

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: P315125

Luminaire Tested: **LDA2B20NFL8027D010 PIN1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P315125  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1811-033-2)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B20NFL8027D010 PIN1MMS  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH NARROW FLOOD OPTIC  
AND 2in Adj PinHole, Black oculus, matte metallic silver finish  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1782.6 lumens  
Efficiency: N/A  
Efficacy: 86.5 lumens/watt  
Spacing Criteria (0/90/45): 0.39 / 0.39 / 0.39  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

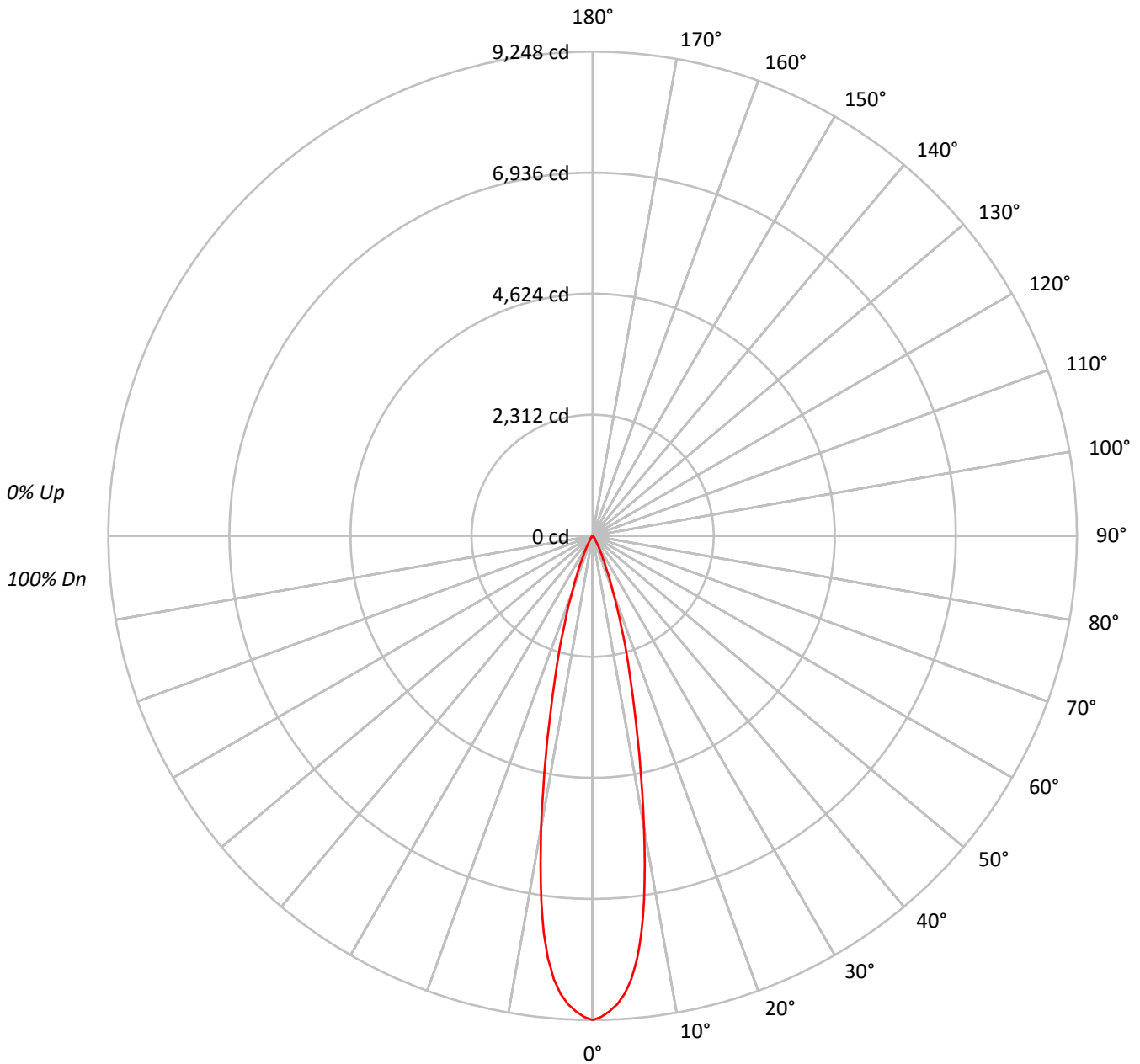
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 20  |     |     |     |     |     |     |     |     | 20  |     |     |     |     |     |     |     |     | 20 |    |     |  |  |  |  |  |  | 20 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 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 |    |    | 100 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 115 | 113 | 111 | 110 | 113 | 111 | 109 | 108 | 107 | 106 | 105 | 103 | 102 | 102 | 100 | 99  | 99  | 97  |    |    | 97  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 112 | 108 | 105 | 103 | 110 | 107 | 104 | 102 | 103 | 101 | 100 | 101 | 99  | 98  | 98  | 97  | 96  | 94  |    |    | 94  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 108 | 104 | 100 | 98  | 107 | 103 | 99  | 97  | 100 | 98  | 95  | 98  | 96  | 94  | 96  | 94  | 93  | 91  |    |    | 91  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 105 | 100 | 96  | 94  | 104 | 99  | 96  | 93  | 97  | 94  | 92  | 95  | 93  | 91  | 94  | 92  | 90  | 89  |    |    | 89  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 102 | 97  | 93  | 90  | 101 | 96  | 92  | 90  | 94  | 91  | 89  | 93  | 90  | 88  | 92  | 89  | 87  | 86  |    |    | 86  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 100 | 94  | 90  | 87  | 98  | 93  | 89  | 87  | 92  | 89  | 86  | 91  | 88  | 86  | 89  | 87  | 85  | 84  |    |    | 84  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 97  | 91  | 87  | 84  | 96  | 90  | 87  | 84  | 89  | 86  | 84  | 88  | 85  | 83  | 87  | 85  | 83  | 82  |    |    | 82  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 95  | 88  | 85  | 82  | 94  | 88  | 84  | 82  | 87  | 84  | 81  | 86  | 83  | 81  | 85  | 83  | 81  | 80  |    |    | 80  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 92  | 86  | 82  | 80  | 92  | 86  | 82  | 80  | 85  | 82  | 79  | 84  | 81  | 79  | 84  | 81  | 79  | 78  |    |    | 78  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 90  | 84  | 80  | 78  | 90  | 84  | 80  | 78  | 83  | 80  | 77  | 82  | 79  | 77  | 82  | 79  | 77  | 76  |    |    | 76  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 4562807 |
| 5°  | 4208009 |
| 10° | 2835706 |
| 15° | 1398119 |
| 20° | 597216  |
| 25° | 234784  |
| 30° | 92460   |
| 35° | 40534   |
| 40° | 19514   |
| 45° | 9419    |
| 50° | 5142    |
| 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°    | 719.7  | 40.4      |
| 10°-20°   | 775.2  | 43.5      |
| 20°-30°   | 223.8  | 12.6      |
| 30°-40°   | 47.3   | 2.7       |
| 40°-50°   | 11.6   | 0.7       |
| 50°-60°   | 3.3    | 0.2       |
| 60°-70°   | 1.1    | 0.1       |
| 70°-80°   | 0.5    | 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°    | 1718.7 | 96.4      |
| 0°-40°    | 1766.0 | 99.1      |
| 0°-60°    | 1781.0 | 99.9      |
| 0°-90°    | 1782.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1782.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 9248 |      |
| 5°  | 8497 | 720  |
| 15° | 2737 | 775  |
| 25° | 431  | 224  |
| 35° | 67   | 47   |
| 45° | 14   | 12   |
| 55° | 3    | 3    |
| 65° | 1    | 1    |
| 75° | 0    | 1    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 9248.4 |
| 1°    | 9190.4 |
| 2°    | 9092.0 |
| 3°    | 8959.2 |
| 4°    | 8770.9 |
| 5°    | 8496.8 |
| 6°    | 8126.9 |
| 7°    | 7644.4 |
| 8°    | 7050.9 |
| 9°    | 6359.0 |
| 10°   | 5660.4 |
| 11°   | 4954.2 |
| 12°   | 4287.5 |
| 13°   | 3695.7 |
| 14°   | 3175.3 |
| 15°   | 2737.3 |
| 17.5° | 1809.2 |
| 20°   | 1137.5 |
| 22.5° | 699.5  |
| 25°   | 431.3  |
| 27.5° | 263.1  |
| 30°   | 162.3  |
| 32.5° | 102.6  |
| 35°   | 67.3   |
| 37.5° | 44.6   |
| 40°   | 30.3   |
| 42.5° | 21.0   |
| 45°   | 13.5   |
| 47.5° | 8.4    |
| 50°   | 6.7    |
| 52.5° | 5.0    |
| 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° | 0.8    |
| 75°   | 0.0    |
| 77.5° | 0.8    |
| 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)