

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: P264161

Luminaire Tested: **LD2B20D010 EU2B2010SP158050 2LBD*MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P264161
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 EU2B2010SP158050 2LBD*MW
Description: 2000 Lumen, 2inch Portfolio LED Downlight
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1829.0 lumens
Efficiency: N/A
Efficacy: 87.5 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

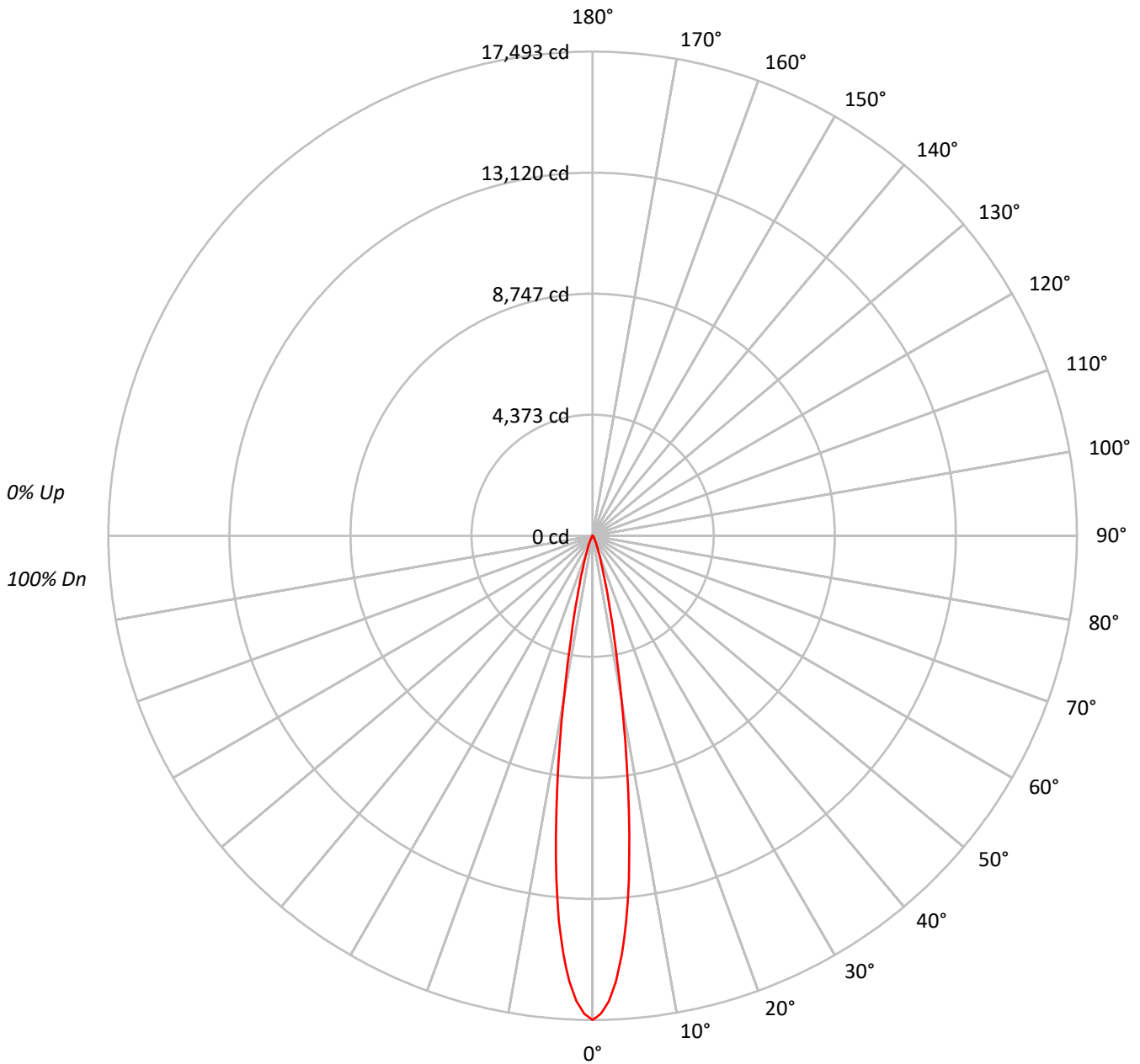
Input Watts (W): 20.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 8630328 |
| 5° | 6917651 |
| 10° | 3019262 |
| 15° | 935672 |
| 20° | 326198 |
| 25° | 144039 |
| 30° | 65229 |
| 35° | 33909 |
| 40° | 19321 |
| 45° | 9140 |
| 50° | 5757 |
| 55° | 3269 |
| 60° | 1875 |
| 65° | 2218 |
| 70° | 0 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 1060.7 | 58.0 |
| 10°-20° | 580.9 | 31.8 |
| 20°-30° | 132.4 | 7.2 |
| 30°-40° | 38.1 | 2.1 |
| 40°-50° | 11.7 | 0.6 |
| 50°-60° | 3.5 | 0.2 |
| 60°-70° | 1.6 | 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° | 1774.0 | 97.0 |
| 0°-40° | 1812.1 | 99.1 |
| 0°-60° | 1827.4 | 99.9 |
| 0°-90° | 1829.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1829.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-------|------|
| 0° | 17493 | |
| 5° | 13968 | ### |
| 15° | 1832 | 581 |
| 25° | 265 | 132 |
| 35° | 56 | 38 |
| 45° | 13 | 12 |
| 55° | 4 | 4 |
| 65° | 2 | 2 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|---------|
| 0° | 17492.9 |
| 1° | 17275.2 |
| 2° | 16822.9 |
| 3° | 16120.9 |
| 4° | 15156.1 |
| 5° | 13968.1 |
| 6° | 12511.6 |
| 7° | 10884.3 |
| 8° | 9185.7 |
| 9° | 7541.5 |
| 10° | 6026.8 |
| 11° | 4744.9 |
| 12° | 3735.1 |
| 13° | 2939.3 |
| 14° | 2321.8 |
| 15° | 1831.9 |
| 16° | 1445.2 |
| 17° | 1150.6 |
| 18° | 925.3 |
| 19° | 752.6 |
| 20° | 621.3 |
| 22.5° | 401.7 |
| 25° | 264.6 |
| 26° | 223.4 |
| 27° | 189.6 |
| 28° | 159.5 |
| 29° | 133.3 |
| 30° | 114.5 |
| 32.5° | 78.8 |
| 35° | 56.3 |
| 37.5° | 41.3 |
| 40° | 30.0 |
| 42.5° | 20.6 |
| 45° | 13.1 |
| 47.5° | 9.4 |
| 50° | 7.5 |
| 52.5° | 5.6 |
| 55° | 3.8 |
| 57.5° | 1.9 |
| 60° | 1.9 |
| 62.5° | 1.9 |
| 65° | 1.9 |
| 67.5° | 1.9 |



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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)