

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: P264431

Luminaire Tested: **LD2B20D010 EU2B2010SP159040 2LBSQC*MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P264431
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 EU2B2010SP159040 2LBSQC*MMS
Description: 2000 Lumen, 2inch Portfolio LED Downlight
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1559.0 lumens
Efficiency: N/A
Efficacy: 74.6 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

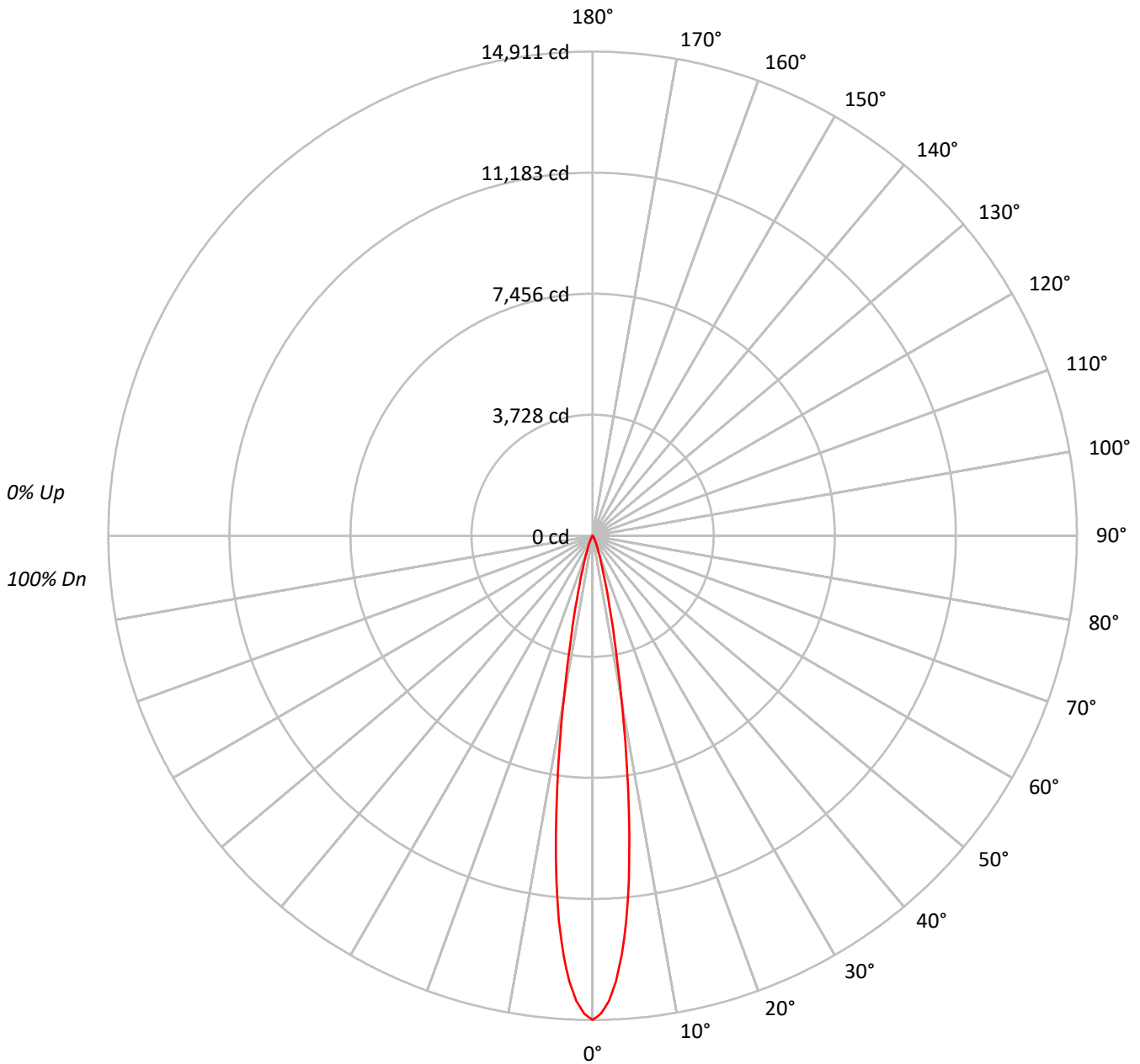
Input Watts (W): 20.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 7356320 |
| 5° | 5896453 |
| 10° | 2573547 |
| 15° | 797561 |
| 20° | 278001 |
| 25° | 122809 |
| 30° | 55601 |
| 35° | 28910 |
| 40° | 16487 |
| 45° | 7814 |
| 50° | 4912 |
| 55° | 2752 |
| 60° | 1579 |
| 65° | 1868 |
| 70° | 0 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 904.1 | 58.0 |
| 10°-20° | 495.2 | 31.8 |
| 20°-30° | 112.9 | 7.2 |
| 30°-40° | 32.5 | 2.1 |
| 40°-50° | 10.0 | 0.6 |
| 50°-60° | 3.0 | 0.2 |
| 60°-70° | 1.4 | 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° | 1512.2 | 97.0 |
| 0°-40° | 1544.6 | 99.1 |
| 0°-60° | 1557.6 | 99.9 |
| 0°-90° | 1559.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1559.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-------|------|
| 0° | 14911 | |
| 5° | 11906 | 904 |
| 15° | 1562 | 495 |
| 25° | 226 | 113 |
| 35° | 48 | 32 |
| 45° | 11 | 10 |
| 55° | 3 | 3 |
| 65° | 2 | 1 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|---------|
| 0° | 14910.6 |
| 1° | 14725.0 |
| 2° | 14339.4 |
| 3° | 13741.1 |
| 4° | 12918.8 |
| 5° | 11906.1 |
| 6° | 10664.6 |
| 7° | 9277.5 |
| 8° | 7829.7 |
| 9° | 6428.2 |
| 10° | 5137.1 |
| 11° | 4044.4 |
| 12° | 3183.7 |
| 13° | 2505.4 |
| 14° | 1979.0 |
| 15° | 1561.5 |
| 16° | 1231.9 |
| 17° | 980.7 |
| 18° | 788.7 |
| 19° | 641.5 |
| 20° | 529.5 |
| 22.5° | 342.4 |
| 25° | 225.6 |
| 26° | 190.4 |
| 27° | 161.6 |
| 28° | 136.0 |
| 29° | 113.6 |
| 30° | 97.6 |
| 32.5° | 67.2 |
| 35° | 48.0 |
| 37.5° | 35.2 |
| 40° | 25.6 |
| 42.5° | 17.6 |
| 45° | 11.2 |
| 47.5° | 8.0 |
| 50° | 6.4 |
| 52.5° | 4.8 |
| 55° | 3.2 |
| 57.5° | 1.6 |
| 60° | 1.6 |
| 62.5° | 1.6 |
| 65° | 1.6 |
| 67.5° | 1.6 |



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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)