

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: P785120

Luminaire Tested: LER4DD50D010-EC4DR3040509027-4LBDP1B

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P785120  
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: LER4DD50D010-EC4DR3040509027-4LBDP1B  
Description: 4 INCH ROUND DEEP 45° CUTOFF SPECULAR BLACK TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3693.2 lumens  
Efficiency: N/A  
Efficacy: 78.6 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): 47  
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: 24 FT

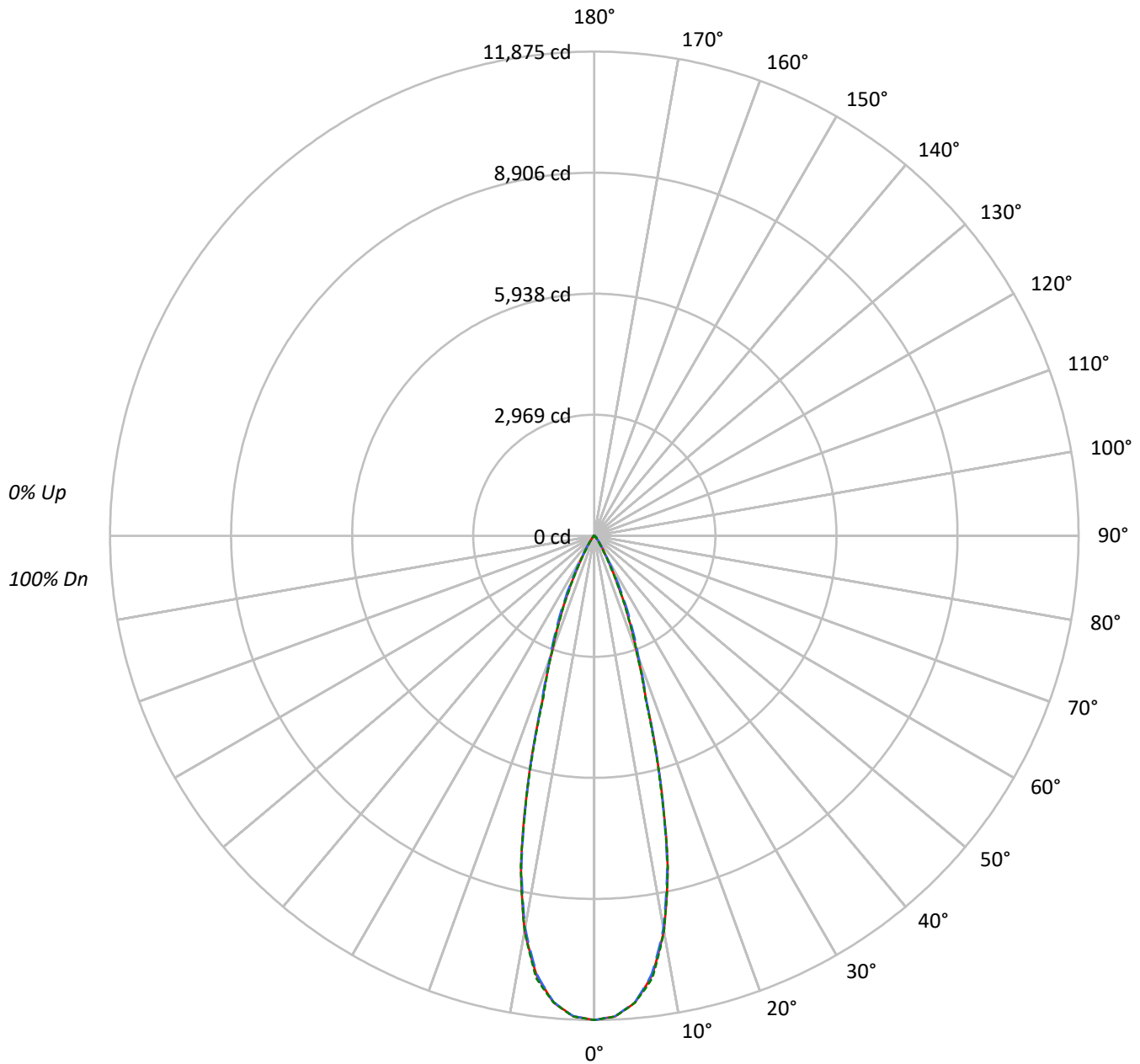


Downlight

TEST NUMBER: P785120

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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  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 115 | 113 | 111 | 109 | 112 | 110 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 99  | 99  | 98  | 96  |    |    |
| 2   | 111 | 107 | 104 | 101 | 109 | 105 | 102 | 100 | 102 | 100 | 98  | 99  | 97  | 96  | 97  | 95  | 94  | 92  |    |    |
| 3   | 107 | 102 | 98  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 93  | 96  | 93  | 91  | 94  | 92  | 90  | 89  |    |    |
| 4   | 103 | 98  | 93  | 90  | 102 | 96  | 93  | 90  | 94  | 91  | 89  | 93  | 90  | 88  | 91  | 89  | 87  | 85  |    |    |
| 5   | 100 | 94  | 89  | 86  | 98  | 93  | 89  | 86  | 91  | 88  | 85  | 90  | 86  | 84  | 88  | 86  | 83  | 82  |    |    |
| 6   | 97  | 90  | 85  | 82  | 95  | 89  | 85  | 82  | 88  | 84  | 81  | 87  | 83  | 81  | 85  | 83  | 80  | 79  |    |    |
| 7   | 94  | 87  | 82  | 79  | 92  | 86  | 82  | 79  | 85  | 81  | 78  | 84  | 81  | 78  | 83  | 80  | 78  | 77  |    |    |
| 8   | 91  | 84  | 79  | 76  | 90  | 83  | 79  | 76  | 82  | 78  | 76  | 81  | 78  | 75  | 80  | 77  | 75  | 74  |    |    |
| 9   | 88  | 81  | 76  | 73  | 87  | 80  | 76  | 73  | 80  | 76  | 73  | 79  | 75  | 73  | 78  | 75  | 73  | 72  |    |    |
| 10  | 85  | 78  | 74  | 71  | 85  | 78  | 74  | 71  | 77  | 73  | 71  | 76  | 73  | 71  | 76  | 73  | 70  | 69  |    |    |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 908983 | 908983 | 908983 |
| 5°  | 882889 | 881860 | 882935 |
| 10° | 764713 | 759319 | 764534 |
| 15° | 498941 | 496255 | 493767 |
| 20° | 248098 | 257408 | 247764 |
| 25° | 124978 | 140932 | 122411 |
| 30° | 50035  | 54525  | 43600  |
| 35° | 23211  | 22230  | 18632  |
| 40° | 10022  | 11131  | 9442   |
| 45° | 7069   | 8768   | 7134   |
| 50° | 2429   | 6383   | 2572   |
| 55° | 1401   | 2642   | 1481   |
| 60° | 980    | 1163   | 980    |
| 65° | 634    | 634    | 634    |
| 70° | 380    | 269    | 380    |
| 75° | 0      | 177    | 0      |
| 80° | 0      | 0      | 0      |
| 85° | 0      | 0      | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 8768 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1044.3 | 28.3      |
| 10°-20°   | 1681.8 | 45.5      |
| 20°-30°   | 726.8  | 19.7      |
| 30°-40°   | 165.6  | 4.5       |
| 40°-50°   | 56.9   | 1.5       |
| 50°-60°   | 13.9   | 0.4       |
| 60°-70°   | 3.6    | 0.1       |
| 70°-80°   | 0.4    | 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°    | 3452.8 | 93.5      |
| 0°-40°    | 3618.4 | 98.0      |
| 0°-60°    | 3689.2 | 99.9      |
| 0°-90°    | 3693.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3693.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 11875 | 11875 | 11875 | 11875 | 11875 |      |
| 5°  | 11491 | 11480 | 11477 | 11501 | 11491 | 1045 |
| 15° | 6296  | 6220  | 6262  | 6242  | 6231  | 1686 |
| 25° | 1480  | 1536  | 1669  | 1497  | 1449  | 708  |
| 35° | 248   | 254   | 238   | 236   | 199   | 168  |
| 45° | 65    | 81    | 81    | 81    | 66    | 46   |
| 55° | 10    | 11    | 20    | 12    | 11    | 10   |
| 65° | 4     | 4     | 4     | 4     | 4     | 3    |
| 75° | 0     | 0     | 1     | 0     | 0     | 1    |
| 85° | 0     | 0     | 0     | 0     | 0     | 0    |
| 90° | 0     | 0     | 0     | 0     | 0     |      |



TEST NUMBER: P785120

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 11875.4 | 11875.4 | 11875.4 | 11875.4 | 11875.4 |
| 2.5°  | 11796.7 | 11788.5 | 11793.2 | 11799.0 | 11801.3 |
| 5°    | 11490.6 | 11479.5 | 11477.2 | 11501.1 | 11491.2 |
| 7.5°  | 10873.1 | 10857.4 | 10833.5 | 10887.7 | 10938.4 |
| 10°   | 9838.8  | 9821.3  | 9769.4  | 9795.1  | 9836.5  |
| 12.5° | 8311.8  | 8255.3  | 8254.1  | 8335.7  | 8324.7  |
| 15°   | 6296.3  | 6220.5  | 6262.4  | 6242.0  | 6231.0  |
| 17.5° | 4234.0  | 4204.9  | 4260.9  | 4244.0  | 4171.1  |
| 20°   | 3045.8  | 3053.4  | 3160.1  | 3106.4  | 3041.7  |
| 22.5° | 2222.6  | 2250.0  | 2376.5  | 2238.3  | 2187.6  |
| 25°   | 1479.8  | 1535.7  | 1668.7  | 1496.7  | 1449.4  |
| 27.5° | 910.1   | 935.8   | 1070.5  | 898.5   | 872.8   |
| 30°   | 566.1   | 553.3   | 616.9   | 529.4   | 493.3   |
| 32.5° | 371.4   | 355.1   | 375.5   | 337.0   | 307.8   |
| 35°   | 248.4   | 253.6   | 237.9   | 236.1   | 199.4   |
| 37.5° | 155.1   | 178.4   | 157.4   | 167.9   | 128.3   |
| 40°   | 100.3   | 129.4   | 111.4   | 123.0   | 94.5    |
| 42.5° | 82.2    | 99.7    | 91.5    | 97.4    | 84.0    |
| 45°   | 65.3    | 81.0    | 81.0    | 81.0    | 65.9    |
| 47.5° | 36.1    | 54.2    | 69.4    | 55.4    | 38.5    |
| 50°   | 20.4    | 27.4    | 53.6    | 28.6    | 21.6    |
| 52.5° | 14.0    | 15.7    | 36.7    | 16.3    | 14.6    |
| 55°   | 10.5    | 11.1    | 19.8    | 11.7    | 11.1    |
| 57.5° | 8.2     | 8.7     | 10.5    | 8.7     | 8.2     |
| 60°   | 6.4     | 6.4     | 7.6     | 7.0     | 6.4     |
| 62.5° | 4.7     | 4.7     | 5.2     | 4.7     | 4.7     |
| 65°   | 3.5     | 3.5     | 3.5     | 3.5     | 3.5     |
| 67.5° | 1.7     | 2.3     | 2.3     | 2.3     | 2.3     |
| 70°   | 1.7     | 1.2     | 1.2     | 1.2     | 1.7     |
| 72.5° | 1.2     | 0.6     | 0.6     | 0.6     | 0.6     |
| 75°   | 0.0     | 0.0     | 0.6     | 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)