

## Results for Set\_II\_MINSUM (mTSP)

Keld Helsgaun, March 16, 2022

Instance	$m$	BKS	LKH-3	Gap (%)
nrv1379	3	56775.70	56775.70	0.00
nrv1379	5	56992.60	56992.62	0.00
nrv1379	10	57636.20	57638.02	0.00
nrv1379	20	59618.40	<b>59539.79</b>	<b>-0.13</b>
fl1400	3	21169.40	21169.32	0.00
fl1400	5	22066.20	22066.13	0.00
fl1400	10	24373.90	24373.88	0.00
fl1400	20	29579.20	<b>29480.38</b>	<b>-0.33</b>
d1655	3	68364.40	68364.45	0.00
d1655	5	74273.50	74272.68	0.00
d1655	10	89262.50	89261.08	0.00
d1655	20	121373.00	<b>120016.00</b>	<b>-1.12</b>
u2152	3	65064.90	65064.94	0.00
u2152	5	65201.70	<b>65197.22</b>	<b>-0.01</b>
u2152	10	65762.50	<b>65748.29</b>	<b>-0.02</b>
u2152	20	67993.10	<b>67497.28</b>	<b>-0.73</b>
pr2392	3	378661.00	378660.59	0.00
pr2392	5	380061.00	380060.59	0.00
pr2392	10	387498.00	387497.75	0.00
pr2392	20	417424.00	<b>407677.52</b>	<b>-2.33</b>
pcb3038	3	137916.00	137916.26	0.00
pcb3038	5	138121.00	138126.27	0.00
pcb3038	10	139142.00	139142.82	0.00
pcb3038	20	144295.00	<b>142410.11</b>	<b>-1.31</b>
fl3795	3	29589.90	<b>29585.75</b>	<b>-0.01</b>
fl3795	5	30480.80	<b>30477.02</b>	<b>-0.01</b>
fl3795	10	32729.60	<b>32725.55</b>	<b>-0.01</b>
fl3795	20	39083.80	<b>37320.59</b>	<b>-4.51</b>
fnl4461	3	182888.00	182887.45	0.00
fnl4461	5	183074.00	183073.95	0.00
fnl4461	10	183808.00	183803.39	0.00
fnl4461	20	191025.00	<b>186617.81</b>	<b>-2.31</b>
rl5915	3	<b>565949.00</b>	566001.63	<b>0.01</b>
rl5915	5	<b>566626.00</b>	566678.45	<b>0.01</b>
rl5915	10	<b>569619.00</b>	569671.75	<b>0.01</b>
rl5915	20	597878.00	<b>578264.24</b>	<b>-3.28</b>