

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: P979272

Luminaire Tested: PRLX-240-927-18L-F-U-S-BLAK-X

Issue Date: 4/3/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P979272  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2502-353-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/3/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PrentaLux  
Catalog Number: PRLX-240-927-18L-F-U-S-BLAK-X  
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, BLACK 240 SHADE WITH FROSTED LENS  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

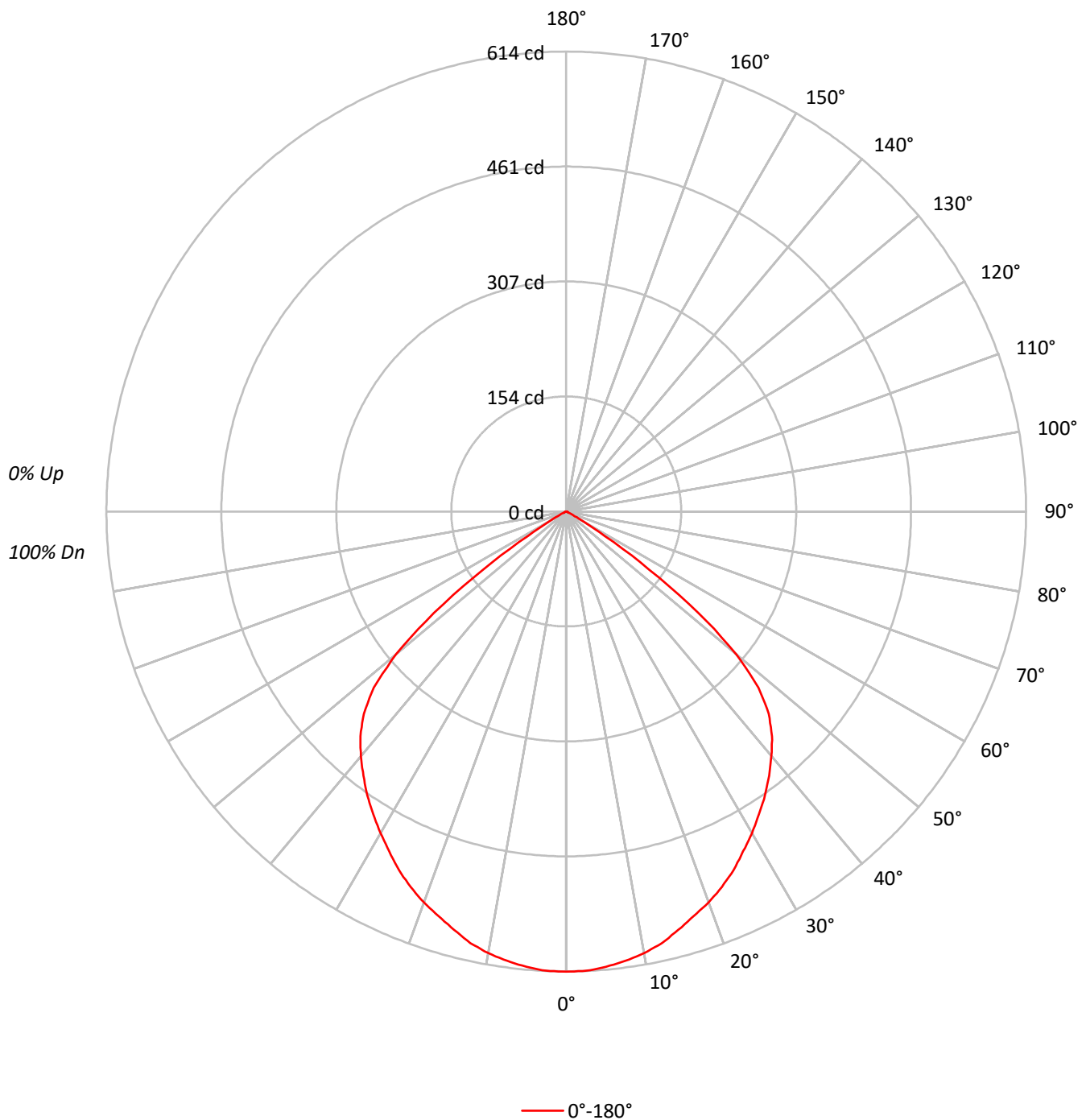
Lumens per Lamp: N/A  
Luminaire Lumens: 1175.8 lumens  
Efficiency: N/A  
Efficacy: 106.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.33  
Luminous Opening: Circular (Dia: 1.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 11  
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  | 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 | 106 | 104 | 101 | 102 | 100 | 98  | 99  | 97  | 95  | 95  | 94  | 92  | 91  |  |  |
| 2   | 105 | 98  | 93  | 89  | 102 | 97  | 92  | 88  | 93  | 89  | 86  | 90  | 87  | 84  | 87  | 85  | 82  | 81  |  |  |
| 3   | 97  | 89  | 83  | 78  | 95  | 88  | 82  | 77  | 85  | 80  | 76  | 82  | 78  | 75  | 80  | 76  | 73  | 72  |  |  |
| 4   | 90  | 81  | 74  | 68  | 88  | 80  | 73  | 68  | 77  | 72  | 67  | 75  | 70  | 66  | 73  | 69  | 65  | 64  |  |  |
| 5   | 84  | 73  | 66  | 61  | 82  | 72  | 65  | 60  | 70  | 64  | 60  | 69  | 63  | 59  | 67  | 62  | 59  | 57  |  |  |
| 6   | 78  | 67  | 59  | 54  | 77  | 66  | 59  | 54  | 64  | 58  | 53  | 63  | 57  | 53  | 61  | 56  | 53  | 51  |  |  |
| 7   | 73  | 61  | 54  | 48  | 71  | 61  | 53  | 48  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 51  | 47  | 46  |  |  |
| 8   | 68  | 56  | 49  | 44  | 67  | 56  | 49  | 44  | 54  | 48  | 43  | 53  | 47  | 43  | 52  | 47  | 43  | 41  |  |  |
| 9   | 64  | 52  | 45  | 40  | 63  | 51  | 44  | 40  | 50  | 44  | 39  | 49  | 43  | 39  | 48  | 43  | 39  | 37  |  |  |
| 10  | 60  | 48  | 41  | 36  | 59  | 48  | 41  | 36  | 47  | 40  | 36  | 46  | 40  | 36  | 45  | 40  | 36  | 34  |  |  |

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

|     | 0°   |
|-----|------|
| 0°  | 6186 |
| 5°  | 6169 |
| 10° | 6123 |
| 15° | 6028 |
| 20° | 5953 |
| 25° | 5869 |
| 30° | 5765 |
| 35° | 5689 |
| 40° | 5603 |
| 45° | 5445 |
| 50° | 4643 |
| 55° | 2370 |
| 60° | 385  |
| 65° | 50   |
| 70° | 44   |
| 75° | 58   |
| 80° | 58   |
| 85° | 58   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle:  $45^\circ$

Luminance: 5445 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 57.9   | 4.9       |
| 10°-20°   | 163.2  | 13.9      |
| 20°-30°   | 243.2  | 20.7      |
| 30°-40°   | 289.4  | 24.6      |
| 40°-50°   | 288.9  | 24.6      |
| 50°-60°   | 126.7  | 10.8      |
| 60°-70°   | 4.4    | 0.4       |
| 70°-80°   | 1.5    | 0.1       |
| 80°-90°   | 0.7    | 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°    | 464.3  | 39.5      |
| 0°-40°    | 753.6  | 64.1      |
| 0°-60°    | 1169.2 | 99.4      |
| 0°-90°    | 1175.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1175.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 614 |      |
| 5°  | 610 | 58   |
| 15° | 578 | 163  |
| 25° | 528 | 243  |
| 35° | 463 | 289  |
| 45° | 382 | 289  |
| 55° | 135 | 127  |
| 65° | 2   | 4    |
| 75° | 2   | 2    |
| 85° | 0   | 1    |
| 90° | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

| 0°    |       |
|-------|-------|
| 0°    | 614.4 |
| 2.5°  | 613.9 |
| 5°    | 610.3 |
| 7.5°  | 605.1 |
| 10°   | 598.9 |
| 12.5° | 590.2 |
| 15°   | 578.3 |
| 17.5° | 566.4 |
| 20°   | 555.6 |
| 22.5° | 542.7 |
| 25°   | 528.3 |
| 27.5° | 511.8 |
| 30°   | 495.8 |
| 32.5° | 479.3 |
| 35°   | 462.8 |
| 37.5° | 444.8 |
| 40°   | 426.3 |
| 42.5° | 406.7 |
| 45°   | 382.4 |
| 47.5° | 348.4 |
| 50°   | 296.4 |
| 52.5° | 222.7 |
| 55°   | 135.0 |
| 57.5° | 60.8  |
| 60°   | 19.1  |
| 62.5° | 4.1   |
| 65°   | 2.1   |
| 67.5° | 1.5   |
| 70°   | 1.5   |
| 72.5° | 1.5   |
| 75°   | 1.5   |
| 77.5° | 1.5   |
| 80°   | 1.0   |
| 82.5° | 1.0   |
| 85°   | 0.5   |
| 87.5° | 0.5   |
| 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 | 8.63             | 9.98 | 9.00 | 10.29 | 10.61 | 8.63           | 9.98 | 9.00 | 10.29 | 10.61 |
|                 | 3H   | 8.51             | 9.69 | 8.89 | 10.02 | 10.38 | 8.51           | 9.69 | 8.89 | 10.02 | 10.38 |
|                 | 4H   | 8.44             | 9.54 | 8.85 | 9.89  | 10.27 | 8.44           | 9.54 | 8.85 | 9.89  | 10.27 |
|                 | 6H   | 8.37             | 9.37 | 8.79 | 9.74  | 10.14 | 8.37           | 9.37 | 8.79 | 9.74  | 10.14 |
|                 | 8H   | 8.34             | 9.28 | 8.77 | 9.67  | 10.08 | 8.34           | 9.28 | 8.77 | 9.67  | 10.08 |
|                 | 12H  | 8.30             | 9.20 | 8.73 | 9.58  | 10.01 | 8.30           | 9.20 | 8.73 | 9.58  | 10.01 |
| 4H              | 2H   | 8.44             | 9.53 | 8.84 | 9.88  | 10.26 | 8.44           | 9.53 | 8.84 | 9.88  | 10.26 |
|                 | 3H   | 8.32             | 9.19 | 8.73 | 9.60  | 10.00 | 8.32           | 9.19 | 8.73 | 9.60  | 10.00 |
|                 | 4H   | 8.24             | 9.01 | 8.67 | 9.43  | 9.88  | 8.24           | 9.01 | 8.67 | 9.43  | 9.88  |
|                 | 6H   | 8.17             | 8.83 | 8.63 | 9.28  | 9.75  | 8.17           | 8.83 | 8.63 | 9.28  | 9.75  |
|                 | 8H   | 8.12             | 8.74 | 8.59 | 9.19  | 9.66  | 8.12           | 8.74 | 8.59 | 9.19  | 9.66  |
|                 | 12H  | 8.07             | 8.62 | 8.56 | 9.11  | 9.58  | 8.07           | 8.62 | 8.56 | 9.11  | 9.58  |
| 8H              | 4H   | 8.10             | 8.72 | 8.57 | 9.17  | 9.64  | 8.10           | 8.72 | 8.57 | 9.17  | 9.64  |
|                 | 6H   | 8.01             | 8.52 | 8.51 | 9.02  | 9.50  | 8.01           | 8.52 | 8.51 | 9.02  | 9.50  |
|                 | 8H   | 7.95             | 8.42 | 8.47 | 8.93  | 9.42  | 7.95           | 8.42 | 8.47 | 8.93  | 9.42  |
|                 | 12H  | 7.90             | 8.33 | 8.42 | 8.82  | 9.39  | 7.90           | 8.33 | 8.42 | 8.82  | 9.39  |
| 12H             | 4H   | 8.05             | 8.60 | 8.54 | 9.09  | 9.56  | 8.05           | 8.60 | 8.54 | 9.09  | 9.56  |
|                 | 6H   | 7.94             | 8.41 | 8.46 | 8.92  | 9.42  | 7.94           | 8.41 | 8.46 | 8.92  | 9.42  |
|                 | 8H   | 7.90             | 8.32 | 8.41 | 8.82  | 9.39  | 7.90           | 8.32 | 8.41 | 8.82  | 9.39  |

END OF REPORT