

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: P866183

Luminaire Tested: PRLX-2002-M-927-45L-G-U-S-X-X-WHHR-X

Issue Date: 8/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P866183
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-38)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 8/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: Pentalux
Catalog Number: PRLX-2002-M-927-45L-G-U-S-X-X-WHHR-X
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, MEDIUM LIGHT ENGINE, GLOBE LENS, TRUNCATED DOME WITH WHITE INTERIOR SHADE.
LIGHT LEVEL 5
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

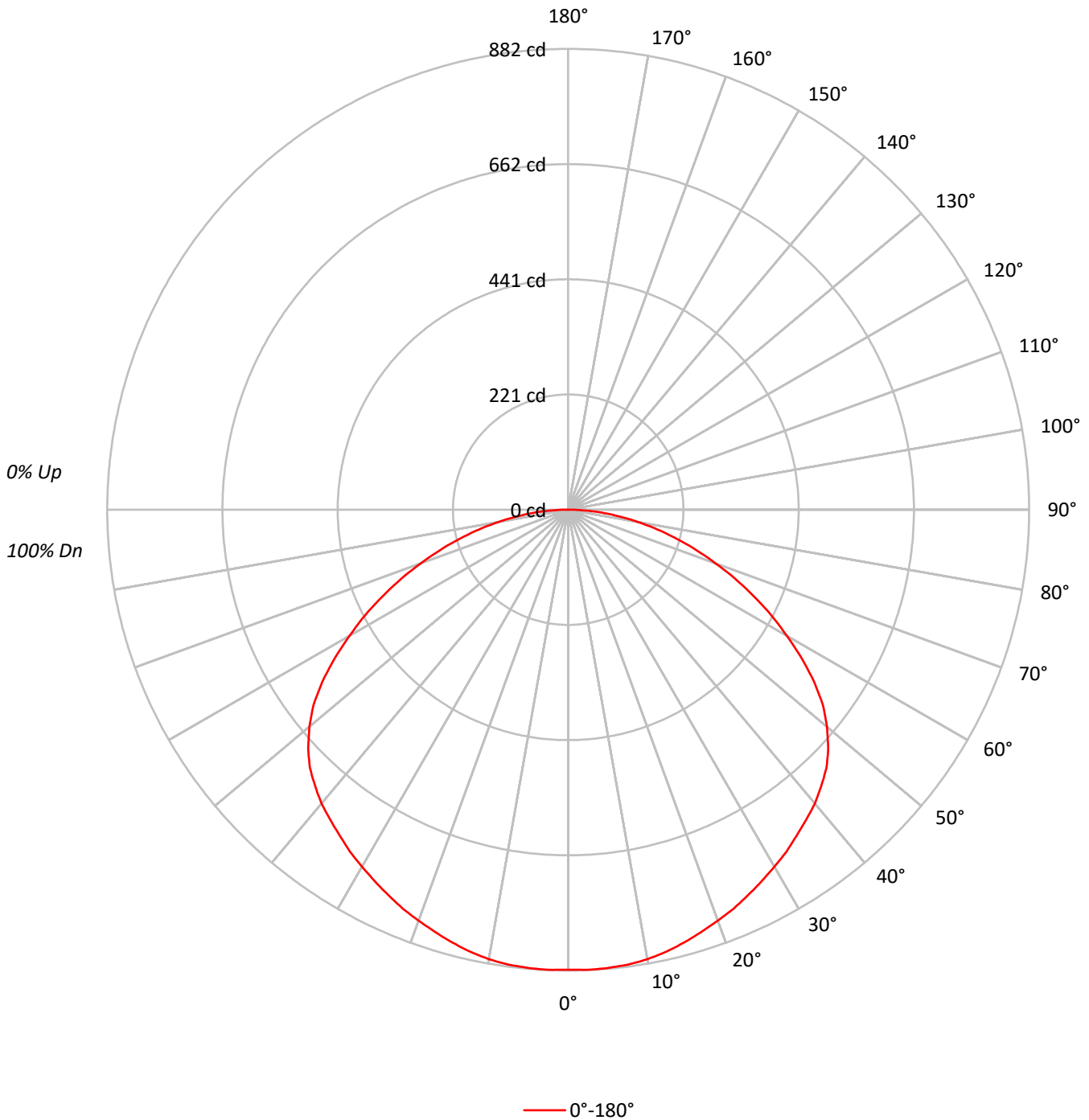
Lumens per Lamp: N/A
Luminaire Lumens: 2915.3 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.34 / 1.5
Luminous Opening: Circular (Dia: 1.31' x H: 0')
CIE Type: Direct

Input Watts (W): 38.8
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 | 108 | 103 | 99 | 94 | 105 | 101 | 97 | 93 | 96 | 93 | 90 | 93 | 90 | 87 | 89 | 87 | 85 | 82 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 81 | 75 | 84 | 78 | 73 | 80 | 76 | 72 | 77 | 73 | 70 | 68 |
| 3 | 89 | 78 | 69 | 62 | 86 | 76 | 68 | 62 | 73 | 66 | 61 | 70 | 64 | 60 | 68 | 63 | 59 | 56 |
| 4 | 81 | 68 | 59 | 52 | 79 | 67 | 59 | 52 | 65 | 57 | 51 | 62 | 56 | 50 | 60 | 54 | 50 | 48 |
| 5 | 74 | 61 | 52 | 45 | 72 | 60 | 51 | 44 | 58 | 50 | 44 | 56 | 49 | 43 | 54 | 48 | 43 | 41 |
| 6 | 68 | 55 | 45 | 39 | 66 | 54 | 45 | 38 | 52 | 44 | 38 | 50 | 43 | 38 | 48 | 42 | 37 | 35 |
| 7 | 63 | 49 | 40 | 34 | 61 | 48 | 40 | 34 | 47 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 31 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 29 | 27 |
| 9 | 55 | 41 | 33 | 27 | 53 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 26 | 37 | 31 | 26 | 24 |
| 10 | 51 | 38 | 30 | 24 | 50 | 37 | 29 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 34 | 28 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|------|
| | 0° |
| 0° | 7003 |
| 5° | 7030 |
| 10° | 7057 |
| 15° | 7063 |
| 20° | 7085 |
| 25° | 7146 |
| 30° | 7248 |
| 35° | 7397 |
| 40° | 7625 |
| 45° | 7862 |
| 50° | 7998 |
| 55° | 7966 |
| 60° | 7685 |
| 65° | 7372 |
| 70° | 6985 |
| 75° | 6600 |
| 80° | 6226 |
| 85° | 5833 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 52.5°
 Luminance: 8028 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 83.8 | 2.9 |
| 10°-20° | 242.3 | 8.3 |
| 20°-30° | 376.0 | 12.9 |
| 30°-40° | 477.9 | 16.4 |
| 40°-50° | 537.5 | 18.4 |
| 50°-60° | 510.6 | 17.5 |
| 60°-70° | 387.9 | 13.3 |
| 70°-80° | 228.0 | 7.8 |
| 80°-90° | 71.3 | 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° | 702.1 | 24.1 |
| 0°-40° | 1180.0 | 40.5 |
| 0°-60° | 2228.2 | 76.4 |
| 0°-90° | 2915.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2915.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 880 | |
| 5° | 880 | 84 |
| 15° | 858 | 242 |
| 25° | 814 | 376 |
| 35° | 762 | 478 |
| 45° | 699 | 537 |
| 55° | 574 | 511 |
| 65° | 392 | 388 |
| 75° | 215 | 228 |
| 85° | 64 | 71 |
| 90° | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 880.3 |
| 2.5° | 881.5 |
| 5° | 880.3 |
| 7.5° | 878.0 |
| 10° | 873.5 |
| 12.5° | 866.6 |
| 15° | 857.5 |
| 17.5° | 847.2 |
| 20° | 836.9 |
| 22.5° | 826.6 |
| 25° | 814.1 |
| 27.5° | 801.5 |
| 30° | 789.0 |
| 32.5° | 776.4 |
| 35° | 761.6 |
| 37.5° | 747.9 |
| 40° | 734.2 |
| 42.5° | 717.0 |
| 45° | 698.8 |
| 47.5° | 674.8 |
| 50° | 646.2 |
| 52.5° | 614.3 |
| 55° | 574.3 |
| 57.5° | 529.8 |
| 60° | 483.0 |
| 62.5° | 438.4 |
| 65° | 391.6 |
| 67.5° | 346.0 |
| 70° | 300.3 |
| 72.5° | 256.9 |
| 75° | 214.7 |
| 77.5° | 174.7 |
| 80° | 135.9 |
| 82.5° | 98.2 |
| 85° | 63.9 |
| 87.5° | 32.0 |
| 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 | 19.58 | 21.28 | 19.95 | 21.59 | 21.90 | 19.58 | 21.28 | 19.95 | 21.59 | 21.90 |
| | 3H | 21.38 | 22.92 | 21.76 | 23.24 | 23.60 | 21.38 | 22.92 | 21.76 | 23.24 | 23.60 |
| | 4H | 22.07 | 23.53 | 22.47 | 23.87 | 24.25 | 22.07 | 23.53 | 22.47 | 23.87 | 24.25 |
| | 6H | 22.62 | 23.97 | 23.03 | 24.33 | 24.72 | 22.62 | 23.97 | 23.03 | 24.33 | 24.72 |
| | 8H | 22.81 | 24.10 | 23.24 | 24.49 | 24.89 | 22.81 | 24.10 | 23.24 | 24.49 | 24.89 |
| | 12H | 22.96 | 24.20 | 23.39 | 24.58 | 25.00 | 22.96 | 24.20 | 23.39 | 24.58 | 25.00 |
| 4H | 2H | 20.22 | 21.67 | 20.61 | 22.02 | 22.39 | 20.22 | 21.67 | 20.61 | 22.02 | 22.39 |
| | 3H | 22.24 | 23.46 | 22.65 | 23.86 | 24.26 | 22.24 | 23.46 | 22.65 | 23.86 | 24.26 |
| | 4H | 23.07 | 24.18 | 23.50 | 24.59 | 25.03 | 23.07 | 24.18 | 23.50 | 24.59 | 25.03 |
| | 6H | 23.76 | 24.73 | 24.21 | 25.17 | 25.63 | 23.76 | 24.73 | 24.21 | 25.17 | 25.63 |
| | 8H | 24.01 | 24.92 | 24.47 | 25.36 | 25.83 | 24.01 | 24.92 | 24.47 | 25.36 | 25.83 |
| | 12H | 24.21 | 25.03 | 24.69 | 25.50 | 25.97 | 24.21 | 25.03 | 24.69 | 25.50 | 25.97 |
| 8H | 4H | 23.41 | 24.32 | 23.87 | 24.76 | 25.23 | 23.41 | 24.32 | 23.87 | 24.76 | 25.23 |
| | 6H | 24.24 | 25.00 | 24.73 | 25.48 | 25.96 | 24.24 | 25.00 | 24.73 | 25.48 | 25.96 |
| | 8H | 24.57 | 25.25 | 25.08 | 25.76 | 26.24 | 24.57 | 25.25 | 25.08 | 25.76 | 26.24 |
| | 12H | 24.86 | 25.46 | 25.36 | 25.95 | 26.51 | 24.86 | 25.46 | 25.36 | 25.95 | 26.51 |
| 12H | 4H | 23.46 | 24.28 | 23.94 | 24.75 | 25.22 | 23.46 | 24.28 | 23.94 | 24.75 | 25.22 |
| | 6H | 24.31 | 24.99 | 24.81 | 25.50 | 25.98 | 24.31 | 24.99 | 24.81 | 25.50 | 25.98 |
| | 8H | 24.71 | 25.31 | 25.21 | 25.80 | 26.36 | 24.71 | 25.31 | 25.21 | 25.80 | 26.36 |