	Optimal SEO INC. SEO																										
		Γ^{LP}			Γ^{μ} Γ^{ϵ}			$h_{\Omega}^{ m SEQ}$				$h_{\Omega}^{ m LMC}$			$h_{\Omega}^{ ext{PhO}}$			$h_{\Omega}^{ m SEQ}, h_{\Omega}^{ m LMC}$			$h_{\Omega}^{\mathrm{LMC}}, h_{\Omega}^{\mathrm{PhO}}$			$h_{\Omega}^{ ext{SEQ}}, h_{\Omega}^{ ext{PhO}}$			
# %	Py	h	Total	Py	h	Total	Py	h	Total	Py	h	Total	Py	h	Total	Py	h	Total	Py	h	Total	Py	h	Total	Py	h	Total
S 30						4.165 4.167																					
× 70	0.024	0.189	4.168	0.026	0.191	4.171 4.171	0.023	0.194	4.175	0.025	0.077	4.052	0.025	0.047	4.031	0.023	0.153	4.128	0.023	0.086	4.061	0.026	0.147	4.122	0.026	0.198	4.178
m 100	0.025	0.188	4.165	0.027	0.188	4.162	0.025	0.197	4.177	0.026	0.078	4.056	0.024	0.047	4.033	0.025	0.15	4.124	0.024	0.087	4.068	0.025	0.147	4.123	0.025	0.193	4.174
2 10 30						1.728 1.726																					
0E 50 70	0.01	0.075	1.724	0.008	0.075	1.724 1.724	0.011	0.075	1.728	0.008	0.034	1.685	0.01	0.018	1.671	0.008	0.056	1.706	800.0	0.036	1.687		0.06				1.729 1.728
100	0.008	0.075	1.726	0.009	0.074	1.725	0.01	0.075	1.724	0.01	0.034	1.684	0.01	0.018	1.675	0.012	0.056	1.71	0.009	0.036	1.687	0.009	0.06	1.714	0.01	0.073	1.724
50 10 30 50	0.007	0.039	1.306	0.008	0.038	1.305 1.305	0.009	0.039	1.302	0.008	0.023	1.291	0.007	0.015	1.288	0.01	0.025	1.294	800.0	0.026	1.296	0.008	0.028	1.298	0.007	0.035	
E 50 ≥ 70						1.304 1.304																		1.299			1.303 1.305
≧ 100 10	0.009	0.038	1.304	0.01	0.038	1.303	0.007	0.04	1.305	0.009	0.023	1.295	0.008	0.015	1.29	0.009	0.024	1.294	0.007	0.025	1.296	0.008	0.028	1.3	0.008	0.036	1.307
≥ 30	0.009	0.068	1.516	0.008	0.067	1.514	0.01	0.071	1.519	0.008	0.03	1.48	0.008	0.017	1.484	0.005	0.048	1.498	0.01	0.034	1.484	0.009	0.05	1.499	0.008	0.064	1.513
≥ 50 70	0.009	0.066	1.515	0.01	0.067	1.515 1.516	0.008	0.072	1.521	0.01	0.029	1.48	0.009	0.017	1.468	0.009	0.047	1.498	0.007	0.034	1.482	0.006	0.049	1.499	0.009	0.062	
10						1.515																					
₩ 30	0.01	0.125	1.692	0.012	0.125	1.692 1.694	0.011	0.126	1.692	0.01	0.025	1.594	0.009	0.018	1.585	0.01	0.108	1.677	0.011	0.028	1.595	0.009	0.112	1.682	0.01	0.123	1.694
වි 50 වූ 70	0.012	0.125	1.692	0.011	0.124	1.692	0.01	0.126	1.694	0.01	0.026	1.595	0.011	0.018	1.589	0.012	0.107	1.675	0.01	0.029	1.598	0.009	0.111	1.68	0.01	0.123	1.694 1.694
= 100						1.693																					1.694
≥ 30 50	0.009	0.029	1.153	0.007	0.03	1.155	0.009	0.029	1.153	0.008	0.017	1.148	0.009	0.014	1.146	0.007	0.024		0.01	0.019	1.148	0.007	0.024	1.152	0.007	0.03	1.158
₽ 70	0.009	0.029	1.155	0.01	0.029	1.153	0.008	0.03	1.154	0.007	0.018	1.147	0.007	0.014	1.145	0.01	0.024	1.152	0.009	0.02	1.151	0.009	0.024	1.153	0.009	0.031	1.16
v 100 ∞ 10						1.157																					
30 50						1.931 1.934															1.92						
5 70	0.012	0.053	1.933	0.013	0.053	1.93	0.013	0.055	1.934	0.012	0.035	1.916	0.013	0.024	1.91	0.012	0.034	1.917	0.01	0.04	1.92	0.012	0.036	1.921	0.012	0.051	1.931
100	0.008	0.036	1.214	0.008	0.036	1.931	0.008	0.037	1.212	0.009	0.021	1.201	0.009	0.015	1.195	0.008	0.025	1.204	0.008	0.026	1.205	0.007	0.026	1.205	0.009	0.037	1.214
30 50	0.007	0.036	1.212	0.009	0.037	1.212 1.214	0.009	0.038	1.214	0.007	0.021	1.199	0.009	0.015	1.195	0.007	0.025	1.203	0.007	0.026	1.202	0.008	0.027	1.207			1.216 1.216
∑ 70 100	0.008	0.036	1.214	0.008	0.037	1.215 1.215	0.009	0.039	1.212	0.008	0.022	1.202	0.008	0.015	1.196	0.008	0.025	1.204	0.007	0.026	1.205	0.006	0.027	1.206	0.008	0.037	1.217
100	0.007	0.025	1.292	0.006	0.025	1.289	0.008	0.025	1.289	0.008	0.014	1.283	0.008	0.012	1.284	0.007	0.02	1.288	0.01	0.016	1.282	0.006	0.022	1.288	0.007	0.024	1.289
SE 30						1.29 1.292																					
∑ 70 100	0.007	0.025	1.29	0.007	0.025	1.29 1.293	0.008	0.026	1.29	0.007	0.014	1.282	0.006	0.013	1.28	0.007	0.021	1.288	800.0	0.017	1.282	0.008	0.022	1.291		0.024	1.291
ш 10	0.007	0.03	1.111	0.009	0.029	1.109	0.009	0.029	1.108	0.007	0.016	1.1	0.008	0.012	1.095	0.006	0.022	1.105	0.006	0.019	1.102	0.007	0.022	1.105	0.006	0.028	1.11
30 50						1.109 1.11																					
E 70		0.029				1.11 1.112			1.108									1.106									1.111
z 100	0.015	0.641	3.087	0.013	0.641	3.089	0.013	0.642	3.088	0.013	0.089	2.534	0.013	0.029	2.473	0.013	0.273	2.72	0.013	0.155	2.605	0.012	0.298	2.744	0.013	0.597	3.05
80 50 50	0.012	0.536	2.985	0.014	0.536	3.018 2.983	0.012	0.66	3.108	0.014	0.087	2.533	0.013	0.029	2.475	0.013	0.264	2.714	0.01	0.134	2.58	0.013	0.283	2.737	0.014	0.5	2.955
S 70	0.013	0.508	2.958 2.941	0.014	0.509	2.957 2.944	0.014 0.013	0.654	3.105 3.111	$0.014 \\ 0.012$	0.085 0.087	2.532 2.536	$0.013 \\ 0.012$	0.029	2.472 2.475	0.011	0.257 0.253	2.707 2.702	0.014 0.014	0.131	2.577 2.578	0.012	0.274 0.27	2.723 2.729	0.013	0.475	2.926 2.918
10	0.006	0.047	1.4	0.007	0.048	1.401 1.398	0.008	0.047	1.399	0.006	0.027	1.379	0.007	0.015	1.368	0.007	0.027	1.38	0.007	0.031	1.382	0.008	0.031	1.385	0.007	0.043	1.397
OZ 30 50	0.008	0.046	1.401	0.007	0.046	1.398	0.007	0.047	1.398	0.006	0.027	1.379	0.009	0.015	1.368	0.006	0.027	1.378	800.0	0.03	1.384	0.007	0.031	1.385	0.006	0.043	1.395
70 100						1.399 1.399																					
			-			1.792			-						-												
								-																			

Table 1: Times spent on Python layer (Py), Fast-Downward preprocess (FD) and actual LP-solving (LP), on optimal dataset.

			Sub-Optimal																		
$\Gamma^{ ext{LP}}$		Γ^{μ}	Г	Γ^{ϵ} $h_{\Omega}^{ ext{SEQ}}$			$h_{\Omega}^{ m LMC}$			$h_{\Omega}^{\mathrm{PhO}}$		$h_{\Omega}^{\mathrm{SEQ}}, h_{\Omega}^{\mathrm{LMC}}$			$h_{\Omega}^{\mathrm{LMC}}, h_{\Omega}^{\mathrm{PhO}}$			$h_{\Omega}^{\rm SEQ}, h_{\Omega}^{\rm PhO}$		PhO Ω	
# % Py h To	tal Py	h Tota	al Py l	Total	Py h	Total	Py	h	Total	Py	h	Total	Py	h	Total	Py	h	Total	Py	h	Total
# % Py h To	165 0.025 166 0.024 166 0.026 167 0.025 167 0.025 127 0.01 126 0.008 127 0.01 126 0.009 130 0.008 100 0.009 101 0.00	No. Total	N	Total 91 4.165 93 4.165 96 4.171 97 4.166 97 4.166 97 4.166 1.727 76 1.727 77 1.727 73 1.304 39 1.304 39 1.304 39 1.304 39 1.304 39 1.304 25 1.693 25 1.693 25 1.693 26 1.695 29 1.698 29 1.698 29 1.698	Py	Total 5 4.048 7 4.053 7 4.056 8 4.057 8 4.056 5 1.685 4 1.685 5 1.688 4 1.685 5 1.688 3 1.292 3 1.294 3 1.294 3 1.294 3 1.294 3 1.294 5 1.477 8 1.478 8 1.477 5 1.592 6 1.593 6 1.593 6 1.593 6 1.593 6 1.593 6 1.593 6 1.593 7 1.147 7 1.149	Py 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.011 0.01 0.01 0.01 0.007 0.006 0.008 0.008 0.008 0.008 0.008 0.009 0.001 0.011 0.011 0.011 0.011 0.011 0.011 0.007 0.008	\$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} 0.046 & 0.046 & 0.046 & 0.047 & 0.048 & 0.018 & 0.018 & 0.018 & 0.018 & 0.015 & 0.015 & 0.015 & 0.015 & 0.015 & 0.015 & 0.016 & 0.016 & 0.016 & 0.016 & 0.016 & 0.016 & 0.018 & 0.018 & 0.018 & 0.018 & 0.018 & 0.018 & 0.018 & 0.018 & 0.018 & 0.018 & 0.018 & 0.010 & 0.014 & 0	4.031 4.029 4.027 4.036 1.671 1.674 1.673 1.675 1.289 1.287 1.289 1.287 1.29 1.465 1.468 1.463 1.583 1.583 1.583 1.583 1.583 1.583 1.583 1.583 1.583 1.584 1.583 1.584 1.583 1.584 1.584 1.584 1.585 1.586 1.586 1.586 1.586 1.587 1.588 1.142 1.142 1.142 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1442 1.1443	0.025 0.025 0.025 0.024 0.009 0.009 0.007 0.007 0.008 0.011 0.009 0.008 0.008 0.008 0.009 0.008 0.009 0.008 0.009 0.000	h 0.157 0.154 0.151 0.059 0.056 0.055 0.056 0.025 0.02	4.132 4.125 4.126 4.126 4.126 1.711 1.706 1.704 1.707 1.297 1.297 1.295 1.297 1.295 1.498 1.497 1.675 1.676 1.676 1.676 1.151	Py 0.025 0.025 0.025 0.023 0.025 0.025 0.023 0.025 0.01 0.01 0.01 0.009 0.001 0.009 0.009 0.000	h 0.087 0.087 0.086 0.087 0.036 0.036 0.036 0.036 0.036 0.026 0.026 0.026 0.026 0.026 0.026 0.026 0.026 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.036 0.03	Total 4.066 4.063 4.061 4.068 4.068 1.687 1.688 1.689 1.296 1.296 1.296 1.296 1.296 1.296 1.296 1.297 1.482 1.482 1.482 1.482 1.482 1.595 1.598 1.598 1.598 1.598 1.598 1.151 1.511 1.512 1.512 1.515	0.024 0.025 0.025 0.029 0.027 0.026 0.008 0.009 0.01 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.009 0.01 0.009 0.01 0.009 0.009 0.01 0.009 0.000 0.00	0.149 0.147 0.147 0.147 0.062 0.06 0.06 0.028 0.028 0.028 0.028 0.028 0.028 0.028 0.028 0.029 0.010 0.05 0.05 0.05 0.06 0.06 0.06 0.06 0.0	1.04 4.127 4.124 4.124 4.124 4.124 4.124 4.124 4.124 1.712 1.713 1.712 1.713 1.712 1.715 1.298 1.301 1.299 1.5 1.497 1.5 1.498 1.682 1.682 1.681 1.681 1.681 1.681 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.156 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1.153 1.154 1	Py	h 0.2 0.197 0.195 0.194 0.073 0.073 0.035 0.035 0.035 0.035 0.035 0.035 0.064 0.035 0.062 0.123 0.123 0.123 0.123 0.012 0.012 0.035	4.179 4.177 4.176 4.177 4.176 4.171 1.728 4.171 1.728 1.726 1.726 1.726 1.304 1.305 1.305 1.513 1.513 1.515 1.513 1.515 1.694 1.694 1.158
## 70 0.008 0.03 1.1	154 (0.09) 129 (0.014) 131 (0.011) 132 (0.011) 133 (0.013) 131 (0.013) 131 (0.013) 131 (0.013) 131 (0.013) 131 (0.013) 131 (0.013) 131 (0.013) 132 (0.006) 132 (0.006) 133 (0.008) 134 (0.006) 135 (0.006) 135 (0.006) 136 (0.007) 140 (0.006) 150 (0.006) 150 (0.006) 151 (0.006) 151 (0.006) 152 (0.006) 153 (0.007) 154 (0.007) 155 (0.007) 156 (0.007) 157 (0.007) 158 (0.007) 159 (0.	0.03 1.15 0.053 1.99 0.053 1.90 0.053 1.90 0.054 1.93 0.054 1.93 0.053 1.92 0.054 1.93 0.053 1.92 0.057 1.21 0.037 1.21 0.037 1.22 0.037 1.22 0.037 1.20 0.037 1.20 0.037 1.20 0.037 1.20 0.037 1.20 0.037 1.20 0.037 1.20 0.035 1.25 0.025 1.25 0.025 1.25 0.025 1.20 0	66 0.007 0.007 0.007 0.008 0.00 90 0.013 0.001 0.00 40 0.012 0.00 90 0.013 0.00 90 0.012 0.00 90 0.012 0.00 90 0.0	32 1.155 \$55 1.932 \$54 1.932 \$54 1.932 \$54 1.933 \$55 1.935 \$55 1.935 \$57 1.937 \$37 1.213 \$38 1.214 \$44 1.216 \$44 1.216 \$44 1.216 \$44 1.216 \$44 1.216 \$45 1.296 \$26 1.291 \$26 1.291 \$26 1.291 \$26 1.291 \$29 1.111 \$31 1.112 \$31 1.114 \$31 1.114 \$31 1.114 \$31 1.114 \$31 1.114 \$31 1.114 \$31 1.114 \$31 1.114 \$31 1.114 \$47 1.402 \$47 1.402 \$47 1.402 \$47 1.402 \$48 1.406	0.007 0.01	8 1.152 5 1.919 6 1.921 6 1.921 5 1.919 5 1.918 1 1.2 2 1.201 1 1.202 2 1.2 4 1.282 4 1.283 5 1.284 4 1.284 6 1.099 7 1.102 7 1.102 7 1.102 7 1.102 7 1.103 8 2.531 6 2.532 6 2.533 1 2.537 7 1.381 7 1.381 7 1.381 7 1.381 7 1.381 7 1.381	0.009 0.012 0.013 0.013 0.011 0.008 0.008 0.009 0.005 0.007 0.008 0.007 0.008 0.009 0.007 0.008 0.009 0.007 0.008 0.009 0.	0.015 0.023 0.024 0.024 0.024 0.015 0.015 0.015 0.015 0.016 0.012 0.013 0.013 0.013 0.013 0.013 0.013 0.013 0.013 0.013 0.013 0.019 0.029 0.029 0.029 0.029 0.029 0.029 0.029 0.014 0.015 0.015 0.015 0.01000 0.0100 0.0100 0.0100 0.0100 0.0100 0.0100 0.0100 0.0100 0.0100	1.147 1.908 1.911 1.912 1.912 1.912 1.191 1.197 1.194 1.197 1.194 1.197 1.194 1.197 1.194 1.197 1.194 1.281 1.281 1.281 1.281 1.281 1.281 1.281 1.281 1.281 1.281 1.367 1.1096 1.097 1.101 1.099 2.4744 2.473 2.474 2.474 1.367 1.367 1.367	0.008 0.011 0.012 0.013 0.012 0.003 0.008 0.008 0.008 0.007 0.007 0.007 0.008 0.008 0.008 0.008 0.008 0.0007 0.007 0.008 0.008 0.008 0.008 0.008 0.008 0.009 0.007 0.007 0.008 0.008 0.008 0.008 0.008 0.008 0.009 0	0.025 0.034 0.033 0.034 0.033 0.034 0.025 0.025 0.025 0.025 0.025 0.026 0.021 0.022 0.021 0.022 0.021 0.022 0.021 0.022 0.021 0.022 0.021 0.025 0.026 0.027 0.027 0.027	1.155 1.917 1.917 1.917 1.915 1.917 1.915 1.203 1.204 1.205 1.202 1.205 1.202 1.205 1.286 1.286 1.288 1.29 1.104 1.102 1.104 2.721 2.716 2.707 2.702 2.714 1.381 1.381 1.381	0.009 0.011 0.012 0.013 0.006 0.009 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.009 0.008 0.009 0.	0.02 0.04 0.041 0.041 0.026 0.026 0.026 0.026 0.026 0.017 0.017 0.017 0.019 0.019 0.0135 0.133 0.0	1.152 1.919 1.924 1.921 1.922 1.205 1.206 1.204 1.206 1.204 1.208 1.285 1.283 1.283 1.103 1.102 1.102 2.598 2.582 2.599 2.582 1.383 1.383	0.007 0.012 0.011 0.012 0.011 0.013 0.008 0.007 0.007 0.007 0.008 0.009 0.009 0.009 0.001 0.	0.025 0.035 0.035 0.036 0.036 0.036 0.037 0.027 0.026 0.026 0.026 0.026 0.026 0.021 0.021 0.021 0.022	1.156 1.917 1.916 1.918 1.917 1.916 1.918 1.204 1.203 1.204 1.206 1.206 1.286 1.288 1.289 1.287 1.105 1.107 1.108 2.745 2.735 2.732 2.732 2.732 2.732 2.732 2.732 2.732 3.1383 1.383 1.383	0.006	0.031 0.052 0.051 0.051 0.051 0.051 0.037 0.037 0.037 0.037 0.023 0.023 0.023 0.023 0.023 0.024 0.025 0.026 0.027 0.037 0.037 0.037 0.037 0.037 0.037 0.037 0.037 0.037 0.037 0.037 0.037 0.044 0.	1.16 1.928 1.933 1.933 1.215 1.217 1.216 1.218 1.219 1

Table 2: Times spent on Python layer (Py), Fast-Downward preprocess (FD) and actual LP-solving (LP), on sub-optimal dataset.