

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: P225232

Luminaire Tested: **LD2B15D010 EU2B15FL409727 2LBDSQLC*MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P225232
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 EU2B15FL409727 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: 836.9 lumens
Efficiency: N/A
Efficacy: 58.5 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

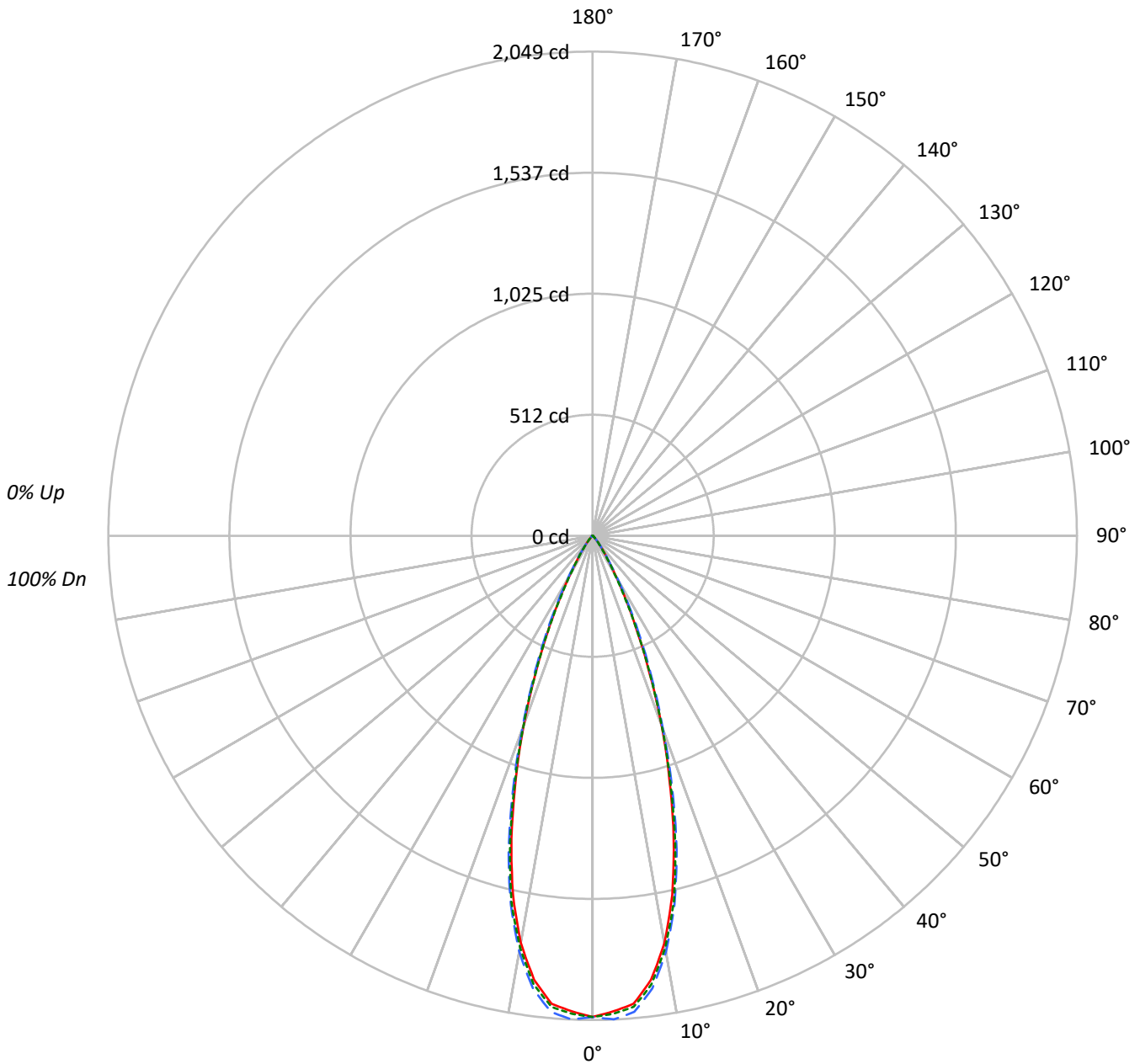
Input Watts (W): 14.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|-----|--|--|--|---|
| RF | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | | 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 | | | | |
| 1 | 115 | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | | | | 96 | | | | |
| 2 | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 99 | 97 | 98 | 97 | 95 | 96 | 94 | 93 | 91 | | | | 91 | | | | |
| 3 | 106 | 101 | 97 | 94 | 104 | 99 | 96 | 93 | 97 | 94 | 91 | 95 | 92 | 90 | 92 | 90 | 89 | 87 | | | | 87 | | | | |
| 4 | 102 | 96 | 92 | 88 | 100 | 95 | 91 | 88 | 93 | 89 | 87 | 91 | 88 | 86 | 89 | 87 | 85 | 83 | | | | 83 | | | | |
| 5 | 98 | 92 | 87 | 84 | 97 | 91 | 86 | 83 | 89 | 85 | 82 | 88 | 84 | 82 | 86 | 83 | 81 | 80 | | | | 80 | | | | |
| 6 | 95 | 88 | 83 | 79 | 93 | 87 | 82 | 79 | 86 | 82 | 79 | 84 | 81 | 78 | 83 | 80 | 78 | 77 | | | | 77 | | | | |
| 7 | 91 | 84 | 79 | 76 | 90 | 83 | 79 | 76 | 82 | 78 | 75 | 81 | 78 | 75 | 80 | 77 | 75 | 73 | | | | 73 | | | | |
| 8 | 88 | 81 | 76 | 73 | 87 | 80 | 76 | 73 | 79 | 75 | 72 | 78 | 75 | 72 | 77 | 74 | 72 | 71 | | | | 71 | | | | |
| 9 | 85 | 78 | 73 | 70 | 84 | 77 | 73 | 70 | 76 | 72 | 69 | 76 | 72 | 69 | 75 | 71 | 69 | 68 | | | | 68 | | | | |
| 10 | 82 | 75 | 70 | 67 | 82 | 74 | 70 | 67 | 74 | 70 | 67 | 73 | 69 | 67 | 72 | 69 | 66 | 65 | | | | 65 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 788675 | 788675 | 788675 |
| 5° | 773102 | 786361 | 777962 |
| 10° | 687959 | 702747 | 695589 |
| 15° | 531539 | 550707 | 541123 |
| 20° | 350622 | 358165 | 352518 |
| 25° | 191257 | 204420 | 192240 |
| 30° | 86054 | 95223 | 82521 |
| 35° | 37167 | 38255 | 33904 |
| 40° | 15523 | 16130 | 14411 |
| 45° | 6245 | 6847 | 6847 |
| 50° | 2772 | 3435 | 3435 |
| 55° | 1553 | 1553 | 2296 |
| 60° | 852 | 852 | 852 |
| 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° | 184.0 | 22.0 |
| 10°-20° | 366.4 | 43.8 |
| 20°-30° | 216.4 | 25.9 |
| 30°-40° | 56.3 | 6.7 |
| 40°-50° | 11.1 | 1.3 |
| 50°-60° | 2.4 | 0.3 |
| 60°-70° | 0.2 | 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° | 766.8 | 91.6 |
| 0°-40° | 823.1 | 98.4 |
| 0°-60° | 836.7 | 100.0 |
| 0°-90° | 836.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 836.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2036 | 2036 | 2036 | 2036 | 2036 | |
| 5° | 1988 | 2004 | 2022 | 2009 | 2001 | 182 |
| 15° | 1326 | 1355 | 1373 | 1353 | 1349 | 360 |
| 25° | 448 | 462 | 478 | 460 | 450 | 211 |
| 35° | 79 | 82 | 81 | 80 | 72 | 55 |
| 45° | 11 | 14 | 12 | 12 | 12 | 10 |
| 55° | 2 | 2 | 2 | 2 | 3 | 2 |
| 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° | 2036.1 | 2036.1 | 2036.1 | 2036.1 | 2036.1 |
| 2.5° | 2014.5 | 2035.0 | 2048.6 | 2037.2 | 2024.7 |
| 5° | 1988.3 | 2004.2 | 2022.4 | 2008.8 | 2000.8 |
| 7.5° | 1894.9 | 1918.8 | 1932.5 | 1925.6 | 1913.1 |
| 10° | 1749.1 | 1767.3 | 1786.7 | 1779.9 | 1768.5 |
| 12.5° | 1556.7 | 1581.7 | 1599.9 | 1584.0 | 1586.3 |
| 15° | 1325.5 | 1355.1 | 1373.3 | 1352.8 | 1349.4 |
| 17.5° | 1080.7 | 1103.5 | 1116.0 | 1103.5 | 1094.3 |
| 20° | 850.6 | 864.3 | 868.9 | 863.2 | 855.2 |
| 22.5° | 628.6 | 643.4 | 657.1 | 643.4 | 633.1 |
| 25° | 447.5 | 462.3 | 478.3 | 460.1 | 449.8 |
| 27.5° | 301.8 | 310.9 | 324.5 | 307.5 | 292.7 |
| 30° | 192.4 | 202.7 | 212.9 | 200.4 | 184.5 |
| 32.5° | 121.8 | 128.7 | 129.8 | 127.5 | 113.9 |
| 35° | 78.6 | 82.0 | 80.9 | 79.7 | 71.7 |
| 37.5° | 50.1 | 50.1 | 51.2 | 50.1 | 45.6 |
| 40° | 30.7 | 33.0 | 31.9 | 30.7 | 28.5 |
| 42.5° | 18.2 | 20.5 | 19.4 | 19.4 | 18.2 |
| 45° | 11.4 | 13.7 | 12.5 | 12.5 | 12.5 |
| 47.5° | 8.0 | 9.1 | 8.0 | 8.0 | 9.1 |
| 50° | 4.6 | 5.7 | 5.7 | 5.7 | 5.7 |
| 52.5° | 3.4 | 3.4 | 3.4 | 3.4 | 4.6 |
| 55° | 2.3 | 2.3 | 2.3 | 2.3 | 3.4 |
| 57.5° | 2.3 | 2.3 | 1.1 | 1.1 | 2.3 |
| 60° | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 62.5° | 1.1 | 0.0 | 0.0 | 0.0 | 1.1 |
| 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)