

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: NEO-RAY

Report Number: P1060709

Luminaire Tested: S124RDRP-H1195D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060709
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-H1195D830-X4F0-XX-UDD-SVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

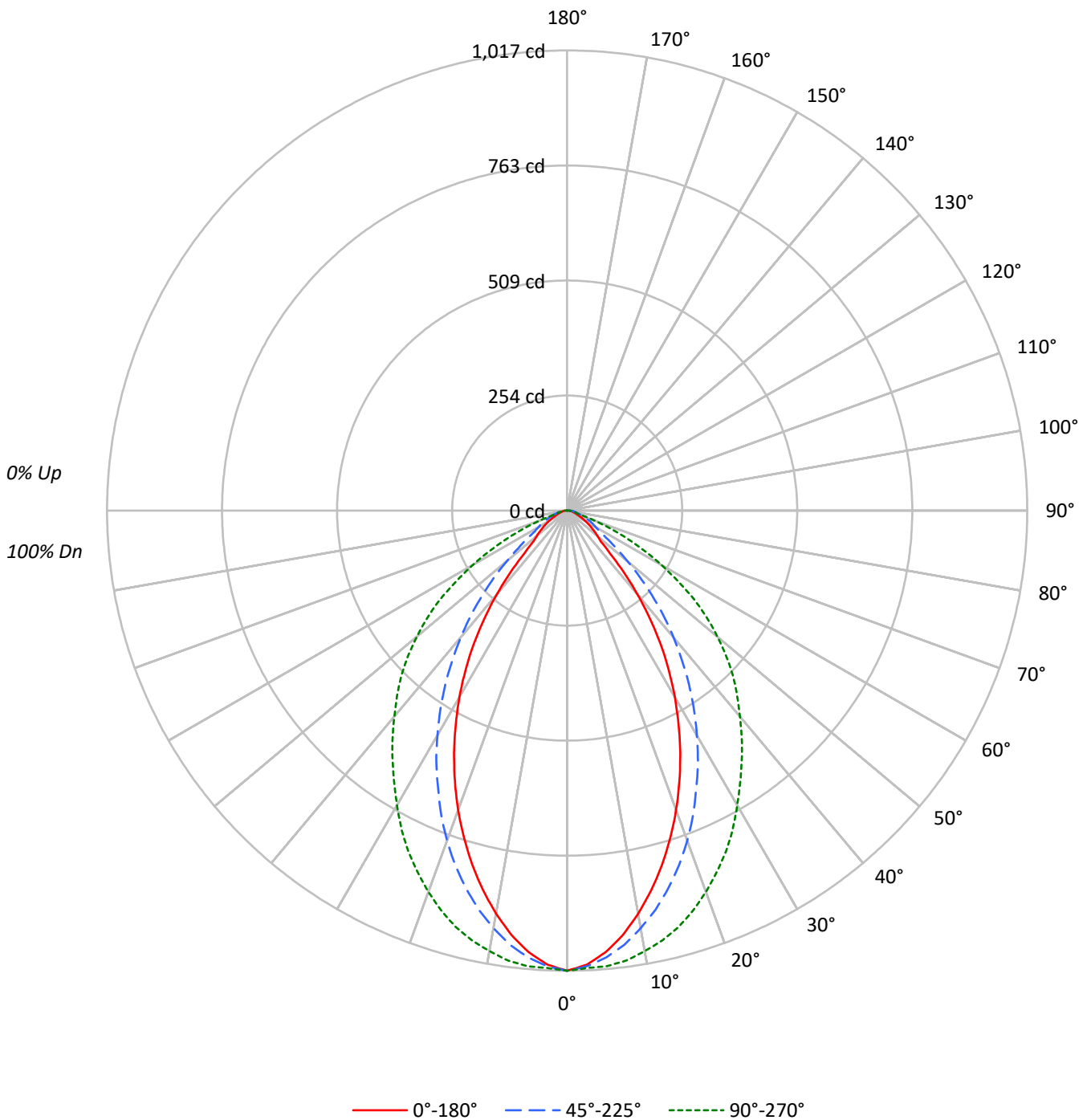
Lumens per Lamp: N/A
Luminaire Lumens: 1430.1 lumens
Efficiency: N/A
Efficacy: 39.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
Input Voltage (V): 120
Input Current (A_{in}): 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 | 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 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 101 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 | | | | | 89 | | | |
| 2 | 104 | 97 | 92 | 88 | 101 | 96 | 91 | 87 | 92 | 88 | 85 | 89 | 86 | 83 | 86 | 83 | 81 | 79 | | | | | 79 | | | |
| 3 | 97 | 88 | 82 | 77 | 94 | 87 | 81 | 76 | 84 | 79 | 75 | 81 | 77 | 73 | 79 | 75 | 72 | 70 | | | | | 70 | | | |
| 4 | 90 | 80 | 73 | 68 | 88 | 79 | 72 | 67 | 77 | 71 | 67 | 75 | 70 | 66 | 73 | 68 | 65 | 63 | | | | | 63 | | | |
| 5 | 84 | 73 | 66 | 61 | 82 | 72 | 65 | 60 | 70 | 64 | 60 | 69 | 63 | 59 | 67 | 62 | 59 | 57 | | | | | 57 | | | |
| 6 | 79 | 68 | 60 | 55 | 77 | 67 | 60 | 54 | 65 | 59 | 54 | 63 | 58 | 54 | 62 | 57 | 53 | 51 | | | | | 51 | | | |
| 7 | 74 | 62 | 55 | 50 | 72 | 62 | 54 | 49 | 60 | 54 | 49 | 59 | 53 | 49 | 58 | 52 | 49 | 47 | | | | | 47 | | | |
| 8 | 69 | 58 | 50 | 45 | 68 | 57 | 50 | 45 | 56 | 49 | 45 | 55 | 49 | 45 | 54 | 48 | 45 | 43 | | | | | 43 | | | |
| 9 | 65 | 54 | 46 | 42 | 64 | 53 | 46 | 42 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 | | | | | 39 | | | |
| 10 | 62 | 50 | 43 | 39 | 61 | 50 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 36 | | | | | 36 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 8758 | 8758 | 8758 |
| 5° | 8467 | 8567 | 8735 |
| 10° | 7908 | 8191 | 8643 |
| 15° | 7221 | 7705 | 8490 |
| 20° | 6450 | 7114 | 8217 |
| 25° | 5618 | 6417 | 7893 |
| 30° | 4735 | 5699 | 7475 |
| 35° | 3781 | 4938 | 7073 |
| 40° | 2720 | 4102 | 6676 |
| 45° | 1639 | 3231 | 6319 |
| 50° | 1179 | 2340 | 5807 |
| 55° | 991 | 1573 | 5148 |
| 60° | 803 | 1249 | 4145 |
| 65° | 634 | 1133 | 2979 |
| 70° | 554 | 944 | 1596 |
| 75° | 516 | 862 | 775 |
| 80° | 516 | 898 | 704 |
| 85° | 771 | 1275 | 899 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6319 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 93.4 | 6.5 |
| 10°-20° | 244.6 | 17.1 |
| 20°-30° | 317.4 | 22.2 |
| 30°-40° | 305.1 | 21.3 |
| 40°-50° | 226.4 | 15.8 |
| 50°-60° | 138.7 | 9.7 |
| 60°-70° | 67.4 | 4.7 |
| 70°-80° | 25.7 | 1.8 |
| 80°-90° | 11.5 | 0.8 |
| 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° | 655.4 | 45.8 |
| 0°-40° | 960.5 | 67.2 |
| 0°-60° | 1325.6 | 92.7 |
| 0°-90° | 1430.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1430.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1017 | 1017 | 1017 | 1017 | 1017 | |
| 5° | 980 | 994 | 991 | 1000 | 1010 | 91 |
| 15° | 810 | 833 | 864 | 916 | 952 | 226 |
| 25° | 591 | 621 | 675 | 762 | 831 | 270 |
| 35° | 360 | 392 | 470 | 581 | 673 | 223 |
| 45° | 135 | 168 | 265 | 405 | 519 | 112 |
| 55° | 66 | 69 | 105 | 237 | 343 | 59 |
| 65° | 31 | 34 | 56 | 88 | 146 | 32 |
| 75° | 16 | 25 | 26 | 23 | 23 | 17 |
| 85° | 8 | 13 | 13 | 12 | 9 | 7 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1017.0 | 1017.0 | 1017.0 | 1017.0 | 1017.0 |
| 2.5° | 1004.1 | 1015.7 | 1008.0 | 1010.5 | 1011.8 |
| 5° | 979.5 | 993.7 | 991.1 | 1000.2 | 1010.5 |
| 7.5° | 945.8 | 962.7 | 967.8 | 986.0 | 1002.8 |
| 10° | 904.4 | 925.1 | 936.8 | 966.6 | 988.5 |
| 12.5° | 859.2 | 881.2 | 903.2 | 943.3 | 973.0 |
| 15° | 810.0 | 833.3 | 864.3 | 916.1 | 952.3 |
| 17.5° | 758.2 | 784.1 | 821.6 | 883.7 | 926.4 |
| 20° | 703.9 | 731.1 | 776.3 | 844.9 | 896.7 |
| 22.5° | 648.3 | 676.7 | 727.2 | 803.5 | 864.3 |
| 25° | 591.3 | 621.1 | 675.4 | 762.1 | 830.7 |
| 27.5° | 533.1 | 564.1 | 626.3 | 718.1 | 793.2 |
| 30° | 476.2 | 505.9 | 573.2 | 672.8 | 751.8 |
| 32.5° | 417.9 | 449.0 | 521.4 | 626.3 | 711.7 |
| 35° | 359.7 | 392.1 | 469.7 | 581.0 | 672.8 |
| 37.5° | 300.2 | 335.1 | 416.6 | 537.0 | 634.0 |
| 40° | 242.0 | 275.6 | 364.9 | 491.7 | 593.9 |
| 42.5° | 185.0 | 221.3 | 315.7 | 446.4 | 556.4 |
| 45° | 134.6 | 168.2 | 265.3 | 405.0 | 518.9 |
| 47.5° | 100.9 | 121.6 | 218.7 | 366.2 | 477.5 |
| 50° | 88.0 | 91.9 | 174.7 | 323.5 | 433.5 |
| 52.5° | 76.3 | 78.9 | 135.9 | 276.9 | 389.5 |
| 55° | 66.0 | 68.6 | 104.8 | 236.8 | 342.9 |
| 57.5° | 55.6 | 58.2 | 84.1 | 198.0 | 289.8 |
| 60° | 46.6 | 49.2 | 72.5 | 157.9 | 240.7 |
| 62.5° | 38.8 | 40.1 | 64.7 | 120.3 | 192.8 |
| 65° | 31.1 | 33.6 | 55.6 | 88.0 | 146.2 |
| 67.5° | 25.9 | 28.5 | 45.3 | 60.8 | 102.2 |
| 70° | 22.0 | 28.5 | 37.5 | 42.7 | 63.4 |
| 72.5° | 18.1 | 25.9 | 31.1 | 29.8 | 29.8 |
| 75° | 15.5 | 24.6 | 25.9 | 23.3 | 23.3 |
| 77.5° | 12.9 | 22.0 | 20.7 | 19.4 | 18.1 |
| 80° | 10.4 | 18.1 | 18.1 | 15.5 | 14.2 |
| 82.5° | 9.1 | 14.2 | 14.2 | 14.2 | 11.6 |
| 85° | 7.8 | 12.9 | 12.9 | 11.6 | 9.1 |
| 87.5° | 5.2 | 10.4 | 11.6 | 10.4 | 6.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 7.35 | 8.69 | 7.71 | 9.00 | 9.32 | 16.45 | 17.79 | 16.82 | 18.10 | 18.42 |
| | 3H | 8.40 | 9.58 | 8.78 | 9.91 | 10.28 | 16.95 | 18.14 | 17.33 | 18.47 | 18.84 |
| | 4H | 8.91 | 10.02 | 9.31 | 10.37 | 10.75 | 16.97 | 18.07 | 17.37 | 18.43 | 18.81 |
| | 6H | 9.36 | 10.38 | 9.78 | 10.75 | 11.14 | 16.97 | 17.98 | 17.38 | 18.35 | 18.75 |
| | 8H | 9.55 | 10.52 | 9.98 | 10.91 | 11.31 | 16.96 | 17.93 | 17.39 | 18.32 | 18.72 |
| | 12H | 9.77 | 10.69 | 10.20 | 11.07 | 11.50 | 16.96 | 17.88 | 17.39 | 18.27 | 18.70 |
| 4H | 2H | 8.44 | 9.55 | 8.85 | 9.90 | 10.28 | 16.34 | 17.45 | 16.74 | 17.80 | 18.18 |
| | 3H | 9.72 | 10.62 | 10.13 | 11.03 | 11.43 | 16.92 | 17.82 | 17.33 | 18.23 | 18.63 |
| | 4H | 10.42 | 11.23 | 10.86 | 11.65 | 12.09 | 16.97 | 17.78 | 17.40 | 18.19 | 18.64 |
| | 6H | 11.05 | 11.75 | 11.52 | 12.20 | 12.66 | 17.02 | 17.72 | 17.48 | 18.16 | 18.63 |
| | 8H | 11.30 | 11.95 | 11.77 | 12.40 | 12.87 | 17.03 | 17.69 | 17.50 | 18.14 | 18.61 |
| | 12H | 11.58 | 12.15 | 12.06 | 12.64 | 13.11 | 17.07 | 17.65 | 17.55 | 18.13 | 18.60 |
| 8H | 4H | 10.85 | 11.50 | 11.32 | 11.95 | 12.42 | 16.92 | 17.57 | 17.38 | 18.02 | 18.49 |
| | 6H | 11.73 | 12.26 | 12.23 | 12.76 | 13.24 | 17.01 | 17.54 | 17.51 | 18.04 | 18.52 |
| | 8H | 12.13 | 12.61 | 12.65 | 13.13 | 13.62 | 17.07 | 17.55 | 17.59 | 18.06 | 18.56 |
| | 12H | 12.61 | 13.04 | 13.12 | 13.53 | 14.10 | 17.17 | 17.59 | 17.68 | 18.09 | 18.66 |
| 12H | 4H | 10.89 | 11.47 | 11.38 | 11.95 | 12.43 | 16.89 | 17.47 | 17.37 | 17.95 | 18.42 |
| | 6H | 11.84 | 12.32 | 12.36 | 12.83 | 13.33 | 16.99 | 17.47 | 17.51 | 17.98 | 18.48 |
| | 8H | 12.35 | 12.78 | 12.87 | 13.27 | 13.84 | 17.09 | 17.52 | 17.61 | 18.01 | 18.58 |