

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: P402424

Luminaire Tested: **LD1MRT102D010TR309027SC1MW**

Issue Date: 6/3/2020



Test Information

Test Method: LM-41-14
Report Number: P402424
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2005-766-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 6/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD1MRT102D010TR309027SC1MW
Description: 1 INCH 30° OPTIC WITH SPECULAR CLEAR BAFFLE
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

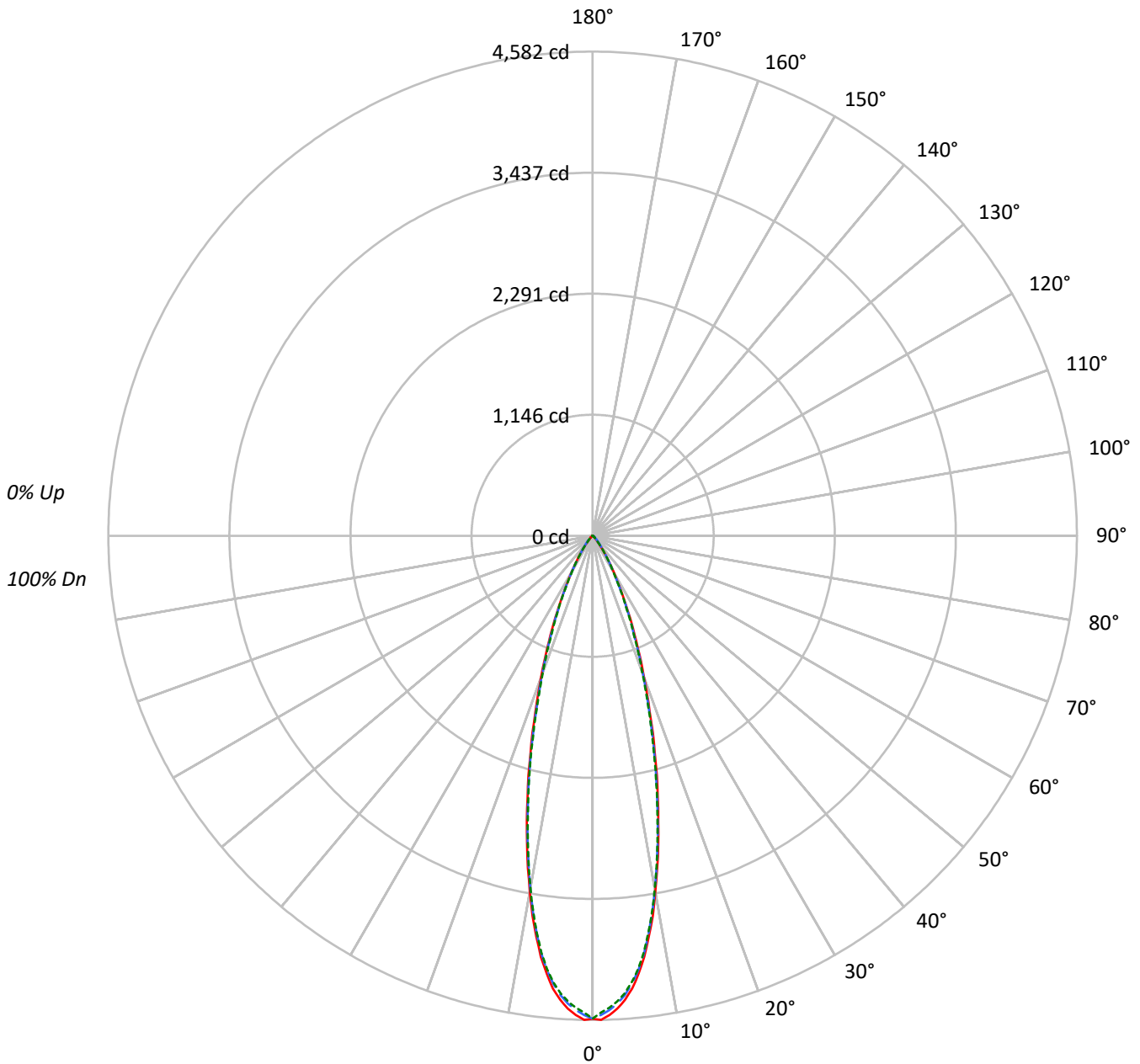
Lumens per Lamp: N/A
Luminaire Lumens: 1557.7 lumens
Efficiency: N/A
Efficacy: 66.3 lumens/watt
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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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CATALOG NUMBER: LD1MRT102D010TR309027SC1MW

Luminous Intensity Polar Plot





TEST NUMBER: P402424

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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 | | | | | | | | | | | | | | | | | | | |
| 1 | 114 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 95 | | | | | | | | | | | | | | | | | | | |
| 2 | 110 | 106 | 103 | 100 | 108 | 104 | 101 | 99 | 101 | 99 | 97 | 98 | 96 | 95 | 96 | 94 | 93 | 91 | | | | | | | | | | | | | | | | | | | |
| 3 | 106 | 101 | 96 | 93 | 104 | 99 | 95 | 92 | 97 | 94 | 91 | 94 | 92 | 90 | 92 | 90 | 88 | 87 | | | | | | | | | | | | | | | | | | | |
| 4 | 102 | 96 | 91 | 88 | 100 | 95 | 90 | 87 | 93 | 89 | 86 | 91 | 88 | 85 | 89 | 86 | 84 | 83 | | | | | | | | | | | | | | | | | | | |
| 5 | 98 | 91 | 87 | 83 | 97 | 90 | 86 | 83 | 89 | 85 | 82 | 87 | 84 | 81 | 86 | 83 | 81 | 79 | | | | | | | | | | | | | | | | | | | |
| 6 | 94 | 87 | 82 | 79 | 93 | 87 | 82 | 79 | 85 | 81 | 78 | 84 | 80 | 78 | 83 | 80 | 77 | 76 | | | | | | | | | | | | | | | | | | | |
| 7 | 91 | 84 | 79 | 75 | 90 | 83 | 78 | 75 | 82 | 78 | 75 | 81 | 77 | 74 | 80 | 77 | 74 | 73 | | | | | | | | | | | | | | | | | | | |
| 8 | 88 | 80 | 76 | 72 | 87 | 80 | 75 | 72 | 79 | 75 | 72 | 78 | 74 | 72 | 77 | 74 | 71 | 70 | | | | | | | | | | | | | | | | | | | |
| 9 | 85 | 77 | 73 | 69 | 84 | 77 | 72 | 69 | 76 | 72 | 69 | 75 | 71 | 69 | 74 | 71 | 69 | 67 | | | | | | | | | | | | | | | | | | | |
| 10 | 82 | 74 | 70 | 67 | 81 | 74 | 70 | 67 | 73 | 69 | 66 | 73 | 69 | 66 | 72 | 69 | 66 | 65 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 1416801 | 1416801 | 1416801 |
| 5° | 1338566 | 1324936 | 1320580 |
| 10° | 1076341 | 1068188 | 1066929 |
| 15° | 752887 | 740114 | 736904 |
| 20° | 469740 | 457897 | 452652 |
| 25° | 271792 | 263617 | 260197 |
| 30° | 144723 | 140427 | 137564 |
| 35° | 69331 | 71601 | 70088 |
| 40° | 29015 | 39497 | 29825 |
| 45° | 14862 | 24463 | 15695 |
| 50° | 9597 | 14420 | 10562 |
| 55° | 6432 | 9674 | 7513 |
| 60° | 3720 | 6200 | 4960 |
| 65° | 1467 | 4401 | 1467 |
| 70° | 0 | 1813 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 379.5 | 24.4 |
| 10°-20° | 633.4 | 40.7 |
| 20°-30° | 364.4 | 23.4 |
| 30°-40° | 126.8 | 8.1 |
| 40°-50° | 36.0 | 2.3 |
| 50°-60° | 13.8 | 0.9 |
| 60°-70° | 3.8 | 0.2 |
| 70°-80° | 0.1 | 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° | 1377.4 | 88.4 |
| 0°-40° | 1504.2 | 96.6 |
| 0°-60° | 1553.9 | 99.8 |
| 0°-90° | 1557.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1557.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 4570 | 4570 | 4570 | 4570 | 4570 | |
| 5° | 4302 | 4276 | 4258 | 4266 | 4244 | 382 |
| 15° | 2346 | 2336 | 2306 | 2300 | 2296 | 640 |
| 25° | 795 | 785 | 771 | 767 | 761 | 373 |
| 35° | 183 | 191 | 189 | 189 | 185 | 124 |
| 45° | 34 | 40 | 56 | 40 | 36 | 29 |
| 55° | 12 | 14 | 18 | 14 | 14 | 11 |
| 65° | 2 | 4 | 6 | 4 | 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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CATALOG NUMBER: LD1MRT102D010TR309027SC1MW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 4570.3 | 4570.3 | 4570.3 | 4570.3 | 4570.3 |
| 1° | 4582.3 | 4560.3 | 4536.5 | 4536.5 | 4512.6 |
| 2° | 4538.4 | 4518.5 | 4492.6 | 4494.6 | 4468.7 |
| 3° | 4480.7 | 4460.8 | 4434.9 | 4438.9 | 4415.0 |
| 4° | 4401.0 | 4375.1 | 4357.2 | 4363.2 | 4341.3 |
| 5° | 4301.5 | 4275.6 | 4257.7 | 4265.6 | 4243.7 |
| 6° | 4166.0 | 4148.1 | 4132.2 | 4142.2 | 4122.2 |
| 7° | 4014.7 | 3994.8 | 3982.8 | 3990.8 | 3974.9 |
| 8° | 3829.5 | 3815.6 | 3801.6 | 3809.6 | 3793.7 |
| 9° | 3640.3 | 3618.4 | 3604.5 | 3610.4 | 3598.5 |
| 10° | 3419.3 | 3409.3 | 3393.4 | 3399.4 | 3389.4 |
| 11° | 3206.2 | 3206.2 | 3176.3 | 3166.4 | 3172.3 |
| 12° | 2987.1 | 2985.1 | 2957.3 | 2945.3 | 2949.3 |
| 13° | 2766.1 | 2764.1 | 2736.2 | 2726.3 | 2728.2 |
| 14° | 2547.0 | 2549.0 | 2519.1 | 2511.2 | 2509.2 |
| 15° | 2345.9 | 2335.9 | 2306.1 | 2300.1 | 2296.1 |
| 16° | 2134.8 | 2132.8 | 2102.9 | 2095.0 | 2091.0 |
| 17° | 1945.6 | 1935.7 | 1905.8 | 1897.8 | 1891.8 |
| 18° | 1748.5 | 1750.5 | 1720.6 | 1714.6 | 1704.7 |
| 19° | 1581.2 | 1577.2 | 1549.3 | 1543.3 | 1533.4 |
| 20° | 1423.9 | 1405.9 | 1388.0 | 1382.0 | 1372.1 |
| 22.5° | 1073.4 | 1063.4 | 1039.5 | 1033.5 | 1031.6 |
| 25° | 794.6 | 784.6 | 770.7 | 766.7 | 760.7 |
| 26° | 695.0 | 697.0 | 679.1 | 675.1 | 671.1 |
| 27° | 615.3 | 611.4 | 595.4 | 593.4 | 587.5 |
| 28° | 529.7 | 533.7 | 515.8 | 513.8 | 509.8 |
| 29° | 462.0 | 462.0 | 452.1 | 446.1 | 442.1 |
| 30° | 404.3 | 402.3 | 392.3 | 388.3 | 384.3 |
| 32.5° | 278.8 | 276.8 | 272.8 | 270.8 | 266.9 |
| 35° | 183.2 | 191.2 | 189.2 | 189.2 | 185.2 |
| 37.5° | 113.5 | 129.4 | 135.4 | 133.4 | 121.5 |
| 40° | 71.7 | 83.6 | 97.6 | 89.6 | 73.7 |
| 42.5° | 47.8 | 57.8 | 71.7 | 59.7 | 47.8 |
| 45° | 33.9 | 39.8 | 55.8 | 39.8 | 35.8 |
| 47.5° | 25.9 | 29.9 | 41.8 | 29.9 | 25.9 |
| 50° | 19.9 | 23.9 | 29.9 | 23.9 | 21.9 |
| 52.5° | 15.9 | 17.9 | 23.9 | 17.9 | 15.9 |
| 55° | 11.9 | 13.9 | 17.9 | 13.9 | 13.9 |
| 57.5° | 10.0 | 11.9 | 13.9 | 11.9 | 10.0 |
| 60° | 6.0 | 8.0 | 10.0 | 8.0 | 8.0 |
| 62.5° | 4.0 | 6.0 | 8.0 | 6.0 | 4.0 |
| 65° | 2.0 | 4.0 | 6.0 | 4.0 | 2.0 |
| 67.5° | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-----|-------|-----|-------|-----|
| 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°







| | | | | | |
|-------|-----|-----|-----|-----|-----|
| 70° | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



(END OF REPORT)