

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: P980160

Luminaire Tested: PRLX-242-940-LL3-C-U-S-BLAK-X

Issue Date: 4/3/2025

Test Information

Test Method: LM-79-2024
Report Number: P980160
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2502-353-26)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/3/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: PrentaLux
Catalog Number: PRLX-242-940-LL3-C-U-S-BLAK-X
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, BLACK 242 SHADE WITH CLEAR LENS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

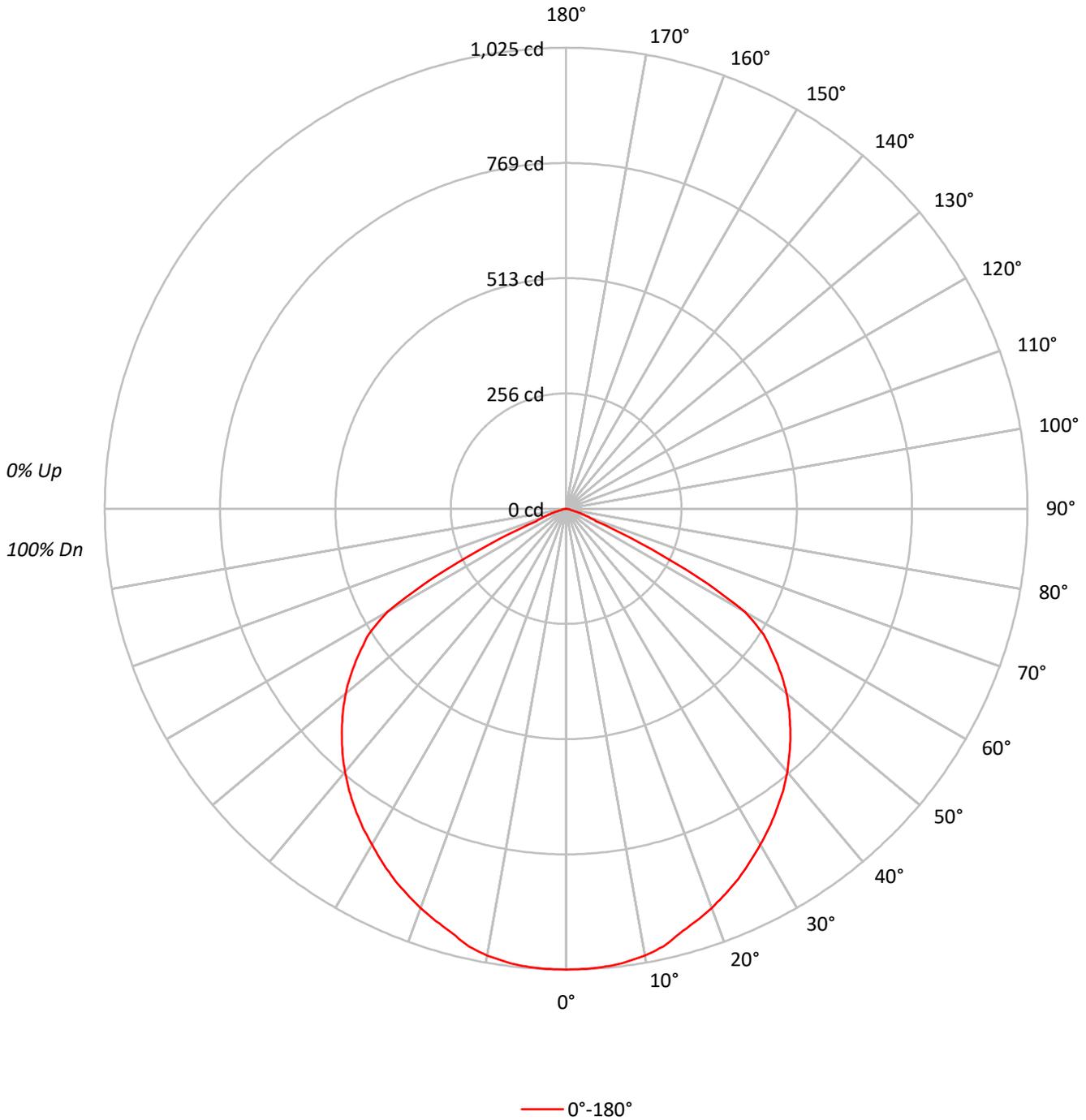
Lumens per Lamp: N/A
Luminaire Lumens: 2568.6 lumens
Efficiency: N/A
Efficacy: 171.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.39
Luminous Opening: Circular (Dia: 1.75' x H: 0')
CIE Type: Direct

Input Watts (W): 15
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





TEST NUMBER: P980160

CATALOG NUMBER: PRLX-242-940-LL3-C-U-S-BLAK-X

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|---|-----|--|--|--|--|--|----|--|--|--|--|--|--|--|--|----|
| RF | 20 | | | | | | | | | 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 | 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 | | | | | | | | | | | | | 100 | | | | | | | | | | | | | | | |
| 1 | 111 | 107 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 | | | | | | | | | | | | | 88 | | | | | | | | | | | | | | | |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 86 | 83 | 79 | 84 | 80 | 78 | 76 | | | | | | | | | | | | | 76 | | | | | | | | | | | | | | | |
| 3 | 94 | 84 | 77 | 71 | 91 | 83 | 76 | 71 | 80 | 74 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 65 | | | | | | | | | | | | | 65 | | | | | | | | | | | | | | | |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 61 | 71 | 65 | 60 | 69 | 63 | 59 | 67 | 62 | 58 | 56 | | | | | | | | | | | | | 56 | | | | | | | | | | | | | | | |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 | | | | | | | | | | | | | 49 | | | | | | | | | | | | | | | |
| 6 | 73 | 61 | 52 | 46 | 71 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 55 | 49 | 45 | 43 | | | | | | | | | | | | | 43 | | | | | | | | | | | | | | | |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 46 | 41 | 53 | 46 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 38 | | | | | | | | | | | | | 38 | | | | | | | | | | | | | | | |
| 8 | 63 | 50 | 42 | 36 | 62 | 49 | 42 | 36 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 | | | | | | | | | | | | | 34 | | | | | | | | | | | | | | | |
| 9 | 59 | 46 | 38 | 33 | 58 | 45 | 38 | 33 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 | | | | | | | | | | | | | 30 | | | | | | | | | | | | | | | |
| 10 | 55 | 42 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 29 | 40 | 34 | 29 | 39 | 33 | 29 | 27 | | | | | | | | | | | | | 27 | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|------|
| | 0° |
| 0° | 4587 |
| 5° | 4591 |
| 10° | 4585 |
| 15° | 4528 |
| 20° | 4501 |
| 25° | 4481 |
| 30° | 4459 |
| 35° | 4458 |
| 40° | 4466 |
| 45° | 4459 |
| 50° | 4451 |
| 55° | 4376 |
| 60° | 4099 |
| 65° | 1912 |
| 70° | 644 |
| 75° | 199 |
| 80° | 0 |
| 85° | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4459 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 97.2 | 3.8 |
| 10°-20° | 276.3 | 10.8 |
| 20°-30° | 418.2 | 16.3 |
| 30°-40° | 511.0 | 19.9 |
| 40°-50° | 543.7 | 21.2 |
| 50°-60° | 499.0 | 19.4 |
| 60°-70° | 204.8 | 8.0 |
| 70°-80° | 18.5 | 0.7 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 791.7 | 30.8 |
| 0°-40° | 1302.7 | 50.7 |
| 0°-60° | 2345.4 | 91.3 |
| 0°-90° | 2568.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2568.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1025 | |
| 5° | 1022 | 97 |
| 15° | 977 | 276 |
| 25° | 908 | 418 |
| 35° | 816 | 511 |
| 45° | 705 | 544 |
| 55° | 561 | 499 |
| 65° | 181 | 205 |
| 75° | 12 | 18 |
| 85° | 0 | 0 |
| 90° | 0 | |

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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 1025.0 |
| 2.5° | 1024.3 |
| 5° | 1022.0 |
| 7.5° | 1017.3 |
| 10° | 1008.9 |
| 12.5° | 997.4 |
| 15° | 977.4 |
| 17.5° | 961.3 |
| 20° | 945.1 |
| 22.5° | 926.7 |
| 25° | 907.5 |
| 27.5° | 885.2 |
| 30° | 862.9 |
| 32.5° | 840.6 |
| 35° | 816.0 |
| 37.5° | 791.4 |
| 40° | 764.5 |
| 42.5° | 735.3 |
| 45° | 704.6 |
| 47.5° | 673.1 |
| 50° | 639.3 |
| 52.5° | 601.6 |
| 55° | 560.9 |
| 57.5° | 520.2 |
| 60° | 458.0 |
| 62.5° | 330.4 |
| 65° | 180.6 |
| 67.5° | 72.2 |
| 70° | 49.2 |
| 72.5° | 33.8 |
| 75° | 11.5 |
| 77.5° | 0.8 |
| 80° | 0.0 |
| 82.5° | 0.0 |
| 85° | 0.0 |
| 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 | 18.08 | 19.62 | 18.45 | 19.93 | 20.25 | 18.08 | 19.62 | 18.45 | 19.93 | 20.25 |
| | 3H | 18.07 | 19.43 | 18.45 | 19.76 | 20.12 | 18.07 | 19.43 | 18.45 | 19.76 | 20.12 |
| | 4H | 18.02 | 19.29 | 18.42 | 19.64 | 20.02 | 18.02 | 19.29 | 18.42 | 19.64 | 20.02 |
| | 6H | 17.95 | 19.12 | 18.37 | 19.49 | 19.88 | 17.95 | 19.12 | 18.37 | 19.49 | 19.88 |
| | 8H | 17.92 | 19.03 | 18.35 | 19.42 | 19.82 | 17.92 | 19.03 | 18.35 | 19.42 | 19.82 |
| | 12H | 17.89 | 18.95 | 18.32 | 19.33 | 19.76 | 17.89 | 18.95 | 18.32 | 19.33 | 19.76 |
| 4H | 2H | 18.14 | 19.41 | 18.54 | 19.76 | 20.14 | 18.14 | 19.41 | 18.54 | 19.76 | 20.14 |
| | 3H | 18.15 | 19.18 | 18.56 | 19.59 | 19.99 | 18.15 | 19.18 | 18.56 | 19.59 | 19.99 |
| | 4H | 18.09 | 19.01 | 18.52 | 19.43 | 19.87 | 18.09 | 19.01 | 18.52 | 19.43 | 19.87 |
| | 6H | 18.03 | 18.83 | 18.49 | 19.27 | 19.73 | 18.03 | 18.83 | 18.49 | 19.27 | 19.73 |
| | 8H | 17.99 | 18.73 | 18.45 | 19.17 | 19.64 | 17.99 | 18.73 | 18.45 | 19.17 | 19.64 |
| | 12H | 17.95 | 18.61 | 18.43 | 19.09 | 19.56 | 17.95 | 18.61 | 18.43 | 19.09 | 19.56 |
| 8H | 4H | 17.99 | 18.73 | 18.46 | 19.18 | 19.65 | 17.99 | 18.73 | 18.46 | 19.18 | 19.65 |
| | 6H | 17.91 | 18.52 | 18.41 | 19.01 | 19.49 | 17.91 | 18.52 | 18.41 | 19.01 | 19.49 |
| | 8H | 17.85 | 18.40 | 18.37 | 18.91 | 19.40 | 17.85 | 18.40 | 18.37 | 18.91 | 19.40 |
| | 12H | 17.82 | 18.30 | 18.33 | 18.79 | 19.36 | 17.82 | 18.30 | 18.33 | 18.79 | 19.36 |
| 12H | 4H | 17.96 | 18.62 | 18.44 | 19.10 | 19.57 | 17.96 | 18.62 | 18.44 | 19.10 | 19.57 |
| | 6H | 17.85 | 18.40 | 18.37 | 18.91 | 19.40 | 17.85 | 18.40 | 18.37 | 18.91 | 19.40 |
| | 8H | 17.82 | 18.30 | 18.33 | 18.79 | 19.36 | 17.82 | 18.30 | 18.33 | 18.79 | 19.36 |