

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: PrentaLux

Report Number: P979942

Luminaire Tested: PRLX-242-927-LL5-F-U-S-BLAK-X

Issue Date: 4/3/2025

Test Information

Test Method: LM-79-2024
Report Number: P979942
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2502-353-27)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/3/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: PrentaLux
Catalog Number: PRLX-242-927-LL5-F-U-S-BLAK-X
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, BLACK 242 SHADE WITH FROSTED LENS
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

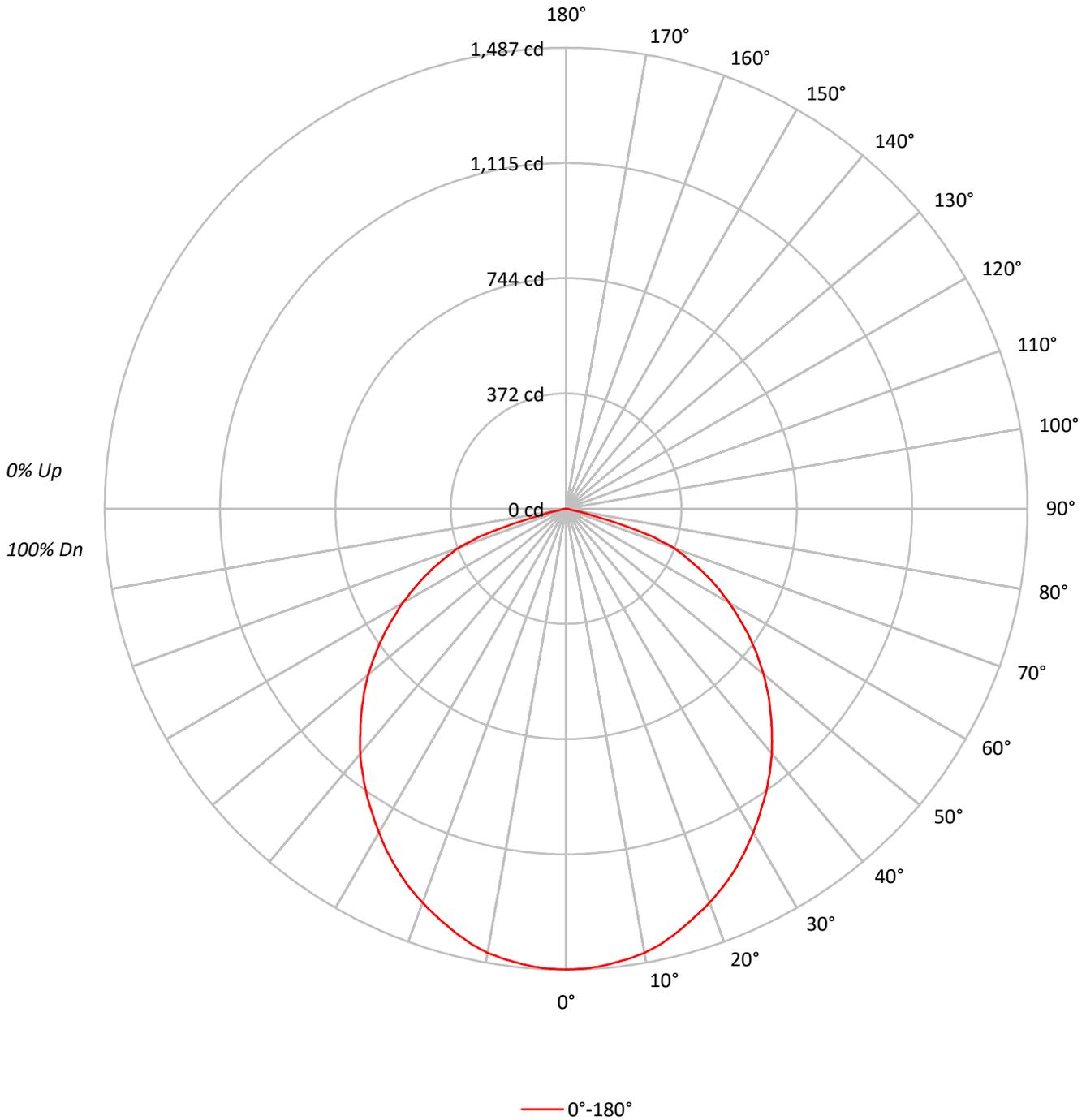
Lumens per Lamp: N/A
Luminaire Lumens: 3828.2 lumens
Efficiency: N/A
Efficacy: 129.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Circular (Dia: 1.75' x H: 0')
CIE Type: Direct

Input Watts (W): 29.5
Input Voltage (V): 120
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



TEST NUMBER: P979942
CATALOG NUMBER: PRLX-242-927-LL5-F-U-S-BLAK-X

Luminous Intensity Polar Plot





TEST NUMBER: P979942

CATALOG NUMBER: PRLX-242-927-LL5-F-U-S-BLAK-X

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 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 | 110 | 106 | 102 | 98 | 107 | 103 | 100 | 97 | 99 | 96 | 94 | 95 | 93 | 91 | 92 | 90 | 88 | 86 |
| 2 | 100 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 83 | 78 | 84 | 80 | 77 | 81 | 78 | 75 | 73 |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 75 | 69 | 65 | 72 | 68 | 64 | 62 |
| 4 | 84 | 73 | 64 | 58 | 82 | 71 | 63 | 57 | 69 | 62 | 57 | 67 | 61 | 56 | 64 | 59 | 55 | 53 |
| 5 | 77 | 65 | 56 | 50 | 75 | 64 | 56 | 50 | 62 | 55 | 49 | 60 | 53 | 48 | 58 | 52 | 48 | 46 |
| 6 | 72 | 59 | 50 | 44 | 70 | 58 | 49 | 43 | 56 | 48 | 43 | 54 | 48 | 43 | 53 | 47 | 42 | 40 |
| 7 | 66 | 53 | 44 | 38 | 65 | 52 | 44 | 38 | 51 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 37 | 36 |
| 8 | 62 | 48 | 40 | 34 | 60 | 48 | 40 | 34 | 46 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 |
| 9 | 58 | 44 | 36 | 31 | 56 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 30 | 29 |
| 10 | 54 | 41 | 33 | 28 | 53 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 28 | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|------|
| | 0° |
| 0° | 6653 |
| 5° | 6639 |
| 10° | 6613 |
| 15° | 6528 |
| 20° | 6442 |
| 25° | 6351 |
| 30° | 6232 |
| 35° | 6131 |
| 40° | 6029 |
| 45° | 5905 |
| 50° | 5790 |
| 55° | 5628 |
| 60° | 5436 |
| 65° | 5185 |
| 70° | 4802 |
| 75° | 1885 |
| 80° | 0 |
| 85° | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5905 cd/sqm

TEST NUMBER: P979942

CATALOG NUMBER: PRLX-242-927-LL5-F-U-S-BLAK-X

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 140.4 | 3.7 |
| 10°-20° | 397.4 | 10.4 |
| 20°-30° | 592.1 | 15.5 |
| 30°-40° | 701.7 | 18.3 |
| 40°-50° | 720.0 | 18.8 |
| 50°-60° | 644.3 | 16.8 |
| 60°-70° | 483.3 | 12.6 |
| 70°-80° | 148.9 | 3.9 |
| 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° | 1129.9 | 29.5 |
| 0°-40° | 1831.7 | 47.8 |
| 0°-60° | 3196.0 | 83.5 |
| 0°-90° | 3828.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3828.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1487 | |
| 5° | 1478 | 140 |
| 15° | 1409 | 397 |
| 25° | 1286 | 592 |
| 35° | 1122 | 702 |
| 45° | 933 | 720 |
| 55° | 721 | 644 |
| 65° | 490 | 483 |
| 75° | 109 | 149 |
| 85° | 0 | 0 |
| 90° | 0 | |

TEST NUMBER: P979942

CATALOG NUMBER: PRLX-242-927-LL5-F-U-S-BLAK-X

CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 1486.6 |
| 2.5° | 1485.4 |
| 5° | 1477.8 |
| 7.5° | 1467.8 |
| 10° | 1455.3 |
| 12.5° | 1435.3 |
| 15° | 1409.0 |
| 17.5° | 1381.4 |
| 20° | 1352.6 |
| 22.5° | 1321.3 |
| 25° | 1286.2 |
| 27.5° | 1247.4 |
| 30° | 1206.1 |
| 32.5° | 1163.5 |
| 35° | 1122.2 |
| 37.5° | 1077.1 |
| 40° | 1032.0 |
| 42.5° | 981.9 |
| 45° | 933.0 |
| 47.5° | 882.9 |
| 50° | 831.6 |
| 52.5° | 776.5 |
| 55° | 721.4 |
| 57.5° | 663.8 |
| 60° | 607.4 |
| 62.5° | 548.6 |
| 65° | 489.7 |
| 67.5° | 428.3 |
| 70° | 367.0 |
| 72.5° | 271.8 |
| 75° | 109.0 |
| 77.5° | 5.0 |
| 80° | 0.0 |
| 82.5° | 0.0 |
| 85° | 0.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |



TEST NUMBER: P979942
 CATALOG NUMBER: PRLX-242-927-LL5-F-U-S-BLAK-X

CIE UGR TABLE:

| Reflectances: | | | | | | | | | | | |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X=2H | Y=2H | 18.34 | 19.93 | 18.70 | 20.24 | 20.56 | 18.34 | 19.93 | 18.70 | 20.24 | 20.56 |
| | 3H | 20.09 | 21.52 | 20.47 | 21.84 | 22.20 | 20.09 | 21.52 | 20.47 | 21.84 | 22.20 |
| | 4H | 20.29 | 21.63 | 20.68 | 21.97 | 22.35 | 20.29 | 21.63 | 20.68 | 21.97 | 22.35 |
| | 6H | 20.23 | 21.46 | 20.64 | 21.83 | 22.22 | 20.23 | 21.46 | 20.64 | 21.83 | 22.22 |
| | 8H | 20.19 | 21.37 | 20.62 | 21.76 | 22.16 | 20.19 | 21.37 | 20.62 | 21.76 | 22.16 |
| | 12H | 20.16 | 21.29 | 20.59 | 21.67 | 22.10 | 20.16 | 21.29 | 20.59 | 21.67 | 22.10 |
| 4H | 2H | 18.97 | 20.31 | 19.37 | 20.66 | 21.04 | 18.97 | 20.31 | 19.37 | 20.66 | 21.04 |
| | 3H | 20.89 | 22.00 | 21.30 | 22.40 | 22.80 | 20.89 | 22.00 | 21.30 | 22.40 | 22.80 |
| | 4H | 21.07 | 22.07 | 21.50 | 22.48 | 22.92 | 21.07 | 22.07 | 21.50 | 22.48 | 22.92 |
| | 6H | 21.02 | 21.88 | 21.48 | 22.32 | 22.78 | 21.02 | 21.88 | 21.48 | 22.32 | 22.78 |
| | 8H | 20.98 | 21.78 | 21.44 | 22.23 | 22.69 | 20.98 | 21.78 | 21.44 | 22.23 | 22.69 |
| | 12H | 20.96 | 21.67 | 21.44 | 22.15 | 22.62 | 20.96 | 21.67 | 21.44 | 22.15 | 22.62 |
| 8H | 4H | 21.11 | 21.91 | 21.57 | 22.35 | 22.82 | 21.11 | 21.91 | 21.57 | 22.35 | 22.82 |
| | 6H | 21.04 | 21.69 | 21.54 | 22.18 | 22.66 | 21.04 | 21.69 | 21.54 | 22.18 | 22.66 |
| | 8H | 21.00 | 21.58 | 21.51 | 22.09 | 22.58 | 21.00 | 21.58 | 21.51 | 22.09 | 22.58 |
| | 12H | 20.97 | 21.48 | 21.48 | 21.97 | 22.54 | 20.97 | 21.48 | 21.48 | 21.97 | 22.54 |
| 12H | 4H | 21.08 | 21.80 | 21.56 | 22.27 | 22.74 | 21.08 | 21.80 | 21.56 | 22.27 | 22.74 |
| | 6H | 20.99 | 21.58 | 21.51 | 22.09 | 22.58 | 20.99 | 21.58 | 21.51 | 22.09 | 22.58 |
| | 8H | 20.97 | 21.48 | 21.48 | 21.97 | 22.54 | 20.97 | 21.48 | 21.48 | 21.97 | 22.54 |