

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: P281724

Luminaire Tested: **LDA2B159050D010 EU2B15SP159050 2LBAPINSQ1MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P281724
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-10)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA2B159050D010 EU2B15SP159050 2LBAPINSQ1MW
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ PinHole, MW
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1264.8 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Spacing Criteria (0/90/45): 0.3 / 0.3 / 0.29
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

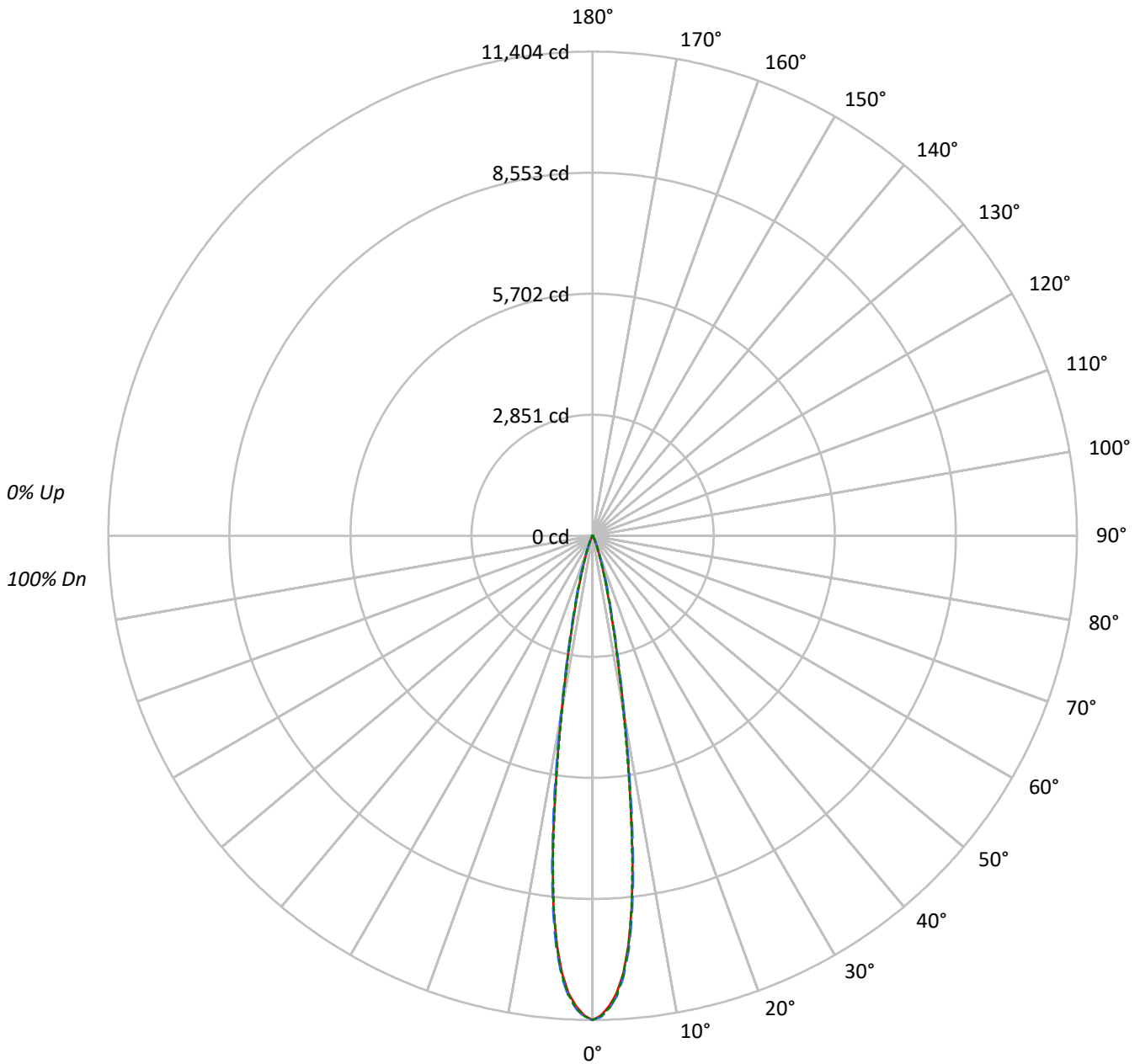
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | | | | | | | | | | | | | | | | | | | |
| 1 | 116 | 114 | 112 | 111 | 113 | 112 | 110 | 109 | 108 | 107 | 106 | 104 | 103 | 103 | 101 | 100 | 100 | 98 | | | | | | | | | | | | | | | | | | | |
| 2 | 113 | 110 | 107 | 105 | 111 | 108 | 106 | 104 | 105 | 103 | 102 | 102 | 101 | 99 | 99 | 98 | 97 | 96 | | | | | | | | | | | | | | | | | | | |
| 3 | 110 | 106 | 103 | 101 | 108 | 105 | 102 | 100 | 102 | 100 | 98 | 100 | 98 | 97 | 98 | 97 | 95 | 94 | | | | | | | | | | | | | | | | | | | |
| 4 | 107 | 103 | 100 | 97 | 106 | 102 | 99 | 97 | 100 | 98 | 96 | 98 | 96 | 95 | 97 | 95 | 94 | 93 | | | | | | | | | | | | | | | | | | | |
| 5 | 105 | 100 | 97 | 95 | 104 | 100 | 96 | 94 | 98 | 95 | 93 | 97 | 94 | 93 | 95 | 93 | 92 | 91 | | | | | | | | | | | | | | | | | | | |
| 6 | 103 | 98 | 95 | 92 | 102 | 97 | 94 | 92 | 96 | 93 | 91 | 95 | 93 | 91 | 94 | 92 | 90 | 89 | | | | | | | | | | | | | | | | | | | |
| 7 | 101 | 96 | 93 | 90 | 100 | 95 | 92 | 90 | 94 | 92 | 90 | 93 | 91 | 89 | 93 | 90 | 89 | 88 | | | | | | | | | | | | | | | | | | | |
| 8 | 99 | 94 | 91 | 89 | 98 | 94 | 91 | 88 | 93 | 90 | 88 | 92 | 90 | 88 | 91 | 89 | 88 | 87 | | | | | | | | | | | | | | | | | | | |
| 9 | 98 | 92 | 89 | 87 | 97 | 92 | 89 | 87 | 91 | 89 | 87 | 91 | 88 | 86 | 90 | 88 | 86 | 85 | | | | | | | | | | | | | | | | | | | |
| 10 | 96 | 91 | 88 | 86 | 95 | 90 | 88 | 86 | 90 | 87 | 85 | 89 | 87 | 85 | 89 | 87 | 85 | 84 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 5626298 | 5626298 | 5626298 |
| 5° | 4790964 | 4840835 | 4800027 |
| 10° | 2115107 | 2163501 | 2065711 |
| 15° | 641777 | 736116 | 651890 |
| 20° | 192054 | 256055 | 214578 |
| 25° | 74796 | 73653 | 78661 |
| 30° | 33327 | 30136 | 31731 |
| 35° | 6806 | 5963 | 5963 |
| 40° | 0 | 451 | 1803 |
| 45° | 5931 | 4884 | 8861 |
| 50° | 0 | 1612 | 5373 |
| 55° | 0 | 0 | 2408 |
| 60° | 0 | 691 | 2763 |
| 65° | 0 | 0 | 1634 |
| 70° | 0 | 4039 | 8078 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 3962 | 15850 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 739.3 | 58.4 |
| 10°-20° | 422.2 | 33.4 |
| 20°-30° | 80.1 | 6.3 |
| 30°-40° | 14.6 | 1.2 |
| 40°-50° | 3.8 | 0.3 |
| 50°-60° | 2.9 | 0.2 |
| 60°-70° | 0.5 | 0.0 |
| 70°-80° | 0.6 | 0.1 |
| 80°-90° | 0.9 | 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° | 1241.6 | 98.2 |
| 0°-40° | 1256.2 | 99.3 |
| 0°-60° | 1262.8 | 99.8 |
| 0°-90° | 1264.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1264.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0° | 11404 | 11404 | 11404 | 11404 | 11404 | |
| 5° | 9674 | 9737 | 9775 | 9758 | 9692 | 735 |
| 15° | 1256 | 1366 | 1441 | 1354 | 1276 | 400 |
| 25° | 137 | 148 | 135 | 154 | 144 | 72 |
| 35° | 11 | 14 | 10 | 12 | 10 | 16 |
| 45° | 8 | 13 | 7 | 8 | 13 | 4 |
| 55° | 0 | 1 | 0 | 1 | 3 | 1 |
| 65° | 0 | 0 | 0 | 0 | 1 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 1 | 1 | 1 | 3 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P281724

CATALOG NUMBER: LDA2B159050D010 EU2B15SP159050 2LBAPINSQ1MW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|---------|---------|---------|---------|---------|
| 0° | 11404.0 | 11404.0 | 11404.0 | 11404.0 | 11404.0 |
| 1° | 11296.1 | 11308.1 | 11333.5 | 11359.6 | 11318.7 |
| 2° | 11084.7 | 11113.6 | 11149.6 | 11173.5 | 11129.1 |
| 3° | 10788.7 | 10828.9 | 10867.0 | 10871.9 | 10830.3 |
| 4° | 10331.4 | 10380.7 | 10420.9 | 10415.9 | 10363.8 |
| 5° | 9673.9 | 9737.3 | 9774.6 | 9757.7 | 9692.2 |
| 6° | 8804.9 | 8866.2 | 8914.2 | 8865.5 | 8777.4 |
| 7° | 7722.5 | 7792.9 | 7843.7 | 7760.5 | 7652.7 |
| 8° | 6468.0 | 6566.7 | 6617.4 | 6501.2 | 6390.5 |
| 9° | 5279.9 | 5348.2 | 5399.7 | 5272.8 | 5160.0 |
| 10° | 4222.0 | 4347.5 | 4318.6 | 4220.6 | 4123.4 |
| 11° | 3320.7 | 3434.2 | 3439.1 | 3372.8 | 3277.7 |
| 12° | 2599.8 | 2719.6 | 2749.9 | 2699.1 | 2614.6 |
| 13° | 2054.3 | 2143.8 | 2193.8 | 2141.7 | 2061.3 |
| 14° | 1635.0 | 1714.6 | 1778.7 | 1711.1 | 1630.7 |
| 15° | 1256.5 | 1366.5 | 1441.2 | 1353.8 | 1276.3 |
| 16° | 999.3 | 1090.2 | 1179.0 | 1079.6 | 1017.6 |
| 17° | 767.5 | 848.5 | 940.1 | 849.9 | 799.2 |
| 18° | 607.5 | 671.6 | 772.4 | 679.4 | 635.0 |
| 19° | 475.7 | 524.3 | 618.0 | 536.3 | 500.4 |
| 20° | 365.8 | 419.3 | 487.7 | 432.0 | 408.7 |
| 22.5° | 221.3 | 250.9 | 270.6 | 253.7 | 241.7 |
| 25° | 137.4 | 148.0 | 135.3 | 154.3 | 144.5 |
| 26° | 119.8 | 127.6 | 124.7 | 137.4 | 125.4 |
| 27° | 95.8 | 105.7 | 98.0 | 107.8 | 104.3 |
| 28° | 87.4 | 99.4 | 83.9 | 95.8 | 90.2 |
| 29° | 61.3 | 66.2 | 59.9 | 64.1 | 64.1 |
| 30° | 58.5 | 59.9 | 52.9 | 57.8 | 55.7 |
| 32.5° | 45.8 | 43.0 | 35.2 | 37.4 | 35.9 |
| 35° | 11.3 | 14.1 | 9.9 | 12.0 | 9.9 |
| 37.5° | 16.9 | 15.5 | 18.3 | 17.6 | 16.9 |
| 40° | 0.0 | 0.7 | 0.7 | 0.7 | 2.8 |
| 42.5° | 12.7 | 7.8 | 7.0 | 4.9 | 8.5 |
| 45° | 8.5 | 13.4 | 7.0 | 7.8 | 12.7 |
| 47.5° | 0.0 | 0.7 | 0.0 | 1.4 | 1.4 |
| 50° | 0.0 | 1.4 | 2.1 | 2.8 | 7.0 |
| 52.5° | 1.4 | 8.5 | 4.2 | 7.8 | 11.3 |
| 55° | 0.0 | 0.7 | 0.0 | 0.7 | 2.8 |
| 57.5° | 2.8 | 1.4 | 2.8 | 2.8 | 12.7 |
| 60° | 0.0 | 1.4 | 0.7 | 0.7 | 2.8 |
| 62.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 |
| 67.5° | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-----|-------|-----|-------|-----|
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 |
| 80° | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.7 | 1.4 | 2.1 | 1.4 |
| 85° | 0.0 | 0.7 | 0.7 | 0.7 | 2.8 |
| 87.5° | 0.0 | 1.4 | 2.1 | 0.0 | 1.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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







| | | | | | |
|-------|-----|-----|-----|-----|-----|
| 70° | 0.0 | 2.1 | 2.8 | 0.0 | 5.6 |
| 72.5° | 0.0 | 3.5 | 0.7 | 0.7 | 0.0 |



(END OF REPORT)