

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: P207652

Luminaire Tested: **LD4B10D010 EU4B10209730 4LBNH1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P207652  
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: LD4B10D010 EU4B10209730 4LBNH1  
Description: PORTFOLIO 4 INCH 50 DEGREE CUTOFF RECESSED DOWNLIGHT  
NARROW DISTRIBUTION WITH SEMI-SPECULAR CLEAR TRIM  
WATTAGE D010TR-10.05W DE010-10.58W D5LT-10.2W DMX-10.6W DL2-11.8W  
DL3-11.1W DLE-11.39W  
Light Source: HIGH LUMEN LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 500.8 lumens  
Efficiency: N/A  
Efficacy: 50.6 lumens/watt  
Spacing Criteria (0/90/45): 0.81 / 0.81 / 0.85  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

Input Watts (W): 9.9  
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

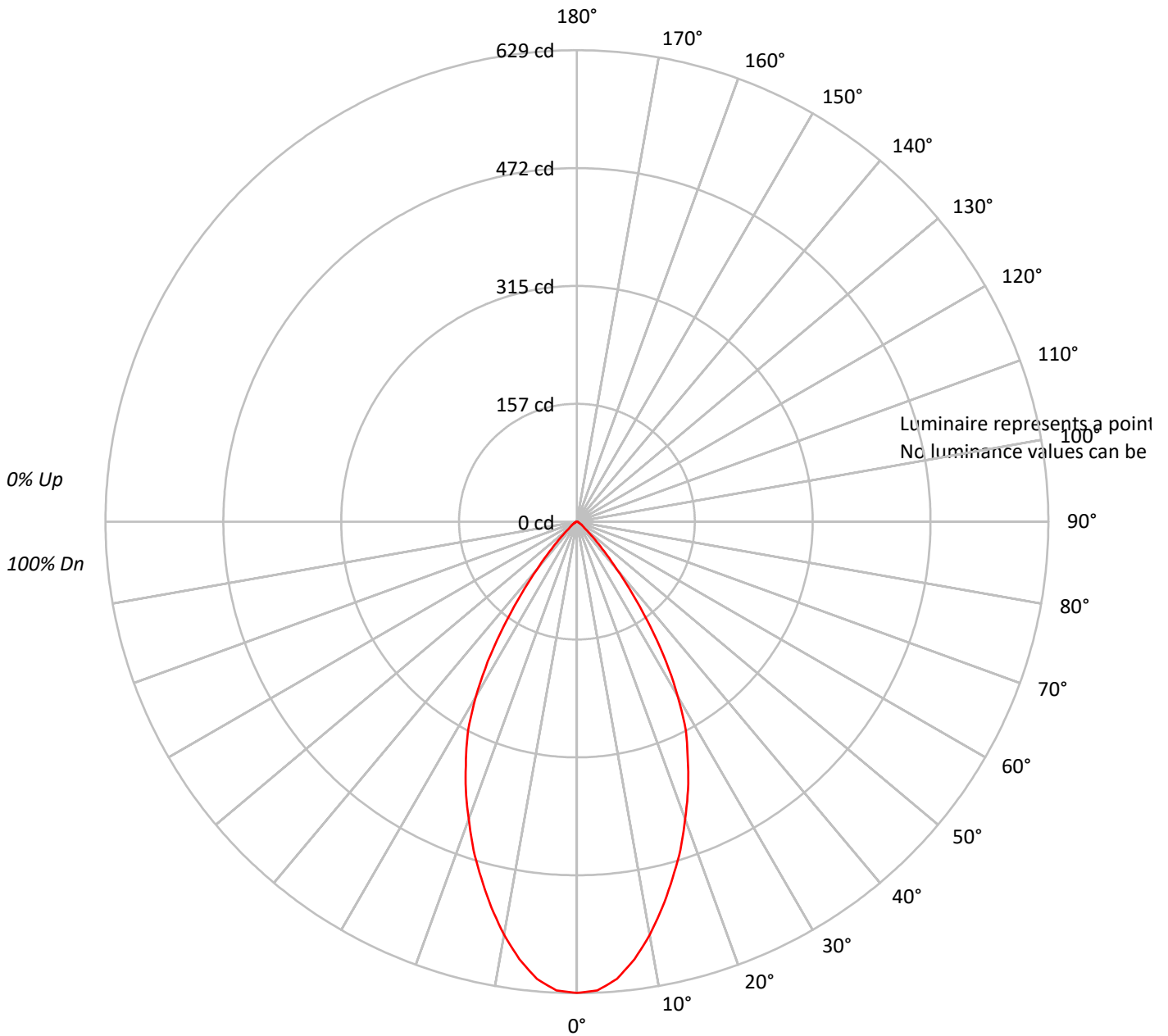




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### Luminous Intensity Polar Plot





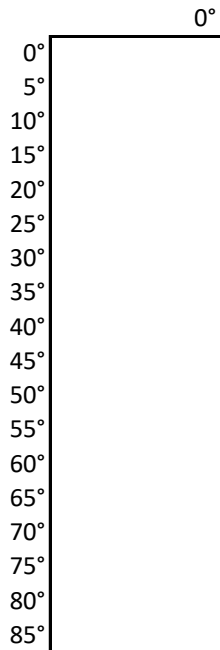
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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |
|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|---|--|--|----|--|--|--|--|--|--|--|---|
| RF  | 20 |     |     |     |     |     |     |     | 20  |     |     |     |     |     |     |     | 20  |     |     |    |    |    |    |    | 20 |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |
| 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 | 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 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 105 | 103 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 93  |    |    |    |    |    |    |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |
|     | 2  | 108 | 103 | 99  | 96  | 106 | 101 | 98  | 94  | 98  | 95  | 92  | 95  | 93  | 90  | 92  | 90  | 89  | 87  |    |    |    |    |    |    |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |
|     | 3  | 102 | 96  | 91  | 87  | 100 | 95  | 90  | 86  | 92  | 88  | 85  | 90  | 86  | 84  | 87  | 85  | 82  | 81  |    |    |    |    |    |    |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |
|     | 4  | 97  | 90  | 84  | 80  | 95  | 89  | 83  | 79  | 86  | 82  | 78  | 84  | 81  | 78  | 83  | 79  | 77  | 75  |    |    |    |    |    |    |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |
|     | 5  | 92  | 84  | 78  | 74  | 91  | 83  | 78  | 73  | 81  | 76  | 73  | 80  | 75  | 72  | 78  | 74  | 72  | 70  |    |    |    |    |    |    |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |
|     | 6  | 88  | 79  | 73  | 69  | 86  | 78  | 72  | 68  | 77  | 72  | 68  | 75  | 71  | 67  | 74  | 70  | 67  | 65  |    |    |    |    |    |    |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |
|     | 7  | 83  | 74  | 68  | 64  | 82  | 73  | 68  | 64  | 72  | 67  | 63  | 71  | 66  | 63  | 70  | 66  | 63  | 61  |    |    |    |    |    |    |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |
|     | 8  | 79  | 70  | 64  | 60  | 78  | 69  | 64  | 60  | 68  | 63  | 59  | 67  | 63  | 59  | 66  | 62  | 59  | 58  |    |    |    |    |    |    |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |
|     | 9  | 76  | 66  | 60  | 56  | 74  | 65  | 60  | 56  | 65  | 59  | 56  | 64  | 59  | 56  | 63  | 59  | 55  | 54  |    |    |    |    |    |    |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |
|     | 10 | 72  | 62  | 57  | 53  | 71  | 62  | 56  | 53  | 61  | 56  | 53  | 60  | 56  | 52  | 60  | 55  | 52  | 51  |    |    |    |    |    |    |    |    |    |    |   |  |  |    |  |  |  |  |  |  |  |   |

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





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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 56.7   | 11.3      |
| 10°-20°   | 137.6  | 27.5      |
| 20°-30°   | 159.8  | 31.9      |
| 30°-40°   | 105.8  | 21.1      |
| 40°-50°   | 29.7   | 5.9       |
| 50°-60°   | 7.5    | 1.5       |
| 60°-70°   | 2.8    | 0.6       |
| 70°-80°   | 0.9    | 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       |
| <hr/>     |        |           |
| 0°-30°    | 354.1  | 70.7      |
| 0°-40°    | 459.9  | 91.8      |
| 0°-60°    | 497.1  | 99.3      |
| 0°-90°    | 500.8  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 500.8  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 629 |      |
| 5°  | 612 | 57   |
| 15° | 493 | 138  |
| 25° | 350 | 160  |
| 35° | 170 | 106  |
| 45° | 34  | 30   |
| 55° | 8   | 7    |
| 65° | 3   | 3    |
| 75° | 1   | 1    |
| 85° | 0   | 0    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |       |
|-------|-------|
| 0°    | 628.7 |
| 2.5°  | 626.0 |
| 5°    | 612.4 |
| 7.5°  | 588.8 |
| 10°   | 559.8 |
| 12.5° | 527.1 |
| 15°   | 492.6 |
| 17.5° | 459.1 |
| 20°   | 421.9 |
| 22.5° | 387.4 |
| 25°   | 350.2 |
| 27.5° | 314.8 |
| 30°   | 269.5 |
| 32.5° | 221.4 |
| 35°   | 169.7 |
| 37.5° | 121.6 |
| 40°   | 82.6  |
| 42.5° | 53.5  |
| 45°   | 34.5  |
| 47.5° | 20.9  |
| 50°   | 13.6  |
| 52.5° | 10.0  |
| 55°   | 8.2   |
| 57.5° | 6.4   |
| 60°   | 4.5   |
| 62.5° | 3.6   |
| 65°   | 2.7   |
| 67.5° | 1.8   |
| 70°   | 1.8   |
| 72.5° | 0.9   |
| 75°   | 0.9   |
| 77.5° | 0.9   |
| 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)