

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: P781240

Luminaire Tested: LER4D40BD010-EC4DR3040509035-4LBS1B

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P781240  
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: LER4D40BD010-EC4DR3040509035-4LBS1B  
Description: 4 INCH ROUND SHALLOW SPECULAR BLACK TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3663.8 lumens  
Efficiency: N/A  
Efficacy: 104.1 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): 35.2  
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

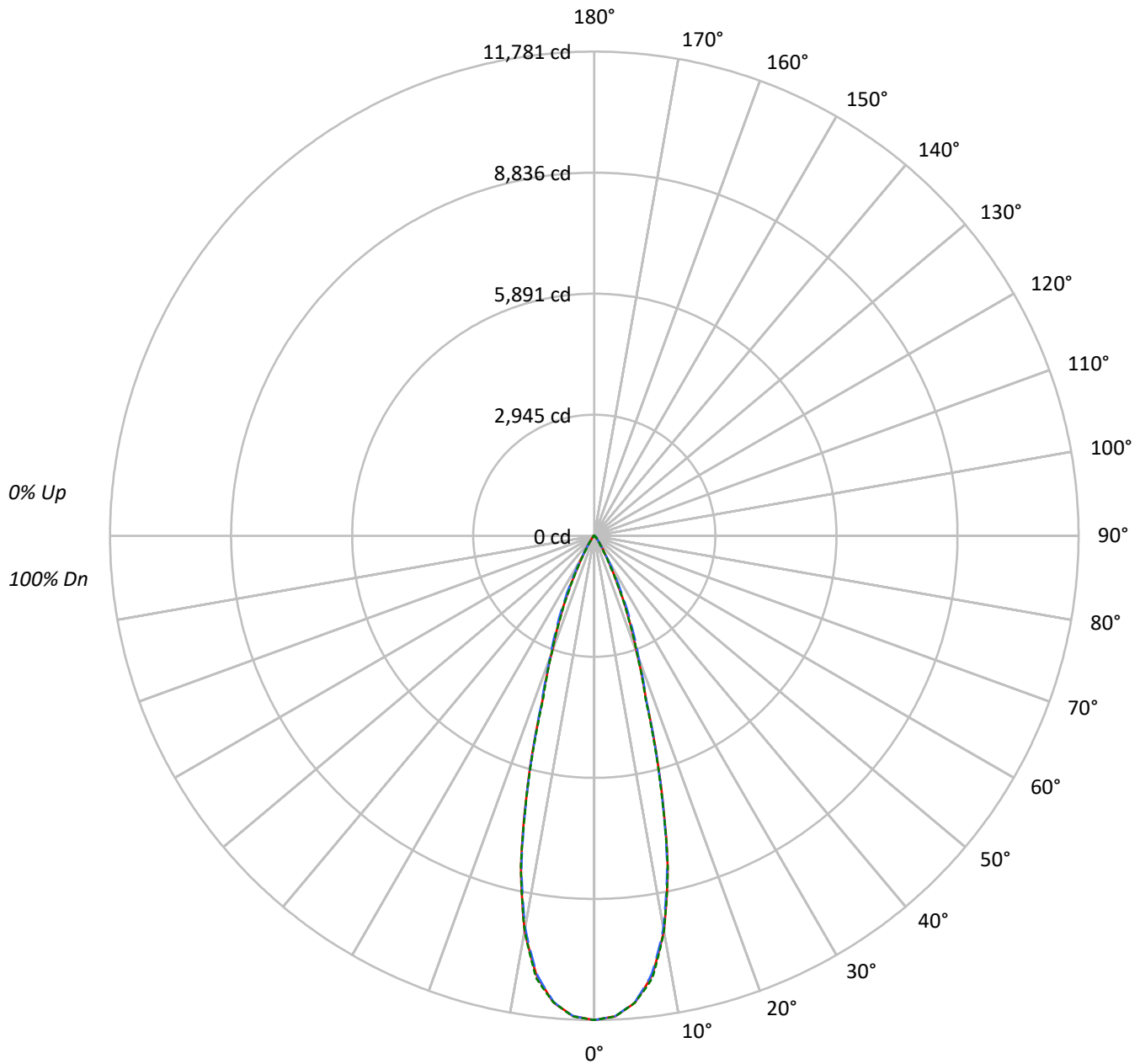


Downlight

TEST NUMBER: P781240

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### Luminous Intensity Polar Plot



TEST NUMBER: P781240

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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°  | 901750 | 901750 | 901750 |
| 5°  | 875866 | 874844 | 875905 |
| 10° | 758635 | 753280 | 758448 |
| 15° | 494971 | 492309 | 489836 |
| 20° | 246127 | 255356 | 245793 |
| 25° | 123982 | 139809 | 121440 |
| 30° | 49637  | 54091  | 43247  |
| 35° | 23024  | 22052  | 18483  |
| 40° | 9942   | 11041  | 9363   |
| 45° | 7015   | 8703   | 7079   |
| 50° | 2405   | 6335   | 2548   |
| 55° | 1388   | 2629   | 1468   |
| 60° | 980    | 1148   | 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: 8703 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1036.0 | 28.3      |
| 10°-20°   | 1668.4 | 45.5      |
| 20°-30°   | 721.0  | 19.7      |
| 30°-40°   | 164.3  | 4.5       |
| 40°-50°   | 56.4   | 1.5       |
| 50°-60°   | 13.8   | 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°    | 3425.3 | 93.5      |
| 0°-40°    | 3589.7 | 98.0      |
| 0°-60°    | 3659.9 | 99.9      |
| 0°-90°    | 3663.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3663.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 11781 | 11781 | 11781 | 11781 | 11781 |      |
| 5°  | 11399 | 11388 | 11386 | 11410 | 11400 | 1037 |
| 15° | 6246  | 6171  | 6213  | 6192  | 6181  | 1673 |
| 25° | 1468  | 1524  | 1655  | 1485  | 1438  | 703  |
| 35° | 246   | 252   | 236   | 234   | 198   | 167  |
| 45° | 65    | 80    | 80    | 80    | 65    | 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     |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 11780.9 | 11780.9 | 11780.9 | 11780.9 | 11780.9 |
| 2.5°  | 11702.8 | 11694.7 | 11699.4 | 11705.1 | 11707.5 |
| 5°    | 11399.2 | 11388.2 | 11385.9 | 11409.6 | 11399.7 |
| 7.5°  | 10786.6 | 10771.0 | 10747.3 | 10801.1 | 10851.4 |
| 10°   | 9760.6  | 9743.2  | 9691.7  | 9717.2  | 9758.2  |
| 12.5° | 8245.7  | 8189.6  | 8188.5  | 8269.4  | 8258.4  |
| 15°   | 6246.2  | 6171.0  | 6212.6  | 6192.4  | 6181.4  |
| 17.5° | 4200.4  | 4171.4  | 4227.0  | 4210.2  | 4137.9  |
| 20°   | 3021.6  | 3029.1  | 3134.9  | 3081.7  | 3017.5  |
| 22.5° | 2204.9  | 2232.1  | 2357.6  | 2220.5  | 2170.2  |
| 25°   | 1468.0  | 1523.5  | 1655.4  | 1484.8  | 1437.9  |
| 27.5° | 902.9   | 928.3   | 1061.9  | 891.3   | 865.9   |
| 30°   | 561.6   | 548.9   | 612.0   | 525.2   | 489.3   |
| 32.5° | 368.4   | 352.2   | 372.5   | 334.3   | 305.4   |
| 35°   | 246.4   | 251.6   | 236.0   | 234.3   | 197.8   |
| 37.5° | 153.9   | 177.0   | 156.2   | 166.6   | 127.2   |
| 40°   | 99.5    | 128.4   | 110.5   | 122.0   | 93.7    |
| 42.5° | 81.6    | 98.9    | 90.8    | 96.6    | 83.3    |
| 45°   | 64.8    | 80.4    | 80.4    | 80.4    | 65.4    |
| 47.5° | 35.9    | 53.8    | 68.8    | 54.9    | 38.2    |
| 50°   | 20.2    | 27.2    | 53.2    | 28.3    | 21.4    |
| 52.5° | 13.9    | 15.6    | 36.4    | 16.2    | 14.5    |
| 55°   | 10.4    | 11.0    | 19.7    | 11.6    | 11.0    |
| 57.5° | 8.1     | 8.7     | 10.4    | 8.7     | 8.1     |
| 60°   | 6.4     | 6.4     | 7.5     | 6.9     | 6.4     |
| 62.5° | 4.6     | 4.6     | 5.2     | 4.6     | 4.6     |
| 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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Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

## Scaled Data Report







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







(END OF REPORT)