

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: P1060484

Luminaire Tested: S124RDRP-S575D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060484
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-S575D840-X4F0-XX-UDD-SVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

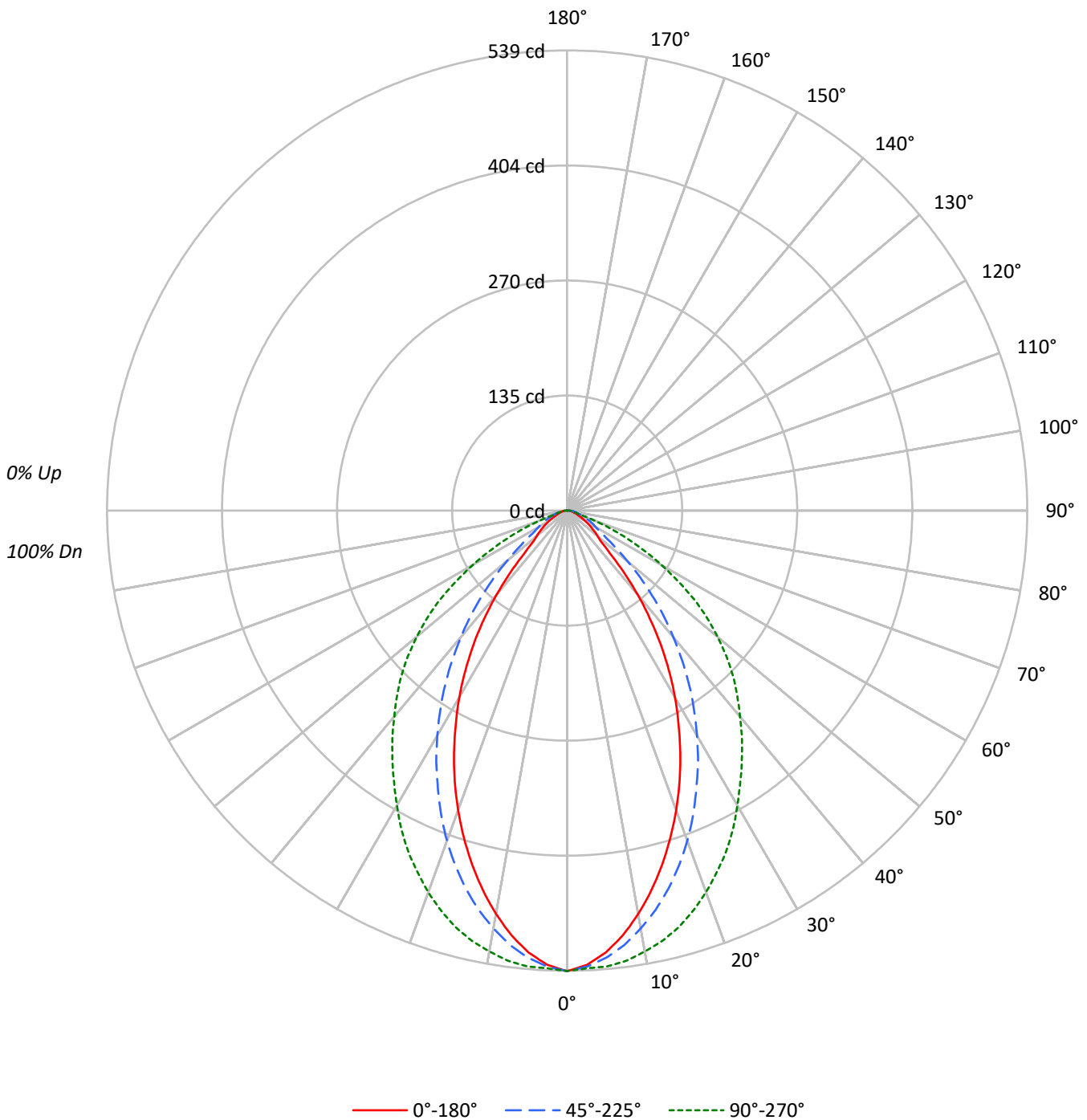
Lumens per Lamp: N/A
Luminaire Lumens: 758.4 lumens
Efficiency: N/A
Efficacy: 38.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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 | 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 | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 101 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 104 | 97 | 92 | 88 | 101 | 96 | 91 | 87 | 92 | 88 | 85 | 89 | 86 | 83 | 86 | 83 | 81 | 79 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 97 | 88 | 82 | 77 | 94 | 87 | 81 | 76 | 84 | 79 | 75 | 81 | 77 | 73 | 79 | 75 | 72 | 70 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 90 | 80 | 73 | 68 | 88 | 79 | 72 | 67 | 77 | 71 | 67 | 75 | 70 | 66 | 73 | 68 | 65 | 63 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 84 | 73 | 66 | 61 | 82 | 72 | 65 | 60 | 70 | 64 | 60 | 69 | 63 | 59 | 67 | 62 | 59 | 57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 79 | 68 | 60 | 55 | 77 | 67 | 60 | 54 | 65 | 59 | 54 | 63 | 58 | 54 | 62 | 57 | 53 | 51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 74 | 62 | 55 | 50 | 72 | 62 | 54 | 49 | 60 | 54 | 49 | 59 | 53 | 49 | 58 | 52 | 49 | 47 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 69 | 58 | 50 | 45 | 68 | 57 | 50 | 45 | 56 | 49 | 45 | 55 | 49 | 45 | 54 | 48 | 45 | 43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 65 | 54 | 47 | 42 | 64 | 53 | 46 | 42 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 62 | 50 | 43 | 39 | 61 | 50 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4645 | 4645 | 4645 |
| 5° | 4491 | 4544 | 4632 |
| 10° | 4194 | 4344 | 4584 |
| 15° | 3830 | 4087 | 4503 |
| 20° | 3421 | 3773 | 4358 |
| 25° | 2980 | 3403 | 4186 |
| 30° | 2511 | 3023 | 3964 |
| 35° | 2006 | 2619 | 3751 |
| 40° | 1442 | 2175 | 3541 |
| 45° | 870 | 1713 | 3351 |
| 50° | 626 | 1241 | 3080 |
| 55° | 525 | 835 | 2731 |
| 60° | 425 | 661 | 2198 |
| 65° | 336 | 601 | 1579 |
| 70° | 295 | 501 | 846 |
| 75° | 273 | 456 | 413 |
| 80° | 273 | 476 | 372 |
| 85° | 405 | 682 | 474 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3351 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 49.5 | 6.5 |
| 10°-20° | 129.7 | 17.1 |
| 20°-30° | 168.3 | 22.2 |
| 30°-40° | 161.8 | 21.3 |
| 40°-50° | 120.1 | 15.8 |
| 50°-60° | 73.6 | 9.7 |
| 60°-70° | 35.7 | 4.7 |
| 70°-80° | 13.6 | 1.8 |
| 80°-90° | 6.1 | 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° | 347.6 | 45.8 |
| 0°-40° | 509.4 | 67.2 |
| 0°-60° | 703.0 | 92.7 |
| 0°-90° | 758.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 758.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 539 | 539 | 539 | 539 | 539 | |
| 5° | 520 | 527 | 526 | 530 | 536 | 48 |
| 15° | 430 | 442 | 458 | 486 | 505 | 120 |
| 25° | 314 | 329 | 358 | 404 | 441 | 143 |
| 35° | 191 | 208 | 249 | 308 | 357 | 118 |
| 45° | 71 | 89 | 141 | 215 | 275 | 59 |
| 55° | 35 | 36 | 56 | 126 | 182 | 31 |
| 65° | 16 | 18 | 30 | 47 | 78 | 17 |
| 75° | 8 | 13 | 14 | 12 | 12 | 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° | 539.4 | 539.4 | 539.4 | 539.4 | 539.4 |
| 2.5° | 532.5 | 538.7 | 534.6 | 535.9 | 536.6 |
| 5° | 519.5 | 527.0 | 525.7 | 530.5 | 535.9 |
| 7.5° | 501.6 | 510.6 | 513.3 | 522.9 | 531.8 |
| 10° | 479.7 | 490.7 | 496.8 | 512.6 | 524.3 |
| 12.5° | 455.7 | 467.3 | 479.0 | 500.3 | 516.0 |
| 15° | 429.6 | 441.9 | 458.4 | 485.9 | 505.1 |
| 17.5° | 402.1 | 415.9 | 435.8 | 468.7 | 491.3 |
| 20° | 373.3 | 387.7 | 411.7 | 448.1 | 475.6 |
| 22.5° | 343.8 | 358.9 | 385.7 | 426.1 | 458.4 |
| 25° | 313.6 | 329.4 | 358.2 | 404.2 | 440.6 |
| 27.5° | 282.7 | 299.2 | 332.1 | 380.9 | 420.7 |
| 30° | 252.5 | 268.3 | 304.0 | 356.8 | 398.7 |
| 32.5° | 221.7 | 238.1 | 276.6 | 332.1 | 377.4 |
| 35° | 190.8 | 207.9 | 249.1 | 308.1 | 356.8 |
| 37.5° | 159.2 | 177.7 | 221.0 | 284.8 | 336.3 |
| 40° | 128.3 | 146.2 | 193.5 | 260.8 | 315.0 |
| 42.5° | 98.1 | 117.3 | 167.4 | 236.7 | 295.1 |
| 45° | 71.4 | 89.2 | 140.7 | 214.8 | 275.2 |
| 47.5° | 53.5 | 64.5 | 116.0 | 194.2 | 253.2 |
| 50° | 46.7 | 48.7 | 92.6 | 171.6 | 229.9 |
| 52.5° | 40.5 | 41.9 | 72.1 | 146.9 | 206.6 |
| 55° | 35.0 | 36.4 | 55.6 | 125.6 | 181.9 |
| 57.5° | 29.5 | 30.9 | 44.6 | 105.0 | 153.7 |
| 60° | 24.7 | 26.1 | 38.4 | 83.7 | 127.6 |
| 62.5° | 20.6 | 21.3 | 34.3 | 63.8 | 102.2 |
| 65° | 16.5 | 17.8 | 29.5 | 46.7 | 77.5 |
| 67.5° | 13.7 | 15.1 | 24.0 | 32.3 | 54.2 |
| 70° | 11.7 | 15.1 | 19.9 | 22.6 | 33.6 |
| 72.5° | 9.6 | 13.7 | 16.5 | 15.8 | 15.8 |
| 75° | 8.2 | 13.0 | 13.7 | 12.4 | 12.4 |
| 77.5° | 6.9 | 11.7 | 11.0 | 10.3 | 9.6 |
| 80° | 5.5 | 9.6 | 9.6 | 8.2 | 7.5 |
| 82.5° | 4.8 | 7.5 | 7.5 | 7.5 | 6.2 |
| 85° | 4.1 | 6.9 | 6.9 | 6.2 | 4.8 |
| 87.5° | 2.7 | 5.5 | 6.2 | 5.5 | 3.4 |
| 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 | 5.15 | 6.49 | 5.52 | 6.80 | 7.12 | 14.25 | 15.59 | 14.61 | 15.90 | 16.21 |
| | 3H | 6.20 | 7.38 | 6.58 | 7.71 | 8.08 | 14.75 | 15.94 | 15.13 | 16.27 | 16.63 |
| | 4H | 6.71 | 7.81 | 7.11 | 8.17 | 8.55 | 14.76 | 15.87 | 15.17 | 16.22 | 16.60 |
| | 6H | 7.16 | 8.18 | 7.58 | 8.55 | 8.94 | 14.76 | 15.78 | 15.18 | 16.15 | 16.54 |
| | 8H | 7.35 | 8.31 | 7.78 | 8.71 | 9.11 | 14.76 | 15.72 | 15.19 | 16.11 | 16.52 |
| | 12H | 7.56 | 8.48 | 8.00 | 8.87 | 9.30 | 14.76 | 15.68 | 15.19 | 16.06 | 16.49 |
| 4H | 2H | 6.24 | 7.35 | 6.65 | 7.70 | 8.08 | 14.14 | 15.24 | 14.54 | 15.59 | 15.98 |
| | 3H | 7.52 | 8.42 | 7.93 | 8.82 | 9.23 | 14.71 | 15.62 | 15.13 | 16.02 | 16.43 |
| | 4H | 8.22 | 9.03 | 8.65 | 9.45 | 9.89 | 14.76 | 15.57 | 15.20 | 15.99 | 16.43 |
| | 6H | 8.85 | 9.55 | 9.31 | 10.00 | 10.46 | 14.81 | 15.51 | 15.28 | 15.96 | 16.43 |
| | 8H | 9.09 | 9.75 | 9.56 | 10.19 | 10.67 | 14.83 | 15.48 | 15.30 | 15.93 | 16.40 |
| | 12H | 9.37 | 9.95 | 9.86 | 10.43 | 10.90 | 14.86 | 15.44 | 15.35 | 15.93 | 16.40 |
| 8H | 4H | 8.64 | 9.30 | 9.11 | 9.74 | 10.21 | 14.71 | 15.37 | 15.18 | 15.81 | 16.28 |
| | 6H | 9.52 | 10.06 | 10.02 | 10.55 | 11.04 | 14.81 | 15.34 | 15.31 | 15.84 | 16.32 |
| | 8H | 9.93 | 10.41 | 10.45 | 10.92 | 11.41 | 14.86 | 15.35 | 15.39 | 15.86 | 16.35 |
| | 12H | 10.41 | 10.83 | 10.92 | 11.33 | 11.90 | 14.96 | 15.39 | 15.48 | 15.88 | 16.46 |
| 12H | 4H | 8.69 | 9.26 | 9.17 | 9.75 | 10.22 | 14.68 | 15.26 | 15.17 | 15.75 | 16.22 |
| | 6H | 9.63 | 10.12 | 10.16 | 10.63 | 11.12 | 14.78 | 15.26 | 15.30 | 15.78 | 16.27 |
| | 8H | 10.15 | 10.57 | 10.66 | 11.07 | 11.64 | 14.89 | 15.31 | 15.40 | 15.81 | 16.38 |