

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: P867137

Luminaire Tested: PRLX-2002-L-940-15L-G-X-X-BRSS-X

Issue Date: 8/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P867137
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-69)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 8/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: Pentalux
Catalog Number: PRLX-2002-L-940-15L-G-X-X-BRSS-X
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, LARGE LIGHT ENGINE, GLOBE LENS, TRUNCATED DOME WITH BRASS INTERIOR SHADE.
LIGHT LEVEL 1
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

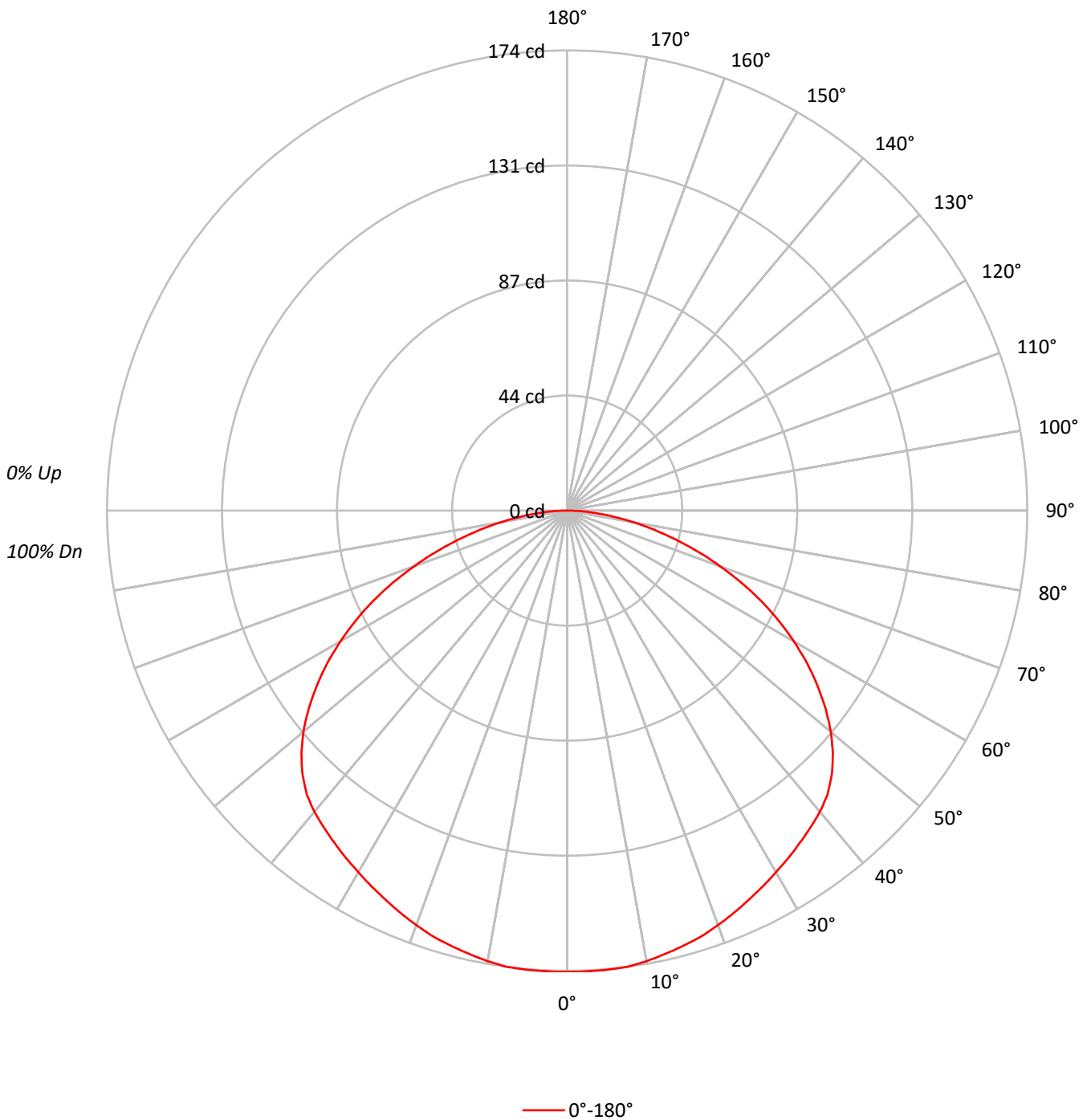
Lumens per Lamp: N/A
Luminaire Lumens: 585.8 lumens
Efficiency: N/A
Efficacy: 35.7 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.36 / 1.52
Luminous Opening: Circular (Dia: 1.67' x H: 0')
CIE Type: Direct

Input Watts (W): 16.4
Input Voltage (V): 120
Input Current (Ain): 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 | 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 | 65 | 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 | 51 | 45 | 72 | 60 | 51 | 44 | 58 | 50 | 44 | | 55 | 49 | 43 | | 54 | 48 | 43 | 41 |
| 6 | 68 | 54 | 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 | 34 | 29 | | 40 | 34 | 29 | 27 |
| 9 | 55 | 41 | 32 | 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 | 28 | 24 | | 34 | 28 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-----|
| | 0° |
| 0° | 860 |
| 5° | 863 |
| 10° | 867 |
| 15° | 870 |
| 20° | 876 |
| 25° | 884 |
| 30° | 900 |
| 35° | 924 |
| 40° | 958 |
| 45° | 987 |
| 50° | 999 |
| 55° | 994 |
| 60° | 977 |
| 65° | 946 |
| 70° | 889 |
| 75° | 816 |
| 80° | 727 |
| 85° | 594 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 999 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 16.6 | 2.8 |
| 10°-20° | 48.2 | 8.2 |
| 20°-30° | 75.1 | 12.8 |
| 30°-40° | 96.2 | 16.4 |
| 40°-50° | 108.8 | 18.6 |
| 50°-60° | 103.1 | 17.6 |
| 60°-70° | 79.9 | 13.6 |
| 70°-80° | 45.4 | 7.8 |
| 80°-90° | 12.5 | 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° | 139.8 | 23.9 |
| 0°-40° | 236.0 | 40.3 |
| 0°-60° | 448.0 | 76.5 |
| 0°-90° | 585.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 585.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 174 | |
| 5° | 174 | 17 |
| 15° | 170 | 48 |
| 25° | 162 | 75 |
| 35° | 153 | 96 |
| 45° | 142 | 109 |
| 55° | 116 | 103 |
| 65° | 81 | 80 |
| 75° | 43 | 45 |
| 85° | 10 | 12 |
| 90° | 0 | |

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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|-------|
| 0° | 174.4 |
| 2.5° | 174.4 |
| 5° | 174.3 |
| 7.5° | 174.0 |
| 10° | 173.0 |
| 12.5° | 171.7 |
| 15° | 170.3 |
| 17.5° | 168.8 |
| 20° | 166.8 |
| 22.5° | 164.7 |
| 25° | 162.4 |
| 27.5° | 160.2 |
| 30° | 157.9 |
| 32.5° | 155.7 |
| 35° | 153.4 |
| 37.5° | 151.1 |
| 40° | 148.7 |
| 42.5° | 145.7 |
| 45° | 141.5 |
| 47.5° | 136.3 |
| 50° | 130.2 |
| 52.5° | 123.2 |
| 55° | 115.6 |
| 57.5° | 107.6 |
| 60° | 99.0 |
| 62.5° | 90.2 |
| 65° | 81.0 |
| 67.5° | 71.4 |
| 70° | 61.6 |
| 72.5° | 52.0 |
| 75° | 42.8 |
| 77.5° | 33.9 |
| 80° | 25.6 |
| 82.5° | 17.7 |
| 85° | 10.5 |
| 87.5° | 4.8 |
| 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 | 12.42 | 14.12 | 12.79 | 14.43 | 14.75 | 12.42 | 14.12 | 12.79 | 14.43 | 14.75 |
| | 3H | 14.26 | 15.80 | 14.64 | 16.12 | 16.48 | 14.26 | 15.80 | 14.64 | 16.12 | 16.48 |
| | 4H | 14.93 | 16.38 | 15.33 | 16.73 | 17.10 | 14.93 | 16.38 | 15.33 | 16.73 | 17.10 |
| | 6H | 15.42 | 16.76 | 15.83 | 17.13 | 17.52 | 15.42 | 16.76 | 15.83 | 17.13 | 17.52 |
| | 8H | 15.57 | 16.86 | 15.99 | 17.25 | 17.65 | 15.57 | 16.86 | 15.99 | 17.25 | 17.65 |
| | 12H | 15.67 | 16.91 | 16.10 | 17.29 | 17.72 | 15.67 | 16.91 | 16.10 | 17.29 | 17.72 |
| 4H | 2H | 13.09 | 14.54 | 13.48 | 14.88 | 15.26 | 13.09 | 14.54 | 13.48 | 14.88 | 15.26 |
| | 3H | 15.13 | 16.35 | 15.54 | 16.75 | 17.15 | 15.13 | 16.35 | 15.54 | 16.75 | 17.15 |
| | 4H | 15.93 | 17.03 | 16.36 | 17.45 | 17.88 | 15.93 | 17.03 | 16.36 | 17.45 | 17.88 |
| | 6H | 16.54 | 17.51 | 16.99 | 17.95 | 18.40 | 16.54 | 17.51 | 16.99 | 17.95 | 18.40 |
| | 8H | 16.74 | 17.65 | 17.20 | 18.09 | 18.56 | 16.74 | 17.65 | 17.20 | 18.09 | 18.56 |
| | 12H | 16.89 | 17.70 | 17.36 | 18.18 | 18.65 | 16.89 | 17.70 | 17.36 | 18.18 | 18.65 |
| 8H | 4H | 16.25 | 17.15 | 16.70 | 17.60 | 18.06 | 16.25 | 17.15 | 16.70 | 17.60 | 18.06 |
| | 6H | 16.98 | 17.74 | 17.47 | 18.22 | 18.70 | 16.98 | 17.74 | 17.47 | 18.22 | 18.70 |
| | 8H | 17.25 | 17.93 | 17.76 | 18.44 | 18.92 | 17.25 | 17.93 | 17.76 | 18.44 | 18.92 |
| | 12H | 17.46 | 18.06 | 17.97 | 18.55 | 19.11 | 17.46 | 18.06 | 17.97 | 18.55 | 19.11 |
| 12H | 4H | 16.28 | 17.10 | 16.76 | 17.58 | 18.04 | 16.28 | 17.10 | 16.76 | 17.58 | 18.04 |
| | 6H | 17.04 | 17.72 | 17.54 | 18.22 | 18.71 | 17.04 | 17.72 | 17.54 | 18.22 | 18.71 |
| | 8H | 17.37 | 17.97 | 17.87 | 18.46 | 19.01 | 17.37 | 17.97 | 17.87 | 18.46 | 19.01 |