

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: P777070

Luminaire Tested: LERS4D02D010-EC4DR300210IC9040-4LBS1LI

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P777070  
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: LERS4D02D010-EC4DR300210IC9040-4LBS1LI  
Description: 4 INCH ROUND SHALLOW SPECULAR CLEAR TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 408.1 lumens  
Efficiency: N/A  
Efficacy: 80.0 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): 5.1  
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



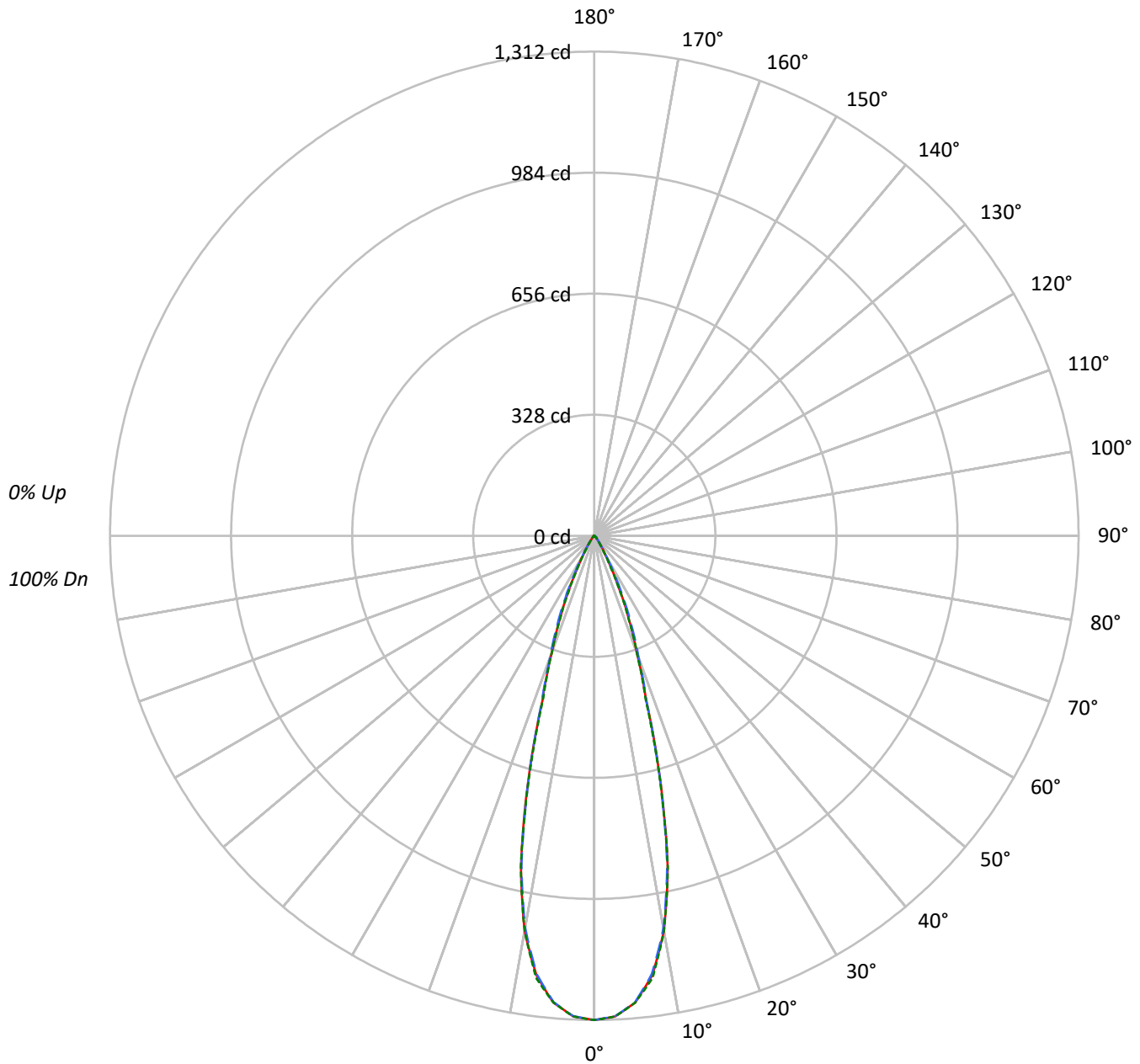
Downlight



TEST NUMBER: P777070

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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  | 87  | 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°  | 100440 | 100440 | 100440 |
| 5°  | 97558  | 97443  | 97558  |
| 10° | 84494  | 83903  | 84478  |
| 15° | 55130  | 54837  | 54559  |
| 20° | 27418  | 28444  | 27377  |
| 25° | 13809  | 15574  | 13521  |
| 30° | 5533   | 6028   | 4817   |
| 35° | 2560   | 2458   | 2065   |
| 40° | 1109   | 1229   | 1039   |
| 45° | 779    | 963    | 790    |
| 50° | 262    | 703    | 286    |
| 55° | 147    | 294    | 160    |
| 60° | 107    | 138    | 107    |
| 65° | 72     | 72     | 72     |
| 70° | 45     | 22     | 45     |
| 75° | 0      | 30     | 0      |
| 80° | 0      | 0      | 0      |
| 85° | 0      | 0      | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 963 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 115.4  | 28.3      |
| 10°-20°   | 185.8  | 45.5      |
| 20°-30°   | 80.3   | 19.7      |
| 30°-40°   | 18.3   | 4.5       |
| 40°-50°   | 6.3    | 1.5       |
| 50°-60°   | 1.5    | 0.4       |
| 60°-70°   | 0.4    | 0.1       |
| 70°-80°   | 0.0    | 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°    | 381.5  | 93.5      |
| 0°-40°    | 399.8  | 98.0      |
| 0°-60°    | 407.6  | 99.9      |
| 0°-90°    | 408.1  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 408.1  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1312 | 1312  | 1312 | 1312  | 1312 |      |
| 5°  | 1270 | 1268  | 1268 | 1271  | 1270 | 115  |
| 15° | 696  | 687   | 692  | 690   | 688  | 186  |
| 25° | 164  | 170   | 184  | 165   | 160  | 78   |
| 35° | 27   | 28    | 26   | 26    | 22   | 19   |
| 45° | 7    | 9     | 9    | 9     | 7    | 5    |
| 55° | 1    | 1     | 2    | 1     | 1    | 1    |
| 65° | 0    | 0     | 0    | 0     | 0    | 0    |
| 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°    | 1312.2 | 1312.2 | 1312.2 | 1312.2 | 1312.2 |
| 2.5°  | 1303.5 | 1302.6 | 1303.1 | 1303.7 | 1304.0 |
| 5°    | 1269.7 | 1268.5 | 1268.2 | 1270.8 | 1269.7 |
| 7.5°  | 1201.4 | 1199.7 | 1197.1 | 1203.0 | 1208.6 |
| 10°   | 1087.1 | 1085.2 | 1079.5 | 1082.3 | 1086.9 |
| 12.5° | 918.4  | 912.2  | 912.0  | 921.1  | 919.8  |
| 15°   | 695.7  | 687.3  | 692.0  | 689.7  | 688.5  |
| 17.5° | 467.8  | 464.6  | 470.8  | 469.0  | 460.9  |
| 20°   | 336.6  | 337.4  | 349.2  | 343.3  | 336.1  |
| 22.5° | 245.6  | 248.6  | 262.6  | 247.3  | 241.7  |
| 25°   | 163.5  | 169.7  | 184.4  | 165.4  | 160.1  |
| 27.5° | 100.6  | 103.4  | 118.3  | 99.3   | 96.4   |
| 30°   | 62.6   | 61.1   | 68.2   | 58.5   | 54.5   |
| 32.5° | 41.0   | 39.2   | 41.5   | 37.2   | 34.0   |
| 35°   | 27.4   | 28.0   | 26.3   | 26.1   | 22.1   |
| 37.5° | 17.1   | 19.7   | 17.4   | 18.6   | 14.2   |
| 40°   | 11.1   | 14.3   | 12.3   | 13.6   | 10.4   |
| 42.5° | 9.1    | 11.0   | 10.1   | 10.8   | 9.3    |
| 45°   | 7.2    | 8.9    | 8.9    | 8.9    | 7.3    |
| 47.5° | 4.0    | 6.0    | 7.7    | 6.1    | 4.2    |
| 50°   | 2.2    | 3.0    | 5.9    | 3.2    | 2.4    |
| 52.5° | 1.5    | 1.7    | 4.1    | 1.8    | 1.6    |
| 55°   | 1.1    | 1.2    | 2.2    | 1.3    | 1.2    |
| 57.5° | 0.9    | 1.0    | 1.1    | 1.0    | 0.9    |
| 60°   | 0.7    | 0.7    | 0.9    | 0.7    | 0.7    |
| 62.5° | 0.5    | 0.5    | 0.6    | 0.5    | 0.5    |
| 65°   | 0.4    | 0.4    | 0.4    | 0.4    | 0.4    |
| 67.5° | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    |
| 70°   | 0.2    | 0.1    | 0.1    | 0.1    | 0.2    |
| 72.5° | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    |
| 75°   | 0.0    | 0.0    | 0.1    | 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)