

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: P263954

Luminaire Tested: **LD2B20D010 EU2B2010SP158027 2LBD*GPH**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P263954
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1805-787-1)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD2B20D010 EU2B2010SP158027 2LBD*GPH
Description: 2000 Lumen, 2inch Portfolio LED Downlight
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1638.0 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 0.28 / 0.28 / 0.28
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

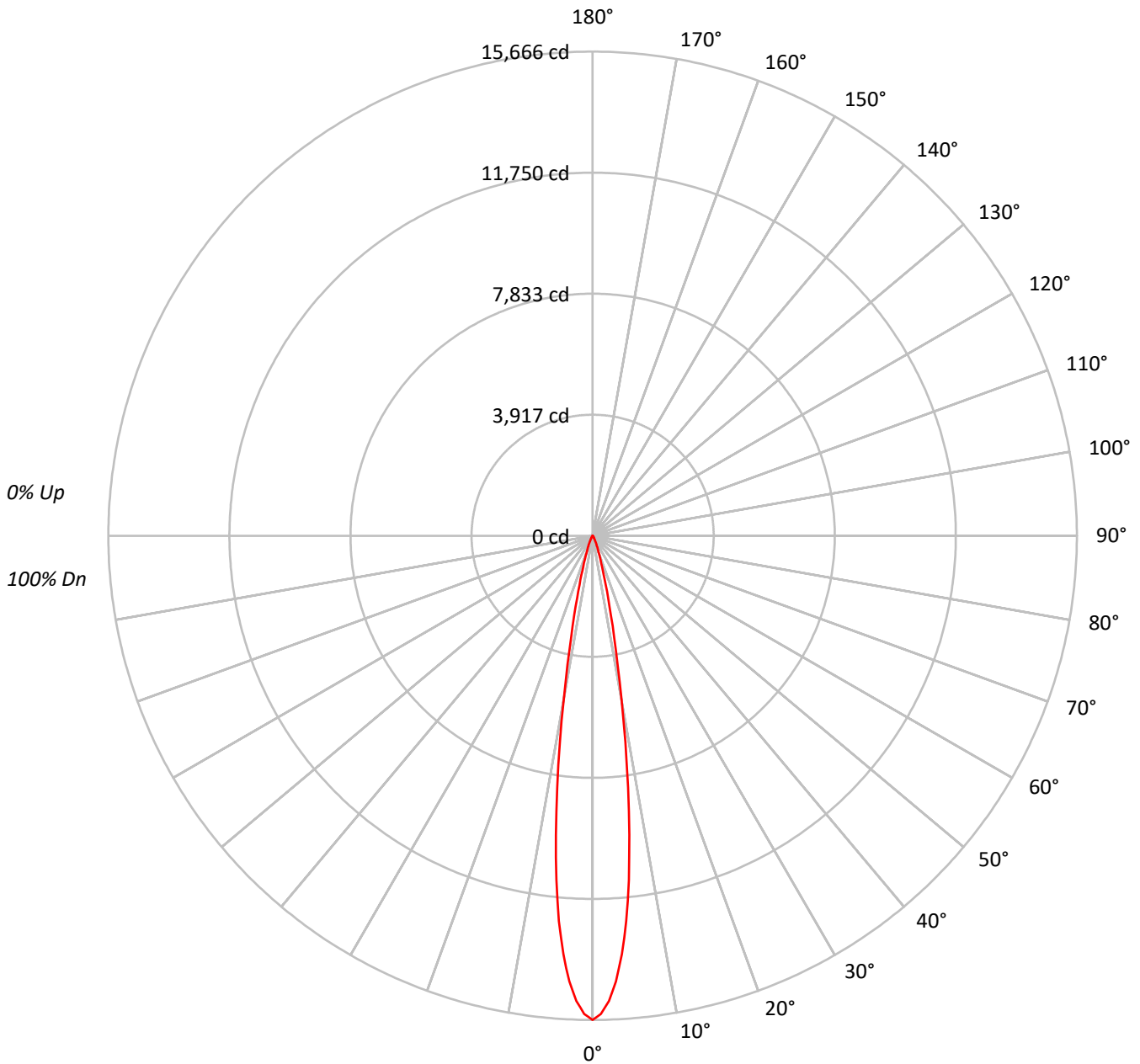
Input Watts (W): 20.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | | | | |
| 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 | 116 | 114 | 112 | 111 | 113 | 112 | 110 | 109 | 108 | 107 | 106 | 104 | 103 | 102 | 101 | 100 | 100 | 98 | | | 98 |
| 2 | 113 | 109 | 107 | 105 | 111 | 108 | 106 | 104 | 105 | 103 | 101 | 102 | 101 | 99 | 99 | 98 | 97 | 96 | | | 96 |
| 3 | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 100 | 102 | 100 | 98 | 100 | 98 | 97 | 98 | 96 | 95 | 94 | | | 94 |
| 4 | 107 | 103 | 99 | 97 | 106 | 102 | 99 | 96 | 100 | 97 | 95 | 98 | 96 | 94 | 96 | 95 | 93 | 92 | | | 92 |
| 5 | 105 | 100 | 97 | 94 | 104 | 99 | 96 | 94 | 98 | 95 | 93 | 96 | 94 | 92 | 95 | 93 | 91 | 90 | | | 90 |
| 6 | 103 | 98 | 94 | 92 | 102 | 97 | 94 | 91 | 96 | 93 | 91 | 95 | 92 | 90 | 93 | 91 | 90 | 89 | | | 89 |
| 7 | 101 | 95 | 92 | 90 | 100 | 95 | 92 | 89 | 94 | 91 | 89 | 93 | 90 | 89 | 92 | 90 | 88 | 87 | | | 87 |
| 8 | 99 | 93 | 90 | 88 | 98 | 93 | 90 | 88 | 92 | 89 | 87 | 91 | 89 | 87 | 91 | 88 | 87 | 86 | | | 86 |
| 9 | 97 | 92 | 88 | 86 | 96 | 91 | 88 | 86 | 91 | 88 | 86 | 90 | 87 | 86 | 89 | 87 | 85 | 85 | | | 85 |
| 10 | 95 | 90 | 87 | 85 | 95 | 90 | 87 | 85 | 89 | 86 | 85 | 89 | 86 | 84 | 88 | 86 | 84 | 83 | | | 83 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|---------|
| | 0° |
| 0° | 7729104 |
| 5° | 6195235 |
| 10° | 2703950 |
| 15° | 837962 |
| 20° | 292124 |
| 25° | 129014 |
| 30° | 58393 |
| 35° | 30355 |
| 40° | 17325 |
| 45° | 8233 |
| 50° | 5142 |
| 55° | 2925 |
| 60° | 1677 |
| 65° | 1985 |
| 70° | 0 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 949.9 | 58.0 |
| 10°-20° | 520.2 | 31.8 |
| 20°-30° | 118.6 | 7.2 |
| 30°-40° | 34.1 | 2.1 |
| 40°-50° | 10.5 | 0.6 |
| 50°-60° | 3.2 | 0.2 |
| 60°-70° | 1.5 | 0.1 |
| 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° | 1588.8 | 97.0 |
| 0°-40° | 1622.9 | 99.1 |
| 0°-60° | 1636.5 | 99.9 |
| 0°-90° | 1638.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1638.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-------|------|
| 0° | 15666 | |
| 5° | 12509 | 950 |
| 15° | 1641 | 520 |
| 25° | 237 | 119 |
| 35° | 50 | 34 |
| 45° | 12 | 11 |
| 55° | 3 | 3 |
| 65° | 2 | 1 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|---------|
| 0° | 15666.2 |
| 1° | 15471.2 |
| 2° | 15066.1 |
| 3° | 14437.4 |
| 4° | 13573.4 |
| 5° | 12509.4 |
| 6° | 11205.0 |
| 7° | 9747.6 |
| 8° | 8226.4 |
| 9° | 6753.9 |
| 10° | 5397.4 |
| 11° | 4249.4 |
| 12° | 3345.0 |
| 13° | 2632.3 |
| 14° | 2079.3 |
| 15° | 1640.6 |
| 16° | 1294.3 |
| 17° | 1030.4 |
| 18° | 828.7 |
| 19° | 674.0 |
| 20° | 556.4 |
| 22.5° | 359.7 |
| 25° | 237.0 |
| 26° | 200.0 |
| 27° | 169.8 |
| 28° | 142.9 |
| 29° | 119.3 |
| 30° | 102.5 |
| 32.5° | 70.6 |
| 35° | 50.4 |
| 37.5° | 37.0 |
| 40° | 26.9 |
| 42.5° | 18.5 |
| 45° | 11.8 |
| 47.5° | 8.4 |
| 50° | 6.7 |
| 52.5° | 5.0 |
| 55° | 3.4 |
| 57.5° | 1.7 |
| 60° | 1.7 |
| 62.5° | 1.7 |
| 65° | 1.7 |
| 67.5° | 1.7 |



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CANDELA DISTRIBUTION (continued):

| | 0° |
|-------|-----|
| 75° | 0.0 |
| 77.5° | 0.0 |
| 80° | 0.0 |
| 82.5° | 0.0 |
| 85° | 0.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |



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— 0°-180°







| | | |
|-------|--|-----|
| 70° | | 0.0 |
| 72.5° | | 0.0 |



(END OF REPORT)