

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: P981038

Luminaire Tested: PRLX-CYL3S-10-940-15L-MD-U-S-X-X-WHTE

Issue Date: 4/11/2025

Test Information

Test Method: LM-79-2024
Report Number: P981038
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-10-940-15L-MD-U-S-X-X-WHTE
Description: PentaLux 3-INCH CYLINDER, MEDIUM OPTIC
1500 LUMENS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

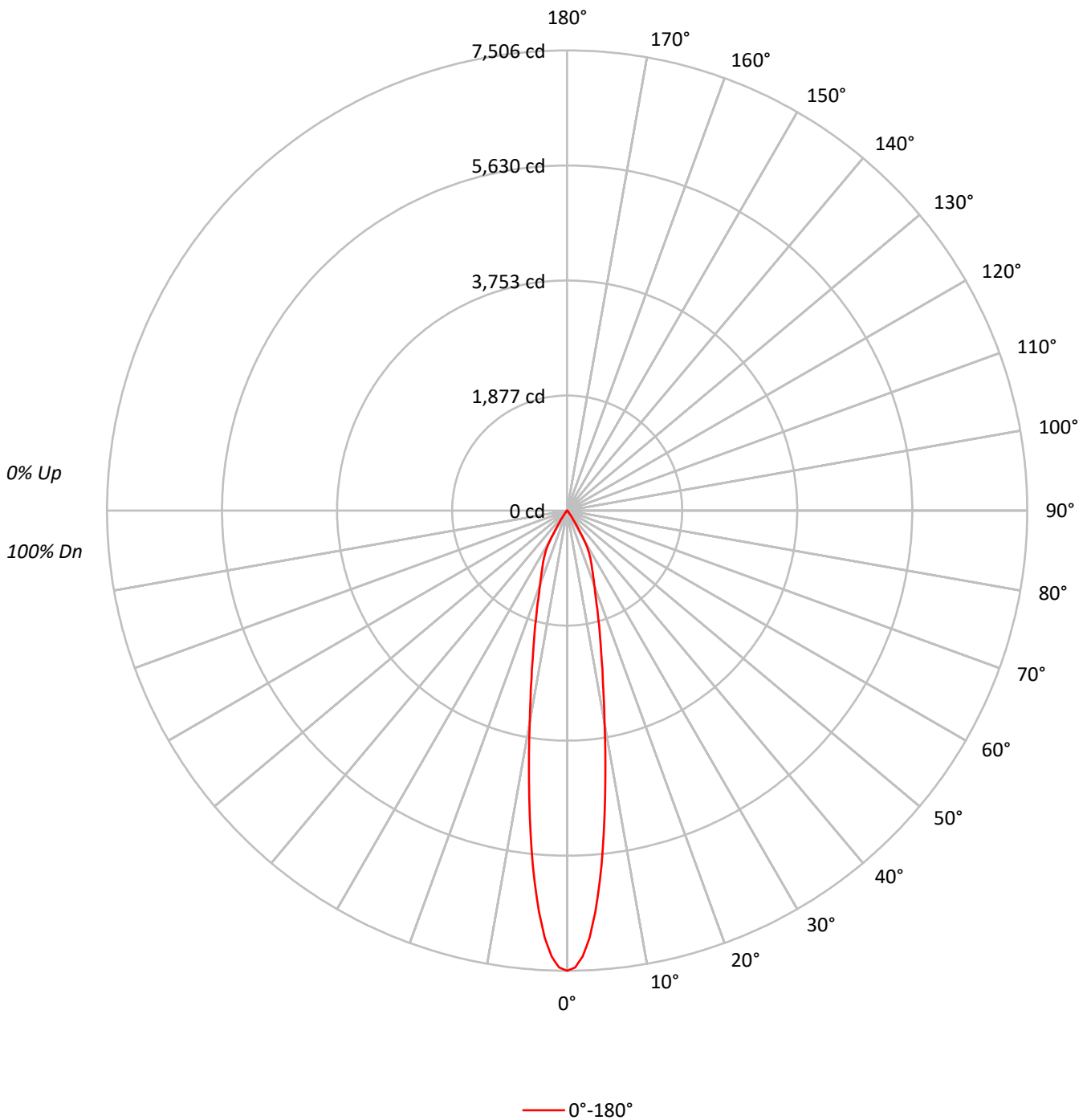
Lumens per Lamp: N/A
Luminaire Lumens: 1620.4 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.32 / 0.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 13.5
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° | 1645899 |
| 5° | 1339398 |
| 10° | 782818 |
| 15° | 463544 |
| 20° | 302100 |
| 25° | 223102 |
| 30° | 136679 |
| 35° | 34639 |
| 40° | 10792 |
| 45° | 2512 |
| 50° | 1160 |
| 55° | 879 |
| 60° | 965 |
| 65° | 1090 |
| 70° | 1282 |
| 75° | 1440 |
| 80° | 1894 |
| 85° | 2264 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2512 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 493.0 | 30.4 |
| 10°-20° | 579.5 | 35.8 |
| 20°-30° | 417.9 | 25.8 |
| 30°-40° | 113.3 | 7.0 |
| 40°-50° | 9.8 | 0.6 |
| 50°-60° | 2.2 | 0.1 |
| 60°-70° | 2.1 | 0.1 |
| 70°-80° | 1.8 | 0.1 |
| 80°-90° | 0.8 | 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° | 1490.4 | 92.0 |
| 0°-40° | 1603.7 | 99.0 |
| 0°-60° | 1615.7 | 99.7 |
| 0°-90° | 1620.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1620.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 7506 | |
| 5° | 6085 | 493 |
| 15° | 2042 | 580 |
| 25° | 922 | 418 |
| 35° | 129 | 113 |
| 45° | 8 | 10 |
| 55° | 2 | 2 |
| 65° | 2 | 2 |
| 75° | 2 | 2 |
| 85° | 1 | 1 |
| 90° | 0 | |

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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-----|--------|
| 0° | 7505.9 |
| 1° | 7453.5 |
| 2° | 7277.0 |
| 3° | 6972.9 |
| 4° | 6567.1 |
| 5° | 6084.9 |
| 6° | 5559.0 |
| 7° | 5014.0 |
| 8° | 4471.9 |
| 9° | 3968.0 |
| 10° | 3515.7 |
| 11° | 3127.1 |
| 12° | 2799.4 |
| 13° | 2512.7 |
| 14° | 2260.5 |
| 15° | 2041.9 |
| 16° | 1850.7 |
| 17° | 1679.7 |
| 18° | 1526.3 |
| 19° | 1401.0 |
| 20° | 1294.6 |
| 21° | 1206.3 |
| 22° | 1124.2 |
| 23° | 1050.5 |
| 24° | 983.0 |
| 25° | 922.1 |
| 26° | 864.4 |
| 27° | 802.2 |
| 28° | 732.3 |
| 29° | 642.0 |
| 30° | 539.8 |
| 31° | 438.7 |
| 32° | 345.6 |
| 33° | 261.0 |
| 34° | 187.3 |
| 35° | 129.4 |
| 36° | 89.9 |
| 37° | 65.4 |
| 38° | 53.7 |
| 39° | 45.3 |
| 40° | 37.7 |
| 41° | 30.9 |
| 42° | 24.1 |
| 43° | 16.8 |
| 44° | 10.8 |

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CANDELA DISTRIBUTION (continued):

| | 0° |
|-----|-----|
| 45° | 8.1 |
| 46° | 6.5 |
| 47° | 5.3 |
| 48° | 4.4 |
| 49° | 3.8 |
| 50° | 3.4 |
| 51° | 3.0 |
| 52° | 2.8 |
| 53° | 2.6 |
| 54° | 2.5 |
| 55° | 2.3 |
| 56° | 2.3 |
| 57° | 2.2 |
| 58° | 2.2 |
| 59° | 2.2 |
| 60° | 2.2 |
| 61° | 2.1 |
| 62° | 2.1 |
| 63° | 2.1 |
| 64° | 2.1 |
| 65° | 2.1 |
| 66° | 2.1 |
| 67° | 2.1 |
| 68° | 2.0 |
| 69° | 2.0 |
| 70° | 2.0 |
| 71° | 2.0 |
| 72° | 1.9 |
| 73° | 1.8 |
| 74° | 1.8 |
| 75° | 1.7 |
| 76° | 1.7 |
| 77° | 1.6 |
| 78° | 1.6 |
| 79° | 1.5 |
| 80° | 1.5 |
| 81° | 1.5 |
| 82° | 1.4 |
| 83° | 1.3 |
| 84° | 1.1 |
| 85° | 0.9 |
| 86° | 0.5 |
| 87° | 0.1 |
| 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 | 0.00 | 0.00 | 0.00 | 0.30 | 0.67 | 0.00 | 0.00 | 0.00 | 0.30 | 0.67 |
| | 4H | 0.64 | 1.37 | 1.05 | 1.72 | 2.11 | 0.64 | 1.37 | 1.05 | 1.72 | 2.11 |
| | 6H | 2.07 | 2.73 | 2.49 | 3.10 | 3.50 | 2.07 | 2.73 | 2.49 | 3.10 | 3.50 |
| | 8H | 2.82 | 3.43 | 3.26 | 3.83 | 4.24 | 2.82 | 3.43 | 3.26 | 3.83 | 4.24 |
| | 12H | 3.22 | 3.81 | 3.65 | 4.19 | 4.62 | 3.22 | 3.81 | 3.65 | 4.19 | 4.62 |
| 4H | 2H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 0.34 | 0.93 | 0.76 | 1.34 | 1.75 | 0.34 | 0.93 | 0.76 | 1.34 | 1.75 |
| | 4H | 1.89 | 2.42 | 2.33 | 2.84 | 3.29 | 1.89 | 2.42 | 2.33 | 2.84 | 3.29 |
| | 6H | 3.48 | 3.93 | 3.95 | 4.38 | 4.86 | 3.48 | 3.93 | 3.95 | 4.38 | 4.86 |
| | 8H | 4.30 | 4.72 | 4.78 | 5.17 | 5.65 | 4.30 | 4.72 | 4.78 | 5.17 | 5.65 |
| | 12H | 4.84 | 5.19 | 5.33 | 5.68 | 6.16 | 4.84 | 5.19 | 5.33 | 5.68 | 6.16 |
| 8H | 4H | 2.44 | 2.86 | 2.92 | 3.31 | 3.79 | 2.44 | 2.86 | 2.92 | 3.31 | 3.79 |
| | 6H | 4.29 | 4.61 | 4.80 | 5.12 | 5.61 | 4.29 | 4.61 | 4.80 | 5.12 | 5.61 |
| | 8H | 5.28 | 5.56 | 5.81 | 6.09 | 6.59 | 5.28 | 5.56 | 5.81 | 6.09 | 6.59 |
| | 12H | 5.98 | 6.22 | 6.51 | 6.72 | 7.31 | 5.98 | 6.22 | 6.51 | 6.72 | 7.31 |
| 12H | 4H | 2.57 | 2.92 | 3.06 | 3.41 | 3.89 | 2.57 | 2.92 | 3.06 | 3.41 | 3.89 |
| | 6H | 4.51 | 4.79 | 5.04 | 5.32 | 5.82 | 4.51 | 4.79 | 5.04 | 5.32 | 5.82 |
| | 8H | 5.59 | 5.83 | 6.11 | 6.33 | 6.92 | 5.59 | 5.83 | 6.11 | 6.33 | 6.92 |