

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: P402167

Luminaire Tested: **LD1MR102D010 ED1M102WW9027SB1MW**

Issue Date: 6/3/2020



Test Information

Test Method: LM-41-14
Report Number: P402167
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1912-604-16)
Test Lab: INNOVATION CENTER (G3)
Issue Date: 6/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD1MR102D010 ED1M102WW9027SB1MW
Description: 1 INCH WW OPTIC WITH SPECULAR BLACK BAFFLE
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

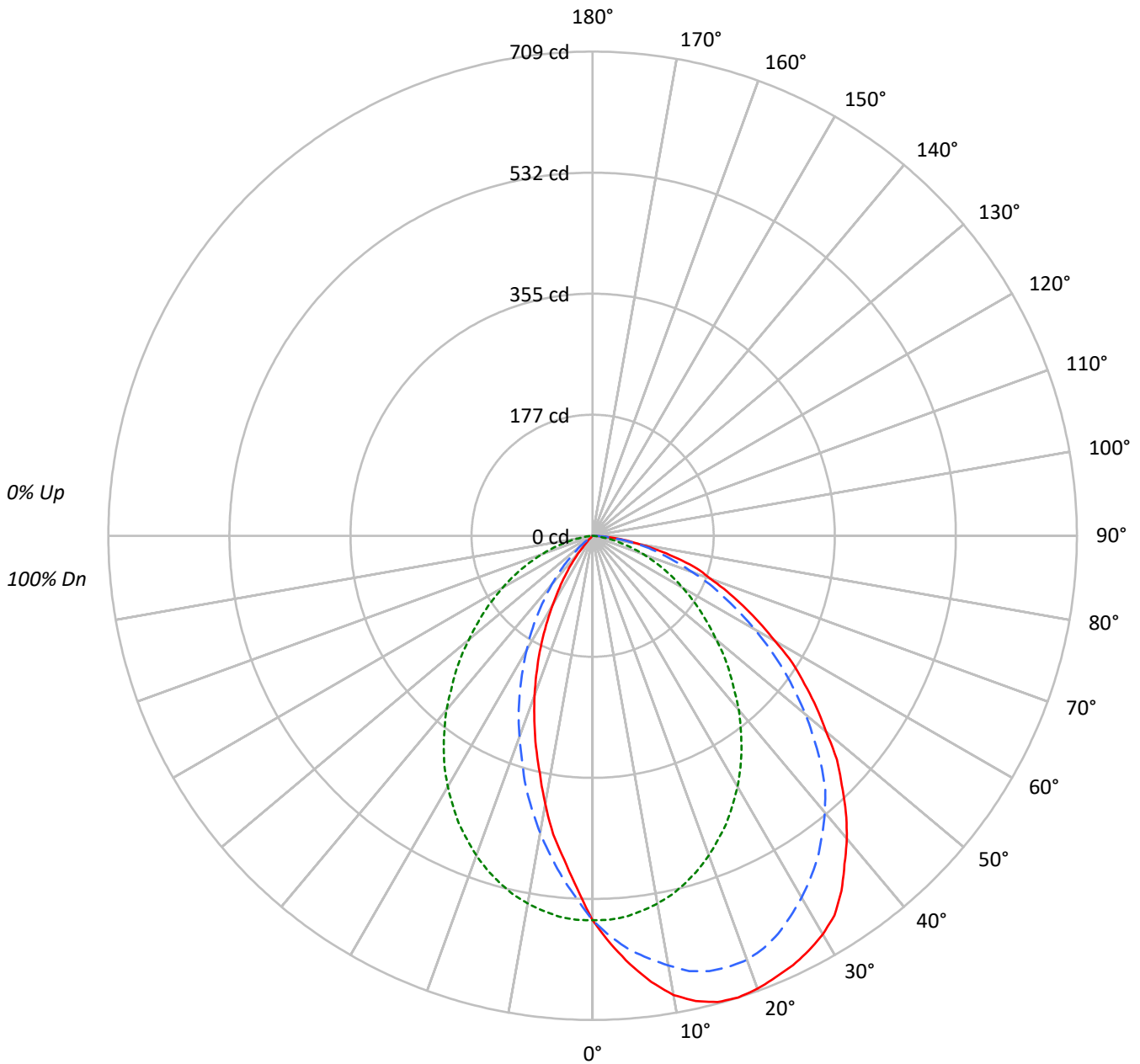
Lumens per Lamp: N/A
Luminaire Lumens: 1176.0 lumens
Efficiency: N/A
Efficacy: 50.0 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 1.13 / 1.2
Luminous Opening: Rectangular (W 0.1' x L: 0.88' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P402167

CATALOG NUMBER: LD1MR102D010 ED1M102WW9027SB1MW

Luminous Intensity Polar Plot





TEST NUMBER: P402167

CATALOG NUMBER: LD1MR102D010 ED1M102WW9027SB1MW

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 | 110 | 106 | 102 | 98 | 107 | 103 | 100 | 97 | 99 | 96 | 94 | 95 | 93 | 91 | 92 | 90 | 88 | 86 | | | | | | | | | | | | | | | | | | | |
| 2 | 101 | 93 | 87 | 82 | 98 | 92 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 79 | 76 | 74 | | | | | | | | | | | | | | | | | | | |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 73 | 69 | 66 | 64 | | | | | | | | | | | | | | | | | | | |
| 4 | 86 | 74 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 | | | | | | | | | | | | | | | | | | | |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 | | | | | | | | | | | | | | | | | | | |
| 6 | 73 | 61 | 53 | 46 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 49 | 45 | 43 | | | | | | | | | | | | | | | | | | | |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 | | | | | | | | | | | | | | | | | | | |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 43 | 37 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 | | | | | | | | | | | | | | | | | | | |
| 9 | 60 | 47 | 39 | 34 | 59 | 47 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 43 | 38 | 33 | 32 | | | | | | | | | | | | | | | | | | | |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 40 | 35 | 31 | 29 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|-------|-------|-------|
| 0° | 66476 | 66476 | 66476 |
| 5° | 74672 | 66374 | 56428 |
| 10° | 81891 | 65583 | 47847 |
| 15° | 86426 | 64309 | 39124 |
| 20° | 88713 | 62586 | 31167 |
| 25° | 90418 | 60461 | 23455 |
| 30° | 91896 | 57819 | 15955 |
| 35° | 91532 | 54784 | 9659 |
| 40° | 89245 | 51336 | 3854 |
| 45° | 86178 | 47431 | 334 |
| 50° | 81941 | 43359 | 0 |
| 55° | 78033 | 39737 | 0 |
| 60° | 72747 | 35901 | 0 |
| 65° | 67903 | 31856 | 0 |
| 70° | 63188 | 27278 | 0 |
| 75° | 58861 | 21445 | 0 |
| 80° | 45566 | 12922 | 0 |
| 85° | 29810 | 1355 | 0 |



TEST NUMBER: P402167

CATALOG NUMBER: LD1MR102D010 ED1M102WW9027SB1MW

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 52.7 | 4.5 |
| 10°-20° | 145.8 | 12.4 |
| 20°-30° | 206.3 | 17.5 |
| 30°-40° | 225.9 | 19.2 |
| 40°-50° | 205.6 | 17.5 |
| 50°-60° | 162.6 | 13.8 |
| 60°-70° | 109.1 | 9.3 |
| 70°-80° | 56.3 | 4.8 |
| 80°-90° | 11.7 | 1.0 |
| 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° | 404.8 | 34.4 |
| 0°-40° | 630.7 | 53.6 |
| 0°-60° | 998.9 | 84.9 |
| 0°-90° | 1176.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1176.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 563 | 563 | 563 | 563 | 563 | |
| 5° | 630 | 608 | 560 | 503 | 476 | 62 |
| 15° | 707 | 660 | 526 | 379 | 320 | 199 |
| 25° | 694 | 643 | 464 | 252 | 180 | 320 |
| 35° | 635 | 575 | 380 | 139 | 67 | 396 |
| 45° | 516 | 473 | 284 | 52 | 2 | 398 |
| 55° | 379 | 340 | 193 | 1 | 0 | 339 |
| 65° | 243 | 212 | 114 | 0 | 0 | 242 |
| 75° | 129 | 105 | 47 | 0 | 0 | 135 |
| 85° | 22 | 21 | 1 | 0 | 0 | 29 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P402167

CATALOG NUMBER: LD1MR102D010 ED1M102WW9027SB1MW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 0° | 562.9 | 562.9 | 562.9 | 562.9 | 562.9 | 562.9 | 562.9 | 562.9 | 562.9 |
| 2.5° | 597.9 | 595.9 | 586.9 | 577.9 | 562.9 | 547.9 | 531.9 | 524.0 | 517.0 |
| 5° | 629.9 | 621.9 | 607.9 | 586.9 | 559.9 | 530.9 | 503.0 | 487.0 | 476.0 |
| 7.5° | 658.9 | 646.9 | 623.9 | 593.9 | 553.9 | 512.0 | 472.0 | 450.0 | 441.0 |
| 10° | 682.9 | 669.9 | 638.9 | 597.9 | 546.9 | 490.0 | 442.0 | 411.0 | 399.0 |
| 12.5° | 697.9 | 685.9 | 652.9 | 599.9 | 537.9 | 468.0 | 410.0 | 372.0 | 357.0 |
| 15° | 706.9 | 693.9 | 659.9 | 599.9 | 526.0 | 445.0 | 379.0 | 333.0 | 320.0 |
| 17.5° | 708.9 | 696.9 | 661.9 | 596.9 | 513.0 | 422.0 | 344.0 | 299.0 | 284.0 |
| 20° | 705.9 | 693.9 | 660.9 | 591.9 | 498.0 | 398.0 | 313.0 | 264.0 | 248.0 |
| 22.5° | 699.9 | 686.9 | 653.9 | 585.9 | 481.0 | 373.0 | 283.0 | 228.0 | 213.0 |
| 25° | 693.9 | 677.9 | 642.9 | 575.9 | 464.0 | 346.0 | 252.0 | 197.0 | 180.0 |
| 27.5° | 684.9 | 667.9 | 627.9 | 561.9 | 444.0 | 319.0 | 222.0 | 165.0 | 147.0 |
| 30° | 673.9 | 655.9 | 611.9 | 544.9 | 424.0 | 293.0 | 193.0 | 136.0 | 117.0 |
| 32.5° | 658.9 | 641.9 | 593.9 | 527.0 | 403.0 | 266.0 | 167.0 | 110.0 | 90.0 |
| 35° | 634.9 | 623.9 | 574.9 | 505.0 | 380.0 | 240.0 | 139.0 | 84.0 | 67.0 |
| 37.5° | 605.9 | 595.9 | 551.9 | 481.0 | 356.0 | 216.0 | 114.0 | 62.0 | 47.0 |
| 40° | 578.9 | 566.9 | 528.9 | 455.0 | 333.0 | 193.0 | 92.0 | 41.0 | 25.0 |
| 42.5° | 548.9 | 536.9 | 504.0 | 427.0 | 307.0 | 167.0 | 71.0 | 24.0 | 11.0 |
| 45° | 516.0 | 502.0 | 473.0 | 402.0 | 284.0 | 145.0 | 52.0 | 9.0 | 2.0 |
| 47.5° | 485.0 | 473.0 | 439.0 | 374.0 | 261.0 | 124.0 | 34.0 | 1.0 | 0.0 |
| 50° | 446.0 | 437.0 | 407.0 | 345.0 | 236.0 | 105.0 | 20.0 | 0.0 | 0.0 |
| 52.5° | 413.0 | 403.0 | 373.0 | 319.0 | 214.0 | 86.0 | 8.0 | 0.0 | 0.0 |
| 55° | 379.0 | 370.0 | 340.0 | 290.0 | 193.0 | 68.0 | 1.0 | 0.0 | 0.0 |
| 57.5° | 347.0 | 335.0 | 307.0 | 262.0 | 172.0 | 52.0 | 0.0 | 0.0 | 0.0 |
| 60° | 308.0 | 300.0 | 274.0 | 234.0 | 152.0 | 37.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 275.0 | 268.0 | 242.0 | 207.0 | 133.0 | 23.0 | 0.0 | 0.0 | 0.0 |
| 65° | 243.0 | 234.0 | 212.0 | 181.0 | 114.0 | 13.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 213.0 | 205.0 | 185.0 | 155.0 | 96.0 | 4.0 | 0.0 | 0.0 | 0.0 |
| 70° | 183.0 | 176.0 | 155.0 | 132.0 | 79.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 161.0 | 150.0 | 129.0 | 106.0 | 62.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 129.0 | 126.0 | 105.0 | 84.0 | 47.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 99.0 | 94.0 | 85.0 | 64.0 | 32.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 67.0 | 67.0 | 62.0 | 46.0 | 19.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 46.0 | 43.0 | 40.0 | 29.0 | 8.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 22.0 | 22.0 | 21.0 | 15.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 5.0 | 6.0 | 6.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By E9808895 / USPTCWHP6082093





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







(END OF REPORT)