

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: P866055

Luminaire Tested: PRLX-2001-M-935-45L-G-U-S-X-X-WHHR-X

Issue Date: 8/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P866055
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-31)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 8/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: Pentalux
Catalog Number: PRLX-2001-M-935-45L-G-U-S-X-X-WHHR-X
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, MEDIUM LIGHT ENGINE, GLOBE LENS,
TAPERED DRUM WITH WHITE INTERIOR SHADE.
LIGHT LEVEL 5
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

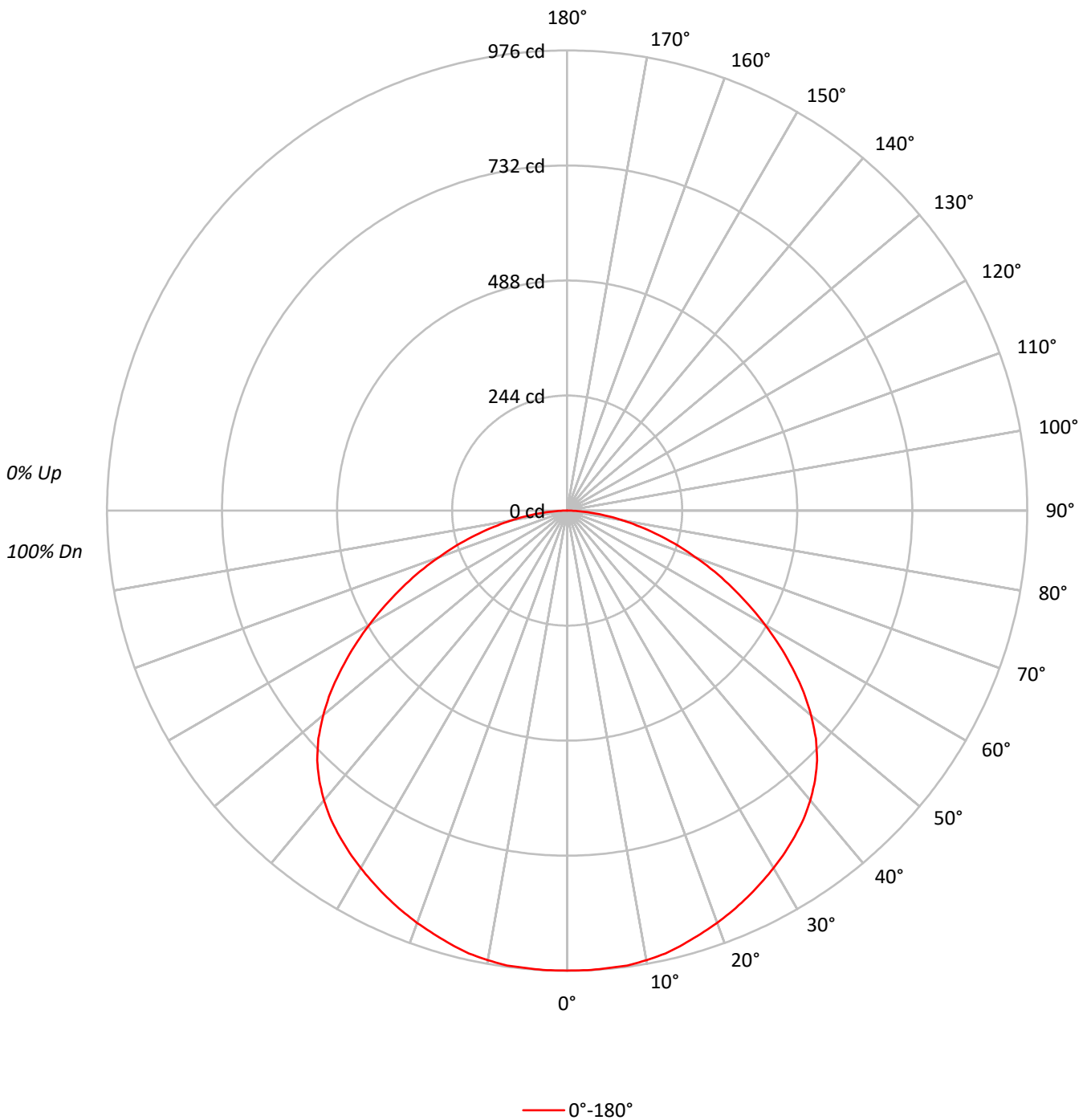
Lumens per Lamp: N/A
Luminaire Lumens: 3058.7 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.34 / 1.47
Luminous Opening: Circular (Dia: 1.27' x H: 0')
CIE Type: Direct

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 | 109 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 83 |
| 2 | 99 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 53 | 66 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 39 | 51 | 44 | 39 | 50 | 44 | 39 | 37 |
| 7 | 64 | 50 | 41 | 35 | 62 | 50 | 41 | 35 | 48 | 40 | 35 | 47 | 40 | 35 | 45 | 39 | 34 | 32 |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 43 | 36 | 31 | 41 | 35 | 31 | 29 |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 27 | 26 |
| 10 | 52 | 39 | 31 | 25 | 51 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|------|
| | 0° |
| 0° | 8280 |
| 5° | 8300 |
| 10° | 8344 |
| 15° | 8368 |
| 20° | 8403 |
| 25° | 8472 |
| 30° | 8579 |
| 35° | 8729 |
| 40° | 8888 |
| 45° | 8998 |
| 50° | 8915 |
| 55° | 8636 |
| 60° | 8228 |
| 65° | 7749 |
| 70° | 7180 |
| 75° | 6607 |
| 80° | 5850 |
| 85° | 4751 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8998 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 92.9 | 3.0 |
| 10°-20° | 269.1 | 8.8 |
| 20°-30° | 417.7 | 13.7 |
| 30°-40° | 527.7 | 17.3 |
| 40°-50° | 576.0 | 18.8 |
| 50°-60° | 521.2 | 17.0 |
| 60°-70° | 382.4 | 12.5 |
| 70°-80° | 213.6 | 7.0 |
| 80°-90° | 58.1 | 1.9 |
| 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° | 779.7 | 25.5 |
| 0°-40° | 1307.3 | 42.7 |
| 0°-60° | 2404.6 | 78.6 |
| 0°-90° | 3058.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3058.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 976 | |
| 5° | 974 | 93 |
| 15° | 952 | 269 |
| 25° | 905 | 418 |
| 35° | 843 | 528 |
| 45° | 750 | 576 |
| 55° | 584 | 521 |
| 65° | 386 | 382 |
| 75° | 202 | 214 |
| 85° | 49 | 58 |
| 90° | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 975.7 |
| 2.5° | 975.7 |
| 5° | 974.4 |
| 7.5° | 973.2 |
| 10° | 968.3 |
| 12.5° | 962.2 |
| 15° | 952.5 |
| 17.5° | 941.5 |
| 20° | 930.5 |
| 22.5° | 918.3 |
| 25° | 904.8 |
| 27.5° | 890.2 |
| 30° | 875.5 |
| 32.5° | 859.7 |
| 35° | 842.6 |
| 37.5° | 824.2 |
| 40° | 802.3 |
| 42.5° | 777.8 |
| 45° | 749.8 |
| 47.5° | 715.6 |
| 50° | 675.3 |
| 52.5° | 632.5 |
| 55° | 583.7 |
| 57.5° | 534.8 |
| 60° | 484.8 |
| 62.5° | 434.7 |
| 65° | 385.9 |
| 67.5° | 338.2 |
| 70° | 289.4 |
| 72.5° | 245.4 |
| 75° | 201.5 |
| 77.5° | 158.7 |
| 80° | 119.7 |
| 82.5° | 83.0 |
| 85° | 48.8 |
| 87.5° | 22.0 |
| 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 | 19.74 | 21.41 | 20.11 | 21.72 | 22.03 | 19.74 | 21.41 | 20.11 | 21.72 | 22.03 |
| | 3H | 21.43 | 22.94 | 21.81 | 23.26 | 23.62 | 21.43 | 22.94 | 21.81 | 23.26 | 23.62 |
| | 4H | 22.06 | 23.48 | 22.46 | 23.83 | 24.20 | 22.06 | 23.48 | 22.46 | 23.83 | 24.20 |
| | 6H | 22.51 | 23.83 | 22.92 | 24.19 | 24.58 | 22.51 | 23.83 | 22.92 | 24.19 | 24.58 |
| | 8H | 22.66 | 23.91 | 23.08 | 24.30 | 24.70 | 22.66 | 23.91 | 23.08 | 24.30 | 24.70 |
| | 12H | 22.75 | 23.95 | 23.18 | 24.34 | 24.76 | 22.75 | 23.95 | 23.18 | 24.34 | 24.76 |
| 4H | 2H | 20.34 | 21.76 | 20.74 | 22.11 | 22.48 | 20.34 | 21.76 | 20.74 | 22.11 | 22.48 |
| | 3H | 22.26 | 23.44 | 22.66 | 23.84 | 24.24 | 22.26 | 23.44 | 22.66 | 23.84 | 24.24 |
| | 4H | 23.01 | 24.09 | 23.44 | 24.50 | 24.93 | 23.01 | 24.09 | 23.44 | 24.50 | 24.93 |
| | 6H | 23.59 | 24.53 | 24.04 | 24.97 | 25.43 | 23.59 | 24.53 | 24.04 | 24.97 | 25.43 |
| | 8H | 23.78 | 24.66 | 24.24 | 25.10 | 25.57 | 23.78 | 24.66 | 24.24 | 25.10 | 25.57 |
| | 12H | 23.91 | 24.71 | 24.39 | 25.18 | 25.65 | 23.91 | 24.71 | 24.39 | 25.18 | 25.65 |
| 8H | 4H | 23.31 | 24.19 | 23.77 | 24.63 | 25.09 | 23.31 | 24.19 | 23.77 | 24.63 | 25.09 |
| | 6H | 24.00 | 24.74 | 24.50 | 25.22 | 25.70 | 24.00 | 24.74 | 24.50 | 25.22 | 25.70 |
| | 8H | 24.26 | 24.92 | 24.77 | 25.43 | 25.91 | 24.26 | 24.92 | 24.77 | 25.43 | 25.91 |
| | 12H | 24.46 | 25.04 | 24.97 | 25.53 | 26.09 | 24.46 | 25.04 | 24.97 | 25.53 | 26.09 |
| 12H | 4H | 23.34 | 24.13 | 23.82 | 24.61 | 25.08 | 23.34 | 24.13 | 23.82 | 24.61 | 25.08 |
| | 6H | 24.05 | 24.72 | 24.56 | 25.22 | 25.71 | 24.05 | 24.72 | 24.56 | 25.22 | 25.71 |
| | 8H | 24.37 | 24.95 | 24.87 | 25.44 | 26.00 | 24.37 | 24.95 | 24.87 | 25.44 | 26.00 |