

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: P402122

Luminaire Tested: **LA1MR052D010 EA1M52509030MW1MW**

Issue Date: 6/3/2020

Test Information

Test Method: LM-41-14
Report Number: P402122
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: LA1MR052D010 EA1M52509030MW1MW
Description: 1 INCH 50° OPTIC WITH MATTE WHITE BAFFLE
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

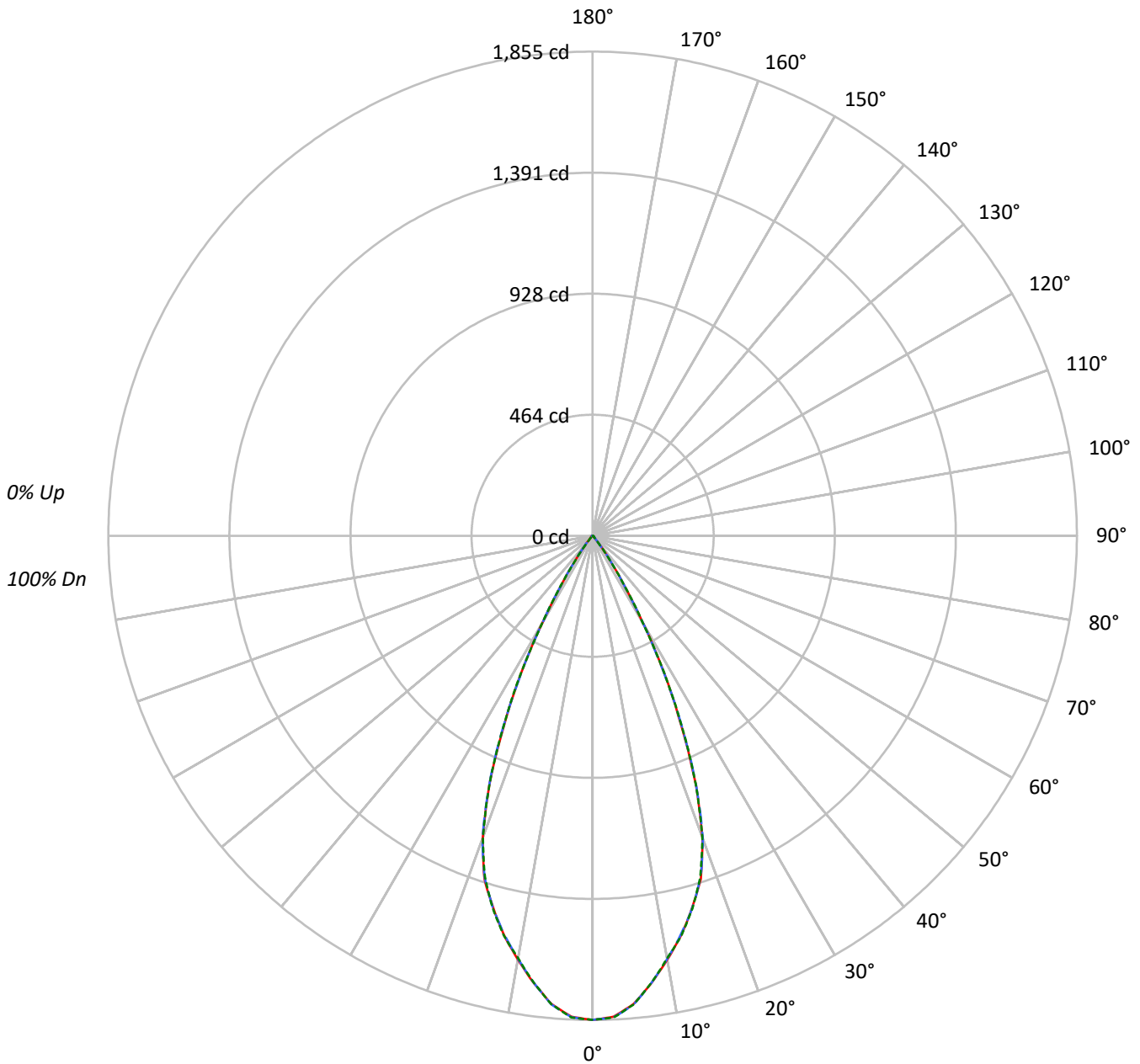
Lumens per Lamp: N/A
Luminaire Lumens: 1047.0 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Spacing Criteria (0/90/45): 0.77 / 0.77 / 0.71
Luminous Opening: Rectangular (W 0.1' x L: 1.29' x H: 0')
CIE Type: Direct

Input Watts (W): 12.1
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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 148384 | 148384 | 148384 |
| 5° | 144630 | 144823 | 144743 |
| 10° | 133922 | 133727 | 133508 |
| 15° | 122071 | 122212 | 122378 |
| 20° | 104706 | 105030 | 104621 |
| 25° | 70978 | 71852 | 71728 |
| 30° | 35158 | 35380 | 35260 |
| 35° | 11749 | 11807 | 11104 |
| 40° | 2684 | 2611 | 2256 |
| 45° | 1052 | 1165 | 973 |
| 50° | 859 | 896 | 772 |
| 55° | 767 | 767 | 669 |
| 60° | 608 | 656 | 544 |
| 65° | 398 | 454 | 322 |
| 70° | 0 | 70 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 167.0 | 15.9 |
| 10°-20° | 409.3 | 39.1 |
| 20°-30° | 364.4 | 34.8 |
| 30°-40° | 91.0 | 8.7 |
| 40°-50° | 8.7 | 0.8 |
| 50°-60° | 4.8 | 0.5 |
| 60°-70° | 1.9 | 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° | 940.7 | 89.8 |
| 0°-40° | 1031.6 | 98.5 |
| 0°-60° | 1045.1 | 99.8 |
| 0°-90° | 1047.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1047.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1855 | 1855 | 1855 | 1855 | 1855 | |
| 5° | 1801 | 1808 | 1803 | 1802 | 1802 | 167 |
| 15° | 1474 | 1481 | 1476 | 1473 | 1478 | 409 |
| 25° | 804 | 813 | 814 | 820 | 813 | 363 |
| 35° | 120 | 125 | 121 | 119 | 114 | 90 |
| 45° | 9 | 9 | 10 | 9 | 9 | 9 |
| 55° | 6 | 6 | 6 | 5 | 5 | 5 |
| 65° | 2 | 2 | 2 | 2 | 2 | 2 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1854.8 | 1854.8 | 1854.8 | 1854.8 | 1854.8 |
| 2.5° | 1844.2 | 1852.4 | 1846.6 | 1847.0 | 1847.3 |
| 5° | 1801.0 | 1807.6 | 1803.4 | 1802.1 | 1802.4 |
| 7.5° | 1728.1 | 1733.9 | 1727.4 | 1729.8 | 1727.0 |
| 10° | 1648.6 | 1654.4 | 1646.2 | 1646.2 | 1643.5 |
| 12.5° | 1567.7 | 1573.9 | 1564.0 | 1562.9 | 1569.4 |
| 15° | 1473.9 | 1481.4 | 1475.6 | 1472.8 | 1477.6 |
| 17.5° | 1379.0 | 1377.9 | 1374.5 | 1372.8 | 1371.1 |
| 20° | 1229.9 | 1236.1 | 1233.7 | 1223.4 | 1228.9 |
| 22.5° | 1034.0 | 1034.3 | 1037.7 | 1039.4 | 1035.0 |
| 25° | 804.1 | 813.0 | 814.0 | 819.5 | 812.6 |
| 27.5° | 595.8 | 597.5 | 588.2 | 588.9 | 595.4 |
| 30° | 380.6 | 385.8 | 383.0 | 385.8 | 381.7 |
| 32.5° | 219.6 | 224.1 | 222.3 | 224.4 | 224.7 |
| 35° | 120.3 | 124.7 | 120.9 | 119.2 | 113.7 |
| 37.5° | 59.6 | 59.6 | 61.0 | 56.2 | 53.4 |
| 40° | 25.7 | 26.4 | 25.0 | 23.6 | 21.6 |
| 42.5° | 13.0 | 13.0 | 13.7 | 11.6 | 11.3 |
| 45° | 9.3 | 9.3 | 10.3 | 8.9 | 8.6 |
| 47.5° | 7.9 | 7.9 | 8.6 | 7.5 | 7.2 |
| 50° | 6.9 | 6.9 | 7.2 | 6.5 | 6.2 |
| 52.5° | 6.2 | 6.2 | 6.5 | 5.8 | 5.5 |
| 55° | 5.5 | 5.5 | 5.5 | 5.1 | 4.8 |
| 57.5° | 4.5 | 4.8 | 4.8 | 4.5 | 4.1 |
| 60° | 3.8 | 3.8 | 4.1 | 3.8 | 3.4 |
| 62.5° | 3.1 | 3.1 | 3.1 | 3.1 | 2.7 |
| 65° | 2.1 | 2.1 | 2.4 | 2.1 | 1.7 |
| 67.5° | 0.3 | 0.7 | 1.7 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.3 | 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 |



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







(END OF REPORT)