

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P402386

Luminaire Tested: **LA1MRT152D010TR509040MW1MW**

Issue Date: 6/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P402386  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1912-604-8)  
Test Lab: INNOVATION CENTER (G3)  
Issue Date: 6/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LA1MRT152D010TR509040MW1MW  
Description: 1 INCH 50° OPTIC WITH MATTE WHITE BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

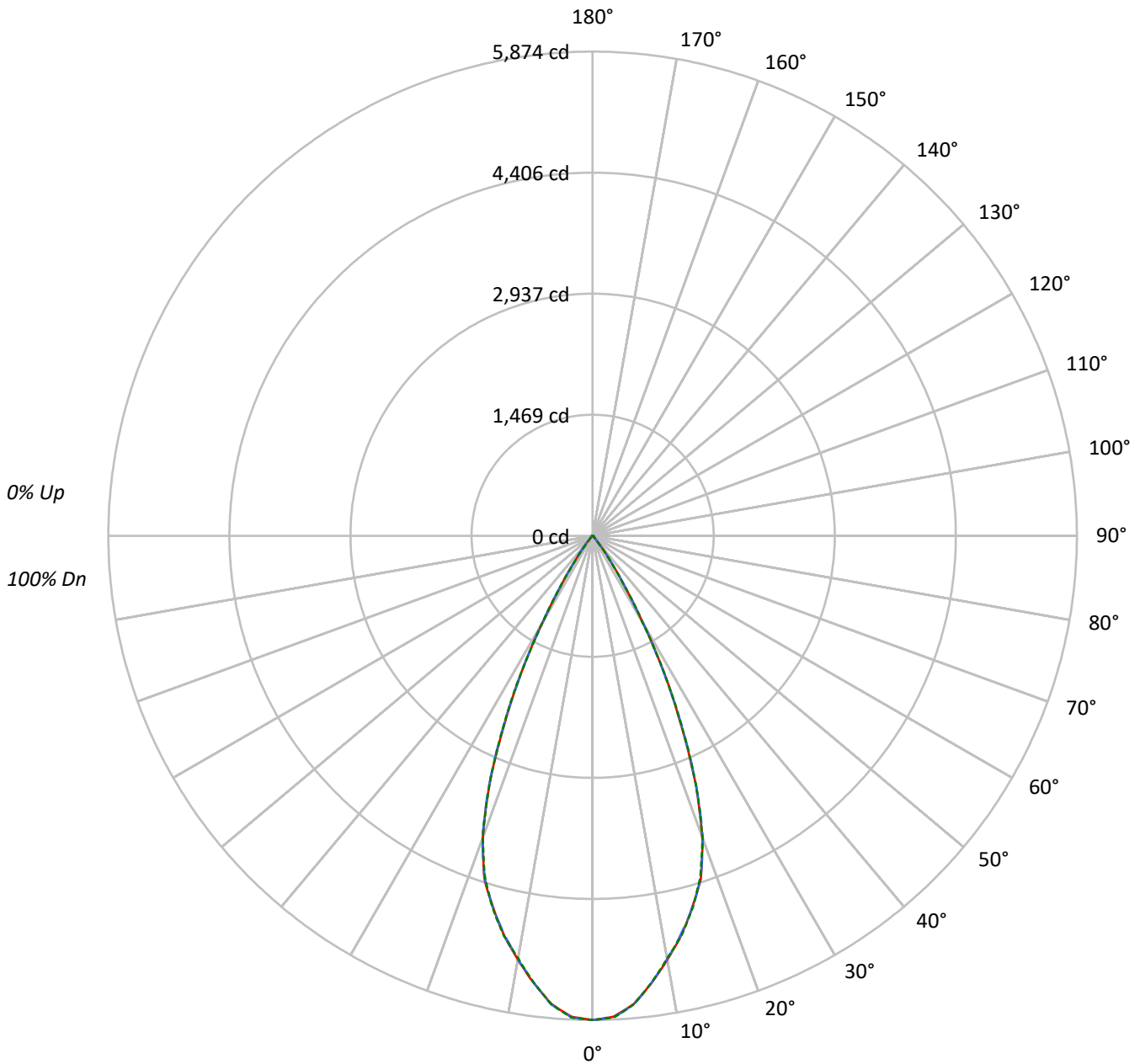
Lumens per Lamp: N/A  
Luminaire Lumens: 3315.7 lumens  
Efficiency: N/A  
Efficacy: 97.0 lumens/watt  
Spacing Criteria (0/90/45): 0.77 / 0.77 / 0.71  
Luminous Opening: Rectangular (W 0.1' x L: 1.29' x H: 0')  
CIE Type: Direct

Input Watts (W): 34.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

TEST NUMBER: P402386

CATALOG NUMBER: LA1MRT152D010TR509040MW1MW

### Luminous Intensity Polar Plot





TEST NUMBER: P402386

CATALOG NUMBER: LA1MRT152D010TR509040MW1MW

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 20  |     |     |     |     |     |     |     |     | 20  |     |     |     |     |     |     |     |     | 20 |    |   |  |  |  |  |  |  | 20 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 50  |     |     |     |     |     |     |     |     | 30 |    |   |  |  |  |  |  |  | 10 |  |  |  |  |  |  |  |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 | 0 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 114 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 95  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 110 | 105 | 102 | 99  | 107 | 104 | 100 | 98  | 100 | 98  | 96  | 98  | 95  | 94  | 95  | 93  | 92  | 90  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 105 | 99  | 95  | 92  | 103 | 98  | 94  | 91  | 96  | 92  | 90  | 93  | 90  | 88  | 91  | 89  | 87  | 85  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 101 | 94  | 89  | 86  | 99  | 93  | 89  | 85  | 91  | 87  | 84  | 89  | 86  | 83  | 87  | 85  | 82  | 81  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 97  | 89  | 84  | 81  | 95  | 89  | 84  | 80  | 87  | 83  | 80  | 85  | 82  | 79  | 84  | 81  | 78  | 77  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 93  | 85  | 80  | 76  | 91  | 84  | 79  | 76  | 83  | 79  | 75  | 82  | 78  | 75  | 80  | 77  | 75  | 73  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 89  | 81  | 76  | 72  | 88  | 80  | 76  | 72  | 79  | 75  | 72  | 78  | 74  | 71  | 77  | 74  | 71  | 70  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 85  | 77  | 72  | 69  | 84  | 77  | 72  | 69  | 76  | 71  | 68  | 75  | 71  | 68  | 74  | 70  | 68  | 67  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 82  | 74  | 69  | 65  | 81  | 73  | 69  | 65  | 73  | 68  | 65  | 72  | 68  | 65  | 71  | 67  | 65  | 64  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 79  | 71  | 66  | 62  | 78  | 70  | 66  | 62  | 70  | 65  | 62  | 69  | 65  | 62  | 68  | 64  | 62  | 61  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 469936 | 469936 | 469936 |
| 5°  | 458055 | 458665 | 458400 |
| 10° | 424131 | 423514 | 422807 |
| 15° | 386588 | 387036 | 387582 |
| 20° | 331614 | 332628 | 331334 |
| 25° | 224780 | 227560 | 227172 |
| 30° | 111350 | 112052 | 111655 |
| 35° | 37190  | 37404  | 35178  |
| 40° | 8501   | 8271   | 7143   |
| 45° | 3315   | 3688   | 3066   |
| 50° | 2701   | 2838   | 2427   |
| 55° | 2427   | 2427   | 2120   |
| 60° | 1904   | 2080   | 1744   |
| 65° | 1230   | 1439   | 1022   |
| 70° | 0      | 257    | 0      |
| 75° | 0      | 0      | 0      |
| 80° | 0      | 0      | 0      |
| 85° | 0      | 0      | 0      |



TEST NUMBER: P402386

CATALOG NUMBER: LA1MRT152D010TR509040MW1MW

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 528.8  | 15.9      |
| 10°-20°   | 1296.3 | 39.1      |
| 20°-30°   | 1154.0 | 34.8      |
| 30°-40°   | 288.1  | 8.7       |
| 40°-50°   | 27.5   | 0.8       |
| 50°-60°   | 15.0   | 0.5       |
| 60°-70°   | 6.0    | 0.2       |
| 70°-80°   | 0.0    | 0.0       |
| 80°-90°   | 0.0    | 0.0       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 2979.1 | 89.8      |
| 0°-40°    | 3267.2 | 98.5      |
| 0°-60°    | 3309.7 | 99.8      |
| 0°-90°    | 3315.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3315.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 5874 | 5874  | 5874 | 5874  | 5874 |      |
| 5°  | 5704 | 5724  | 5712 | 5707  | 5708 | 528  |
| 15° | 4668 | 4692  | 4673 | 4664  | 4680 | 1297 |
| 25° | 2546 | 2575  | 2578 | 2595  | 2574 | 1150 |
| 35° | 381  | 395   | 383  | 378   | 360  | 286  |
| 45° | 29   | 29    | 33   | 28    | 27   | 28   |
| 55° | 17   | 17    | 17   | 16    | 15   | 15   |
| 65° | 6    | 6     | 8    | 6     | 5    | 6    |
| 75° | 0    | 0     | 0    | 0     | 0    | 0    |
| 85° | 0    | 0     | 0    | 0     | 0    | 0    |
| 90° | 0    | 0     | 0    | 0     | 0    | 0    |



TEST NUMBER: P402386

CATALOG NUMBER: LA1MRT152D010TR509040MW1MW

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 |
| 2.5°  | 5840.6 | 5866.7 | 5848.2 | 5849.3 | 5850.4 |
| 5°    | 5703.9 | 5724.5 | 5711.5 | 5707.2 | 5708.2 |
| 7.5°  | 5472.8 | 5491.2 | 5470.6 | 5478.2 | 5469.5 |
| 10°   | 5221.1 | 5239.5 | 5213.5 | 5213.5 | 5204.8 |
| 12.5° | 4965.0 | 4984.5 | 4953.1 | 4949.8 | 4970.4 |
| 15°   | 4667.7 | 4691.6 | 4673.1 | 4664.5 | 4679.7 |
| 17.5° | 4367.2 | 4363.9 | 4353.1 | 4347.6 | 4342.2 |
| 20°   | 3895.2 | 3914.7 | 3907.1 | 3874.6 | 3891.9 |
| 22.5° | 3274.6 | 3275.6 | 3286.5 | 3291.9 | 3277.8 |
| 25°   | 2546.5 | 2574.7 | 2578.0 | 2595.3 | 2573.6 |
| 27.5° | 1886.8 | 1892.3 | 1863.0 | 1865.1 | 1885.7 |
| 30°   | 1205.4 | 1221.7 | 1213.0 | 1221.7 | 1208.7 |
| 32.5° | 695.5  | 709.6  | 704.2  | 710.7  | 711.8  |
| 35°   | 380.8  | 394.9  | 383.0  | 377.6  | 360.2  |
| 37.5° | 188.8  | 188.8  | 193.1  | 177.9  | 169.3  |
| 40°   | 81.4   | 83.5   | 79.2   | 74.9   | 68.4   |
| 42.5° | 41.2   | 41.2   | 43.4   | 36.9   | 35.8   |
| 45°   | 29.3   | 29.3   | 32.6   | 28.2   | 27.1   |
| 47.5° | 25.0   | 25.0   | 27.1   | 23.9   | 22.8   |
| 50°   | 21.7   | 21.7   | 22.8   | 20.6   | 19.5   |
| 52.5° | 19.5   | 19.5   | 20.6   | 18.4   | 17.4   |
| 55°   | 17.4   | 17.4   | 17.4   | 16.3   | 15.2   |
| 57.5° | 14.1   | 15.2   | 15.2   | 14.1   | 13.0   |
| 60°   | 11.9   | 11.9   | 13.0   | 11.9   | 10.9   |
| 62.5° | 9.8    | 9.8    | 9.8    | 9.8    | 8.7    |
| 65°   | 6.5    | 6.5    | 7.6    | 6.5    | 5.4    |
| 67.5° | 1.1    | 2.2    | 5.4    | 0.0    | 0.0    |
| 70°   | 0.0    | 0.0    | 1.1    | 0.0    | 0.0    |
| 72.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)