

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: P225474

Luminaire Tested: **LSR2B20FL409035D010 2LBDLC\*MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P225474  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14833)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LSR2B20FL409035D010 2LBDLC\*MB  
Description: 2000 Lumen, 2inch Portfolio LED Cylinder  
FLOOD OPTIC  
LENSED CAST ROUND TRIM WITH MATTE BLACK FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1424.5 lumens  
Efficiency: N/A  
Efficacy: 68.2 lumens/watt  
Spacing Criteria (0/90/45): 0.6 / 0.6 / 0.6  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

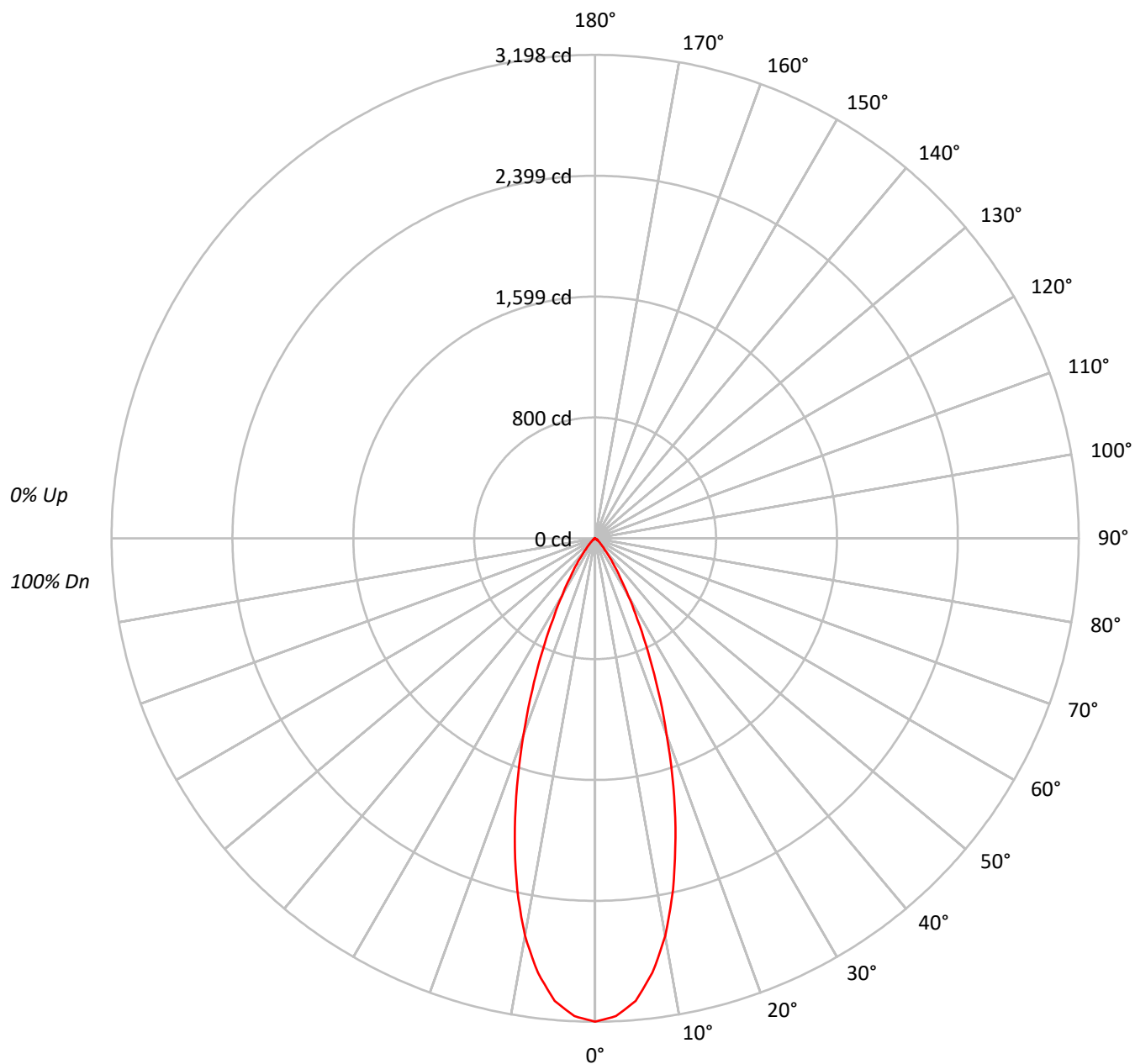
Input Watts (W): 20.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P225474

CATALOG NUMBER: LSR2B20FL409035D010 2LBDLC\*MB

### Luminous Intensity Polar Plot





TEST NUMBER: P225474

CATALOG NUMBER: LSR2B20FL409035D010 2LBDLC\*MB

**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 | 105 | 102 | 99  | 107 | 104 | 101 | 98  | 101 | 98  | 96  |  | 98  | 96  | 94  |  | 95  |
| 3   | 105 | 100 | 95  | 92  | 103 | 98  | 94  | 91  | 96  | 92  | 90  |  | 93  | 91  | 88  |  | 91  |
| 4   | 101 | 94  | 90  | 86  | 99  | 93  | 89  | 86  | 91  | 87  | 85  |  | 89  | 86  | 84  |  | 88  |
| 5   | 97  | 90  | 85  | 81  | 95  | 89  | 84  | 81  | 87  | 83  | 80  |  | 85  | 82  | 79  |  | 84  |
| 6   | 93  | 85  | 80  | 77  | 92  | 85  | 80  | 76  | 83  | 79  | 76  |  | 82  | 78  | 75  |  | 81  |
| 7   | 89  | 81  | 76  | 73  | 88  | 81  | 76  | 73  | 80  | 75  | 72  |  | 79  | 75  | 72  |  | 78  |
| 8   | 86  | 78  | 73  | 69  | 85  | 77  | 73  | 69  | 76  | 72  | 69  |  | 75  | 72  | 69  |  | 75  |
| 9   | 83  | 75  | 70  | 66  | 82  | 74  | 69  | 66  | 73  | 69  | 66  |  | 72  | 69  | 66  |  | 72  |
| 10  | 80  | 72  | 67  | 63  | 79  | 71  | 66  | 63  | 70  | 66  | 63  |  | 70  | 66  | 63  |  | 69  |

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

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 1238694 |
| 5°  | 1194317 |
| 10° | 1050404 |
| 15° | 823314  |
| 20° | 570244  |
| 25° | 351314  |
| 30° | 195501  |
| 35° | 104266  |
| 40° | 51727   |
| 45° | 26349   |
| 50° | 14523   |
| 55° | 9454    |
| 60° | 4648    |
| 65° | 0       |
| 70° | 0       |
| 75° | 0       |
| 80° | 0       |
| 85° | 0       |



TEST NUMBER: P225474

CATALOG NUMBER: LSR2B20FL409035D010 2LBDLC\*MB

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 280.2  | 19.7      |
| 10°-20°   | 560.8  | 39.4      |
| 20°-30°   | 383.1  | 26.9      |
| 30°-40°   | 146.0  | 10.3      |
| 40°-50°   | 40.6   | 2.8       |
| 50°-60°   | 12.6   | 0.9       |
| 60°-70°   | 1.2    | 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°    | 1224.0 | 85.9      |
| 0°-40°    | 1370.1 | 96.2      |
| 0°-60°    | 1423.3 | 99.9      |
| 0°-90°    | 1424.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1424.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3198 |      |
| 5°  | 3072 | 280  |
| 15° | 2053 | 561  |
| 25° | 822  | 383  |
| 35° | 220  | 146  |
| 45° | 48   | 41   |
| 55° | 14   | 13   |
| 65° | 0    | 1    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



TEST NUMBER: P225474

CATALOG NUMBER: LSR2B20FL409035D010 2LBDLC\*MB

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 3197.9 |
| 2.5°  | 3163.8 |
| 5°    | 3071.6 |
| 7.5°  | 2899.2 |
| 10°   | 2670.6 |
| 12.5° | 2379.9 |
| 15°   | 2053.1 |
| 17.5° | 1718.2 |
| 20°   | 1383.4 |
| 22.5° | 1086.7 |
| 25°   | 822.0  |
| 27.5° | 603.5  |
| 30°   | 437.1  |
| 32.5° | 310.8  |
| 35°   | 220.5  |
| 37.5° | 154.4  |
| 40°   | 102.3  |
| 42.5° | 68.2   |
| 45°   | 48.1   |
| 47.5° | 34.1   |
| 50°   | 24.1   |
| 52.5° | 18.0   |
| 55°   | 14.0   |
| 57.5° | 10.0   |
| 60°   | 6.0    |
| 62.5° | 2.0    |
| 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    |



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







(END OF REPORT)