**Calibration of Iterated Greedy For Small Instances**

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

We have 96 combinations \* 5 replications \*162 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 | 149459. | 1 | 149459. | 334.93 | 0.0000 |
| B:d | 1.87025E7 | 3 | 6.23417E6 | 13970.39 | 0.0000 |
| C:Len\_M | 57096.5 | 2 | 28548.2 | 63.97 | 0.0000 |
| D:T | 353.318 | 3 | 117.773 | 0.26 | 0.8514 |
| INTERACTIONS |  |  |  |  |  |
| AB | 2425.46 | 3 | 808.487 | 1.81 | 0.1426 |
| AC | 4950.31 | 2 | 2475.15 | 5.55 | 0.0039 |
| AD | 105.577 | 3 | 35.1925 | 0.08 | 0.9715 |
| BC | 6170.14 | 6 | 1028.36 | 2.30 | 0.0316 |
| BD | 235.532 | 9 | 26.1702 | 0.06 | 1.0000 |
| CD | 84.0108 | 6 | 14.0018 | 0.03 | 0.9999 |
| RESIDUAL | 3.46823E7 | 77721 | 446.242 |  |  |
| TOTAL (CORRECTED) | 5.36057E7 | 77759 |  |  |  |

All F-ratios are

based on the

residual mean

square error.

1. **Destruction reconstruction**

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d=1 kill experiments we remove it and repeat

**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 | 127743. | 1 | 127743. | 619.43 | 0.0000 |
| B:d | 147458. | 2 | 73729.2 | 357.52 | 0.0000 |
| C:Len\_M | 30215.5 | 2 | 15107.7 | 73.26 | 0.0000 |
| D:T | 451.016 | 3 | 150.339 | 0.73 | 0.5345 |
| INTERACTIONS |  |  |  |  |  |
| AB | 381.19 | 2 | 190.595 | 0.92 | 0.3969 |
| AC | 4478.1 | 2 | 2239.05 | 10.86 | 0.0000 |
| AD | 113.147 | 3 | 37.7158 | 0.18 | 0.9081 |
| BC | 1740.59 | 4 | 435.148 | 2.11 | 0.0767 |
| BD | 84.2641 | 6 | 14.044 | 0.07 | 0.9988 |
| CD | 162.627 | 6 | 27.1044 | 0.13 | 0.9924 |
| RESIDUAL | 1.20205E7 | 58288 | 206.227 |  |  |
| TOTAL (CORRECTED) | 1.23334E7 | 58319 |  |  |  |

All F-ratios are

based on the

residual mean

square error.

1. **2nd Level Local Search**

****

The local search must be enabled.

1. **Destruction reconstruction:**



It is clear that we should set it 4

1. **VNS Loop**



It is clear that we should choose VNS=100

**4-Temperature factor: T**

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There is not a big difference but 7 is better.