

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: P867037

Luminaire Tested: PRLX-2002-L-930-83L-L-X-X-BRSS-X

Issue Date: 8/20/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P867037  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-81)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 8/20/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: Pentalux  
Catalog Number: PRLX-2002-L-930-83L-L-X-X-BRSS-X  
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, LARGE LIGHT ENGINE, FLAT LENS, TRUNCATED DOME WITH BRASS INTERIOR SHADE.  
LIGHT LEVEL 5  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

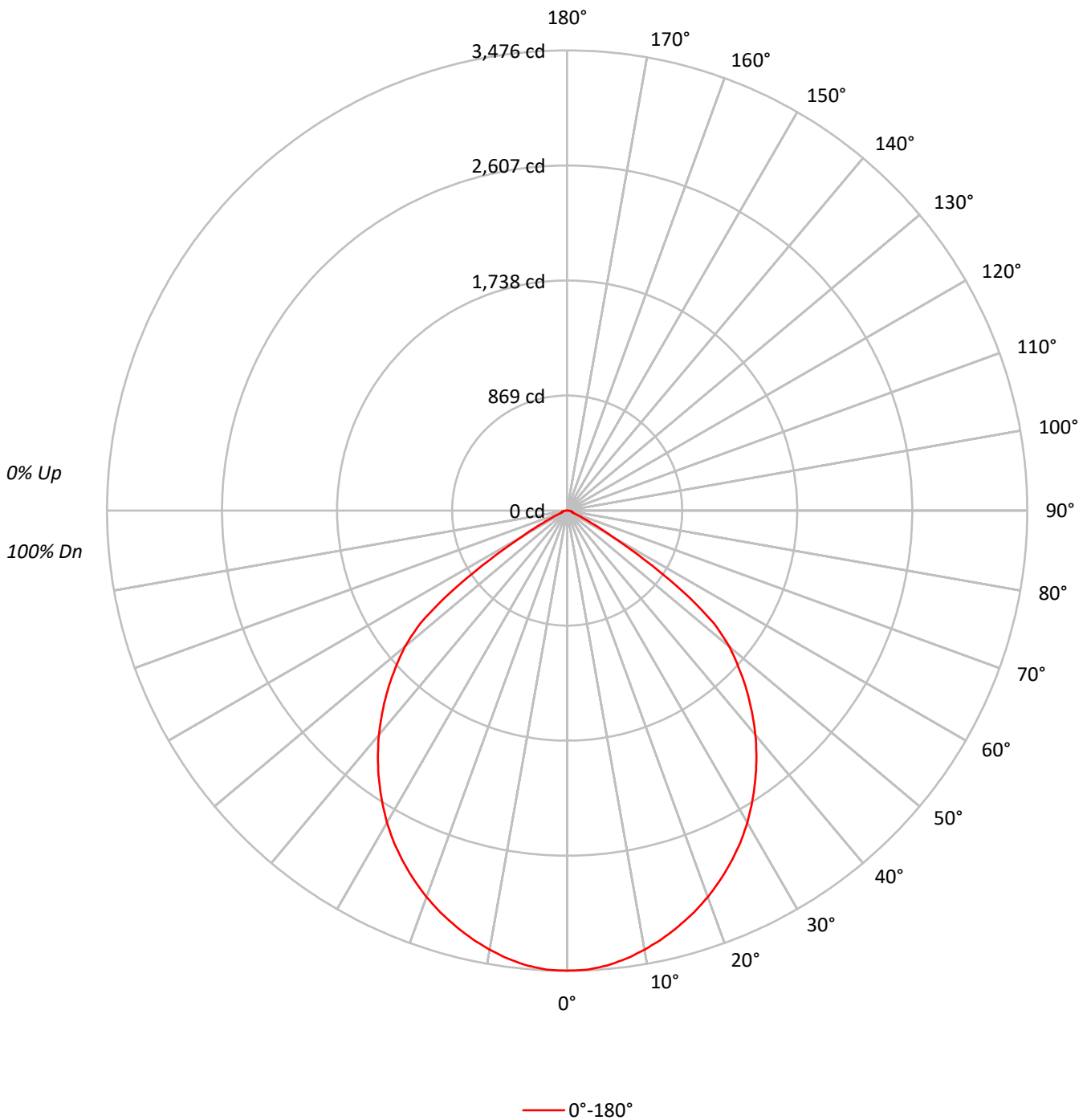
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6748.0 lumens  
Efficiency: N/A  
Efficacy: 104.6 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.27  
Luminous Opening: Circular (Dia: 1.67' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99  | 97  |  | 98  | 96  | 94  |  | 94  | 93  | 92  | 90  |
| 2   | 104 | 97  | 92  | 88  | 101 | 96  | 91  | 87  | 92  | 88  | 85  |  | 89  | 86  | 83  |  | 86  | 83  | 81  | 79  |
| 3   | 96  | 88  | 81  | 76  | 94  | 86  | 80  | 75  | 83  | 78  | 74  |  | 81  | 77  | 73  |  | 78  | 75  | 72  | 70  |
| 4   | 89  | 79  | 72  | 66  | 87  | 78  | 71  | 66  | 76  | 70  | 65  |  | 74  | 68  | 64  |  | 72  | 67  | 64  | 62  |
| 5   | 83  | 72  | 64  | 59  | 81  | 71  | 64  | 58  | 69  | 63  | 58  |  | 67  | 62  | 57  |  | 65  | 60  | 57  | 55  |
| 6   | 77  | 65  | 58  | 52  | 75  | 65  | 57  | 52  | 63  | 56  | 51  |  | 61  | 56  | 51  |  | 60  | 55  | 51  | 49  |
| 7   | 72  | 60  | 52  | 47  | 70  | 59  | 52  | 47  | 58  | 51  | 46  |  | 56  | 50  | 46  |  | 55  | 50  | 46  | 44  |
| 8   | 67  | 55  | 47  | 42  | 66  | 54  | 47  | 42  | 53  | 46  | 42  |  | 52  | 46  | 42  |  | 51  | 45  | 41  | 40  |
| 9   | 63  | 51  | 43  | 38  | 62  | 50  | 43  | 38  | 49  | 43  | 38  |  | 48  | 42  | 38  |  | 47  | 42  | 38  | 36  |
| 10  | 59  | 47  | 40  | 35  | 58  | 46  | 39  | 35  | 46  | 39  | 35  |  | 45  | 39  | 35  |  | 44  | 38  | 34  | 33  |

**AVERAGE LUMINANCE (cd/sqm):**

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 17148 |
| 5°  | 17086 |
| 10° | 16871 |
| 15° | 16606 |
| 20° | 16308 |
| 25° | 15943 |
| 30° | 15504 |
| 35° | 14932 |
| 40° | 14250 |
| 45° | 13382 |
| 50° | 12296 |
| 55° | 9248  |
| 60° | 3894  |
| 65° | 1436  |
| 70° | 661   |
| 75° | 722   |
| 80° | 832   |
| 85° | 974   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13382 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 326.7  | 4.8       |
| 10°-20°   | 916.4  | 13.6      |
| 20°-30°   | 1348.0 | 20.0      |
| 30°-40°   | 1548.2 | 22.9      |
| 40°-50°   | 1474.8 | 21.9      |
| 50°-60°   | 923.6  | 13.7      |
| 60°-70°   | 152.9  | 2.3       |
| 70°-80°   | 39.9   | 0.6       |
| 80°-90°   | 17.4   | 0.3       |
| 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°    | 2591.1 | 38.4      |
| 0°-40°    | 4139.3 | 61.3      |
| 0°-60°    | 6537.8 | 96.9      |
| 0°-90°    | 6748.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6748.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3476 |      |
| 5°  | 3450 | 327  |
| 15° | 3251 | 916  |
| 25° | 2929 | 1348 |
| 35° | 2479 | 1548 |
| 45° | 1918 | 1475 |
| 55° | 1075 | 924  |
| 65° | 123  | 153  |
| 75° | 38   | 40   |
| 85° | 17   | 17   |
| 90° | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 3475.6 |
| 2.5°  | 3472.0 |
| 5°    | 3449.9 |
| 7.5°  | 3414.8 |
| 10°   | 3367.6 |
| 12.5° | 3314.0 |
| 15°   | 3251.1 |
| 17.5° | 3182.5 |
| 20°   | 3106.0 |
| 22.5° | 3020.9 |
| 25°   | 2928.7 |
| 27.5° | 2830.8 |
| 30°   | 2721.4 |
| 32.5° | 2602.8 |
| 35°   | 2479.1 |
| 37.5° | 2349.0 |
| 40°   | 2212.5 |
| 42.5° | 2067.3 |
| 45°   | 1917.9 |
| 47.5° | 1758.5 |
| 50°   | 1602.0 |
| 52.5° | 1399.0 |
| 55°   | 1075.1 |
| 57.5° | 694.8  |
| 60°   | 394.6  |
| 62.5° | 223.7  |
| 65°   | 123.0  |
| 67.5° | 57.9   |
| 70°   | 45.8   |
| 72.5° | 42.2   |
| 75°   | 37.9   |
| 77.5° | 33.6   |
| 80°   | 29.3   |
| 82.5° | 23.6   |
| 85°   | 17.2   |
| 87.5° | 8.6    |
| 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 | 17.09            | 18.49 | 17.46 | 18.80 | 19.11 | 17.09          | 18.49 | 17.46 | 18.80 | 19.11 |
|                 | 3H   | 17.01            | 18.23 | 17.39 | 18.56 | 18.93 | 17.01          | 18.23 | 17.39 | 18.56 | 18.93 |
|                 | 4H   | 16.96            | 18.10 | 17.37 | 18.45 | 18.84 | 16.96          | 18.10 | 17.37 | 18.45 | 18.84 |
|                 | 6H   | 16.92            | 17.97 | 17.34 | 18.34 | 18.73 | 16.92          | 17.97 | 17.34 | 18.34 | 18.73 |
|                 | 8H   | 16.90            | 17.89 | 17.33 | 18.28 | 18.69 | 16.90          | 17.89 | 17.33 | 18.28 | 18.69 |
|                 | 12H  | 16.88            | 17.83 | 17.31 | 18.21 | 18.64 | 16.88          | 17.83 | 17.31 | 18.21 | 18.64 |
| 4H              | 2H   | 16.96            | 18.10 | 17.36 | 18.45 | 18.83 | 16.96          | 18.10 | 17.36 | 18.45 | 18.83 |
|                 | 3H   | 16.89            | 17.81 | 17.31 | 18.22 | 18.62 | 16.89          | 17.81 | 17.31 | 18.22 | 18.62 |
|                 | 4H   | 16.85            | 17.67 | 17.29 | 18.09 | 18.53 | 16.85          | 17.67 | 17.29 | 18.09 | 18.53 |
|                 | 6H   | 16.83            | 17.54 | 17.30 | 17.98 | 18.45 | 16.83          | 17.54 | 17.30 | 17.98 | 18.45 |
|                 | 8H   | 16.81            | 17.47 | 17.28 | 17.92 | 18.39 | 16.81          | 17.47 | 17.28 | 17.92 | 18.39 |
|                 | 12H  | 16.80            | 17.38 | 17.28 | 17.86 | 18.34 | 16.80          | 17.38 | 17.28 | 17.86 | 18.34 |
| 8H              | 4H   | 16.74            | 17.40 | 17.21 | 17.85 | 18.32 | 16.74          | 17.40 | 17.21 | 17.85 | 18.32 |
|                 | 6H   | 16.72            | 17.27 | 17.22 | 17.76 | 18.24 | 16.72          | 17.27 | 17.22 | 17.76 | 18.24 |
|                 | 8H   | 16.71            | 17.20 | 17.23 | 17.72 | 18.21 | 16.71          | 17.20 | 17.23 | 17.72 | 18.21 |
|                 | 12H  | 16.72            | 17.16 | 17.23 | 17.65 | 18.22 | 16.72          | 17.16 | 17.23 | 17.65 | 18.22 |
| 12H             | 4H   | 16.70            | 17.29 | 17.19 | 17.77 | 18.24 | 16.70          | 17.29 | 17.19 | 17.77 | 18.24 |
|                 | 6H   | 16.67            | 17.16 | 17.19 | 17.68 | 18.17 | 16.67          | 17.16 | 17.19 | 17.68 | 18.17 |
|                 | 8H   | 16.68            | 17.13 | 17.20 | 17.62 | 18.19 | 16.68          | 17.13 | 17.20 | 17.62 | 18.19 |