

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: P781011

Luminaire Tested: LER4D35BD010-EC4DR3020359050-4LBS1MW

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P781011  
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: LER4D35BD010-EC4DR3020359050-4LBS1MW  
Description: 4 INCH ROUND SHALLOW MATTE WHITE TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3326.5 lumens  
Efficiency: N/A  
Efficacy: 108.0 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): 30.8  
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

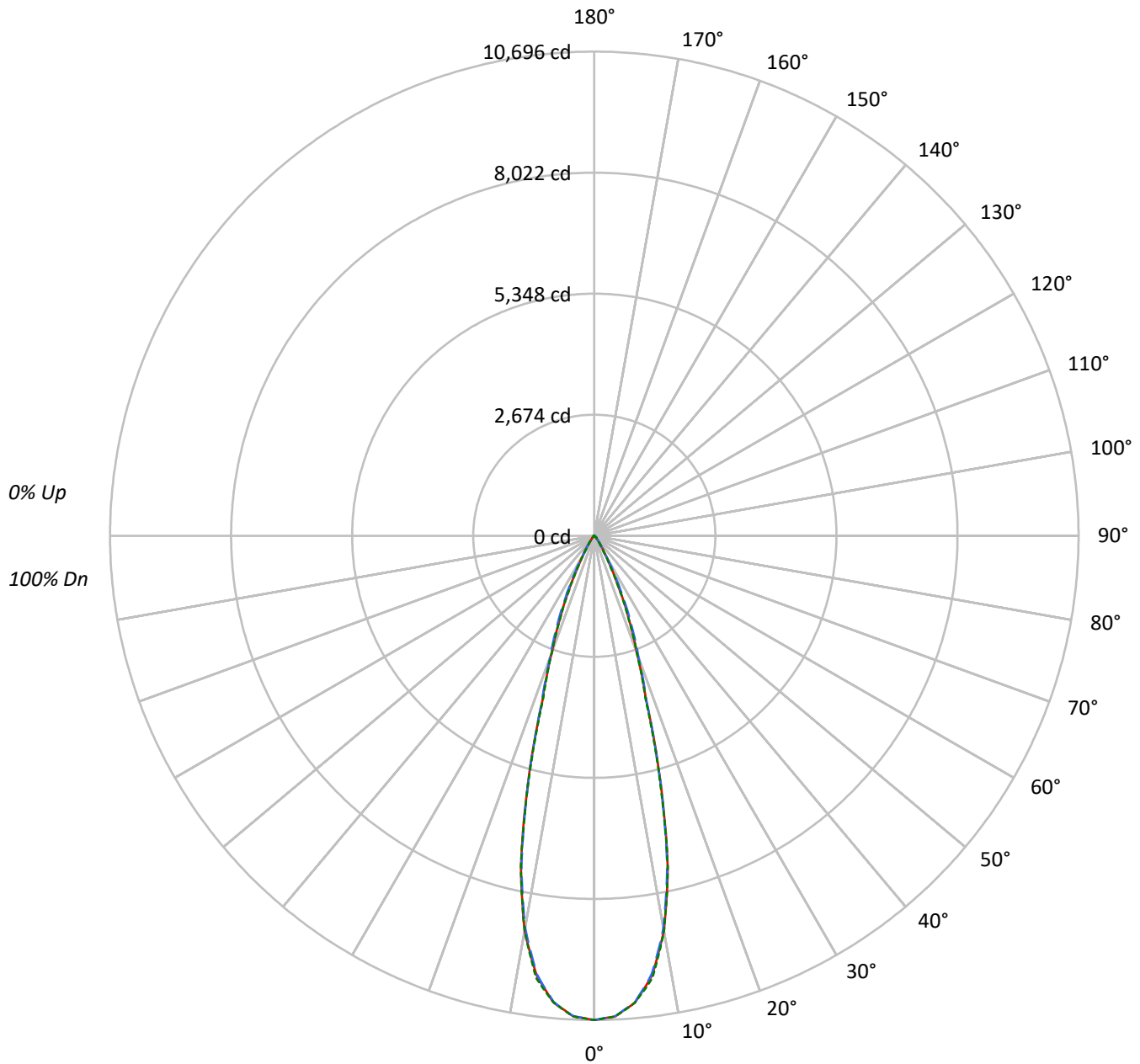


Downlight

TEST NUMBER: P781011

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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°  | 818723 | 818723 | 818723 |
| 5°  | 795220 | 794290 | 795258 |
| 10° | 688776 | 683926 | 688613 |
| 15° | 449398 | 446981 | 444731 |
| 20° | 223466 | 231848 | 223164 |
| 25° | 112563 | 126938 | 110258 |
| 30° | 45067  | 49107  | 39269  |
| 35° | 20903  | 20025  | 16782  |
| 40° | 9023   | 10022  | 8503   |
| 45° | 6365   | 7902   | 6419   |
| 50° | 2191   | 5752   | 2310   |
| 55° | 1268   | 2389   | 1334   |
| 60° | 888    | 1041   | 888    |
| 65° | 580    | 580    | 580    |
| 70° | 358    | 246    | 358    |
| 75° | 0      | 148    | 0      |
| 80° | 0      | 0      | 0      |
| 85° | 0      | 0      | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 7902 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 940.6  | 28.3      |
| 10°-20°   | 1514.8 | 45.5      |
| 20°-30°   | 654.6  | 19.7      |
| 30°-40°   | 149.2  | 4.5       |
| 40°-50°   | 51.2   | 1.5       |
| 50°-60°   | 12.5   | 0.4       |
| 60°-70°   | 3.3    | 0.1       |
| 70°-80°   | 0.3    | 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°    | 3109.9 | 93.5      |
| 0°-40°    | 3259.1 | 98.0      |
| 0°-60°    | 3322.9 | 99.9      |
| 0°-90°    | 3326.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3326.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 10696 | 10696 | 10696 | 10696 | 10696 |      |
| 5°  | 10350 | 10340 | 10338 | 10359 | 10350 | 941  |
| 15° | 5671  | 5603  | 5641  | 5622  | 5612  | 1519 |
| 25° | 1333  | 1383  | 1503  | 1348  | 1306  | 638  |
| 35° | 224   | 228   | 214   | 213   | 180   | 152  |
| 45° | 59    | 73    | 73    | 73    | 59    | 42   |
| 55° | 10    | 10    | 18    | 10    | 10    | 9    |
| 65° | 3     | 3     | 3     | 3     | 3     | 3    |
| 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°    | 10696.2 | 10696.2 | 10696.2 | 10696.2 | 10696.2 |
| 2.5°  | 10625.3 | 10617.9 | 10622.1 | 10627.4 | 10629.5 |
| 5°    | 10349.6 | 10339.6 | 10337.5 | 10359.0 | 10350.1 |
| 7.5°  | 9793.5  | 9779.3  | 9757.7  | 9806.6  | 9852.3  |
| 10°   | 8861.8  | 8846.1  | 8799.4  | 8822.5  | 8859.7  |
| 12.5° | 7486.5  | 7435.5  | 7434.5  | 7508.0  | 7498.0  |
| 15°   | 5671.1  | 5602.8  | 5640.6  | 5622.2  | 5612.2  |
| 17.5° | 3813.6  | 3787.4  | 3837.8  | 3822.5  | 3756.9  |
| 20°   | 2743.4  | 2750.2  | 2846.3  | 2798.0  | 2739.7  |
| 22.5° | 2001.9  | 2026.5  | 2140.5  | 2016.0  | 1970.3  |
| 25°   | 1332.8  | 1383.2  | 1503.0  | 1348.1  | 1305.5  |
| 27.5° | 819.8   | 842.9   | 964.2   | 809.3   | 786.1   |
| 30°   | 509.9   | 498.4   | 555.6   | 476.8   | 444.3   |
| 32.5° | 334.5   | 319.8   | 338.2   | 303.5   | 277.3   |
| 35°   | 223.7   | 228.4   | 214.3   | 212.7   | 179.6   |
| 37.5° | 139.7   | 160.7   | 141.8   | 151.2   | 115.5   |
| 40°   | 90.3    | 116.6   | 100.3   | 110.8   | 85.1    |
| 42.5° | 74.0    | 89.8    | 82.4    | 87.7    | 75.6    |
| 45°   | 58.8    | 73.0    | 73.0    | 73.0    | 59.3    |
| 47.5° | 32.6    | 48.8    | 62.5    | 49.9    | 34.7    |
| 50°   | 18.4    | 24.7    | 48.3    | 25.7    | 19.4    |
| 52.5° | 12.6    | 14.2    | 33.1    | 14.7    | 13.1    |
| 55°   | 9.5     | 10.0    | 17.9    | 10.5    | 10.0    |
| 57.5° | 7.4     | 7.9     | 9.5     | 7.9     | 7.4     |
| 60°   | 5.8     | 5.8     | 6.8     | 6.3     | 5.8     |
| 62.5° | 4.2     | 4.2     | 4.7     | 4.2     | 4.2     |
| 65°   | 3.2     | 3.2     | 3.2     | 3.2     | 3.2     |
| 67.5° | 1.6     | 2.1     | 2.1     | 2.1     | 2.1     |
| 70°   | 1.6     | 1.1     | 1.1     | 1.1     | 1.6     |
| 72.5° | 1.1     | 0.5     | 0.5     | 0.5     | 0.5     |
| 75°   | 0.0     | 0.0     | 0.5     | 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)