

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: PrentaLux

Report Number: P980533

Luminaire Tested: PRLX-243-940-LL8-F-U-S-WHTE-X

Issue Date: 4/3/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P980533  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2502-353-32)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/3/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PrentaLux  
Catalog Number: PRLX-243-940-LL8-F-U-S-WHTE-X  
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, WHITE 243 SHADE WITH FROSTED LENS  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7572.6 lumens  
Efficiency: N/A  
Efficacy: 123.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.35  
Luminous Opening: Circular (Dia: 1.67' x H: 0')  
CIE Type: Direct

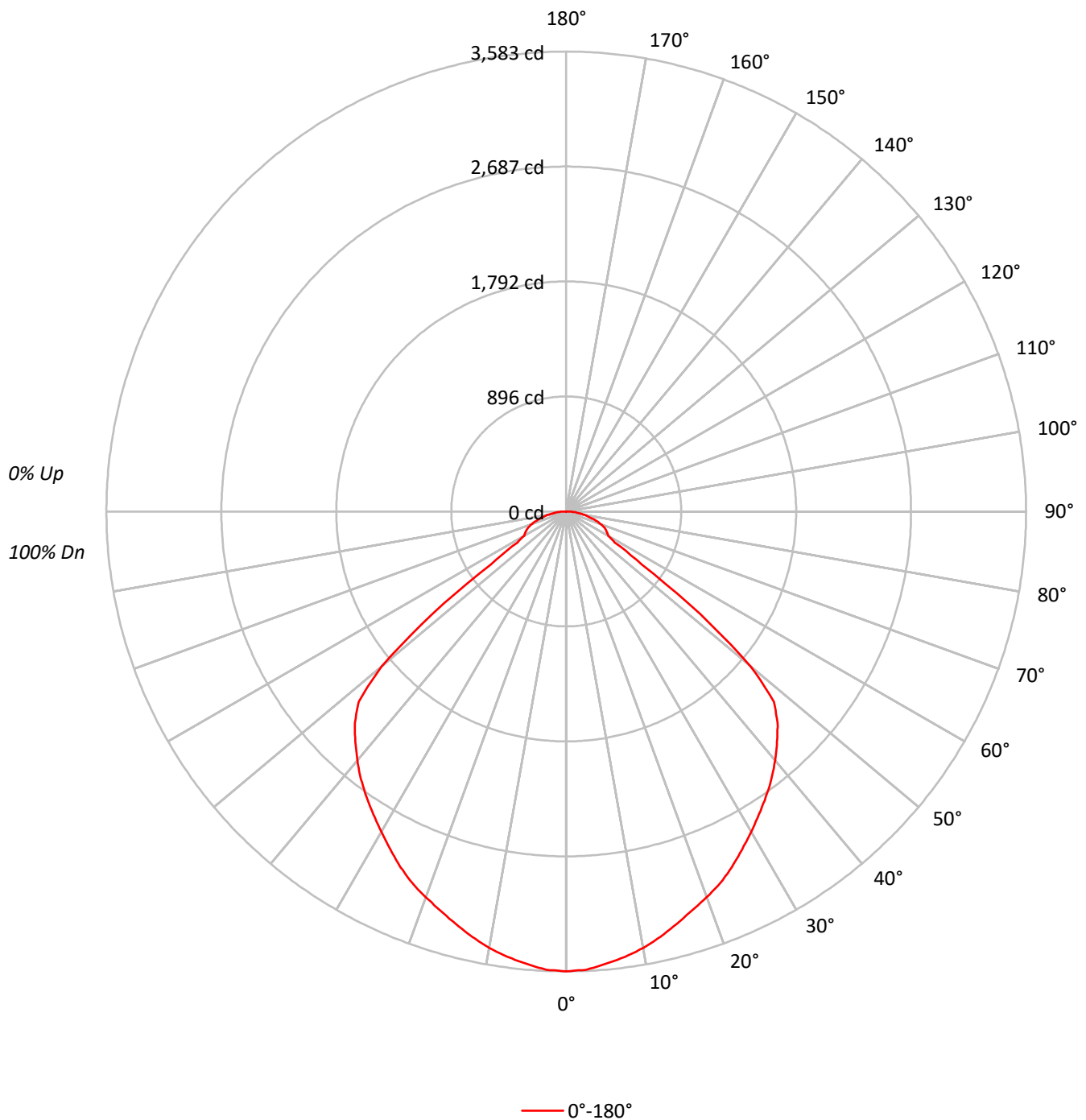
Input Watts (W): 61.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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 | 105 | 101 | 99  | 100 | 98  | 95  |  | 97  | 95  | 93  |  | 93  |
| 2   | 103 | 96  | 90  | 85  | 100 | 94  | 89  | 84  | 90  | 86  | 82  |  | 87  | 84  | 80  |  | 84  |
| 3   | 95  | 86  | 79  | 73  | 92  | 84  | 78  | 73  | 81  | 76  | 71  |  | 79  | 74  | 70  |  | 76  |
| 4   | 88  | 77  | 70  | 64  | 86  | 76  | 69  | 63  | 74  | 67  | 63  |  | 71  | 66  | 62  |  | 69  |
| 5   | 81  | 70  | 62  | 56  | 79  | 69  | 61  | 56  | 67  | 60  | 55  |  | 65  | 59  | 55  |  | 63  |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 55  | 50  | 61  | 54  | 49  |  | 59  | 53  | 49  |  | 58  |
| 7   | 70  | 58  | 50  | 44  | 69  | 57  | 50  | 44  | 56  | 49  | 44  |  | 54  | 48  | 44  |  | 53  |
| 8   | 66  | 53  | 45  | 40  | 64  | 53  | 45  | 40  | 51  | 45  | 40  |  | 50  | 44  | 39  |  | 49  |
| 9   | 61  | 49  | 41  | 36  | 60  | 48  | 41  | 36  | 47  | 41  | 36  |  | 46  | 40  | 36  |  | 45  |
| 10  | 58  | 45  | 38  | 33  | 56  | 45  | 38  | 33  | 44  | 37  | 33  |  | 43  | 37  | 33  |  | 42  |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 17678 |
| 5°  | 17527 |
| 10° | 17300 |
| 15° | 16988 |
| 20° | 16794 |
| 25° | 16639 |
| 30° | 16422 |
| 35° | 16344 |
| 40° | 16310 |
| 45° | 16251 |
| 50° | 14418 |
| 55° | 6173  |
| 60° | 3722  |
| 65° | 3974  |
| 70° | 4098  |
| 75° | 3969  |
| 80° | 3827  |
| 85° | 3883  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 16251 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 335.2  | 4.4       |
| 10°-20°   | 939.2  | 12.4      |
| 20°-30°   | 1407.4 | 18.6      |
| 30°-40°   | 1699.1 | 22.4      |
| 40°-50°   | 1767.5 | 23.3      |
| 50°-60°   | 795.1  | 10.5      |
| 60°-70°   | 333.7  | 4.4       |
| 70°-80°   | 220.6  | 2.9       |
| 80°-90°   | 75.0   | 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°    | 2681.7 | 35.4      |
| 0°-40°    | 4380.7 | 57.8      |
| 0°-60°    | 6943.3 | 91.7      |
| 0°-90°    | 7572.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7572.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3583 |      |
| 5°  | 3539 | 335  |
| 15° | 3326 | 939  |
| 25° | 3056 | 1407 |
| 35° | 2714 | 1699 |
| 45° | 2329 | 1767 |
| 55° | 718  | 795  |
| 65° | 340  | 334  |
| 75° | 208  | 221  |
| 85° | 69   | 75   |
| 90° | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 3583.0 |
| 2.5°  | 3573.2 |
| 5°    | 3538.9 |
| 7.5°  | 3499.7 |
| 10°   | 3453.2 |
| 12.5° | 3394.4 |
| 15°   | 3325.8 |
| 17.5° | 3259.7 |
| 20°   | 3198.5 |
| 22.5° | 3134.8 |
| 25°   | 3056.4 |
| 27.5° | 2968.2 |
| 30°   | 2882.5 |
| 32.5° | 2796.8 |
| 35°   | 2713.5 |
| 37.5° | 2627.8 |
| 40°   | 2532.3 |
| 42.5° | 2431.9 |
| 45°   | 2329.0 |
| 47.5° | 2194.3 |
| 50°   | 1878.4 |
| 52.5° | 1312.7 |
| 55°   | 717.6  |
| 57.5° | 448.2  |
| 60°   | 377.2  |
| 62.5° | 360.0  |
| 65°   | 340.4  |
| 67.5° | 315.9  |
| 70°   | 284.1  |
| 72.5° | 247.4  |
| 75°   | 208.2  |
| 77.5° | 171.4  |
| 80°   | 134.7  |
| 82.5° | 100.4  |
| 85°   | 68.6   |
| 87.5° | 39.2   |
| 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 | 13.72            | 15.17 | 14.09 | 15.48 | 15.80 | 13.72          | 15.17 | 14.09 | 15.48 | 15.80 |
|                 | 3H   | 15.81            | 17.10 | 16.19 | 17.43 | 17.79 | 15.81          | 17.10 | 16.19 | 17.43 | 17.79 |
|                 | 4H   | 16.64            | 17.84 | 17.04 | 18.19 | 18.57 | 16.64          | 17.84 | 17.04 | 18.19 | 18.57 |
|                 | 6H   | 17.29            | 18.40 | 17.70 | 18.76 | 19.16 | 17.29          | 18.40 | 17.70 | 18.76 | 19.16 |
|                 | 8H   | 17.52            | 18.57 | 17.95 | 18.96 | 19.37 | 17.52          | 18.57 | 17.95 | 18.96 | 19.37 |
|                 | 12H  | 17.70            | 18.71 | 18.14 | 19.09 | 19.52 | 17.70          | 18.71 | 18.14 | 19.09 | 19.52 |
| 4H              | 2H   | 14.39            | 15.59 | 14.79 | 15.94 | 16.32 | 14.39          | 15.59 | 14.79 | 15.94 | 16.32 |
|                 | 3H   | 16.73            | 17.71 | 17.14 | 18.11 | 18.51 | 16.73          | 17.71 | 17.14 | 18.11 | 18.51 |
|                 | 4H   | 17.69            | 18.57 | 18.12 | 18.99 | 19.43 | 17.69          | 18.57 | 18.12 | 18.99 | 19.43 |
|                 | 6H   | 18.47            | 19.24 | 18.93 | 19.68 | 20.14 | 18.47          | 19.24 | 18.93 | 19.68 | 20.14 |
|                 | 8H   | 18.76            | 19.47 | 19.22 | 19.92 | 20.39 | 18.76          | 19.47 | 19.22 | 19.92 | 20.39 |
|                 | 12H  | 18.99            | 19.63 | 19.48 | 20.11 | 20.58 | 18.99          | 19.63 | 19.48 | 20.11 | 20.58 |
| 8H              | 4H   | 18.04            | 18.76 | 18.51 | 19.20 | 19.67 | 18.04          | 18.76 | 18.51 | 19.20 | 19.67 |
|                 | 6H   | 18.96            | 19.56 | 19.46 | 20.05 | 20.53 | 18.96          | 19.56 | 19.46 | 20.05 | 20.53 |
|                 | 8H   | 19.34            | 19.88 | 19.86 | 20.39 | 20.88 | 19.34          | 19.88 | 19.86 | 20.39 | 20.88 |
|                 | 12H  | 19.68            | 20.16 | 20.19 | 20.65 | 21.22 | 19.68          | 20.16 | 20.19 | 20.65 | 21.22 |
| 12H             | 4H   | 18.08            | 18.72 | 18.56 | 19.20 | 19.67 | 18.08          | 18.72 | 18.56 | 19.20 | 19.67 |
|                 | 6H   | 19.04            | 19.57 | 19.55 | 20.08 | 20.57 | 19.04          | 19.57 | 19.55 | 20.08 | 20.57 |
|                 | 8H   | 19.48            | 19.96 | 19.99 | 20.45 | 21.02 | 19.48          | 19.96 | 19.99 | 20.45 | 21.02 |