

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: P225243

Luminaire Tested: **LD2B05D010 EU2B05FL408040 2LBDSQLC*MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P225243
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14838)
Test Lab: INNOVATION CENTER (G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD2B05D010 EU2B05FL408040 2LBDSQLC*MB
Description: 500 Lumen, 2inch Portfolio LED Downlight
FLOOD OPTIC
LENSED SQUARE CAST TRIM WITH MATTE BLACK FINISH
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 705.0 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 0.6 / 0.61 / 0.59
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
CIE Type: Direct

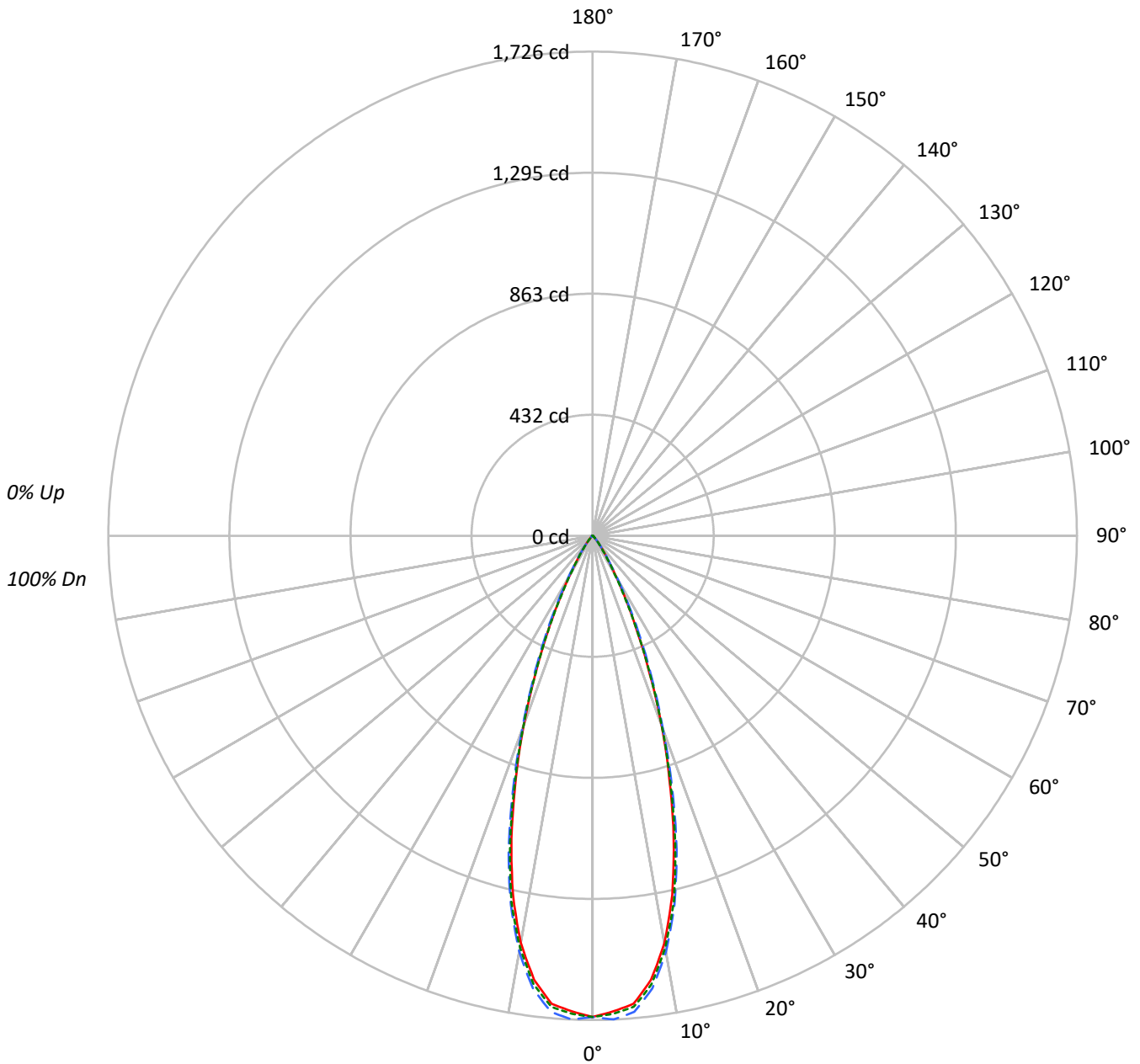
Input Watts (W): 7.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 |
| 1 | 115 | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | | | 96 |
| 2 | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 99 | 97 | 98 | 97 | 95 | 96 | 94 | 93 | 91 | | | 91 |
| 3 | 106 | 101 | 97 | 94 | 104 | 99 | 96 | 93 | 97 | 94 | 91 | 95 | 92 | 90 | 92 | 90 | 89 | 87 | | | 87 |
| 4 | 102 | 96 | 92 | 88 | 100 | 95 | 91 | 88 | 93 | 89 | 87 | 91 | 88 | 86 | 89 | 87 | 85 | 83 | | | 83 |
| 5 | 98 | 92 | 87 | 84 | 97 | 91 | 86 | 83 | 89 | 85 | 82 | 88 | 84 | 82 | 86 | 83 | 81 | 80 | | | 80 |
| 6 | 95 | 88 | 83 | 79 | 93 | 87 | 82 | 79 | 86 | 82 | 79 | 84 | 81 | 78 | 83 | 80 | 78 | 77 | | | 77 |
| 7 | 91 | 84 | 79 | 76 | 90 | 83 | 79 | 76 | 82 | 78 | 75 | 81 | 78 | 75 | 80 | 77 | 75 | 73 | | | 73 |
| 8 | 88 | 81 | 76 | 73 | 87 | 80 | 76 | 73 | 79 | 75 | 72 | 78 | 75 | 72 | 77 | 74 | 72 | 71 | | | 71 |
| 9 | 85 | 78 | 73 | 70 | 84 | 77 | 73 | 70 | 76 | 72 | 69 | 75 | 72 | 69 | 75 | 71 | 69 | 68 | | | 68 |
| 10 | 82 | 75 | 70 | 67 | 82 | 74 | 70 | 67 | 74 | 70 | 67 | 73 | 69 | 67 | 72 | 69 | 66 | 65 | | | 65 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 664376 | 664376 | 664376 |
| 5° | 651244 | 662442 | 655366 |
| 10° | 579559 | 591988 | 585970 |
| 15° | 447768 | 463929 | 455828 |
| 20° | 295386 | 301693 | 296952 |
| 25° | 161126 | 172195 | 161938 |
| 30° | 72502 | 80240 | 69506 |
| 35° | 31303 | 32202 | 28561 |
| 40° | 13096 | 13602 | 12135 |
| 45° | 5259 | 5807 | 5807 |
| 50° | 2290 | 2892 | 2892 |
| 55° | 1283 | 1283 | 1958 |
| 60° | 775 | 775 | 775 |
| 65° | 0 | 0 | 0 |
| 70° | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 155.0 | 22.0 |
| 10°-20° | 308.6 | 43.8 |
| 20°-30° | 182.3 | 25.9 |
| 30°-40° | 47.5 | 6.7 |
| 40°-50° | 9.4 | 1.3 |
| 50°-60° | 2.1 | 0.3 |
| 60°-70° | 0.2 | 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° | 645.9 | 91.6 |
| 0°-40° | 693.4 | 98.4 |
| 0°-60° | 704.8 | 100.0 |
| 0°-90° | 705.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 705.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1715 | 1715 | 1715 | 1715 | 1715 | |
| 5° | 1675 | 1688 | 1704 | 1692 | 1686 | 153 |
| 15° | 1117 | 1142 | 1157 | 1140 | 1137 | 303 |
| 25° | 377 | 390 | 403 | 388 | 379 | 178 |
| 35° | 66 | 69 | 68 | 67 | 60 | 46 |
| 45° | 10 | 12 | 11 | 11 | 11 | 9 |
| 55° | 2 | 2 | 2 | 2 | 3 | 2 |
| 65° | 0 | 0 | 0 | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1715.2 | 1715.2 | 1715.2 | 1715.2 | 1715.2 |
| 2.5° | 1697.0 | 1714.2 | 1725.7 | 1716.2 | 1705.6 |
| 5° | 1674.9 | 1688.3 | 1703.7 | 1692.2 | 1685.5 |
| 7.5° | 1596.2 | 1616.4 | 1627.9 | 1622.1 | 1611.6 |
| 10° | 1473.5 | 1488.8 | 1505.1 | 1499.4 | 1489.8 |
| 12.5° | 1311.3 | 1332.4 | 1347.8 | 1334.4 | 1336.3 |
| 15° | 1116.6 | 1141.5 | 1156.9 | 1139.6 | 1136.7 |
| 17.5° | 910.4 | 929.5 | 940.1 | 929.5 | 921.9 |
| 20° | 716.6 | 728.1 | 731.9 | 727.1 | 720.4 |
| 22.5° | 529.5 | 542.0 | 553.5 | 542.0 | 533.4 |
| 25° | 377.0 | 389.5 | 402.9 | 387.5 | 378.9 |
| 27.5° | 254.2 | 261.9 | 273.4 | 259.0 | 246.5 |
| 30° | 162.1 | 170.8 | 179.4 | 168.8 | 155.4 |
| 32.5° | 102.6 | 108.4 | 109.4 | 107.4 | 95.9 |
| 35° | 66.2 | 69.1 | 68.1 | 67.1 | 60.4 |
| 37.5° | 42.2 | 42.2 | 43.2 | 42.2 | 38.4 |
| 40° | 25.9 | 27.8 | 26.9 | 25.9 | 24.0 |
| 42.5° | 15.3 | 17.3 | 16.3 | 16.3 | 15.3 |
| 45° | 9.6 | 11.5 | 10.6 | 10.6 | 10.6 |
| 47.5° | 6.7 | 7.7 | 6.7 | 6.7 | 7.7 |
| 50° | 3.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| 52.5° | 2.9 | 2.9 | 2.9 | 2.9 | 3.8 |
| 55° | 1.9 | 1.9 | 1.9 | 1.9 | 2.9 |
| 57.5° | 1.9 | 1.9 | 1.0 | 1.0 | 1.9 |
| 60° | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 62.5° | 1.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| 65° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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







(END OF REPORT)