

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: P225442

Luminaire Tested: **LSR2B05FL409050D010 2LBDLC\*MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P225442  
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: LSR2B05FL409050D010 2LBDLC\*MB  
Description: 500 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: 617.0 lumens  
Efficiency: N/A  
Efficacy: 84.5 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

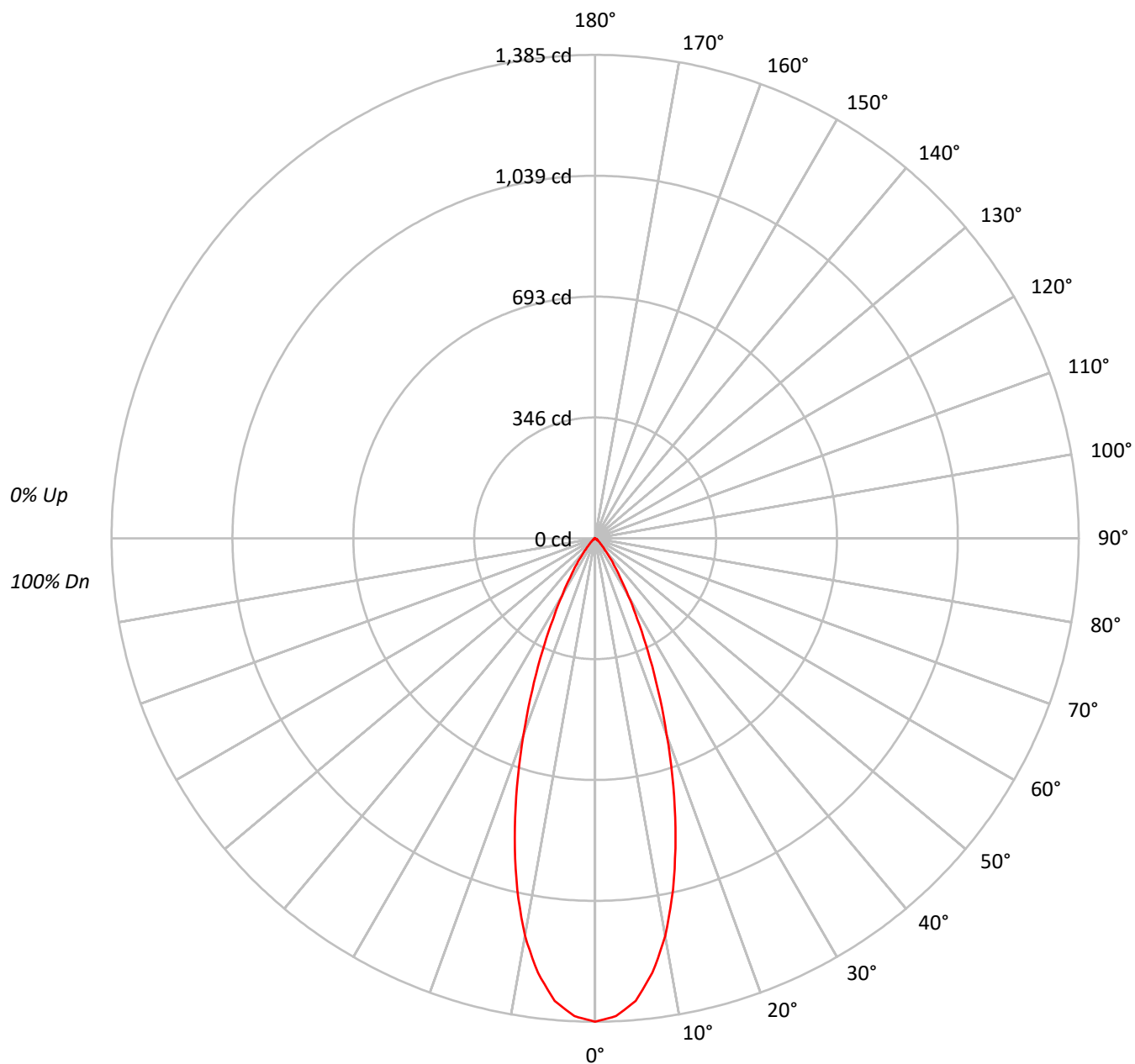
Input Watts (W): 7.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 114 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 95  |    |    |
| 2   | 110 | 105 | 102 | 99  | 107 | 104 | 101 | 98  | 101 | 98  | 96  | 98  | 96  | 94  | 95  | 93  | 92  | 90  |    |    |
| 3   | 105 | 100 | 95  | 92  | 103 | 98  | 94  | 91  | 96  | 92  | 90  | 93  | 91  | 88  | 91  | 89  | 87  | 86  |    |    |
| 4   | 101 | 94  | 90  | 86  | 99  | 93  | 89  | 86  | 91  | 87  | 85  | 89  | 86  | 84  | 88  | 85  | 83  | 81  |    |    |
| 5   | 97  | 90  | 85  | 81  | 95  | 89  | 84  | 81  | 87  | 83  | 80  | 85  | 82  | 79  | 84  | 81  | 79  | 77  |    |    |
| 6   | 93  | 85  | 80  | 77  | 92  | 85  | 80  | 76  | 83  | 79  | 76  | 82  | 78  | 75  | 81  | 77  | 75  | 74  |    |    |
| 7   | 89  | 81  | 76  | 73  | 88  | 81  | 76  | 73  | 80  | 75  | 72  | 79  | 75  | 72  | 78  | 74  | 72  | 70  |    |    |
| 8   | 86  | 78  | 73  | 69  | 85  | 77  | 73  | 69  | 76  | 72  | 69  | 75  | 72  | 69  | 75  | 71  | 68  | 67  |    |    |
| 9   | 83  | 75  | 70  | 66  | 82  | 74  | 69  | 66  | 73  | 69  | 66  | 72  | 69  | 66  | 72  | 68  | 65  | 64  |    |    |
| 10  | 80  | 72  | 67  | 63  | 79  | 71  | 66  | 63  | 70  | 66  | 63  | 70  | 66  | 63  | 69  | 65  | 63  | 62  |    |    |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 536513 |
| 5°  | 517294 |
| 10° | 454955 |
| 15° | 356618 |
| 20° | 246993 |
| 25° | 152150 |
| 30° | 84668  |
| 35° | 45158  |
| 40° | 22400  |
| 45° | 11394  |
| 50° | 6267   |
| 55° | 4119   |
| 60° | 2014   |
| 65° | 0      |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 121.3  | 19.7      |
| 10°-20°   | 242.9  | 39.4      |
| 20°-30°   | 165.9  | 26.9      |
| 30°-40°   | 63.3   | 10.3      |
| 40°-50°   | 17.6   | 2.8       |
| 50°-60°   | 5.5    | 0.9       |
| 60°-70°   | 0.5    | 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°    | 530.2  | 85.9      |
| 0°-40°    | 593.4  | 96.2      |
| 0°-60°    | 616.5  | 99.9      |
| 0°-90°    | 617.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 617.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1385 |      |
| 5°  | 1330 | 121  |
| 15° | 889  | 243  |
| 25° | 356  | 166  |
| 35° | 96   | 63   |
| 45° | 21   | 18   |
| 55° | 6    | 5    |
| 65° | 0    | 1    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1385.1 |
| 2.5°  | 1370.4 |
| 5°    | 1330.4 |
| 7.5°  | 1255.7 |
| 10°   | 1156.7 |
| 12.5° | 1030.8 |
| 15°   | 889.3  |
| 17.5° | 744.2  |
| 20°   | 599.2  |
| 22.5° | 470.7  |
| 25°   | 356.0  |
| 27.5° | 261.4  |
| 30°   | 189.3  |
| 32.5° | 134.6  |
| 35°   | 95.5   |
| 37.5° | 66.9   |
| 40°   | 44.3   |
| 42.5° | 29.5   |
| 45°   | 20.8   |
| 47.5° | 14.8   |
| 50°   | 10.4   |
| 52.5° | 7.8    |
| 55°   | 6.1    |
| 57.5° | 4.3    |
| 60°   | 2.6    |
| 62.5° | 0.9    |
| 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)