

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: P781710

Luminaire Tested: LER4D50D010-EC4DR3040509024-4LBS1LI

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P781710  
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: LER4D50D010-EC4DR3040509024-4LBS1LI  
Description: 4 INCH ROUND SHALLOW SPECULAR CLEAR TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4475.8 lumens  
Efficiency: N/A  
Efficacy: 95.2 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): 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

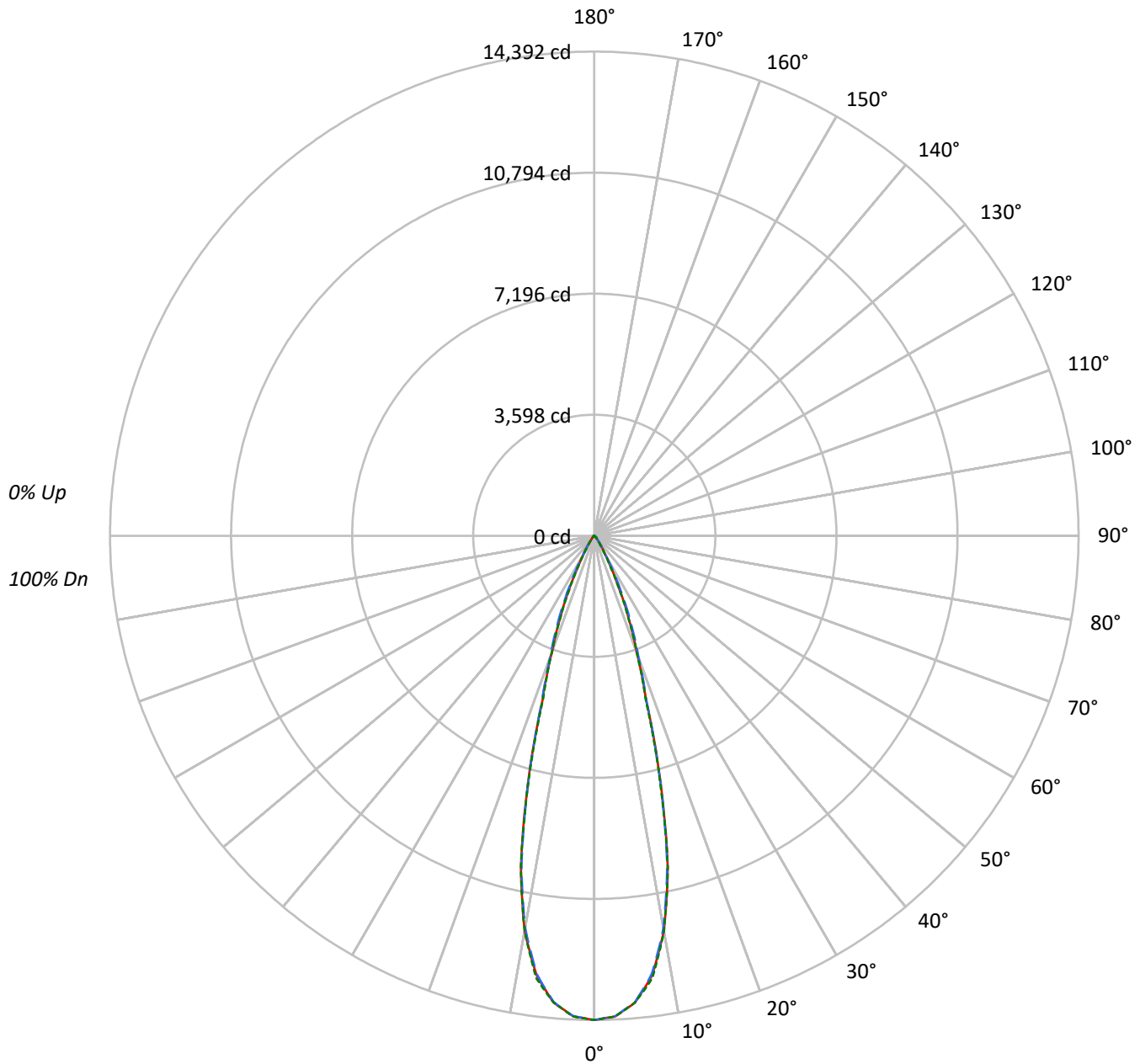


Downlight

TEST NUMBER: P781710

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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°  | 1101613 | 1101613 | 1101613 |
| 5°  | 1069992 | 1068740 | 1070046 |
| 10° | 926776  | 920239  | 926550  |
| 15° | 604676  | 601427  | 598400  |
| 20° | 300678  | 311959  | 300270  |
| 25° | 151455  | 170796  | 148356  |
| 30° | 60641   | 66076   | 52836   |
| 35° | 28126   | 26939   | 22585   |
| 40° | 12140   | 13489   | 11441   |
| 45° | 8562    | 10630   | 8638    |
| 50° | 2941    | 7740    | 3108    |
| 55° | 1695    | 3203    | 1788    |
| 60° | 1194    | 1408    | 1194    |
| 65° | 761     | 761     | 761     |
| 70° | 470     | 313     | 470     |
| 75° | 0       | 207     | 0       |
| 80° | 0       | 0       | 0       |
| 85° | 0       | 0       | 0       |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 10630 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1265.6 | 28.3      |
| 10°-20°   | 2038.2 | 45.5      |
| 20°-30°   | 880.8  | 19.7      |
| 30°-40°   | 200.8  | 4.5       |
| 40°-50°   | 68.9   | 1.5       |
| 50°-60°   | 16.8   | 0.4       |
| 60°-70°   | 4.4    | 0.1       |
| 70°-80°   | 0.5    | 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       |
| <hr/>     |        |           |
| 0°-30°    | 4184.5 | 93.5      |
| 0°-40°    | 4385.3 | 98.0      |
| 0°-60°    | 4471.0 | 99.9      |
| 0°-90°    | 4475.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4475.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 14392 | 14392 | 14392 | 14392 | 14392 |      |
| 5°  | 13926 | 13912 | 13909 | 13938 | 13926 | 1267 |
| 15° | 7631  | 7539  | 7590  | 7565  | 7551  | 2043 |
| 25° | 1793  | 1861  | 2022  | 1814  | 1757  | 858  |
| 35° | 301   | 307   | 288   | 286   | 242   | 204  |
| 45° | 79    | 98    | 98    | 98    | 80    | 56   |
| 55° | 13    | 13    | 24    | 14    | 13    | 12   |
| 65° | 4     | 4     | 4     | 4     | 4     | 4    |
| 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°    | 14392.0 | 14392.0 | 14392.0 | 14392.0 | 14392.0 |
| 2.5°  | 14296.6 | 14286.7 | 14292.4 | 14299.5 | 14302.3 |
| 5°    | 13925.7 | 13912.2 | 13909.4 | 13938.4 | 13926.4 |
| 7.5°  | 13177.4 | 13158.3 | 13129.3 | 13195.0 | 13256.5 |
| 10°   | 11923.9 | 11902.7 | 11839.8 | 11870.9 | 11921.0 |
| 12.5° | 10073.3 | 10004.7 | 10003.3 | 10102.3 | 10088.8 |
| 15°   | 7630.6  | 7538.7  | 7589.6  | 7564.9  | 7551.4  |
| 17.5° | 5131.3  | 5096.0  | 5163.8  | 5143.3  | 5055.0  |
| 20°   | 3691.3  | 3700.5  | 3829.8  | 3764.8  | 3686.3  |
| 22.5° | 2693.6  | 2726.8  | 2880.1  | 2712.6  | 2651.2  |
| 25°   | 1793.3  | 1861.2  | 2022.3  | 1813.8  | 1756.6  |
| 27.5° | 1103.0  | 1134.1  | 1297.3  | 1088.9  | 1057.8  |
| 30°   | 686.1   | 670.6   | 747.6   | 641.6   | 597.8   |
| 32.5° | 450.1   | 430.3   | 455.1   | 408.4   | 373.1   |
| 35°   | 301.0   | 307.4   | 288.3   | 286.2   | 241.7   |
| 37.5° | 188.0   | 216.2   | 190.8   | 203.5   | 155.5   |
| 40°   | 121.5   | 156.9   | 135.0   | 149.1   | 114.5   |
| 42.5° | 99.6    | 120.8   | 110.9   | 118.0   | 101.8   |
| 45°   | 79.1    | 98.2    | 98.2    | 98.2    | 79.8    |
| 47.5° | 43.8    | 65.7    | 84.1    | 67.1    | 46.6    |
| 50°   | 24.7    | 33.2    | 65.0    | 34.6    | 26.1    |
| 52.5° | 17.0    | 19.1    | 44.5    | 19.8    | 17.7    |
| 55°   | 12.7    | 13.4    | 24.0    | 14.1    | 13.4    |
| 57.5° | 9.9     | 10.6    | 12.7    | 10.6    | 9.9     |
| 60°   | 7.8     | 7.8     | 9.2     | 8.5     | 7.8     |
| 62.5° | 5.7     | 5.7     | 6.4     | 5.7     | 5.7     |
| 65°   | 4.2     | 4.2     | 4.2     | 4.2     | 4.2     |
| 67.5° | 2.1     | 2.8     | 2.8     | 2.8     | 2.8     |
| 70°   | 2.1     | 1.4     | 1.4     | 1.4     | 2.1     |
| 72.5° | 1.4     | 0.7     | 0.7     | 0.7     | 0.7     |
| 75°   | 0.0     | 0.0     | 0.7     | 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)