

## Results for V-1.5\_EXACT instances (RCTVRP)

Keld Helsgaun, May 9, 2018

| Instance | $m$ | BKS      | LKH-3     | LKH-3 d         | Gap (%)      |
|----------|-----|----------|-----------|-----------------|--------------|
| 22_1.5   | 7   | 590.90   | 578.190   | <b>578.19</b>   | <b>-2.15</b> |
| 26_1.5   | 9   | 694.23   | 680.848   | <b>680.85</b>   | <b>-1.93</b> |
| 30_1.5   | 4   | 514.34   | 514.335   | <b>514.34</b>   | <b>0.00</b>  |
| 36_1.5   | 11  | 767.67   | 756.112   | <b>756.11</b>   | <b>-1.51</b> |
| 45_1.5   | 4   | 776.36   | 773.117   | <b>773.12</b>   | <b>-0.42</b> |
| 51_1.5   | 15  | 1100.97  | 1083.642  | <b>1083.64</b>  | <b>-1.57</b> |
| 72_1.5   | 5   | 295.04   | 292.596   | <b>292.60</b>   | <b>-0.83</b> |
| 101_1.5  | 21  | 1654.85  | 1622.415  | <b>1622.42</b>  | <b>-1.96</b> |
| 121_1.5  | 25  | 4000.31  | 3942.640  | <b>3942.65</b>  | <b>-1.44</b> |
| 135_1.5  | 8   | 1595.27  | 1565.615  | <b>1565.62</b>  | <b>-1.86</b> |
| 151_1.5  | 31  | 2242.17  | 2181.361  | <b>2181.37</b>  | <b>-2.71</b> |
| 200_1.5  | 41  | 2831.90  | 2770.367  | <b>2770.36</b>  | <b>-2.17</b> |
| 256_1.5  | 161 | 58587.31 | 58330.633 | <b>58330.63</b> | <b>-0.44</b> |
| 301_1.5  | 51  | 18724.50 | 17629.527 | <b>17629.53</b> | <b>-5.85</b> |