

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: P980331

Luminaire Tested: PRLX-243-930-31L-C-U-S-WHTE-X

Issue Date: 4/3/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P980331  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2502-353-31)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/3/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PrentaLux  
Catalog Number: PRLX-243-930-31L-C-U-S-WHTE-X  
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, WHITE 243 SHADE WITH CLEAR LENS  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

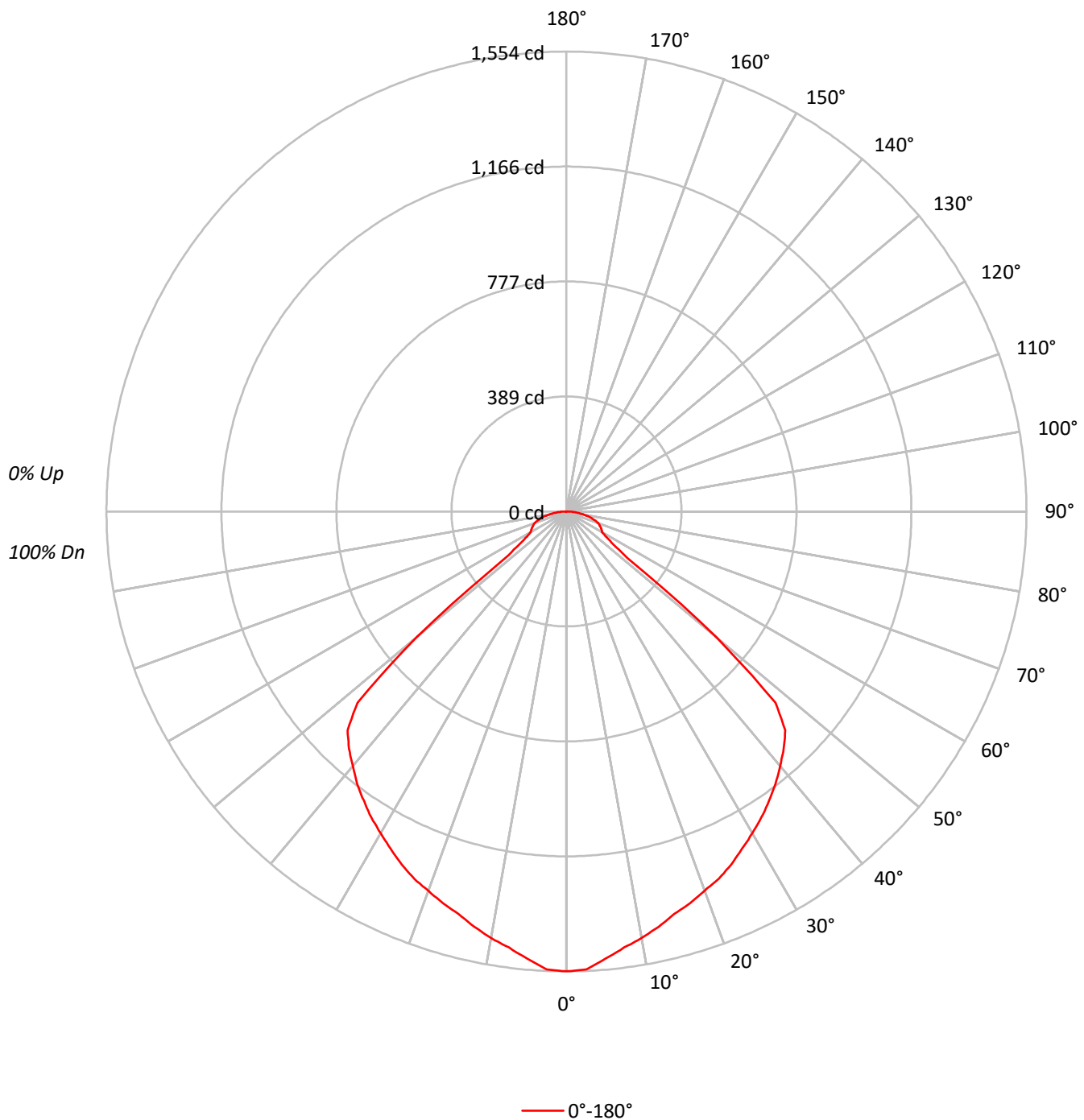
Lumens per Lamp: N/A  
Luminaire Lumens: 3135.4 lumens  
Efficiency: N/A  
Efficacy: 152.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.38  
Luminous Opening: Circular (Dia: 1.67' x H: 0')  
CIE Type: Direct

Input Watts (W): 20.6  
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  |  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 100 |
| 1   | 111 | 107 | 104 | 100 | 108 | 105 | 102 | 99  | 101 | 98  | 96  |  | 97  | 95  | 93  |  | 88  |
| 2   | 103 | 96  | 91  | 86  | 100 | 94  | 89  | 85  | 91  | 87  | 83  |  | 88  | 84  | 81  |  | 77  |
| 3   | 95  | 87  | 80  | 74  | 93  | 85  | 79  | 74  | 82  | 77  | 72  |  | 80  | 75  | 71  |  | 68  |
| 4   | 88  | 78  | 71  | 65  | 86  | 77  | 70  | 65  | 75  | 68  | 64  |  | 72  | 67  | 63  |  | 60  |
| 5   | 82  | 71  | 63  | 57  | 80  | 70  | 63  | 57  | 68  | 61  | 56  |  | 66  | 60  | 56  |  | 53  |
| 6   | 76  | 65  | 57  | 51  | 75  | 64  | 56  | 51  | 62  | 55  | 50  |  | 60  | 55  | 50  |  | 48  |
| 7   | 71  | 59  | 51  | 46  | 70  | 58  | 51  | 46  | 57  | 50  | 45  |  | 56  | 49  | 45  |  | 43  |
| 8   | 67  | 54  | 47  | 41  | 65  | 54  | 46  | 41  | 52  | 46  | 41  |  | 51  | 45  | 41  |  | 39  |
| 9   | 62  | 50  | 43  | 37  | 61  | 49  | 42  | 37  | 48  | 42  | 37  |  | 47  | 41  | 37  |  | 35  |
| 10  | 59  | 46  | 39  | 34  | 57  | 46  | 39  | 34  | 45  | 38  | 34  |  | 44  | 38  | 34  |  | 32  |

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

|     |      |
|-----|------|
|     | 0°   |
| 0°  | 7665 |
| 5°  | 7512 |
| 10° | 7332 |
| 15° | 7193 |
| 20° | 7161 |
| 25° | 7166 |
| 30° | 7152 |
| 35° | 7189 |
| 40° | 7232 |
| 45° | 7294 |
| 50° | 5067 |
| 55° | 1648 |
| 60° | 1376 |
| 65° | 1492 |
| 70° | 1633 |
| 75° | 1697 |
| 80° | 1622 |
| 85° | 1642 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 7294 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 143.1  | 4.6       |
| 10°-20°   | 398.8  | 12.7      |
| 20°-30°   | 606.6  | 19.3      |
| 30°-40°   | 747.4  | 23.8      |
| 40°-50°   | 766.8  | 24.5      |
| 50°-60°   | 222.8  | 7.1       |
| 60°-70°   | 126.1  | 4.0       |
| 70°-80°   | 92.2   | 2.9       |
| 80°-90°   | 31.7   | 1.0       |
| 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       |
| 0°-30°    | 1148.4 | 36.6      |
| 0°-40°    | 1895.9 | 60.5      |
| 0°-60°    | 2885.4 | 92.0      |
| 0°-90°    | 3135.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3135.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1554 |      |
| 5°  | 1517 | 143  |
| 15° | 1408 | 399  |
| 25° | 1316 | 607  |
| 35° | 1194 | 747  |
| 45° | 1045 | 767  |
| 55° | 192  | 223  |
| 65° | 128  | 126  |
| 75° | 89   | 92   |
| 85° | 29   | 32   |
| 90° | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1553.5 |
| 2.5°  | 1548.7 |
| 5°    | 1516.7 |
| 7.5°  | 1486.7 |
| 10°   | 1463.5 |
| 12.5° | 1437.4 |
| 15°   | 1408.3 |
| 17.5° | 1388.0 |
| 20°   | 1363.8 |
| 22.5° | 1343.5 |
| 25°   | 1316.4 |
| 27.5° | 1285.4 |
| 30°   | 1255.4 |
| 32.5° | 1226.4 |
| 35°   | 1193.5 |
| 37.5° | 1160.5 |
| 40°   | 1122.8 |
| 42.5° | 1087.0 |
| 45°   | 1045.4 |
| 47.5° | 957.3  |
| 50°   | 660.1  |
| 52.5° | 259.4  |
| 55°   | 191.6  |
| 57.5° | 157.8  |
| 60°   | 139.4  |
| 62.5° | 133.6  |
| 65°   | 127.8  |
| 67.5° | 121.0  |
| 70°   | 113.2  |
| 72.5° | 102.6  |
| 75°   | 89.0   |
| 77.5° | 72.6   |
| 80°   | 57.1   |
| 82.5° | 42.6   |
| 85°   | 29.0   |
| 87.5° | 16.5   |
| 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 | 9.60             | 11.01 | 9.97  | 11.33 | 11.64 | 9.60           | 11.01 | 9.97  | 11.33 | 11.64 |
|                 | 3H   | 12.02            | 13.28 | 12.40 | 13.61 | 13.97 | 12.02          | 13.28 | 12.40 | 13.61 | 13.97 |
|                 | 4H   | 13.08            | 14.25 | 13.48 | 14.60 | 14.98 | 13.08          | 14.25 | 13.48 | 14.60 | 14.98 |
|                 | 6H   | 13.86            | 14.94 | 14.28 | 15.31 | 15.70 | 13.86          | 14.94 | 14.28 | 15.31 | 15.70 |
|                 | 8H   | 14.14            | 15.16 | 14.57 | 15.55 | 15.96 | 14.14          | 15.16 | 14.57 | 15.55 | 15.96 |
|                 | 12H  | 14.35            | 15.33 | 14.79 | 15.72 | 16.15 | 14.35          | 15.33 | 14.79 | 15.72 | 16.15 |
| 4H              | 2H   | 10.35            | 11.52 | 10.75 | 11.87 | 12.25 | 10.35          | 11.52 | 10.75 | 11.87 | 12.25 |
|                 | 3H   | 13.04            | 14.00 | 13.45 | 14.40 | 14.81 | 13.04          | 14.00 | 13.45 | 14.40 | 14.81 |
|                 | 4H   | 14.23            | 15.09 | 14.67 | 15.51 | 15.95 | 14.23          | 15.09 | 14.67 | 15.51 | 15.95 |
|                 | 6H   | 15.15            | 15.89 | 15.61 | 16.34 | 16.80 | 15.15          | 15.89 | 15.61 | 16.34 | 16.80 |
|                 | 8H   | 15.48            | 16.17 | 15.94 | 16.62 | 17.09 | 15.48          | 16.17 | 15.94 | 16.62 | 17.09 |
|                 | 12H  | 15.74            | 16.36 | 16.23 | 16.84 | 17.32 | 15.74          | 16.36 | 16.23 | 16.84 | 17.32 |
| 8H              | 4H   | 14.66            | 15.35 | 15.12 | 15.80 | 16.27 | 14.66          | 15.35 | 15.12 | 15.80 | 16.27 |
|                 | 6H   | 15.71            | 16.29 | 16.21 | 16.78 | 17.26 | 15.71          | 16.29 | 16.21 | 16.78 | 17.26 |
|                 | 8H   | 16.13            | 16.66 | 16.65 | 17.17 | 17.66 | 16.13          | 16.66 | 16.65 | 17.17 | 17.66 |
|                 | 12H  | 16.50            | 16.97 | 17.02 | 17.46 | 18.03 | 16.50          | 16.97 | 17.02 | 17.46 | 18.03 |
| 12H             | 4H   | 14.70            | 15.32 | 15.19 | 15.81 | 16.28 | 14.70          | 15.32 | 15.19 | 15.81 | 16.28 |
|                 | 6H   | 15.80            | 16.32 | 16.31 | 16.83 | 17.32 | 15.80          | 16.32 | 16.31 | 16.83 | 17.32 |
|                 | 8H   | 16.29            | 16.76 | 16.80 | 17.25 | 17.82 | 16.29          | 16.76 | 16.80 | 17.25 | 17.82 |