

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: P264534

Luminaire Tested: **LD2B20D010 EU2B2010SP159727 2LBSQC\*MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P264534  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1805-787-1)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD2B20D010 EU2B2010SP159727 2LBSQC\*MW  
Description: 2000 Lumen, 2inch Portfolio LED Downlight  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1102.0 lumens  
Efficiency: N/A  
Efficacy: 52.7 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

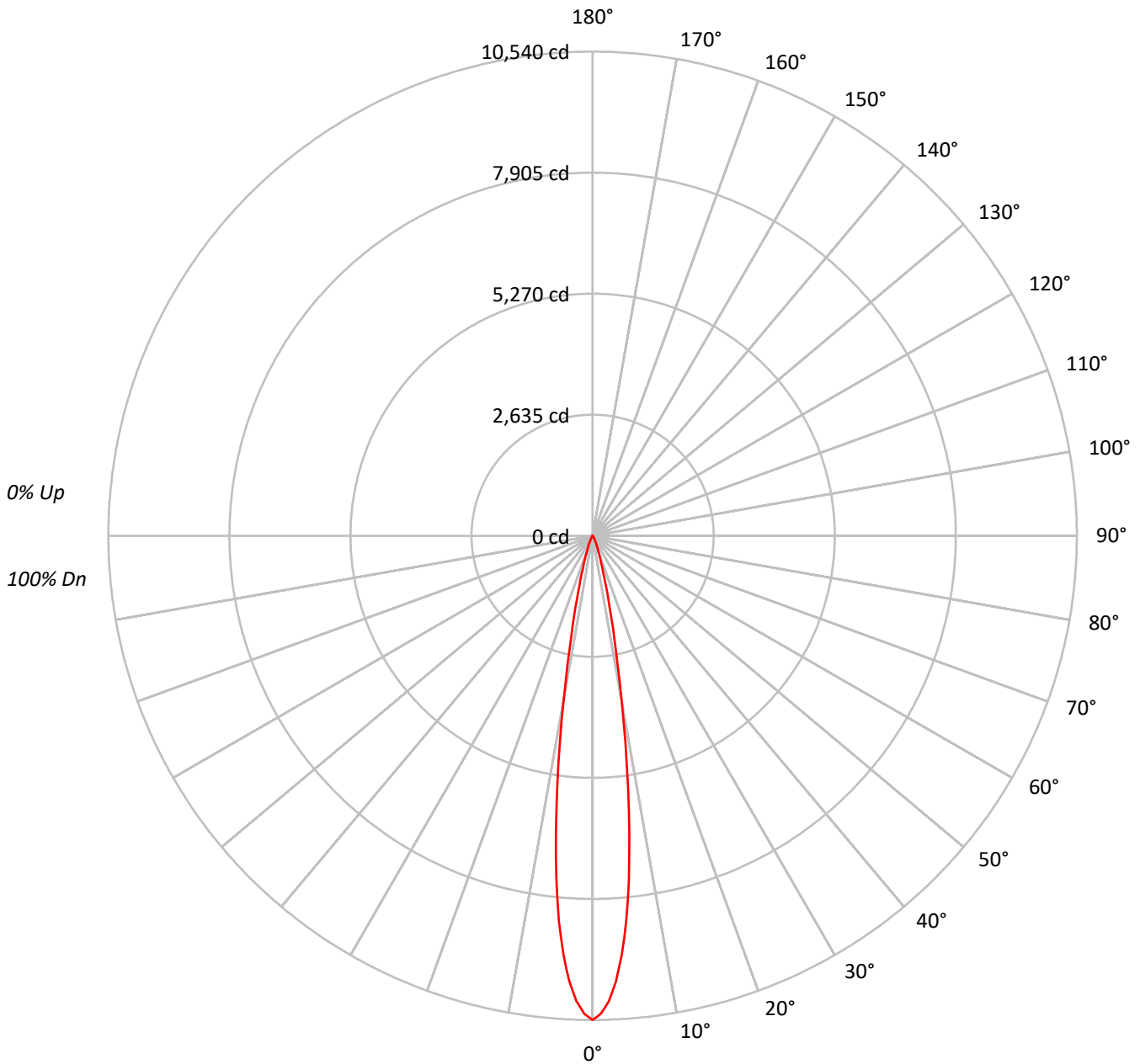
Input Watts (W): 20.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 |  |  |  |  |  |  |  |  | 10 |  |  |  |  |  |  |  |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 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 | 111 | 113 | 112 | 110 | 109 | 108 | 107 | 106 | 104 | 103 | 102 | 101 | 100 | 100 | 98  | 96 | 94 | 92 | 90 | 88 | 86 | 84 | 82 | 80 |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 113 | 109 | 107 | 105 | 111 | 108 | 106 | 104 | 105 | 103 | 101 | 102 | 101 | 99  | 99  | 98  | 97  | 96  | 95 | 94 | 93 | 92 | 91 | 90 | 89 | 88 | 87 |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 100 | 102 | 100 | 98  | 100 | 98  | 97  | 98  | 96  | 95  | 94  | 93 | 92 | 91 | 90 | 89 | 88 | 87 | 86 | 85 |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 107 | 103 | 99  | 97  | 106 | 102 | 99  | 96  | 100 | 97  | 95  | 98  | 96  | 94  | 96  | 95  | 93  | 92  | 91 | 90 | 89 | 88 | 87 | 86 | 85 | 84 | 83 |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 105 | 100 | 97  | 94  | 104 | 99  | 96  | 94  | 98  | 95  | 93  | 96  | 94  | 92  | 95  | 93  | 91  | 90  | 89 | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 103 | 98  | 94  | 92  | 102 | 97  | 94  | 91  | 96  | 93  | 91  | 95  | 92  | 90  | 93  | 91  | 90  | 89  | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 | 80 |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 101 | 95  | 92  | 90  | 100 | 95  | 92  | 89  | 94  | 91  | 89  | 93  | 90  | 89  | 92  | 90  | 88  | 87  | 86 | 85 | 84 | 83 | 82 | 81 | 80 | 79 | 78 |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 99  | 93  | 90  | 88  | 98  | 93  | 90  | 88  | 92  | 89  | 87  | 91  | 89  | 87  | 91  | 88  | 87  | 86  | 85 | 84 | 83 | 82 | 81 | 80 | 79 | 78 | 77 |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 97  | 92  | 88  | 86  | 96  | 91  | 88  | 86  | 91  | 88  | 86  | 90  | 87  | 86  | 89  | 87  | 85  | 84  | 83 | 82 | 81 | 80 | 79 | 78 | 77 | 76 | 75 |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 95  | 90  | 87  | 85  | 95  | 90  | 87  | 85  | 89  | 86  | 85  | 89  | 86  | 84  | 88  | 86  | 84  | 83  | 82 | 81 | 80 | 79 | 78 | 77 | 76 | 75 | 74 |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 5199885 |
| 5°  | 4167993 |
| 10° | 1819132 |
| 15° | 563732  |
| 20° | 196517  |
| 25° | 86826   |
| 30° | 39308   |
| 35° | 20417   |
| 40° | 11657   |
| 45° | 5512    |
| 50° | 3454    |
| 55° | 1978    |
| 60° | 1085    |
| 65° | 1284    |
| 70° | 0       |
| 75° | 0       |
| 80° | 0       |
| 85° | 0       |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 639.1  | 58.0      |
| 10°-20°   | 350.0  | 31.8      |
| 20°-30°   | 79.8   | 7.2       |
| 30°-40°   | 22.9   | 2.1       |
| 40°-50°   | 7.1    | 0.6       |
| 50°-60°   | 2.1    | 0.2       |
| 60°-70°   | 1.0    | 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°    | 1068.9 | 97.0      |
| 0°-40°    | 1091.8 | 99.1      |
| 0°-60°    | 1101.0 | 99.9      |
| 0°-90°    | 1102.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1102.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | Flux |
|-----|-------|------|
| 0°  | 10540 |      |
| 5°  | 8416  | 639  |
| 15° | 1104  | 350  |
| 25° | 160   | 80   |
| 35° | 34    | 23   |
| 45° | 8     | 7    |
| 55° | 2     | 2    |
| 65° | 1     | 1    |
| 75° | 0     | 0    |
| 85° | 0     | 0    |
| 90° | 0     |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      |
|-------|---------|
| 0°    | 10539.7 |
| 1°    | 10408.6 |
| 2°    | 10136.0 |
| 3°    | 9713.1  |
| 4°    | 9131.8  |
| 5°    | 8416.0  |
| 6°    | 7538.4  |
| 7°    | 6557.9  |
| 8°    | 5534.5  |
| 9°    | 4543.9  |
| 10°   | 3631.2  |
| 11°   | 2858.8  |
| 12°   | 2250.4  |
| 13°   | 1770.9  |
| 14°   | 1398.9  |
| 15°   | 1103.7  |
| 16°   | 870.8   |
| 17°   | 693.2   |
| 18°   | 557.5   |
| 19°   | 453.5   |
| 20°   | 374.3   |
| 22.5° | 242.0   |
| 25°   | 159.5   |
| 26°   | 134.6   |
| 27°   | 114.2   |
| 28°   | 96.1    |
| 29°   | 80.3    |
| 30°   | 69.0    |
| 32.5° | 47.5    |
| 35°   | 33.9    |
| 37.5° | 24.9    |
| 40°   | 18.1    |
| 42.5° | 12.4    |
| 45°   | 7.9     |
| 47.5° | 5.7     |
| 50°   | 4.5     |
| 52.5° | 3.4     |
| 55°   | 2.3     |
| 57.5° | 1.1     |
| 60°   | 1.1     |
| 62.5° | 1.1     |
| 65°   | 1.1     |
| 67.5° | 1.1     |



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**CANDELA DISTRIBUTION (continued):**

|       | 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 |



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— 0°-180°







|       |  |     |
|-------|--|-----|
| 70°   |  | 0.0 |
| 72.5° |  | 0.0 |



(END OF REPORT)