

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: P866374

Luminaire Tested: PRLX-2002-M-940-45L-G-U-S-X-X-GREY-X

Issue Date: 8/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P866374
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-40)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 8/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: Pentalux
Catalog Number: PRLX-2002-M-940-45L-G-U-S-X-X-GREY-X
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, MEDIUM LIGHT ENGINE, GLOBE LENS, TRUNCATED DOME WITH GRAY INTERIOR SHADE.
LIGHT LEVEL 5
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

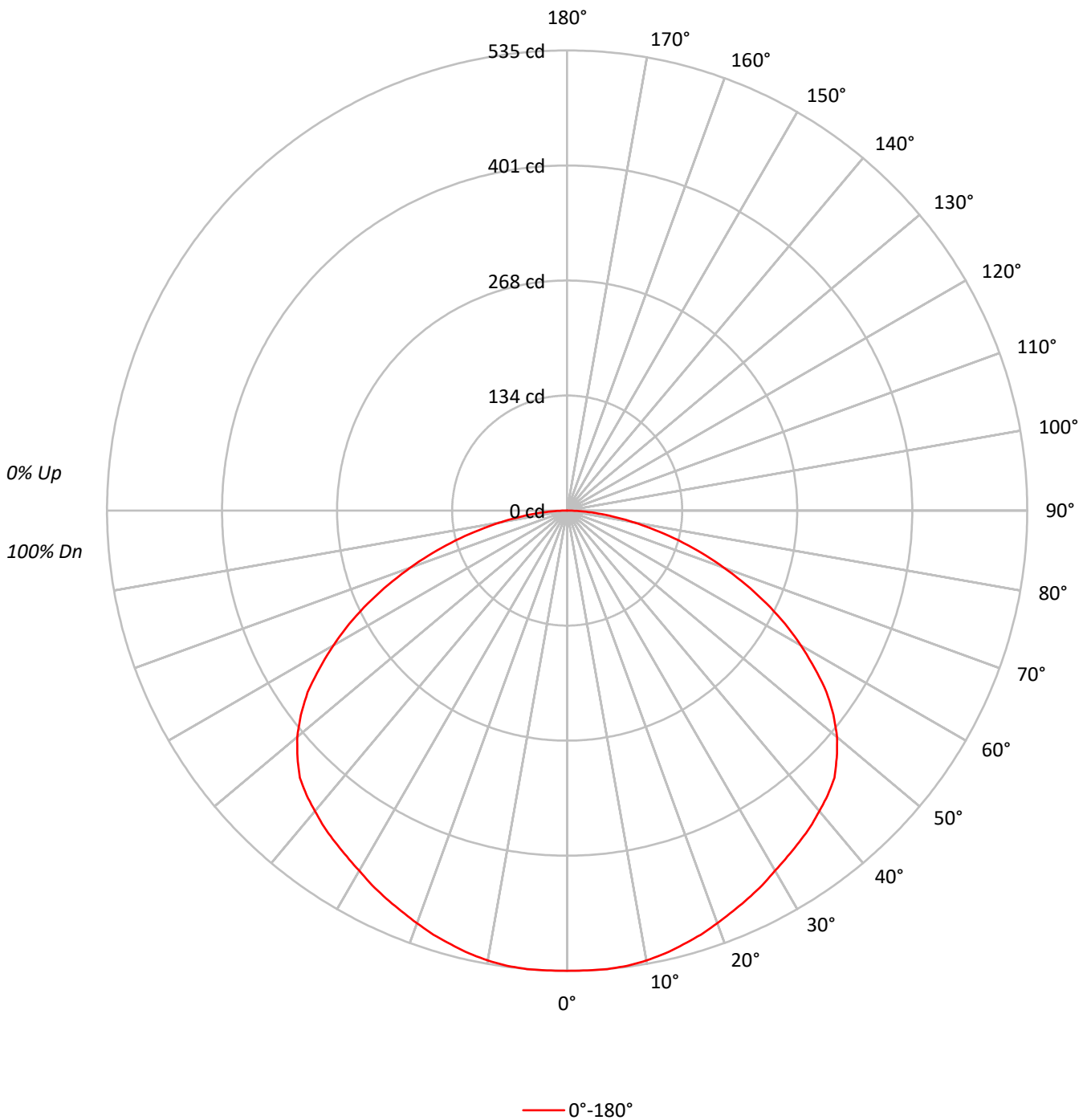
Lumens per Lamp: N/A
Luminaire Lumens: 1821.0 lumens
Efficiency: N/A
Efficacy: 46.9 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.36 / 1.53
Luminous Opening: Circular (Dia: 1.31' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P866374

CATALOG NUMBER: PRLX-2002-M-940-45L-G-U-S-X-X-GREY-X

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 | 105 | 101 | 97 | 93 | 97 | 93 | 90 | | 93 | 90 | 87 | | 89 | 87 | 85 | 83 |
| 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 | 59 | | 68 | 63 | 58 | 56 |
| 4 | 81 | 68 | 59 | 52 | 78 | 67 | 58 | 52 | 64 | 57 | 51 | | 62 | 55 | 50 | | 60 | 54 | 49 | 47 |
| 5 | 74 | 61 | 51 | 44 | 72 | 59 | 51 | 44 | 57 | 49 | 44 | | 55 | 48 | 43 | | 53 | 47 | 43 | 40 |
| 6 | 68 | 54 | 45 | 38 | 66 | 53 | 44 | 38 | 51 | 44 | 38 | | 50 | 43 | 37 | | 48 | 42 | 37 | 35 |
| 7 | 63 | 49 | 40 | 33 | 61 | 48 | 39 | 33 | 47 | 39 | 33 | | 45 | 38 | 33 | | 44 | 37 | 33 | 31 |
| 8 | 58 | 44 | 36 | 30 | 57 | 44 | 35 | 30 | 42 | 35 | 29 | | 41 | 34 | 29 | | 40 | 34 | 29 | 27 |
| 9 | 55 | 41 | 32 | 26 | 53 | 40 | 32 | 26 | 39 | 31 | 26 | | 38 | 31 | 26 | | 37 | 31 | 26 | 24 |
| 10 | 51 | 37 | 29 | 24 | 50 | 37 | 29 | 24 | 36 | 29 | 24 | | 35 | 28 | 24 | | 34 | 28 | 23 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|------|
| | 0° |
| 0° | 4257 |
| 5° | 4273 |
| 10° | 4291 |
| 15° | 4300 |
| 20° | 4322 |
| 25° | 4368 |
| 30° | 4441 |
| 35° | 4569 |
| 40° | 4738 |
| 45° | 4944 |
| 50° | 5071 |
| 55° | 5108 |
| 60° | 4998 |
| 65° | 4817 |
| 70° | 4510 |
| 75° | 4131 |
| 80° | 3610 |
| 85° | 2948 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 55°
 Luminance: 5108 cd/sqm

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CATALOG NUMBER: PRLX-2002-M-940-45L-G-U-S-X-X-GREY-X

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 51.0 | 2.8 |
| 10°-20° | 147.6 | 8.1 |
| 20°-30° | 229.9 | 12.6 |
| 30°-40° | 295.1 | 16.2 |
| 40°-50° | 337.6 | 18.5 |
| 50°-60° | 327.0 | 18.0 |
| 60°-70° | 252.5 | 13.9 |
| 70°-80° | 142.2 | 7.8 |
| 80°-90° | 38.1 | 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° | 428.4 | 23.5 |
| 0°-40° | 723.5 | 39.7 |
| 0°-60° | 1388.1 | 76.2 |
| 0°-90° | 1821.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1821.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 535 | |
| 5° | 535 | 51 |
| 15° | 522 | 148 |
| 25° | 498 | 230 |
| 35° | 470 | 295 |
| 45° | 439 | 338 |
| 55° | 368 | 327 |
| 65° | 256 | 252 |
| 75° | 134 | 142 |
| 85° | 32 | 38 |
| 90° | 0 | |

TEST NUMBER: P866374

CATALOG NUMBER: PRLX-2002-M-940-45L-G-U-S-X-X-GREY-X

CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 535.1 |
| 2.5° | 535.1 |
| 5° | 535.1 |
| 7.5° | 533.8 |
| 10° | 531.2 |
| 12.5° | 527.3 |
| 15° | 522.1 |
| 17.5° | 517.0 |
| 20° | 510.5 |
| 22.5° | 504.0 |
| 25° | 497.6 |
| 27.5° | 491.1 |
| 30° | 483.4 |
| 32.5° | 476.9 |
| 35° | 470.4 |
| 37.5° | 464.0 |
| 40° | 456.2 |
| 42.5° | 448.5 |
| 45° | 439.4 |
| 47.5° | 425.2 |
| 50° | 409.7 |
| 52.5° | 390.3 |
| 55° | 368.3 |
| 57.5° | 341.2 |
| 60° | 314.1 |
| 62.5° | 285.6 |
| 65° | 255.9 |
| 67.5° | 224.9 |
| 70° | 193.9 |
| 72.5° | 164.1 |
| 75° | 134.4 |
| 77.5° | 104.7 |
| 80° | 78.8 |
| 82.5° | 54.3 |
| 85° | 32.3 |
| 87.5° | 14.2 |
| 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 | 18.15 | 19.86 | 18.52 | 20.17 | 20.48 | 18.15 | 19.86 | 18.52 | 20.17 | 20.48 |
| | 3H | 19.97 | 21.52 | 20.35 | 21.84 | 22.20 | 19.97 | 21.52 | 20.35 | 21.84 | 22.20 |
| | 4H | 20.63 | 22.09 | 21.03 | 22.44 | 22.81 | 20.63 | 22.09 | 21.03 | 22.44 | 22.81 |
| | 6H | 21.10 | 22.45 | 21.51 | 22.81 | 23.20 | 21.10 | 22.45 | 21.51 | 22.81 | 23.20 |
| | 8H | 21.24 | 22.54 | 21.67 | 22.93 | 23.32 | 21.24 | 22.54 | 21.67 | 22.93 | 23.32 |
| | 12H | 21.34 | 22.58 | 21.77 | 22.96 | 23.39 | 21.34 | 22.58 | 21.77 | 22.96 | 23.39 |
| 4H | 2H | 18.81 | 20.27 | 19.21 | 20.62 | 20.99 | 18.81 | 20.27 | 19.21 | 20.62 | 20.99 |
| | 3H | 20.84 | 22.07 | 21.25 | 22.46 | 22.86 | 20.84 | 22.07 | 21.25 | 22.46 | 22.86 |
| | 4H | 21.63 | 22.74 | 22.06 | 23.15 | 23.58 | 21.63 | 22.74 | 22.06 | 23.15 | 23.58 |
| | 6H | 22.22 | 23.19 | 22.67 | 23.63 | 24.08 | 22.22 | 23.19 | 22.67 | 23.63 | 24.08 |
| | 8H | 22.41 | 23.32 | 22.86 | 23.76 | 24.22 | 22.41 | 23.32 | 22.86 | 23.76 | 24.22 |
| | 12H | 22.54 | 23.36 | 23.02 | 23.84 | 24.31 | 22.54 | 23.36 | 23.02 | 23.84 | 24.31 |
| 8H | 4H | 21.94 | 22.85 | 22.40 | 23.29 | 23.76 | 21.94 | 22.85 | 22.40 | 23.29 | 23.76 |
| | 6H | 22.64 | 23.40 | 23.13 | 23.89 | 24.36 | 22.64 | 23.40 | 23.13 | 23.89 | 24.36 |
| | 8H | 22.90 | 23.58 | 23.41 | 24.09 | 24.57 | 22.90 | 23.58 | 23.41 | 24.09 | 24.57 |
| | 12H | 23.10 | 23.71 | 23.61 | 24.20 | 24.76 | 23.10 | 23.71 | 23.61 | 24.20 | 24.76 |
| 12H | 4H | 21.97 | 22.80 | 22.45 | 23.27 | 23.74 | 21.97 | 22.80 | 22.45 | 23.27 | 23.74 |
| | 6H | 22.70 | 23.38 | 23.20 | 23.88 | 24.37 | 22.70 | 23.38 | 23.20 | 23.88 | 24.37 |
| | 8H | 23.01 | 23.62 | 23.52 | 24.10 | 24.66 | 23.01 | 23.62 | 23.52 | 24.10 | 24.66 |