

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: P980282

Luminaire Tested: PRLX-243-927-LL7-F-U-S-BLAK-X

Issue Date: 4/3/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P980282  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2502-353-37)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/3/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PrentaLux  
Catalog Number: PRLX-243-927-LL7-F-U-S-BLAK-X  
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, BLACK 243 SHADE WITH FROSTED LENS  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

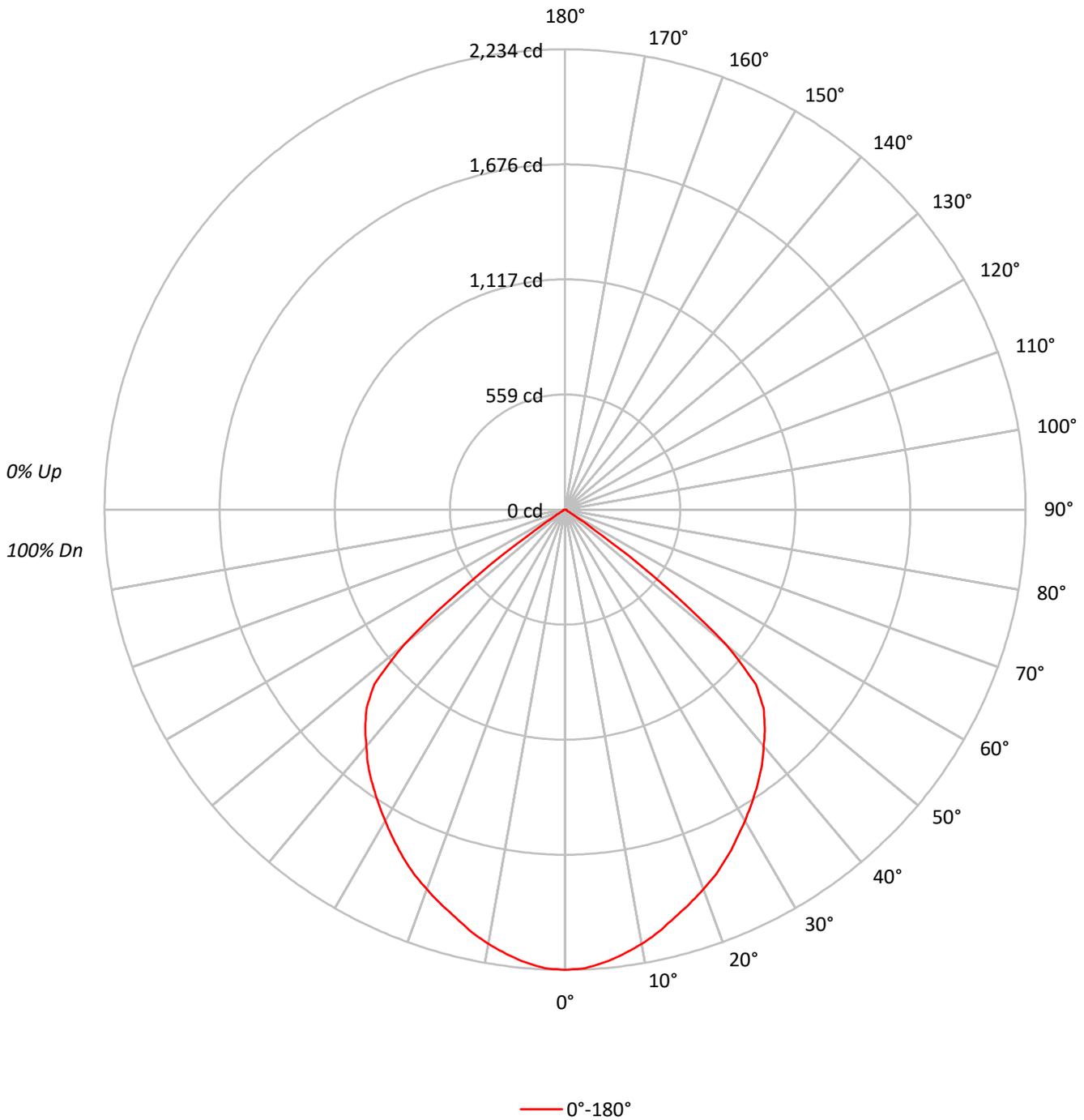
Lumens per Lamp: N/A  
Luminaire Lumens: 4006.8 lumens  
Efficiency: N/A  
Efficacy: 83.5 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.31  
Luminous Opening: Circular (Dia: 1.67' x H: 0')  
CIE Type: Direct

Input Watts (W): 48  
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  | 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   | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 100 | 98  | 99  | 97  | 95  | 95  | 94  | 93  | 91  |
| 2   | 105 | 99  | 94  | 90  | 103 | 97  | 93  | 89  | 94  | 90  | 87  | 91  | 88  | 85  | 88  | 85  | 83  | 81  |
| 3   | 98  | 90  | 84  | 79  | 96  | 88  | 83  | 78  | 86  | 81  | 77  | 83  | 79  | 76  | 81  | 77  | 74  | 73  |
| 4   | 91  | 82  | 75  | 70  | 89  | 80  | 74  | 69  | 78  | 73  | 68  | 76  | 71  | 67  | 74  | 70  | 67  | 65  |
| 5   | 85  | 74  | 67  | 62  | 83  | 73  | 67  | 62  | 71  | 66  | 61  | 70  | 64  | 60  | 68  | 63  | 60  | 58  |
| 6   | 79  | 68  | 61  | 55  | 77  | 67  | 60  | 55  | 66  | 59  | 55  | 64  | 58  | 54  | 63  | 58  | 54  | 52  |
| 7   | 74  | 62  | 55  | 50  | 72  | 62  | 55  | 50  | 60  | 54  | 49  | 59  | 53  | 49  | 58  | 53  | 49  | 47  |
| 8   | 69  | 57  | 50  | 45  | 68  | 57  | 50  | 45  | 56  | 49  | 45  | 54  | 49  | 44  | 53  | 48  | 44  | 43  |
| 9   | 65  | 53  | 46  | 41  | 64  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 40  | 49  | 44  | 40  | 39  |
| 10  | 61  | 49  | 42  | 37  | 60  | 49  | 42  | 37  | 48  | 41  | 37  | 47  | 41  | 37  | 46  | 41  | 37  | 35  |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 11021 |
| 5°  | 10928 |
| 10° | 10727 |
| 15° | 10472 |
| 20° | 10297 |
| 25° | 10132 |
| 30° | 9941  |
| 35° | 9809  |
| 40° | 9658  |
| 45° | 9499  |
| 50° | 7812  |
| 55° | 1845  |
| 60° | 108   |
| 65° | 106   |
| 70° | 131   |
| 75° | 139   |
| 80° | 102   |
| 85° | 102   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9499 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 208.5  | 5.2       |
| 10°-20°   | 579.0  | 14.5      |
| 20°-30°   | 857.1  | 21.4      |
| 30°-40°   | 1018.8 | 25.4      |
| 40°-50°   | 1023.2 | 25.5      |
| 50°-60°   | 301.5  | 7.5       |
| 60°-70°   | 9.2    | 0.2       |
| 70°-80°   | 7.0    | 0.2       |
| 80°-90°   | 2.5    | 0.1       |
| 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°    | 1644.6 | 41.0      |
| 0°-40°    | 2663.4 | 66.5      |
| 0°-60°    | 3988.1 | 99.5      |
| 0°-90°    | 4006.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4006.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 2234 |      |
| 5°  | 2206 | 208  |
| 15° | 2050 | 579  |
| 25° | 1861 | 857  |
| 35° | 1628 | 1019 |
| 45° | 1361 | 1023 |
| 55° | 214  | 301  |
| 65° | 9    | 9    |
| 75° | 7    | 7    |
| 85° | 2    | 2    |
| 90° | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 2233.8 |
| 2.5°  | 2228.3 |
| 5°    | 2206.5 |
| 7.5°  | 2175.6 |
| 10°   | 2141.1 |
| 12.5° | 2099.3 |
| 15°   | 2050.2 |
| 17.5° | 2006.6 |
| 20°   | 1961.2 |
| 22.5° | 1915.7 |
| 25°   | 1861.2 |
| 27.5° | 1803.0 |
| 30°   | 1744.9 |
| 32.5° | 1686.7 |
| 35°   | 1628.5 |
| 37.5° | 1568.6 |
| 40°   | 1499.5 |
| 42.5° | 1434.1 |
| 45°   | 1361.4 |
| 47.5° | 1254.1 |
| 50°   | 1017.8 |
| 52.5° | 614.3  |
| 55°   | 214.5  |
| 57.5° | 41.8   |
| 60°   | 10.9   |
| 62.5° | 9.1    |
| 65°   | 9.1    |
| 67.5° | 9.1    |
| 70°   | 9.1    |
| 72.5° | 7.3    |
| 75°   | 7.3    |
| 77.5° | 5.5    |
| 80°   | 3.6    |
| 82.5° | 3.6    |
| 85°   | 1.8    |
| 87.5° | 1.8    |
| 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 | 0.00             | 0.62 | 0.00 | 0.93 | 1.24 | 0.00           | 0.62 | 0.00 | 0.93 | 1.24 |
|                 | 3H   | 0.00             | 0.66 | 0.00 | 0.99 | 1.35 | 0.00           | 0.66 | 0.00 | 0.99 | 1.35 |
|                 | 4H   | 0.00             | 0.73 | 0.07 | 1.09 | 1.47 | 0.00           | 0.73 | 0.07 | 1.09 | 1.47 |
|                 | 6H   | 0.00             | 0.75 | 0.19 | 1.12 | 1.52 | 0.00           | 0.75 | 0.19 | 1.12 | 1.52 |
|                 | 8H   | 0.00             | 0.74 | 0.25 | 1.14 | 1.54 | 0.00           | 0.74 | 0.25 | 1.14 | 1.54 |
|                 | 12H  | 0.00             | 0.73 | 0.28 | 1.11 | 1.54 | 0.00           | 0.73 | 0.28 | 1.11 | 1.54 |
| 4H              | 2H   | 0.00             | 0.25 | 0.00 | 0.60 | 0.98 | 0.00           | 0.25 | 0.00 | 0.60 | 0.98 |
|                 | 3H   | 0.00             | 0.39 | 0.00 | 0.79 | 1.20 | 0.00           | 0.39 | 0.00 | 0.79 | 1.20 |
|                 | 4H   | 0.00             | 0.57 | 0.25 | 0.99 | 1.43 | 0.00           | 0.57 | 0.25 | 0.99 | 1.43 |
|                 | 6H   | 0.01             | 0.66 | 0.47 | 1.10 | 1.57 | 0.01           | 0.66 | 0.47 | 1.10 | 1.57 |
|                 | 8H   | 0.10             | 0.70 | 0.57 | 1.15 | 1.62 | 0.10           | 0.70 | 0.57 | 1.15 | 1.62 |
|                 | 12H  | 0.16             | 0.69 | 0.64 | 1.18 | 1.65 | 0.16           | 0.69 | 0.64 | 1.18 | 1.65 |
| 8H              | 4H   | 0.00             | 0.45 | 0.31 | 0.90 | 1.37 | 0.00           | 0.45 | 0.31 | 0.90 | 1.37 |
|                 | 6H   | 0.09             | 0.59 | 0.59 | 1.09 | 1.57 | 0.09           | 0.59 | 0.59 | 1.09 | 1.57 |
|                 | 8H   | 0.24             | 0.70 | 0.77 | 1.22 | 1.71 | 0.24           | 0.70 | 0.77 | 1.22 | 1.71 |
|                 | 12H  | 0.36             | 0.77 | 0.87 | 1.26 | 1.83 | 0.36           | 0.77 | 0.87 | 1.26 | 1.83 |
| 12H             | 4H   | 0.00             | 0.35 | 0.30 | 0.83 | 1.31 | 0.00           | 0.35 | 0.30 | 0.83 | 1.31 |
|                 | 6H   | 0.08             | 0.53 | 0.60 | 1.05 | 1.54 | 0.08           | 0.53 | 0.60 | 1.05 | 1.54 |
|                 | 8H   | 0.28             | 0.69 | 0.79 | 1.18 | 1.75 | 0.28           | 0.69 | 0.79 | 1.18 | 1.75 |