

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: P866364

Luminaire Tested: PRLX-2002-M-940-35L-G-U-S-X-X-BLAK-X

Issue Date: 8/20/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P866364  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-993-41)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 8/20/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: Pentalux  
Catalog Number: PRLX-2002-M-940-35L-G-U-S-X-X-BLAK-X  
Description: PRENTALUX 3D PRINTED PENDANT LED LUMINAIRE, MEDIUM LIGHT ENGINE, GLOBE LENS, TRUNCATED DOME WITH BLACK INTERIOR SHADE.  
LIGHT LEVEL 4  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

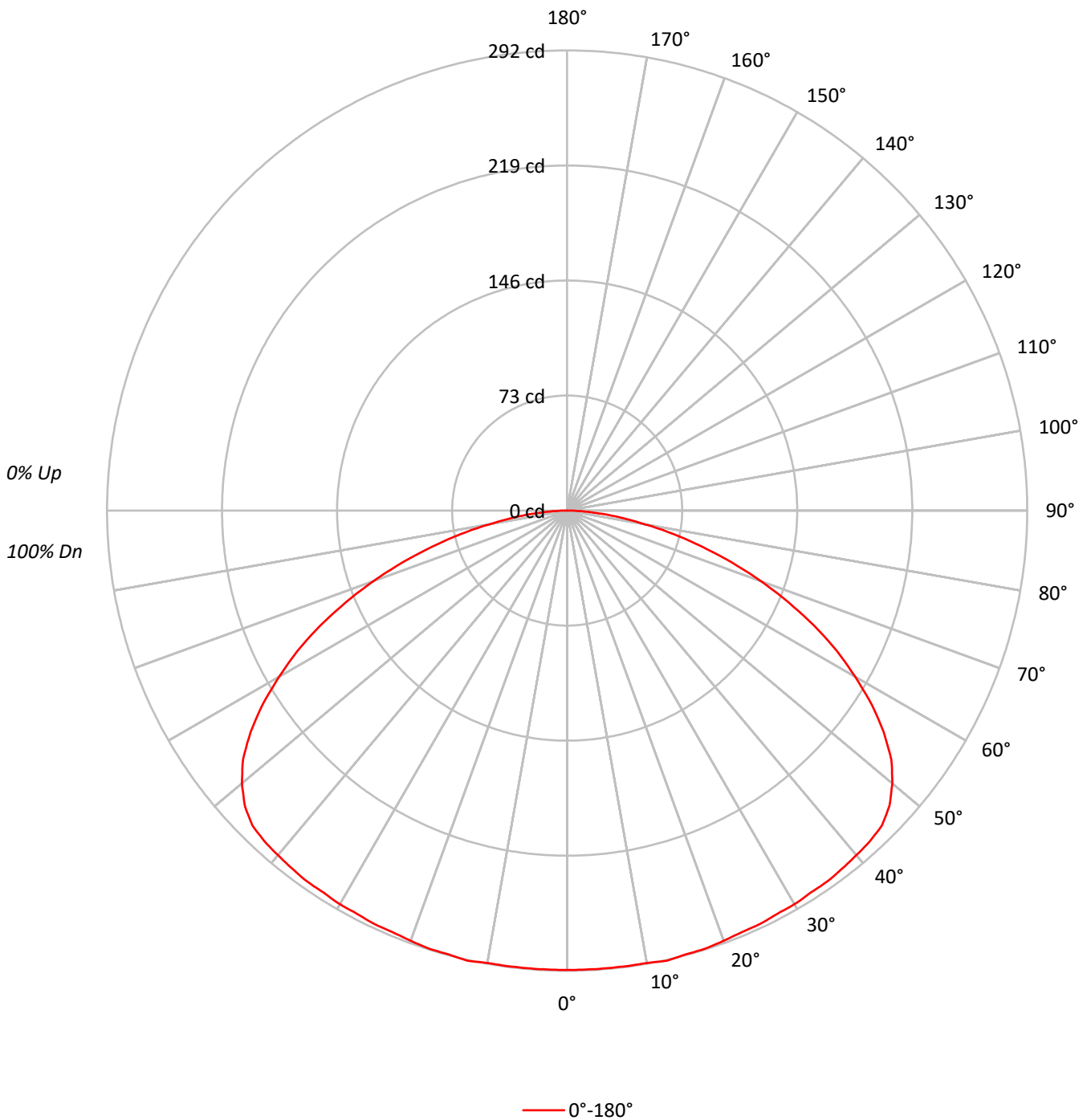
Lumens per Lamp: N/A  
Luminaire Lumens: 1148.5 lumens  
Efficiency: N/A  
Efficacy: 38.3 lumens/watt  
Spacing Criteria (0/90/45): 1.51 / 1.51 / 1.67  
Luminous Opening: Circular (Dia: 1.31' x H: 0')  
CIE Type: Direct

Input Watts (W): 30  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: 0.5 HR  
Operation Time: 3 HR  
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  | 0   |     |     |
| 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   | 108 | 103 | 98  | 94  | 105 | 100 | 96  | 92  | 96  | 93  | 90  |  | 92  | 89  | 87  |  | 89  | 86  | 84  | 82  |
| 2   | 97  | 88  | 81  | 75  | 95  | 86  | 80  | 74  | 83  | 77  | 72  |  | 80  | 75  | 71  |  | 76  | 72  | 69  | 67  |
| 3   | 88  | 77  | 68  | 61  | 85  | 75  | 67  | 60  | 72  | 65  | 59  |  | 69  | 63  | 58  |  | 67  | 61  | 57  | 55  |
| 4   | 80  | 67  | 58  | 51  | 78  | 66  | 57  | 50  | 63  | 56  | 49  |  | 61  | 54  | 49  |  | 59  | 53  | 48  | 46  |
| 5   | 73  | 59  | 50  | 43  | 71  | 58  | 49  | 42  | 56  | 48  | 42  |  | 54  | 47  | 41  |  | 52  | 46  | 41  | 39  |
| 6   | 67  | 53  | 43  | 37  | 65  | 52  | 43  | 37  | 50  | 42  | 36  |  | 48  | 41  | 36  |  | 47  | 40  | 35  | 33  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 32  |  | 44  | 37  | 31  |  | 42  | 36  | 31  | 29  |
| 8   | 57  | 43  | 34  | 28  | 56  | 42  | 34  | 28  | 41  | 33  | 28  |  | 40  | 33  | 28  |  | 39  | 32  | 27  | 25  |
| 9   | 53  | 39  | 31  | 25  | 52  | 39  | 31  | 25  | 38  | 30  | 25  |  | 36  | 30  | 25  |  | 35  | 29  | 24  | 23  |
| 10  | 50  | 36  | 28  | 22  | 49  | 36  | 28  | 22  | 35  | 27  | 22  |  | 34  | 27  | 22  |  | 33  | 26  | 22  | 20  |

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

|     |      |
|-----|------|
|     | 0°   |
| 0°  | 2319 |
| 5°  | 2328 |
| 10° | 2355 |
| 15° | 2401 |
| 20° | 2459 |
| 25° | 2541 |
| 30° | 2650 |
| 35° | 2792 |
| 40° | 2965 |
| 45° | 3178 |
| 50° | 3334 |
| 55° | 3402 |
| 60° | 3359 |
| 65° | 3255 |
| 70° | 3040 |
| 75° | 2720 |
| 80° | 2305 |
| 85° | 1835 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 55°  
 Luminance: 3402 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 27.8   | 2.4       |
| 10°-20°   | 82.6   | 7.2       |
| 20°-30°   | 133.9  | 11.7      |
| 30°-40°   | 180.3  | 15.7      |
| 40°-50°   | 217.0  | 18.9      |
| 50°-60°   | 218.0  | 19.0      |
| 60°-70°   | 170.4  | 14.8      |
| 70°-80°   | 94.4   | 8.2       |
| 80°-90°   | 24.1   | 2.1       |
| 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°    | 244.3  | 21.3      |
| 0°-40°    | 424.7  | 37.0      |
| 0°-60°    | 859.7  | 74.9      |
| 0°-90°    | 1148.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1148.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 292 |      |
| 5°  | 292 | 28   |
| 15° | 292 | 83   |
| 25° | 290 | 134  |
| 35° | 288 | 180  |
| 45° | 282 | 217  |
| 55° | 245 | 218  |
| 65° | 173 | 170  |
| 75° | 88  | 94   |
| 85° | 20  | 24   |
| 90° | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 291.5 |
| 2.5°  | 291.5 |
| 5°    | 291.5 |
| 7.5°  | 291.5 |
| 10°   | 291.5 |
| 12.5° | 292.5 |
| 15°   | 291.5 |
| 17.5° | 291.5 |
| 20°   | 290.5 |
| 22.5° | 289.5 |
| 25°   | 289.5 |
| 27.5° | 288.5 |
| 30°   | 288.5 |
| 32.5° | 287.5 |
| 35°   | 287.5 |
| 37.5° | 286.5 |
| 40°   | 285.5 |
| 42.5° | 284.5 |
| 45°   | 282.5 |
| 47.5° | 277.4 |
| 50°   | 269.4 |
| 52.5° | 259.3 |
| 55°   | 245.3 |
| 57.5° | 229.2 |
| 60°   | 211.1 |
| 62.5° | 193.0 |
| 65°   | 172.9 |
| 67.5° | 151.8 |
| 70°   | 130.7 |
| 72.5° | 109.6 |
| 75°   | 88.5  |
| 77.5° | 69.4  |
| 80°   | 50.3  |
| 82.5° | 34.2  |
| 85°   | 20.1  |
| 87.5° | 9.0   |
| 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 | 16.95            | 18.68 | 17.31 | 19.00 | 19.31 | 16.95          | 18.68 | 17.31 | 19.00 | 19.31 |
|                 | 3H   | 18.78            | 20.36 | 19.16 | 20.68 | 21.04 | 18.78          | 20.36 | 19.16 | 20.68 | 21.04 |
|                 | 4H   | 19.42            | 20.91 | 19.82 | 21.26 | 21.63 | 19.42          | 20.91 | 19.82 | 21.26 | 21.63 |
|                 | 6H   | 19.87            | 21.25 | 20.28 | 21.61 | 22.00 | 19.87          | 21.25 | 20.28 | 21.61 | 22.00 |
|                 | 8H   | 20.00            | 21.32 | 20.42 | 21.71 | 22.11 | 20.00          | 21.32 | 20.42 | 21.71 | 22.11 |
|                 | 12H  | 20.08            | 21.35 | 20.51 | 21.73 | 22.16 | 20.08          | 21.35 | 20.51 | 21.73 | 22.16 |
| 4H              | 2H   | 17.62            | 19.11 | 18.02 | 19.45 | 19.83 | 17.62          | 19.11 | 18.02 | 19.45 | 19.83 |
|                 | 3H   | 19.66            | 20.91 | 20.07 | 21.31 | 21.71 | 19.66          | 20.91 | 20.07 | 21.31 | 21.71 |
|                 | 4H   | 20.42            | 21.56 | 20.85 | 21.97 | 22.40 | 20.42          | 21.56 | 20.85 | 21.97 | 22.40 |
|                 | 6H   | 20.98            | 21.98 | 21.43 | 22.42 | 22.87 | 20.98          | 21.98 | 21.43 | 22.42 | 22.87 |
|                 | 8H   | 21.15            | 22.09 | 21.61 | 22.53 | 22.99 | 21.15          | 22.09 | 21.61 | 22.53 | 22.99 |
|                 | 12H  | 21.27            | 22.12 | 21.75 | 22.59 | 23.06 | 21.27          | 22.12 | 21.75 | 22.59 | 23.06 |
| 8H              | 4H   | 20.73            | 21.66 | 21.19 | 22.10 | 22.56 | 20.73          | 21.66 | 21.19 | 22.10 | 22.56 |
|                 | 6H   | 21.39            | 22.17 | 21.88 | 22.66 | 23.13 | 21.39          | 22.17 | 21.88 | 22.66 | 23.13 |
|                 | 8H   | 21.63            | 22.33 | 22.13 | 22.83 | 23.31 | 21.63          | 22.33 | 22.13 | 22.83 | 23.31 |
|                 | 12H  | 21.81            | 22.43 | 22.31 | 22.92 | 23.47 | 21.81          | 22.43 | 22.31 | 22.92 | 23.47 |
| 12H             | 4H   | 20.76            | 21.60 | 21.24 | 22.08 | 22.54 | 20.76          | 21.60 | 21.24 | 22.08 | 22.54 |
|                 | 6H   | 21.44            | 22.14 | 21.95 | 22.65 | 23.13 | 21.44          | 22.14 | 21.95 | 22.65 | 23.13 |
|                 | 8H   | 21.73            | 22.35 | 22.23 | 22.84 | 23.39 | 21.73          | 22.35 | 22.23 | 22.84 | 23.39 |