

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: P283676

Luminaire Tested: **LDA2B159035D010 EU2B15FL409035 2LBAPINSQ1MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P283676
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1809-951-15)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA2B159035D010 EU2B15FL409035 2LBAPINSQ1MW
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in Adj SQ PinHole, MW

Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1060.8 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 0.55 / 0.55
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

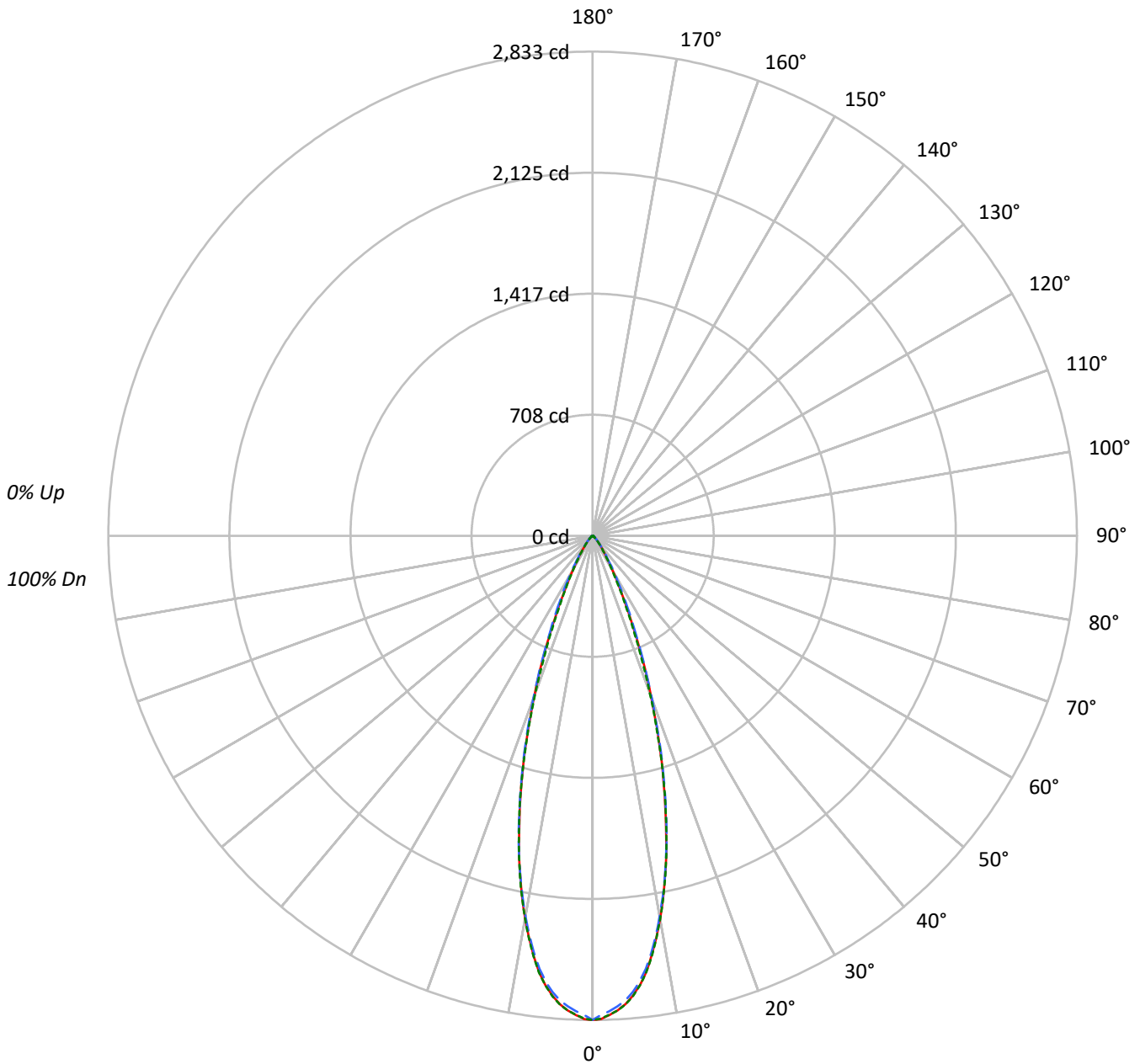
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|-----|---|--|---|
| RF | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | | 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 | 114 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 95 | | | | | 95 | | | |
| 2 | 110 | 106 | 102 | 99 | 108 | 104 | 101 | 98 | 101 | 98 | 96 | 98 | 96 | 94 | 95 | 93 | 92 | 90 | | | | | 90 | | | |
| 3 | 105 | 100 | 96 | 92 | 104 | 99 | 95 | 92 | 96 | 93 | 90 | 94 | 91 | 89 | 92 | 89 | 88 | 86 | | | | | 86 | | | |
| 4 | 101 | 95 | 90 | 87 | 100 | 94 | 90 | 86 | 92 | 88 | 85 | 90 | 87 | 84 | 88 | 86 | 83 | 82 | | | | | 82 | | | |
| 5 | 98 | 91 | 86 | 82 | 96 | 90 | 85 | 82 | 88 | 84 | 81 | 86 | 83 | 80 | 85 | 82 | 80 | 79 | | | | | 79 | | | |
| 6 | 94 | 87 | 82 | 78 | 93 | 86 | 81 | 78 | 84 | 80 | 77 | 83 | 80 | 77 | 82 | 79 | 76 | 75 | | | | | 75 | | | |
| 7 | 91 | 83 | 78 | 75 | 89 | 82 | 78 | 74 | 81 | 77 | 74 | 80 | 76 | 74 | 79 | 76 | 73 | 72 | | | | | 72 | | | |
| 8 | 87 | 80 | 75 | 71 | 86 | 79 | 74 | 71 | 78 | 74 | 71 | 77 | 73 | 71 | 76 | 73 | 70 | 69 | | | | | 69 | | | |
| 9 | 84 | 77 | 72 | 69 | 83 | 76 | 72 | 68 | 75 | 71 | 68 | 74 | 71 | 68 | 74 | 70 | 68 | 67 | | | | | 67 | | | |
| 10 | 82 | 74 | 69 | 66 | 81 | 73 | 69 | 66 | 73 | 69 | 66 | 72 | 68 | 65 | 71 | 68 | 65 | 64 | | | | | 64 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 1397694 | 1397694 | 1397694 |
| 5° | 1337611 | 1327607 | 1339691 |
| 10° | 1139613 | 1132449 | 1140765 |
| 15° | 839954 | 845419 | 842661 |
| 20° | 524342 | 534055 | 512792 |
| 25° | 270876 | 290636 | 257267 |
| 30° | 129888 | 148859 | 123736 |
| 35° | 67034 | 74201 | 62758 |
| 40° | 37547 | 39480 | 35680 |
| 45° | 22815 | 22815 | 21978 |
| 50° | 11897 | 14583 | 11897 |
| 55° | 6107 | 9720 | 6623 |
| 60° | 7006 | 7006 | 7006 |
| 65° | 7588 | 7588 | 7588 |
| 70° | 9376 | 8655 | 9376 |
| 75° | 9150 | 9150 | 9150 |
| 80° | 8523 | 8523 | 8523 |
| 85° | 6793 | 6793 | 6793 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 243.7 | 23.0 |
| 10°-20° | 447.6 | 42.2 |
| 20°-30° | 242.7 | 22.9 |
| 30°-40° | 77.9 | 7.3 |
| 40°-50° | 26.5 | 2.5 |
| 50°-60° | 9.3 | 0.9 |
| 60°-70° | 6.7 | 0.6 |
| 70°-80° | 5.0 | 0.5 |
| 80°-90° | 1.4 | 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° | 934.0 | 88.0 |
| 0°-40° | 1011.9 | 95.4 |
| 0°-60° | 1047.7 | 98.8 |
| 0°-90° | 1060.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1060.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2833 | 2833 | 2833 | 2833 | 2833 | |
| 5° | 2701 | 2684 | 2681 | 2708 | 2705 | 244 |
| 15° | 1644 | 1658 | 1655 | 1663 | 1650 | 446 |
| 25° | 498 | 520 | 534 | 497 | 473 | 238 |
| 35° | 111 | 116 | 123 | 112 | 104 | 75 |
| 45° | 33 | 33 | 33 | 33 | 32 | 26 |
| 55° | 7 | 9 | 11 | 9 | 8 | 8 |
| 65° | 6 | 7 | 6 | 7 | 6 | 7 |
| 75° | 5 | 5 | 5 | 5 | 5 | 5 |
| 85° | 1 | 1 | 1 | 1 | 1 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P283676

CATALOG NUMBER: LDA2B159035D010 EU2B15FL409035 2LBAPINSQ1MW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2833.0 | 2833.0 | 2833.0 | 2833.0 | 2833.0 |
| 1° | 2828.3 | 2808.0 | 2805.1 | 2831.2 | 2825.3 |
| 2° | 2805.7 | 2786.6 | 2783.6 | 2809.8 | 2804.5 |
| 3° | 2780.7 | 2763.4 | 2757.4 | 2784.8 | 2781.3 |
| 4° | 2747.3 | 2731.3 | 2725.9 | 2753.3 | 2750.3 |
| 5° | 2700.9 | 2684.2 | 2680.7 | 2707.5 | 2705.1 |
| 6° | 2643.8 | 2630.1 | 2623.5 | 2650.3 | 2645.6 |
| 7° | 2572.3 | 2559.8 | 2552.7 | 2572.3 | 2574.7 |
| 8° | 2479.5 | 2473.5 | 2465.2 | 2484.9 | 2484.9 |
| 9° | 2380.7 | 2375.3 | 2366.4 | 2384.3 | 2384.3 |
| 10° | 2274.8 | 2271.2 | 2260.5 | 2277.1 | 2277.1 |
| 11° | 2158.7 | 2156.9 | 2149.2 | 2162.9 | 2162.9 |
| 12° | 2036.7 | 2040.9 | 2033.7 | 2045.6 | 2041.5 |
| 13° | 1914.7 | 1912.9 | 1913.5 | 1922.4 | 1915.9 |
| 14° | 1776.6 | 1787.3 | 1789.1 | 1794.5 | 1784.3 |
| 15° | 1644.5 | 1658.2 | 1655.2 | 1662.9 | 1649.8 |
| 16° | 1509.4 | 1524.8 | 1524.2 | 1526.0 | 1513.5 |
| 17° | 1383.2 | 1392.1 | 1392.7 | 1390.9 | 1375.4 |
| 18° | 1248.7 | 1261.2 | 1261.2 | 1258.2 | 1239.7 |
| 19° | 1117.1 | 1126.7 | 1133.2 | 1126.7 | 1105.2 |
| 20° | 998.7 | 1005.3 | 1017.2 | 1000.5 | 976.7 |
| 21° | 885.0 | 891.0 | 901.1 | 881.5 | 855.3 |
| 22° | 776.1 | 783.8 | 793.4 | 770.8 | 743.4 |
| 23° | 674.3 | 692.2 | 695.8 | 664.8 | 641.6 |
| 24° | 580.9 | 601.1 | 607.1 | 575.5 | 551.1 |
| 25° | 497.6 | 520.2 | 533.9 | 497.0 | 472.6 |
| 26° | 425.6 | 447.6 | 464.2 | 427.3 | 404.1 |
| 27° | 362.5 | 385.7 | 402.9 | 368.4 | 346.4 |
| 28° | 308.3 | 330.9 | 348.8 | 316.6 | 295.8 |
| 29° | 267.8 | 280.9 | 298.8 | 272.0 | 252.9 |
| 30° | 228.0 | 242.2 | 261.3 | 233.9 | 217.2 |
| 32.5° | 156.5 | 164.3 | 179.1 | 162.5 | 149.4 |
| 35° | 111.3 | 116.1 | 123.2 | 111.9 | 104.2 |
| 37.5° | 79.2 | 81.5 | 85.7 | 79.2 | 75.0 |
| 40° | 58.3 | 59.5 | 61.3 | 57.7 | 55.4 |
| 42.5° | 43.4 | 44.0 | 44.0 | 42.9 | 41.7 |
| 45° | 32.7 | 33.3 | 32.7 | 32.7 | 31.5 |
| 47.5° | 23.8 | 25.6 | 25.0 | 25.0 | 23.2 |
| 50° | 15.5 | 19.0 | 19.0 | 18.5 | 15.5 |
| 52.5° | 9.5 | 13.1 | 14.9 | 13.1 | 10.1 |
| 55° | 7.1 | 8.9 | 11.3 | 8.9 | 7.7 |
| 57.5° | 7.1 | 7.1 | 8.3 | 7.1 | 7.1 |
| 60° | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-----|-------|-----|-------|-----|
| 67.5° | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| 70° | 6.5 | 6.5 | 6.0 | 6.5 | 6.5 |
| 72.5° | 6.0 | 6.0 | 5.4 | 6.0 | 5.4 |
| 75° | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| 77.5° | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| 80° | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 82.5° | 1.8 | 1.8 | 1.8 | 2.4 | 1.8 |
| 85° | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 87.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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







| | | | | | |
|-------|-----|-----|-----|-----|-----|
| 62.5° | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 |
| 65° | 6.5 | 7.1 | 6.5 | 7.1 | 6.5 |



(END OF REPORT)