	26.78	26.78	?	?	?
p14	27.59	27.59	27.79	28.67	28.67	?	28.94	28.94	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

K.9 elevators

K.9.1 elevators-opt08-strips

Table K.10 – Mean `Open` F-Value when Phase Changes, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	57.38	-	56.17	63.02	-	?	65.50	-	?	?	?
p06	55.04	-	55.17	60.99	-	?	62.93	-	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	56.16	-	55.19	61.60	-	?	63.63	-	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	67.71	-	?	73.60	-	?	75.84	-	?	?	?
p15	70.66	-	68.76	76.46	-	?	78.57	-	?	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	81.33	-	79.66	86.82	-	?	89.03	-	?	?	?
p18	68.58	-	?	73.58	-	?	75.46	-	?	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	70.38	-	69.83	76.87	-	?	79.68	-	?	?	?
p24	61.05	-	?	67.15	-	?	69.20	-	?	?	?
p25	65.37	-	64.66	70.98	-	?	73.08	-	?	?	?
p26	54.23	-	?	58.17	-	?	59.66	-	?	?	?
p27	85.88	-	83.25	92.42	-	?	94.95	-	?	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

K.9.2 elevators-opt11-strips

Table K.11 – Mean `Open` F-Value when Phase Changes, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	54.23	-	?	58.17	-	?	59.66	-	-	?	?
p08	57.38	-	56.17	63.02	-	?	65.50	-	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	67.71	-	?	73.60	-	?	75.84	-	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	55.04	-	55.17	60.99	-	?	62.93	-	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	56.16	-	55.19	61.60	-	?	63.63	-	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	70.66	-	68.76	76.46	-	?	78.57	-	?	?	?
p17	81.33	-	79.66	86.82	-	?	89.03	-	?	?	?
p18	68.58	-	?	73.58	-	?	75.46	-	?	?	?
p19	70.38	-	69.83	76.87	-	?	79.68	-	?	?	?
p20	61.05	-	?	67.15	-	?	69.20	-	?	?	?

K.10 floortile

K.10.1 floortile-opt11-strips

Table K.12 – Mean Open F-Value when Phase Changes, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
opt-p01-001	35.74	35.74	36.24	39.37	39.37	?	40.78	40.78	?	?	?
opt-p01-002	31.84	31.84	32.01	34.81	34.81	?	35.97	35.97	?	?	?
opt-p02-003	56.04	56.04	56.86	61.14	61.14	62.36	63.79	63.79	?	?	?
opt-p02-004	48.47	48.47	49.12	53.05	53.05	?	55.07	55.07	?	?	?
opt-p03-005	54.67	54.67	55.16	58.44	58.44	?	60.17	60.17	?	?	?
opt-p03-006	56.16	56.16	56.68	60.18	60.18	?	62.05	62.05	?	?	?
opt-p04-007	61.38	-	62.05	65.87	65.87	?	67.89	67.89	?	?	?
opt-p04-008	-	-	-	-	-	-	-	-	-	?	-
opt-p05-009	-	-	-	-	-	-	-	-	-	?	-
opt-p05-010	-	-	-	-	-	-	-	-	-	?	-
opt-p06-011	-	-	-	-	-	-	-	-	-	?	-
opt-p06-012	-	-	-	-	-	-	-	-	-	?	-
opt-p07-013	-	-	-	-	-	-	-	-	-	?	-
opt-p07-014	-	-	-	-	-	-	-	-	-	?	-
opt-p08-015	-	-	-	-	-	-	-	-	-	?	-
opt-p08-016	-	-	-	-	-	-	-	-	-	?	-
opt-p09-017	-	-	-	-	-	-	-	-	-	?	-
opt-p09-018	-	-	-	-	-	-	-	-	-	?	-
opt-p10-019	-	-	-	-	-	-	-	-	-	?	-
opt-p10-020	-	-	-	-	-	-	-	-	-	?	-

K.10.2 floortile-opt14-strips

Table K.13 – Mean Open F-Value when Phase Changes, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01-4-3-2	50.72	50.72	51.53	55.72	55.72	56.78	57.98	57.98	?	?	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-3-2	58.00	58.00	58.63	62.75	62.75	?	64.95	64.95	?	?	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-3-2	59.49	-	60.20	64.44	64.44	65.52	66.83	66.83	?	?	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-4-3-2	51.10	51.10	51.64	55.58	55.58	56.59	57.90	57.90	?	?	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-3-2	59.46	-	60.16	64.44	64.44	65.52	66.86	66.86	?	?	?
p03-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	?	-

K.11 freecell

K.11.1 freecell

Table K.14 – Mean `Open` F-Value when Phase Changes, freecell, freecell

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	29.05	-	28.94	30.45	30.45	?	30.95	30.95	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	
p07	-	-	-	-	-	-	-	-	-	?	
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	
probfreecell-10-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-10-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-10-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-10-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-10-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-11-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-11-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-11-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-11-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-11-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-12-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-12-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-12-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-12-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-12-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-13-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-13-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-13-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-13-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-13-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-2-1	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-2	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-3	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-4	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-5	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-1	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-2	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-3	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-4	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-5	-	-	-	-	-	-	-	-	-	?	?
probfreecell-4-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-4-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-4-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-4-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-4-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-5-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-5-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-5-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-5-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-5-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-6-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-6-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-6-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-6-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-6-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-7-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-7-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-7-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-7-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-7-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-8-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-8-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-8-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-8-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-8-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-9-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-9-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-9-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-9-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-9-5	-	-	-	-	-	-	-	-	-	?	

K.12 ged

K.12.1 ged-opt14-strips

Table K.15 – Mean `Open` F-Value when Phase Changes, ged, ged-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
d-1-2	-	-	-	-	-	-	-	-	-	?	?
d-1-3	-	-	-	-	-	-	-	-	-	?	?
d-1-4	-	-	-	-	-	-	-	-	-	?	?
d-1-8	-	-	-	-	-	-	-	-	-	?	?
d-2-1	-	-	-	-	-	-	-	-	-	?	?
d-2-3	-	-	-	-	-	-	-	-	-	?	?
d-2-4	-	-	-	-	-	-	-	-	-	?	?
d-2-8	-	-	-	-	-	-	-	-	-	?	?
d-3-1	-	-	-	-	-	-	-	-	-	?	?
d-3-2	-	-	-	-	-	-	-	-	-	?	?
d-3-4	4.46	4.46	4.70	5.37	5.37	?	5.48	5.48	?	?	?
d-4-2	-	-	-	-	-	-	-	-	-	?	?
d-4-3	4.46	4.46	4.70	5.37	5.37	?	5.48	5.48	?	?	?
d-4-8	-	-	-	-	-	-	-	-	-	?	?
d-7-5	3.99	3.99	3.82	4.41	4.41	4.48	4.47	4.47	4.74	?	?
d-7-6	-	-	-	-	-	-	-	-	-	?	?
d-8-1	-	-	-	-	-	-	-	-	-	?	?
d-8-2	-	-	-	-	-	-	-	-	-	?	?
d-8-4	-	-	-	-	-	-	-	-	-	?	?
d-8-9	-	-	-	-	-	-	-	-	-	?	?

K.13 grid

K.13.1 grid

Table K.16 – Mean `Open` F-Value when Phase Changes, grid, grid

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	23.50	23.50	24.12	25.68	25.68	?	26.56	26.56	?	?	?
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	-	-	-	-	-	-	-	-	-	?	-

K.14 gripper

K.14.1 gripper

Table K.17 – Mean `Open` F-Value when Phase Changes, gripper, gripper

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	-	-	-	-	-	-	-	-	-	?	?
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-

K.15 hiking

K.15.1 hiking-opt14-strips

Table K.18 – Mean `Open` F-Value when Phase Changes, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	?	-

K.16 logistics

K.16.1 logistics00

Table K.19 – Mean `Open` F-Value when Phase Changes, logistics, logistics00

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probLOGISTICS-10-0	43.81	-	44.42	44.93	-	?	45.32	-	?	?	?
probLOGISTICS-10-1	41.19	-	41.68	42.06	-	?	42.34	-	?	?	?
probLOGISTICS-11-0	47.29	-	47.78	48.17	-	?	48.45	-	?	?	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-12-0	41.33	-	41.82	42.19	-	?	42.47	-	?	?	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-7-0	35.07	-	35.47	35.94	35.94	?	36.27	36.27	?	?	?
probLOGISTICS-7-1	42.31	-	42.89	43.63	-	?	44.01	44.01	?	?	?
probLOGISTICS-8-0	30.37	30.37	30.72	31.09	31.09	?	31.33	31.33	?	?	?
probLOGISTICS-8-1	43.03	-	43.47	43.85	-	?	44.11	44.11	?	?	?
probLOGISTICS-9-0	35.14	-	35.59	36.05	36.05	?	36.43	36.43	?	?	?
probLOGISTICS-9-1	30.46	-	29.97	30.50	-	?	30.42	-	?	?	?

K.16.2 logistics98

Table K.20 – Mean `Open` F-Value when Phase Changes, logistics, logistics98

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	25.34	-	25.98	26.31	26.31	?	26.43	26.43	?	?	?
prob02	-	-	-	-	-	-	-	-	-	?	-
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	23.00	23.00	22.33	23.08	23.08	?	23.06	23.06	?	?	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	-	-	-	-	-	-	-	-	-	?	-
prob27	-	-	-	-	-	-	-	-	-	?	-
prob28	-	-	-	-	-	-	-	-	-	?	-
prob29	-	-	-	-	-	-	-	-	-	?	-
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	?	?
prob32	-	-	-	-	-	-	-	-	-	?	?
prob33	26.57	-	26.98	27.25	-	?	27.33	-	?	?	?
prob34	-	-	-	-	-	-	-	-	-	?	?
prob35	30.09	30.09	?	30.08	30.08	?	30.07	30.07	?	?	?

K.17 miconic

K.17.1 miconic

Table K.21 – Mean `Open` F-Value when Phase Changes, miconic, miconic

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
s1-0	-	-	-	-	-	-	-	-	-	?	?
s1-1	-	-	-	-	-	-	-	-	-	?	?
s1-2	-	-	-	-	-	-	-	-	-	?	?
s1-3	-	-	-	-	-	-	-	-	-	?	?
s1-4	-	-	-	-	-	-	-	-	-	?	?
s10-0	-	-	-	-	-	-	-	-	-	?	?
s10-1	-	-	-	-	-	-	-	-	-	?	?
s10-2	-	-	-	-	-	-	-	-	-	?	?
s10-3	-	-	-	-	-	-	-	-	-	?	?
s10-4	-	-	-	-	-	-	-	-	-	?	?
s11-0	37.71	37.71	37.66	38.05	38.05	?	38.21	38.21	?	?	?
s11-1	34.79	34.79	34.49	35.24	35.24	?	35.34	35.34	?	?	?
s11-2	38.84	38.84	38.68	39.13	39.13	?	39.28	39.28	?	?	?
s11-3	38.67	-	38.44	38.62	-	?	38.60	-	?	?	?
s11-4	35.47	35.47	35.74	36.24	36.24	?	36.41	36.41	?	?	?
s12-0	40.33	40.33	40.21	40.99	40.99	?	41.13	41.13	?	?	?
s12-1	40.36	40.36	40.45	41.17	41.17	?	41.32	41.32	?	?	?
s12-2	40.33	40.33	40.62	40.95	40.95	?	41.02	41.02	?	?	?
s12-3	39.66	39.66	39.52	40.20	40.20	?	40.33	40.33	?	?	?
s12-4	41.30	41.30	41.29	41.84	41.84	?	42.11	42.11	?	?	?
s13-0	44.86	44.86	44.38	45.08	45.08	?	45.18	45.18	?	?	?
s13-1	42.75	-	?	42.70	-	?	42.67	-	?	?	?
s13-2	46.65	46.65	46.72	47.03	47.03	?	47.11	47.11	?	?	?
s13-3	43.68	43.68	43.38	43.91	43.91	?	44.16	44.16	?	?	?
s13-4	42.04	42.04	41.46	42.23	42.23	?	42.34	42.34	?	?	?
s14-0	46.04	46.04	45.39	46.10	46.10	?	46.18	46.18	?	?	?
s14-1	47.86	47.86	47.41	48.06	48.06	?	48.26	48.26	?	?	?
s14-2	49.77	49.77	49.44	50.20	50.20	?	50.24	50.24	?	?	?
s14-3	43.30	43.30	42.84	43.38	43.38	?	43.45	43.45	?	?	?
s14-4	46.10	46.10	45.70	46.30	46.30	?	46.46	46.46	?	?	?
s15-0	47.08	47.08	46.68	47.37	47.37	?	47.50	47.50	?	?	?
s15-1	51.18	51.18	50.77	51.34	51.34	?	51.46	51.46	?	?	?
s15-2	50.97	50.97	50.66	51.31	51.31	?	51.54	51.54	?	?	?
s15-3	50.90	50.90	50.77	51.36	51.36	?	51.50	51.50	?	?	?
s15-4	48.10	48.10	47.91	48.39	48.39	?	48.50	48.50	?	?	?
s16-0	53.88	53.88	53.51	54.14	54.14	?	54.14	54.14	?	?	?
s16-1	53.11	53.11	52.47	53.13	53.13	?	53.25	53.25	?	?	?
s16-2	55.69	55.69	55.41	56.14	56.14	?	56.30	56.30	?	?	?
s16-3	52.86	52.86	?	53.40	53.40	?	53.54	53.54	?	?	?
s16-4	53.90	53.90	53.57	54.21	54.21	?	54.33	54.33	?	?	?
s17-0	56.90	56.90	56.61	57.32	57.32	?	57.48	57.48	?	?	?
s17-1	55.17	55.17	?	55.38	55.38	?	55.51	55.51	?	?	?
s17-2	55.13	55.13	54.82	55.37	55.37	?	55.50	55.50	?	?	?
s17-3	60.60	60.60	60.35	60.64	60.64	?	61.02	61.02	?	?	?
s17-4	55.69	-	?	55.64	-	?	55.64	-	?	?	?
s18-0	60.09	60.09	59.65	60.32	60.32	?	60.40	60.40	?	?	?
s18-1	59.09	59.09	58.83	59.42	59.42	?	59.53	59.53	?	?	?
s18-2	59.14	59.14	58.70	59.37	59.37	?	59.48	59.48	?	?	?
s18-3	60.85	60.85	60.53	61.23	61.23	?	61.35	61.35	?	?	?
s18-4	57.83	57.83	57.54	58.34	58.34	?	58.50	58.50	?	?	?
s19-0	63.04	63.04	62.72	63.31	63.31	?	63.40	63.40	?	?	?
s19-1	65.83	65.83	65.56	66.23	66.23	?	66.36	66.36	?	?	?
s19-2	-	-	-	-	-	-	-	-	-	?	?
s19-3	64.95	64.95	64.63	65.28	65.28	?	65.38	65.38	?	?	?
s19-4	64.01	64.01	63.45	64.21	64.21	?	64.39	64.39	?	?	?
s2-0	-	-	-	-	-	-	-	-	-	?	?
s2-1	-	-	-	-	-	-	-	-	-	?	?
s2-2	-	-	-	-	-	-	-	-	-	?	?
s2-3	-	-	-	-	-	-	-	-	-	?	?
s2-4	-	-	-	-	-	-	-	-	-	?	?
s20-0	-	-	-	-	-	-	-	-	-	?	?
s20-1	66.75	66.75	66.50	67.15	67.15	?	67.26	67.26	?	?	?
s20-2	64.32	64.32	64.53	64.53	64.53	?	64.61	64.61	?	?	?
s20-3	64.19	64.19	?	64.47	64.47	?	64.59	64.59	?	?	?
s20-4	66.00	66.00	65.57	66.32	66.32	?	66.41	66.41	?	?	?
s21-0	70.88	70.88	70.64	71.36	71.36	?	71.49	71.49	?	?	?
s21-1	69.87	69.87	69.53	70.27	70.27	?	70.46	70.46	?	?	?
s21-2	69.76	69.76	69.20	70.06	70.06	?	70.22	70.22	?	?	?
s21-3	67.91	67.91	67.63	68.25	68.25	?	68.47	68.47	?	?	?
s21-4	70.64	70.64	70.33	71.20	71.20	?	71.35	71.35	?	?	?
s22-0	74.25	74.25	?	74.38	74.38	?	74.52	74.52	?	?	?
s22-1	71.32	71.32	?	71.42	71.42	?	71.49	71.49	?	?	?
s22-2	72.27	72.27	?	72.45	72.45	?	72.55	72.55	?	?	?
s22-3	76.33	76.33	76.37	76.93	76.93	?	77.16	77.16	?	?	?
s22-4	72.77	72.77	72.43	73.33	73.33	?	73.44	73.44	?	?	?
s23-0	76.99	76.99	76.55	77.30	77.30	?	77.45	77.45	?	?	?
s23-1	-	-	-	-	-	-	-	-	-	?	?
s23-2	73.98	73.98	?	74.42	74.42	?	74.54	74.54	?	?	?
s23-3	-	-	-	-	-	-	-	-	-	?	?
s23-4	75.12	75.12	?	75.36	75.36	?	75.45	75.45	?	?	?
s24-0	79.97	79.97	79.47	80.35	80.35	?	80.41	80.41	?	?	?
s24-1	79.22	79.22	?	79.35	79.35	?	79.45	79.45	?	?	?
s24-2	79.05	79.05	?	79.39	79.39	?	79.46	79.46	?	?	?
s24-3	80.83	80.83	80.62	81.22	81.22	?	81.33	81.33	?	?	?
s24-4	78.92	78.92	?	79.37	79.37	?	79.54	79.54	?	?	?
s25-0	82.20	82.20	?	82.45	82.45	?	82.57	82.57	?	?	?
s25-1	86.21	86.21	?	86.40	86.40	?	86.52	86.52	?	?	?
s25-2	-	-	-	-	-	-	-	-	-	?	?
s25-3	85.86	85.86	85.54	86.18	86.18	?	86.31	86.31	?	?	?
s25-4	83.93	83.93	?	84.39	84.39	?	84.54	84.54	?	?	?
s26-0	85.21	85.21	?	85.40	85.40	?	85.49	85.49	?	?	?
s26-1	-	-	-	-	-	-	-	-	-	?	?
s26-2	90.98	90.98	90.51	91.19	91.19	?	91.29	91.29	?	?	?
s26-3	89.17	89.17	?	89.36	89.36	?	89.46	89.46	?	?	?
s26-4	83.71	83.71	83.56	84.27	84.27	?	84.41	84.41	?	?	?
s27-0	-	-	-	-	-	-	-	-	-	?	?
s27-1	91.84	91.84	91.23	92.08	92.08	?	92.27	92.27	?	?	?
s27-2	88.35	88.35	?	88.49	88.49	?	88.59	88.59	?	?	?
s27-3	89.97	89.97	89.64	90.35	90.35	?	90.49	90.49	?	?	?
s27-4	90.16	90.16	?	90.44	90.44	?	90.53	90.53	?	?	?
s28-0	95.89	95.89	95.54	96.25	96.25	?	96.37	96.37	?	?	?
s28-1	-	-	-	-	-	-	-	-	-	?	?
s28-2	95.07	95.07	?	95.35	95.35	?	95.48	95.48	?	?	?
s28-3	88.28	88.28	?	88.51	88.51	?	88.63	88.63	?	?	?
s28-4	92.99	92.99	?	93.35	93.35	?	93.51	93.51	?	?	?
s29-0	94.93	94.93	94.40	95.24	95.24	?	95.34	95.34	?	?	?
s29-1	92.23	92.23	?	92.46	92.46	?	92.57	92.57	?	?	?
s29-2	96.23	96.23	?	96.37	96.37	?	96.48	96.48	?	?	?
s29-3	98.11	98.11	?	98.32	98.32	?	98.40	98.40	?	?	?
s29-4	100.14	100.14	?	100.32	100.32	?	100.45	100.45	?	?	?
s3-0	-	-	-	-	-	-	-	-	-	?	?
s3-1	-	-	-	-	-	-	-	-	-	?	?
s3-2	-	-	-	-	-	-	-	-	-	?	?
s3-3	-	-	-	-	-	-	-	-	-	?	?
s3-4	-	-	-	-	-	-	-	-	-	?	?
s30-0	96.13	96.13	?	96.40	96.40	?	96.53	96.53	?	?	?
s30-1	99.18	99.18	?	99.45	99.45	?	99.61	99.61	?	?	?
s30-2	98.11	98.11	?	98.37	98.37	?	98.49	98.49	?	?	?
s30-3	-	-	-	-	-	-	-	-	-	?	?
s30-4	100.05	100.05	?	100.39	100.39	?	100.50	100.50	?	?	?
s4-0	-	-	-	-	-	-	-	-	-	?	?
s4-1	-	-	-	-	-	-	-	-	-	?	?
s4-2	-	-	-	-	-	-	-	-	-	?	?
s4-3	-	-	-	-	-	-	-	-	-	?	?
s4-4	-	-	-	-	-	-	-	-	-	?	?
s5-0	-	-	-	-	-	-	-	-	-	?	?
s5-1	-	-	-	-	-	-	-	-	-	?	?
s5-2	-	-	-	-	-	-	-	-	-	?	?
s5-3	-	-	-	-	-	-	-	-	-	?	?
s5-4	-	-	-	-	-	-	-	-	-	?	?
s6-0	-	-	-	-	-	-	-	-	-	?	?
s6-1	-	-	-	-	-	-	-	-	-	?	?
s6-2	-	-	-	-	-	-	-	-	-	?	?
s6-3	-	-	-	-	-	-	-	-	-	?	?
s6-4	-	-	-	-	-	-	-	-	-	?	?
s7-0	-	-	-	-	-	-	-	-	-	?	?
s7-1	-	-	-	-	-	-	-	-	-	?	?
s7-2	-	-	-	-	-	-	-	-	-	?	?
s7-3	-	-	-	-	-	-	-	-	-	?	?
s7-4	-	-	-	-	-	-	-	-	-	?	?
s8-0	-	-	-	-	-	-	-	-	-	?	?
s8-2	-	-	-	-	-	-	-	-	-	?	?
s8-3	-	-	-	-	-	-	-	-	-	?	?
s8-4	-	-	-	-	-	-	-	-	-	?	?
s9-0	-	-	-	-	-	-	-	-	-	?	?
s9-1	-	-	-	-	-	-	-	-	-	?	?
s9-2	-	-	-	-	-	-	-	-	-	?	?
s9-3	-	-	-	-	-	-	-	-	-	?	?
s9-4	-	-	-	-	-	-	-	-	-	?	?

K.18 movie

K.18.1 movie

Table K.22 – Mean `Open` F-Value when Phase Changes, movie, movie

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	-	-	-	-	-	-	-	-	-	?	?
prob09	-	-	-	-	-	-	-	-	-	?	?
prob10	-	-	-	-	-	-	-	-	-	?	?
prob11	-	-	-	-	-	-	-	-	-	?	?
prob12	-	-	-	-	-	-	-	-	-	?	?
prob13	-	-	-	-	-	-	-	-	-	?	?
prob14	-	-	-	-	-	-	-	-	-	?	?
prob15	-	-	-	-	-	-	-	-	-	?	?
prob16	-	-	-	-	-	-	-	-	-	?	?
prob17	-	-	-	-	-	-	-	-	-	?	?
prob18	-	-	-	-	-	-	-	-	-	?	?
prob19	-	-	-	-	-	-	-	-	-	?	?
prob20	-	-	-	-	-	-	-	-	-	?	?
prob21	-	-	-	-	-	-	-	-	-	?	?
prob22	-	-	-	-	-	-	-	-	-	?	?
prob23	-	-	-	-	-	-	-	-	-	?	?
prob24	-	-	-	-	-	-	-	-	-	?	?
prob25	-	-	-	-	-	-	-	-	-	?	?
prob26	-	-	-	-	-	-	-	-	-	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	?
prob29	-	-	-	-	-	-	-	-	-	?	?
prob30	-	-	-	-	-	-	-	-	-	?	?

K.19 mprime

K.19.1 mprime

Table K.23 – Mean `Open` F-Value when Phase Changes, mprime, mprime

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	7.08	7.08	?	7.87	7.87	?	8.00	8.00	?	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	10.33	10.33	10.95	11.27	11.27	?	11.48	11.48	?	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	6.21	6.21	?	6.92	6.92	?	7.00	7.00	?	?	?
prob09	7.60	7.60	?	8.51	8.51	?	8.57	8.57	?	?	?
prob10	-	-	-	-	-	-	-	-	-	?	?
prob11	-	-	-	-	-	-	-	-	-	?	?
prob12	-	-	-	-	-	-	-	-	-	?	?
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	5.96	5.96	?	6.77	6.77	?	6.90	6.90	?	?	-
prob17	4.00	4.00	?	5.00	5.00	?	5.01	5.01	?	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	?	?
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	6.00	6.00	?	6.75	6.75	?	6.94	6.94	?	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	-
prob29	-	-	-	-	-	-	-	-	-	?	-
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	?	?
prob32	-	-	-	-	-	-	-	-	-	?	?
prob33	-	-	-	-	-	-	-	-	-	?	-
prob34	-	-	-	-	-	-	-	-	-	?	?
prob35	-	-	-	-	-	-	-	-	-	?	?

K.20 mystery

K.20.1 mystery

Table K.24 – Mean `Open` F-Value when Phase Changes, mystery, mystery

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	10.85	10.85	?	11.69	11.69	?	12.17	12.17	?	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	9.01	9.01	?	10.07	10.07	?	10.31	10.31	?	?	?
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	?
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	?
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	6.91	6.91	7.89	7.89	7.89	?	8.02	8.02	?	?	?
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	?
prob26	-	-	-	-	-	-	-	-	-	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	?
prob29	-	-	-	-	-	-	-	-	-	?	?
prob30	-	-	-	-	-	-	-	-	-	?	?

K.21 nomystery

K.21.1 nomystery-opt11-strips

Table K.25 – Mean `Open` F-Value when Phase Changes, nomystery, nomystery-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	22.73	22.73	23.01	23.63	23.63	?	23.84	23.84	?	?	?
p06	26.52	26.52	26.08	26.78	26.78	?	27.03	27.03	?	?	?
p07	29.98	29.98	29.89	30.84	30.84	?	31.07	31.07	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	22.73	22.73	23.02	23.63	23.63	?	23.85	23.85	?	?	?
p16	26.52	26.52	26.08	26.77	26.77	?	27.02	27.02	?	?	?
p17	30.02	30.02	29.85	30.84	30.84	?	31.10	31.10	?	?	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

K.22 openstacks

K.22.1 openstacks-opt08-strips

Table K.26 – Mean `Open` F-Value when Phase Changes, openstacks, openstacks-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

K.22.2 openstacks-opt11-strips

Table K.27 – Mean `Open` F-Value when Phase Changes, openstacks, openstacks-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

K.22.3 openstacks-opt14-strips

Table K.28 – Mean `Open` F-Value when Phase Changes, openstacks, openstacks-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p20_1	-	-	-	-	-	-	-	-	-	?	?
p20_2	-	-	-	-	-	-	-	-	-	?	?
p20_3	-	-	-	-	-	-	-	-	-	?	-
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p35_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	?	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	?	-

K.22.4 openstacks-strips

Table K.29 – Mean `Open` F-Value when Phase Changes, openstacks, openstacks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

K.23 organic

K.23.1 organic-synthesis-opt18-strips

Table K.30 – Mean `Open` F-Value when Phase Changes, organic, organic-synthesis-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

K.23.2 organic-synthesis-split-opt18-strips

Table K.31 – Mean `Open` F-Value when Phase Changes, organic, organic-synthesis-split-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	212.00	212.00	297.50	300.75	300.75	284.11	299.12	299.12	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	315.40	315.40	255.11	289.84	289.84	276.23	289.40	289.40	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	54.00	54.00	80.00	80.85	80.85	80.14	81.34	81.34	?	?	?
p12	45.38	45.38	43.90	45.01	45.01	45.97	49.69	49.69	49.64	?	?
p13	208.00	208.00	236.80	264.00	264.00	?	292.69	292.69	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	98.00	98.00	130.00	156.40	156.40	252.32	283.29	283.29	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

K.24 parcprinter

K.24.1 parcprinter-08-strips

Table K.32 – Mean `Open` F-Value when Phase Changes, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	935104.00	935104.00	847093.00	918713.00	918713.00	-	925374.00	925374.00	-	?	?
p05	1193460.00	1193460.00	1150510.00	1196350.00	1196350.00	?	1196120.00	1196120.00	?	?	?
p06	1542460.00	-	1521730.00	1556330.00	-	?	1568180.00	-	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	996485.00	-	984976.00	1069590.00	-	1068450.00	1106820.00	-	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	751642.00	751642.00	751642.00	775272.00	775272.00	768557.00	786447.00	786447.00	780398.00	?	?
p25	1306960.00	-	1245810.00	1315160.00	-	?	1325710.00	-	?	?	?
p26	1223880.00	1223880.00	1223880.00	1231950.00	1231950.00	1229730.00	1241030.00	1241030.00	1235200.00	?	?
p27	1277230.00	1277230.00	1277230.00	1284320.00	1284320.00	1279460.00	1291300.00	1291300.00	1284770.00	?	?
p28	1695890.00	1695890.00	1695890.00	1695700.00	1695700.00	1691990.00	1699880.00	1699880.00	1695130.00	?	?
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

K.24.2 parcprinter-opt11-strips

Table K.33 – Mean `Open` F-Value when Phase Changes, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	935104.00	935104.00	847093.00	918713.00	918713.00	?	925374.00	925374.00	?	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	1542460.00	-	1521730.00	1556330.00	-	?	1568180.00	-	?	?	?
p07	1193460.00	1193460.00	1150510.00	1196350.00	1196350.00	?	1196120.00	1196120.00	?	?	?
p08	751642.00	751642.00	751642.00	775272.00	775272.00	768557.00	786447.00	786447.00	780398.00	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	1306960.00	-	1245810.00	1315160.00	-	?	1325710.00	-	?	?	?
p11	1223880.00	1223880.00	1223880.00	1231950.00	1231950.00	1229730.00	1241030.00	1241030.00	1235200.00	?	?
p12	996485.00	-	984976.00	1069590.00	-	1068450.00	1106820.00	-	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	1277230.00	1277230.00	1277230.00	1284320.00	1284320.00	1279460.00	1291300.00	1291300.00	1284770.00	?	?

K.25 parking

K.25.1 parking-opt11-strips

Table K.34 – Mean `Open` F-Value when Phase Changes, parking, parking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
pfile03-011	13.11	13.11	13.86	14.31	14.31	?	14.64	14.64	?	?	?
pfile03-012	-	-	-	-	-	-	-	-	-	?	?
pfile04-013	19.60	19.60	20.02	20.50	20.50	?	20.62	20.62	?	?	?
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-
pfile06-021	-	-	-	-	-	-	-	-	-	?	-
pfile06-022	-	-	-	-	-	-	-	-	-	?	-
pfile06-023	-	-	-	-	-	-	-	-	-	?	-
pfile06-024	-	-	-	-	-	-	-	-	-	?	-
pfile07-025	-	-	-	-	-	-	-	-	-	?	-
pfile07-026	-	-	-	-	-	-	-	-	-	?	-
pfile07-027	-	-	-	-	-	-	-	-	-	?	-
pfile07-028	-	-	-	-	-	-	-	-	-	?	-
pfile08-029	-	-	-	-	-	-	-	-	-	?	-
pfile08-030	-	-	-	-	-	-	-	-	-	?	-

K.25.2 parking-opt14-strips

Table K.35 – Mean `Open` F-Value when Phase Changes, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p_12_7-01	17.33	17.33	17.75	18.39	18.39	?	18.62	18.62	?	?	?
p_12_7-02	17.28	17.28	17.75	18.34	18.34	?	18.61	18.61	?	?	?
p_12_7-03	16.45	16.45	16.89	17.39	17.39	?	17.58	17.58	?	?	?
p_12_7-04	-	-	-	-	-	-	-	-	-	?	-
p_14_8-01	-	-	-	-	-	-	-	-	-	?	-
p_14_8-02	-	-	-	-	-	-	-	-	-	?	-
p_14_8-03	-	-	-	-	-	-	-	-	-	?	-
p_14_8-04	-	-	-	-	-	-	-	-	-	?	-
p_16_9-01	-	-	-	-	-	-	-	-	-	?	-
p_16_9-02	-	-	-	-	-	-	-	-	-	?	-
p_16_9-03	-	-	-	-	-	-	-	-	-	?	-
p_16_9-04	-	-	-	-	-	-	-	-	-	?	-
p_18_10-01	-	-	-	-	-	-	-	-	-	?	-
p_18_10-02	-	-	-	-	-	-	-	-	-	?	-
p_18_10-03	-	-	-	-	-	-	-	-	-	?	-
p_18_10-04	-	-	-	-	-	-	-	-	-	?	-
p_20_11-01	-	-	-	-	-	-	-	-	-	?	-
p_20_11-02	-	-	-	-	-	-	-	-	-	?	-
p_20_11-03	-	-	-	-	-	-	-	-	-	?	-
p_20_11-04	-	-	-	-	-	-	-	-	-	?	-

K.26 pathways

K.26.1 pathways

Table K.36 – Mean `Open` F-Value when Phase Changes, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	29.42	-	?	29.96	-	?	30.03	-	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

K.27 pegsol

K.27.1 pegsol-08-strips

Table K.37 – Mean `Open` F-Value when Phase Changes, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

K.27.2 pegsol-opt11-strips

Table K.38 – Mean `Open` F-Value when Phase Changes, pegsol, pegsol-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

K.28 petri

K.28.1 petri-net-alignment-opt18-strips

Table K.39 – Mean `Open` F-Value when Phase Changes, petri, petri-net-alignment-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	68.42	-	66.05	71.85	71.85	70.77	69.00	69.00	?	?	?
p04	86.01	-	85.85	81.38	81.38	81.41	81.21	81.21	?	?	?
p05	70.70	70.70	69.89	73.62	73.62	?	74.36	74.36	?	?	?
p06	101.70	-	101.23	104.69	104.69	?	106.88	106.88	?	?	?
p07	94.24	-	111.61	113.00	113.00	?	113.58	113.58	?	?	?
p08	106.17	-	106.05	112.97	-	112.73	116.20	116.20	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	195.37	195.37	195.43	200.12	200.12	?	202.13	202.13	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

K.29 pipesworld

K.29.1 pipesworld-notankage

Table K.40 – Mean `Open` F-Value when Phase Changes, pipesworld, pipesworld-notankage

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	?	?
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	?	?
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	?	?
p10-net1-b14-g8	16.78	16.78	17.03	18.22	18.22	?	18.83	18.83	?	?	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	?	?
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	?	?
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	?	?
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	?	?
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	?	?
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	?	?
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3	15.95	15.95	16.67	17.77	17.77	?	18.46	18.46	?	?	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2	11.00	11.00	11.67	12.39	12.39	?	12.73	12.73	?	?	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b22-g3	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	?	-

K.29.2 pipesworld-tankage

Table K.41 – Mean `Open` F-Value when Phase Changes, pipesworld, pipesworld-tankage

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5-t80	8.72	8.72	?	9.30	9.30	?	9.48	9.48	?	?	?
p08-net1-b12-g7-t80	10.96	10.96	11.03	11.84	11.84	?	11.90	11.90	?	?	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	?
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	14.67	14.67	15.16	16.21	16.21	?	16.65	16.65	?	?	?
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	?
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	?
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

K.29.3 pipesworld-tankage-nosplit

Table K.42 – Mean `Open` F-Value when Phase Changes, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-net1-b6-g2-s50	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4-s50	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3-s80	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g5-s80	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4-s50	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6-s50	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5-s80	8.72	8.72	?	9.30	9.30	?	9.48	9.48	?	?	?
p08-net1-b12-g7-s80	10.96	10.96	11.03	11.84	11.84	?	11.90	11.90	?	?	?
p09-net1-b14-g6-s50	-	-	-	-	-	-	-	-	-	?	
p10-net1-b14-g8-s50	-	-	-	-	-	-	-	-	-	?	
p11-net2-b10-g2-s30	-	-	-	-	-	-	-	-	-	?	
p12-net2-b10-g4-s60	-	-	-	-	-	-	-	-	-	?	
p13-net2-b12-g3-s70	-	-	-	-	-	-	-	-	-	?	
p14-net2-b12-g5-s30	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4-s30	-	-	-	-	-	-	-	-	-	?	
p16-net2-b14-g6-s80	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5-s20	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7-s60	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6-s60	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8-s90	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2-s60	-	-	-	-	-	-	-	-	-	?	
p22-net3-b12-g4-s60	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3-s60	-	-	-	-	-	-	-	-	-	?	
p24-net3-b14-g5-s60	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5-s60	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7-s70	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6-s70	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7-s70	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6-s70	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8-s70	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3-s20	-	-	-	-	-	-	-	-	-	?	
p32-net4-b14-g5-s30	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5-s60	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6-s60	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4-s90	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6-s90	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5-s60	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7-s60	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7-s50	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8-s50	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2-s20	-	-	-	-	-	-	-	-	-	?	
p42-net5-b22-g4-s50	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3-s80	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5-s80	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4-s50	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g6-s50	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5-s50	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7-s50	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6-s50	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8-s50	-	-	-	-	-	-	-	-	-	?	

K.30 psr

K.30.1 psr-small

Table K.43 – Mean `Open` F-Value when Phase Changes, psr, psr-small

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	?	?
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	?	?
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	?	?
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p16-s29-n2-l5-f30	-	-	-	-	-	-	-	-	-	?	?
p17-s30-n2-l5-f50	-	-	-	-	-	-	-	-	-	?	?
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	?	?
p19-s33-n3-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p20-s34-n3-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p22-s37-n3-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	?	?
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	?	?
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	?	?
p31-s49-n4-l2-f90	-	-	-	-	-	-	-	-	-	?	?
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p35-s57-n5-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p36-s65-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p38-s78-n3-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p40-s80-n3-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p41-s81-n3-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p42-s82-n3-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p43-s83-n3-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p44-s89-n4-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p46-s97-n5-l2-f90	-	-	-	-	-	-	-	-	-	?	?
p47-s98-n5-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p48-s101-n5-l3-f30	29.40	-	32.91	34.05	34.05	?	37.04	37.04	?	?	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	?	?

K.31 rovers

K.31.1 rovers

Table K.44 – Mean `Open` F-Value when Phase Changes, rovers, rovers

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	17.34	17.34	17.82	18.20	18.20	?	18.43	18.43	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	18.24	18.24	18.89	19.14	19.14	?	19.34	19.34	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-
p31	-	-	-	-	-	-	-	-	-	?	-
p32	-	-	-	-	-	-	-	-	-	?	-
p33	-	-	-	-	-	-	-	-	-	?	-
p34	-	-	-	-	-	-	-	-	-	?	-
p35	-	-	-	-	-	-	-	-	-	?	-
p36	-	-	-	-	-	-	-	-	-	?	-
p37	-	-	-	-	-	-	-	-	-	?	-
p38	-	-	-	-	-	-	-	-	-	?	-
p39	-	-	-	-	-	-	-	-	-	?	-
p40	-	-	-	-	-	-	-	-	-	?	-

K.32 satellite

K.32.1 satellite

Table K.45 – Mean `Open` F-Value when Phase Changes, satellite, satellite

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01-pfile1	-	-	-	-	-	-	-	-	-	?	?
p02-pfile2	-	-	-	-	-	-	-	-	-	?	?
p03-pfile3	-	-	-	-	-	-	-	-	-	?	?
p04-pfile4	-	-	-	-	-	-	-	-	-	?	?
p05-pfile5	15.56	15.56	?	16.59	16.59	?	16.64	16.64	?	?	?
p06-pfile6	19.41	19.41	?	20.39	20.39	?	20.58	20.58	?	?	?
p07-pfile7	20.59	20.59	21.00	21.18	21.18	?	21.36	21.36	?	?	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	?	-
p10-pfile10	-	-	-	-	-	-	-	-	-	?	-
p11-pfile11	-	-	-	-	-	-	-	-	-	?	-
p12-pfile12	-	-	-	-	-	-	-	-	-	?	-
p13-pfile13	-	-	-	-	-	-	-	-	-	?	-
p14-pfile14	-	-	-	-	-	-	-	-	-	?	-
p15-pfile15	-	-	-	-	-	-	-	-	-	?	-
p16-pfile16	-	-	-	-	-	-	-	-	-	?	-
p17-pfile17	-	-	-	-	-	-	-	-	-	?	-
p18-pfile18	-	-	-	-	-	-	-	-	-	?	-
p19-pfile19	-	-	-	-	-	-	-	-	-	?	-
p20-pfile20	-	-	-	-	-	-	-	-	-	?	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	?	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	?	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	?	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	?	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	?	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	?	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	?	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	?	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	?	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	?	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	?	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	?	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	?	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	?	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	?	-

K.33 scanalyzer

K.33.1 scanalyzer-08-strips

Table K.46 – Mean `Open` F-Value when Phase Changes, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	30.00	30.00	30.04	30.75	30.75	?	30.98	30.98	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	36.00	36.00	36.03	36.75	36.75	?	37.01	37.01	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	42.50	42.50	42.02	42.72	42.72	?	43.02	43.02	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	48.50	48.50	48.02	48.74	48.74	?	49.00	49.00	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	54.50	54.50	54.01	54.74	54.74	?	55.01	55.01	?	?	?
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

K.33.2 scanalyzer-opt11-strips

Table K.47 – Mean `Open` F-Value when Phase Changes, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	30.00	30.00	30.04	30.75	30.75	?	30.98	30.98	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	54.50	54.50	54.01	54.74	54.74	?	55.01	55.01	?	?	?
p08	36.00	36.00	36.03	36.75	36.75	?	37.01	37.01	?	?	?
p09	42.50	42.50	42.02	42.72	42.72	?	43.02	43.02	?	?	?
p10	48.50	48.50	48.02	48.74	48.74	?	49.00	49.00	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

K.34 snake

K.34.1 snake-opt18-strips

Table K.48 – Mean `Open` F-Value when Phase Changes, snake, snake-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

K.35 sokoban

K.35.1 sokoban-opt08-strips

Table K.49 – Mean `Open` F-Value when Phase Changes, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	8.00	8.00	8.00	8.25	8.25	8.25	8.32	8.32	8.32	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	6.26	6.26	6.26	8.98	8.98	8.99	10.22	10.22	10.22	?	?
p22	39.67	-	39.68	43.18	-	43.21	45.19	-	45.19	?	?
p23	28.03	-	28.08	30.34	-	30.39	31.94	-	31.99	?	?
p24	27.37	-	28.30	43.27	-	43.90	49.92	-	50.01	?	?
p25	32.97	-	33.01	36.36	-	36.43	38.79	-	38.90	?	?
p26	27.23	-	27.23	30.73	-	30.76	32.87	-	33.02	?	?
p27	18.83	-	18.92	21.97	21.97	22.07	23.36	23.36	23.46	?	?
p28	33.97	-	34.00	39.93	-	39.98	42.86	-	42.92	?	?
p29	17.61	-	17.66	18.57	-	18.53	18.66	18.66	?	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

K.35.2 sokoban-opt11-strips

Table K.50 – Mean `Open` F-Value when Phase Changes, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	8.00	8.00	8.00	8.25	8.25	8.25	8.32	8.32	8.32	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	6.26	6.26	6.26	8.98	8.98	8.99	10.22	10.22	10.22	?	?
p19	39.67	-	39.68	43.18	-	43.21	45.19	-	45.19	?	?
p20	28.03	-	28.08	30.34	-	30.39	31.94	-	31.99	?	?

K.36 spider

K.36.1 spider-opt18-strips

Table K.51 – Mean `Open` F-Value when Phase Changes, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	23.02	23.02	24.10	26.26	26.26	?	27.37	27.37	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	15.36	15.36	16.05	16.94	16.94	?	17.34	17.34	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

K.37 storage

K.37.1 storage

Table K.52 – Mean `Open` F-Value when Phase Changes, storage, storage

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	17.03	17.03	17.74	18.50	18.50	?	18.91	18.91	?	?	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

K.38 termes

K.38.1 termes-opt18-strips

Table K.53 – Mean `Open` F-Value when Phase Changes, termes, termes-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

K.39 tetris

K.39.1 tetris-opt14-strips

Table K.54 – Mean `Open` F-Value when Phase Changes, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01-10	-	-	-	-	-	-	-	-	-	?	-
p01-6	-	-	-	-	-	-	-	-	-	?	-
p01-8	-	-	-	-	-	-	-	-	-	?	?
p02-10	-	-	-	-	-	-	-	-	-	?	-
p02-4	-	-	-	-	-	-	-	-	-	?	?
p02-6	-	-	-	-	-	-	-	-	-	?	?
p02-8	-	-	-	-	-	-	-	-	-	?	-
p03-10	-	-	-	-	-	-	-	-	-	?	-
p03-4	-	-	-	-	-	-	-	-	-	?	?
p03-6	-	-	-	-	-	-	-	-	-	?	-
p03-8	-	-	-	-	-	-	-	-	-	?	-
p04-10	-	-	-	-	-	-	-	-	-	?	-
p04-6	-	-	-	-	-	-	-	-	-	?	-
p04-8	-	-	-	-	-	-	-	-	-	?	-
p05-10	-	-	-	-	-	-	-	-	-	?	?
p05-6	-	-	-	-	-	-	-	-	-	?	-
p05-8	-	-	-	-	-	-	-	-	-	?	?

K.40 tidybot

K.40.1 tidybot-opt11-strips

Table K.55 – Mean `Open` F-Value when Phase Changes, tidybot, tidybot-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	33.86	33.86	34.66	37.04	37.04	38.14	38.34	38.34	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	31.51	31.51	32.42	34.34	34.34	35.23	35.48	35.48	?	?	?
p13	26.32	26.32	27.21	29.30	29.30	30.12	30.43	30.43	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

K.40.2 tidybot-opt14-strips

Table K.56 – Mean `Open` F-Value when Phase Changes, tidybot, tidybot-opt14-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	31.31	31.31	32.28	34.26	34.26	35.22	35.35	35.35	?	?	?
p03	27.05	27.05	27.59	29.48	29.48	30.18	30.48	30.48	?	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	34.54	34.54	35.39	37.48	37.48	38.25	38.51	38.51	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	31.51	31.51	32.42	34.34	34.34	35.23	35.48	35.48	-	?	?
p13	26.32	26.32	27.21	29.30	29.30	30.12	30.43	30.43	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

K.41 tpp

K.41.1 tpp

Table K.57 – Mean `Open` F-Value when Phase Changes, tpp, tpp

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	23.58	-	23.99	24.69	-	?	25.24	-	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

K.42 transport

K.42.1 transport-opt08-strips

Table K.58 – Mean `Open` F-Value when Phase Changes, transport, transport-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

K.42.2 transport-opt11-strips

Table K.59 – Mean `Open` F-Value when Phase Changes, transport, transport-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

K.42.3 transport-opt14-strips

Table K.60 – Mean `Open` F-Value when Phase Changes, transport, transport-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	296.35	-	298.05	322.79	322.79	?	332.39	332.39	?	?	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	?
p14	507.98	-	506.31	555.58	-	?	578.23	578.23	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

K.43 trucks

K.43.1 trucks-strips

Table K.61 – Mean `Open` F-Value when Phase Changes, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	-
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	?
p05	24.40	24.40	24.72	25.25	25.25	?	25.39	25.39	?	?	?
p06	28.98	28.98	28.99	29.93	29.93	29.97	30.31	30.31	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	24.37	24.37	24.77	25.24	25.24	?	25.38	25.38	?	?	?
p09	27.45	27.45	27.96	28.41	28.41	?	28.49	28.49	?	?	?
p10	31.94	31.94	32.07	34.00	34.00	?	34.19	34.19	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

K.44 visitall

K.44.1 visitall-opt11-strips

Table K.62 – Mean `Open` F-Value when Phase Changes, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
problem02-full	-	-	-	-	-	-	-	-	-	?	?
problem02-half	-	-	-	-	-	-	-	-	-	?	?
problem03-full	-	-	-	-	-	-	-	-	-	?	?
problem03-half	-	-	-	-	-	-	-	-	-	?	?
problem04-full	-	-	-	-	-	-	-	-	-	?	?
problem04-half	-	-	-	-	-	-	-	-	-	?	?
problem05-full	-	-	-	-	-	-	-	-	-	?	?
problem05-half	-	-	-	-	-	-	-	-	-	?	?
problem06-full	-	-	-	-	-	-	-	-	-	?	?
problem06-half	-	-	-	-	-	-	-	-	-	?	?
problem07-full	-	-	-	-	-	-	-	-	-	?	-
problem07-half	34.31	34.31	34.44	36.05	36.05	36.34	36.75	36.75	?	?	?
problem08-full	-	-	-	-	-	-	-	-	-	?	-
problem08-half	-	-	-	-	-	-	-	-	-	?	-
problem09-full	-	-	-	-	-	-	-	-	-	?	-
problem09-half	-	-	-	-	-	-	-	-	-	?	-
problem10-full	-	-	-	-	-	-	-	-	-	?	-
problem10-half	-	-	-	-	-	-	-	-	-	?	-
problem11-full	-	-	-	-	-	-	-	-	-	?	-
problem11-half	-	-	-	-	-	-	-	-	-	?	-

K.44.2 visitall-opt14-strips

Table K.63 – Mean `Open` F-Value when Phase Changes, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p-05-10	-	-	-	-	-	-	-	-	-	?	-
p-05-5	-	-	-	-	-	-	-	-	-	?	-
p-05-6	-	-	-	-	-	-	-	-	-	?	?
p-05-7	31.69	31.69	31.97	33.72	33.72	34.18	34.63	34.63	?	?	?
p-05-8	41.53	41.53	41.53	43.15	43.15	43.38	43.82	43.82	?	?	?
p-05-9	-	-	-	-	-	-	-	-	-	?	-
p-1-10	-	-	-	-	-	-	-	-	-	?	-
p-1-11	-	-	-	-	-	-	-	-	-	?	-
p-1-12	-	-	-	-	-	-	-	-	-	?	-
p-1-13	-	-	-	-	-	-	-	-	-	?	-
p-1-14	-	-	-	-	-	-	-	-	-	?	-
p-1-15	-	-	-	-	-	-	-	-	-	?	-
p-1-16	-	-	-	-	-	-	-	-	-	?	-
p-1-17	-	-	-	-	-	-	-	-	-	?	-
p-1-18	-	-	-	-	-	-	-	-	-	?	?
p-1-5	-	-	-	-	-	-	-	-	-	?	-
p-1-6	-	-	-	-	-	-	-	-	-	?	-
p-1-7	-	-	-	-	-	-	-	-	-	?	-
p-1-8	-	-	-	-	-	-	-	-	-	?	-
p-1-9	-	-	-	-	-	-	-	-	-	?	-

K.45 woodworking

K.45.1 woodworking-opt08-strips

Table K.64 – Mean `Open` F-Value when Phase Changes, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	288.04	288.04	276.96	290.16	290.16	?	293.00	293.00	?	?	?
p04	272.17	-	278.63	293.03	-	?	302.10	302.10	?	?	?
p05	280.39	280.39	?	292.94	292.94	?	298.87	298.87	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	406.27	406.27	?	418.19	418.19	?	421.65	421.65	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	222.90	222.90	218.94	230.23	230.23	?	237.19	237.19	?	?	?
p14	226.25	226.25	227.90	239.71	239.71	?	244.92	244.92	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	298.36	298.36	?	309.14	309.14	?	312.53	312.53	?	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	257.38	257.38	?	256.97	256.97	?	259.56	259.56	?	?	?
p25	390.00	390.00	380.99	396.23	396.23	?	400.29	400.29	?	?	?
p26	-	-	-	-	-	-	-	-	-	?	
p27	-	-	-	-	-	-	-	-	-	?	
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	

K.45.2 woodworking-opt11-strips

Table K.65 – Mean `Open` F-Value when Phase Changes, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	222.90	222.90	218.94	230.23	230.23	?	237.19	237.19	?	?	?
p04	288.04	288.04	276.96	290.16	290.16	?	293.00	293.00	?	?	?
p05	257.38	257.38	?	256.97	256.97	?	259.56	259.56	?	?	?
p06	272.17	-	278.63	293.03	-	?	302.10	302.10	?	?	?
p07	226.25	226.25	227.90	239.71	239.71	?	244.92	244.92	?	?	?
p08	390.00	390.00	380.99	396.23	396.23	?	400.29	400.29	?	?	?
p09	280.39	280.39	?	292.94	292.94	?	298.87	298.87	?	?	?
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	298.36	298.36	?	309.14	309.14	?	312.53	312.53	?	?	?
p16	406.27	406.27	?	418.19	418.19	?	421.65	421.65	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

K.46 zenotravel

K.46.1 zenotravel

Table K.66 – Mean `Open` F-Value when Phase Changes, zenotravel, zenotravel

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	11.40	11.40	?	12.30	12.30	?	12.45	12.45	?	?	?
p09	20.76	20.76	20.98	21.70	21.70	?	21.76	21.76	?	?	?
p10	21.97	21.97	?	22.58	22.58	?	22.60	22.60	?	?	?
p11	14.03	14.03	?	14.70	14.70	?	14.66	14.66	?	?	?
p12	21.04	21.04	?	21.69	21.69	?	21.73	21.73	?	?	?
p13	26.29	26.29	?	26.72	26.72	?	26.78	26.78	?	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

APPENDIX L — MAXIMUM OPEN F-VALUE WHEN PHASE CHANGES

L.1 agricola

L.1.1 agricola-opt18-strips

Table L.1 – Maximum Open F-Value when Phase Changes, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	-
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

L.2 airport

L.2.1 airport

Table L.2 – Maximum Open F-Value when Phase Changes, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-airport1-p1	-	-	-	-	-	-	-	-	-	?	?
p02-airport1-p1	-	-	-	-	-	-	-	-	-	?	?
p03-airport1-p2	-	-	-	-	-	-	-	-	-	?	?
p04-airport2-p1	-	-	-	-	-	-	-	-	-	?	?
p05-airport2-p1	-	-	-	-	-	-	-	-	-	?	?
p06-airport2-p2	-	-	-	-	-	-	-	-	-	?	?
p07-airport2-p2	-	-	-	-	-	-	-	-	-	?	?
p08-airport2-p3	-	-	-	-	-	-	-	-	-	?	?
p09-airport2-p4	-	-	-	-	-	-	-	-	-	?	?
p10-airport3-p1	-	-	-	-	-	-	-	-	-	?	?
p11-airport3-p1	-	-	-	-	-	-	-	-	-	?	?
p12-airport3-p2	-	-	-	-	-	-	-	-	-	?	?
p13-airport3-p2	-	-	-	-	-	-	-	-	-	?	?
p14-airport3-p3	-	-	-	-	-	-	-	-	-	?	?
p15-airport3-p3	-	-	-	-	-	-	-	-	-	?	?
p16-airport3-p4	-	-	-	-	-	-	-	-	-	?	?
p17-airport3-p5	-	-	-	-	-	-	-	-	-	?	?
p18-airport3-p6	110.00	-	110.00	110.00	-	110.00	133.00	-	?	?	?
p19-airport3-p6	-	-	-	-	-	-	-	-	-	?	?
p20-airport3-p7	118.00	-	117.00	119.00	-	118.00	139.00	139.00	?	?	?
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	?	?
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	?	?
p23-airport4halfMUC-p4	170.00	170.00	170.00	234.00	234.00	?	234.00	234.00	?	?	?
p24-airport4halfMUC-p4	162.00	162.00	162.00	228.00	228.00	228.00	228.00	228.00	228.00	?	?
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	?	?
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	?	?
p27-airport4halfMUC-p6	312.00	312.00	312.00	312.00	-	?	312.00	312.00	?	?	?
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	?	?
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	?
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	?
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	?	?
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	?
p33-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	?
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	?	?
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	?	?
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	?	?
p37-airport5MUC-p3	207.00	-	207.00	207.00	-	207.00	207.00	-	?	?	?
p38-airport5MUC-p3	219.00	-	154.00	219.00	-	155.00	220.00	-	?	?	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	?
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	?
p41-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	?
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	?
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	?
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	?
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	?
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	?
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	?	?
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	?	?
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	?	?
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	?	?

L.3 barman

L.3.1 barman-opt11-strips

Table L.3 – Maximum Open F-Value when Phase Changes, barman, barman-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
pfile01-001	-	-	-	-	-	-	-	-	-	?	?
pfile01-002	-	-	-	-	-	-	-	-	-	?	?
pfile01-003	-	-	-	-	-	-	-	-	-	?	?
pfile01-004	-	-	-	-	-	-	-	-	-	?	?
pfile02-005	-	-	-	-	-	-	-	-	-	?	-
pfile02-006	-	-	-	-	-	-	-	-	-	?	-
pfile02-007	-	-	-	-	-	-	-	-	-	?	-
pfile02-008	-	-	-	-	-	-	-	-	-	?	-
pfile03-009	-	-	-	-	-	-	-	-	-	?	-
pfile03-010	-	-	-	-	-	-	-	-	-	?	-
pfile03-011	-	-	-	-	-	-	-	-	-	?	-
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	-	-	-	-	-	-	-	-	-	?	-
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-

L.3.2 barman-opt14-strips

Table L.4 – Maximum Open F-Value when Phase Changes, barman, barman-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p435-1	-	-	-	-	-	-	-	-	-	?	-
p435-2	-	-	-	-	-	-	-	-	-	?	-
p435-3	-	-	-	-	-	-	-	-	-	?	-
p536-1	-	-	-	-	-	-	-	-	-	?	-
p536-2	-	-	-	-	-	-	-	-	-	?	-
p536-3	-	-	-	-	-	-	-	-	-	?	-
p638-1	-	-	-	-	-	-	-	-	-	?	-
p638-2	-	-	-	-	-	-	-	-	-	?	-
p638-3	-	-	-	-	-	-	-	-	-	?	-
p739-1	-	-	-	-	-	-	-	-	-	?	-
p739-2	-	-	-	-	-	-	-	-	-	?	-
p739-3	-	-	-	-	-	-	-	-	-	?	-
p839-1	-	-	-	-	-	-	-	-	-	?	-
p839-2	-	-	-	-	-	-	-	-	-	?	-

L.4 blocks

L.4.1 blocks

Table L.5 – Maximum Open F-Value when Phase Changes, blocks, blocks

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probBLOCKS-10-0	35.00	35.00	35.00	37.00	37.00	?	38.00	38.00	?	?	?
probBLOCKS-10-1	32.00	32.00	33.00	34.00	34.00	?	34.00	34.00	?	?	?
probBLOCKS-10-2	34.00	34.00	35.00	36.00	36.00	?	36.00	36.00	?	?	?
probBLOCKS-11-0	33.00	33.00	33.00	34.00	34.00	?	35.00	35.00	?	?	?
probBLOCKS-11-1	31.00	31.00	31.00	34.00	34.00	?	34.00	34.00	?	?	?
probBLOCKS-11-2	34.00	34.00	35.00	36.00	36.00	?	37.00	37.00	?	?	?
probBLOCKS-12-0	34.00	34.00	35.00	37.00	37.00	?	37.00	37.00	?	?	?
probBLOCKS-12-1	34.00	34.00	35.00	36.00	36.00	?	36.00	36.00	?	?	?
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-14-0	39.00	39.00	39.00	41.00	41.00	?	41.00	41.00	?	?	?
probBLOCKS-14-1	38.00	38.00	37.00	39.00	39.00	?	39.00	39.00	?	?	?
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	?	?

L.5 childsnack

L.5.1 childsnack-opt14-strips

Table L.6 – Maximum `Open` F-Value when Phase Changes, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
child-snack_pfile01	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile02	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile03	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile04	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile05	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile06	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile07	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile08	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile09	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile10	-	-	-	-	-	-	-	-	-	?	
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	?	

L.6 data

L.6.1 data-network-opt18-strips

Table L.7 – Maximum `Open` F-Value when Phase Changes, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	-
p03	90.00	90.00	80.00	106.00	106.00	?	106.00	106.00	?	?	?
p04	159.00	-	154.00	162.00	162.00	?	163.00	163.00	?	?	?
p05	126.00	126.00	114.00	135.00	135.00	-	135.00	135.00	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	?
p10	123.00	-	125.00	130.00	130.00	?	134.00	134.00	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	70.00	70.00	70.00	74.00	74.00	?	74.00	74.00	?	?	?
p13	118.00	118.00	117.00	132.00	132.00	?	133.00	133.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	213.00	213.00	218.00	225.00	225.00	?	229.00	229.00	?	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

L.7 depot

L.7.1 depot

Table L.8 – Maximum `Open` F-Value when Phase Changes, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	-
p04	35.00	-	32.00	37.00	37.00	?	39.00	39.00	?	?	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	28.00	28.00	26.00	30.00	30.00	?	30.00	30.00	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	?
p13	29.00	29.00	26.00	30.00	30.00	?	30.00	30.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-

L.8 driverlog

L.8.1 driverlog

Table L.9 – Maximum Open F-Value when Phase Changes, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	14.00	14.00	14.00	14.00	14.00	?	15.00	15.00	-	?	?
p08	24.00	24.00	23.00	26.00	26.00	?	26.00	26.00	?	?	?
p09	25.00	25.00	24.00	27.00	27.00	?	27.00	27.00	?	?	?
p10	18.00	18.00	18.00	18.00	18.00	?	19.00	19.00	?	?	?
p11	22.00	22.00	20.00	23.00	23.00	?	23.00	23.00	?	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	29.00	29.00	28.00	31.00	31.00	?	32.00	32.00	?	?	?
p14	33.00	33.00	31.00	34.00	34.00	?	34.00	34.00	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

L.9 elevators

L.9.1 elevators-opt08-strips

Table L.10 – Maximum Open F-Value when Phase Changes, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	87.00	-	67.00	102.00	-	?	102.00	-	?	?	?
p06	77.00	-	65.00	89.00	-	?	89.00	-	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	81.00	-	67.00	89.00	-	?	90.00	-	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	96.00	-	?	121.00	-	?	121.00	-	?	?	?
p15	99.00	-	81.00	109.00	-	?	109.00	-	?	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	122.00	-	96.00	125.00	-	?	128.00	-	?	?	?
p18	95.00	-	?	107.00	-	?	110.00	-	?	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	104.00	-	84.00	119.00	-	?	134.00	-	?	?	?
p24	105.00	-	-	113.00	-	?	114.00	-	?	?	?
p25	100.00	-	78.00	115.00	-	?	115.00	-	?	?	?
p26	89.00	-	?	94.00	-	?	100.00	-	?	?	?
p27	133.00	-	102.00	143.00	-	?	145.00	-	?	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

L.9.2 elevators-opt11-strips

Table L.11 – Maximum Open F-Value when Phase Changes, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	89.00	-	?	94.00	-	?	100.00	-	?	?	?
p08	87.00	-	67.00	102.00	-	?	102.00	-	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	96.00	-	?	121.00	-	?	121.00	-	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	77.00	-	65.00	89.00	-	?	89.00	-	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	81.00	-	67.00	89.00	-	?	90.00	-	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	99.00	-	81.00	109.00	-	?	109.00	-	?	?	?
p17	122.00	-	96.00	125.00	-	?	128.00	-	?	?	?
p18	95.00	-	?	107.00	-	?	110.00	-	?	?	?
p19	104.00	-	84.00	119.00	-	?	134.00	-	?	?	?
p20	105.00	-	?	113.00	-	?	114.00	-	?	?	?

L.10 floortile

L.10.1 floortile-opt11-strips

Table L.12 – Maximum `Open` F-Value when Phase Changes, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
opt-p01-001	42.00	42.00	41.00	47.00	47.00	?	48.00	48.00	?	?	?
opt-p01-002	37.00	37.00	36.00	42.00	42.00	?	43.00	43.00	?	?	?
opt-p02-003	65.00	65.00	65.00	71.00	71.00	71.00	75.00	75.00	?	?	?
opt-p02-004	56.00	56.00	56.00	64.00	64.00	?	66.00	66.00	?	?	?
opt-p03-005	63.00	63.00	63.00	72.00	72.00	?	74.00	74.00	?	?	?
opt-p03-006	67.00	67.00	64.00	74.00	74.00	?	76.00	76.00	?	?	?
opt-p04-007	74.00	-	70.00	78.00	78.00	?	81.00	81.00	?	?	?
opt-p04-008	-	-	-	-	-	-	-	-	-	?	-
opt-p05-009	-	-	-	-	-	-	-	-	-	?	-
opt-p05-010	-	-	-	-	-	-	-	-	-	?	-
opt-p06-011	-	-	-	-	-	-	-	-	-	?	-
opt-p06-012	-	-	-	-	-	-	-	-	-	?	-
opt-p07-013	-	-	-	-	-	-	-	-	-	?	-
opt-p07-014	-	-	-	-	-	-	-	-	-	?	-
opt-p08-015	-	-	-	-	-	-	-	-	-	?	-
opt-p08-016	-	-	-	-	-	-	-	-	-	?	-
opt-p09-017	-	-	-	-	-	-	-	-	-	?	-
opt-p09-018	-	-	-	-	-	-	-	-	-	?	-
opt-p10-019	-	-	-	-	-	-	-	-	-	?	-
opt-p10-020	-	-	-	-	-	-	-	-	-	?	-

L.10.2 floortile-opt14-strips

Table L.13 – Maximum `Open` F-Value when Phase Changes, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\,A^*$
p01-4-3-2	60.00	60.00	59.00	67.00	67.00	65.00	69.00	69.00	?	?	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-3-2	71.00	71.00	66.00	77.00	77.00	?	79.00	79.00	?	?	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-3-2	71.00	-	69.00	79.00	79.00	80.00	81.00	81.00	?	?	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-4-3-2	60.00	60.00	58.00	65.00	65.00	65.00	69.00	69.00	?	?	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-3-2	72.00	-	69.00	79.00	79.00	80.00	81.00	81.00	?	?	?
p03-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	?	-

L.11 freecell

L.11.1 freecell

Table L.14 – Maximum `Open` F-Value when Phase Changes, freecell, freecell

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	36.00	-	36.00	41.00	41.00	?	41.00	41.00	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-10-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-11-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-12-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-13-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-2-1	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-2	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-3	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-4	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-5	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-1	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-2	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-3	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-4	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-5	-	-	-	-	-	-	-	-	-	?	?
probfreecell-4-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-4-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-5-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-6-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-7-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-8-5	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-1	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-2	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-3	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-4	-	-	-	-	-	-	-	-	-	?	-
probfreecell-9-5	-	-	-	-	-	-	-	-	-	?	-

L.12 ged

L.12.1 ged-opt14-strips

Table L.15 – Maximum `Open` F-Value when Phase Changes, ged, ged-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
d-1-2	-	-	-	-	-	-	-	-	-	?	?
d-1-3	-	-	-	-	-	-	-	-	-	?	?
d-1-4	-	-	-	-	-	-	-	-	-	?	?
d-1-8	-	-	-	-	-	-	-	-	-	?	?
d-2-1	-	-	-	-	-	-	-	-	-	?	?
d-2-3	-	-	-	-	-	-	-	-	-	?	?
d-2-4	-	-	-	-	-	-	-	-	-	?	?
d-2-8	-	-	-	-	-	-	-	-	-	?	?
d-3-1	-	-	-	-	-	-	-	-	-	?	?
d-3-2	-	-	-	-	-	-	-	-	-	?	?
d-3-4	5.00	5.00	6.00	6.00	6.00	?	6.00	6.00	?	?	?
d-4-2	-	-	-	-	-	-	-	-	-	?	?
d-4-3	5.00	5.00	6.00	6.00	6.00	?	6.00	6.00	?	?	?
d-4-8	-	-	-	-	-	-	-	-	-	?	?
d-7-5	5.00	5.00	5.00	5.00	5.00	6.00	5.00	5.00	6.00	?	?
d-7-6	-	-	-	-	-	-	-	-	-	?	?
d-8-1	-	-	-	-	-	-	-	-	-	?	?
d-8-2	-	-	-	-	-	-	-	-	-	?	?
d-8-4	-	-	-	-	-	-	-	-	-	?	?
d-8-9	-	-	-	-	-	-	-	-	-	?	?

L.13 grid

L.13.1 grid

Table L.16 – Maximum Open F-Value when Phase Changes, grid, grid

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	28.00	28.00	27.00	30.00	30.00	?	31.00	31.00	?	?	?
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	-	-	-	-	-	-	-	-	-	?	-

L.14 gripper

L.14.1 gripper

Table L.17 – Maximum Open F-Value when Phase Changes, gripper, gripper

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	-	-	-	-	-	-	-	-	-	?	?
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-

L.15 hiking

L.15.1 hiking-opt14-strips

Table L.18 – Maximum Open F-Value when Phase Changes, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	?	-

L.16 logistics

L.16.1 logistics00

Table L.19 – Maximum `Open` F-Value when Phase Changes, logistics, logistics00

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
probLOGISTICS-10-0	45.00	-	45.00	46.00	-	?	46.00	-	?	?	?
probLOGISTICS-10-1	42.00	-	42.00	43.00	-	?	43.00	-	?	?	?
probLOGISTICS-11-0	48.00	-	48.00	49.00	-	?	49.00	-	?	?	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-12-0	42.00	-	42.00	43.00	-	?	43.00	-	?	?	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-7-0	36.00	-	36.00	37.00	37.00	?	37.00	37.00	?	?	?
probLOGISTICS-7-1	44.00	-	43.00	45.00	-	?	45.00	45.00	?	?	?
probLOGISTICS-8-0	31.00	31.00	31.00	32.00	32.00	?	32.00	32.00	?	?	?
probLOGISTICS-8-1	44.00	-	44.00	45.00	-	?	45.00	45.00	?	?	?
probLOGISTICS-9-0	36.00	-	36.00	37.00	37.00	?	37.00	37.00	?	?	?
probLOGISTICS-9-1	31.00	-	30.00	31.00	-	?	31.00	-	?	?	?

L.16.2 logistics98

Table L.20 – Maximum `Open` F-Value when Phase Changes, logistics, logistics98

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
prob01	27.00	-	26.00	28.00	28.00	?	28.00	28.00	?	?	?
prob02	-	-	-	-	-	-	-	-	-	?	-
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	24.00	24.00	23.00	24.00	24.00	?	24.00	24.00	?	?	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	-	-	-	-	-	-	-	-	-	?	-
prob27	-	-	-	-	-	-	-	-	-	?	-
prob28	-	-	-	-	-	-	-	-	-	?	-
prob29	-	-	-	-	-	-	-	-	-	?	-
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	?	?
prob32	-	-	-	-	-	-	-	-	-	?	?
prob33	28.00	-	27.00	28.00	-	?	29.00	-	?	?	?
prob34	-	-	-	-	-	-	-	-	-	?	?
prob35	31.00	31.00	?	31.00	31.00	?	31.00	31.00	?	?	?

L.17 miconic

L.17.1 miconic

Table L.21 – Maximum `Open` F-Value when Phase Changes, miconic, miconic

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
s1-0	-	-	-	-	-	-	-	-	-	?	?
s1-1	-	-	-	-	-	-	-	-	-	?	?
s1-2	-	-	-	-	-	-	-	-	-	?	?
s1-3	-	-	-	-	-	-	-	-	-	?	?
s1-4	-	-	-	-	-	-	-	-	-	?	?
s10-0	-	-	-	-	-	-	-	-	-	?	?
s10-1	-	-	-	-	-	-	-	-	-	?	?
s10-2	-	-	-	-	-	-	-	-	-	?	?
s10-3	-	-	-	-	-	-	-	-	-	?	?
s10-4	-	-	-	-	-	-	-	-	-	?	?
s11-0	39.00	39.00	39.00	39.00	39.00	?	39.00	39.00	?	?	?
s11-1	36.00	36.00	36.00	36.00	36.00	?	36.00	36.00	?	?	?
s11-2	40.00	40.00	40.00	40.00	40.00	?	40.00	40.00	?	?	?
s11-3	39.00		39.00	39.00		?	39.00		?	?	?
s11-4	36.00	36.00	37.00	37.00	37.00	?	37.00	37.00	?	?	?
s12-0	41.00	41.00	42.00	42.00	42.00	?	42.00	42.00	?	?	?
s12-1	41.00	41.00	42.00	42.00	42.00	?	42.00	42.00	?	?	?
s12-2	41.00	41.00	42.00	42.00	42.00	?	42.00	42.00	?	?	?
s12-3	41.00	41.00	41.00	41.00	41.00	?	41.00	41.00	?	?	?
s12-4	42.00	42.00	43.00	43.00	43.00	?	43.00	43.00	?	?	?
s13-0	46.00	46.00	46.00	46.00	46.00	?	46.00	46.00	?	?	?
s13-1	43.00		?	43.00		?	43.00		?	?	?
s13-2	48.00	48.00	48.00	48.00	48.00	?	48.00	48.00	?	?	?
s13-3	45.00	45.00	45.00	45.00	45.00	?	45.00	45.00	?	?	?
s13-4	43.00	43.00	43.00	43.00	43.00	?	43.00	43.00	?	?	?
s14-0	47.00	47.00	47.00	47.00	47.00	?	47.00	47.00	?	?	?
s14-1	49.00	49.00	49.00	49.00	49.00	?	49.00	49.00	?	?	?
s14-2	51.00	51.00	51.00	51.00	51.00	?	51.00	51.00	?	?	?
s14-3	44.00	44.00	44.00	44.00	44.00	?	44.00	44.00	?	?	?
s14-4	47.00	47.00	47.00	47.00	47.00	?	47.00	47.00	?	?	?
s15-0	48.00	48.00	48.00	48.00	48.00	?	48.00	48.00	?	?	?
s15-1	52.00	52.00	52.00	52.00	52.00	?	52.00	52.00	?	?	?
s15-2	52.00	52.00	52.00	52.00	52.00	?	52.00	52.00	?	?	?
s15-3	52.00	52.00	52.00	52.00	52.00	?	52.00	52.00	?	?	?
s15-4	49.00	49.00	49.00	49.00	49.00	?	49.00	49.00	?	?	?
s16-0	55.00	55.00	55.00	55.00	55.00	?	55.00	55.00	?	?	?
s16-1	54.00	54.00	54.00	54.00	54.00	?	54.00	54.00	?	?	?
s16-2	57.00	57.00	57.00	57.00	57.00	?	57.00	57.00	?	?	?
s16-3	54.00	54.00	?	54.00	54.00	?	54.00	54.00	?	?	?
s16-4	55.00	55.00	55.00	55.00	55.00	?	55.00	55.00	?	?	?
s17-0	58.00	58.00	58.00	58.00	58.00	?	58.00	58.00	?	?	?
s17-1	56.00	56.00	?	56.00	56.00	?	56.00	56.00	?	?	?
s17-2	56.00	56.00	56.00	56.00	56.00	?	56.00	56.00	?	?	?
s17-3	62.00	62.00	62.00	62.00	62.00	?	62.00	62.00	?	?	?
s17-4	56.00		?	56.00		?	56.00		?	?	?
s18-0	61.00	61.00	61.00	61.00	61.00	?	61.00	61.00	?	?	?
s18-1	60.00	60.00	60.00	60.00	60.00	?	60.00	60.00	?	?	?
s18-2	60.00	60.00	60.00	60.00	60.00	?	60.00	60.00	?	?	?
s18-3	62.00	62.00	62.00	62.00	62.00	?	62.00	62.00	?	?	?
s18-4	59.00	59.00	59.00	59.00	59.00	?	59.00	59.00	?	?	?
s19-0	64.00	64.00	64.00	64.00	64.00	?	64.00	64.00	?	?	?
s19-1	67.00	67.00	67.00	67.00	67.00	?	67.00	67.00	?	?	?
s19-2	-	-	-	-	-	-	-	-	-	?	-
s19-3	66.00	66.00	66.00	66.00	66.00	?	66.00	66.00	?	?	?
s19-4	65.00	65.00	65.00	65.00	65.00	?	65.00	65.00	?	?	?
s2-0	-	-	-	-	-	-	-	-	-	?	?
s2-1	-	-	-	-	-	-	-	-	-	?	?
s2-2	-	-	-	-	-	-	-	-	-	?	?
s2-3	-	-	-	-	-	-	-	-	-	?	?
s2-4	-	-	-	-	-	-	-	-	-	?	?
s20-0	-	-	-	-	-	-	-	-	-	?	?
s20-1	68.00	68.00	68.00	68.00	68.00	?	68.00	68.00	?	?	?
s20-2	65.00	65.00	?	65.00	65.00	?	65.00	65.00	?	?	?
s20-3	65.00	65.00	?	65.00	65.00	?	65.00	65.00	?	?	?
s20-4	67.00	67.00	67.00	67.00	67.00	?	67.00	67.00	?	?	?
s21-0	72.00	72.00	72.00	72.00	72.00	?	72.00	72.00	?	?	?
s21-1	71.00	71.00	71.00	71.00	71.00	?	71.00	71.00	?	?	?
s21-2	71.00	71.00	71.00	71.00	71.00	?	71.00	71.00	?	?	?
s21-3	69.00	69.00	69.00	69.00	69.00	?	69.00	69.00	?	?	?
s21-4	72.00	72.00	72.00	72.00	72.00	?	72.00	72.00	?	?	?
s22-0	75.00	75.00	?	75.00	75.00	?	75.00	75.00	?	?	?
s22-1	72.00	72.00	?	72.00	72.00	?	72.00	72.00	?	?	?
s22-2	73.00	73.00	?	73.00	73.00	?	73.00	73.00	?	?	?
s22-3	77.00	77.00	78.00	78.00	78.00	?	78.00	78.00	?	?	?
s22-4	74.00	74.00	74.00	74.00	74.00	?	74.00	74.00	?	?	?
s23-0	78.00	78.00	78.00	78.00	78.00	?	78.00	78.00	?	?	?
s23-1	-	-	-	-	-	-	-	-	-	?	?
s23-2	75.00	75.00	?	75.00	75.00	?	75.00	75.00	?	?	?
s23-3	-	-	-	-	-	-	-	-	-	?	-
s23-4	76.00	76.00	?	76.00	76.00	?	76.00	76.00	?	?	?
s24-0	81.00	81.00	81.00	81.00	81.00	?	81.00	81.00	?	?	?
s24-1	80.00	80.00	?	80.00	80.00	?	80.00	80.00	?	?	?
s24-2	80.00	80.00	?	80.00	80.00	?	80.00	80.00	?	?	?
s24-3	82.00	82.00	82.00	82.00	82.00	?	82.00	82.00	?	?	?
s24-4	80.00	80.00	?	80.00	80.00	?	80.00	80.00	?	?	?
s25-0	83.00	83.00	?	83.00	83.00	?	83.00	83.00	?	?	?
s25-1	87.00	87.00	?	87.00	87.00	?	87.00	87.00	?	?	?
s25-2	-	-	-	-	-	-	-	-	-	?	-
s25-3	87.00	87.00	87.00	87.00	87.00	?	87.00	87.00	?	?	?
s25-4	85.00	85.00	?	85.00	85.00	?	85.00	85.00	?	?	?
s26-0	86.00	86.00	?	86.00	86.00	?	86.00	86.00	?	?	?
s26-1	-	-	-	-	-	-	-	-	-	?	-
s26-2	92.00	92.00	92.00	92.00	92.00	?	92.00	92.00	?	?	?
s26-3	90.00	90.00	?	90.00	90.00	?	90.00	90.00	?	?	?
s26-4	85.00	85.00	85.00	85.00	85.00	?	85.00	85.00	?	?	?
s27-0	-	-	-	-	-	-	-	-	-	?	-
s27-1	93.00	93.00	93.00	93.00	93.00	?	93.00	93.00	?	?	?
s27-2	89.00	89.00	?	89.00	89.00	?	89.00	89.00	?	?	?
s27-3	91.00	91.00	91.00	91.00	91.00	?	91.00	91.00	?	?	?
s27-4	91.00	91.00	?	91.00	91.00	?	91.00	91.00	?	?	?
s28-0	97.00	97.00	97.00	97.00	97.00	?	97.00	97.00	?	?	?
s28-1	-	-	-	-	-	-	-	-	-	?	-
s28-2	96.00	96.00	?	96.00	96.00	?	96.00	96.00	?	?	?
s28-3	89.00	89.00	?	89.00	89.00	?	89.00	89.00	?	?	?
s28-4	94.00	94.00	?	94.00	94.00	?	94.00	94.00	?	?	?
s29-0	96.00	96.00	96.00	96.00	96.00	?	96.00	96.00	?	?	?
s29-1	93.00	93.00	?	93.00	93.00	?	93.00	93.00	?	?	?
s29-2	97.00	97.00	?	97.00	97.00	?	97.00	97.00	?	?	?
s29-3	99.00	99.00	?	99.00	99.00	?	99.00	99.00	?	?	?
s29-4	101.00	101.00	?	101.00	101.00	?	101.00	101.00	?	?	?
s3-0	-	-	-	-	-	-	-	-	-	?	?
s3-1	-	-	-	-	-	-	-	-	-	?	?
s3-2	-	-	-	-	-	-	-	-	-	?	?
s3-3	-	-	-	-	-	-	-	-	-	?	?
s3-4	-	-	-	-	-	-	-	-	-	?	?
s30-0	97.00	97.00	?	97.00	97.00	?	97.00	97.00	?	?	?
s30-1	100.00	100.00	?	100.00	100.00	?	100.00	100.00	?	?	?
s30-2	99.00	99.00	?	99.00	99.00	?	99.00	99.00	?	?	?
s30-3	-	-	-	-	-	-	-	-	-	?	-
s30-4	101.00	101.00	?	101.00	101.00	?	101.00	101.00	?	?	?
s4-0	-	-	-	-	-	-	-	-	-	?	?
s4-1	-	-	-	-	-	-	-	-	-	?	?
s4-2	-	-	-	-	-	-	-	-	-	?	?
s4-3	-	-	-	-	-	-	-	-	-	?	?
s4-4	-	-	-	-	-	-	-	-	-	?	?
s5-0	-	-	-	-	-	-	-	-	-	?	?
s5-1	-	-	-	-	-	-	-	-	-	?	?
s5-2	-	-	-	-	-	-	-	-	-	?	?
s5-3	-	-	-	-	-	-	-	-	-	?	?
s5-4	-	-	-	-	-	-	-	-	-	?	?
s6-0	-	-	-	-	-	-	-	-	-	?	?
s6-1	-	-	-	-	-	-	-	-	-	?	?
s6-2	-	-	-	-	-	-	-	-	-	?	?
s6-3	-	-	-	-	-	-	-	-	-	?	?
s6-4	-	-	-	-	-	-	-	-	-	?	?
s7-0	-	-	-	-	-	-	-	-	-	?	?
s7-1	-	-	-	-	-	-	-	-	-	?	?
s7-2	-	-	-	-	-	-	-	-	-	?	?
s7-3	-	-	-	-	-	-	-	-	-	?	?
s7-4	-	-	-	-	-	-	-	-	-	?	?
s8-0	-	-	-	-	-	-	-	-	-	?	?
s8-1	-	-	-	-	-	-	-	-	-	?	?
s8-2	-	-	-	-	-	-	-	-	-	?	?
s8-3	-	-	-	-	-	-	-	-	-	?	?
s8-4	-	-	-	-	-	-	-	-	-	?	?
s9-0	-	-	-	-	-	-	-	-	-	?	?
s9-1	-	-	-	-	-	-	-	-	-	?	?
s9-2	-	-	-	-	-	-	-	-	-	?	?
s9-3	-	-	-	-	-	-	-	-	-	?	?
s9-4	-	-	-	-	-	-	-	-	-	?	?

L.18 movie

L.18.1 movie

Table L.22 – Maximum `Open` F-Value when Phase Changes, movie, movie

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	-	-	-	-	-	-	-	-	-	?	?
prob09	-	-	-	-	-	-	-	-	-	?	?
prob10	-	-	-	-	-	-	-	-	-	?	?
prob11	-	-	-	-	-	-	-	-	-	?	?
prob12	-	-	-	-	-	-	-	-	-	?	?
prob13	-	-	-	-	-	-	-	-	-	?	?
prob14	-	-	-	-	-	-	-	-	-	?	?
prob15	-	-	-	-	-	-	-	-	-	?	?
prob16	-	-	-	-	-	-	-	-	-	?	?
prob17	-	-	-	-	-	-	-	-	-	?	?
prob18	-	-	-	-	-	-	-	-	-	?	?
prob19	-	-	-	-	-	-	-	-	-	?	?
prob20	-	-	-	-	-	-	-	-	-	?	?
prob21	-	-	-	-	-	-	-	-	-	?	?
prob22	-	-	-	-	-	-	-	-	-	?	?
prob23	-	-	-	-	-	-	-	-	-	?	?
prob24	-	-	-	-	-	-	-	-	-	?	?
prob25	-	-	-	-	-	-	-	-	-	?	?
prob26	-	-	-	-	-	-	-	-	-	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	?
prob29	-	-	-	-	-	-	-	-	-	?	?
prob30	-	-	-	-	-	-	-	-	-	?	?

L.19 mprime

L.19.1 mprime

Table L.23 – Maximum `Open` F-Value when Phase Changes, mprime, mprime

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	10.00	10.00	?	10.00	10.00	?	11.00	11.00	?	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	13.00	13.00	13.00	17.00	17.00	?	17.00	17.00	?	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	9.00	9.00	?	9.00	9.00	?	9.00	9.00	?	?	?
prob09	10.00	10.00	?	11.00	11.00	?	11.00	11.00	?	?	?
prob10	-	-	-	-	-	-	-	-	-	?	?
prob11	-	-	-	-	-	-	-	-	-	?	?
prob12	-	-	-	-	-	-	-	-	-	?	?
prob13	-	-	-	-	-	-	-	-	-	?	?
prob14	-	-	-	-	-	-	-	-	-	?	?
prob15	-	-	-	-	-	-	-	-	-	?	?
prob16	7.00	7.00	?	9.00	9.00	?	9.00	9.00	?	?	?
prob17	4.00	4.00	?	6.00	6.00	?	6.00	6.00	?	?	?
prob18	-	-	-	-	-	-	-	-	-	?	?
prob19	-	-	-	-	-	-	-	-	-	?	?
prob20	-	-	-	-	-	-	-	-	-	?	?
prob21	-	-	-	-	-	-	-	-	-	?	?
prob22	-	-	-	-	-	-	-	-	-	?	?
prob23	-	-	-	-	-	-	-	-	-	?	?
prob24	-	-	-	-	-	-	-	-	-	?	?
prob25	-	-	-	-	-	-	-	-	-	?	?
prob26	7.00	7.00	?	8.00	8.00	?	9.00	9.00	?	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	?
prob29	-	-	-	-	-	-	-	-	-	?	?
prob30	-	-	-	-	-	-	-	-	-	?	?
prob31	-	-	-	-	-	-	-	-	-	?	?
prob32	-	-	-	-	-	-	-	-	-	?	?
prob33	-	-	-	-	-	-	-	-	-	?	?
prob34	-	-	-	-	-	-	-	-	-	?	?
prob35	-	-	-	-	-	-	-	-	-	?	?

L.20 mystery

L.20.1 mystery

Table L.24 – Maximum `Open` F-Value when Phase Changes, mystery, mystery

| | 10% | | | 50% | | | 90% | | | 100% | |
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	-	-	-	-	-	-	-	-	-	?	-
prob06	18.00	18.00	?	19.00	19.00	?	21.00	21.00	?	?	?
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	14.00	14.00	?	15.00	15.00	?	15.00	15.00	?	?	?
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	?
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	?
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	?
prob20	7.00	7.00	8.00	9.00	9.00	?	9.00	9.00	?	?	?
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	?
prob26	-	-	-	-	-	-	-	-	-	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	?
prob29	-	-	-	-	-	-	-	-	-	?	?
prob30	-	-	-	-	-	-	-	-	-	?	?

L.21 nomystery

L.21.1 nomystery-opt11-strips

Table L.25 – Maximum `Open` F-Value when Phase Changes, nomystery, nomystery-opt11-strips

| | 10% | | | 50% | | | 90% | | | 100% | |
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	24.00	24.00	25.00	26.00	26.00	?	26.00	26.00	?	?	?
p06	28.00	28.00	27.00	28.00	28.00	?	29.00	29.00	?	?	?
p07	33.00	33.00	32.00	35.00	35.00	?	35.00	35.00	?	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	24.00	24.00	25.00	26.00	26.00	?	26.00	26.00	?	?	?
p16	28.00	28.00	27.00	28.00	28.00	?	29.00	29.00	?	?	?
p17	33.00	33.00	32.00	35.00	35.00	?	35.00	35.00	?	?	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

L.22 openstacks

L.22.1 openstacks-opt08-strips

Table L.26 – Maximum `Open` F-Value when Phase Changes, openstacks, openstacks-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

L.22.2 openstacks-opt11-strips

Table L.27 – Maximum `Open` F-Value when Phase Changes, openstacks, openstacks-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

L.22.3 openstacks-opt14-strips

Table L.28 – Maximum `Open` F-Value when Phase Changes, openstacks, openstacks-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p20_1	-	-	-	-	-	-	-	-	-	?	?
p20_2	-	-	-	-	-	-	-	-	-	?	?
p20_3	-	-	-	-	-	-	-	-	-	?	?
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p35_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	?	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	?	-

L.22.4 openstacks-strips

Table L.29 – Maximum `Open` F-Value when Phase Changes, openstacks, openstacks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

L.23 organic

L.23.1 organic-synthesis-opt18-strips

Table L.30 – Maximum `Open` F-Value when Phase Changes, organic, organic-synthesis-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

L.23.2 organic-synthesis-split-opt18-strips

Table L.31 – Maximum `Open` F-Value when Phase Changes, organic, organic-synthesis-split-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	212.00	212.00	343.00	356.00	356.00	356.00	356.00	356.00	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	338.00	338.00	324.00	366.00	366.00	324.00	366.00	366.00	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	54.00	54.00	82.00	86.00	86.00	82.00	86.00	86.00	?	?	?
p12	49.00	49.00	47.00	49.00	49.00	52.00	56.00	56.00	56.00	?	?
p13	208.00	208.00	248.00	351.00	351.00	?	374.00	374.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	98.00	98.00	134.00	224.00	224.00	264.00	350.00	350.00	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

L.24 parcprinter

L.24.1 parcprinter-08-strips

Table L.32 – Maximum Open F-Value when Phase Changes, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	-	?
p04	1016102.00	1016102.00	876094.00	1016102.00	1016102.00	?	1016102.00	1016102.00	?	?	?
p05	1287142.00	1287142.00	1245161.00	1384175.00	1384175.00	?	1623215.00	1623215.00	?	?	?
p06	1758240.00	-	1758240.00	1900250.00	-	?	1900250.00	-	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	1211708.00	-	1242504.00	1276219.00	-	1312562.00	1310216.00	-	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	751642.00	751642.00	751642.00	983429.00	983429.00	899430.00	983429.00	983429.00	964432.00	?	?
p25	1428628.00	-	1409631.00	1433629.00	-	?	1442627.00	-	?	?	?
p26	1305461.00	1305461.00	1305461.00	1448249.00	1448249.00	1429252.00	1448249.00	1448249.00	1429252.00	?	?
p27	1359873.00	1359873.00	1359873.00	1502661.00	1502661.00	1418662.00	1502661.00	1502661.00	1483664.00	?	?
p28	1894072.00	1894072.00	1894072.00	1913069.00	1913069.00	1894072.00	1913069.00	1913069.00	1894072.00	?	?
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

L.24.2 parcprinter-opt11-strips

Table L.33 – Maximum Open F-Value when Phase Changes, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	1016102.00	1016102.00	876094.00	1016102.00	1016102.00	?	1016102.00	1016102.00	?	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	1758240.00	-	1758240.00	1900250.00	-	?	1900250.00	-	?	?	?
p07	1287142.00	1287142.00	1245161.00	1384175.00	1384175.00	?	1623215.00	1623215.00	?	?	?
p08	751642.00	751642.00	751642.00	983429.00	983429.00	899430.00	983429.00	983429.00	964432.00	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	1428628.00	-	1409631.00	1433629.00	-	?	1442627.00	-	?	?	?
p11	1305461.00	1305461.00	1305461.00	1448249.00	1448249.00	1429252.00	1448249.00	1448249.00	1429252.00	?	?
p12	1211708.00	-	1242504.00	1276219.00	-	1312562.00	1310216.00	-	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	1359873.00	1359873.00	1359873.00	1502661.00	1502661.00	1418662.00	1502661.00	1502661.00	1483664.00	?	?

L.25 parking

L.25.1 parking-opt11-strips

Table L.34 – Maximum Open F-Value when Phase Changes, parking, parking-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
pfile03-011	15.00	15.00	15.00	17.00	17.00	?	17.00	17.00	?	?	?
pfile03-012	-	-	-	-	-	-	-	-	-	?	?
pfile04-013	22.00	22.00	21.00	23.00	23.00	?	23.00	23.00	?	?	?
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile05-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-
pfile06-021	-	-	-	-	-	-	-	-	-	?	-
pfile06-022	-	-	-	-	-	-	-	-	-	?	-
pfile06-023	-	-	-	-	-	-	-	-	-	?	-
pfile06-024	-	-	-	-	-	-	-	-	-	?	-
pfile07-025	-	-	-	-	-	-	-	-	-	?	-
pfile07-026	-	-	-	-	-	-	-	-	-	?	-
pfile07-027	-	-	-	-	-	-	-	-	-	?	-
pfile07-028	-	-	-	-	-	-	-	-	-	?	-
pfile08-029	-	-	-	-	-	-	-	-	-	?	-
pfile08-030	-	-	-	-	-	-	-	-	-	?	-

L.25.2 parking-opt14-strips

Table L.35 – Maximum `Open` F-Value when Phase Changes, parking, parking-opt14-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p_12_7-01	20.00	20.00	19.00	21.00	21.00	?	21.00	21.00	?	?	?
p_12_7-02	20.00	20.00	20.00	21.00	21.00	?	21.00	21.00	?	?	?
p_12_7-03	19.00	19.00	18.00	20.00	20.00	?	20.00	20.00	?	?	?
p_12_7-04	-	-	-	-	-	-	-	-	-	?	-
p_14_8-01	-	-	-	-	-	-	-	-	-	?	-
p_14_8-02	-	-	-	-	-	-	-	-	-	?	-
p_14_8-03	-	-	-	-	-	-	-	-	-	?	-
p_14_8-04	-	-	-	-	-	-	-	-	-	?	-
p_16_9-01	-	-	-	-	-	-	-	-	-	?	-
p_16_9-02	-	-	-	-	-	-	-	-	-	?	-
p_16_9-03	-	-	-	-	-	-	-	-	-	?	-
p_16_9-04	-	-	-	-	-	-	-	-	-	?	-
p_18_10-01	-	-	-	-	-	-	-	-	-	?	-
p_18_10-02	-	-	-	-	-	-	-	-	-	?	-
p_18_10-03	-	-	-	-	-	-	-	-	-	?	-
p_18_10-04	-	-	-	-	-	-	-	-	-	?	-
p_20_11-01	-	-	-	-	-	-	-	-	-	?	-
p_20_11-02	-	-	-	-	-	-	-	-	-	?	-
p_20_11-03	-	-	-	-	-	-	-	-	-	?	-
p_20_11-04	-	-	-	-	-	-	-	-	-	?	-

L.26 pathways

L.26.1 pathways

Table L.36 – Maximum `Open` F-Value when Phase Changes, pathways, pathways

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	34.00	-	?	34.00	-	?	34.00	-	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

L.27 pegsol

L.27.1 pegsol-08-strips

Table L.37 – Maximum `Open` F-Value when Phase Changes, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*+IDA*	A*+IDA*↑	PEA*+IDA*	A*	Blind A*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

L.27.2 pegsol-opt11-strips

Table L.38 – Maximum `Open` F-Value when Phase Changes, pegsol, pegsol-opt11-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

L.28 petri

L.28.1 petri-net-alignment-opt18-strips

Table L.39 – Maximum `Open` F-Value when Phase Changes, petri, petri-net-alignment-opt18-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*+IDA*	A^*+IDA$^*\uparrow$	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	172.00	-	123.00	185.00	185.00	137.00	185.00	185.00	?	?	?
p04	181.00	-	150.00	194.00	194.00	166.00	194.00	194.00	?	?	?
p05	120.00	120.00	107.00	129.00	129.00	?	129.00	129.00	?	?	?
p06	178.00	-	154.00	178.00	178.00	?	178.00	178.00	?	?	?
p07	166.00	-	175.00	181.00	181.00	?	183.00	183.00	?	?	?
p08	161.00	-	163.00	167.00	-	169.00	171.00	171.00	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	247.00	247.00	247.00	248.00	248.00	?	254.00	254.00	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

L.29 pipesworld

L.29.1 pipesworld-notankage

Table L.40 – Maximum `Open` F-Value when Phase Changes, pipesworld, pipesworld-notankage

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	?	?
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	?	?
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	?	?
p10-net1-b14-g8	21.00	21.00	20.00	23.00	23.00	?	23.00	23.00	?	?	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	?	?
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	?	?
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	?	-
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	?	?
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	?	?
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3	20.00	20.00	19.00	22.00	22.00	?	22.00	22.00	?	?	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2	14.00	14.00	14.00	15.00	15.00	?	16.00	16.00	?	?	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b22-g3	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	?	-

L.29.2 pipesworld-tankage

Table L.41 – Maximum `Open` F-Value when Phase Changes, pipesworld, pipesworld-tankage

| | 10% | | | 50% | | | 90% | | | 100% | |
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5-t80	10.00	10.00	?	12.00	12.00	?	12.00	12.00	?	?	?
p08-net1-b12-g7-t80	14.00	14.00	13.00	16.00	16.00	?	16.00	16.00	?	?	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	?
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	17.00	17.00	17.00	19.00	19.00	?	19.00	19.00	?	?	-
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	?
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	?
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

L.29.3 pipesworld-tankage-nosplit

Table L.42 – Maximum `Open` F-Value when Phase Changes, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5-t80	10.00	10.00	?	12.00	12.00	?	12.00	12.00	?	?	?
p08-net1-b12-g7-t80	14.00	14.00	13.00	16.00	16.00	?	16.00	16.00	?	?	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	?	
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	

L.30 psr

L.30.1 psr-small

Table L.43 – Maximum `Open` F-Value when Phase Changes, psr, psr-small

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	?	?
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	?	?
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	?	?
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p16-s29-n2-l5-f50	-	-	-	-	-	-	-	-	-	?	?
p17-s30-n2-l5-f90	-	-	-	-	-	-	-	-	-	?	?
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	?	?
p19-s33-n3-l2-f90	-	-	-	-	-	-	-	-	-	?	?
p20-s34-n3-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p22-s37-n3-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	?	?
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	?	?
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	?	?
p31-s49-n4-l2-f90	-	-	-	-	-	-	-	-	-	?	?
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p35-s57-n5-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p36-s65-n6-l2-f90	-	-	-	-	-	-	-	-	-	?	?
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p38-s78-n3-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p40-s80-n3-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	?	?
p44-s89-n4-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p46-s97-n5-l2-f90	-	-	-	-	-	-	-	-	-	?	?
p47-s98-n5-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p48-s101-n5-l3-f30	32.00	-	36.00	37.00	37.00	?	40.00	40.00	?	?	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	?	?

L.31 rovers

L.31.1 rovers

Table L.44 – Maximum `Open` F-Value when Phase Changes, rovers, rovers

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	19.00	19.00	19.00	21.00	21.00	?	21.00	21.00	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	21.00	21.00	20.00	21.00	21.00	?	22.00	22.00	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-
p31	-	-	-	-	-	-	-	-	-	?	-
p32	-	-	-	-	-	-	-	-	-	?	-
p33	-	-	-	-	-	-	-	-	-	?	-
p34	-	-	-	-	-	-	-	-	-	?	-
p35	-	-	-	-	-	-	-	-	-	?	-
p36	-	-	-	-	-	-	-	-	-	?	-
p37	-	-	-	-	-	-	-	-	-	?	-
p38	-	-	-	-	-	-	-	-	-	?	-
p39	-	-	-	-	-	-	-	-	-	?	-
p40	-	-	-	-	-	-	-	-	-	?	-

L.32 satellite

L.32.1 satellite

Table L.45 – Maximum `Open` F-Value when Phase Changes, satellite, satellite

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01-pfile1	-	-	-	-	-	-	-	-	-	?	?
p02-pfile2	-	-	-	-	-	-	-	-	-	?	?
p03-pfile3	-	-	-	-	-	-	-	-	-	?	?
p04-pfile4	-	-	-	-	-	-	-	-	-	?	?
p05-pfile5	18.00	18.00	?	19.00	19.00	?	19.00	19.00	?	?	?
p06-pfile6	20.00	20.00	?	22.00	22.00	?	23.00	23.00	?	?	?
p07-pfile7	24.00	24.00	22.00	24.00	24.00	?	25.00	25.00	?	?	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	?	-
p10-pfile10	-	-	-	-	-	-	-	-	-	?	-
p11-pfile11	-	-	-	-	-	-	-	-	-	?	-
p12-pfile12	-	-	-	-	-	-	-	-	-	?	-
p13-pfile13	-	-	-	-	-	-	-	-	-	?	-
p14-pfile14	-	-	-	-	-	-	-	-	-	?	-
p15-pfile15	-	-	-	-	-	-	-	-	-	?	-
p16-pfile16	-	-	-	-	-	-	-	-	-	?	-
p17-pfile17	-	-	-	-	-	-	-	-	-	?	-
p18-pfile18	-	-	-	-	-	-	-	-	-	?	-
p19-pfile19	-	-	-	-	-	-	-	-	-	?	-
p20-pfile20	-	-	-	-	-	-	-	-	-	?	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	?	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	?	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	?	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	?	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	?	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	?	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	?	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	?	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	?	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	?	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	?	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	?	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	?	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	?	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	?	-

L.33 scanalyzer

L.33.1 scanalyzer-08-strips

Table L.46 – Maximum `Open` F-Value when Phase Changes, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	30.00	30.00	31.00	32.00	32.00	?	32.00	32.00	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	36.00	36.00	37.00	38.00	38.00	?	38.00	38.00	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	43.00	43.00	43.00	44.00	44.00	?	44.00	44.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	49.00	49.00	49.00	50.00	50.00	?	50.00	50.00	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	55.00	55.00	55.00	56.00	56.00	?	56.00	56.00	?	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

L.33.2 scanalyzer-opt11-strips

Table L.47 – Maximum `Open` F-Value when Phase Changes, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	30.00	30.00	31.00	32.00	32.00	?	32.00	32.00	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	55.00	55.00	55.00	56.00	56.00	?	56.00	56.00	?	?	?
p08	36.00	36.00	37.00	38.00	38.00	?	38.00	38.00	?	?	?
p09	43.00	43.00	43.00	44.00	44.00	?	44.00	44.00	?	?	?
p10	49.00	49.00	49.00	50.00	50.00	?	50.00	50.00	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

L.34 snake

L.34.1 snake-opt18-strips

Table L.48 – Maximum `Open` F-Value when Phase Changes, snake, snake-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

L.35 sokoban

L.35.1 sokoban-opt08-strips

Table L.49 – Maximum `Open` F-Value when Phase Changes, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	8.00	8.00	8.00	10.00	10.00	10.00	10.00	10.00	10.00	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	7.00	7.00	7.00	11.00	11.00	11.00	13.00	13.00	12.00	?	?
p22	50.00	-	50.00	53.00	-	53.00	55.00	-	55.00	?	?
p23	35.00	-	35.00	38.00	-	38.00	40.00	-	40.00	?	?
p24	33.00	-	34.00	49.00	-	50.00	56.00	-	56.00	?	?
p25	37.00	-	37.00	40.00	-	40.00	43.00	-	44.00	?	?
p26	32.00	-	32.00	35.00	-	35.00	37.00	-	37.00	?	?
p27	25.00	-	25.00	30.00	30.00	30.00	33.00	33.00	33.00	?	?
p28	38.00	-	38.00	45.00	-	45.00	49.00	-	49.00	?	?
p29	19.00	-	20.00	21.00	-	23.00	23.00	23.00	?	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

L.35.2 sokoban-opt11-strips

Table L.50 – Maximum `Open` F-Value when Phase Changes, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	8.00	8.00	8.00	10.00	10.00	10.00	10.00	10.00	10.00	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	7.00	7.00	7.00	11.00	11.00	11.00	13.00	13.00	12.00	?	?
p19	50.00	-	50.00	53.00	-	53.00	55.00	-	55.00	?	?
p20	35.00	-	35.00	38.00	-	38.00	40.00	-	40.00	?	?

L.36 spider

L.36.1 spider-opt18-strips

Table L.51 – Maximum `Open` F-Value when Phase Changes, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	27.00	27.00	29.00	31.00	31.00	?	32.00	32.00	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	19.00	19.00	18.00	21.00	21.00	?	22.00	22.00	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

L.37 storage

L.37.1 storage

Table L.52 – Maximum `Open` F-Value when Phase Changes, storage, storage

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	20.00	20.00	20.00	22.00	22.00	?	23.00	23.00	?	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

L.38 termes

L.38.1 termes-opt18-strips

Table L.53 – Maximum `Open` F-Value when Phase Changes, termes, termes-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	
p04	-	-	-	-	-	-	-	-	-	?	
p05	-	-	-	-	-	-	-	-	-	?	
p06	-	-	-	-	-	-	-	-	-	?	
p07	-	-	-	-	-	-	-	-	-	?	
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

L.39 tetris

L.39.1 tetris-opt14-strips

Table L.54 – Maximum `Open` F-Value when Phase Changes, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{\uparrow}$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01-10	-	-	-	-	-	-	-	-	-	?	-
p01-6	-	-	-	-	-	-	-	-	-	?	-
p01-8	-	-	-	-	-	-	-	-	-	?	?
p02-10	-	-	-	-	-	-	-	-	-	?	-
p02-4	-	-	-	-	-	-	-	-	-	?	?
p02-6	-	-	-	-	-	-	-	-	-	?	?
p02-8	-	-	-	-	-	-	-	-	-	?	-
p03-10	-	-	-	-	-	-	-	-	-	?	-
p03-4	-	-	-	-	-	-	-	-	-	?	?
p03-6	-	-	-	-	-	-	-	-	-	?	-
p03-8	-	-	-	-	-	-	-	-	-	?	-
p04-10	-	-	-	-	-	-	-	-	-	?	-
p04-6	-	-	-	-	-	-	-	-	-	?	-
p04-8	-	-	-	-	-	-	-	-	-	?	-
p05-10	-	-	-	-	-	-	-	-	-	?	?
p05-6	-	-	-	-	-	-	-	-	-	?	?
p05-8	-	-	-	-	-	-	-	-	-	?	-

L.40 tidybot

L.40.1 tidybot-opt11-strips

Table L.55 – Maximum `Open` F-Value when Phase Changes, tidybot, tidybot-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	36.00	36.00	37.00	40.00	40.00	40.00	41.00	41.00	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	35.00	35.00	35.00	40.00	40.00	40.00	40.00	40.00	?	?	?
p13	29.00	29.00	30.00	33.00	33.00	34.00	36.00	36.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

L.40.2 tidybot-opt14-strips

Table L.56 – Maximum `Open` F-Value when Phase Changes, tidybot, tidybot-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	34.00	34.00	34.00	37.00	37.00	37.00	38.00	38.00	?	?	?
p03	30.00	30.00	30.00	33.00	33.00	33.00	33.00	33.00	?	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	38.00	38.00	38.00	41.00	41.00	41.00	42.00	42.00	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	35.00	35.00	35.00	40.00	40.00	40.00	40.00	40.00	-	?	?
p13	29.00	29.00	30.00	33.00	33.00	34.00	36.00	36.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

L.41 tpp

L.41.1 tpp

Table L.57 – Maximum `Open` F-Value when Phase Changes, tpp, tpp

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	27.00	-	25.00	28.00	-	?	28.00	-	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

L.42 transport

L.42.1 transport-opt08-strips

Table L.58 – Maximum `Open` F-Value when Phase Changes, transport, transport-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

L.42.2 transport-opt11-strips

Table L.59 – Maximum `Open` F-Value when Phase Changes, transport, transport-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

L.42.3 transport-opt14-strips

Table L.60 – Maximum `Open` F-Value when Phase Changes, transport, transport-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	384.00	-	361.00	418.00	418.00	?	439.00	439.00	?	?	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	708.00	-	692.00	808.00	-	?	855.00	855.00	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

L.43 trucks

L.43.1 trucks-strips

Table L.61 – Maximum `Open` F-Value when Phase Changes, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	26.00	26.00	26.00	27.00	27.00	?	27.00	27.00	?	?	?
p06	31.00	31.00	30.00	32.00	32.00	31.00	32.00	32.00	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	26.00	26.00	26.00	27.00	27.00	?	27.00	27.00	?	?	?
p09	29.00	29.00	29.00	30.00	30.00	?	30.00	30.00	?	?	?
p10	34.00	34.00	34.00	36.00	36.00	?	36.00	36.00	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	
p21	-	-	-	-	-	-	-	-	-	?	
p22	-	-	-	-	-	-	-	-	-	?	
p23	-	-	-	-	-	-	-	-	-	?	
p24	-	-	-	-	-	-	-	-	-	?	
p25	-	-	-	-	-	-	-	-	-	?	
p26	-	-	-	-	-	-	-	-	-	?	
p27	-	-	-	-	-	-	-	-	-	?	
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	

L.44 visitall

L.44.1 visitall-opt11-strips

Table L.62 – Maximum `Open` F-Value when Phase Changes, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
problem02-full	-	-	-	-	-	-	-	-	-	?	?
problem02-half	-	-	-	-	-	-	-	-	-	?	?
problem03-full	-	-	-	-	-	-	-	-	-	?	?
problem03-half	-	-	-	-	-	-	-	-	-	?	?
problem04-full	-	-	-	-	-	-	-	-	-	?	?
problem04-half	-	-	-	-	-	-	-	-	-	?	?
problem05-full	-	-	-	-	-	-	-	-	-	?	?
problem05-half	-	-	-	-	-	-	-	-	-	?	?
problem06-full	-	-	-	-	-	-	-	-	-	?	?
problem06-half	-	-	-	-	-	-	-	-	-	?	?
problem07-full	-	-	-	-	-	-	-	-	-	?	
problem07-half	39.00	39.00	39.00	42.00	42.00	41.00	42.00	42.00	?	?	?
problem08-full	-	-	-	-	-	-	-	-	-	?	
problem08-half	-	-	-	-	-	-	-	-	-	?	
problem09-full	-	-	-	-	-	-	-	-	-	?	
problem09-half	-	-	-	-	-	-	-	-	-	?	
problem10-full	-	-	-	-	-	-	-	-	-	?	
problem10-half	-	-	-	-	-	-	-	-	-	?	
problem11-full	-	-	-	-	-	-	-	-	-	?	
problem11-half	-	-	-	-	-	-	-	-	-	?	

L.44.2 visitall-opt14-strips

Table L.63 – Maximum `Open` F-Value when Phase Changes, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p-05-10	-	-	-	-	-	-	-	-	-	?	-
p-05-5	-	-	-	-	-	-	-	-	-	?	?
p-05-6	-	-	-	-	-	-	-	-	-	?	?
p-05-7	36.00	36.00	36.00	38.00	38.00	39.00	40.00	40.00	?	?	?
p-05-8	47.00	47.00	47.00	50.00	50.00	49.00	50.00	50.00	?	?	?
p-05-9	-	-	-	-	-	-	-	-	-	?	-
p-1-10	-	-	-	-	-	-	-	-	-	?	-
p-1-11	-	-	-	-	-	-	-	-	-	?	-
p-1-12	-	-	-	-	-	-	-	-	-	?	-
p-1-13	-	-	-	-	-	-	-	-	-	?	-
p-1-14	-	-	-	-	-	-	-	-	-	?	-
p-1-15	-	-	-	-	-	-	-	-	-	?	-
p-1-16	-	-	-	-	-	-	-	-	-	?	-
p-1-17	-	-	-	-	-	-	-	-	-	?	-
p-1-18	-	-	-	-	-	-	-	-	-	?	-
p-1-5	-	-	-	-	-	-	-	-	-	?	-
p-1-6	-	-	-	-	-	-	-	-	-	?	-
p-1-7	-	-	-	-	-	-	-	-	-	?	-
p-1-8	-	-	-	-	-	-	-	-	-	?	-
p-1-9	-	-	-	-	-	-	-	-	-	?	-

L.45 woodworking

L.45.1 woodworking-opt08-strips

Table L.64 – Maximum `Open` F-Value when Phase Changes, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{}^\uparrow$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{}^\uparrow$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{}^\uparrow$	$PEA^*{}_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	300.00	300.00	295.00	325.00	325.00	?	370.00	370.00	?	?	?
p04	305.00	-	305.00	325.00	325.00	?	335.00	335.00	?	?	?
p05	335.00	335.00	?	350.00	350.00	?	355.00	355.00	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	465.00	465.00	?	495.00	495.00	?	500.00	500.00	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	255.00	255.00	240.00	290.00	290.00	?	290.00	290.00	?	?	?
p14	270.00	270.00	245.00	290.00	290.00	?	300.00	300.00	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	355.00	355.00	?	385.00	385.00	?	385.00	385.00	?	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	295.00	295.00	?	305.00	305.00	?	305.00	305.00	?	?	?
p25	400.00	400.00	400.00	455.00	455.00	?	465.00	465.00	?	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

L.45.2 woodworking-opt11-strips

Table L.65 – Maximum `Open` F-Value when Phase Changes, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{}^\uparrow$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{}^\uparrow$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{}^\uparrow$	$PEA^*{}_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	255.00	255.00	240.00	290.00	290.00	?	290.00	290.00	?	?	?
p04	300.00	300.00	295.00	325.00	325.00	?	370.00	370.00	?	?	?
p05	295.00	295.00	?	305.00	305.00	?	305.00	305.00	?	?	?
p06	305.00	-	305.00	325.00	-	?	335.00	335.00	?	?	?
p07	270.00	270.00	245.00	290.00	290.00	?	300.00	300.00	?	?	?
p08	400.00	400.00	400.00	455.00	455.00	?	465.00	465.00	?	?	?
p09	335.00	335.00	?	350.00	350.00	?	355.00	355.00	?	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	355.00	355.00	?	385.00	385.00	?	385.00	385.00	?	?	?
p16	465.00	465.00	?	495.00	495.00	?	500.00	500.00	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

L.46 zenotravel

L.46.1 zenotravel

Table L.66 – Maximum `Open` F-Value when Phase Changes, zenotravel, zenotravel

	10%			50%			90%			100%	
	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{}^\uparrow$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{}^\uparrow$	$PEA^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*$	$A^*{}_{+IDA}{}^*{}^\uparrow$	$PEA^*{}_{+IDA}{}^*$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	14.00	14.00	?	15.00	15.00	?	15.00	15.00	?	?	?
p09	25.00	25.00	23.00	26.00	26.00	?	26.00	26.00	?	?	?
p10	26.00	26.00	?	26.00	26.00	?	26.00	26.00	?	?	?
p11	17.00	17.00	?	17.00	17.00	?	18.00	18.00	?	?	?
p12	25.00	25.00	?	25.00	25.00	?	26.00	26.00	?	?	?
p13	30.00	30.00	?	31.00	31.00	?	32.00	32.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

APPENDIX M — RATIO OF MINIMALLY F-EVALUED NODES IN `OPEN` WHEN PHASE CHANGES

M.1 agricola

M.1.1 agricola-opt18-strips

Table M.1 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, agricola, agricola-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	-
p02	-	-	-	-	-	-	-	-	-	?	-
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

M.2 airport

M.2.1 airport

Table M.2 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, airport, airport

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-airport1-p1	-	-	-	-	-	-	-	-	-	?	?
p02-airport1-p1	-	-	-	-	-	-	-	-	-	?	?
p03-airport1-p2	-	-	-	-	-	-	-	-	-	?	?
p04-airport2-p1	-	-	-	-	-	-	-	-	-	?	?
p05-airport2-p1	-	-	-	-	-	-	-	-	-	?	?
p06-airport2-p2	-	-	-	-	-	-	-	-	-	?	?
p07-airport2-p2	-	-	-	-	-	-	-	-	-	?	?
p08-airport2-p3	-	-	-	-	-	-	-	-	-	?	?
p09-airport2-p4	-	-	-	-	-	-	-	-	-	?	?
p10-airport3-p1	-	-	-	-	-	-	-	-	-	?	?
p11-airport3-p1	-	-	-	-	-	-	-	-	-	?	?
p12-airport3-p2	-	-	-	-	-	-	-	-	-	?	?
p13-airport3-p2	-	-	-	-	-	-	-	-	-	?	?
p14-airport3-p3	-	-	-	-	-	-	-	-	-	?	?
p15-airport3-p3	-	-	-	-	-	-	-	-	-	?	?
p16-airport3-p4	-	-	-	-	-	-	-	-	-	?	?
p17-airport3-p5	-	-	-	-	-	-	-	-	-	?	?
p18-airport3-p6	0.37	-	0.05	0.35	-	0.20	0.12	-	?	?	?
p19-airport3-p6	-	-	-	-	-	-	-	-	-	?	?
p20-airport3-p7	0.02	-	0.70	0.01	-	0.49	0.00	0.00	?	?	?
p21-airport4halfMUC-p2	-	-	-	-	-	-	-	-	-	?	?
p22-airport4halfMUC-p3	-	-	-	-	-	-	-	-	-	?	?
p23-airport4halfMUC-p4	0.01	0.01	0.94	0.00	0.00	?	0.00	0.00	?	?	?
p24-airport4halfMUC-p4	1.00	1.00	1.00	0.84	0.84	0.86	0.78	0.78	0.80	?	?
p25-airport4halfMUC-p5	-	-	-	-	-	-	-	-	-	?	?
p26-airport4halfMUC-p6	-	-	-	-	-	-	-	-	-	?	?
p27-airport4halfMUC-p6	0.88	0.88	0.94	0.02	-	?	0.00	0.00	?	?	?
p28-airport4halfMUC-p7	-	-	-	-	-	-	-	-	-	?	-
p29-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p30-airport4halfMUC-p8	-	-	-	-	-	-	-	-	-	?	-
p31-airport4halfMUC-p9	-	-	-	-	-	-	-	-	-	?	-
p32-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p33-airport4halfMUC-p10	-	-	-	-	-	-	-	-	-	?	-
p34-airport4halfMUC-p11	-	-	-	-	-	-	-	-	-	?	-
p35-airport4halfMUC-p12	-	-	-	-	-	-	-	-	-	?	-
p36-airport5MUC-p2	-	-	-	-	-	-	-	-	-	?	-
p37-airport5MUC-p3	0.14	-	0.15	0.01	-	0.01	0.00	-	?	?	?
p38-airport5MUC-p3	0.04	-	0.03	0.00	-	0.21	0.07	-	?	?	?
p39-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p40-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p41-airport5MUC-p4	-	-	-	-	-	-	-	-	-	?	-
p42-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p43-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p44-airport5MUC-p5	-	-	-	-	-	-	-	-	-	?	-
p45-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p46-airport5MUC-p6	-	-	-	-	-	-	-	-	-	?	-
p47-airport5MUC-p8	-	-	-	-	-	-	-	-	-	?	-
p48-airport5MUC-p9	-	-	-	-	-	-	-	-	-	?	-
p49-airport5MUC-p10	-	-	-	-	-	-	-	-	-	?	-
p50-airport5MUC-p15	-	-	-	-	-	-	-	-	-	?	-

M.3 barman

M.3.1 barman-opt11-strips

Table M.3 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, barman, barman-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
pfile01-001	-	-	-	-	-	-	-	-	-	?	?
pfile01-002	-	-	-	-	-	-	-	-	-	?	?
pfile01-003	-	-	-	-	-	-	-	-	-	?	?
pfile01-004	-	-	-	-	-	-	-	-	-	?	?
pfile02-005	-	-	-	-	-	-	-	-	-	?	-
pfile02-006	-	-	-	-	-	-	-	-	-	?	-
pfile02-007	-	-	-	-	-	-	-	-	-	?	-
pfile02-008	-	-	-	-	-	-	-	-	-	?	-
pfile03-009	-	-	-	-	-	-	-	-	-	?	-
pfile03-010	-	-	-	-	-	-	-	-	-	?	-
pfile03-011	-	-	-	-	-	-	-	-	-	?	-
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	-	-	-	-	-	-	-	-	-	?	-
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-

M.3.2 barman-opt14-strips

Table M.4 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, barman, barman-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p435-1	-	-	-	-	-	-	-	-	-	?	-
p435-2	-	-	-	-	-	-	-	-	-	?	-
p435-3	-	-	-	-	-	-	-	-	-	?	-
p536-1	-	-	-	-	-	-	-	-	-	?	-
p536-2	-	-	-	-	-	-	-	-	-	?	-
p536-3	-	-	-	-	-	-	-	-	-	?	-
p638-1	-	-	-	-	-	-	-	-	-	?	-
p638-2	-	-	-	-	-	-	-	-	-	?	-
p638-3	-	-	-	-	-	-	-	-	-	?	-
p739-1	-	-	-	-	-	-	-	-	-	?	-
p739-2	-	-	-	-	-	-	-	-	-	?	-
p739-3	-	-	-	-	-	-	-	-	-	?	-
p839-1	-	-	-	-	-	-	-	-	-	?	-
p839-2	-	-	-	-	-	-	-	-	-	?	-

M.4 blocks

M.4.1 blocks

Table M.5 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, blocks, blocks

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probBLOCKS-10-0	0.05	0.05	0.05	0.10	0.10	?	0.19	0.19	?	?	?
probBLOCKS-10-1	0.15	0.15	0.25	0.33	0.33	?	0.59	0.59	?	?	?
probBLOCKS-10-2	0.22	0.22	0.31	0.36	0.36	?	0.03	0.03	?	?	-
probBLOCKS-11-0	0.36	0.36	0.45	0.39	0.39	?	0.05	0.05	?	?	-
probBLOCKS-11-1	0.09	0.09	0.19	0.34	0.34	?	0.04	0.04	?	?	-
probBLOCKS-11-2	0.54	0.54	0.70	0.53	0.53	?	0.06	0.06	?	?	-
probBLOCKS-12-0	0.19	0.19	0.31	0.36	0.36	?	0.05	0.05	?	?	-
probBLOCKS-12-1	0.18	0.18	0.36	0.38	0.38	?	0.03	0.03	?	?	-
probBLOCKS-13-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-13-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-14-0	0.13	0.13	0.19	0.33	0.33	?	0.05	0.05	?	?	-
probBLOCKS-14-1	0.50	0.50	0.01	0.25	0.25	?	0.02	0.02	?	?	-
probBLOCKS-15-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-15-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-16-2	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-17-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-4-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-4-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-4-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-5-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-0	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-1	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-6-2	-	-	-	-	-	-	-	-	-	?	?
probBLOCKS-7-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-7-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-7-2	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-8-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-8-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-8-2	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-9-0	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-9-1	-	-	-	-	-	-	-	-	-	?	-
probBLOCKS-9-2	-	-	-	-	-	-	-	-	-	?	-

M.5 childsnack

M.5.1 childsnack-opt14-strips

Table M.6 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, childsnack, childsnack-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
child-snack_pfile01	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile01-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile02	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile02-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile03	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile03-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile04	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile04-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile05	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile05-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile06	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile06-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile07	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile07-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile08	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile08-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile09	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile09-2	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile10	-	-	-	-	-	-	-	-	-	?	-
child-snack_pfile10-2	-	-	-	-	-	-	-	-	-	?	-

M.6 data

M.6.1 data-network-opt18-strips

Table M.7 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, data, data-network-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	0.04	0.04	0.22	0.01	0.01	?	0.18	0.18	?	?	?
p04	0.04	-	0.02	0.03	0.03	?	0.02	0.02	?	?	?
p05	0.02	0.02	0.17	0.04	0.04	?	0.01	0.01	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	0.05	-	0.31	0.06	0.06	?	0.03	0.03	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	0.15	0.15	0.50	0.11	0.11	?	0.08	0.08	?	?	?
p13	0.07	0.07	0.13	0.14	0.14	?	0.14	0.14	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	0.01	0.01	0.38	0.01	0.01	?	0.02	0.02	?	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

M.7 depot

M.7.1 depot

Table M.8 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, depot, depot

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	0.00	-	0.65	0.17	0.17	?	0.12	0.12	?	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	0.33	0.33	0.43	0.40	0.40	?	0.10	0.10	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	0.31	0.31	0.52	0.19	0.19	?	0.04	0.04	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-

M.8 driverlog

M.8.1 driverlog

Table M.9 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, driverlog, driverlog

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	0.19	0.19	0.72	0.02	0.02	?	0.30	0.30	?	?	?
p08	0.01	0.01	0.35	0.19	0.19	?	0.03	0.03	?	?	?
p09	0.08	0.08	0.03	0.25	0.25	?	0.03	0.03	?	?	?
p10	0.39	0.39	0.14	0.08	0.08	?	0.01	0.01	?	?	?
p11	0.16	0.16	0.24	0.15	0.15	?	0.02	0.02	?	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	0.02	0.02	0.46	0.18	0.18	?	0.03	0.03	?	?	?
p14	0.16	0.16	0.22	0.13	0.13	?	0.01	0.01	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

M.9 elevators

M.9.1 elevators-opt08-strips

Table M.10 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, elevators, elevators-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	0.02	-	0.15	0.01	-	?	0.01	-	?	?	?
p06	0.00	-	0.07	0.02	-	?	0.01	-	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	0.01	-	0.07	0.01	-	?	0.01	-	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	0.03	-	?	0.01	-	?	0.01	-	?	?	?
p15	0.01	-	0.04	0.01	-	?	0.01	-	?	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	0.01	-	0.06	0.02	-	?	0.00	-	?	?	?
p18	0.00	-	?	0.01	-	?	0.00	-	?	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	0.00	-	0.19	0.02	-	?	0.02	-	?	?	?
p24	0.01	-	?	0.02	-	?	0.01	-	?	?	?
p25	0.01	-	0.19	0.01	-	?	0.01	-	?	?	?
p26	0.01	-	?	0.01	-	?	0.01	-	?	?	?
p27	0.02	-	0.08	0.00	-	?	0.01	-	?	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

M.9.2 elevators-opt11-strips

Table M.11 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, elevators, elevators-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	0.01	-	?	0.01	-	?	0.01	-	?	?	?
p08	0.02	-	0.15	0.01	-	?	0.01	-	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	0.03	-	?	0.01	-	?	0.01	-	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	0.00	-	0.07	0.02	-	?	0.01	-	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	0.01	-	0.07	0.01	-	?	0.01	-	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	0.01	-	0.04	0.01	-	?	0.01	-	?	?	?
p17	0.01	-	0.06	0.02	-	?	0.00	-	?	?	?
p18	0.00	-	?	0.01	-	?	0.00	-	?	?	?
p19	0.00	-	0.19	0.02	-	?	0.02	-	?	?	?
p20	0.01	-	?	0.02	-	?	0.01	-	?	?	?

M.10 floortile

M.10.1 floortile-opt11-strips

Table M.12 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, floortile, floortile-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
opt-p01-001	0.01	0.01	0.29	0.10	0.10	?	0.05	0.05	?	?	?
opt-p01-002	0.08	0.08	0.40	0.05	0.05	?	0.03	0.03	?	?	?
opt-p02-003	0.11	0.11	0.49	0.09	0.09	0.29	0.15	0.15	?	?	?
opt-p02-004	0.04	0.04	0.36	0.11	0.11	?	0.09	0.09	?	?	?
opt-p03-005	0.16	0.16	0.29	0.01	0.01	?	0.06	0.06	?	?	?
opt-p03-006	0.06	0.06	0.58	0.05	0.05	?	0.07	0.07	?	?	?
opt-p04-007	0.02	-	0.36	0.11	0.11	?	0.10	0.10	?	?	?
opt-p04-008	-	-	-	-	-	-	-	-	-	?	-
opt-p05-009	-	-	-	-	-	-	-	-	-	?	-
opt-p05-010	-	-	-	-	-	-	-	-	-	?	-
opt-p06-011	-	-	-	-	-	-	-	-	-	?	-
opt-p06-012	-	-	-	-	-	-	-	-	-	?	-
opt-p07-013	-	-	-	-	-	-	-	-	-	?	-
opt-p07-014	-	-	-	-	-	-	-	-	-	?	-
opt-p08-015	-	-	-	-	-	-	-	-	-	?	-
opt-p08-016	-	-	-	-	-	-	-	-	-	?	-
opt-p09-017	-	-	-	-	-	-	-	-	-	?	-
opt-p09-018	-	-	-	-	-	-	-	-	-	?	-
opt-p10-019	-	-	-	-	-	-	-	-	-	?	-
opt-p10-020	-	-	-	-	-	-	-	-	-	?	-

M.10.2 floortile-opt14-strips

Table M.13 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, floortile, floortile-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-4-3-2	0.00	0.00	0.11	0.16	0.16	0.04	0.11	0.11	?	?	?
p01-4-4-2	-	-	-	-	-	-	-	-	-	?	?
p01-5-3-2	0.00	0.00	0.03	0.14	0.14	?	0.10	0.10	?	?	?
p01-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p01-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-3-2	0.00	-	0.29	0.18	0.18	0.15	0.12	0.12	?	?	?
p02-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p02-6-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-4-3-2	0.11	0.11	0.03	0.01	0.01	0.16	0.13	0.13	?	?	?
p03-4-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-3-2	0.01	-	0.32	0.19	0.19	0.16	0.11	0.11	?	?	?
p03-5-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-5-5-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-4-2	-	-	-	-	-	-	-	-	-	?	-
p03-6-5-2	-	-	-	-	-	-	-	-	-	?	-

M.11 freecell

M.11.1 freecell

Table M.14 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, freecell, freecell

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	0.14	-	0.34	0.20	0.20	?	0.46	0.46	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	
probfreecell-10-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-10-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-10-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-10-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-10-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-11-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-11-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-11-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-11-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-11-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-12-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-12-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-12-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-12-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-12-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-13-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-13-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-13-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-13-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-13-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-2-1	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-2	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-3	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-4	-	-	-	-	-	-	-	-	-	?	?
probfreecell-2-5	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-1	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-2	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-3	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-4	-	-	-	-	-	-	-	-	-	?	?
probfreecell-3-5	-	-	-	-	-	-	-	-	-	?	?
probfreecell-4-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-4-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-4-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-4-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-4-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-5-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-5-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-5-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-5-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-5-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-6-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-6-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-6-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-6-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-6-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-7-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-7-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-7-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-7-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-7-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-8-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-8-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-8-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-8-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-8-5	-	-	-	-	-	-	-	-	-	?	
probfreecell-9-1	-	-	-	-	-	-	-	-	-	?	
probfreecell-9-2	-	-	-	-	-	-	-	-	-	?	
probfreecell-9-3	-	-	-	-	-	-	-	-	-	?	
probfreecell-9-4	-	-	-	-	-	-	-	-	-	?	
probfreecell-9-5	-	-	-	-	-	-	-	-	-	?	

M.12 ged

M.12.1 ged-opt14-strips

Table M.15 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, ged, ged-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
d-1-2	-	-	-	-	-	-	-	-	-	?	?
d-1-3	-	-	-	-	-	-	-	-	-	?	?
d-1-4	-	-	-	-	-	-	-	-	-	?	?
d-1-8	-	-	-	-	-	-	-	-	-	?	?
d-2-1	-	-	-	-	-	-	-	-	-	?	?
d-2-3	-	-	-	-	-	-	-	-	-	?	?
d-2-4	-	-	-	-	-	-	-	-	-	?	?
d-2-8	-	-	-	-	-	-	-	-	-	?	?
d-3-1	-	-	-	-	-	-	-	-	-	?	?
d-3-2	-	-	-	-	-	-	-	-	-	?	?
d-3-4	0.00	0.00	0.31	0.04	0.04	?	0.00	0.00	?	?	?
d-4-2	-	-	-	-	-	-	-	-	-	?	?
d-4-3	0.00	0.00	0.31	0.04	0.04	?	0.00	0.00	?	?	?
d-4-8	-	-	-	-	-	-	-	-	-	?	?
d-7-5	0.13	0.13	0.19	0.02	0.02	0.53	0.00	0.00	0.28	?	?
d-7-6	-	-	-	-	-	-	-	-	-	?	?
d-8-1	-	-	-	-	-	-	-	-	-	?	?
d-8-2	-	-	-	-	-	-	-	-	-	?	?
d-8-4	-	-	-	-	-	-	-	-	-	?	?
d-8-9	-	-	-	-	-	-	-	-	-	?	?

M.13 grid

M.13.1 grid

Table M.16 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, grid, grid

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	0.00	0.00	0.11	0.50	0.50	?	0.05	0.05	?	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	-	-	-	-	-	-	-	-	-	?	?

M.14 gripper

M.14.1 gripper

Table M.17 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, gripper, gripper

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-

M.15 hiking

M.15.1 hiking-opt14-strips

Table M.18 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, hiking, hiking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
ptesting-1-2-3	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-4	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-5	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-7	-	-	-	-	-	-	-	-	-	?	?
ptesting-1-2-8	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-3	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-4	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-2-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-2-8	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-4	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-3-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-3-7	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-3	-	-	-	-	-	-	-	-	-	?	?
ptesting-2-4-4	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-5	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-6	-	-	-	-	-	-	-	-	-	?	-
ptesting-2-4-7	-	-	-	-	-	-	-	-	-	?	-

M.16 logistics

M.16.1 logistics00

Table M.19 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, logistics, logistics00

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
probLOGISTICS-10-0	0.38	-	0.58	0.30	-	?	0.06	-	?	?	?
probLOGISTICS-10-1	0.14	-	0.32	0.23	-	?	0.04	-	?	?	?
probLOGISTICS-11-0	0.12	-	0.22	0.18	-	?	0.03	-	?	?	?
probLOGISTICS-11-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-12-0	0.11	-	0.18	0.17	-	?	0.03	-	?	?	?
probLOGISTICS-12-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-13-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-14-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-0	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-15-1	-	-	-	-	-	-	-	-	-	?	-
probLOGISTICS-4-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-4-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-4-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-5-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-0	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-1	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-2	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-6-9	-	-	-	-	-	-	-	-	-	?	?
probLOGISTICS-7-0	0.19	-	0.53	0.30	0.30	?	0.05	0.05	?	?	?
probLOGISTICS-7-1	0.74	-	0.11	0.48	-	?	0.14	0.14	?	?	?
probLOGISTICS-8-0	0.01	0.01	0.28	0.20	0.20	?	0.02	0.02	?	?	?
probLOGISTICS-8-1	0.15	-	0.53	0.33	-	?	0.07	0.07	?	?	?
probLOGISTICS-9-0	0.20	-	0.41	0.24	0.24	?	0.04	0.04	?	?	?
probLOGISTICS-9-1	0.05	-	0.03	0.00	-	?	0.00	-	?	?	?

M.16.2 logistics98

Table M.20 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, logistics, logistics98

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	0.00	-	0.02	0.11	0.11	?	0.02	0.02	?	?	?
prob02	-	-	-	-	-	-	-	-	-	?	-
prob03	-	-	-	-	-	-	-	-	-	?	-
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	0.14	0.14	0.67	0.09	0.09	?	0.09	0.09	?	?	?
prob06	-	-	-	-	-	-	-	-	-	?	-
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	-	-	-	-	-	-	-	-	-	?	-
prob11	-	-	-	-	-	-	-	-	-	?	-
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	-
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	-
prob17	-	-	-	-	-	-	-	-	-	?	-
prob18	-	-	-	-	-	-	-	-	-	?	-
prob19	-	-	-	-	-	-	-	-	-	?	-
prob20	-	-	-	-	-	-	-	-	-	?	-
prob21	-	-	-	-	-	-	-	-	-	?	-
prob22	-	-	-	-	-	-	-	-	-	?	-
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	-
prob25	-	-	-	-	-	-	-	-	-	?	-
prob26	-	-	-	-	-	-	-	-	-	?	-
prob27	-	-	-	-	-	-	-	-	-	?	-
prob28	-	-	-	-	-	-	-	-	-	?	-
prob29	-	-	-	-	-	-	-	-	-	?	-
prob30	-	-	-	-	-	-	-	-	-	?	-
prob31	-	-	-	-	-	-	-	-	-	?	?
prob32	-	-	-	-	-	-	-	-	-	?	?
prob33	0.55	-	0.02	0.07	-	?	0.01	-	?	?	?
prob34	-	-	-	-	-	-	-	-	-	?	?
prob35	0.00	0.00	?	0.00	0.00	?	0.00	0.00	?	?	?

M.17 miconic

M.17.1 miconic

Table M.21 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, miconic, miconic

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
s1-0	-	-	-	-	-	-	-	-	-	?	?
s1-1	-	-	-	-	-	-	-	-	-	?	?
s1-2	-	-	-	-	-	-	-	-	-	?	?
s1-3	-	-	-	-	-	-	-	-	-	?	?
s1-4	-	-	-	-	-	-	-	-	-	?	?
s10-0	-	-	-	-	-	-	-	-	-	?	?
s10-1	-	-	-	-	-	-	-	-	-	?	?
s10-2	-	-	-	-	-	-	-	-	-	?	?
s10-3	-	-	-	-	-	-	-	-	-	?	?
s10-4	-	-	-	-	-	-	-	-	-	?	?
s11-0	0.41	0.41	0.61	0.23	0.23	?	0.16	0.16	?	?	?
s11-1	0.35	0.35	0.67	0.15	0.15	?	0.12	0.12	?	?	?
s11-2	0.32	0.32	0.58	0.17	0.17	?	0.11	0.11	?	?	?
s11-3	0.00		0.00	0.00		?	0.00		?	?	?
s11-4	0.53	0.53	0.53	0.14	0.14	?	0.09	0.09	?	?	?
s12-0	0.67	0.67	0.85	0.27	0.27	?	0.20	0.20	?	?	?
s12-1	0.64	0.64	0.71	0.18	0.18	?	0.12	0.12	?	?	?
s12-2	0.01	0.01	0.61	0.29	0.29	?	0.22	0.22	?	?	?
s12-3	0.45	0.45	0.65	0.17	0.17	?	0.12	0.12	?	?	?
s12-4	0.70	0.70	0.83	0.35	0.35	?	0.23	0.23	?	?	?
s13-0	0.32	0.32	0.75	0.20	0.20	?	0.16	0.16	?	?	?
s13-1	0.00	-	?	0.00	-	?	0.00	-	?	?	?
s13-2	0.45	0.45	0.58	0.21	0.21	?	0.18	0.18	?	?	?
s13-3	0.44	0.44	0.75	0.28	0.28	?	0.18	0.18	?	?	?
s13-4	0.23	0.23	0.68	0.15	0.15	?	0.11	0.11	?	?	?
s14-0	0.22	0.22	0.73	0.20	0.20	?	0.16	0.16	?	?	?
s14-1	0.32	0.32	0.73	0.21	0.21	?	0.15	0.15	?	?	?
s14-2	0.37	0.37	0.65	0.11	0.11	?	0.11	0.11	?	?	?
s14-3	0.10	0.10	0.45	0.08	0.08	?	0.06	0.06	?	?	?
s14-4	0.19	0.19	0.53	0.11	0.11	?	0.07	0.07	?	?	?
s15-0	0.21	0.21	0.53	0.10	0.10	?	0.07	0.07	?	?	?
s15-1	0.11	0.11	0.45	0.07	0.07	?	0.05	0.05	?	?	?
s15-2	0.26	0.26	0.59	0.13	0.13	?	0.07	0.07	?	?	?
s15-3	0.30	0.30	0.50	0.10	0.10	?	0.06	0.06	?	?	?
s15-4	0.19	0.19	0.38	0.07	0.07	?	0.05	0.05	?	?	?
s16-0	0.31	0.31	0.68	0.17	0.17	?	0.16	0.16	?	?	?
s16-1	0.17	0.17	0.71	0.18	0.18	?	0.13	0.13	?	?	?
s16-2	0.43	0.43	0.75	0.19	0.19	?	0.12	0.12	?	?	?
s16-3	0.33	0.33	?	0.09	0.09	?	0.05	0.05	?	?	?
s16-4	0.29	0.29	0.64	0.14	0.14	?	0.10	0.10	?	?	?
s17-0	0.31	0.31	0.58	0.11	0.11	?	0.07	0.07	?	?	?
s17-1	0.15	0.15	?	0.07	0.07	?	0.05	0.05	?	?	?
s17-2	0.17	0.17	0.45	0.08	0.08	?	0.05	0.05	?	?	?
s17-3	0.49	0.49	0.80	0.42	0.42	?	0.25	0.25	?	?	?
s17-4	0.00	-	?	0.00	-	?	0.00	-	?	?	?
s18-0	0.19	0.19	0.56	0.08	0.08	?	0.07	0.07	?	?	?
s18-1	0.19	0.19	0.45	0.07	0.07	?	0.05	0.05	?	?	?
s18-2	0.17	0.17	0.51	0.08	0.08	?	0.06	0.06	?	?	?
s18-3	0.33	0.33	0.67	0.14	0.14	?	0.10	0.10	?	?	?
s18-4	0.34	0.34	0.62	0.13	0.13	?	0.08	0.08	?	?	?
s19-0	0.21	0.21	0.55	0.09	0.09	?	0.07	0.07	?	?	?
s19-1	0.34	0.34	0.65	0.13	0.13	?	0.09	0.09	?	?	?
s19-2	-	-	-	-	-	-	-	-	-	?	?
s19-3	0.26	0.26	0.59	0.11	0.11	?	0.08	0.08	?	?	?
s19-4	0.23	0.23	0.70	0.13	0.13	?	0.09	0.09	?	?	?
s2-0	-	-	-	-	-	-	-	-	-	?	?
s2-1	-	-	-	-	-	-	-	-	-	?	?
s2-2	-	-	-	-	-	-	-	-	-	?	?
s2-3	-	-	-	-	-	-	-	-	-	?	?
s2-4	-	-	-	-	-	-	-	-	-	?	?
s20-0	-	-	-	-	-	-	-	-	-	?	?
s20-1	0.38	0.38	0.71	0.18	0.18	?	0.13	0.13	?	?	?
s20-2	0.08	0.08	?	0.02	0.02	?	0.01	0.01	?	?	?
s20-3	0.16	0.16	?	0.06	0.06	?	0.03	0.03	?	?	?
s20-4	0.25	0.25	0.61	0.10	0.10	?	0.08	0.08	?	?	?
s21-0	0.31	0.31	0.56	0.10	0.10	?	0.06	0.06	?	?	?
s21-1	0.32	0.32	0.68	0.14	0.14	?	0.08	0.08	?	?	?
s21-2	0.38	0.38	0.87	0.23	0.23	?	0.15	0.15	?	?	?
s21-3	0.29	0.29	0.60	0.13	0.13	?	0.08	0.08	?	?	?
s21-4	0.45	0.45	0.79	0.17	0.17	?	0.11	0.11	?	?	?
s22-0	0.08	0.08	?	0.06	0.06	?	0.04	0.04	?	?	?
s22-1	0.06	0.06	?	0.04	0.04	?	0.04	0.04	?	?	?
s22-2	0.10	0.10	?	0.04	0.04	?	0.03	0.03	?	?	?
s22-3	0.67	0.67	0.80	0.30	0.30	?	0.19	0.19	?	?	?
s22-4	0.38	0.38	0.70	0.13	0.13	?	0.09	0.09	?	?	?
s23-0	0.25	0.25	0.64	0.12	0.12	?	0.08	0.08	?	?	?
s23-1	-	-	-	-	-	-	-	-	-	?	?
s23-2	0.27	0.27	?	0.08	0.08	?	0.05	0.05	?	?	?
s23-3	-	-	-	-	-	-	-	-	-	?	?
s23-4	0.17	0.17	?	0.08	0.08	?	0.06	0.06	?	?	?
s24-0	0.27	0.27	0.66	0.09	0.09	?	0.07	0.07	?	?	?
s24-1	0.11	0.11	?	0.07	0.07	?	0.06	0.06	?	?	?
s24-2	0.22	0.22	?	0.07	0.07	?	0.06	0.06	?	?	?
s24-3	0.35	0.35	0.63	0.14	0.14	?	0.10	0.10	?	?	?
s24-4	0.29	0.29	?	0.11	0.11	?	0.06	0.06	?	?	?
s25-0	0.14	0.14	?	0.05	0.05	?	0.03	0.03	?	?	?
s25-1	0.09	0.09	?	0.05	0.05	?	0.03	0.03	?	?	?
s25-2	-	-	-	-	-	-	-	-	-	?	?
s25-3	0.32	0.32	0.68	0.15	0.15	?	0.11	0.11	?	?	?
s25-4	0.28	0.28	?	0.09	0.09	?	0.06	0.06	?	?	?
s26-0	0.12	0.12	?	0.05	0.05	?	0.04	0.04	?	?	?
s26-1	-	-	-	-	-	-	-	-	-	?	?
s26-2	0.23	0.23	0.69	0.13	0.13	?	0.10	0.10	?	?	?
s26-3	0.12	0.12	?	0.06	0.06	?	0.04	0.04	?	?	?
s26-4	0.40	0.40	0.66	0.14	0.14	?	0.09	0.09	?	?	?
s27-0	-	-	-	-	-	-	-	-	-	?	?
s27-1	0.33	0.33	0.85	0.21	0.21	?	0.14	0.14	?	?	?
s27-2	0.05	0.05	?	0.02	0.02	?	0.02	0.02	?	?	?
s27-3	0.26	0.26	0.58	0.10	0.10	?	0.06	0.06	?	?	?
s27-4	0.15	0.15	?	0.05	0.05	?	0.04	0.04	?	?	?
s28-0	0.30	0.30	0.67	0.13	0.13	?	0.09	0.09	?	?	?
s28-1	-	-	-	-	-	-	-	-	-	?	?
s28-2	0.19	0.19	?	0.09	0.09	?	0.06	0.06	?	?	?
s28-3	0.12	0.12	?	0.04	0.04	?	0.03	0.03	?	?	?
s28-4	0.24	0.24	?	0.10	0.10	?	0.06	0.06	?	?	?
s29-0	0.28	0.28	0.75	0.15	0.15	?	0.11	0.11	?	?	?
s29-1	0.13	0.13	?	0.05	0.05	?	0.04	0.04	?	?	?
s29-2	0.10	0.10	?	0.06	0.06	?	0.04	0.04	?	?	?
s29-3	0.16	0.16	?	0.07	0.07	?	0.06	0.06	?	?	?
s29-4	0.14	0.14	?	0.08	0.08	?	0.06	0.06	?	?	?
s3-0	-	-	-	-	-	-	-	-	-	?	?
s3-1	-	-	-	-	-	-	-	-	-	?	?
s3-2	-	-	-	-	-	-	-	-	-	?	?
s3-3	-	-	-	-	-	-	-	-	-	?	?
s3-4	-	-	-	-	-	-	-	-	-	?	?
s30-0	0.18	0.18	?	0.08	0.08	?	0.05	0.05	?	?	?
s30-1	0.14	0.14	?	0.07	0.07	?	0.04	0.04	?	?	?
s30-2	0.18	0.18	?	0.08	0.08	?	0.05	0.05	?	?	?
s30-3	-	-	-	-	-	-	-	-	-	?	?
s30-4	0.21	0.21	?	0.08	0.08	?	0.06	0.06	?	?	?
s4-0	-	-	-	-	-	-	-	-	-	?	?
s4-1	-	-	-	-	-	-	-	-	-	?	?
s4-2	-	-	-	-	-	-	-	-	-	?	?
s4-3	-	-	-	-	-	-	-	-	-	?	?
s4-4	-	-	-	-	-	-	-	-	-	?	?
s5-0	-	-	-	-	-	-	-	-	-	?	?
s5-1	-	-	-	-	-	-	-	-	-	?	?
s5-2	-	-	-	-	-	-	-	-	-	?	?
s5-3	-	-	-	-	-	-	-	-	-	?	?
s5-4	-	-	-	-	-	-	-	-	-	?	?
s6-0	-	-	-	-	-	-	-	-	-	?	?
s6-1	-	-	-	-	-	-	-	-	-	?	?
s6-2	-	-	-	-	-	-	-	-	-	?	?
s6-3	-	-	-	-	-	-	-	-	-	?	?
s6-4	-	-	-	-	-	-	-	-	-	?	?
s7-0	-	-	-	-	-	-	-	-	-	?	?
s7-1	-	-	-	-	-	-	-	-	-	?	?
s7-2	-	-	-	-	-	-	-	-	-	?	?
s7-3	-	-	-	-	-	-	-	-	-	?	?
s7-4	-	-	-	-	-	-	-	-	-	?	?
s8-0	-	-	-	-	-	-	-	-	-	?	?
s8-1	-	-	-	-	-	-	-	-	-	?	?
s8-2	-	-	-	-	-	-	-	-	-	?	?
s8-3	-	-	-	-	-	-	-	-	-	?	?
s8-4	-	-	-	-	-	-	-	-	-	?	?
s9-0	-	-	-	-	-	-	-	-	-	?	?
s9-1	-	-	-	-	-	-	-	-	-	?	?
s9-2	-	-	-	-	-	-	-	-	-	?	?
s9-3	-	-	-	-	-	-	-	-	-	?	?
s9-4	-	-	-	-	-	-	-	-	-	?	?

M.18 movie

M.18.1 movie

Table M.22 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, movie, movie

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	-	-	-	-	-	-	-	-	-	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	-	-	-	-	-	-	-	-	-	?	?
prob09	-	-	-	-	-	-	-	-	-	?	?
prob10	-	-	-	-	-	-	-	-	-	?	?
prob11	-	-	-	-	-	-	-	-	-	?	?
prob12	-	-	-	-	-	-	-	-	-	?	?
prob13	-	-	-	-	-	-	-	-	-	?	?
prob14	-	-	-	-	-	-	-	-	-	?	?
prob15	-	-	-	-	-	-	-	-	-	?	?
prob16	-	-	-	-	-	-	-	-	-	?	?
prob17	-	-	-	-	-	-	-	-	-	?	?
prob18	-	-	-	-	-	-	-	-	-	?	?
prob19	-	-	-	-	-	-	-	-	-	?	?
prob20	-	-	-	-	-	-	-	-	-	?	?
prob21	-	-	-	-	-	-	-	-	-	?	?
prob22	-	-	-	-	-	-	-	-	-	?	?
prob23	-	-	-	-	-	-	-	-	-	?	?
prob24	-	-	-	-	-	-	-	-	-	?	?
prob25	-	-	-	-	-	-	-	-	-	?	?
prob26	-	-	-	-	-	-	-	-	-	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	?
prob29	-	-	-	-	-	-	-	-	-	?	?
prob30	-	-	-	-	-	-	-	-	-	?	?

M.19 mprime

M.19.1 mprime

Table M.23 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, mprime, mprime

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	0.93	0.93	?	0.14	0.14	?	0.03	0.03	?	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	?
prob05	0.09	0.09	0.06	0.14	0.14	?	0.00	0.00	?	?	?
prob06	-	-	-	-	-	-	-	-	-	?	?
prob07	-	-	-	-	-	-	-	-	-	?	?
prob08	0.80	0.80	?	0.14	0.14	?	0.07	0.07	?	?	?
prob09	0.52	0.52	?	0.05	0.05	?	0.51	0.51	?	?	?
prob10	-	-	-	-	-	-	-	-	-	?	?
prob11	-	-	-	-	-	-	-	-	-	?	?
prob12	-	-	-	-	-	-	-	-	-	?	?
prob13	-	-	-	-	-	-	-	-	-	?	?
prob14	-	-	-	-	-	-	-	-	-	?	?
prob15	-	-	-	-	-	-	-	-	-	?	?
prob16	0.04	0.04	?	0.29	0.29	?	0.15	0.15	?	?	?
prob17	1.00	1.00	?	0.00	0.00	?	0.00	0.00	?	?	?
prob18	-	-	-	-	-	-	-	-	-	?	?
prob19	-	-	-	-	-	-	-	-	-	?	?
prob20	-	-	-	-	-	-	-	-	-	?	?
prob21	-	-	-	-	-	-	-	-	-	?	?
prob22	-	-	-	-	-	-	-	-	-	?	?
prob23	-	-	-	-	-	-	-	-	-	?	?
prob24	-	-	-	-	-	-	-	-	-	?	?
prob25	-	-	-	-	-	-	-	-	-	?	?
prob26	0.04	0.04	?	0.26	0.26	?	0.13	0.13	?	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	?
prob29	-	-	-	-	-	-	-	-	-	?	?
prob30	-	-	-	-	-	-	-	-	-	?	?
prob31	-	-	-	-	-	-	-	-	-	?	?
prob32	-	-	-	-	-	-	-	-	-	?	?
prob33	-	-	-	-	-	-	-	-	-	?	?
prob34	-	-	-	-	-	-	-	-	-	?	?
prob35	-	-	-	-	-	-	-	-	-	?	?

M.20 mystery

M.20.1 mystery

Table M.24 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, mystery, mystery

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
prob01	-	-	-	-	-	-	-	-	-	?	?
prob02	-	-	-	-	-	-	-	-	-	?	?
prob03	-	-	-	-	-	-	-	-	-	?	?
prob04	-	-	-	-	-	-	-	-	-	?	-
prob05	-	-	-	-	-	-	-	-	-	?	-
prob06	0.47	0.47	?	0.02	0.02	?	0.34	0.34	?	?	?
prob07	-	-	-	-	-	-	-	-	-	?	-
prob08	-	-	-	-	-	-	-	-	-	?	-
prob09	-	-	-	-	-	-	-	-	-	?	-
prob10	0.00	0.00	?	0.09	0.09	?	0.02	0.02	?	?	?
prob11	-	-	-	-	-	-	-	-	-	?	?
prob12	-	-	-	-	-	-	-	-	-	?	-
prob13	-	-	-	-	-	-	-	-	-	?	-
prob14	-	-	-	-	-	-	-	-	-	?	?
prob15	-	-	-	-	-	-	-	-	-	?	-
prob16	-	-	-	-	-	-	-	-	-	?	?
prob17	-	-	-	-	-	-	-	-	-	?	?
prob18	-	-	-	-	-	-	-	-	-	?	?
prob19	-	-	-	-	-	-	-	-	-	?	?
prob20	0.09	0.09	0.11	0.38	0.38	?	0.19	0.19	?	?	?
prob21	-	-	-	-	-	-	-	-	-	?	?
prob22	-	-	-	-	-	-	-	-	-	?	?
prob23	-	-	-	-	-	-	-	-	-	?	-
prob24	-	-	-	-	-	-	-	-	-	?	?
prob25	-	-	-	-	-	-	-	-	-	?	?
prob26	-	-	-	-	-	-	-	-	-	?	?
prob27	-	-	-	-	-	-	-	-	-	?	?
prob28	-	-	-	-	-	-	-	-	-	?	?
prob29	-	-	-	-	-	-	-	-	-	?	?
prob30	-	-	-	-	-	-	-	-	-	?	?

M.21 nomystery

M.21.1 nomystery-opt11-strips

Table M.25 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, nomystery, nomystery-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	0.03	0.03	0.20	0.04	0.04	?	0.00	0.00	?	?	?
p06	0.08	0.08	0.04	0.01	0.01	?	0.21	0.21	?	?	?
p07	0.00	0.00	0.27	0.00	0.00	-	0.00	0.00	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	0.03	0.03	0.20	0.04	0.04	?	0.00	0.00	?	?	?
p16	0.08	0.08	0.04	0.01	0.01	?	0.21	0.21	?	?	?
p17	0.03	0.03	0.31	0.00	0.00	?	0.00	0.00	?	?	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

M.22 openstacks

M.22.1 openstacks-opt08-strips

Table M.26 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, openstacks, openstacks-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

M.22.2 openstacks-opt11-strips

Table M.27 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, openstacks, openstacks-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

M.22.3 openstacks-opt14-strips

Table M.28 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, openstacks, openstacks-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p20_1	-	-	-	-	-	-	-	-	-	?	?
p20_2	-	-	-	-	-	-	-	-	-	?	?
p20_3	-	-	-	-	-	-	-	-	-	?	?
p25_1	-	-	-	-	-	-	-	-	-	?	-
p25_3	-	-	-	-	-	-	-	-	-	?	-
p30_1	-	-	-	-	-	-	-	-	-	?	-
p30_2	-	-	-	-	-	-	-	-	-	?	-
p30_3	-	-	-	-	-	-	-	-	-	?	-
p35_1	-	-	-	-	-	-	-	-	-	?	-
p35_2	-	-	-	-	-	-	-	-	-	?	-
p35_3	-	-	-	-	-	-	-	-	-	?	-
p40_1	-	-	-	-	-	-	-	-	-	?	-
p40_2	-	-	-	-	-	-	-	-	-	?	-
p40_3	-	-	-	-	-	-	-	-	-	?	-
p45_1	-	-	-	-	-	-	-	-	-	?	-
p45_2	-	-	-	-	-	-	-	-	-	?	-
p45_3	-	-	-	-	-	-	-	-	-	?	-
p50_1	-	-	-	-	-	-	-	-	-	?	-
p50_2	-	-	-	-	-	-	-	-	-	?	-
p50_3	-	-	-	-	-	-	-	-	-	?	-

M.22.4 openstacks-strips

Table M.29 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, openstacks, openstacks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	
p10	-	-	-	-	-	-	-	-	-	?	
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	
p21	-	-	-	-	-	-	-	-	-	?	
p22	-	-	-	-	-	-	-	-	-	?	
p23	-	-	-	-	-	-	-	-	-	?	
p24	-	-	-	-	-	-	-	-	-	?	
p25	-	-	-	-	-	-	-	-	-	?	
p26	-	-	-	-	-	-	-	-	-	?	
p27	-	-	-	-	-	-	-	-	-	?	
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	

M.23 organic

M.23.1 organic-synthesis-opt18-strips

Table M.30 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, organic, organic-synthesis-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	
p05	-	-	-	-	-	-	-	-	-	?	
p06	-	-	-	-	-	-	-	-	-	?	
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	
p12	-	-	-	-	-	-	-	-	-	?	
p13	-	-	-	-	-	-	-	-	-	?	
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

M.23.2 organic-synthesis-split-opt18-strips

Table M.31 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, organic, organic-synthesis-split-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*\uparrow}$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	1.00	1.00	0.50	0.50	0.50	0.56	0.25	0.25	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	
p08	0.20	0.20	0.44	0.12	0.12	0.16	0.09	0.09	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	
p11	1.00	1.00	0.22	0.01	0.01	0.88	0.11	0.11	?	?	?
p12	0.28	0.28	0.28	0.01	0.01	0.27	0.11	0.11	0.06	?	?
p13	1.00	1.00	0.80	0.13	0.13	?	0.28	0.28	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	
p15	-	-	-	-	-	-	-	-	-	?	
p16	1.00	1.00	0.50	0.20	0.20	0.08	0.16	0.16	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	

M.24 parcprinter

M.24.1 parcprinter-08-strips

Table M.32 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, parcprinter, parcprinter-08-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	0.12	0.12	0.18	0.06	0.06	?	0.01	0.01	?	?	?
p05	0.09	0.09	0.07	0.00	0.00	?	0.00	0.00	?	?	?
p06	0.00	-	0.00	0.00	-	?	0.00	-	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	0.00	-	0.01	0.00	-	0.00	0.01	-	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	?
p24	1.00	1.00	1.00	0.81	0.81	0.84	0.74	0.74	0.75	?	?
p25	0.00	-	0.00	0.07	-	?	0.01	-	?	?	?
p26	0.92	0.92	0.92	0.88	0.88	0.88	0.83	0.83	0.85	?	?
p27	0.93	0.93	0.93	0.89	0.89	0.91	0.85	0.85	0.87	?	?
p28	0.92	0.92	0.92	0.90	0.90	0.91	0.87	0.87	0.89	?	?
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

M.24.2 parcprinter-opt11-strips

Table M.33 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, parcprinter, parcprinter-opt11-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	0.12	0.12	0.18	0.06	0.06	?	0.01	0.01	?	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	0.00	-	0.00	0.00	-	?	0.00	-	?	?	?
p07	0.09	0.09	0.07	0.00	0.00	?	0.00	0.00	?	?	?
p08	1.00	1.00	1.00	0.81	0.81	0.84	0.74	0.74	0.75	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	0.00	-	0.00	0.07	-	?	0.01	-	?	?	?
p11	0.92	0.92	0.92	0.88	0.88	0.88	0.83	0.83	0.85	?	?
p12	0.00	-	0.01	0.00	-	0.00	0.01	-	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	0.93	0.93	0.93	0.89	0.89	0.91	0.85	0.85	0.87	?	?

M.25 parking

M.25.1 parking-opt11-strips

Table M.34 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, parking, parking-opt11-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
pfile03-011	0.23	0.23	0.22	0.16	0.16	?	0.02	0.02	?	?	?
pfile03-012	-	-	-	-	-	-	-	-	-	?	-
pfile04-013	0.01	0.01	0.04	0.06	0.06	?	0.01	0.01	?	?	?
pfile04-014	-	-	-	-	-	-	-	-	-	?	-
pfile04-015	-	-	-	-	-	-	-	-	-	?	-
pfile04-016	-	-	-	-	-	-	-	-	-	?	-
pfile05-017	-	-	-	-	-	-	-	-	-	?	-
pfile05-018	-	-	-	-	-	-	-	-	-	?	-
pfile05-019	-	-	-	-	-	-	-	-	-	?	-
pfile05-020	-	-	-	-	-	-	-	-	-	?	-
pfile06-021	-	-	-	-	-	-	-	-	-	?	-
pfile06-022	-	-	-	-	-	-	-	-	-	?	-
pfile06-023	-	-	-	-	-	-	-	-	-	?	-
pfile06-024	-	-	-	-	-	-	-	-	-	?	-
pfile07-025	-	-	-	-	-	-	-	-	-	?	-
pfile07-026	-	-	-	-	-	-	-	-	-	?	-
pfile07-027	-	-	-	-	-	-	-	-	-	?	-
pfile07-028	-	-	-	-	-	-	-	-	-	?	-
pfile08-029	-	-	-	-	-	-	-	-	-	?	-
pfile08-030	-	-	-	-	-	-	-	-	-	?	-

M.25.2 parking-opt14-strips

Table M.35 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, parking, parking-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p_12_7-01	0.16	0.16	0.30	0.13	0.13	?	0.01	0.01	?	?	?
p_12_7-02	0.18	0.18	0.31	0.15	0.15	?	0.01	0.01	?	?	?
p_12_7-03	0.09	0.09	0.17	0.12	0.12	?	0.01	0.01	?	?	?
p_12_7-04	-	-	-	-	-	-	-	-	-	?	-
p_14_8-01	-	-	-	-	-	-	-	-	-	?	-
p_14_8-02	-	-	-	-	-	-	-	-	-	?	-
p_14_8-03	-	-	-	-	-	-	-	-	-	?	-
p_14_8-04	-	-	-	-	-	-	-	-	-	?	-
p_16_9-01	-	-	-	-	-	-	-	-	-	?	-
p_16_9-02	-	-	-	-	-	-	-	-	-	?	-
p_16_9-03	-	-	-	-	-	-	-	-	-	?	-
p_16_9-04	-	-	-	-	-	-	-	-	-	?	-
p_18_10-01	-	-	-	-	-	-	-	-	-	?	-
p_18_10-02	-	-	-	-	-	-	-	-	-	?	-
p_18_10-03	-	-	-	-	-	-	-	-	-	?	-
p_18_10-04	-	-	-	-	-	-	-	-	-	?	-
p_20_11-01	-	-	-	-	-	-	-	-	-	?	-
p_20_11-02	-	-	-	-	-	-	-	-	-	?	-
p_20_11-03	-	-	-	-	-	-	-	-	-	?	-
p_20_11-04	-	-	-	-	-	-	-	-	-	?	-

M.26 pathways

M.26.1 pathways

Table M.36 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, pathways, pathways

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	0.60	-	?	0.07	-	?	0.01	-	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

M.27 pegsol

M.27.1 pegsol-08-strips

Table M.37 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, pegsol, pegsol-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

M.27.2 pegsol-opt11-strips

Table M.38 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, pegsol, pegsol-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	-

M.28 petri

M.28.1 petri-net-alignment-opt18-strips

Table M.39 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, petri, petri-net-alignment-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*{}^\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	0.10	-	0.15	0.22	0.22	0.02	0.10	0.10	?	?	?
p04	0.08	-	0.18	0.15	0.15	0.14	0.07	0.07	?	?	?
p05	0.00	0.00	0.05	0.11	0.11	?	0.07	0.07	?	?	?
p06	0.02	-	0.21	0.11	0.11	?	0.04	0.04	?	?	?
p07	0.13	-	0.00	0.08	0.08	?	0.05	0.05	?	?	?
p08	0.10	-	0.30	0.26	-	0.40	0.20	0.20	?	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	0.07	0.07	0.18	0.08	0.08	?	0.04	0.04	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

M.29 pipesworld

M.29.1 pipesworld-notankage

Table M.40 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, pipesworld, pipesworld-notankage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-net1-b6-g2	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g5	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5	-	-	-	-	-	-	-	-	-	?	?
p08-net1-b12-g7	-	-	-	-	-	-	-	-	-	?	?
p09-net1-b14-g6	-	-	-	-	-	-	-	-	-	?	?
p10-net1-b14-g8	0.00	0.00	0.03	0.29	0.29	?	0.04	0.04	?	?	?
p11-net2-b10-g2	-	-	-	-	-	-	-	-	-	?	?
p12-net2-b10-g4	-	-	-	-	-	-	-	-	-	?	?
p13-net2-b12-g3	-	-	-	-	-	-	-	-	-	?	?
p14-net2-b12-g5	-	-	-	-	-	-	-	-	-	?	?
p15-net2-b14-g4	-	-	-	-	-	-	-	-	-	?	?
p16-net2-b14-g6	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8	-	-	-	-	-	-	-	-	-	?	
p21-net3-b12-g2	-	-	-	-	-	-	-	-	-	?	?
p22-net3-b12-g4	-	-	-	-	-	-	-	-	-	?	
p23-net3-b14-g3	0.35	0.35	0.37	0.43	0.43	?	0.09	0.09	?	?	?
p24-net3-b14-g5	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3	-	-	-	-	-	-	-	-	-	?	
p32-net4-b14-g5	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2	0.38	0.38	0.36	0.19	0.19	?	0.55	0.55	?	?	?
p42-net5-b22-g4	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g6	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8	-	-	-	-	-	-	-	-	-	?	

M.29.2 pipesworld-tankage

Table M.41 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, pipesworld, pipesworld-tankage

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g5-t80	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5-t80	0.01	0.01	?	0.19	0.19	?	0.09	0.09	?	?	?
p08-net1-b12-g7-t80	0.00	0.00	0.01	0.04	0.04	?	0.00	0.00	?	?	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	?
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	
p13-net2-b12-g3-t70	0.08	0.08	0.00	0.28	0.28	?	0.05	0.05	?	?	?
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	
p21-net2-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	
p22-net2-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	?
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	?
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	

M.29.3 pipesworld-tankage-nosplit

Table M.42 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, pipesworld, pipesworld-tankage-nosplit

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-net1-b6-g2-t50	-	-	-	-	-	-	-	-	-	?	?
p02-net1-b6-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p03-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	?	?
p04-net1-b8-g3-t80	-	-	-	-	-	-	-	-	-	?	?
p05-net1-b10-g4-t50	-	-	-	-	-	-	-	-	-	?	?
p06-net1-b10-g6-t50	-	-	-	-	-	-	-	-	-	?	?
p07-net1-b12-g5-t80	0.01	0.01	?	0.19	0.19	?	0.09	0.09	?	?	?
p08-a12-n1-t2-t80	0.00	0.00	0.01	0.04	0.04	?	0.00	0.00	?	?	?
p09-net1-b14-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p10-net1-b14-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p11-net2-b10-g2-t30	-	-	-	-	-	-	-	-	-	?	-
p12-net2-b10-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p13-net2-b12-g3-t70	-	-	-	-	-	-	-	-	-	?	-
p14-net2-b12-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p15-net2-b14-g4-t30	-	-	-	-	-	-	-	-	-	?	-
p16-net2-b14-g6-t80	-	-	-	-	-	-	-	-	-	?	-
p17-net2-b16-g5-t20	-	-	-	-	-	-	-	-	-	?	-
p18-net2-b16-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p19-net2-b18-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p20-net2-b18-g8-t90	-	-	-	-	-	-	-	-	-	?	-
p21-net3-b12-g2-t60	-	-	-	-	-	-	-	-	-	?	-
p22-net3-b12-g4-t60	-	-	-	-	-	-	-	-	-	?	-
p23-net3-b14-g3-t60	-	-	-	-	-	-	-	-	-	?	-
p24-net3-b14-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p25-net3-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p26-net3-b16-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p27-net3-b18-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p28-net3-b18-g7-t70	-	-	-	-	-	-	-	-	-	?	-
p29-net3-b20-g6-t70	-	-	-	-	-	-	-	-	-	?	-
p30-net3-b20-g8-t70	-	-	-	-	-	-	-	-	-	?	-
p31-net4-b14-g3-t20	-	-	-	-	-	-	-	-	-	?	-
p32-net4-b14-g5-t30	-	-	-	-	-	-	-	-	-	?	-
p33-net4-b16-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p34-net4-b16-g6-t60	-	-	-	-	-	-	-	-	-	?	-
p35-net4-b18-g4-t90	-	-	-	-	-	-	-	-	-	?	-
p36-net4-b18-g6-t90	-	-	-	-	-	-	-	-	-	?	-
p37-net4-b20-g5-t60	-	-	-	-	-	-	-	-	-	?	-
p38-net4-b20-g7-t60	-	-	-	-	-	-	-	-	-	?	-
p39-net4-b22-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p40-net4-b22-g8-t50	-	-	-	-	-	-	-	-	-	?	-
p41-net5-b22-g2-t20	-	-	-	-	-	-	-	-	-	?	-
p42-net5-b22-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p43-net5-b24-g3-t80	-	-	-	-	-	-	-	-	-	?	-
p44-net5-b24-g5-t80	-	-	-	-	-	-	-	-	-	?	-
p45-net5-b26-g4-t50	-	-	-	-	-	-	-	-	-	?	-
p46-net5-b26-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p47-net5-b28-g5-t50	-	-	-	-	-	-	-	-	-	?	-
p48-net5-b28-g7-t50	-	-	-	-	-	-	-	-	-	?	-
p49-net5-b30-g6-t50	-	-	-	-	-	-	-	-	-	?	-
p50-net5-b30-g8-t50	-	-	-	-	-	-	-	-	-	?	-

M.30 psr

M.30.1 psr-small

Table M.43 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, psr, psr-small

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-s2-n1-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p02-s5-n1-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p03-s7-n1-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p04-s8-n1-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p05-s9-n1-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p06-s10-n1-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p07-s11-n1-l4-f70	-	-	-	-	-	-	-	-	-	?	?
p08-s12-n1-l5-f10	-	-	-	-	-	-	-	-	-	?	?
p09-s13-n1-l5-f30	-	-	-	-	-	-	-	-	-	?	?
p10-s17-n2-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p11-s18-n2-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p12-s21-n2-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p13-s22-n2-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p14-s23-n2-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p15-s24-n2-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p16-s29-n2-l5-f50	-	-	-	-	-	-	-	-	-	?	?
p17-s30-n2-l5-f70	-	-	-	-	-	-	-	-	-	?	?
p18-s31-n2-l5-f70	-	-	-	-	-	-	-	-	-	?	?
p19-s33-n3-l2-f90	-	-	-	-	-	-	-	-	-	?	?
p20-s34-n3-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p21-s35-n3-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p22-s37-n3-l3-f30	-	-	-	-	-	-	-	-	-	?	?
p23-s38-n3-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p24-s39-n3-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p25-s40-n3-l4-f10	-	-	-	-	-	-	-	-	-	?	?
p26-s41-n3-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p27-s42-n3-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p28-s43-n3-l4-f70	-	-	-	-	-	-	-	-	-	?	?
p29-s45-n3-l5-f30	-	-	-	-	-	-	-	-	-	?	?
p30-s46-n3-l5-f50	-	-	-	-	-	-	-	-	-	?	?
p31-s49-n4-l2-f90	-	-	-	-	-	-	-	-	-	?	?
p32-s50-n4-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p33-s51-n4-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p34-s55-n4-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p35-s57-n5-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p36-s65-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p37-s67-n6-l2-f70	-	-	-	-	-	-	-	-	-	?	?
p38-s78-n3-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p39-s79-n3-l3-f70	-	-	-	-	-	-	-	-	-	?	?
p40-s80-n3-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p41-s81-n3-l4-f30	-	-	-	-	-	-	-	-	-	?	?
p42-s82-n3-l4-f50	-	-	-	-	-	-	-	-	-	?	?
p43-s83-n3-l4-f70	-	-	-	-	-	-	-	-	-	?	?
p44-s89-n3-l2-f50	-	-	-	-	-	-	-	-	-	?	?
p45-s94-n4-l3-f50	-	-	-	-	-	-	-	-	-	?	?
p46-s97-n5-l2-f90	-	-	-	-	-	-	-	-	-	?	?
p47-s98-n5-l2-f90	-	-	-	-	-	-	-	-	-	?	?
p48-s100-n5-l3-f30	0.21	-	0.48	0.34	0.34	?	0.35	0.35	?	?	?
p49-s105-n6-l2-f30	-	-	-	-	-	-	-	-	-	?	?
p50-s107-n6-l2-f70	-	-	-	-	-	-	-	-	-	?	?

M.31 rovers

M.31.1 rovers

Table M.44 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, rovers, rovers

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	0.09	0.09	0.18	0.16	0.16	?	0.02	0.02	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	0.09	0.09	0.11	0.17	0.17	?	0.02	0.02	?	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-
p31	-	-	-	-	-	-	-	-	-	?	-
p32	-	-	-	-	-	-	-	-	-	?	-
p33	-	-	-	-	-	-	-	-	-	?	-
p34	-	-	-	-	-	-	-	-	-	?	-
p35	-	-	-	-	-	-	-	-	-	?	-
p36	-	-	-	-	-	-	-	-	-	?	-
p37	-	-	-	-	-	-	-	-	-	?	-
p38	-	-	-	-	-	-	-	-	-	?	-
p39	-	-	-	-	-	-	-	-	-	?	-
p40	-	-	-	-	-	-	-	-	-	?	-

M.32 satellite

M.32.1 satellite

Table M.45 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, satellite, satellite

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-pfile1	-	-	-	-	-	-	-	-	-	?	?
p02-pfile2	-	-	-	-	-	-	-	-	-	?	?
p03-pfile3	-	-	-	-	-	-	-	-	-	?	?
p04-pfile4	-	-	-	-	-	-	-	-	-	?	?
p05-pfile5	0.01	0.01	?	0.06	0.06	?	0.01	0.01	?	?	?
p06-pfile6	0.04	0.04	?	0.10	0.10	?	0.02	0.02	?	?	?
p07-pfile7	0.02	0.02	0.01	0.13	0.13	?	0.02	0.02	?	?	?
p08-pfile8	-	-	-	-	-	-	-	-	-	?	-
p09-pfile9	-	-	-	-	-	-	-	-	-	?	-
p10-pfile10	-	-	-	-	-	-	-	-	-	?	-
p11-pfile11	-	-	-	-	-	-	-	-	-	?	-
p12-pfile12	-	-	-	-	-	-	-	-	-	?	-
p13-pfile13	-	-	-	-	-	-	-	-	-	?	-
p14-pfile14	-	-	-	-	-	-	-	-	-	?	-
p15-pfile15	-	-	-	-	-	-	-	-	-	?	-
p16-pfile16	-	-	-	-	-	-	-	-	-	?	-
p17-pfile17	-	-	-	-	-	-	-	-	-	?	-
p18-pfile18	-	-	-	-	-	-	-	-	-	?	-
p19-pfile19	-	-	-	-	-	-	-	-	-	?	-
p20-pfile20	-	-	-	-	-	-	-	-	-	?	-
p21-HC-pfile1	-	-	-	-	-	-	-	-	-	?	-
p22-HC-pfile2	-	-	-	-	-	-	-	-	-	?	-
p23-HC-pfile3	-	-	-	-	-	-	-	-	-	?	-
p24-HC-pfile4	-	-	-	-	-	-	-	-	-	?	-
p25-HC-pfile5	-	-	-	-	-	-	-	-	-	?	-
p26-HC-pfile6	-	-	-	-	-	-	-	-	-	?	-
p27-HC-pfile7	-	-	-	-	-	-	-	-	-	?	-
p28-HC-pfile8	-	-	-	-	-	-	-	-	-	?	-
p29-HC-pfile9	-	-	-	-	-	-	-	-	-	?	-
p30-HC-pfile10	-	-	-	-	-	-	-	-	-	?	-
p31-HC-pfile11	-	-	-	-	-	-	-	-	-	?	-
p32-HC-pfile12	-	-	-	-	-	-	-	-	-	?	-
p33-HC-pfile13	-	-	-	-	-	-	-	-	-	?	-
p34-HC-pfile14	-	-	-	-	-	-	-	-	-	?	-
p35-HC-pfile15	-	-	-	-	-	-	-	-	-	?	-
p36-HC-pfile16	-	-	-	-	-	-	-	-	-	?	-

M.33 scanalyzer

M.33.1 scanalyzer-08-strips

Table M.46 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, scanalyzer, scanalyzer-08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	1.00	1.00	0.96	0.35	0.35	?	0.24	0.24	?	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	1.00	1.00	0.97	0.35	0.35	?	0.24	0.24	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	0.50	0.50	0.98	0.37	0.37	?	0.24	0.24	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	0.50	0.50	0.98	0.36	0.36	?	0.25	0.25	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	0.50	0.50	0.99	0.36	0.36	?	0.24	0.24	?	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	?
p25	-	-	-	-	-	-	-	-	-	?	?
p26	-	-	-	-	-	-	-	-	-	?	?
p27	-	-	-	-	-	-	-	-	-	?	?
p28	-	-	-	-	-	-	-	-	-	?	?
p29	-	-	-	-	-	-	-	-	-	?	?
p30	-	-	-	-	-	-	-	-	-	?	?

M.33.2 scanalyzer-opt11-strips

Table M.47 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, scanalyzer, scanalyzer-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	1.00	1.00	0.96	0.35	0.35	?	0.24	0.24	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	0.50	0.50	0.99	0.36	0.36	?	0.24	0.24	?	?	?
p08	1.00	1.00	0.97	0.35	0.35	?	0.24	0.24	?	?	?
p09	0.50	0.50	0.98	0.37	0.37	?	0.24	0.24	?	?	?
p10	0.50	0.50	0.98	0.36	0.36	?	0.25	0.25	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

M.34 snake

M.34.1 snake-opt18-strips

Table M.48 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, snake, snake-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^{\uparrow}$	$PEA^*_{+IDA^*}$	A^*	$Blind\ A^*$
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

M.35 sokoban

M.35.1 sokoban-opt08-strips

Table M.49 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, sokoban, sokoban-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	1.00	1.00	1.00	0.83	0.83	0.83	0.82	0.82	0.82	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?
p21	0.06	0.06	0.06	0.31	0.31	0.30	0.23	0.23	0.22	?	?
p22	0.10	-	0.09	0.50	-	0.49	0.05	-	0.00	?	?
p23	0.25	-	0.22	0.04	-	0.45	0.23	-	0.19	?	?
p24	0.26	-	0.29	0.26	-	0.45	0.44	-	0.39	?	?
p25	0.37	-	0.34	0.00	-	0.09	0.47	-	0.00	?	?
p26	0.23	-	0.22	0.51	-	0.49	0.43	-	0.34	?	?
p27	0.45	-	0.39	0.39	0.39	0.32	0.21	0.21	0.11	?	?
p28	0.00	-	0.31	0.37	-	0.33	0.00	-	0.36	?	?
p29	0.02	-	0.46	0.06	-	0.04	0.00	0.00	?	?	?
p30	-	-	-	-	-	-	-	-	-	?	-

M.35.2 sokoban-opt11-strips

Table M.50 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, sokoban, sokoban-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	1.00	1.00	1.00	0.83	0.83	0.83	0.82	0.82	0.82	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	0.06	0.06	0.06	0.31	0.31	0.30	0.23	0.23	0.22	?	?
p19	0.10	-	0.09	0.50	-	0.49	0.05	-	0.00	?	?
p20	0.25	-	0.22	0.04	-	0.45	0.23	-	0.19	?	?

M.36 spider

M.36.1 spider-opt18-strips

Table M.51 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, spider, spider-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	0.34	0.34	0.15	0.00	0.00	?	0.08	0.08	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	0.03	0.03	0.06	0.31	0.31	?	0.00	0.00	-	?	?
p17	-	-	-	-	-	-	-	-	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	?
p19	-	-	-	-	-	-	-	-	-	?	?
p20	-	-	-	-	-	-	-	-	-	?	?

M.37 storage

M.37.1 storage

Table M.52 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, storage, storage

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	?
p14	-	-	-	-	-	-	-	-	-	?	?
p15	0.29	0.29	0.30	0.16	0.16	?	0.01	0.01	?	?	?
p16	-	-	-	-	-	-	-	-	-	?	
p17	-	-	-	-	-	-	-	-	-	?	
p18	-	-	-	-	-	-	-	-	-	?	
p19	-	-	-	-	-	-	-	-	-	?	
p20	-	-	-	-	-	-	-	-	-	?	
p21	-	-	-	-	-	-	-	-	-	?	
p22	-	-	-	-	-	-	-	-	-	?	
p23	-	-	-	-	-	-	-	-	-	?	
p24	-	-	-	-	-	-	-	-	-	?	
p25	-	-	-	-	-	-	-	-	-	?	
p26	-	-	-	-	-	-	-	-	-	?	
p27	-	-	-	-	-	-	-	-	-	?	
p28	-	-	-	-	-	-	-	-	-	?	
p29	-	-	-	-	-	-	-	-	-	?	
p30	-	-	-	-	-	-	-	-	-	?	

M.38 termes

M.38.1 termes-opt18-strips

Table M.53 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, termes, termes-opt18-strips

	10%			50%			90%			100%	
	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*$	$A^*_{+IDA}{}^*\uparrow$	$PEA^*_{+IDA}{}^*$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	-
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

M.39 tetris

M.39.1 tetris-opt14-strips

Table M.54 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, tetris, tetris-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01-10	-	-	-	-	-	-	-	-	-	?	-
p01-6	-	-	-	-	-	-	-	-	-	?	-
p01-8	-	-	-	-	-	-	-	-	-	?	-
p02-10	-	-	-	-	-	-	-	-	-	?	-
p02-4	-	-	-	-	-	-	-	-	-	?	?
p02-6	-	-	-	-	-	-	-	-	-	?	-
p02-8	-	-	-	-	-	-	-	-	-	?	?
p03-10	-	-	-	-	-	-	-	-	-	?	-
p03-4	-	-	-	-	-	-	-	-	-	?	?
p03-6	-	-	-	-	-	-	-	-	-	?	-
p03-8	-	-	-	-	-	-	-	-	-	?	-
p04-10	-	-	-	-	-	-	-	-	-	?	-
p04-6	-	-	-	-	-	-	-	-	-	?	-
p04-8	-	-	-	-	-	-	-	-	-	?	-
p05-10	-	-	-	-	-	-	-	-	-	?	-
p05-6	-	-	-	-	-	-	-	-	-	?	?
p05-8	-	-	-	-	-	-	-	-	-	?	-

M.40 tidybot

M.40.1 tidybot-opt11-strips

Table M.55 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, tidybot, tidybot-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	0.31	0.31	0.49	0.31	0.31	0.09	0.00	0.00	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	?
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	0.00	0.00	0.60	0.09	0.09	0.07	0.06	0.06	?	?	?
p13	0.18	0.18	0.06	0.12	0.12	0.16	0.11	0.11	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

M.40.2 tidybot-opt14-strips

Table M.56 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, tidybot, tidybot-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}{}^\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	-
p02	0.00	0.00	0.12	0.22	0.22	0.08	0.10	0.10	-	?	-
p03	0.22	0.22	0.52	0.03	0.03	0.09	0.08	0.08	?	?	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	0.08	0.08	0.01	0.11	0.11	0.06	0.07	0.07	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	?
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	0.00	0.00	0.60	0.09	0.09	0.07	0.06	0.06	?	?	?
p13	0.18	0.18	0.06	0.12	0.12	0.16	0.11	0.11	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

M.41 tpp

M.41.1 tpp

Table M.57 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, tpp, tpp

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	0.55	-	0.02	0.47	-	?	0.04	-	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

M.42 transport

M.42.1 transport-opt08-strips

Table M.58 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, transport, transport-opt08-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	-
p05	-	-	-	-	-	-	-	-	-	?	-
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	?
p22	-	-	-	-	-	-	-	-	-	?	?
p23	-	-	-	-	-	-	-	-	-	?	?
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

M.42.2 transport-opt11-strips

Table M.59 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, transport, transport-opt11-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

M.42.3 transport-opt14-strips

Table M.60 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, transport, transport-opt14-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	0.00	-	0.08	0.01	0.01	?	0.01	0.01	?	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	-	-	-	-	-	-	-	-	-	?	?
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	0.01	-	0.03	0.01	-	?	0.01	0.01	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

M.43 trucks

M.43.1 trucks-strips

Table M.61 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, trucks, trucks-strips

	10%			50%			90%			100%	
	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	$A^*_{+IDA^*}$	$A^*_{+IDA^*}\uparrow$	$PEA^*_{+IDA^*}$	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	0.00	0.00	0.34	0.09	0.09	?	0.01	0.01	?	?	?
p06	0.26	0.26	0.08	0.29	0.29	0.09	0.05	0.05	?	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	0.03	0.03	0.28	0.10	0.10	?	0.01	0.01	?	?	?
p09	0.00	0.00	0.17	0.06	0.06	?	0.00	0.00	?	?	?
p10	0.16	0.16	0.95	0.20	0.20	?	0.02	0.02	?	?	?
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	-
p23	-	-	-	-	-	-	-	-	-	?	-
p24	-	-	-	-	-	-	-	-	-	?	-
p25	-	-	-	-	-	-	-	-	-	?	-
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

M.44 visitall

M.44.1 visitall-opt11-strips

Table M.62 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, visitall, visitall-opt11-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
problem02-full	-	-	-	-	-	-	-	-	-	?	?
problem02-half	-	-	-	-	-	-	-	-	-	?	?
problem03-full	-	-	-	-	-	-	-	-	-	?	?
problem03-half	-	-	-	-	-	-	-	-	-	?	?
problem04-full	-	-	-	-	-	-	-	-	-	?	?
problem04-half	-	-	-	-	-	-	-	-	-	?	?
problem05-full	-	-	-	-	-	-	-	-	-	?	?
problem05-half	-	-	-	-	-	-	-	-	-	?	?
problem06-full	-	-	-	-	-	-	-	-	-	?	?
problem06-half	-	-	-	-	-	-	-	-	-	?	?
problem07-full	-	-	-	-	-	-	-	-	-	?	?
problem07-half	0.22	0.22	0.01	0.33	0.33	0.05	0.00	0.00	?	?	?
problem08-full	-	-	-	-	-	-	-	-	-	?	-
problem08-half	-	-	-	-	-	-	-	-	-	?	-
problem09-full	-	-	-	-	-	-	-	-	-	?	-
problem09-half	-	-	-	-	-	-	-	-	-	?	-
problem10-full	-	-	-	-	-	-	-	-	-	?	-
problem10-half	-	-	-	-	-	-	-	-	-	?	-
problem11-full	-	-	-	-	-	-	-	-	-	?	-
problem11-half	-	-	-	-	-	-	-	-	-	?	-

M.44.2 visitall-opt14-strips

Table M.63 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, visitall, visitall-opt14-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p-05-10	-	-	-	-	-	-	-	-	-	?	-
p-05-5	-	-	-	-	-	-	-	-	-	?	?
p-05-6	-	-	-	-	-	-	-	-	-	?	?
p-05-7	0.03	0.03	0.29	0.00	0.00	0.13	0.03	0.03	?	?	?
p-05-8	0.15	0.15	0.00	0.29	0.29	0.06	0.01	0.01	?	?	?
p-05-9	-	-	-	-	-	-	-	-	-	?	-
p-1-10	-	-	-	-	-	-	-	-	-	?	-
p-1-11	-	-	-	-	-	-	-	-	-	?	-
p-1-12	-	-	-	-	-	-	-	-	-	?	-
p-1-13	-	-	-	-	-	-	-	-	-	?	-
p-1-14	-	-	-	-	-	-	-	-	-	?	-
p-1-15	-	-	-	-	-	-	-	-	-	?	-
p-1-16	-	-	-	-	-	-	-	-	-	?	-
p-1-17	-	-	-	-	-	-	-	-	-	?	-
p-1-18	-	-	-	-	-	-	-	-	-	?	-
p-1-5	-	-	-	-	-	-	-	-	-	?	?
p-1-6	-	-	-	-	-	-	-	-	-	?	-
p-1-7	-	-	-	-	-	-	-	-	-	?	-
p-1-8	-	-	-	-	-	-	-	-	-	?	-
p-1-9	-	-	-	-	-	-	-	-	-	?	-

M.45 woodworking

M.45.1 woodworking-opt08-strips

Table M.64 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, woodworking, woodworking-opt08-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	0.04	0.04	0.78	0.22	0.22	?	0.19	0.19	?	?	?
p04	0.01	-	0.19	0.02	-	?	0.01	0.01	?	?	?
p05	0.01	0.01	?	0.09	0.09	?	0.04	0.04	?	?	?
p06	-	-	-	-	-	-	-	-	-	?	-
p07	0.00	0.00	?	0.01	0.01	?	0.00	0.00	?	?	-
p08	-	-	-	-	-	-	-	-	-	?	-
p09	-	-	-	-	-	-	-	-	-	?	-
p10	-	-	-	-	-	-	-	-	-	?	?
p11	-	-	-	-	-	-	-	-	-	?	?
p12	-	-	-	-	-	-	-	-	-	?	?
p13	0.00	0.00	0.13	0.14	0.14	?	0.02	0.02	?	?	?
p14	0.03	0.03	0.01	0.06	0.06	?	0.05	0.05	?	?	?
p15	-	-	-	-	-	-	-	-	-	?	?
p16	-	-	-	-	-	-	-	-	-	?	?
p17	0.00	0.00	?	0.00	0.00	?	0.06	0.06	-	?	?
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-
p21	-	-	-	-	-	-	-	-	-	?	-
p22	-	-	-	-	-	-	-	-	-	?	?
p24	0.01	0.01	?	0.07	0.07	?	0.01	0.01	?	?	?
p25	0.37	0.37	0.91	0.41	0.41	?	0.30	0.30	?	?	?
p26	-	-	-	-	-	-	-	-	-	?	-
p27	-	-	-	-	-	-	-	-	-	?	-
p28	-	-	-	-	-	-	-	-	-	?	-
p29	-	-	-	-	-	-	-	-	-	?	-
p30	-	-	-	-	-	-	-	-	-	?	-

M.45.2 woodworking-opt11-strips

Table M.65 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, woodworking, woodworking-opt11-strips

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	0.00	0.00	0.13	0.14	0.14	?	0.02	0.02	?	?	?
p04	0.04	0.04	0.78	0.22	0.22	?	0.19	0.19	?	?	?
p05	0.01	0.01	?	0.07	0.07	?	0.01	0.01	?	?	?
p06	0.01	-	0.19	0.02	-	?	0.01	0.01	?	?	?
p07	0.03	0.03	0.01	0.06	0.06	?	0.05	0.05	?	?	?
p08	0.37	0.37	0.91	0.41	0.41	?	0.30	0.30	?	?	?
p09	0.01	0.01	?	0.09	0.09	?	0.04	0.04	?	?	?
p10	-	-	-	-	-	-	-	-	-	?	-
p11	-	-	-	-	-	-	-	-	-	?	-
p12	-	-	-	-	-	-	-	-	-	?	-
p13	-	-	-	-	-	-	-	-	-	?	-
p14	-	-	-	-	-	-	-	-	-	?	-
p15	0.00	0.00	?	0.00	0.00	?	0.06	0.06	?	?	?
p16	0.00	0.00	?	0.01	0.01	?	0.00	0.00	?	?	?
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-

M.46 zenotravel

M.46.1 zenotravel

Table M.66 – Ratio of Minimally F-Evalued Nodes in `Open` when Phase Changes, zenotravel, zenotravel

	10%			50%			90%			100%	
	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*+IDA*	A^*+IDA*↑	PEA*+IDA*	A^*	Blind A^*
p01	-	-	-	-	-	-	-	-	-	?	?
p02	-	-	-	-	-	-	-	-	-	?	?
p03	-	-	-	-	-	-	-	-	-	?	?
p04	-	-	-	-	-	-	-	-	-	?	?
p05	-	-	-	-	-	-	-	-	-	?	?
p06	-	-	-	-	-	-	-	-	-	?	?
p07	-	-	-	-	-	-	-	-	-	?	?
p08	0.04	0.04	?	0.20	0.20	?	0.09	0.09	?	?	?
p09	0.01	0.01	0.02	0.08	0.08	?	0.01	0.01	?	?	?
p10	0.37	0.37	?	0.04	0.04	?	0.00	0.00	?	?	?
p11	0.30	0.30	?	0.03	0.03	?	0.00	0.00	?	?	?
p12	0.32	0.32	?	0.03	0.03	?	0.00	0.00	?	?	?
p13	0.18	0.18	?	0.02	0.02	?	0.00	0.00	?	?	?
p14	-	-	-	-	-	-	-	-	-	?	-
p15	-	-	-	-	-	-	-	-	-	?	-
p16	-	-	-	-	-	-	-	-	-	?	-
p17	-	-	-	-	-	-	-	-	-	?	-
p18	-	-	-	-	-	-	-	-	-	?	-
p19	-	-	-	-	-	-	-	-	-	?	-
p20	-	-	-	-	-	-	-	-	-	?	-