

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: P980021

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

Issue Date: 4/3/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P980021  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2502-353-21)  
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-WHTE-X  
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, WHITE 242 SHADE WITH CLEAR LENS  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

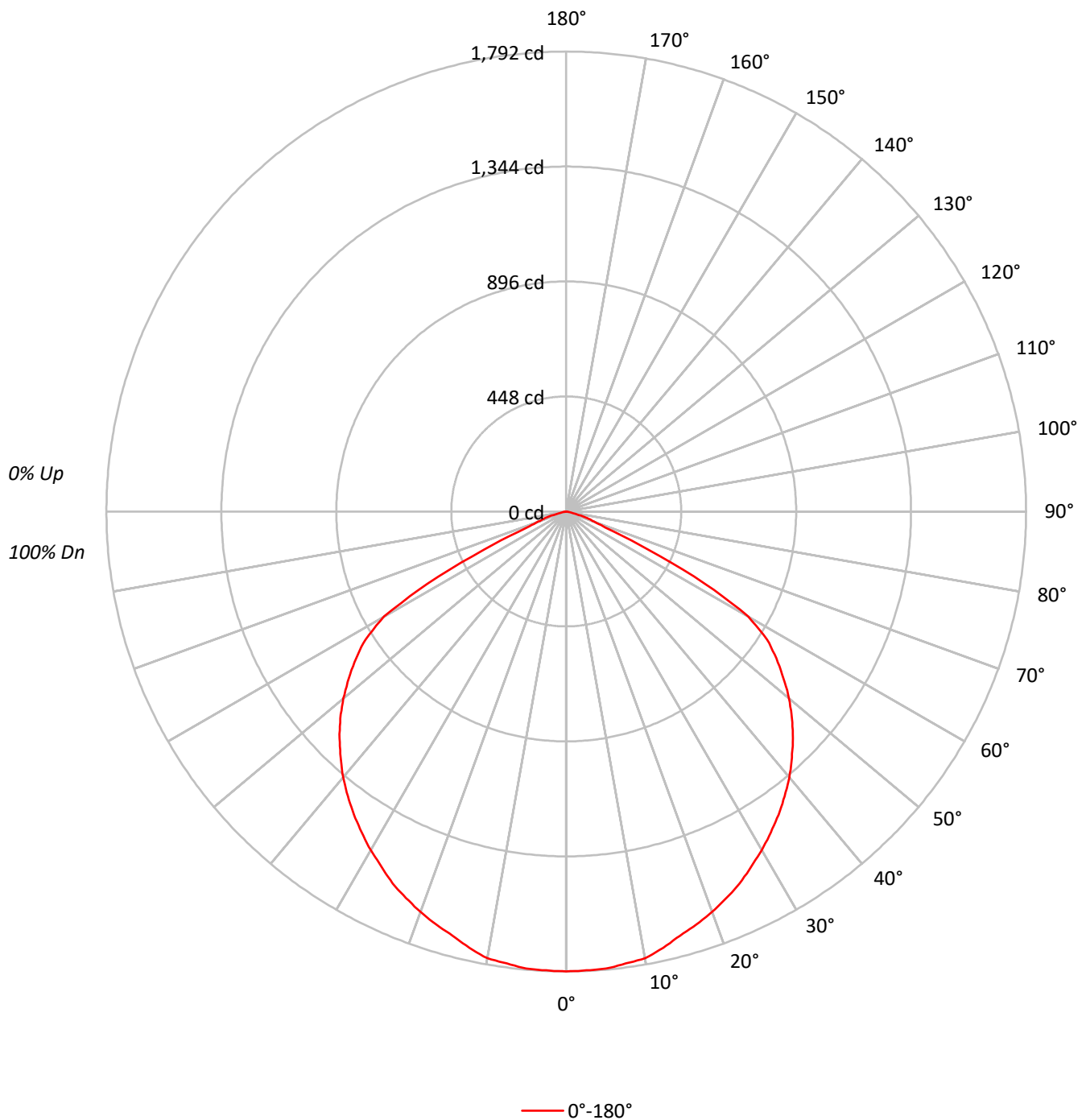
Lumens per Lamp: N/A  
Luminaire Lumens: 4592.8 lumens  
Efficiency: N/A  
Efficacy: 155.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.4  
Luminous Opening: Circular (Dia: 1.75' x H: 0')  
CIE Type: Direct

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 | 104 | 101 | 98  | 100 | 98  | 95  | 96  | 94  | 92  | 93  | 91  | 90  |
| 2   | 102 | 95  | 89  | 84  | 99  | 93  | 87  | 83  | 89  | 85  | 81  | 86  | 82  | 79  | 83  | 80  | 77  |
| 3   | 93  | 84  | 76  | 71  | 91  | 82  | 75  | 70  | 79  | 74  | 69  | 77  | 72  | 68  | 74  | 70  | 66  |
| 4   | 86  | 75  | 67  | 60  | 83  | 73  | 66  | 60  | 71  | 64  | 59  | 69  | 63  | 58  | 67  | 62  | 58  |
| 5   | 79  | 67  | 58  | 52  | 77  | 66  | 58  | 52  | 64  | 57  | 51  | 62  | 56  | 51  | 60  | 55  | 50  |
| 6   | 73  | 60  | 52  | 46  | 71  | 59  | 51  | 45  | 57  | 50  | 45  | 56  | 49  | 45  | 54  | 49  | 44  |
| 7   | 68  | 55  | 46  | 40  | 66  | 54  | 46  | 40  | 52  | 45  | 40  | 51  | 44  | 40  | 49  | 44  | 39  |
| 8   | 63  | 50  | 42  | 36  | 61  | 49  | 41  | 36  | 48  | 41  | 36  | 47  | 40  | 35  | 45  | 40  | 35  |
| 9   | 59  | 46  | 38  | 32  | 57  | 45  | 37  | 32  | 44  | 37  | 32  | 43  | 36  | 32  | 42  | 36  | 32  |
| 10  | 55  | 42  | 34  | 29  | 54  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 29  | 39  | 33  | 29  |

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

|     |      |
|-----|------|
|     | 0°   |
| 0°  | 8021 |
| 5°  | 8034 |
| 10° | 8036 |
| 15° | 7929 |
| 20° | 7910 |
| 25° | 7900 |
| 30° | 7876 |
| 35° | 7877 |
| 40° | 7903 |
| 45° | 7907 |
| 50° | 7894 |
| 55° | 7801 |
| 60° | 7332 |
| 65° | 3754 |
| 70° | 1511 |
| 75° | 712  |
| 80° | 137  |
| 85° | 205  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 7907 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 169.9  | 3.7       |
| 10°-20°   | 484.3  | 10.5      |
| 20°-30°   | 736.7  | 16.0      |
| 30°-40°   | 902.8  | 19.7      |
| 40°-50°   | 963.4  | 21.0      |
| 50°-60°   | 888.3  | 19.3      |
| 60°-70°   | 391.1  | 8.5       |
| 70°-80°   | 52.4   | 1.1       |
| 80°-90°   | 4.0    | 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°    | 1390.9 | 30.3      |
| 0°-40°    | 2293.7 | 49.9      |
| 0°-60°    | 4145.4 | 90.3      |
| 0°-90°    | 4592.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4592.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1792 |      |
| 5°  | 1788 | 170  |
| 15° | 1711 | 484  |
| 25° | 1600 | 737  |
| 35° | 1442 | 903  |
| 45° | 1249 | 963  |
| 55° | 1000 | 888  |
| 65° | 354  | 391  |
| 75° | 41   | 52   |
| 85° | 4    | 4    |
| 90° | 0    |      |

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CATALOG NUMBER: PRLX-242-930-43L-C-U-S-WHTE-X

**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1792.4 |
| 2.5°  | 1789.8 |
| 5°    | 1788.4 |
| 7.5°  | 1776.5 |
| 10°   | 1768.5 |
| 12.5° | 1742.0 |
| 15°   | 1711.4 |
| 17.5° | 1687.5 |
| 20°   | 1661.0 |
| 22.5° | 1630.4 |
| 25°   | 1599.9 |
| 27.5° | 1560.1 |
| 30°   | 1524.2 |
| 32.5° | 1483.1 |
| 35°   | 1441.9 |
| 37.5° | 1398.1 |
| 40°   | 1352.9 |
| 42.5° | 1301.2 |
| 45°   | 1249.4 |
| 47.5° | 1193.6 |
| 50°   | 1133.9 |
| 52.5° | 1067.5 |
| 55°   | 999.8  |
| 57.5° | 928.1  |
| 60°   | 819.2  |
| 62.5° | 609.4  |
| 65°   | 354.5  |
| 67.5° | 164.6  |
| 70°   | 115.5  |
| 72.5° | 86.3   |
| 75°   | 41.2   |
| 77.5° | 11.9   |
| 80°   | 5.3    |
| 82.5° | 5.3    |
| 85°   | 4.0    |
| 87.5° | 2.7    |
| 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 | 20.07            | 21.62 | 20.44 | 21.94 | 22.25 | 20.07          | 21.62 | 20.44 | 21.94 | 22.25 |
|                 | 3H   | 20.12            | 21.50 | 20.50 | 21.82 | 22.18 | 20.12          | 21.50 | 20.50 | 21.82 | 22.18 |
|                 | 4H   | 20.09            | 21.37 | 20.49 | 21.72 | 22.10 | 20.09          | 21.37 | 20.49 | 21.72 | 22.10 |
|                 | 6H   | 20.03            | 21.21 | 20.44 | 21.57 | 21.97 | 20.03          | 21.21 | 20.44 | 21.57 | 21.97 |
|                 | 8H   | 19.99            | 21.11 | 20.42 | 21.50 | 21.91 | 19.99          | 21.11 | 20.42 | 21.50 | 21.91 |
|                 | 12H  | 19.96            | 21.03 | 20.39 | 21.42 | 21.85 | 19.96          | 21.03 | 20.39 | 21.42 | 21.85 |
| 4H              | 2H   | 20.17            | 21.45 | 20.57 | 21.80 | 22.18 | 20.17          | 21.45 | 20.57 | 21.80 | 22.18 |
|                 | 3H   | 20.26            | 21.30 | 20.67 | 21.70 | 22.11 | 20.26          | 21.30 | 20.67 | 21.70 | 22.11 |
|                 | 4H   | 20.22            | 21.15 | 20.65 | 21.57 | 22.01 | 20.22          | 21.15 | 20.65 | 21.57 | 22.01 |
|                 | 6H   | 20.16            | 20.97 | 20.62 | 21.41 | 21.87 | 20.16          | 20.97 | 20.62 | 21.41 | 21.87 |
|                 | 8H   | 20.12            | 20.87 | 20.58 | 21.32 | 21.78 | 20.12          | 20.87 | 20.58 | 21.32 | 21.78 |
|                 | 12H  | 20.09            | 20.76 | 20.57 | 21.24 | 21.71 | 20.09          | 20.76 | 20.57 | 21.24 | 21.71 |
| 8H              | 4H   | 20.13            | 20.89 | 20.60 | 21.33 | 21.80 | 20.13          | 20.89 | 20.60 | 21.33 | 21.80 |
|                 | 6H   | 20.05            | 20.67 | 20.55 | 21.16 | 21.64 | 20.05          | 20.67 | 20.55 | 21.16 | 21.64 |
|                 | 8H   | 20.00            | 20.56 | 20.52 | 21.07 | 21.56 | 20.00          | 20.56 | 20.52 | 21.07 | 21.56 |
|                 | 12H  | 19.97            | 20.46 | 20.48 | 20.95 | 21.52 | 19.97          | 20.46 | 20.48 | 20.95 | 21.52 |
| 12H             | 4H   | 20.10            | 20.77 | 20.58 | 21.25 | 21.72 | 20.10          | 20.77 | 20.58 | 21.25 | 21.72 |
|                 | 6H   | 20.00            | 20.56 | 20.51 | 21.07 | 21.55 | 20.00          | 20.56 | 20.51 | 21.07 | 21.55 |
|                 | 8H   | 19.97            | 20.46 | 20.48 | 20.95 | 21.52 | 19.97          | 20.46 | 20.48 | 20.95 | 21.52 |