

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: P283811

Luminaire Tested: **LDA2B058035D010 EU2B05WFL558035 2LBALPINSQ1MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P283811
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: LDA2B058035D010 EU2B05WFL558035 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: 695.1 lumens
Efficiency: N/A
Efficacy: 99.3 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

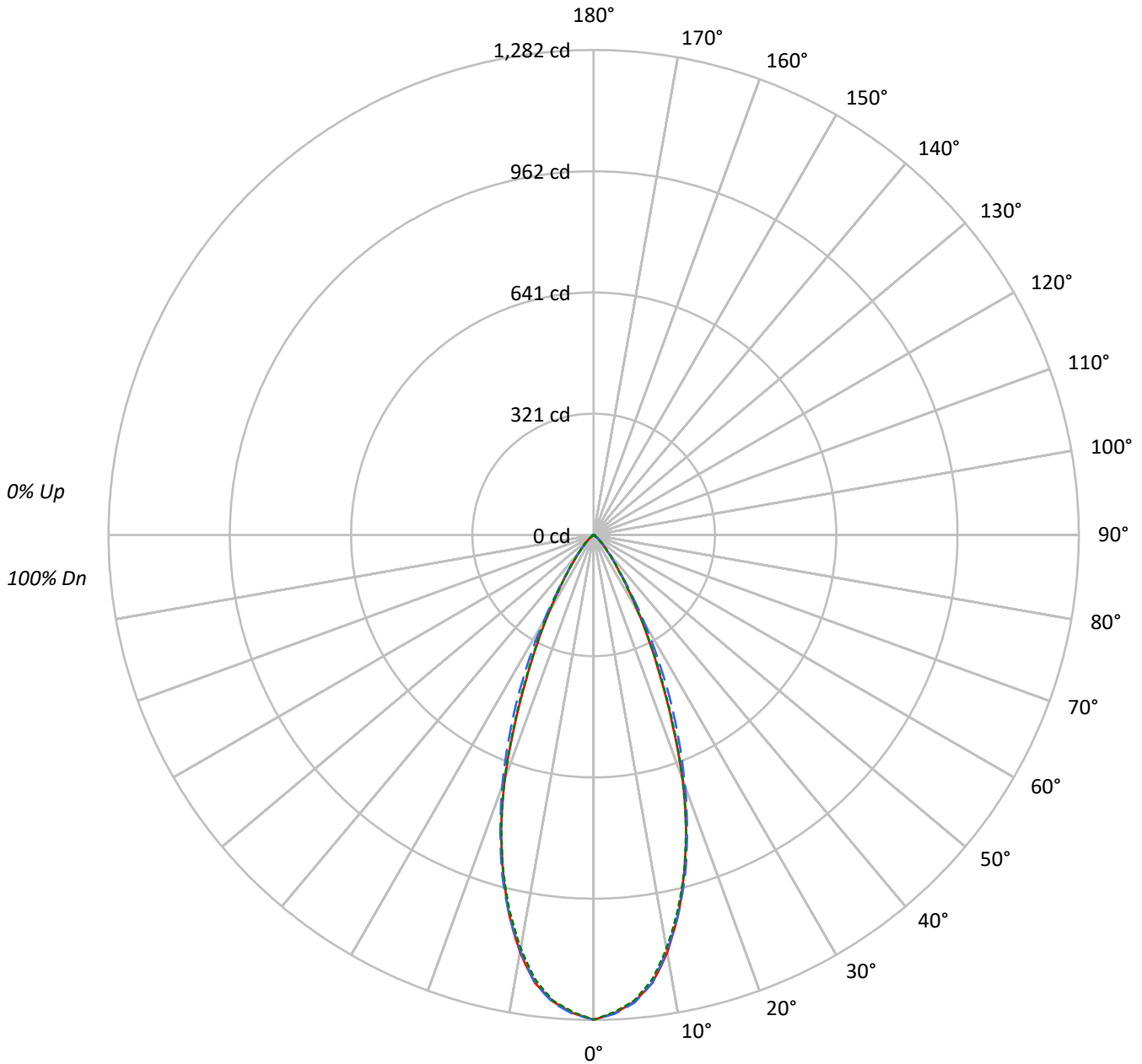
Input Watts (W): 7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 632243 | 632243 | 632243 |
| 5° | 613214 | 614700 | 611926 |
| 10° | 561290 | 559086 | 555729 |
| 15° | 472152 | 476544 | 471386 |
| 20° | 361059 | 370667 | 360482 |
| 25° | 229286 | 258519 | 233750 |
| 30° | 133363 | 150568 | 135699 |
| 35° | 70467 | 74984 | 70708 |
| 40° | 37225 | 38900 | 37225 |
| 45° | 20792 | 21560 | 21071 |
| 50° | 9748 | 12281 | 9748 |
| 55° | 3527 | 6709 | 3871 |
| 60° | 4046 | 4046 | 4046 |
| 65° | 4319 | 4786 | 4319 |
| 70° | 5337 | 4904 | 5337 |
| 75° | 4956 | 4956 | 4956 |
| 80° | 5398 | 4262 | 5398 |
| 85° | 3962 | 3962 | 3962 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 114.4 | 16.5 |
| 10°-20° | 254.7 | 36.6 |
| 20°-30° | 205.7 | 29.6 |
| 30°-40° | 81.3 | 11.7 |
| 40°-50° | 25.0 | 3.6 |
| 50°-60° | 6.4 | 0.9 |
| 60°-70° | 3.9 | 0.6 |
| 70°-80° | 2.9 | 0.4 |
| 80°-90° | 0.8 | 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° | 574.8 | 82.7 |
| 0°-40° | 656.1 | 94.4 |
| 0°-60° | 687.5 | 98.9 |
| 0°-90° | 695.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 695.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1282 | 1282 | 1282 | 1282 | 1282 | |
| 5° | 1238 | 1240 | 1241 | 1239 | 1236 | 115 |
| 15° | 924 | 927 | 933 | 929 | 923 | 254 |
| 25° | 421 | 441 | 475 | 450 | 429 | 196 |
| 35° | 117 | 120 | 124 | 121 | 117 | 78 |
| 45° | 30 | 30 | 31 | 31 | 30 | 24 |
| 55° | 4 | 6 | 8 | 6 | 4 | 5 |
| 65° | 4 | 4 | 4 | 4 | 4 | 4 |
| 75° | 3 | 3 | 3 | 3 | 3 | 3 |
| 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° | 1281.5 | 1281.5 | 1281.5 | 1281.5 | 1281.5 |
| 2.5° | 1265.4 | 1266.2 | 1267.3 | 1265.8 | 1262.1 |
| 5° | 1238.2 | 1240.5 | 1241.2 | 1238.6 | 1235.6 |
| 7.5° | 1193.5 | 1190.9 | 1193.1 | 1188.7 | 1184.9 |
| 10° | 1120.4 | 1117.1 | 1116.0 | 1109.3 | 1109.3 |
| 12.5° | 1030.2 | 1029.1 | 1029.9 | 1026.5 | 1021.3 |
| 15° | 924.4 | 927.0 | 933.0 | 929.2 | 922.9 |
| 17.5° | 812.2 | 815.9 | 821.1 | 820.0 | 811.4 |
| 20° | 687.7 | 698.5 | 706.0 | 698.9 | 686.6 |
| 22.5° | 546.1 | 569.2 | 588.2 | 573.3 | 553.1 |
| 25° | 421.2 | 441.3 | 474.9 | 449.5 | 429.4 |
| 27.5° | 319.4 | 334.0 | 364.5 | 339.6 | 325.8 |
| 30° | 234.1 | 243.0 | 264.3 | 247.9 | 238.2 |
| 32.5° | 167.4 | 173.7 | 182.6 | 173.0 | 168.1 |
| 35° | 117.0 | 120.4 | 124.5 | 120.8 | 117.4 |
| 37.5° | 82.4 | 83.5 | 86.5 | 83.5 | 82.0 |
| 40° | 57.8 | 58.1 | 60.4 | 58.5 | 57.8 |
| 42.5° | 41.7 | 41.7 | 42.9 | 42.1 | 41.7 |
| 45° | 29.8 | 30.2 | 30.9 | 30.6 | 30.2 |
| 47.5° | 21.2 | 22.0 | 22.0 | 22.4 | 20.9 |
| 50° | 12.7 | 15.7 | 16.0 | 15.7 | 12.7 |
| 52.5° | 6.7 | 9.3 | 11.6 | 9.3 | 6.7 |
| 55° | 4.1 | 5.6 | 7.8 | 5.6 | 4.5 |
| 57.5° | 4.1 | 4.1 | 5.2 | 4.5 | 4.1 |
| 60° | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 |
| 62.5° | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 |
| 65° | 3.7 | 4.1 | 4.1 | 4.1 | 3.7 |
| 67.5° | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| 70° | 3.7 | 3.7 | 3.4 | 3.7 | 3.7 |
| 72.5° | 3.4 | 3.4 | 3.0 | 3.4 | 3.4 |
| 75° | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 |
| 77.5° | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 80° | 1.9 | 1.9 | 1.5 | 1.9 | 1.9 |
| 82.5° | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 85° | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| 87.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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







(END OF REPORT)