

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: P225246

Luminaire Tested: **LD2B05D010 EU2B05FL409027 2LBDSQLC*MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P225246
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 EU2B05FL409027 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: 518.0 lumens
Efficiency: N/A
Efficacy: 71.0 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

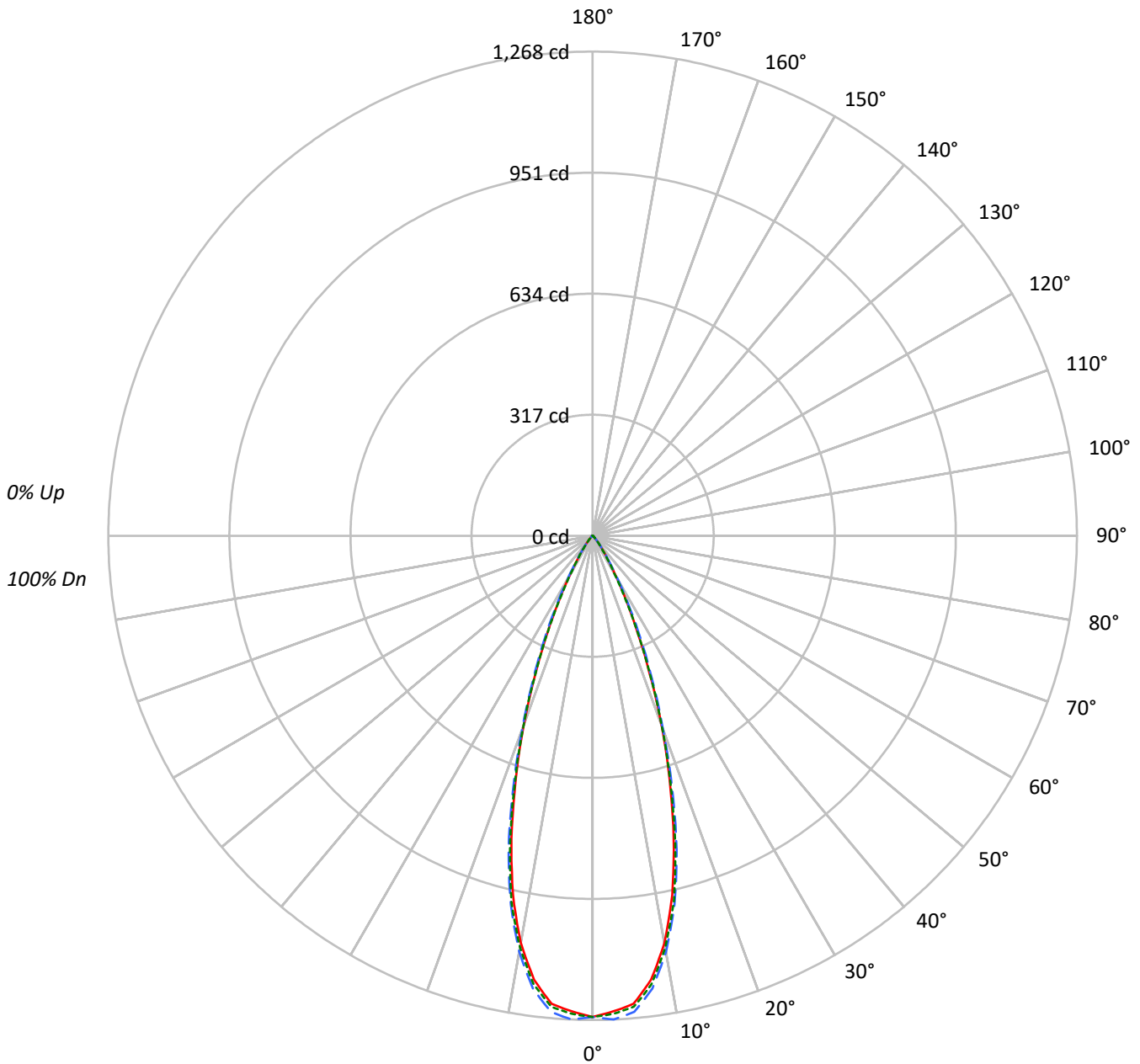
Input Watts (W): 7.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 76 | 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° | 488133 | 488133 | 488133 |
| 5° | 478489 | 486732 | 481522 |
| 10° | 425810 | 434974 | 430530 |
| 15° | 328989 | 340859 | 334924 |
| 20° | 217026 | 221684 | 218180 |
| 25° | 118387 | 126507 | 118985 |
| 30° | 53270 | 58950 | 51078 |
| 35° | 22981 | 23643 | 20995 |
| 40° | 9607 | 9961 | 8899 |
| 45° | 3835 | 4273 | 4273 |
| 50° | 1687 | 2109 | 2109 |
| 55° | 945 | 945 | 1418 |
| 60° | 542 | 542 | 542 |
| 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° | 113.9 | 22.0 |
| 10°-20° | 226.8 | 43.8 |
| 20°-30° | 133.9 | 25.9 |
| 30°-40° | 34.9 | 6.7 |
| 40°-50° | 6.9 | 1.3 |
| 50°-60° | 1.5 | 0.3 |
| 60°-70° | 0.1 | 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° | 474.6 | 91.6 |
| 0°-40° | 509.5 | 98.4 |
| 0°-60° | 517.8 | 100.0 |
| 0°-90° | 518.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 518.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1260 | 1260 | 1260 | 1260 | 1260 | |
| 5° | 1231 | 1240 | 1252 | 1243 | 1238 | 113 |
| 15° | 820 | 839 | 850 | 837 | 835 | 223 |
| 25° | 277 | 286 | 296 | 285 | 278 | 131 |
| 35° | 49 | 51 | 50 | 49 | 44 | 34 |
| 45° | 7 | 8 | 8 | 8 | 8 | 6 |
| 55° | 1 | 1 | 1 | 1 | 2 | 1 |
| 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° | 1260.2 | 1260.2 | 1260.2 | 1260.2 | 1260.2 |
| 2.5° | 1246.8 | 1259.5 | 1268.0 | 1260.9 | 1253.2 |
| 5° | 1230.6 | 1240.5 | 1251.8 | 1243.3 | 1238.4 |
| 7.5° | 1172.8 | 1187.6 | 1196.1 | 1191.9 | 1184.1 |
| 10° | 1082.6 | 1093.9 | 1105.9 | 1101.7 | 1094.6 |
| 12.5° | 963.5 | 979.0 | 990.3 | 980.4 | 981.8 |
| 15° | 820.4 | 838.8 | 850.0 | 837.3 | 835.2 |
| 17.5° | 668.9 | 683.0 | 690.7 | 683.0 | 677.3 |
| 20° | 526.5 | 535.0 | 537.8 | 534.3 | 529.3 |
| 22.5° | 389.1 | 398.2 | 406.7 | 398.2 | 391.9 |
| 25° | 277.0 | 286.2 | 296.0 | 284.8 | 278.4 |
| 27.5° | 186.8 | 192.4 | 200.9 | 190.3 | 181.1 |
| 30° | 119.1 | 125.5 | 131.8 | 124.1 | 114.2 |
| 32.5° | 75.4 | 79.6 | 80.4 | 78.9 | 70.5 |
| 35° | 48.6 | 50.7 | 50.0 | 49.3 | 44.4 |
| 37.5° | 31.0 | 31.0 | 31.7 | 31.0 | 28.2 |
| 40° | 19.0 | 20.4 | 19.7 | 19.0 | 17.6 |
| 42.5° | 11.3 | 12.7 | 12.0 | 12.0 | 11.3 |
| 45° | 7.0 | 8.5 | 7.8 | 7.8 | 7.8 |
| 47.5° | 4.9 | 5.6 | 4.9 | 4.9 | 5.6 |
| 50° | 2.8 | 3.5 | 3.5 | 3.5 | 3.5 |
| 52.5° | 2.1 | 2.1 | 2.1 | 2.1 | 2.8 |
| 55° | 1.4 | 1.4 | 1.4 | 1.4 | 2.1 |
| 57.5° | 1.4 | 1.4 | 0.7 | 0.7 | 1.4 |
| 60° | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| 62.5° | 0.7 | 0.0 | 0.0 | 0.0 | 0.7 |
| 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)