

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: P866308

Luminaire Tested: PRLX-2002-M-935-45L-G-U-S-X-X-BLAK-X

Issue Date: 8/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P866308
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-41)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 8/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: Pentalux
Catalog Number: PRLX-2002-M-935-45L-G-U-S-X-X-BLAK-X
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, MEDIUM LIGHT ENGINE, GLOBE LENS, TRUNCATED DOME WITH BLACK INTERIOR SHADE.
LIGHT LEVEL 5
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

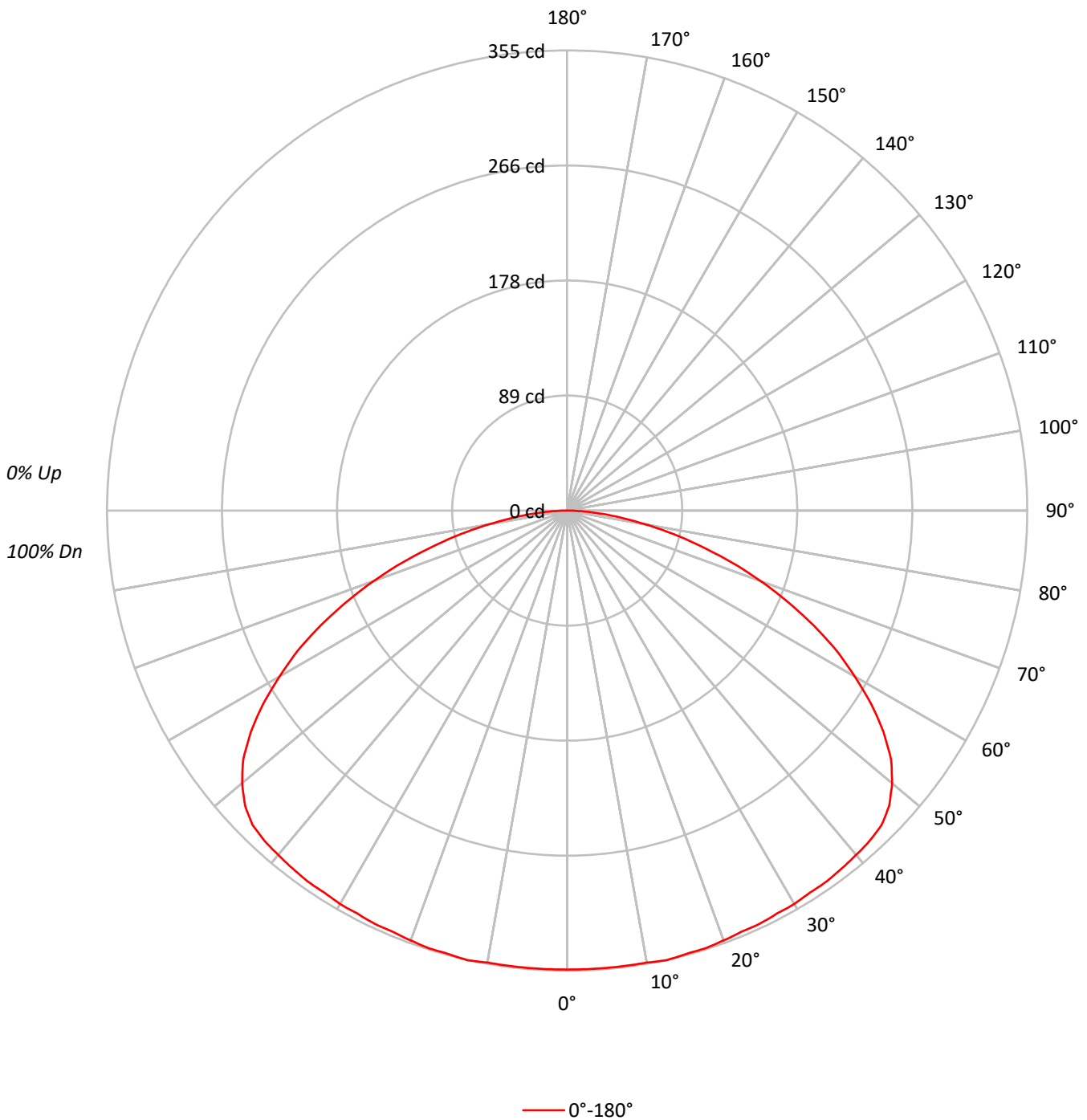
Lumens per Lamp: N/A
Luminaire Lumens: 1395.1 lumens
Efficiency: N/A
Efficacy: 36.0 lumens/watt
Spacing Criteria (0/90/45): 1.51 / 1.51 / 1.67
Luminous Opening: Circular (Dia: 1.31' x H: 0')
CIE Type: Direct

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: 0.5 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 | 98 | 94 | 105 | 100 | 96 | 92 | 96 | 93 | 90 | | 92 | 89 | 87 | | 89 | 86 | 84 | 82 |
| 2 | 97 | 88 | 81 | 75 | 95 | 86 | 80 | 74 | 83 | 77 | 72 | | 80 | 75 | 71 | | 76 | 72 | 69 | 67 |
| 3 | 88 | 77 | 68 | 61 | 85 | 75 | 67 | 60 | 72 | 65 | 59 | | 69 | 63 | 58 | | 67 | 61 | 57 | 55 |
| 4 | 80 | 67 | 58 | 51 | 78 | 66 | 57 | 50 | 63 | 56 | 49 | | 61 | 54 | 49 | | 59 | 53 | 48 | 46 |
| 5 | 73 | 59 | 50 | 43 | 71 | 58 | 49 | 42 | 56 | 48 | 42 | | 54 | 47 | 41 | | 52 | 46 | 41 | 39 |
| 6 | 67 | 53 | 43 | 37 | 65 | 52 | 43 | 37 | 50 | 42 | 36 | | 48 | 41 | 36 | | 47 | 40 | 35 | 33 |
| 7 | 62 | 48 | 38 | 32 | 60 | 47 | 38 | 32 | 45 | 37 | 32 | | 44 | 37 | 31 | | 42 | 36 | 31 | 29 |
| 8 | 57 | 43 | 34 | 28 | 56 | 42 | 34 | 28 | 41 | 33 | 28 | | 40 | 33 | 28 | | 39 | 32 | 27 | 25 |
| 9 | 53 | 39 | 31 | 25 | 52 | 39 | 31 | 25 | 38 | 30 | 25 | | 36 | 30 | 25 | | 35 | 29 | 24 | 23 |
| 10 | 50 | 36 | 28 | 22 | 49 | 36 | 28 | 22 | 35 | 27 | 22 | | 34 | 27 | 22 | | 33 | 26 | 22 | 20 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|------|
| | 0° |
| 0° | 2817 |
| 5° | 2828 |
| 10° | 2861 |
| 15° | 2917 |
| 20° | 2988 |
| 25° | 3087 |
| 30° | 3220 |
| 35° | 3391 |
| 40° | 3602 |
| 45° | 3860 |
| 50° | 4051 |
| 55° | 4132 |
| 60° | 4080 |
| 65° | 3953 |
| 70° | 3692 |
| 75° | 3304 |
| 80° | 2799 |
| 85° | 2227 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 55°
 Luminance: 4132 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 33.8 | 2.4 |
| 10°-20° | 100.4 | 7.2 |
| 20°-30° | 162.6 | 11.7 |
| 30°-40° | 219.1 | 15.7 |
| 40°-50° | 263.6 | 18.9 |
| 50°-60° | 264.8 | 19.0 |
| 60°-70° | 206.9 | 14.8 |
| 70°-80° | 114.6 | 8.2 |
| 80°-90° | 29.2 | 2.1 |
| 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° | 296.8 | 21.3 |
| 0°-40° | 515.9 | 37.0 |
| 0°-60° | 1044.3 | 74.9 |
| 0°-90° | 1395.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1395.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 354 | |
| 5° | 354 | 34 |
| 15° | 354 | 100 |
| 25° | 352 | 163 |
| 35° | 349 | 219 |
| 45° | 343 | 264 |
| 55° | 298 | 265 |
| 65° | 210 | 207 |
| 75° | 108 | 115 |
| 85° | 24 | 29 |
| 90° | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 354.1 |
| 2.5° | 354.1 |
| 5° | 354.1 |
| 7.5° | 354.1 |
| 10° | 354.1 |
| 12.5° | 355.3 |
| 15° | 354.1 |
| 17.5° | 354.1 |
| 20° | 352.9 |
| 22.5° | 351.7 |
| 25° | 351.7 |
| 27.5° | 350.5 |
| 30° | 350.5 |
| 32.5° | 349.2 |
| 35° | 349.2 |
| 37.5° | 348.0 |
| 40° | 346.8 |
| 42.5° | 345.6 |
| 45° | 343.1 |
| 47.5° | 337.0 |
| 50° | 327.3 |
| 52.5° | 315.0 |
| 55° | 297.9 |
| 57.5° | 278.4 |
| 60° | 256.4 |
| 62.5° | 234.5 |
| 65° | 210.0 |
| 67.5° | 184.4 |
| 70° | 158.7 |
| 72.5° | 133.1 |
| 75° | 107.5 |
| 77.5° | 84.3 |
| 80° | 61.1 |
| 82.5° | 41.5 |
| 85° | 24.4 |
| 87.5° | 11.0 |
| 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 | 17.62 | 19.36 | 17.99 | 19.67 | 19.99 | 17.62 | 19.36 | 17.99 | 19.67 | 19.99 |
| | 3H | 19.46 | 21.03 | 19.83 | 21.36 | 21.72 | 19.46 | 21.03 | 19.83 | 21.36 | 21.72 |
| | 4H | 20.10 | 21.59 | 20.50 | 21.93 | 22.31 | 20.10 | 21.59 | 20.50 | 21.93 | 22.31 |
| | 6H | 20.54 | 21.93 | 20.95 | 22.29 | 22.68 | 20.54 | 21.93 | 20.95 | 22.29 | 22.68 |
| | 8H | 20.67 | 22.00 | 21.09 | 22.38 | 22.78 | 20.67 | 22.00 | 21.09 | 22.38 | 22.78 |
| | 12H | 20.75 | 22.02 | 21.18 | 22.40 | 22.83 | 20.75 | 22.02 | 21.18 | 22.40 | 22.83 |
| 4H | 2H | 18.29 | 19.78 | 18.69 | 20.13 | 20.50 | 18.29 | 19.78 | 18.69 | 20.13 | 20.50 |
| | 3H | 20.33 | 21.59 | 20.74 | 21.98 | 22.38 | 20.33 | 21.59 | 20.74 | 21.98 | 22.38 |
| | 4H | 21.09 | 22.23 | 21.52 | 22.64 | 23.08 | 21.09 | 22.23 | 21.52 | 22.64 | 23.08 |
| | 6H | 21.66 | 22.65 | 22.11 | 23.09 | 23.54 | 21.66 | 22.65 | 22.11 | 23.09 | 23.54 |
| | 8H | 21.83 | 22.76 | 22.28 | 23.20 | 23.66 | 21.83 | 22.76 | 22.28 | 23.20 | 23.66 |
| | 12H | 21.95 | 22.79 | 22.43 | 23.26 | 23.73 | 21.95 | 22.79 | 22.43 | 23.26 | 23.73 |
| 8H | 4H | 21.40 | 22.34 | 21.86 | 22.78 | 23.24 | 21.40 | 22.34 | 21.86 | 22.78 | 23.24 |
| | 6H | 22.07 | 22.85 | 22.56 | 23.33 | 23.81 | 22.07 | 22.85 | 22.56 | 23.33 | 23.81 |
| | 8H | 22.30 | 23.00 | 22.81 | 23.50 | 23.99 | 22.30 | 23.00 | 22.81 | 23.50 | 23.99 |
| | 12H | 22.48 | 23.10 | 22.99 | 23.59 | 24.15 | 22.48 | 23.10 | 22.99 | 23.59 | 24.15 |
| 12H | 4H | 21.44 | 22.28 | 21.91 | 22.75 | 23.22 | 21.44 | 22.28 | 21.91 | 22.75 | 23.22 |
| | 6H | 22.12 | 22.82 | 22.62 | 23.32 | 23.80 | 22.12 | 22.82 | 22.62 | 23.32 | 23.80 |
| | 8H | 22.40 | 23.02 | 22.91 | 23.51 | 24.07 | 22.40 | 23.02 | 22.91 | 23.51 | 24.07 |