

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: P211067

Luminaire Tested: **LE\_4B15D010 EC4B10209024 4LBM1GPH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211067  
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 EC4B10209024 4LBM1GPH  
Description: PORTFOLIO 4 INCH CYLINDER  
MEDIUM DISTRIBUTION WITH 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: 676.9 lumens  
Efficiency: N/A  
Efficacy: 47.3 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 0.94 / 0.92  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

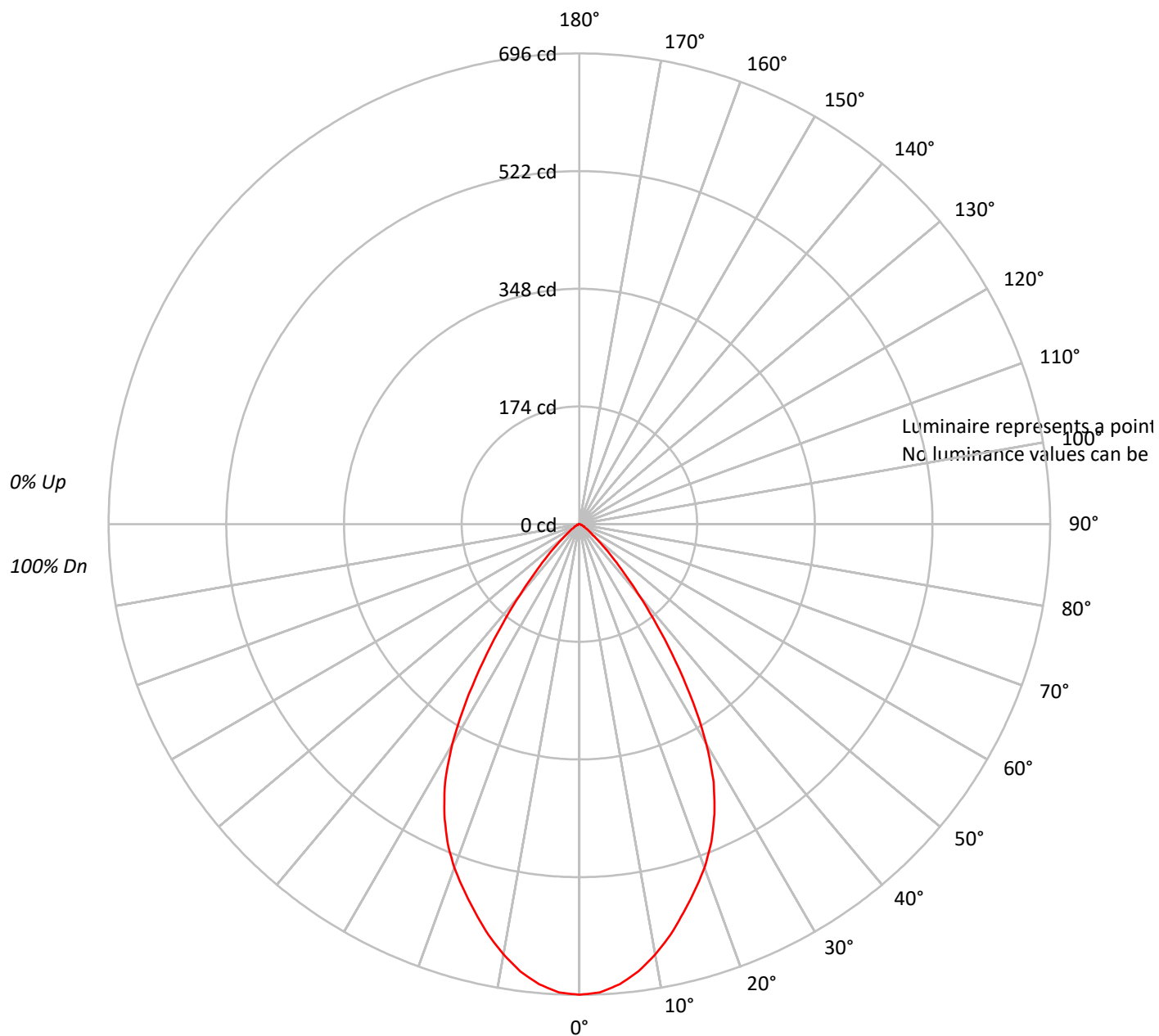
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P211067

CATALOG NUMBER: LE\_4B15D010 EC4B10209024 4LBM1GPH

### Luminous Intensity Polar Plot





TEST NUMBER: P211067

CATALOG NUMBER: LE\_4B15D010 EC4B10209024 4LBM1GPH

**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 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 101 |  | 100 | 99  | 98  |  | 97  |
| 2   | 107 | 102 | 98  | 94  | 105 | 100 | 97  | 93  | 97  | 94  | 91  |  | 94  | 92  | 89  |  | 91  |
| 3   | 102 | 95  | 90  | 85  | 100 | 93  | 89  | 85  | 91  | 87  | 83  |  | 88  | 85  | 82  |  | 86  |
| 4   | 96  | 88  | 82  | 78  | 94  | 87  | 82  | 78  | 85  | 80  | 77  |  | 83  | 79  | 76  |  | 81  |
| 5   | 91  | 82  | 76  | 72  | 89  | 81  | 76  | 71  | 79  | 74  | 71  |  | 78  | 73  | 70  |  | 76  |
| 6   | 86  | 77  | 71  | 66  | 85  | 76  | 70  | 66  | 74  | 69  | 65  |  | 73  | 68  | 65  |  | 72  |
| 7   | 82  | 72  | 66  | 61  | 80  | 71  | 65  | 61  | 70  | 65  | 61  |  | 69  | 64  | 60  |  | 68  |
| 8   | 77  | 67  | 61  | 57  | 76  | 67  | 61  | 57  | 66  | 60  | 57  |  | 65  | 60  | 56  |  | 64  |
| 9   | 73  | 63  | 57  | 53  | 72  | 63  | 57  | 53  | 62  | 57  | 53  |  | 61  | 56  | 53  |  | 60  |
| 10  | 70  | 60  | 54  | 50  | 69  | 59  | 54  | 50  | 59  | 53  | 50  |  | 58  | 53  | 49  |  | 57  |

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





TEST NUMBER: P211067

CATALOG NUMBER: LE\_4B15D010 EC4B10209024 4LBM1GPH

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 64.0   | 9.5       |
| 10°-20°   | 167.0  | 24.7      |
| 20°-30°   | 214.2  | 31.6      |
| 30°-40°   | 154.8  | 22.9      |
| 40°-50°   | 55.5   | 8.2       |
| 50°-60°   | 15.0   | 2.2       |
| 60°-70°   | 4.9    | 0.7       |
| 70°-80°   | 1.5    | 0.2       |
| 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°    | 445.2  | 65.8      |
| 0°-40°    | 599.9  | 88.6      |
| 0°-60°    | 670.4  | 99.1      |
| 0°-90°    | 676.9  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 676.9  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 696 |      |
| 5°  | 683 | 64   |
| 15° | 595 | 167  |
| 25° | 472 | 214  |
| 35° | 248 | 155  |
| 45° | 67  | 56   |
| 55° | 16  | 15   |
| 65° | 4   | 5    |
| 75° | 1   | 1    |
| 85° | 0   | 0    |
| 90° | 0   |      |



TEST NUMBER: P211067

CATALOG NUMBER: LE\_4B15D010 EC4B10209024 4LBM1GPH

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 695.9 |
| 2.5°  | 693.0 |
| 5°    | 683.0 |
| 7.5°  | 667.3 |
| 10°   | 646.0 |
| 12.5° | 621.9 |
| 15°   | 594.8 |
| 17.5° | 567.7 |
| 20°   | 540.7 |
| 22.5° | 509.5 |
| 25°   | 472.5 |
| 27.5° | 429.8 |
| 30°   | 375.6 |
| 32.5° | 313.1 |
| 35°   | 247.5 |
| 37.5° | 187.8 |
| 40°   | 136.6 |
| 42.5° | 96.7  |
| 45°   | 66.9  |
| 47.5° | 45.6  |
| 50°   | 29.9  |
| 52.5° | 21.3  |
| 55°   | 15.7  |
| 57.5° | 11.4  |
| 60°   | 8.6   |
| 62.5° | 7.1   |
| 65°   | 4.3   |
| 67.5° | 2.9   |
| 70°   | 2.9   |
| 72.5° | 1.4   |
| 75°   | 1.4   |
| 77.5° | 1.4   |
| 80°   | 0.0   |
| 82.5° | 0.0   |
| 85°   | 0.0   |
| 87.5° | 0.0   |
| 90°   | 0.0   |



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°







(END OF REPORT)