

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: P402197

Luminaire Tested: **LD1MR012D010 ED1M12509027MMS1MW**

Issue Date: 6/3/2020

Test Information

Test Method: LM-41-14
Report Number: P402197
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: LD1MR012D010 ED1M12509027MMS1MW
Description: 1 INCH 50° OPTIC WITH MATTE METALIC SILVER BAFFLE
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

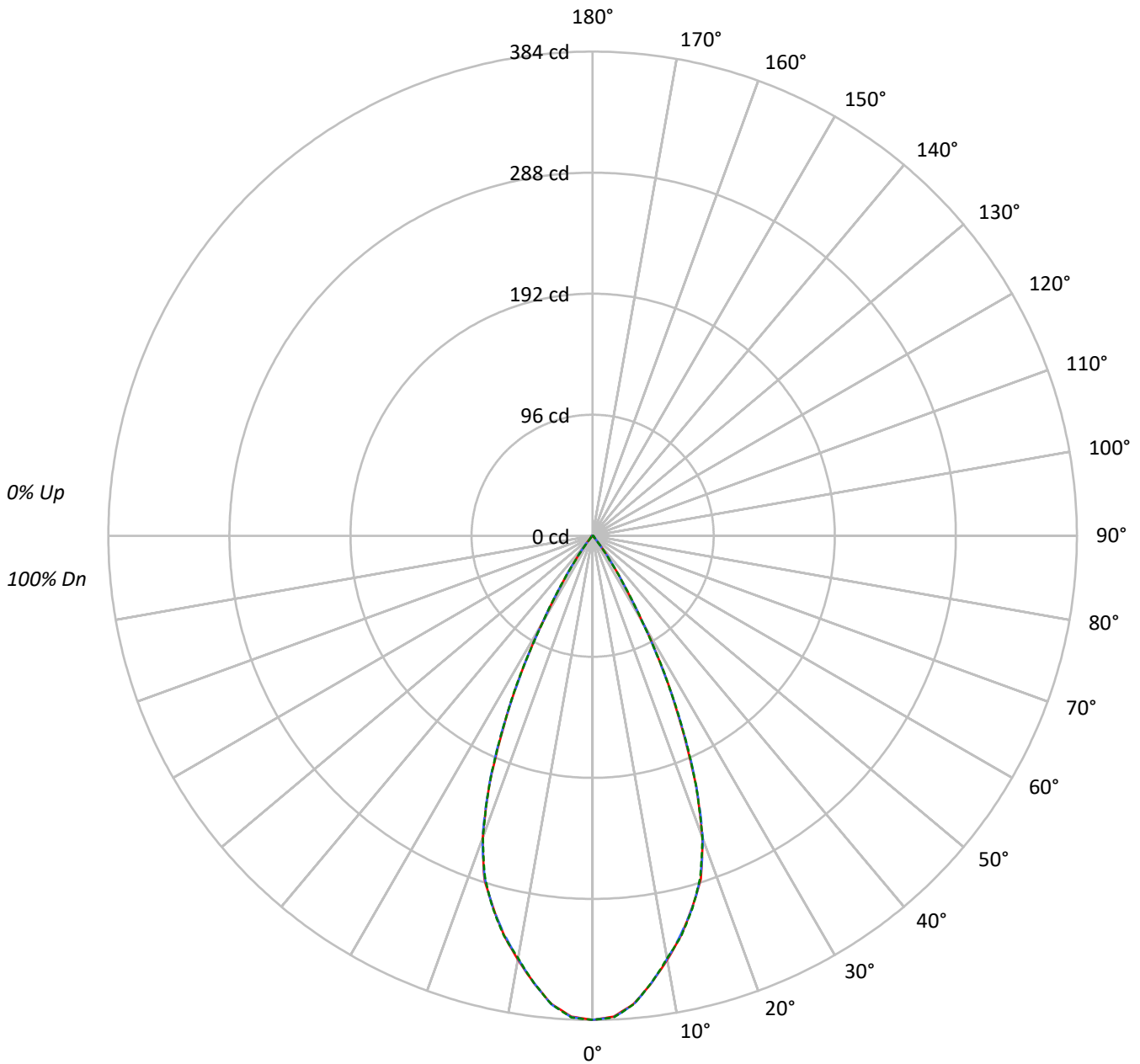
Lumens per Lamp: N/A
Luminaire Lumens: 216.7 lumens
Efficiency: N/A
Efficacy: 60.2 lumens/watt
Spacing Criteria (0/90/45): 0.77 / 0.77 / 0.71
Luminous Opening: Rectangular (W 0.1' x L: 1.29' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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 | | | | | | | | | |
| 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° | 30712 | 30712 | 30712 |
| 5° | 29938 | 29978 | 29962 |
| 10° | 27717 | 27676 | 27636 |
| 15° | 25269 | 25294 | 25327 |
| 20° | 21675 | 21743 | 21658 |
| 25° | 14688 | 14874 | 14847 |
| 30° | 7279 | 7325 | 7298 |
| 35° | 2432 | 2442 | 2295 |
| 40° | 553 | 543 | 470 |
| 45° | 215 | 238 | 204 |
| 50° | 174 | 187 | 162 |
| 55° | 153 | 153 | 139 |
| 60° | 128 | 144 | 112 |
| 65° | 76 | 95 | 76 |
| 70° | 0 | 23 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 34.6 | 15.9 |
| 10°-20° | 84.7 | 39.1 |
| 20°-30° | 75.4 | 34.8 |
| 30°-40° | 18.8 | 8.7 |
| 40°-50° | 1.8 | 0.8 |
| 50°-60° | 1.0 | 0.5 |
| 60°-70° | 0.4 | 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° | 194.7 | 89.9 |
| 0°-40° | 213.5 | 98.5 |
| 0°-60° | 216.3 | 99.8 |
| 0°-90° | 216.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 216.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 384 | 384 | 384 | 384 | 384 | |
| 5° | 373 | 374 | 373 | 373 | 373 | 35 |
| 15° | 305 | 307 | 305 | 305 | 306 | 85 |
| 25° | 166 | 168 | 168 | 170 | 168 | 75 |
| 35° | 25 | 26 | 25 | 25 | 24 | 19 |
| 45° | 2 | 2 | 2 | 2 | 2 | 2 |
| 55° | 1 | 1 | 1 | 1 | 1 | 1 |
| 65° | 0 | 0 | 0 | 0 | 0 | 0 |
| 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° | 383.9 | 383.9 | 383.9 | 383.9 | 383.9 |
| 2.5° | 381.7 | 383.4 | 382.2 | 382.3 | 382.4 |
| 5° | 372.8 | 374.1 | 373.3 | 373.0 | 373.1 |
| 7.5° | 357.7 | 358.9 | 357.5 | 358.0 | 357.5 |
| 10° | 341.2 | 342.4 | 340.7 | 340.7 | 340.2 |
| 12.5° | 324.5 | 325.8 | 323.7 | 323.5 | 324.9 |
| 15° | 305.1 | 306.6 | 305.4 | 304.9 | 305.8 |
| 17.5° | 285.4 | 285.2 | 284.5 | 284.1 | 283.8 |
| 20° | 254.6 | 255.9 | 255.4 | 253.2 | 254.4 |
| 22.5° | 214.0 | 214.1 | 214.8 | 215.1 | 214.2 |
| 25° | 166.4 | 168.3 | 168.5 | 169.6 | 168.2 |
| 27.5° | 123.3 | 123.7 | 121.8 | 121.9 | 123.2 |
| 30° | 78.8 | 79.8 | 79.3 | 79.8 | 79.0 |
| 32.5° | 45.5 | 46.4 | 46.0 | 46.4 | 46.5 |
| 35° | 24.9 | 25.8 | 25.0 | 24.7 | 23.5 |
| 37.5° | 12.3 | 12.3 | 12.6 | 11.6 | 11.1 |
| 40° | 5.3 | 5.5 | 5.2 | 4.9 | 4.5 |
| 42.5° | 2.7 | 2.7 | 2.8 | 2.4 | 2.3 |
| 45° | 1.9 | 1.9 | 2.1 | 1.8 | 1.8 |
| 47.5° | 1.6 | 1.6 | 1.8 | 1.6 | 1.5 |
| 50° | 1.4 | 1.4 | 1.5 | 1.3 | 1.3 |
| 52.5° | 1.3 | 1.3 | 1.3 | 1.2 | 1.1 |
| 55° | 1.1 | 1.1 | 1.1 | 1.1 | 1.0 |
| 57.5° | 0.9 | 1.0 | 1.0 | 0.9 | 0.9 |
| 60° | 0.8 | 0.8 | 0.9 | 0.8 | 0.7 |
| 62.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 65° | 0.4 | 0.4 | 0.5 | 0.4 | 0.4 |
| 67.5° | 0.1 | 0.1 | 0.4 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.1 | 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 |



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







(END OF REPORT)