

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: P743902

Luminaire Tested: LD4D20D010-EU4DR1515309035-4LBDP1H

Issue Date: 2/2/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P743902  
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-EU4DR1515309035-4LBDP1H  
Description: 4 INCH ROUND DEEP 45° CUTOFF SEMI-SPECULAR CLEAR TRIM, WITH 15° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1966.0 lumens  
Efficiency: N/A  
Efficacy: 85.1 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

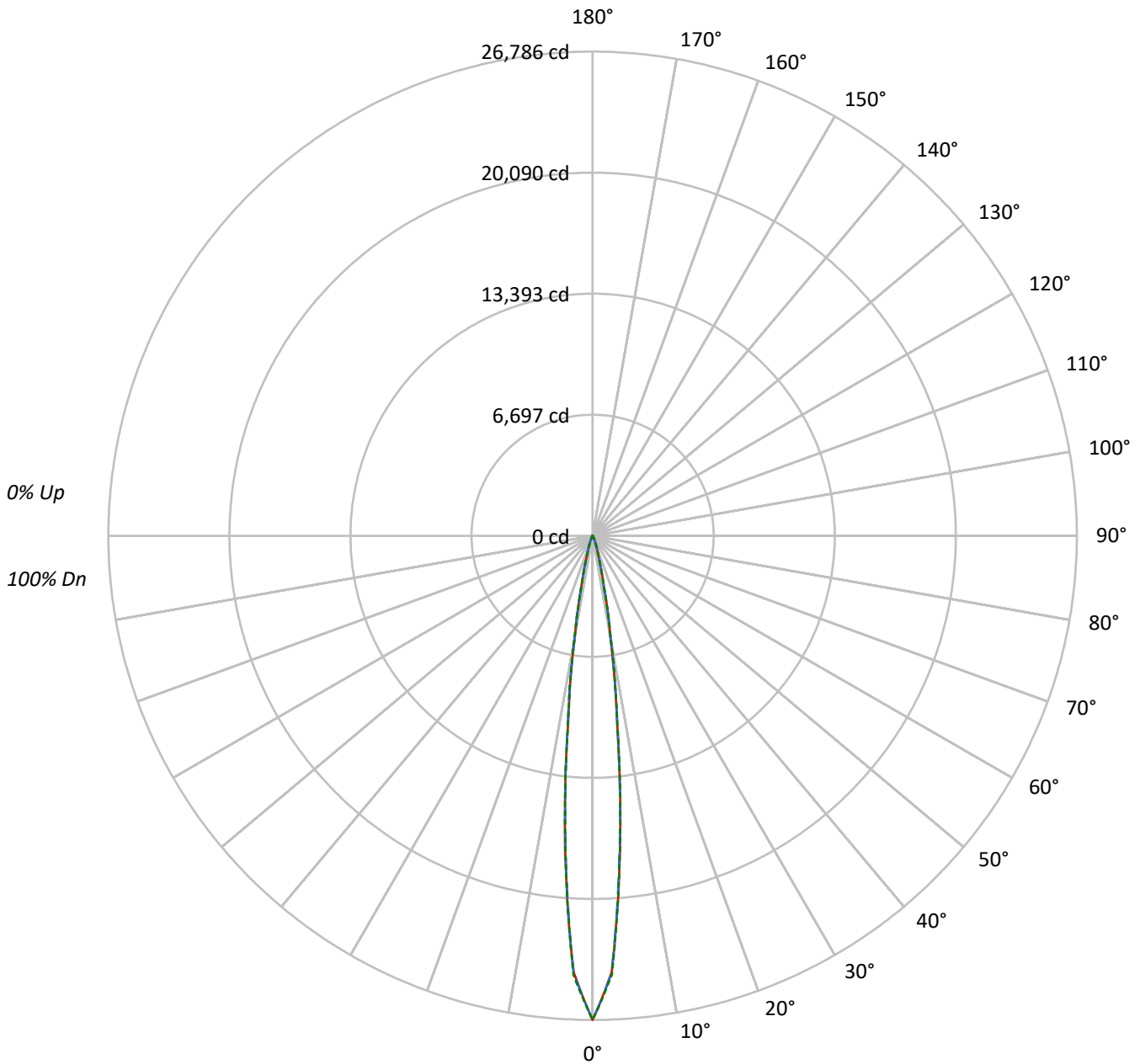


Downlight



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 20  |     |     |     |     |     |     |     |     | 20  |     |     |     |     |     |     |     |     | 20 |    |   |  |  |  |  |  |  | 20 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 50  |     |     |     |     |     |     |     |     | 30 |    |   |  |  |  |  |  |  | 10 |  |  |  |  |  |  |  |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 | 0 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 116 | 114 | 112 | 111 | 113 | 112 | 110 | 109 | 108 | 107 | 106 | 104 | 103 | 103 | 101 | 100 | 100 | 98  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 113 | 110 | 107 | 105 | 111 | 108 | 106 | 104 | 105 | 103 | 102 | 102 | 101 | 100 | 100 | 98  | 98  | 96  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 110 | 106 | 103 | 101 | 108 | 105 | 102 | 100 | 103 | 100 | 99  | 100 | 99  | 97  | 98  | 97  | 96  | 94  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 108 | 103 | 100 | 98  | 106 | 102 | 99  | 97  | 100 | 98  | 96  | 99  | 97  | 95  | 97  | 95  | 94  | 93  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 106 | 101 | 98  | 95  | 104 | 100 | 97  | 95  | 98  | 96  | 94  | 97  | 95  | 93  | 96  | 94  | 92  | 92  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 104 | 99  | 95  | 93  | 102 | 98  | 95  | 93  | 97  | 94  | 92  | 96  | 93  | 92  | 95  | 93  | 91  | 90  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 102 | 97  | 94  | 91  | 101 | 96  | 93  | 91  | 95  | 93  | 91  | 94  | 92  | 90  | 93  | 91  | 90  | 89  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 100 | 95  | 92  | 90  | 99  | 95  | 92  | 90  | 94  | 91  | 89  | 93  | 91  | 89  | 92  | 90  | 89  | 88  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 99  | 93  | 90  | 88  | 98  | 93  | 90  | 88  | 92  | 90  | 88  | 92  | 89  | 88  | 91  | 89  | 88  | 87  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 97  | 92  | 89  | 87  | 96  | 92  | 89  | 87  | 91  | 89  | 87  | 91  | 88  | 87  | 90  | 88  | 86  | 86  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°      | 45°     | 90°     |
|-----|---------|---------|---------|
| 0°  | 3013982 | 3013982 | 3013982 |
| 5°  | 1771158 | 1748231 | 1762052 |
| 10° | 528606  | 532310  | 540456  |
| 15° | 131484  | 134046  | 129912  |
| 20° | 39340   | 45559   | 40175   |
| 25° | 13866   | 17668   | 14045   |
| 30° | 5092    | 6709    | 5182    |
| 35° | 2556    | 2883    | 2469    |
| 40° | 1612    | 1768    | 1612    |
| 45° | 1190    | 1267    | 1190    |
| 50° | 946     | 946     | 946     |
| 55° | 787     | 787     | 787     |
| 60° | 639     | 639     | 639     |
| 65° | 485     | 485     | 485     |
| 70° | 417     | 417     | 417     |
| 75° | 257     | 257     | 340     |
| 80° | 181     | 181     | 181     |
| 85° | 91      | 91      | 91      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 1267 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1275.1 | 64.9      |
| 10°-20°   | 524.5  | 26.7      |
| 20°-30°   | 104.2  | 5.3       |
| 30°-40°   | 26.0   | 1.3       |
| 40°-50°   | 13.7   | 0.7       |
| 50°-60°   | 10.1   | 0.5       |
| 60°-70°   | 7.2    | 0.4       |
| 70°-80°   | 4.1    | 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       |
| 0°-30°    | 1903.7 | 96.8      |
| 0°-40°    | 1929.7 | 98.2      |
| 0°-60°    | 1953.5 | 99.4      |
| 0°-90°    | 1966.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1966.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 26786 | 26786 | 26786 | 26786 | 26786 |      |
| 5°  | 17428 | 17249 | 17202 | 17321 | 17338 | 1273 |
| 15° | 1514  | 1542  | 1543  | 1516  | 1496  | 519  |
| 25° | 178   | 202   | 227   | 201   | 180   | 93   |
| 35° | 35    | 37    | 40    | 37    | 34    | 24   |
| 45° | 17    | 17    | 18    | 17    | 17    | 13   |
| 55° | 11    | 11    | 11    | 11    | 11    | 10   |
| 65° | 7     | 7     | 7     | 7     | 7     | 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°    | 26786.2 | 26786.2 | 26786.2 | 26786.2 | 26786.2 |
| 2.5°  | 24162.3 | 24182.7 | 24190.6 | 24214.4 | 24302.9 |
| 5°    | 17427.7 | 17248.6 | 17202.1 | 17321.1 | 17338.1 |
| 7.5°  | 10323.5 | 10359.8 | 10492.5 | 10521.9 | 10415.4 |
| 10°   | 5665.2  | 5711.7  | 5704.9  | 5745.7  | 5792.2  |
| 12.5° | 2897.2  | 2861.0  | 2849.6  | 2896.1  | 2831.5  |
| 15°   | 1513.8  | 1542.2  | 1543.3  | 1516.1  | 1495.7  |
| 17.5° | 814.2   | 847.1   | 901.5   | 857.3   | 789.2   |
| 20°   | 480.8   | 510.3   | 556.8   | 520.5   | 491.0   |
| 22.5° | 297.1   | 320.9   | 353.8   | 325.4   | 301.6   |
| 25°   | 178.0   | 201.8   | 226.8   | 200.7   | 180.3   |
| 27.5° | 105.5   | 125.9   | 141.7   | 124.7   | 104.3   |
| 30°   | 68.0    | 79.4    | 89.6    | 78.2    | 69.2    |
| 32.5° | 47.6    | 52.2    | 56.7    | 52.2    | 47.6    |
| 35°   | 35.2    | 37.4    | 39.7    | 37.4    | 34.0    |
| 37.5° | 27.2    | 29.5    | 30.6    | 28.3    | 26.1    |
| 40°   | 22.7    | 23.8    | 24.9    | 23.8    | 22.7    |
| 42.5° | 19.3    | 20.4    | 20.4    | 20.4    | 19.3    |
| 45°   | 17.0    | 17.0    | 18.1    | 17.0    | 17.0    |
| 47.5° | 14.7    | 14.7    | 15.9    | 14.7    | 14.7    |
| 50°   | 13.6    | 13.6    | 13.6    | 13.6    | 13.6    |
| 52.5° | 12.5    | 12.5    | 12.5    | 12.5    | 12.5    |
| 55°   | 11.3    | 11.3    | 11.3    | 11.3    | 11.3    |
| 57.5° | 10.2    | 10.2    | 10.2    | 10.2    | 10.2    |
| 60°   | 9.1     | 9.1     | 9.1     | 9.1     | 9.1     |
| 62.5° | 7.9     | 7.9     | 7.9     | 7.9     | 7.9     |
| 65°   | 6.8     | 6.8     | 6.8     | 6.8     | 6.8     |
| 67.5° | 6.8     | 6.8     | 6.8     | 6.8     | 6.8     |
| 70°   | 5.7     | 5.7     | 5.7     | 5.7     | 5.7     |
| 72.5° | 4.5     | 4.5     | 4.5     | 4.5     | 4.5     |
| 75°   | 3.4     | 3.4     | 3.4     | 3.4     | 4.5     |
| 77.5° | 3.4     | 3.4     | 3.4     | 3.4     | 3.4     |
| 80°   | 2.3     | 2.3     | 2.3     | 2.3     | 2.3     |
| 82.5° | 2.3     | 2.3     | 2.3     | 2.3     | 2.3     |
| 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     |

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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Scaled Data Report







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

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Scaled Data Report



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