

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: P979832

Luminaire Tested: PRLX-241-940-18L-F-U-S-BLAK-X

Issue Date: 4/3/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P979832  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2502-353-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/3/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PrentaLux  
Catalog Number: PRLX-241-940-18L-F-U-S-BLAK-X  
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, BLACK 241 SHADE WITH FROSTED LENS  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

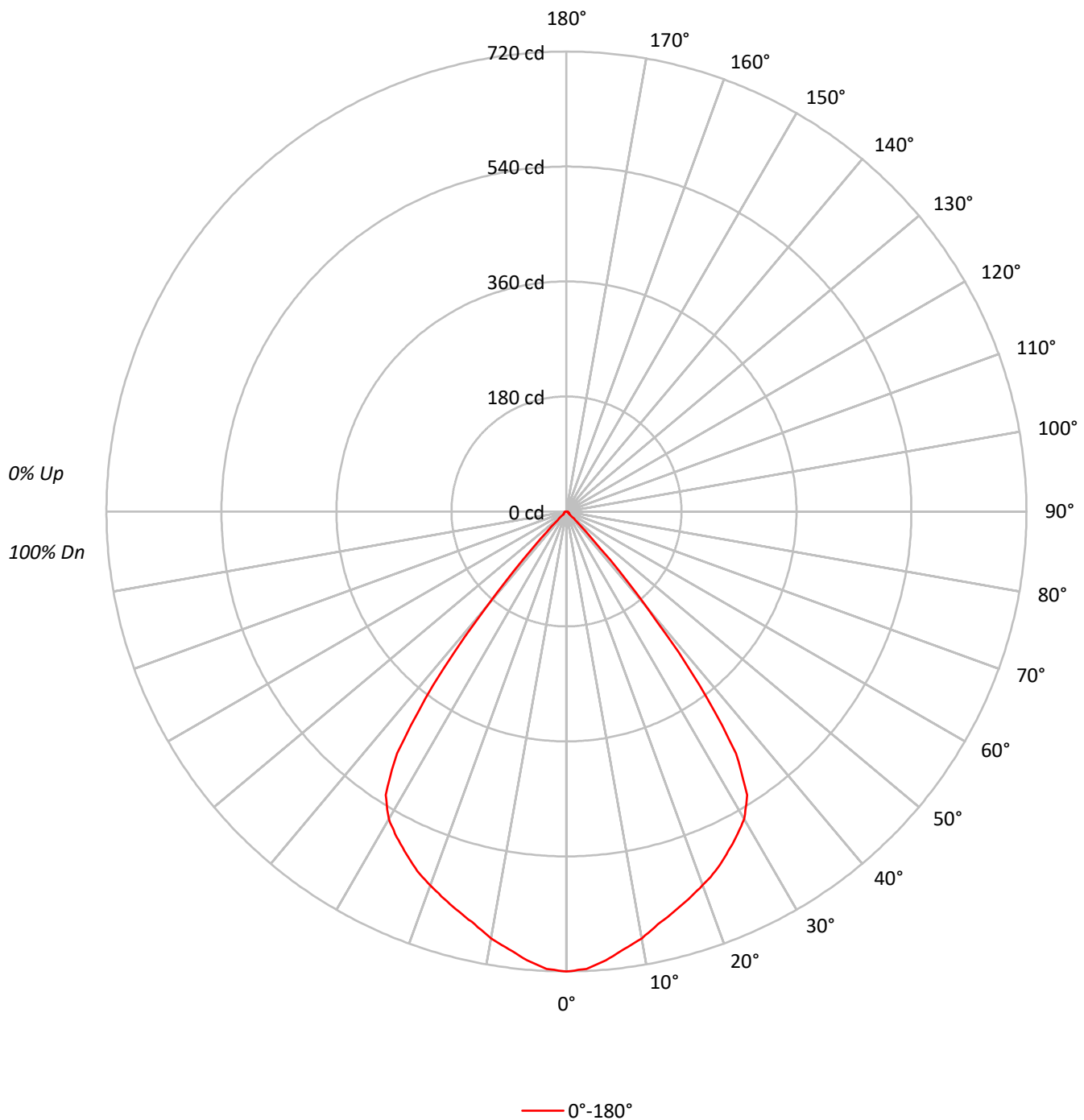
Lumens per Lamp: N/A  
Luminaire Lumens: 833.9 lumens  
Efficiency: N/A  
Efficacy: 75.8 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.16 / 1.07  
Luminous Opening: Circular (Dia: 1.33' x H: 0')  
CIE Type: Direct

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  |  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 100 |
| 1   | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 101 |  | 100 | 99  | 98  |  | 93  |
| 2   | 107 | 102 | 98  | 95  | 105 | 101 | 97  | 93  | 97  | 94  | 91  |  | 94  | 92  | 89  |  | 86  |
| 3   | 102 | 95  | 90  | 86  | 100 | 93  | 89  | 85  | 91  | 87  | 83  |  | 88  | 85  | 82  |  | 79  |
| 4   | 96  | 88  | 82  | 78  | 94  | 87  | 82  | 77  | 85  | 80  | 77  |  | 83  | 79  | 76  |  | 73  |
| 5   | 91  | 82  | 76  | 71  | 89  | 81  | 75  | 71  | 79  | 74  | 70  |  | 78  | 73  | 70  |  | 68  |
| 6   | 86  | 77  | 70  | 66  | 84  | 76  | 70  | 65  | 74  | 69  | 65  |  | 73  | 68  | 65  |  | 63  |
| 7   | 81  | 71  | 65  | 61  | 80  | 71  | 65  | 61  | 69  | 64  | 60  |  | 68  | 63  | 60  |  | 58  |
| 8   | 77  | 67  | 61  | 56  | 76  | 66  | 60  | 56  | 65  | 60  | 56  |  | 64  | 59  | 56  |  | 54  |
| 9   | 73  | 63  | 56  | 52  | 72  | 62  | 56  | 52  | 61  | 56  | 52  |  | 60  | 55  | 52  |  | 50  |
| 10  | 69  | 59  | 53  | 49  | 68  | 58  | 53  | 49  | 58  | 52  | 49  |  | 57  | 52  | 48  |  | 47  |

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

|     |      |
|-----|------|
|     | 0°   |
| 0°  | 5552 |
| 5°  | 5460 |
| 10° | 5312 |
| 15° | 5177 |
| 20° | 5111 |
| 25° | 5040 |
| 30° | 4951 |
| 35° | 4353 |
| 40° | 1932 |
| 45° | 242  |
| 50° | 56   |
| 55° | 63   |
| 60° | 63   |
| 65° | 64   |
| 70° | 52   |
| 75° | 54   |
| 80° | 53   |
| 85° | 53   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 242 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 66.4   | 8.0       |
| 10°-20°   | 183.3  | 22.0      |
| 20°-30°   | 272.9  | 32.7      |
| 30°-40°   | 263.4  | 31.6      |
| 40°-50°   | 38.3   | 4.6       |
| 50°-60°   | 4.0    | 0.5       |
| 60°-70°   | 3.2    | 0.4       |
| 70°-80°   | 1.9    | 0.2       |
| 80°-90°   | 0.5    | 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°    | 522.7  | 62.7      |
| 0°-40°    | 786.1  | 94.3      |
| 0°-60°    | 828.4  | 99.3      |
| 0°-90°    | 833.9  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 833.9  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 720 |      |
| 5°  | 706 | 66   |
| 15° | 649 | 183  |
| 25° | 592 | 273  |
| 35° | 462 | 263  |
| 45° | 22  | 38   |
| 55° | 5   | 4    |
| 65° | 4   | 3    |
| 75° | 2   | 2    |
| 85° | 1   | 0    |
| 90° | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 720.2 |
| 2.5°  | 716.7 |
| 5°    | 705.5 |
| 7.5°  | 690.9 |
| 10°   | 678.6 |
| 12.5° | 662.2 |
| 15°   | 648.7 |
| 17.5° | 635.9 |
| 20°   | 623.0 |
| 22.5° | 609.5 |
| 25°   | 592.5 |
| 27.5° | 575.0 |
| 30°   | 556.2 |
| 32.5° | 526.4 |
| 35°   | 462.5 |
| 37.5° | 342.5 |
| 40°   | 192.0 |
| 42.5° | 79.6  |
| 45°   | 22.2  |
| 47.5° | 7.0   |
| 50°   | 4.7   |
| 52.5° | 4.7   |
| 55°   | 4.7   |
| 57.5° | 4.1   |
| 60°   | 4.1   |
| 62.5° | 3.5   |
| 65°   | 3.5   |
| 67.5° | 2.9   |
| 70°   | 2.3   |
| 72.5° | 2.3   |
| 75°   | 1.8   |
| 77.5° | 1.2   |
| 80°   | 1.2   |
| 82.5° | 0.6   |
| 85°   | 0.6   |
| 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 | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 3H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 4H              | 2H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 3H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H              | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 12H             | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |

END OF REPORT