

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: P315971

Luminaire Tested: **LDA2B15SP8035D010 PINW1MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P315971
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA2B15SP8035D010 PINW1MB
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj PinHole, White oculus black finish
Light Source: -
Ballast/Driver: -

Summary

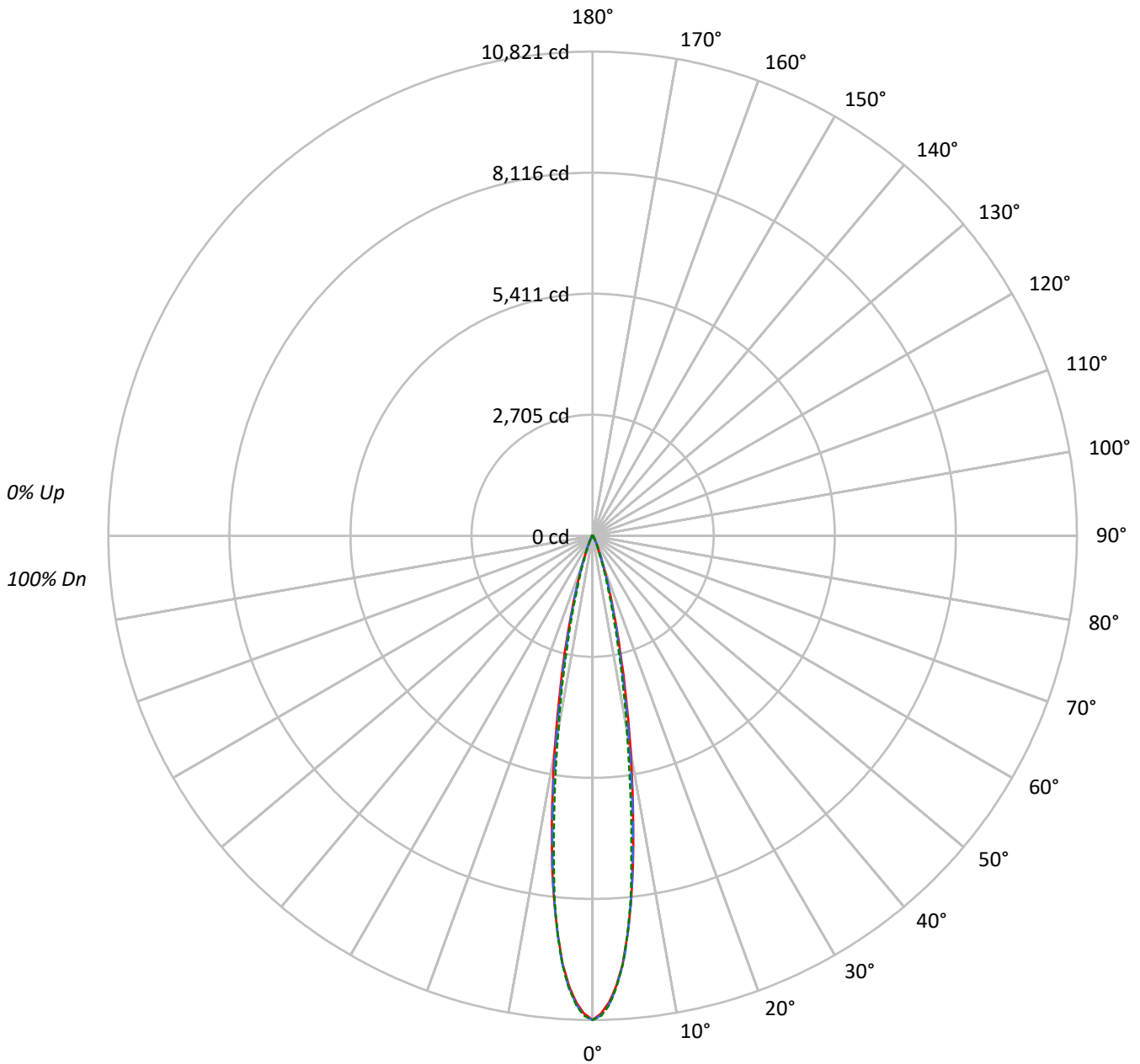
Lumens per Lamp: N/A
Luminaire Lumens: 1455.6 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.3 / 0.32
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

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 | | | | 100 | | | | | | | | | | | | | | | |
| 1 | 115 | 113 | 111 | 109 | 113 | 111 | 109 | 107 | 107 | 105 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 96 | 98 | 99 | 98 | 96 | | | | | | | | | | | | | | | |
| 2 | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 103 | 101 | 99 | 100 | 98 | 97 | 98 | 96 | 95 | 94 | 98 | 96 | 95 | 94 | | | | | | | | | | | | | | | |
| 3 | 108 | 104 | 100 | 97 | 106 | 102 | 99 | 97 | 100 | 97 | 95 | 98 | 95 | 94 | 96 | 94 | 92 | 91 | 96 | 94 | 92 | 91 | | | | | | | | | | | | | | | |
| 4 | 105 | 100 | 96 | 93 | 104 | 99 | 96 | 93 | 97 | 94 | 92 | 95 | 93 | 91 | 94 | 92 | 90 | 89 | 94 | 92 | 90 | 89 | | | | | | | | | | | | | | | |
| 5 | 102 | 97 | 93 | 90 | 101 | 96 | 93 | 90 | 95 | 91 | 89 | 93 | 90 | 88 | 92 | 89 | 88 | 87 | 92 | 89 | 88 | 87 | | | | | | | | | | | | | | | |
| 6 | 100 | 94 | 90 | 88 | 99 | 94 | 90 | 87 | 92 | 89 | 87 | 91 | 88 | 86 | 90 | 88 | 86 | 85 | 90 | 88 | 86 | 85 | | | | | | | | | | | | | | | |
| 7 | 98 | 92 | 88 | 85 | 97 | 91 | 88 | 85 | 90 | 87 | 85 | 89 | 86 | 84 | 88 | 86 | 84 | 83 | 88 | 86 | 84 | 83 | | | | | | | | | | | | | | | |
| 8 | 96 | 90 | 86 | 83 | 95 | 89 | 86 | 83 | 88 | 85 | 83 | 87 | 85 | 82 | 87 | 84 | 82 | 81 | 87 | 84 | 82 | 81 | | | | | | | | | | | | | | | |
| 9 | 94 | 88 | 84 | 81 | 93 | 87 | 84 | 81 | 86 | 83 | 81 | 86 | 83 | 81 | 85 | 82 | 81 | 80 | 85 | 82 | 81 | 80 | | | | | | | | | | | | | | | |
| 10 | 92 | 86 | 82 | 80 | 91 | 85 | 82 | 80 | 85 | 82 | 79 | 84 | 81 | 79 | 84 | 81 | 79 | 78 | 84 | 81 | 79 | 78 | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 5338471 | 5338471 | 5338471 |
| 5° | 4428790 | 4443202 | 4426314 |
| 10° | 2451209 | 2362637 | 2200923 |
| 15° | 992265 | 949054 | 842661 |
| 20° | 332446 | 352502 | 285403 |
| 25° | 126510 | 126946 | 120141 |
| 30° | 56741 | 55772 | 53892 |
| 35° | 27464 | 24513 | 19514 |
| 40° | 18162 | 22992 | 16037 |
| 45° | 4605 | 7535 | 6977 |
| 50° | 1305 | 1919 | 2533 |
| 55° | 11440 | 9978 | 15741 |
| 60° | 16380 | 13123 | 21313 |
| 65° | 7705 | 20313 | 19379 |
| 70° | 7212 | 5914 | 7212 |
| 75° | 3241 | 7815 | 22112 |
| 80° | 37787 | 51993 | 47163 |
| 85° | 0 | 23209 | 28303 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 708.7 | 48.7 |
| 10°-20° | 536.8 | 36.9 |
| 20°-30° | 122.0 | 8.4 |
| 30°-40° | 36.1 | 2.5 |
| 40°-50° | 12.0 | 0.8 |
| 50°-60° | 10.6 | 0.7 |
| 60°-70° | 12.7 | 0.9 |
| 70°-80° | 8.1 | 0.6 |
| 80°-90° | 8.5 | 0.6 |
| 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° | 1367.5 | 94.0 |
| 0°-40° | 1403.6 | 96.4 |
| 0°-60° | 1426.2 | 98.0 |
| 0°-90° | 1455.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1455.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0° | 10821 | 10821 | 10821 | 10821 | 10821 | |
| 5° | 8943 | 9013 | 8972 | 8855 | 8938 | 717 |
| 15° | 1943 | 1969 | 1858 | 1684 | 1650 | 565 |
| 25° | 232 | 250 | 233 | 231 | 221 | 122 |
| 35° | 46 | 51 | 41 | 47 | 32 | 36 |
| 45° | 7 | 19 | 11 | 19 | 10 | 10 |
| 55° | 13 | 19 | 12 | 17 | 18 | 6 |
| 65° | 7 | 14 | 17 | 17 | 17 | 7 |
| 75° | 2 | 6 | 4 | 8 | 12 | 4 |
| 85° | 0 | 0 | 4 | 4 | 5 | 5 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P315971

CATALOG NUMBER: LDA2B15SP8035D010 PINW1MB

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|---------|---------|---------|---------|---------|
| 0° | 10820.6 | 10820.6 | 10820.6 | 10820.6 | 10820.6 |
| 1° | 10681.2 | 10724.3 | 10720.2 | 10702.7 | 10733.5 |
| 2° | 10435.5 | 10487.8 | 10482.8 | 10444.7 | 10499.4 |
| 3° | 10075.4 | 10121.8 | 10114.4 | 10059.6 | 10119.4 |
| 4° | 9594.1 | 9647.2 | 9626.4 | 9544.3 | 9620.6 |
| 5° | 8942.6 | 9013.1 | 8971.7 | 8854.6 | 8937.6 |
| 6° | 8220.6 | 8280.4 | 8214.8 | 8059.6 | 8141.0 |
| 7° | 7412.3 | 7449.7 | 7363.4 | 7164.2 | 7109.4 |
| 8° | 6530.2 | 6579.2 | 6458.8 | 6226.5 | 6166.7 |
| 9° | 5687.1 | 5703.7 | 5557.6 | 5310.3 | 5234.8 |
| 10° | 4892.9 | 4880.4 | 4716.1 | 4465.5 | 4393.3 |
| 11° | 4140.2 | 4123.6 | 3950.1 | 3718.6 | 3741.9 |
| 12° | 3455.6 | 3487.9 | 3286.3 | 3076.3 | 3080.5 |
| 13° | 2892.9 | 2896.2 | 2722.8 | 2522.8 | 2511.2 |
| 14° | 2368.4 | 2399.1 | 2250.6 | 2071.3 | 2038.1 |
| 15° | 1942.7 | 1969.3 | 1858.1 | 1683.8 | 1649.8 |
| 16° | 1555.2 | 1588.4 | 1508.7 | 1351.0 | 1306.2 |
| 17° | 1252.3 | 1294.6 | 1242.3 | 1110.4 | 1058.9 |
| 18° | 1001.6 | 1034.0 | 1021.6 | 885.5 | 843.1 |
| 19° | 790.9 | 835.7 | 839.0 | 725.3 | 674.7 |
| 20° | 633.2 | 673.8 | 671.4 | 583.4 | 543.6 |
| 22.5° | 363.5 | 385.1 | 385.9 | 344.4 | 321.2 |
| 25° | 232.4 | 249.8 | 233.2 | 230.7 | 220.7 |
| 26° | 201.7 | 215.8 | 197.5 | 197.5 | 188.4 |
| 27° | 163.5 | 175.9 | 158.5 | 166.0 | 153.5 |
| 28° | 137.8 | 151.0 | 136.1 | 134.4 | 132.8 |
| 29° | 114.5 | 127.0 | 107.9 | 116.2 | 111.2 |
| 30° | 99.6 | 108.7 | 97.9 | 110.4 | 94.6 |
| 32.5° | 77.2 | 84.6 | 65.6 | 83.0 | 62.2 |
| 35° | 45.6 | 50.6 | 40.7 | 47.3 | 32.4 |
| 37.5° | 47.3 | 49.0 | 44.0 | 49.0 | 45.6 |
| 40° | 28.2 | 29.0 | 35.7 | 35.7 | 24.9 |
| 42.5° | 26.6 | 25.7 | 15.8 | 24.9 | 19.9 |
| 45° | 6.6 | 19.1 | 10.8 | 19.1 | 10.0 |
| 47.5° | 5.0 | 6.6 | 6.6 | 13.3 | 13.3 |
| 50° | 1.7 | 6.6 | 2.5 | 5.0 | 3.3 |
| 52.5° | 0.0 | 15.8 | 3.3 | 11.6 | 10.0 |
| 55° | 13.3 | 19.1 | 11.6 | 17.4 | 18.3 |
| 57.5° | 1.7 | 13.3 | 6.6 | 14.1 | 10.0 |
| 60° | 16.6 | 22.4 | 13.3 | 24.1 | 21.6 |
| 62.5° | 1.7 | 14.9 | 17.4 | 13.3 | 11.6 |
| 65° | 6.6 | 14.1 | 17.4 | 16.6 | 16.6 |
| 67.5° | 8.3 | 14.1 | 10.8 | 10.8 | 14.9 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|------|-------|------|-------|------|
| 75° | 1.7 | 5.8 | 4.1 | 7.5 | 11.6 |
| 77.5° | 1.7 | 6.6 | 5.8 | 13.3 | 10.0 |
| 80° | 13.3 | 14.9 | 18.3 | 24.1 | 16.6 |
| 82.5° | 11.6 | 11.6 | 18.3 | 13.3 | 10.0 |
| 85° | 0.0 | 0.0 | 4.1 | 4.1 | 5.0 |
| 87.5° | 0.0 | 3.3 | 8.3 | 6.6 | 11.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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







| | | | | | |
|-------|-----|-----|-----|-----|-----|
| 70° | 5.0 | 1.7 | 4.1 | 4.1 | 5.0 |
| 72.5° | 1.7 | 7.5 | 6.6 | 4.1 | 8.3 |



(END OF REPORT)