

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: P281530

Luminaire Tested: **LDA2B158030D010 EU2B15SP158030 2LBASQC1MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P281530
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-6)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA2B158030D010 EU2B15SP158030 2LBASQC1MB
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Cast Trim, MB
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1439.6 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.31 / 0.29
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

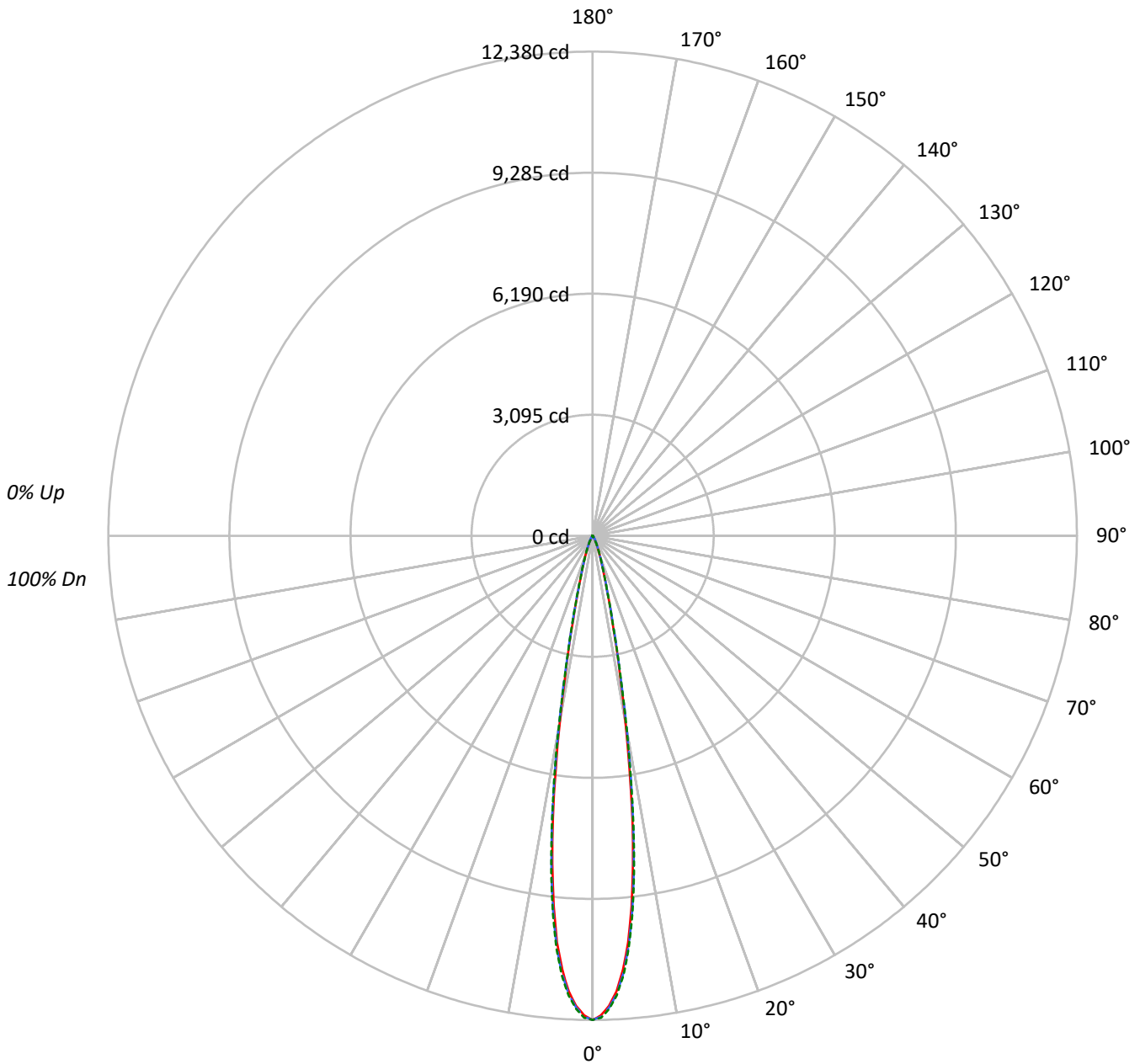
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 116 | 114 | 112 | 111 | 113 | 112 | 110 | 109 | 108 | 107 | 106 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | | | | | 98 | |
| 2 | 113 | 109 | 107 | 105 | 111 | 108 | 105 | 103 | 105 | 103 | 101 | 102 | 100 | 99 | 99 | 98 | 97 | 96 | 95 | 94 | | | | | 96 | |
| 3 | 110 | 106 | 103 | 100 | 108 | 104 | 102 | 99 | 102 | 100 | 98 | 100 | 98 | 96 | 98 | 96 | 95 | 94 | 93 | 92 | | | | | 94 | |
| 4 | 107 | 103 | 99 | 97 | 106 | 102 | 99 | 96 | 100 | 97 | 95 | 98 | 96 | 94 | 96 | 95 | 93 | 92 | 91 | 90 | | | | | 92 | |
| 5 | 105 | 100 | 96 | 94 | 103 | 99 | 96 | 93 | 97 | 95 | 93 | 96 | 94 | 92 | 95 | 93 | 91 | 90 | 89 | 88 | | | | | 90 | |
| 6 | 103 | 97 | 94 | 91 | 101 | 97 | 94 | 91 | 96 | 93 | 91 | 94 | 92 | 90 | 93 | 91 | 90 | 89 | 88 | 87 | | | | | 89 | |
| 7 | 100 | 95 | 92 | 89 | 100 | 95 | 91 | 89 | 94 | 91 | 89 | 93 | 90 | 88 | 92 | 90 | 88 | 87 | 86 | 85 | | | | | 87 | |
| 8 | 99 | 93 | 90 | 88 | 98 | 93 | 90 | 87 | 92 | 89 | 87 | 91 | 89 | 87 | 90 | 88 | 86 | 85 | 84 | 83 | | | | | 86 | |
| 9 | 97 | 91 | 88 | 86 | 96 | 91 | 88 | 86 | 90 | 88 | 86 | 90 | 87 | 85 | 89 | 87 | 85 | 84 | 83 | 82 | | | | | 84 | |
| 10 | 95 | 90 | 87 | 84 | 94 | 89 | 86 | 84 | 89 | 86 | 84 | 88 | 86 | 84 | 88 | 85 | 84 | 83 | 82 | 81 | | | | | 83 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 6107622 | 6107622 | 6107622 |
| 5° | 5169381 | 5223413 | 5246145 |
| 10° | 2417293 | 2508871 | 2513731 |
| 15° | 708023 | 718290 | 717932 |
| 20° | 284301 | 284668 | 285036 |
| 25° | 126782 | 139629 | 129776 |
| 30° | 53835 | 74059 | 49107 |
| 35° | 24694 | 34330 | 23007 |
| 40° | 8050 | 13460 | 7149 |
| 45° | 0 | 4884 | 0 |
| 50° | 0 | 0 | 0 |
| 55° | 2408 | 1204 | 0 |
| 60° | 0 | 0 | 0 |
| 65° | 0 | 0 | 0 |
| 70° | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 3978 | 0 | 0 |
| 85° | 7925 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 818.1 | 56.8 |
| 10°-20° | 463.7 | 32.2 |
| 20°-30° | 121.1 | 8.4 |
| 30°-40° | 31.2 | 2.2 |
| 40°-50° | 3.1 | 0.2 |
| 50°-60° | 1.0 | 0.1 |
| 60°-70° | 0.2 | 0.0 |
| 70°-80° | 1.0 | 0.1 |
| 80°-90° | 0.3 | 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° | 1402.9 | 97.5 |
| 0°-40° | 1434.1 | 99.6 |
| 0°-60° | 1438.2 | 99.9 |
| 0°-90° | 1439.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1439.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0° | 12380 | 12380 | 12380 | 12380 | 12380 | |
| 5° | 10438 | 10531 | 10547 | 10480 | 10593 | 808 |
| 15° | 1386 | 1405 | 1406 | 1390 | 1406 | 455 |
| 25° | 233 | 252 | 256 | 245 | 238 | 116 |
| 35° | 41 | 44 | 57 | 39 | 38 | 28 |
| 45° | 0 | 3 | 7 | 1 | 0 | 2 |
| 55° | 3 | 4 | 1 | 1 | 0 | 2 |
| 65° | 0 | 0 | 0 | 0 | 0 | 1 |
| 75° | 0 | 1 | 0 | 0 | 0 | 3 |
| 85° | 1 | 0 | 0 | 0 | 0 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P281530

CATALOG NUMBER: LDA2B158030D010 EU2B15SP158030 2LBASQC1MB

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|---------|---------|---------|---------|---------|
| 0° | 12379.6 | 12379.6 | 12379.6 | 12379.6 | 12379.6 |
| 1° | 12263.5 | 12312.1 | 12297.5 | 12280.2 | 12328.8 |
| 2° | 12027.1 | 12074.4 | 12070.2 | 12047.3 | 12104.3 |
| 3° | 11662.8 | 11728.9 | 11728.9 | 11694.8 | 11765.7 |
| 4° | 11119.9 | 11220.7 | 11230.5 | 11182.5 | 11270.8 |
| 5° | 10438.0 | 10531.1 | 10547.1 | 10480.4 | 10593.0 |
| 6° | 9514.1 | 9641.3 | 9677.4 | 9600.3 | 9715.7 |
| 7° | 8452.6 | 8586.0 | 8640.9 | 8554.7 | 8684.0 |
| 8° | 7307.6 | 7403.5 | 7469.6 | 7370.9 | 7502.3 |
| 9° | 6026.4 | 6164.8 | 6225.2 | 6129.3 | 6257.2 |
| 10° | 4825.2 | 4952.4 | 5008.0 | 4985.1 | 5017.7 |
| 11° | 3747.7 | 3860.3 | 3897.8 | 3866.5 | 3881.8 |
| 12° | 2934.3 | 2979.5 | 3003.8 | 2983.0 | 2993.4 |
| 13° | 2228.0 | 2288.5 | 2299.6 | 2290.6 | 2295.4 |
| 14° | 1740.0 | 1769.2 | 1781.7 | 1777.5 | 1779.6 |
| 15° | 1386.2 | 1404.9 | 1406.3 | 1390.3 | 1405.6 |
| 16° | 1116.4 | 1131.0 | 1137.3 | 1120.6 | 1140.8 |
| 17° | 914.8 | 926.7 | 933.6 | 916.9 | 925.3 |
| 18° | 752.9 | 761.9 | 771.6 | 757.0 | 769.6 |
| 19° | 631.9 | 637.5 | 638.2 | 634.0 | 637.5 |
| 20° | 541.5 | 538.8 | 542.2 | 534.6 | 542.9 |
| 22.5° | 356.6 | 363.6 | 371.9 | 362.9 | 366.4 |
| 25° | 232.9 | 252.3 | 256.5 | 244.7 | 238.4 |
| 26° | 191.9 | 216.9 | 228.0 | 209.2 | 189.1 |
| 27° | 159.2 | 177.3 | 191.9 | 166.8 | 150.9 |
| 28° | 139.7 | 155.0 | 169.6 | 146.0 | 127.2 |
| 29° | 116.8 | 132.1 | 157.1 | 130.0 | 118.2 |
| 30° | 94.5 | 105.7 | 130.0 | 98.7 | 86.2 |
| 32.5° | 53.5 | 62.6 | 84.1 | 58.4 | 48.0 |
| 35° | 41.0 | 43.8 | 57.0 | 38.9 | 38.2 |
| 37.5° | 35.5 | 32.0 | 44.5 | 32.0 | 25.7 |
| 40° | 12.5 | 18.8 | 20.9 | 13.9 | 11.1 |
| 42.5° | 5.6 | 5.6 | 9.0 | 2.8 | 2.8 |
| 45° | 0.0 | 2.8 | 7.0 | 0.7 | 0.0 |
| 47.5° | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 |
| 50° | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 |
| 52.5° | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55° | 2.8 | 3.5 | 1.4 | 0.7 | 0.0 |
| 57.5° | 4.2 | 3.5 | 1.4 | 1.4 | 1.4 |
| 60° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 1.4 | 0.7 | 0.0 | 0.0 | 0.0 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-----|-------|-----|-------|-----|
| 75° | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 |
| 77.5° | 7.0 | 1.4 | 2.1 | 1.4 | 2.8 |
| 80° | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.7 | 0.0 | 0.7 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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







| | | | | | |
|-------|-----|-----|-----|-----|-----|
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2.8 | 2.1 | 0.0 | 0.0 | 2.8 |



(END OF REPORT)