

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: P224981

Luminaire Tested: **LSR2B15FL409040D010 2LBDL*LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P224981
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (152)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LSR2B15FL409040D010 2LBDL*LI
Description: 1500 Lumen, 2inch Portfolio LED Cylinder
FLOOD OPTIC
LENSED SPUN ROUND TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1113.4 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.59 / 0.58
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
CIE Type: Direct

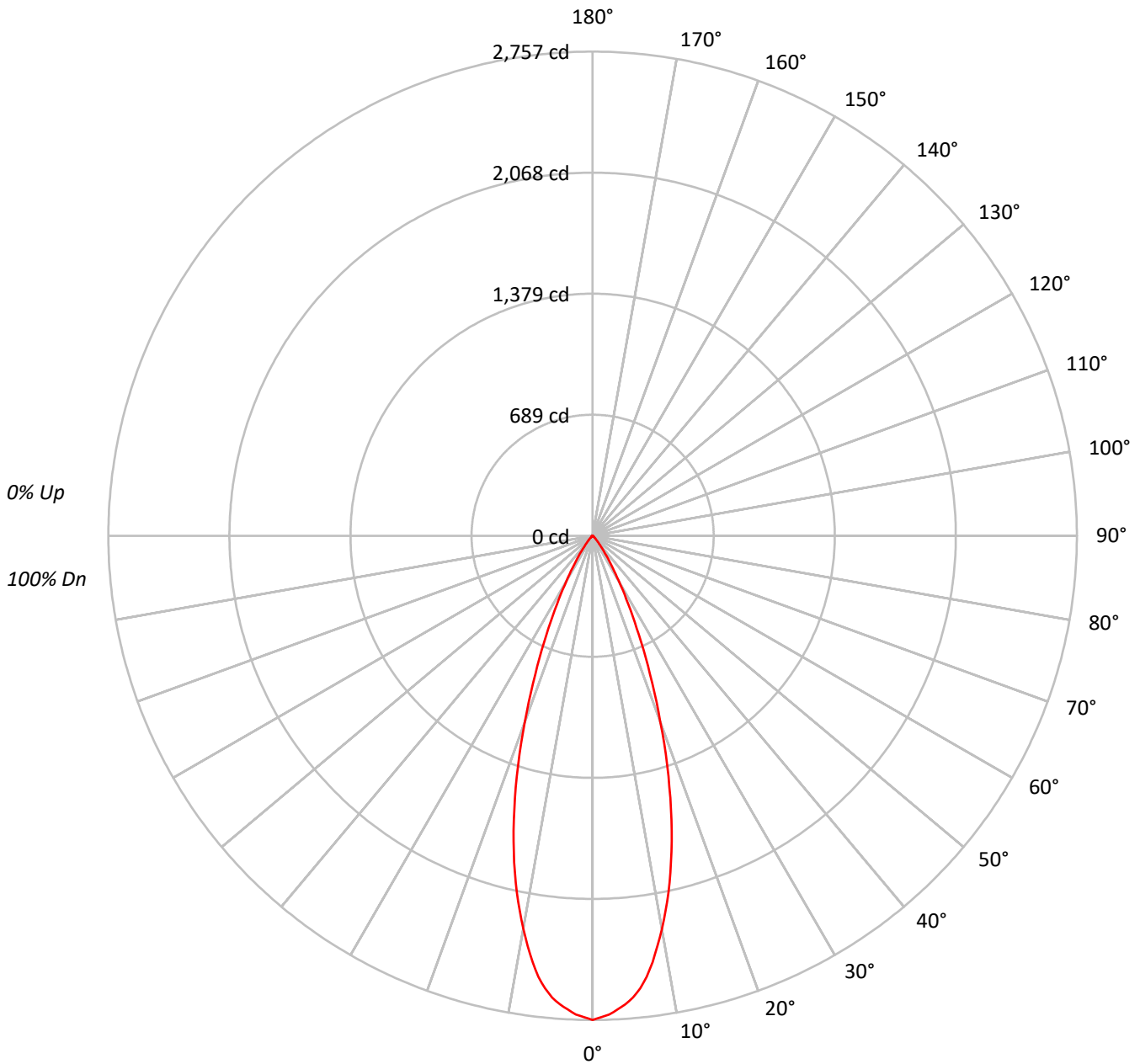
Input Watts (W): 14.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 | 100 |
| 1 | 114 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 96 | 96 | 96 |
| 2 | 110 | 106 | 103 | 100 | 108 | 104 | 101 | 99 | 101 | 99 | 97 | 98 | 96 | 95 | 96 | 94 | 93 | 91 | 91 | 91 | 91 |
| 3 | 106 | 101 | 96 | 93 | 104 | 99 | 95 | 92 | 97 | 94 | 91 | 94 | 92 | 90 | 92 | 90 | 88 | 87 | 87 | 87 | 87 |
| 4 | 102 | 96 | 91 | 88 | 100 | 95 | 90 | 87 | 93 | 89 | 86 | 91 | 88 | 85 | 89 | 86 | 84 | 83 | 83 | 83 | 83 |
| 5 | 98 | 91 | 86 | 83 | 97 | 90 | 86 | 83 | 89 | 85 | 82 | 87 | 84 | 81 | 86 | 83 | 81 | 79 | 79 | 79 | 79 |
| 6 | 94 | 87 | 82 | 79 | 93 | 86 | 82 | 79 | 85 | 81 | 78 | 84 | 80 | 78 | 83 | 79 | 77 | 76 | 76 | 76 | 76 |
| 7 | 91 | 83 | 79 | 75 | 90 | 83 | 78 | 75 | 82 | 78 | 75 | 81 | 77 | 74 | 80 | 76 | 74 | 73 | 73 | 73 | 73 |
| 8 | 88 | 80 | 75 | 72 | 87 | 80 | 75 | 72 | 79 | 74 | 71 | 78 | 74 | 71 | 77 | 73 | 71 | 70 | 70 | 70 | 70 |
| 9 | 85 | 77 | 72 | 69 | 84 | 76 | 72 | 69 | 76 | 71 | 69 | 75 | 71 | 68 | 74 | 71 | 68 | 67 | 67 | 67 | 67 |
| 10 | 82 | 74 | 69 | 66 | 81 | 74 | 69 | 66 | 73 | 69 | 66 | 72 | 68 | 66 | 72 | 68 | 66 | 65 | 65 | 65 | 65 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|---------|
| | 0° |
| 0° | 1068029 |
| 5° | 1026344 |
| 10° | 893469 |
| 15° | 697677 |
| 20° | 463978 |
| 25° | 265708 |
| 30° | 132078 |
| 35° | 60715 |
| 40° | 24321 |
| 45° | 11120 |
| 50° | 5182 |
| 55° | 2904 |
| 60° | 1627 |
| 65° | 0 |
| 70° | 0 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 240.2 | 21.6 |
| 10°-20° | 471.8 | 42.4 |
| 20°-30° | 292.0 | 26.2 |
| 30°-40° | 87.4 | 7.8 |
| 40°-50° | 17.5 | 1.6 |
| 50°-60° | 4.3 | 0.4 |
| 60°-70° | 0.3 | 0.0 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 1004.0 | 90.2 |
| 0°-40° | 1091.3 | 98.0 |
| 0°-60° | 1113.1 | 100.0 |
| 0°-90° | 1113.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1113.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 2757 | |
| 5° | 2640 | 240 |
| 15° | 1740 | 472 |
| 25° | 622 | 292 |
| 35° | 128 | 87 |
| 45° | 20 | 17 |
| 55° | 4 | 4 |
| 65° | 0 | 0 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 2757.3 |
| 1° | 2742.3 |
| 2° | 2728.4 |
| 3° | 2700.6 |
| 4° | 2674.9 |
| 5° | 2639.6 |
| 6° | 2591.5 |
| 7° | 2530.5 |
| 8° | 2452.4 |
| 9° | 2363.6 |
| 10° | 2271.6 |
| 11° | 2176.3 |
| 12° | 2074.7 |
| 13° | 1968.8 |
| 14° | 1855.3 |
| 15° | 1739.8 |
| 17.5° | 1434.8 |
| 20° | 1125.6 |
| 22.5° | 851.7 |
| 25° | 621.7 |
| 27.5° | 436.5 |
| 30° | 295.3 |
| 32.5° | 194.7 |
| 35° | 128.4 |
| 37.5° | 80.2 |
| 40° | 48.1 |
| 42.5° | 31.0 |
| 45° | 20.3 |
| 47.5° | 12.8 |
| 50° | 8.6 |
| 52.5° | 6.4 |
| 55° | 4.3 |
| 57.5° | 3.2 |
| 60° | 2.1 |
| 62.5° | 0.0 |
| 65° | 0.0 |
| 67.5° | 0.0 |
| 70° | 0.0 |
| 72.5° | 0.0 |
| 75° | 0.0 |
| 77.5° | 0.0 |
| 80° | 0.0 |
| 82.5° | 0.0 |



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CANDELA DISTRIBUTION (continued):

0°
90° | 0.0



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— 0°-180°







| | | |
|-------|--|-----|
| 85° | | 0.0 |
| 87.5° | | 0.0 |



(END OF REPORT)