

#	CP	VLNS		CP (TLSP-S)	VLNS (TLSP-S)		VLNS (TLSP-S Init)	
		Best	Avg		Best	Avg	Best	Avg
1	57	57	57	98	98	98	57	57
2	71	71	71	73	73	73	71	71
3	142	141	141	149	149	149	141	141
4	119	101	101	105	105	105	101	101
5	244	240	240	283	283	283	240	240
6	180	140	140	162	162	162	140	140
7	355	283	283	307	307	307	283	283
8	310	283	283.6	310	310	310	282	282.8
9	713	415	419	501	501	501	418	419.8
10	1010	499	512.2	576	564	564	494	497.6
11	1011	816	822.8	856	856	856.4	815	823.6
12	764	643	646.8	656	656	656	646	650.8
13	337	307	308.4	340	340	340	307	308.2
14	447	410	410.4	420	420	420	410	411.2
15	1819	867	883	1646	1084	1085	863	871
16	1599	1109	1111.4	1560	1138	1142.6	1101	1105.4
17	1416	1038	1075.8	1254	1194	1194.4	1034	1039.8
18	1841	1328	1341	1817	1359	1378.2	1338	1352.2
19	2751	1824	1860	2650	1964	2000.8	1775	1829.4
20	3146	2193	2266.8	2887	2114	2140.8	2127	2152.2
21	922	542	547	679	679	679.2	543	545.6
22	1062	742	744.8	765	765	765	716	723
23	-	-	-	3486	2029	2104.2	1465	1599
24	-	-	-	2445	1776	1798.6	1743	1746.8
25	4174	2135	2217.6	3278	2112	2165.8	1901	1926.8
26	3861	2558	2589.6	3896	2558	2573.8	2540	2552.8
27	3874	1723	1769.6	3095	2151	2151.8	1699	1725.8
28	3180	2235	2258.4	2569	2322	2322.6	2231	2235.6
29	-	-	-	4539	3233	3297	2899	2975
30	6508	4714	4822.6	5904	4736	4779.4	4493	4554.4
Lab1	4991	3296	3377	5188	3334	3400.6	3315	3426.2
Lab2	3339	2595	2669.2	3548*	2635*	2636*	2618	2643.4
Lab3	2979	2590	2599	3028*	2600*	2600*	2623	2647.8

Table 1: Summary of computational results. For the variants of VLNS, both best solutions found and average penalty over all 5 runs are given. The columns "CP (TLSP-S)" and "VLNS (TLSP-S)" contain the results from (Geibinger, Mischek, and Musliu 2019a). The last two columns give results for the VLNS variant that produces its initial schedule using the TLSP-S CP model with the reference grouping. *: Instance Lab2 and Lab3 were not included in that publication, we produced these results by rerunning the algorithms with the same settings.