

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: P867411

Luminaire Tested: PRLX-2004-L-940-48L-G-X-X-WHHR-X

Issue Date: 8/20/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P867411  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-72)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 8/20/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: Pentalux  
Catalog Number: PRLX-2004-L-940-48L-G-X-X-WHHR-X  
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, LARGE LIGHT ENGINE, GLOBE LENS,  
BELL WITH WHITE INTERIOR SHADE.  
LIGHT LEVEL 3  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

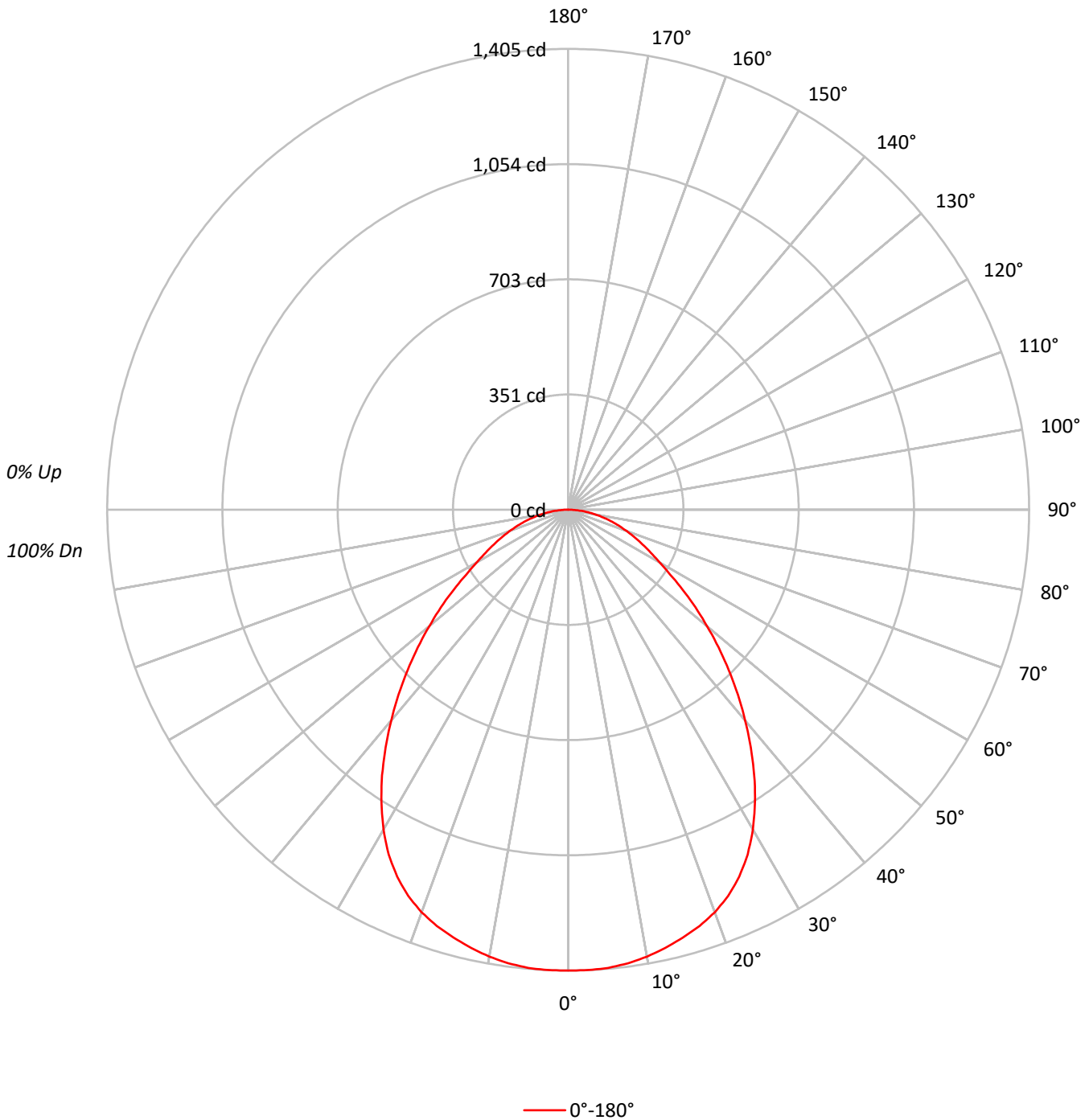
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3050.3 lumens  
Efficiency: N/A  
Efficacy: 81.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.22  
Luminous Opening: Circular (Dia: 1.67' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.5  
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   | 110 | 106 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  | 95  | 93  | 91  | 92  | 90  | 88  | 86  |
| 2   | 101 | 94  | 88  | 82  | 99  | 92  | 86  | 81  | 88  | 84  | 80  | 85  | 81  | 78  | 82  | 79  | 76  | 74  |
| 3   | 93  | 84  | 76  | 70  | 91  | 82  | 75  | 70  | 79  | 73  | 68  | 76  | 71  | 67  | 74  | 70  | 66  | 64  |
| 4   | 86  | 75  | 67  | 61  | 84  | 74  | 66  | 60  | 71  | 65  | 60  | 69  | 63  | 59  | 67  | 62  | 58  | 56  |
| 5   | 80  | 68  | 59  | 53  | 78  | 67  | 59  | 53  | 65  | 58  | 52  | 63  | 57  | 52  | 61  | 56  | 51  | 49  |
| 6   | 74  | 62  | 53  | 47  | 72  | 61  | 53  | 47  | 59  | 52  | 47  | 57  | 51  | 46  | 56  | 50  | 46  | 44  |
| 7   | 69  | 56  | 48  | 42  | 67  | 55  | 48  | 42  | 54  | 47  | 42  | 53  | 46  | 42  | 51  | 46  | 41  | 39  |
| 8   | 64  | 52  | 44  | 38  | 63  | 51  | 43  | 38  | 50  | 43  | 38  | 49  | 42  | 38  | 47  | 42  | 37  | 36  |
| 9   | 60  | 48  | 40  | 35  | 59  | 47  | 40  | 35  | 46  | 39  | 34  | 45  | 39  | 34  | 44  | 38  | 34  | 32  |
| 10  | 57  | 44  | 37  | 32  | 56  | 44  | 36  | 32  | 43  | 36  | 32  | 42  | 36  | 31  | 41  | 35  | 31  | 30  |

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

|     |      |
|-----|------|
|     | 0°   |
| 0°  | 6932 |
| 5°  | 6945 |
| 10° | 6932 |
| 15° | 6899 |
| 20° | 6858 |
| 25° | 6718 |
| 30° | 6415 |
| 35° | 5956 |
| 40° | 5406 |
| 45° | 4825 |
| 50° | 4241 |
| 55° | 3663 |
| 60° | 3175 |
| 65° | 2916 |
| 70° | 2722 |
| 75° | 2554 |
| 80° | 2409 |
| 85° | 2270 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4825 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 133.2  | 4.4       |
| 10°-20°   | 381.2  | 12.5      |
| 20°-30°   | 565.7  | 18.5      |
| 30°-40°   | 616.1  | 20.2      |
| 40°-50°   | 534.2  | 17.5      |
| 50°-60°   | 383.9  | 12.6      |
| 60°-70°   | 248.9  | 8.2       |
| 70°-80°   | 142.5  | 4.7       |
| 80°-90°   | 44.6   | 1.5       |
| 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°    | 1080.1 | 35.4      |
| 0°-40°    | 1696.2 | 55.6      |
| 0°-60°    | 2614.2 | 85.7      |
| 0°-90°    | 3050.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3050.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1405 |      |
| 5°  | 1402 | 133  |
| 15° | 1351 | 381  |
| 25° | 1234 | 566  |
| 35° | 989  | 616  |
| 45° | 692  | 534  |
| 55° | 426  | 384  |
| 65° | 250  | 249  |
| 75° | 134  | 142  |
| 85° | 40   | 45   |
| 90° | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1405.0 |
| 2.5°  | 1405.0 |
| 5°    | 1402.2 |
| 7.5°  | 1395.0 |
| 10°   | 1383.6 |
| 12.5° | 1368.1 |
| 15°   | 1350.7 |
| 17.5° | 1330.7 |
| 20°   | 1306.1 |
| 22.5° | 1274.6 |
| 25°   | 1234.0 |
| 27.5° | 1184.8 |
| 30°   | 1126.0 |
| 32.5° | 1059.9 |
| 35°   | 988.8  |
| 37.5° | 914.0  |
| 40°   | 839.3  |
| 42.5° | 765.4  |
| 45°   | 691.5  |
| 47.5° | 621.8  |
| 50°   | 552.5  |
| 52.5° | 488.7  |
| 55°   | 425.8  |
| 57.5° | 368.8  |
| 60°   | 321.8  |
| 62.5° | 283.5  |
| 65°   | 249.8  |
| 67.5° | 217.9  |
| 70°   | 188.7  |
| 72.5° | 160.5  |
| 75°   | 134.0  |
| 77.5° | 109.0  |
| 80°   | 84.8   |
| 82.5° | 62.0   |
| 85°   | 40.1   |
| 87.5° | 19.6   |
| 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 | 15.48            | 16.98 | 15.84 | 17.29 | 17.61 | 15.48          | 16.98 | 15.84 | 17.29 | 17.61 |
|                 | 3H   | 16.99            | 18.34 | 17.37 | 18.66 | 19.03 | 16.99          | 18.34 | 17.37 | 18.66 | 19.03 |
|                 | 4H   | 17.59            | 18.85 | 17.99 | 19.20 | 19.58 | 17.59          | 18.85 | 17.99 | 19.20 | 19.58 |
|                 | 6H   | 18.07            | 19.23 | 18.48 | 19.60 | 19.99 | 18.07          | 19.23 | 18.48 | 19.60 | 19.99 |
|                 | 8H   | 18.24            | 19.35 | 18.67 | 19.74 | 20.14 | 18.24          | 19.35 | 18.67 | 19.74 | 20.14 |
|                 | 12H  | 18.36            | 19.42 | 18.79 | 19.81 | 20.23 | 18.36          | 19.42 | 18.79 | 19.81 | 20.23 |
| 4H              | 2H   | 15.98            | 17.24 | 16.38 | 17.59 | 17.97 | 15.98          | 17.24 | 16.38 | 17.59 | 17.97 |
|                 | 3H   | 17.73            | 18.78 | 18.14 | 19.18 | 19.58 | 17.73          | 18.78 | 18.14 | 19.18 | 19.58 |
|                 | 4H   | 18.47            | 19.41 | 18.90 | 19.83 | 20.27 | 18.47          | 19.41 | 18.90 | 19.83 | 20.27 |
|                 | 6H   | 19.09            | 19.91 | 19.54 | 20.35 | 20.81 | 19.09          | 19.91 | 19.54 | 20.35 | 20.81 |
|                 | 8H   | 19.31            | 20.08 | 19.77 | 20.52 | 20.99 | 19.31          | 20.08 | 19.77 | 20.52 | 20.99 |
|                 | 12H  | 19.48            | 20.17 | 19.96 | 20.65 | 21.12 | 19.48          | 20.17 | 19.96 | 20.65 | 21.12 |
| 8H              | 4H   | 18.74            | 19.51 | 19.21 | 19.96 | 20.42 | 18.74          | 19.51 | 19.21 | 19.96 | 20.42 |
|                 | 6H   | 19.49            | 20.13 | 19.99 | 20.62 | 21.10 | 19.49          | 20.13 | 19.99 | 20.62 | 21.10 |
|                 | 8H   | 19.80            | 20.37 | 20.31 | 20.88 | 21.37 | 19.80          | 20.37 | 20.31 | 20.88 | 21.37 |
|                 | 12H  | 20.06            | 20.57 | 20.57 | 21.06 | 21.62 | 20.06          | 20.57 | 20.57 | 21.06 | 21.62 |
| 12H             | 4H   | 18.77            | 19.46 | 19.25 | 19.94 | 20.41 | 18.77          | 19.46 | 19.25 | 19.94 | 20.41 |
|                 | 6H   | 19.55            | 20.12 | 20.06 | 20.63 | 21.12 | 19.55          | 20.12 | 20.06 | 20.63 | 21.12 |
|                 | 8H   | 19.92            | 20.42 | 20.43 | 20.91 | 21.48 | 19.92          | 20.42 | 20.43 | 20.91 | 21.48 |