

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: P402361

Luminaire Tested: **LA1MRT152D010TR309030MMS1MW**

Issue Date: 6/3/2020

Test Information

Test Method: LM-41-14
Report Number: P402361
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: LA1MRT152D010TR309030MMS1MW
Description: 1 INCH 30° OPTIC WITH MATTE METALIC SILVER BAFFLE
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

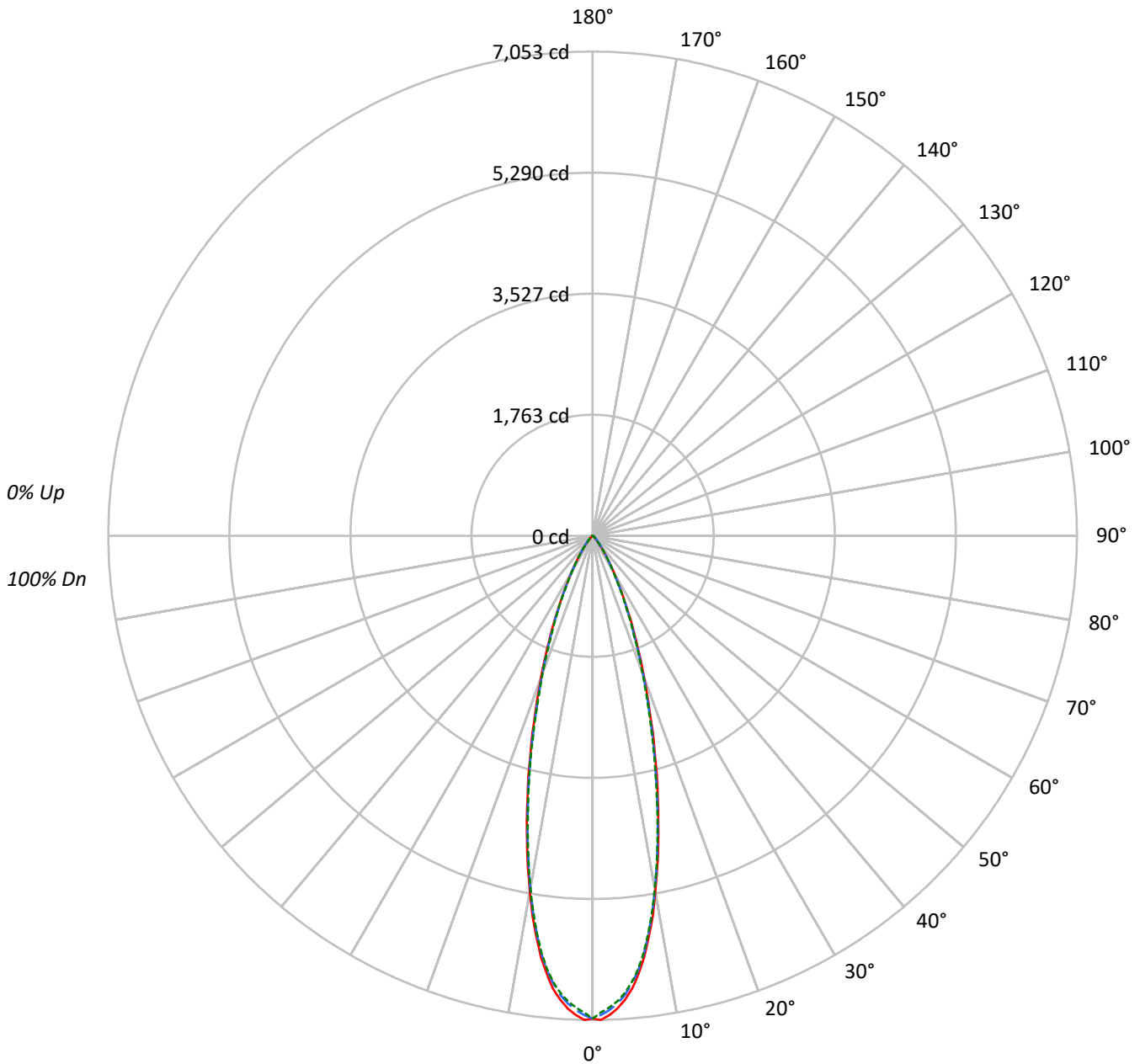
Lumens per Lamp: N/A
Luminaire Lumens: 2397.6 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 2180676 | 2180676 | 2180676 |
| 5° | 2060237 | 2039263 | 2032573 |
| 10° | 1656645 | 1644085 | 1642165 |
| 15° | 1158809 | 1139135 | 1134225 |
| 20° | 722969 | 704792 | 696676 |
| 25° | 418326 | 405739 | 400505 |
| 30° | 222722 | 216136 | 211769 |
| 35° | 106721 | 110202 | 107894 |
| 40° | 44636 | 60783 | 45891 |
| 45° | 22841 | 37615 | 24200 |
| 50° | 14806 | 22185 | 16253 |
| 55° | 9945 | 14917 | 11620 |
| 60° | 5704 | 9486 | 7626 |
| 65° | 2274 | 6748 | 2274 |
| 70° | 0 | 2810 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 584.1 | 24.4 |
| 10°-20° | 975.0 | 40.7 |
| 20°-30° | 560.9 | 23.4 |
| 30°-40° | 195.1 | 8.1 |
| 40°-50° | 55.3 | 2.3 |
| 50°-60° | 21.2 | 0.9 |
| 60°-70° | 5.8 | 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° | 2120.0 | 88.4 |
| 0°-40° | 2315.2 | 96.6 |
| 0°-60° | 2391.7 | 99.8 |
| 0°-90° | 2397.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2397.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 7034 | 7034 | 7034 | 7034 | 7034 | |
| 5° | 6621 | 6581 | 6553 | 6565 | 6532 | 588 |
| 15° | 3611 | 3595 | 3549 | 3540 | 3534 | 986 |
| 25° | 1223 | 1208 | 1186 | 1180 | 1171 | 574 |
| 35° | 282 | 294 | 291 | 291 | 285 | 190 |
| 45° | 52 | 61 | 86 | 61 | 55 | 45 |
| 55° | 18 | 22 | 28 | 22 | 22 | 17 |
| 65° | 3 | 6 | 9 | 6 | 3 | 3 |
| 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: LA1MRT152D010TR309030MMS1MW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 7034.4 | 7034.4 | 7034.4 | 7034.4 | 7034.4 |
| 1° | 7052.8 | 7019.1 | 6982.3 | 6982.3 | 6945.5 |
| 2° | 6985.3 | 6954.7 | 6914.8 | 6917.9 | 6878.1 |
| 3° | 6896.5 | 6865.8 | 6826.0 | 6832.1 | 6795.3 |
| 4° | 6773.9 | 6734.0 | 6706.4 | 6715.6 | 6681.9 |
| 5° | 6620.6 | 6580.8 | 6553.2 | 6565.4 | 6531.7 |
| 6° | 6412.2 | 6384.6 | 6360.1 | 6375.4 | 6344.7 |
| 7° | 6179.2 | 6148.6 | 6130.2 | 6142.4 | 6117.9 |
| 8° | 5894.2 | 5872.7 | 5851.3 | 5863.5 | 5839.0 |
| 9° | 5603.0 | 5569.3 | 5547.8 | 5557.0 | 5538.6 |
| 10° | 5262.8 | 5247.4 | 5222.9 | 5232.1 | 5216.8 |
| 11° | 4934.8 | 4934.8 | 4888.8 | 4873.5 | 4882.7 |
| 12° | 4597.6 | 4594.6 | 4551.7 | 4533.3 | 4539.4 |
| 13° | 4257.4 | 4254.3 | 4211.4 | 4196.1 | 4199.2 |
| 14° | 3920.3 | 3923.3 | 3877.3 | 3865.1 | 3862.0 |
| 15° | 3610.7 | 3595.4 | 3549.4 | 3540.2 | 3534.1 |
| 16° | 3285.8 | 3282.7 | 3236.7 | 3224.5 | 3218.3 |
| 17° | 2994.6 | 2979.3 | 2933.3 | 2921.0 | 2911.8 |
| 18° | 2691.2 | 2694.2 | 2648.2 | 2639.0 | 2623.7 |
| 19° | 2433.7 | 2427.6 | 2384.6 | 2375.4 | 2360.1 |
| 20° | 2191.5 | 2164.0 | 2136.4 | 2127.2 | 2111.8 |
| 22.5° | 1652.1 | 1636.8 | 1600.0 | 1590.8 | 1587.7 |
| 25° | 1223.0 | 1207.6 | 1186.2 | 1180.1 | 1170.9 |
| 26° | 1069.7 | 1072.8 | 1045.2 | 1039.1 | 1032.9 |
| 27° | 947.1 | 941.0 | 916.5 | 913.4 | 904.2 |
| 28° | 815.3 | 821.4 | 793.9 | 790.8 | 784.7 |
| 29° | 711.1 | 711.1 | 695.8 | 686.6 | 680.5 |
| 30° | 622.2 | 619.1 | 603.8 | 597.7 | 591.6 |
| 32.5° | 429.1 | 426.0 | 419.9 | 416.9 | 410.7 |
| 35° | 282.0 | 294.2 | 291.2 | 291.2 | 285.1 |
| 37.5° | 174.7 | 199.2 | 208.4 | 205.4 | 187.0 |
| 40° | 110.3 | 128.7 | 150.2 | 137.9 | 113.4 |
| 42.5° | 73.6 | 88.9 | 110.3 | 92.0 | 73.6 |
| 45° | 52.1 | 61.3 | 85.8 | 61.3 | 55.2 |
| 47.5° | 39.8 | 46.0 | 64.4 | 46.0 | 39.8 |
| 50° | 30.7 | 36.8 | 46.0 | 36.8 | 33.7 |
| 52.5° | 24.5 | 27.6 | 36.8 | 27.6 | 24.5 |
| 55° | 18.4 | 21.5 | 27.6 | 21.5 | 21.5 |
| 57.5° | 15.3 | 18.4 | 21.5 | 18.4 | 15.3 |
| 60° | 9.2 | 12.3 | 15.3 | 12.3 | 12.3 |
| 62.5° | 6.1 | 9.2 | 12.3 | 9.2 | 6.1 |
| 65° | 3.1 | 6.1 | 9.2 | 6.1 | 3.1 |
| 67.5° | 0.0 | 3.1 | 3.1 | 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 | 3.1 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



(END OF REPORT)