

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: P744128

Luminaire Tested: LD4D20D010-EU4DR3020359030-4LBS1LI

Issue Date: 1/30/2024

Test Information

Test Method: LM-79-2019
Report Number: P744128
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-EU4DR3020359030-4LBS1LI
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: 1990.2 lumens
Efficiency: N/A
Efficacy: 86.2 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

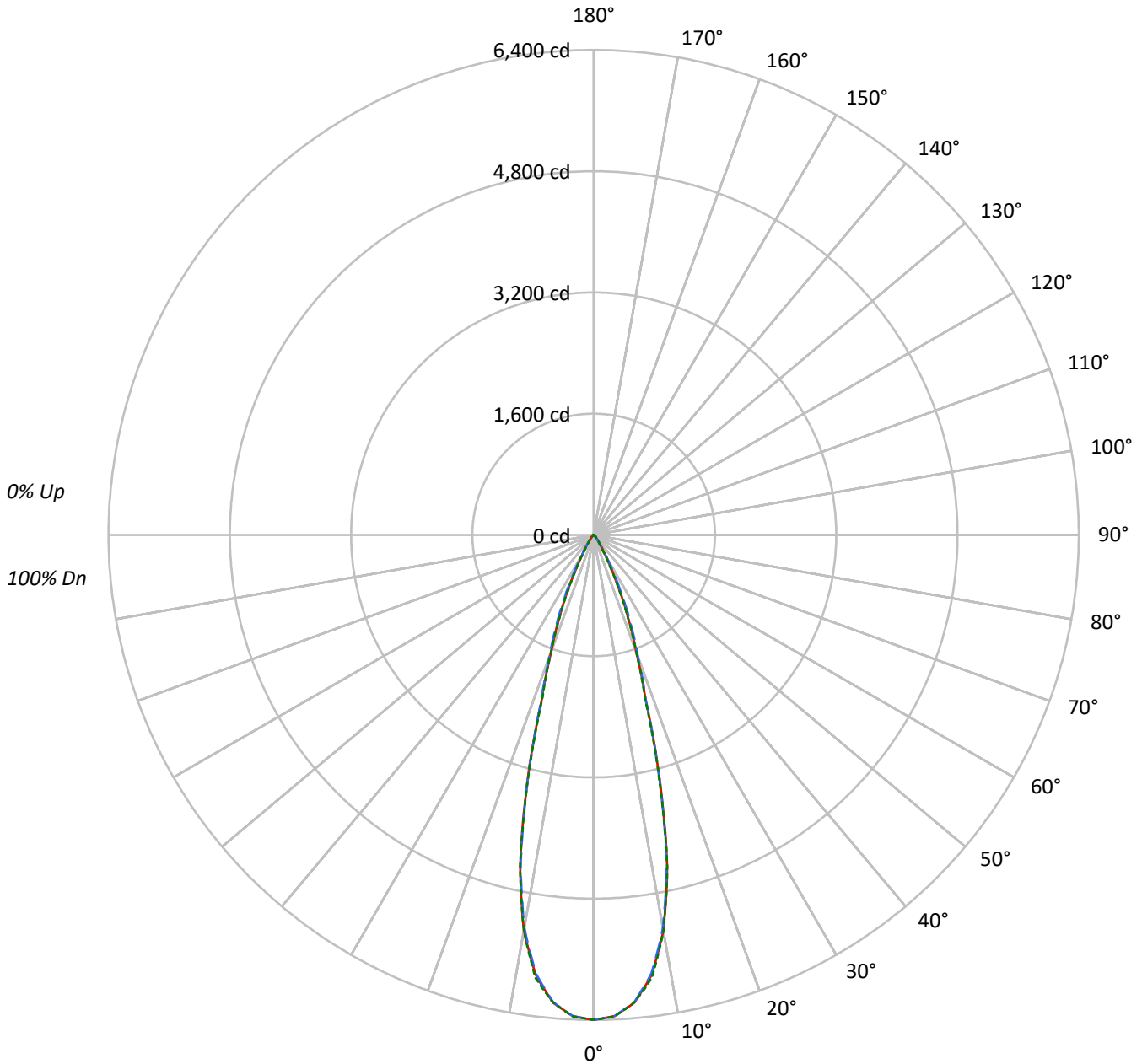


Downlight



TEST NUMBER: P744128
CATALOG NUMBER: LD4D20D010-EU4DR3020359030-4LBS1LI

Luminous Intensity Polar Plot





TEST NUMBER: P744128

CATALOG NUMBER: LD4D20D010-EU4DR3020359030-4LBS1LI

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° | 489847 | 489847 | 489847 |
| 5° | 475783 | 475222 | 475806 |
| 10° | 412101 | 409195 | 412000 |
| 15° | 268873 | 267431 | 266084 |
| 20° | 133702 | 138711 | 133522 |
| 25° | 67345 | 75943 | 65969 |
| 30° | 26966 | 29379 | 23493 |
| 35° | 12503 | 11979 | 10036 |
| 40° | 5396 | 5995 | 5086 |
| 45° | 3810 | 4730 | 3843 |
| 50° | 1310 | 3441 | 1381 |
| 55° | 761 | 1428 | 801 |
| 60° | 520 | 628 | 520 |
| 65° | 344 | 344 | 344 |
| 70° | 201 | 134 | 201 |
| 75° | 0 | 89 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 4730 cd/sqm



TEST NUMBER: P744128

CATALOG NUMBER: LD4D20D010-EU4DR3020359030-4LBS1LI

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 562.7 | 28.3 |
| 10°-20° | 906.3 | 45.5 |
| 20°-30° | 391.6 | 19.7 |
| 30°-40° | 89.3 | 4.5 |
| 40°-50° | 30.7 | 1.5 |
| 50°-60° | 7.5 | 0.4 |
| 60°-70° | 1.9 | 0.1 |
| 70°-80° | 0.2 | 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° | 1860.7 | 93.5 |
| 0°-40° | 1949.9 | 98.0 |
| 0°-60° | 1988.1 | 99.9 |
| 0°-90° | 1990.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1990.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 6400 | 6400 | 6400 | 6400 | 6400 | |
| 5° | 6192 | 6186 | 6185 | 6198 | 6192 | 563 |
| 15° | 3393 | 3352 | 3375 | 3364 | 3358 | 909 |
| 25° | 797 | 828 | 899 | 806 | 781 | 382 |
| 35° | 134 | 137 | 128 | 127 | 107 | 91 |
| 45° | 35 | 44 | 44 | 44 | 36 | 25 |
| 55° | 6 | 6 | 11 | 6 | 6 | 6 |
| 65° | 2 | 2 | 2 | 2 | 2 | 2 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P744128

CATALOG NUMBER: LD4D20D010-EU4DR3020359030-4LBS1LI

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 6399.6 | 6399.6 | 6399.6 | 6399.6 | 6399.6 |
| 2.5° | 6357.1 | 6352.8 | 6355.2 | 6358.4 | 6359.6 |
| 5° | 6192.2 | 6186.2 | 6184.9 | 6197.8 | 6192.5 |
| 7.5° | 5859.5 | 5851.0 | 5838.1 | 5867.3 | 5894.6 |
| 10° | 5302.1 | 5292.6 | 5264.7 | 5278.5 | 5300.8 |
| 12.5° | 4479.2 | 4448.7 | 4448.1 | 4492.0 | 4486.1 |
| 15° | 3393.0 | 3352.2 | 3374.8 | 3363.8 | 3357.8 |
| 17.5° | 2281.7 | 2266.0 | 2296.2 | 2287.0 | 2247.7 |
| 20° | 1641.4 | 1645.5 | 1702.9 | 1674.0 | 1639.2 |
| 22.5° | 1197.7 | 1212.5 | 1280.7 | 1206.2 | 1178.8 |
| 25° | 797.4 | 827.6 | 899.2 | 806.5 | 781.1 |
| 27.5° | 490.4 | 504.3 | 576.8 | 484.2 | 470.3 |
| 30° | 305.1 | 298.2 | 332.4 | 285.3 | 265.8 |
| 32.5° | 200.1 | 191.4 | 202.4 | 181.6 | 165.9 |
| 35° | 133.8 | 136.6 | 128.2 | 127.3 | 107.4 |
| 37.5° | 83.6 | 96.1 | 84.9 | 90.5 | 69.1 |
| 40° | 54.0 | 69.7 | 60.0 | 66.3 | 50.9 |
| 42.5° | 44.3 | 53.7 | 49.3 | 52.5 | 45.3 |
| 45° | 35.2 | 43.7 | 43.7 | 43.7 | 35.5 |
| 47.5° | 19.5 | 29.2 | 37.4 | 29.9 | 20.7 |
| 50° | 11.0 | 14.8 | 28.9 | 15.4 | 11.6 |
| 52.5° | 7.6 | 8.5 | 19.8 | 8.8 | 7.8 |
| 55° | 5.7 | 6.0 | 10.7 | 6.3 | 6.0 |
| 57.5° | 4.4 | 4.7 | 5.7 | 4.7 | 4.4 |
| 60° | 3.4 | 3.4 | 4.1 | 3.8 | 3.4 |
| 62.5° | 2.5 | 2.5 | 2.8 | 2.5 | 2.5 |
| 65° | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| 67.5° | 0.9 | 1.3 | 1.3 | 1.3 | 1.3 |
| 70° | 0.9 | 0.6 | 0.6 | 0.6 | 0.9 |
| 72.5° | 0.6 | 0.3 | 0.3 | 0.3 | 0.3 |
| 75° | 0.0 | 0.0 | 0.3 | 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

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°

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

Scaled Data Report



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

Scaled Data Report



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

Scaled Data Report



(END OF REPORT)