

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: P211290

Luminaire Tested: **LSR4B15D010BZ EC4B10208035 4LBWB1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211290  
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: LSR4B15D010BZ EC4B10208035 4LBWB1  
Description: PORTFOLIO 4 INCH CYLINDER  
WIDE DISTRIBUTION WITH SPECULAR BLACK TRIM  
WATTAGE D010TR-14.39W DE010-14.29W D5LT-14.34W DMX-14.46W DL2-15.8W  
DL3-15.28W DLE-15.432W  
Light Source: HIGH LUMEN LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 749.2 lumens  
Efficiency: N/A  
Efficacy: 52.4 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.03  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

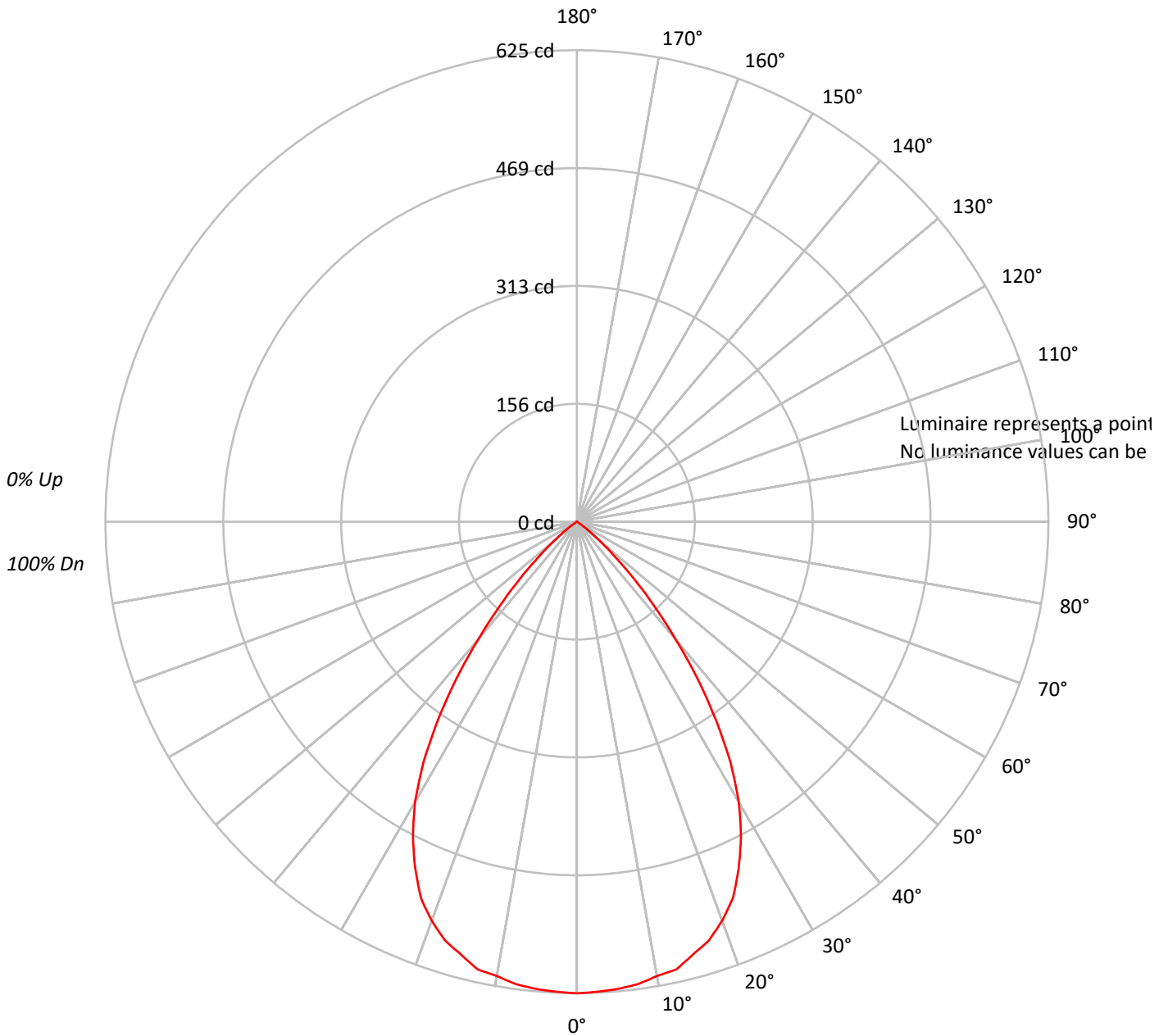
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 100 | 100 | 99  | 97  | 97  | 96  | 95  | 93  |
| 2   | 107 | 102 | 98  | 94  | 105 | 100 | 96  | 93  | 97  | 94  | 91  | 94  | 91  | 89  | 91  | 89  | 87  | 86  |
| 3   | 101 | 94  | 89  | 85  | 99  | 93  | 88  | 84  | 90  | 86  | 83  | 88  | 84  | 82  | 86  | 83  | 80  | 79  |
| 4   | 96  | 88  | 82  | 77  | 94  | 86  | 81  | 77  | 84  | 79  | 76  | 82  | 78  | 75  | 80  | 77  | 74  | 72  |
| 5   | 90  | 81  | 75  | 70  | 89  | 80  | 74  | 70  | 79  | 73  | 69  | 77  | 72  | 69  | 75  | 71  | 68  | 67  |
| 6   | 85  | 76  | 69  | 65  | 84  | 75  | 69  | 64  | 73  | 68  | 64  | 72  | 67  | 64  | 70  | 66  | 63  | 62  |
| 7   | 80  | 71  | 64  | 60  | 79  | 70  | 64  | 59  | 69  | 63  | 59  | 67  | 62  | 59  | 66  | 62  | 58  | 57  |
| 8   | 76  | 66  | 60  | 55  | 75  | 65  | 59  | 55  | 64  | 59  | 55  | 63  | 58  | 54  | 62  | 58  | 54  | 53  |
| 9   | 72  | 62  | 55  | 51  | 71  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  | 58  | 54  | 50  | 49  |
| 10  | 68  | 58  | 52  | 48  | 67  | 58  | 52  | 48  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 46  |

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





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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 59.1   | 7.9       |
| 10°-20°   | 167.3  | 22.3      |
| 20°-30°   | 231.3  | 30.9      |
| 30°-40°   | 198.0  | 26.4      |
| 40°-50°   | 84.2   | 11.2      |
| 50°-60°   | 9.4    | 1.3       |
| 60°-70°   | 0.0    | 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°    | 457.6  | 61.1      |
| 0°-40°    | 655.6  | 87.5      |
| 0°-60°    | 749.2  | 100.0     |
| 0°-90°    | 749.2  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 749.2  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 625 |      |
| 5°  | 622 | 59   |
| 15° | 594 | 167  |
| 25° | 507 | 231  |
| 35° | 321 | 198  |
| 45° | 106 | 84   |
| 55° | 5   | 9    |
| 65° | 0   | 0    |
| 75° | 0   | 0    |
| 85° | 0   | 0    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 625.4 |
| 2.5°  | 623.7 |
| 5°    | 621.9 |
| 7.5°  | 618.4 |
| 10°   | 611.5 |
| 12.5° | 608.0 |
| 15°   | 594.1 |
| 17.5° | 582.0 |
| 20°   | 562.9 |
| 22.5° | 540.3 |
| 25°   | 507.3 |
| 27.5° | 470.8 |
| 30°   | 429.1 |
| 32.5° | 378.7 |
| 35°   | 321.4 |
| 37.5° | 262.3 |
| 40°   | 203.3 |
| 42.5° | 151.1 |
| 45°   | 106.0 |
| 47.5° | 66.0  |
| 50°   | 38.2  |
| 52.5° | 19.1  |
| 55°   | 5.2   |
| 57.5° | 0.0   |
| 60°   | 0.0   |
| 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)