

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: P781238

Luminaire Tested: LER4D40BD010-EC4DR3040509030-4LBS1LI

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P781238  
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-EC4DR3040509030-4LBS1LI  
Description: 4 INCH ROUND SHALLOW SPECULAR CLEAR TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4060.3 lumens  
Efficiency: N/A  
Efficacy: 115.4 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

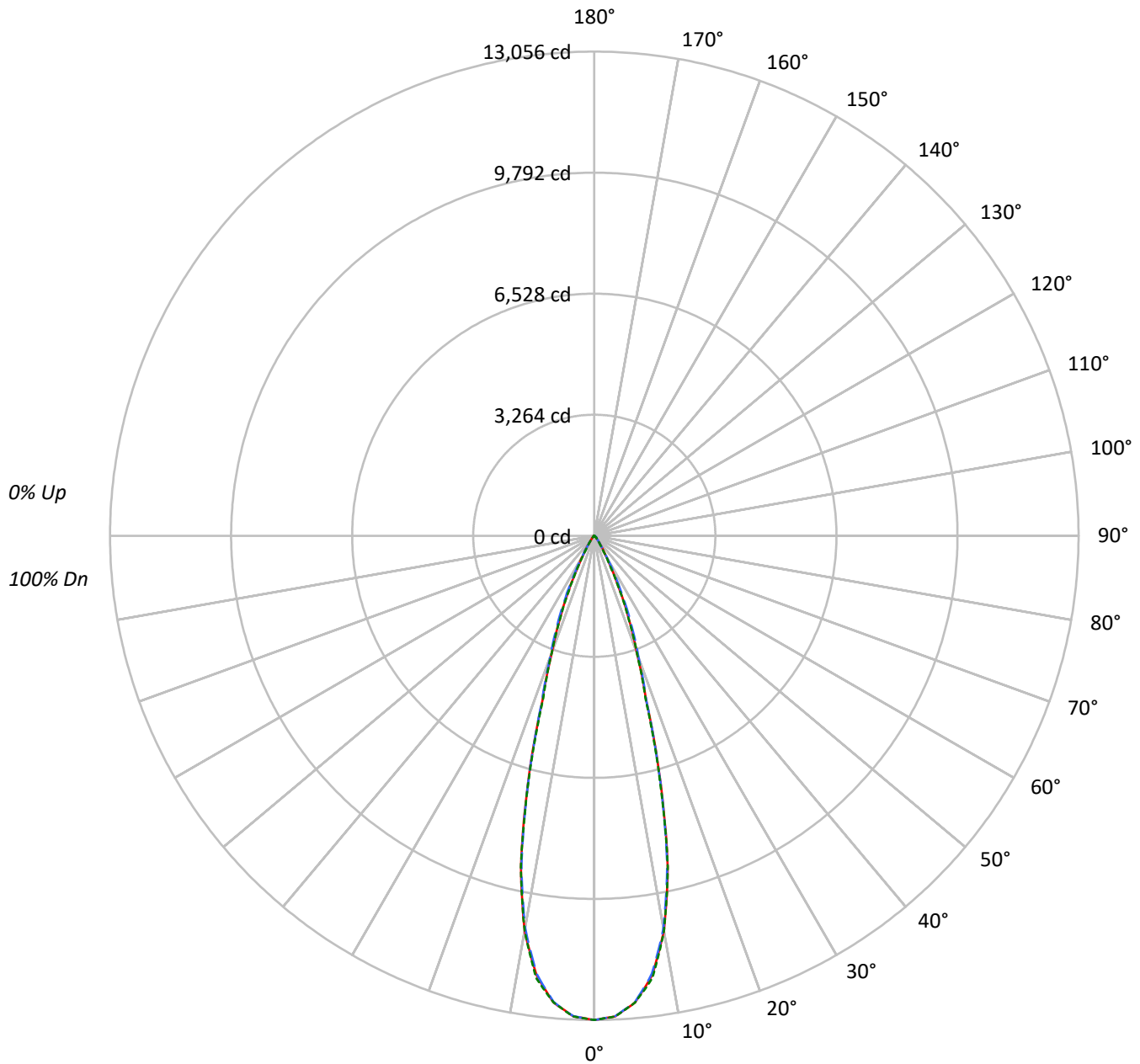


Downlight

TEST NUMBER: P781238

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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  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 115 | 113 | 111 | 109 | 112 | 110 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 99  | 99  | 98  |
| 2   | 111 | 107 | 104 | 101 | 109 | 105 | 102 | 100 | 102 | 100 | 98  | 99  | 97  | 96  | 97  | 95  | 94  |
| 3   | 107 | 102 | 98  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 93  | 96  | 93  | 91  | 94  | 92  | 90  |
| 4   | 103 | 98  | 93  | 90  | 102 | 96  | 93  | 90  | 94  | 91  | 89  | 93  | 90  | 88  | 91  | 89  | 87  |
| 5   | 100 | 94  | 89  | 86  | 98  | 93  | 89  | 86  | 91  | 88  | 85  | 90  | 86  | 84  | 88  | 86  | 83  |
| 6   | 97  | 90  | 85  | 82  | 95  | 89  | 85  | 82  | 88  | 84  | 81  | 87  | 83  | 81  | 85  | 83  | 80  |
| 7   | 94  | 87  | 82  | 79  | 92  | 86  | 82  | 79  | 85  | 81  | 78  | 84  | 81  | 78  | 83  | 80  | 78  |
| 8   | 91  | 84  | 79  | 76  | 90  | 83  | 79  | 76  | 82  | 78  | 76  | 81  | 78  | 75  | 80  | 77  | 75  |
| 9   | 88  | 81  | 76  | 73  | 87  | 80  | 76  | 73  | 80  | 76  | 73  | 79  | 75  | 73  | 78  | 75  | 73  |
| 10  | 85  | 78  | 74  | 71  | 85  | 78  | 74  | 71  | 77  | 73  | 71  | 76  | 73  | 71  | 76  | 73  | 70  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 999351 | 999351 | 999351 |
| 5°  | 970659 | 969529 | 970713 |
| 10° | 840743 | 834812 | 840541 |
| 15° | 548540 | 545592 | 542850 |
| 20° | 272763 | 282994 | 272396 |
| 25° | 137402 | 154944 | 134581 |
| 30° | 55011  | 59943  | 47931  |
| 35° | 25519  | 24435  | 20483  |
| 40° | 11021  | 12230  | 10372  |
| 45° | 7772   | 9645   | 7837   |
| 50° | 2667   | 7026   | 2822   |
| 55° | 1535   | 2909   | 1628   |
| 60° | 1087   | 1271   | 1087   |
| 65° | 688    | 688    | 688    |
| 70° | 425    | 291    | 425    |
| 75° | 0      | 177    | 0      |
| 80° | 0      | 0      | 0      |
| 85° | 0      | 0      | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 9645 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1148.1 | 28.3      |
| 10°-20°   | 1849.0 | 45.5      |
| 20°-30°   | 799.0  | 19.7      |
| 30°-40°   | 182.1  | 4.5       |
| 40°-50°   | 62.5   | 1.5       |
| 50°-60°   | 15.3   | 0.4       |
| 60°-70°   | 4.0    | 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°    | 3796.1 | 93.5      |
| 0°-40°    | 3978.2 | 98.0      |
| 0°-60°    | 4056.0 | 99.9      |
| 0°-90°    | 4060.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4060.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 13056 | 13056 | 13056 | 13056 | 13056 |      |
| 5°  | 12633 | 12621 | 12618 | 12644 | 12634 | 1149 |
| 15° | 6922  | 6839  | 6885  | 6863  | 6850  | 1854 |
| 25° | 1627  | 1688  | 1835  | 1646  | 1594  | 779  |
| 35° | 273   | 279   | 262   | 260   | 219   | 185  |
| 45° | 72    | 89    | 89    | 89    | 72    | 51   |
| 55° | 12    | 12    | 22    | 13    | 12    | 11   |
| 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°    | 13056.0 | 13056.0 | 13056.0 | 13056.0 | 13056.0 |
| 2.5°  | 12969.5 | 12960.5 | 12965.6 | 12972.0 | 12974.6 |
| 5°    | 12632.9 | 12620.8 | 12618.2 | 12644.5 | 12633.6 |
| 7.5°  | 11954.1 | 11936.8 | 11910.5 | 11970.1 | 12025.9 |
| 10°   | 10817.0 | 10797.7 | 10740.7 | 10768.9 | 10814.4 |
| 12.5° | 9138.2  | 9076.0  | 9074.7  | 9164.5  | 9152.3  |
| 15°   | 6922.2  | 6838.9  | 6885.0  | 6862.6  | 6850.4  |
| 17.5° | 4655.0  | 4622.9  | 4684.5  | 4665.9  | 4585.8  |
| 20°   | 3348.6  | 3356.9  | 3474.2  | 3415.3  | 3344.1  |
| 22.5° | 2443.5  | 2473.6  | 2612.7  | 2460.8  | 2405.1  |
| 25°   | 1626.9  | 1688.4  | 1834.6  | 1645.5  | 1593.5  |
| 27.5° | 1000.6  | 1028.8  | 1176.9  | 987.8   | 959.6   |
| 30°   | 622.4   | 608.3   | 678.2   | 582.0   | 542.3   |
| 32.5° | 408.3   | 390.4   | 412.8   | 370.5   | 338.5   |
| 35°   | 273.1   | 278.8   | 261.5   | 259.6   | 219.2   |
| 37.5° | 170.5   | 196.1   | 173.1   | 184.6   | 141.0   |
| 40°   | 110.3   | 142.3   | 122.4   | 135.3   | 103.8   |
| 42.5° | 90.4    | 109.6   | 100.6   | 107.0   | 92.3    |
| 45°   | 71.8    | 89.1    | 89.1    | 89.1    | 72.4    |
| 47.5° | 39.7    | 59.6    | 76.3    | 60.9    | 42.3    |
| 50°   | 22.4    | 30.1    | 59.0    | 31.4    | 23.7    |
| 52.5° | 15.4    | 17.3    | 40.4    | 17.9    | 16.0    |
| 55°   | 11.5    | 12.2    | 21.8    | 12.8    | 12.2    |
| 57.5° | 9.0     | 9.6     | 11.5    | 9.6     | 9.0     |
| 60°   | 7.1     | 7.1     | 8.3     | 7.7     | 7.1     |
| 62.5° | 5.1     | 5.1     | 5.8     | 5.1     | 5.1     |
| 65°   | 3.8     | 3.8     | 3.8     | 3.8     | 3.8     |
| 67.5° | 1.9     | 2.6     | 2.6     | 2.6     | 2.6     |
| 70°   | 1.9     | 1.3     | 1.3     | 1.3     | 1.9     |
| 72.5° | 1.3     | 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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— 0°-180°    - - 45°-225°    - - - 90°-270°







(END OF REPORT)