**Calibration of Iterated Greedy For Large Instances**

|  |  |
| --- | --- |
| Parameter |  |
| Fine Local search : FLS | Yes-No |
| Destruction size : d | 1-2-3-4 |
| Loop Size: VNS Loop | 100-200-300 |
| Temperature factor : T0 | 1-3-5-7 |

We have 96 combinations \* 5 replications for each instance \*144 Instances

**Analysis of Variance**

**Analysis of**

**Variance for RDI -**

**Type III Sums of**

**Squares**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Source* | *Sum of Squares* | *Df* | *Mean Square* | *F-Ratio* | *P-Value* |
| MAIN EFFECTS |  |  |  |  |  |
| A:2LS | 343962. | 1 | 343962. | 835.44 | 0.0000 |
| B:d | 5.89897E6 | 3 | 1.96632E6 | 4775.98 | 0.0000 |
| C:VNSloop | 328803. | 2 | 164401. | 399.31 | 0.0000 |
| D:T0 | 12.2979 | 3 | 4.09929 | 0.01 | 0.9986 |
| INTERACTIONS |  |  |  |  |  |
| AB | 77983.9 | 3 | 25994.6 | 63.14 | 0.0000 |
| AC | 484.915 | 2 | 242.457 | 0.59 | 0.5549 |
| AD | 7.5913 | 3 | 2.53043 | 0.01 | 0.9993 |
| BC | 61669.3 | 6 | 10278.2 | 24.96 | 0.0000 |
| BD | 101.611 | 9 | 11.2901 | 0.03 | 1.0000 |
| CD | 80.6248 | 6 | 13.4375 | 0.03 | 0.9999 |
| RESIDUAL | 2.84415E7 | 69081 | 411.712 |  |  |
| TOTAL (CORRECTED) | 3.51535E7 | 69119 |  |  |  |

All F-ratios are

based on the

residual mean

square error.

1. **Destruction Reconstruction**

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We should remove 1 from destruction reconstruction parameter and repeat.

**Analysis of Variance**

**Analysis of**

**Variance for RDI -**

**Type III Sums of**

**Squares**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Source* | *Sum of Squares* | *Df* | *Mean Square* | *F-Ratio* | *P-Value* |
| MAIN EFFECTS |  |  |  |  |  |
| A:2LS | 139444. | 1 | 139444. | 360.42 | 0.0000 |
| B:d | 58917.6 | 2 | 29458.8 | 76.14 | 0.0000 |
| C:VNSloop | 378795. | 2 | 189398. | 489.54 | 0.0000 |
| D:T0 | 18.1987 | 3 | 6.06623 | 0.02 | 0.9973 |
| INTERACTIONS |  |  |  |  |  |
| AB | 5637.12 | 2 | 2818.56 | 7.29 | 0.0007 |
| AC | 846.413 | 2 | 423.206 | 1.09 | 0.3349 |
| AD | 19.6165 | 3 | 6.53884 | 0.02 | 0.9970 |
| BC | 3682.77 | 4 | 920.693 | 2.38 | 0.0494 |
| BD | 60.4692 | 6 | 10.0782 | 0.03 | 0.9999 |
| CD | 69.0229 | 6 | 11.5038 | 0.03 | 0.9999 |
| RESIDUAL | 2.0044E7 | 51808 | 386.89 |  |  |
| TOTAL (CORRECTED) | 2.06315E7 | 51839 |  |  |  |

All F-ratios are

based on the

residual mean

square error.

1. **VNS Loop size**

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It is clear that we should choose VNS=300

**3- 2LS**



Second level local search must be enabled



**4-Temperature factor: T**

****

There is not a big difference but we can set it 7

2LS: 1

D: 2

VNS: 300

T0: 7