

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: PrentaLux

Report Number: P981042

Luminaire Tested: PRLX-CYL3S-10-940-23L-MD-U-S-X-X-WHTE

Issue Date: 4/11/2025

Test Information

Test Method: LM-79-2024
Report Number: P981042
TEST IS SCALED FROM (FO44193.PSO)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/11/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: PentaLux
Catalog Number: PRLX-CYL3S-10-940-23L-MD-U-S-X-X-WHTE
Description: PentaLux 3-INCH CYLINDER, MEDIUM OPTIC
2300 LUMENS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

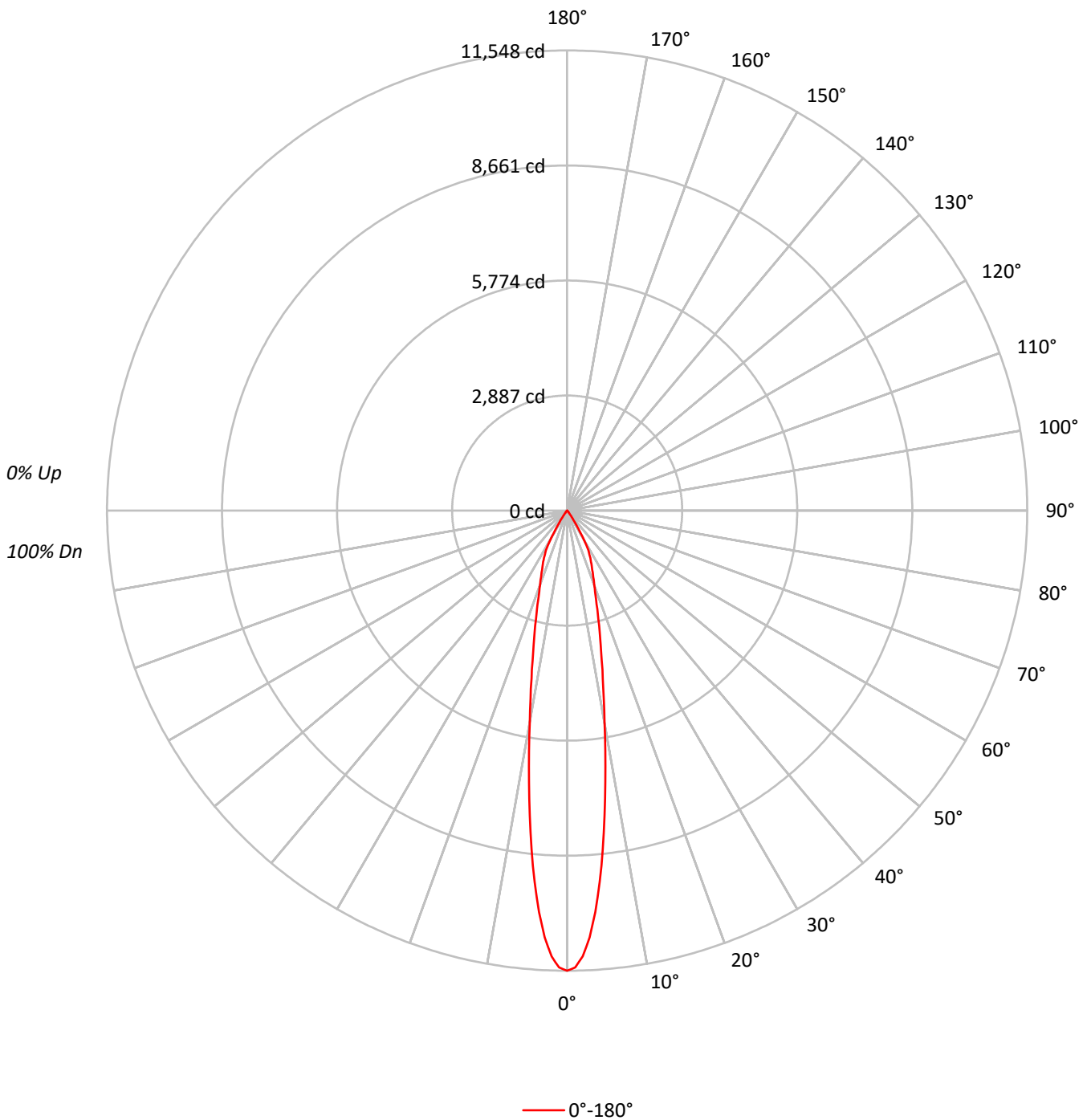
Lumens per Lamp: N/A
Luminaire Lumens: 2492.9 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.32 / 0.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 22.5
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 | 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 | 115 | 112 | 110 | 109 | 112 | 110 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 99 | 98 | 98 | 96 |
| 2 | 111 | 107 | 103 | 101 | 108 | 105 | 102 | 100 | 102 | 99 | 97 | 99 | 97 | 95 | 96 | 95 | 93 | 92 |
| 3 | 107 | 102 | 98 | 95 | 105 | 100 | 97 | 94 | 98 | 95 | 92 | 95 | 93 | 91 | 93 | 91 | 90 | 88 |
| 4 | 103 | 97 | 93 | 89 | 101 | 96 | 92 | 89 | 94 | 91 | 88 | 92 | 89 | 87 | 90 | 88 | 86 | 85 |
| 5 | 99 | 93 | 88 | 85 | 98 | 92 | 88 | 85 | 90 | 87 | 84 | 89 | 86 | 83 | 87 | 85 | 83 | 82 |
| 6 | 96 | 89 | 85 | 81 | 95 | 89 | 84 | 81 | 87 | 83 | 81 | 86 | 83 | 80 | 85 | 82 | 80 | 78 |
| 7 | 93 | 86 | 81 | 78 | 92 | 85 | 81 | 78 | 84 | 80 | 78 | 83 | 80 | 77 | 82 | 79 | 77 | 76 |
| 8 | 90 | 83 | 78 | 75 | 89 | 82 | 78 | 75 | 81 | 77 | 75 | 80 | 77 | 74 | 80 | 76 | 74 | 73 |
| 9 | 87 | 80 | 75 | 72 | 86 | 79 | 75 | 72 | 79 | 75 | 72 | 78 | 74 | 72 | 77 | 74 | 72 | 71 |
| 10 | 85 | 77 | 73 | 70 | 84 | 77 | 73 | 70 | 76 | 72 | 70 | 75 | 72 | 69 | 75 | 72 | 69 | 68 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|---------|
| | 0° |
| 0° | 2532144 |
| 5° | 2060615 |
| 10° | 1204320 |
| 15° | 713148 |
| 20° | 464747 |
| 25° | 343254 |
| 30° | 210286 |
| 35° | 53271 |
| 40° | 16603 |
| 45° | 3876 |
| 50° | 1774 |
| 55° | 1376 |
| 60° | 1447 |
| 65° | 1660 |
| 70° | 1923 |
| 75° | 2203 |
| 80° | 3031 |
| 85° | 3522 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3876 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 758.4 | 30.4 |
| 10°-20° | 891.5 | 35.8 |
| 20°-30° | 643.0 | 25.8 |
| 30°-40° | 174.2 | 7.0 |
| 40°-50° | 15.1 | 0.6 |
| 50°-60° | 3.4 | 0.1 |
| 60°-70° | 3.2 | 0.1 |
| 70°-80° | 2.8 | 0.1 |
| 80°-90° | 1.3 | 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° | 2292.9 | 92.0 |
| 0°-40° | 2467.2 | 99.0 |
| 0°-60° | 2485.7 | 99.7 |
| 0°-90° | 2492.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2492.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-------|------|
| 0° | 11548 | |
| 5° | 9361 | 758 |
| 15° | 3141 | 892 |
| 25° | 1419 | 643 |
| 35° | 199 | 174 |
| 45° | 12 | 15 |
| 55° | 4 | 3 |
| 65° | 3 | 3 |
| 75° | 3 | 3 |
| 85° | 1 | 1 |
| 90° | 0 | |

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CATALOG NUMBER: PRLX-CYL3S-10-940-23L-MD-U-S-X-X-WHTE

CANDELA DISTRIBUTION (FULL):

| 0° | |
|-----|---------|
| 0° | 11547.5 |
| 1° | 11466.9 |
| 2° | 11195.5 |
| 3° | 10727.6 |
| 4° | 10103.3 |
| 5° | 9361.4 |
| 6° | 8552.3 |
| 7° | 7713.9 |
| 8° | 6879.8 |
| 9° | 6104.7 |
| 10° | 5408.7 |
| 11° | 4810.9 |
| 12° | 4306.7 |
| 13° | 3865.6 |
| 14° | 3477.7 |
| 15° | 3141.4 |
| 16° | 2847.3 |
| 17° | 2584.2 |
| 18° | 2348.1 |
| 19° | 2155.5 |
| 20° | 1991.6 |
| 21° | 1855.9 |
| 22° | 1729.6 |
| 23° | 1616.2 |
| 24° | 1512.3 |
| 25° | 1418.7 |
| 26° | 1329.9 |
| 27° | 1234.1 |
| 28° | 1126.7 |
| 29° | 987.7 |
| 30° | 830.5 |
| 31° | 675.0 |
| 32° | 531.7 |
| 33° | 401.5 |
| 34° | 288.1 |
| 35° | 199.0 |
| 36° | 138.2 |
| 37° | 100.5 |
| 38° | 82.6 |
| 39° | 69.7 |
| 40° | 58.0 |
| 41° | 47.5 |
| 42° | 37.2 |
| 43° | 25.9 |
| 44° | 16.6 |

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CANDELA DISTRIBUTION (continued):

| | 0° |
|-----|------|
| 45° | 12.5 |
| 46° | 9.9 |
| 47° | 8.2 |
| 48° | 6.8 |
| 49° | 5.8 |
| 50° | 5.2 |
| 51° | 4.6 |
| 52° | 4.3 |
| 53° | 4.0 |
| 54° | 3.8 |
| 55° | 3.6 |
| 56° | 3.6 |
| 57° | 3.5 |
| 58° | 3.3 |
| 59° | 3.3 |
| 60° | 3.3 |
| 61° | 3.2 |
| 62° | 3.2 |
| 63° | 3.2 |
| 64° | 3.2 |
| 65° | 3.2 |
| 66° | 3.2 |
| 67° | 3.2 |
| 68° | 3.1 |
| 69° | 3.1 |
| 70° | 3.0 |
| 71° | 3.0 |
| 72° | 2.9 |
| 73° | 2.8 |
| 74° | 2.7 |
| 75° | 2.6 |
| 76° | 2.6 |
| 77° | 2.5 |
| 78° | 2.5 |
| 79° | 2.4 |
| 80° | 2.4 |
| 81° | 2.3 |
| 82° | 2.2 |
| 83° | 2.1 |
| 84° | 1.7 |
| 85° | 1.4 |
| 86° | 0.8 |
| 87° | 0.2 |
| 88° | 0.1 |
| 89° | 0.0 |



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CANDELA DISTRIBUTION (continued):

90° | $\frac{0^\circ}{0.0}$



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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 | 0.70 | 1.48 | 1.08 | 1.82 | 2.19 | 0.70 | 1.48 | 1.08 | 1.82 | 2.19 |
| | 4H | 2.10 | 2.82 | 2.50 | 3.17 | 3.56 | 2.10 | 2.82 | 2.50 | 3.17 | 3.56 |
| | 6H | 3.60 | 4.26 | 4.02 | 4.64 | 5.04 | 3.60 | 4.26 | 4.02 | 4.64 | 5.04 |
| | 8H | 4.37 | 4.99 | 4.81 | 5.38 | 5.79 | 4.37 | 4.99 | 4.81 | 5.38 | 5.79 |
| | 12H | 4.78 | 5.37 | 5.22 | 5.76 | 6.19 | 4.78 | 5.37 | 5.22 | 5.76 | 6.19 |
| 4H | 2H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 1.80 | 2.39 | 2.22 | 2.80 | 3.21 | 1.80 | 2.39 | 2.22 | 2.80 | 3.21 |
| | 4H | 3.33 | 3.85 | 3.76 | 4.28 | 4.73 | 3.33 | 3.85 | 3.76 | 4.28 | 4.73 |
| | 6H | 5.01 | 5.46 | 5.48 | 5.91 | 6.39 | 5.01 | 5.46 | 5.48 | 5.91 | 6.39 |
| | 8H | 5.86 | 6.27 | 6.34 | 6.73 | 7.20 | 5.86 | 6.27 | 6.34 | 6.73 | 7.20 |
| | 12H | 6.40 | 6.76 | 6.90 | 7.25 | 7.73 | 6.40 | 6.76 | 6.90 | 7.25 | 7.73 |
| 8H | 4H | 3.89 | 4.31 | 4.37 | 4.76 | 5.24 | 3.89 | 4.31 | 4.37 | 4.76 | 5.24 |
| | 6H | 5.84 | 6.16 | 6.35 | 6.67 | 7.16 | 5.84 | 6.16 | 6.35 | 6.67 | 7.16 |
| | 8H | 6.85 | 7.14 | 7.39 | 7.67 | 8.16 | 6.85 | 7.14 | 7.39 | 7.67 | 8.16 |
| | 12H | 7.57 | 7.81 | 8.09 | 8.31 | 8.89 | 7.57 | 7.81 | 8.09 | 8.31 | 8.89 |
| 12H | 4H | 4.03 | 4.38 | 4.52 | 4.87 | 5.35 | 4.03 | 4.38 | 4.52 | 4.87 | 5.35 |
| | 6H | 6.06 | 6.35 | 6.60 | 6.88 | 7.37 | 6.06 | 6.35 | 6.60 | 6.88 | 7.37 |
| | 8H | 7.18 | 7.42 | 7.70 | 7.92 | 8.50 | 7.18 | 7.42 | 7.70 | 7.92 | 8.50 |