

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: P#

Luminaire Tested: **LSR2B20WFL559040D010 2LBDLC\*MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14809)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LSR2B20WFL559040D010 2LBDLC\*MB  
Description: 2000 Lumen, 2inch Portfolio LED Cylinder  
WIDE FLOOD OPTIC  
LENSED CAST ROUND TRIM WITH MATTE BLACK FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1325.2 lumens  
Efficiency: N/A  
Efficacy: 63.4 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.79 / 0.84  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

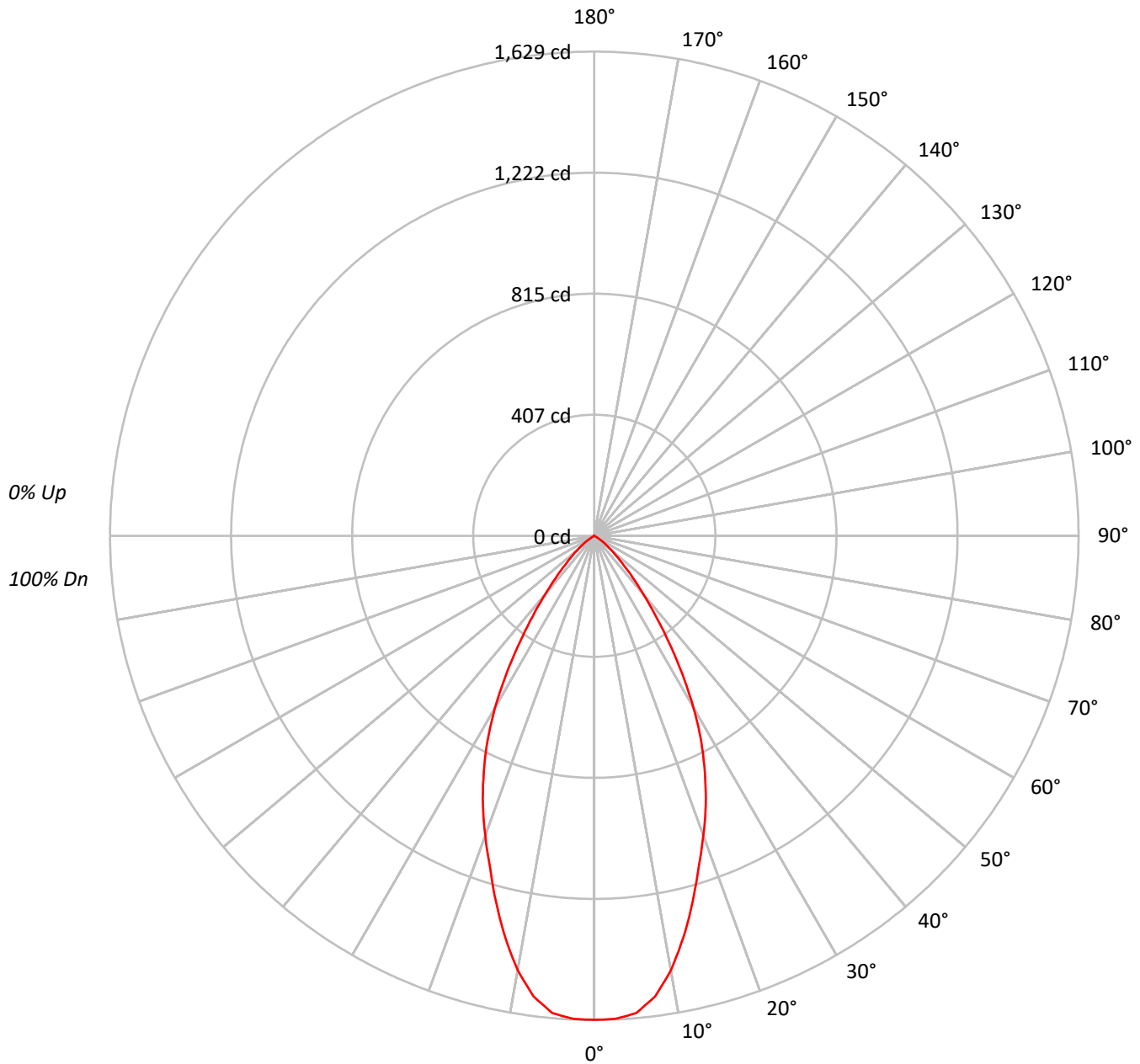
Input Watts (W): 20.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |
| 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   | 113 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 104 | 103 | 101 |  | 101 | 99  | 98  |  | 97  |
| 2   | 108 | 103 | 99  | 95  | 106 | 101 | 97  | 94  | 98  | 95  | 92  |  | 95  | 92  | 90  |  | 92  |
| 3   | 102 | 96  | 91  | 87  | 100 | 94  | 90  | 86  | 92  | 88  | 85  |  | 89  | 86  | 83  |  | 87  |
| 4   | 97  | 89  | 84  | 79  | 95  | 88  | 83  | 79  | 86  | 82  | 78  |  | 84  | 80  | 77  |  | 82  |
| 5   | 92  | 83  | 78  | 73  | 90  | 83  | 77  | 73  | 81  | 76  | 72  |  | 79  | 75  | 72  |  | 77  |
| 6   | 87  | 78  | 72  | 68  | 86  | 77  | 72  | 68  | 76  | 71  | 67  |  | 74  | 70  | 67  |  | 73  |
| 7   | 83  | 73  | 67  | 63  | 81  | 73  | 67  | 63  | 71  | 66  | 63  |  | 70  | 66  | 62  |  | 69  |
| 8   | 79  | 69  | 63  | 59  | 78  | 69  | 63  | 59  | 67  | 62  | 59  |  | 66  | 62  | 58  |  | 65  |
| 9   | 75  | 65  | 59  | 55  | 74  | 65  | 59  | 55  | 64  | 59  | 55  |  | 63  | 58  | 55  |  | 62  |
| 10  | 71  | 62  | 56  | 52  | 70  | 61  | 56  | 52  | 60  | 55  | 52  |  | 60  | 55  | 52  |  | 59  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 630870 |
| 5°  | 626787 |
| 10° | 583768 |
| 15° | 511929 |
| 20° | 442214 |
| 25° | 376145 |
| 30° | 298328 |
| 35° | 205884 |
| 40° | 129293 |
| 45° | 77129  |
| 50° | 44653  |
| 55° | 22556  |
| 60° | 1472   |
| 65° | 0      |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 149.7  | 11.3      |
| 10°-20°   | 355.8  | 26.8      |
| 20°-30°   | 400.5  | 30.2      |
| 30°-40°   | 275.2  | 20.8      |
| 40°-50°   | 114.3  | 8.6       |
| 50°-60°   | 29.5   | 2.2       |
| 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°    | 906.0  | 68.4      |
| 0°-40°    | 1181.2 | 89.1      |
| 0°-60°    | 1325.0 | 100.0     |
| 0°-90°    | 1325.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1325.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1629 |      |
| 5°  | 1612 | 150  |
| 15° | 1277 | 356  |
| 25° | 880  | 400  |
| 35° | 435  | 275  |
| 45° | 141  | 114  |
| 55° | 33   | 29   |
| 65° | 0    | 0    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1628.7 |
| 2.5°  | 1626.8 |
| 5°    | 1612.0 |
| 7.5°  | 1563.8 |
| 10°   | 1484.2 |
| 12.5° | 1384.1 |
| 15°   | 1276.6 |
| 17.5° | 1167.3 |
| 20°   | 1072.8 |
| 22.5° | 980.2  |
| 25°   | 880.1  |
| 27.5° | 778.2  |
| 30°   | 667.0  |
| 32.5° | 548.5  |
| 35°   | 435.4  |
| 37.5° | 339.1  |
| 40°   | 255.7  |
| 42.5° | 192.7  |
| 45°   | 140.8  |
| 47.5° | 101.9  |
| 50°   | 74.1   |
| 52.5° | 51.9   |
| 55°   | 33.4   |
| 57.5° | 11.1   |
| 60°   | 1.9    |
| 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    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)