

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: io LED

Report Number: P225230

Luminaire Tested: **LD2B15D010 EU2B15FL409040 2LBDSQLC*MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P225230
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14838)
Test Lab: INNOVATION CENTER (G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD2B15D010 EU2B15FL409040 2LBDSQLC*MB
Description: 1500 Lumen, 2inch Portfolio LED Downlight
FLOOD OPTIC
LENSED SQUARE CAST TRIM WITH MATTE BLACK FINISH
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1029.0 lumens
Efficiency: N/A
Efficacy: 72.0 lumens/watt
Spacing Criteria (0/90/45): 0.6 / 0.61 / 0.59
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
CIE Type: Direct

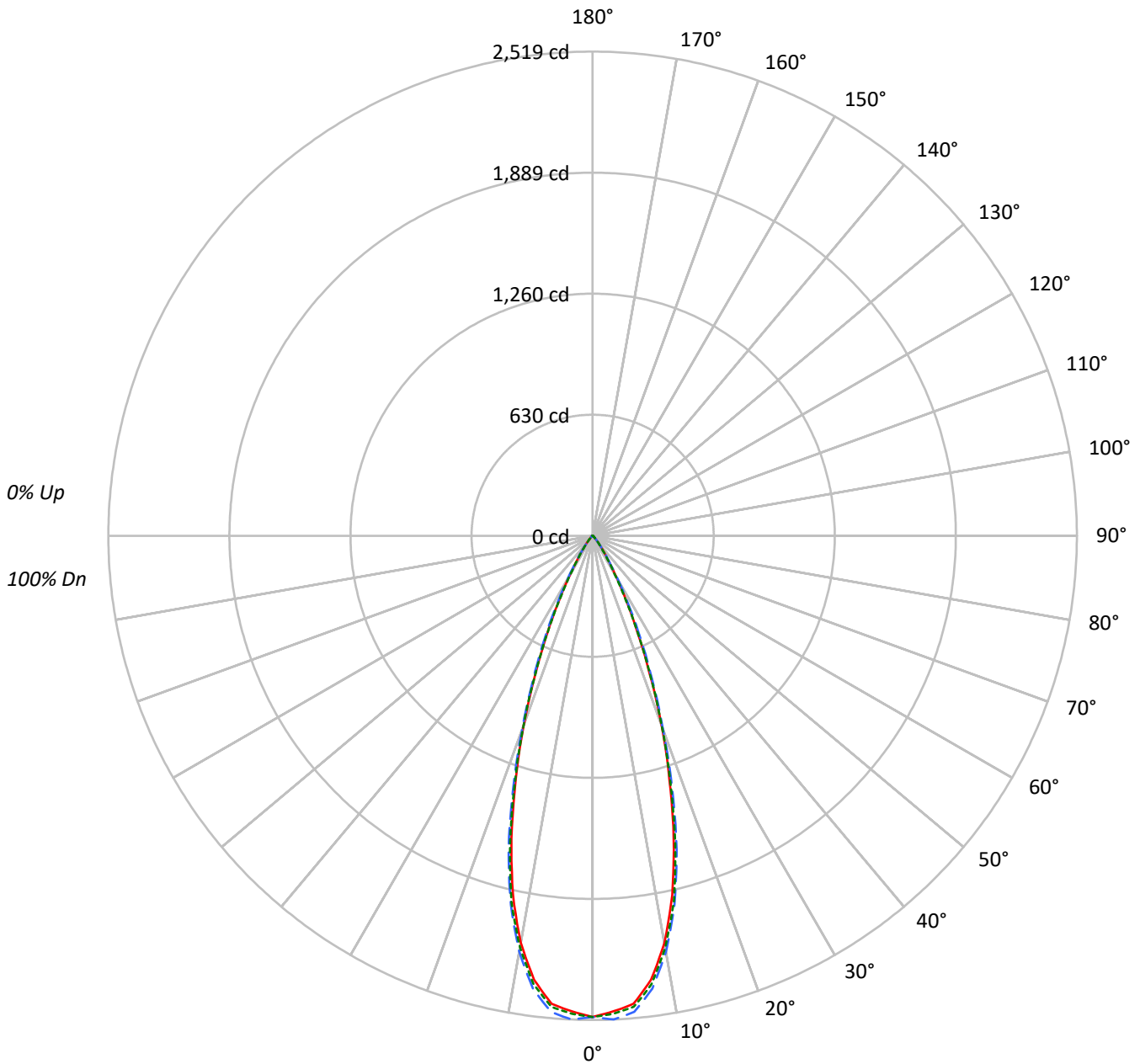
Input Watts (W): 14.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | | | | | | | | | | | | | | | | | | | |
| 1 | 115 | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | | | | | | | | | | | | | | | | | | | |
| 2 | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 99 | 97 | 98 | 97 | 95 | 96 | 94 | 93 | 91 | | | | | | | | | | | | | | | | | | | |
| 3 | 106 | 101 | 97 | 94 | 104 | 99 | 96 | 93 | 97 | 94 | 91 | 95 | 92 | 90 | 92 | 90 | 89 | 87 | | | | | | | | | | | | | | | | | | | |
| 4 | 102 | 96 | 92 | 88 | 100 | 95 | 91 | 88 | 93 | 89 | 87 | 91 | 88 | 86 | 89 | 87 | 85 | 83 | | | | | | | | | | | | | | | | | | | |
| 5 | 98 | 92 | 87 | 84 | 97 | 91 | 86 | 83 | 89 | 85 | 82 | 88 | 84 | 82 | 86 | 83 | 81 | 80 | | | | | | | | | | | | | | | | | | | |
| 6 | 95 | 88 | 83 | 79 | 93 | 87 | 82 | 79 | 86 | 82 | 79 | 84 | 81 | 78 | 83 | 80 | 78 | 77 | | | | | | | | | | | | | | | | | | | |
| 7 | 91 | 84 | 79 | 76 | 90 | 83 | 79 | 76 | 82 | 78 | 75 | 81 | 78 | 75 | 80 | 77 | 75 | 73 | | | | | | | | | | | | | | | | | | | |
| 8 | 88 | 81 | 76 | 73 | 87 | 80 | 76 | 73 | 79 | 75 | 72 | 78 | 75 | 72 | 77 | 74 | 72 | 71 | | | | | | | | | | | | | | | | | | | |
| 9 | 85 | 78 | 73 | 70 | 84 | 77 | 73 | 70 | 76 | 72 | 69 | 76 | 72 | 69 | 75 | 71 | 69 | 68 | | | | | | | | | | | | | | | | | | | |
| 10 | 82 | 75 | 70 | 67 | 82 | 74 | 70 | 67 | 74 | 70 | 67 | 73 | 69 | 67 | 72 | 69 | 66 | 65 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 969721 | 969721 | 969721 |
| 5° | 950523 | 966893 | 956511 |
| 10° | 845877 | 864049 | 855238 |
| 15° | 653566 | 677146 | 665356 |
| 20° | 431125 | 440359 | 433434 |
| 25° | 235192 | 251347 | 236389 |
| 30° | 105824 | 117095 | 101441 |
| 35° | 45678 | 47002 | 41706 |
| 40° | 19113 | 19821 | 17698 |
| 45° | 7669 | 8436 | 8436 |
| 50° | 3375 | 4218 | 4218 |
| 55° | 1891 | 1891 | 2836 |
| 60° | 1085 | 1085 | 1085 |
| 65° | 0 | 0 | 0 |
| 70° | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 226.3 | 22.0 |
| 10°-20° | 450.4 | 43.8 |
| 20°-30° | 266.1 | 25.9 |
| 30°-40° | 69.3 | 6.7 |
| 40°-50° | 13.7 | 1.3 |
| 50°-60° | 3.0 | 0.3 |
| 60°-70° | 0.3 | 0.0 |
| 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° | 942.8 | 91.6 |
| 0°-40° | 1012.0 | 98.4 |
| 0°-60° | 1028.7 | 100.0 |
| 0°-90° | 1029.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1029.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2504 | 2504 | 2504 | 2504 | 2504 | |
| 5° | 2445 | 2464 | 2487 | 2470 | 2460 | 224 |
| 15° | 1630 | 1666 | 1689 | 1663 | 1659 | 442 |
| 25° | 550 | 568 | 588 | 566 | 553 | 259 |
| 35° | 97 | 101 | 99 | 98 | 88 | 68 |
| 45° | 14 | 17 | 15 | 15 | 15 | 13 |
| 55° | 3 | 3 | 3 | 3 | 4 | 3 |
| 65° | 0 | 0 | 0 | 0 | 0 | 1 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2503.5 | 2503.5 | 2503.5 | 2503.5 | 2503.5 |
| 2.5° | 2476.8 | 2502.1 | 2518.9 | 2504.9 | 2489.5 |
| 5° | 2444.6 | 2464.2 | 2486.7 | 2469.8 | 2460.0 |
| 7.5° | 2329.8 | 2359.2 | 2376.0 | 2367.6 | 2352.2 |
| 10° | 2150.6 | 2173.0 | 2196.8 | 2188.4 | 2174.4 |
| 12.5° | 1914.0 | 1944.8 | 1967.2 | 1947.6 | 1950.4 |
| 15° | 1629.8 | 1666.2 | 1688.6 | 1663.4 | 1659.2 |
| 17.5° | 1328.7 | 1356.7 | 1372.1 | 1356.7 | 1345.5 |
| 20° | 1045.9 | 1062.7 | 1068.3 | 1061.3 | 1051.5 |
| 22.5° | 772.9 | 791.1 | 807.9 | 791.1 | 778.5 |
| 25° | 550.3 | 568.5 | 588.1 | 565.7 | 553.1 |
| 27.5° | 371.0 | 382.2 | 399.0 | 378.0 | 359.8 |
| 30° | 236.6 | 249.2 | 261.8 | 246.4 | 226.8 |
| 32.5° | 149.8 | 158.2 | 159.6 | 156.8 | 140.0 |
| 35° | 96.6 | 100.8 | 99.4 | 98.0 | 88.2 |
| 37.5° | 61.6 | 61.6 | 63.0 | 61.6 | 56.0 |
| 40° | 37.8 | 40.6 | 39.2 | 37.8 | 35.0 |
| 42.5° | 22.4 | 25.2 | 23.8 | 23.8 | 22.4 |
| 45° | 14.0 | 16.8 | 15.4 | 15.4 | 15.4 |
| 47.5° | 9.8 | 11.2 | 9.8 | 9.8 | 11.2 |
| 50° | 5.6 | 7.0 | 7.0 | 7.0 | 7.0 |
| 52.5° | 4.2 | 4.2 | 4.2 | 4.2 | 5.6 |
| 55° | 2.8 | 2.8 | 2.8 | 2.8 | 4.2 |
| 57.5° | 2.8 | 2.8 | 1.4 | 1.4 | 2.8 |
| 60° | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 62.5° | 1.4 | 0.0 | 0.0 | 0.0 | 1.4 |
| 65° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.0 | 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)