

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: P402294

Luminaire Tested: **LD1MR052D010 ED1M52509027MW1MW**

Issue Date: 6/3/2020

Test Information

Test Method: LM-41-14
Report Number: P402294
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: LD1MR052D010 ED1M52509027MW1MW
Description: 1 INCH 50° OPTIC WITH MATTE WHITE BAFFLE
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

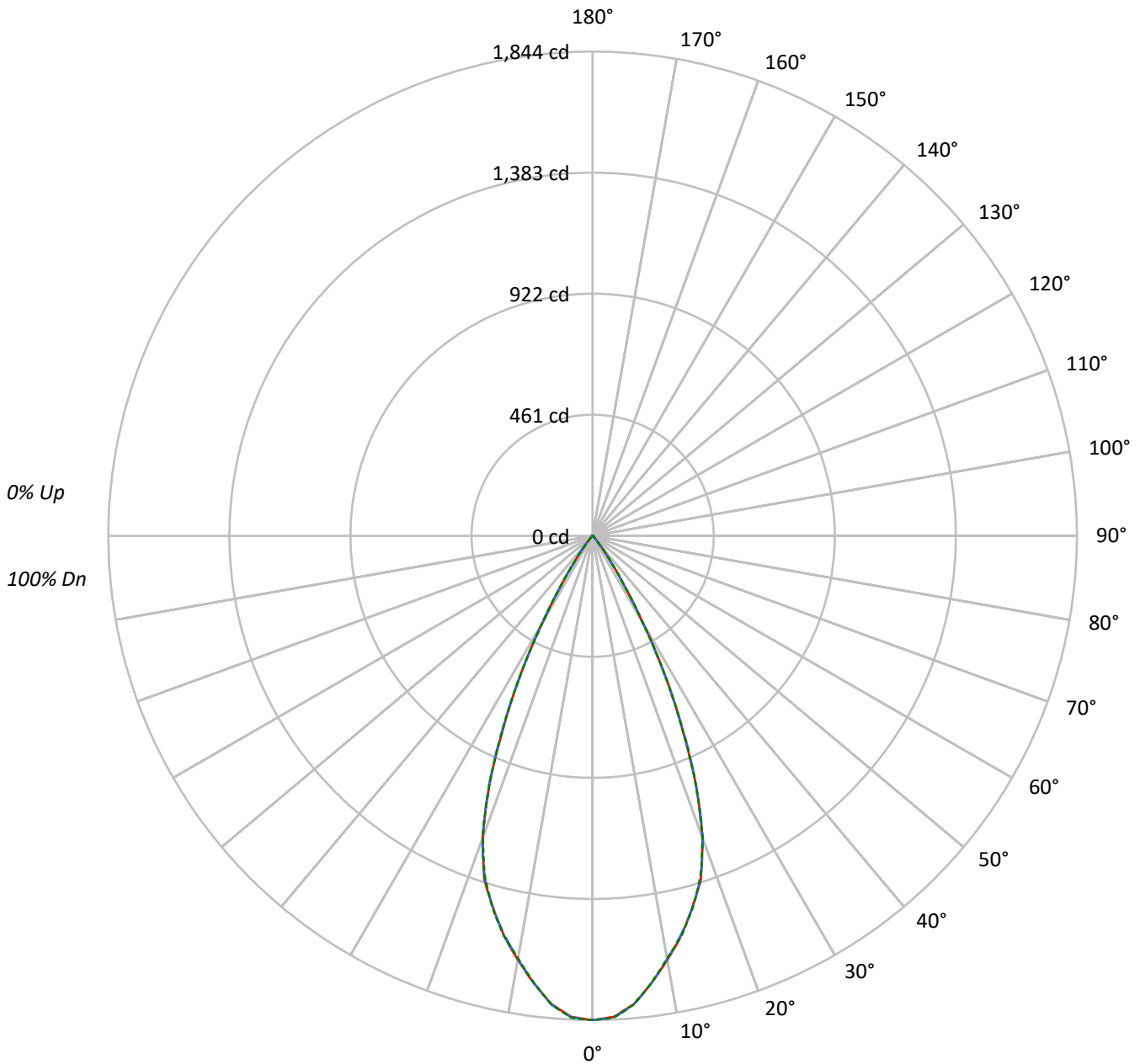
Lumens per Lamp: N/A
Luminaire Lumens: 1041.1 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Spacing Criteria (0/90/45): 0.77 / 0.77 / 0.71
Luminous Opening: Rectangular (W 0.1' x L: 1.29' x H: 0')
CIE Type: Direct

Input Watts (W): 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





TEST NUMBER: P402294

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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 | | | 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° | 147560 | 147560 | 147560 |
| 5° | 143827 | 144020 | 143940 |
| 10° | 133175 | 132980 | 132761 |
| 15° | 121392 | 121533 | 121699 |
| 20° | 104128 | 104443 | 104042 |
| 25° | 70581 | 71455 | 71331 |
| 30° | 34964 | 35186 | 35057 |
| 35° | 11680 | 11749 | 11046 |
| 40° | 2673 | 2600 | 2245 |
| 45° | 1041 | 1154 | 962 |
| 50° | 846 | 896 | 759 |
| 55° | 767 | 767 | 669 |
| 60° | 592 | 656 | 544 |
| 65° | 379 | 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° | 166.0 | 15.9 |
| 10°-20° | 407.0 | 39.1 |
| 20°-30° | 362.4 | 34.8 |
| 30°-40° | 90.5 | 8.7 |
| 40°-50° | 8.6 | 0.8 |
| 50°-60° | 4.7 | 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° | 935.5 | 89.8 |
| 0°-40° | 1025.9 | 98.5 |
| 0°-60° | 1039.3 | 99.8 |
| 0°-90° | 1041.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1041.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1844 | 1844 | 1844 | 1844 | 1844 | |
| 5° | 1791 | 1798 | 1793 | 1792 | 1792 | 166 |
| 15° | 1466 | 1473 | 1467 | 1465 | 1469 | 407 |
| 25° | 800 | 808 | 810 | 815 | 808 | 361 |
| 35° | 120 | 124 | 120 | 119 | 113 | 90 |
| 45° | 9 | 9 | 10 | 9 | 8 | 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° | 1844.5 | 1844.5 | 1844.5 | 1844.5 | 1844.5 |
| 2.5° | 1834.0 | 1842.1 | 1836.4 | 1836.7 | 1837.0 |
| 5° | 1791.0 | 1797.5 | 1793.4 | 1792.1 | 1792.4 |
| 7.5° | 1718.5 | 1724.3 | 1717.8 | 1720.2 | 1717.5 |
| 10° | 1639.4 | 1645.2 | 1637.0 | 1637.0 | 1634.3 |
| 12.5° | 1559.0 | 1565.2 | 1555.3 | 1554.3 | 1560.7 |
| 15° | 1465.7 | 1473.2 | 1467.4 | 1464.7 | 1469.4 |
| 17.5° | 1371.3 | 1370.3 | 1366.9 | 1365.2 | 1363.5 |
| 20° | 1223.1 | 1229.2 | 1226.8 | 1216.6 | 1222.1 |
| 22.5° | 1028.2 | 1028.6 | 1032.0 | 1033.7 | 1029.2 |
| 25° | 799.6 | 808.5 | 809.5 | 814.9 | 808.1 |
| 27.5° | 592.5 | 594.2 | 585.0 | 585.7 | 592.1 |
| 30° | 378.5 | 383.6 | 380.9 | 383.6 | 379.5 |
| 32.5° | 218.4 | 222.8 | 221.1 | 223.2 | 223.5 |
| 35° | 119.6 | 124.0 | 120.3 | 118.6 | 113.1 |
| 37.5° | 59.3 | 59.3 | 60.6 | 55.9 | 53.1 |
| 40° | 25.6 | 26.2 | 24.9 | 23.5 | 21.5 |
| 42.5° | 12.9 | 12.9 | 13.6 | 11.6 | 11.2 |
| 45° | 9.2 | 9.2 | 10.2 | 8.9 | 8.5 |
| 47.5° | 7.8 | 7.8 | 8.5 | 7.5 | 7.2 |
| 50° | 6.8 | 6.8 | 7.2 | 6.5 | 6.1 |
| 52.5° | 6.1 | 6.1 | 6.5 | 5.8 | 5.5 |
| 55° | 5.5 | 5.5 | 5.5 | 5.1 | 4.8 |
| 57.5° | 4.4 | 4.8 | 4.8 | 4.4 | 4.1 |
| 60° | 3.7 | 3.7 | 4.1 | 3.7 | 3.4 |
| 62.5° | 3.1 | 3.1 | 3.1 | 3.1 | 2.7 |
| 65° | 2.0 | 2.0 | 2.4 | 2.0 | 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)