

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: P283871

Luminaire Tested: **LDA2B059730D010 EU2B05WFL559730 2LBALPINSQ1MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P283871
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: LDA2B059730D010 EU2B05WFL559730 2LBALPINSQ1MW
Description: PORTFOLIO 2IN ADJ 500 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: 508.9 lumens
Efficiency: N/A
Efficacy: 72.7 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

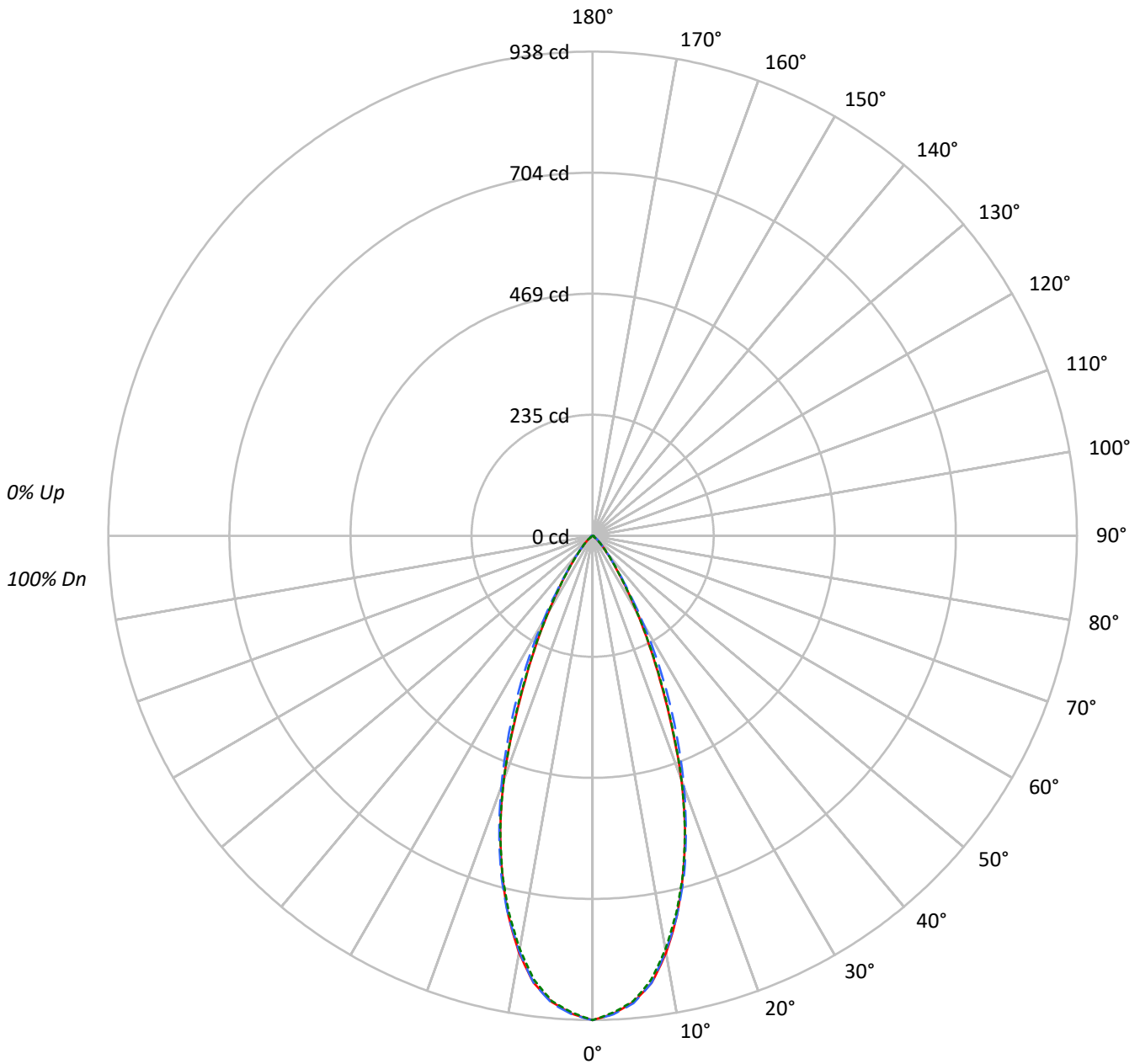
Input Watts (W): 7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 462971 | 462971 | 462971 |
| 5° | 449040 | 450129 | 448099 |
| 10° | 410998 | 409395 | 406940 |
| 15° | 345737 | 348955 | 345175 |
| 20° | 264402 | 271385 | 263930 |
| 25° | 167882 | 189276 | 171148 |
| 30° | 97644 | 110234 | 99353 |
| 35° | 51616 | 54928 | 51796 |
| 40° | 27243 | 28466 | 27243 |
| 45° | 15210 | 15838 | 15420 |
| 50° | 7138 | 8980 | 7138 |
| 55° | 2580 | 4903 | 2838 |
| 60° | 2960 | 2960 | 2960 |
| 65° | 3152 | 3502 | 3152 |
| 70° | 3895 | 3606 | 3895 |
| 75° | 3622 | 3622 | 3622 |
| 80° | 3978 | 3125 | 3978 |
| 85° | 2830 | 2830 | 2830 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 83.8 | 16.5 |
| 10°-20° | 186.5 | 36.6 |
| 20°-30° | 150.6 | 29.6 |
| 30°-40° | 59.5 | 11.7 |
| 40°-50° | 18.3 | 3.6 |
| 50°-60° | 4.7 | 0.9 |
| 60°-70° | 2.8 | 0.6 |
| 70°-80° | 2.1 | 0.4 |
| 80°-90° | 0.6 | 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° | 420.9 | 82.7 |
| 0°-40° | 480.4 | 94.4 |
| 0°-60° | 503.4 | 98.9 |
| 0°-90° | 508.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 508.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 938 | 938 | 938 | 938 | 938 | |
| 5° | 907 | 908 | 909 | 907 | 905 | 84 |
| 15° | 677 | 679 | 683 | 680 | 676 | 186 |
| 25° | 308 | 323 | 348 | 329 | 314 | 144 |
| 35° | 86 | 88 | 91 | 88 | 86 | 57 |
| 45° | 22 | 22 | 23 | 22 | 22 | 18 |
| 55° | 3 | 4 | 6 | 4 | 3 | 4 |
| 65° | 3 | 3 | 3 | 3 | 3 | 3 |
| 75° | 2 | 2 | 2 | 2 | 2 | 2 |
| 85° | 0 | 0 | 0 | 0 | 0 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 938.4 | 938.4 | 938.4 | 938.4 | 938.4 |
| 2.5° | 926.6 | 927.2 | 928.0 | 926.9 | 924.2 |
| 5° | 906.7 | 908.3 | 908.9 | 907.0 | 904.8 |
| 7.5° | 873.9 | 872.0 | 873.7 | 870.4 | 867.7 |
| 10° | 820.4 | 818.0 | 817.2 | 812.3 | 812.3 |
| 12.5° | 754.4 | 753.6 | 754.1 | 751.7 | 747.8 |
| 15° | 676.9 | 678.8 | 683.2 | 680.4 | 675.8 |
| 17.5° | 594.7 | 597.5 | 601.3 | 600.5 | 594.2 |
| 20° | 503.6 | 511.5 | 516.9 | 511.8 | 502.7 |
| 22.5° | 399.9 | 416.8 | 430.7 | 419.8 | 405.0 |
| 25° | 308.4 | 323.2 | 347.7 | 329.2 | 314.4 |
| 27.5° | 233.9 | 244.6 | 266.9 | 248.6 | 238.5 |
| 30° | 171.4 | 178.0 | 193.5 | 181.5 | 174.4 |
| 32.5° | 122.5 | 127.2 | 133.7 | 126.6 | 123.1 |
| 35° | 85.7 | 88.2 | 91.2 | 88.4 | 86.0 |
| 37.5° | 60.3 | 61.1 | 63.3 | 61.1 | 60.0 |
| 40° | 42.3 | 42.6 | 44.2 | 42.9 | 42.3 |
| 42.5° | 30.6 | 30.6 | 31.4 | 30.8 | 30.6 |
| 45° | 21.8 | 22.1 | 22.7 | 22.4 | 22.1 |
| 47.5° | 15.6 | 16.1 | 16.1 | 16.4 | 15.3 |
| 50° | 9.3 | 11.5 | 11.7 | 11.5 | 9.3 |
| 52.5° | 4.9 | 6.8 | 8.5 | 6.8 | 4.9 |
| 55° | 3.0 | 4.1 | 5.7 | 4.1 | 3.3 |
| 57.5° | 3.0 | 3.0 | 3.8 | 3.3 | 3.0 |
| 60° | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 62.5° | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 65° | 2.7 | 3.0 | 3.0 | 3.0 | 2.7 |
| 67.5° | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| 70° | 2.7 | 2.7 | 2.5 | 2.7 | 2.7 |
| 72.5° | 2.5 | 2.5 | 2.2 | 2.5 | 2.5 |
| 75° | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| 77.5° | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| 80° | 1.4 | 1.4 | 1.1 | 1.4 | 1.4 |
| 82.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 85° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 87.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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







(END OF REPORT)