

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: P866873

Luminaire Tested: PRLX-2001-L-940-133L-G-X-X-BRSS-X

Issue Date: 8/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P866873
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-65)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 8/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: Pentalux
Catalog Number: PRLX-2001-L-940-133L-G-X-X-BRSS-X
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, LARGE LIGHT ENGINE, GLOBE LENS,
TAPERED DRUM WITH BRASS INTERIOR SHADE.
LIGHT LEVEL 8
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

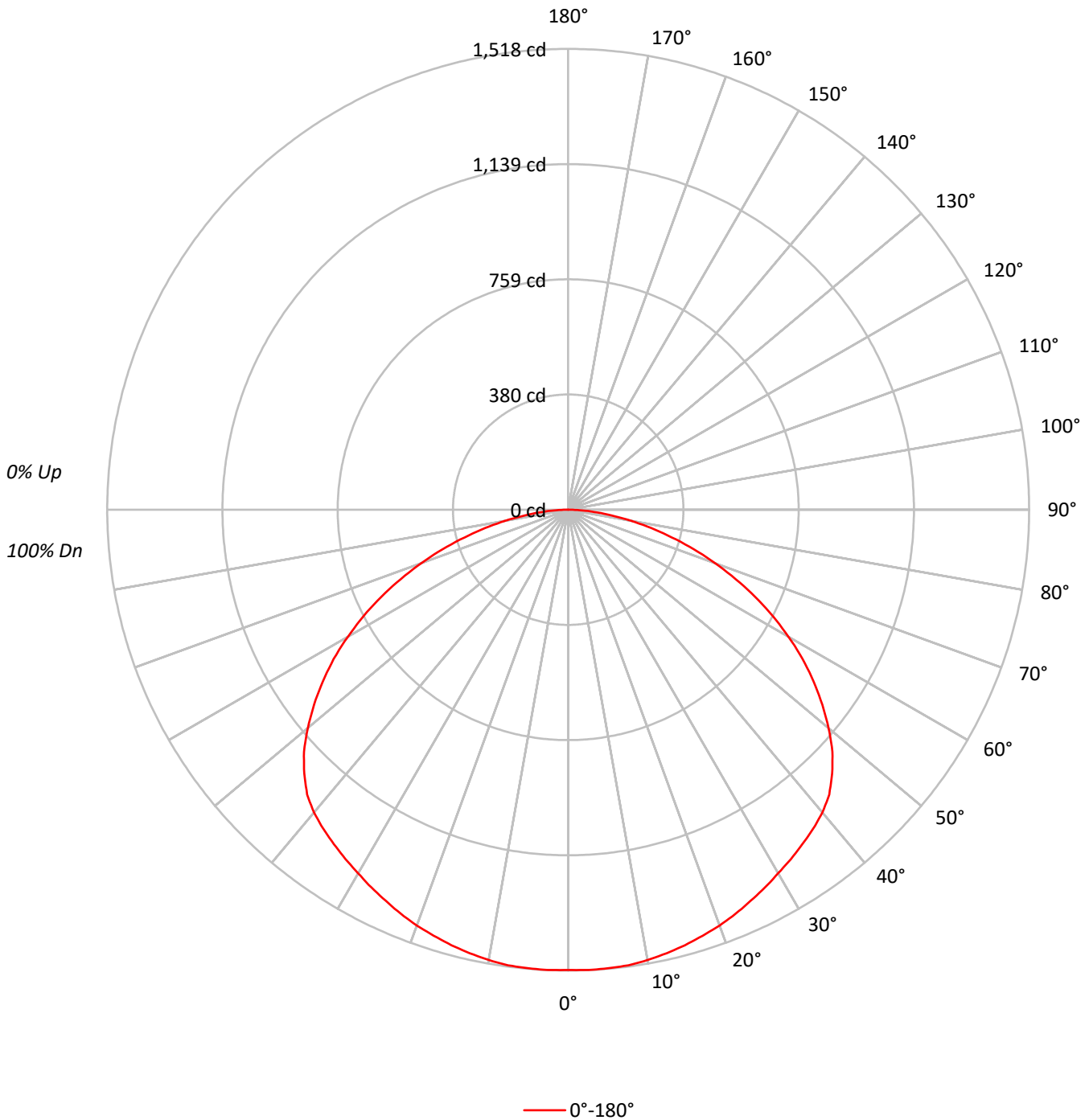
Lumens per Lamp: N/A
Luminaire Lumens: 5039.4 lumens
Efficiency: N/A
Efficacy: 45.1 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.37 / 1.51
Luminous Opening: Circular (Dia: 1.58' x H: 0')
CIE Type: Direct

Input Watts (W): 111.8
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 | 95 | 106 | 101 | 97 | 93 | 97 | 93 | 90 | | 93 | 90 | 88 | | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 82 | 76 | 95 | 88 | 81 | 76 | 84 | 79 | 74 | | 81 | 76 | 72 | | 78 | 74 | 70 | 68 |
| 3 | 89 | 78 | 70 | 63 | 87 | 77 | 69 | 62 | 74 | 67 | 61 | | 71 | 65 | 60 | | 68 | 63 | 59 | 57 |
| 4 | 81 | 69 | 60 | 53 | 79 | 67 | 59 | 52 | 65 | 58 | 52 | | 63 | 56 | 51 | | 60 | 55 | 50 | 48 |
| 5 | 74 | 61 | 52 | 45 | 72 | 60 | 51 | 45 | 58 | 50 | 44 | | 56 | 49 | 44 | | 54 | 48 | 43 | 41 |
| 6 | 69 | 55 | 46 | 39 | 67 | 54 | 45 | 39 | 52 | 44 | 38 | | 50 | 43 | 38 | | 49 | 43 | 38 | 36 |
| 7 | 63 | 50 | 40 | 34 | 62 | 49 | 40 | 34 | 47 | 39 | 34 | | 46 | 39 | 34 | | 44 | 38 | 33 | 31 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | | 42 | 35 | 30 | | 40 | 34 | 30 | 28 |
| 9 | 55 | 41 | 33 | 27 | 53 | 41 | 33 | 27 | 39 | 32 | 27 | | 38 | 32 | 27 | | 37 | 31 | 27 | 25 |
| 10 | 51 | 38 | 30 | 24 | 50 | 37 | 30 | 24 | 36 | 29 | 24 | | 35 | 29 | 24 | | 34 | 28 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|------|
| | 0° |
| 0° | 8289 |
| 5° | 8321 |
| 10° | 8362 |
| 15° | 8406 |
| 20° | 8482 |
| 25° | 8576 |
| 30° | 8732 |
| 35° | 8974 |
| 40° | 9295 |
| 45° | 9502 |
| 50° | 9521 |
| 55° | 9402 |
| 60° | 9167 |
| 65° | 8786 |
| 70° | 8211 |
| 75° | 7463 |
| 80° | 6618 |
| 85° | 5382 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 47.5°
 Luminance: 9553 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 144.5 | 2.9 |
| 10°-20° | 419.9 | 8.3 |
| 20°-30° | 656.9 | 13.0 |
| 30°-40° | 843.5 | 16.7 |
| 40°-50° | 945.4 | 18.8 |
| 50°-60° | 880.3 | 17.5 |
| 60°-70° | 671.0 | 13.3 |
| 70°-80° | 376.8 | 7.5 |
| 80°-90° | 101.0 | 2.0 |
| 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° | 1221.3 | 24.2 |
| 0°-40° | 2064.8 | 41.0 |
| 0°-60° | 3890.5 | 77.2 |
| 0°-90° | 5039.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5039.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1516 | |
| 5° | 1516 | 144 |
| 15° | 1485 | 420 |
| 25° | 1422 | 657 |
| 35° | 1345 | 843 |
| 45° | 1229 | 945 |
| 55° | 986 | 880 |
| 65° | 679 | 671 |
| 75° | 353 | 377 |
| 85° | 86 | 101 |
| 90° | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 1516.3 |
| 2.5° | 1517.6 |
| 5° | 1516.3 |
| 7.5° | 1513.9 |
| 10° | 1506.4 |
| 12.5° | 1496.4 |
| 15° | 1485.2 |
| 17.5° | 1471.6 |
| 20° | 1457.9 |
| 22.5° | 1440.5 |
| 25° | 1421.8 |
| 27.5° | 1403.1 |
| 30° | 1383.2 |
| 32.5° | 1364.6 |
| 35° | 1344.7 |
| 37.5° | 1324.8 |
| 40° | 1302.4 |
| 42.5° | 1272.5 |
| 45° | 1229.0 |
| 47.5° | 1180.5 |
| 50° | 1119.5 |
| 52.5° | 1054.8 |
| 55° | 986.4 |
| 57.5° | 915.5 |
| 60° | 838.4 |
| 62.5° | 760.0 |
| 65° | 679.2 |
| 67.5° | 597.1 |
| 70° | 513.7 |
| 72.5° | 434.1 |
| 75° | 353.3 |
| 77.5° | 279.9 |
| 80° | 210.2 |
| 82.5° | 143.1 |
| 85° | 85.8 |
| 87.5° | 37.3 |
| 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 | 20.19 | 21.88 | 20.55 | 22.19 | 22.50 | 20.19 | 21.88 | 20.55 | 22.19 | 22.50 |
| | 3H | 21.97 | 23.50 | 22.35 | 23.83 | 24.19 | 21.97 | 23.50 | 22.35 | 23.83 | 24.19 |
| | 4H | 22.62 | 24.06 | 23.02 | 24.41 | 24.78 | 22.62 | 24.06 | 23.02 | 24.41 | 24.78 |
| | 6H | 23.09 | 24.42 | 23.50 | 24.79 | 25.18 | 23.09 | 24.42 | 23.50 | 24.79 | 25.18 |
| | 8H | 23.23 | 24.51 | 23.65 | 24.90 | 25.29 | 23.23 | 24.51 | 23.65 | 24.90 | 25.29 |
| | 12H | 23.32 | 24.55 | 23.75 | 24.93 | 25.36 | 23.32 | 24.55 | 23.75 | 24.93 | 25.36 |
| 4H | 2H | 20.83 | 22.27 | 21.23 | 22.62 | 22.99 | 20.83 | 22.27 | 21.23 | 22.62 | 22.99 |
| | 3H | 22.83 | 24.04 | 23.24 | 24.44 | 24.84 | 22.83 | 24.04 | 23.24 | 24.44 | 24.84 |
| | 4H | 23.60 | 24.70 | 24.03 | 25.11 | 25.54 | 23.60 | 24.70 | 24.03 | 25.11 | 25.54 |
| | 6H | 24.19 | 25.15 | 24.64 | 25.59 | 26.04 | 24.19 | 25.15 | 24.64 | 25.59 | 26.04 |
| | 8H | 24.38 | 25.28 | 24.84 | 25.72 | 26.18 | 24.38 | 25.28 | 24.84 | 25.72 | 26.18 |
| | 12H | 24.51 | 25.32 | 24.99 | 25.80 | 26.26 | 24.51 | 25.32 | 24.99 | 25.80 | 26.26 |
| 8H | 4H | 23.90 | 24.80 | 24.36 | 25.25 | 25.71 | 23.90 | 24.80 | 24.36 | 25.25 | 25.71 |
| | 6H | 24.61 | 25.36 | 25.10 | 25.85 | 26.32 | 24.61 | 25.36 | 25.10 | 25.85 | 26.32 |
| | 8H | 24.87 | 25.54 | 25.37 | 26.04 | 26.53 | 24.87 | 25.54 | 25.37 | 26.04 | 26.53 |
| | 12H | 25.07 | 25.66 | 25.57 | 26.15 | 26.71 | 25.07 | 25.66 | 25.57 | 26.15 | 26.71 |
| 12H | 4H | 23.94 | 24.75 | 24.42 | 25.22 | 25.69 | 23.94 | 24.75 | 24.42 | 25.22 | 25.69 |
| | 6H | 24.66 | 25.34 | 25.17 | 25.84 | 26.33 | 24.66 | 25.34 | 25.17 | 25.84 | 26.33 |
| | 8H | 24.98 | 25.57 | 25.48 | 26.06 | 26.62 | 24.98 | 25.57 | 25.48 | 26.06 | 26.62 |