

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: PORTFOLIO

Report Number: P779880

Luminaire Tested: LER4D15D010-EC4DR300215IC9050-4LBS1B

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P779880  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2307-078-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/30/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LER4D15D010-EC4DR300215IC9050-4LBS1B  
Description: 4 INCH ROUND SHALLOW SPECULAR BLACK TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1387.5 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Spacing Criteria (0/90/45): 0.52 / 0.52 / 0.49  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 15.8  
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: 24 FT



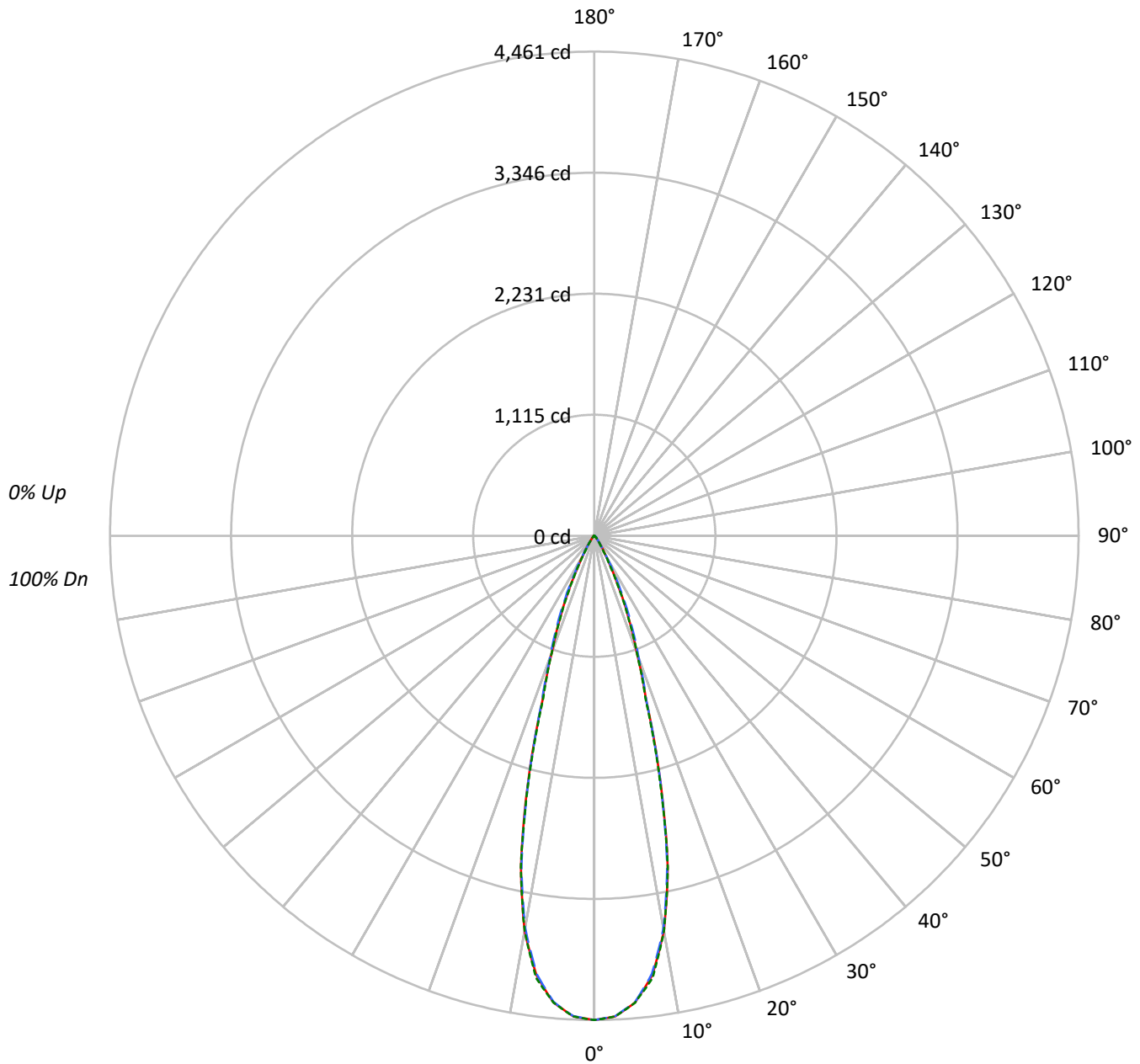
Downlight



TEST NUMBER: P779880

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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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 115 | 113 | 111 | 109 | 112 | 110 | 109 | 107 | 106 | 105 | 104 |  | 103 | 102 | 101 |  | 99  |
| 2   | 111 | 107 | 104 | 101 | 109 | 105 | 102 | 100 | 102 | 100 | 98  |  | 99  | 97  | 96  |  | 97  |
| 3   | 107 | 102 | 98  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 93  |  | 96  | 93  | 91  |  | 94  |
| 4   | 103 | 98  | 93  | 90  | 102 | 96  | 93  | 90  | 94  | 91  | 89  |  | 93  | 90  | 88  |  | 91  |
| 5   | 100 | 94  | 89  | 86  | 98  | 93  | 89  | 86  | 91  | 88  | 85  |  | 90  | 86  | 84  |  | 88  |
| 6   | 97  | 90  | 85  | 82  | 95  | 89  | 85  | 82  | 88  | 84  | 81  |  | 87  | 83  | 81  |  | 85  |
| 7   | 94  | 87  | 82  | 79  | 92  | 86  | 82  | 79  | 85  | 81  | 78  |  | 84  | 81  | 78  |  | 83  |
| 8   | 91  | 84  | 79  | 76  | 90  | 83  | 79  | 76  | 82  | 78  | 76  |  | 81  | 78  | 75  |  | 80  |
| 9   | 88  | 81  | 76  | 73  | 87  | 80  | 76  | 73  | 80  | 76  | 73  |  | 79  | 75  | 73  |  | 78  |
| 10  | 85  | 78  | 74  | 71  | 85  | 78  | 74  | 71  | 77  | 73  | 71  |  | 76  | 73  | 71  |  | 76  |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 341491 | 341491 | 341491 |
| 5°  | 331685 | 331301 | 331708 |
| 10° | 287292 | 285271 | 287222 |
| 15° | 187443 | 186436 | 185501 |
| 20° | 93202  | 96704  | 93088  |
| 25° | 46949  | 52946  | 45986  |
| 30° | 18799  | 20488  | 16378  |
| 35° | 8718   | 8354   | 6999   |
| 40° | 3767   | 4177   | 3547   |
| 45° | 2652   | 3291   | 2685   |
| 50° | 917    | 2405   | 965    |
| 55° | 534    | 988    | 560    |
| 60° | 367    | 444    | 367    |
| 65° | 235    | 235    | 235    |
| 70° | 134    | 112    | 134    |
| 75° | 0      | 59     | 0      |
| 80° | 0      | 0      | 0      |
| 85° | 0      | 0      | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 3291 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 392.3  | 28.3      |
| 10°-20°   | 631.8  | 45.5      |
| 20°-30°   | 273.0  | 19.7      |
| 30°-40°   | 62.2   | 4.5       |
| 40°-50°   | 21.4   | 1.5       |
| 50°-60°   | 5.2    | 0.4       |
| 60°-70°   | 1.4    | 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°    | 1297.2 | 93.5      |
| 0°-40°    | 1359.4 | 98.0      |
| 0°-60°    | 1386.0 | 99.9      |
| 0°-90°    | 1387.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1387.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 4461 | 4461  | 4461 | 4461  | 4461 |      |
| 5°  | 4317 | 4313  | 4312 | 4321  | 4317 | 393  |
| 15° | 2365 | 2337  | 2353 | 2345  | 2341 | 633  |
| 25° | 556  | 577   | 627  | 562   | 544  | 266  |
| 35° | 93   | 95    | 89   | 89    | 75   | 63   |
| 45° | 24   | 30    | 30   | 30    | 25   | 17   |
| 55° | 4    | 4     | 7    | 4     | 4    | 4    |
| 65° | 1    | 1     | 1    | 1     | 1    | 1    |
| 75° | 0    | 0     | 0    | 0     | 0    | 0    |
| 85° | 0    | 0     | 0    | 0     | 0    | 0    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 4461.4 | 4461.4 | 4461.4 | 4461.4 | 4461.4 |
| 2.5°  | 4431.8 | 4428.8 | 4430.5 | 4432.7 | 4433.6 |
| 5°    | 4316.8 | 4312.7 | 4311.8 | 4320.8 | 4317.1 |
| 7.5°  | 4084.9 | 4079.0 | 4070.0 | 4090.4 | 4109.4 |
| 10°   | 3696.3 | 3689.7 | 3670.3 | 3679.9 | 3695.4 |
| 12.5° | 3122.6 | 3101.4 | 3101.0 | 3131.6 | 3127.5 |
| 15°   | 2365.4 | 2337.0 | 2352.7 | 2345.0 | 2340.9 |
| 17.5° | 1590.7 | 1579.7 | 1600.8 | 1594.4 | 1567.0 |
| 20°   | 1144.2 | 1147.1 | 1187.2 | 1167.0 | 1142.8 |
| 22.5° | 835.0  | 845.3  | 892.8  | 840.9  | 821.8  |
| 25°   | 555.9  | 577.0  | 626.9  | 562.3  | 544.5  |
| 27.5° | 341.9  | 351.6  | 402.2  | 337.5  | 327.9  |
| 30°   | 212.7  | 207.9  | 231.8  | 198.9  | 185.3  |
| 32.5° | 139.5  | 133.4  | 141.1  | 126.6  | 115.7  |
| 35°   | 93.3   | 95.3   | 89.4   | 88.7   | 74.9   |
| 37.5° | 58.3   | 67.0   | 59.1   | 63.1   | 48.2   |
| 40°   | 37.7   | 48.6   | 41.8   | 46.2   | 35.5   |
| 42.5° | 30.9   | 37.5   | 34.4   | 36.6   | 31.6   |
| 45°   | 24.5   | 30.4   | 30.4   | 30.4   | 24.8   |
| 47.5° | 13.6   | 20.4   | 26.1   | 20.8   | 14.4   |
| 50°   | 7.7    | 10.3   | 20.2   | 10.7   | 8.1    |
| 52.5° | 5.3    | 5.9    | 13.8   | 6.1    | 5.5    |
| 55°   | 4.0    | 4.2    | 7.4    | 4.4    | 4.2    |
| 57.5° | 3.1    | 3.3    | 4.0    | 3.3    | 3.1    |
| 60°   | 2.4    | 2.4    | 2.9    | 2.6    | 2.4    |
| 62.5° | 1.8    | 1.8    | 1.9    | 1.8    | 1.8    |
| 65°   | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    |
| 67.5° | 0.6    | 0.9    | 0.9    | 0.9    | 0.9    |
| 70°   | 0.6    | 0.5    | 0.5    | 0.5    | 0.6    |
| 72.5° | 0.5    | 0.2    | 0.2    | 0.2    | 0.2    |
| 75°   | 0.0    | 0.0    | 0.2    | 0.0    | 0.0    |
| 77.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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— 0°-180°    - - 45°-225°    - - - 90°-270°







(END OF REPORT)