

Table 1: Component Comparison: Overall (Averaged)

Combination	Avg Fitness ( $\pm$ Std)	Time to Best (s)	Avg Gap to BKS (%)
Baseline_Short	1542.3 ( $\pm$ 74.0)	31.00	7.63
Baseline_Long	1543.5 ( $\pm$ 75.9)	45.84	7.66
LS_Set2_Ranking	1584.2 ( $\pm$ 77.4)	82.06	8.70
LS_Set2_Ranking_50	1590.0 ( $\pm$ 76.8)	31.13	8.94
LS_Set2_OneShot_50	1618.1 ( $\pm$ 21.5)	23.54	9.15
LS_Set2_OneShot	1674.8 ( $\pm$ 86.5)	24.92	11.27

Table 2: Summary Rankings: Winners by Category (Averaged)

Category	Best Fitness	Fastest	Best Gap to BKS
OVERALL	Baseline_Short	LS_Set2_OneShot_50	Baseline_Short
BAR	LS_Set2_Ranking_50	LS_Set2_OneShot_50	LS_Set2_Ranking_50
BER	Baseline_Short	LS_Set2_OneShot	Baseline_Short
LC1	LS_Set2_Ranking	LS_Set2_OneShot_50	LS_Set2_Ranking
LC2	Baseline_Long	LS_Set2_OneShot_50	Baseline_Long
LR1	Baseline_Short	LS_Set2_OneShot	Baseline_Short
LR2	LS_Set2_OneShot	LS_Set2_OneShot	LS_Set2_OneShot
LRC1	Baseline_Long	LS_Set2_OneShot	Baseline_Long
LRC2	LS_Set2_OneShot_50	LS_Set2_OneShot	LS_Set2_OneShot_50
NYC	LS_Set2_Ranking	LS_Set2_OneShot	LS_Set2_Ranking
POA	Baseline_Long	LS_Set2_OneShot_50	Baseline_Short

Table 3: Average Rank Summary (1 = Best, Averaged)

Combination	Avg Rank (Fitness)	Avg Rank (Time)	Avg Rank (Gap)	Overall Avg Rank
LS_Set2_OneShot_50	3.50	1.60	3.50	2.87
Baseline_Short	3.00	3.30	3.10	3.13
LS_Set2_OneShot	4.20	1.90	4.20	3.43
Baseline_Long	3.00	4.90	3.10	3.67
LS_Set2_Ranking_50	4.20	3.30	4.00	3.83
LS_Set2_Ranking	3.10	6.00	3.10	4.07

Table 4: Win Count Summary (across all categories, Averaged)

Combination	Fitness Wins	Time Wins	Gap Wins	Total Wins
LS_Set2_OneShot	1	6	1	8
LS_Set2_OneShot_50	1	4	1	6
Baseline_Short	2	0	3	5
Baseline_Long	3	0	2	5
LS_Set2_Ranking	2	0	2	4
LS_Set2_Ranking_50	1	0	1	2