

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: P224912

Luminaire Tested: **LSSQ2B10FL409027D010 2LBD\*H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P224912  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (156)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LSSQ2B10FL409027D010 2LBD\*H  
Description: 1000 Lumen, 2inch Portfolio LED Cylinder  
FLOOD OPTIC  
SPUN ROUND TRIM WITH HAZE FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 789.8 lumens  
Efficiency: N/A  
Efficacy: 76.7 lumens/watt  
Spacing Criteria (0/90/45): 0.6 / 0.6 / 0.59  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

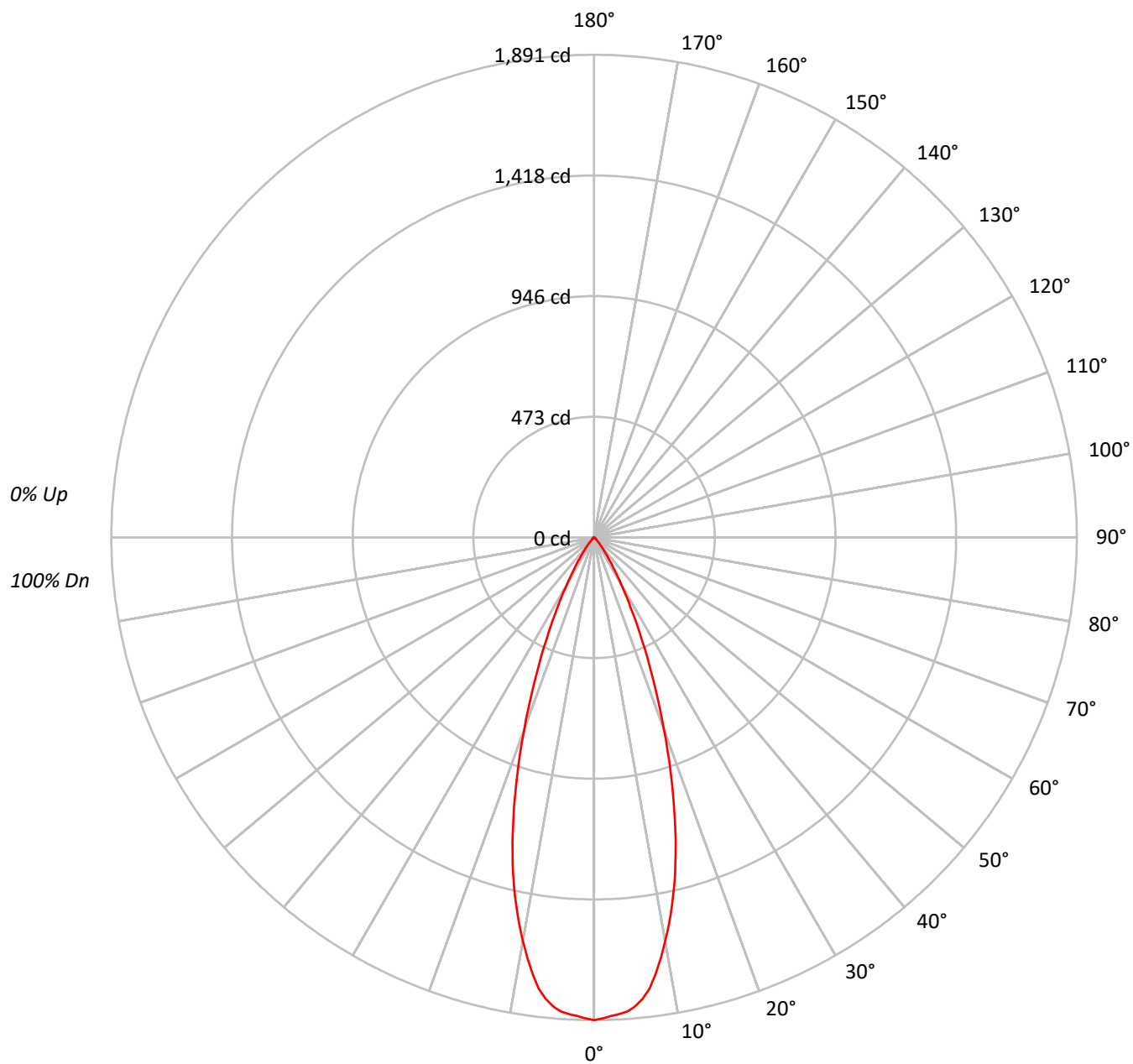
Input Watts (W): 10.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |
| RW  | 70  | 50  | 30  | 10  |  | 70  | 50  | 30  | 10  |  | 50  | 30  | 10  |  |  | 50  | 30  | 10  |  |  | 50  |
| RCR |     |     |     |     |  |     |     |     |     |  |     |     |     |  |  |     |     |     |  |  |     |
| 0   | 119 | 119 | 119 | 119 |  | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  |  | 106 | 106 | 106 |  |  | 102 |
| 1   | 114 | 112 | 110 | 108 |  | 112 | 110 | 108 | 106 |  | 106 | 104 | 103 |  |  | 102 | 101 | 100 |  |  | 99  |
| 2   | 110 | 106 | 103 | 100 |  | 108 | 104 | 101 | 99  |  | 101 | 99  | 97  |  |  | 98  | 96  | 94  |  |  | 96  |
| 3   | 106 | 100 | 96  | 93  |  | 104 | 99  | 95  | 92  |  | 97  | 94  | 91  |  |  | 94  | 92  | 90  |  |  | 92  |
| 4   | 102 | 96  | 91  | 88  |  | 100 | 94  | 90  | 87  |  | 92  | 89  | 86  |  |  | 91  | 88  | 85  |  |  | 89  |
| 5   | 98  | 91  | 86  | 83  |  | 96  | 90  | 86  | 82  |  | 89  | 85  | 82  |  |  | 87  | 84  | 81  |  |  | 86  |
| 6   | 94  | 87  | 82  | 79  |  | 93  | 86  | 82  | 78  |  | 85  | 81  | 78  |  |  | 84  | 80  | 77  |  |  | 82  |
| 7   | 91  | 83  | 78  | 75  |  | 90  | 83  | 78  | 75  |  | 82  | 77  | 74  |  |  | 80  | 77  | 74  |  |  | 79  |
| 8   | 88  | 80  | 75  | 72  |  | 87  | 79  | 75  | 72  |  | 78  | 74  | 71  |  |  | 77  | 74  | 71  |  |  | 77  |
| 9   | 85  | 77  | 72  | 69  |  | 84  | 76  | 72  | 69  |  | 75  | 71  | 68  |  |  | 75  | 71  | 68  |  |  | 74  |
| 10  | 82  | 74  | 69  | 66  |  | 81  | 73  | 69  | 66  |  | 73  | 69  | 66  |  |  | 72  | 68  | 66  |  |  | 71  |

**AVERAGE LUMINANCE (cd/sqm):**

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 732587 |
| 5°  | 717228 |
| 10° | 631674 |
| 15° | 495608 |
| 20° | 329104 |
| 25° | 188906 |
| 30° | 94731  |
| 35° | 43740  |
| 40° | 17799  |
| 45° | 7943   |
| 50° | 4158   |
| 55° | 2566   |
| 60° | 1162   |
| 65° | 0      |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 168.5  | 21.3      |
| 10°-20°   | 334.5  | 42.4      |
| 20°-30°   | 207.8  | 26.3      |
| 30°-40°   | 62.7   | 7.9       |
| 40°-50°   | 12.8   | 1.6       |
| 50°-60°   | 3.3    | 0.4       |
| 60°-70°   | 0.2    | 0.0       |
| 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°    | 710.8  | 90.0      |
| 0°-40°    | 773.5  | 97.9      |
| 0°-60°    | 789.6  | 100.0     |
| 0°-90°    | 789.8  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 789.8  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1891 |      |
| 5°  | 1845 | 168  |
| 15° | 1236 | 335  |
| 25° | 442  | 208  |
| 35° | 92   | 63   |
| 45° | 14   | 13   |
| 55° | 4    | 3    |
| 65° | 0    | 0    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1891.3 |
| 1°    | 1885.1 |
| 2°    | 1876.7 |
| 3°    | 1870.6 |
| 4°    | 1861.4 |
| 5°    | 1844.6 |
| 6°    | 1817.8 |
| 7°    | 1781.1 |
| 8°    | 1728.4 |
| 9°    | 1668.7 |
| 10°   | 1606.0 |
| 11°   | 1539.5 |
| 12°   | 1469.9 |
| 13°   | 1397.2 |
| 14°   | 1317.7 |
| 15°   | 1235.9 |
| 17.5° | 1016.4 |
| 20°   | 798.4  |
| 22.5° | 605.7  |
| 25°   | 442.0  |
| 27.5° | 312.0  |
| 30°   | 211.8  |
| 32.5° | 139.2  |
| 35°   | 92.5   |
| 37.5° | 57.4   |
| 40°   | 35.2   |
| 42.5° | 22.9   |
| 45°   | 14.5   |
| 47.5° | 9.2    |
| 50°   | 6.9    |
| 52.5° | 4.6    |
| 55°   | 3.8    |
| 57.5° | 2.3    |
| 60°   | 1.5    |
| 62.5° | 0.0    |
| 65°   | 0.0    |
| 67.5° | 0.0    |
| 70°   | 0.0    |
| 72.5° | 0.0    |
| 75°   | 0.0    |
| 77.5° | 0.0    |
| 80°   | 0.0    |
| 82.5° | 0.0    |



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CANDELA DISTRIBUTION (continued):

0°  
90° | 0.0



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— 0°-180°







|       |     |
|-------|-----|
| 85°   | 0.0 |
| 87.5° | 0.0 |



(END OF REPORT)