

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: P866920

Luminaire Tested: PRLX-2002-L-927-100L-G-X-X-BLAK-X

Issue Date: 8/20/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P866920  
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-927-100L-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 6  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

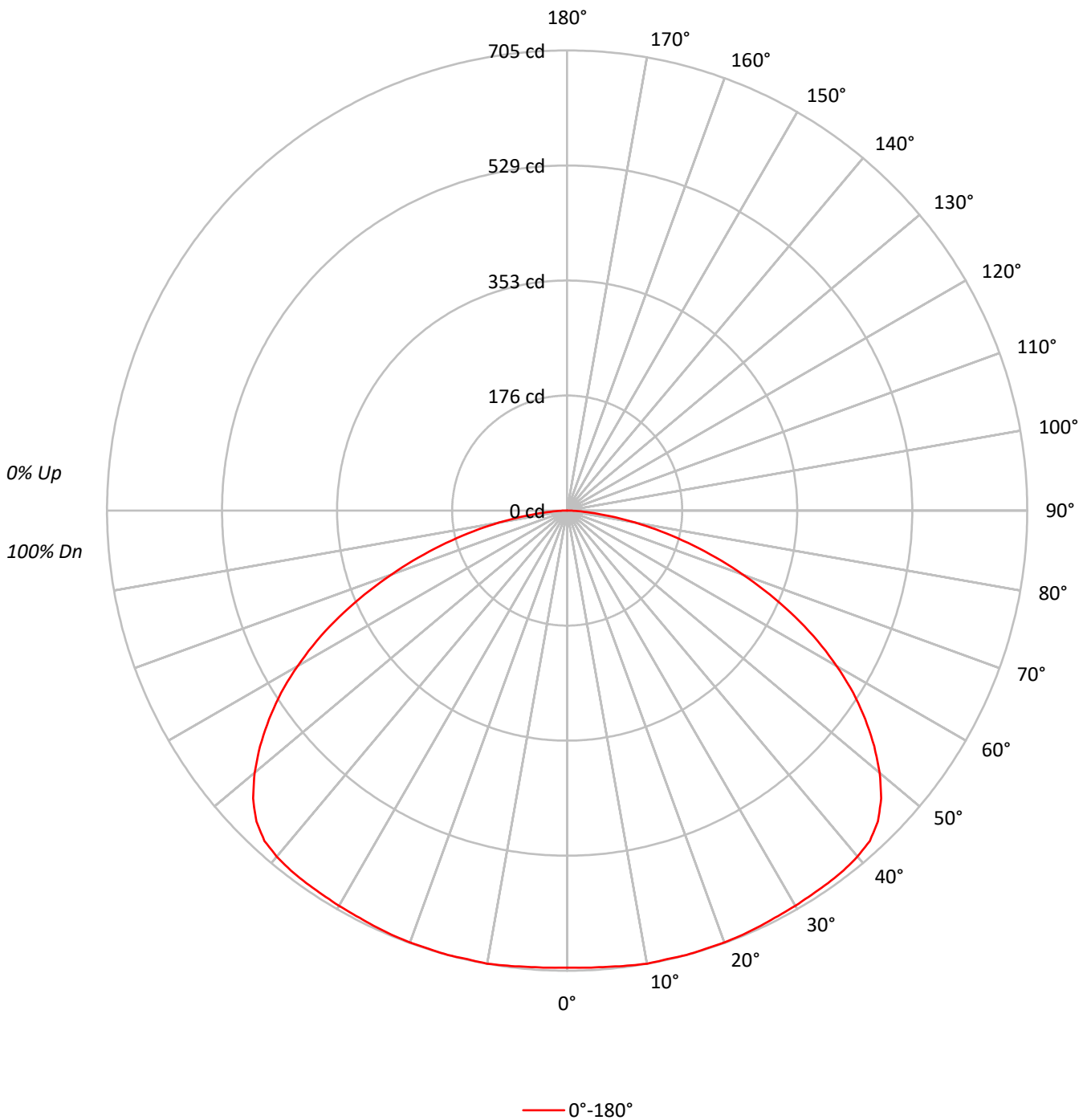
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2671.9 lumens  
Efficiency: N/A  
Efficacy: 33.7 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): 79.4  
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°  | 3454 |
| 5°  | 3475 |
| 10° | 3531 |
| 15° | 3601 |
| 20° | 3697 |
| 25° | 3820 |
| 30° | 3983 |
| 35° | 4197 |
| 40° | 4457 |
| 45° | 4699 |
| 50° | 4799 |
| 55° | 4796 |
| 60° | 4709 |
| 65° | 4499 |
| 70° | 4133 |
| 75° | 3666 |
| 80° | 2995 |
| 85° | 2004 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 52.5°  
 Luminance: 4806 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 67.1   | 2.5       |
| 10°-20°   | 199.7  | 7.5       |
| 20°-30°   | 324.7  | 12.2      |
| 30°-40°   | 437.3  | 16.4      |
| 40°-50°   | 516.4  | 19.3      |
| 50°-60°   | 497.0  | 18.6      |
| 60°-70°   | 380.1  | 14.2      |
| 70°-80°   | 204.1  | 7.6       |
| 80°-90°   | 45.4   | 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°    | 591.5  | 22.1      |
| 0°-40°    | 1028.8 | 38.5      |
| 0°-60°    | 2042.3 | 76.4      |
| 0°-90°    | 2671.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2671.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 700 |      |
| 5°  | 702 | 67   |
| 15° | 705 | 200  |
| 25° | 702 | 325  |
| 35° | 697 | 437  |
| 45° | 674 | 516  |
| 55° | 558 | 497  |
| 65° | 385 | 380  |
| 75° | 192 | 204  |
| 85° | 35  | 45   |
| 90° | 0   |      |

TEST NUMBER: P866920

CATALOG NUMBER: PRLX-2002-L-927-100L-G-X-X-BLAK-X

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 700.1 |
| 2.5°  | 700.9 |
| 5°    | 701.7 |
| 7.5°  | 703.3 |
| 10°   | 704.9 |
| 12.5° | 704.1 |
| 15°   | 704.9 |
| 17.5° | 704.1 |
| 20°   | 704.1 |
| 22.5° | 703.3 |
| 25°   | 701.7 |
| 27.5° | 700.1 |
| 30°   | 699.2 |
| 32.5° | 697.6 |
| 35°   | 696.8 |
| 37.5° | 695.2 |
| 40°   | 692.0 |
| 42.5° | 686.4 |
| 45°   | 673.5 |
| 47.5° | 652.6 |
| 50°   | 625.2 |
| 52.5° | 593.0 |
| 55°   | 557.6 |
| 57.5° | 519.8 |
| 60°   | 477.2 |
| 62.5° | 432.9 |
| 65°   | 385.4 |
| 67.5° | 336.3 |
| 70°   | 286.5 |
| 72.5° | 239.0 |
| 75°   | 192.3 |
| 77.5° | 147.3 |
| 80°   | 105.4 |
| 82.5° | 66.8  |
| 85°   | 35.4  |
| 87.5° | 12.1  |
| 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 | 18.07            | 19.78 | 18.43 | 20.10 | 20.41 | 18.07          | 19.78 | 18.43 | 20.10 | 20.41 |
|                 | 3H   | 19.82            | 21.38 | 20.20 | 21.70 | 22.06 | 19.82          | 21.38 | 20.20 | 21.70 | 22.06 |
|                 | 4H   | 20.43            | 21.89 | 20.83 | 22.24 | 22.61 | 20.43          | 21.89 | 20.83 | 22.24 | 22.61 |
|                 | 6H   | 20.82            | 22.19 | 21.23 | 22.55 | 22.94 | 20.82          | 22.19 | 21.23 | 22.55 | 22.94 |
|                 | 8H   | 20.93            | 22.23 | 21.35 | 22.62 | 23.01 | 20.93          | 22.23 | 21.35 | 22.62 | 23.01 |
|                 | 12H  | 20.98            | 22.22 | 21.41 | 22.61 | 23.03 | 20.98          | 22.22 | 21.41 | 22.61 | 23.03 |
| 4H              | 2H   | 18.72            | 20.18 | 19.11 | 20.53 | 20.90 | 18.72          | 20.18 | 19.11 | 20.53 | 20.90 |
|                 | 3H   | 20.67            | 21.90 | 21.08 | 22.30 | 22.70 | 20.67          | 21.90 | 21.08 | 22.30 | 22.70 |
|                 | 4H   | 21.39            | 22.51 | 21.82 | 22.92 | 23.36 | 21.39          | 22.51 | 21.82 | 22.92 | 23.36 |
|                 | 6H   | 21.90            | 22.88 | 22.35 | 23.32 | 23.77 | 21.90          | 22.88 | 22.35 | 23.32 | 23.77 |
|                 | 8H   | 22.04            | 22.95 | 22.50 | 23.39 | 23.85 | 22.04          | 22.95 | 22.50 | 23.39 | 23.85 |
|                 | 12H  | 22.12            | 22.94 | 22.60 | 23.41 | 23.88 | 22.12          | 22.94 | 22.60 | 23.41 | 23.88 |
| 8H              | 4H   | 21.68            | 22.59 | 22.14 | 23.03 | 23.50 | 21.68          | 22.59 | 22.14 | 23.03 | 23.50 |
|                 | 6H   | 22.28            | 23.04 | 22.77 | 23.53 | 24.00 | 22.28          | 23.04 | 22.77 | 23.53 | 24.00 |
|                 | 8H   | 22.47            | 23.15 | 22.97 | 23.65 | 24.14 | 22.47          | 23.15 | 22.97 | 23.65 | 24.14 |
|                 | 12H  | 22.59            | 23.19 | 23.10 | 23.68 | 24.24 | 22.59          | 23.19 | 23.10 | 23.68 | 24.24 |
| 12H             | 4H   | 21.71            | 22.53 | 22.18 | 23.00 | 23.47 | 21.71          | 22.53 | 22.18 | 23.00 | 23.47 |
|                 | 6H   | 22.32            | 23.00 | 22.82 | 23.50 | 23.99 | 22.32          | 23.00 | 22.82 | 23.50 | 23.99 |
|                 | 8H   | 22.55            | 23.15 | 23.05 | 23.64 | 24.20 | 22.55          | 23.15 | 23.05 | 23.64 | 24.20 |