

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: P224909

Luminaire Tested: **LSRWM2B05FL409050D010 2LBD\*H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P224909  
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: LSRWM2B05FL409050D010 2LBD\*H  
Description: 500 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: 673.0 lumens  
Efficiency: N/A  
Efficacy: 92.2 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

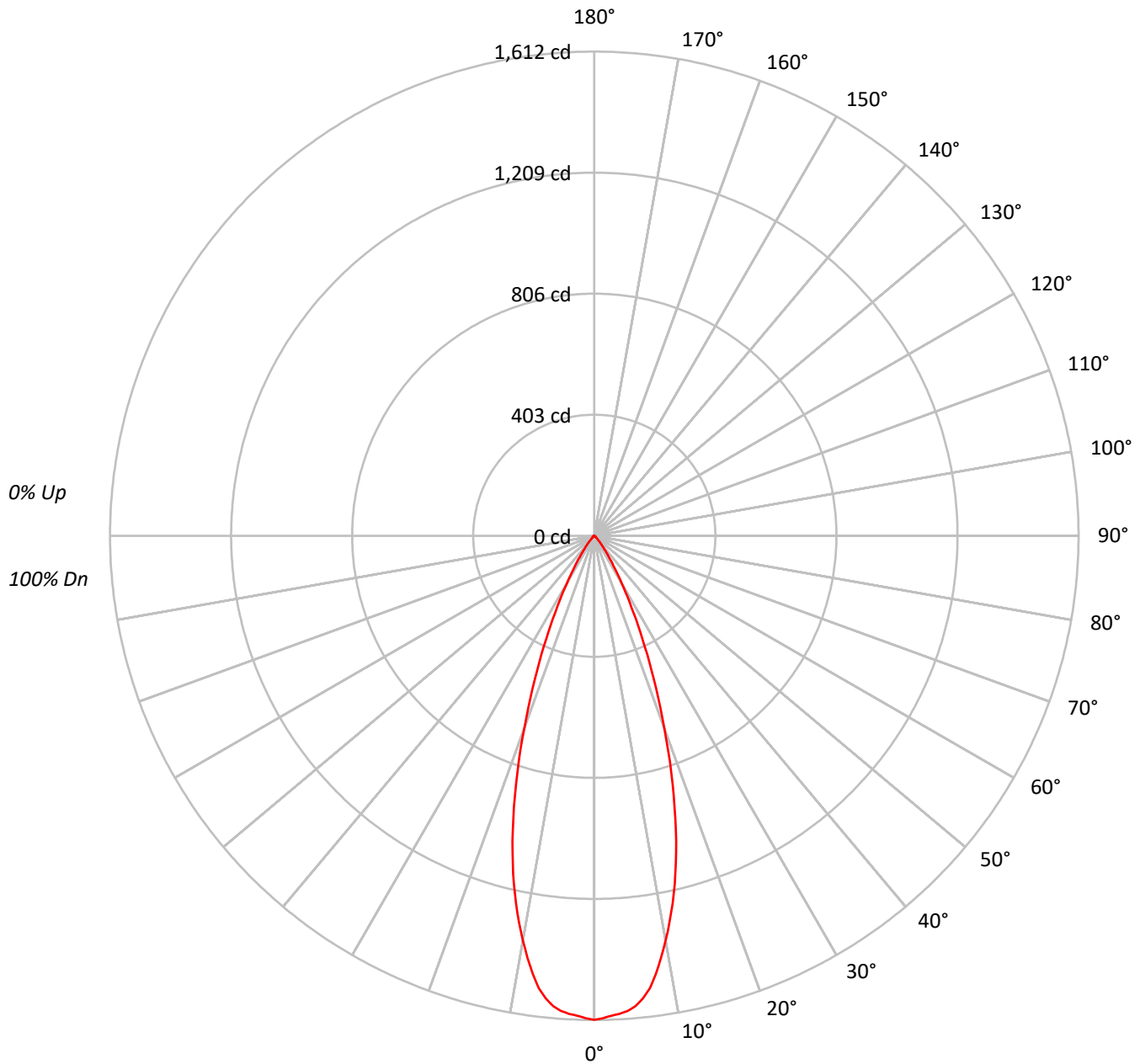
Input Watts (W): 7.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 106 | 103 | 100 | 108 | 104 | 101 | 99  | 101 | 99  | 97  | 98  | 96  | 94  | 96  | 94  | 93  | 91  |    |    |
| 3   | 106 | 100 | 96  | 93  | 104 | 99  | 95  | 92  | 97  | 94  | 91  | 94  | 92  | 90  | 92  | 90  | 88  | 87  |    |    |
| 4   | 102 | 96  | 91  | 88  | 100 | 94  | 90  | 87  | 92  | 89  | 86  | 91  | 88  | 85  | 89  | 86  | 84  | 83  |    |    |
| 5   | 98  | 91  | 86  | 83  | 96  | 90  | 86  | 82  | 89  | 85  | 82  | 87  | 84  | 81  | 86  | 83  | 80  | 79  |    |    |
| 6   | 94  | 87  | 82  | 79  | 93  | 86  | 82  | 78  | 85  | 81  | 78  | 84  | 80  | 77  | 82  | 79  | 77  | 76  |    |    |
| 7   | 91  | 83  | 78  | 75  | 90  | 83  | 78  | 75  | 82  | 77  | 74  | 80  | 77  | 74  | 79  | 76  | 74  | 73  |    |    |
| 8   | 88  | 80  | 75  | 72  | 87  | 79  | 75  | 72  | 78  | 74  | 71  | 77  | 74  | 71  | 77  | 73  | 71  | 70  |    |    |
| 9   | 85  | 77  | 72  | 69  | 84  | 76  | 72  | 69  | 75  | 71  | 68  | 75  | 71  | 68  | 74  | 70  | 68  | 67  |    |    |
| 10  | 82  | 74  | 69  | 66  | 81  | 73  | 69  | 66  | 73  | 69  | 66  | 72  | 68  | 66  | 71  | 68  | 65  | 64  |    |    |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 624247 |
| 5°  | 611156 |
| 10° | 538260 |
| 15° | 422304 |
| 20° | 280423 |
| 25° | 160997 |
| 30° | 80732  |
| 35° | 37309  |
| 40° | 15169  |
| 45° | 6793   |
| 50° | 3555   |
| 55° | 2229   |
| 60° | 1007   |
| 65° | 0      |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 143.6  | 21.3      |
| 10°-20°   | 285.0  | 42.4      |
| 20°-30°   | 177.1  | 26.3      |
| 30°-40°   | 53.4   | 7.9       |
| 40°-50°   | 10.9   | 1.6       |
| 50°-60°   | 2.8    | 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°    | 605.7  | 90.0      |
| 0°-40°    | 659.1  | 97.9      |
| 0°-60°    | 672.9  | 100.0     |
| 0°-90°    | 673.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 673.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1612 |      |
| 5°  | 1572 | 144  |
| 15° | 1053 | 285  |
| 25° | 377  | 177  |
| 35° | 79   | 53   |
| 45° | 12   | 11   |
| 55° | 3    | 3    |
| 65° | 0    | 0    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1611.6 |
| 1°    | 1606.4 |
| 2°    | 1599.2 |
| 3°    | 1594.0 |
| 4°    | 1586.2 |
| 5°    | 1571.8 |
| 6°    | 1549.0 |
| 7°    | 1517.7 |
| 8°    | 1472.8 |
| 9°    | 1421.9 |
| 10°   | 1368.5 |
| 11°   | 1311.8 |
| 12°   | 1252.5 |
| 13°   | 1190.6 |
| 14°   | 1122.8 |
| 15°   | 1053.1 |
| 17.5° | 866.1  |
| 20°   | 680.3  |
| 22.5° | 516.1  |
| 25°   | 376.7  |
| 27.5° | 265.9  |
| 30°   | 180.5  |
| 32.5° | 118.6  |
| 35°   | 78.9   |
| 37.5° | 48.9   |
| 40°   | 30.0   |
| 42.5° | 19.5   |
| 45°   | 12.4   |
| 47.5° | 7.8    |
| 50°   | 5.9    |
| 52.5° | 3.9    |
| 55°   | 3.3    |
| 57.5° | 2.0    |
| 60°   | 1.3    |
| 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)