

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: P1060863

Luminaire Tested: S124RDRP-H350D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060863
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-H350D950-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

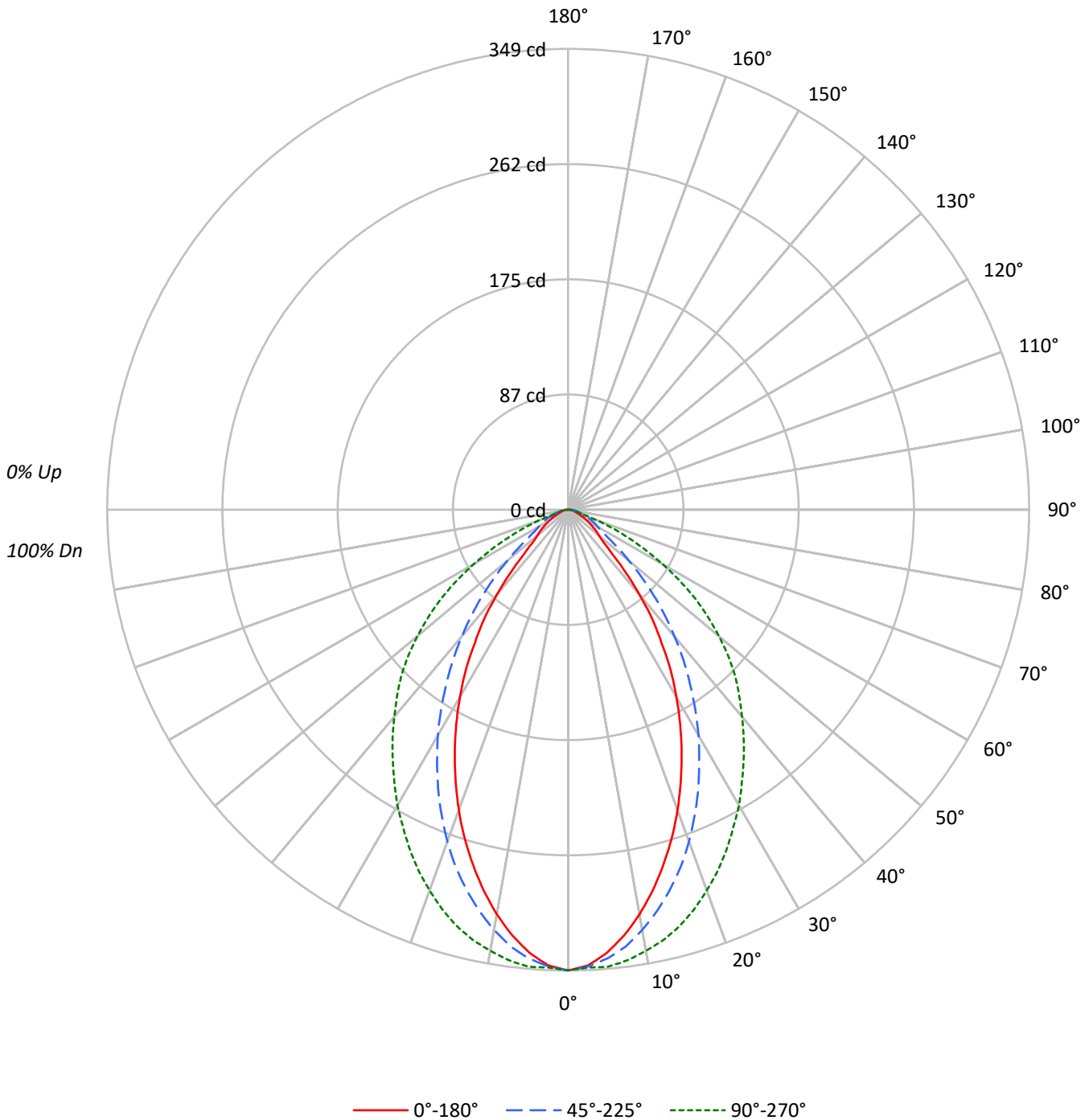
Lumens per Lamp: N/A
Luminaire Lumens: 493.8 lumens
Efficiency: N/A
Efficacy: 42.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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 | 104 | 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 | 76 | 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 | 66 | 75 | 70 | 66 | 73 | 68 | 65 | 63 | | | | | 63 | | | |
| 5 | 84 | 73 | 66 | 60 | 82 | 72 | 65 | 60 | 70 | 64 | 60 | 69 | 63 | 59 | 67 | 62 | 58 | 57 | | | | | 57 | | | |
| 6 | 79 | 67 | 60 | 54 | 77 | 67 | 59 | 54 | 65 | 59 | 54 | 63 | 58 | 53 | 62 | 57 | 53 | 51 | | | | | 51 | | | |
| 7 | 74 | 62 | 55 | 49 | 72 | 61 | 54 | 49 | 60 | 54 | 49 | 59 | 53 | 49 | 57 | 52 | 48 | 47 | | | | | 47 | | | |
| 8 | 69 | 58 | 50 | 45 | 68 | 57 | 50 | 45 | 56 | 49 | 45 | 55 | 49 | 45 | 53 | 48 | 44 | 43 | | | | | 43 | | | |
| 9 | 65 | 54 | 46 | 42 | 64 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 | | | | | 39 | | | |
| 10 | 62 | 50 | 43 | 38 | 60 | 49 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 36 | | | | | 36 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3004 | 3004 | 3004 |
| 5° | 2911 | 2948 | 3003 |
| 10° | 2720 | 2826 | 2966 |
| 15° | 2482 | 2655 | 2909 |
| 20° | 2219 | 2450 | 2811 |
| 25° | 1930 | 2215 | 2696 |
| 30° | 1628 | 1962 | 2570 |
| 35° | 1295 | 1688 | 2435 |
| 40° | 942 | 1406 | 2301 |
| 45° | 570 | 1111 | 2179 |
| 50° | 407 | 804 | 1995 |
| 55° | 345 | 545 | 1761 |
| 60° | 282 | 443 | 1423 |
| 65° | 222 | 397 | 1025 |
| 70° | 186 | 335 | 539 |
| 75° | 170 | 313 | 273 |
| 80° | 174 | 307 | 273 |
| 85° | 227 | 464 | 306 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2179 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 32.1 | 6.5 |
| 10°-20° | 84.2 | 17.0 |
| 20°-30° | 109.2 | 22.1 |
| 30°-40° | 105.1 | 21.3 |
| 40°-50° | 78.2 | 15.8 |
| 50°-60° | 48.1 | 9.7 |
| 60°-70° | 23.6 | 4.8 |
| 70°-80° | 9.2 | 1.9 |
| 80°-90° | 4.2 | 0.9 |
| 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° | 225.5 | 45.7 |
| 0°-40° | 330.6 | 66.9 |
| 0°-60° | 456.8 | 92.5 |
| 0°-90° | 493.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 493.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 349 | 349 | 349 | 349 | 349 | |
| 5° | 337 | 342 | 341 | 344 | 347 | 31 |
| 15° | 278 | 287 | 298 | 316 | 326 | 78 |
| 25° | 203 | 214 | 233 | 262 | 284 | 93 |
| 35° | 123 | 135 | 161 | 201 | 232 | 77 |
| 45° | 47 | 58 | 91 | 141 | 179 | 39 |
| 55° | 23 | 24 | 36 | 83 | 117 | 21 |
| 65° | 11 | 12 | 20 | 31 | 50 | 11 |
| 75° | 5 | 9 | 9 | 9 | 8 | 6 |
| 85° | 2 | 4 | 5 | 5 | 3 | 2 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1060863

CATALOG NUMBER: S124RDRP-H350D950-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 348.9 | 348.9 | 348.9 | 348.9 | 348.9 |
| 2.5° | 345.4 | 349.3 | 346.2 | 346.6 | 347.0 |
| 5° | 336.8 | 341.9 | 341.1 | 344.2 | 347.4 |
| 7.5° | 325.1 | 331.0 | 333.7 | 339.9 | 344.2 |
| 10° | 311.1 | 317.7 | 323.2 | 333.3 | 339.2 |
| 12.5° | 295.5 | 303.3 | 311.1 | 324.7 | 333.7 |
| 15° | 278.4 | 287.3 | 297.8 | 315.8 | 326.3 |
| 17.5° | 260.8 | 269.8 | 283.4 | 304.1 | 317.3 |
| 20° | 242.1 | 251.8 | 267.4 | 290.4 | 306.8 |
| 22.5° | 222.6 | 233.1 | 250.3 | 276.4 | 295.9 |
| 25° | 203.1 | 214.0 | 233.1 | 262.4 | 283.8 |
| 27.5° | 183.6 | 194.1 | 214.8 | 247.6 | 270.9 |
| 30° | 163.7 | 174.7 | 197.3 | 231.6 | 258.5 |
| 32.5° | 144.6 | 154.8 | 178.9 | 216.4 | 244.8 |
| 35° | 123.2 | 134.9 | 160.6 | 200.8 | 231.6 |
| 37.5° | 104.9 | 115.4 | 143.1 | 185.2 | 218.3 |
| 40° | 83.8 | 95.5 | 125.1 | 170.0 | 204.7 |
| 42.5° | 64.3 | 76.0 | 108.0 | 154.8 | 191.8 |
| 45° | 46.8 | 58.1 | 91.2 | 140.7 | 178.9 |
| 47.5° | 35.5 | 42.1 | 74.9 | 127.1 | 164.5 |
| 50° | 30.4 | 32.4 | 60.0 | 112.3 | 148.9 |
| 52.5° | 26.9 | 27.7 | 46.8 | 97.5 | 133.3 |
| 55° | 23.0 | 23.8 | 36.3 | 82.6 | 117.3 |
| 57.5° | 19.5 | 19.9 | 29.2 | 68.6 | 100.2 |
| 60° | 16.4 | 16.8 | 25.7 | 55.0 | 82.6 |
| 62.5° | 13.6 | 14.0 | 23.0 | 42.5 | 65.9 |
| 65° | 10.9 | 11.7 | 19.5 | 31.2 | 50.3 |
| 67.5° | 9.0 | 10.5 | 16.4 | 21.8 | 35.1 |
| 70° | 7.4 | 10.1 | 13.3 | 15.2 | 21.4 |
| 72.5° | 6.2 | 9.4 | 11.3 | 10.9 | 10.5 |
| 75° | 5.1 | 9.0 | 9.4 | 8.6 | 8.2 |
| 77.5° | 4.3 | 7.8 | 7.8 | 7.0 | 6.6 |
| 80° | 3.5 | 6.2 | 6.2 | 6.2 | 5.5 |
| 82.5° | 3.1 | 5.1 | 5.5 | 5.5 | 4.3 |
| 85° | 2.3 | 4.3 | 4.7 | 4.7 | 3.1 |
| 87.5° | 1.6 | 3.9 | 4.3 | 3.9 | 2.3 |
| 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 | 3.61 | 4.95 | 3.98 | 5.27 | 5.58 | 12.77 | 14.12 | 13.14 | 14.43 | 14.74 |
| | 3H | 4.72 | 5.91 | 5.10 | 6.24 | 6.61 | 13.28 | 14.47 | 13.66 | 14.80 | 15.17 |
| | 4H | 5.24 | 6.35 | 5.64 | 6.70 | 7.08 | 13.30 | 14.41 | 13.70 | 14.76 | 15.14 |
| | 6H | 5.67 | 6.69 | 6.09 | 7.06 | 7.46 | 13.31 | 14.33 | 13.73 | 14.70 | 15.10 |
| | 8H | 5.86 | 6.83 | 6.29 | 7.22 | 7.62 | 13.31 | 14.28 | 13.74 | 14.67 | 15.08 |
| | 12H | 6.04 | 6.96 | 6.47 | 7.35 | 7.78 | 13.32 | 14.24 | 13.75 | 14.63 | 15.06 |
| 4H | 2H | 4.76 | 5.87 | 5.16 | 6.22 | 6.60 | 12.67 | 13.78 | 13.07 | 14.13 | 14.51 |
| | 3H | 6.10 | 7.00 | 6.51 | 7.41 | 7.81 | 13.26 | 14.16 | 13.67 | 14.57 | 14.97 |
| | 4H | 6.83 | 7.65 | 7.27 | 8.07 | 8.51 | 13.31 | 14.13 | 13.75 | 14.55 | 14.99 |
| | 6H | 7.44 | 8.14 | 7.90 | 8.59 | 9.05 | 13.39 | 14.09 | 13.85 | 14.54 | 15.00 |
| | 8H | 7.68 | 8.34 | 8.15 | 8.78 | 9.26 | 13.42 | 14.08 | 13.89 | 14.52 | 14.99 |
| | 12H | 7.91 | 8.50 | 8.40 | 8.98 | 9.45 | 13.46 | 14.04 | 13.95 | 14.52 | 15.00 |
| 8H | 4H | 7.30 | 7.96 | 7.77 | 8.40 | 8.88 | 13.27 | 13.93 | 13.74 | 14.38 | 14.85 |
| | 6H | 8.15 | 8.68 | 8.65 | 9.18 | 9.66 | 13.40 | 13.94 | 13.90 | 14.43 | 14.91 |
| | 8H | 8.55 | 9.04 | 9.07 | 9.55 | 10.04 | 13.48 | 13.97 | 14.00 | 14.48 | 14.97 |
| | 12H | 8.97 | 9.40 | 9.49 | 9.90 | 10.47 | 13.60 | 14.03 | 14.12 | 14.53 | 15.10 |
| 12H | 4H | 7.35 | 7.93 | 7.84 | 8.42 | 8.89 | 13.25 | 13.83 | 13.73 | 14.31 | 14.78 |
| | 6H | 8.28 | 8.76 | 8.80 | 9.28 | 9.77 | 13.38 | 13.86 | 13.90 | 14.38 | 14.87 |
| | 8H | 8.80 | 9.23 | 9.32 | 9.73 | 10.30 | 13.52 | 13.94 | 14.03 | 14.44 | 15.01 |