

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: P744093

Luminaire Tested: LD4D20D010-EU4DR3020359024-4LBCSSQMB

Issue Date: 1/30/2024

Test Information

Test Method: LM-79-2019
Report Number: P744093
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-EU4DR3020359024-4LBCSSQMB
Description: 4 INCH SQAURE SHALLOW CAST MATTE BLACK TRIM, WITH 30° OPTIC
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1434.6 lumens
Efficiency: N/A
Efficacy: 62.1 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 (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

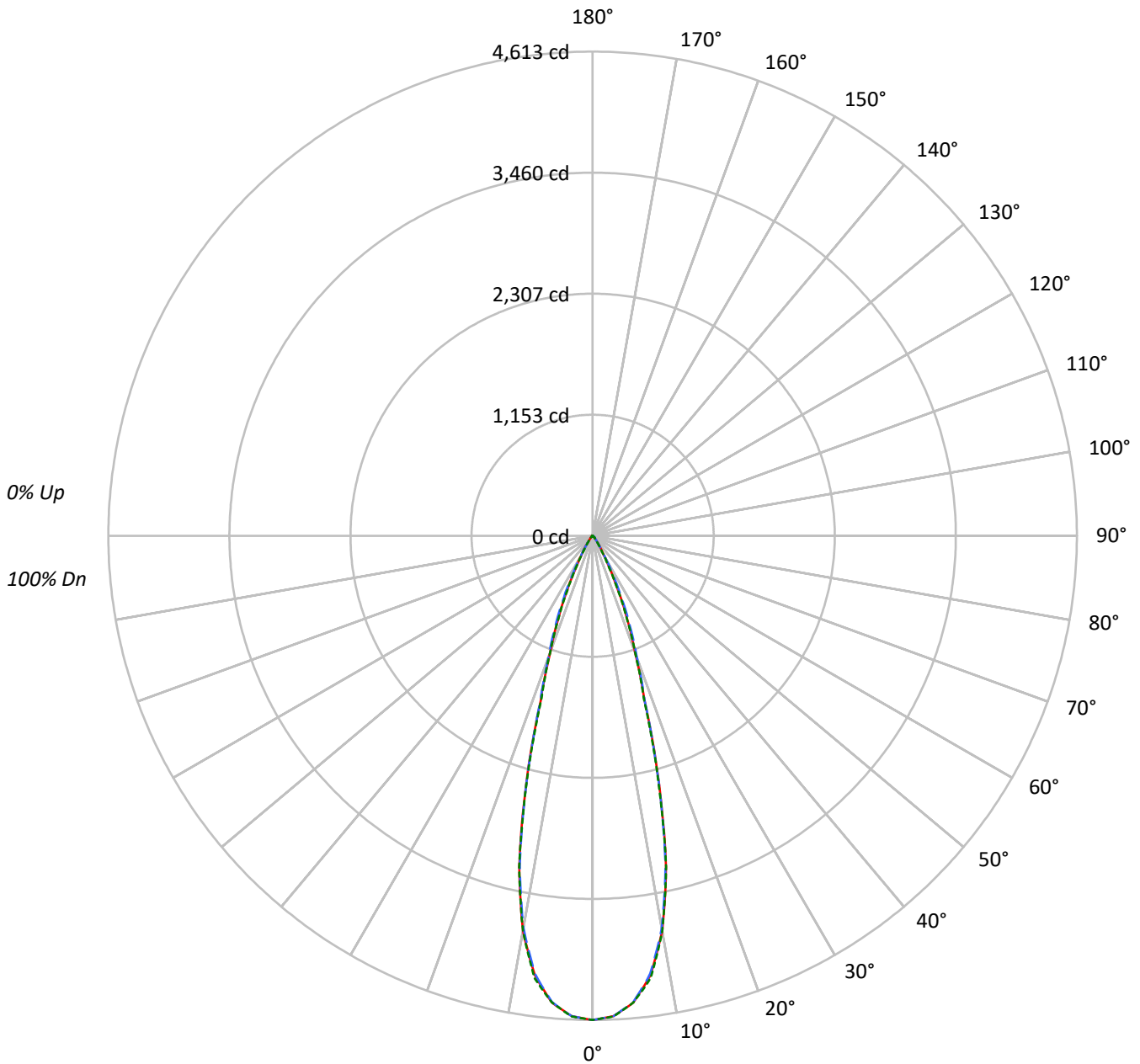


Downlight



TEST NUMBER: P744093
CATALOG NUMBER: LD4D20D010-EU4DR3020359024-4LBCSSQMB

Luminous Intensity Polar Plot





TEST NUMBER: P744093

CATALOG NUMBER: LD4D20D010-EU4DR3020359024-4LBCSSQMB

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 353087 | 353087 | 353087 |
| 5° | 342957 | 342549 | 342972 |
| 10° | 297046 | 294956 | 296976 |
| 15° | 193814 | 192768 | 191801 |
| 20° | 96370 | 99987 | 96240 |
| 25° | 48545 | 54745 | 47549 |
| 30° | 19436 | 21177 | 16935 |
| 35° | 9017 | 8634 | 7242 |
| 40° | 3897 | 4327 | 3667 |
| 45° | 2750 | 3410 | 2771 |
| 50° | 941 | 2489 | 1000 |
| 55° | 547 | 1028 | 574 |
| 60° | 383 | 444 | 383 |
| 65° | 254 | 254 | 254 |
| 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: 3410 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 405.6 | 28.3 |
| 10°-20° | 653.3 | 45.5 |
| 20°-30° | 282.3 | 19.7 |
| 30°-40° | 64.3 | 4.5 |
| 40°-50° | 22.1 | 1.5 |
| 50°-60° | 5.4 | 0.4 |
| 60°-70° | 1.4 | 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° | 1341.2 | 93.5 |
| 0°-40° | 1405.6 | 98.0 |
| 0°-60° | 1433.1 | 99.9 |
| 0°-90° | 1434.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1434.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 4613 | 4613 | 4613 | 4613 | 4613 | |
| 5° | 4464 | 4459 | 4458 | 4468 | 4464 | 406 |
| 15° | 2446 | 2416 | 2433 | 2425 | 2420 | 655 |
| 25° | 575 | 597 | 648 | 581 | 563 | 275 |
| 35° | 96 | 98 | 92 | 92 | 78 | 65 |
| 45° | 25 | 32 | 32 | 32 | 26 | 18 |
| 55° | 4 | 4 | 8 | 4 | 4 | 4 |
| 65° | 1 | 1 | 1 | 1 | 1 | 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° | 4612.9 | 4612.9 | 4612.9 | 4612.9 | 4612.9 |
| 2.5° | 4582.3 | 4579.1 | 4581.0 | 4583.3 | 4584.1 |
| 5° | 4463.5 | 4459.1 | 4458.2 | 4467.5 | 4463.7 |
| 7.5° | 4223.6 | 4217.5 | 4208.2 | 4229.2 | 4248.9 |
| 10° | 3821.8 | 3815.1 | 3794.9 | 3804.9 | 3820.9 |
| 12.5° | 3228.7 | 3206.7 | 3206.2 | 3238.0 | 3233.7 |
| 15° | 2445.8 | 2416.3 | 2432.6 | 2424.7 | 2420.4 |
| 17.5° | 1644.7 | 1633.4 | 1655.1 | 1648.6 | 1620.2 |
| 20° | 1183.1 | 1186.1 | 1227.5 | 1206.7 | 1181.5 |
| 22.5° | 863.3 | 874.0 | 923.1 | 869.5 | 849.7 |
| 25° | 574.8 | 596.6 | 648.2 | 581.4 | 563.0 |
| 27.5° | 353.5 | 363.5 | 415.8 | 349.0 | 339.0 |
| 30° | 219.9 | 214.9 | 239.6 | 205.6 | 191.6 |
| 32.5° | 144.3 | 137.9 | 145.9 | 130.9 | 119.6 |
| 35° | 96.5 | 98.5 | 92.4 | 91.7 | 77.5 |
| 37.5° | 60.2 | 69.3 | 61.1 | 65.2 | 49.8 |
| 40° | 39.0 | 50.3 | 43.3 | 47.8 | 36.7 |
| 42.5° | 31.9 | 38.7 | 35.6 | 37.8 | 32.6 |
| 45° | 25.4 | 31.5 | 31.5 | 31.5 | 25.6 |
| 47.5° | 14.0 | 21.1 | 26.9 | 21.5 | 15.0 |
| 50° | 7.9 | 10.7 | 20.9 | 11.1 | 8.4 |
| 52.5° | 5.4 | 6.1 | 14.3 | 6.4 | 5.7 |
| 55° | 4.1 | 4.3 | 7.7 | 4.5 | 4.3 |
| 57.5° | 3.2 | 3.4 | 4.1 | 3.4 | 3.2 |
| 60° | 2.5 | 2.5 | 2.9 | 2.7 | 2.5 |
| 62.5° | 1.8 | 1.8 | 2.1 | 1.8 | 1.8 |
| 65° | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 67.5° | 0.7 | 0.9 | 0.9 | 0.9 | 0.9 |
| 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



Report Generated By 670245859 / DESKTOP-T8S5UU9

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Scaled Data Report





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

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