

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: P744097

Luminaire Tested: LD4D20D010-EU4DR3020359024-4LBDP1H

Issue Date: 1/30/2024

Test Information

Test Method: LM-79-2019
Report Number: P744097
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: LD4D20D010-EU4DR3020359024-4LBDP1H
Description: 4 INCH ROUND DEEP 45° CUTOFF SEMI-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: 1571.0 lumens
Efficiency: N/A
Efficacy: 68.0 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): 23.1
Input Voltage (V): NR
Input Current (A_{in}): 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

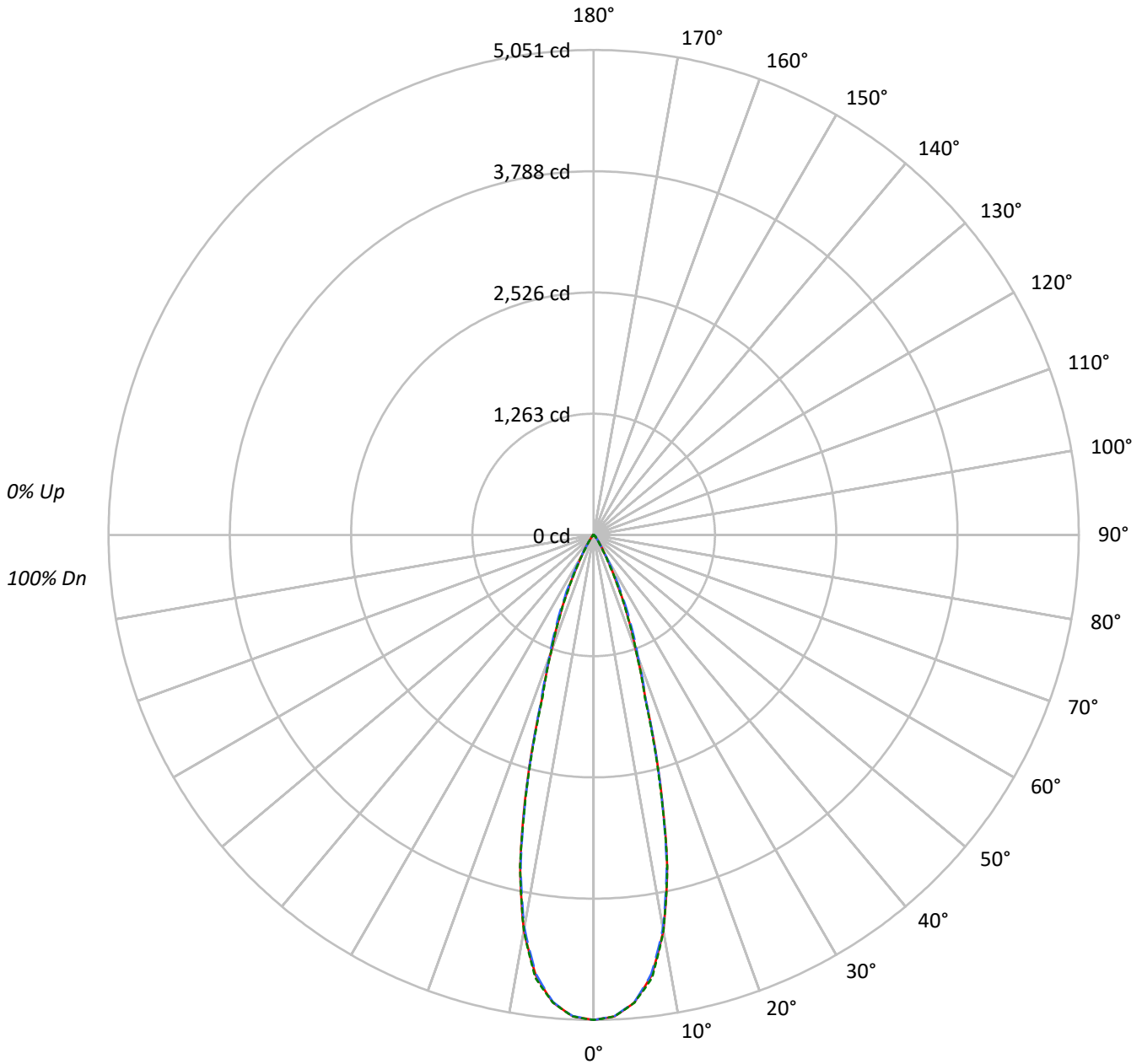


Downlight



TEST NUMBER: P744097
CATALOG NUMBER: LD4D20D010-EU4DR3020359024-4LBDP1H

Luminous Intensity Polar Plot





TEST NUMBER: P744097

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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 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | | 100 | | | | | | | | | | | | | |
| 1 | 115 | 113 | 111 | 109 | 112 | 110 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 99 | 99 | 98 | 96 | | | | | | 96 | | | | | | | | | | | | | |
| 2 | 111 | 107 | 104 | 101 | 109 | 105 | 102 | 100 | 102 | 100 | 98 | 99 | 97 | 96 | 97 | 95 | 94 | 92 | | | | | | 92 | | | | | | | | | | | | | |
| 3 | 107 | 102 | 98 | 95 | 105 | 101 | 97 | 94 | 98 | 95 | 93 | 96 | 93 | 91 | 94 | 92 | 90 | 89 | | | | | | 89 | | | | | | | | | | | | | |
| 4 | 103 | 98 | 93 | 90 | 102 | 96 | 93 | 90 | 94 | 91 | 89 | 93 | 90 | 88 | 91 | 89 | 87 | 85 | | | | | | 85 | | | | | | | | | | | | | |
| 5 | 100 | 94 | 89 | 86 | 98 | 93 | 89 | 86 | 91 | 88 | 85 | 90 | 86 | 84 | 88 | 86 | 83 | 82 | | | | | | 82 | | | | | | | | | | | | | |
| 6 | 97 | 90 | 85 | 82 | 95 | 89 | 85 | 82 | 88 | 84 | 81 | 87 | 83 | 81 | 85 | 83 | 80 | 79 | | | | | | 79 | | | | | | | | | | | | | |
| 7 | 94 | 87 | 82 | 79 | 92 | 86 | 82 | 79 | 85 | 81 | 78 | 84 | 81 | 78 | 83 | 80 | 78 | 77 | | | | | | 77 | | | | | | | | | | | | | |
| 8 | 91 | 84 | 79 | 76 | 90 | 83 | 79 | 76 | 82 | 78 | 76 | 81 | 78 | 75 | 80 | 77 | 75 | 74 | | | | | | 74 | | | | | | | | | | | | | |
| 9 | 88 | 81 | 76 | 73 | 87 | 80 | 76 | 73 | 80 | 76 | 73 | 79 | 75 | 73 | 78 | 75 | 73 | 72 | | | | | | 72 | | | | | | | | | | | | | |
| 10 | 85 | 78 | 74 | 71 | 85 | 78 | 74 | 71 | 77 | 73 | 71 | 76 | 73 | 71 | 76 | 73 | 70 | 69 | | | | | | 69 | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 386651 | 386651 | 386651 |
| 5° | 375558 | 375120 | 375573 |
| 10° | 325291 | 322991 | 325206 |
| 15° | 212238 | 211097 | 210035 |
| 20° | 105534 | 109493 | 105387 |
| 25° | 53157 | 59947 | 52076 |
| 30° | 21283 | 23192 | 18543 |
| 35° | 9877 | 9456 | 7924 |
| 40° | 4267 | 4736 | 4017 |
| 45° | 3009 | 3735 | 3031 |
| 50° | 1036 | 2715 | 1096 |
| 55° | 601 | 1121 | 627 |
| 60° | 429 | 490 | 429 |
| 65° | 272 | 272 | 272 |
| 70° | 157 | 112 | 157 |
| 75° | 0 | 59 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 3735 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 444.2 | 28.3 |
| 10°-20° | 715.4 | 45.5 |
| 20°-30° | 309.1 | 19.7 |
| 30°-40° | 70.5 | 4.5 |
| 40°-50° | 24.2 | 1.5 |
| 50°-60° | 5.9 | 0.4 |
| 60°-70° | 1.5 | 0.1 |
| 70°-80° | 0.1 | 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° | 1468.7 | 93.5 |
| 0°-40° | 1539.2 | 98.0 |
| 0°-60° | 1569.3 | 99.9 |
| 0°-90° | 1571.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1571.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 5051 | 5051 | 5051 | 5051 | 5051 | |
| 5° | 4888 | 4883 | 4882 | 4892 | 4888 | 445 |
| 15° | 2678 | 2646 | 2664 | 2655 | 2650 | 717 |
| 25° | 629 | 653 | 710 | 637 | 617 | 301 |
| 35° | 106 | 108 | 101 | 100 | 85 | 72 |
| 45° | 28 | 34 | 34 | 34 | 28 | 20 |
| 55° | 4 | 5 | 8 | 5 | 5 | 4 |
| 65° | 2 | 2 | 2 | 2 | 2 | 1 |
| 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° | 5051.4 | 5051.4 | 5051.4 | 5051.4 | 5051.4 |
| 2.5° | 5018.0 | 5014.5 | 5016.5 | 5018.9 | 5020.0 |
| 5° | 4887.8 | 4883.0 | 4882.1 | 4892.2 | 4888.0 |
| 7.5° | 4625.1 | 4618.4 | 4608.2 | 4631.3 | 4652.9 |
| 10° | 4185.2 | 4177.7 | 4155.6 | 4166.6 | 4184.1 |
| 12.5° | 3535.6 | 3511.6 | 3511.0 | 3545.8 | 3541.1 |
| 15° | 2678.3 | 2646.0 | 2663.9 | 2655.2 | 2650.5 |
| 17.5° | 1801.0 | 1788.6 | 1812.5 | 1805.3 | 1774.3 |
| 20° | 1295.6 | 1298.8 | 1344.2 | 1321.4 | 1293.8 |
| 22.5° | 945.4 | 957.1 | 1010.9 | 952.1 | 930.5 |
| 25° | 629.4 | 653.3 | 709.8 | 636.7 | 616.6 |
| 27.5° | 387.1 | 398.0 | 455.3 | 382.2 | 371.3 |
| 30° | 240.8 | 235.4 | 262.4 | 225.2 | 209.8 |
| 32.5° | 158.0 | 151.0 | 159.7 | 143.4 | 131.0 |
| 35° | 105.7 | 107.9 | 101.2 | 100.4 | 84.8 |
| 37.5° | 65.9 | 75.9 | 67.0 | 71.4 | 54.5 |
| 40° | 42.7 | 55.1 | 47.4 | 52.3 | 40.2 |
| 42.5° | 34.9 | 42.4 | 39.0 | 41.4 | 35.7 |
| 45° | 27.8 | 34.5 | 34.5 | 34.5 | 28.0 |
| 47.5° | 15.4 | 23.1 | 29.5 | 23.5 | 16.4 |
| 50° | 8.7 | 11.6 | 22.8 | 12.1 | 9.2 |
| 52.5° | 6.0 | 6.7 | 15.6 | 6.9 | 6.2 |
| 55° | 4.5 | 4.7 | 8.4 | 5.0 | 4.7 |
| 57.5° | 3.5 | 3.7 | 4.5 | 3.7 | 3.5 |
| 60° | 2.8 | 2.8 | 3.2 | 3.0 | 2.8 |
| 62.5° | 2.0 | 2.0 | 2.2 | 2.0 | 2.0 |
| 65° | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| 67.5° | 0.7 | 1.0 | 1.0 | 1.0 | 1.0 |
| 70° | 0.7 | 0.5 | 0.5 | 0.5 | 0.7 |
| 72.5° | 0.5 | 0.2 | 0.2 | 0.2 | 0.2 |
| 75° | 0.0 | 0.0 | 0.2 | 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 |

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

Scaled Data Report



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Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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