

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: P211203

Luminaire Tested: **LE\_4B15D010 EC4B10208030 4LBW1GPH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211203  
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: LE\_4B15D010 EC4B10208030 4LBW1GPH  
Description: PORTFOLIO 4 INCH CYLINDER  
WIDE DISTRIBUTIONWITH GRAPHITE HAZE 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: 1135.1 lumens  
Efficiency: N/A  
Efficacy: 79.4 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.08  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

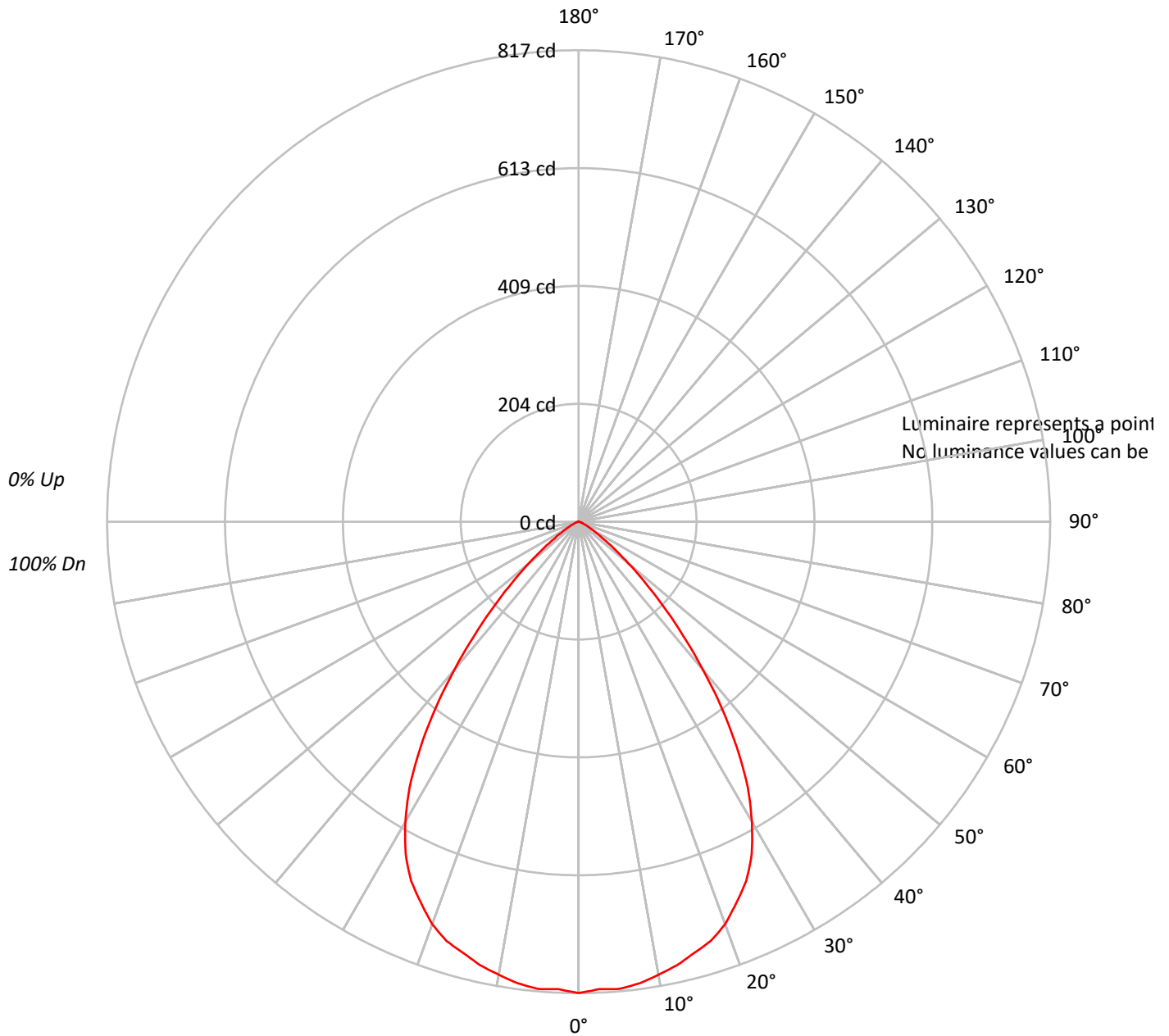
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





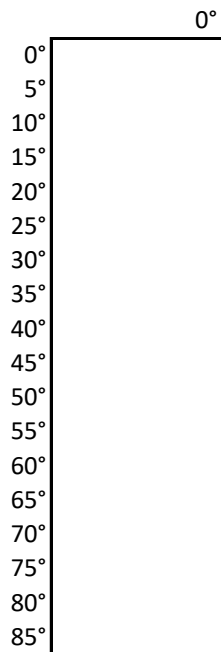
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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|
| 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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 113 | 110 | 107 | 104 | 110 | 107 | 105 | 103 | 103 | 101 | 99  |  | 100 | 98  | 96  |  | 96  |
| 2   | 106 | 100 | 96  | 92  | 104 | 99  | 95  | 91  | 95  | 92  | 89  |  | 92  | 90  | 87  |  | 90  |
| 3   | 100 | 92  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 84  | 80  |  | 86  | 82  | 79  |  | 83  |
| 4   | 94  | 85  | 78  | 74  | 92  | 84  | 78  | 73  | 81  | 76  | 72  |  | 79  | 75  | 71  |  | 77  |
| 5   | 88  | 78  | 72  | 67  | 86  | 77  | 71  | 66  | 75  | 70  | 66  |  | 74  | 69  | 65  |  | 72  |
| 6   | 83  | 72  | 65  | 61  | 81  | 71  | 65  | 60  | 70  | 64  | 60  |  | 68  | 63  | 59  |  | 67  |
| 7   | 78  | 67  | 60  | 55  | 76  | 66  | 60  | 55  | 65  | 59  | 55  |  | 64  | 58  | 55  |  | 63  |
| 8   | 73  | 62  | 56  | 51  | 72  | 62  | 55  | 51  | 61  | 55  | 50  |  | 59  | 54  | 50  |  | 58  |
| 9   | 69  | 58  | 51  | 47  | 68  | 58  | 51  | 47  | 57  | 51  | 47  |  | 56  | 50  | 46  |  | 55  |
| 10  | 65  | 54  | 48  | 43  | 64  | 54  | 48  | 43  | 53  | 47  | 43  |  | 52  | 47  | 43  |  | 51  |

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





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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 77.0   | 6.8       |
| 10°-20°   | 218.4  | 19.2      |
| 20°-30°   | 313.2  | 27.6      |
| 30°-40°   | 294.9  | 26.0      |
| 40°-50°   | 162.9  | 14.3      |
| 50°-60°   | 52.2   | 4.6       |
| 60°-70°   | 13.1   | 1.2       |
| 70°-80°   | 3.1    | 0.3       |
| 80°-90°   | 0.3    | 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°    | 608.6  | 53.6      |
| 0°-40°    | 903.5  | 79.6      |
| 0°-60°    | 1118.6 | 98.6      |
| 0°-90°    | 1135.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1135.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 817 |      |
| 5°  | 813 | 77   |
| 15° | 774 | 218  |
| 25° | 687 | 313  |
| 35° | 478 | 295  |
| 45° | 207 | 163  |
| 55° | 53  | 52   |
| 65° | 12  | 13   |
| 75° | 2   | 3    |
| 85° | 0   | 0    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 816.9 |
| 2.5°  | 811.0 |
| 5°    | 812.9 |
| 7.5°  | 807.0 |
| 10°   | 797.3 |
| 12.5° | 787.4 |
| 15°   | 773.6 |
| 17.5° | 761.8 |
| 20°   | 742.1 |
| 22.5° | 714.6 |
| 25°   | 687.0 |
| 27.5° | 649.6 |
| 30°   | 600.4 |
| 32.5° | 545.3 |
| 35°   | 478.4 |
| 37.5° | 407.5 |
| 40°   | 334.7 |
| 42.5° | 267.7 |
| 45°   | 206.7 |
| 47.5° | 155.6 |
| 50°   | 112.2 |
| 52.5° | 78.8  |
| 55°   | 53.1  |
| 57.5° | 35.4  |
| 60°   | 25.6  |
| 62.5° | 17.7  |
| 65°   | 11.8  |
| 67.5° | 7.9   |
| 70°   | 5.9   |
| 72.5° | 3.9   |
| 75°   | 2.0   |
| 77.5° | 2.0   |
| 80°   | 2.0   |
| 82.5° | 0.0   |
| 85°   | 0.0   |
| 87.5° | 0.0   |
| 90°   | 0.0   |



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— 0°-180°







(END OF REPORT)