

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: P865683

Luminaire Tested: PRLX-2002-S-935-20L-L-U-S-X-X-WHHR-X

Issue Date: 8/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P865683
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-19)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 8/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: Pentalux
Catalog Number: PRLX-2002-S-935-20L-L-U-S-X-X-WHHR-X
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, SMALL LIGHT ENGINE, FLAT LENS, TRUNCATED DOME WITH WHITE INTERIOR SHADE.
LIGHT LEVEL 4
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

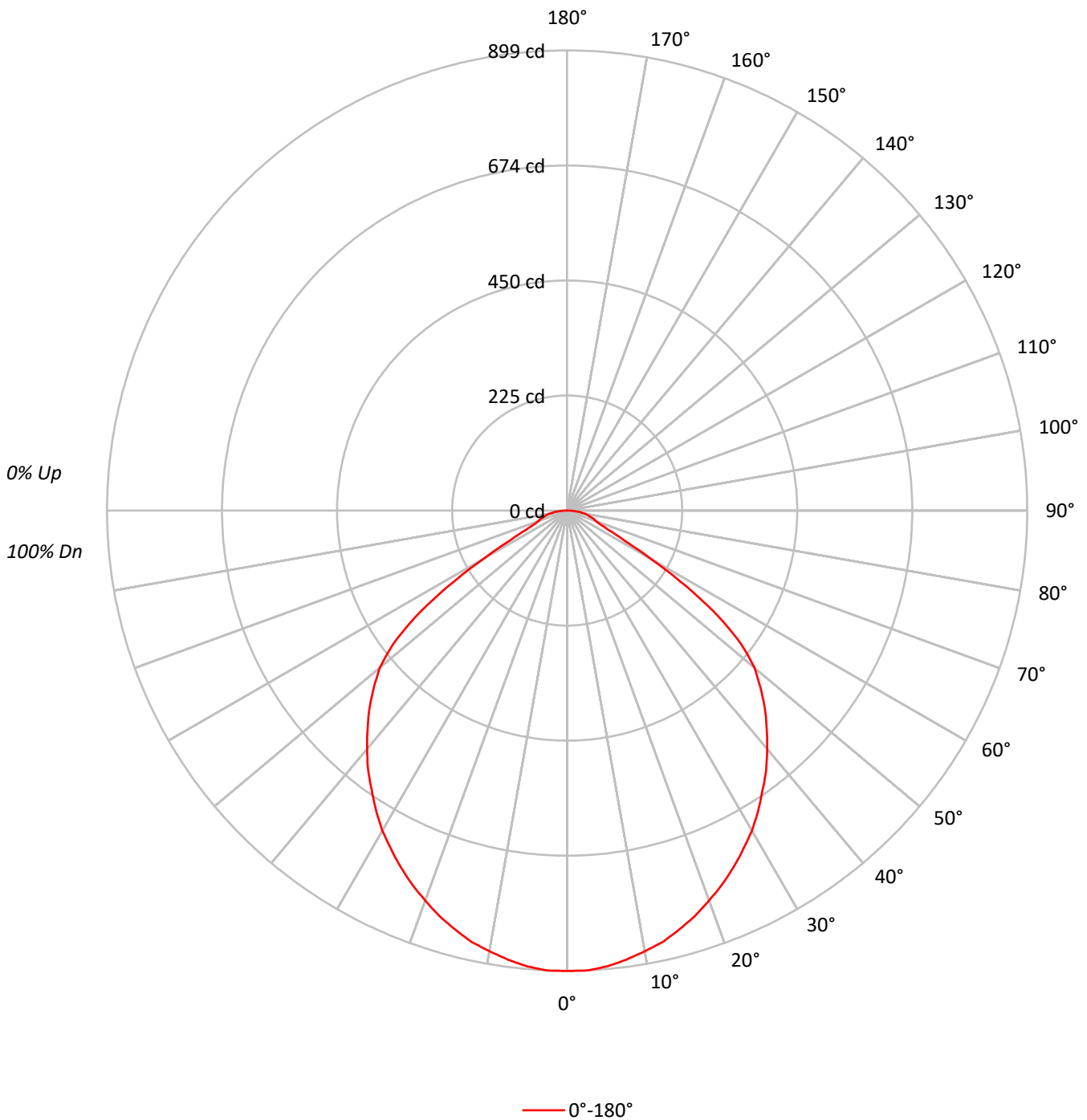
Lumens per Lamp: N/A
Luminaire Lumens: 1996.5 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31
Luminous Opening: Circular (Dia: 0.85' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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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 | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 98 | 95 | 96 | 94 | 92 | 93 | 91 | 90 | 88 |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 80 | 84 | 81 | 78 | 76 |
| 3 | 94 | 85 | 78 | 72 | 92 | 83 | 77 | 71 | 80 | 75 | 70 | 78 | 73 | 69 | 75 | 71 | 68 | 66 |
| 4 | 87 | 76 | 68 | 62 | 85 | 75 | 68 | 62 | 72 | 66 | 61 | 70 | 65 | 60 | 68 | 63 | 60 | 58 |
| 5 | 80 | 69 | 60 | 54 | 78 | 68 | 60 | 54 | 66 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 53 | 51 |
| 6 | 74 | 62 | 54 | 48 | 73 | 61 | 54 | 48 | 60 | 53 | 47 | 58 | 52 | 47 | 56 | 51 | 47 | 45 |
| 7 | 69 | 57 | 49 | 43 | 68 | 56 | 48 | 43 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 40 |
| 8 | 65 | 52 | 44 | 38 | 63 | 51 | 44 | 38 | 50 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 38 | 36 |
| 9 | 60 | 48 | 40 | 35 | 59 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 34 | 44 | 38 | 34 | 32 |
| 10 | 57 | 44 | 37 | 32 | 55 | 44 | 36 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 30 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 16893 |
| 5° | 16855 |
| 10° | 16671 |
| 15° | 16470 |
| 20° | 16206 |
| 25° | 15938 |
| 30° | 15660 |
| 35° | 15270 |
| 40° | 14909 |
| 45° | 14518 |
| 50° | 13960 |
| 55° | 11852 |
| 60° | 7070 |
| 65° | 3942 |
| 70° | 3279 |
| 75° | 3411 |
| 80° | 3721 |
| 85° | 3901 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14518 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 84.7 | 4.2 |
| 10°-20° | 238.8 | 12.0 |
| 20°-30° | 354.2 | 17.7 |
| 30°-40° | 417.1 | 20.9 |
| 40°-50° | 420.4 | 21.1 |
| 50°-60° | 311.6 | 15.6 |
| 60°-70° | 100.1 | 5.0 |
| 70°-80° | 50.1 | 2.5 |
| 80°-90° | 19.4 | 1.0 |
| 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° | 677.7 | 33.9 |
| 0°-40° | 1094.8 | 54.8 |
| 0°-60° | 1826.9 | 91.5 |
| 0°-90° | 1996.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1996.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 899 | |
| 5° | 894 | 85 |
| 15° | 847 | 239 |
| 25° | 769 | 354 |
| 35° | 666 | 417 |
| 45° | 546 | 420 |
| 55° | 362 | 312 |
| 65° | 89 | 100 |
| 75° | 47 | 50 |
| 85° | 18 | 19 |
| 90° | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 899.3 |
| 2.5° | 899.3 |
| 5° | 893.9 |
| 7.5° | 884.9 |
| 10° | 874.0 |
| 12.5° | 863.1 |
| 15° | 846.9 |
| 17.5° | 830.6 |
| 20° | 810.7 |
| 22.5° | 790.8 |
| 25° | 769.0 |
| 27.5° | 745.5 |
| 30° | 722.0 |
| 32.5° | 694.9 |
| 35° | 665.9 |
| 37.5° | 638.8 |
| 40° | 608.0 |
| 42.5° | 577.2 |
| 45° | 546.5 |
| 47.5° | 512.1 |
| 50° | 477.7 |
| 52.5° | 428.9 |
| 55° | 361.9 |
| 57.5° | 276.9 |
| 60° | 188.2 |
| 62.5° | 124.9 |
| 65° | 88.7 |
| 67.5° | 68.8 |
| 70° | 59.7 |
| 72.5° | 54.3 |
| 75° | 47.0 |
| 77.5° | 41.6 |
| 80° | 34.4 |
| 82.5° | 27.1 |
| 85° | 18.1 |
| 87.5° | 9.0 |
| 90° | 0.0 |



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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 | 19.51 | 21.00 | 19.88 | 21.32 | 21.63 | 19.51 | 21.00 | 19.88 | 21.32 | 21.63 |
| | 3H | 19.76 | 21.08 | 20.14 | 21.41 | 21.77 | 19.76 | 21.08 | 20.14 | 21.41 | 21.77 |
| | 4H | 19.92 | 21.15 | 20.32 | 21.50 | 21.88 | 19.92 | 21.15 | 20.32 | 21.50 | 21.88 |
| | 6H | 20.11 | 21.25 | 20.52 | 21.61 | 22.01 | 20.11 | 21.25 | 20.52 | 21.61 | 22.01 |
| | 8H | 20.20 | 21.28 | 20.62 | 21.67 | 22.07 | 20.20 | 21.28 | 20.62 | 21.67 | 22.07 |
| | 12H | 20.27 | 21.30 | 20.70 | 21.68 | 22.11 | 20.27 | 21.30 | 20.70 | 21.68 | 22.11 |
| 4H | 2H | 19.51 | 20.75 | 19.91 | 21.10 | 21.47 | 19.51 | 20.75 | 19.91 | 21.10 | 21.47 |
| | 3H | 19.89 | 20.90 | 20.31 | 21.31 | 21.71 | 19.89 | 20.90 | 20.31 | 21.31 | 21.71 |
| | 4H | 20.15 | 21.06 | 20.59 | 21.47 | 21.91 | 20.15 | 21.06 | 20.59 | 21.47 | 21.91 |
| | 6H | 20.48 | 21.27 | 20.94 | 21.71 | 22.17 | 20.48 | 21.27 | 20.94 | 21.71 | 22.17 |
| | 8H | 20.63 | 21.36 | 21.09 | 21.81 | 22.27 | 20.63 | 21.36 | 21.09 | 21.81 | 22.27 |
| | 12H | 20.76 | 21.41 | 21.24 | 21.89 | 22.36 | 20.76 | 21.41 | 21.24 | 21.89 | 22.36 |
| 8H | 4H | 20.22 | 20.96 | 20.69 | 21.40 | 21.87 | 20.22 | 20.96 | 20.69 | 21.40 | 21.87 |
| | 6H | 20.66 | 21.26 | 21.15 | 21.76 | 22.24 | 20.66 | 21.26 | 21.15 | 21.76 | 22.24 |
| | 8H | 20.88 | 21.43 | 21.39 | 21.94 | 22.43 | 20.88 | 21.43 | 21.39 | 21.94 | 22.43 |
| | 12H | 21.09 | 21.58 | 21.60 | 22.07 | 22.64 | 21.09 | 21.58 | 21.60 | 22.07 | 22.64 |
| 12H | 4H | 20.22 | 20.88 | 20.71 | 21.36 | 21.83 | 20.22 | 20.88 | 20.71 | 21.36 | 21.83 |
| | 6H | 20.67 | 21.23 | 21.19 | 21.74 | 22.23 | 20.67 | 21.23 | 21.19 | 21.74 | 22.23 |
| | 8H | 20.95 | 21.45 | 21.46 | 21.94 | 22.50 | 20.95 | 21.45 | 21.46 | 21.94 | 22.50 |