

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: P225372

Luminaire Tested: **LD2B20D010 EU2B20FL409035 2LBDC\*MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P225372  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14835)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD2B20D010 EU2B20FL409035 2LBDC\*MW  
Description: 2000 Lumen, 2inch Portfolio LED Downlight  
FLOOD OPTIC  
CAST ROUND TRIM WITH MATTE WHITE FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1359.0 lumens  
Efficiency: N/A  
Efficacy: 65.0 lumens/watt  
Spacing Criteria (0/90/45): 0.61 / 0.61 / 0.59  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

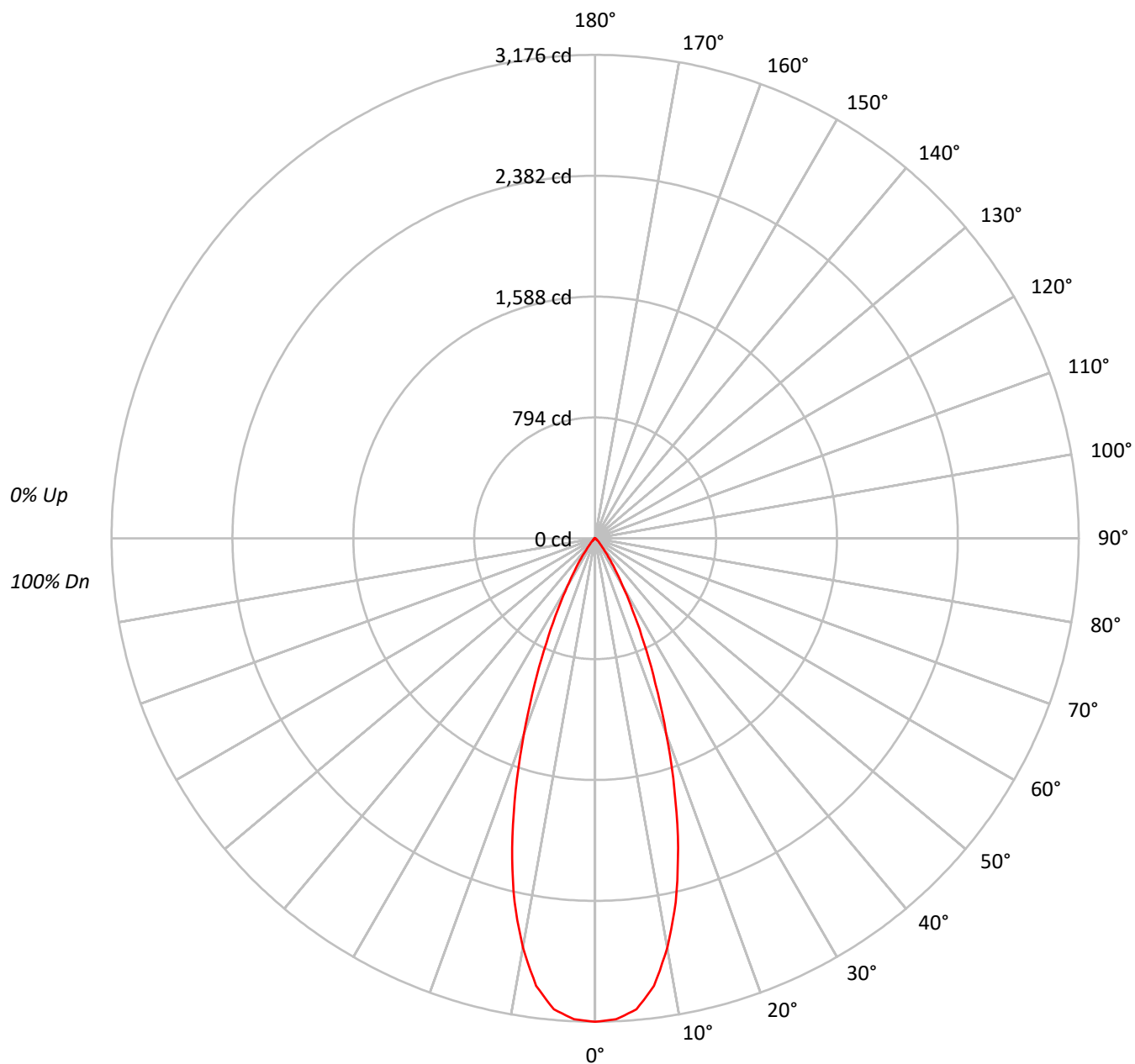
Input Watts (W): 20.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

|     |     |     |     |     |  |     |     |     |     |  |     |     |     |  |  |     |     |     |  |  |     |
|-----|-----|-----|-----|-----|--|-----|-----|-----|-----|--|-----|-----|-----|--|--|-----|-----|-----|--|--|-----|
| RF  | 20  |     |     |     |  | 20  |     |     |     |  | 20  |     |     |  |  | 20  |     |     |  |  | 20  |
| RC  | 80  |     |     |     |  | 70  |     |     |     |  | 50  |     |     |  |  | 30  |     |     |  |  | 0   |
| RW  | 70  | 50  | 30  | 10  |  | 70  | 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 |  |  | 100 |
| 1   | 114 | 112 | 110 | 108 |  | 112 | 110 | 108 | 106 |  | 106 | 104 | 103 |  |  | 102 | 101 | 100 |  |  | 95  |
| 2   | 110 | 106 | 102 | 99  |  | 108 | 104 | 101 | 98  |  | 101 | 98  | 96  |  |  | 98  | 96  | 94  |  |  | 91  |
| 3   | 105 | 100 | 96  | 93  |  | 104 | 99  | 95  | 92  |  | 96  | 93  | 90  |  |  | 94  | 91  | 89  |  |  | 86  |
| 4   | 101 | 95  | 90  | 87  |  | 100 | 94  | 90  | 86  |  | 92  | 88  | 85  |  |  | 90  | 87  | 85  |  |  | 82  |
| 5   | 98  | 91  | 86  | 82  |  | 96  | 90  | 85  | 82  |  | 88  | 84  | 81  |  |  | 86  | 83  | 80  |  |  | 79  |
| 6   | 94  | 87  | 82  | 78  |  | 93  | 86  | 81  | 78  |  | 84  | 80  | 77  |  |  | 83  | 80  | 77  |  |  | 75  |
| 7   | 90  | 83  | 78  | 74  |  | 89  | 82  | 77  | 74  |  | 81  | 77  | 74  |  |  | 80  | 76  | 73  |  |  | 72  |
| 8   | 87  | 79  | 74  | 71  |  | 86  | 79  | 74  | 71  |  | 78  | 74  | 71  |  |  | 77  | 73  | 70  |  |  | 69  |
| 9   | 84  | 76  | 71  | 68  |  | 83  | 76  | 71  | 68  |  | 75  | 71  | 68  |  |  | 74  | 70  | 67  |  |  | 66  |
| 10  | 81  | 73  | 68  | 65  |  | 80  | 73  | 68  | 65  |  | 72  | 68  | 65  |  |  | 71  | 68  | 65  |  |  | 64  |

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

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 1230405 |
| 5°  | 1208003 |
| 10° | 1073846 |
| 15° | 844527  |
| 20° | 562000  |
| 25° | 322636  |
| 30° | 162985  |
| 35° | 76651   |
| 40° | 30844   |
| 45° | 15283   |
| 50° | 8376    |
| 55° | 5875    |
| 60° | 5423    |
| 65° | 3208    |
| 70° | 3964    |
| 75° | 2544    |
| 80° | 3792    |
| 85° | 0       |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 284.5  | 20.9      |
| 10°-20°   | 570.5  | 42.0      |
| 20°-30°   | 354.9  | 26.1      |
| 30°-40°   | 109.1  | 8.0       |
| 40°-50°   | 24.0   | 1.8       |
| 50°-60°   | 8.5    | 0.6       |
| 60°-70°   | 4.3    | 0.3       |
| 70°-80°   | 2.5    | 0.2       |
| 80°-90°   | 0.7    | 0.1       |
| 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°    | 1209.9 | 89.0      |
| 0°-40°    | 1319.0 | 97.1      |
| 0°-60°    | 1351.5 | 99.4      |
| 0°-90°    | 1359.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1359.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3176 |      |
| 5°  | 3107 | 285  |
| 15° | 2106 | 570  |
| 25° | 755  | 355  |
| 35° | 162  | 109  |
| 45° | 28   | 24   |
| 55° | 9    | 9    |
| 65° | 4    | 4    |
| 75° | 2    | 3    |
| 85° | 0    | 1    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 3176.5 |
| 2.5°  | 3162.6 |
| 5°    | 3106.8 |
| 7.5°  | 2965.6 |
| 10°   | 2730.2 |
| 12.5° | 2447.8 |
| 15°   | 2106.0 |
| 17.5° | 1733.0 |
| 20°   | 1363.4 |
| 22.5° | 1033.8 |
| 25°   | 754.9  |
| 27.5° | 531.7  |
| 30°   | 364.4  |
| 32.5° | 245.8  |
| 35°   | 162.1  |
| 37.5° | 97.6   |
| 40°   | 61.0   |
| 42.5° | 41.8   |
| 45°   | 27.9   |
| 47.5° | 19.2   |
| 50°   | 13.9   |
| 52.5° | 12.2   |
| 55°   | 8.7    |
| 57.5° | 7.0    |
| 60°   | 7.0    |
| 62.5° | 5.2    |
| 65°   | 3.5    |
| 67.5° | 3.5    |
| 70°   | 3.5    |
| 72.5° | 3.5    |
| 75°   | 1.7    |
| 77.5° | 1.7    |
| 80°   | 1.7    |
| 82.5° | 1.7    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)