

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: P1060800

Luminaire Tested: S124RDRP-H350D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060800
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-H350D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

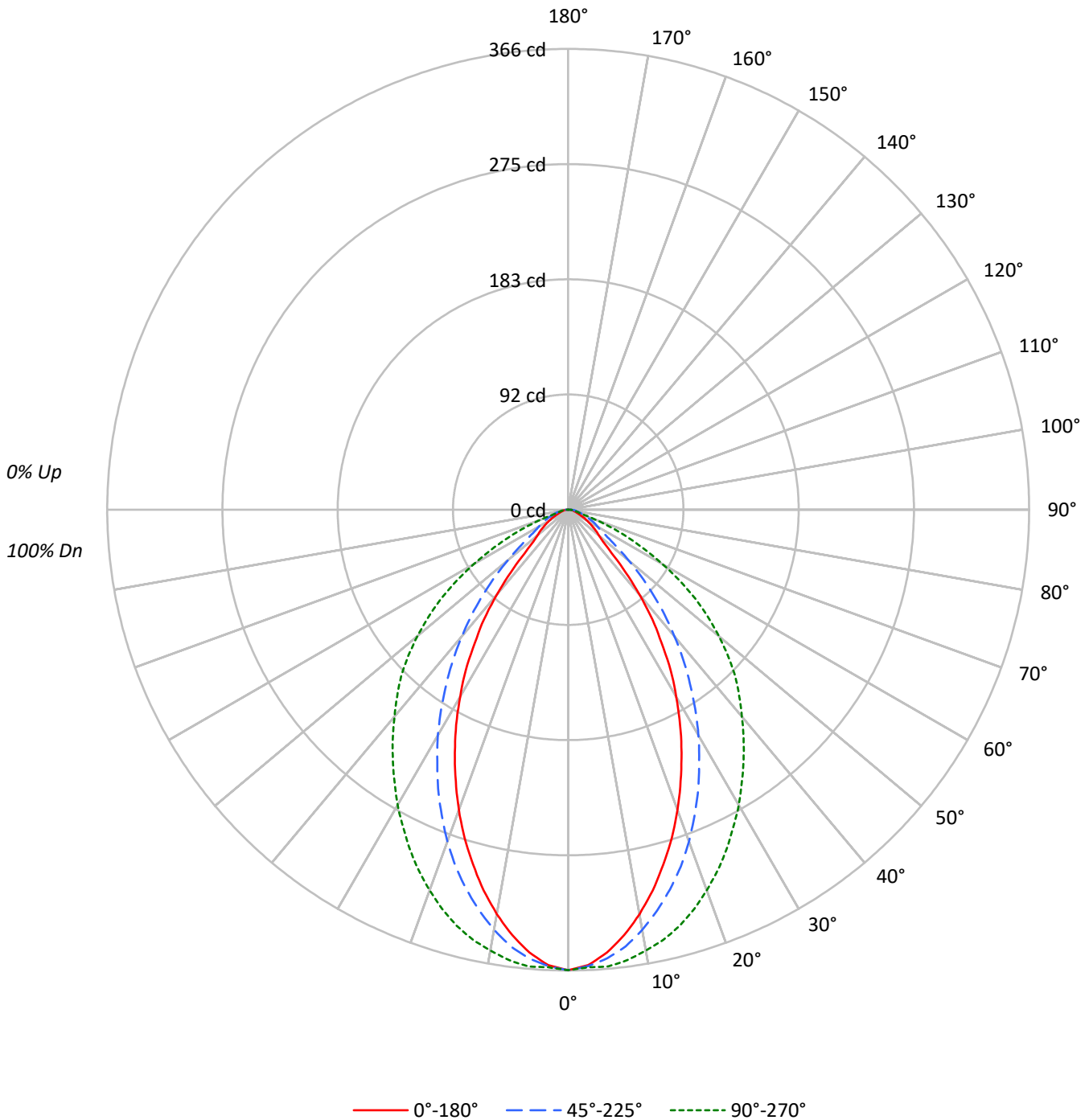
Lumens per Lamp: N/A
Luminaire Lumens: 517.6 lumens
Efficiency: N/A
Efficacy: 44.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 111 | 108 | 104 | 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 | 66 | 75 | 70 | 66 | 73 | 68 | 65 | 63 |
| 5 | 84 | 73 | 66 | 60 | 82 | 72 | 65 | 60 | 70 | 64 | 60 | 69 | 63 | 59 | 67 | 62 | 58 | 57 |
| 6 | 79 | 67 | 60 | 54 | 77 | 67 | 59 | 54 | 65 | 59 | 54 | 63 | 58 | 53 | 62 | 57 | 53 | 51 |
| 7 | 74 | 62 | 55 | 49 | 72 | 61 | 54 | 49 | 60 | 54 | 49 | 59 | 53 | 49 | 57 | 52 | 48 | 47 |
| 8 | 69 | 58 | 50 | 45 | 68 | 57 | 50 | 45 | 56 | 49 | 45 | 55 | 49 | 45 | 53 | 48 | 44 | 43 |
| 9 | 65 | 54 | 46 | 42 | 64 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 |
| 10 | 62 | 50 | 43 | 38 | 60 | 49 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 36 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3149 | 3149 | 3149 |
| 5° | 3052 | 3091 | 3147 |
| 10° | 2851 | 2962 | 3108 |
| 15° | 2601 | 2783 | 3049 |
| 20° | 2326 | 2569 | 2947 |
| 25° | 2023 | 2322 | 2827 |
| 30° | 1706 | 2056 | 2694 |
| 35° | 1357 | 1770 | 2551 |
| 40° | 988 | 1475 | 2411 |
| 45° | 597 | 1164 | 2285 |
| 50° | 427 | 843 | 2091 |
| 55° | 362 | 570 | 1847 |
| 60° | 296 | 465 | 1491 |
| 65° | 232 | 416 | 1074 |
| 70° | 196 | 350 | 566 |
| 75° | 176 | 326 | 286 |
| 80° | 183 | 322 | 283 |
| 85° | 247 | 484 | 326 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2285 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 33.7 | 6.5 |
| 10°-20° | 88.2 | 17.0 |
| 20°-30° | 114.4 | 22.1 |
| 30°-40° | 110.2 | 21.3 |
| 40°-50° | 81.9 | 15.8 |
| 50°-60° | 50.4 | 9.7 |
| 60°-70° | 24.7 | 4.8 |
| 70°-80° | 9.7 | 1.9 |
| 80°-90° | 4.4 | 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° | 236.3 | 45.7 |
| 0°-40° | 346.5 | 66.9 |
| 0°-60° | 478.8 | 92.5 |
| 0°-90° | 517.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 517.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 366 | 366 | 366 | 366 | 366 | |
| 5° | 353 | 358 | 358 | 361 | 364 | 33 |
| 15° | 292 | 301 | 312 | 331 | 342 | 82 |
| 25° | 213 | 224 | 244 | 275 | 298 | 97 |
| 35° | 129 | 141 | 168 | 210 | 243 | 81 |
| 45° | 49 | 61 | 96 | 148 | 188 | 41 |
| 55° | 24 | 25 | 38 | 87 | 123 | 22 |
| 65° | 11 | 12 | 20 | 33 | 53 | 12 |
| 75° | 5 | 9 | 10 | 9 | 9 | 6 |
| 85° | 2 | 4 | 5 | 5 | 3 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 365.7 | 365.7 | 365.7 | 365.7 | 365.7 |
| 2.5° | 362.1 | 366.1 | 362.9 | 363.3 | 363.7 |
| 5° | 353.1 | 358.4 | 357.6 | 360.8 | 364.1 |
| 7.5° | 340.8 | 346.9 | 349.8 | 356.3 | 360.8 |
| 10° | 326.1 | 333.0 | 338.8 | 349.4 | 355.5 |
| 12.5° | 309.8 | 317.9 | 326.1 | 340.4 | 349.8 |
| 15° | 291.8 | 301.2 | 312.2 | 331.0 | 342.0 |
| 17.5° | 273.4 | 282.8 | 297.1 | 318.7 | 332.6 |
| 20° | 253.8 | 264.0 | 280.3 | 304.4 | 321.6 |
| 22.5° | 233.3 | 244.4 | 262.4 | 289.7 | 310.2 |
| 25° | 212.9 | 224.3 | 244.4 | 275.0 | 297.5 |
| 27.5° | 192.5 | 203.5 | 225.2 | 259.5 | 284.0 |
| 30° | 171.6 | 183.1 | 206.8 | 242.7 | 270.9 |
| 32.5° | 151.6 | 162.2 | 187.6 | 226.8 | 256.6 |
| 35° | 129.1 | 141.4 | 168.4 | 210.5 | 242.7 |
| 37.5° | 109.9 | 121.0 | 150.0 | 194.1 | 228.8 |
| 40° | 87.9 | 100.1 | 131.2 | 178.2 | 214.5 |
| 42.5° | 67.4 | 79.7 | 113.2 | 162.2 | 201.1 |
| 45° | 49.0 | 60.9 | 95.6 | 147.5 | 187.6 |
| 47.5° | 37.2 | 44.1 | 78.5 | 133.2 | 172.4 |
| 50° | 31.9 | 33.9 | 62.9 | 117.7 | 156.1 |
| 52.5° | 28.2 | 29.0 | 49.0 | 102.2 | 139.8 |
| 55° | 24.1 | 24.9 | 38.0 | 86.6 | 123.0 |
| 57.5° | 20.4 | 20.8 | 30.6 | 71.9 | 105.0 |
| 60° | 17.2 | 17.6 | 27.0 | 57.6 | 86.6 |
| 62.5° | 14.3 | 14.7 | 24.1 | 44.5 | 69.1 |
| 65° | 11.4 | 12.3 | 20.4 | 32.7 | 52.7 |
| 67.5° | 9.4 | 11.0 | 17.2 | 22.9 | 36.8 |
| 70° | 7.8 | 10.6 | 13.9 | 15.9 | 22.5 |
| 72.5° | 6.5 | 9.8 | 11.9 | 11.4 | 11.0 |
| 75° | 5.3 | 9.4 | 9.8 | 9.0 | 8.6 |
| 77.5° | 4.5 | 8.2 | 8.2 | 7.4 | 6.9 |
| 80° | 3.7 | 6.5 | 6.5 | 6.5 | 5.7 |
| 82.5° | 3.3 | 5.3 | 5.7 | 5.7 | 4.5 |
| 85° | 2.5 | 4.5 | 4.9 | 4.9 | 3.3 |
| 87.5° | 1.6 | 4.1 | 4.5 | 4.1 | 2.5 |
| 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 | 3.76 | 5.10 | 4.12 | 5.41 | 5.73 | 12.94 | 14.28 | 13.30 | 14.59 | 14.91 |
| | 3H | 4.87 | 6.06 | 5.25 | 6.39 | 6.76 | 13.44 | 14.64 | 13.82 | 14.96 | 15.33 |
| | 4H | 5.39 | 6.50 | 5.79 | 6.85 | 7.23 | 13.46 | 14.57 | 13.87 | 14.92 | 15.31 |
| | 6H | 5.83 | 6.85 | 6.24 | 7.22 | 7.61 | 13.47 | 14.50 | 13.89 | 14.87 | 15.26 |
| | 8H | 6.02 | 6.99 | 6.45 | 7.38 | 7.78 | 13.48 | 14.44 | 13.91 | 14.84 | 15.24 |
| | 12H | 6.21 | 7.13 | 6.64 | 7.51 | 7.94 | 13.48 | 14.41 | 13.91 | 14.79 | 15.22 |
| 4H | 2H | 4.90 | 6.01 | 5.31 | 6.37 | 6.75 | 12.83 | 13.94 | 13.23 | 14.29 | 14.67 |
| | 3H | 6.25 | 7.16 | 6.66 | 7.56 | 7.96 | 13.42 | 14.33 | 13.83 | 14.73 | 15.13 |
| | 4H | 6.98 | 7.80 | 7.42 | 8.22 | 8.66 | 13.48 | 14.29 | 13.91 | 14.71 | 15.15 |
| | 6H | 7.59 | 8.30 | 8.06 | 8.74 | 9.21 | 13.55 | 14.25 | 14.01 | 14.70 | 15.17 |
| | 8H | 7.84 | 8.50 | 8.31 | 8.94 | 9.41 | 13.58 | 14.24 | 14.05 | 14.68 | 15.16 |
| | 12H | 8.08 | 8.66 | 8.57 | 9.14 | 9.62 | 13.62 | 14.20 | 14.11 | 14.69 | 15.16 |
| 8H | 4H | 7.45 | 8.11 | 7.92 | 8.56 | 9.03 | 13.44 | 14.09 | 13.90 | 14.54 | 15.01 |
| | 6H | 8.30 | 8.84 | 8.80 | 9.33 | 9.82 | 13.56 | 14.10 | 14.06 | 14.59 | 15.08 |
| | 8H | 8.71 | 9.19 | 9.23 | 9.71 | 10.20 | 13.64 | 14.13 | 14.17 | 14.64 | 15.13 |
| | 12H | 9.14 | 9.56 | 9.65 | 10.06 | 10.63 | 13.77 | 14.19 | 14.28 | 14.69 | 15.26 |
| 12H | 4H | 7.51 | 8.09 | 7.99 | 8.57 | 9.04 | 13.41 | 13.99 | 13.89 | 14.47 | 14.95 |
| | 6H | 8.43 | 8.92 | 8.95 | 9.43 | 9.92 | 13.54 | 14.03 | 14.06 | 14.54 | 15.03 |
| | 8H | 8.96 | 9.38 | 9.47 | 9.88 | 10.45 | 13.68 | 14.10 | 14.19 | 14.60 | 15.17 |