

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: P207683

Luminaire Tested: **LD4B30D010 EU4B30508050 4LBNH1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P207683
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35319)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD4B30D010 EU4B30508050 4LBNH1
Description: PORTFOLIO 4 INCH 50 DEGREE CUTOFF RECESSED DOWNLIGHT
NARROW DISTRIBUTION WITH SEMI-SPECULAR CLEAR TRIM
WATTAGE D010TR-27.4W DE010-27.95W D5LT-27.65W DMX-27.73W DL2-29.56W
DL3-29.67W DLE-29.73W
Light Source: HIGH LUMEN LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1888.0 lumens
Efficiency: N/A
Efficacy: 67.4 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 0.81 / 0.85
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

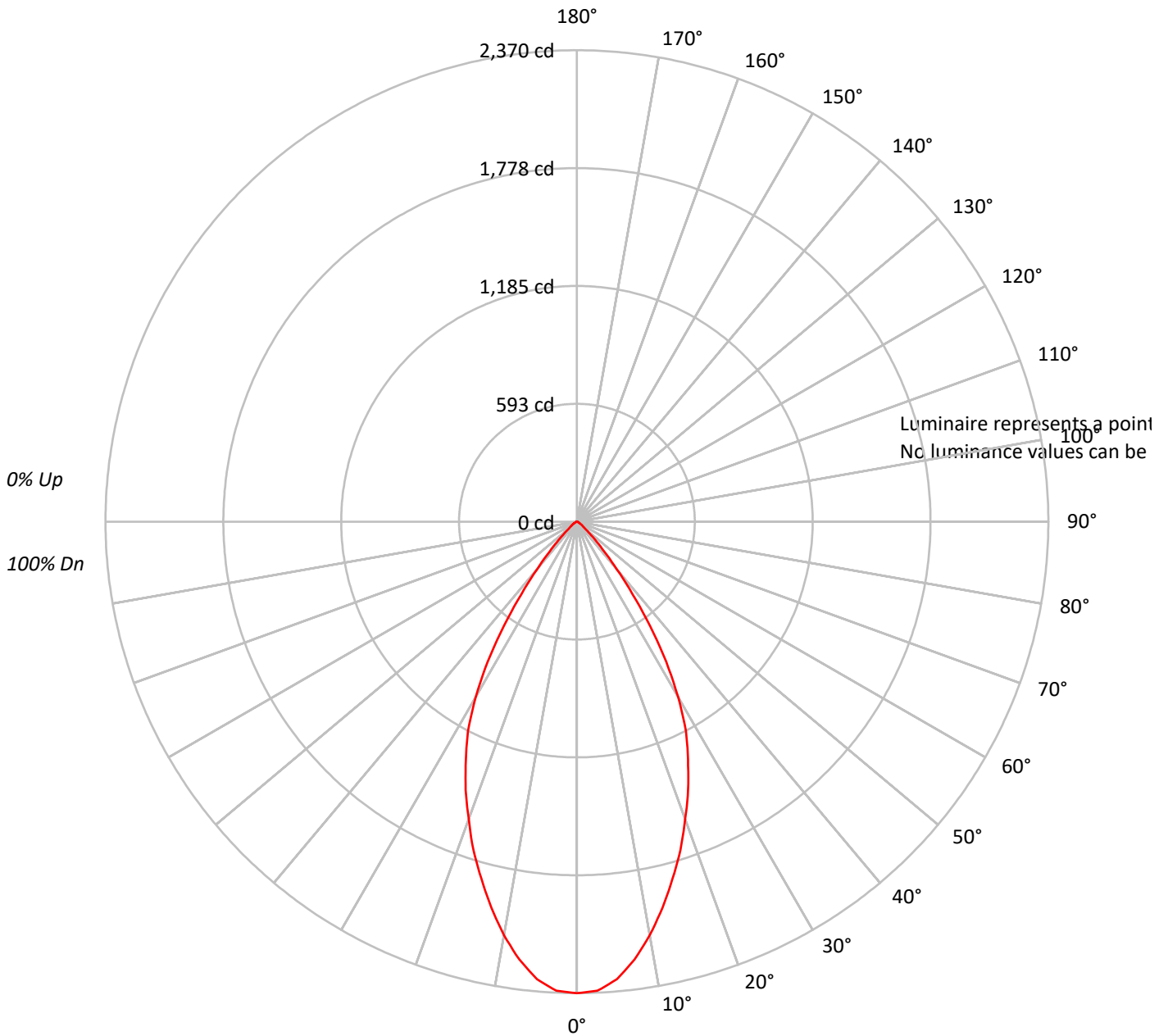
Input Watts (W): 28
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | | | |
| 1 | 113 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 105 | 103 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 93 | | | |
| 2 | 108 | 103 | 99 | 96 | 106 | 101 | 98 | 94 | 98 | 95 | 92 | 95 | 93 | 90 | 92 | 90 | 89 | 87 | | | |
| 3 | 102 | 96 | 91 | 87 | 100 | 95 | 90 | 86 | 92 | 88 | 85 | 90 | 86 | 84 | 87 | 85 | 82 | 81 | | | |
| 4 | 97 | 90 | 84 | 80 | 95 | 89 | 83 | 79 | 86 | 82 | 78 | 84 | 81 | 78 | 83 | 79 | 77 | 75 | | | |
| 5 | 92 | 84 | 78 | 74 | 91 | 83 | 78 | 73 | 81 | 76 | 73 | 80 | 75 | 72 | 78 | 74 | 72 | 70 | | | |
| 6 | 88 | 79 | 73 | 69 | 86 | 78 | 72 | 68 | 77 | 72 | 68 | 75 | 71 | 67 | 74 | 70 | 67 | 65 | | | |
| 7 | 83 | 74 | 68 | 64 | 82 | 73 | 68 | 64 | 72 | 67 | 63 | 71 | 66 | 63 | 70 | 66 | 63 | 61 | | | |
| 8 | 79 | 70 | 64 | 60 | 78 | 69 | 64 | 60 | 68 | 63 | 59 | 67 | 63 | 59 | 66 | 62 | 59 | 58 | | | |
| 9 | 76 | 66 | 60 | 56 | 74 | 65 | 60 | 56 | 65 | 59 | 56 | 64 | 59 | 56 | 63 | 59 | 55 | 54 | | | |
| 10 | 72 | 62 | 57 | 53 | 71 | 62 | 56 | 53 | 61 | 56 | 53 | 60 | 56 | 52 | 60 | 55 | 52 | 51 | | | |

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 213.9 | 11.3 |
| 10°-20° | 518.8 | 27.5 |
| 20°-30° | 602.3 | 31.9 |
| 30°-40° | 398.9 | 21.1 |
| 40°-50° | 111.9 | 5.9 |
| 50°-60° | 28.1 | 1.5 |
| 60°-70° | 10.5 | 0.6 |
| 70°-80° | 3.6 | 0.2 |
| 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° | 1335.0 | 70.7 |
| 0°-40° | 1733.9 | 91.8 |
| 0°-60° | 1873.9 | 99.3 |
| 0°-90° | 1888.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1888.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 2370 | |
| 5° | 2309 | 214 |
| 15° | 1857 | 519 |
| 25° | 1320 | 602 |
| 35° | 640 | 399 |
| 45° | 130 | 112 |
| 55° | 31 | 28 |
| 65° | 10 | 11 |
| 75° | 3 | 4 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 2370.5 |
| 2.5° | 2360.3 |
| 5° | 2309.0 |
| 7.5° | 2220.0 |
| 10° | 2110.6 |
| 12.5° | 1987.4 |
| 15° | 1857.4 |
| 17.5° | 1730.9 |
| 20° | 1590.6 |
| 22.5° | 1460.6 |
| 25° | 1320.4 |
| 27.5° | 1187.0 |
| 30° | 1015.9 |
| 32.5° | 834.7 |
| 35° | 639.7 |
| 37.5° | 458.4 |
| 40° | 311.3 |
| 42.5° | 201.8 |
| 45° | 130.0 |
| 47.5° | 78.7 |
| 50° | 51.3 |
| 52.5° | 37.6 |
| 55° | 30.8 |
| 57.5° | 23.9 |
| 60° | 17.1 |
| 62.5° | 13.7 |
| 65° | 10.3 |
| 67.5° | 6.8 |
| 70° | 6.8 |
| 72.5° | 3.4 |
| 75° | 3.4 |
| 77.5° | 3.4 |
| 80° | 0.0 |
| 82.5° | 0.0 |
| 85° | 0.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)