

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: P752277

Luminaire Tested: LD4D70BD010-EU4DR3070959050-4LBS1B

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P752277  
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: LD4D70BD010-EU4DR3070959050-4LBS1B  
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: 6964.3 lumens  
Efficiency: N/A  
Efficacy: 104.6 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): 66.6  
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

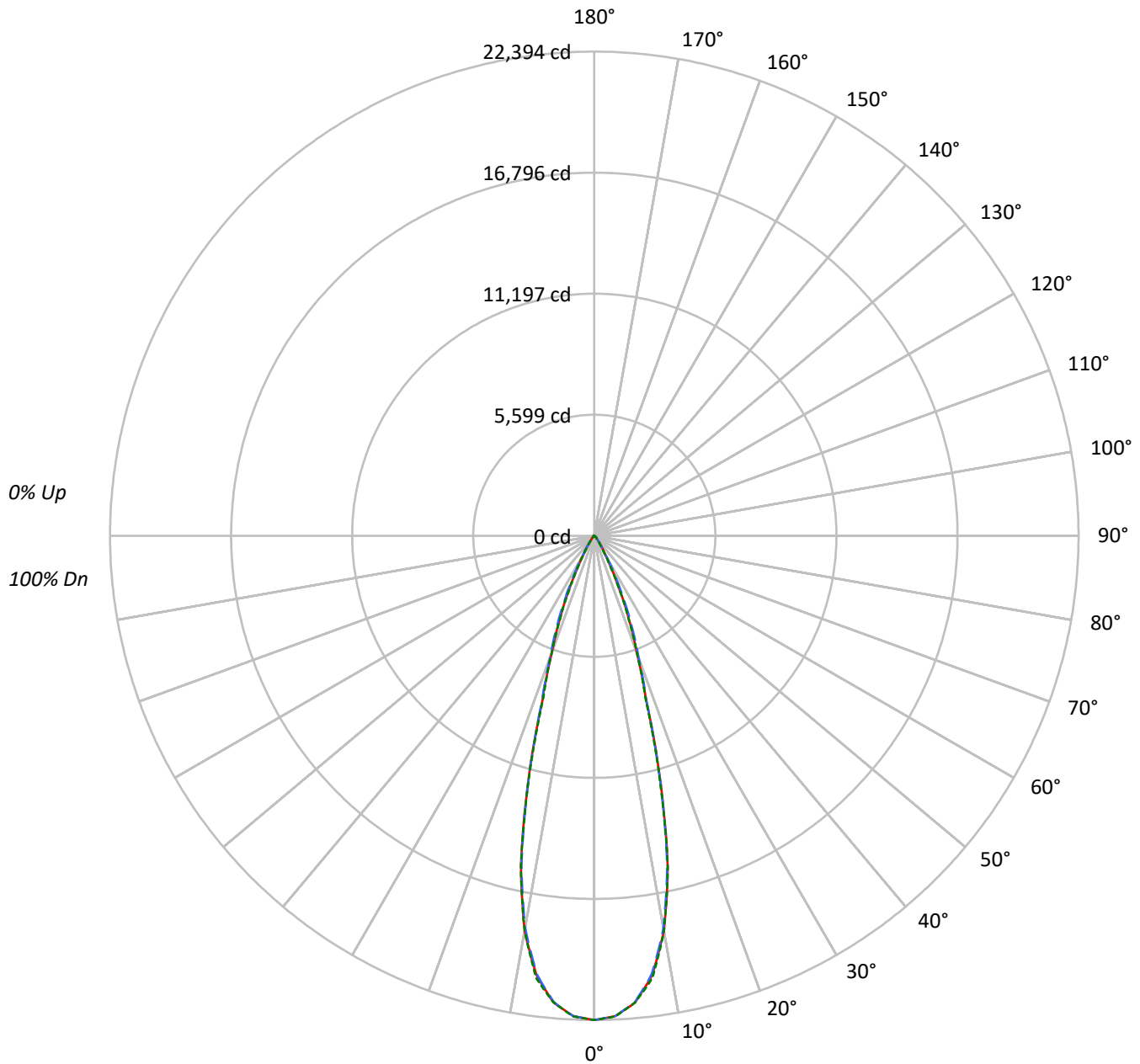


Downlight

TEST NUMBER: P752277

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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°  | 1714075 | 1714075 | 1714075 |
| 5°  | 1664862 | 1662918 | 1664947 |
| 10° | 1442025 | 1431859 | 1441683 |
| 15° | 940851  | 935795  | 931088  |
| 20° | 467841  | 485395  | 467214  |
| 25° | 235667  | 265750  | 230836  |
| 30° | 94360   | 102809  | 82207   |
| 35° | 43768   | 41918   | 35134   |
| 40° | 18895   | 20983   | 17796   |
| 45° | 13325   | 16540   | 13444   |
| 50° | 4585    | 12039   | 4847    |
| 55° | 2642    | 4991    | 2789    |
| 60° | 1852    | 2189    | 1852    |
| 65° | 1195    | 1195    | 1195    |
| 70° | 739     | 492     | 739     |
| 75° | 0       | 325     | 0       |
| 80° | 0       | 0       | 0       |
| 85° | 0       | 0       | 0       |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 16540 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1969.2 | 28.3      |
| 10°-20°   | 3171.4 | 45.5      |
| 20°-30°   | 1370.4 | 19.7      |
| 30°-40°   | 312.4  | 4.5       |
| 40°-50°   | 107.2  | 1.5       |
| 50°-60°   | 26.2   | 0.4       |
| 60°-70°   | 6.8    | 0.1       |
| 70°-80°   | 0.7    | 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°    | 6510.9 | 93.5      |
| 0°-40°    | 6823.3 | 98.0      |
| 0°-60°    | 6956.7 | 99.9      |
| 0°-90°    | 6964.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6964.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 22394 | 22394 | 22394 | 22394 | 22394 |      |
| 5°  | 21668 | 21647 | 21642 | 21688 | 21669 | 1971 |
| 15° | 11873 | 11730 | 11809 | 11771 | 11750 | 3179 |
| 25° | 2790  | 2896  | 3147  | 2822  | 2733  | 1336 |
| 35° | 468   | 478   | 449   | 445   | 376   | 318  |
| 45° | 123   | 153   | 153   | 153   | 124   | 87   |
| 55° | 20    | 21    | 37    | 22    | 21    | 19   |
| 65° | 7     | 7     | 7     | 7     | 7     | 6    |
| 75° | 0     | 0     | 1     | 0     | 0     | 1    |
| 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°    | 22393.5 | 22393.5 | 22393.5 | 22393.5 | 22393.5 |
| 2.5°  | 22245.0 | 22229.6 | 22238.4 | 22249.4 | 22253.8 |
| 5°    | 21667.8 | 21646.9 | 21642.5 | 21687.6 | 21668.9 |
| 7.5°  | 20503.5 | 20473.8 | 20428.7 | 20531.0 | 20626.6 |
| 10°   | 18553.1 | 18520.1 | 18422.3 | 18470.6 | 18548.7 |
| 12.5° | 15673.7 | 15567.0 | 15564.8 | 15718.7 | 15697.8 |
| 15°   | 11872.9 | 11730.0 | 11809.1 | 11770.6 | 11749.7 |
| 17.5° | 7984.2  | 7929.2  | 8034.7  | 8002.8  | 7865.4  |
| 20°   | 5743.5  | 5757.8  | 5959.0  | 5857.8  | 5735.8  |
| 22.5° | 4191.1  | 4242.7  | 4481.3  | 4220.8  | 4125.1  |
| 25°   | 2790.4  | 2895.9  | 3146.6  | 2822.3  | 2733.2  |
| 27.5° | 1716.2  | 1764.6  | 2018.6  | 1694.2  | 1645.9  |
| 30°   | 1067.6  | 1043.4  | 1163.2  | 998.3   | 930.1   |
| 32.5° | 700.3   | 669.6   | 708.0   | 635.5   | 580.5   |
| 35°   | 468.4   | 478.3   | 448.6   | 445.3   | 376.0   |
| 37.5° | 292.5   | 336.4   | 296.8   | 316.6   | 241.9   |
| 40°   | 189.1   | 244.1   | 210.0   | 232.0   | 178.1   |
| 42.5° | 155.0   | 188.0   | 172.6   | 183.6   | 158.3   |
| 45°   | 123.1   | 152.8   | 152.8   | 152.8   | 124.2   |
| 47.5° | 68.2    | 102.2   | 130.8   | 104.4   | 72.6    |
| 50°   | 38.5    | 51.7    | 101.1   | 53.9    | 40.7    |
| 52.5° | 26.4    | 29.7    | 69.3    | 30.8    | 27.5    |
| 55°   | 19.8    | 20.9    | 37.4    | 22.0    | 20.9    |
| 57.5° | 15.4    | 16.5    | 19.8    | 16.5    | 15.4    |
| 60°   | 12.1    | 12.1    | 14.3    | 13.2    | 12.1    |
| 62.5° | 8.8     | 8.8     | 9.9     | 8.8     | 8.8     |
| 65°   | 6.6     | 6.6     | 6.6     | 6.6     | 6.6     |
| 67.5° | 3.3     | 4.4     | 4.4     | 4.4     | 4.4     |
| 70°   | 3.3     | 2.2     | 2.2     | 2.2     | 3.3     |
| 72.5° | 2.2     | 1.1     | 1.1     | 1.1     | 1.1     |
| 75°   | 0.0     | 0.0     | 1.1     | 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)