

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: P867144

Luminaire Tested: PRLX-2002-L-940-32L-G-X-X-BLAK-X

Issue Date: 8/20/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P867144  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-71)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 8/20/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: Pentalux  
Catalog Number: PRLX-2002-L-940-32L-G-X-X-BLAK-X  
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, LARGE LIGHT ENGINE, GLOBE LENS, TRUNCATED DOME WITH BLACK INTERIOR SHADE.  
LIGHT LEVEL 2  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

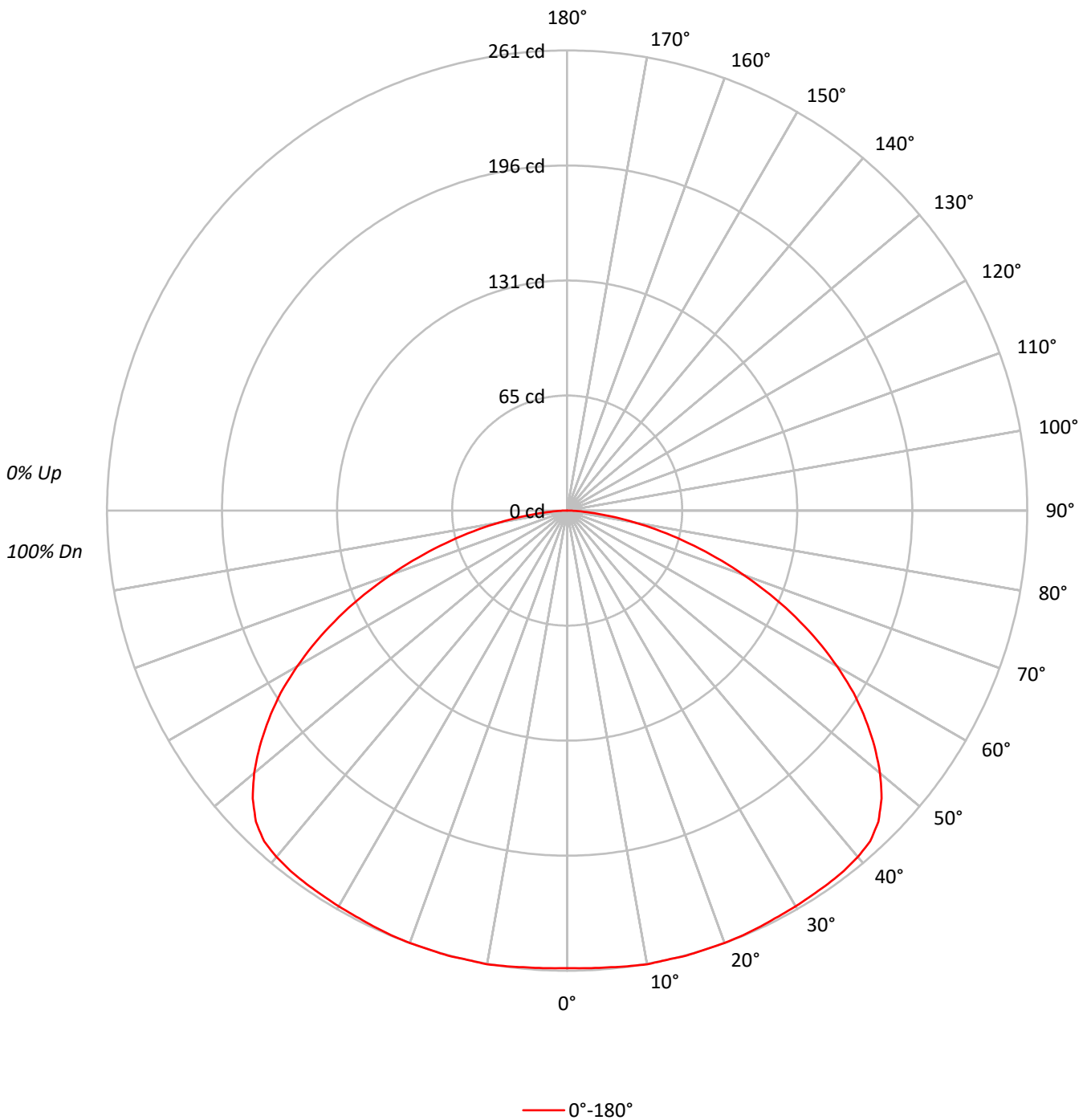
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 990.5 lumens  
Efficiency: N/A  
Efficacy: 37.9 lumens/watt  
Spacing Criteria (0/90/45): 1.52 / 1.52 / 1.65  
Luminous Opening: Circular (Dia: 1.67' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.1  
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   | 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  | 71  | 77  | 73  | 70  | 68  |
| 3   | 89  | 77  | 69  | 62  | 86  | 76  | 68  | 61  | 73  | 66  | 60  | 70  | 64  | 59  | 67  | 62  | 58  | 56  |
| 4   | 81  | 68  | 59  | 52  | 78  | 67  | 58  | 51  | 64  | 56  | 51  | 62  | 55  | 50  | 59  | 54  | 49  | 47  |
| 5   | 74  | 60  | 51  | 44  | 72  | 59  | 50  | 44  | 57  | 49  | 43  | 55  | 48  | 43  | 53  | 47  | 42  | 40  |
| 6   | 68  | 54  | 44  | 38  | 66  | 53  | 44  | 37  | 51  | 43  | 37  | 49  | 42  | 37  | 48  | 41  | 36  | 34  |
| 7   | 63  | 48  | 39  | 33  | 61  | 48  | 39  | 33  | 46  | 38  | 32  | 44  | 37  | 32  | 43  | 37  | 32  | 30  |
| 8   | 58  | 44  | 35  | 29  | 56  | 43  | 35  | 29  | 42  | 34  | 29  | 41  | 34  | 28  | 39  | 33  | 28  | 26  |
| 9   | 54  | 40  | 32  | 26  | 53  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 23  |
| 10  | 50  | 37  | 29  | 23  | 49  | 36  | 28  | 23  | 35  | 28  | 23  | 34  | 28  | 23  | 33  | 27  | 23  | 21  |

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

|     |      |
|-----|------|
|     | 0°   |
| 0°  | 1280 |
| 5°  | 1288 |
| 10° | 1309 |
| 15° | 1335 |
| 20° | 1370 |
| 25° | 1416 |
| 30° | 1477 |
| 35° | 1556 |
| 40° | 1652 |
| 45° | 1742 |
| 50° | 1778 |
| 55° | 1778 |
| 60° | 1746 |
| 65° | 1668 |
| 70° | 1532 |
| 75° | 1359 |
| 80° | 1111 |
| 85° | 742  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 52.5°  
 Luminance: 1781 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 24.9   | 2.5       |
| 10°-20°   | 74.0   | 7.5       |
| 20°-30°   | 120.4  | 12.2      |
| 30°-40°   | 162.1  | 16.4      |
| 40°-50°   | 191.4  | 19.3      |
| 50°-60°   | 184.2  | 18.6      |
| 60°-70°   | 140.9  | 14.2      |
| 70°-80°   | 75.7   | 7.6       |
| 80°-90°   | 16.8   | 1.7       |
| 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°    | 219.2  | 22.1      |
| 0°-40°    | 381.4  | 38.5      |
| 0°-60°    | 757.0  | 76.4      |
| 0°-90°    | 990.5  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 990.5  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 260 |      |
| 5°  | 260 | 25   |
| 15° | 261 | 74   |
| 25° | 260 | 120  |
| 35° | 258 | 162  |
| 45° | 250 | 191  |
| 55° | 207 | 184  |
| 65° | 143 | 141  |
| 75° | 71  | 76   |
| 85° | 13  | 17   |
| 90° | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 259.5 |
| 2.5°  | 259.8 |
| 5°    | 260.1 |
| 7.5°  | 260.7 |
| 10°   | 261.3 |
| 12.5° | 261.0 |
| 15°   | 261.3 |
| 17.5° | 261.0 |
| 20°   | 261.0 |
| 22.5° | 260.7 |
| 25°   | 260.1 |
| 27.5° | 259.5 |
| 30°   | 259.2 |
| 32.5° | 258.6 |
| 35°   | 258.3 |
| 37.5° | 257.7 |
| 40°   | 256.5 |
| 42.5° | 254.4 |
| 45°   | 249.6 |
| 47.5° | 241.9 |
| 50°   | 231.7 |
| 52.5° | 219.8 |
| 55°   | 206.7 |
| 57.5° | 192.7 |
| 60°   | 176.9 |
| 62.5° | 160.5 |
| 65°   | 142.9 |
| 67.5° | 124.7 |
| 70°   | 106.2 |
| 72.5° | 88.6  |
| 75°   | 71.3  |
| 77.5° | 54.6  |
| 80°   | 39.1  |
| 82.5° | 24.8  |
| 85°   | 13.1  |
| 87.5° | 4.5   |
| 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 | 14.62            | 16.34 | 14.99 | 16.65 | 16.97 | 14.62          | 16.34 | 14.99 | 16.65 | 16.97 |
|                 | 3H   | 16.38            | 17.93 | 16.75 | 18.25 | 18.61 | 16.38          | 17.93 | 16.75 | 18.25 | 18.61 |
|                 | 4H   | 16.98            | 18.45 | 17.38 | 18.79 | 19.17 | 16.98          | 18.45 | 17.38 | 18.79 | 19.17 |
|                 | 6H   | 17.38            | 18.74 | 17.79 | 19.10 | 19.49 | 17.38          | 18.74 | 17.79 | 19.10 | 19.49 |
|                 | 8H   | 17.48            | 18.78 | 17.90 | 19.17 | 19.57 | 17.48          | 18.78 | 17.90 | 19.17 | 19.57 |
|                 | 12H  | 17.53            | 18.78 | 17.96 | 19.16 | 19.59 | 17.53          | 18.78 | 17.96 | 19.16 | 19.59 |
| 4H              | 2H   | 15.27            | 16.74 | 15.67 | 17.08 | 17.46 | 15.27          | 16.74 | 15.67 | 17.08 | 17.46 |
|                 | 3H   | 17.23            | 18.46 | 17.63 | 18.85 | 19.25 | 17.23          | 18.46 | 17.63 | 18.85 | 19.25 |
|                 | 4H   | 17.95            | 19.06 | 18.38 | 19.47 | 19.91 | 17.95          | 19.06 | 18.38 | 19.47 | 19.91 |
|                 | 6H   | 18.45            | 19.43 | 18.91 | 19.87 | 20.32 | 18.45          | 19.43 | 18.91 | 19.87 | 20.32 |
|                 | 8H   | 18.59            | 19.50 | 19.05 | 19.94 | 20.41 | 18.59          | 19.50 | 19.05 | 19.94 | 20.41 |
|                 | 12H  | 18.67            | 19.49 | 19.15 | 19.97 | 20.44 | 18.67          | 19.49 | 19.15 | 19.97 | 20.44 |
| 8H              | 4H   | 18.23            | 19.15 | 18.69 | 19.59 | 20.05 | 18.23          | 19.15 | 18.69 | 19.59 | 20.05 |
|                 | 6H   | 18.83            | 19.59 | 19.32 | 20.08 | 20.55 | 18.83          | 19.59 | 19.32 | 20.08 | 20.55 |
|                 | 8H   | 19.02            | 19.70 | 19.53 | 20.21 | 20.69 | 19.02          | 19.70 | 19.53 | 20.21 | 20.69 |
|                 | 12H  | 19.15            | 19.75 | 19.65 | 20.24 | 20.79 | 19.15          | 19.75 | 19.65 | 20.24 | 20.79 |
| 12H             | 4H   | 18.26            | 19.08 | 18.74 | 19.55 | 20.02 | 18.26          | 19.08 | 18.74 | 19.55 | 20.02 |
|                 | 6H   | 18.87            | 19.55 | 19.38 | 20.06 | 20.54 | 18.87          | 19.55 | 19.38 | 20.06 | 20.54 |
|                 | 8H   | 19.10            | 19.70 | 19.61 | 20.19 | 20.75 | 19.10          | 19.70 | 19.61 | 20.19 | 20.75 |