

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: P211986

Luminaire Tested: **LE\_4B30D010 EC4B30509030 4LBW1GPH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211986  
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\_4B30D010 EC4B30509030 4LBW1GPH  
Description: PORTFOLIO 4 INCH CYLINDER  
WIDE DISTRIBUTIONWITH GRAPHITE HAZE 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: 1892.0 lumens  
Efficiency: N/A  
Efficacy: 67.6 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

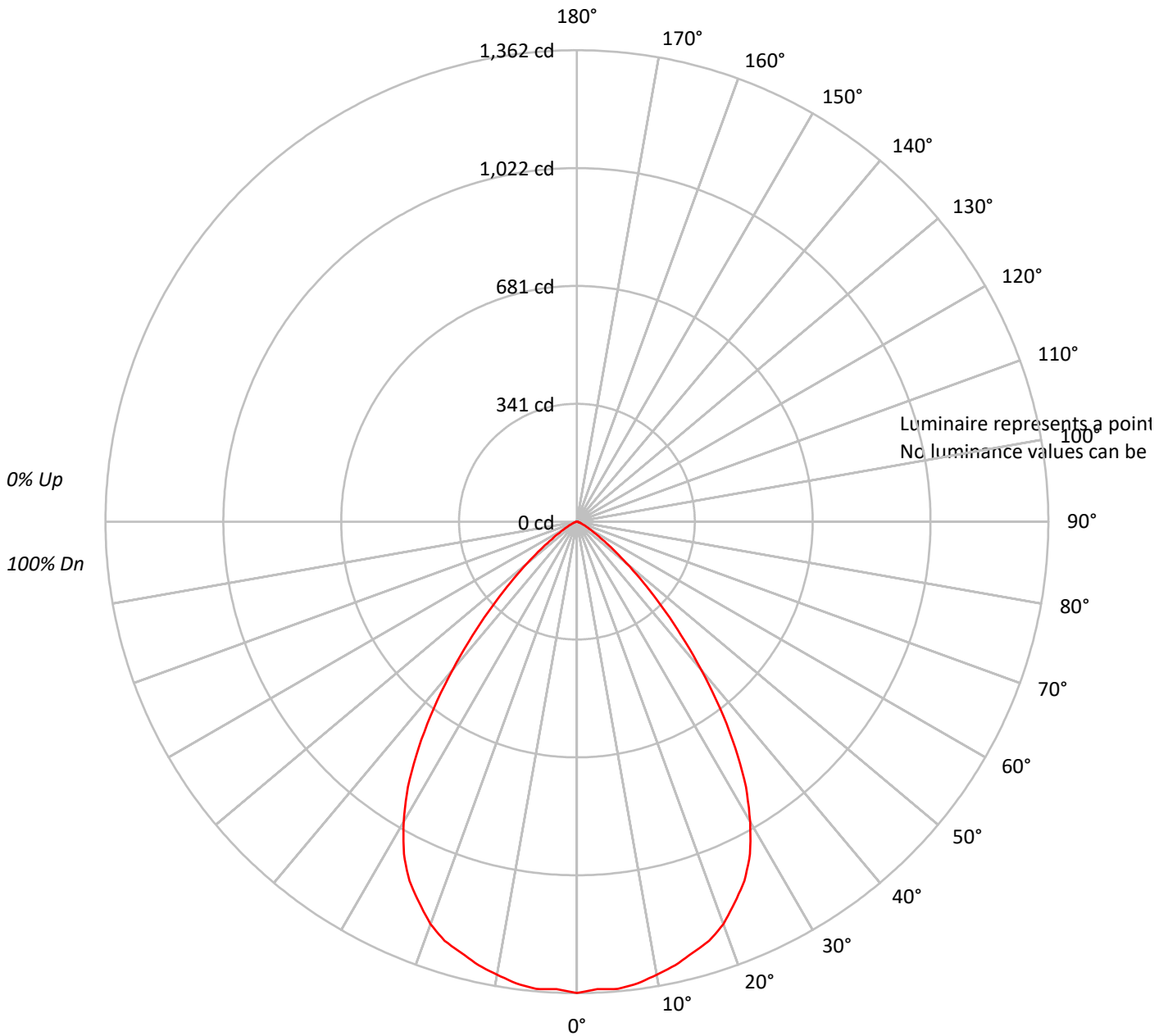
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P211986

CATALOG NUMBER: LE\_4B30D010 EC4B30509030 4LBW1GPH

### Luminous Intensity Polar Plot





TEST NUMBER: P211986

CATALOG NUMBER: LE\_4B30D010 EC4B30509030 4LBW1GPH

**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   | 113 | 110 | 107 | 104 | 110 | 107 | 105 | 103 | 103 | 101 | 99  | 100 | 98  | 96  | 96  | 95  | 94  | 92  |    |    |   |
| 2   | 106 | 100 | 96  | 92  | 104 | 99  | 95  | 91  | 95  | 92  | 89  | 92  | 90  | 87  | 90  | 87  | 85  | 83  |    |    |   |
| 3   | 100 | 92  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 84  | 80  | 86  | 82  | 79  | 83  | 80  | 77  | 76  |    |    |   |
| 4   | 94  | 85  | 78  | 74  | 92  | 84  | 78  | 73  | 81  | 76  | 72  | 79  | 75  | 71  | 77  | 74  | 71  | 69  |    |    |   |
| 5   | 88  | 78  | 72  | 67  | 86  | 77  | 71  | 66  | 75  | 70  | 66  | 74  | 69  | 65  | 72  | 68  | 64  | 63  |    |    |   |
| 6   | 83  | 72  | 65  | 61  | 81  | 71  | 65  | 60  | 70  | 64  | 60  | 68  | 63  | 59  | 67  | 63  | 59  | 57  |    |    |   |
| 7   | 78  | 67  | 60  | 55  | 76  | 66  | 60  | 55  | 65  | 59  | 55  | 64  | 58  | 55  | 63  | 58  | 54  | 53  |    |    |   |
| 8   | 73  | 62  | 56  | 51  | 72  | 62  | 55  | 51  | 61  | 55  | 51  | 59  | 54  | 50  | 58  | 54  | 50  | 48  |    |    |   |
| 9   | 69  | 58  | 51  | 47  | 68  | 58  | 51  | 47  | 57  | 51  | 47  | 56  | 50  | 46  | 55  | 50  | 46  | 45  |    |    |   |
| 10  | 65  | 54  | 48  | 43  | 64  | 54  | 48  | 43  | 53  | 47  | 43  | 52  | 47  | 43  | 51  | 46  | 43  | 41  |    |    |   |

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





TEST NUMBER: P211986

CATALOG NUMBER: LE\_4B30D010 EC4B30509030 4LBW1GPH

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 128.4  | 6.8       |
| 10°-20°   | 364.0  | 19.2      |
| 20°-30°   | 522.0  | 27.6      |
| 30°-40°   | 491.5  | 26.0      |
| 40°-50°   | 271.5  | 14.3      |
| 50°-60°   | 87.0   | 4.6       |
| 60°-70°   | 21.8   | 1.2       |
| 70°-80°   | 5.1    | 0.3       |
| 80°-90°   | 0.4    | 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°    | 1014.5 | 53.6      |
| 0°-40°    | 1506.1 | 79.6      |
| 0°-60°    | 1864.6 | 98.6      |
| 0°-90°    | 1892.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1892.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1362 |      |
| 5°  | 1355 | 128  |
| 15° | 1290 | 364  |
| 25° | 1145 | 522  |
| 35° | 797  | 492  |
| 45° | 344  | 271  |
| 55° | 89   | 87   |
| 65° | 20   | 22   |
| 75° | 3    | 5    |
| 85° | 0    | 0    |
| 90° | 0    |      |



TEST NUMBER: P211986

CATALOG NUMBER: LE\_4B30D010 EC4B30509030 4LBW1GPH

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1361.7 |
| 2.5°  | 1351.9 |
| 5°    | 1355.2 |
| 7.5°  | 1345.4 |
| 10°   | 1328.9 |
| 12.5° | 1312.5 |
| 15°   | 1289.6 |
| 17.5° | 1269.9 |
| 20°   | 1237.0 |
| 22.5° | 1191.1 |
| 25°   | 1145.2 |
| 27.5° | 1082.9 |
| 30°   | 1000.8 |
| 32.5° | 909.0  |
| 35°   | 797.4  |
| 37.5° | 679.2  |
| 40°   | 557.8  |
| 42.5° | 446.3  |
| 45°   | 344.5  |
| 47.5° | 259.3  |
| 50°   | 187.0  |
| 52.5° | 131.2  |
| 55°   | 88.6   |
| 57.5° | 59.0   |
| 60°   | 42.7   |
| 62.5° | 29.6   |
| 65°   | 19.7   |
| 67.5° | 13.1   |
| 70°   | 9.9    |
| 72.5° | 6.6    |
| 75°   | 3.2    |
| 77.5° | 3.2    |
| 80°   | 3.2    |
| 82.5° | 0.0    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







(END OF REPORT)