

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: P#

Luminaire Tested: **LD2B20D010 EU2B20WFL558027 2LBDSQLC*MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14812)
Test Lab: INNOVATION CENTER (G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD2B20D010 EU2B20WFL558027 2LBDSQLC*MB
Description: 2000 Lumen, 2inch Portfolio LED Downlight
WIDE FLOOD OPTIC
LENSED SQUARE CAST TRIM WITH MATTE BLACK FINISH
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1489.9 lumens
Efficiency: N/A
Efficacy: 71.3 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.76 / 0.83
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
CIE Type: Direct

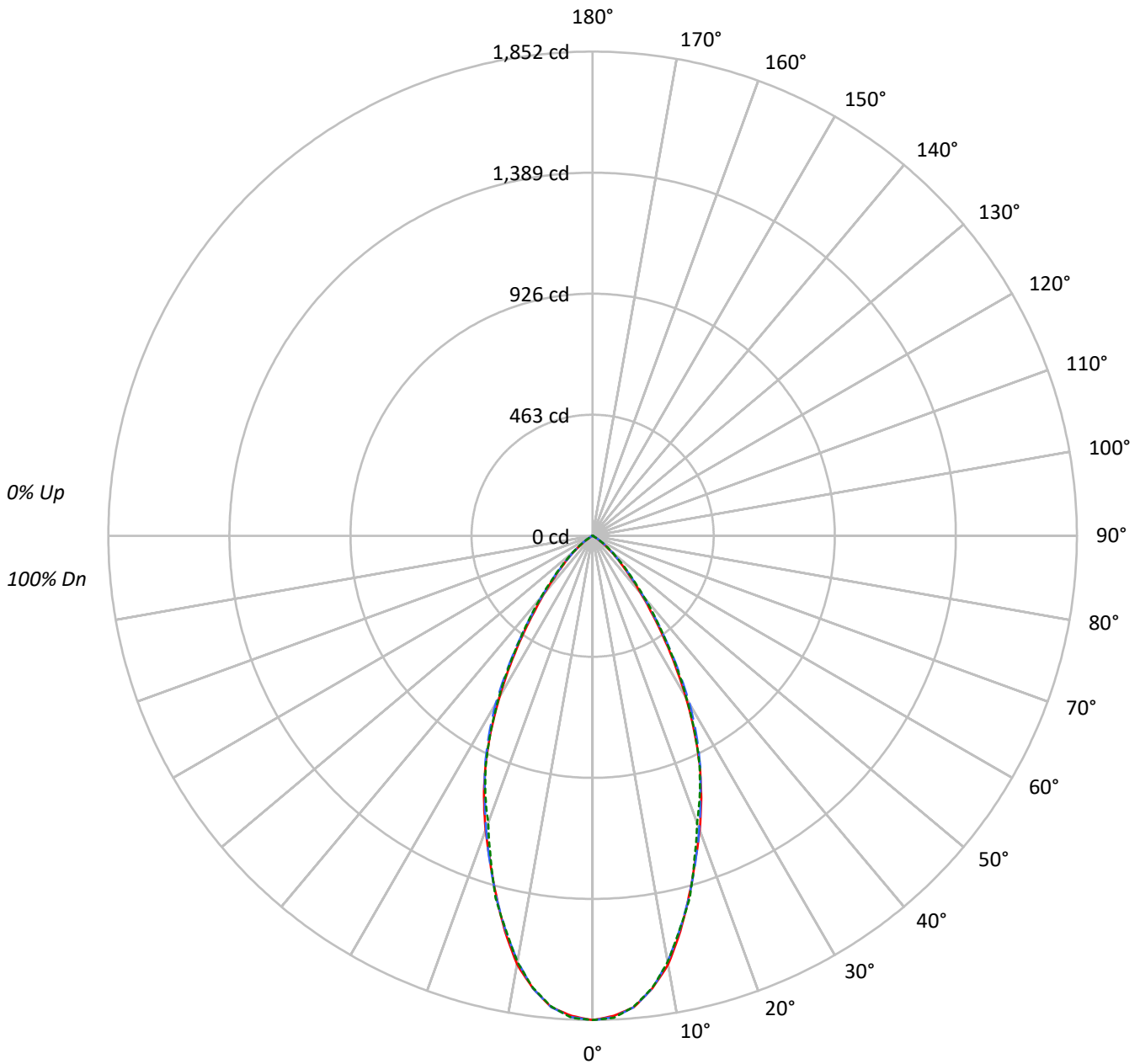
Input Watts (W): 20.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 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 | 113 | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 103 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 93 | | | | 93 |
| 2 | 108 | 103 | 99 | 95 | 105 | 101 | 97 | 94 | 98 | 95 | 92 | 95 | 92 | 90 | 92 | 90 | 88 | 86 | | | | 86 |
| 3 | 102 | 95 | 90 | 86 | 100 | 94 | 89 | 86 | 91 | 88 | 84 | 89 | 86 | 83 | 87 | 84 | 82 | 80 | | | | 80 |
| 4 | 97 | 89 | 83 | 79 | 95 | 88 | 83 | 79 | 86 | 81 | 78 | 84 | 80 | 77 | 82 | 79 | 76 | 74 | | | | 74 |
| 5 | 92 | 83 | 77 | 73 | 90 | 82 | 77 | 72 | 80 | 75 | 72 | 79 | 74 | 71 | 77 | 73 | 70 | 69 | | | | 69 |
| 6 | 87 | 78 | 72 | 67 | 85 | 77 | 71 | 67 | 76 | 70 | 67 | 74 | 70 | 66 | 73 | 69 | 66 | 64 | | | | 64 |
| 7 | 83 | 73 | 67 | 63 | 81 | 72 | 67 | 62 | 71 | 66 | 62 | 70 | 65 | 62 | 69 | 65 | 61 | 60 | | | | 60 |
| 8 | 78 | 69 | 63 | 58 | 77 | 68 | 62 | 58 | 67 | 62 | 58 | 66 | 61 | 58 | 65 | 61 | 58 | 56 | | | | 56 |
| 9 | 75 | 65 | 59 | 55 | 74 | 64 | 59 | 55 | 63 | 58 | 54 | 62 | 58 | 54 | 62 | 57 | 54 | 53 | | | | 53 |
| 10 | 71 | 61 | 55 | 51 | 70 | 61 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 51 | 58 | 54 | 51 | 50 | | | | 50 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 717481 | 717481 | 717481 |
| 5° | 703774 | 703774 | 702880 |
| 10° | 654605 | 649964 | 650908 |
| 15° | 571239 | 572161 | 575008 |
| 20° | 493203 | 491266 | 481579 |
| 25° | 413926 | 415935 | 412901 |
| 30° | 318545 | 331202 | 321720 |
| 35° | 222292 | 231182 | 228960 |
| 40° | 145019 | 150935 | 155688 |
| 45° | 88852 | 94001 | 97890 |
| 50° | 52426 | 56645 | 59477 |
| 55° | 22218 | 28566 | 27013 |
| 60° | 3641 | 7282 | 5500 |
| 65° | 2200 | 2200 | 2200 |
| 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° | 167.8 | 11.3 |
| 10°-20° | 397.0 | 26.6 |
| 20°-30° | 439.8 | 29.5 |
| 30°-40° | 306.0 | 20.5 |
| 40°-50° | 137.8 | 9.2 |
| 50°-60° | 38.9 | 2.6 |
| 60°-70° | 2.7 | 0.2 |
| 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° | 1004.5 | 67.4 |
| 0°-40° | 1310.6 | 88.0 |
| 0°-60° | 1487.2 | 99.8 |
| 0°-90° | 1489.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1489.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1852 | 1852 | 1852 | 1852 | 1852 | |
| 5° | 1810 | 1817 | 1810 | 1803 | 1808 | 168 |
| 15° | 1424 | 1432 | 1427 | 1424 | 1434 | 398 |
| 25° | 968 | 976 | 973 | 961 | 966 | 439 |
| 35° | 470 | 484 | 489 | 489 | 484 | 297 |
| 45° | 162 | 167 | 172 | 176 | 179 | 131 |
| 55° | 33 | 38 | 42 | 42 | 40 | 33 |
| 65° | 2 | 2 | 2 | 2 | 2 | 2 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P#

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1852.3 | 1852.3 | 1852.3 | 1852.3 | 1852.3 |
| 2.5° | 1838.2 | 1847.6 | 1842.9 | 1842.9 | 1845.3 |
| 5° | 1810.0 | 1817.1 | 1810.0 | 1803.0 | 1807.7 |
| 7.5° | 1746.5 | 1753.6 | 1746.5 | 1741.8 | 1744.2 |
| 10° | 1664.3 | 1659.6 | 1652.5 | 1647.8 | 1654.9 |
| 12.5° | 1549.1 | 1546.7 | 1542.0 | 1539.7 | 1539.7 |
| 15° | 1424.5 | 1431.6 | 1426.8 | 1424.5 | 1433.9 |
| 17.5° | 1304.6 | 1311.7 | 1307.0 | 1299.9 | 1295.2 |
| 20° | 1196.5 | 1198.8 | 1191.8 | 1180.0 | 1168.3 |
| 22.5° | 1086.0 | 1088.4 | 1076.6 | 1071.9 | 1071.9 |
| 25° | 968.5 | 975.5 | 973.2 | 961.4 | 966.1 |
| 27.5° | 841.5 | 853.3 | 858.0 | 843.9 | 843.9 |
| 30° | 712.2 | 721.7 | 740.5 | 721.7 | 719.3 |
| 32.5° | 585.3 | 599.4 | 608.8 | 606.5 | 599.4 |
| 35° | 470.1 | 484.2 | 488.9 | 488.9 | 484.2 |
| 37.5° | 366.7 | 380.8 | 385.5 | 390.2 | 390.2 |
| 40° | 286.8 | 293.8 | 298.5 | 305.6 | 307.9 |
| 42.5° | 216.3 | 223.3 | 230.4 | 235.1 | 232.7 |
| 45° | 162.2 | 166.9 | 171.6 | 176.3 | 178.7 |
| 47.5° | 122.2 | 122.2 | 126.9 | 131.6 | 131.6 |
| 50° | 87.0 | 91.7 | 94.0 | 96.4 | 98.7 |
| 52.5° | 58.8 | 61.1 | 65.8 | 68.2 | 65.8 |
| 55° | 32.9 | 37.6 | 42.3 | 42.3 | 40.0 |
| 57.5° | 14.1 | 21.2 | 23.5 | 23.5 | 18.8 |
| 60° | 4.7 | 9.4 | 9.4 | 11.8 | 7.1 |
| 62.5° | 2.4 | 4.7 | 4.7 | 4.7 | 2.4 |
| 65° | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| 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)