

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: P743889

Luminaire Tested: LD4D20D010-EU4DR1515309030-4LBDP1H

Issue Date: 2/2/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P743889  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2310-195-21)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LD4D20D010-EU4DR1515309030-4LBDP1H  
Description: 4 INCH ROUND DEEP 45° CUTOFF SEMI-SPECULAR CLEAR TRIM, WITH 15° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1862.3 lumens  
Efficiency: N/A  
Efficacy: 80.6 lumens/watt  
Spacing Criteria (0/90/45): 0.22 / 0.22 / 0.23  
Luminous Opening: Vertical Cylinder (Dia: 0.35' x H: 0.35')  
CIE Type: Direct

Input Watts (W): 23.1  
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



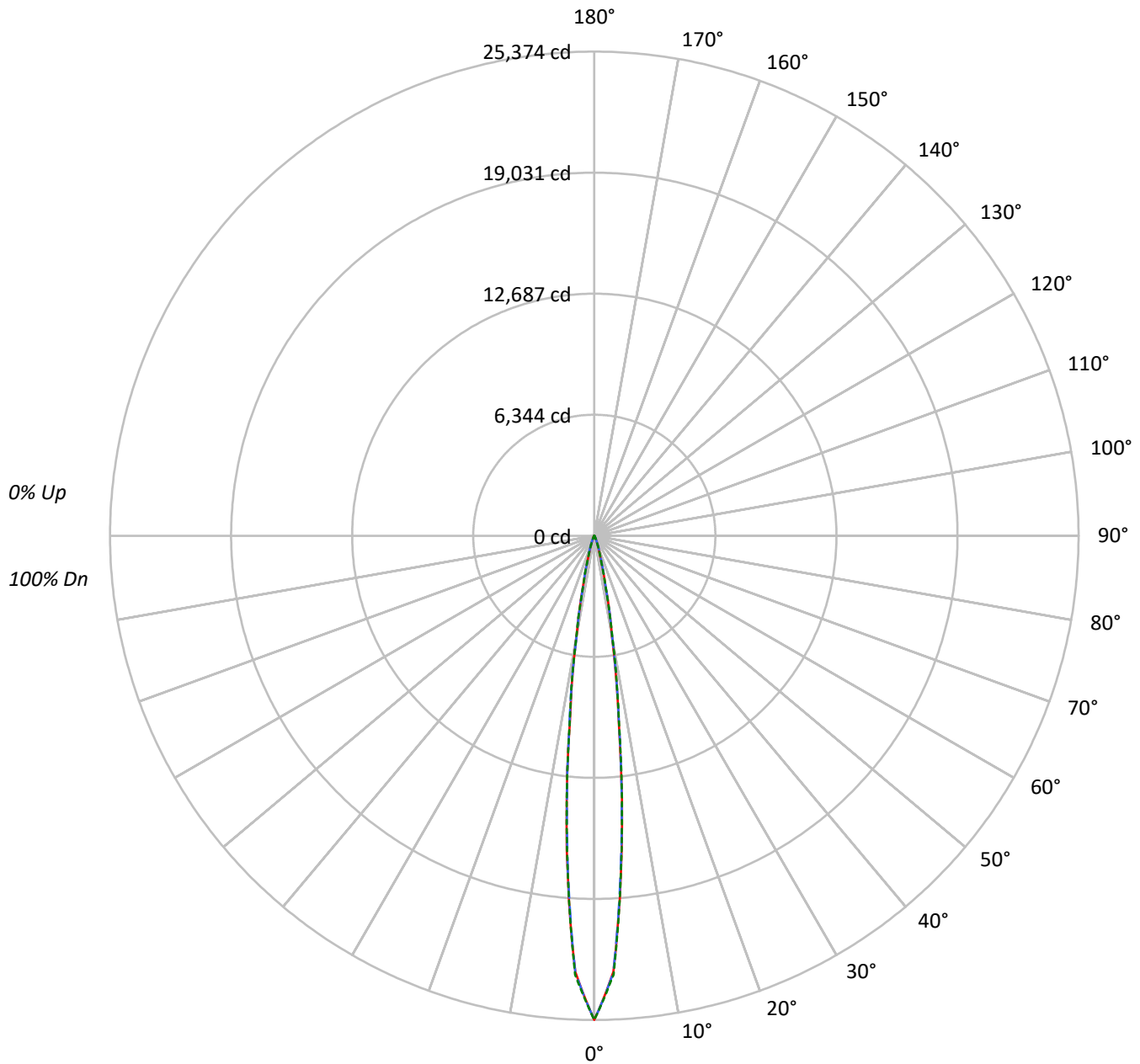
Downlight



TEST NUMBER: P743889

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### Luminous Intensity Polar Plot



TEST NUMBER: P743889

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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   | 116 | 114 | 112 | 111 | 113 | 112 | 110 | 109 | 108 | 107 | 106 |  | 104 | 103 | 103 |  | 101 |
| 2   | 113 | 110 | 107 | 105 | 111 | 108 | 106 | 104 | 105 | 103 | 102 |  | 102 | 101 | 100 |  | 100 |
| 3   | 110 | 106 | 103 | 101 | 108 | 105 | 102 | 100 | 103 | 100 | 99  |  | 100 | 99  | 97  |  | 98  |
| 4   | 108 | 103 | 100 | 98  | 106 | 102 | 99  | 97  | 100 | 98  | 96  |  | 99  | 97  | 95  |  | 97  |
| 5   | 106 | 101 | 98  | 95  | 104 | 100 | 97  | 95  | 98  | 96  | 94  |  | 97  | 95  | 93  |  | 96  |
| 6   | 104 | 99  | 95  | 93  | 102 | 98  | 95  | 93  | 97  | 94  | 92  |  | 96  | 93  | 92  |  | 95  |
| 7   | 102 | 97  | 94  | 91  | 101 | 96  | 93  | 91  | 95  | 93  | 91  |  | 94  | 92  | 90  |  | 93  |
| 8   | 100 | 95  | 92  | 90  | 99  | 95  | 92  | 90  | 94  | 91  | 89  |  | 93  | 91  | 89  |  | 92  |
| 9   | 99  | 93  | 90  | 88  | 98  | 93  | 90  | 88  | 92  | 90  | 88  |  | 92  | 89  | 88  |  | 91  |
| 10  | 97  | 92  | 89  | 87  | 96  | 92  | 89  | 87  | 91  | 89  | 87  |  | 91  | 88  | 87  |  | 90  |

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

|     | 0°      | 45°     | 90°     |
|-----|---------|---------|---------|
| 0°  | 2855025 | 2855025 | 2855025 |
| 5°  | 1677751 | 1656023 | 1669123 |
| 10° | 500726  | 504234  | 511960  |
| 15° | 124553  | 126976  | 123059  |
| 20° | 37262   | 43153   | 38056   |
| 25° | 13134   | 16733   | 13305   |
| 30° | 4822    | 6357    | 4905    |
| 35° | 2418    | 2730    | 2338    |
| 40° | 1527    | 1676    | 1527    |
| 45° | 1127    | 1204    | 1127    |
| 50° | 897     | 897     | 897     |
| 55° | 745     | 745     | 745     |
| 60° | 604     | 604     | 604     |
| 65° | 457     | 457     | 457     |
| 70° | 395     | 395     | 395     |
| 75° | 242     | 242     | 325     |
| 80° | 166     | 166     | 166     |
| 85° | 91      | 91      | 91      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 1204 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1207.8 | 64.9      |
| 10°-20°   | 496.8  | 26.7      |
| 20°-30°   | 98.7   | 5.3       |
| 30°-40°   | 24.6   | 1.3       |
| 40°-50°   | 12.9   | 0.7       |
| 50°-60°   | 9.6    | 0.5       |
| 60°-70°   | 6.8    | 0.4       |
| 70°-80°   | 3.8    | 0.2       |
| 80°-90°   | 1.2    | 0.1       |
| 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°    | 1803.3 | 96.8      |
| 0°-40°    | 1827.9 | 98.2      |
| 0°-60°    | 1850.5 | 99.4      |
| 0°-90°    | 1862.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1862.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 25374 | 25374 | 25374 | 25374 | 25374 |      |
| 5°  | 16509 | 16339 | 16295 | 16408 | 16424 | 1206 |
| 15° | 1434  | 1461  | 1462  | 1436  | 1417  | 492  |
| 25° | 169   | 191   | 215   | 190   | 171   | 89   |
| 35° | 33    | 35    | 38    | 35    | 32    | 23   |
| 45° | 16    | 16    | 17    | 16    | 16    | 13   |
| 55° | 11    | 11    | 11    | 11    | 11    | 10   |
| 65° | 6     | 6     | 6     | 6     | 6     | 7    |
| 75° | 3     | 3     | 3     | 3     | 4     | 4    |
| 85° | 1     | 1     | 1     | 1     | 1     | 1    |
| 90° | 0     | 0     | 0     | 0     | 0     |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 25373.5 | 25373.5 | 25373.5 | 25373.5 | 25373.5 |
| 2.5°  | 22888.0 | 22907.3 | 22914.8 | 22937.4 | 23021.2 |
| 5°    | 16508.6 | 16338.9 | 16294.8 | 16407.6 | 16423.7 |
| 7.5°  | 9779.1  | 9813.4  | 9939.1  | 9967.0  | 9866.1  |
| 10°   | 5366.4  | 5410.5  | 5404.0  | 5442.7  | 5486.8  |
| 12.5° | 2744.5  | 2710.1  | 2699.3  | 2743.4  | 2682.1  |
| 15°   | 1434.0  | 1460.8  | 1461.9  | 1436.1  | 1416.8  |
| 17.5° | 771.2   | 802.4   | 853.9   | 812.1   | 747.6   |
| 20°   | 455.4   | 483.4   | 527.4   | 493.0   | 465.1   |
| 22.5° | 281.4   | 304.0   | 335.1   | 308.3   | 285.7   |
| 25°   | 168.6   | 191.2   | 214.8   | 190.1   | 170.8   |
| 27.5° | 99.9    | 119.2   | 134.3   | 118.2   | 98.8    |
| 30°   | 64.4    | 75.2    | 84.9    | 74.1    | 65.5    |
| 32.5° | 45.1    | 49.4    | 53.7    | 49.4    | 45.1    |
| 35°   | 33.3    | 35.4    | 37.6    | 35.4    | 32.2    |
| 37.5° | 25.8    | 27.9    | 29.0    | 26.9    | 24.7    |
| 40°   | 21.5    | 22.6    | 23.6    | 22.6    | 21.5    |
| 42.5° | 18.3    | 19.3    | 19.3    | 19.3    | 18.3    |
| 45°   | 16.1    | 16.1    | 17.2    | 16.1    | 16.1    |
| 47.5° | 14.0    | 14.0    | 15.0    | 14.0    | 14.0    |
| 50°   | 12.9    | 12.9    | 12.9    | 12.9    | 12.9    |
| 52.5° | 11.8    | 11.8    | 11.8    | 11.8    | 11.8    |
| 55°   | 10.7    | 10.7    | 10.7    | 10.7    | 10.7    |
| 57.5° | 9.7     | 9.7     | 9.7     | 9.7     | 9.7     |
| 60°   | 8.6     | 8.6     | 8.6     | 8.6     | 8.6     |
| 62.5° | 7.5     | 7.5     | 7.5     | 7.5     | 7.5     |
| 65°   | 6.4     | 6.4     | 6.4     | 6.4     | 6.4     |
| 67.5° | 6.4     | 6.4     | 6.4     | 6.4     | 6.4     |
| 70°   | 5.4     | 5.4     | 5.4     | 5.4     | 5.4     |
| 72.5° | 4.3     | 4.3     | 4.3     | 4.3     | 4.3     |
| 75°   | 3.2     | 3.2     | 3.2     | 3.2     | 4.3     |
| 77.5° | 3.2     | 3.2     | 3.2     | 3.2     | 3.2     |
| 80°   | 2.1     | 2.1     | 2.1     | 2.1     | 2.1     |
| 82.5° | 2.1     | 2.1     | 2.1     | 2.1     | 2.1     |
| 85°   | 1.1     | 1.1     | 1.1     | 1.1     | 1.1     |
| 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)