

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: P224383

Luminaire Tested: **LD2B20D010 EU2B20FL408040 2LBDSQC\*MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P224383  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14831)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD2B20D010 EU2B20FL408040 2LBDSQC\*MMS  
Description: 2000 Lumen, 2inch Portfolio LED Downlight  
FLOOD OPTIC  
SQUARE CAST TRIM WITH MATTE METALLIC SILVER  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1862.6 lumens  
Efficiency: N/A  
Efficacy: 89.1 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

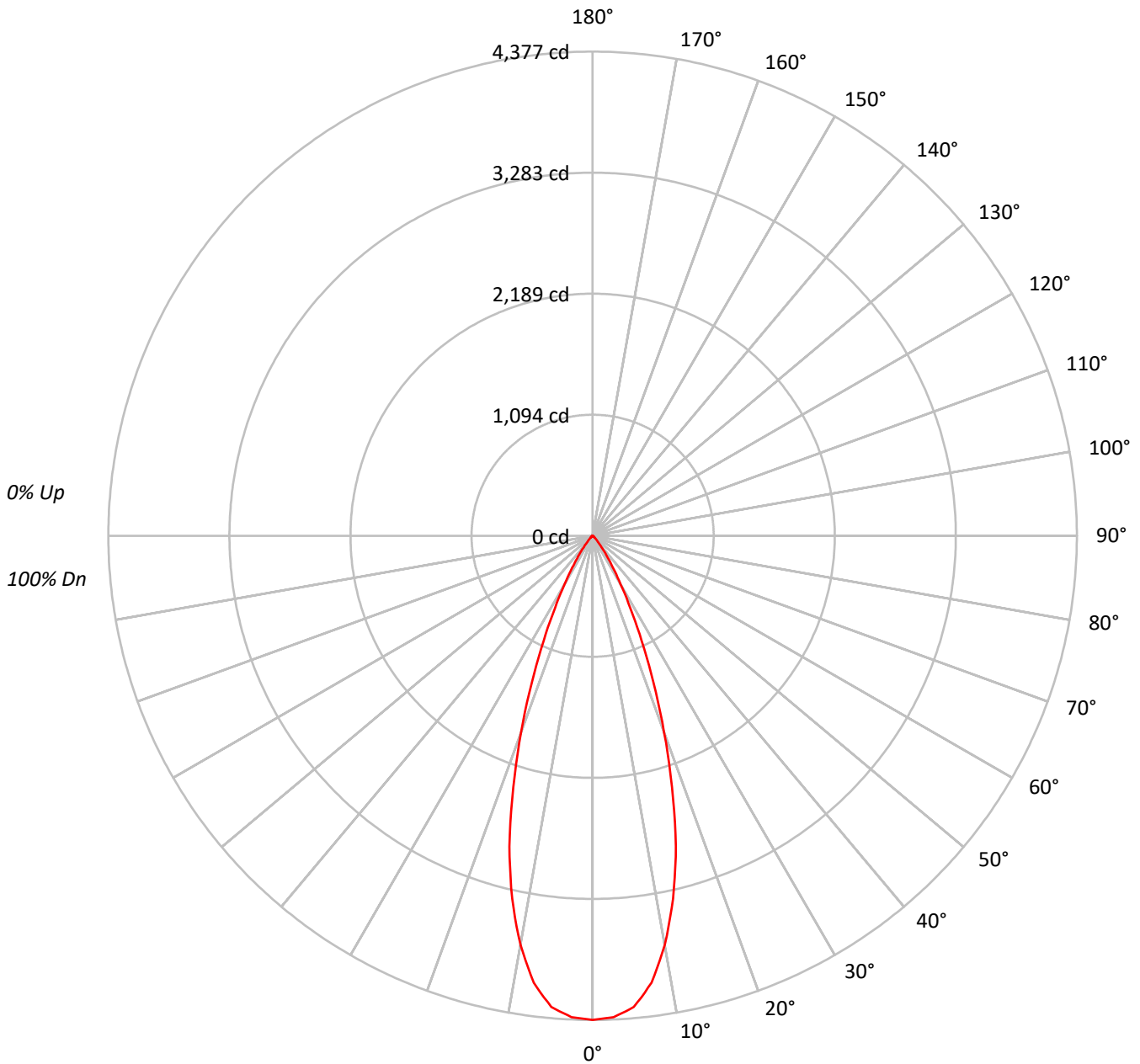
Input Watts (W): 20.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P224383

CATALOG NUMBER: LD2B20D010 EU2B20FL408040 2LBDSQC\*MMS

### Luminous Intensity Polar Plot





TEST NUMBER: P224383

CATALOG NUMBER: LD2B20D010 EU2B20FL408040 2LBDSQC\*MMS

**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 |    |    | 100 |
| 1   | 114 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 95  |    |    | 95  |
| 2   | 110 | 106 | 102 | 100 | 108 | 104 | 101 | 99  | 101 | 99  | 96  | 98  | 96  | 94  | 95  | 94  | 92  | 91  |    |    | 91  |
| 3   | 106 | 100 | 96  | 93  | 104 | 99  | 95  | 92  | 97  | 93  | 91  | 94  | 92  | 89  | 92  | 90  | 88  | 87  |    |    | 87  |
| 4   | 102 | 95  | 91  | 87  | 100 | 94  | 90  | 87  | 92  | 89  | 86  | 90  | 87  | 85  | 89  | 86  | 84  | 83  |    |    | 83  |
| 5   | 98  | 91  | 86  | 83  | 96  | 90  | 86  | 82  | 88  | 85  | 82  | 87  | 83  | 81  | 85  | 82  | 80  | 79  |    |    | 79  |
| 6   | 94  | 87  | 82  | 78  | 93  | 86  | 82  | 78  | 85  | 81  | 78  | 83  | 80  | 77  | 82  | 79  | 77  | 76  |    |    | 76  |
| 7   | 91  | 83  | 78  | 75  | 89  | 82  | 78  | 75  | 81  | 77  | 74  | 80  | 77  | 74  | 79  | 76  | 73  | 72  |    |    | 72  |
| 8   | 87  | 80  | 75  | 71  | 86  | 79  | 75  | 71  | 78  | 74  | 71  | 77  | 73  | 71  | 76  | 73  | 70  | 69  |    |    | 69  |
| 9   | 84  | 76  | 72  | 68  | 83  | 76  | 71  | 68  | 75  | 71  | 68  | 74  | 71  | 68  | 74  | 70  | 68  | 67  |    |    | 67  |
| 10  | 81  | 74  | 69  | 66  | 81  | 73  | 69  | 66  | 72  | 68  | 65  | 72  | 68  | 65  | 71  | 68  | 65  | 64  |    |    | 64  |

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

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 1695452 |
| 5°  | 1662890 |
| 10° | 1477158 |
| 15° | 1165696 |
| 20° | 777501  |
| 25° | 447519  |
| 30° | 226676  |
| 35° | 106252  |
| 40° | 43536   |
| 45° | 19666   |
| 50° | 10063   |
| 55° | 6483    |
| 60° | 3719    |
| 65° | 0       |
| 70° | 0       |
| 75° | 0       |
| 80° | 0       |
| 85° | 0       |



TEST NUMBER: P224383

CATALOG NUMBER: LD2B20D010 EU2B20FL408040 2LBDSQC\*MMS

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 391.4  | 21.0      |
| 10°-20°   | 785.5  | 42.2      |
| 20°-30°   | 492.0  | 26.4      |
| 30°-40°   | 152.3  | 8.2       |
| 40°-50°   | 31.5   | 1.7       |
| 50°-60°   | 8.8    | 0.5       |
| 60°-70°   | 1.2    | 0.1       |
| 70°-80°   | 0.0    | 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°    | 1669.0 | 89.6      |
| 0°-40°    | 1821.2 | 97.8      |
| 0°-60°    | 1861.5 | 99.9      |
| 0°-90°    | 1862.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1862.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 4377 |      |
| 5°  | 4277 | 391  |
| 15° | 2907 | 786  |
| 25° | 1047 | 492  |
| 35° | 225  | 152  |
| 45° | 36   | 31   |
| 55° | 10   | 9    |
| 65° | 0    | 1    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



TEST NUMBER: P224383

CATALOG NUMBER: LD2B20D010 EU2B20FL408040 2LBDSQC\*MMS

**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 4377.1 |
| 2.5°  | 4355.6 |
| 5°    | 4276.7 |
| 7.5°  | 4075.9 |
| 10°   | 3755.6 |
| 12.5° | 3361.1 |
| 15°   | 2906.9 |
| 17.5° | 2383.4 |
| 20°   | 1886.2 |
| 22.5° | 1434.3 |
| 25°   | 1047.1 |
| 27.5° | 736.3  |
| 30°   | 506.8  |
| 32.5° | 339.5  |
| 35°   | 224.7  |
| 37.5° | 141.0  |
| 40°   | 86.1   |
| 42.5° | 55.0   |
| 45°   | 35.9   |
| 47.5° | 23.9   |
| 50°   | 16.7   |
| 52.5° | 12.0   |
| 55°   | 9.6    |
| 57.5° | 7.2    |
| 60°   | 4.8    |
| 62.5° | 2.4    |
| 65°   | 0.0    |
| 67.5° | 0.0    |
| 70°   | 0.0    |
| 72.5° | 0.0    |
| 75°   | 0.0    |
| 77.5° | 0.0    |
| 80°   | 0.0    |
| 82.5° | 0.0    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







(END OF REPORT)