Online Supplement to: Branch-and-Cut for Linear Programs with Overlapping SOS1 Constraints

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This document provides supplementary material for the article "Branch-and-Cut for Linear Programs with Overlapping SOS1 Constraints". It reports on experiments for each individual instance of nine instance sets denoted as MFPC type 1–3, TPESC type 1–3 and CKPC type 1–3. In the article this data is provided only in an aggregated form.

For our implementation, we used SCIP 3.1.1 as framework and CPLEX 12.6 as LP solver. We compare its performance to the MIP-solvers CPLEX 12.6 and SCIP 3.1.1 with default setting. For the experiments with our implementation, we made use of individual settings that are listed in Tables 1–4. These individual settings take precedence over the following common setting:

- Use most infeasible branching as a selection rule (see Section 2.5.1).
- Add (strengthened) bound inequalities (see Section 5.2) during the separation phase at the root node; all the other cutting planes are turned off.

In Tables 1–4, the term "B-<branching>" takes the choice from "B-neigh" and "B-bip", stating whether neighborhood or bipartite branching is used. Moreover, "B-<branching>-favor" refers to one of the two favorite settings in Table 3. Especially for the experiments with settings from Tables 1–3, we initialized the algorithm with a precomputed optimal solution in order to eliminate the impact of heuristics on the performance.

Tables 5–230 show the results of SCIP and CPLEX on our instance sets. We apply both to a formulation with SOS1 constraints and a formulation as MIP with packing constraints. The resulting four variants are denoted as "SCIP-SOS1", "SCIP-MIP",

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Table 1: Settings for branching experiments

shortcut	explanation
B-SOS1	use SOS1 branching (Section 2.1)
B-neigh	use neighborhood branching (Section 2.2)
B-bip	use bipartite branching (Section 2.3)
B-nonzero	use nonzero fixing (Section 2.4.1)
B-\<branching\>-comp	add complementarity constraints (Section 2.4.2)
B-\<branching\>-strong	use strong branching (Section 2.5.2)

Table 2: Settings for cutting plane experiments

shortcut	explanation
B-\<branching\>-noC-bds	no use of bound cuts and strengthened bound cuts (Section 5.2)
B-\<branching\>-noC-strBds	no use of strengthened bound cuts
B-\<branching\>-C-bds10	use bound cuts separated with a node-depth frequency of 10
B-\<branching\>-C-edge	use disjunctive cuts w.r.t. edges (Section 5.1.1)
B-\<branching\>-C-neigh	use disjunctive cuts w.r.t. neighborhoods (Section 5.1.1)
B-\<branching\>-C-clique	use disjunctive cuts w.r.t. cliques (Section 5.1.1)
B-\<branching\>-C-bip	use disjunctive cuts w.r.t. bipartite subgraphs (Section 5.1.1)
B-\<branching\>-C-box	use disjunctive cuts w.r.t. boxes (Section 5.1.2)
B-\<branching\>-C-cover	use cover cuts (Section 5.3)

Table 3: Favorite branching and cutting plane settings

shortcut	explanation
B-neigh-favor	combination of B-neigh, C-bds10, and C-edge
B-bip-favor	combination of B-bip-comp, C-bds10, and C-edge

Table 4: Settings for experiments with primal heuristics

shortcut	explanation
B-\<branching\>-favor-H-none	all heuristics are turned off
B-\<branching\>-favor-H-MWIS	use MWIS-fixing heuristic (Section 4.2)
B-\<branching\>-favor-H-viol	use violation diving heuristic (Section 4.1)
B-\<branching\>-favor-H-obj	use objective shift diving heuristic (Section 4.1)
B-\<branching\>-favor-H-frac	use fractional diving heuristic (Section 4.1)
B-\<branching\>-favor-H-frac-LS	use fractional diving combined with local search (Section 4.3)

"CPLEX-SOS1", and "CPLEX-MIP", where "SCIP-SOS1" denotes our implementation. In the first columns of the tables, we list the number of constraints (column "conss") and variables (column "vars") of each instance. There are also columns for the number of nodes and the CPU time that was needed to solve each instance within time and memory limits. If a limit was reached, this is indicated by ">", in the tables. The remaining columns show the primal and dual bound after the computation has terminated as well as the relative gap between them[1]. The geometric and shifted geometric means of the nodes and the CPU time are given at the bottom of each table.

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[1] We define the gap between primal bound p and dual bound d as $100 \cdot |p - d| / \min(|d|, |p|)$.

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Table 5: MFPC type 1 using SCIP-SOS1 with B-SOS1 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.42099248	7.30525778	1.6	>3329932	>7200.0
MFPC2_sos1	1789	723	10.4260864	10.1678231	2.5	>1644785	>7200.0
MFPC3_sos1	1584	643	11.6010329	11.2347407	3.3	>3576458	>7200.0
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	2372795	3899.7
MFPC5_sos1	1868	819	8.18094303	7.97645453	2.6	>1803867	>7200.0
MFPC6_sos1	2680	1027	12.0265433	12.0121565	0.1	>1088124	>7200.0
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	304641	900.2
MFPC8_sos1	1631	667	9.6394754	9.40050488	2.5	>3317057	>7200.0
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	495405	1427.3
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	1418429	2864.8
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.4514565	11.0981158	3.2	>1861154	>7200.0
MFPC14_sos1	1639	635	12.7492798	12.6480591	0.8	>4452370	>7200.0
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	786671	2828.7
MFPC16_sos1	2102	795	8.75433988	8.70486733	0.6	>1874473	>7200.0
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	469315	747.5
MFPC18_sos1	1792	755	8.35042237	8.33164376	0.2	>2200621	>7200.0
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	1484027	5305.7
MFPC20_sos1	1903	763	10.4007362	10.2750971	1.2	>2382995	>7200.0
Total (20)						34863121	97175.7
Geom. Mean						374156	1913.7
Shifted Geom.						593535	2426.2

Table 6: MFPC type 2 using SCIP-SOS1 with B-SOS1 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.55862978	3.18230611	11.8	>2206829	>7200.0
MFPC22_sos1	2906	1187	9.29323619	9.29113902	0.0	>1489504	>7200.0
MFPC23_sos1	2619	1115	5.07606134	5.05802475	0.4	>2102915	>7200.0
MFPC24_sos1	2562	979	4.9808827	4.92492471	1.1	>1720195	>7200.0
MFPC25_sos1	2818	1115	5.45419532	5.25082809	3.9	>1590673	>7200.0
MFPC26_sos1	2256	883	5.21618107	3.48028547	49.9	>5326775	>7200.0
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.15615705	3.14212	0.4	>6245298	>7200.0
MFPC29_sos1	1963	843	4.39296187	4.39231668	0.0	>4854116	>7200.0
MFPC30_sos1	2105	858	7.25229052	7.16405867	1.2	>2804126	>7200.0
MFPC31_sos1	2402	931	5.02049539	5.01402664	0.1	>2964818	>7200.0
MFPC32_sos1	2570	1059	7.42729544	7.41549952	0.2	>2004727	>7200.0
MFPC33_sos1	2537	987	4.24454879	4.02050856	5.6	>2491793	>7200.0
MFPC34_sos1	2834	1003	3.66037218	3.5099289	4.3	>2587966	>7200.0
MFPC35_sos1	2944	1163	6.62601908	5.42068136	22.2	>2429732	>7200.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.15840802	5.07695537	1.6	>1460092	>7200.0
MFPC38_sos1	2227	915	5.59119979	5.48576878	1.9	>2748356	>7200.0
MFPC39_sos1	2825	1090	7.36098028	7.2932222	0.9	>1419328	>7200.0
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	1103929	5171.6
Total (20)						47551174	127572.4
Geom. Mean						543267	2913.5
Shifted Geom.						861814	3675.7

Table 7: MFPC type 3 using SCIP-SOS1 with B-SOS1 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	10.523759	9.5409649	10.3	>796054	>7200.0
MFPC42_sos1	5622	2083	14.4145194	13.9815541	3.1	>476161	>7200.0
MFPC43_sos1	4673	1651	10.2283273	9.93746071	2.9	>733878	>7200.0
MFPC44_sos1	5201	1883	10.7164475	10.4384517	2.7	>686851	>7200.0
MFPC45_sos1	4936	1907	12.1170706	10.2351101	18.4	>881152	>7200.0
MFPC46_sos1	5585	2083	12.9263861	12.88126	0.4	>591456	>7200.0
MFPC47_sos1	5689	2051	10.9660916	10.6082545	3.4	>424306	>7200.0
MFPC48_sos1	7200	2491	14.4276986	13.9491637	3.4	>401653	>7200.0
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	198447	4468.7
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	48895	977.5
MFPC51_sos1	5470	1987	11.1719863	10.7528965	3.9	>436424	>7200.0
MFPC52_sos1	5866	2131	12.996722	12.1474501	7.0	>554914	>7200.0
MFPC53_sos1	5753	2235	16.0844351	15.3807411	4.6	>328546	>7200.0
MFPC54_sos1	6091	2147	13.2394157	12.8116036	3.3	>447287	>7200.0
MFPC55_sos1	5281	1843	11.0183045	10.5328543	4.6	>860581	>7200.0
MFPC56_sos1	5081	1875	11.0377083	10.8350684	1.9	>936847	>7200.0
MFPC57_sos1	6202	2219	18.3461316	17.8152677	3.0	>405523	>7200.0
MFPC58_sos1	5592	2019	14.9646684	14.7324895	1.6	>538769	>7200.0
MFPC59_sos1	6392	2331	10.1597322	9.51780982	6.7	>367154	>7200.0
MFPC60_sos1	5272	1979	8.03298511	7.70246013	4.3	>343191	>7200.0
Total (20)						10458089	135046.2
Geom. Mean						452593	6362.3
Shifted Geom.						452631	6364.2

Table 8: MFPC type 1 using SCIP-SOS1 with B-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	218011	478.9
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	59417	272.9
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	55545	113.0
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	79555	126.9
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	9921	45.3
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	23823	155.3
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	34891	103.5
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	64737	145.0
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	58071	168.4
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	11019	22.2
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	30823	136.1
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	70489	110.3
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	18543	70.3
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	23115	105.2
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	15443	23.6
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	28423	100.3
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	20911	75.5
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	25571	76.5
Total (20)						848310	2331.0
Geom. Mean						12065	63.5
Shifted Geom.						19106	79.7

Table 9: MFPC type 2 using SCIP-SOS1 with B-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	492215	2073.0
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	35905	167.4
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	318933	1266.2
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	65685	292.9
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	533359	2590.0
MFPC26_sos1	2256	883	4.5517406	3.48028547	30.8	>5688106	>7200.0
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	524371	655.6
MFPC29_sos1	1963	843	4.39265742	4.39231668	0.0	>3937754	>7200.0
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	131487	391.1
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	596089	1653.8
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	102345	392.0
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	429181	1535.9
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	585489	1968.4
MFPC35_sos1	2944	1163	6.49985712	5.42068136	19.9	>2183956	>7200.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.3
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	119211	657.0
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	112785	350.0
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	38189	214.9
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	46247	202.5
Total (20)						15941309	36011.4
Geom. Mean						83029	489.6
Shifted Geom.						131716	618.9

Table 10: MFPC type 3 using SCIP-SOS1 with B-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	10.2287326	9.5409649	7.2	>1014931	>7200.0
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	44975	658.5
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	53361	544.1
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	200001	2327.2
MFPC45_sos1	4936	1907	11.4036889	10.2351101	11.4	>1102085	>7200.0
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	36295	434.3
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	46169	899.1
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	27841	449.8
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	5321	118.8
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	2181	46.0
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	107989	1689.9
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	453451	5455.3
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	136203	2532.8
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	105665	1604.0
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	192011	1673.2
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	207093	1766.1
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	39825	807.1
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	50913	684.1
MFPC59_sos1	6392	2331	9.98257085	9.51780982	4.9	>427913	>7200.0
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	79813	1724.6
Total (20)						4334036	45014.8
Geom. Mean						86609	1188.2
Shifted Geom.						86885	1204.5

Table 11: MFPC type 1 using SCIP-SOS1 with B-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	279071	611.1
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	55099	263.8
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	69765	146.7
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	94199	156.1
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	10309	50.8
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	27473	186.5
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	35979	115.6
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	73763	179.2
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	60705	183.3
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	14947	31.1
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	37529	185.9
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	93063	154.6
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	22605	88.7
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	33903	148.6
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	15663	24.9
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	26893	98.3
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	28495	109.6
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	32009	102.1
Total (20)						1011472	2838.5
Geom. Mean						13884	76.1
Shifted Geom.						21991	95.7

Table 12: MFPC type 2 using SCIP-SOS1 with B-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	906609	3849.8
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	42929	207.4
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	707437	2805.5
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	90181	405.0
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	657161	3376.9
MFPC26_sos1	2256	883	4.39846293	3.48028547	26.4	>5320800	>7200.0
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	430939	555.5
MFPC29_sos1	1963	843	4.39270798	4.39231668	0.0	>3959024	>7200.0
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	118011	360.3
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	618319	1772.0
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	158925	650.1
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	924923	3439.9
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	239769	854.1
MFPC35_sos1	2944	1163	6.34915695	5.42068136	17.1	>2041926	>7200.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	133841	749.7
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	87447	274.1
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	57901	344.8
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	41293	195.6
Total (20)						16537437	41441.6
Geom. Mean						92659	564.3
Shifted Geom.						146992	713.5

Table 13: MFPC type 3 using SCIP-SOS1 with B-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	10.2987792	9.5409649	7.9	>943976	>7200.0
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	51739	820.5
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	54293	589.0
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	229537	2865.3
MFPC45_sos1	4936	1907	11.373909	10.2351101	11.1	>985329	>7200.0
MFPC46_sos1	5585	2083	12.9725093	12.88126	0.7	>582723	>7200.0
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	51361	1065.1
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	28423	546.8
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	5463	133.5
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	2179	51.0
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	80451	1424.6
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	516807	6886.9
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	79787	1697.4
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	142021	2525.2
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	193685	1809.4
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	197943	1812.9
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	43689	993.1
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	51561	707.1
MFPC59_sos1	6392	2331	9.96051573	9.51780982	4.7	>371546	>7200.0
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	74433	1809.3
Total (20)						4686946	54537.1
Geom. Mean						98114	1481.2
Shifted Geom.						98423	1499.3

Table 14: MFPC type 1 using SCIP-SOS1 with B-nonzero settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	220485	504.6
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	58437	277.8
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	55723	120.6
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	79815	134.9
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	10475	50.1
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	23885	163.9
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	34907	112.8
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	64637	154.2
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	58229	181.3
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	11089	23.0
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	31549	149.0
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	70497	118.6
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	18769	74.3
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	23045	112.1
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	15347	24.3
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	28513	106.8
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	20957	80.2
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	25579	82.0
Total (20)						851940	2472.2
Geom. Mean						12124	67.1
Shifted Geom.						19199	84.3

Table 15: MFPC type 2 using SCIP-SOS1 with B-nonzero settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	493879	2144.6
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	35785	168.3
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	318565	1307.2
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	65281	313.1
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	531333	2690.1
MFPC26_sos1	2256	883	4.35617243	3.48028547	25.2	>5628288	>7200.0
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	522555	696.6
MFPC29_sos1	1963	843	4.39246339	4.39231668	0.0	>3967039	>7200.0
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	131495	409.3
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	599333	1715.9
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	103647	412.5
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	430839	1595.2
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	673953	2386.8
MFPC35_sos1	2944	1163	6.33140556	5.42068136	16.8	>2171619	>7200.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	120127	688.9
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	112963	363.0
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	39111	231.3
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	45033	213.3
Total (20)						15990847	36936.9
Geom. Mean						83636	509.8
Shifted Geom.						132680	644.5

Table 16: MFPC type 3 using SCIP-SOS1 with B-nonzero settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	10.0015045	9.5409649	4.8	>1001103	>7200.0
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	44611	699.5
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	53223	573.2
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	204037	2496.9
MFPC45_sos1	4936	1907	11.1300438	10.2351101	8.7	>1047941	>7200.0
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	37351	484.0
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	46087	950.1
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	27817	495.4
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	5303	124.5
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	2139	49.2
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	108121	1758.6
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	532921	5946.5
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	135327	2681.5
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	105675	1682.6
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	177143	1627.7
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	206843	1950.0
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	40729	878.8
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	50847	739.1
MFPC59_sos1	6392	2331	9.8803606	9.51780982	3.8	>417337	>7200.0
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	79417	1755.2
Total (20)						4323972	46492.7
Geom. Mean						86670	1251.6
Shifted Geom.						86950	1267.6

Table 17: MFPC type 1 using SCIP-SOS1 with B-neigh-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	217807	474.5
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	59417	274.0
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	55545	113.4
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	79555	127.9
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	9921	45.5
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	23823	155.2
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	34751	103.5
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	64665	145.2
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	58071	169.9
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	11019	22.2
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	30823	137.1
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	70489	110.8
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	18543	70.4
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	23115	105.8
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	15443	23.5
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	28423	102.9
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	20911	75.8
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	25555	76.6
Total (20)						847878	2336.1
Geom. Mean						12061	63.7
Shifted Geom.						19099	79.9

Table 18: MFPC type 2 using SCIP-SOS1 with B-neigh-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	492215	2081.6
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	35905	167.0
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	318939	1277.9
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	65685	295.0
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	533359	2604.1
MFPC26_sos1	2256	883	4.54964613	3.48028547	30.7	>5769225	>7200.0
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	524453	659.9
MFPC29_sos1	1963	843	4.39265654	4.39231668	0.0	>3951089	>7200.0
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	131487	389.7
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	596189	1652.3
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	102345	393.2
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	429181	1532.7
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	585489	1960.5
MFPC35_sos1	2944	1163	6.49964595	5.42068136	19.9	>2177356	>7200.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	119127	661.3
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	112787	347.8
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	38189	215.9
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	46237	202.1
Total (20)						16029259	36041.7
Geom. Mean						83087	490.2
Shifted Geom.						131808	619.8

Table 19: MFPC type 3 using SCIP-SOS1 with B-neigh-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	10.2271072	9.5409649	7.2	>1013940	>7200.0
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	44975	657.1
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	53361	547.9
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	200001	2338.1
MFPC45_sos1	4936	1907	11.4065851	10.2351101	11.4	>1089549	>7200.0
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	36295	433.8
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	46169	900.6
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	27841	461.2
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	5321	120.2
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	2181	46.1
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	107989	1687.4
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	453425	5493.3
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	135027	2518.6
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	105661	1614.3
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	192011	1672.9
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	207073	1769.5
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	39825	808.6
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	50913	670.6
MFPC59_sos1	6392	2331	9.98181578	9.51780982	4.9	>430600	>7200.0
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	79807	1706.4
Total (20)						4321964	45046.5
Geom. Mean						86544	1189.9
Shifted Geom.						86819	1206.1

Table 20: MFPC type 1 using SCIP-SOS1 with B-bip-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	277239	615.1
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	55099	263.1
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	69345	148.1
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	93951	156.3
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	10309	50.7
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	27473	186.3
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	36099	117.6
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	73691	178.6
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	60705	190.0
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	14947	31.4
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	37529	185.9
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	93063	156.5
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	22613	89.2
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	33699	147.7
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	15663	24.9
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	26893	98.6
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	28495	108.8
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	32013	103.0
Total (20)						1008828	2853.4
Geom. Mean						13871	76.5
Shifted Geom.						21970	96.1

Table 21: MFPC type 2 using SCIP-SOS1 with B-bip-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	906151	3852.3
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	39669	191.5
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	675899	2679.9
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	91355	411.1
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	653989	3367.6
MFPC26_sos1	2256	883	4.39748955	3.48028547	26.4	>5205267	>7200.0
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	430709	556.9
MFPC29_sos1	1963	843	4.39270737	4.39231668	0.0	>3953665	>7200.0
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	118011	363.3
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	617215	1763.3
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	158465	647.6
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	924635	3441.1
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	239427	860.0
MFPC35_sos1	2944	1163	6.34513253	5.42068136	17.1	>2018069	>7200.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	133487	750.5
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	87085	274.4
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	57707	338.9
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	41239	194.6
Total (20)						16352046	41293.7
Geom. Mean						91872	560.9
Shifted Geom.						145745	709.3

Table 22: MFPC type 3 using SCIP-SOS1 with B-bip-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	10.2990989	9.5409649	7.9	>940430	>7200.0
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	51737	823.3
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	54311	594.4
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	229515	2851.5
MFPC45_sos1	4936	1907	11.3666645	10.2351101	11.1	>1013069	>7200.0
MFPC46_sos1	5585	2083	12.9725093	12.88126	0.7	>588835	>7200.0
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	51325	1107.3
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	28425	550.7
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	5463	134.6
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	2179	51.6
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	80165	1432.9
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	516891	6951.4
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	79859	1707.5
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	142219	2512.6
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	194205	1824.0
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	198283	1822.5
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	43689	993.4
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	51633	712.5
MFPC59_sos1	6392	2331	9.96004394	9.51780982	4.6	>370978	>7200.0
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	74237	1812.5
Total (20)						4717448	54682.5
Geom. Mean						98283	1489.6
Shifted Geom.						98594	1507.6

Table 23: MFPC type 1 using SCIP-SOS1 with B-neigh-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	163489	469.6
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	37601	222.0
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	25143	137.6
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	8647	59.3
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	7787	67.8
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	4803	161.8
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	25287	232.5
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	64721	269.8
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	18465	200.4
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	1831	29.4
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	41947	257.2
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	23069	128.9
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	10543	99.3
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	6731	70.1
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	1705	35.7
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	15029	114.3
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	6759	59.6
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	16419	83.5
Total (20)						479978	2700.7
Geom. Mean						5452	72.5
Shifted Geom.						8651	91.0

Table 24: MFPC type 2 using SCIP-SOS1 with B-neigh-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	251089	1218.0
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	1251	35.3
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	249147	1181.4
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	56781	377.8
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	292939	1745.8
MFPC26_sos1	2256	883	4.24322022	3.48028547	21.9	>5490366	>7200.0
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	263905	441.4
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	226765	532.9
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	57859	273.3
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	200607	654.1
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	55819	272.9
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	410183	1607.7
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	284803	998.9
MFPC35_sos1	2944	1163	6.35665826	5.42068136	17.3	>1988096	>7200.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	75811	406.7
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	82803	296.9
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	10719	153.8
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	13523	125.6
Total (20)						10012468	24723.3
Geom. Mean						38759	311.7
Shifted Geom.						61713	396.6

Table 25: MFPC type 3 using SCIP-SOS1 with B-neigh-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	10.0793903	9.5409649	5.6	>927445	>7200.0
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	38043	767.7
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	68907	836.0
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	239561	2952.3
MFPC45_sos1	4936	1907	11.386947	10.2351101	11.3	>993814	>7200.0
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	8259	202.7
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	34111	1015.1
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	15609	584.1
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	1757	142.0
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	23	9.6
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	78921	1665.7
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	300209	4031.3
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	80377	2082.5
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	55953	1028.4
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	204163	1883.9
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	151347	1539.0
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	41289	1122.2
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	37503	820.6
MFPC59_sos1	6392	2331	9.99785917	9.51780982	5.0	>408770	>7200.0
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	62183	1805.3
Total (20)						3748244	44088.1
Geom. Mean						50844	1109.6
Shifted Geom.						55451	1153.7

Table 26: MFPC type 1 using SCIP-SOS1 with B-bip-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	210495	569.2
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	39677	282.3
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	27347	164.5
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	9145	73.6
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	5977	63.8
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	3381	144.2
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	16533	228.1
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	56589	274.3
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	17799	247.4
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	1327	21.2
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	32143	307.7
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	26973	149.1
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	10873	126.0
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	14427	114.5
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	1823	38.7
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	14789	120.7
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	5895	84.8
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	29493	144.3
Total (20)						524688	3156.1
Geom. Mean						5479	82.7
Shifted Geom.						8702	104.3

Table 27: MFPC type 2 using SCIP-SOS1 with B-bip-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	432689	2149.9
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	20795	168.2
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	418529	1948.8
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	45359	413.1
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	417145	2706.3
MFPC26_sos1	2256	883	4.23806667	3.48028547	21.8	>4574254	>7200.0
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	198737	385.5
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	134169	368.4
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	53275	266.7
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	191595	660.9
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	92829	498.3
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	586507	2364.3
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	76623	350.1
MFPC35_sos1	2944	1163	6.08018769	5.42068136	12.2	>1650565	>7200.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	125247	677.9
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	23693	130.8
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	26121	250.8
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	9365	178.4
Total (20)						9077499	27919.1
Geom. Mean						42888	364.1
Shifted Geom.						68055	460.2

Table 28: MFPC type 3 using SCIP-SOS1 with B-bip-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	10.0716126	9.5409649	5.6	>819577	>7200.0
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	50541	1237.8
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	117569	1506.9
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	196837	2576.9
MFPC45_sos1	4936	1907	11.4749385	10.2351101	12.1	>804108	>7200.0
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	528487	6751.1
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	42349	1295.8
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	16471	696.8
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	1653	173.3
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	23	9.3
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	95483	2224.7
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	481609	6738.8
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	57409	2653.8
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	86291	1938.4
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	320945	3315.9
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	124999	1394.0
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	41053	1170.8
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	26429	877.9
MFPC59_sos1	6392	2331	9.98904213	9.51780982	5.0	>353555	>7200.0
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	75981	2508.4
Total (20)						4241369	58670.8
Geom. Mean						66519	1624.0
Shifted Geom.						72541	1686.9

Table 29: MFPC type 1 using SCIP-SOS1 with B-neigh-C-bds10 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	177909	403.5
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	58407	274.9
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	55137	114.5
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	71165	119.4
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	9463	44.5
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	23815	157.7
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	31325	99.3
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	64723	148.4
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	57737	171.8
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	11177	23.2
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.8
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	28437	134.4
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	70083	112.1
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	18519	71.4
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	22939	108.2
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	15443	24.0
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	28109	101.2
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	20683	77.4
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	23827	76.4
Total (20)						788900	2264.1
Geom. Mean						11665	63.3
Shifted Geom.						18470	79.3

Table 30: MFPC type 2 using SCIP-SOS1 with B-neigh-C-bds10 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	448361	1928.5
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	40797	194.1
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	298067	1219.2
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	65465	298.0
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	499037	2532.8
MFPC26_sos1	2256	883	3.58648442	3.48028547	3.1	>3564603	>7200.0
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	274003	373.3
MFPC29_sos1	1963	843	4.39263931	4.39231668	0.0	>3861040	>7200.0
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	119935	361.4
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	599909	1695.8
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	98807	387.4
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	408611	1510.4
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	525725	1821.6
MFPC35_sos1	2944	1163	6.05352229	5.42068136	11.7	>1817321	>7200.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	113587	643.8
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	107377	337.5
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	37471	217.6
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	44535	199.7
Total (20)						12924653	35321.9
Geom. Mean						75675	471.6
Shifted Geom.						120043	596.1

Table 31: MFPC type 3 using SCIP-SOS1 with B-neigh-C-bds10 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	10.1123683	9.5409649	6.0	>872302	>7200.0
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	41465	631.0
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	51485	540.6
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	182481	2226.2
MFPC45_sos1	4936	1907	11.0868644	10.2351101	8.3	>877784	>7200.0
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	23319	294.6
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	44429	888.5
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	22711	405.7
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	5321	120.8
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	2461	53.1
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	93367	1525.0
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	132027	1855.1
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	68467	1369.9
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	68905	1121.3
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	182435	1634.0
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	194685	1738.8
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	32643	711.0
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	48193	655.5
MFPC59_sos1	6392	2331	9.51780982	9.51780982	0.0	227705	4464.2
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	68217	1529.8
Total (20)						3240402	36165.1
Geom. Mean						68127	1002.6
Shifted Geom.						68325	1014.9

Table 32: MFPC type 1 using SCIP-SOS1 with B-neigh-noC-bds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	20.8313775	7.30525778	185.2	>8881289	>7200.0
MFPC2_sos1	1789	723	55.9955372	10.1678231	450.7	>5848839	>7200.0
MFPC3_sos1	1584	643	40.7965556	11.2347407	263.1	>7428650	>7200.0
MFPC4_sos1	1327	547	29.7933799	6.54140697	355.5	>8813504	>7200.0
MFPC5_sos1	1868	819	36.3176267	7.97645453	355.3	>8732846	>7200.0
MFPC6_sos1	2680	1027	101.975139	12.0121565	748.9	>2001887	>7200.0
MFPC7_sos1	1709	691	49.6246371	12.5943958	294.0	>7346039	>7200.0
MFPC8_sos1	1631	667	32.0655347	9.40050488	241.1	>5955160	>7200.0
MFPC9_sos1	1590	643	28.3480325	7.65140352	270.5	>8879592	>7200.0
MFPC10_sos1	1629	691	45.0278222	8.26991072	444.5	>5373332	>7200.0
MFPC11_sos1	1877	835	50.8363234	11.0595252	359.7	>5856848	>7200.0
MFPC12_sos1	1982	851	38.0198087	9.18420356	314.0	>3459058	>7200.0
MFPC13_sos1	2304	987	40.7531078	11.0981158	267.2	>5720434	>7200.0
MFPC14_sos1	1639	635	44.3957464	12.6480591	251.0	>7325174	>7200.0
MFPC15_sos1	1872	835	27.9412178	8.62443795	224.0	>4741066	>7200.0
MFPC16_sos1	2102	795	56.5502869	8.70486733	549.6	>3812547	>7200.0
MFPC17_sos1	1310	555	29.3501206	9.62092409	205.1	>9229579	>7200.0
MFPC18_sos1	1792	755	24.8263789	8.33164376	198.0	>7353425	>7200.0
MFPC19_sos1	1941	891	95.1856689	11.4375612	732.2	>2712126	>7200.0
MFPC20_sos1	1903	763	56.5397345	10.2750971	450.3	>5350744	>7200.0
Total (20)						124822139	144000.0
Geom. Mean						5803058	7200.0
Shifted Geom.						5803068	7200.0

Table 33: MFPC type 2 using SCIP-SOS1 with B-neigh-noC-bds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	11.1842961	3.18230611	251.5	>6842745	>7200.0
MFPC22_sos1	2906	1187	18.803077	9.29113902	102.4	>5232669	>7200.0
MFPC23_sos1	2619	1115	12.6085451	5.05802475	149.3	>6275877	>7200.0
MFPC24_sos1	2562	979	17.8661474	4.92492471	262.8	>6232221	>7200.0
MFPC25_sos1	2818	1115	22.8924862	5.25082809	336.0	>4222149	>7200.0
MFPC26_sos1	2256	883	10.3917957	3.48028547	198.6	>7226182	>7200.0
MFPC27_sos1	2298	883	4.1306079	2.77218318	49.0	>5888283	>7200.0
MFPC28_sos1	1763	659	4.65374444	3.14212	48.1	>9501963	>7200.0
MFPC29_sos1	1963	843	8.51677582	4.39231668	93.9	>8204496	>7200.0
MFPC30_sos1	2105	858	14.2909227	7.16405867	99.5	>6926734	>7200.0
MFPC31_sos1	2402	931	15.0196303	5.01402664	199.6	>6348577	>7200.0
MFPC32_sos1	2570	1059	15.9673381	7.41549952	115.3	>5953103	>7200.0
MFPC33_sos1	2537	987	7.2681736	4.02050856	80.8	>6177681	>7200.0
MFPC34_sos1	2834	1003	9.55711922	3.5099289	172.3	>5923919	>7200.0
MFPC35_sos1	2944	1163	32.7872614	5.42068136	504.9	>3744611	>7200.0
MFPC36_sos1	2296	923	7.05872872	3.85930788	82.9	>7195817	>7200.0
MFPC37_sos1	2335	930	27.8178199	5.07695537	447.9	>6168476	>7200.0
MFPC38_sos1	2227	915	15.488692	5.48576878	182.3	>7198051	>7200.0
MFPC39_sos1	2825	1090	22.545184	7.2932222	209.1	>4172100	>7200.0
MFPC40_sos1	2635	1083	21.0644382	6.16286121	241.8	>6471938	>7200.0
Total (20)						125907592	144000.0
Geom. Mean						6154048	7200.0
Shifted Geom.						6154051	7200.0

Table 34: MFPC type 3 using SCIP-SOS1 with B-neigh-noC-bds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	57.50961	9.5409649	502.8	>2415724	>7200.0
MFPC42_sos1	5622	2083	111.005212	13.9815541	693.9	>1617788	>7200.0
MFPC43_sos1	4673	1651	57.3330184	9.93746071	476.9	>2603059	>7200.0
MFPC44_sos1	5201	1883	44.5041548	10.4384517	326.3	>2530925	>7200.0
MFPC45_sos1	4936	1907	110.175138	10.2351101	976.4	>1334857	>7200.0
MFPC46_sos1	5585	2083	80.2122122	12.88126	522.7	>1782589	>7200.0
MFPC47_sos1	5689	2051	55.6322731	10.6082545	424.4	>1749043	>7200.0
MFPC48_sos1	7200	2491	91.7731866	13.9491637	557.9	>1268399	>7200.0
MFPC49_sos1	6233	2507	112.047895	11.2051074	900.0	>1535745	>7200.0
MFPC50_sos1	6450	2323	94.1255215	13.0446808	621.6	>1531939	>7200.0
MFPC51_sos1	5470	1987	99.8888511	10.7528965	828.9	>1971216	>7200.0
MFPC52_sos1	5866	2131	111.771548	12.1474501	820.1	>1623862	>7200.0
MFPC53_sos1	5753	2235	106.772859	15.3807411	594.2	>1099332	>7200.0
MFPC54_sos1	6091	2147	54.1072071	12.8116036	322.3	>2136633	>7200.0
MFPC55_sos1	5281	1843	67.6905724	10.5328543	542.7	>2300493	>7200.0
MFPC56_sos1	5081	1875	51.0342298	10.8350684	371.0	>2262442	>7200.0
MFPC57_sos1	6202	2219	114.165404	17.8152677	540.8	>1422043	>7200.0
MFPC58_sos1	5592	2019	96.3443258	14.7324895	554.0	>1486428	>7200.0
MFPC59_sos1	6392	2331	87.3726177	9.51780982	818.0	>1544099	>7200.0
MFPC60_sos1	5272	1979	39.7997913	7.70246013	416.7	>2311325	>7200.0
Total (20)						36527941	144000.0
Geom. Mean						1773162	7200.0
Shifted Geom.						1773165	7200.0

Table 35: MFPC type 1 using SCIP-SOS1 with B-neigh-noC-strBds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	18.9517643	7.30525778	159.4	>7981554	>7200.0
MFPC2_sos1	1789	723	48.7979409	10.1678231	379.9	>4965488	>7200.0
MFPC3_sos1	1584	643	35.9937734	11.2347407	220.4	>6688294	>7200.0
MFPC4_sos1	1327	547	25.3296577	6.54140697	287.2	>8905516	>7200.0
MFPC5_sos1	1868	819	35.5798739	7.97645453	346.1	>5397983	>7200.0
MFPC6_sos1	2680	1027	75.2397969	12.0121565	526.4	>3309528	>7200.0
MFPC7_sos1	1709	691	48.2690198	12.5943958	283.3	>7289308	>7200.0
MFPC8_sos1	1631	667	33.4268864	9.40050488	255.6	>6436660	>7200.0
MFPC9_sos1	1590	643	25.1235037	7.65140352	228.4	>6265250	>7200.0
MFPC10_sos1	1629	691	37.8768163	8.26991072	358.0	>4998355	>7200.0
MFPC11_sos1	1877	835	43.3889599	11.0595252	292.3	>3660000	>7200.0
MFPC12_sos1	1982	851	35.941444	9.18420356	291.3	>6286002	>7200.0
MFPC13_sos1	2304	987	46.3580927	11.0981158	317.7	>4669447	>7200.0
MFPC14_sos1	1639	635	44.3957464	12.6480591	251.0	>7325174	>7200.0
MFPC15_sos1	1872	835	31.3775209	8.62443795	263.8	>4992138	>7200.0
MFPC16_sos1	2102	795	48.5612075	8.70486733	457.9	>3702257	>7200.0
MFPC17_sos1	1310	555	29.3501206	9.62092409	205.1	>9229579	>7200.0
MFPC18_sos1	1792	755	22.7678084	8.33164376	173.3	>8186169	>7200.0
MFPC19_sos1	1941	891	53.5249284	11.4375612	368.0	>2476190	>7200.0
MFPC20_sos1	1903	763	48.7639963	10.2750971	374.6	>4577430	>7200.0
Total (20)						117342322	144000.0
Geom. Mean						5551044	7200.0
Shifted Geom.						5551050	7200.0

Table 36: MFPC type 2 using SCIP-SOS1 with B-neigh-noC-strBds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	11.1753309	3.18230611	251.2	>6904016	>7200.0
MFPC22_sos1	2906	1187	17.481803	9.29113902	88.2	>4670798	>7200.0
MFPC23_sos1	2619	1115	11.0539558	5.05802475	118.5	>6315000	>7200.0
MFPC24_sos1	2562	979	18.2513253	4.92492471	270.6	>5515151	>7200.0
MFPC25_sos1	2818	1115	22.8924862	5.25082809	336.0	>4222149	>7200.0
MFPC26_sos1	2256	883	10.3404582	3.48028547	197.1	>7344724	>7200.0
MFPC27_sos1	2298	883	4.02243187	2.77218318	45.1	>5692118	>7200.0
MFPC28_sos1	1763	659	4.65374444	3.14212	48.1	>9519970	>7200.0
MFPC29_sos1	1963	843	8.52473547	4.39231668	94.1	>8124397	>7200.0
MFPC30_sos1	2105	858	14.2909227	7.16405867	99.5	>6986882	>7200.0
MFPC31_sos1	2402	931	15.0196303	5.01402664	199.6	>6460750	>7200.0
MFPC32_sos1	2570	1059	16.377966	7.41549952	120.9	>6177837	>7200.0
MFPC33_sos1	2537	987	6.7724721	4.02050856	68.4	>5643332	>7200.0
MFPC34_sos1	2834	1003	9.55711922	3.5099289	172.3	>5775944	>7200.0
MFPC35_sos1	2944	1163	33.0108459	5.42068136	509.0	>3794931	>7200.0
MFPC36_sos1	2296	923	7.40930335	3.85930788	92.0	>6892493	>7200.0
MFPC37_sos1	2335	930	26.40754	5.07695537	420.1	>4873746	>7200.0
MFPC38_sos1	2227	915	15.488692	5.48576878	182.3	>7077878	>7200.0
MFPC39_sos1	2825	1090	21.0791081	7.2932222	189.0	>4414437	>7200.0
MFPC40_sos1	2635	1083	21.0644382	6.16286121	241.8	>5030603	>7200.0
Total (20)						121437156	144000.0
Geom. Mean						5919728	7200.0
Shifted Geom.						5919731	7200.0

Table 37: MFPC type 3 using SCIP-SOS1 with B-neigh-noC-strBds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	49.7855286	9.5409649	421.8	>891376	>7200.0
MFPC42_sos1	5622	2083	72.7883251	13.9815541	420.6	>1232954	>7200.0
MFPC43_sos1	4673	1651	50.1507132	9.93746071	404.7	>1753067	>7200.0
MFPC44_sos1	5201	1883	45.8467615	10.4384517	339.2	>2596377	>7200.0
MFPC45_sos1	4936	1907	106.608841	10.2351101	941.6	>1338497	>7200.0
MFPC46_sos1	5585	2083	67.0176473	12.88126	420.3	>1820176	>7200.0
MFPC47_sos1	5689	2051	52.576698	10.6082545	395.6	>1078678	>7200.0
MFPC48_sos1	7200	2491	60.5834852	13.9491637	334.3	>409404	>7200.0
MFPC49_sos1	6233	2507	64.771051	11.2051074	478.0	>612729	>7200.0
MFPC50_sos1	6450	2323	65.4811577	13.0446808	402.0	>951154	>7200.0
MFPC51_sos1	5470	1987	79.4751941	10.7528965	639.1	>1731439	>7200.0
MFPC52_sos1	5866	2131	77.0513485	12.1474501	534.3	>1126201	>7200.0
MFPC53_sos1	5753	2235	78.5702185	15.3807411	410.8	>408289	>7200.0
MFPC54_sos1	6091	2147	47.2393034	12.8116036	268.7	>2148481	>7200.0
MFPC55_sos1	5281	1843	53.4172313	10.5328543	407.1	>1519657	>7200.0
MFPC56_sos1	5081	1875	46.4324412	10.8350684	328.5	>1281957	>7200.0
MFPC57_sos1	6202	2219	88.6602194	17.8152677	397.7	>263020	>7200.0
MFPC58_sos1	5592	2019	75.7596362	14.7324895	414.2	>451218	>7200.0
MFPC59_sos1	6392	2331	51.3175914	9.51780982	439.2	>571756	>7200.0
MFPC60_sos1	5272	1979	41.5475334	7.70246013	439.4	>637345	>7200.0
Total (20)						22823775	144000.0
Geom. Mean						961077	7200.0
Shifted Geom.						961099	7200.0

Table 38: MFPC type 1 using SCIP-SOS1 with B-neigh-C-edge settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	199339	549.3
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	72417	352.2
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	54825	119.6
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	26339	62.7
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	13935	66.2
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	28997	195.0
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	36029	125.6
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	64441	153.2
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	67499	204.9
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	15389	36.6
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	29693	154.6
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	79103	128.6
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	11801	45.7
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	3431	18.0
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	17277	28.7
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	37797	138.6
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	15925	60.6
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	27889	86.8
Total (20)						802128	2528.6
Geom. Mean						10899	62.9
Shifted Geom.						17270	79.5

Table 39: MFPC type 2 using SCIP-SOS1 with B-neigh-C-edge settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	217159	1229.8
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	67689	344.5
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	196935	954.5
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	218887	1466.3
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	165131	1082.2
MFPC26_sos1	2256	883	3.48028547	3.48028547	0.0	55335	142.0
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	7561	14.3
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	2653637	5078.6
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	66543	232.0
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	590645	1780.0
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	81689	394.6
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	486497	1930.6
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	178217	787.0
MFPC35_sos1	2944	1163	5.42068136	5.42068136	0.0	122707	975.2
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	69829	581.2
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	27389	140.1
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	20061	157.9
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	29641	161.1
Total (20)						5255554	17452.5
Geom. Mean						34097	266.7
Shifted Geom.						54093	343.7

Table 40: MFPC type 3 using SCIP-SOS1 with B-neigh-C-edge settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	9.5409649	9.5409649	0.0	11531	261.1
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	13687	271.0
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	32191	497.3
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	54031	716.5
MFPC45_sos1	4936	1907	10.2351101	10.2351101	0.0	10207	171.9
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	11861	168.2
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	39809	831.2
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	10177	206.7
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	3363	79.8
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	1	4.0
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	15541	463.6
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	11711	227.3
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	20491	675.3
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	7737	166.4
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	51481	712.8
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	36343	437.7
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	37441	873.4
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	36097	529.4
MFPC59_sos1	6392	2331	9.51780982	9.51780982	0.0	66411	1628.7
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	158193	3613.7
Total (20)						628304	12535.9
Geom. Mean						13397	339.2
Shifted Geom.						16880	362.2

Table 41: MFPC type 1 using SCIP-SOS1 with B-neigh-C-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	184459	446.4
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	70483	340.0
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	52769	111.7
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	65563	110.7
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	16777	77.9
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	21105	139.1
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	36099	129.4
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	64715	150.7
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	56539	167.7
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	26835	60.8
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	30473	158.3
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	71821	116.5
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	11837	45.1
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	4011	23.8
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	17227	27.2
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	25729	94.6
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	27743	104.0
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	28903	87.8
Total (20)						813090	2393.2
Geom. Mean						11640	65.1
Shifted Geom.						18440	81.7

Table 42: MFPC type 2 using SCIP-SOS1 with B-neigh-C-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	992971	5833.3
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	61535	324.6
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	210359	991.2
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	61873	382.7
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	211023	1304.7
MFPC26_sos1	2256	883	3.48028547	3.48028547	0.0	151331	352.2
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.15494339	3.14212	0.4	>4053955	>7200.0
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	3531283	6567.0
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	88927	269.5
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	464233	1425.8
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	116749	553.6
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	499593	1974.8
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	100841	441.8
MFPC35_sos1	2944	1163	5.5144114	5.42068136	1.7	>925354	>7200.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	91865	718.0
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	170379	893.4
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	22071	155.3
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	29929	165.8
Total (20)						11784273	36754.6
Geom. Mean						62565	475.2
Shifted Geom.						99247	600.8

Table 43: MFPC type 3 using SCIP-SOS1 with B-neigh-C-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	9.5409649	9.5409649	0.0	15805	307.6
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	14339	286.6
MFPC43_sos1	4673	1651	10.0918368	9.93746071	1.6	>558895	>7200.0
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	30699	420.8
MFPC45_sos1	4936	1907	10.2351101	10.2351101	0.0	10841	169.0
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	19811	285.7
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	49251	1014.0
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	11549	213.3
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	4437	101.8
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	1	4.6
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	18807	445.3
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	8613	154.3
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	20663	671.3
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	7651	158.9
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	37847	533.1
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	37133	445.4
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	41205	932.1
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	35017	505.5
MFPC59_sos1	6392	2331	9.51780982	9.51780982	0.0	69341	1563.2
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	85191	1914.7
Total (20)						1077096	17327.2
Geom. Mean						15507	376.3
Shifted Geom.						19541	400.2

Table 44: MFPC type 1 using SCIP-SOS1 with B-neigh-C-clique settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	153251	424.1
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	82097	396.9
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	54819	120.2
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	57385	128.9
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	16207	75.6
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	23539	163.6
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	35767	122.7
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	63889	152.5
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	68621	209.1
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	49543	109.3
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	33221	173.5
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	83831	136.6
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	14841	58.4
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	4327	29.2
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	17375	28.1
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	26121	97.3
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	19851	76.0
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	23295	77.3
Total (20)						827982	2581.1
Geom. Mean						12083	70.4
Shifted Geom.						19143	88.2

Table 45: MFPC type 2 using SCIP-SOS1 with B-neigh-C-clique settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	482543	2515.9
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	186885	946.1
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	197777	964.7
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	61077	375.6
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	205739	1328.3
MFPC26_sos1	2256	883	3.48028547	3.48028547	0.0	46753	111.8
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	17235	33.6
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	3671863	6851.8
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	98597	313.5
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	933333	2839.6
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	101809	505.5
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	523513	2096.2
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	1219243	6118.9
MFPC35_sos1	2944	1163	5.42068136	5.42068136	0.0	109477	849.7
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	45125	354.7
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	291959	1599.5
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	26729	197.2
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	23665	128.5
Total (20)						8243324	28132.1
Geom. Mean						47634	368.1
Shifted Geom.						75565	470.1

Table 46: MFPC type 3 using SCIP-SOS1 with B-neigh-C-clique settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	9.5409649	9.5409649	0.0	16633	340.6
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	13465	277.3
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	83513	1253.6
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	28823	411.6
MFPC45_sos1	4936	1907	10.2351101	10.2351101	0.0	11991	201.6
MFPC46_sos1	5585	2083	12.8937156	12.88126	0.1	>587031	>7200.0
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	47201	947.0
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	10661	201.7
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	3713	87.4
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	1	4.7
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	11369	268.7
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	9071	183.7
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	23749	532.3
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	8983	192.5
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	62873	926.5
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	41707	486.0
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	49289	1111.8
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	39711	580.9
MFPC59_sos1	6392	2331	9.65331937	9.51780982	1.4	>309407	>7200.0
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	89993	2003.3
Total (20)						1449184	24411.0
Geom. Mean						18510	450.4
Shifted Geom.						23342	479.7

Table 47: MFPC type 1 using SCIP-SOS1 with B-neigh-C-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	171839	403.5
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	78561	377.5
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	51771	110.0
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	71047	122.0
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	10841	50.0
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	27821	186.1
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	39591	134.0
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	65353	151.4
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	62557	188.7
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	13289	29.4
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	32005	166.7
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	80135	128.2
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	11297	43.6
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	3905	20.5
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	13795	21.6
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	29613	106.0
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	24119	89.3
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	24399	75.8
Total (20)						811940	2406.1
Geom. Mean						11146	61.7
Shifted Geom.						17661	78.1

Table 48: MFPC type 2 using SCIP-SOS1 with B-neigh-C-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.48180429	3.18230611	9.4	>1309155	>7200.0
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	29853	166.6
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	229751	1069.2
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	56755	341.9
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	136785	867.0
MFPC26_sos1	2256	883	3.48028547	3.48028547	0.0	43835	107.7
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	291209	375.7
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	3534093	6680.3
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	92259	283.4
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	438605	1252.9
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	1054479	4797.8
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	491843	1973.3
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	198027	865.9
MFPC35_sos1	2944	1163	5.42068136	5.42068136	0.0	178561	1422.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	52745	366.2
MFPC38_sos1	2227	915	5.54979415	5.48576878	1.2	>1383912	>7200.0
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	27861	197.2
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	30523	164.1
Total (20)						9580253	35331.9
Geom. Mean						57285	424.6
Shifted Geom.						90875	538.2

Table 49: MFPC type 3 using SCIP-SOS1 with B-neigh-C-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	9.5409649	9.5409649	0.0	12935	278.7
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	13077	254.9
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	50737	697.7
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	30699	416.6
MFPC45_sos1	4936	1907	10.2351101	10.2351101	0.0	18635	292.9
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	11185	163.2
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	94051	1784.3
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	12393	239.2
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	4285	97.0
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	1	4.9
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	17697	415.5
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	7573	136.8
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	16267	421.1
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	7019	162.0
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	45295	637.3
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	76729	769.7
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	41205	931.5
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	35017	505.9
MFPC59_sos1	6392	2331	9.52637827	9.51780982	0.1	>335039	>7200.0
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	80363	1796.0
Total (20)						910202	17205.2
Geom. Mean						15405	370.0
Shifted Geom.						19416	393.0

Table 50: MFPC type 1 using SCIP-SOS1 with B-neigh-C-box settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	236487	538.4
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	65429	296.2
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	59175	123.0
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	70323	114.5
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	11939	54.3
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	24061	157.0
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	36195	121.8
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	61895	141.4
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	60563	178.1
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	11019	22.1
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	23579	121.0
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	60355	95.1
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	14361	54.2
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	5467	30.9
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	19243	30.2
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	38663	138.8
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	26057	97.0
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	23473	71.0
Total (20)						848286	2386.7
Geom. Mean						11412	62.1
Shifted Geom.						18078	78.1

Table 51: MFPC type 2 using SCIP-SOS1 with B-neigh-C-box settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	598157	2951.6
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	55113	271.2
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	240759	1060.1
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	44377	249.8
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	127539	755.1
MFPC26_sos1	2256	883	3.48028547	3.48028547	0.0	152083	351.2
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	474617	620.6
MFPC29_sos1	1963	843	4.39265654	4.39231668	0.0	>3952500	>7200.0
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	112211	335.8
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	579663	1620.9
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	109285	439.7
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	511287	1978.2
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	144493	536.4
MFPC35_sos1	2944	1163	5.42068136	5.42068136	0.0	152681	1256.7
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	142965	772.5
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	33875	121.4
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	36137	222.8
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	24671	119.3
Total (20)						7492415	20864.0
Geom. Mean						48123	327.4
Shifted Geom.						76323	413.1

Table 52: MFPC type 3 using SCIP-SOS1 with B-neigh-C-box settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	9.5409649	9.5409649	0.0	82753	1203.6
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	25699	411.3
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	58495	650.9
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	168457	2156.1
MFPC45_sos1	4936	1907	10.2351101	10.2351101	0.0	14587	220.9
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	24497	318.0
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	46169	899.8
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	27841	448.7
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	5321	118.3
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	2181	46.0
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	16171	363.1
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	6377	121.5
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	40517	786.2
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	7291	156.3
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	67453	663.7
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	145907	1449.9
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	39825	804.5
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	42439	560.0
MFPC59_sos1	6392	2331	9.62927534	9.51780982	1.2	>332344	>7200.0
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	78123	1671.2
Total (20)						1232447	20249.8
Geom. Mean						32237	529.7
Shifted Geom.						32354	538.0

Table 53: MFPC type 1 using SCIP-SOS1 with B-neigh-favor settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	190443	534.5
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	71819	356.7
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	54157	121.2
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	26501	64.2
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	13829	67.5
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	29021	199.5
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	35739	127.9
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	64161	155.8
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	66947	206.4
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	15355	37.1
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1	0.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	1	1.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	28785	154.7
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	77965	130.4
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	11799	46.5
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	3477	18.7
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	17277	29.1
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	37355	140.3
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	15783	62.2
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	25429	84.6
Total (20)						785844	2539.1
Geom. Mean						10772	63.6
Shifted Geom.						17067	80.3

Table 54: MFPC type 2 using SCIP-SOS1 with B-neigh-favor settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	208085	1166.1
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	41643	222.3
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	196787	967.3
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	218111	1475.9
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	160269	1073.7
MFPC26_sos1	2256	883	3.48028547	3.48028547	0.0	51179	136.2
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	1	0.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	7451	14.4
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	2651143	5147.5
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	66359	233.4
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	629449	1922.3
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	71335	352.3
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	467569	1888.7
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	192001	873.7
MFPC35_sos1	2944	1163	5.42068136	5.42068136	0.0	121649	979.1
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	1	0.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	68113	575.2
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	27425	141.1
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	20123	159.9
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	29641	162.8
Total (20)						5228334	17492.7
Geom. Mean						32883	261.1
Shifted Geom.						52166	336.6

Table 55: MFPC type 3 using SCIP-SOS1 with B-neigh-favor settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	9.5409649	9.5409649	0.0	11533	262.2
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	13595	272.4
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	31621	494.9
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	36405	510.5
MFPC45_sos1	4936	1907	10.2351101	10.2351101	0.0	9887	173.1
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	11851	171.4
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	38931	826.4
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	9793	205.9
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	3363	82.0
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	1	4.1
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	15531	468.6
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	11763	236.4
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	19799	685.0
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	7703	169.0
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	51993	728.1
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	36037	442.2
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	36159	862.0
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	35235	526.5
MFPC59_sos1	6392	2331	9.51780982	9.51780982	0.0	43725	1103.6
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	128425	3052.0
Total (20)						553350	11276.4
Geom. Mean						12597	326.9
Shifted Geom.						15869	348.5

Table 56: MFPC type 1 using SCIP-SOS1 with B-neigh-favor-H-none settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	193897	544.6
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	92765	457.1
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	61830	137.3
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	47928	115.8
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	15798	76.4
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	29072	201.1
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	42925	153.4
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	80732	194.5
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	80892	247.3
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	48915	107.8
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	10097	35.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	183	1.7
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	29199	158.4
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	90067	152.1
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	17864	68.9
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	8658	44.1
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	20459	34.1
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	58469	219.7
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	15929	63.1
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	41294	132.9
Total (20)						986973	3146.0
Geom. Mean						29166	101.4
Shifted Geom.						29811	112.5

Table 57: MFPC type 1 using SCIP-SOS1 with B-neigh-favor-H-none settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	193897	544.6
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	92765	457.1
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	61830	137.3
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	47928	115.8
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	15798	76.4
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	29072	201.1
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	42925	153.4
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	80732	194.5
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	80892	247.3
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	48915	107.8
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	10097	35.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	183	1.7
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	29199	158.4
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	90067	152.1
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	17864	68.9
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	8658	44.1
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	20459	34.1
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	58469	219.7
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	15929	63.1
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	41294	132.9
Total (20)						986973	3146.0
Geom. Mean						29166	101.4
Shifted Geom.						29811	112.5

Table 58: MFPC type 1 using SCIP-SOS1 with B-neigh-favor-H-none settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	193897	544.6
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	92765	457.1
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	61830	137.3
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	47928	115.8
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	15798	76.4
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	29072	201.1
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	42925	153.4
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	80732	194.5
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	80892	247.3
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	48915	107.8
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	10097	35.7
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	183	1.7
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	29199	158.4
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	90067	152.1
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	17864	68.9
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	8658	44.1
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	20459	34.1
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	58469	219.7
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	15929	63.1
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	41294	132.9
Total (20)						986973	3146.0
Geom. Mean						29166	101.4
Shifted Geom.						29811	112.5

Table 59: MFPC type 1 using SCIP-SOS1 with B-neigh-favor-H-MWIS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	193718	545.0
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	93833	459.3
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	58740	130.4
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	47702	114.3
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	17595	84.3
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	29449	203.7
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	46225	166.2
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	80871	195.7
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	69868	216.5
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	47960	106.5
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	2310	8.9
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	77	1.3
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	29448	159.5
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	79114	133.6
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	17864	68.2
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	6045	31.7
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	21426	35.8
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	50195	188.4
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	16463	65.7
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	42043	135.4
Total (20)						950946	3050.6
Geom. Mean						25240	91.2
Shifted Geom.						26351	104.5

Table 60: MFPC type 2 using SCIP-SOS1 with B-neigh-favor-H-MWIS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	211870	1188.7
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	460380	2353.8
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	210405	1029.2
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	227385	1529.9
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	171102	1139.2
MFPC26_sos1	2256	883	3.48028547	3.48028547	0.0	65553	172.9
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	112	1.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	8894	16.8
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	2668163	5169.1
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	72936	256.6
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	578894	1777.3
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	103632	485.4
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	554069	2225.6
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	191675	875.4
MFPC35_sos1	2944	1163	5.42068136	5.42068136	0.0	139333	1125.1
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	127668	320.0
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	151009	1109.4
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	71713	348.9
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	33568	236.8
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	30282	167.3
Total (20)						6078643	21528.8
Geom. Mean						101185	468.2
Shifted Geom.						104512	531.2

Table 61: MFPC type 3 using SCIP-SOS1 with B-neigh-favor-H-MWIS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	9.5409649	9.5409649	0.0	15454	322.2
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	22801	406.4
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	32079	502.8
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	38444	535.3
MFPC45_sos1	4936	1907	10.2351101	10.2351101	0.0	14762	240.3
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	31522	430.9
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	44543	903.2
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	15452	298.9
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	27877	533.6
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	34706	658.1
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	17744	497.8
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	16853	301.4
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	22452	733.6
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	28141	495.5
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	57183	788.0
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	38257	479.9
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	64093	1474.0
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	50326	712.8
MFPC59_sos1	6392	2331	9.51780982	9.51780982	0.0	64072	1568.9
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	135250	3216.8
Total (20)						772011	15100.5
Geom. Mean						32329	601.0
Shifted Geom.						32344	602.7

Table 62: MFPC type 1 using SCIP-SOS1 with B-neigh-favor-H-viol settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	194235	546.0
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	93588	460.7
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	59928	134.4
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	48233	116.8
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	21807	104.9
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	36581	259.4
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	41010	147.8
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	81067	197.8
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	82952	253.4
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	46953	105.5
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	1834	9.2
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	172	2.0
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	29149	159.4
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	86074	147.3
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	17361	68.3
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	9847	51.8
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	19272	32.9
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	49751	187.1
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	15953	64.5
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	43460	140.1
Total (20)						979227	3189.4
Geom. Mean						27191	98.2
Shifted Geom.						27873	110.5

Table 63: MFPC type 2 using SCIP-SOS1 with B-neigh-favor-H-viol settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	208111	1167.0
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	390581	1981.8
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	212841	1044.9
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	227379	1542.0
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	171047	1142.6
MFPC26_sos1	2256	883	3.48028547	3.48028547	0.0	58727	157.6
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	100	1.5
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	8495	16.5
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	2669547	5158.1
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	72558	255.7
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	608307	1846.4
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	81471	397.1
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	504857	2051.1
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	202972	915.2
MFPC35_sos1	2944	1163	5.42068136	5.42068136	0.0	151957	1244.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	100815	250.0
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	143259	1069.5
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	69637	339.3
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	30968	230.3
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	33578	187.3
Total (20)						5947207	20997.8
Geom. Mean						96827	454.7
Shifted Geom.						100287	515.6

Table 64: MFPC type 3 using SCIP-SOS1 with B-neigh-favor-H-viol settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	9.5409649	9.5409649	0.0	15710	334.9
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	22909	421.0
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	31744	503.8
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	38686	548.5
MFPC45_sos1	4936	1907	10.2351101	10.2351101	0.0	15673	251.8
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	29581	406.7
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	44769	922.1
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	14951	298.9
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	26859	518.6
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	12684	232.8
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	35809	938.3
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	14774	283.0
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	23002	749.8
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	43779	752.5
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	54523	762.0
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	36339	446.6
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	57292	1301.4
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	53382	748.8
MFPC59_sos1	6392	2331	9.51780982	9.51780982	0.0	62918	1558.1
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	127688	3014.5
Total (20)						763072	14994.1
Geom. Mean						31928	595.1
Shifted Geom.						31945	597.0

Table 65: MFPC type 1 using SCIP-SOS1 with B-neigh-favor-H-obj settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	194862	553.7
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	93902	466.0
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	66181	148.0
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	48276	116.7
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	17305	84.8
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	37444	265.2
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	45037	161.2
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	80529	195.5
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	76291	234.2
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	47220	106.1
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	23683	84.1
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	400	3.5
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	29499	164.1
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	81244	137.6
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	18418	73.0
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	7203	39.5
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	19254	33.5
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	58256	219.3
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	15945	64.9
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	44081	142.0
Total (20)						1005030	3292.8
Geom. Mean						31879	112.2
Shifted Geom.						32239	120.7

Table 66: MFPC type 2 using SCIP-SOS1 with B-neigh-favor-H-obj settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	213527	1200.2
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	380031	1924.6
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	203041	996.3
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	227737	1548.6
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	179395	1196.8
MFPC26_sos1	2256	883	3.48028547	3.48028547	0.0	58526	158.0
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	92	1.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	8919	17.6
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	2669398	5187.3
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	72580	254.5
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	596005	1819.4
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	75474	369.0
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	506336	2046.7
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	185900	854.1
MFPC35_sos1	2944	1163	5.42068136	5.42068136	0.0	141580	1156.9
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	26451	66.4
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	111644	856.9
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	69260	337.6
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	31361	230.6
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	31957	179.4
Total (20)						5789214	20402.1
Geom. Mean						87965	414.8
Shifted Geom.						91307	473.3

Table 67: MFPC type 3 using SCIP-SOS1 with B-neigh-favor-H-obj settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	9.5409649	9.5409649	0.0	16937	352.7
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	18123	342.9
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	31696	506.7
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	38316	539.8
MFPC45_sos1	4936	1907	10.2351101	10.2351101	0.0	16378	263.1
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	34491	477.2
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	45171	917.9
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	14708	293.0
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	28144	543.9
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	10439	187.8
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	36067	933.2
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	26066	453.5
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	23042	751.1
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	29536	508.1
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	56745	782.3
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	37409	460.7
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	58538	1323.4
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	50797	720.0
MFPC59_sos1	6392	2331	9.51780982	9.51780982	0.0	60953	1522.4
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	130196	3085.7
Total (20)						763752	14965.5
Geom. Mean						32061	593.8
Shifted Geom.						32078	595.8

Table 68: MFPC type 1 using SCIP-SOS1 with B-neigh-favor-H-frac settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	194726	552.8
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	95661	472.2
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	57502	129.1
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	48588	117.3
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	17568	85.4
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	37503	263.4
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	42657	153.7
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	81109	198.7
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	89067	270.7
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	48218	106.6
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	8013	29.3
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	82	1.4
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	29160	158.4
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	82885	140.1
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	17045	66.3
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	8018	42.0
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	18603	31.9
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	56944	216.1
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	15919	64.0
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	38656	125.4
Total (20)						987924	3224.6
Geom. Mean						27726	100.3
Shifted Geom.						28857	112.7

Table 69: MFPC type 2 using SCIP-SOS1 with B-neigh-favor-H-frac settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	209105	1180.4
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	490172	2443.0
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	210017	1029.5
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	227481	1536.3
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	169781	1136.0
MFPC26_sos1	2256	883	3.48028547	3.48028547	0.0	58699	156.4
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	89	1.4
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	8872	17.0
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	2673458	5179.9
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	71546	251.6
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	580644	1785.3
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	101071	471.3
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	545790	2219.4
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	175225	796.0
MFPC35_sos1	2944	1163	5.42068136	5.42068136	0.0	141491	1147.4
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	51688	128.2
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	95621	759.8
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	67966	334.1
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	31827	230.9
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	34938	193.1
Total (20)						5945481	20996.9
Geom. Mean						92679	435.9
Shifted Geom.						96278	495.8

Table 70: MFPC type 3 using SCIP-SOS1 with B-neigh-favor-H-frac settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	9.5409649	9.5409649	0.0	17601	354.2
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	27125	477.7
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	32624	513.1
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	38248	536.6
MFPC45_sos1	4936	1907	10.2351101	10.2351101	0.0	14482	237.2
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	44695	610.9
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	44391	901.3
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	14686	291.9
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	27684	530.8
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	13763	264.7
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	37499	962.9
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	17607	311.0
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	23129	752.1
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	27585	478.4
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	56888	782.3
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	38488	475.0
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	64521	1459.4
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	50079	705.7
MFPC59_sos1	6392	2331	9.51780982	9.51780982	0.0	61542	1524.4
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	136074	3234.6
Total (20)						788711	15404.1
Geom. Mean						33031	609.9
Shifted Geom.						33047	611.7

Table 71: MFPC type 1 using SCIP-SOS1 with B-neigh-favor-H-frac-LS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	1424	579	7.30525778	7.30525778	0.0	198181	560.6
MFPC2_sos1	1789	723	10.1678231	10.1678231	0.0	86672	429.3
MFPC3_sos1	1584	643	11.2347407	11.2347407	0.0	59394	133.9
MFPC4_sos1	1327	547	6.54140697	6.54140697	0.0	46844	113.7
MFPC5_sos1	1868	819	7.97645453	7.97645453	0.0	19886	97.9
MFPC6_sos1	2680	1027	12.0121565	12.0121565	0.0	37503	266.1
MFPC7_sos1	1709	691	12.5943958	12.5943958	0.0	42657	153.1
MFPC8_sos1	1631	667	9.40050488	9.40050488	0.0	81109	200.5
MFPC9_sos1	1590	643	7.65140352	7.65140352	0.0	89067	271.8
MFPC10_sos1	1629	691	8.26991072	8.26991072	0.0	45981	103.2
MFPC11_sos1	1877	835	11.0595252	11.0595252	0.0	8013	29.4
MFPC12_sos1	1982	851	9.18420356	9.18420356	0.0	209	2.1
MFPC13_sos1	2304	987	11.0981158	11.0981158	0.0	29098	159.8
MFPC14_sos1	1639	635	12.6480591	12.6480591	0.0	82885	139.2
MFPC15_sos1	1872	835	8.62443795	8.62443795	0.0	17940	69.6
MFPC16_sos1	2102	795	8.70486733	8.70486733	0.0	9059	47.4
MFPC17_sos1	1310	555	9.62092409	9.62092409	0.0	20251	34.2
MFPC18_sos1	1792	755	8.33164376	8.33164376	0.0	60069	226.4
MFPC19_sos1	1941	891	11.4375612	11.4375612	0.0	16071	64.2
MFPC20_sos1	1903	763	10.2750971	10.2750971	0.0	43024	138.7
Total (20)						993913	3241.3
Geom. Mean						29666	104.8
Shifted Geom.						30256	115.4

Table 72: MFPC type 2 using SCIP-SOS1 with B-neigh-favor-H-frac-LS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	2175	938	3.18230611	3.18230611	0.0	208581	1176.5
MFPC22_sos1	2906	1187	9.29113902	9.29113902	0.0	373701	1885.4
MFPC23_sos1	2619	1115	5.05802475	5.05802475	0.0	211387	1034.2
MFPC24_sos1	2562	979	4.92492471	4.92492471	0.0	227520	1536.8
MFPC25_sos1	2818	1115	5.25082809	5.25082809	0.0	169781	1134.9
MFPC26_sos1	2256	883	3.48028547	3.48028547	0.0	58137	156.4
MFPC27_sos1	2298	883	2.77218318	2.77218318	0.0	89	1.6
MFPC28_sos1	1763	659	3.14212	3.14212	0.0	8872	17.0
MFPC29_sos1	1963	843	4.39231668	4.39231668	0.0	2672803	5195.0
MFPC30_sos1	2105	858	7.16405867	7.16405867	0.0	72253	253.4
MFPC31_sos1	2402	931	5.01402664	5.01402664	0.0	581865	1774.2
MFPC32_sos1	2570	1059	7.41549952	7.41549952	0.0	77598	377.2
MFPC33_sos1	2537	987	4.02050856	4.02050856	0.0	504635	2049.9
MFPC34_sos1	2834	1003	3.5099289	3.5099289	0.0	175044	797.1
MFPC35_sos1	2944	1163	5.42068136	5.42068136	0.0	141491	1151.0
MFPC36_sos1	2296	923	3.85930788	3.85930788	0.0	3224	8.2
MFPC37_sos1	2335	930	5.07695537	5.07695537	0.0	95621	761.9
MFPC38_sos1	2227	915	5.48576878	5.48576878	0.0	70381	346.6
MFPC39_sos1	2825	1090	7.2932222	7.2932222	0.0	31827	231.5
MFPC40_sos1	2635	1083	6.16286121	6.16286121	0.0	37154	207.8
Total (20)						5721964	20096.9
Geom. Mean						78633	375.0
Shifted Geom.						81790	437.7

Table 73: MFPC type 3 using SCIP-SOS1 with B-neigh-favor-H-frac-LS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	5128	1971	9.5409649	9.5409649	0.0	17354	359.7
MFPC42_sos1	5622	2083	13.9815541	13.9815541	0.0	27125	479.6
MFPC43_sos1	4673	1651	9.93746071	9.93746071	0.0	32630	514.8
MFPC44_sos1	5201	1883	10.4384517	10.4384517	0.0	38248	536.7
MFPC45_sos1	4936	1907	10.2351101	10.2351101	0.0	16938	271.7
MFPC46_sos1	5585	2083	12.88126	12.88126	0.0	44808	619.4
MFPC47_sos1	5689	2051	10.6082545	10.6082545	0.0	45135	917.9
MFPC48_sos1	7200	2491	13.9491637	13.9491637	0.0	14778	293.4
MFPC49_sos1	6233	2507	11.2051074	11.2051074	0.0	27684	534.5
MFPC50_sos1	6450	2323	13.0446808	13.0446808	0.0	15924	300.9
MFPC51_sos1	5470	1987	10.7528965	10.7528965	0.0	36488	938.5
MFPC52_sos1	5866	2131	12.1474501	12.1474501	0.0	16249	298.4
MFPC53_sos1	5753	2235	15.3807411	15.3807411	0.0	22750	751.3
MFPC54_sos1	6091	2147	12.8116036	12.8116036	0.0	27585	479.6
MFPC55_sos1	5281	1843	10.5328543	10.5328543	0.0	56888	782.5
MFPC56_sos1	5081	1875	10.8350684	10.8350684	0.0	38488	474.9
MFPC57_sos1	6202	2219	17.8152677	17.8152677	0.0	58859	1323.7
MFPC58_sos1	5592	2019	14.7324895	14.7324895	0.0	53788	764.3
MFPC59_sos1	6392	2331	9.51780982	9.51780982	0.0	61478	1523.5
MFPC60_sos1	5272	1979	7.70246013	7.70246013	0.0	136074	3234.6
Total (20)						789271	15399.9
Geom. Mean						33310	617.5
Shifted Geom.						33325	619.2

Table 74: MFPC type 1 using SCIP-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_mip	3234	1147	8.90631204	7.20822016	23.6	>690338	>7200.0
MFPC2_mip	4061	1435	15.2026375	9.68428453	57.0	>429124	>7200.0
MFPC3_mip	3615	1275	12.8970349	11.2210142	14.9	>763030	>7200.0
MFPC4_mip	2990	1067	7.65994213	6.50914558	17.7	>912904	>7200.0
MFPC5_mip	4271	1627	12.0363173	7.85066729	53.3	>423654	>7200.0
MFPC6_mip	5841	2043	19.2022672	11.2633692	70.5	>295034	>7200.0
MFPC7_mip	3805	1371	16.555615	12.4884116	32.6	>538181	>7200.0
MFPC8_mip	3711	1323	12.4589898	9.1078891	36.8	>545328	>7200.0
MFPC9_mip	3737	1275	10.9089835	7.40730832	47.3	>654152	>7200.0
MFPC10_mip	3693	1371	9.40131348	8.24950001	14.0	>533106	>7200.0
MFPC11_mip	4349	1659	16.4339684	10.9016925	50.7	>415824	>7200.0
MFPC12_mip	4718	1691	11.661929	9.03988467	29.0	>275096	>7200.0
MFPC13_mip	5232	1963	17.1681663	10.7641857	59.5	>204658	>7200.0
MFPC14_mip	3919	1259	16.2260797	12.5028374	29.8	>748110	>7200.0
MFPC15_mip	4553	1659	9.47682219	8.52973863	11.1	>296283	>7200.0
MFPC16_mip	4663	1579	14.2716351	7.83044703	82.3	>425160	>7200.0
MFPC17_mip	2986	1099	10.065534	9.62092409	4.6	>824427	>7200.0
MFPC18_mip	4255	1483	9.05253371	8.330464	8.7	>518592	>7200.0
MFPC19_mip	4649	1771	21.1377785	11.3992408	85.4	>287453	>7200.0
MFPC20_mip	4263	1499	16.4612306	9.68337642	70.0	>451811	>7200.0
Total (20)						10232265	144000.0
Geom. Mean						473681	7200.0
Shifted Geom.						473689	7200.0

Table 75: MFPC type 2 using SCIP-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_mip	3551	1866	6.16161449	2.73789297	125.0	>589552	>7200.0
MFPC22_mip	4557	2363	13.8327763	9.28176677	49.0	>1231078	>7200.0
MFPC23_mip	4196	2219	6.7973414	4.88459227	39.2	>1451520	>7200.0
MFPC24_mip	4190	1947	9.24012542	4.75211563	94.4	>1264218	>7200.0
MFPC25_mip	4325	2187	16.8622802	4.80950837	250.6	>756106	>7200.0
MFPC26_mip	3656	1755	3.72676573	3.47703301	7.2	>1727751	>7200.0
MFPC27_mip	3474	1755	3.47505811	2.77218318	25.4	>1610971	>7200.0
MFPC28_mip	2739	1307	3.56538933	3.13477831	13.7	>2240310	>7200.0
MFPC29_mip	3267	1675	4.94511149	4.39231668	12.6	>2076938	>7200.0
MFPC30_mip	3417	1706	12.9163373	7.01799522	84.0	>1468341	>7200.0
MFPC31_mip	3730	1851	5.82638546	4.98469683	16.9	>1260057	>7200.0
MFPC32_mip	4243	2107	11.8989276	7.40300369	60.7	>1363827	>7200.0
MFPC33_mip	4193	1963	5.29934266	3.91837161	35.2	>1159354	>7200.0
MFPC34_mip	4381	1995	4.75515939	3.48789691	36.3	>860005	>7200.0
MFPC35_mip	4328	2315	18.9906849	4.67295695	306.4	>907889	>7200.0
MFPC36_mip	3496	1835	8.09023092	3.80035541	112.9	>1512595	>7200.0
MFPC37_mip	3583	1850	23.8847118	4.16734689	473.1	>895059	>7200.0
MFPC38_mip	3507	1819	6.38815484	5.43678075	17.5	>1622729	>7200.0
MFPC39_mip	4281	2170	12.8676644	6.9741706	84.5	>1050660	>7200.0
MFPC40_mip	4195	2155	10.017719	5.97561572	67.6	>837640	>7200.0
Total (20)						25886600	144000.0
Geom. Mean						1224672	7200.0
Shifted Geom.						1224678	7200.0

Table 76: MFPC type 3 using SCIP-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_mip	11826	3931	11.3598154	9.24046711	22.9	>49696	>7200.0
MFPC42_mip	12957	4155	26.7361016	12.0172458	122.5	>55208	>7200.0
MFPC43_mip	10630	3291	14.5240008	9.37706087	54.9	>74175	>7200.0
MFPC44_mip	12001	3755	12.2292774	9.863465	24.0	>36361	>7200.0
MFPC45_mip	11530	3803	19.7437595	9.53957083	107.0	>62779	>7200.0
MFPC46_mip	12886	4155	19.7298059	11.715396	68.4	>28363	>7200.0
MFPC47_mip	12921	4091	22.6085534	8.75643303	158.2	>16062	>7200.0
MFPC48_mip	16014	4971	22.5318092	11.4891706	96.1	>7532	>7200.0
MFPC49_mip	14061	5003	20.2193742	8.26154302	144.7	>13790	>7200.0
MFPC50_mip	14246	4635	23.6196637	10.6174083	122.5	>21055	>7200.0
MFPC51_mip	12322	3963	19.4846782	8.1155164	140.1	>22654	>7200.0
MFPC52_mip	13346	4251	24.2820102	10.7852981	125.1	>28622	>7200.0
MFPC53_mip	13249	4459	31.4486334	13.1883457	138.5	>22623	>7200.0
MFPC54_mip	13694	4283	15.2704134	12.2084405	25.1	>29012	>7200.0
MFPC55_mip	12157	3675	16.1408305	8.81332309	83.1	>52961	>7200.0
MFPC56_mip	12229	3739	14.0682118	10.815625	30.1	>158264	>7200.0
MFPC57_mip	13844	4427	37.3974676	14.9537539	150.1	>12266	>7200.0
MFPC58_mip	12957	4027	21.7437835	12.7010733	71.2	>9872	>7200.0
MFPC59_mip	13804	4651	18.1090198	7.48101814	142.1	>28984	>7200.0
MFPC60_mip	11878	3947	12.9158384	6.92128281	86.6	>67385	>7200.0
Total (20)						797664	144000.0
Geom. Mean						30170	7200.0
Shifted Geom.						30199	7200.0

Table 77: MFPC type 1 using CPLEX-SOS1 with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_sos1	596	576	17.6922364	7.12104574	148.4	>7919147	>7200.0
MFPC2_sos1	738	720	80.590638	9.48845194	749.4	>5845383	>7200.0
MFPC3_sos1	660	640	53.9576758	10.5371513	412.1	>6971592	>7200.0
MFPC4_sos1	554	536	20.6458476	6.5165434	216.8	>8271824	>7200.0
MFPC5_sos1	834	816	30.8189247	7.46805498	312.7	>5741936	>7200.0
MFPC6_sos1	1037	1016	117.386712	10.2000786	1050.8	>4980680	>7200.0
MFPC7_sos1	706	688	43.3998528	11.7558311	269.2	>7124909	>7200.0
MFPC8_sos1	684	664	46.2069818	8.85164311	422.0	>5607620	>7200.0
MFPC9_sos1	659	640	52.3536248	7.37688094	609.7	>6107557	>7200.0
MFPC10_sos1	706	688	51.5059572	8.23361576	525.6	>6747800	>7200.0
MFPC11_sos1	850	832	61.2432604	9.53715802	542.2	>5516641	>7200.0
MFPC12_sos1	867	848	45.1616846	8.3804943	438.9	>5214441	>7200.0
MFPC13_sos1	1004	984	50.1571401	10.5175587	376.9	>4917355	>7200.0
MFPC14_sos1	652	632	62.7135647	12.3214937	409.0	>6786155	>7200.0
MFPC15_sos1	853	832	31.9962242	8.25875975	287.4	>6865219	>7200.0
MFPC16_sos1	811	792	62.3034211	7.96508274	682.2	>6192236	>7200.0
MFPC17_sos1	562	544	41.0974874	9.42809839	335.9	>7531662	>7200.0
MFPC18_sos1	772	752	28.6611363	7.96160422	260.0	>7303061	>7200.0
MFPC19_sos1	906	888	111.257134	11.1669187	896.3	>4777925	>7200.0
MFPC20_sos1	780	760	75.7162873	9.67664443	682.5	>5146055	>7200.0
Total (20)						125569198	144000.0
Geom. Mean						6195272	7200.0
Shifted Geom.						6195286	7200.0

Table 78: MFPC type 2 using CPLEX-SOS1 with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_sos1	965	936	9.81080716	3.05802389	220.8	>7036118	>7200.0
MFPC22_sos1	1214	1184	21.9640412	9.25089222	137.4	>6831113	>7200.0
MFPC23_sos1	1144	1112	14.6914524	4.88984658	200.4	>7018408	>7200.0
MFPC24_sos1	1007	976	23.4847509	4.37747932	436.5	>5985504	>7200.0
MFPC25_sos1	1142	1112	28.816645	4.80012904	500.3	>5314087	>7200.0
MFPC26_sos1	909	880	6.78063964	3.45212892	96.4	>7593279	>7200.0
MFPC27_sos1	911	880	4.17849628	2.77218318	50.7	>9257019	>7200.0
MFPC28_sos1	687	656	3.3965292	3.14212	8.1	>13945619	>7200.0
MFPC29_sos1	872	840	9.18779287	4.39226725	109.2	>8321695	>7200.0
MFPC30_sos1	887	856	14.2909227	6.49344395	120.1	>7154768	>7200.0
MFPC31_sos1	959	928	11.701094	5.00128129	134.0	>7626040	>7200.0
MFPC32_sos1	1088	1056	20.3043928	7.37557862	175.3	>7266035	>7200.0
MFPC33_sos1	1014	984	8.17986969	3.7638096	117.3	>7905852	>7200.0
MFPC34_sos1	1031	1000	5.70499345	3.49292002	63.3	>6923674	>7200.0
MFPC35_sos1	1189	1160	31.2909103	4.86342223	543.4	>5389374	>7200.0
MFPC36_sos1	940	912	19.9149146	3.71653729	435.8	>7164914	>7200.0
MFPC37_sos1	957	928	31.7067382	4.63760944	583.7	>6099472	>7200.0
MFPC38_sos1	943	912	15.1411695	4.84741451	212.4	>7066726	>7200.0
MFPC39_sos1	1119	1088	26.9328649	6.4634658	316.7	>5711604	>7200.0
MFPC40_sos1	1103	1072	10.0899397	5.82439983	73.2	>6355832	>7200.0
Total (20)						145967133	144000.0
Geom. Mean						7128374	7200.0
Shifted Geom.						7128394	7200.0

Table 79: MFPC type 3 using CPLEX-SOS1 with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_sos1	2013	1968	33.44687	9.39167458	256.1	>4660578	>7200.0
MFPC42_sos1	2123	2080	188.361323	10.3582165	1718.5	>3192050	>7200.0
MFPC43_sos1	1694	1648	68.9685793	8.96835888	669.0	>4071894	>7200.0
MFPC44_sos1	1926	1880	38.0303793	10.0199677	279.5	>4096420	>7200.0
MFPC45_sos1	1950	1904	134.925804	9.64657661	1298.7	>3436004	>7200.0
MFPC46_sos1	2125	2080	85.8195169	11.6893607	634.2	>3663211	>7200.0
MFPC47_sos1	2094	2048	66.0872513	9.11599928	625.0	>3786439	>7200.0
MFPC48_sos1	2533	2488	84.274931	11.7638335	616.4	>2936607	>7200.0
MFPC49_sos1	2549	2504	96.0410528	8.17190964	1075.3	>2955545	>7200.0
MFPC50_sos1	2367	2320	110.878586	9.95734015	1013.5	>3394842	>7200.0
MFPC51_sos1	2027	1984	97.1132699	8.50779944	1041.5	>3236182	>7200.0
MFPC52_sos1	2175	2128	149.129413	11.3000236	1219.7	>3207343	>7200.0
MFPC53_sos1	2278	2232	138.110533	9.61096172	1337.0	>2965416	>6613.4
MFPC54_sos1	2191	2144	32.3021684	9.89530606	226.4	>3743327	>7200.0
MFPC55_sos1	1886	1840	89.9068233	8.64202511	940.3	>4086395	>7200.0
MFPC56_sos1	1918	1872	56.7694858	10.8350684	423.9	>4419956	>7200.0
MFPC57_sos1	2261	2216	232.403848	13.7179831	1594.2	>2983044	>7200.0
MFPC58_sos1	2060	2016	70.8600762	13.8199877	412.7	>3744421	>7200.0
MFPC59_sos1	2364	2320	73.3746366	8.70996929	742.4	>3092924	>7200.0
MFPC60_sos1	2021	1976	40.0373951	6.87276306	482.6	>4093741	>7200.0
Total (20)						71766339	143413.5
Geom. Mean						3552619	7169.5
Shifted Geom.						3552629	7169.5

Table 80: MFPC type 1 using CPLEX-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC1_mip	2396	1144	8.70835027	7.30525778	19.2	>841038	>7200.0
MFPC2_mip	3018	1432	16.451177	9.95887399	65.2	>433595	>4424.7
MFPC3_mip	2804	1272	12.8637998	11.1039016	15.8	>1025146	>7200.0
MFPC4_mip	2290	1048	7.6386896	6.51559428	17.2	>1332999	>7200.0
MFPC5_mip	3154	1624	11.7113155	7.9072681	48.1	>430012	>7200.0
MFPC6_mip	4453	2024	19.5949937	11.3531509	72.6	>229306	>7200.0
MFPC7_mip	2954	1368	16.6317972	12.545388	32.6	>642784	>6989.5
MFPC8_mip	2804	1320	13.0139041	9.26260601	40.5	>418768	>3456.3
MFPC9_mip	2827	1272	11.2772603	7.65140352	47.4	>710458	>5628.1
MFPC10_mip	2794	1368	10.0698992	8.26616981	21.8	>470684	>7200.0
MFPC11_mip	3346	1656	16.9339513	10.9016925	55.3	>327565	>7200.0
MFPC12_mip	3571	1688	11.5651568	9.18420356	25.9	>225198	>7200.0
MFPC13_mip	3884	1960	17.5587314	10.8337974	62.1	>303426	>7200.0
MFPC14_mip	2980	1256	16.0175435	12.5451987	27.7	>885799	>5790.8
MFPC15_mip	3389	1656	9.43400959	8.61083113	9.6	>384134	>7200.0
MFPC16_mip	3587	1576	15.2678149	8.64428498	76.6	>381335	>4752.9
MFPC17_mip	2146	1064	9.66536554	9.62092409	0.5	>1900394	>7200.0
MFPC18_mip	3124	1480	8.70822403	8.33164376	4.5	>854303	>7200.0
MFPC19_mip	3442	1752	21.7265046	11.4300386	90.1	>274776	>7200.0
MFPC20_mip	3332	1496	17.8891791	10.0130389	78.7	>350879	>4622.2
Total (20)						12422599	129264.5
Geom. Mean						519000	6330.8
Shifted Geom.						519160	6332.3

Table 81: MFPC type 2 using CPLEX-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC21_mip	3159	1864	5.05205877	3.18230611	58.8	>3184350	>7200.0
MFPC22_mip	4174	2360	11.7169336	9.28060322	26.3	>1161713	>7200.0
MFPC23_mip	3544	2216	6.55898616	5.05802475	29.7	>2172239	>7200.0
MFPC24_mip	3527	1944	8.35443869	4.89362806	70.7	>755775	>7200.0
MFPC25_mip	3976	2184	15.2755683	4.90892019	211.2	>232788	>4166.0
MFPC26_mip	3109	1752	3.49287208	3.48028547	0.4	>3949325	>7200.0
MFPC27_mip	3023	1752	2.77218377	2.77218318	0.0	2518432	3512.1
MFPC28_mip	2311	1304	3.14212088	3.14212	0.0	4876314	4355.9
MFPC29_mip	2776	1672	4.39233214	4.39231668	0.0	>3929787	>7200.0
MFPC30_mip	2955	1704	11.5791506	7.06119545	64.0	>1911341	>7200.0
MFPC31_mip	3265	1848	5.6971761	5.01402664	13.6	>2946666	>7200.0
MFPC32_mip	3633	2104	9.60038403	7.40399584	29.7	>1441741	>7200.0
MFPC33_mip	3398	1960	4.79842352	3.97401088	20.7	>3024456	>7200.0
MFPC34_mip	3787	1992	4.73328383	3.49292002	35.5	>1662196	>7200.0
MFPC35_mip	4029	2312	13.0236113	5.29100023	146.1	>390640	>7200.0
MFPC36_mip	3120	1816	4.52487338	3.85930788	17.2	>2304398	>7200.0
MFPC37_mip	3309	1848	13.0081657	5.07695537	156.2	>637447	>7200.0
MFPC38_mip	3095	1816	6.24161638	5.45022336	14.5	>1815065	>7200.0
MFPC39_mip	3871	2168	11.2844247	6.983043	61.6	>1621110	>7200.0
MFPC40_mip	3679	2136	9.48767207	6.15049759	54.3	>1505126	>7200.0
Total (20)						42040909	134433.9
Geom. Mean						1668483	6591.0
Shifted Geom.						1668921	6592.6

Table 82: MFPC type 3 using CPLEX-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
MFPC41_mip	8765	3928	11.8823756	9.49495075	25.1	>47959	>7200.0
MFPC42_mip	9803	4152	28.5020755	12.8851437	121.2	>24482	>7200.0
MFPC43_mip	8110	3288	15.0935973	9.89329289	52.6	>128964	>7200.0
MFPC44_mip	9102	3752	12.2214362	10.4284232	17.2	>54603	>7200.0
MFPC45_mip	8622	3800	20.7182234	10.0726249	105.7	>58153	>7200.0
MFPC46_mip	9637	4152	20.7590154	12.7713294	62.5	>34613	>7200.0
MFPC47_mip	9758	4088	22.885453	10.315268	121.9	>44093	>7200.0
MFPC48_mip	15389	4968	23.2091741	13.2519753	75.1	>11803	>7200.0
MFPC49_mip	10813	5000	21.0976204	10.937811	92.9	>34251	>7200.0
MFPC50_mip	11007	4632	26.2836709	12.7158635	106.7	>25698	>7200.0
MFPC51_mip	9267	3960	20.6825096	9.89093363	109.1	>23879	>7200.0
MFPC52_mip	10223	4248	26.4337751	11.7427873	125.1	>32985	>7200.0
MFPC53_mip	10326	4456	31.0958522	14.6929762	111.6	>24441	>7200.0
MFPC54_mip	10367	4280	15.1898983	12.6193003	20.4	>47476	>7200.0
MFPC55_mip	9278	3672	17.061547	10.4464886	63.3	>52436	>7200.0
MFPC56_mip	9326	3736	14.4837736	10.8350684	33.7	>162067	>7075.3
MFPC57_mip	10589	4424	38.4608717	16.6605599	130.8	>14220	>7200.0
MFPC58_mip	9660	4024	22.5179456	13.9823539	61.0	>32771	>7200.0
MFPC59_mip	10724	4632	19.6880431	9.30172802	111.7	>24569	>7200.0
MFPC60_mip	8853	3944	13.4612405	7.31637135	84.0	>36504	>7200.0
Total (20)						915967	143875.3
Geom. Mean						37125	7193.7
Shifted Geom.						37303	7193.7

Table 83: TPESC type 1 using SCIP-SOS1 with B-SOS1 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142434.895	142907.658	0.3	>571703	>7200.0
TPESC2_sos1	66015	2250	154843.932	155853.999	0.7	>377826	>7200.0
TPESC3_sos1	53700	2250	168833.623	169559.037	0.4	>574326	>7200.0
TPESC4_sos1	58605	2250	166229.33	167760.806	0.9	>450466	>7200.0
TPESC5_sos1	57300	2250	168067.962	169318.105	0.7	>431582	>7200.0
TPESC6_sos1	53415	2250	161789.893	163072.008	0.8	>592427	>7200.0
TPESC7_sos1	50175	2250	157931.731	159014.35	0.7	>568714	>7200.0
TPESC8_sos1	60810	2250	154636.233	155681.66	0.7	>534180	>7200.0
TPESC9_sos1	52770	2250	162237.207	163207.733	0.6	>498913	>7200.0
TPESC10_sos1	62700	2250	140507.306	141236.665	0.5	>456503	>7200.0
TPESC11_sos1	53085	2250	159184.344	159852.479	0.4	>565049	>7200.0
TPESC12_sos1	53190	2250	150565.551	151121.81	0.4	>598901	>7200.0
TPESC13_sos1	57465	2250	168956.759	170119.099	0.7	>463160	>7200.0
TPESC14_sos1	57570	2250	135230.064	136008.593	0.6	>403338	>7200.0
TPESC15_sos1	57765	2250	162092.812	163187.266	0.7	>477751	>7200.0
TPESC16_sos1	55140	2250	157606.825	158623.144	0.6	>515189	>7200.0
TPESC17_sos1	53430	2250	165020.672	165744.3	0.4	>479221	>7200.0
TPESC18_sos1	53370	2250	159714.149	160319.227	0.4	>660424	>7200.0
TPESC19_sos1	52575	2250	157486.373	158265.312	0.5	>577978	>7200.0
TPESC20_sos1	61770	2250	140564.117	141666.207	0.8	>466882	>7200.0
Total (20)						10264533	144000.0
Geom. Mean						508072	7200.0
Shifted Geom.						508073	7200.0

Table 84: TPESC type 2 using SCIP-SOS1 with B-SOS1 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	165020.511	167227.223	1.3	>442176	>7200.0
TPESC22_sos1	59085	2250	125277.063	126454.746	0.9	>417361	>7200.0
TPESC23_sos1	43830	2250	168097.681	169289.635	0.7	>773634	>7200.0
TPESC24_sos1	62160	2250	155984.774	157862.013	1.2	>350600	>7200.0
TPESC25_sos1	51645	2250	155015.468	156513.506	1.0	>534282	>7200.0
TPESC26_sos1	52455	2250	161122.057	162268.928	0.7	>503039	>7200.0
TPESC27_sos1	54990	2250	149965.213	151086.094	0.7	>464144	>7200.0
TPESC28_sos1	58155	2250	158042.903	159575.317	1.0	>362648	>7200.0
TPESC29_sos1	60525	2250	171457.838	173099.158	1.0	>402447	>7200.0
TPESC30_sos1	49890	2250	159942.516	161628.671	1.1	>466317	>7200.0
TPESC31_sos1	62430	2250	150282.096	151970.593	1.1	>381481	>7200.0
TPESC32_sos1	53370	2250	161658.639	163647.364	1.2	>524784	>7200.0
TPESC33_sos1	49005	2250	148281.142	149950.097	1.1	>609101	>7200.0
TPESC34_sos1	50280	2250	135953.981	137241.072	0.9	>529165	>7200.0
TPESC35_sos1	49050	2250	160489.265	161318.513	0.5	>662322	>7200.0
TPESC36_sos1	54225	2250	162280.446	164763.22	1.5	>522859	>7200.0
TPESC37_sos1	40050	2250	155064.924	156403.411	0.9	>894021	>7200.0
TPESC38_sos1	49185	2250	163836.299	165220.934	0.8	>590586	>7200.0
TPESC39_sos1	59910	2250	164684.958	166284.428	1.0	>371211	>7200.0
TPESC40_sos1	52605	2250	164411.837	166247.164	1.1	>684206	>7200.0
TPESC41_sos1	65430	2250	170951.378	173547.563	1.5	>296251	>7200.0
TPESC42_sos1	52935	2250	163148.569	165695.121	1.6	>610598	>7200.0
TPESC43_sos1	52800	2250	167935.264	170236.605	1.4	>504155	>7200.0
TPESC44_sos1	57600	2250	169661.594	172556.012	1.7	>397965	>7200.0
TPESC45_sos1	63480	2250	151500.486	153218.072	1.1	>321191	>7200.0
TPESC46_sos1	59970	2250	166235.725	167957.099	1.0	>506016	>7200.0
TPESC47_sos1	51090	2250	172105.233	175245.021	1.8	>471025	>7200.0
TPESC48_sos1	48855	2250	162294.303	163231.312	0.6	>591084	>7200.0
TPESC49_sos1	53670	2250	163687.407	165491.694	1.1	>451516	>7200.0
TPESC50_sos1	50955	2250	153742.234	155324.676	1.0	>642738	>7200.0
TPESC51_sos1	60045	2250	157000.336	158340.383	0.9	>383329	>7200.0
TPESC52_sos1	59895	2250	168016.201	170547.528	1.5	>426651	>7200.0
TPESC53_sos1	56235	2250	138448.352	140554.184	1.5	>391256	>7200.0
TPESC54_sos1	75765	2250	168686.514	171250.171	1.5	>254063	>7200.0
TPESC55_sos1	59775	2250	169882.849	171409.697	0.9	>316526	>7200.0
TPESC56_sos1	65250	2250	171016.084	173722.24	1.6	>265414	>7200.0
TPESC57_sos1	55080	2250	146826.323	148385.834	1.1	>449893	>7200.0
TPESC58_sos1	66105	2250	168042.856	170093.598	1.2	>329583	>7200.0
TPESC59_sos1	56835	2250	169091.415	170811.481	1.0	>335814	>7200.0
TPESC60_sos1	51630	2250	156933.161	157841.467	0.6	>617333	>7200.0
Total (40)						19048785	288000.0
Geom. Mean						457251	7200.0
Shifted Geom.						457255	7200.0

Table 85: TPESC type 3 using SCIP-SOS1 with B-SOS1 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	164600.045	167310.426	1.6	>398134	>7200.0
TPESC62_sos1	100835	3000	156547.018	158526.774	1.3	>217701	>7200.0
TPESC63_sos1	87920	3000	148289.912	149761.359	1.0	>312939	>7200.0
TPESC64_sos1	103430	3000	165766.648	168222.909	1.5	>190034	>7200.0
TPESC65_sos1	99290	3000	173240.374	175574.567	1.3	>223686	>7200.0
TPESC66_sos1	111215	3000	168697.683	170735.368	1.2	>169958	>7200.0
TPESC67_sos1	99335	3000	187190.411	189319.56	1.1	>240267	>7200.0
TPESC68_sos1	102335	3000	162034.872	164081.692	1.3	>240059	>7200.0
TPESC69_sos1	107735	3000	163237.075	166050.846	1.7	>202540	>7200.0
TPESC70_sos1	96590	3000	169180.099	171371.704	1.3	>204882	>7200.0
TPESC71_sos1	110315	3000	168867.158	171332.891	1.5	>189396	>7200.0
TPESC72_sos1	98945	3000	180264.902	182516.258	1.2	>281914	>7200.0
TPESC73_sos1	87830	3000	159659.063	161175.417	0.9	>299583	>7200.0
TPESC74_sos1	98165	3000	170799.173	173055.334	1.3	>188103	>7200.0
TPESC75_sos1	84095	3000	163181.461	164591.687	0.9	>266047	>7200.0
TPESC76_sos1	95375	3000	178679.637	180680.302	1.1	>189649	>7200.0
TPESC77_sos1	91130	3000	172539.631	174559.923	1.2	>257733	>7200.0
TPESC78_sos1	77375	3000	158015.736	159944.876	1.2	>360372	>7200.0
TPESC79_sos1	87125	3000	159301.725	161023.133	1.1	>304528	>7200.0
TPESC80_sos1	85700	3000	173775.293	175047.119	0.7	>288616	>7200.0
TPESC81_sos1	90935	3000	158898.442	160765.112	1.2	>305144	>7200.0
TPESC82_sos1	78080	3000	172957.358	174428.43	0.9	>406458	>7200.0
TPESC83_sos1	80915	3000	199307.956	200811.737	0.8	>297724	>7200.0
TPESC84_sos1	100940	3000	140374.839	141118.58	0.5	>178759	>7200.0
TPESC85_sos1	92000	3000	155129.733	156954.654	1.2	>276345	>7200.0
TPESC86_sos1	93005	3000	182391.456	183893.794	0.8	>222507	>7200.0
TPESC87_sos1	80990	3000	139286.513	140485.299	0.9	>345272	>7200.0
TPESC88_sos1	100820	3000	160078.893	161586.219	0.9	>218806	>7200.0
TPESC89_sos1	83885	3000	168502.179	170617.484	1.3	>253676	>7200.0
TPESC90_sos1	76205	3000	162836.593	164180.85	0.8	>383684	>7200.0
Total (30)						7914516	216000.0
Geom. Mean						255843	7200.0
Shifted Geom.						255846	7200.0

Table 86: TPESC type 1 using SCIP-SOS1 with B-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	2257	19.8
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	6881	55.3
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	4639	31.1
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	13627	91.8
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	10491	77.2
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	13853	79.8
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	16399	88.9
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	6695	41.2
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	9625	64.2
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	4841	36.9
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	6275	42.7
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	3269	22.4
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	7961	61.6
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	4959	44.1
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	9891	64.2
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	11053	69.9
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	3401	29.1
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	3955	21.2
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	7075	42.2
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	16615	112.6
Total (20)						163762	1096.2
Geom. Mean						7087	48.7
Shifted Geom.						7103	49.8

Table 87: TPESC type 2 using SCIP-SOS1 with B-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	410381	2418.0
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	44237	289.2
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	35017	160.6
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	344991	2668.4
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	76007	400.8
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	33309	209.3
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	17935	131.9
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	29263	232.1
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	70803	470.2
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	132105	766.9
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	158035	1059.4
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	191885	998.1
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	152651	691.4
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	84973	411.1
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	10529	60.9
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	109443	615.5
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	132139	429.9
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	125277	710.2
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	49395	386.8
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	538501	2488.1
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	454177	4258.2
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	375825	1776.5
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	201709	1120.0
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	184151	1208.5
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	100881	808.9
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	219985	1309.4
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	730075	3812.5
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	35227	177.3
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	28959	197.1
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	67493	325.9
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	81985	507.5
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	589827	3722.9
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	727363	3889.7
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	66731	701.3
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	29265	282.3
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	215905	2068.1
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	77371	491.3
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	141997	1418.1
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	72263	560.1
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	55503	273.5
Total (40)						7203568	44508.1
Geom. Mean						108395	673.9
Shifted Geom.						108461	680.2

Table 88: TPESC type 3 using SCIP-SOS1 with B-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	166682.69	167310.426	0.4	>771709	>7200.0
TPESC62_sos1	100835	3000	157981.076	158526.774	0.3	>465938	>7200.0
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	108871	943.8
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	159617	1972.7
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	145205	1774.1
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	144043	2171.6
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	242667	2990.6
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	98043	1210.2
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	238865	3074.7
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	136377	1855.3
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	406613	4769.8
TPESC72_sos1	98945	3000	182224.249	182516.258	0.2	>681341	>7200.0
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	204783	1735.1
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	156589	2314.7
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	74489	708.8
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	47221	766.2
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	281617	2674.2
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	468511	3304.7
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	391791	3433.4
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	130849	1249.7
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	260459	2164.8
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	284981	2101.4
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	374589	3119.6
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	10977	229.5
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	600031	5636.1
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	60827	810.3
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	88805	599.6
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	53873	696.4
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	233567	2118.6
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	42901	349.5
Total (30)						7366149	76375.4
Geom. Mean						171898	1848.0
Shifted Geom.						171970	1852.9

Table 89: TPESC type 1 using SCIP-SOS1 with B-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	359	5.0
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	715	9.1
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	1037	9.6
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	1383	13.6
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	1067	10.4
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	1091	8.5
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	1585	10.8
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	1177	9.2
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	1045	9.8
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	649	7.7
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	1593	13.3
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	729	7.1
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	891	9.9
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	877	9.4
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	1229	10.1
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	1437	11.0
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	397	5.5
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	785	6.0
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	1093	8.6
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	1581	13.6
Total (20)						20720	188.1
Geom. Mean						962	9.1
Shifted Geom.						971	9.3

Table 90: TPESC type 2 using SCIP-SOS1 with B-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	32379	204.1
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	9597	62.4
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	11513	55.3
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	24769	194.7
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	9425	54.9
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	8667	56.2
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	3757	30.4
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	5611	45.2
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	11617	83.2
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	27047	152.1
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	16635	123.4
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	18139	105.1
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	17735	81.4
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	21597	109.4
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	2393	16.0
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	22163	113.0
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	32321	117.7
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	21387	127.1
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	6865	55.8
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	72761	341.6
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	30357	282.9
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	39637	200.5
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	40369	225.0
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	22739	152.1
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	10191	86.5
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	16417	100.8
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	83725	440.4
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	8717	41.4
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	8059	55.1
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	13061	73.0
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	12717	81.2
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	48619	316.6
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	100857	618.9
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	4949	61.4
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	5557	57.8
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	26019	220.0
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	14603	96.6
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	12565	131.0
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	7949	70.8
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	10265	52.9
Total (40)						893750	5493.6
Geom. Mean						15833	102.9
Shifted Geom.						15871	105.6

Table 91: TPESC type 3 using SCIP-SOS1 with B-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	95719	742.2
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	33459	422.0
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	10479	97.6
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	14071	168.0
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	15427	169.7
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	8637	143.6
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	16245	200.4
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	14555	176.1
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	9915	138.1
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	12319	182.7
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	33637	403.0
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	45397	443.6
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	28379	238.7
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	17357	247.3
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	19251	192.2
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	10441	153.9
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	37481	364.3
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	51209	379.4
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	26095	243.3
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	16161	156.5
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	29467	253.0
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	21579	173.1
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	34111	274.7
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	1583	36.6
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	52875	465.6
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	9193	127.2
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	15677	109.1
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	6215	89.9
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	29113	258.1
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	10531	94.9
Total (30)						726578	7144.9
Geom. Mean						18542	200.4
Shifted Geom.						18587	202.4

Table 92: TPESC type 1 using SCIP-SOS1 with B-nonzero settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	2257	21.3
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	6881	62.8
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	4639	36.8
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	13627	111.9
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	10491	85.7
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	13853	92.7
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	16399	107.3
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	6695	48.2
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	9625	73.4
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	4841	40.8
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	6275	49.9
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	3269	25.4
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	7961	70.2
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	4959	48.4
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	9891	75.3
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	11053	79.4
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	3401	32.5
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	3955	24.2
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	7075	48.3
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	16615	131.8
Total (20)						163762	1266.1
Geom. Mean						7087	55.8
Shifted Geom.						7103	57.0

Table 93: TPESC type 2 using SCIP-SOS1 with B-nonzero settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	410381	2957.5
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	44237	343.9
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	35017	193.7
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	344991	3187.2
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	76007	478.2
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	33309	244.3
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	17935	148.8
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	29263	271.0
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	70787	557.2
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	132105	910.6
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	158035	1303.2
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	191885	1232.4
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	152651	835.7
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	84973	518.3
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	10529	69.7
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	109451	745.3
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	132139	538.1
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	125279	836.1
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	49395	456.1
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	538503	3099.6
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	454179	5086.7
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	375819	2251.3
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	201709	1371.3
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	184151	1464.1
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	100881	958.8
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	219985	1612.3
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	730075	4770.0
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	35227	208.9
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	28959	233.8
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	67493	391.6
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	81985	638.7
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	589827	4638.3
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	727363	5091.9
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	66731	807.9
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	29265	321.4
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	215905	2455.0
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	77371	595.9
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	141997	1650.7
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	72263	647.2
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	55503	329.1
Total (40)						7203560	54451.8
Geom. Mean						108394	810.6
Shifted Geom.						108460	817.3

Table 94: TPESC type 3 using SCIP-SOS1 with B-nonzero settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	166715.43	167310.426	0.4	>586509	>7200.0
TPESC62_sos1	100835	3000	158001.399	158526.774	0.3	>358749	>7200.0
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	108871	1121.1
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	159617	2369.0
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	145205	2126.1
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	144043	2606.9
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	242667	3573.1
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	98043	1411.6
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	238865	3686.7
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	136377	2192.7
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	406611	6003.4
TPESC72_sos1	98945	3000	182170.534	182516.258	0.2	>512162	>7200.0
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	204785	2174.2
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	156589	2699.2
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	74489	839.4
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	47301	879.7
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	281617	3373.2
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	468335	4213.6
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	391787	4194.2
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	130849	1482.6
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	260721	2680.0
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	285007	2595.6
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	374589	3855.9
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	10977	253.6
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	600039	6917.1
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	60839	924.7
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	88803	741.3
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	53873	789.8
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	233715	2625.0
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	42903	423.8
Total (30)						6904937	88353.5
Geom. Mean						167274	2181.8
Shifted Geom.						167342	2186.7

Table 95: TPESC type 1 using SCIP-SOS1 with B-neigh-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	445	5.1
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	757	8.9
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	1105	9.4
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	1911	16.1
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	1379	12.8
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	1329	8.9
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	1927	12.1
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	1663	11.6
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	1407	11.6
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	959	9.8
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	1819	13.9
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	833	7.2
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	1165	10.8
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	929	9.0
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	1879	13.5
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	2069	14.3
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	559	6.2
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	1031	7.1
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	1161	8.1
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	2239	16.8
Total (20)						26566	212.9
Geom. Mean						1220	10.2
Shifted Geom.						1230	10.4

Table 96: TPESC type 2 using SCIP-SOS1 with B-neigh-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	42405	354.0
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	12405	86.8
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	11617	56.3
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	26849	255.3
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	11355	72.2
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	8715	58.0
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	3985	32.7
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	7277	64.7
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	11407	83.0
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	22577	158.6
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	20155	160.0
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	21259	145.6
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	17091	88.2
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	19477	114.5
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	2957	19.3
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	23799	142.4
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	34945	136.5
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	20231	125.8
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	8969	71.3
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	78779	588.5
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	40055	560.3
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	41685	239.8
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	38917	282.3
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	26719	225.7
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	11211	104.1
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	24825	186.7
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	87641	836.8
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	10837	53.1
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	7455	55.4
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	11613	67.0
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	14531	96.7
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	65209	545.1
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	113863	880.6
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	4807	68.2
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	5369	61.5
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	38377	429.9
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	16491	110.2
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	13771	174.1
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	11715	111.0
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	12775	71.0
Total (40)						1004120	7973.3
Geom. Mean						17724	132.8
Shifted Geom.						17762	136.3

Table 97: TPESC type 3 using SCIP-SOS1 with B-neigh-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	109153	2004.8
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	52667	977.0
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	9307	91.7
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	14145	234.4
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	12827	189.9
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	10639	217.5
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	15251	243.5
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	12375	171.3
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	11911	211.6
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	16057	297.7
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	33749	575.9
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	43131	588.2
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	35169	308.8
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	20539	372.7
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	13911	157.5
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	8177	139.7
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	32761	436.6
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	54155	528.0
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	31809	351.0
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	13941	152.0
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	22955	230.3
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	29969	284.6
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	34349	318.8
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	1941	48.7
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	69157	945.0
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	11623	168.1
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	20001	152.4
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	6305	92.7
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	26017	292.0
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	10889	99.7
Total (30)						784880	10882.0
Geom. Mean						19445	261.1
Shifted Geom.						19488	264.0

Table 98: TPESC type 1 using SCIP-SOS1 with B-bip-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	359	5.0
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	715	9.1
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	1037	9.6
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	1379	13.6
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	1069	10.4
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	1091	8.5
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	1585	10.9
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	1177	9.2
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	1051	9.8
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	649	7.7
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	1593	13.3
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	729	7.1
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	885	9.8
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	877	9.4
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	1229	10.1
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	1437	11.0
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	397	5.5
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	785	6.0
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	1093	8.7
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	1581	13.6
Total (20)						20718	188.2
Geom. Mean						962	9.1
Shifted Geom.						971	9.3

Table 99: TPESC type 2 using SCIP-SOS1 with B-bip-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	31893	205.4
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	9505	63.0
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	11543	55.9
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	23669	191.6
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	9279	54.5
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	8467	55.8
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	3731	30.4
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	5585	45.2
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	11491	83.4
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	26529	152.2
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	16495	124.3
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	17223	101.8
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	17323	81.9
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	21579	110.7
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	2401	16.2
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	21721	112.4
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	31193	117.0
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	21659	129.9
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	6777	56.3
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	71101	352.8
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	29315	284.5
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	37911	199.1
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	39097	225.8
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	22443	154.0
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	9753	84.7
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	16135	101.5
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	81711	455.1
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	8575	41.3
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	7709	54.0
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	12955	73.4
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	12551	82.2
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	47161	317.9
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	99927	551.7
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	4681	60.9
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	5415	57.0
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	25563	222.0
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	14409	96.4
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	12303	131.6
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	7687	71.0
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	10167	53.1
Total (40)						874632	5457.7
Geom. Mean						15513	102.9
Shifted Geom.						15550	105.5

Table 100: TPESC type 3 using SCIP-SOS1 with B-bip-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	92249	777.4
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	32909	426.0
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	10347	98.0
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	13885	169.1
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	15267	171.2
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	8405	142.8
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	15959	200.4
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	13733	171.3
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	9819	138.6
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	12287	183.8
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	32789	405.1
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	42857	444.9
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	28533	242.6
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	17045	248.2
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	19069	192.6
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	10383	154.4
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	36559	366.5
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	50127	381.4
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	25727	246.5
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	14641	147.8
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	27007	241.0
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	21295	173.3
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	33423	272.8
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	1571	36.6
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	52139	471.4
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	9027	125.5
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	15291	107.6
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	6165	91.1
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	28029	257.6
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	9617	89.5
Total (30)						706154	7174.9
Geom. Mean						18055	200.0
Shifted Geom.						18099	202.0

Table 101: TPESC type 1 using SCIP-SOS1 with B-neigh-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	73	36.3
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	313	110.3
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	271	78.0
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	843	169.5
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	373	110.4
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	643	116.3
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	857	128.1
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	309	84.7
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	441	122.7
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	239	96.3
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	447	117.5
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	147	47.9
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	469	124.6
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	273	101.8
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	567	112.4
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	629	112.7
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	143	61.8
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	193	42.2
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	315	75.8
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	1137	138.8
Total (20)						8682	1988.0
Geom. Mean						355	92.6
Shifted Geom.						373	93.4

Table 102: TPESC type 2 using SCIP-SOS1 with B-neigh-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	113457	1788.7
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	14637	518.7
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	3771	243.9
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	124495	2315.1
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	8869	400.7
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	8015	347.8
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	2067	236.7
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	2327	359.4
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	6595	549.1
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	33493	976.0
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	36289	1134.6
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	49463	771.5
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	14405	414.9
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	18121	693.1
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	543	113.0
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	73061	743.9
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	57685	470.8
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	17697	600.0
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	5535	428.6
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	128123	1779.3
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	156131	4002.6
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	120491	1118.0
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	75099	1274.8
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	49721	1084.4
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	8783	760.3
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	50623	1158.8
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	295035	3136.2
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	16771	234.8
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	4077	332.6
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	17107	410.8
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	10603	512.0
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	274395	3514.2
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	432237	3493.5
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	9527	937.6
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	3707	414.7
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	52475	2416.6
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	13247	657.4
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	22225	1889.1
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	10805	833.6
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	7691	319.5
Total (40)						2349398	43387.1
Geom. Mean						21988	759.0
Shifted Geom.						22174	762.8

Table 103: TPESC type 3 using SCIP-SOS1 with B-neigh-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	166913.484	167310.426	0.2	>390272	>7200.0
TPESC62_sos1	100835	3000	158176.609	158526.774	0.2	>200740	>7200.0
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	37025	838.2
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	50827	2254.6
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	36439	1791.3
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	29817	2113.4
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	45571	2631.3
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	34857	1491.7
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	45555	2969.3
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	33125	1969.0
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	111899	4233.3
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	420827	6959.1
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	86953	1455.2
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	47727	2439.6
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	12495	1087.8
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	7609	892.0
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	47897	2311.1
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	138537	3066.1
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	71839	1861.9
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	19533	825.8
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	133915	2323.8
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	47821	1583.6
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	59045	2119.0
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	579	474.7
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	229891	3716.6
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	6489	1349.6
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	45553	535.3
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	10699	874.5
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	61249	2097.1
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	10887	445.8
Total (30)						2475672	71110.8
Geom. Mean						42488	1831.4
Shifted Geom.						42756	1834.3

Table 104: TPESC type 1 using SCIP-SOS1 with B-bip-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	95	19.8
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	191	40.0
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	229	42.3
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	393	68.4
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	247	49.9
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	245	33.1
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	379	44.1
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	247	34.3
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	283	43.7
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	175	33.8
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	409	60.9
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	179	30.4
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	275	46.4
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	225	43.1
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	317	41.8
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	355	46.4
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	99	23.6
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	177	23.5
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	279	38.3
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	387	58.1
Total (20)						5186	821.7
Geom. Mean						241	39.2
Shifted Geom.						247	39.6

Table 105: TPESC type 2 using SCIP-SOS1 with B-bip-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	9223	713.6
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	2057	199.6
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	2085	157.3
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	6153	599.7
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	1915	183.9
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	2057	203.6
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	775	126.5
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	1079	177.6
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	2093	285.4
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	6075	457.6
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	3899	432.1
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	3791	319.9
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	4187	239.5
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	4723	316.0
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	485	70.4
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	8233	307.0
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	7297	301.4
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	4943	417.8
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	1509	214.0
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	15055	806.0
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	7907	1103.1
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	9037	496.8
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	12261	584.6
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	6079	494.3
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	2199	364.5
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	4755	330.5
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	28893	1142.5
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	1745	144.4
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	1649	206.7
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	2983	236.5
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	1993	252.2
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	15691	933.1
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	43037	1112.8
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	1025	294.7
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	1017	259.9
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	7819	762.4
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	3351	337.4
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	2815	586.1
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	1779	306.7
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	1673	165.5
Total (40)						245342	16643.6
Geom. Mean						3676	339.5
Shifted Geom.						3725	341.6

Table 106: TPESC type 3 using SCIP-SOS1 with B-bip-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	31595	2003.7
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	9811	1473.7
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	2199	315.5
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	3893	626.3
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	3449	584.0
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	1997	620.4
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	3665	717.0
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	3397	629.5
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	2613	557.9
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	2877	716.2
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	7879	1188.0
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	11371	1253.1
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	9937	674.0
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	4797	985.9
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	4583	611.5
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	2515	570.6
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	8095	1048.4
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	17247	1072.6
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	5835	776.5
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	4881	467.3
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	11577	687.6
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	4955	546.3
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	9839	814.5
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	347	163.9
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	16009	1311.2
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	1749	494.4
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	6285	247.3
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	1307	380.0
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	6955	786.5
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	2861	298.3
Total (30)						204520	22622.0
Geom. Mean						4814	659.9
Shifted Geom.						4869	661.6

Table 107: TPESC type 1 using SCIP-SOS1 with B-bip-C-bds10 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	321	4.9
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	547	8.5
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	689	8.5
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	917	12.2
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	659	9.3
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	665	7.1
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	895	8.9
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	683	7.7
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	681	8.7
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	467	7.2
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	1001	11.4
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	509	6.6
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	671	9.2
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	539	8.2
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	687	8.5
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	689	8.6
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	337	5.4
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	485	5.0
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	743	7.7
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	813	10.8
Total (20)						12998	164.3
Geom. Mean						624	8.0
Shifted Geom.						628	8.1

Table 108: TPESC type 2 using SCIP-SOS1 with B-bip-C-bds10 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	5673	73.2
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	2237	25.6
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	2231	21.5
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	5891	86.5
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	1941	23.9
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	1629	22.7
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	1205	18.8
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	1459	25.4
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	2809	38.2
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	2973	40.2
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	3805	54.2
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	3075	35.3
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	2729	25.5
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	3317	35.0
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	891	10.1
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	2749	31.3
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	3729	28.8
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	3997	44.9
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	1483	26.5
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	6137	60.8
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	8127	141.5
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	5659	58.0
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	5823	64.8
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	4289	61.6
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	2221	40.6
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	3593	43.0
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	9341	105.0
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	1609	15.2
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	1811	27.5
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	1977	25.3
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	2233	30.2
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	6485	90.8
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	10115	107.4
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	1603	41.1
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	1735	35.8
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	5221	86.9
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	2587	37.4
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	3081	71.1
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	2671	44.1
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	2097	20.6
Total (40)						142238	1876.6
Geom. Mean						3003	39.7
Shifted Geom.						3019	41.0

Table 109: TPESC type 3 using SCIP-SOS1 with B-bip-C-bds10 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	14679	227.2
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	6845	173.8
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	2017	37.7
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	3111	79.9
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	3515	80.4
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	2999	94.7
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	4057	105.1
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	3107	77.5
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	2891	84.8
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	3541	102.8
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	6677	165.9
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	7153	139.1
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	3885	68.3
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	4325	127.4
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	3181	70.3
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	2669	80.3
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	6165	123.0
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	7475	114.9
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	3829	79.0
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	2575	50.4
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	3833	75.2
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	3739	67.2
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	4847	89.2
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	721	28.6
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	7737	141.2
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	2447	69.2
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	1599	25.7
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	1847	50.9
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	4183	82.7
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	2335	40.4
Total (30)						127984	2752.9
Geom. Mean						3647	81.6
Shifted Geom.						3665	82.8

Table 110: TPESC type 1 using SCIP-SOS1 with B-bip-noC-bds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	91779	297.3
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	200947	676.3
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	432641	1314.2
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	514485	1596.5
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	109873	326.5
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	183211	579.3
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	255047	719.5
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	119513	389.1
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	389963	1103.1
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	108125	348.4
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	289645	823.7
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	249229	760.1
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	366119	1123.2
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	290455	904.5
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	149511	446.2
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	192627	570.0
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	469907	1411.6
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	123511	367.3
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	479857	1376.9
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	250997	813.3
Total (20)						5267442	15947.2
Geom. Mean						229488	700.4
Shifted Geom.						229503	701.8

Table 111: TPESC type 2 using SCIP-SOS1 with B-bip-noC-bds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	162373.15	167227.223	3.0	>1749113	>7200.0
TPESC22_sos1	59085	2250	124238.355	126454.746	1.8	>1851197	>7200.0
TPESC23_sos1	43830	2250	166269.56	169289.635	1.8	>2095276	>7200.0
TPESC24_sos1	62160	2250	153406.879	157862.013	2.9	>1610011	>7200.0
TPESC25_sos1	51645	2250	153659.507	156513.506	1.9	>2006558	>7200.0
TPESC26_sos1	52455	2250	157770.272	162268.928	2.9	>1804882	>7200.0
TPESC27_sos1	54990	2250	148089.197	151086.094	2.0	>1805931	>7200.0
TPESC28_sos1	58155	2250	154824.315	159575.317	3.1	>1637622	>7200.0
TPESC29_sos1	60525	2250	168576.633	173099.158	2.7	>1650258	>7200.0
TPESC30_sos1	49890	2250	157439.021	161628.671	2.7	>1971070	>7200.0
TPESC31_sos1	62430	2250	148990.546	151970.593	2.0	>1658513	>7200.0
TPESC32_sos1	53370	2250	160383.476	163647.364	2.0	>1900480	>7200.0
TPESC33_sos1	49005	2250	147718.912	149950.097	1.5	>2149740	>7200.0
TPESC34_sos1	50280	2250	135336.059	137241.072	1.4	>2108262	>7200.0
TPESC35_sos1	49050	2250	158768.051	161318.513	1.6	>2029791	>7200.0
TPESC36_sos1	54225	2250	161283.419	164763.22	2.2	>1788446	>7200.0
TPESC37_sos1	40050	2250	154363.8	156403.411	1.3	>2415068	>7200.0
TPESC38_sos1	49185	2250	160823.258	165220.934	2.7	>1876421	>7200.0
TPESC39_sos1	59910	2250	162333.842	166284.428	2.4	>1541738	>7200.0
TPESC40_sos1	52605	2250	162821.168	166247.164	2.1	>1862012	>7200.0
TPESC41_sos1	65430	2250	167270.734	173547.563	3.8	>1514270	>7200.0
TPESC42_sos1	52935	2250	162212.417	165695.121	2.1	>1862538	>7200.0
TPESC43_sos1	52800	2250	165931.014	170236.605	2.6	>1794512	>7200.0
TPESC44_sos1	57600	2250	167177.313	172556.012	3.2	>1745646	>7200.0
TPESC45_sos1	63480	2250	148693.433	153218.072	3.0	>1587947	>7200.0
TPESC46_sos1	59970	2250	163993.256	167957.099	2.4	>1713151	>7200.0
TPESC47_sos1	51090	2250	169109.875	175245.021	3.6	>1818429	>7200.0
TPESC48_sos1	48855	2250	160252.807	163231.312	1.9	>2062776	>7200.0
TPESC49_sos1	53670	2250	161074.225	165491.694	2.7	>1773137	>7200.0
TPESC50_sos1	50955	2250	152973.464	155324.676	1.5	>1985320	>7200.0
TPESC51_sos1	60045	2250	156139.065	158340.383	1.4	>2058277	>7200.0
TPESC52_sos1	59895	2250	165358.803	170547.528	3.1	>1476047	>7200.0
TPESC53_sos1	56235	2250	137111.454	140554.184	2.5	>1742087	>7200.0
TPESC54_sos1	75765	2250	168531.189	171250.171	1.6	>1697463	>7200.0
TPESC55_sos1	59775	2250	165305.32	171409.697	3.7	>1612443	>7200.0
TPESC56_sos1	65250	2250	168105.137	173722.24	3.3	>1366824	>7200.0
TPESC57_sos1	55080	2250	144934.24	148385.834	2.4	>1747850	>7200.0
TPESC58_sos1	66105	2250	163233.942	170093.598	4.2	>1507927	>7200.0
TPESC59_sos1	56835	2250	166083.506	170811.481	2.8	>1731132	>7200.0
TPESC60_sos1	51630	2250	155412.694	157841.467	1.6	>2034659	>7200.0
Total (40)						72344824	288000.0
Geom. Mean						1796327	7200.0
Shifted Geom.						1796328	7200.0

Table 112: TPESC type 3 using SCIP-SOS1 with B-bip-noC-bds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	163210.223	167310.426	2.5	>1197355	>7200.0
TPESC62_sos1	100835	3000	153188.698	158526.774	3.5	>1080275	>7200.0
TPESC63_sos1	87920	3000	146586.65	149761.359	2.2	>1167408	>7200.0
TPESC64_sos1	103430	3000	163869.587	168222.909	2.7	>1053034	>7200.0
TPESC65_sos1	99290	3000	170582.355	175574.567	2.9	>1087158	>7200.0
TPESC66_sos1	111215	3000	165397.172	170735.368	3.2	>964941	>7200.0
TPESC67_sos1	99335	3000	183844.478	189319.56	3.0	>1040669	>7200.0
TPESC68_sos1	102335	3000	159436.143	164081.692	2.9	>1014105	>7200.0
TPESC69_sos1	107735	3000	162212.32	166050.846	2.4	>1019832	>7200.0
TPESC70_sos1	96590	3000	165649.917	171371.704	3.5	>1078786	>7200.0
TPESC71_sos1	110315	3000	166155.219	171332.891	3.1	>948176	>7200.0
TPESC72_sos1	98945	3000	177229.671	182516.258	3.0	>1065117	>7200.0
TPESC73_sos1	87830	3000	157131.321	161175.417	2.6	>1181314	>7200.0
TPESC74_sos1	98165	3000	166738.725	173055.334	3.8	>1098719	>7200.0
TPESC75_sos1	84095	3000	159810.995	164591.687	3.0	>1177581	>7200.0
TPESC76_sos1	95375	3000	173852.847	180680.302	3.9	>1050316	>7200.0
TPESC77_sos1	91130	3000	169304.52	174559.923	3.1	>1097771	>7200.0
TPESC78_sos1	77375	3000	155341.469	159944.876	3.0	>1307902	>7200.0
TPESC79_sos1	87125	3000	157094.58	161023.133	2.5	>1169844	>7200.0
TPESC80_sos1	85700	3000	170150.79	175047.119	2.9	>1236746	>7200.0
TPESC81_sos1	90935	3000	157084.914	160765.112	2.3	>1162485	>7200.0
TPESC82_sos1	78080	3000	170099.764	174428.43	2.5	>1233735	>7200.0
TPESC83_sos1	80915	3000	194668.898	200811.737	3.2	>1214394	>7200.0
TPESC84_sos1	100940	3000	137696.972	141118.58	2.5	>1065032	>7200.0
TPESC85_sos1	92000	3000	152117.268	156954.654	3.2	>1149975	>7200.0
TPESC86_sos1	93005	3000	178388.784	183893.794	3.1	>1130246	>7200.0
TPESC87_sos1	80990	3000	137783.127	140485.299	2.0	>1319062	>7200.0
TPESC88_sos1	100820	3000	156479.25	161586.219	3.3	>1089924	>7200.0
TPESC89_sos1	83885	3000	165516.121	170617.484	3.1	>1242881	>7200.0
TPESC90_sos1	76205	3000	160490.098	164180.85	2.3	>1300217	>7200.0
Total (30)						33945000	216000.0
Geom. Mean						1127432	7200.0
Shifted Geom.						1127433	7200.0

Table 113: TPESC type 1 using SCIP-SOS1 with B-bip-C-edge settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	221	18.0
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	497	23.3
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	657	18.1
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	653	26.6
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	593	23.0
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	641	16.5
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	873	17.8
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	577	22.5
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	585	20.7
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	447	21.5
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	585	22.8
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	451	16.6
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	525	15.9
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	571	21.9
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	617	27.5
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	707	15.3
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	207	17.6
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	477	19.5
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	735	18.7
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	985	22.6
Total (20)						11604	406.5
Geom. Mean						547	20.1
Shifted Geom.						553	20.1

Table 114: TPESC type 2 using SCIP-SOS1 with B-bip-C-edge settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	14303	159.4
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	4267	58.7
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	3539	37.9
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	11089	181.0
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	3795	47.1
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	3621	48.5
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	1613	35.4
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	2231	54.0
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	5291	68.9
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	7153	90.5
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	9961	122.7
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	7841	94.8
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	6579	59.2
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	9091	88.5
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	987	26.6
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	7021	83.8
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	10031	65.3
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	10659	115.6
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	2459	48.0
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	12005	105.6
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	11693	237.4
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	12653	120.0
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	10609	129.0
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	11637	152.3
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	4303	75.2
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	6463	82.1
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	23535	260.9
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	2967	32.1
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	2029	51.6
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	2539	40.0
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	5529	75.0
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	10779	161.6
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	39815	371.2
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	2613	78.3
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	2949	57.6
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	13021	199.0
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	4931	63.3
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	4707	111.4
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	4323	82.4
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	5461	50.9
Total (40)						316092	4022.7
Geom. Mean						5969	83.2
Shifted Geom.						6001	84.8

Table 115: TPESC type 3 using SCIP-SOS1 with B-bip-C-edge settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	37737	499.1
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	9593	252.6
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	3163	72.2
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	6325	160.0
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	7285	168.1
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	4439	140.4
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	7825	182.7
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	4717	135.6
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	3209	122.8
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	5799	180.5
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	11217	280.8
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	15629	286.0
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	9219	173.8
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	9729	247.1
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	9609	176.2
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	5009	163.6
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	9307	177.9
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	18373	252.4
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	9843	169.7
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	5001	108.0
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	8219	160.4
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	10499	158.4
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	12749	197.0
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	635	47.1
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	24589	349.3
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	3675	108.5
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	5795	80.9
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	1753	75.5
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	14645	235.3
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	3575	70.6
Total (30)						279162	5432.5
Geom. Mean						7099	160.3
Shifted Geom.						7143	161.6

Table 116: TPESC type 1 using SCIP-SOS1 with B-bip-C-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	217	28.9
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	463	41.5
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	613	27.0
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	727	39.6
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	613	34.9
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	649	25.9
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	975	27.8
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	557	26.6
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	551	34.1
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	493	32.8
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	623	30.1
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	485	23.8
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	485	27.9
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	595	24.9
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	563	34.3
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	667	25.9
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	215	26.2
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	507	24.2
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	693	32.0
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	1083	31.6
Total (20)						11774	599.8
Geom. Mean						552	29.6
Shifted Geom.						559	29.7

Table 117: TPESC type 2 using SCIP-SOS1 with B-bip-C-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	14079	157.8
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	4727	67.7
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	5495	51.0
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	11489	165.9
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	3925	53.5
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	4571	62.0
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	2093	39.9
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	2729	64.5
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	6067	80.4
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	9911	104.8
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	10817	134.5
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	7053	82.3
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	8377	80.0
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	11597	108.3
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	1185	31.4
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	7539	90.1
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	11953	85.3
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	11635	129.1
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	2825	59.8
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	9455	100.9
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	13709	270.8
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	14081	138.1
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	13711	156.5
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	12831	171.8
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	4163	91.1
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	5977	91.5
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	26633	307.6
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	3775	47.2
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	2939	57.9
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	2937	51.3
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	6093	92.8
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	13953	186.9
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	41993	410.9
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	2737	95.5
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	2823	66.7
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	13647	250.4
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	4053	72.5
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	5037	125.5
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	4393	94.1
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	5983	61.0
Total (40)						348990	4589.2
Geom. Mean						6673	96.6
Shifted Geom.						6702	98.0

Table 118: TPESC type 3 using SCIP-SOS1 with B-bip-C-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	33257	517.5
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	11527	274.7
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	4201	98.6
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	6199	227.6
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	8727	189.2
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	4301	204.5
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	8495	213.8
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	6001	192.1
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	4215	174.0
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	5153	179.2
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	14025	362.9
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	17317	341.6
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	7965	179.7
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	10229	254.2
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	8157	166.5
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	4925	168.9
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	14039	255.9
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	19049	277.3
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	10265	185.0
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	5127	118.1
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	10193	184.1
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	10281	160.9
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	12135	200.7
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	599	68.5
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	26587	385.1
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	4213	122.6
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	4835	95.9
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	2479	108.8
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	13871	242.5
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	4901	91.5
Total (30)						293268	6242.1
Geom. Mean						7649	188.2
Shifted Geom.						7694	189.2

Table 119: TPESC type 1 using SCIP-SOS1 with B-bip-C-clique settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	221	15.7
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	479	21.5
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	741	18.6
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	843	28.0
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	629	26.8
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	685	14.3
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	1033	19.4
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	577	17.8
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	593	26.7
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	455	18.9
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	831	19.9
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	515	17.7
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	521	19.4
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	567	23.9
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	595	26.1
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	725	16.7
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	259	15.2
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	437	16.4
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	763	20.7
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	873	26.3
Total (20)						12342	410.0
Geom. Mean						580	20.1
Shifted Geom.						586	20.2

Table 120: TPESC type 2 using SCIP-SOS1 with B-bip-C-clique settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	13581	149.7
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	5049	67.6
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	4585	41.8
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	10245	158.7
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	4107	51.6
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	3735	49.1
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	1903	36.7
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	2927	51.2
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	5789	72.3
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	8465	94.6
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	10629	164.1
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	6829	84.8
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	7851	76.7
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	10283	94.3
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	1101	21.4
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	7093	79.0
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	8839	62.0
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	10671	113.1
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	2611	48.6
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	10861	102.5
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	12381	237.6
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	11739	116.7
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	13605	156.1
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	13057	177.2
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	4179	79.4
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	6519	86.3
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	32139	316.2
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	3747	34.5
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	2717	50.5
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	2679	42.8
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	5819	70.3
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	14689	208.9
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	49837	423.7
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	2951	81.9
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	2919	57.1
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	14047	220.8
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	4993	73.4
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	6157	116.1
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	4749	92.9
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	6157	51.9
Total (40)						352234	4314.3
Geom. Mean						6559	87.2
Shifted Geom.						6588	89.0

Table 121: TPESC type 3 using SCIP-SOS1 with B-bip-C-clique settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	36033	494.3
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	13365	314.2
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	4067	91.2
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	6931	176.4
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	7823	166.8
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	4407	150.7
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	7931	182.4
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	6001	153.1
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	5191	160.8
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	6753	214.1
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	15267	358.1
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	16983	315.4
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	9295	175.4
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	8971	233.7
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	9291	166.3
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	4469	137.8
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	10957	213.1
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	18953	267.9
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	8945	166.5
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	5145	104.5
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	7165	154.3
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	8739	135.9
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	15885	230.5
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	685	55.0
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	22409	362.1
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	4611	115.3
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	6657	84.1
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	2575	86.2
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	12885	215.7
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	3549	78.2
Total (30)						291938	5760.2
Geom. Mean						7684	170.3
Shifted Geom.						7723	171.5

Table 122: TPESC type 1 using SCIP-SOS1 with B-bip-C-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	227	24.1
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	529	32.7
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	643	25.3
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	831	37.9
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	665	39.1
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	645	26.2
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	961	30.9
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	587	31.7
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	187	53.5
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	499	29.9
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	817	32.8
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	435	24.6
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	595	30.0
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	667	35.5
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	555	32.9
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	715	24.9
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	257	29.3
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	459	24.3
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	753	26.4
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	1113	34.5
Total (20)						12140	626.5
Geom. Mean						556	30.7
Shifted Geom.						565	30.8

Table 123: TPESC type 2 using SCIP-SOS1 with B-bip-C-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	15711	169.3
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	4913	66.2
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	5439	53.7
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	11809	163.9
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	4341	58.5
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	4643	56.9
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	1807	40.7
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	3337	68.2
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	5787	80.0
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	6915	90.7
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	10573	146.6
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	6621	82.4
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	8349	79.6
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	11699	109.0
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	1169	31.9
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	8369	100.3
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	11033	81.1
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	11165	121.0
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	2629	65.7
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	13129	122.4
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	15755	293.9
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	17593	151.7
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	15795	169.0
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	12159	165.1
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	5169	101.6
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	8423	102.9
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	39563	373.2
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	4025	43.0
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	2841	60.4
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	3543	53.9
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	3529	114.2
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	14365	195.9
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	54503	456.2
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	2517	90.2
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	3	47.9
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	14561	245.1
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	5401	80.8
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	6281	140.7
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	5253	104.7
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	5751	58.8
Total (40)						386468	4837.2
Geom. Mean						5922	99.7
Shifted Geom.						6486	101.3

Table 124: TPESC type 3 using SCIP-SOS1 with B-bip-C-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	41057	521.2
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	13083	309.6
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	4811	101.0
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	6387	202.1
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	8559	194.1
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	5315	191.4
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	8509	211.7
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	6613	185.4
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	4309	160.2
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	6637	219.2
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	13929	901.9
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	19459	332.7
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	15059	234.9
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	9939	259.1
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	10389	167.1
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	4503	161.3
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	12385	217.9
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	21017	282.1
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	9873	188.1
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	5007	123.3
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	12199	193.9
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	11441	159.6
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	12597	201.8
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	853	66.8
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	24953	364.2
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	4473	138.5
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	6069	96.7
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	2591	100.5
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	10923	210.4
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	4783	92.3
Total (30)						317722	6789.1
Geom. Mean						8322	194.6
Shifted Geom.						8359	195.8

Table 125: TPESC type 1 using SCIP-SOS1 with B-bip-C-cover settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	347	9.3
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	713	13.8
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	1051	16.4
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	1431	17.3
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	1093	13.4
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	975	10.6
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	1617	13.5
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	1101	11.1
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	1045	17.3
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	875	12.8
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	1531	15.7
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	871	10.0
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	941	18.3
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	1131	13.6
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	1255	12.6
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	1589	14.7
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	477	8.8
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	809	9.3
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	1265	12.5
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	1499	16.9
Total (20)						21616	267.8
Geom. Mean						1014	13.1
Shifted Geom.						1022	13.2

Table 126: TPESC type 2 using SCIP-SOS1 with B-bip-C-cover settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	33967	208.9
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	11655	77.1
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	11523	57.9
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	23459	182.1
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	9725	59.4
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	8431	56.4
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	3907	33.3
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	7287	58.0
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	11629	84.8
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	23311	137.6
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	19089	141.3
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	16037	93.6
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	18815	84.0
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	21891	111.3
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	2777	19.6
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	24403	124.2
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	23303	87.5
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	20713	124.7
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	7579	61.8
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	46831	235.7
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	30903	290.6
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	35811	182.6
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	30307	173.7
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	24353	164.6
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	8631	80.5
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	17949	108.9
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	85301	449.2
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	6131	32.4
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	8975	62.4
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	10061	60.4
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	11099	73.0
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	49327	316.9
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	101419	541.7
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	4807	65.9
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	6067	65.9
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	27339	233.9
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	13009	84.3
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	14653	150.0
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	8197	75.9
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	11125	58.4
Total (40)						851796	5310.0
Geom. Mean						15540	102.9
Shifted Geom.						15573	105.2

Table 127: TPESC type 3 using SCIP-SOS1 with B-bip-C-cover settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	107333	809.2
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	33991	416.1
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	9539	100.8
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	11933	154.1
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	14317	171.2
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	8219	143.9
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	13081	179.0
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	17801	215.4
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	12763	180.9
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	13311	202.8
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	21355	300.9
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	36073	355.0
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	25623	225.1
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	16963	243.7
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	21643	213.0
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	10431	160.2
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	28053	297.8
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	57665	428.9
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	26041	247.5
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	16431	160.9
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	35347	303.1
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	23453	195.2
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	36011	293.6
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	1303	42.6
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	57409	486.4
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	9319	129.6
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	14553	108.8
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	6779	106.0
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	33259	299.3
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	10235	93.6
Total (30)						730234	7264.7
Geom. Mean						18266	206.5
Shifted Geom.						18317	208.2

Table 128: TPESC type 1 using SCIP-SOS1 with B-bip-favor settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	207	17.8
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	437	22.9
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	469	17.6
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	509	25.8
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	425	22.3
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	467	16.0
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	619	16.7
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	443	21.5
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	431	19.9
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	337	21.1
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	517	22.3
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	365	16.1
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	411	15.6
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	357	20.6
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	447	26.9
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	469	14.3
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	197	17.4
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	315	19.0
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	629	18.1
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	599	20.9
Total (20)						8650	392.8
Geom. Mean						415	19.4
Shifted Geom.						419	19.5

Table 129: TPESC type 2 using SCIP-SOS1 with B-bip-favor settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	3313	79.8
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	1283	37.5
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	1411	28.4
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	3941	115.1
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	1141	32.4
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	1269	33.3
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	745	29.4
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	907	44.5
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	1945	47.4
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	1873	52.0
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	2755	69.5
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	1987	53.3
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	1549	33.9
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	1971	46.7
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	517	24.1
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	1687	49.1
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	2161	32.9
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	2515	60.3
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	893	36.7
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	2401	49.0
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	3853	160.3
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	3473	62.9
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	2947	73.9
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	2921	85.9
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	1427	52.2
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	2013	53.6
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	5267	124.0
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	995	22.7
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	835	44.0
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	927	31.0
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	1325	45.1
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	3133	98.0
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	5847	122.4
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	1147	64.0
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	1251	45.2
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	3247	106.9
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	1547	43.1
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	1829	85.9
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	1873	66.4
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	1563	31.0
Total (40)						83684	2373.9
Geom. Mean						1804	52.7
Shifted Geom.						1819	53.6

Table 130: TPESC type 3 using SCIP-SOS1 with B-bip-favor settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	7805	223.3
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	3037	157.6
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	1005	50.2
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	2029	111.4
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	2115	112.6
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	1885	111.9
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	2613	127.0
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	1473	93.5
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	1347	102.3
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	2127	132.8
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	3499	183.7
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	3757	150.1
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	2053	99.4
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	2953	158.4
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	2115	90.8
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	1305	106.6
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	2563	108.2
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	4125	126.8
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	1923	87.7
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	1645	70.6
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	1527	85.7
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	2435	88.2
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	2619	100.3
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	363	43.6
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	4757	144.9
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	1323	81.0
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	1145	42.5
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	769	64.4
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	2255	104.2
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	1007	46.8
Total (30)						69574	3206.6
Geom. Mean						1971	99.0
Shifted Geom.						1990	99.8

Table 131: TPESC type 1 using SCIP-SOS1 with B-bip-favor-H-none settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	334	21.8
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	570	29.4
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	559	20.2
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	572	30.3
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	496	24.5
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	515	17.8
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	735	23.0
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	522	27.6
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	555	27.4
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	503	31.6
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	691	29.3
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	478	22.1
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	576	24.5
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	422	24.6
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	515	31.1
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	550	19.1
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	232	18.4
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	346	20.4
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	684	21.3
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	775	24.5
Total (20)						10630	488.8
Geom. Mean						513	24.1
Shifted Geom.						516	24.2

Table 132: TPESC type 1 using SCIP-SOS1 with B-bip-favor-H-none settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	334	21.8
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	570	29.4
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	559	20.2
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	572	30.3
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	496	24.5
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	515	17.8
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	735	23.0
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	522	27.6
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	555	27.4
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	503	31.6
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	691	29.3
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	478	22.1
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	576	24.5
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	422	24.6
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	515	31.1
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	550	19.1
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	232	18.4
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	346	20.4
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	684	21.3
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	775	24.5
Total (20)						10630	488.8
Geom. Mean						513	24.1
Shifted Geom.						516	24.2

Table 133: TPESC type 1 using SCIP-SOS1 with B-bip-favor-H-none settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	334	21.8
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	570	29.4
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	559	20.2
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	572	30.3
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	496	24.5
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	515	17.8
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	735	23.0
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	522	27.6
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	555	27.4
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	503	31.6
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	691	29.3
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	478	22.1
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	576	24.5
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	422	24.6
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	515	31.1
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	550	19.1
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	232	18.4
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	346	20.4
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	684	21.3
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	775	24.5
Total (20)						10630	488.8
Geom. Mean						513	24.1
Shifted Geom.						516	24.2

Table 134: TPESC type 1 using SCIP-SOS1 with B-bip-favor-H-MWIS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	232	19.6
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	493	28.2
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	484	18.9
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	547	30.4
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	479	26.7
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	489	19.1
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	687	21.2
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	472	25.0
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	465	22.4
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	361	23.0
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	519	24.3
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	389	18.2
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	525	25.4
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	363	22.5
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	479	32.2
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	512	19.1
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	200	18.1
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	336	20.1
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	635	19.5
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	604	22.1
Total (20)						9271	455.9
Geom. Mean						445	22.5
Shifted Geom.						449	22.6

Table 135: TPESC type 2 using SCIP-SOS1 with B-bip-favor-H-MWIS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	3751	122.2
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	1500	54.0
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	1524	36.5
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	4176	148.6
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	1260	45.8
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	1373	48.1
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	970	50.2
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	1144	73.0
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	2050	61.1
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	2165	82.7
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	3007	89.8
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	2008	58.4
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	1721	43.1
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	2175	61.3
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	583	33.1
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	1848	67.4
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	2393	45.9
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	2859	85.8
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	1027	48.8
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	2869	77.1
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	4325	229.6
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	4034	88.7
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	3687	115.3
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	3481	129.8
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	1671	66.1
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	2282	69.1
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	5760	175.3
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	1013	27.1
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	958	59.8
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	1114	49.5
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	1452	55.6
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	3727	150.6
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	6292	165.9
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	1275	82.3
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	1423	61.3
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	3327	122.4
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	1707	58.3
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	2276	144.4
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	2061	84.4
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	1763	39.6
Total (40)						94031	3308.1
Geom. Mean						2037	72.9
Shifted Geom.						2051	73.9

Table 136: TPESC type 3 using SCIP-SOS1 with B-bip-favor-H-MWIS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	9035	329.1
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	4062	274.6
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	1310	84.4
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	2118	142.6
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	2420	156.0
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	2003	142.9
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	2821	171.6
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	1666	131.2
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	1492	183.3
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	2406	186.2
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	3890	270.5
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	4771	249.3
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	2548	165.1
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	2941	176.8
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	2226	106.6
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	1519	168.0
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	2790	145.8
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	4754	178.3
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	2024	142.6
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	1659	93.3
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	1637	118.0
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	2881	137.6
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	2922	145.4
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	409	63.2
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	5533	210.1
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	1545	115.4
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	1198	58.7
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	927	100.2
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	2275	115.8
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	1043	64.6
Total (30)						78825	4627.1
Geom. Mean						2212	141.9
Shifted Geom.						2231	142.7

Table 137: TPESC type 1 using SCIP-SOS1 with B-bip-favor-H-viol settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	230	24.4
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	498	33.8
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	484	23.7
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	557	37.5
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	479	34.9
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	507	24.9
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	685	24.0
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	445	24.6
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	474	31.5
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	402	33.8
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	571	31.0
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	403	22.6
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	520	31.0
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	410	30.8
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	510	41.6
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	521	21.5
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	234	24.1
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	331	23.2
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	656	24.2
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	602	26.5
Total (20)						9519	569.7
Geom. Mean						459	28.0
Shifted Geom.						462	28.1

Table 138: TPESC type 2 using SCIP-SOS1 with B-bip-favor-H-viol settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	3479	116.3
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	1488	75.2
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	1464	42.4
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	4726	192.8
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	1248	59.2
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	1359	60.7
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	771	51.7
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	919	68.8
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	1930	67.0
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	2378	105.6
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	2769	96.6
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	2075	84.8
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	1553	47.8
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	2139	71.2
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	553	33.8
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	1863	73.5
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	2473	55.5
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	2774	88.3
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	1014	62.5
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	2505	77.4
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	4609	254.4
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	3645	103.9
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	2951	110.0
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	3310	160.9
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	1632	70.9
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	2235	83.5
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	5402	171.4
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	1018	36.9
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	862	64.0
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	976	52.3
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	1389	73.9
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	3572	153.7
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	7242	217.6
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	1232	108.1
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	1517	74.8
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	3349	146.9
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	1669	68.7
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	2107	128.2
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	2306	99.3
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	1693	48.5
Total (40)						92196	3758.8
Geom. Mean						1968	83.6
Shifted Geom.						1983	84.6

Table 139: TPESC type 3 using SCIP-SOS1 with B-bip-favor-H-viol settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	10435	437.1
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	3914	296.9
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	1345	106.0
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	2724	229.3
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	2329	187.2
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	1981	163.4
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	3101	193.3
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	1814	154.0
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	1432	163.2
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	2999	285.3
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	4457	304.8
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	5024	292.6
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	2086	142.3
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	3239	243.9
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	2608	162.9
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	1599	187.8
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	2610	154.2
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	4850	216.4
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	2071	169.4
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	1856	116.7
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	1612	148.6
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	2619	128.7
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	2739	150.6
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	443	89.0
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	4891	197.0
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	1575	144.4
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	1397	75.9
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	926	107.8
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	2543	174.9
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	1023	74.3
Total (30)						82242	5497.8
Geom. Mean						2296	168.7
Shifted Geom.						2315	169.5

Table 140: TPESC type 1 using SCIP-SOS1 with B-bip-favor-H-obj settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	240	23.9
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	506	32.3
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	510	24.8
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	532	36.5
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	448	31.1
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	530	21.9
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	714	24.1
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	503	30.4
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	470	28.2
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	411	32.9
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	610	34.2
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	389	22.7
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	411	21.4
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	383	29.3
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	538	41.1
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	524	20.1
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	204	20.8
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	332	22.7
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	630	21.2
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	603	24.9
Total (20)						9488	544.5
Geom. Mean						455	26.6
Shifted Geom.						459	26.8

Table 141: TPESC type 2 using SCIP-SOS1 with B-bip-favor-H-obj settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	3504	113.8
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	1508	73.6
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	1510	41.4
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	4589	189.2
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	1234	51.4
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	1302	49.7
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	762	40.6
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	1105	79.7
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	2015	75.5
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	2466	102.6
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	2836	104.8
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	2101	86.0
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	1649	44.5
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	2065	71.7
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	548	31.5
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	2157	92.8
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	2403	52.1
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	2776	93.9
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	994	61.4
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	2526	68.1
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	3985	234.0
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	3665	86.2
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	3215	124.4
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	4162	187.0
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	1762	81.6
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	2534	93.5
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	6932	235.0
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	1031	35.6
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	883	58.6
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	1047	47.9
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	1349	67.4
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	3760	175.3
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	7096	196.9
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	1225	107.6
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	1381	77.5
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	3828	179.5
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	1766	80.2
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	2028	136.8
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	2061	91.8
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	1583	41.9
Total (40)						95343	3862.8
Geom. Mean						2017	83.9
Shifted Geom.						2033	85.1

Table 142: TPESC type 3 using SCIP-SOS1 with B-bip-favor-H-obj settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	8897	359.6
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	3953	317.2
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	1279	97.5
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	2849	266.6
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	2281	166.1
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	2374	224.6
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	2628	163.6
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	1886	172.7
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	1422	133.6
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	2432	243.2
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	4437	298.8
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	4155	255.4
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	2431	156.4
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	3678	283.2
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	2351	137.3
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	1769	202.6
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	2639	156.9
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	4880	202.5
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	2418	168.2
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	1852	109.1
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	2532	236.3
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	2639	125.4
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	2752	141.6
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	438	83.9
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	5511	267.8
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	1493	132.0
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	1472	85.7
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	828	105.6
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	2393	159.9
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	1051	67.2
Total (30)						81720	5520.7
Geom. Mean						2322	168.9
Shifted Geom.						2341	169.8

Table 143: TPESC type 1 using SCIP-SOS1 with B-bip-favor-H-frac settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	207	18.5
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	504	27.8
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	474	18.4
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	623	35.9
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	463	26.6
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	520	20.6
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	712	21.4
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	453	22.5
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	460	22.5
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	417	28.9
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	518	25.0
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	407	20.8
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	474	19.6
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	387	24.4
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	494	33.1
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	522	20.1
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	200	18.8
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	324	19.8
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	665	21.3
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	605	23.0
Total (20)						9429	469.0
Geom. Mean						450	23.0
Shifted Geom.						455	23.1

Table 144: TPESC type 2 using SCIP-SOS1 with B-bip-favor-H-frac settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	3373	95.7
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	1310	46.9
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	1482	32.8
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	4223	140.7
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	1276	47.0
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	1461	46.5
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	753	31.9
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	966	57.3
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	2254	67.1
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	2073	74.7
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	2757	79.7
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	2109	68.1
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	1571	40.8
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	2012	54.0
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	566	31.9
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	1794	59.2
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	2257	43.1
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	2672	69.8
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	912	41.0
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	2900	75.8
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	3885	180.7
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	3562	71.7
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	2952	82.7
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	3104	103.8
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	1877	83.4
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	2045	62.7
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	5262	143.9
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	1010	25.6
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	846	47.8
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	937	33.1
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	1348	52.0
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	3435	122.1
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	6168	152.0
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	1375	89.8
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	1288	59.8
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	3264	121.2
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	1625	60.4
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	1950	107.3
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	1994	79.2
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	1560	35.8
Total (40)						88208	2919.2
Geom. Mean						1909	65.1
Shifted Geom.						1924	66.1

Table 145: TPESC type 3 using SCIP-SOS1 with B-bip-favor-H-frac settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	9062	320.0
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	3057	179.8
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	995	55.1
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	2760	188.8
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	2344	153.1
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	1967	145.1
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	2673	152.4
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	1479	104.4
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	1370	123.7
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	2194	175.4
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	3704	210.6
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	3945	177.3
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	2476	135.7
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	2972	175.6
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	2407	122.1
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	1394	127.7
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	2602	126.5
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	4603	179.8
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	2274	144.2
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	1691	85.1
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	1591	102.2
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	2556	101.1
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	2632	116.0
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	372	55.4
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	5184	189.8
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	1521	106.7
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	1302	52.8
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	826	81.4
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	2492	142.6
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	1026	53.9
Total (30)						75471	4084.3
Geom. Mean						2117	124.9
Shifted Geom.						2137	125.8

Table 146: TPESC type 1 using SCIP-SOS1 with B-bip-favor-H-frac-LS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	62370	2250	142907.658	142907.658	0.0	207	20.1
TPESC2_sos1	66015	2250	155853.999	155853.999	0.0	504	28.8
TPESC3_sos1	53700	2250	169559.037	169559.037	0.0	474	20.4
TPESC4_sos1	58605	2250	167760.806	167760.806	0.0	623	38.2
TPESC5_sos1	57300	2250	169318.105	169318.105	0.0	463	30.2
TPESC6_sos1	53415	2250	163072.008	163072.008	0.0	520	22.3
TPESC7_sos1	50175	2250	159014.35	159014.35	0.0	712	23.7
TPESC8_sos1	60810	2250	155681.66	155681.66	0.0	453	23.6
TPESC9_sos1	52770	2250	163207.733	163207.733	0.0	460	24.2
TPESC10_sos1	62700	2250	141236.665	141236.665	0.0	417	33.8
TPESC11_sos1	53085	2250	159852.479	159852.479	0.0	518	27.7
TPESC12_sos1	53190	2250	151121.81	151121.81	0.0	407	23.1
TPESC13_sos1	57465	2250	170119.099	170119.099	0.0	474	21.8
TPESC14_sos1	57570	2250	136008.593	136008.593	0.0	387	27.3
TPESC15_sos1	57765	2250	163187.266	163187.266	0.0	494	34.2
TPESC16_sos1	55140	2250	158623.144	158623.144	0.0	522	22.1
TPESC17_sos1	53430	2250	165744.3	165744.3	0.0	200	21.0
TPESC18_sos1	53370	2250	160319.227	160319.227	0.0	324	21.8
TPESC19_sos1	52575	2250	158265.312	158265.312	0.0	665	22.6
TPESC20_sos1	61770	2250	141666.207	141666.207	0.0	605	24.5
Total (20)						9429	511.4
Geom. Mean						450	25.1
Shifted Geom.						455	25.3

Table 147: TPESC type 2 using SCIP-SOS1 with B-bip-favor-H-frac-LS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	54525	2250	167227.223	167227.223	0.0	3373	101.2
TPESC22_sos1	59085	2250	126454.746	126454.746	0.0	1310	51.4
TPESC23_sos1	43830	2250	169289.635	169289.635	0.0	1482	37.1
TPESC24_sos1	62160	2250	157862.013	157862.013	0.0	4223	146.9
TPESC25_sos1	51645	2250	156513.506	156513.506	0.0	1276	49.0
TPESC26_sos1	52455	2250	162268.928	162268.928	0.0	1461	51.4
TPESC27_sos1	54990	2250	151086.094	151086.094	0.0	753	34.7
TPESC28_sos1	58155	2250	159575.317	159575.317	0.0	966	61.0
TPESC29_sos1	60525	2250	173099.158	173099.158	0.0	2254	76.6
TPESC30_sos1	49890	2250	161628.671	161628.671	0.0	2073	83.7
TPESC31_sos1	62430	2250	151970.593	151970.593	0.0	2757	85.8
TPESC32_sos1	53370	2250	163647.364	163647.364	0.0	2109	72.0
TPESC33_sos1	49005	2250	149950.097	149950.097	0.0	1571	44.5
TPESC34_sos1	50280	2250	137241.072	137241.072	0.0	2012	56.3
TPESC35_sos1	49050	2250	161318.513	161318.513	0.0	566	32.5
TPESC36_sos1	54225	2250	164763.22	164763.22	0.0	1794	64.6
TPESC37_sos1	40050	2250	156403.411	156403.411	0.0	2257	45.6
TPESC38_sos1	49185	2250	165220.934	165220.934	0.0	2672	71.8
TPESC39_sos1	59910	2250	166284.428	166284.428	0.0	912	45.6
TPESC40_sos1	52605	2250	166247.164	166247.164	0.0	2900	78.7
TPESC41_sos1	65430	2250	173547.563	173547.563	0.0	3885	182.8
TPESC42_sos1	52935	2250	165695.121	165695.121	0.0	3562	76.5
TPESC43_sos1	52800	2250	170236.605	170236.605	0.0	2952	87.0
TPESC44_sos1	57600	2250	172556.012	172556.012	0.0	3104	112.0
TPESC45_sos1	63480	2250	153218.072	153218.072	0.0	1877	86.8
TPESC46_sos1	59970	2250	167957.099	167957.099	0.0	2045	66.5
TPESC47_sos1	51090	2250	175245.021	175245.021	0.0	5262	149.9
TPESC48_sos1	48855	2250	163231.312	163231.312	0.0	1010	28.4
TPESC49_sos1	53670	2250	165491.694	165491.694	0.0	846	51.1
TPESC50_sos1	50955	2250	155324.676	155324.676	0.0	937	35.3
TPESC51_sos1	60045	2250	158340.383	158340.383	0.0	1348	53.6
TPESC52_sos1	59895	2250	170547.528	170547.528	0.0	3435	128.7
TPESC53_sos1	56235	2250	140554.184	140554.184	0.0	6168	158.4
TPESC54_sos1	75765	2250	171250.171	171250.171	0.0	1375	98.1
TPESC55_sos1	59775	2250	171409.697	171409.697	0.0	1288	64.5
TPESC56_sos1	65250	2250	173722.24	173722.24	0.0	3264	128.5
TPESC57_sos1	55080	2250	148385.834	148385.834	0.0	1625	65.0
TPESC58_sos1	66105	2250	170093.598	170093.598	0.0	1950	114.3
TPESC59_sos1	56835	2250	170811.481	170811.481	0.0	1994	84.2
TPESC60_sos1	51630	2250	157841.467	157841.467	0.0	1560	39.1
Total (40)						88208	3101.1
Geom. Mean						1909	69.5
Shifted Geom.						1924	70.5

Table 148: TPESC type 3 using SCIP-SOS1 with B-bip-favor-H-frac-LS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	81875	3000	167310.426	167310.426	0.0	9062	324.6
TPESC62_sos1	100835	3000	158526.774	158526.774	0.0	3057	189.6
TPESC63_sos1	87920	3000	149761.359	149761.359	0.0	995	60.0
TPESC64_sos1	103430	3000	168222.909	168222.909	0.0	2760	193.4
TPESC65_sos1	99290	3000	175574.567	175574.567	0.0	2344	164.6
TPESC66_sos1	111215	3000	170735.368	170735.368	0.0	1967	155.5
TPESC67_sos1	99335	3000	189319.56	189319.56	0.0	2673	160.7
TPESC68_sos1	102335	3000	164081.692	164081.692	0.0	1479	113.5
TPESC69_sos1	107735	3000	166050.846	166050.846	0.0	1370	132.1
TPESC70_sos1	96590	3000	171371.704	171371.704	0.0	2194	182.9
TPESC71_sos1	110315	3000	171332.891	171332.891	0.0	3704	220.0
TPESC72_sos1	98945	3000	182516.258	182516.258	0.0	3945	182.7
TPESC73_sos1	87830	3000	161175.417	161175.417	0.0	2476	142.5
TPESC74_sos1	98165	3000	173055.334	173055.334	0.0	2972	184.4
TPESC75_sos1	84095	3000	164591.687	164591.687	0.0	2407	132.4
TPESC76_sos1	95375	3000	180680.302	180680.302	0.0	1394	134.8
TPESC77_sos1	91130	3000	174559.923	174559.923	0.0	2602	133.0
TPESC78_sos1	77375	3000	159944.876	159944.876	0.0	4603	185.9
TPESC79_sos1	87125	3000	161023.133	161023.133	0.0	2274	150.2
TPESC80_sos1	85700	3000	175047.119	175047.119	0.0	1691	94.4
TPESC81_sos1	90935	3000	160765.112	160765.112	0.0	1591	107.4
TPESC82_sos1	78080	3000	174428.43	174428.43	0.0	2556	104.1
TPESC83_sos1	80915	3000	200811.737	200811.737	0.0	2632	125.7
TPESC84_sos1	100940	3000	141118.58	141118.58	0.0	372	65.3
TPESC85_sos1	92000	3000	156954.654	156954.654	0.0	5184	196.6
TPESC86_sos1	93005	3000	183893.794	183893.794	0.0	1521	115.2
TPESC87_sos1	80990	3000	140485.299	140485.299	0.0	1302	56.6
TPESC88_sos1	100820	3000	161586.219	161586.219	0.0	826	92.7
TPESC89_sos1	83885	3000	170617.484	170617.484	0.0	2492	148.7
TPESC90_sos1	76205	3000	164180.85	164180.85	0.0	1026	57.4
Total (30)						75471	4306.9
Geom. Mean						2117	132.8
Shifted Geom.						2137	133.6

Table 149: TPESC type 1 using SCIP-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_mip	66765	4320	142907.658	142907.658	0.0	2862	2923.9
TPESC2_mip	70395	4305	155853.999	155853.999	0.0	8263	6349.8
TPESC3_mip	58350	4230	169559.037	169559.037	0.0	6826	5626.0
TPESC4_mip	63375	4260	166346.626	167760.806	0.9	>8258	>7200.0
TPESC5_mip	62220	4305	169318.105	169318.105	0.0	4628	4467.1
TPESC6_mip	58170	4245	163072.008	163072.008	0.0	5917	3389.1
TPESC7_mip	54735	4155	159014.35	159014.35	0.0	10281	6219.9
TPESC8_mip	65715	4275	155681.66	155681.66	0.0	5077	3354.4
TPESC9_mip	57255	4230	163207.733	163207.733	0.0	5532	3652.1
TPESC10_mip	67605	4260	141236.665	141236.665	0.0	6260	4877.4
TPESC11_mip	56985	4185	159852.479	159852.479	0.0	11512	6052.3
TPESC12_mip	58335	4320	151121.81	151121.81	0.0	9987	4659.4
TPESC13_mip	62445	4230	170119.099	170119.099	0.0	10704	5681.4
TPESC14_mip	62325	4275	136008.593	136008.593	0.0	8962	6345.0
TPESC15_mip	61950	4200	163187.266	163187.266	0.0	9644	5490.9
TPESC16_mip	60225	4275	158623.144	158623.144	0.0	9781	6552.8
TPESC17_mip	58065	4275	165744.3	165744.3	0.0	5114	3060.8
TPESC18_mip	58875	4260	160319.227	160319.227	0.0	1755	1331.7
TPESC19_mip	57045	4185	158265.312	158265.312	0.0	8869	4729.0
TPESC20_mip	66780	4365	141666.207	141666.207	0.0	9215	5757.0
Total (20)						149447	97719.9
Geom. Mean						6840	4589.3
Shifted Geom.						6854	4590.3

Table 150: TPESC type 2 using SCIP-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_mip	61455	4500	165284.092	167366.161	1.3	>10081	>7200.0
TPESC22_mip	65805	4500	125355.568	126654.464	1.0	>12899	>7200.0
TPESC23_mip	48870	4500	169289.635	169289.635	0.0	8187	4032.8
TPESC24_mip	70110	4500	155974.296	158152.998	1.4	>9513	>7200.0
TPESC25_mip	57345	4500	155340.432	156513.506	0.8	>13391	>7200.0
TPESC26_mip	58635	4500	161195.738	162268.928	0.7	>9292	>7200.0
TPESC27_mip	61245	4500	149818.472	151474.962	1.1	>7471	>7200.0
TPESC28_mip	67440	4500	158160.738	159575.317	0.9	>8873	>7200.0
TPESC29_mip	66945	4500	171625.389	173099.158	0.9	>9596	>7200.0
TPESC30_mip	55920	4500	160332.982	161628.671	0.8	>12600	>7200.0
TPESC31_mip	68610	4500	150399.216	152351.536	1.3	>7650	>7200.0
TPESC32_mip	58560	4500	162521.229	163647.364	0.7	>11182	>7200.0
TPESC33_mip	52965	4500	149950.097	149950.097	0.0	9350	4427.0
TPESC34_mip	56340	4500	136165.541	137241.072	0.8	>11761	>7200.0
TPESC35_mip	53625	4500	161318.513	161318.513	0.0	4260	2541.6
TPESC36_mip	60525	4500	163129.32	164763.22	1.0	>10998	>7200.0
TPESC37_mip	43200	4380	156403.411	156403.411	0.0	6633	2035.5
TPESC38_mip	54330	4500	164112.465	165220.934	0.7	>12735	>7200.0
TPESC39_mip	67680	4500	164296.586	166581.289	1.4	>9355	>7200.0
TPESC40_mip	56940	4500	166247.164	166247.164	0.0	11575	6652.8
TPESC41_mip	74220	4500	170931.243	173614.652	1.6	>7308	>7200.0
TPESC42_mip	58770	4500	163955.174	165695.121	1.1	>13308	>7200.0
TPESC43_mip	58635	4500	168270.981	170258.694	1.2	>13594	>7200.0
TPESC44_mip	64470	4500	170043.472	172954.969	1.7	>6988	>7200.0
TPESC45_mip	71025	4500	151527.377	153218.072	1.1	>8810	>7200.0
TPESC46_mip	65220	4500	166397.426	167985.753	1.0	>11775	>7200.0
TPESC47_mip	58290	4500	172843.314	175267.707	1.4	>13030	>7200.0
TPESC48_mip	54600	4500	163231.312	163231.312	0.0	4916	3026.9
TPESC49_mip	60180	4500	164000.727	165491.694	0.9	>10221	>7200.0
TPESC50_mip	56340	4500	155324.676	155324.676	0.0	14421	7049.8
TPESC51_mip	66390	4500	156919.806	158340.383	0.9	>8147	>7200.0
TPESC52_mip	66630	4500	168184.446	172706.602	2.7	>10199	>7200.0
TPESC53_mip	63315	4500	138615.695	140937.749	1.7	>11410	>7200.0
TPESC54_mip	84360	4500	168784.829	172874.901	2.4	>7451	>7200.0
TPESC55_mip	67515	4500	169516.156	172380.98	1.7	>6268	>7200.0
TPESC56_mip	74010	4500	170815.266	174038.827	1.9	>7948	>7200.0
TPESC57_mip	61695	4500	146949.233	148786.369	1.3	>12664	>7200.0
TPESC58_mip	74055	4500	167496.383	172539.137	3.0	>8158	>7200.0
TPESC59_mip	65055	4500	168687.039	171901.989	1.9	>9913	>7200.0
TPESC60_mip	57210	4500	157841.467	157841.467	0.0	6176	4332.5
Total (40)						390107	264499.1
Geom. Mean						9393	6378.6
Shifted Geom.						9398	6379.2

Table 151: TPESC type 3 using SCIP-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_mip	87275	6000	165326.024	167764.4	1.5	>6193	>7200.0
TPESC62_mip	108590	6000	156409.897	159375.44	1.9	>2512	>7200.0
TPESC63_mip	94730	6000	148294.881	151049.219	1.9	>5486	>7200.0
TPESC64_mip	113375	6000	165450.822	169743.918	2.6	>2987	>7200.0
TPESC65_mip	108905	6000	173238.181	175952.564	1.6	>4261	>7200.0
TPESC66_mip	120125	6000	168090.963	173190.974	3.0	>1771	>7200.0
TPESC67_mip	108905	6000	186944.407	189588.345	1.4	>3136	>7200.0
TPESC68_mip	110480	6000	161643.11	166829.175	3.2	>1366	>7200.0
TPESC69_mip	117140	6000	163095.796	167463.716	2.7	>3463	>7200.0
TPESC70_mip	104630	6000	168974.152	172763.844	2.2	>2831	>7200.0
TPESC71_mip	118610	6000	168737.759	172851.193	2.4	>2633	>7200.0
TPESC72_mip	105845	6000	180004.022	184306.023	2.4	>4607	>7200.0
TPESC73_mip	93845	6000	159826.848	161293.794	0.9	>4595	>7200.0
TPESC74_mip	106280	6000	170368.648	173987.65	2.1	>4529	>7200.0
TPESC75_mip	92105	6000	162808.878	164885.009	1.3	>2894	>7200.0
TPESC76_mip	103190	6000	178604.11	181907.196	1.8	>3400	>7200.0
TPESC77_mip	98585	6000	172242.053	175082.459	1.6	>4870	>7200.0
TPESC78_mip	83645	6000	157986.171	160960.669	1.9	>4612	>7200.0
TPESC79_mip	94835	6000	158926.849	161870.144	1.9	>4503	>7200.0
TPESC80_mip	92405	6000	173426.458	175915.235	1.4	>3895	>7200.0
TPESC81_mip	97400	6000	158898.891	161889.562	1.9	>4608	>7200.0
TPESC82_mip	85295	6000	172945.779	174558.086	0.9	>7073	>7200.0
TPESC83_mip	89195	6000	198799.067	200907.672	1.1	>5651	>7200.0
TPESC84_mip	110975	6000	139758.677	141799.946	1.5	>1979	>7200.0
TPESC85_mip	98315	6000	155212.375	157114.632	1.2	>5434	>7200.0
TPESC86_mip	102455	6000	181453.917	186403.724	2.7	>2472	>7200.0
TPESC87_mip	86735	6000	139849.202	140568.216	0.5	>7301	>7200.0
TPESC88_mip	110180	6000	159547	162543.936	1.9	>3080	>7200.0
TPESC89_mip	92255	6000	168372.043	171200.489	1.7	>5273	>7200.0
TPESC90_mip	82235	6000	162983.005	164286.592	0.8	>6568	>7200.0
Total (30)						123983	216000.0
Geom. Mean						3825	7200.0
Shifted Geom.						3834	7200.0

Table 152: TPESC type 1 using CPLEX-SOS1 with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_sos1	165	2250	135349.019	1e+20	–	>2687122	>7200.0
TPESC2_sos1	165	2250	146226.947	1e+20	–	>2574243	>7200.0
TPESC3_sos1	165	2250	159284.647	1e+20	–	>2901105	>7200.0
TPESC4_sos1	165	2250	156111.257	169603.939	8.6	>2824977	>7200.0
TPESC5_sos1	165	2250	157497.383	1e+20	–	>2710704	>7200.0
TPESC6_sos1	165	2250	154713.581	164931.069	6.6	>3023065	>7200.0
TPESC7_sos1	165	2250	149867.735	1e+20	–	>2990436	>7200.0
TPESC8_sos1	165	2250	146936.627	1e+20	–	>2698630	>7200.0
TPESC9_sos1	165	2250	152798.002	1e+20	–	>2923044	>7200.0
TPESC10_sos1	165	2250	133325.816	1e+20	–	>2664779	>7200.0
TPESC11_sos1	165	2250	151029.048	1e+20	–	>2934356	>7200.0
TPESC12_sos1	165	2250	142742.228	1e+20	–	>2901940	>7200.0
TPESC13_sos1	165	2250	160465.981	1e+20	–	>2754677	>7200.0
TPESC14_sos1	165	2250	126488.262	1e+20	–	>2770933	>7200.0
TPESC15_sos1	165	2250	154445.517	1e+20	–	>2787303	>7200.0
TPESC16_sos1	165	2250	150382.836	162087.781	7.8	>2975757	>7200.0
TPESC17_sos1	165	2250	158557.919	171415.495	8.1	>2930212	>7200.0
TPESC18_sos1	165	2250	151569.231	1e+20	–	>2855287	>7200.0
TPESC19_sos1	165	2250	150337.42	160685.893	6.9	>3045842	>7200.0
TPESC20_sos1	165	2250	133561.838	146792.074	9.9	>2697523	>7200.0
Total (20)						56651935	144000.0
Geom. Mean						2829541	7200.0
Shifted Geom.						2829542	7200.0

Table 153: TPESC type 2 using CPLEX-SOS1 with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_sos1	165	2250	154392.511	1e+20	–	>2768078	>7200.0
TPESC22_sos1	165	2250	116894.52	1e+20	–	>2685411	>7200.0
TPESC23_sos1	165	2250	161191.583	1e+20	–	>3167762	>7200.0
TPESC24_sos1	165	2250	146809.25	1e+20	–	>2581372	>7200.0
TPESC25_sos1	165	2250	146218.954	1e+20	–	>2894070	>7200.0
TPESC26_sos1	165	2250	151121.403	168099.729	11.2	>2938827	>7200.0
TPESC27_sos1	165	2250	140944.332	1e+20	–	>2786006	>7200.0
TPESC28_sos1	165	2250	144877.731	1e+20	–	>2637638	>7200.0
TPESC29_sos1	165	2250	159986.68	1e+20	–	>2644380	>7200.0
TPESC30_sos1	165	2250	149741.388	1e+20	–	>2971823	>7200.0
TPESC31_sos1	165	2250	141213.319	1e+20	–	>2629861	>7200.0
TPESC32_sos1	165	2250	152919.409	1e+20	–	>2895024	>7200.0
TPESC33_sos1	165	2250	140146.808	150238.535	7.2	>3195610	>7200.0
TPESC34_sos1	165	2250	128870.006	1e+20	–	>2943498	>7200.0
TPESC35_sos1	165	2250	152311.519	161980.255	6.3	>3201156	>7200.0
TPESC36_sos1	165	2250	153145.817	1e+20	–	>2840581	>7200.0
TPESC37_sos1	165	2250	148806.959	156947.792	5.5	>3586258	>7200.0
TPESC38_sos1	165	2250	155081.987	167206.115	7.8	>3064043	>7200.0
TPESC39_sos1	165	2250	152664.037	1e+20	–	>2640043	>7200.0
TPESC40_sos1	165	2250	156023.399	169914.474	8.9	>2992736	>7200.0
TPESC41_sos1	165	2250	157863.37	1e+20	–	>2489751	>7200.0
TPESC42_sos1	165	2250	155509.483	1e+20	–	>2745117	>7200.0
TPESC43_sos1	165	2250	157361.525	1e+20	–	>2809935	>7200.0
TPESC44_sos1	165	2250	157028.856	1e+20	–	>2732727	>7200.0
TPESC45_sos1	165	2250	138670.149	1e+20	–	>2546028	>7200.0
TPESC46_sos1	165	2250	155755.942	1e+20	–	>2700461	>7200.0
TPESC47_sos1	165	2250	160913.58	1e+20	–	>2903209	>7200.0
TPESC48_sos1	165	2250	153816.949	1e+20	–	>3011641	>7200.0
TPESC49_sos1	165	2250	152921.672	1e+20	–	>2817963	>7200.0
TPESC50_sos1	165	2250	146519.116	159584.198	8.9	>3016228	>7200.0
TPESC51_sos1	165	2250	144173.505	1e+20	–	>2689015	>7200.0
TPESC52_sos1	165	2250	157407.516	1e+20	–	>2686237	>7200.0
TPESC53_sos1	165	2250	128371.908	1e+20	–	>2758892	>7200.0
TPESC54_sos1	165	2250	154435.5	1e+20	–	>2221676	>7200.0
TPESC55_sos1	165	2250	156005.02	1e+20	–	>2641169	>7200.0
TPESC56_sos1	165	2250	156995.831	1e+20	–	>2495485	>7200.0
TPESC57_sos1	165	2250	137126.568	1e+20	–	>2837148	>7200.0
TPESC58_sos1	165	2250	155018.317	1e+20	–	>2474299	>7200.0
TPESC59_sos1	165	2250	155413.831	1e+20	–	>2606006	>7200.0
TPESC60_sos1	165	2250	148524.481	1e+20	–	>2933185	>7200.0
Total (40)						112180349	288000.0
Geom. Mean						2794231	7200.0
Shifted Geom.						2794235	7200.0

Table 154: TPESC type 3 using CPLEX-SOS1 with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_sos1	215	3000	157252.999	170062.123	8.1	>2146411	>7200.0
TPESC62_sos1	215	3000	146305.465	1e+20	–	>1768028	>7200.0
TPESC63_sos1	215	3000	141045.425	1e+20	–	>1952444	>7200.0
TPESC64_sos1	215	3000	154311.654	1e+20	–	>1713448	>7200.0
TPESC65_sos1	215	3000	161383.675	1e+20	–	>1774538	>7200.0
TPESC66_sos1	215	3000	155416.377	1e+20	–	>1610793	>7200.0
TPESC67_sos1	215	3000	176217.468	1e+20	–	>1773164	>7200.0
TPESC68_sos1	215	3000	151733.622	1e+20	–	>1734880	>7200.0
TPESC69_sos1	215	3000	152255.611	1e+20	–	>1567383	>7200.0
TPESC70_sos1	215	3000	159086.117	1e+20	–	>1807774	>7200.0
TPESC71_sos1	215	3000	157104.196	1e+20	–	>1653335	>7200.0
TPESC72_sos1	215	3000	170280.877	1e+20	–	>1820058	>7200.0
TPESC73_sos1	215	3000	151002.91	1e+20	–	>1958492	>7200.0
TPESC74_sos1	215	3000	158892.181	1e+20	–	>1792886	>7200.0
TPESC75_sos1	215	3000	153750.1	1e+20	–	>1980733	>7200.0
TPESC76_sos1	215	3000	167176.689	185819.633	11.2	>1904415	>7200.0
TPESC77_sos1	215	3000	162170.932	1e+20	–	>1921382	>7200.0
TPESC78_sos1	215	3000	149239.891	1e+20	–	>2134498	>7200.0
TPESC79_sos1	215	3000	149739.671	1e+20	–	>1965601	>7200.0
TPESC80_sos1	215	3000	164128.87	178815.442	8.9	>2035255	>7200.0
TPESC81_sos1	215	3000	149985.954	1e+20	–	>1887004	>7200.0
TPESC82_sos1	215	3000	165350.462	176076.837	6.5	>2164937	>7200.0
TPESC83_sos1	215	3000	189031.432	1e+20	–	>2051564	>7200.0
TPESC84_sos1	215	3000	131406.592	1e+20	–	>1742419	>7200.0
TPESC85_sos1	215	3000	147031.935	1e+20	–	>1879039	>7200.0
TPESC86_sos1	215	3000	170221.824	1e+20	–	>1828300	>7200.0
TPESC87_sos1	215	3000	130931.119	1e+20	–	>2056190	>7200.0
TPESC88_sos1	215	3000	149358.873	1e+20	–	>1759025	>7200.0
TPESC89_sos1	215	3000	157379.634	1e+20	–	>1999395	>7200.0
TPESC90_sos1	215	3000	154298.691	164733.469	6.8	>2244451	>7200.0
Total (30)						56627842	216000.0
Geom. Mean						1880244	7200.0
Shifted Geom.						1880248	7200.0

Table 155: TPESC type 1 using CPLEX-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC1_mip	63900	4320	142907.658	142907.658	0.0	607	597.4
TPESC2_mip	67410	4305	155853.999	155853.999	0.0	1202	1150.8
TPESC3_mip	55650	4230	169559.037	169559.037	0.0	834	621.9
TPESC4_mip	60585	4260	167760.806	167760.806	0.0	2115	1871.0
TPESC5_mip	59325	4305	169318.105	169318.105	0.0	796	671.6
TPESC6_mip	55380	4245	163072.008	163072.008	0.0	901	576.2
TPESC7_mip	52050	4155	159014.35	159014.35	0.0	1571	843.1
TPESC8_mip	62805	4275	155681.66	155681.66	0.0	921	679.3
TPESC9_mip	54675	4230	163207.733	163207.733	0.0	1195	855.0
TPESC10_mip	64680	4260	141236.665	141236.665	0.0	641	767.2
TPESC11_mip	54345	4185	159852.479	159852.479	0.0	845	697.8
TPESC12_mip	55680	4320	151121.81	151121.81	0.0	467	362.4
TPESC13_mip	59640	4230	170119.099	170119.099	0.0	609	652.1
TPESC14_mip	59565	4275	136008.593	136008.593	0.0	1225	1053.3
TPESC15_mip	59145	4200	163187.266	163187.266	0.0	1188	1001.2
TPESC16_mip	57540	4275	158623.144	158623.144	0.0	1546	1059.3
TPESC17_mip	55425	4275	165744.3	165744.3	0.0	474	432.2
TPESC18_mip	56175	4260	160319.227	160319.227	0.0	364	265.7
TPESC19_mip	54495	4185	158265.312	158265.312	0.0	1466	771.7
TPESC20_mip	63945	4365	141666.207	141666.207	0.0	1910	1423.1
Total (20)						20877	16352.3
Geom. Mean						936	744.0
Shifted Geom.						990	749.8

Table 156: TPESC type 2 using CPLEX-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC21_mip	56535	4500	166074.68	167358.902	0.8	>8661	>7200.0
TPESC22_mip	61065	4500	126454.746	126454.746	0.0	9168	6426.2
TPESC23_mip	46065	4500	169289.635	169289.635	0.0	1867	766.3
TPESC24_mip	64140	4500	156547.342	158150.78	1.0	>6386	>7200.0
TPESC25_mip	52635	4500	156513.506	156513.506	0.0	9292	5698.7
TPESC26_mip	54810	4500	162268.928	162268.928	0.0	3342	2129.4
TPESC27_mip	56985	4500	151086.094	151086.094	0.0	1757	1518.8
TPESC28_mip	61830	4500	159575.317	159575.317	0.0	2418	2785.7
TPESC29_mip	62565	4500	172615.295	173099.158	0.3	>8054	>7200.0
TPESC30_mip	51825	4500	161628.671	161628.671	0.0	9528	5998.0
TPESC31_mip	64095	4500	151215.617	151990.853	0.5	>6710	>7200.0
TPESC32_mip	55530	4500	163647.364	163647.364	0.0	2226	1614.9
TPESC33_mip	50580	4500	149950.097	149950.097	0.0	2830	1135.7
TPESC34_mip	52770	4500	136787.042	137336.866	0.4	>11848	>7200.0
TPESC35_mip	50190	4500	161318.513	161318.513	0.0	790	533.2
TPESC36_mip	56550	4500	164763.22	164763.22	0.0	10087	7000.3
TPESC37_mip	41700	4380	156403.411	156403.411	0.0	6531	1531.4
TPESC38_mip	51060	4500	165220.934	165220.934	0.0	11911	5305.5
TPESC39_mip	62235	4500	166284.428	166284.428	0.0	2381	2720.7
TPESC40_mip	54270	4500	166247.164	166247.164	0.0	13547	7074.0
TPESC41_mip	67230	4500	171567.089	173862.91	1.3	>5957	>7200.0
TPESC42_mip	54570	4500	164767.773	165794.557	0.6	>11467	>7200.0
TPESC43_mip	54690	4500	169965.886	170312.922	0.2	>10685	>7200.0
TPESC44_mip	59565	4500	171437.016	172708.238	0.7	>8062	>7200.0
TPESC45_mip	65610	4500	152314.825	153657.006	0.9	>6379	>7200.0
TPESC46_mip	61785	4500	167623.225	167958.106	0.2	>8843	>7200.0
TPESC47_mip	54225	4500	174421.398	175317.376	0.5	>10783	>7200.0
TPESC48_mip	50880	4500	163231.312	163231.312	0.0	1277	746.9
TPESC49_mip	56010	4500	165491.694	165491.694	0.0	8111	5649.1
TPESC50_mip	53085	4500	155324.676	155324.676	0.0	1660	1027.5
TPESC51_mip	61635	4500	158340.383	158340.383	0.0	1712	2019.5
TPESC52_mip	61920	4500	169053.521	170727.347	1.0	>7292	>7200.0
TPESC53_mip	58575	4500	139499.13	140883.134	1.0	>9767	>7200.0
TPESC54_mip	78270	4500	169855.599	171800.946	1.1	>4729	>7200.0
TPESC55_mip	61860	4500	171409.697	171409.697	0.0	2524	3023.4
TPESC56_mip	68145	4500	171307.522	174926.232	2.1	>3749	>7200.0
TPESC57_mip	57435	4500	148385.834	148385.834	0.0	9842	6489.0
TPESC58_mip	68460	4500	168943.962	170350.624	0.8	>5015	>7200.0
TPESC59_mip	59160	4500	170206.133	170811.481	0.4	>6926	>7200.0
TPESC60_mip	53550	4500	157841.467	157841.467	0.0	1494	858.9
Total (40)						255608	201653.1
Geom. Mean						5074	3938.1
Shifted Geom.						5346	3967.2

Table 157: TPESC type 3 using CPLEX-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
TPESC61_mip	84845	6000	165563.577	167873.948	1.4	>5677	>7200.0
TPESC62_mip	103385	6000	156668.882	159285.516	1.7	>2519	>7200.0
TPESC63_mip	90800	6000	148818.705	150387.788	1.1	>4510	>7200.0
TPESC64_mip	107630	6000	166351.95	168875.227	1.5	>2107	>7200.0
TPESC65_mip	103325	6000	173846.323	175784.877	1.1	>2413	>7200.0
TPESC66_mip	114005	6000	169125.311	171962.858	1.7	>1640	>7200.0
TPESC67_mip	103190	6000	187788.418	189472.211	0.9	>2580	>7200.0
TPESC68_mip	105455	6000	162803.567	164271.915	0.9	>2364	>7200.0
TPESC69_mip	111710	6000	164186.783	166061.321	1.1	>2068	>7200.0
TPESC70_mip	99110	6000	169519.976	172374.695	1.7	>2948	>7200.0
TPESC71_mip	112100	6000	169090.596	172502.617	2.0	>2617	>7200.0
TPESC72_mip	102335	6000	180828.123	182965.239	1.2	>3645	>7200.0
TPESC73_mip	90425	6000	160520.927	161349.217	0.5	>4526	>7200.0
TPESC74_mip	100430	6000	171237.59	173269.021	1.2	>2368	>7200.0
TPESC75_mip	86315	6000	163683.632	164884.952	0.7	>4664	>7200.0
TPESC76_mip	97910	6000	179316.625	180925.907	0.9	>2975	>7200.0
TPESC77_mip	93845	6000	173477.799	174609.635	0.7	>3589	>7200.0
TPESC78_mip	79685	6000	158728.572	159991.035	0.8	>5053	>7200.0
TPESC79_mip	90575	6000	160030.774	161531.484	0.9	>5242	>7200.0
TPESC80_mip	88265	6000	175047.119	175047.119	0.0	2540	3909.0
TPESC81_mip	93740	6000	159796.361	161409.581	1.0	>3949	>7200.0
TPESC82_mip	81620	6000	173849.161	174447.873	0.3	>6167	>7200.0
TPESC83_mip	84680	6000	199763.572	200817.14	0.5	>4292	>7200.0
TPESC84_mip	104585	6000	140470.646	141162.94	0.5	>1798	>7200.0
TPESC85_mip	94940	6000	155734.462	156993.155	0.8	>3045	>7200.0
TPESC86_mip	95465	6000	182533.455	184384.895	1.0	>3218	>7200.0
TPESC87_mip	83630	6000	140485.299	140485.299	0.0	1494	1771.0
TPESC88_mip	103310	6000	160532.914	161587.823	0.7	>2495	>7200.0
TPESC89_mip	87530	6000	169384.319	170788.192	0.8	>3784	>7200.0
TPESC90_mip	78785	6000	164180.85	164180.85	0.0	1869	2196.4
Total (30)						98156	202276.4
Geom. Mean						3048	6471.4
Shifted Geom.						3101	6476.4

Table 158: CKPC type 1 using SCIP-SOS1 with B-SOS1 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	516.021254	367.981895	40.2	>1049439	>7200.0
CKPC2_sos1	1830	200	529.126558	352.177205	50.2	>1100177	>7200.0
CKPC3_sos1	1870	200	525.656349	365.01191	44.0	>1058426	>7200.0
CKPC4_sos1	1828	200	515.13515	347.692313	48.2	>1085079	>7200.0
CKPC5_sos1	1880	200	525.36091	353.837092	48.5	>1077436	>7200.0
CKPC6_sos1	1889	200	507.157233	375.582541	35.0	>998587	>7200.0
CKPC7_sos1	1843	200	520.187137	344.199525	51.1	>1046791	>7200.0
CKPC8_sos1	1828	200	536.497327	366.198216	46.5	>1046212	>7200.0
CKPC9_sos1	1836	200	496.718165	332.592583	49.3	>1055766	>7200.0
CKPC10_sos1	1828	200	524.279334	355.945757	47.3	>1046667	>7200.0
CKPC11_sos1	1862	200	515.650906	348.25882	48.1	>1084408	>7200.0
CKPC12_sos1	1856	200	500.579718	333.683995	50.0	>1033194	>7200.0
CKPC13_sos1	1870	200	512.101046	340.549963	50.4	>1086806	>7200.0
CKPC14_sos1	1824	200	504.399112	355.303408	42.0	>1107015	>7200.0
CKPC15_sos1	1873	200	527.198117	353.868679	49.0	>1124178	>7200.0
CKPC16_sos1	1875	200	510.858937	344.139396	48.4	>1067643	>7200.0
CKPC17_sos1	1832	200	523.177539	374.554578	39.7	>1041734	>7200.0
CKPC18_sos1	1854	200	505.45957	334.954802	50.9	>1063280	>7200.0
CKPC19_sos1	1824	200	527.031468	349.403926	50.8	>1030984	>7200.0
CKPC20_sos1	1896	200	500.656094	338.416937	47.9	>1025536	>7200.0
CKPC21_sos1	1870	200	522.841961	396.951437	31.7	>1043774	>7200.0
CKPC22_sos1	1816	200	511.40226	346.139341	47.7	>1097170	>7200.0
CKPC23_sos1	1850	200	524.394019	356.418886	47.1	>1065288	>7200.0
CKPC24_sos1	1884	200	522.825028	366.665741	42.6	>1320127	>7200.0
CKPC25_sos1	1816	200	514.05662	354.157744	45.1	>1056165	>7200.0
CKPC26_sos1	1883	200	521.886539	339.318074	53.8	>1107289	>7200.0
CKPC27_sos1	1864	200	502.801257	347.605072	44.6	>1044990	>7200.0
CKPC28_sos1	1834	200	507.30649	345.108036	47.0	>1076993	>7200.0
CKPC29_sos1	1811	200	498.53156	331.24684	50.5	>1032308	>7200.0
CKPC30_sos1	1840	200	529.292025	351.631507	50.5	>1050220	>7200.0
Total (30)						32123682	216000.0
Geom. Mean						1069555	7200.0
Shifted Geom.						1069555	7200.0

Table 159: CKPC type 2 using SCIP-SOS1 with B-SOS1 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	624.606212	367.235859	70.1	>566037	>7200.0
CKPC32_sos1	2700	250	629.544259	368.759453	70.7	>593136	>7200.0
CKPC33_sos1	2743	250	630.492694	376.142122	67.6	>571803	>7200.0
CKPC34_sos1	2734	250	634.110118	374.431247	69.4	>558134	>7200.0
CKPC35_sos1	2757	250	628.230182	366.397141	71.5	>565679	>7200.0
CKPC36_sos1	2830	250	609.827891	369.197659	65.2	>580395	>7200.0
CKPC37_sos1	2744	250	637.912271	385.699543	65.4	>577031	>7200.0
CKPC38_sos1	2735	250	634.753176	386.161227	64.4	>565420	>7200.0
CKPC39_sos1	2746	250	634.732753	368.392132	72.3	>582649	>7200.0
CKPC40_sos1	2758	250	627.858192	380.964514	64.8	>594226	>7200.0
CKPC41_sos1	2711	250	631.846867	363.448452	73.8	>591374	>7200.0
CKPC42_sos1	2710	250	609.088152	360.171879	69.1	>588457	>7200.0
CKPC43_sos1	2803	250	638.582148	362.1567	76.3	>571996	>7200.0
CKPC44_sos1	2769	250	624.300822	380.225896	64.2	>559921	>7200.0
CKPC45_sos1	2743	250	620.587037	378.055592	64.2	>575055	>7200.0
CKPC46_sos1	2729	250	646.836531	368.626249	75.5	>581991	>7200.0
CKPC47_sos1	2750	250	628.156645	376.921595	66.7	>593398	>7200.0
CKPC48_sos1	2683	250	637.834498	373.492248	70.8	>584839	>7200.0
CKPC49_sos1	2783	250	635.683748	363.754595	74.8	>604765	>7200.0
CKPC50_sos1	2746	250	619.928	363.06094	70.8	>586792	>7200.0
CKPC51_sos1	2730	250	632.734655	390.651459	62.0	>569665	>7200.0
CKPC52_sos1	2729	250	619.055615	358.777118	72.5	>561236	>7200.0
CKPC53_sos1	2706	250	626.625756	374.506801	67.3	>560652	>7200.0
CKPC54_sos1	2747	250	632.417294	370.801225	70.6	>566428	>7200.0
CKPC55_sos1	2737	250	632.510535	367.733526	72.0	>577712	>7200.0
CKPC56_sos1	2756	250	630.870422	384.983827	63.9	>549402	>7200.0
CKPC57_sos1	2726	250	616.670424	371.155039	66.1	>568942	>7200.0
CKPC58_sos1	2734	250	633.423295	368.481027	71.9	>566639	>7200.0
CKPC59_sos1	2705	250	625.790222	379.80908	64.8	>567245	>7200.0
CKPC60_sos1	2721	250	626.135576	365.902598	71.1	>577009	>7200.0
Total (30)						17258028	216000.0
Geom. Mean						575127	7200.0
Shifted Geom.						575127	7200.0

Table 160: CKPC type 3 using SCIP-SOS1 with B-SOS1 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	667.623356	394.333099	69.3	>535872	>7200.0
CKPC62_sos1	2918	260	654.267941	373.874337	75.0	>507787	>7200.0
CKPC63_sos1	2912	260	667.18028	377.638695	76.7	>528350	>7200.0
CKPC64_sos1	2946	260	670.96549	387.703286	73.1	>537219	>7200.0
CKPC65_sos1	2923	260	683.851848	391.105105	74.9	>547893	>7200.0
CKPC66_sos1	2964	260	652.667077	385.904392	69.1	>529163	>7200.0
CKPC67_sos1	2952	260	643.677168	358.124738	79.7	>529210	>7200.0
CKPC68_sos1	2952	260	701.45535	407.153428	72.3	>529649	>7200.0
CKPC69_sos1	2906	260	640.996241	370.980533	72.8	>497990	>7200.0
CKPC70_sos1	2907	260	703.178362	403.920566	74.1	>505939	>7200.0
CKPC71_sos1	3018	260	604.465077	337.220862	79.2	>514150	>7200.0
CKPC72_sos1	2908	260	648.286101	380.961405	70.2	>501312	>7200.0
CKPC73_sos1	2968	260	645.821125	366.929154	76.0	>525848	>7200.0
CKPC74_sos1	2907	260	621.177475	356.276149	74.4	>550125	>7200.0
CKPC75_sos1	2909	260	596.614402	347.531375	71.7	>538182	>7200.0
CKPC76_sos1	2928	260	604.537122	356.861476	69.4	>517447	>7200.0
CKPC77_sos1	2920	260	549.844585	308.978717	78.0	>523683	>7200.0
CKPC78_sos1	2875	260	661.949453	379.811676	74.3	>488597	>7200.0
CKPC79_sos1	2910	260	678.595691	384.44463	76.5	>510857	>7200.0
CKPC80_sos1	2952	260	585.074339	339.064642	72.6	>513422	>7200.0
Total (20)						10432695	144000.0
Geom. Mean						521383	7200.0
Shifted Geom.						521383	7200.0

Table 161: CKPC type 1 using SCIP-SOS1 with B-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	29721	76.8
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	78681	164.9
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	37907	96.9
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	57169	128.4
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	60575	136.3
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	17051	52.2
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	82051	182.0
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	50255	123.8
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	65025	150.6
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	43445	105.2
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	57657	130.6
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	74777	172.8
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	75363	166.0
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	33189	80.1
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	71387	149.5
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	62153	141.7
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	24821	64.5
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	80653	176.3
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	71227	163.7
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	55751	136.9
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	10555	33.6
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	56007	125.5
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	56889	133.3
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	32123	66.5
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	40929	98.7
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	106941	210.2
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	42499	104.7
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	52711	120.2
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	68831	156.7
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	64951	148.7
Total (30)						1661294	3797.1
Geom. Mean						50275	118.1
Shifted Geom.						50291	119.0

Table 162: CKPC type 2 using SCIP-SOS1 with B-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	371931	1205.7
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	444133	1303.8
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	303321	1003.5
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	343037	1127.2
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	421423	1330.3
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	275833	904.4
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	305683	989.1
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	236415	827.1
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	500387	1482.7
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	264321	868.8
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	623375	1685.1
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	451389	1317.2
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	609471	1717.4
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	217425	745.8
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	260579	865.1
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	573249	1573.4
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	299871	952.9
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	383551	1155.2
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	582159	1582.8
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	433349	1271.5
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	204309	744.7
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	421041	1292.0
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	333439	1113.7
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	435993	1383.1
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	492133	1447.1
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	224191	785.3
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	284677	969.8
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	418123	1276.7
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	227939	794.9
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	434363	1323.1
Total (30)						11377110	35039.1
Geom. Mean						360318	1133.0
Shifted Geom.						360323	1133.3

Table 163: CKPC type 3 using SCIP-SOS1 with B-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	470009	1543.3
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	596001	1974.5
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	686145	2073.1
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	546667	1709.8
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	619507	1927.7
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	341997	1177.2
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	800489	2344.9
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	496781	1642.6
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	491981	1726.6
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	532853	1827.2
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	729633	2201.8
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	410683	1413.9
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	646583	2005.0
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	608609	1825.3
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	489141	1557.9
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	392501	1370.6
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	731545	2215.4
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	503501	1757.9
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	703481	2194.3
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	500541	1645.5
Total (20)						11298648	36134.6
Geom. Mean						551659	1780.0
Shifted Geom.						551661	1780.1

Table 164: CKPC type 1 using SCIP-SOS1 with B-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	29717	82.2
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	78623	174.1
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	37905	103.2
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	57137	136.0
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	60547	144.6
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	17051	55.7
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	81999	191.3
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	50245	130.6
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	64973	158.5
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	43435	111.2
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	57637	137.7
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	74715	182.9
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	75291	176.1
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	33179	85.6
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	71339	159.8
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	62123	151.3
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	24831	68.4
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	80627	185.1
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	71175	172.6
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	55723	144.3
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	10555	36.0
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	55963	131.5
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	56875	142.2
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	32121	70.7
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	40923	105.0
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	106817	221.8
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	42495	111.8
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	52685	127.1
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	68795	164.2
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	64921	156.6
Total (30)						1660422	4018.1
Geom. Mean						50254	125.1
Shifted Geom.						50270	126.0

Table 165: CKPC type 2 using SCIP-SOS1 with B-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	371871	1276.0
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	443943	1366.7
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	303293	1058.6
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	342971	1172.9
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	421271	1388.6
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	275809	953.7
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	305645	1040.3
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	236395	861.3
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	500203	1563.6
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	264295	918.3
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	623049	1785.1
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	451125	1408.8
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	609261	1821.7
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	217403	790.6
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	260535	960.7
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	572823	1654.4
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	299821	1005.8
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	383447	1208.4
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	581891	1668.8
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	433183	1338.5
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	204311	777.4
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	420901	1361.9
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	333355	1170.0
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	435879	1456.1
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	491911	1515.1
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	224179	835.8
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	284629	1027.4
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	418017	1348.4
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	227913	837.0
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	434259	1387.6
Total (30)						11373588	36959.6
Geom. Mean						360223	1195.5
Shifted Geom.						360229	1195.8

Table 166: CKPC type 3 using SCIP-SOS1 with B-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	469961	1634.3
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	595851	2085.1
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	685857	2188.1
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	546487	1789.0
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	619371	2038.5
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	341981	1269.2
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	800025	2458.1
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	496677	1752.2
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	491937	1821.1
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	532797	1923.2
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	729413	2321.4
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	410617	1495.6
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	646335	2118.5
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	608489	1921.8
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	489009	1647.1
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	392459	1449.2
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	731269	2318.5
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	503435	1854.2
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	703297	2315.7
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	500459	1744.0
Total (20)						11295726	38144.8
Geom. Mean						551529	1880.2
Shifted Geom.						551531	1880.4

Table 167: CKPC type 1 using SCIP-SOS1 with B-nonzero settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	29721	76.9
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	78681	167.6
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	37907	97.2
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	57169	128.5
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	60575	137.1
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	17051	52.5
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	82051	182.7
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	50255	124.2
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	65025	151.4
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	43445	105.1
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	57657	130.8
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	74777	172.1
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	75363	166.7
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	33189	80.7
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	71387	150.0
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	62153	142.3
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	24821	64.8
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	80653	176.2
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	71227	164.3
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	55751	139.2
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	10555	33.8
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	56007	124.9
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	56889	133.3
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	32123	65.9
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	40929	98.9
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	106941	209.7
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	42499	105.9
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	52711	121.2
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	68827	155.6
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	64951	148.5
Total (30)						1661290	3807.8
Geom. Mean						50275	118.4
Shifted Geom.						50291	119.3

Table 168: CKPC type 2 using SCIP-SOS1 with B-nonzero settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	371939	1211.9
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	444143	1301.3
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	303321	1020.2
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	343037	1124.1
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	421423	1329.2
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	275833	906.5
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	305683	1003.8
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	236415	821.4
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	500387	1496.1
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	264321	886.5
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	623375	1704.7
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	451393	1318.7
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	609471	1732.8
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	217425	755.7
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	260579	873.7
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	573249	1580.9
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	299871	953.5
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	383551	1147.9
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	582163	1594.6
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	433349	1272.0
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	204309	742.6
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	421041	1297.5
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	333439	1110.2
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	435993	1383.8
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	492133	1451.0
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	224191	788.2
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	284677	981.8
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	418123	1288.3
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	227939	814.5
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	434363	1323.0
Total (30)						11377136	35216.6
Geom. Mean						360318	1139.0
Shifted Geom.						360324	1139.3

Table 169: CKPC type 3 using SCIP-SOS1 with B-nonzero settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	470009	1548.8
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	596003	1984.0
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	686147	2079.2
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	546669	1707.7
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	619507	1941.2
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	341997	1180.4
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	800489	2367.7
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	496783	1669.9
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	491979	1719.3
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	532853	1826.1
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	729631	2205.3
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	410683	1425.8
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	646583	2060.2
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	608609	1851.0
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	489141	1569.9
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	392501	1380.0
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	731521	2225.4
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	503503	1777.4
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	703481	2203.1
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	500539	1665.4
Total (20)						11298628	36387.7
Geom. Mean						551658	1792.3
Shifted Geom.						551661	1792.4

Table 170: CKPC type 1 using SCIP-SOS1 with B-neigh-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	29721	78.0
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	78679	165.6
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	37907	97.2
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	57175	129.7
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	60573	137.7
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	17051	52.9
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	82037	182.0
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	50255	124.3
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	65021	151.1
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	43445	105.7
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	57655	131.5
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	74769	173.2
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	75365	168.1
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	33189	80.8
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	71383	151.1
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	62147	142.7
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	24819	64.8
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	80649	177.8
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	71229	165.0
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	55747	137.4
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	10555	34.2
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	56001	124.9
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	56889	134.8
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	32123	66.3
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	40929	99.5
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	106951	211.4
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	42501	105.6
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	52713	120.8
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	68829	155.6
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	64941	148.8
Total (30)						1661248	3818.5
Geom. Mean						50274	118.8
Shifted Geom.						50290	119.7

Table 171: CKPC type 2 using SCIP-SOS1 with B-neigh-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	371921	1203.8
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	444131	1295.6
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	303321	1004.8
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	343029	1118.1
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	421415	1326.2
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	275829	911.0
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	305677	992.4
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	236413	819.2
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	500385	1492.9
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	264321	872.4
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	623379	1724.6
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	451363	1319.5
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	609447	1718.0
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	217419	749.5
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	260579	869.6
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	573237	1587.3
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	299867	952.1
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	383561	1149.9
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	582139	1583.2
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	433355	1273.1
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	204307	743.5
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	421023	1289.8
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	333437	1111.4
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	435963	1374.0
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	492125	1443.4
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	224191	786.8
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	284679	979.8
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	418101	1289.8
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	227937	794.7
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	434355	1320.5
Total (30)						11376906	35096.5
Geom. Mean						360312	1134.5
Shifted Geom.						360317	1134.8

Table 172: CKPC type 3 using SCIP-SOS1 with B-neigh-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	470001	1551.3
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	595977	1957.6
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	686131	2080.0
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	546675	1705.8
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	619501	1926.1
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	341987	1181.6
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	800471	2340.2
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	496775	1665.4
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	491949	1710.5
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	532851	1822.7
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	729631	2197.3
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	410677	1420.4
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	646581	2001.7
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	608601	1836.1
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	489137	1562.1
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	392499	1378.1
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	731531	2195.6
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	503481	1762.0
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	703465	2212.0
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	500533	1661.2
Total (20)						11298454	36167.6
Geom. Mean						551649	1782.3
Shifted Geom.						551652	1782.4

Table 173: CKPC type 1 using SCIP-SOS1 with B-bip-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	29715	82.7
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	78615	175.4
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	37905	103.5
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	57143	136.7
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	60545	145.4
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	17051	56.2
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	81983	193.0
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	50243	131.2
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	64969	160.1
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	43435	111.6
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	57635	139.6
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	74707	182.9
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	75297	177.3
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	33179	85.8
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	71335	159.2
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	62115	150.7
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	24829	69.2
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	80623	186.5
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	71177	174.6
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	55717	145.8
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	10555	36.4
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	55963	133.9
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	56873	142.1
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	32121	71.7
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	40923	105.2
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	106825	223.3
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	42497	112.0
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	52687	127.6
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	68793	164.7
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	64911	157.3
Total (30)						1660366	4041.4
Geom. Mean						50253	125.9
Shifted Geom.						50268	126.8

Table 174: CKPC type 2 using SCIP-SOS1 with B-bip-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	371861	1274.9
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	443939	1371.3
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	303293	1057.1
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	342959	1194.0
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	421263	1401.5
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	275805	958.3
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	305637	1045.4
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	236393	864.8
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	500201	1563.8
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	264295	922.5
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	623043	1776.7
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	451103	1407.6
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	609231	1827.1
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	217397	794.3
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	260535	920.0
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	572805	1653.3
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	299817	1009.0
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	383459	1210.4
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	581867	1682.0
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	433189	1384.2
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	204309	776.6
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	420883	1362.2
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	333353	1171.6
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	435849	1448.1
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	491901	1520.2
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	224173	828.3
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	284631	1026.0
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	417983	1344.0
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	227911	837.0
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	434247	1398.5
Total (30)						11373332	37030.5
Geom. Mean						360216	1197.2
Shifted Geom.						360221	1197.5

Table 175: CKPC type 3 using SCIP-SOS1 with B-bip-comp settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	469945	1630.5
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	595827	2072.6
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	685839	2194.0
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	546493	1796.0
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	619365	2025.8
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	341971	1250.7
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	800001	2466.4
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	496669	1743.2
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	491905	1807.0
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	532795	1914.2
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	729411	2305.7
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	410611	1490.4
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	646321	2109.4
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	608477	1934.3
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	489005	1662.0
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	392455	1448.6
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	731227	2315.6
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	503415	1847.2
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	703279	2319.6
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	500451	1732.0
Total (20)						11295462	38065.0
Geom. Mean						551516	1875.8
Shifted Geom.						551519	1876.0

Table 176: CKPC type 1 using SCIP-SOS1 with B-neigh-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	18463	122.0
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	57897	234.4
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	22433	155.4
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	39287	195.5
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	40007	195.0
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	8219	90.5
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	59977	256.6
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	32963	185.8
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	44721	234.4
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	29937	173.5
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	38883	193.2
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	48589	246.5
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	57513	258.5
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	20689	134.2
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	47387	230.7
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	40175	210.4
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	14477	114.3
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	51043	244.9
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	51821	243.2
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	39719	211.4
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	5709	64.2
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	40827	196.4
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	37753	193.8
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	21351	115.6
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	26029	159.8
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	79737	297.9
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	29815	162.5
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	35259	180.7
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	50203	243.5
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	46971	242.2
Total (30)						1137854	5786.9
Geom. Mean						33400	183.4
Shifted Geom.						33423	184.0

Table 177: CKPC type 2 using SCIP-SOS1 with B-neigh-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	326037	1475.0
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	384633	1495.4
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	257415	1209.5
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	294339	1313.3
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	360849	1537.0
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	236735	1110.1
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	257295	1200.5
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	198559	1006.7
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	436829	1715.6
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	207269	953.6
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	512475	1781.0
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	385887	1514.9
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	538925	2011.8
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	175641	897.7
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	222809	1080.5
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	487009	1761.5
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	248603	1100.2
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	332025	1401.2
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	545057	1920.1
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	365407	1495.2
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	163029	870.0
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	370059	1515.8
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	288665	1348.4
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	369887	1667.5
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	423159	1645.3
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	186985	978.3
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	234991	1162.2
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	360091	1537.2
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	197445	988.9
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	359343	1448.3
Total (30)						9727452	41142.9
Geom. Mean						306288	1335.9
Shifted Geom.						306294	1336.1

Table 178: CKPC type 3 using SCIP-SOS1 with B-neigh-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	384425	1716.5
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	502139	2196.7
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	611867	2316.7
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	490881	1970.2
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	523767	2061.2
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	301679	1377.2
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	757269	2746.6
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	432855	1959.5
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	416023	1926.4
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	458873	1994.6
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	696159	2636.8
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	352467	1682.2
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	564781	2266.2
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	521431	2094.1
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	431823	1822.8
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	324143	1523.4
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	635403	2473.5
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	465829	2075.4
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	624927	2404.6
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	393195	1728.2
Total (20)						9889936	40972.6
Geom. Mean						480010	2018.4
Shifted Geom.						480013	2018.6

Table 179: CKPC type 1 using SCIP-SOS1 with B-bip-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	18459	126.3
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	57863	243.2
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	22429	160.0
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	39285	202.3
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	39999	201.3
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	8219	92.9
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	59953	265.3
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	32959	192.7
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	44711	241.4
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	29935	178.7
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	38871	200.4
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	48585	254.6
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	57485	267.0
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	20687	138.2
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	47383	239.2
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	40171	217.2
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	14477	117.6
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	51049	252.4
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	51793	251.4
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	39705	218.3
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	5709	66.1
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	40821	203.9
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	37755	200.8
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	21347	120.3
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	26025	164.4
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	79649	309.4
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	29815	168.3
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	35249	186.8
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	50197	250.9
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	46963	251.3
Total (30)						1137548	5982.6
Geom. Mean						33393	189.5
Shifted Geom.						33416	190.2

Table 180: CKPC type 2 using SCIP-SOS1 with B-bip-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	326001	1539.5
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	384509	1560.7
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	257391	1266.2
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	294285	1363.4
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	360775	1599.8
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	236695	1160.5
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	257243	1254.4
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	198553	1046.3
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	436707	1803.0
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	207235	999.4
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	512207	1894.5
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	385749	1589.0
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	538689	2090.1
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	175627	933.0
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	222785	1141.8
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	486777	1833.2
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	248575	1141.7
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	331925	1462.8
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	544829	2026.7
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	365325	1559.7
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	163015	902.3
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	370021	1579.7
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	288635	1394.5
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	369819	1729.2
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	423013	1715.4
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	186971	992.4
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	234959	1204.0
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	360019	1588.4
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	197435	1029.6
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	359285	1517.7
Total (30)						9725054	42918.9
Geom. Mean						306225	1392.6
Shifted Geom.						306230	1392.9

Table 181: CKPC type 3 using SCIP-SOS1 with B-bip-strong settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	384369	1789.5
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	502063	2280.0
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	611687	2424.0
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	490791	2093.8
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	523667	2168.5
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	301663	1436.0
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	756989	2873.7
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	432807	2039.8
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	415957	2019.5
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	458815	2078.8
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	695967	2752.2
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	352429	1730.5
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	564607	2397.2
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	521355	2198.2
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	431747	1904.2
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	324119	1597.3
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	635177	2575.8
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	465785	2154.2
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	624791	2510.1
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	393155	1798.7
Total (20)						9887940	42822.2
Geom. Mean						479923	2109.2
Shifted Geom.						479926	2109.3

Table 182: CKPC type 1 using SCIP-SOS1 with B-neigh-C-bds10 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	17515	62.1
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	42523	126.4
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	21971	76.6
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	33147	103.3
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	32845	103.1
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	10493	44.0
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	45617	139.2
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	28797	97.5
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	36625	116.5
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	24393	81.0
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	30205	97.2
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	41999	134.0
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	42623	129.4
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	18527	62.4
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	37853	112.5
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	33411	105.5
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	14693	52.7
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	42375	128.7
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	37527	121.2
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	32635	109.0
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	6665	29.0
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	29827	94.8
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	32009	103.5
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	16045	49.5
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	23711	78.7
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	58251	160.7
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	24537	83.9
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	27863	90.3
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	37341	117.5
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	34997	112.8
Total (30)						917020	2922.8
Geom. Mean						28025	91.6
Shifted Geom.						28038	92.3

Table 183: CKPC type 2 using SCIP-SOS1 with B-neigh-C-bds10 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	198509	869.9
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	239495	941.5
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	163877	729.5
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	181533	798.1
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	222289	951.2
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	150257	657.6
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	163905	714.4
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	129325	597.3
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	277179	1098.3
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	137205	611.5
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	338633	1224.6
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	244579	973.2
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	323963	1235.7
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	117539	550.1
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	139369	629.2
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	299871	1141.0
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	161847	689.8
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	208051	847.4
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	307155	1157.3
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	230799	917.9
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	117009	553.7
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	238533	983.5
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	182867	813.7
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	241379	1020.5
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	261801	1055.8
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	127371	581.0
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	157687	718.7
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	230797	955.1
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	125833	581.2
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	248067	995.5
Total (30)						6166724	25594.3
Geom. Mean						195697	827.4
Shifted Geom.						195702	827.7

Table 184: CKPC type 3 using SCIP-SOS1 with B-neigh-C-bds10 settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	254745	1134.8
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	330589	1455.2
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	383747	1558.5
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	293247	1234.9
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	335111	1360.2
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	197769	882.7
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	428645	1721.4
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	268065	1212.3
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	286929	1306.8
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	309415	1373.2
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	401089	1619.9
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	220763	1029.7
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	352543	1463.4
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	316609	1292.3
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	259133	1124.6
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	221943	1020.3
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	410819	1620.4
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	281729	1305.2
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	394875	1661.2
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	266173	1166.3
Total (20)						6213938	26543.4
Geom. Mean						303614	1307.1
Shifted Geom.						303616	1307.3

Table 185: CKPC type 1 using SCIP-SOS1 with B-neigh-noC-bds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	11796105	1366.3
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	16388775	1907.2
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	13336617	1545.0
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	14920293	1738.6
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	13654699	1601.7
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	9771973	1116.1
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	16769095	1953.7
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	14260863	1636.2
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	15091871	1803.1
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	12680445	1459.7
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	14360139	1667.6
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	15599613	1832.3
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	15821395	1853.0
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	11485365	1324.0
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	15764301	1843.6
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	14672554	1720.0
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	10677275	1213.8
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	16321379	1924.8
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	15904843	1853.1
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	14902121	1749.7
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	8639617	971.0
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	14134387	1642.6
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	15397677	1790.0
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	12056173	1390.0
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	13157765	1506.1
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	17218397	2054.0
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	13368937	1552.2
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	14809139	1736.5
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	14981335	1751.2
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	15620163	1825.8
Total (30)						423563311	49328.9
Geom. Mean						13949989	1622.1
Shifted Geom.						13949991	1622.2

Table 186: CKPC type 2 using SCIP-SOS1 with B-neigh-noC-bds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	547.498041	367.235859	49.1	>51965721	>7200.0
CKPC32_sos1	2700	250	559.0712	368.759453	51.6	>52226092	>7200.0
CKPC33_sos1	2743	250	556.019054	376.142122	47.8	>52289401	>7200.0
CKPC34_sos1	2734	250	566.191112	374.431247	51.2	>52402667	>7200.0
CKPC35_sos1	2757	250	549.47372	366.397141	50.0	>52245942	>7200.0
CKPC36_sos1	2830	250	538.004288	369.197659	45.7	>51942013	>7200.0
CKPC37_sos1	2744	250	569.063061	385.699543	47.5	>52722439	>7200.0
CKPC38_sos1	2735	250	559.871437	386.161227	45.0	>52225080	>7200.0
CKPC39_sos1	2746	250	571.954156	368.392132	55.3	>52664267	>7200.0
CKPC40_sos1	2758	250	537.204315	380.964514	41.0	>51540649	>7200.0
CKPC41_sos1	2711	250	565.6144	363.448452	55.6	>52821681	>7200.0
CKPC42_sos1	2710	250	544.388698	360.171879	51.1	>52277702	>7200.0
CKPC43_sos1	2803	250	551.854613	362.1567	52.4	>52108575	>7200.0
CKPC44_sos1	2769	250	537.471482	380.225896	41.4	>51783603	>7200.0
CKPC45_sos1	2743	250	555.423994	378.055592	46.9	>52149367	>7200.0
CKPC46_sos1	2729	250	568.363172	368.626249	54.2	>52481706	>7200.0
CKPC47_sos1	2750	250	557.651673	376.921595	47.9	>51885005	>7200.0
CKPC48_sos1	2683	250	561.043023	373.492248	50.2	>52737320	>7200.0
CKPC49_sos1	2783	250	565.213822	363.754595	55.4	>52464102	>7200.0
CKPC50_sos1	2746	250	552.301751	363.06094	52.1	>52174629	>7200.0
CKPC51_sos1	2730	250	561.642458	390.651459	43.8	>52101162	>7200.0
CKPC52_sos1	2729	250	543.703185	358.777118	51.5	>51760425	>7200.0
CKPC53_sos1	2706	250	563.23929	374.506801	50.4	>52743513	>7200.0
CKPC54_sos1	2747	250	563.148244	370.801225	51.9	>52451264	>7200.0
CKPC55_sos1	2737	250	563.59736	367.733526	53.3	>52391563	>7200.0
CKPC56_sos1	2756	250	555.242594	384.983827	44.2	>51886345	>7200.0
CKPC57_sos1	2726	250	548.649547	371.155039	47.8	>52003423	>7200.0
CKPC58_sos1	2734	250	564.329623	368.481027	53.2	>52523588	>7200.0
CKPC59_sos1	2705	250	546.742535	379.80908	44.0	>51654012	>7200.0
CKPC60_sos1	2721	250	564.411755	365.902598	54.3	>52884625	>7200.0
Total (30)						1567507881	216000.0
Geom. Mean						52249068	7200.0
Shifted Geom.						52249068	7200.0

Table 187: CKPC type 3 using SCIP-SOS1 with B-neigh-noC-bds settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	641.709775	394.333099	62.7	>51352235	>7200.0
CKPC62_sos1	2918	260	626.914507	373.874337	67.7	>51086141	>7200.0
CKPC63_sos1	2912	260	617.135597	377.638695	63.4	>51232775	>7200.0
CKPC64_sos1	2946	260	629.776061	387.703286	62.4	>51384494	>7200.0
CKPC65_sos1	2923	260	645.045914	391.105105	64.9	>51519341	>7200.0
CKPC66_sos1	2964	260	613.792631	385.904392	59.1	>50745483	>7200.0
CKPC67_sos1	2952	260	596.743735	358.124738	66.6	>51192948	>7200.0
CKPC68_sos1	2952	260	655.623507	407.153428	61.0	>51589304	>7200.0
CKPC69_sos1	2906	260	622.14603	370.980533	67.7	>51536830	>7200.0
CKPC70_sos1	2907	260	660.443601	403.920566	63.5	>51489338	>7200.0
CKPC71_sos1	3018	260	577.638065	337.220862	71.3	>51029303	>7200.0
CKPC72_sos1	2908	260	605.081897	380.961405	58.8	>50644719	>7200.0
CKPC73_sos1	2968	260	612.806345	366.929154	67.0	>50625547	>7200.0
CKPC74_sos1	2907	260	592.814879	356.276149	66.4	>51357107	>7200.0
CKPC75_sos1	2909	260	561.877291	347.531375	61.7	>51069849	>7200.0
CKPC76_sos1	2928	260	567.178566	356.861476	58.9	>50988979	>7200.0
CKPC77_sos1	2920	260	524.686338	308.978717	69.8	>50304630	>7200.0
CKPC78_sos1	2875	260	627.087805	379.811676	65.1	>51778917	>7200.0
CKPC79_sos1	2910	260	639.90313	384.44463	66.4	>51595760	>7200.0
CKPC80_sos1	2952	260	547.036209	339.064642	61.3	>50719227	>7200.0
Total (20)						1023242927	144000.0
Geom. Mean						51160687	7200.0
Shifted Geom.						51160687	7200.0

Table 188: CKPC type 1 using SCIP-SOS1 with B-neigh-C-edge settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	23799	98.2
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	61477	198.5
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	28127	112.0
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	41065	143.7
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	40295	153.9
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	12793	63.0
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	64679	214.1
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	42599	157.6
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	54899	183.0
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	37501	137.9
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	45561	155.0
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	59431	204.9
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	56839	194.0
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	24743	96.8
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	55735	185.8
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	47281	165.1
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	17881	72.2
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	64943	214.5
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	55293	194.0
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	44393	157.2
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	7751	39.7
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	41329	147.1
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	43681	155.4
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	20405	82.1
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	31793	115.9
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	74531	237.4
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	30665	122.9
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	42973	143.5
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	57049	185.2
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	51207	182.3
Total (30)						1280718	4513.0
Geom. Mean						38506	140.6
Shifted Geom.						38523	141.5

Table 189: CKPC type 2 using SCIP-SOS1 with B-neigh-C-edge settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	286947	1378.6
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	336511	1413.5
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	251581	1225.5
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	297565	1345.7
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	327389	1492.5
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	220193	1129.7
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	235791	1082.3
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	176227	897.6
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	396805	1619.8
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	200539	932.1
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	480675	1903.8
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	341633	1492.2
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	465707	1898.5
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	162631	848.0
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	195997	996.8
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	471537	1895.8
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	232009	1078.6
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	315015	1359.5
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	474343	1859.0
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	334839	1456.3
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	158477	816.8
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	359929	1522.9
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	267189	1256.4
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	346909	1535.8
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	402231	1663.8
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	185115	913.4
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	236351	1148.4
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	364609	1602.0
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	187225	914.6
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	345673	1498.9
Total (30)						9057642	40178.6
Geom. Mean						286266	1298.1
Shifted Geom.						286272	1298.4

Table 190: CKPC type 3 using SCIP-SOS1 with B-neigh-C-edge settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	373521	1751.9
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	456019	2128.7
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	572833	2431.8
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	446819	1964.3
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	455817	2055.9
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	273389	1354.9
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	661107	2733.1
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	373393	1854.5
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	399731	1896.9
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	420487	2052.2
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	590323	2481.4
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	351711	1739.9
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	535235	2353.3
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	442643	1918.3
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	379975	1762.6
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	309493	1513.1
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	586447	2489.4
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	435869	2094.3
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	568981	2658.7
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	360783	1692.0
Total (20)						8994576	40927.1
Geom. Mean						438288	2013.0
Shifted Geom.						438290	2013.2

Table 191: CKPC type 1 using SCIP-SOS1 with B-neigh-C-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	23585	108.0
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	57215	196.9
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	26621	118.8
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	42241	163.1
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	42741	174.3
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	11885	68.1
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	60721	222.4
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	35869	151.2
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	52613	197.6
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	35525	145.1
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	41359	164.8
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	59267	216.5
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	53985	201.5
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	25193	112.8
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	51193	185.9
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	45561	171.8
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	18585	86.7
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	59417	210.0
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	54575	210.9
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	44585	175.0
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	7739	49.1
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	37321	147.7
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	42019	170.7
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	19583	94.2
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	31537	131.0
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	78497	257.5
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	30647	135.0
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	38287	149.4
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	52883	189.8
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	50351	197.1
Total (30)						1231600	4803.0
Geom. Mean						37099	151.2
Shifted Geom.						37116	151.9

Table 192: CKPC type 2 using SCIP-SOS1 with B-neigh-C-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	273371	1380.9
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	336727	1531.0
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	219959	1169.0
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	262943	1282.2
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	314327	1497.6
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	214861	1130.5
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	225827	1105.5
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	170495	958.3
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	377121	1660.5
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	196819	1034.6
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	469907	1951.9
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	365653	1558.9
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	440763	1975.6
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	161921	876.7
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	193621	1008.7
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	443393	1925.8
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	214759	1070.2
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	290225	1360.9
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	482965	1957.3
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	320481	1487.5
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	151021	853.1
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	348729	1582.1
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	244955	1285.2
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	333885	1611.6
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	393045	1643.8
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	172201	931.8
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	230065	1180.0
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	325813	1537.1
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	189833	961.5
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	326371	1558.0
Total (30)						8692056	41067.8
Geom. Mean						274370	1327.7
Shifted Geom.						274376	1328.0

Table 193: CKPC type 3 using SCIP-SOS1 with B-neigh-C-neigh settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	355941	1740.0
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	462175	2324.7
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	552567	2522.3
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	404209	1875.3
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	457287	2141.6
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	262983	1399.1
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	645019	2759.0
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	336229	1787.0
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	389423	1968.5
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	408603	2125.0
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	544105	2577.5
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	327265	1667.7
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	498089	2314.2
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	430837	2004.0
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	370295	1718.8
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	294189	1567.8
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	587275	2542.1
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	414745	2206.5
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	535045	2632.2
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	357175	1819.7
Total (20)						8633456	41693.1
Geom. Mean						420266	2049.3
Shifted Geom.						420269	2049.5

Table 194: CKPC type 1 using SCIP-SOS1 with B-neigh-C-clique settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	25145	103.2
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	57531	198.2
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	27631	114.4
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	39347	151.8
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	39515	150.3
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	11829	63.1
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	63131	221.4
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	37647	146.1
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	52983	195.2
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	33743	133.8
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	43715	162.2
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	57327	203.0
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	54579	193.3
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	24871	108.0
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	50335	178.3
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	47521	171.1
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	19049	79.7
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	59299	218.2
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	51955	193.2
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	42109	160.4
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	7705	42.2
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	40543	150.3
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	41555	159.2
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	18693	80.9
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	31705	126.2
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	74909	250.7
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	30629	125.5
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	42365	150.2
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	55349	192.9
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	47925	180.1
Total (30)						1230640	4603.1
Geom. Mean						37140	143.8
Shifted Geom.						37157	144.7

Table 195: CKPC type 2 using SCIP-SOS1 with B-neigh-C-clique settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	276615	1375.1
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	319989	1455.3
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	235629	1209.8
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	280055	1342.7
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	306875	1427.8
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	211851	1112.4
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	228421	1158.9
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	178693	971.3
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	392805	1731.0
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	193807	1014.7
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	483857	1976.0
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	348087	1451.7
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	433721	1906.3
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	159239	843.1
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	194847	983.3
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	444961	1857.5
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	223373	1093.2
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	286165	1306.0
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	465223	1899.7
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	340571	1510.7
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	159471	913.7
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	339201	1571.2
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	251639	1289.7
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	349147	1606.8
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	395809	1674.6
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	175547	950.3
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	237585	1218.3
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	331267	1565.7
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	181637	941.5
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	334541	1598.3
Total (30)						8760628	40956.7
Geom. Mean						277108	1326.4
Shifted Geom.						277114	1326.7

Table 196: CKPC type 3 using SCIP-SOS1 with B-neigh-C-clique settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	345135	1742.0
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	479187	2318.5
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	562747	2527.1
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	423289	1922.9
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	461901	2175.1
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	267233	1405.7
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	645383	2733.7
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	364849	1866.0
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	350409	1869.9
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	413661	2078.6
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	544039	2548.3
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	307037	1609.9
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	503905	2251.9
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	423187	1981.3
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	356777	1684.6
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	295809	1531.1
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	555365	2569.8
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	420115	2155.7
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	530399	2557.4
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	353251	1814.9
Total (20)						8603678	41344.5
Geom. Mean						418589	2032.3
Shifted Geom.						418592	2032.5

Table 197: CKPC type 1 using SCIP-SOS1 with B-neigh-C-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	23585	107.8
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	57215	197.7
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	26621	119.4
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	42241	162.3
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	42741	170.7
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	11885	68.2
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	60721	222.7
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	35869	150.8
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	52613	197.7
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	35525	145.8
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	41359	164.2
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	59267	216.1
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	53985	202.2
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	25193	112.9
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	51193	186.3
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	45561	172.4
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	18585	87.0
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	59417	212.2
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	54575	212.3
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	44585	174.7
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	7739	49.1
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	37321	148.7
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	42019	170.3
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	19583	94.1
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	31537	131.3
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	78497	257.5
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	30647	135.1
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	38287	149.4
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	52883	190.2
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	50351	197.2
Total (30)						1231600	4806.3
Geom. Mean						37099	151.3
Shifted Geom.						37116	152.0

Table 198: CKPC type 2 using SCIP-SOS1 with B-neigh-C-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	273371	1373.7
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	336727	1528.4
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	219959	1161.3
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	262943	1286.5
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	314327	1493.0
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	214861	1129.7
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	225827	1096.1
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	170495	958.4
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	377121	1643.7
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	196819	1039.6
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	469907	1966.6
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	365653	1560.0
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	440763	1980.8
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	161921	875.1
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	193621	1008.1
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	443393	1916.4
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	214759	1077.8
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	290225	1363.4
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	482965	1963.2
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	320481	1498.8
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	151021	852.3
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	348729	1577.4
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	244955	1330.7
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	333885	1592.6
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	393045	1646.7
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	172201	929.6
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	230065	1185.0
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	325813	1529.0
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	189833	960.2
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	326371	1551.9
Total (30)						8692056	41076.0
Geom. Mean						274370	1328.0
Shifted Geom.						274376	1328.3

Table 199: CKPC type 3 using SCIP-SOS1 with B-neigh-C-bip settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	355941	1739.6
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	462175	2329.0
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	552567	2528.9
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	404209	1875.4
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	457287	2143.1
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	262983	1403.2
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	645019	2748.9
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	336229	1783.7
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	389423	1960.7
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	408603	2138.6
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	544105	2588.2
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	327265	1675.2
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	498089	2316.7
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	430837	1981.8
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	370295	1740.1
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	294189	1566.3
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	587275	2565.3
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	414745	2204.7
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	535045	2647.6
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	357175	1820.7
Total (20)						8633456	41757.6
Geom. Mean						420266	2052.3
Shifted Geom.						420269	2052.5

Table 200: CKPC type 3 using SCIP-SOS1 with B-neigh-C-box settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	399077	1668.9
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	544577	2288.2
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	606001	2425.4
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	458551	1790.8
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	509259	2092.4
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	289449	1326.5
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	764907	2836.5
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	388221	1744.0
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	432243	1925.7
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	472755	2110.6
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	618533	2451.8
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	369327	1619.9
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	562525	2338.8
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	489639	1976.0
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	400723	1649.5
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	322583	1461.4
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	643067	2493.9
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	446451	1989.0
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	591063	2458.4
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	408143	1833.0
Total (20)						9717094	40480.8
Geom. Mean						472242	1986.5
Shifted Geom.						472244	1986.7

Table 201: CKPC type 1 using SCIP-SOS1 with B-neigh-favor settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	16161	84.6
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	37317	158.6
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	18783	94.5
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	26893	121.7
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	26129	128.8
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	9329	57.1
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	41679	178.6
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	27401	130.5
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	33991	150.3
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	23425	111.4
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	28513	126.0
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	37771	167.9
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	36577	161.9
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	15899	80.3
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	34397	151.2
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	30165	137.4
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	12453	63.7
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	39497	173.1
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	34257	158.0
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	28463	130.7
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	5833	37.6
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	26513	122.0
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	27717	127.9
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	13429	69.4
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	20717	97.2
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	47909	198.2
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	21221	104.8
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	27841	120.1
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	35811	151.8
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	32697	149.0
Total (30)						818788	3744.1
Geom. Mean						24965	117.6
Shifted Geom.						24979	118.3

Table 202: CKPC type 2 using SCIP-SOS1 with B-neigh-favor settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	170043	1064.1
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	201951	1097.5
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	149759	951.0
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	173927	1019.4
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	194999	1144.4
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	131225	831.9
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	141763	846.0
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	107561	700.8
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	240589	1252.0
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	117425	713.1
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	282895	1449.2
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	211511	1157.3
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	284903	1491.7
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	100429	672.2
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	118033	765.5
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	284283	1498.2
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	141253	840.3
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	188887	1042.6
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	270683	1400.9
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	203835	1145.2
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	97177	642.3
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	215549	1197.6
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	162815	1000.7
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	206011	1204.0
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	225193	1213.2
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	115283	718.8
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	138999	888.3
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	213255	1233.4
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	113735	723.7
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	209021	1148.5
Total (30)						5412992	31053.6
Geom. Mean						171528	1004.3
Shifted Geom.						171533	1004.6

Table 203: CKPC type 3 using SCIP-SOS1 with B-neigh-favor settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	225317	1360.8
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	268865	1638.9
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	342759	1876.0
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	263341	1479.8
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	270333	1571.4
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	168767	1059.0
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	395623	2114.8
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	225309	1429.1
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	235925	1445.0
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	251247	1577.8
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	357367	1920.6
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	212903	1335.2
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	324021	1835.6
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	258781	1469.8
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	217275	1323.6
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	181641	1145.8
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	350829	1907.0
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	266343	1601.3
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	349577	2064.9
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	218665	1315.4
Total (20)						5384888	31472.1
Geom. Mean						262266	1547.2
Shifted Geom.						262268	1547.4

Table 204: CKPC type 1 using SCIP-SOS1 with B-neigh-favor-H-none settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	19040	96.2
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	46355	184.9
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	32090	141.3
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	27751	124.4
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	26425	129.6
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	11110	64.9
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	46260	192.1
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	38177	164.8
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	39671	167.2
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	31538	139.0
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	37127	154.5
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	38304	170.8
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	45234	187.9
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	21596	98.9
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	36275	158.0
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	36301	156.5
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	13653	68.4
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	40555	176.4
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	39116	174.2
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	32675	144.2
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	12388	63.8
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	29976	133.5
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	39291	165.1
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	15866	77.4
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	30353	127.5
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	50073	205.2
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	21581	106.4
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	31933	132.4
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	52817	203.4
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	37862	166.6
Total (30)						981393	4275.6
Geom. Mean						30444	135.8
Shifted Geom.						30454	136.4

Table 205: CKPC type 1 using SCIP-SOS1 with B-neigh-favor-H-none settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	19040	96.2
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	46355	184.9
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	32090	141.3
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	27751	124.4
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	26425	129.6
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	11110	64.9
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	46260	192.1
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	38177	164.8
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	39671	167.2
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	31538	139.0
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	37127	154.5
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	38304	170.8
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	45234	187.9
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	21596	98.9
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	36275	158.0
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	36301	156.5
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	13653	68.4
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	40555	176.4
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	39116	174.2
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	32675	144.2
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	12388	63.8
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	29976	133.5
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	39291	165.1
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	15866	77.4
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	30353	127.5
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	50073	205.2
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	21581	106.4
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	31933	132.4
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	52817	203.4
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	37862	166.6
Total (30)						981393	4275.6
Geom. Mean						30444	135.8
Shifted Geom.						30454	136.4

Table 206: CKPC type 1 using SCIP-SOS1 with B-neigh-favor-H-none settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	19040	96.2
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	46355	184.9
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	32090	141.3
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	27751	124.4
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	26425	129.6
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	11110	64.9
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	46260	192.1
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	38177	164.8
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	39671	167.2
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	31538	139.0
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	37127	154.5
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	38304	170.8
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	45234	187.9
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	21596	98.9
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	36275	158.0
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	36301	156.5
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	13653	68.4
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	40555	176.4
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	39116	174.2
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	32675	144.2
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	12388	63.8
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	29976	133.5
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	39291	165.1
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	15866	77.4
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	30353	127.5
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	50073	205.2
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	21581	106.4
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	31933	132.4
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	52817	203.4
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	37862	166.6
Total (30)						981393	4275.6
Geom. Mean						30444	135.8
Shifted Geom.						30454	136.4

Table 207: CKPC type 1 using SCIP-SOS1 with B-neigh-favor-H-MWIS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	18897	98.5
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	44857	183.6
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	18783	96.6
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	27607	126.1
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	26403	131.9
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	11160	67.5
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	46274	196.9
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	33479	154.9
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	38202	166.1
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	31525	141.1
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	37148	155.9
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	38214	172.0
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	38565	170.3
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	21622	101.8
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	36082	160.4
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	36057	158.3
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	13349	69.4
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	40234	177.5
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	39077	177.4
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	32682	147.1
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	12375	67.3
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	29974	135.4
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	39260	167.6
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	15211	78.5
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	30348	129.5
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	49702	207.5
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	21516	108.0
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	28030	123.1
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	51819	203.7
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	37788	168.9
Total (30)						946240	4242.9
Geom. Mean						29293	134.8
Shifted Geom.						29303	135.4

Table 208: CKPC type 2 using SCIP-SOS1 with B-neigh-favor-H-MWIS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	174022	1081.7
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	219636	1166.8
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	211318	1232.9
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	184936	1070.4
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	206098	1193.5
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	162299	973.7
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	199159	1097.1
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	145299	871.6
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	276504	1383.7
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	119192	724.6
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	302514	1519.6
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	253942	1318.0
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	331374	1676.1
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	153127	915.9
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	143349	882.1
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	314886	1626.3
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	265573	1329.2
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	220133	1167.2
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	276117	1434.8
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	239668	1295.1
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	194746	1076.2
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	234116	1269.2
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	193304	1116.3
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	211846	1233.8
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	256389	1339.6
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	121123	753.1
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	154949	963.5
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	228802	1302.3
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	157357	905.8
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	236276	1253.5
Total (30)						6388054	35173.6
Geom. Mean						205656	1148.6
Shifted Geom.						205660	1148.8

Table 209: CKPC type 3 using SCIP-SOS1 with B-neigh-favor-H-MWIS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	309074	1723.9
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	343522	1962.0
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	399791	2094.4
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	281778	1554.7
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	303241	1700.3
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	200568	1201.5
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	438778	2275.7
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	255479	1562.2
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	258574	1543.1
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	293808	1764.0
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	433407	2222.8
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	259187	1535.5
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	336875	1888.8
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	323594	1737.1
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	272301	1571.8
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	250051	1455.5
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	424985	2173.2
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	266598	1619.2
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	394925	2262.9
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	225626	1346.5
Total (20)						6272162	35195.1
Geom. Mean						306099	1733.2
Shifted Geom.						306101	1733.3

Table 210: CKPC type 1 using SCIP-SOS1 with B-neigh-favor-H-viol settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	18027	96.8
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	45464	187.5
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	31311	144.3
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	27558	127.8
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	26476	133.3
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	11109	70.3
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	46092	194.9
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	38213	169.2
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	39280	170.7
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	30766	139.2
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	36076	155.1
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	38093	175.4
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	39227	175.2
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	19968	97.7
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	36189	161.5
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	34169	155.8
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	13374	70.0
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	40465	181.5
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	39098	177.6
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	31817	146.1
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	12414	66.8
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	29747	135.4
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	37738	164.3
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	15962	81.2
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	30221	132.3
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	49984	208.5
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	21447	111.7
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	31780	135.6
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	39369	168.6
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	37874	170.2
Total (30)						949308	4304.4
Geom. Mean						29584	137.4
Shifted Geom.						29593	137.9

Table 211: CKPC type 2 using SCIP-SOS1 with B-neigh-favor-H-viol settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	174027	1082.8
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	219637	1182.3
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	211835	1234.0
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	184934	1074.3
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	208205	1207.6
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	163389	982.0
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	197614	1094.8
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	145309	872.1
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	276586	1387.1
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	119150	731.0
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	294869	1504.8
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	253849	1320.6
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	331422	1677.0
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	153147	915.4
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	144804	891.9
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	317453	1637.4
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	265686	1341.4
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	220125	1170.2
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	276341	1433.0
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	239701	1296.1
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	195571	1083.5
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	234531	1269.8
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	193339	1120.6
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	211840	1240.8
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	258680	1353.1
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	144236	850.1
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	154758	963.1
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	228806	1305.9
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	157246	912.5
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	236491	1256.1
Total (30)						6413581	35391.3
Geom. Mean						206991	1157.4
Shifted Geom.						206994	1157.6

Table 212: CKPC type 3 using SCIP-SOS1 with B-neigh-favor-H-viol settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	309191	1724.3
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	342815	1957.6
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	400045	2103.4
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	268940	1513.0
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	303835	1702.0
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	200589	1202.3
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	438718	2274.5
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	255696	1564.9
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	257427	1543.2
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	293839	1756.0
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	465378	2338.6
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	258777	1533.5
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	336984	1894.7
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	323578	1734.0
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	272527	1573.0
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	250049	1451.5
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	425367	2171.3
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	266805	1616.7
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	395546	2269.3
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	225406	1351.4
Total (20)						6291512	35275.3
Geom. Mean						306462	1735.4
Shifted Geom.						306464	1735.6

Table 213: CKPC type 1 using SCIP-SOS1 with B-neigh-favor-H-obj settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	18638	98.0
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	46303	187.7
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	30848	143.9
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	27746	129.7
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	26420	133.4
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	11065	67.6
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	46260	195.5
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	37646	167.9
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	38280	167.1
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	31365	142.4
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	36737	157.5
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	38272	175.2
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	38398	172.3
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	20195	99.4
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	36104	160.7
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	36283	160.3
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	13497	70.5
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	40427	179.4
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	39097	179.4
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	32627	148.7
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	12419	67.0
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	29887	137.5
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	37729	165.3
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	15956	81.1
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	29887	129.3
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	49912	206.8
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	21503	110.5
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	31747	134.8
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	52792	209.6
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	32697	153.8
Total (30)						960737	4332.3
Geom. Mean						29845	138.0
Shifted Geom.						29854	138.5

Table 214: CKPC type 2 using SCIP-SOS1 with B-neigh-favor-H-obj settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	173999	1083.5
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	219266	1171.8
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	210478	1236.5
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	184357	1073.5
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	204960	1196.2
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	163313	977.4
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	199290	1106.6
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	145343	880.3
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	276014	1385.4
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	118852	729.3
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	293770	1495.7
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	253857	1322.1
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	331232	1666.5
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	152975	922.4
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	143493	884.0
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	314836	1623.2
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	265143	1340.8
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	220049	1166.7
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	276310	1435.6
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	239707	1298.4
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	195493	1082.3
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	234554	1269.4
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	194573	1125.3
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	211846	1241.8
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	259081	1355.5
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	144278	848.7
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	153196	957.5
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	228783	1303.1
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	157361	908.0
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	236502	1262.1
Total (30)						6402911	35349.3
Geom. Mean						206645	1156.2
Shifted Geom.						206648	1156.4

Table 215: CKPC type 3 using SCIP-SOS1 with B-neigh-favor-H-obj settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	309383	1728.7
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	343238	1955.9
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	399942	2095.7
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	281935	1555.0
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	303803	1704.6
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	200678	1204.5
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	438793	2274.4
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	255692	1565.5
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	258458	1538.3
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	293812	1756.1
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	463342	2328.1
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	258464	1538.0
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	336538	1890.3
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	322104	1748.8
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	272221	1578.2
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	250031	1449.3
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	424825	2166.7
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	266792	1621.9
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	395550	2266.9
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	225396	1348.1
Total (20)						6300997	35314.9
Geom. Mean						307062	1738.0
Shifted Geom.						307065	1738.2

Table 216: CKPC type 1 using SCIP-SOS1 with B-neigh-favor-H-frac settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	17967	93.3
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	45911	184.9
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	18784	95.7
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	27704	125.2
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	26463	130.2
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	10857	65.7
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	45927	191.9
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	34052	154.4
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	39613	168.5
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	31003	138.7
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	37009	154.9
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	38061	170.4
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	39290	171.6
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	21686	100.1
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	36197	158.2
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	35609	156.1
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	12617	65.3
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	40206	175.9
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	39013	175.5
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	31918	143.0
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	5880	39.1
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	29461	133.0
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	33414	148.9
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	14820	75.7
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	30316	127.8
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	50046	205.6
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	21452	106.7
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	30220	129.2
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	39355	164.0
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	37594	166.4
Total (30)						922445	4116.0
Geom. Mean						28099	129.4
Shifted Geom.						28114	130.2

Table 217: CKPC type 2 using SCIP-SOS1 with B-neigh-favor-H-frac settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	173874	1076.2
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	219655	1166.8
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	211372	1231.9
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	184739	1066.9
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	207974	1199.8
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	163398	972.9
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	197467	1089.5
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	145058	867.9
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	276182	1385.5
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	117812	719.5
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	302541	1522.9
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	253833	1315.1
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	331420	1660.3
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	152371	910.0
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	143444	878.6
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	314749	1608.9
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	264610	1323.2
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	220141	1160.7
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	276333	1425.5
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	237150	1293.2
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	139079	835.3
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	234291	1267.1
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	175252	1043.9
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	211829	1234.0
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	258268	1343.1
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	121427	751.7
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	153892	955.9
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	228797	1297.6
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	157251	901.5
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	236359	1254.4
Total (30)						6310568	34759.9
Geom. Mean						202537	1133.1
Shifted Geom.						202541	1133.3

Table 218: CKPC type 3 using SCIP-SOS1 with B-neigh-favor-H-frac settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	309425	1722.4
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	337892	1933.4
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	399867	2092.0
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	268940	1501.4
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	303782	1696.5
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	200600	1198.7
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	438211	2274.1
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	255593	1575.5
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	254378	1535.5
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	293796	1782.0
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	463328	2315.8
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	258915	1523.0
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	336307	1881.4
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	322932	1726.0
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	272203	1567.9
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	249789	1455.8
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	424940	2160.8
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	266805	1615.5
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	395536	2271.7
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	223960	1342.1
Total (20)						6277199	35171.4
Geom. Mean						305766	1730.5
Shifted Geom.						305768	1730.7

Table 219: CKPC type 1 using SCIP-SOS1 with B-neigh-favor-H-frac-LS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1843	200	367.981895	367.981895	0.0	17967	94.0
CKPC2_sos1	1830	200	352.177205	352.177205	0.0	45392	184.3
CKPC3_sos1	1870	200	365.01191	365.01191	0.0	18784	97.2
CKPC4_sos1	1828	200	347.692313	347.692313	0.0	27686	125.3
CKPC5_sos1	1880	200	353.837092	353.837092	0.0	26318	130.8
CKPC6_sos1	1889	200	375.582541	375.582541	0.0	10842	66.5
CKPC7_sos1	1843	200	344.199525	344.199525	0.0	45922	193.1
CKPC8_sos1	1828	200	366.198216	366.198216	0.0	34049	156.1
CKPC9_sos1	1836	200	332.592583	332.592583	0.0	37542	163.3
CKPC10_sos1	1828	200	355.945757	355.945757	0.0	31025	139.2
CKPC11_sos1	1862	200	348.25882	348.25882	0.0	36960	157.1
CKPC12_sos1	1856	200	333.683995	333.683995	0.0	37801	171.2
CKPC13_sos1	1870	200	340.549963	340.549963	0.0	38100	169.4
CKPC14_sos1	1824	200	355.303408	355.303408	0.0	21531	100.4
CKPC15_sos1	1873	200	353.868679	353.868679	0.0	36197	159.8
CKPC16_sos1	1875	200	344.139396	344.139396	0.0	34167	151.9
CKPC17_sos1	1832	200	374.554578	374.554578	0.0	12617	66.6
CKPC18_sos1	1854	200	334.954802	334.954802	0.0	40000	177.9
CKPC19_sos1	1824	200	349.403926	349.403926	0.0	37753	172.6
CKPC20_sos1	1896	200	338.416937	338.416937	0.0	31918	144.7
CKPC21_sos1	1870	200	396.951437	396.951437	0.0	5880	40.9
CKPC22_sos1	1816	200	346.139341	346.139341	0.0	29459	135.0
CKPC23_sos1	1850	200	356.418886	356.418886	0.0	33408	151.2
CKPC24_sos1	1884	200	366.665741	366.665741	0.0	14820	77.2
CKPC25_sos1	1816	200	354.157744	354.157744	0.0	30316	128.2
CKPC26_sos1	1883	200	339.318074	339.318074	0.0	49830	205.7
CKPC27_sos1	1864	200	347.605072	347.605072	0.0	21452	107.9
CKPC28_sos1	1834	200	345.108036	345.108036	0.0	30217	129.4
CKPC29_sos1	1811	200	331.24684	331.24684	0.0	39352	165.3
CKPC30_sos1	1840	200	351.631507	351.631507	0.0	37610	167.4
Total (30)						914915	4129.5
Geom. Mean						27910	130.1
Shifted Geom.						27925	130.9

Table 220: CKPC type 2 using SCIP-SOS1 with B-neigh-favor-H-frac-LS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	2757	250	367.235859	367.235859	0.0	173864	1077.2
CKPC32_sos1	2700	250	368.759453	368.759453	0.0	219655	1169.1
CKPC33_sos1	2743	250	376.142122	376.142122	0.0	149759	955.7
CKPC34_sos1	2734	250	374.431247	374.431247	0.0	180675	1050.3
CKPC35_sos1	2757	250	366.397141	366.397141	0.0	207974	1204.2
CKPC36_sos1	2830	250	369.197659	369.197659	0.0	163377	974.4
CKPC37_sos1	2744	250	385.699543	385.699543	0.0	198970	1094.1
CKPC38_sos1	2735	250	386.161227	386.161227	0.0	145019	867.3
CKPC39_sos1	2746	250	368.392132	368.392132	0.0	272888	1374.6
CKPC40_sos1	2758	250	380.964514	380.964514	0.0	119320	723.5
CKPC41_sos1	2711	250	363.448452	363.448452	0.0	294097	1494.5
CKPC42_sos1	2710	250	360.171879	360.171879	0.0	253853	1316.1
CKPC43_sos1	2803	250	362.1567	362.1567	0.0	331413	1671.0
CKPC44_sos1	2769	250	380.225896	380.225896	0.0	152327	912.6
CKPC45_sos1	2743	250	378.055592	378.055592	0.0	143393	881.2
CKPC46_sos1	2729	250	368.626249	368.626249	0.0	314765	1610.8
CKPC47_sos1	2750	250	376.921595	376.921595	0.0	264859	1329.1
CKPC48_sos1	2683	250	373.492248	373.492248	0.0	213927	1142.2
CKPC49_sos1	2783	250	363.754595	363.754595	0.0	276333	1430.3
CKPC50_sos1	2746	250	363.06094	363.06094	0.0	203834	1159.4
CKPC51_sos1	2730	250	390.651459	390.651459	0.0	139042	833.3
CKPC52_sos1	2729	250	358.777118	358.777118	0.0	233962	1270.3
CKPC53_sos1	2706	250	374.506801	374.506801	0.0	175249	1049.6
CKPC54_sos1	2747	250	370.801225	370.801225	0.0	211808	1231.5
CKPC55_sos1	2737	250	367.733526	367.733526	0.0	258272	1347.9
CKPC56_sos1	2756	250	384.983827	384.983827	0.0	139553	830.5
CKPC57_sos1	2726	250	371.155039	371.155039	0.0	153764	964.1
CKPC58_sos1	2734	250	368.481027	368.481027	0.0	228797	1310.6
CKPC59_sos1	2705	250	379.80908	379.80908	0.0	157196	903.5
CKPC60_sos1	2721	250	365.902598	365.902598	0.0	236337	1257.7
Total (30)						6214282	34436.6
Geom. Mean						199649	1123.6
Shifted Geom.						199653	1123.8

Table 221: CKPC type 3 using SCIP-SOS1 with B-neigh-favor-H-frac-LS settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	2939	260	394.333099	394.333099	0.0	309256	1721.0
CKPC62_sos1	2918	260	373.874337	373.874337	0.0	337892	1946.8
CKPC63_sos1	2912	260	377.638695	377.638695	0.0	399840	2095.0
CKPC64_sos1	2946	260	387.703286	387.703286	0.0	268940	1503.3
CKPC65_sos1	2923	260	391.105105	391.105105	0.0	303749	1702.7
CKPC66_sos1	2964	260	385.904392	385.904392	0.0	200586	1200.2
CKPC67_sos1	2952	260	358.124738	358.124738	0.0	438545	2267.3
CKPC68_sos1	2952	260	407.153428	407.153428	0.0	255593	1560.2
CKPC69_sos1	2906	260	370.980533	370.980533	0.0	254377	1522.7
CKPC70_sos1	2907	260	403.920566	403.920566	0.0	293712	1752.5
CKPC71_sos1	3018	260	337.220862	337.220862	0.0	357701	1925.3
CKPC72_sos1	2908	260	380.961405	380.961405	0.0	222716	1379.2
CKPC73_sos1	2968	260	366.929154	366.929154	0.0	336249	1888.3
CKPC74_sos1	2907	260	356.276149	356.276149	0.0	322024	1725.8
CKPC75_sos1	2909	260	347.531375	347.531375	0.0	272382	1573.1
CKPC76_sos1	2928	260	356.861476	356.861476	0.0	249795	1451.2
CKPC77_sos1	2920	260	308.978717	308.978717	0.0	422709	2154.0
CKPC78_sos1	2875	260	379.811676	379.811676	0.0	266721	1615.0
CKPC79_sos1	2910	260	384.44463	384.44463	0.0	395512	2262.1
CKPC80_sos1	2952	260	339.064642	339.064642	0.0	223960	1339.0
Total (20)						6132259	34584.5
Geom. Mean						299447	1703.5
Shifted Geom.						299450	1703.7

Table 222: CKPC type 1 using SCIP-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_mip	6023	400	367.981895	367.981895	0.0	158974	1166.3
CKPC2_mip	6017	400	352.177205	352.177205	0.0	329317	2085.6
CKPC3_mip	6061	400	365.01191	365.01191	0.0	199105	1418.7
CKPC4_mip	6043	400	347.692313	347.692313	0.0	286860	1751.2
CKPC5_mip	6107	400	353.837092	353.837092	0.0	235283	1514.7
CKPC6_mip	6071	400	375.582541	375.582541	0.0	90523	814.8
CKPC7_mip	6090	400	344.199525	344.199525	0.0	383037	2122.9
CKPC8_mip	6050	400	366.198216	366.198216	0.0	291443	1813.2
CKPC9_mip	6056	400	332.592583	332.592583	0.0	282945	1765.7
CKPC10_mip	6111	400	355.945757	355.945757	0.0	234077	1504.8
CKPC11_mip	6066	400	348.25882	348.25882	0.0	232694	1522.6
CKPC12_mip	6068	400	333.683995	333.683995	0.0	284791	1829.5
CKPC13_mip	6128	400	340.549963	340.549963	0.0	289878	1776.2
CKPC14_mip	6114	400	355.303408	355.303408	0.0	147374	1146.6
CKPC15_mip	6067	400	353.868679	353.868679	0.0	280663	1750.1
CKPC16_mip	6088	400	344.139396	344.139396	0.0	275537	1709.1
CKPC17_mip	6088	400	374.554578	374.554578	0.0	125280	999.1
CKPC18_mip	6067	400	334.954802	334.954802	0.0	324084	1921.8
CKPC19_mip	6082	400	349.403926	349.403926	0.0	321679	1926.4
CKPC20_mip	6061	400	338.416937	338.416937	0.0	269871	1731.8
CKPC21_mip	6045	400	396.951437	396.951437	0.0	90215	789.4
CKPC22_mip	6104	400	346.139341	346.139341	0.0	252218	1622.9
CKPC23_mip	6063	400	356.418886	356.418886	0.0	265767	1682.9
CKPC24_mip	6050	400	366.665741	366.665741	0.0	134591	1062.4
CKPC25_mip	6108	400	354.157744	354.157744	0.0	194239	1362.5
CKPC26_mip	6087	400	339.318074	339.318074	0.0	356940	2096.4
CKPC27_mip	6091	400	347.605072	347.605072	0.0	242406	1550.3
CKPC28_mip	6076	400	345.108036	345.108036	0.0	211865	1442.0
CKPC29_mip	6103	400	331.24684	331.24684	0.0	297594	1793.0
CKPC30_mip	6055	400	351.631507	351.631507	0.0	317211	1919.1
Total (30)						7406461	47591.9
Geom. Mean						232584	1539.4
Shifted Geom.						232592	1539.8

Table 223: CKPC type 2 using SCIP-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_mip	9464	500	482.586451	367.235859	31.4	>818998	>7200.0
CKPC32_mip	9412	500	474.022607	368.759453	28.5	>801391	>7200.0
CKPC33_mip	9455	500	487.571413	376.142122	29.6	>797600	>7200.0
CKPC34_mip	9428	500	481.403464	374.431247	28.6	>767404	>7200.0
CKPC35_mip	9465	500	476.362717	366.397141	30.0	>795654	>7200.0
CKPC36_mip	9488	500	472.688106	369.197659	28.0	>783282	>7200.0
CKPC37_mip	9442	500	487.647468	385.699543	26.4	>810985	>7200.0
CKPC38_mip	9441	500	484.112495	386.161227	25.4	>740470	>7200.0
CKPC39_mip	9427	500	484.17105	368.392132	31.4	>854443	>7200.0
CKPC40_mip	9496	500	475.924337	376.766577	26.3	>780864	>7200.0
CKPC41_mip	9413	500	483.71409	363.448452	33.1	>829523	>7200.0
CKPC42_mip	9464	500	469.087948	360.171879	30.2	>819440	>7200.0
CKPC43_mip	9494	500	490.173704	362.1567	35.3	>832379	>7200.0
CKPC44_mip	9489	500	466.341706	380.225896	22.6	>747758	>7200.0
CKPC45_mip	9455	500	477.060696	378.055592	26.2	>770087	>7200.0
CKPC46_mip	9470	500	486.442471	368.626249	32.0	>852268	>7200.0
CKPC47_mip	9385	500	479.449539	376.921595	27.2	>801212	>7200.0
CKPC48_mip	9456	500	489.032665	373.492248	30.9	>771743	>7200.0
CKPC49_mip	9441	500	484.259578	363.754595	33.1	>872791	>7200.0
CKPC50_mip	9447	500	479.398523	363.06094	32.0	>791154	>7200.0
CKPC51_mip	9437	500	486.849044	390.651459	24.6	>743242	>7200.0
CKPC52_mip	9417	500	473.149583	358.777118	31.9	>844954	>7200.0
CKPC53_mip	9434	500	487.492765	374.506801	30.2	>795507	>7200.0
CKPC54_mip	9443	500	487.234656	370.801225	31.4	>804919	>7200.0
CKPC55_mip	9422	500	481.352665	367.733526	30.9	>828281	>7200.0
CKPC56_mip	9440	500	480.65459	384.983827	24.9	>753078	>7200.0
CKPC57_mip	9445	500	465.429458	367.938066	26.5	>764955	>7200.0
CKPC58_mip	9470	500	483.103645	368.481027	31.1	>811100	>7200.0
CKPC59_mip	9437	500	466.484514	379.80908	22.8	>722976	>7200.0
CKPC60_mip	9452	500	480.494804	358.383092	34.1	>852550	>7200.0
Total (30)						23961008	216000.0
Geom. Mean						797824	7200.0
Shifted Geom.						797824	7200.0

Table 224: CKPC type 3 using SCIP-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_mip	10153	520	518.769662	394.333099	31.6	>718033	>7200.0
CKPC62_mip	10190	520	507.221547	373.874337	35.7	>730166	>7200.0
CKPC63_mip	10232	520	512.690194	377.638695	35.8	>769561	>7200.0
CKPC64_mip	10210	520	518.290538	387.703286	33.7	>717690	>7200.0
CKPC65_mip	10221	520	526.214275	391.105105	34.5	>736116	>7200.0
CKPC66_mip	10206	520	507.445532	385.904392	31.5	>656732	>7200.0
CKPC67_mip	10255	520	498.710653	358.124738	39.3	>775935	>7200.0
CKPC68_mip	10207	520	537.848813	407.153428	32.1	>741809	>7200.0
CKPC69_mip	10204	520	499.485419	370.980533	34.6	>720448	>7200.0
CKPC70_mip	10231	520	549.397459	403.920566	36.0	>727715	>7200.0
CKPC71_mip	10195	520	468.391605	334.012824	40.2	>767788	>7200.0
CKPC72_mip	10167	520	500.059502	380.961405	31.3	>692557	>7200.0
CKPC73_mip	10208	520	495.880929	366.929154	35.1	>736447	>7200.0
CKPC74_mip	10240	520	486.063667	356.276149	36.4	>738702	>7200.0
CKPC75_mip	10191	520	464.38647	343.162302	35.3	>732182	>7200.0
CKPC76_mip	10190	520	468.29294	356.861476	31.2	>689194	>7200.0
CKPC77_mip	10187	520	428.411344	308.978717	38.7	>778906	>7200.0
CKPC78_mip	10200	520	512.802717	379.811676	35.0	>730495	>7200.0
CKPC79_mip	10181	520	531.983268	384.44463	38.4	>733932	>7200.0
CKPC80_mip	10165	520	455.365224	338.927828	34.4	>718640	>7200.0
Total (20)						14613048	144000.0
Geom. Mean						730070	7200.0
Shifted Geom.						730070	7200.0

Table 225: CKPC type 1 using CPLEX-SOS1 with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_sos1	1	200	1358.80359	352.653061	285.3	>6571051	>7200.0
CKPC2_sos1	1	200	1449.64509	303.718716	377.3	>6568136	>7200.0
CKPC3_sos1	1	200	1440.85233	310.255986	364.4	>6561641	>7200.0
CKPC4_sos1	1	200	1467.99065	328.842109	346.4	>6598559	>7200.0
CKPC5_sos1	1	200	1461.35058	319.223712	357.8	>6549847	>7200.0
CKPC6_sos1	1	200	1399.99694	271.142143	416.3	>6540781	>7200.0
CKPC7_sos1	1	200	1419.68961	292.468849	385.4	>6563513	>7200.0
CKPC8_sos1	1	200	1451.31313	318.565637	355.6	>6566523	>7200.0
CKPC9_sos1	1	200	1343.90032	324.246324	314.5	>6584455	>7200.0
CKPC10_sos1	1	200	1455.37137	285.289057	410.1	>6539738	>7200.0
CKPC11_sos1	1	200	1405.62366	299.97676	368.6	>6559373	>7200.0
CKPC12_sos1	1	200	1376.79221	293.769538	368.7	>6550278	>7200.0
CKPC13_sos1	1	200	1425.80533	293.827507	385.3	>6532291	>7200.0
CKPC14_sos1	1	200	1405.00196	300.865849	367.0	>6558367	>7200.0
CKPC15_sos1	1	200	1484.99244	331.410428	348.1	>6576487	>7200.0
CKPC16_sos1	1	200	1445.38408	310.239761	365.9	>6581770	>7200.0
CKPC17_sos1	1	200	1447.15487	336.35681	330.2	>6602487	>7200.0
CKPC18_sos1	1	200	1404.55519	318.827817	340.5	>6586875	>7200.0
CKPC19_sos1	1	200	1437.66202	322.712232	345.5	>6569646	>7200.0
CKPC20_sos1	1	200	1381.12923	293.313346	370.9	>6573531	>7200.0
CKPC21_sos1	1	200	1434.19173	396.951437	261.3	>6595204	>7200.0
CKPC22_sos1	1	200	1458.82139	313.40779	365.5	>6581390	>7200.0
CKPC23_sos1	1	200	1472.91075	332.849605	342.5	>6568950	>7200.0
CKPC24_sos1	1	200	1454.61362	337.439461	331.1	>6614616	>7200.0
CKPC25_sos1	1	200	1433.56861	327.33905	337.9	>6577056	>7200.0
CKPC26_sos1	1	200	1428.35984	300.996579	374.5	>6512603	>7200.0
CKPC27_sos1	1	200	1391.94972	332.693818	318.4	>6531617	>7200.0
CKPC28_sos1	1	200	1428.57374	310.54394	360.0	>6567534	>7200.0
CKPC29_sos1	1	200	1380.36712	301.770133	357.4	>6559762	>7200.0
CKPC30_sos1	1	200	1458.55922	328.601279	343.9	>6514029	>7200.0
Total (30)						196958110	216000.0
Geom. Mean						6565226	7200.0
Shifted Geom.						6565226	7200.0

Table 226: CKPC type 2 using CPLEX-SOS1 with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_sos1	1	250	1807.0487	309.737846	483.4	>5557482	>7200.0
CKPC32_sos1	1	250	1820.50043	285.520602	537.6	>5542918	>7200.0
CKPC33_sos1	1	250	1816.5506	312.402598	481.5	>5556171	>7200.0
CKPC34_sos1	1	250	1861.78734	304.528218	511.4	>5597100	>7200.0
CKPC35_sos1	1	250	1837.64261	305.68093	501.2	>5589314	>7200.0
CKPC36_sos1	1	250	1789.74547	355.217652	403.8	>5571296	>7200.0
CKPC37_sos1	1	250	1792.68377	338.302673	429.9	>5584775	>7200.0
CKPC38_sos1	1	250	1814.45266	353.838782	412.8	>5559006	>7200.0
CKPC39_sos1	1	250	1795.45483	280.747598	539.5	>5578807	>7200.0
CKPC40_sos1	1	250	1843.24458	306.157401	502.1	>5568639	>7200.0
CKPC41_sos1	1	250	1776.59177	297.027142	498.1	>5480782	>7200.0
CKPC42_sos1	1	250	1754.95937	343.768426	410.5	>5577033	>7200.0
CKPC43_sos1	1	250	1810.89691	334.263589	441.8	>5586589	>7200.0
CKPC44_sos1	1	250	1806.03377	291.716835	519.1	>5560375	>7200.0
CKPC45_sos1	1	250	1796.27992	369.270817	386.4	>5586287	>7200.0
CKPC46_sos1	1	250	1907.46572	329.464251	479.0	>5557763	>7200.0
CKPC47_sos1	1	250	1839.92697	322.372254	470.7	>5571959	>7200.0
CKPC48_sos1	1	250	1803.96663	327.664002	450.6	>5598629	>7200.0
CKPC49_sos1	1	250	1779.74035	310.91076	472.4	>5595515	>7200.0
CKPC50_sos1	1	250	1761.41745	335.133936	425.6	>5510478	>7200.0
CKPC51_sos1	1	250	1862.72813	329.300023	465.7	>5574772	>7200.0
CKPC52_sos1	1	250	1753.43551	343.235331	410.9	>5595218	>7200.0
CKPC53_sos1	1	250	1846.75946	312.846875	490.3	>5583447	>7200.0
CKPC54_sos1	1	250	1811.46329	283.967761	537.9	>5520456	>7200.0
CKPC55_sos1	1	250	1830.97037	316.39311	478.7	>5547304	>7200.0
CKPC56_sos1	1	250	1834.71613	325.52768	463.6	>5554001	>7200.0
CKPC57_sos1	1	250	1765.22556	286.341839	516.5	>5571076	>7200.0
CKPC58_sos1	1	250	1819.85689	317.790872	472.7	>5508029	>7200.0
CKPC59_sos1	1	250	1847.67256	332.648938	455.4	>5531281	>7200.0
CKPC60_sos1	1	250	1819.47177	306.815965	493.0	>5577580	>7200.0
Total (30)						166894082	216000.0
Geom. Mean						5563062	7200.0
Shifted Geom.						5563062	7200.0

Table 227: CKPC type 3 using CPLEX-SOS1 with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_sos1	1	260	2006.80415	330.396432	507.4	>5457741	>7200.0
CKPC62_sos1	1	260	1878.42587	340.461405	451.7	>5433423	>7200.0
CKPC63_sos1	1	260	1959.54163	304.559414	543.4	>5487709	>7200.0
CKPC64_sos1	1	260	2013.49908	333.560689	503.6	>5439096	>7200.0
CKPC65_sos1	1	260	1976.71203	338.978263	483.1	>5416331	>7200.0
CKPC66_sos1	1	260	1876.26041	326.191392	475.2	>5451947	>7200.0
CKPC67_sos1	1	260	1874.55797	287.289604	552.5	>5461228	>7200.0
CKPC68_sos1	1	260	2076.56746	347.686832	497.3	>5459584	>7200.0
CKPC69_sos1	1	260	1859.96778	304.291194	511.2	>5410215	>7200.0
CKPC70_sos1	1	260	2048.18536	336.887962	508.0	>5489114	>7200.0
CKPC71_sos1	1	260	1675.58897	298.216207	461.9	>5466267	>7200.0
CKPC72_sos1	1	260	1948.78239	342.435378	469.1	>5468809	>7200.0
CKPC73_sos1	1	260	1876.36503	314.497141	496.6	>5445299	>7200.0
CKPC74_sos1	1	260	1846.83782	283.410505	551.6	>5422281	>7200.0
CKPC75_sos1	1	260	1725.25414	293.08229	488.7	>5441954	>7200.0
CKPC76_sos1	1	260	1800.5408	287.730109	525.8	>5461217	>7200.0
CKPC77_sos1	1	260	1586.88049	272.19842	483.0	>5479867	>7200.0
CKPC78_sos1	1	260	1951.54728	340.286577	473.5	>5457885	>7200.0
CKPC79_sos1	1	260	1942.95327	290.31264	569.3	>5443948	>7200.0
CKPC80_sos1	1	260	1631.92991	267.022624	511.2	>5453568	>7200.0
Total (20)						109047483	144000.0
Geom. Mean						5452333	7200.0
Shifted Geom.						5452333	7200.0

Table 228: CKPC type 1 using CPLEX-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC1_mip	2092	400	367.981895	367.981895	0.0	47648	239.8
CKPC2_mip	2112	400	352.177205	352.177205	0.0	99387	448.6
CKPC3_mip	2093	400	365.01191	365.01191	0.0	58863	282.2
CKPC4_mip	2103	400	347.692313	347.692313	0.0	62336	295.2
CKPC5_mip	2047	400	353.837092	353.837092	0.0	69081	324.8
CKPC6_mip	2127	400	375.582541	375.582541	0.0	17611	134.3
CKPC7_mip	2044	400	344.199525	344.199525	0.0	90307	400.8
CKPC8_mip	2077	400	366.198216	366.198216	0.0	83774	416.1
CKPC9_mip	2067	400	332.592583	332.592583	0.0	79072	344.8
CKPC10_mip	2118	400	355.945757	355.945757	0.0	67490	401.6
CKPC11_mip	2088	400	348.25882	348.25882	0.0	64580	332.4
CKPC12_mip	2118	400	333.683995	333.683995	0.0	103146	427.2
CKPC13_mip	2095	400	340.549963	340.549963	0.0	85535	429.1
CKPC14_mip	2091	400	355.303408	355.303408	0.0	37660	237.3
CKPC15_mip	2121	400	353.868679	353.868679	0.0	74564	358.0
CKPC16_mip	2105	400	344.139396	344.139396	0.0	86755	423.5
CKPC17_mip	2117	400	374.554578	374.554578	0.0	35646	203.7
CKPC18_mip	2080	400	334.954802	334.954802	0.0	99140	382.6
CKPC19_mip	2103	400	349.403926	349.403926	0.0	75045	372.1
CKPC20_mip	2078	400	338.416937	338.416937	0.0	63672	360.4
CKPC21_mip	2085	400	396.951437	396.951437	0.0	17964	142.3
CKPC22_mip	2086	400	346.139341	346.139341	0.0	52883	297.7
CKPC23_mip	2115	400	356.418886	356.418886	0.0	62904	333.3
CKPC24_mip	2135	400	366.665741	366.665741	0.0	34896	323.6
CKPC25_mip	2080	400	354.157744	354.157744	0.0	43905	259.7
CKPC26_mip	2102	400	339.318074	339.318074	0.0	97573	503.1
CKPC27_mip	2121	400	347.605072	347.605072	0.0	46822	258.1
CKPC28_mip	2088	400	345.108036	345.108036	0.0	68620	318.9
CKPC29_mip	2082	400	331.24684	331.24684	0.0	80314	398.8
CKPC30_mip	2083	400	351.631507	351.631507	0.0	106230	451.9
Total (30)						2013423	10102.0
Geom. Mean						61612	322.7
Shifted Geom.						61740	325.4

Table 229: CKPC type 2 using CPLEX-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC31_mip	3064	500	367.235859	367.235859	0.0	387804	2891.8
CKPC32_mip	3079	500	368.759453	368.759453	0.0	446088	3013.1
CKPC33_mip	3035	500	376.142122	376.142122	0.0	323804	2639.4
CKPC34_mip	3046	500	374.431247	374.431247	0.0	449451	2932.0
CKPC35_mip	3123	500	366.397141	366.397141	0.0	412770	3174.4
CKPC36_mip	3163	500	369.197659	369.197659	0.0	256117	2058.8
CKPC37_mip	3099	500	385.699543	385.699543	0.0	283285	2278.8
CKPC38_mip	3070	500	386.161227	386.161227	0.0	363077	2764.2
CKPC39_mip	3071	500	368.392132	368.392132	0.0	692189	4657.9
CKPC40_mip	3133	500	380.964514	380.964514	0.0	297542	2364.6
CKPC41_mip	3138	500	363.448452	363.448452	0.0	663364	4362.9
CKPC42_mip	3086	500	360.171879	360.171879	0.0	561541	3835.6
CKPC43_mip	3150	500	362.1567	362.1567	0.0	824560	4829.3
CKPC44_mip	3079	500	380.225896	380.225896	0.0	414674	2787.7
CKPC45_mip	3110	500	378.055592	378.055592	0.0	381298	3132.6
CKPC46_mip	3116	500	368.626249	368.626249	0.0	725286	4264.8
CKPC47_mip	3146	500	376.921595	376.921595	0.0	308325	2294.2
CKPC48_mip	3116	500	373.492248	373.492248	0.0	468582	3034.6
CKPC49_mip	3106	500	363.754595	363.754595	0.0	484819	3415.5
CKPC50_mip	3082	500	363.06094	363.06094	0.0	438953	3425.4
CKPC51_mip	3110	500	390.651459	390.651459	0.0	355949	2534.1
CKPC52_mip	3139	500	358.777118	358.777118	0.0	518030	3637.2
CKPC53_mip	3109	500	374.506801	374.506801	0.0	369850	2592.2
CKPC54_mip	3099	500	370.801225	370.801225	0.0	382042	2795.3
CKPC55_mip	3064	500	367.733526	367.733526	0.0	538333	3517.9
CKPC56_mip	3060	500	384.983827	384.983827	0.0	235468	2035.1
CKPC57_mip	3051	500	371.155039	371.155039	0.0	302500	2498.4
CKPC58_mip	3070	500	368.481027	368.481027	0.0	479190	3803.4
CKPC59_mip	3076	500	379.80908	379.80908	0.0	222438	1778.0
CKPC60_mip	3124	500	365.902598	365.902598	0.0	644132	4467.0
Total (30)						13231461	93815.7
Geom. Mean						417575	3027.4
Shifted Geom.						417630	3029.3

Table 230: CKPC type 3 using CPLEX-MIP with default settings

Name	Conss	Vars	Dual Bound	Primal Bound	Gap%	Nodes	Time
CKPC61_mip	3319	520	394.333099	394.333099	0.0	578289	4627.1
CKPC62_mip	3323	520	373.874337	373.874337	0.0	821929	5919.2
CKPC63_mip	3335	520	377.638695	377.638695	0.0	676947	5079.8
CKPC64_mip	3326	520	387.703286	387.703286	0.0	473976	4486.1
CKPC65_mip	3296	520	391.105105	391.105105	0.0	674302	5260.7
CKPC66_mip	3286	520	385.904392	385.904392	0.0	486270	3810.9
CKPC67_mip	3324	520	358.124738	358.124738	0.0	782705	5473.4
CKPC68_mip	3328	520	407.153428	407.153428	0.0	613208	4704.4
CKPC69_mip	3318	520	370.980533	370.980533	0.0	420639	3909.4
CKPC70_mip	3319	520	466.986982	380.322257	22.8	>468796	>3708.2
CKPC71_mip	3336	520	337.220862	337.220862	0.0	819219	6048.4
CKPC72_mip	3343	520	380.961405	380.961405	0.0	433691	4142.2
CKPC73_mip	3328	520	366.929154	366.929154	0.0	655575	5210.4
CKPC74_mip	3341	520	356.276149	356.276149	0.0	594654	4794.6
CKPC75_mip	3366	520	347.531375	347.531375	0.0	476314	4272.4
CKPC76_mip	3357	520	356.861476	356.861476	0.0	480067	5108.1
CKPC77_mip	3284	520	308.978717	308.978717	0.0	640902	4779.6
CKPC78_mip	3305	520	379.811676	379.811676	0.0	710253	4963.4
CKPC79_mip	3293	520	384.44463	384.44463	0.0	883059	6287.0
CKPC80_mip	3379	520	339.064642	339.064642	0.0	500388	5583.8
Total (20)						12191183	98169.2
Geom. Mean						594243	4855.9
Shifted Geom.						594268	4856.5