

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: P278269

Luminaire Tested: **LDA2B209040D010 EU2B20SP159040 2LBAD1B**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P278269  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1811-033-1)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B209040D010 EU2B20SP159040 2LBAD1B  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in  
ADJ spun Refl, Self-Flanged, B  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1712.7 lumens  
Efficiency: N/A  
Efficacy: 83.1 lumens/watt  
Spacing Criteria (0/90/45): 0.28 / 0.28 / 0.28  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

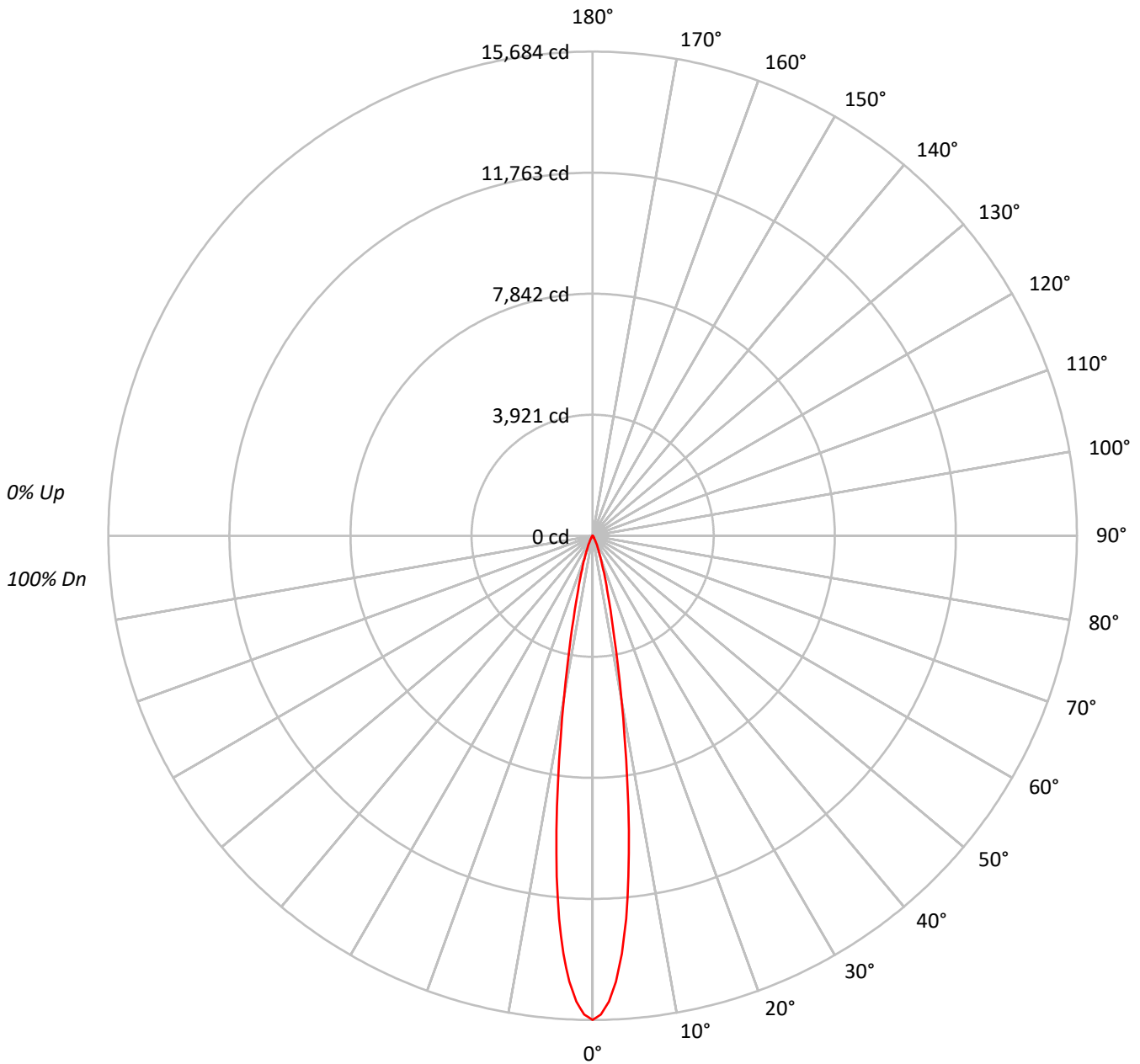
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |     |    | 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   | 116 | 114 | 112 | 110 | 113 | 112 | 110 | 109 | 108 | 106 | 105 | 104 | 103 | 102 | 101 | 100 | 99  | 98  |    |    |   |
| 2   | 112 | 109 | 107 | 104 | 110 | 108 | 105 | 103 | 105 | 103 | 101 | 102 | 100 | 99  | 99  | 98  | 97  | 96  |    |    |   |
| 3   | 109 | 105 | 102 | 100 | 108 | 104 | 101 | 99  | 102 | 99  | 98  | 100 | 98  | 96  | 97  | 96  | 95  | 93  |    |    |   |
| 4   | 107 | 102 | 99  | 96  | 105 | 101 | 98  | 96  | 99  | 97  | 95  | 98  | 95  | 94  | 96  | 94  | 93  | 92  |    |    |   |
| 5   | 104 | 99  | 96  | 93  | 103 | 99  | 95  | 93  | 97  | 94  | 92  | 96  | 93  | 91  | 94  | 92  | 91  | 90  |    |    |   |
| 6   | 102 | 97  | 93  | 91  | 101 | 96  | 93  | 91  | 95  | 92  | 90  | 94  | 91  | 89  | 93  | 91  | 89  | 88  |    |    |   |
| 7   | 100 | 95  | 91  | 89  | 99  | 94  | 91  | 88  | 93  | 90  | 88  | 92  | 90  | 88  | 91  | 89  | 87  | 86  |    |    |   |
| 8   | 98  | 93  | 89  | 87  | 97  | 92  | 89  | 87  | 91  | 88  | 86  | 90  | 88  | 86  | 90  | 87  | 86  | 85  |    |    |   |
| 9   | 96  | 91  | 87  | 85  | 95  | 90  | 87  | 85  | 90  | 87  | 85  | 89  | 86  | 84  | 88  | 86  | 84  | 83  |    |    |   |
| 10  | 94  | 89  | 86  | 83  | 94  | 89  | 85  | 83  | 88  | 85  | 83  | 87  | 85  | 83  | 87  | 85  | 83  | 82  |    |    |   |

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

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 7737640 |
| 5°  | 6168888 |
| 10° | 2678200 |
| 15° | 925303  |
| 20° | 379383  |
| 25° | 171366  |
| 30° | 68932   |
| 35° | 32102   |
| 40° | 17453   |
| 45° | 6489    |
| 50° | 3914    |
| 55° | 2925    |
| 60° | 1677    |
| 65° | 934     |
| 70° | 1154    |
| 75° | 0       |
| 80° | 0       |
| 85° | 0       |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 941.4  | 55.0      |
| 10°-20°   | 565.4  | 33.0      |
| 20°-30°   | 155.6  | 9.1       |
| 30°-40°   | 37.0   | 2.2       |
| 40°-50°   | 9.1    | 0.5       |
| 50°-60°   | 3.0    | 0.2       |
| 60°-70°   | 1.1    | 0.1       |
| 70°-80°   | 0.1    | 0.0       |
| 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°    | 1662.4 | 97.1      |
| 0°-40°    | 1699.4 | 99.2      |
| 0°-60°    | 1711.5 | 99.9      |
| 0°-90°    | 1712.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1712.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | Flux |
|-----|-------|------|
| 0°  | 15684 |      |
| 5°  | 12456 | 941  |
| 15° | 1812  | 565  |
| 25° | 315   | 156  |
| 35° | 53    | 37   |
| 45° | 9     | 9    |
| 55° | 3     | 3    |
| 65° | 1     | 1    |
| 75° | 0     | 0    |
| 85° | 0     | 0    |
| 90° | 0     |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      |
|-------|---------|
| 0°    | 15683.5 |
| 1°    | 15510.0 |
| 2°    | 15094.5 |
| 3°    | 14460.8 |
| 4°    | 13566.4 |
| 5°    | 12456.2 |
| 6°    | 11100.7 |
| 7°    | 9615.7  |
| 8°    | 8055.4  |
| 9°    | 6620.3  |
| 10°   | 5346.0  |
| 11°   | 4267.2  |
| 12°   | 3396.5  |
| 13°   | 2739.0  |
| 14°   | 2216.1  |
| 15°   | 1811.6  |
| 17.5° | 1124.5  |
| 20°   | 722.6   |
| 22.5° | 473.8   |
| 25°   | 314.8   |
| 27.5° | 202.2   |
| 30°   | 121.0   |
| 32.5° | 76.2    |
| 35°   | 53.3    |
| 37.5° | 38.9    |
| 40°   | 27.1    |
| 42.5° | 16.1    |
| 45°   | 9.3     |
| 47.5° | 6.8     |
| 50°   | 5.1     |
| 52.5° | 4.2     |
| 55°   | 3.4     |
| 57.5° | 2.5     |
| 60°   | 1.7     |
| 62.5° | 1.7     |
| 65°   | 0.8     |
| 67.5° | 0.8     |
| 70°   | 0.8     |
| 72.5° | 0.0     |
| 75°   | 0.0     |
| 77.5° | 0.0     |
| 80°   | 0.0     |
| 82.5° | 0.0     |



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**CANDELA DISTRIBUTION (continued):**

0°  
90° | 0.0



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— 0°-180°







|       |  |     |
|-------|--|-----|
| 85°   |  | 0.0 |
| 87.5° |  | 0.0 |



(END OF REPORT)