

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: P283936

Luminaire Tested: **LDA2B109040D010 EU2B10WFL559040 2LBAPINSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P283936
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: LDA2B109040D010 EU2B10WFL559040 2LBAPINSQ1MMS
Description: PORTFOLIO 2IN ADJ 1000 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: 844.0 lumens
Efficiency: N/A
Efficacy: 84.4 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

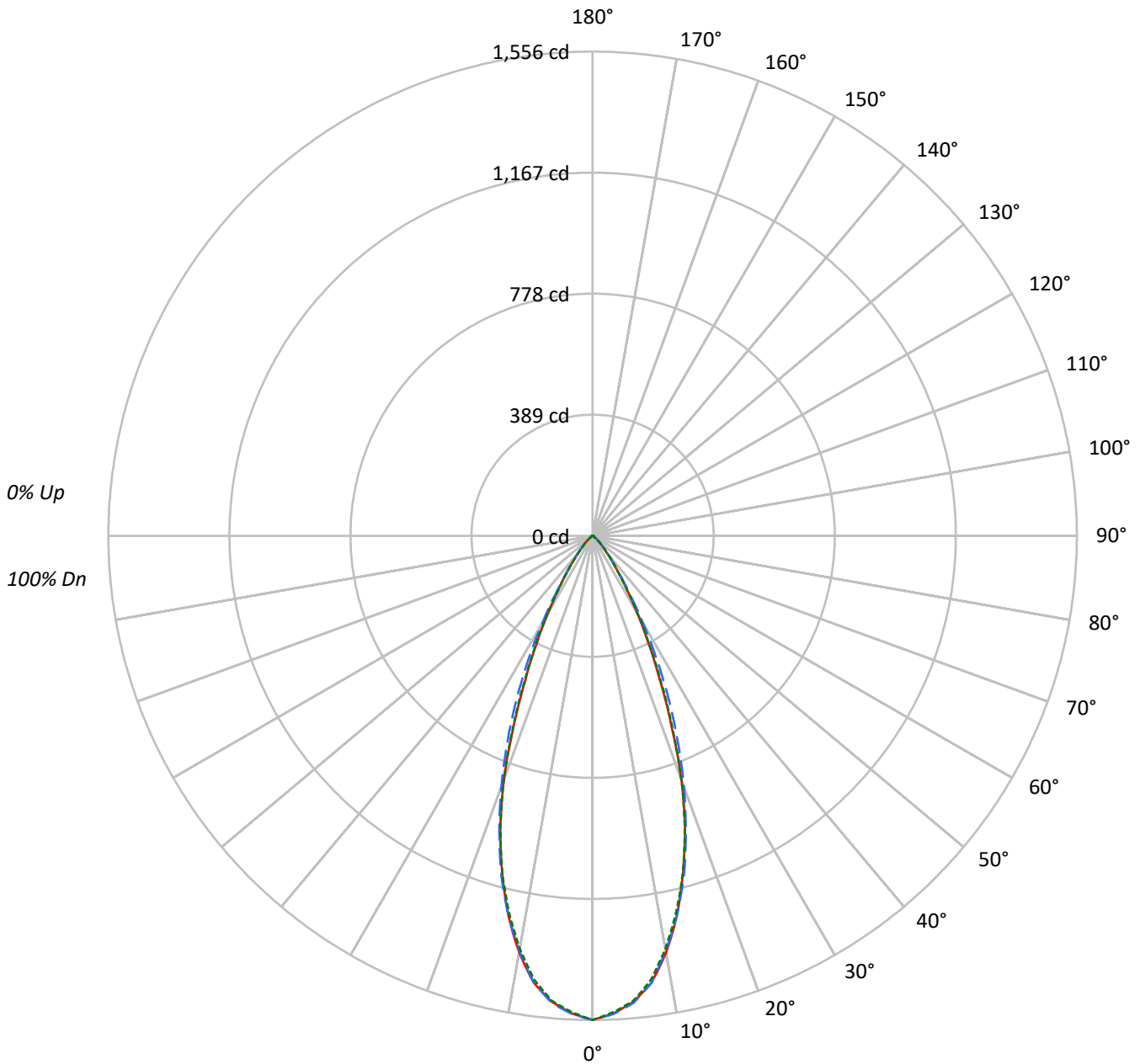
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 767622 | 767622 | 767622 |
| 5° | 744553 | 746336 | 743018 |
| 10° | 681523 | 678818 | 674710 |
| 15° | 573283 | 578595 | 572364 |
| 20° | 438396 | 450051 | 437661 |
| 25° | 278388 | 313881 | 283832 |
| 30° | 161905 | 182812 | 164753 |
| 35° | 85584 | 91065 | 85886 |
| 40° | 45147 | 47208 | 45147 |
| 45° | 25257 | 26234 | 25606 |
| 50° | 11820 | 14967 | 11820 |
| 55° | 4301 | 8171 | 4645 |
| 60° | 4934 | 4934 | 4934 |
| 65° | 5253 | 5837 | 5253 |
| 70° | 6491 | 5914 | 6491 |
| 75° | 6100 | 6100 | 6100 |
| 80° | 6535 | 5114 | 6535 |
| 85° | 5095 | 5095 | 5095 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 138.9 | 16.5 |
| 10°-20° | 309.2 | 36.6 |
| 20°-30° | 249.7 | 29.6 |
| 30°-40° | 98.7 | 11.7 |
| 40°-50° | 30.3 | 3.6 |
| 50°-60° | 7.8 | 0.9 |
| 60°-70° | 4.7 | 0.6 |
| 70°-80° | 3.5 | 0.4 |
| 80°-90° | 1.1 | 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° | 697.9 | 82.7 |
| 0°-40° | 796.6 | 94.4 |
| 0°-60° | 834.7 | 98.9 |
| 0°-90° | 844.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 844.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1556 | 1556 | 1556 | 1556 | 1556 | |
| 5° | 1503 | 1506 | 1507 | 1504 | 1500 | 139 |
| 15° | 1122 | 1126 | 1133 | 1128 | 1121 | 308 |
| 25° | 511 | 536 | 577 | 546 | 521 | 238 |
| 35° | 142 | 146 | 151 | 147 | 143 | 95 |
| 45° | 36 | 37 | 38 | 37 | 37 | 30 |
| 55° | 5 | 7 | 10 | 7 | 5 | 6 |
| 65° | 4 | 5 | 5 | 5 | 4 | 5 |
| 75° | 3 | 3 | 3 | 3 | 3 | 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° | 1555.9 | 1555.9 | 1555.9 | 1555.9 | 1555.9 |
| 2.5° | 1536.5 | 1537.4 | 1538.7 | 1536.9 | 1532.4 |
| 5° | 1503.4 | 1506.1 | 1507.0 | 1503.9 | 1500.3 |
| 7.5° | 1449.1 | 1445.9 | 1448.7 | 1443.2 | 1438.7 |
| 10° | 1360.4 | 1356.3 | 1355.0 | 1346.8 | 1346.8 |
| 12.5° | 1250.9 | 1249.5 | 1250.4 | 1246.4 | 1240.0 |
| 15° | 1122.4 | 1125.5 | 1132.8 | 1128.2 | 1120.6 |
| 17.5° | 986.1 | 990.7 | 997.0 | 995.6 | 985.2 |
| 20° | 835.0 | 848.1 | 857.2 | 848.6 | 833.6 |
| 22.5° | 663.0 | 691.1 | 714.1 | 696.0 | 671.6 |
| 25° | 511.4 | 535.8 | 576.6 | 545.8 | 521.4 |
| 27.5° | 387.8 | 405.5 | 442.6 | 412.3 | 395.5 |
| 30° | 284.2 | 295.1 | 320.9 | 301.0 | 289.2 |
| 32.5° | 203.2 | 210.9 | 221.8 | 210.0 | 204.1 |
| 35° | 142.1 | 146.2 | 151.2 | 146.6 | 142.6 |
| 37.5° | 100.0 | 101.4 | 105.0 | 101.4 | 99.6 |
| 40° | 70.1 | 70.6 | 73.3 | 71.1 | 70.1 |
| 42.5° | 50.7 | 50.7 | 52.0 | 51.1 | 50.7 |
| 45° | 36.2 | 36.7 | 37.6 | 37.1 | 36.7 |
| 47.5° | 25.8 | 26.7 | 26.7 | 27.2 | 25.3 |
| 50° | 15.4 | 19.0 | 19.5 | 19.0 | 15.4 |
| 52.5° | 8.1 | 11.3 | 14.0 | 11.3 | 8.1 |
| 55° | 5.0 | 6.8 | 9.5 | 6.8 | 5.4 |
| 57.5° | 5.0 | 5.0 | 6.3 | 5.4 | 5.0 |
| 60° | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| 62.5° | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| 65° | 4.5 | 5.0 | 5.0 | 5.0 | 4.5 |
| 67.5° | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 70° | 4.5 | 4.5 | 4.1 | 4.5 | 4.5 |
| 72.5° | 4.1 | 4.1 | 3.6 | 4.1 | 4.1 |
| 75° | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| 77.5° | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| 80° | 2.3 | 2.3 | 1.8 | 2.3 | 2.3 |
| 82.5° | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 85° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 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)