

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: P284009

Luminaire Tested: **LDA2B159030D010 EU2B15WFL559030 2LBALPINSQ1MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P284009
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: LDA2B159030D010 EU2B15WFL559030 2LBALPINSQ1MW
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH WIDE FLOOD OPTIC AND
2in Adj SQ Pinhole w-lens, MW

Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1002.4 lumens
Efficiency: N/A
Efficacy: 71.1 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

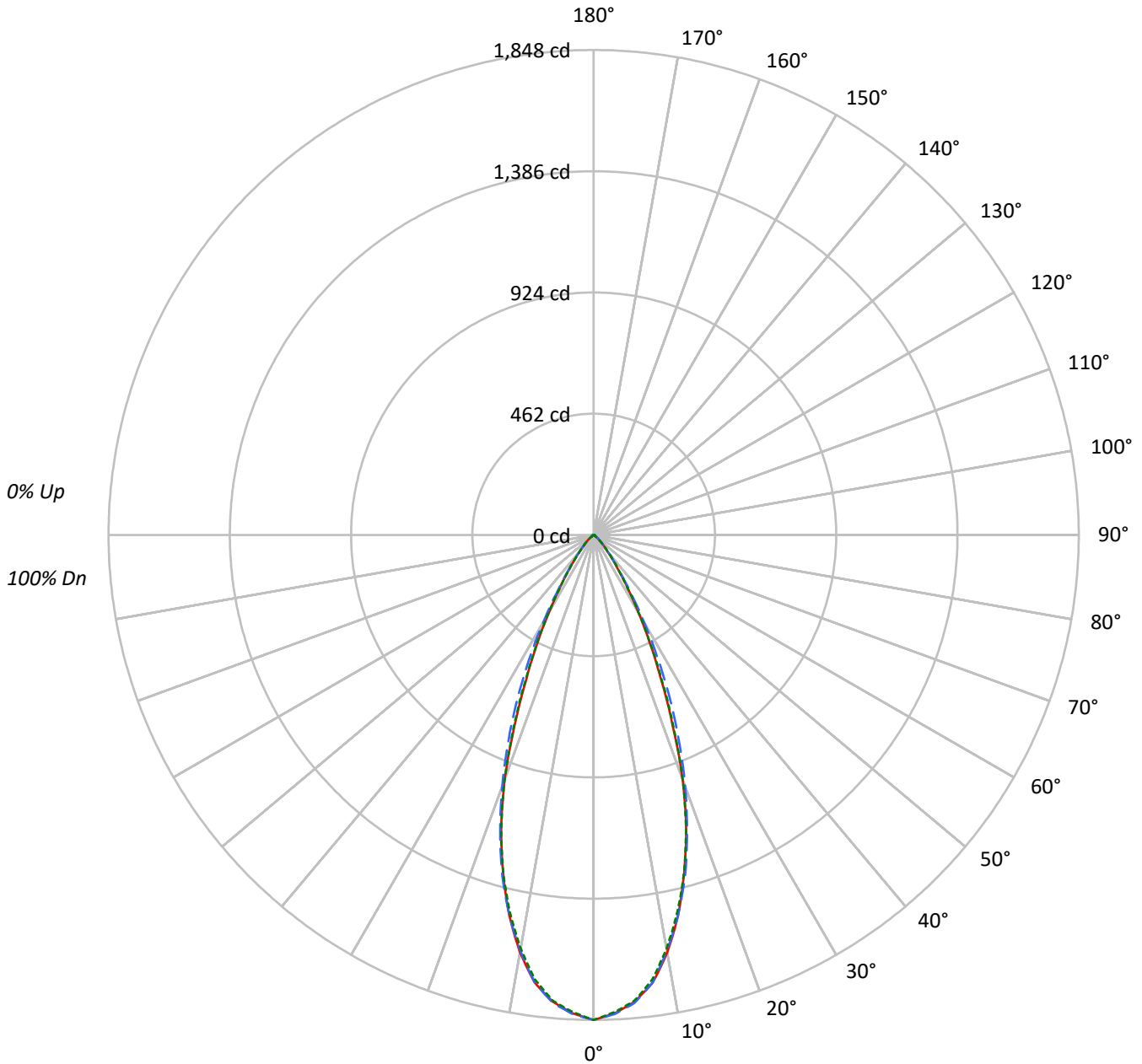
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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° | 911733 | 911733 | 911733 |
| 5° | 884361 | 886491 | 882479 |
| 10° | 809472 | 806215 | 801406 |
| 15° | 680902 | 687184 | 679778 |
| 20° | 520667 | 534528 | 519827 |
| 25° | 330647 | 372781 | 337071 |
| 30° | 192326 | 217107 | 195687 |
| 35° | 101665 | 108110 | 101967 |
| 40° | 53648 | 56096 | 53648 |
| 45° | 30002 | 31118 | 30351 |
| 50° | 14046 | 17730 | 14046 |
| 55° | 5075 | 9720 | 5591 |
| 60° | 5822 | 5822 | 5822 |
| 65° | 6304 | 6888 | 6304 |
| 70° | 7789 | 6924 | 7789 |
| 75° | 7244 | 7244 | 7244 |
| 80° | 7671 | 6251 | 7671 |
| 85° | 6227 | 6227 | 6227 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 165.0 | 16.5 |
| 10°-20° | 367.3 | 36.6 |
| 20°-30° | 296.6 | 29.6 |
| 30°-40° | 117.2 | 11.7 |
| 40°-50° | 36.0 | 3.6 |
| 50°-60° | 9.3 | 0.9 |
| 60°-70° | 5.6 | 0.6 |
| 70°-80° | 4.1 | 0.4 |
| 80°-90° | 1.2 | 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° | 828.9 | 82.7 |
| 0°-40° | 946.1 | 94.4 |
| 0°-60° | 991.4 | 98.9 |
| 0°-90° | 1002.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1002.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1848 | 1848 | 1848 | 1848 | 1848 | |
| 5° | 1786 | 1789 | 1790 | 1786 | 1782 | 165 |
| 15° | 1333 | 1337 | 1345 | 1340 | 1331 | 366 |
| 25° | 607 | 636 | 685 | 648 | 619 | 283 |
| 35° | 169 | 174 | 180 | 174 | 169 | 113 |
| 45° | 43 | 44 | 45 | 44 | 44 | 35 |
| 55° | 6 | 8 | 11 | 8 | 6 | 7 |
| 65° | 5 | 6 | 6 | 6 | 5 | 6 |
| 75° | 4 | 4 | 4 | 4 | 4 | 4 |
| 85° | 1 | 1 | 1 | 1 | 1 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1848.0 | 1848.0 | 1848.0 | 1848.0 | 1848.0 |
| 2.5° | 1824.9 | 1826.0 | 1827.6 | 1825.4 | 1820.1 |
| 5° | 1785.7 | 1788.9 | 1790.0 | 1786.2 | 1781.9 |
| 7.5° | 1721.2 | 1717.4 | 1720.6 | 1714.2 | 1708.8 |
| 10° | 1615.8 | 1611.0 | 1609.3 | 1599.7 | 1599.7 |
| 12.5° | 1485.7 | 1484.1 | 1485.2 | 1480.3 | 1472.8 |
| 15° | 1333.1 | 1336.8 | 1345.4 | 1340.0 | 1330.9 |
| 17.5° | 1171.3 | 1176.6 | 1184.2 | 1182.6 | 1170.2 |
| 20° | 991.7 | 1007.3 | 1018.1 | 1007.9 | 990.1 |
| 22.5° | 787.5 | 820.8 | 848.2 | 826.7 | 797.7 |
| 25° | 607.4 | 636.4 | 684.8 | 648.3 | 619.2 |
| 27.5° | 460.7 | 481.6 | 525.7 | 489.7 | 469.8 |
| 30° | 337.6 | 350.5 | 381.1 | 357.5 | 343.5 |
| 32.5° | 241.3 | 250.5 | 263.4 | 249.4 | 242.4 |
| 35° | 168.8 | 173.6 | 179.5 | 174.2 | 169.3 |
| 37.5° | 118.8 | 120.4 | 124.7 | 120.4 | 118.3 |
| 40° | 83.3 | 83.9 | 87.1 | 84.4 | 83.3 |
| 42.5° | 60.2 | 60.2 | 61.8 | 60.7 | 60.2 |
| 45° | 43.0 | 43.5 | 44.6 | 44.1 | 43.5 |
| 47.5° | 30.6 | 31.7 | 31.7 | 32.3 | 30.1 |
| 50° | 18.3 | 22.6 | 23.1 | 22.6 | 18.3 |
| 52.5° | 9.7 | 13.4 | 16.7 | 13.4 | 9.7 |
| 55° | 5.9 | 8.1 | 11.3 | 8.1 | 6.5 |
| 57.5° | 5.9 | 5.9 | 7.5 | 6.5 | 5.9 |
| 60° | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 |
| 62.5° | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 |
| 65° | 5.4 | 5.9 | 5.9 | 5.9 | 5.4 |
| 67.5° | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 |
| 70° | 5.4 | 5.4 | 4.8 | 5.4 | 5.4 |
| 72.5° | 4.8 | 4.8 | 4.3 | 4.8 | 4.8 |
| 75° | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 |
| 77.5° | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| 80° | 2.7 | 2.7 | 2.2 | 2.7 | 2.7 |
| 82.5° | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| 85° | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 87.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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







(END OF REPORT)