

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: P1060988

Luminaire Tested: S124RDRP-H795D927-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060988
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-H795D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

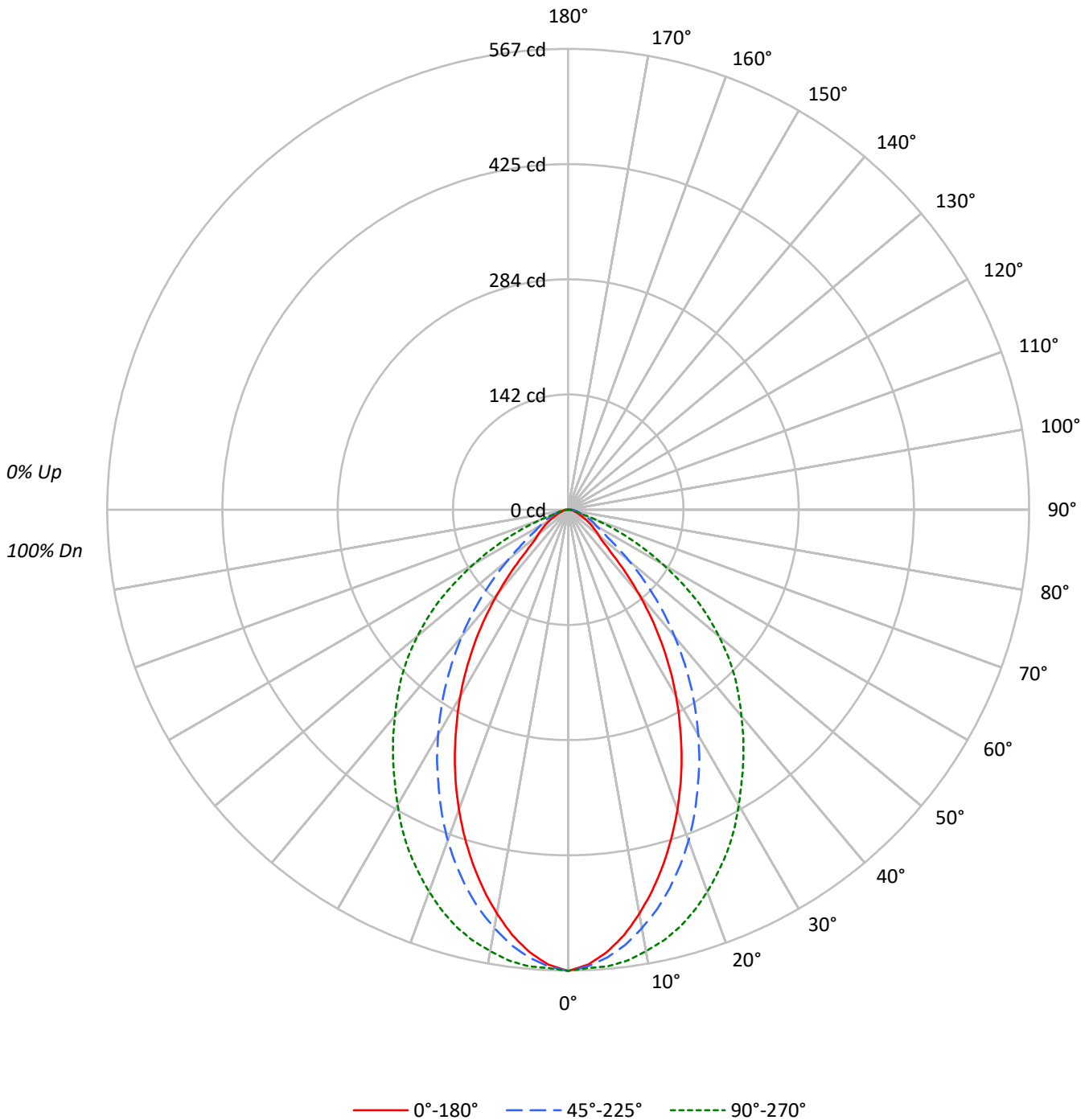
Lumens per Lamp: N/A
Luminaire Lumens: 797.8 lumens
Efficiency: N/A
Efficacy: 33.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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 | 47 | 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° | 4886 | 4886 | 4886 |
| 5° | 4723 | 4779 | 4874 |
| 10° | 4412 | 4570 | 4822 |
| 15° | 4029 | 4299 | 4736 |
| 20° | 3599 | 3969 | 4584 |
| 25° | 3134 | 3580 | 4403 |
| 30° | 2641 | 3180 | 4170 |
| 35° | 2110 | 2754 | 3946 |
| 40° | 1518 | 2289 | 3724 |
| 45° | 915 | 1802 | 3526 |
| 50° | 658 | 1306 | 3239 |
| 55° | 552 | 878 | 2872 |
| 60° | 448 | 696 | 2313 |
| 65° | 352 | 632 | 1663 |
| 70° | 310 | 526 | 891 |
| 75° | 289 | 479 | 433 |
| 80° | 288 | 501 | 392 |
| 85° | 425 | 711 | 504 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3526 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 52.1 | 6.5 |
| 10°-20° | 136.5 | 17.1 |
| 20°-30° | 177.1 | 22.2 |
| 30°-40° | 170.2 | 21.3 |
| 40°-50° | 126.3 | 15.8 |
| 50°-60° | 77.4 | 9.7 |
| 60°-70° | 37.6 | 4.7 |
| 70°-80° | 14.3 | 1.8 |
| 80°-90° | 6.4 | 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° | 365.6 | 45.8 |
| 0°-40° | 535.9 | 67.2 |
| 0°-60° | 739.5 | 92.7 |
| 0°-90° | 797.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 797.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 567 | 567 | 567 | 567 | 567 | |
| 5° | 546 | 554 | 553 | 558 | 564 | 51 |
| 15° | 452 | 465 | 482 | 511 | 531 | 126 |
| 25° | 330 | 346 | 377 | 425 | 463 | 151 |
| 35° | 201 | 219 | 262 | 324 | 375 | 124 |
| 45° | 75 | 94 | 148 | 226 | 290 | 62 |
| 55° | 37 | 38 | 58 | 132 | 191 | 33 |
| 65° | 17 | 19 | 31 | 49 | 82 | 18 |
| 75° | 9 | 14 | 14 | 13 | 13 | 9 |
| 85° | 4 | 7 | 7 | 6 | 5 | 4 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 567.4 | 567.4 | 567.4 | 567.4 | 567.4 |
| 2.5° | 560.2 | 566.7 | 562.3 | 563.8 | 564.5 |
| 5° | 546.4 | 554.4 | 552.9 | 558.0 | 563.8 |
| 7.5° | 527.7 | 537.1 | 539.9 | 550.1 | 559.4 |
| 10° | 504.6 | 516.1 | 522.6 | 539.2 | 551.5 |
| 12.5° | 479.3 | 491.6 | 503.9 | 526.2 | 542.8 |
| 15° | 451.9 | 464.9 | 482.2 | 511.1 | 531.3 |
| 17.5° | 423.0 | 437.4 | 458.4 | 493.0 | 516.8 |
| 20° | 392.7 | 407.8 | 433.1 | 471.4 | 500.2 |
| 22.5° | 361.6 | 377.5 | 405.7 | 448.3 | 482.2 |
| 25° | 329.9 | 346.5 | 376.8 | 425.2 | 463.4 |
| 27.5° | 297.4 | 314.7 | 349.4 | 400.6 | 442.5 |
| 30° | 265.6 | 282.2 | 319.8 | 375.4 | 419.4 |
| 32.5° | 233.2 | 250.5 | 290.9 | 349.4 | 397.0 |
| 35° | 200.7 | 218.7 | 262.0 | 324.1 | 375.4 |
| 37.5° | 167.5 | 187.0 | 232.4 | 299.6 | 353.7 |
| 40° | 135.0 | 153.8 | 203.6 | 274.3 | 331.3 |
| 42.5° | 103.2 | 123.4 | 176.1 | 249.0 | 310.4 |
| 45° | 75.1 | 93.8 | 148.0 | 225.9 | 289.5 |
| 47.5° | 56.3 | 67.9 | 122.0 | 204.3 | 266.4 |
| 50° | 49.1 | 51.3 | 97.5 | 180.5 | 241.8 |
| 52.5° | 42.6 | 44.0 | 75.8 | 154.5 | 217.3 |
| 55° | 36.8 | 38.3 | 58.5 | 132.1 | 191.3 |
| 57.5° | 31.0 | 32.5 | 46.9 | 110.4 | 161.7 |
| 60° | 26.0 | 27.4 | 40.4 | 88.1 | 134.3 |
| 62.5° | 21.7 | 22.4 | 36.1 | 67.1 | 107.6 |
| 65° | 17.3 | 18.8 | 31.0 | 49.1 | 81.6 |
| 67.5° | 14.4 | 15.9 | 25.3 | 33.9 | 57.0 |
| 70° | 12.3 | 15.9 | 20.9 | 23.8 | 35.4 |
| 72.5° | 10.1 | 14.4 | 17.3 | 16.6 | 16.6 |
| 75° | 8.7 | 13.7 | 14.4 | 13.0 | 13.0 |
| 77.5° | 7.2 | 12.3 | 11.5 | 10.8 | 10.1 |
| 80° | 5.8 | 10.1 | 10.1 | 8.7 | 7.9 |
| 82.5° | 5.1 | 7.9 | 7.9 | 7.9 | 6.5 |
| 85° | 4.3 | 7.2 | 7.2 | 6.5 | 5.1 |
| 87.5° | 2.9 | 5.8 | 6.5 | 5.8 | 3.6 |
| 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 | 5.33 | 6.66 | 5.69 | 6.98 | 7.29 | 14.42 | 15.76 | 14.79 | 16.07 | 16.39 |
| | 3H | 6.37 | 7.56 | 6.75 | 7.89 | 8.25 | 14.92 | 16.11 | 15.30 | 16.44 | 16.81 |
| | 4H | 6.89 | 7.99 | 7.29 | 8.34 | 8.73 | 14.94 | 16.04 | 15.34 | 16.40 | 16.78 |
| | 6H | 7.34 | 8.35 | 7.75 | 8.72 | 9.12 | 14.94 | 15.95 | 15.35 | 16.32 | 16.72 |
| | 8H | 7.53 | 8.49 | 7.96 | 8.88 | 9.29 | 14.93 | 15.90 | 15.36 | 16.29 | 16.69 |
| | 12H | 7.74 | 8.66 | 8.17 | 9.05 | 9.48 | 14.93 | 15.85 | 15.36 | 16.24 | 16.67 |
| 4H | 2H | 6.42 | 7.52 | 6.82 | 7.87 | 8.26 | 14.31 | 15.42 | 14.71 | 15.77 | 16.15 |
| | 3H | 7.69 | 8.59 | 8.10 | 9.00 | 9.40 | 14.89 | 15.79 | 15.30 | 16.20 | 16.60 |
| | 4H | 8.39 | 9.20 | 8.83 | 9.62 | 10.06 | 14.94 | 15.75 | 15.37 | 16.16 | 16.61 |
| | 6H | 9.03 | 9.73 | 9.49 | 10.17 | 10.64 | 14.99 | 15.69 | 15.45 | 16.13 | 16.60 |
| | 8H | 9.27 | 9.93 | 9.74 | 10.37 | 10.84 | 15.01 | 15.66 | 15.47 | 16.11 | 16.58 |
| | 12H | 9.55 | 10.12 | 10.03 | 10.61 | 11.08 | 15.04 | 15.62 | 15.52 | 16.10 | 16.57 |
| 8H | 4H | 8.82 | 9.47 | 9.29 | 9.92 | 10.39 | 14.88 | 15.54 | 15.35 | 15.99 | 16.46 |
| | 6H | 9.70 | 10.23 | 10.20 | 10.73 | 11.21 | 14.98 | 15.51 | 15.48 | 16.01 | 16.49 |
| | 8H | 10.10 | 10.58 | 10.62 | 11.10 | 11.59 | 15.04 | 15.52 | 15.56 | 16.03 | 16.53 |
| | 12H | 10.58 | 11.00 | 11.09 | 11.50 | 12.07 | 15.14 | 15.56 | 15.65 | 16.06 | 16.63 |
| 12H | 4H | 8.86 | 9.44 | 9.35 | 9.92 | 10.40 | 14.86 | 15.44 | 15.34 | 15.92 | 16.39 |
| | 6H | 9.81 | 10.29 | 10.33 | 10.80 | 11.30 | 14.96 | 15.44 | 15.48 | 15.95 | 16.45 |
| | 8H | 10.32 | 10.75 | 10.84 | 11.24 | 11.81 | 15.06 | 15.49 | 15.58 | 15.98 | 16.55 |