

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



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: PrentaLux

Report Number: P865596

Luminaire Tested: PRLX-2002-S-927-20L-G-U-S-X-X-BLAK-X

Issue Date: 8/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P865596
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 8/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: Prenalux
Catalog Number: PRLX-2002-S-927-20L-G-U-S-X-X-BLAK-X
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, SMALL LIGHT ENGINE, GLOBE LENS, TRUNCATED DOME WITH BLACK INTERIOR SHADE.
LIGHT LEVEL 4
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

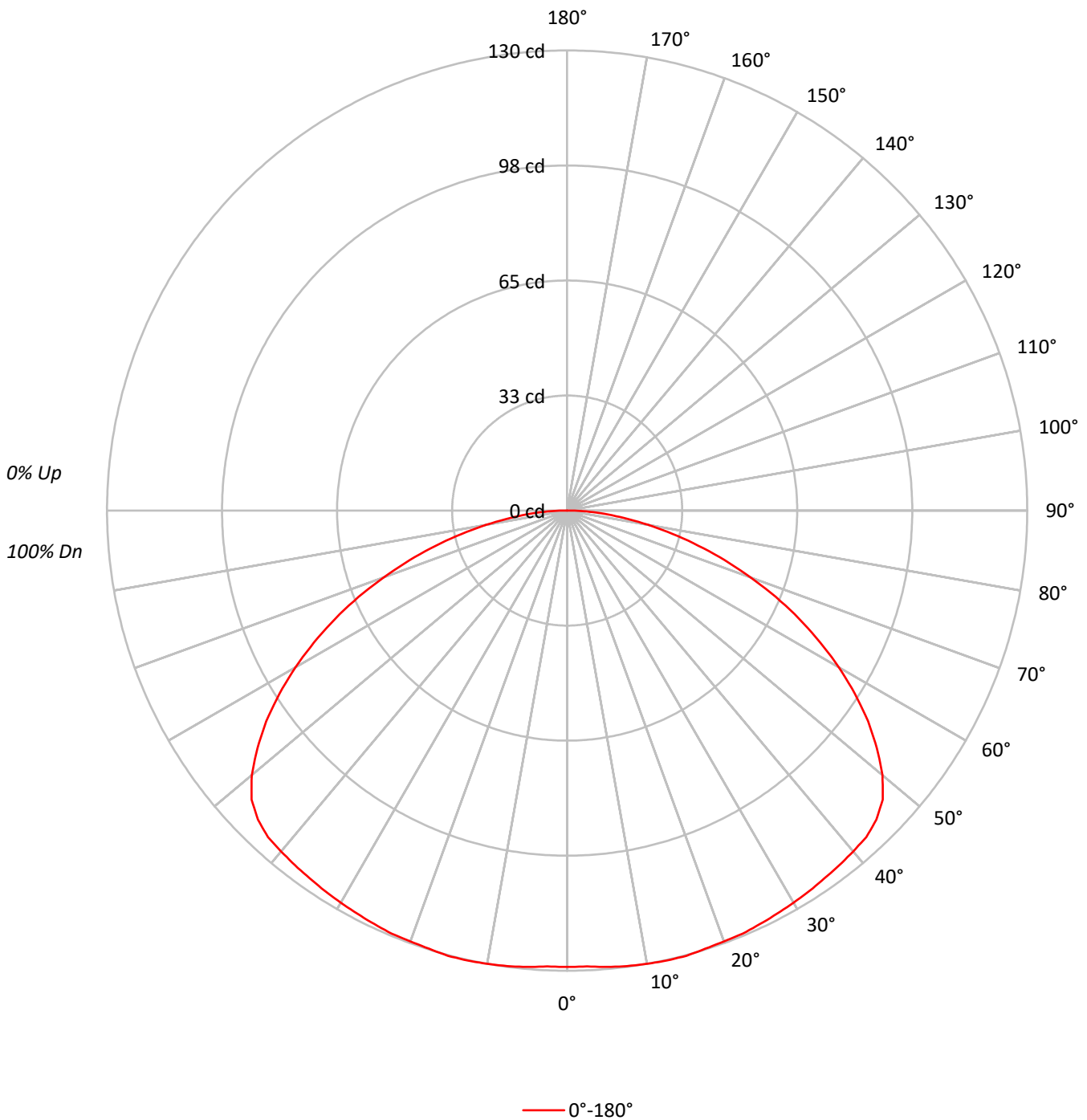
Lumens per Lamp: N/A
Luminaire Lumens: 499.8 lumens
Efficiency: N/A
Efficacy: 22.9 lumens/watt
Spacing Criteria (0/90/45): 1.51 / 1.51 / 1.65
Luminous Opening: Circular (Dia: 0.85' x H: 0')
CIE Type: Direct

Input Watts (W): 21.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: 0.333 HR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P865596

CATALOG NUMBER: PRLX-2002-S-927-20L-G-U-S-X-X-BLAK-X

Luminous Intensity Polar Plot





TEST NUMBER: P865596

CATALOG NUMBER: PRLX-2002-S-927-20L-G-U-S-X-X-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 | 108 | 103 | 98 | 94 | 105 | 100 | 96 | 92 | 96 | 93 | 89 | | 92 | 89 | 87 | | 89 | 86 | 84 | 82 |
| 2 | 97 | 88 | 81 | 75 | 95 | 87 | 80 | 74 | 83 | 77 | 72 | | 80 | 75 | 71 | | 77 | 73 | 69 | 67 |
| 3 | 88 | 77 | 68 | 61 | 86 | 75 | 67 | 61 | 72 | 65 | 59 | | 69 | 63 | 58 | | 67 | 62 | 57 | 55 |
| 4 | 80 | 67 | 58 | 51 | 78 | 66 | 57 | 51 | 63 | 56 | 50 | | 61 | 54 | 49 | | 59 | 53 | 48 | 46 |
| 5 | 73 | 60 | 50 | 43 | 71 | 59 | 50 | 43 | 56 | 48 | 42 | | 54 | 47 | 42 | | 52 | 46 | 41 | 39 |
| 6 | 67 | 53 | 44 | 37 | 65 | 52 | 43 | 37 | 50 | 42 | 37 | | 49 | 42 | 36 | | 47 | 41 | 36 | 34 |
| 7 | 62 | 48 | 39 | 32 | 60 | 47 | 38 | 32 | 46 | 38 | 32 | | 44 | 37 | 32 | | 43 | 36 | 31 | 29 |
| 8 | 58 | 43 | 35 | 28 | 56 | 43 | 34 | 28 | 41 | 34 | 28 | | 40 | 33 | 28 | | 39 | 33 | 28 | 26 |
| 9 | 54 | 40 | 31 | 25 | 52 | 39 | 31 | 25 | 38 | 30 | 25 | | 37 | 30 | 25 | | 36 | 29 | 25 | 23 |
| 10 | 50 | 36 | 28 | 23 | 49 | 36 | 28 | 23 | 35 | 28 | 23 | | 34 | 27 | 22 | | 33 | 27 | 22 | 21 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|------|
| | 0° |
| 0° | 2421 |
| 5° | 2440 |
| 10° | 2480 |
| 15° | 2532 |
| 20° | 2589 |
| 25° | 2672 |
| 30° | 2774 |
| 35° | 2908 |
| 40° | 3082 |
| 45° | 3281 |
| 50° | 3399 |
| 55° | 3399 |
| 60° | 3329 |
| 65° | 3214 |
| 70° | 3021 |
| 75° | 2787 |
| 80° | 2510 |
| 85° | 2241 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 52.5°
 Luminance: 3403 cd/sqm

TEST NUMBER: P865596

CATALOG NUMBER: PRLX-2002-S-927-20L-G-U-S-X-X-BLAK-X

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 12.4 | 2.5 |
| 10°-20° | 36.8 | 7.4 |
| 20°-30° | 59.6 | 11.9 |
| 30°-40° | 79.6 | 15.9 |
| 40°-50° | 94.9 | 19.0 |
| 50°-60° | 92.4 | 18.5 |
| 60°-70° | 71.4 | 14.3 |
| 70°-80° | 40.8 | 8.2 |
| 80°-90° | 11.9 | 2.4 |
| 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° | 108.8 | 21.8 |
| 0°-40° | 188.5 | 37.7 |
| 0°-60° | 375.7 | 75.2 |
| 0°-90° | 499.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 499.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 129 | |
| 5° | 129 | 12 |
| 15° | 130 | 37 |
| 25° | 129 | 60 |
| 35° | 127 | 80 |
| 45° | 124 | 95 |
| 55° | 104 | 92 |
| 65° | 72 | 71 |
| 75° | 38 | 41 |
| 85° | 10 | 12 |
| 90° | 0 | |

TEST NUMBER: P865596

CATALOG NUMBER: PRLX-2002-S-927-20L-G-U-S-X-X-BLAK-X

CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 128.9 |
| 2.5° | 128.9 |
| 5° | 129.4 |
| 7.5° | 129.8 |
| 10° | 130.0 |
| 12.5° | 130.2 |
| 15° | 130.2 |
| 17.5° | 129.8 |
| 20° | 129.5 |
| 22.5° | 129.4 |
| 25° | 128.9 |
| 27.5° | 128.4 |
| 30° | 127.9 |
| 32.5° | 127.4 |
| 35° | 126.8 |
| 37.5° | 126.3 |
| 40° | 125.7 |
| 42.5° | 125.1 |
| 45° | 123.5 |
| 47.5° | 120.9 |
| 50° | 116.3 |
| 52.5° | 110.3 |
| 55° | 103.8 |
| 57.5° | 96.4 |
| 60° | 88.6 |
| 62.5° | 80.6 |
| 65° | 72.3 |
| 67.5° | 63.8 |
| 70° | 55.0 |
| 72.5° | 46.7 |
| 75° | 38.4 |
| 77.5° | 30.5 |
| 80° | 23.2 |
| 82.5° | 16.3 |
| 85° | 10.4 |
| 87.5° | 5.4 |
| 90° | 0.0 |



TEST NUMBER: P865596
 CATALOG NUMBER: PRLX-2002-S-927-20L-G-U-S-X-X-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 | 16.81 | 18.54 | 17.18 | 18.86 | 19.17 | 16.81 | 18.54 | 17.18 | 18.86 | 19.17 |
| | 3H | 18.65 | 20.21 | 19.02 | 20.54 | 20.90 | 18.65 | 20.21 | 19.02 | 20.54 | 20.90 |
| | 4H | 19.32 | 20.80 | 19.72 | 21.15 | 21.52 | 19.32 | 20.80 | 19.72 | 21.15 | 21.52 |
| | 6H | 19.82 | 21.19 | 20.23 | 21.56 | 21.95 | 19.82 | 21.19 | 20.23 | 21.56 | 21.95 |
| | 8H | 19.98 | 21.30 | 20.40 | 21.69 | 22.08 | 19.98 | 21.30 | 20.40 | 21.69 | 22.08 |
| | 12H | 20.10 | 21.36 | 20.53 | 21.74 | 22.17 | 20.10 | 21.36 | 20.53 | 21.74 | 22.17 |
| 4H | 2H | 17.48 | 18.96 | 17.87 | 19.30 | 19.68 | 17.48 | 18.96 | 17.87 | 19.30 | 19.68 |
| | 3H | 19.52 | 20.77 | 19.93 | 21.17 | 21.56 | 19.52 | 20.77 | 19.93 | 21.17 | 21.56 |
| | 4H | 20.32 | 21.46 | 20.75 | 21.87 | 22.30 | 20.32 | 21.46 | 20.75 | 21.87 | 22.30 |
| | 6H | 20.95 | 21.94 | 21.40 | 22.38 | 22.83 | 20.95 | 21.94 | 21.40 | 22.38 | 22.83 |
| | 8H | 21.16 | 22.09 | 21.62 | 22.53 | 23.00 | 21.16 | 22.09 | 21.62 | 22.53 | 23.00 |
| | 12H | 21.33 | 22.17 | 21.81 | 22.64 | 23.11 | 21.33 | 22.17 | 21.81 | 22.64 | 23.11 |
| 8H | 4H | 20.65 | 21.58 | 21.11 | 22.02 | 22.48 | 20.65 | 21.58 | 21.11 | 22.02 | 22.48 |
| | 6H | 21.40 | 22.18 | 21.89 | 22.66 | 23.13 | 21.40 | 22.18 | 21.89 | 22.66 | 23.13 |
| | 8H | 21.69 | 22.38 | 22.19 | 22.89 | 23.37 | 21.69 | 22.38 | 22.19 | 22.89 | 23.37 |
| | 12H | 21.93 | 22.55 | 22.43 | 23.04 | 23.59 | 21.93 | 22.55 | 22.43 | 23.04 | 23.59 |
| 12H | 4H | 20.69 | 21.53 | 21.17 | 22.00 | 22.47 | 20.69 | 21.53 | 21.17 | 22.00 | 22.47 |
| | 6H | 21.46 | 22.16 | 21.96 | 22.66 | 23.15 | 21.46 | 22.16 | 21.96 | 22.66 | 23.15 |
| | 8H | 21.81 | 22.43 | 22.31 | 22.92 | 23.47 | 21.81 | 22.43 | 22.31 | 22.92 | 23.47 |