

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: P980110

Luminaire Tested: PRLX-242-935-48L-C-U-S-BLAK-X

Issue Date: 4/3/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P980110  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2502-353-26)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/3/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PrentaLux  
Catalog Number: PRLX-242-935-48L-C-U-S-BLAK-X  
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, BLACK 242 SHADE WITH CLEAR LENS  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

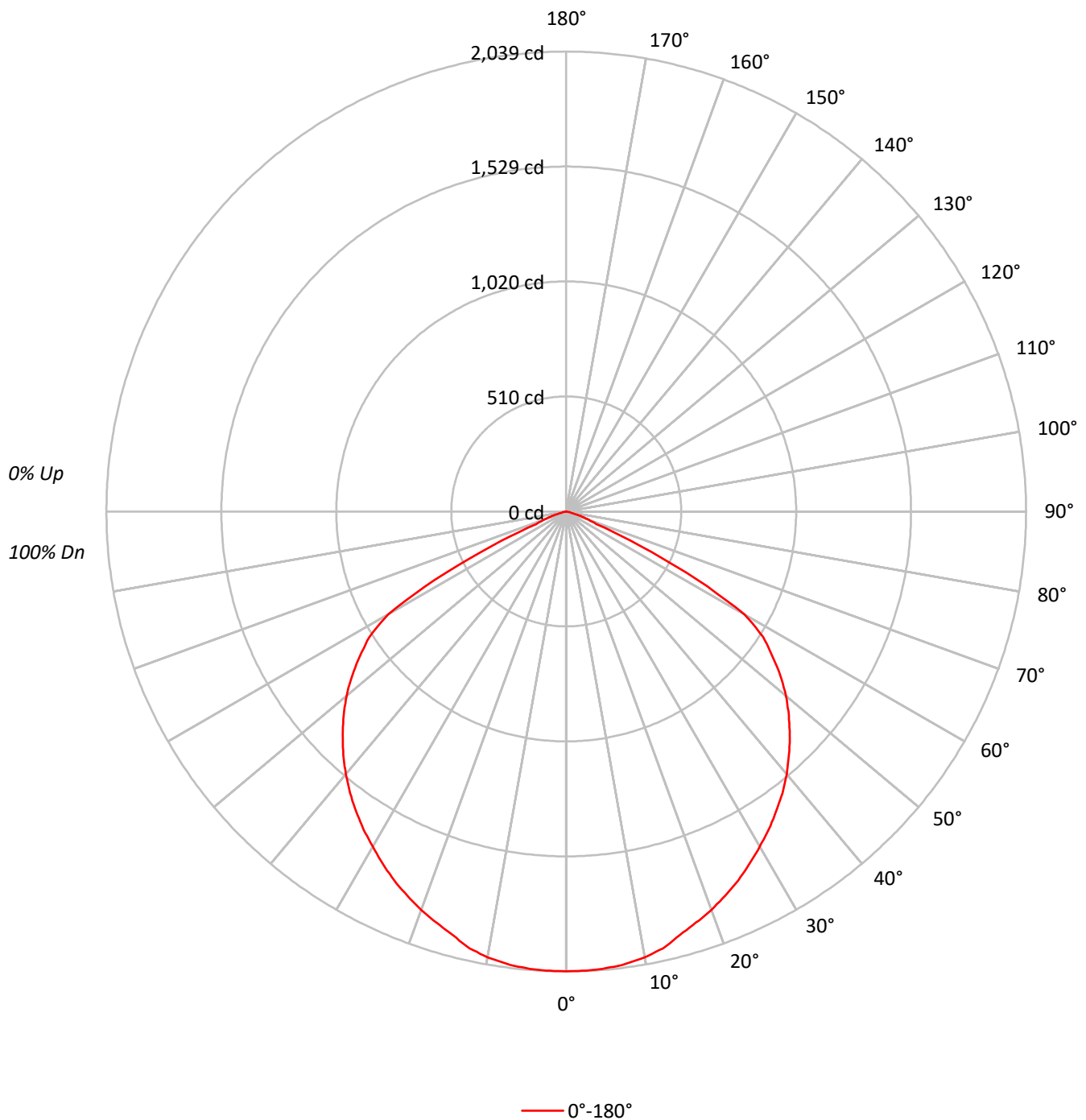
Lumens per Lamp: N/A  
Luminaire Lumens: 5109.5 lumens  
Efficiency: N/A  
Efficacy: 152.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.39  
Luminous Opening: Circular (Dia: 1.75' x H: 0')  
CIE Type: Direct

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  |  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 100 |
| 1   | 111 | 107 | 103 | 100 | 108 | 105 | 102 | 99  | 101 | 98  | 96  |  | 97  | 95  | 93  |  | 88  |
| 2   | 102 | 95  | 89  | 84  | 100 | 93  | 88  | 83  | 90  | 85  | 81  |  | 86  | 83  | 79  |  | 76  |
| 3   | 94  | 84  | 77  | 71  | 91  | 83  | 76  | 71  | 80  | 74  | 69  |  | 77  | 72  | 68  |  | 65  |
| 4   | 86  | 75  | 67  | 61  | 84  | 74  | 66  | 61  | 71  | 65  | 60  |  | 69  | 63  | 59  |  | 56  |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  |  | 62  | 56  | 51  |  | 49  |
| 6   | 73  | 61  | 52  | 46  | 71  | 60  | 52  | 46  | 58  | 51  | 46  |  | 56  | 50  | 45  |  | 43  |
| 7   | 68  | 55  | 47  | 41  | 66  | 54  | 46  | 41  | 53  | 46  | 40  |  | 51  | 45  | 40  |  | 38  |
| 8   | 63  | 50  | 42  | 36  | 62  | 49  | 42  | 36  | 48  | 41  | 36  |  | 47  | 41  | 36  |  | 34  |
| 9   | 59  | 46  | 38  | 33  | 58  | 45  | 38  | 33  | 44  | 37  | 32  |  | 43  | 37  | 32  |  | 30  |
| 10  | 55  | 42  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 34  | 29  |  | 40  | 34  | 29  |  | 27  |

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

|     |      |
|-----|------|
|     | 0°   |
| 0°  | 9124 |
| 5°  | 9132 |
| 10° | 9119 |
| 15° | 9007 |
| 20° | 8953 |
| 25° | 8913 |
| 30° | 8869 |
| 35° | 8868 |
| 40° | 8884 |
| 45° | 8870 |
| 50° | 8854 |
| 55° | 8706 |
| 60° | 8153 |
| 65° | 3804 |
| 70° | 1280 |
| 75° | 396  |
| 80° | 0    |
| 85° | 0    |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8870 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 193.2  | 3.8       |
| 10°-20°   | 549.7  | 10.8      |
| 20°-30°   | 831.8  | 16.3      |
| 30°-40°   | 1016.6 | 19.9      |
| 40°-50°   | 1081.5 | 21.2      |
| 50°-60°   | 992.6  | 19.4      |
| 60°-70°   | 407.3  | 8.0       |
| 70°-80°   | 36.7   | 0.7       |
| 80°-90°   | 0.0    | 0.0       |
| 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°    | 1574.7 | 30.8      |
| 0°-40°    | 2591.3 | 50.7      |
| 0°-60°    | 4665.4 | 91.3      |
| 0°-90°    | 5109.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5109.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 2039 |      |
| 5°  | 2033 | 193  |
| 15° | 1944 | 550  |
| 25° | 1805 | 832  |
| 35° | 1623 | 1017 |
| 45° | 1402 | 1081 |
| 55° | 1116 | 993  |
| 65° | 359  | 407  |
| 75° | 23   | 37   |
| 85° | 0    | 0    |
| 90° | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 2038.9 |
| 2.5°  | 2037.4 |
| 5°    | 2032.8 |
| 7.5°  | 2023.6 |
| 10°   | 2006.8 |
| 12.5° | 1983.9 |
| 15°   | 1944.2 |
| 17.5° | 1912.1 |
| 20°   | 1880.0 |
| 22.5° | 1843.3 |
| 25°   | 1805.1 |
| 27.5° | 1760.8 |
| 30°   | 1716.4 |
| 32.5° | 1672.1 |
| 35°   | 1623.2 |
| 37.5° | 1574.3 |
| 40°   | 1520.8 |
| 42.5° | 1462.7 |
| 45°   | 1401.6 |
| 47.5° | 1338.9 |
| 50°   | 1271.7 |
| 52.5° | 1196.8 |
| 55°   | 1115.8 |
| 57.5° | 1034.8 |
| 60°   | 910.9  |
| 62.5° | 657.2  |
| 65°   | 359.2  |
| 67.5° | 143.7  |
| 70°   | 97.8   |
| 72.5° | 67.3   |
| 75°   | 22.9   |
| 77.5° | 1.5    |
| 80°   | 0.0    |
| 82.5° | 0.0    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 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 | 20.47            | 22.01 | 20.84 | 22.32 | 22.64 | 20.47          | 22.01 | 20.84 | 22.32 | 22.64 |
|                 | 3H   | 20.46            | 21.82 | 20.83 | 22.15 | 22.51 | 20.46          | 21.82 | 20.83 | 22.15 | 22.51 |
|                 | 4H   | 20.41            | 21.68 | 20.81 | 22.03 | 22.41 | 20.41          | 21.68 | 20.81 | 22.03 | 22.41 |
|                 | 6H   | 20.34            | 21.51 | 20.76 | 21.88 | 22.27 | 20.34          | 21.51 | 20.76 | 21.88 | 22.27 |
|                 | 8H   | 20.31            | 21.42 | 20.74 | 21.81 | 22.21 | 20.31          | 21.42 | 20.74 | 21.81 | 22.21 |
|                 | 12H  | 20.28            | 21.34 | 20.71 | 21.72 | 22.15 | 20.28          | 21.34 | 20.71 | 21.72 | 22.15 |
| 4H              | 2H   | 20.53            | 21.80 | 20.93 | 22.15 | 22.53 | 20.53          | 21.80 | 20.93 | 22.15 | 22.53 |
|                 | 3H   | 20.54            | 21.57 | 20.95 | 21.97 | 22.38 | 20.54          | 21.57 | 20.95 | 21.97 | 22.38 |
|                 | 4H   | 20.48            | 21.40 | 20.91 | 21.82 | 22.26 | 20.48          | 21.40 | 20.91 | 21.82 | 22.26 |
|                 | 6H   | 20.42            | 21.21 | 20.88 | 21.66 | 22.12 | 20.42          | 21.21 | 20.88 | 21.66 | 22.12 |
|                 | 8H   | 20.38            | 21.12 | 20.84 | 21.56 | 22.03 | 20.38          | 21.12 | 20.84 | 21.56 | 22.03 |
|                 | 12H  | 20.34            | 21.00 | 20.82 | 21.48 | 21.95 | 20.34          | 21.00 | 20.82 | 21.48 | 21.95 |
| 8H              | 4H   | 20.38            | 21.12 | 20.85 | 21.57 | 22.04 | 20.38          | 21.12 | 20.85 | 21.57 | 22.04 |
|                 | 6H   | 20.30            | 20.90 | 20.80 | 21.40 | 21.88 | 20.30          | 20.90 | 20.80 | 21.40 | 21.88 |
|                 | 8H   | 20.24            | 20.79 | 20.76 | 21.30 | 21.79 | 20.24          | 20.79 | 20.76 | 21.30 | 21.79 |
|                 | 12H  | 20.20            | 20.69 | 20.72 | 21.18 | 21.75 | 20.20          | 20.69 | 20.72 | 21.18 | 21.75 |
| 12H             | 4H   | 20.35            | 21.01 | 20.83 | 21.49 | 21.96 | 20.35          | 21.01 | 20.83 | 21.49 | 21.96 |
|                 | 6H   | 20.24            | 20.79 | 20.76 | 21.30 | 21.79 | 20.24          | 20.79 | 20.76 | 21.30 | 21.79 |
|                 | 8H   | 20.20            | 20.69 | 20.72 | 21.18 | 21.75 | 20.20          | 20.69 | 20.72 | 21.18 | 21.75 |