

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: P979313

Luminaire Tested: PRLX-240-927-48L-F-U-S-WHTE-X

Issue Date: 4/3/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P979313  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2502-353-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/3/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PrentaLux  
Catalog Number: PRLX-240-927-48L-F-U-S-WHTE-X  
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, WHITE 240 SHADE WITH FROSTED LENS  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

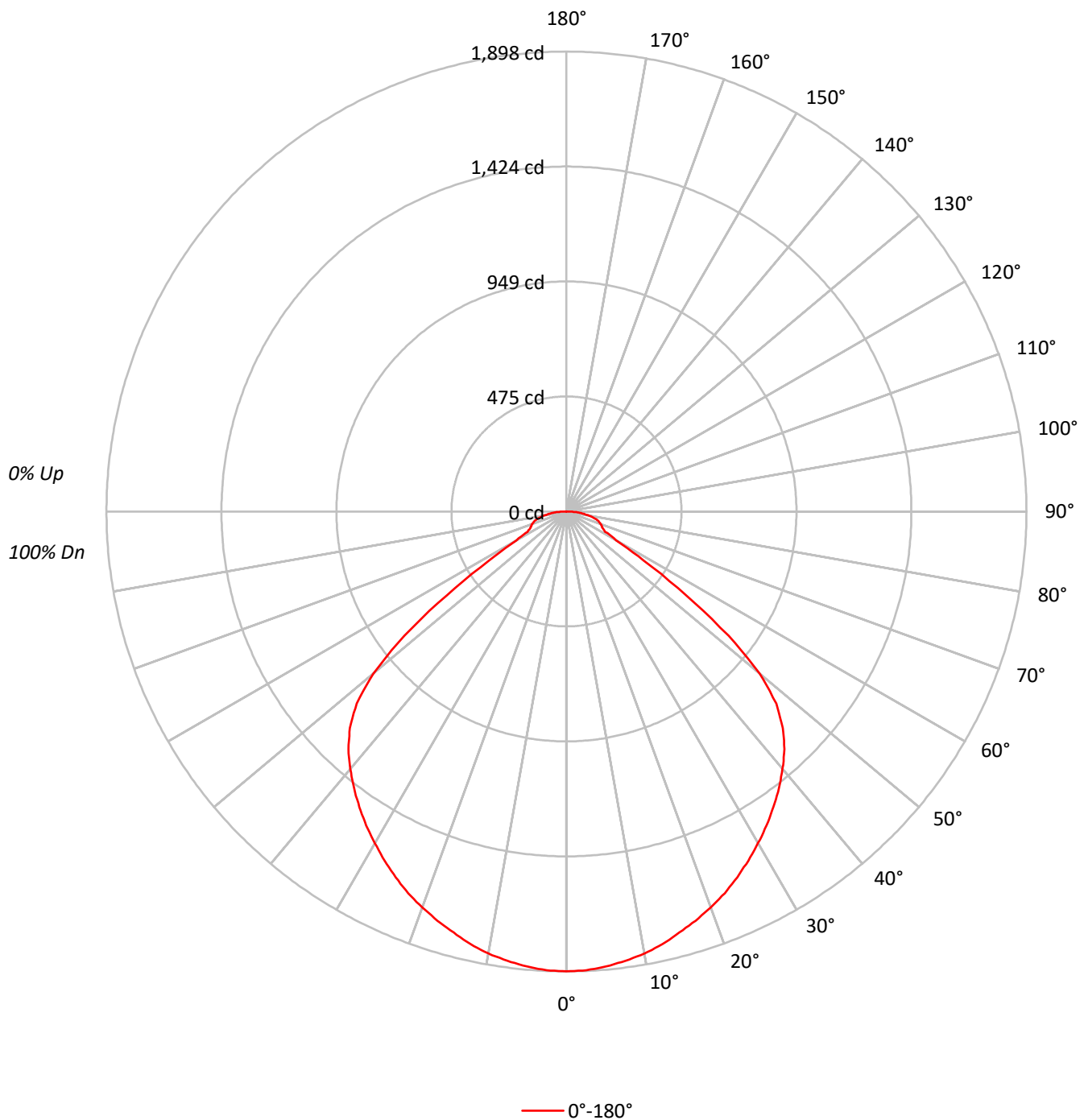
Lumens per Lamp: N/A  
Luminaire Lumens: 4247.1 lumens  
Efficiency: N/A  
Efficacy: 126.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.37  
Luminous Opening: Circular (Dia: 1.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.5  
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: NR  
Operation Time: NR  
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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98  | 100 | 98  | 95  |  | 96  | 94  | 92  |  | 93  |
| 2   | 102 | 95  | 89  | 84  | 100 | 93  | 88  | 83  | 90  | 85  | 82  |  | 87  | 83  | 80  |  | 84  |
| 3   | 94  | 85  | 78  | 72  | 92  | 84  | 77  | 72  | 81  | 75  | 71  |  | 78  | 73  | 69  |  | 76  |
| 4   | 87  | 77  | 69  | 63  | 85  | 75  | 68  | 62  | 73  | 67  | 62  |  | 71  | 65  | 61  |  | 69  |
| 5   | 81  | 69  | 61  | 55  | 79  | 68  | 61  | 55  | 66  | 59  | 54  |  | 64  | 58  | 54  |  | 62  |
| 6   | 75  | 63  | 55  | 49  | 73  | 62  | 54  | 49  | 60  | 53  | 48  |  | 59  | 52  | 48  |  | 57  |
| 7   | 70  | 57  | 49  | 44  | 68  | 56  | 49  | 43  | 55  | 48  | 43  |  | 54  | 47  | 43  |  | 52  |
| 8   | 65  | 52  | 45  | 39  | 64  | 52  | 44  | 39  | 50  | 44  | 39  |  | 49  | 43  | 39  |  | 48  |
| 9   | 61  | 48  | 41  | 35  | 59  | 48  | 40  | 35  | 47  | 40  | 35  |  | 46  | 39  | 35  |  | 45  |
| 10  | 57  | 45  | 37  | 32  | 56  | 44  | 37  | 32  | 43  | 37  | 32  |  | 42  | 36  | 32  |  | 41  |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 19110 |
| 5°  | 19056 |
| 10° | 18948 |
| 15° | 18751 |
| 20° | 18632 |
| 25° | 18511 |
| 30° | 18383 |
| 35° | 18303 |
| 40° | 18232 |
| 45° | 17983 |
| 50° | 16286 |
| 55° | 10584 |
| 60° | 4777  |
| 65° | 3924  |
| 70° | 4437  |
| 75° | 4941  |
| 80° | 5178  |
| 85° | 5326  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 17983 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 178.9  | 4.2       |
| 10°-20°   | 508.2  | 12.0      |
| 20°-30°   | 768.0  | 18.1      |
| 30°-40°   | 932.0  | 21.9      |
| 40°-50°   | 960.9  | 22.6      |
| 50°-60°   | 545.0  | 12.8      |
| 60°-70°   | 172.4  | 4.1       |
| 70°-80°   | 131.5  | 3.1       |
| 80°-90°   | 50.1   | 1.2       |
| 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°    | 1455.2 | 34.3      |
| 0°-40°    | 2387.2 | 56.2      |
| 0°-60°    | 3893.1 | 91.7      |
| 0°-90°    | 4247.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4247.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1898 |      |
| 5°  | 1885 | 179  |
| 15° | 1799 | 508  |
| 25° | 1666 | 768  |
| 35° | 1489 | 932  |
| 45° | 1263 | 961  |
| 55° | 603  | 545  |
| 65° | 165  | 172  |
| 75° | 127  | 132  |
| 85° | 46   | 50   |
| 90° | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1897.9 |
| 2.5°  | 1895.1 |
| 5°    | 1885.3 |
| 7.5°  | 1870.0 |
| 10°   | 1853.2 |
| 12.5° | 1829.5 |
| 15°   | 1798.8 |
| 17.5° | 1770.9 |
| 20°   | 1738.8 |
| 22.5° | 1705.3 |
| 25°   | 1666.2 |
| 27.5° | 1624.4 |
| 30°   | 1581.1 |
| 32.5° | 1536.5 |
| 35°   | 1489.0 |
| 37.5° | 1440.2 |
| 40°   | 1387.1 |
| 42.5° | 1331.3 |
| 45°   | 1262.9 |
| 47.5° | 1173.6 |
| 50°   | 1039.7 |
| 52.5° | 842.9  |
| 55°   | 602.9  |
| 57.5° | 378.2  |
| 60°   | 237.2  |
| 62.5° | 180.0  |
| 65°   | 164.7  |
| 67.5° | 157.7  |
| 70°   | 150.7  |
| 72.5° | 140.9  |
| 75°   | 127.0  |
| 77.5° | 110.2  |
| 80°   | 89.3   |
| 82.5° | 68.4   |
| 85°   | 46.1   |
| 87.5° | 25.1   |
| 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 | 16.89            | 18.36 | 17.25 | 18.67 | 18.99 | 16.89          | 18.36 | 17.25 | 18.67 | 18.99 |
|                 | 3H   | 17.78            | 19.09 | 18.16 | 19.41 | 19.78 | 17.78          | 19.09 | 18.16 | 19.41 | 19.78 |
|                 | 4H   | 18.39            | 19.61 | 18.79 | 19.96 | 20.34 | 18.39          | 19.61 | 18.79 | 19.96 | 20.34 |
|                 | 6H   | 18.99            | 20.11 | 19.40 | 20.48 | 20.87 | 18.99          | 20.11 | 19.40 | 20.48 | 20.87 |
|                 | 8H   | 19.22            | 20.29 | 19.65 | 20.68 | 21.08 | 19.22          | 20.29 | 19.65 | 20.68 | 21.08 |
|                 | 12H  | 19.41            | 20.43 | 19.84 | 20.81 | 21.24 | 19.41          | 20.43 | 19.84 | 20.81 | 21.24 |
| 4H              | 2H   | 17.01            | 18.23 | 17.41 | 18.58 | 18.96 | 17.01          | 18.23 | 17.41 | 18.58 | 18.96 |
|                 | 3H   | 18.25            | 19.25 | 18.67 | 19.65 | 20.06 | 18.25          | 19.25 | 18.67 | 19.65 | 20.06 |
|                 | 4H   | 19.08            | 19.97 | 19.51 | 20.39 | 20.83 | 19.08          | 19.97 | 19.51 | 20.39 | 20.83 |
|                 | 6H   | 19.88            | 20.66 | 20.34 | 21.10 | 21.57 | 19.88          | 20.66 | 20.34 | 21.10 | 21.57 |
|                 | 8H   | 20.20            | 20.93 | 20.67 | 21.38 | 21.84 | 20.20          | 20.93 | 20.67 | 21.38 | 21.84 |
|                 | 12H  | 20.46            | 21.11 | 20.95 | 21.59 | 22.07 | 20.46          | 21.11 | 20.95 | 21.59 | 22.07 |
| 8H              | 4H   | 19.39            | 20.12 | 19.86 | 20.56 | 21.03 | 19.39          | 20.12 | 19.86 | 20.56 | 21.03 |
|                 | 6H   | 20.36            | 20.97 | 20.86 | 21.46 | 21.94 | 20.36          | 20.97 | 20.86 | 21.46 | 21.94 |
|                 | 8H   | 20.78            | 21.33 | 21.30 | 21.84 | 22.33 | 20.78          | 21.33 | 21.30 | 21.84 | 22.33 |
|                 | 12H  | 21.15            | 21.64 | 21.66 | 22.14 | 22.70 | 21.15          | 21.64 | 21.66 | 22.14 | 22.70 |
| 12H             | 4H   | 19.43            | 20.08 | 19.92 | 20.56 | 21.04 | 19.43          | 20.08 | 19.92 | 20.56 | 21.04 |
|                 | 6H   | 20.44            | 20.99 | 20.96 | 21.50 | 21.99 | 20.44          | 20.99 | 20.96 | 21.50 | 21.99 |
|                 | 8H   | 20.93            | 21.43 | 21.44 | 21.92 | 22.49 | 20.93          | 21.43 | 21.44 | 21.92 | 22.49 |