

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: P1060364

Luminaire Tested: S124RDRP-S1195D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060364
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1195D940-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

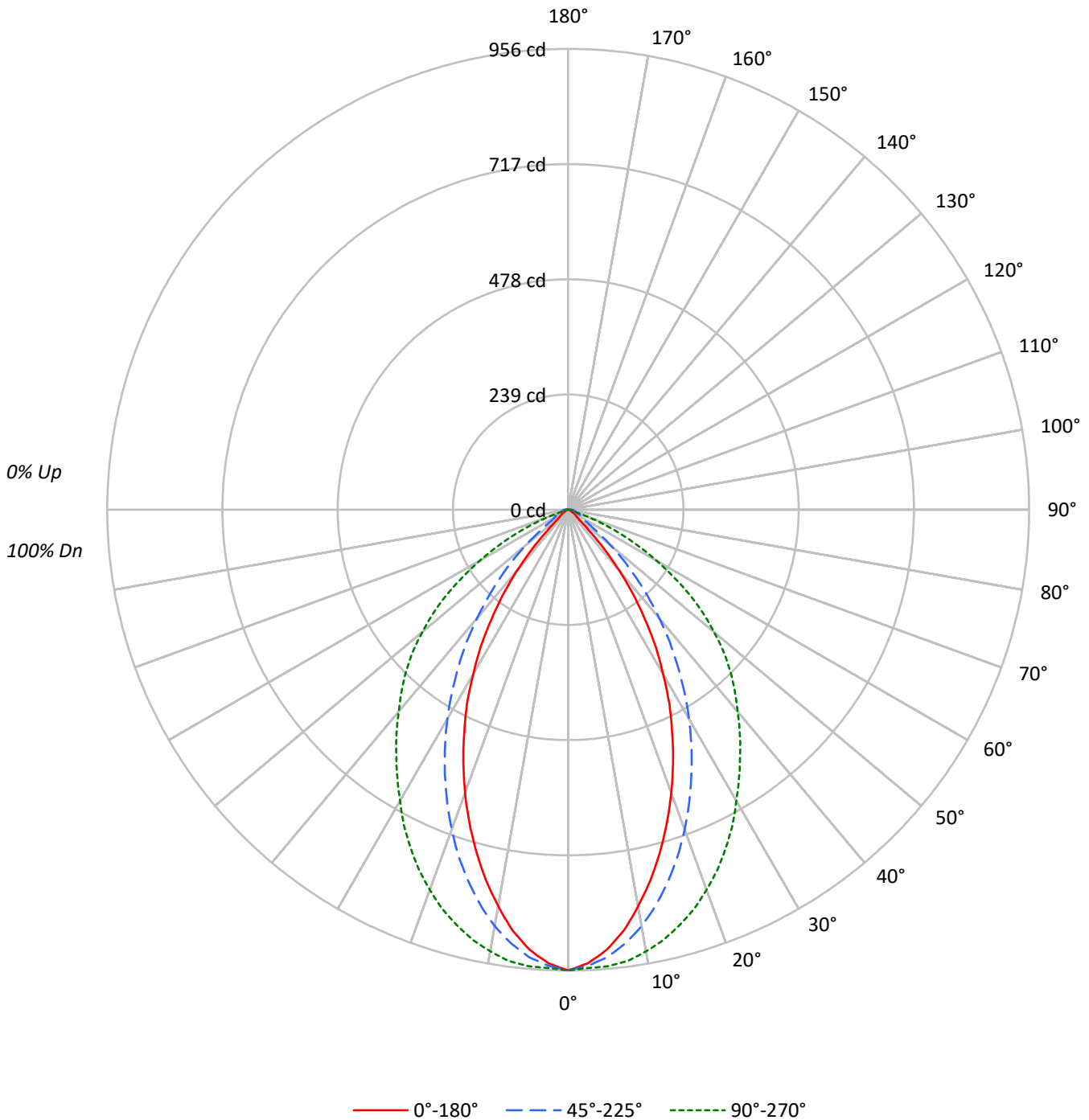
Lumens per Lamp: N/A
Luminaire Lumens: 1199.4 lumens
Efficiency: N/A
Efficacy: 28.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98 | 98 | 96 | 95 | 95 | 93 | 92 | 90 |
| 2 | 105 | 99 | 94 | 89 | 102 | 97 | 92 | 88 | 93 | 90 | 86 | 90 | 87 | 84 | 87 | 85 | 83 | 81 |
| 3 | 98 | 90 | 84 | 79 | 96 | 88 | 83 | 78 | 86 | 81 | 77 | 83 | 79 | 76 | 81 | 77 | 74 | 73 |
| 4 | 92 | 82 | 75 | 70 | 90 | 81 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 65 |
| 5 | 86 | 76 | 68 | 63 | 84 | 75 | 68 | 63 | 73 | 67 | 62 | 71 | 66 | 62 | 69 | 65 | 61 | 59 |
| 6 | 80 | 70 | 62 | 57 | 79 | 69 | 62 | 57 | 67 | 61 | 57 | 66 | 60 | 56 | 64 | 59 | 56 | 54 |
| 7 | 76 | 64 | 57 | 52 | 74 | 64 | 57 | 52 | 62 | 56 | 52 | 61 | 56 | 51 | 60 | 55 | 51 | 50 |
| 8 | 71 | 60 | 53 | 48 | 70 | 59 | 53 | 48 | 58 | 52 | 48 | 57 | 51 | 47 | 56 | 51 | 47 | 46 |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 44 | 42 |
| 10 | 64 | 52 | 46 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 49 | 44 | 41 | 39 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 8229 | 8229 | 8229 |
| 5° | 7921 | 8053 | 8217 |
| 10° | 7305 | 7670 | 8135 |
| 15° | 6556 | 7120 | 7955 |
| 20° | 5730 | 6472 | 7690 |
| 25° | 4847 | 5748 | 7348 |
| 30° | 3914 | 4984 | 6934 |
| 35° | 2914 | 4165 | 6533 |
| 40° | 1849 | 3301 | 6147 |
| 45° | 740 | 2420 | 5796 |
| 50° | 322 | 1543 | 5290 |
| 55° | 248 | 799 | 4618 |
| 60° | 174 | 544 | 3661 |
| 65° | 128 | 542 | 2502 |
| 70° | 128 | 478 | 1148 |
| 75° | 170 | 506 | 462 |
| 80° | 253 | 565 | 501 |
| 85° | 504 | 998 | 751 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5796 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 87.5 | 7.3 |
| 10°-20° | 225.6 | 18.8 |
| 20°-30° | 285.0 | 23.8 |
| 30°-40° | 261.8 | 21.8 |
| 40°-50° | 178.5 | 14.9 |
| 50°-60° | 96.8 | 8.1 |
| 60°-70° | 41.1 | 3.4 |
| 70°-80° | 14.2 | 1.2 |
| 80°-90° | 9.0 | 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° | 598.1 | 49.9 |
| 0°-40° | 859.8 | 71.7 |
| 0°-60° | 1135.1 | 94.6 |
| 0°-90° | 1199.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1199.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 956 | 956 | 956 | 956 | 956 | |
| 5° | 916 | 930 | 932 | 939 | 951 | 85 |
| 15° | 735 | 759 | 799 | 856 | 892 | 205 |
| 25° | 510 | 543 | 605 | 699 | 773 | 233 |
| 35° | 277 | 314 | 396 | 520 | 622 | 172 |
| 45° | 61 | 98 | 199 | 352 | 476 | 56 |
| 55° | 16 | 18 | 53 | 194 | 308 | 15 |
| 65° | 6 | 8 | 27 | 61 | 123 | 7 |
| 75° | 5 | 14 | 15 | 14 | 14 | 5 |
| 85° | 5 | 10 | 10 | 10 | 8 | 5 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 955.6 | 955.6 | 955.6 | 955.6 | 955.6 |
| 2.5° | 941.7 | 953.1 | 946.8 | 949.3 | 951.8 |
| 5° | 916.4 | 930.3 | 931.6 | 939.2 | 950.6 |
| 7.5° | 881.0 | 897.4 | 907.5 | 926.5 | 944.2 |
| 10° | 835.4 | 855.6 | 877.2 | 907.5 | 930.3 |
| 12.5° | 787.3 | 808.8 | 840.5 | 883.5 | 913.9 |
| 15° | 735.4 | 759.4 | 798.7 | 855.6 | 892.3 |
| 17.5° | 681.0 | 707.5 | 754.4 | 821.5 | 868.3 |
| 20° | 625.3 | 654.4 | 706.3 | 782.2 | 839.2 |
| 22.5° | 568.3 | 598.7 | 655.7 | 741.7 | 808.8 |
| 25° | 510.1 | 543.0 | 605.0 | 698.7 | 773.4 |
| 27.5° | 454.4 | 484.8 | 553.1 | 655.7 | 737.9 |
| 30° | 393.6 | 427.8 | 501.2 | 611.4 | 697.4 |
| 32.5° | 338.0 | 370.9 | 448.1 | 565.8 | 659.5 |
| 35° | 277.2 | 313.9 | 396.2 | 520.2 | 621.5 |
| 37.5° | 220.2 | 255.7 | 345.5 | 477.2 | 584.8 |
| 40° | 164.5 | 201.3 | 293.7 | 434.1 | 546.8 |
| 42.5° | 110.1 | 149.4 | 244.3 | 389.8 | 511.4 |
| 45° | 60.8 | 97.5 | 198.7 | 351.9 | 475.9 |
| 47.5° | 31.6 | 53.2 | 155.7 | 313.9 | 437.9 |
| 50° | 24.0 | 29.1 | 115.2 | 272.1 | 394.9 |
| 52.5° | 20.3 | 21.5 | 78.5 | 230.4 | 351.9 |
| 55° | 16.5 | 17.7 | 53.2 | 193.7 | 307.6 |
| 57.5° | 12.7 | 13.9 | 38.0 | 158.2 | 258.2 |
| 60° | 10.1 | 11.4 | 31.6 | 121.5 | 212.6 |
| 62.5° | 7.6 | 8.9 | 30.4 | 89.9 | 167.1 |
| 65° | 6.3 | 7.6 | 26.6 | 60.8 | 122.8 |
| 67.5° | 5.1 | 7.6 | 22.8 | 39.2 | 82.3 |
| 70° | 5.1 | 10.1 | 19.0 | 25.3 | 45.6 |
| 72.5° | 5.1 | 11.4 | 16.5 | 16.5 | 16.5 |
| 75° | 5.1 | 13.9 | 15.2 | 13.9 | 13.9 |
| 77.5° | 5.1 | 12.7 | 12.7 | 12.7 | 12.7 |
| 80° | 5.1 | 11.4 | 11.4 | 11.4 | 10.1 |
| 82.5° | 5.1 | 10.1 | 11.4 | 11.4 | 8.9 |
| 85° | 5.1 | 10.1 | 10.1 | 10.1 | 7.6 |
| 87.5° | 3.8 | 10.1 | 10.1 | 10.1 | 5.1 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.76 | 17.04 | 16.13 | 17.35 | 17.67 |
| | 3H | 0.00 | 0.41 | 0.00 | 0.74 | 1.11 | 16.12 | 17.25 | 16.50 | 17.58 | 17.94 |
| | 4H | 0.67 | 1.72 | 1.07 | 2.07 | 2.45 | 16.09 | 17.14 | 16.49 | 17.49 | 17.87 |
| | 6H | 2.05 | 3.01 | 2.46 | 3.38 | 3.78 | 16.06 | 17.02 | 16.48 | 17.39 | 17.79 |
| | 8H | 2.73 | 3.64 | 3.16 | 4.03 | 4.44 | 16.05 | 16.96 | 16.48 | 17.35 | 17.76 |
| | 12H | 3.54 | 4.41 | 3.97 | 4.79 | 5.22 | 16.05 | 16.92 | 16.48 | 17.30 | 17.73 |
| 4H | 2H | 1.46 | 2.51 | 1.87 | 2.86 | 3.25 | 15.57 | 16.62 | 15.97 | 16.97 | 17.35 |
| | 3H | 2.89 | 3.74 | 3.30 | 4.15 | 4.55 | 15.96 | 16.82 | 16.37 | 17.22 | 17.63 |
| | 4H | 4.34 | 5.10 | 4.77 | 5.52 | 5.96 | 15.94 | 16.71 | 16.38 | 17.13 | 17.57 |
| | 6H | 5.59 | 6.25 | 6.05 | 6.69 | 7.16 | 15.96 | 16.62 | 16.42 | 17.07 | 17.53 |
| | 8H | 6.16 | 6.77 | 6.63 | 7.22 | 7.69 | 15.97 | 16.59 | 16.44 | 17.03 | 17.51 |
| | 12H | 6.84 | 7.38 | 7.32 | 7.86 | 8.34 | 16.01 | 16.55 | 16.49 | 17.03 | 17.51 |
| 8H | 4H | 5.41 | 6.03 | 5.88 | 6.48 | 6.95 | 15.84 | 16.46 | 16.31 | 16.91 | 17.38 |
| | 6H | 7.03 | 7.53 | 7.53 | 8.03 | 8.51 | 15.89 | 16.40 | 16.40 | 16.89 | 17.37 |
| | 8H | 7.86 | 8.31 | 8.38 | 8.83 | 9.32 | 15.95 | 16.40 | 16.47 | 16.92 | 17.41 |
| | 12H | 8.83 | 9.23 | 9.34 | 9.72 | 10.29 | 16.07 | 16.47 | 16.58 | 16.96 | 17.53 |
| 12H | 4H | 5.60 | 6.15 | 6.09 | 6.63 | 7.10 | 15.80 | 16.35 | 16.29 | 16.83 | 17.31 |
| | 6H | 7.38 | 7.83 | 7.90 | 8.34 | 8.84 | 15.86 | 16.31 | 16.38 | 16.83 | 17.32 |
| | 8H | 8.39 | 8.79 | 8.91 | 9.29 | 9.86 | 15.97 | 16.37 | 16.48 | 16.86 | 17.43 |