

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: P980020

Luminaire Tested: PRLX-242-930-43L-C-U-S-BLAK-X

Issue Date: 4/3/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P980020  
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-242-930-43L-C-U-S-BLAK-X  
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, BLACK 242 SHADE WITH CLEAR LENS  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

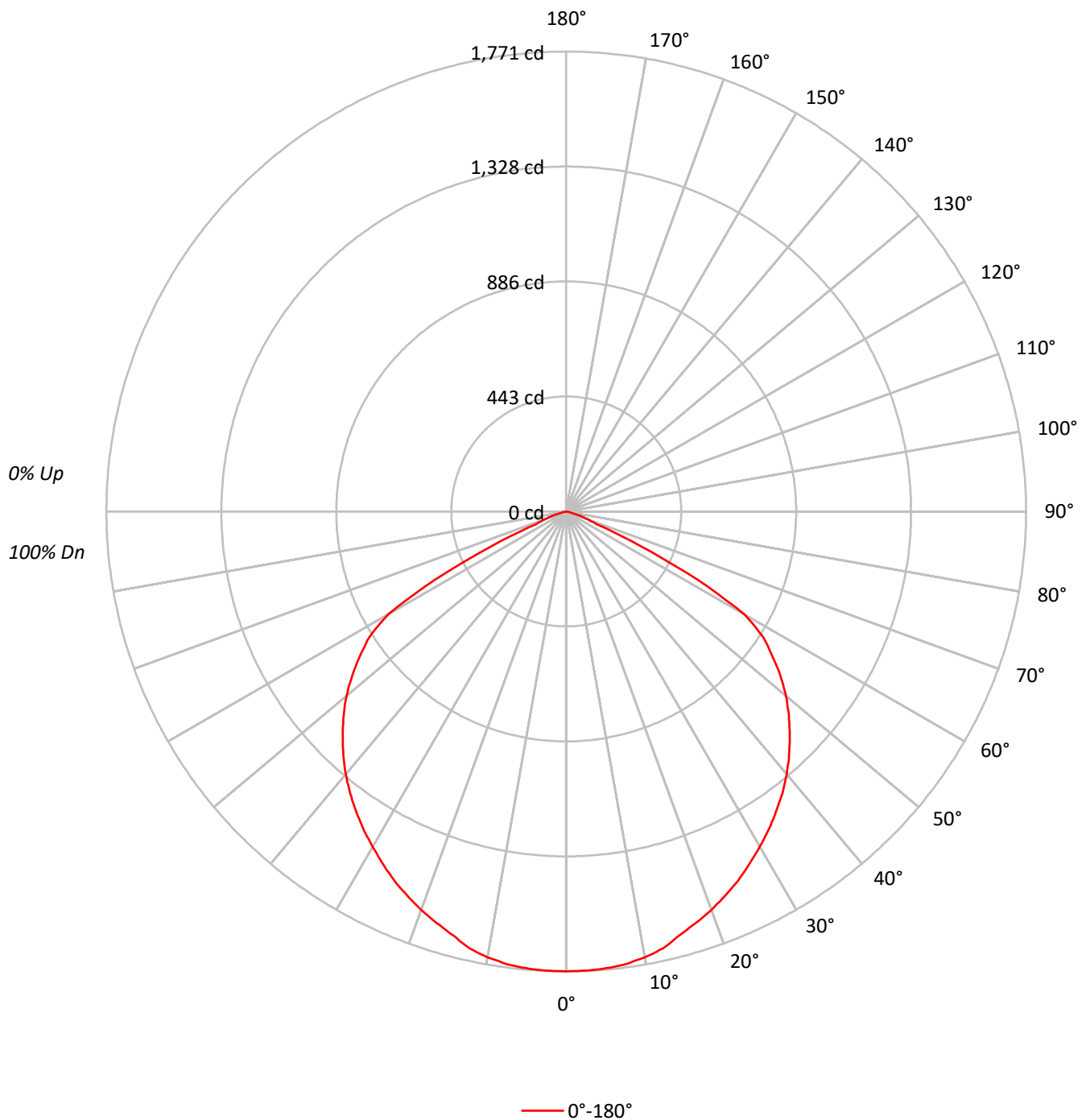
Lumens per Lamp: N/A  
Luminaire Lumens: 4438.4 lumens  
Efficiency: N/A  
Efficacy: 150.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.39  
Luminous Opening: Circular (Dia: 1.75' x H: 0')  
CIE Type: Direct

Input Watts (W): 29.5  
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  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 111 | 107 | 103 | 100 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 93  | 92  | 90  |
| 2   | 102 | 95  | 89  | 84  | 100 | 93  | 88  | 83  | 90  | 85  | 81  | 86  | 83  | 79  | 84  | 80  | 78  |
| 3   | 94  | 84  | 77  | 71  | 91  | 83  | 76  | 71  | 80  | 74  | 69  | 77  | 72  | 68  | 75  | 71  | 67  |
| 4   | 86  | 75  | 67  | 61  | 84  | 74  | 66  | 61  | 71  | 65  | 60  | 69  | 63  | 59  | 67  | 62  | 58  |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  | 62  | 56  | 51  | 60  | 55  | 51  |
| 6   | 73  | 61  | 52  | 46  | 71  | 60  | 52  | 46  | 58  | 51  | 46  | 56  | 50  | 45  | 55  | 49  | 45  |
| 7   | 68  | 55  | 47  | 41  | 66  | 54  | 46  | 41  | 53  | 46  | 40  | 51  | 45  | 40  | 50  | 44  | 40  |
| 8   | 63  | 50  | 42  | 36  | 62  | 49  | 42  | 36  | 48  | 41  | 36  | 47  | 41  | 36  | 46  | 40  | 36  |
| 9   | 59  | 46  | 38  | 33  | 58  | 45  | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  |
| 10  | 55  | 42  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 34  | 29  | 40  | 34  | 29  | 39  | 33  | 29  |

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

|     |      |
|-----|------|
|     | 0°   |
| 0°  | 7926 |
| 5°  | 7933 |
| 10° | 7922 |
| 15° | 7825 |
| 20° | 7777 |
| 25° | 7742 |
| 30° | 7705 |
| 35° | 7703 |
| 40° | 7718 |
| 45° | 7705 |
| 50° | 7691 |
| 55° | 7562 |
| 60° | 7082 |
| 65° | 3304 |
| 70° | 1112 |
| 75° | 344  |
| 80° | 0    |
| 85° | 0    |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 7705 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 167.9  | 3.8       |
| 10°-20°   | 477.5  | 10.8      |
| 20°-30°   | 722.5  | 16.3      |
| 30°-40°   | 883.1  | 19.9      |
| 40°-50°   | 939.5  | 21.2      |
| 50°-60°   | 862.2  | 19.4      |
| 60°-70°   | 353.8  | 8.0       |
| 70°-80°   | 31.9   | 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°    | 1367.9 | 30.8      |
| 0°-40°    | 2251.0 | 50.7      |
| 0°-60°    | 4052.7 | 91.3      |
| 0°-90°    | 4438.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4438.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1771 |      |
| 5°  | 1766 | 168  |
| 15° | 1689 | 477  |
| 25° | 1568 | 723  |
| 35° | 1410 | 883  |
| 45° | 1218 | 939  |
| 55° | 969  | 862  |
| 65° | 312  | 354  |
| 75° | 20   | 32   |
| 85° | 0    | 0    |
| 90° | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1771.2 |
| 2.5°  | 1769.8 |
| 5°    | 1765.9 |
| 7.5°  | 1757.9 |
| 10°   | 1743.3 |
| 12.5° | 1723.4 |
| 15°   | 1688.9 |
| 17.5° | 1661.0 |
| 20°   | 1633.1 |
| 22.5° | 1601.2 |
| 25°   | 1568.0 |
| 27.5° | 1529.5 |
| 30°   | 1491.0 |
| 32.5° | 1452.5 |
| 35°   | 1410.0 |
| 37.5° | 1367.5 |
| 40°   | 1321.1 |
| 42.5° | 1270.6 |
| 45°   | 1217.5 |
| 47.5° | 1163.1 |
| 50°   | 1104.7 |
| 52.5° | 1039.6 |
| 55°   | 969.2  |
| 57.5° | 898.9  |
| 60°   | 791.3  |
| 62.5° | 570.9  |
| 65°   | 312.0  |
| 67.5° | 124.8  |
| 70°   | 85.0   |
| 72.5° | 58.4   |
| 75°   | 19.9   |
| 77.5° | 1.3    |
| 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 | 19.98            | 21.52 | 20.35 | 21.83 | 22.15 | 19.98          | 21.52 | 20.35 | 21.83 | 22.15 |
|                 | 3H   | 19.97            | 21.33 | 20.35 | 21.66 | 22.02 | 19.97          | 21.33 | 20.35 | 21.66 | 22.02 |
|                 | 4H   | 19.92            | 21.19 | 20.32 | 21.54 | 21.92 | 19.92          | 21.19 | 20.32 | 21.54 | 21.92 |
|                 | 6H   | 19.85            | 21.02 | 20.27 | 21.39 | 21.78 | 19.85          | 21.02 | 20.27 | 21.39 | 21.78 |
|                 | 8H   | 19.82            | 20.93 | 20.25 | 21.32 | 21.72 | 19.82          | 20.93 | 20.25 | 21.32 | 21.72 |
|                 | 12H  | 19.79            | 20.85 | 20.22 | 21.23 | 21.66 | 19.79          | 20.85 | 20.22 | 21.23 | 21.66 |
| 4H              | 2H   | 20.04            | 21.31 | 20.44 | 21.66 | 22.04 | 20.04          | 21.31 | 20.44 | 21.66 | 22.04 |
|                 | 3H   | 20.05            | 21.09 | 20.46 | 21.49 | 21.89 | 20.05          | 21.09 | 20.46 | 21.49 | 21.89 |
|                 | 4H   | 19.99            | 20.91 | 20.43 | 21.33 | 21.77 | 19.99          | 20.91 | 20.43 | 21.33 | 21.77 |
|                 | 6H   | 19.93            | 20.73 | 20.39 | 21.17 | 21.63 | 19.93          | 20.73 | 20.39 | 21.17 | 21.63 |
|                 | 8H   | 19.89            | 20.63 | 20.35 | 21.07 | 21.54 | 19.89          | 20.63 | 20.35 | 21.07 | 21.54 |
|                 | 12H  | 19.85            | 20.51 | 20.33 | 20.99 | 21.46 | 19.85          | 20.51 | 20.33 | 20.99 | 21.46 |
| 8H              | 4H   | 19.89            | 20.63 | 20.36 | 21.08 | 21.55 | 19.89          | 20.63 | 20.36 | 21.08 | 21.55 |
|                 | 6H   | 19.81            | 20.42 | 20.31 | 20.91 | 21.39 | 19.81          | 20.42 | 20.31 | 20.91 | 21.39 |
|                 | 8H   | 19.75            | 20.30 | 20.27 | 20.81 | 21.30 | 19.75          | 20.30 | 20.27 | 20.81 | 21.30 |
|                 | 12H  | 19.72            | 20.20 | 20.23 | 20.69 | 21.26 | 19.72          | 20.20 | 20.23 | 20.69 | 21.26 |
| 12H             | 4H   | 19.86            | 20.52 | 20.34 | 21.00 | 21.47 | 19.86          | 20.52 | 20.34 | 21.00 | 21.47 |
|                 | 6H   | 19.75            | 20.30 | 20.27 | 20.81 | 21.30 | 19.75          | 20.30 | 20.27 | 20.81 | 21.30 |
|                 | 8H   | 19.72            | 20.20 | 20.23 | 20.69 | 21.26 | 19.72          | 20.20 | 20.23 | 20.69 | 21.26 |