

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: P283990

Luminaire Tested: **LDA2B158050D010 EU2B15WFL558050 2LBAPINSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P283990
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1809-951-61)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA2B158050D010 EU2B15WFL558050 2LBAPINSQ1MMS
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH WIDE FLOOD OPTIC AND
2in Adj SQ PinHole, MMS

Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1372.9 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.68
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

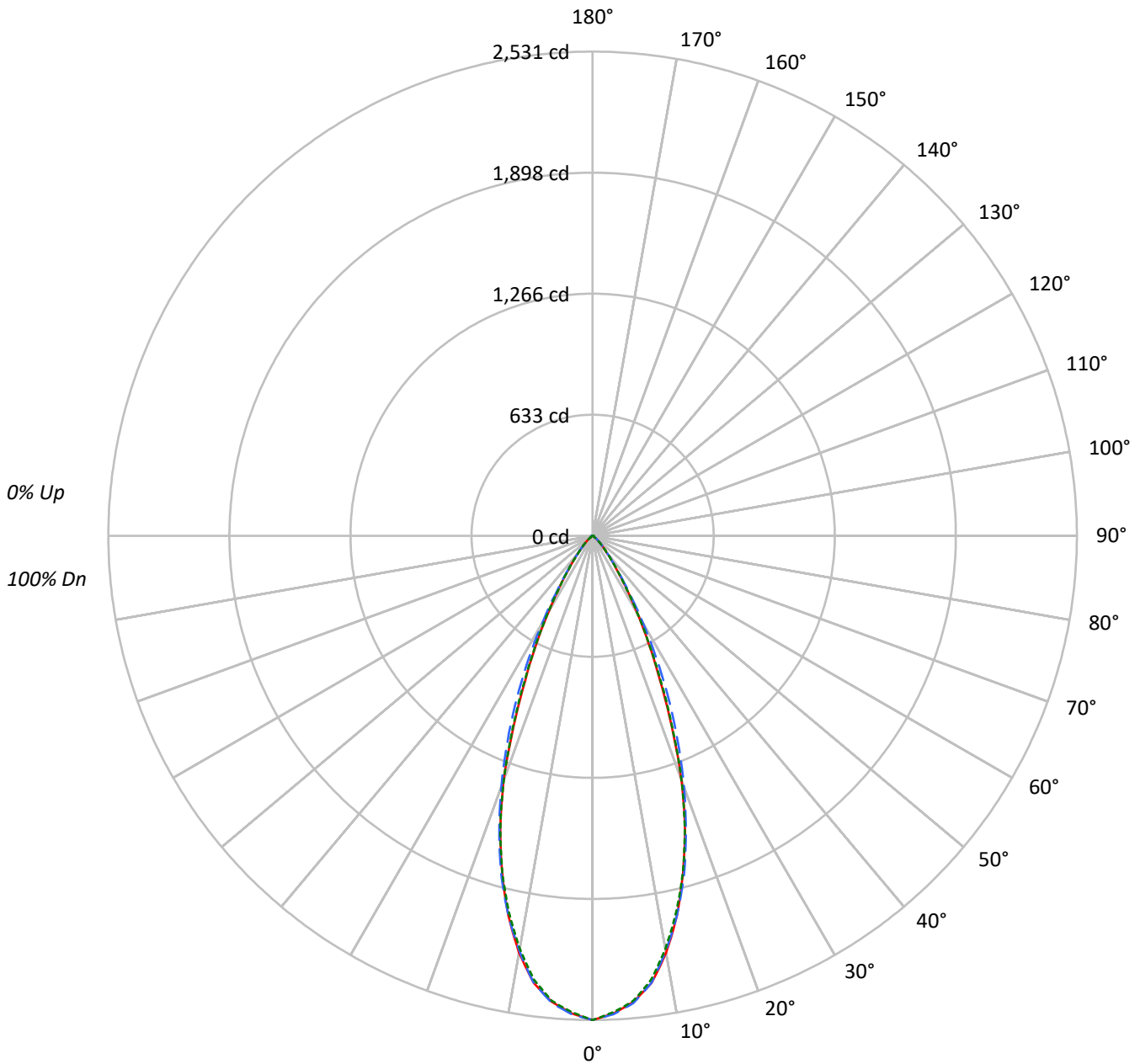
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| 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 | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 94 | | | | | | | | | | | | | | | | | | | |
| 2 | 109 | 104 | 101 | 98 | 107 | 103 | 99 | 96 | 100 | 97 | 94 | 97 | 94 | 92 | 94 | 92 | 90 | 89 | | | | | | | | | | | | | | | | | | | |
| 3 | 104 | 98 | 94 | 90 | 102 | 97 | 93 | 89 | 94 | 91 | 88 | 92 | 89 | 87 | 90 | 87 | 85 | 84 | | | | | | | | | | | | | | | | | | | |
| 4 | 100 | 93 | 88 | 84 | 98 | 92 | 87 | 83 | 90 | 86 | 82 | 88 | 84 | 81 | 86 | 83 | 81 | 79 | | | | | | | | | | | | | | | | | | | |
| 5 | 95 | 88 | 82 | 79 | 94 | 87 | 82 | 78 | 85 | 81 | 78 | 84 | 80 | 77 | 82 | 79 | 76 | 75 | | | | | | | | | | | | | | | | | | | |
| 6 | 91 | 83 | 78 | 74 | 90 | 82 | 77 | 74 | 81 | 77 | 73 | 80 | 76 | 73 | 78 | 75 | 72 | 71 | | | | | | | | | | | | | | | | | | | |
| 7 | 87 | 79 | 74 | 70 | 86 | 78 | 73 | 70 | 77 | 73 | 69 | 76 | 72 | 69 | 75 | 71 | 69 | 67 | | | | | | | | | | | | | | | | | | | |
| 8 | 84 | 75 | 70 | 66 | 83 | 75 | 70 | 66 | 74 | 69 | 66 | 73 | 69 | 66 | 72 | 68 | 65 | 64 | | | | | | | | | | | | | | | | | | | |
| 9 | 81 | 72 | 67 | 63 | 80 | 71 | 66 | 63 | 71 | 66 | 63 | 70 | 66 | 63 | 69 | 65 | 62 | 61 | | | | | | | | | | | | | | | | | | | |
| 10 | 77 | 69 | 64 | 60 | 76 | 68 | 63 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 66 | 62 | 60 | 58 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 1248797 | 1248797 | 1248797 |
| 5° | 1211274 | 1214195 | 1208698 |
| 10° | 1108753 | 1104294 | 1097681 |
| 15° | 932607 | 941239 | 931075 |
| 20° | 713193 | 732094 | 712038 |
| 25° | 452911 | 510614 | 461730 |
| 30° | 263422 | 297376 | 268037 |
| 35° | 139248 | 148102 | 139670 |
| 40° | 73485 | 76834 | 73485 |
| 45° | 41096 | 42631 | 41584 |
| 50° | 19188 | 24331 | 19188 |
| 55° | 6967 | 13332 | 7569 |
| 60° | 7992 | 7992 | 7992 |
| 65° | 8639 | 9456 | 8639 |
| 70° | 10674 | 9520 | 10674 |
| 75° | 9912 | 9912 | 9912 |
| 80° | 10512 | 8239 | 10512 |
| 85° | 8491 | 8491 | 8491 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 225.9 | 16.5 |
| 10°-20° | 503.1 | 36.6 |
| 20°-30° | 406.3 | 29.6 |
| 30°-40° | 160.6 | 11.7 |
| 40°-50° | 49.3 | 3.6 |
| 50°-60° | 12.7 | 0.9 |
| 60°-70° | 7.7 | 0.6 |
| 70°-80° | 5.6 | 0.4 |
| 80°-90° | 1.7 | 0.1 |
| 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° | 1135.3 | 82.7 |
| 0°-40° | 1295.9 | 94.4 |
| 0°-60° | 1357.9 | 98.9 |
| 0°-90° | 1372.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1372.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2531 | 2531 | 2531 | 2531 | 2531 | |
| 5° | 2446 | 2450 | 2452 | 2446 | 2441 | 226 |
| 15° | 1826 | 1831 | 1843 | 1836 | 1823 | 501 |
| 25° | 832 | 872 | 938 | 888 | 848 | 387 |
| 35° | 231 | 238 | 246 | 238 | 232 | 155 |
| 45° | 59 | 60 | 61 | 60 | 60 | 48 |
| 55° | 8 | 11 | 16 | 11 | 9 | 10 |
| 65° | 7 | 8 | 8 | 8 | 7 | 8 |
| 75° | 5 | 5 | 5 | 5 | 5 | 6 |
| 85° | 2 | 2 | 2 | 2 | 2 | 2 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2531.2 | 2531.2 | 2531.2 | 2531.2 | 2531.2 |
| 2.5° | 2499.5 | 2501.0 | 2503.2 | 2500.3 | 2492.9 |
| 5° | 2445.8 | 2450.2 | 2451.7 | 2446.5 | 2440.6 |
| 7.5° | 2357.5 | 2352.3 | 2356.7 | 2347.9 | 2340.5 |
| 10° | 2213.2 | 2206.5 | 2204.3 | 2191.1 | 2191.1 |
| 12.5° | 2035.0 | 2032.8 | 2034.2 | 2027.6 | 2017.3 |
| 15° | 1825.9 | 1831.0 | 1842.8 | 1835.5 | 1822.9 |
| 17.5° | 1604.3 | 1611.6 | 1621.9 | 1619.7 | 1602.8 |
| 20° | 1358.4 | 1379.7 | 1394.4 | 1380.5 | 1356.2 |
| 22.5° | 1078.6 | 1124.2 | 1161.8 | 1132.3 | 1092.6 |
| 25° | 832.0 | 871.7 | 938.0 | 887.9 | 848.2 |
| 27.5° | 631.0 | 659.7 | 720.0 | 670.7 | 643.5 |
| 30° | 462.4 | 480.0 | 522.0 | 489.6 | 470.5 |
| 32.5° | 330.6 | 343.1 | 360.8 | 341.6 | 332.0 |
| 35° | 231.2 | 237.8 | 245.9 | 238.5 | 231.9 |
| 37.5° | 162.7 | 164.9 | 170.8 | 164.9 | 162.0 |
| 40° | 114.1 | 114.9 | 119.3 | 115.6 | 114.1 |
| 42.5° | 82.5 | 82.5 | 84.7 | 83.2 | 82.5 |
| 45° | 58.9 | 59.6 | 61.1 | 60.4 | 59.6 |
| 47.5° | 42.0 | 43.4 | 43.4 | 44.2 | 41.2 |
| 50° | 25.0 | 30.9 | 31.7 | 30.9 | 25.0 |
| 52.5° | 13.3 | 18.4 | 22.8 | 18.4 | 13.3 |
| 55° | 8.1 | 11.0 | 15.5 | 11.0 | 8.8 |
| 57.5° | 8.1 | 8.1 | 10.3 | 8.8 | 8.1 |
| 60° | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 |
| 62.5° | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 |
| 65° | 7.4 | 8.1 | 8.1 | 8.1 | 7.4 |
| 67.5° | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 |
| 70° | 7.4 | 7.4 | 6.6 | 7.4 | 7.4 |
| 72.5° | 6.6 | 6.6 | 5.9 | 6.6 | 6.6 |
| 75° | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| 77.5° | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 |
| 80° | 3.7 | 3.7 | 2.9 | 3.7 | 3.7 |
| 82.5° | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 85° | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| 87.5° | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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







(END OF REPORT)