

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: P867124

Luminaire Tested: PRLX-2002-L-940-133L-L-X-X-BLAK-X

Issue Date: 8/20/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P867124  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-83)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 8/20/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: Pentalux  
Catalog Number: PRLX-2002-L-940-133L-L-X-X-BLAK-X  
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, LARGE LIGHT ENGINE, FLAT LENS, TRUNCATED DOME WITH BLACK INTERIOR SHADE.  
LIGHT LEVEL 8  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

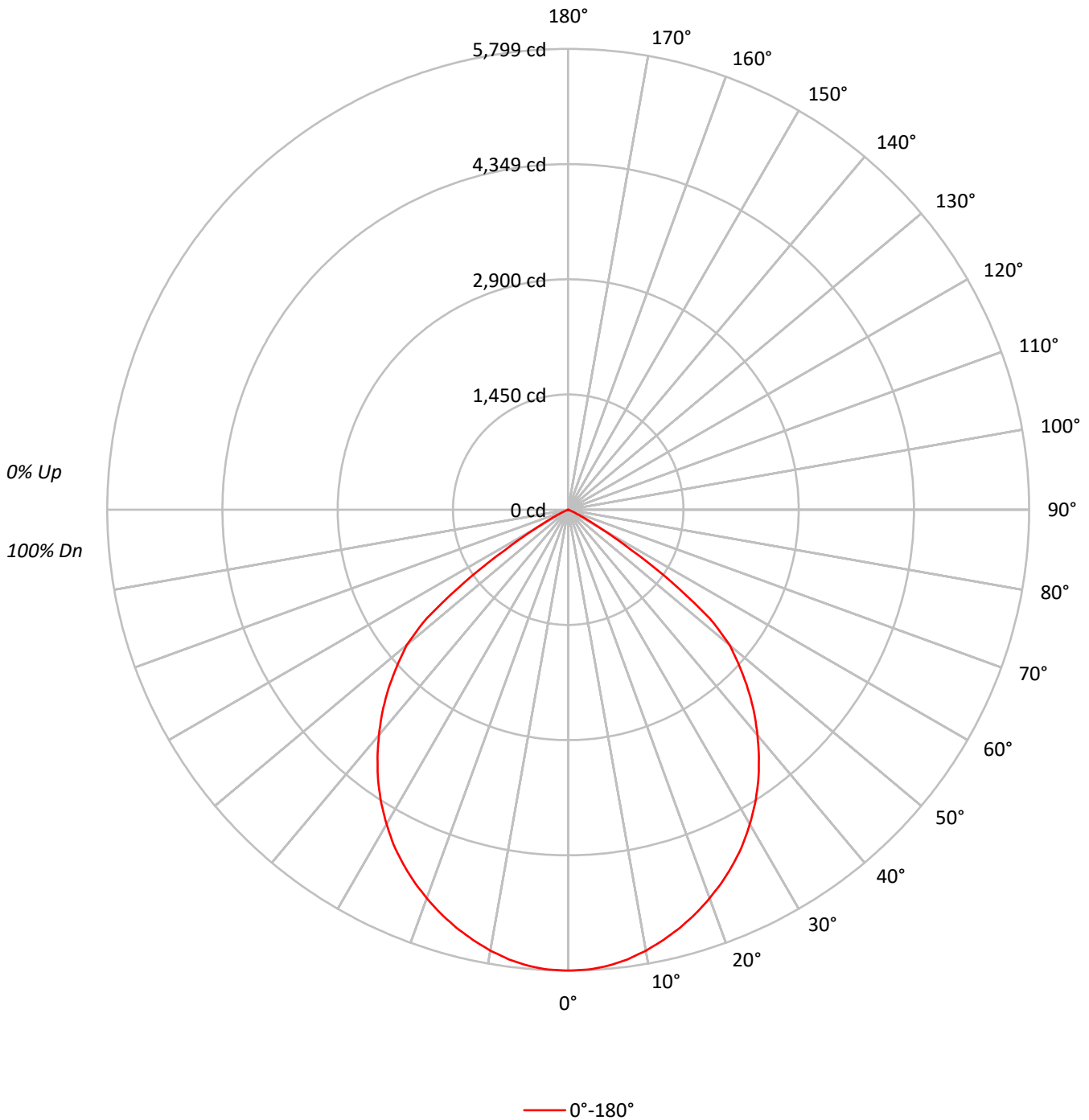
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10968.3 lumens  
Efficiency: N/A  
Efficacy: 98.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.27  
Luminous Opening: Circular (Dia: 1.67' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 111.8  
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 | 109 | 105 | 103 | 109 | 106 | 104 | 101 | 102 | 100 | 98  |  | 98  | 97  | 95  |  | 95  | 93  | 92  | 90  |
| 2   | 104 | 98  | 93  | 89  | 102 | 96  | 92  | 88  | 93  | 89  | 86  |  | 90  | 87  | 84  |  | 87  | 84  | 82  | 80  |
| 3   | 97  | 89  | 82  | 77  | 95  | 87  | 81  | 77  | 84  | 79  | 75  |  | 82  | 78  | 74  |  | 79  | 76  | 73  | 71  |
| 4   | 90  | 80  | 73  | 68  | 88  | 79  | 72  | 67  | 77  | 71  | 66  |  | 75  | 70  | 66  |  | 73  | 68  | 65  | 63  |
| 5   | 84  | 73  | 65  | 60  | 82  | 72  | 65  | 60  | 70  | 64  | 59  |  | 68  | 63  | 58  |  | 66  | 62  | 58  | 56  |
| 6   | 78  | 66  | 59  | 53  | 76  | 66  | 58  | 53  | 64  | 57  | 53  |  | 62  | 57  | 52  |  | 61  | 56  | 52  | 50  |
| 7   | 73  | 61  | 53  | 48  | 71  | 60  | 53  | 48  | 59  | 52  | 47  |  | 57  | 51  | 47  |  | 56  | 51  | 47  | 45  |
| 8   | 68  | 56  | 48  | 43  | 66  | 55  | 48  | 43  | 54  | 47  | 43  |  | 53  | 47  | 43  |  | 52  | 46  | 42  | 41  |
| 9   | 64  | 52  | 44  | 39  | 62  | 51  | 44  | 39  | 50  | 43  | 39  |  | 49  | 43  | 39  |  | 48  | 43  | 39  | 37  |
| 10  | 60  | 48  | 41  | 36  | 59  | 47  | 40  | 36  | 46  | 40  | 36  |  | 45  | 40  | 35  |  | 45  | 39  | 35  | 34  |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 28612 |
| 5°  | 28530 |
| 10° | 28224 |
| 15° | 27804 |
| 20° | 27320 |
| 25° | 26762 |
| 30° | 26037 |
| 35° | 25099 |
| 40° | 23851 |
| 45° | 22332 |
| 50° | 20356 |
| 55° | 13611 |
| 60° | 4836  |
| 65° | 1118  |
| 70° | 179   |
| 75° | 191   |
| 80° | 247   |
| 85° | 283   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 22332 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 545.8   | 5.0       |
| 10°-20°   | 1534.1  | 14.0      |
| 20°-30°   | 2262.2  | 20.6      |
| 30°-40°   | 2599.6  | 23.7      |
| 40°-50°   | 2461.1  | 22.4      |
| 50°-60°   | 1401.2  | 12.8      |
| 60°-70°   | 148.6   | 1.4       |
| 70°-80°   | 10.7    | 0.1       |
| 80°-90°   | 4.9     | 0.0       |
| 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       |
| <hr/>     |         |           |
| 0°-30°    | 4342.1  | 39.6      |
| 0°-40°    | 6941.8  | 63.3      |
| 0°-60°    | 10804.2 | 98.5      |
| 0°-90°    | 10968.3 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 10968.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 5799 |      |
| 5°  | 5761 | 546  |
| 15° | 5443 | 1534 |
| 25° | 4916 | 2262 |
| 35° | 4167 | 2600 |
| 45° | 3201 | 2461 |
| 55° | 1582 | 1401 |
| 65° | 96   | 149  |
| 75° | 10   | 11   |
| 85° | 5    | 5    |
| 90° | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 5799.2 |
| 2.5°  | 5792.9 |
| 5°    | 5760.6 |
| 7.5°  | 5707.1 |
| 10°   | 5633.7 |
| 12.5° | 5544.2 |
| 15°   | 5443.4 |
| 17.5° | 5329.0 |
| 20°   | 5203.3 |
| 22.5° | 5066.5 |
| 25°   | 4916.0 |
| 27.5° | 4754.3 |
| 30°   | 4570.2 |
| 32.5° | 4376.1 |
| 35°   | 4167.1 |
| 37.5° | 3940.7 |
| 40°   | 3703.2 |
| 42.5° | 3463.1 |
| 45°   | 3200.6 |
| 47.5° | 2928.2 |
| 50°   | 2652.0 |
| 52.5° | 2239.1 |
| 55°   | 1582.3 |
| 57.5° | 944.1  |
| 60°   | 490.1  |
| 62.5° | 245.1  |
| 65°   | 95.8   |
| 67.5° | 18.7   |
| 70°   | 12.4   |
| 72.5° | 11.2   |
| 75°   | 10.0   |
| 77.5° | 8.7    |
| 80°   | 8.7    |
| 82.5° | 6.2    |
| 85°   | 5.0    |
| 87.5° | 2.5    |
| 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 | 17.55            | 18.91 | 17.91 | 19.22 | 19.54 | 17.55          | 18.91 | 17.91 | 19.22 | 19.54 |
|                 | 3H   | 17.42            | 18.62 | 17.80 | 18.95 | 19.31 | 17.42          | 18.62 | 17.80 | 18.95 | 19.31 |
|                 | 4H   | 17.35            | 18.46 | 17.76 | 18.81 | 19.19 | 17.35          | 18.46 | 17.76 | 18.81 | 19.19 |
|                 | 6H   | 17.28            | 18.29 | 17.69 | 18.66 | 19.06 | 17.28          | 18.29 | 17.69 | 18.66 | 19.06 |
|                 | 8H   | 17.24            | 18.20 | 17.67 | 18.59 | 18.99 | 17.24          | 18.20 | 17.67 | 18.59 | 18.99 |
|                 | 12H  | 17.20            | 18.11 | 17.63 | 18.50 | 18.93 | 17.20          | 18.11 | 17.63 | 18.50 | 18.93 |
| 4H              | 2H   | 17.37            | 18.48 | 17.78 | 18.83 | 19.22 | 17.37          | 18.48 | 17.78 | 18.83 | 19.22 |
|                 | 3H   | 17.25            | 18.14 | 17.66 | 18.54 | 18.95 | 17.25          | 18.14 | 17.66 | 18.54 | 18.95 |
|                 | 4H   | 17.17            | 17.95 | 17.60 | 18.37 | 18.82 | 17.17          | 17.95 | 17.60 | 18.37 | 18.82 |
|                 | 6H   | 17.09            | 17.77 | 17.55 | 18.21 | 18.68 | 17.09          | 17.77 | 17.55 | 18.21 | 18.68 |
|                 | 8H   | 17.03            | 17.66 | 17.50 | 18.11 | 18.58 | 17.03          | 17.66 | 17.50 | 18.11 | 18.58 |
|                 | 12H  | 16.98            | 17.54 | 17.47 | 18.03 | 18.50 | 16.98          | 17.54 | 17.47 | 18.03 | 18.50 |
| 8H              | 4H   | 17.03            | 17.66 | 17.50 | 18.11 | 18.58 | 17.03          | 17.66 | 17.50 | 18.11 | 18.58 |
|                 | 6H   | 16.92            | 17.44 | 17.42 | 17.94 | 18.42 | 16.92          | 17.44 | 17.42 | 17.94 | 18.42 |
|                 | 8H   | 16.85            | 17.33 | 17.38 | 17.84 | 18.34 | 16.85          | 17.33 | 17.38 | 17.84 | 18.34 |
|                 | 12H  | 16.80            | 17.23 | 17.32 | 17.73 | 18.30 | 16.80          | 17.23 | 17.32 | 17.73 | 18.30 |
| 12H             | 4H   | 16.98            | 17.54 | 17.46 | 18.02 | 18.50 | 16.98          | 17.54 | 17.46 | 18.02 | 18.50 |
|                 | 6H   | 16.85            | 17.33 | 17.38 | 17.84 | 18.34 | 16.85          | 17.33 | 17.38 | 17.84 | 18.34 |
|                 | 8H   | 16.80            | 17.23 | 17.32 | 17.72 | 18.30 | 16.80          | 17.23 | 17.32 | 17.72 | 18.30 |