

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: P278198

Luminaire Tested: **LDA2B208027D010 EU2B20SP158027 2LBAD1WMH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P278198  
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: LDA2B208027D010 EU2B20SP158027 2LBAD1WMH  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in  
ADJ spun Refl, Self-Flanged, WMH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1964.9 lumens  
Efficiency: N/A  
Efficacy: 95.4 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

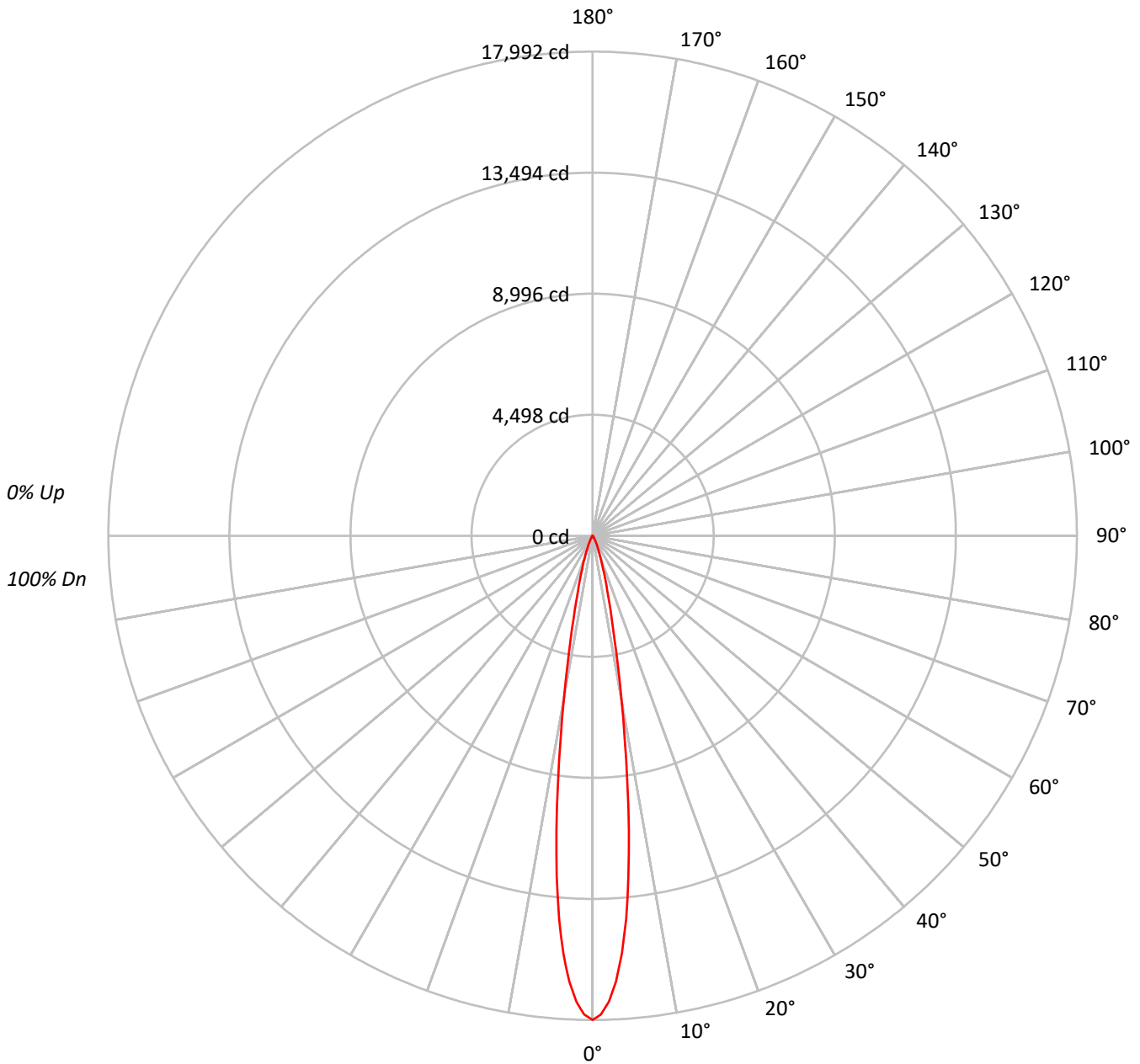
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 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°  | 8876615 |
| 5°  | 7076971 |
| 10° | 3072466 |
| 15° | 1061524 |
| 20° | 435245  |
| 25° | 196570  |
| 30° | 79072   |
| 35° | 36860   |
| 40° | 20030   |
| 45° | 7466    |
| 50° | 4452    |
| 55° | 3355    |
| 60° | 1875    |
| 65° | 1167    |
| 70° | 1442    |
| 75° | 0       |
| 80° | 0       |
| 85° | 0       |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1080.0 | 55.0      |
| 10°-20°   | 648.6  | 33.0      |
| 20°-30°   | 178.5  | 9.1       |
| 30°-40°   | 42.5   | 2.2       |
| 40°-50°   | 10.5   | 0.5       |
| 50°-60°   | 3.5    | 0.2       |
| 60°-70°   | 1.3    | 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°    | 1907.1 | 97.1      |
| 0°-40°    | 1949.6 | 99.2      |
| 0°-60°    | 1963.5 | 99.9      |
| 0°-90°    | 1964.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1964.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | Flux |
|-----|-------|------|
| 0°  | 17992 |      |
| 5°  | 14290 | ###  |
| 15° | 2078  | 649  |
| 25° | 361   | 179  |
| 35° | 61    | 42   |
| 45° | 11    | 10   |
| 55° | 4     | 3    |
| 65° | 1     | 1    |
| 75° | 0     | 0    |
| 85° | 0     | 0    |
| 90° | 0     |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      |
|-------|---------|
| 0°    | 17992.1 |
| 1°    | 17793.1 |
| 2°    | 17316.5 |
| 3°    | 16589.4 |
| 4°    | 15563.4 |
| 5°    | 14289.8 |
| 6°    | 12734.8 |
| 7°    | 11031.2 |
| 8°    | 9241.2  |
| 9°    | 7594.8  |
| 10°   | 6133.0  |
| 11°   | 4895.3  |
| 12°   | 3896.4  |
| 13°   | 3142.2  |
| 14°   | 2542.3  |
| 15°   | 2078.3  |
| 17.5° | 1290.1  |
| 20°   | 829.0   |
| 22.5° | 543.6   |
| 25°   | 361.1   |
| 27.5° | 232.0   |
| 30°   | 138.8   |
| 32.5° | 87.4    |
| 35°   | 61.2    |
| 37.5° | 44.7    |
| 40°   | 31.1    |
| 42.5° | 18.4    |
| 45°   | 10.7    |
| 47.5° | 7.8     |
| 50°   | 5.8     |
| 52.5° | 4.9     |
| 55°   | 3.9     |
| 57.5° | 2.9     |
| 60°   | 1.9     |
| 62.5° | 1.9     |
| 65°   | 1.0     |
| 67.5° | 1.0     |
| 70°   | 1.0     |
| 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)