

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: P212103

Luminaire Tested: **LSR4B30D010BZ EC4B30508040 4LBWH1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P212103  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35319)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LSR4B30D010BZ EC4B30508040 4LBWH1  
Description: PORTFOLIO 4 INCH CYLINDER  
WIDE DISTRIBUTION WITH SEMI-SPECULAR CLEAR TRIM  
WATTAGE D010TR-27.4W DE010-27.95W D5LT-27.65W DMX-27.73W DL2-29.56W  
DL3-29.67W DLE-29.73W  
Light Source: HIGH LUMEN LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

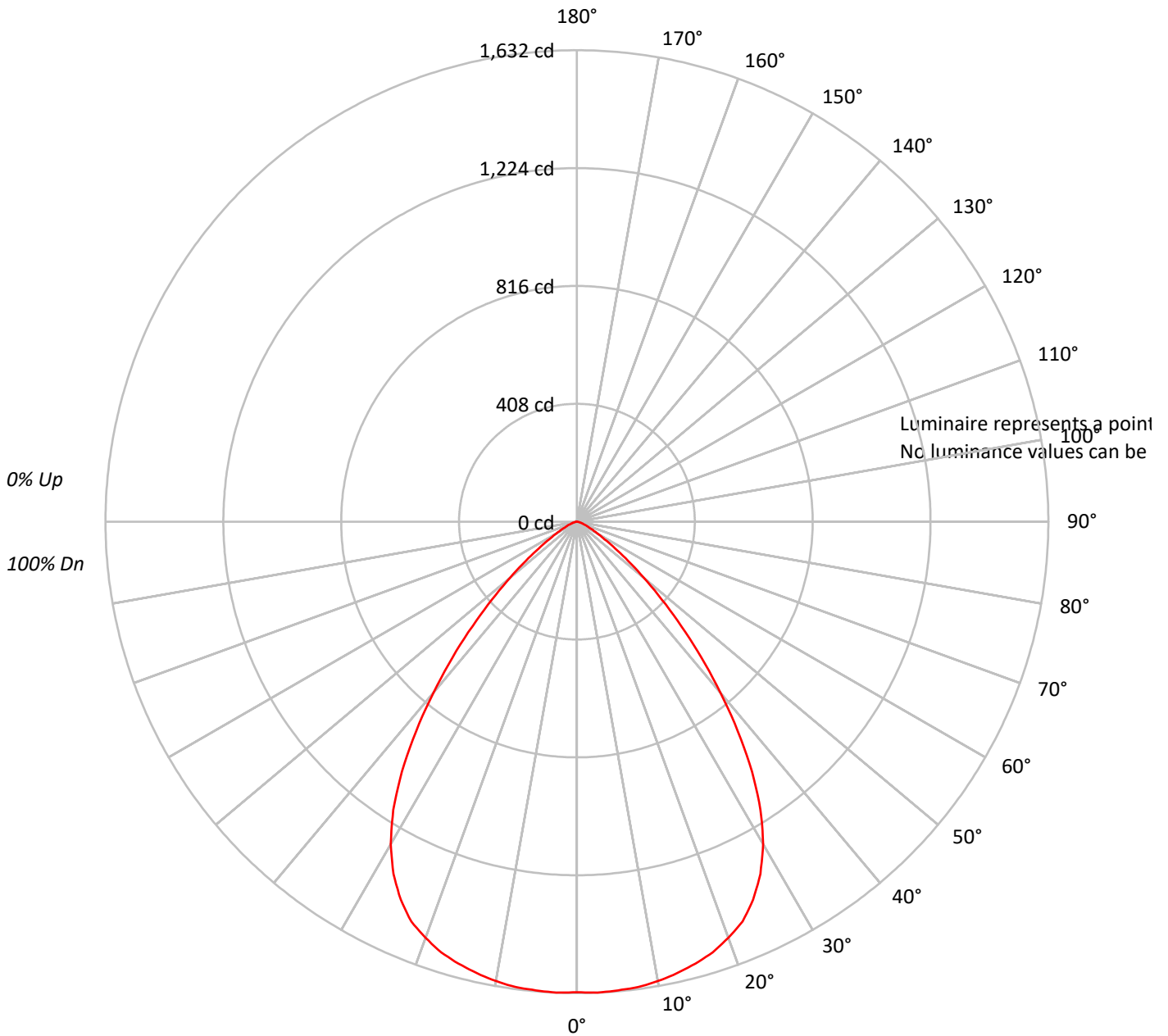
Lumens per Lamp: N/A  
Luminaire Lumens: 2526.8 lumens  
Efficiency: N/A  
Efficacy: 90.2 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.13  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

Input Watts (W): 28  
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  |     |    | 0  |   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 | 0 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |   |
| 1   | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 103 | 101 | 99  | 99  | 97  | 96  | 96  | 94  | 93  | 91  |    |    |   |
| 2   | 105 | 100 | 95  | 91  | 103 | 98  | 93  | 90  | 95  | 91  | 88  | 91  | 88  | 86  | 89  | 86  | 84  | 82  |    |    |   |
| 3   | 99  | 91  | 85  | 80  | 97  | 90  | 84  | 80  | 87  | 82  | 78  | 84  | 80  | 77  | 82  | 79  | 76  | 74  |    |    |   |
| 4   | 92  | 83  | 77  | 72  | 90  | 82  | 76  | 71  | 80  | 75  | 70  | 78  | 73  | 70  | 76  | 72  | 69  | 67  |    |    |   |
| 5   | 87  | 77  | 70  | 65  | 85  | 76  | 69  | 64  | 74  | 68  | 64  | 72  | 67  | 63  | 70  | 66  | 62  | 61  |    |    |   |
| 6   | 81  | 71  | 64  | 58  | 80  | 70  | 63  | 58  | 68  | 62  | 58  | 67  | 61  | 57  | 65  | 61  | 57  | 55  |    |    |   |
| 7   | 76  | 65  | 58  | 53  | 75  | 65  | 58  | 53  | 63  | 57  | 53  | 62  | 56  | 52  | 61  | 56  | 52  | 50  |    |    |   |
| 8   | 72  | 60  | 53  | 49  | 70  | 60  | 53  | 49  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 46  |    |    |   |
| 9   | 68  | 56  | 49  | 45  | 66  | 56  | 49  | 45  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 43  |    |    |   |
| 10  | 64  | 52  | 46  | 41  | 63  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 49  | 44  | 41  | 39  |    |    |   |

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





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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 155.1  | 6.1       |
| 10°-20°   | 446.9  | 17.7      |
| 20°-30°   | 659.5  | 26.1      |
| 30°-40°   | 650.8  | 25.8      |
| 40°-50°   | 398.3  | 15.8      |
| 50°-60°   | 152.7  | 6.0       |
| 60°-70°   | 47.7   | 1.9       |
| 70°-80°   | 14.0   | 0.6       |
| 80°-90°   | 1.9    | 0.1       |
| 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°    | 1261.5 | 49.9      |
| 0°-40°    | 1912.3 | 75.7      |
| 0°-60°    | 2463.3 | 97.5      |
| 0°-90°    | 2526.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2526.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1629 |      |
| 5°  | 1629 | 155  |
| 15° | 1584 | 447  |
| 25° | 1444 | 659  |
| 35° | 1056 | 651  |
| 45° | 511  | 398  |
| 55° | 161  | 153  |
| 65° | 45   | 48   |
| 75° | 14   | 14   |
| 85° | 0    | 2    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1628.7 |
| 2.5°  | 1632.1 |
| 5°    | 1628.7 |
| 7.5°  | 1625.2 |
| 10°   | 1615.0 |
| 12.5° | 1601.2 |
| 15°   | 1584.1 |
| 17.5° | 1563.5 |
| 20°   | 1532.7 |
| 22.5° | 1498.4 |
| 25°   | 1443.5 |
| 27.5° | 1374.9 |
| 30°   | 1289.2 |
| 32.5° | 1182.9 |
| 35°   | 1056.1 |
| 37.5° | 915.5  |
| 40°   | 771.5  |
| 42.5° | 637.8  |
| 45°   | 510.9  |
| 47.5° | 397.7  |
| 50°   | 301.7  |
| 52.5° | 222.9  |
| 55°   | 161.2  |
| 57.5° | 113.1  |
| 60°   | 82.3   |
| 62.5° | 61.7   |
| 65°   | 44.6   |
| 67.5° | 34.3   |
| 70°   | 24.0   |
| 72.5° | 17.1   |
| 75°   | 13.7   |
| 77.5° | 6.9    |
| 80°   | 6.9    |
| 82.5° | 3.4    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)