

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: P744120

Luminaire Tested: LD4D20D010-EU4DR3020359030-4LBCSSQMMS

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P744120  
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: LD4D20D010-EU4DR3020359030-4LBCSSQMMS  
Description: 4 INCH SQAURE SHALLOW CAST MATTE METALLIC SILVER TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1644.3 lumens  
Efficiency: N/A  
Efficacy: 71.2 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): 23.1  
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



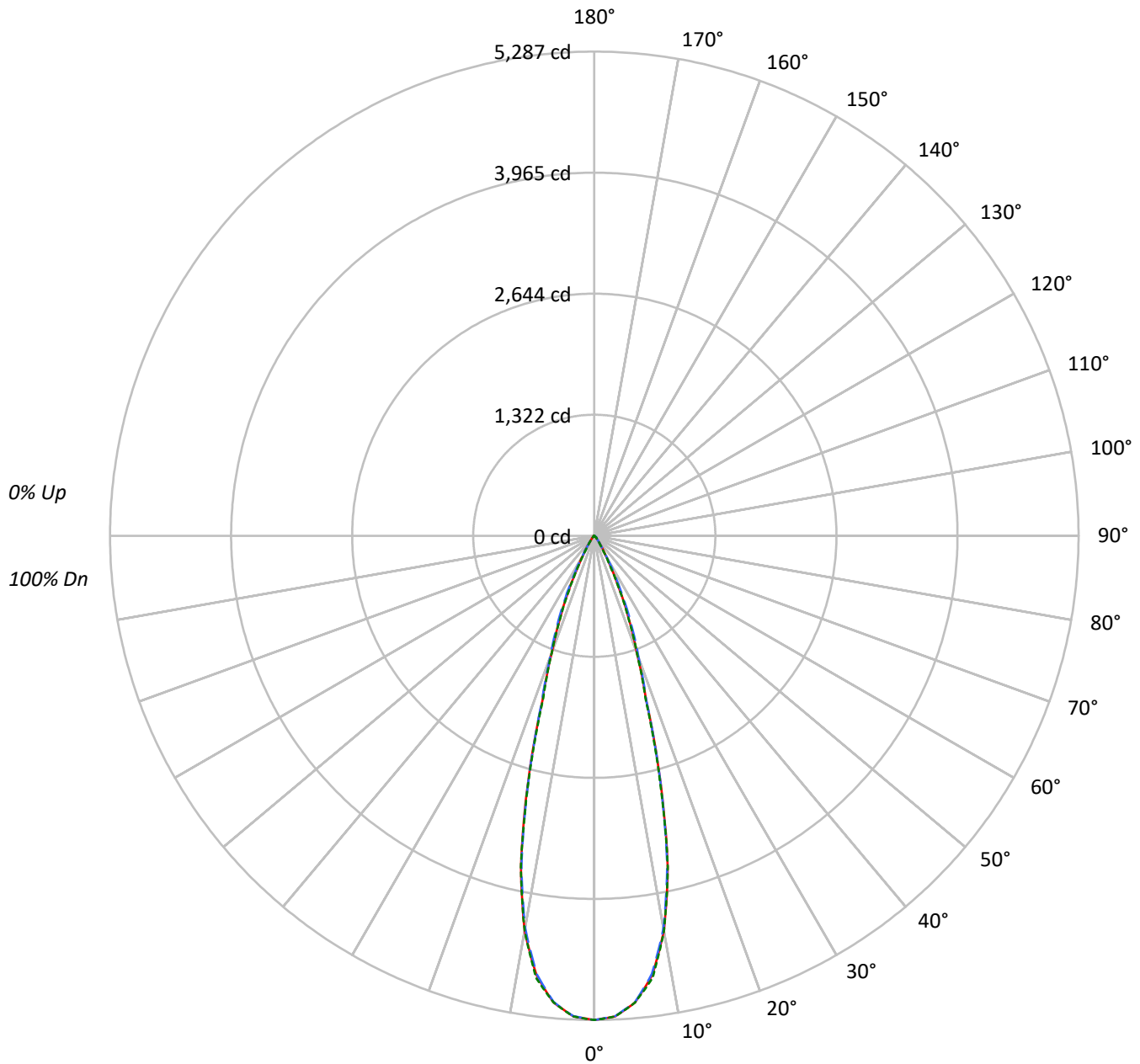
Downlight



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### Luminous Intensity Polar Plot





TEST NUMBER: P744120

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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°  | 404716 | 404716 | 404716 |
| 5°  | 393100 | 392639 | 393115 |
| 10° | 340486 | 338085 | 340401 |
| 15° | 222143 | 220955 | 219845 |
| 20° | 110462 | 114608 | 110316 |
| 25° | 55640  | 62743  | 54508  |
| 30° | 22273  | 24279  | 19409  |
| 35° | 10335  | 9896   | 8298   |
| 40° | 4456   | 4956   | 4207   |
| 45° | 3139   | 3908   | 3172   |
| 50° | 1084   | 2846   | 1143   |
| 55° | 627    | 1174   | 654    |
| 60° | 444    | 520    | 444    |
| 65° | 272    | 272    | 272    |
| 70° | 179    | 112    | 179    |
| 75° | 0      | 89     | 0      |
| 80° | 0      | 0      | 0      |
| 85° | 0      | 0      | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 3908 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 464.9  | 28.3      |
| 10°-20°   | 748.8  | 45.5      |
| 20°-30°   | 323.6  | 19.7      |
| 30°-40°   | 73.8   | 4.5       |
| 40°-50°   | 25.3   | 1.5       |
| 50°-60°   | 6.2    | 0.4       |
| 60°-70°   | 1.6    | 0.1       |
| 70°-80°   | 0.2    | 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°    | 1537.3 | 93.5      |
| 0°-40°    | 1611.1 | 98.0      |
| 0°-60°    | 1642.6 | 99.9      |
| 0°-90°    | 1644.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1644.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 5287 | 5287  | 5287 | 5287  | 5287 |      |
| 5°  | 5116 | 5111  | 5110 | 5121  | 5116 | 465  |
| 15° | 2803 | 2770  | 2788 | 2779  | 2774 | 751  |
| 25° | 659  | 684   | 743  | 666   | 645  | 315  |
| 35° | 111  | 113   | 106  | 105   | 89   | 75   |
| 45° | 29   | 36    | 36   | 36    | 29   | 21   |
| 55° | 5    | 5     | 9    | 5     | 5    | 5    |
| 65° | 2    | 2     | 2    | 2     | 2    | 2    |
| 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°    | 5287.4 | 5287.4 | 5287.4 | 5287.4 | 5287.4 |
| 2.5°  | 5252.4 | 5248.7 | 5250.8 | 5253.4 | 5254.4 |
| 5°    | 5116.1 | 5111.1 | 5110.1 | 5120.7 | 5116.3 |
| 7.5°  | 4841.1 | 4834.2 | 4823.5 | 4847.7 | 4870.3 |
| 10°   | 4380.7 | 4372.9 | 4349.8 | 4361.2 | 4379.6 |
| 12.5° | 3700.7 | 3675.6 | 3675.1 | 3711.4 | 3706.5 |
| 15°   | 2803.3 | 2769.6 | 2788.3 | 2779.2 | 2774.3 |
| 17.5° | 1885.2 | 1872.2 | 1897.1 | 1889.6 | 1857.2 |
| 20°   | 1356.1 | 1359.5 | 1407.0 | 1383.1 | 1354.3 |
| 22.5° | 989.6  | 1001.7 | 1058.1 | 996.6  | 974.0  |
| 25°   | 658.8  | 683.8  | 742.9  | 666.4  | 645.4  |
| 27.5° | 405.2  | 416.6  | 476.6  | 400.0  | 388.6  |
| 30°   | 252.0  | 246.4  | 274.7  | 235.7  | 219.6  |
| 32.5° | 165.4  | 158.1  | 167.2  | 150.1  | 137.0  |
| 35°   | 110.6  | 112.9  | 105.9  | 105.1  | 88.8   |
| 37.5° | 69.0   | 79.4   | 70.1   | 74.8   | 57.1   |
| 40°   | 44.6   | 57.6   | 49.6   | 54.8   | 42.1   |
| 42.5° | 36.6   | 44.4   | 40.7   | 43.4   | 37.4   |
| 45°   | 29.0   | 36.1   | 36.1   | 36.1   | 29.3   |
| 47.5° | 16.1   | 24.1   | 30.9   | 24.6   | 17.1   |
| 50°   | 9.1    | 12.2   | 23.9   | 12.7   | 9.6    |
| 52.5° | 6.2    | 7.0    | 16.3   | 7.3    | 6.5    |
| 55°   | 4.7    | 4.9    | 8.8    | 5.2    | 4.9    |
| 57.5° | 3.6    | 3.9    | 4.7    | 3.9    | 3.6    |
| 60°   | 2.9    | 2.9    | 3.4    | 3.1    | 2.9    |
| 62.5° | 2.1    | 2.1    | 2.3    | 2.1    | 2.1    |
| 65°   | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    |
| 67.5° | 0.8    | 1.0    | 1.0    | 1.0    | 1.0    |
| 70°   | 0.8    | 0.5    | 0.5    | 0.5    | 0.8    |
| 72.5° | 0.5    | 0.3    | 0.3    | 0.3    | 0.3    |
| 75°   | 0.0    | 0.0    | 0.3    | 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)