

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: P211207

Luminaire Tested: **LE\_4B15D010 EC4B10208030 4LBW1WH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211207  
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 4LBW1WH  
Description: PORTFOLIO 4 INCH CYLINDER  
WIDE DISTRIBUTION WITH WHEAT 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: 1504.8 lumens  
Efficiency: N/A  
Efficacy: 105.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.16  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

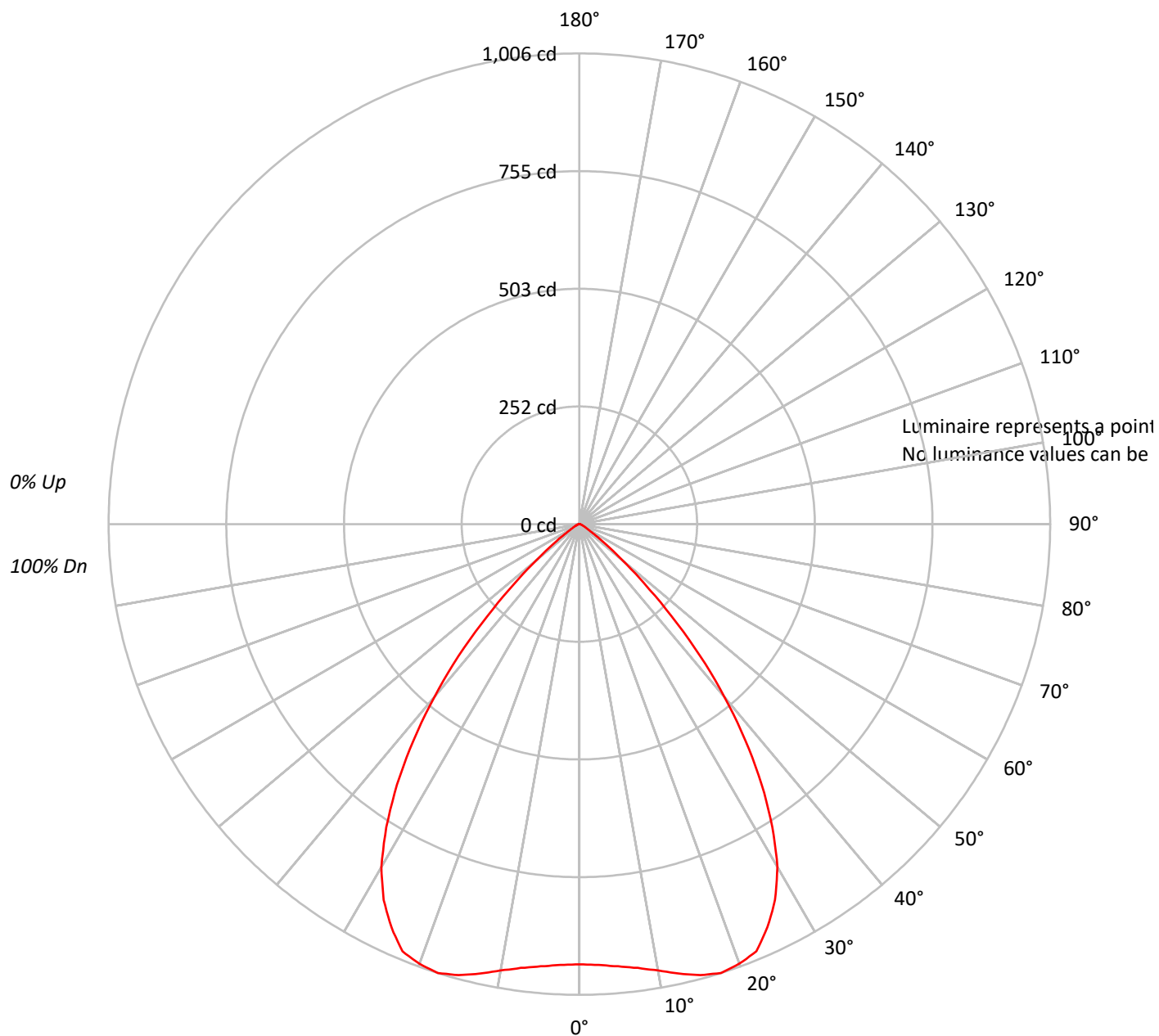
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





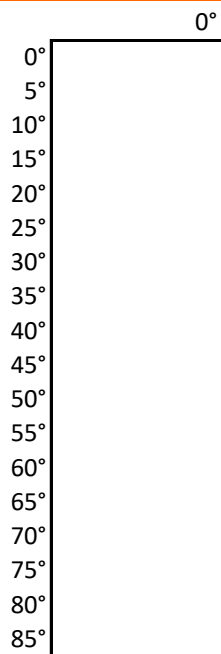
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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |  |     |     |     |     |  |     |     |     |  |     |     |     |  |     |     |     |
|-----|-----|-----|-----|-----|--|-----|-----|-----|-----|--|-----|-----|-----|--|-----|-----|-----|--|-----|-----|-----|
| 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  | 30  | 10  |
| RCR |     |     |     |     |  |     |     |     |     |  |     |     |     |  |     |     |     |  |     |     |     |
| 0   | 119 | 119 | 119 | 119 |  | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 |
| 1   | 113 | 110 | 107 | 104 |  | 110 | 107 | 105 | 103 |  | 103 | 101 | 100 |  | 100 | 98  | 97  |  | 96  | 95  | 94  |
| 2   | 106 | 101 | 96  | 92  |  | 104 | 99  | 95  | 91  |  | 96  | 92  | 89  |  | 93  | 90  | 87  |  | 90  | 87  | 85  |
| 3   | 100 | 93  | 87  | 82  |  | 98  | 91  | 86  | 82  |  | 88  | 84  | 80  |  | 86  | 82  | 79  |  | 84  | 80  | 78  |
| 4   | 94  | 85  | 79  | 74  |  | 92  | 84  | 78  | 74  |  | 82  | 77  | 73  |  | 80  | 75  | 72  |  | 78  | 74  | 71  |
| 5   | 88  | 79  | 72  | 67  |  | 86  | 78  | 71  | 67  |  | 76  | 70  | 66  |  | 74  | 69  | 65  |  | 72  | 68  | 65  |
| 6   | 83  | 73  | 66  | 61  |  | 81  | 72  | 65  | 61  |  | 70  | 64  | 60  |  | 69  | 64  | 60  |  | 67  | 63  | 59  |
| 7   | 78  | 67  | 60  | 56  |  | 76  | 67  | 60  | 55  |  | 65  | 59  | 55  |  | 64  | 59  | 55  |  | 63  | 58  | 54  |
| 8   | 73  | 62  | 56  | 51  |  | 72  | 62  | 55  | 51  |  | 61  | 55  | 51  |  | 60  | 54  | 50  |  | 59  | 54  | 50  |
| 9   | 69  | 58  | 51  | 47  |  | 68  | 58  | 51  | 47  |  | 57  | 51  | 47  |  | 56  | 50  | 47  |  | 55  | 50  | 46  |
| 10  | 65  | 54  | 48  | 43  |  | 64  | 54  | 48  | 43  |  | 53  | 47  | 43  |  | 52  | 47  | 43  |  | 51  | 46  | 43  |

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





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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 91.2   | 6.1       |
| 10°-20°   | 282.0  | 18.7      |
| 20°-30°   | 433.8  | 28.8      |
| 30°-40°   | 418.6  | 27.8      |
| 40°-50°   | 218.3  | 14.5      |
| 50°-60°   | 45.9   | 3.1       |
| 60°-70°   | 10.7   | 0.7       |
| 70°-80°   | 4.1    | 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°    | 807.0  | 53.6      |
| 0°-40°    | 1225.6 | 81.4      |
| 0°-60°    | 1489.7 | 99.0      |
| 0°-90°    | 1504.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1504.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 941 |      |
| 5°  | 949 | 91   |
| 15° | 998 | 282  |
| 25° | 951 | 434  |
| 35° | 679 | 419  |
| 45° | 278 | 218  |
| 55° | 41  | 46   |
| 65° | 10  | 11   |
| 75° | 4   | 4    |
| 85° | 0   | 0    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 940.9  |
| 2.5°  | 942.8  |
| 5°    | 948.8  |
| 7.5°  | 956.7  |
| 10°   | 968.5  |
| 12.5° | 984.1  |
| 15°   | 997.9  |
| 17.5° | 1005.8 |
| 20°   | 999.9  |
| 22.5° | 988.1  |
| 25°   | 950.7  |
| 27.5° | 905.5  |
| 30°   | 846.3  |
| 32.5° | 767.7  |
| 35°   | 679.1  |
| 37.5° | 582.7  |
| 40°   | 482.2  |
| 42.5° | 381.9  |
| 45°   | 277.6  |
| 47.5° | 187.0  |
| 50°   | 120.1  |
| 52.5° | 72.8   |
| 55°   | 41.3   |
| 57.5° | 25.6   |
| 60°   | 17.7   |
| 62.5° | 13.8   |
| 65°   | 9.9    |
| 67.5° | 7.9    |
| 70°   | 5.9    |
| 72.5° | 5.9    |
| 75°   | 3.9    |
| 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)