

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: P252016

Luminaire Tested: **LD4B30D010 EU4B30509024 4LBBA1MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252016
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-3)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD4B30D010 EU4B30509024 4LBBA1MW
Description: PORTFOLIO 4 INCH BAFFLE RECESSED DOWNLIGHT, WITH MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2525.0 lumens
Efficiency: N/A
Efficacy: 90.2 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1.01 / 0.99
Luminous Opening: Circular (Dia: 0.38' x H: 0')
CIE Type: Direct

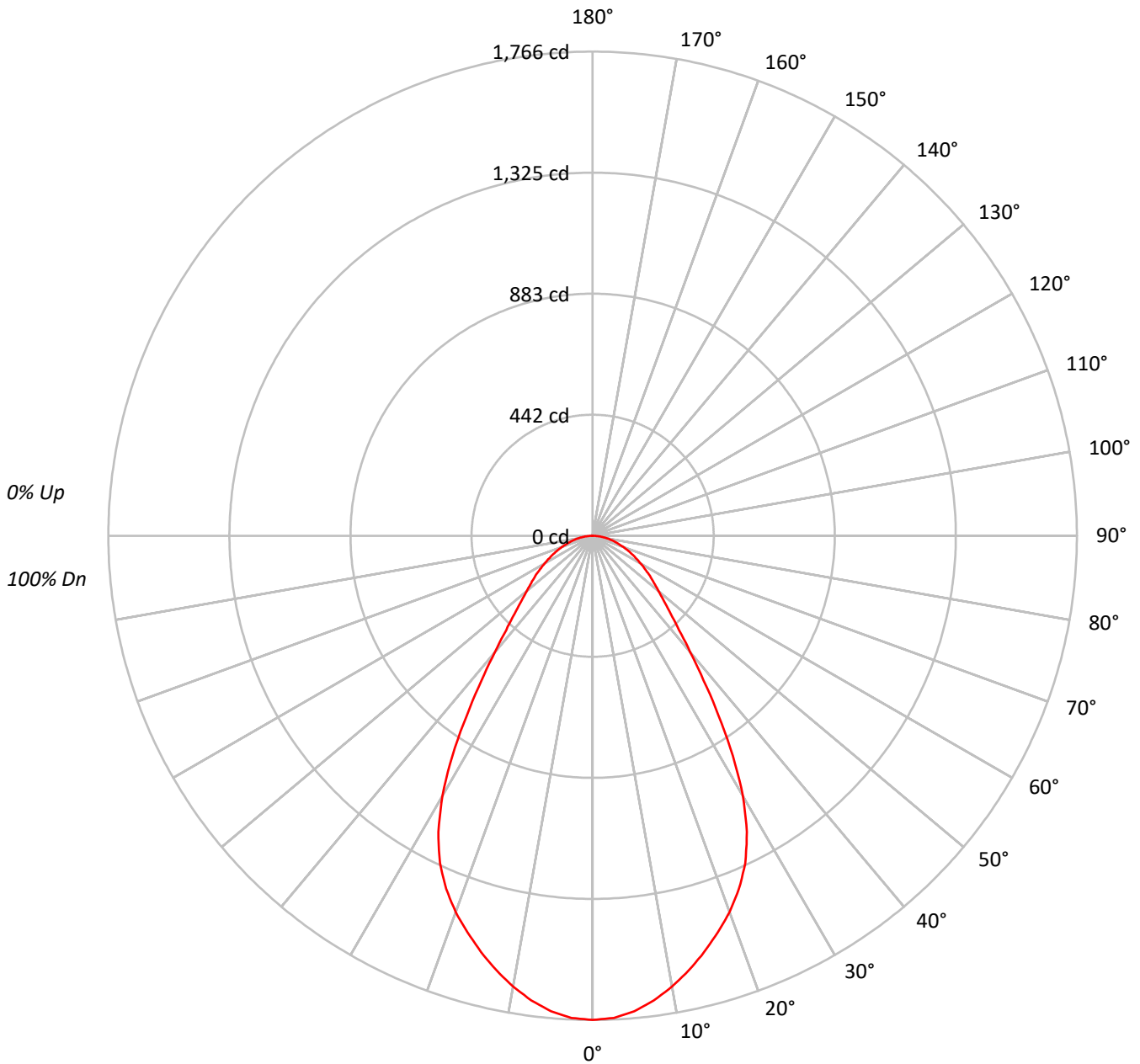
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 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 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 | | | | 88 |
| 2 | 103 | 96 | 91 | 86 | 101 | 95 | 90 | 85 | 91 | 87 | 83 | 88 | 85 | 82 | 85 | 82 | 80 | 78 | | | | 78 |
| 3 | 96 | 87 | 81 | 75 | 94 | 86 | 80 | 75 | 83 | 78 | 73 | 80 | 76 | 72 | 78 | 74 | 71 | 69 | | | | 69 |
| 4 | 89 | 80 | 72 | 67 | 87 | 78 | 72 | 66 | 76 | 70 | 65 | 74 | 69 | 65 | 72 | 67 | 64 | 62 | | | | 62 |
| 5 | 84 | 73 | 65 | 60 | 82 | 72 | 65 | 59 | 70 | 64 | 59 | 68 | 63 | 58 | 66 | 62 | 58 | 56 | | | | 56 |
| 6 | 78 | 67 | 59 | 54 | 77 | 66 | 59 | 54 | 64 | 58 | 53 | 63 | 57 | 53 | 61 | 56 | 53 | 51 | | | | 51 |
| 7 | 74 | 62 | 54 | 49 | 72 | 61 | 54 | 49 | 60 | 53 | 49 | 58 | 53 | 48 | 57 | 52 | 48 | 46 | | | | 46 |
| 8 | 69 | 58 | 50 | 45 | 68 | 57 | 50 | 45 | 56 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 44 | 43 | | | | 43 |
| 9 | 65 | 54 | 46 | 42 | 64 | 53 | 46 | 42 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 | | | | 39 |
| 10 | 62 | 50 | 43 | 39 | 61 | 50 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 37 | | | | 37 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° |
|-----|--------|
| 0° | 172101 |
| 5° | 170332 |
| 10° | 165216 |
| 15° | 158588 |
| 20° | 151452 |
| 25° | 141643 |
| 30° | 123293 |
| 35° | 95144 |
| 40° | 70392 |
| 45° | 55392 |
| 50° | 47578 |
| 55° | 43260 |
| 60° | 39432 |
| 65° | 36505 |
| 70° | 33738 |
| 75° | 31630 |
| 80° | 29353 |
| 85° | 27732 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 163.9 | 6.5 |
| 10°-20° | 441.7 | 17.5 |
| 20°-30° | 597.7 | 23.7 |
| 30°-40° | 502.3 | 19.9 |
| 40°-50° | 317.8 | 12.6 |
| 50°-60° | 228.3 | 9.0 |
| 60°-70° | 157.1 | 6.2 |
| 70°-80° | 88.9 | 3.5 |
| 80°-90° | 27.3 | 1.1 |
| 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° | 1203.3 | 47.7 |
| 0°-40° | 1705.6 | 67.5 |
| 0°-60° | 2251.6 | 89.2 |
| 0°-90° | 2525.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2525.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1766 | |
| 5° | 1741 | 164 |
| 15° | 1572 | 442 |
| 25° | 1317 | 598 |
| 35° | 800 | 502 |
| 45° | 402 | 318 |
| 55° | 255 | 228 |
| 65° | 158 | 157 |
| 75° | 84 | 89 |
| 85° | 25 | 27 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 1765.9 |
| 2.5° | 1760.3 |
| 5° | 1741.1 |
| 7.5° | 1709.4 |
| 10° | 1669.5 |
| 12.5° | 1622.7 |
| 15° | 1571.8 |
| 17.5° | 1516.7 |
| 20° | 1460.3 |
| 22.5° | 1394.2 |
| 25° | 1317.2 |
| 27.5° | 1218.1 |
| 30° | 1095.6 |
| 32.5° | 952.4 |
| 35° | 799.7 |
| 37.5° | 664.8 |
| 40° | 553.3 |
| 42.5° | 466.6 |
| 45° | 401.9 |
| 47.5° | 352.3 |
| 50° | 313.8 |
| 52.5° | 282.2 |
| 55° | 254.6 |
| 57.5° | 227.1 |
| 60° | 202.3 |
| 62.5° | 178.9 |
| 65° | 158.3 |
| 67.5° | 137.6 |
| 70° | 118.4 |
| 72.5° | 100.5 |
| 75° | 84.0 |
| 77.5° | 67.4 |
| 80° | 52.3 |
| 82.5° | 38.5 |
| 85° | 24.8 |
| 87.5° | 11.0 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)