

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: P1060824

Luminaire Tested: S124RDRP-H350D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060824
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-H350D927-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

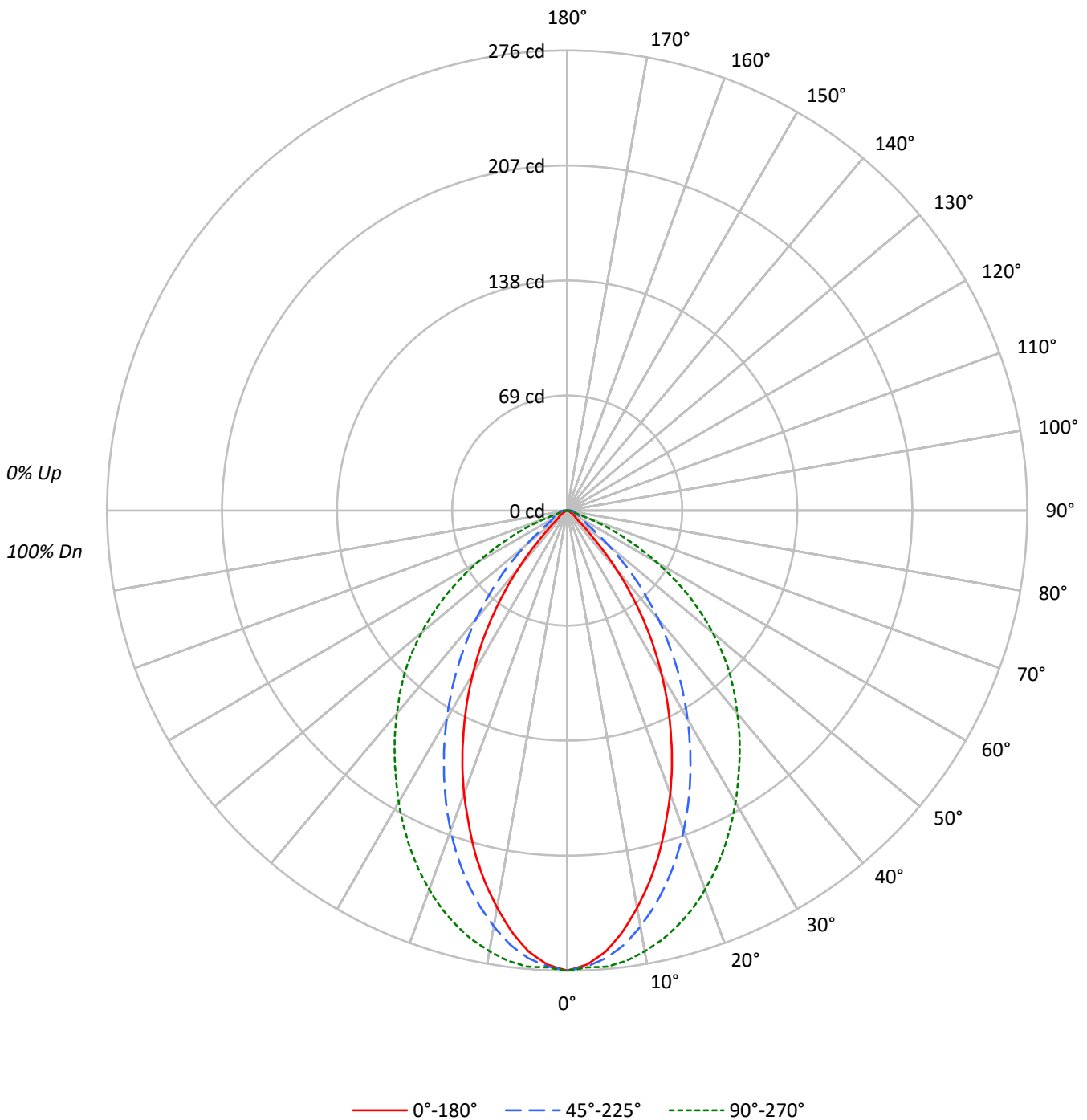
Lumens per Lamp: N/A
Luminaire Lumens: 347.7 lumens
Efficiency: N/A
Efficacy: 29.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98 | 98 | 96 | 95 | 95 | 93 | 92 | 90 |
| 2 | 105 | 98 | 93 | 89 | 102 | 97 | 92 | 88 | 93 | 89 | 86 | 90 | 87 | 84 | 87 | 85 | 82 | 81 |
| 3 | 98 | 90 | 84 | 79 | 96 | 88 | 83 | 78 | 86 | 81 | 77 | 83 | 79 | 75 | 81 | 77 | 74 | 72 |
| 4 | 91 | 82 | 75 | 70 | 89 | 81 | 75 | 70 | 79 | 73 | 69 | 76 | 72 | 68 | 74 | 70 | 67 | 65 |
| 5 | 86 | 75 | 68 | 63 | 84 | 74 | 68 | 63 | 72 | 67 | 62 | 71 | 66 | 62 | 69 | 65 | 61 | 59 |
| 6 | 80 | 70 | 62 | 57 | 79 | 69 | 62 | 57 | 67 | 61 | 56 | 66 | 60 | 56 | 64 | 59 | 56 | 54 |
| 7 | 75 | 64 | 57 | 52 | 74 | 64 | 57 | 52 | 62 | 56 | 52 | 61 | 55 | 51 | 60 | 55 | 51 | 49 |
| 8 | 71 | 60 | 53 | 48 | 70 | 59 | 52 | 48 | 58 | 52 | 48 | 57 | 51 | 47 | 56 | 51 | 47 | 45 |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 44 | 42 |
| 10 | 63 | 52 | 45 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 44 | 41 | 49 | 44 | 40 | 39 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2376 | 2376 | 2376 |
| 5° | 2295 | 2329 | 2374 |
| 10° | 2115 | 2214 | 2347 |
| 15° | 1900 | 2058 | 2295 |
| 20° | 1656 | 1872 | 2217 |
| 25° | 1397 | 1661 | 2120 |
| 30° | 1127 | 1436 | 2009 |
| 35° | 834 | 1202 | 1896 |
| 40° | 517 | 958 | 1784 |
| 45° | 205 | 698 | 1679 |
| 50° | 91 | 438 | 1527 |
| 55° | 74 | 228 | 1336 |
| 60° | 50 | 172 | 1064 |
| 65° | 33 | 171 | 731 |
| 70° | 33 | 156 | 342 |
| 75° | 43 | 150 | 150 |
| 80° | 64 | 179 | 179 |
| 85° | 128 | 356 | 257 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1679 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 25.3 | 7.3 |
| 10°-20° | 65.3 | 18.8 |
| 20°-30° | 82.4 | 23.7 |
| 30°-40° | 75.6 | 21.8 |
| 40°-50° | 51.5 | 14.8 |
| 50°-60° | 28.1 | 8.1 |
| 60°-70° | 12.1 | 3.5 |
| 70°-80° | 4.4 | 1.3 |
| 80°-90° | 2.9 | 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° | 173.1 | 49.8 |
| 0°-40° | 248.7 | 71.5 |
| 0°-60° | 328.3 | 94.4 |
| 0°-90° | 347.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 347.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 276 | 276 | 276 | 276 | 276 | |
| 5° | 266 | 269 | 269 | 272 | 275 | 25 |
| 15° | 213 | 220 | 231 | 247 | 257 | 59 |
| 25° | 147 | 157 | 175 | 203 | 223 | 67 |
| 35° | 79 | 91 | 114 | 151 | 180 | 49 |
| 45° | 17 | 28 | 57 | 102 | 138 | 16 |
| 55° | 5 | 5 | 15 | 56 | 89 | 4 |
| 65° | 2 | 2 | 8 | 18 | 36 | 2 |
| 75° | 1 | 4 | 4 | 4 | 4 | 1 |
| 85° | 1 | 3 | 4 | 4 | 3 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 275.9 | 275.9 | 275.9 | 275.9 | 275.9 |
| 2.5° | 272.6 | 275.9 | 273.6 | 274.3 | 274.3 |
| 5° | 265.5 | 269.1 | 269.4 | 272.3 | 274.6 |
| 7.5° | 254.8 | 260.0 | 262.6 | 268.4 | 272.3 |
| 10° | 241.9 | 248.0 | 253.2 | 263.2 | 268.4 |
| 12.5° | 228.0 | 235.1 | 242.8 | 256.1 | 263.6 |
| 15° | 213.1 | 220.5 | 230.9 | 247.4 | 257.4 |
| 17.5° | 196.5 | 205.6 | 218.2 | 238.0 | 250.3 |
| 20° | 180.7 | 189.7 | 204.3 | 226.7 | 241.9 |
| 22.5° | 164.2 | 173.6 | 189.7 | 214.7 | 232.8 |
| 25° | 147.0 | 157.4 | 174.8 | 202.7 | 223.1 |
| 27.5° | 130.2 | 141.2 | 159.6 | 190.1 | 212.7 |
| 30° | 113.3 | 124.3 | 144.4 | 177.1 | 202.0 |
| 32.5° | 96.2 | 107.5 | 129.2 | 163.5 | 191.0 |
| 35° | 79.3 | 91.0 | 114.3 | 150.6 | 180.4 |
| 37.5° | 62.2 | 74.5 | 99.4 | 137.9 | 169.7 |
| 40° | 46.0 | 58.3 | 85.2 | 125.3 | 158.7 |
| 42.5° | 30.8 | 43.1 | 70.6 | 113.0 | 148.3 |
| 45° | 16.8 | 28.2 | 57.3 | 101.7 | 137.9 |
| 47.5° | 9.1 | 15.5 | 44.4 | 90.7 | 126.3 |
| 50° | 6.8 | 8.4 | 32.7 | 79.0 | 114.0 |
| 52.5° | 5.8 | 6.5 | 22.7 | 66.7 | 101.7 |
| 55° | 4.9 | 5.2 | 15.2 | 56.0 | 89.0 |
| 57.5° | 3.9 | 4.2 | 11.3 | 45.3 | 75.4 |
| 60° | 2.9 | 3.6 | 10.0 | 35.0 | 61.8 |
| 62.5° | 2.3 | 2.9 | 9.4 | 25.6 | 48.9 |
| 65° | 1.6 | 2.3 | 8.4 | 17.5 | 35.9 |
| 67.5° | 1.6 | 2.6 | 7.1 | 11.3 | 24.3 |
| 70° | 1.3 | 3.6 | 6.2 | 7.4 | 13.6 |
| 72.5° | 1.3 | 3.9 | 5.2 | 5.2 | 5.2 |
| 75° | 1.3 | 4.2 | 4.5 | 4.5 | 4.5 |
| 77.5° | 1.3 | 3.9 | 4.2 | 3.9 | 3.9 |
| 80° | 1.3 | 3.6 | 3.6 | 3.6 | 3.6 |
| 82.5° | 1.3 | 3.2 | 3.6 | 3.6 | 2.9 |
| 85° | 1.3 | 2.9 | 3.6 | 3.6 | 2.6 |
| 87.5° | 1.0 | 2.9 | 3.2 | 3.2 | 1.9 |
| 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 | 11.41 | 12.69 | 11.78 | 13.00 | 13.32 |
| | 3H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.79 | 12.92 | 12.17 | 13.25 | 13.61 |
| | 4H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.76 | 12.82 | 12.17 | 13.17 | 13.55 |
| | 6H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.75 | 12.72 | 12.17 | 13.09 | 13.48 |
| | 8H | 0.00 | 0.00 | 0.00 | 0.00 | 0.19 | 11.75 | 12.67 | 12.18 | 13.06 | 13.46 |
| | 12H | 0.00 | 0.02 | 0.00 | 0.40 | 0.83 | 11.77 | 12.64 | 12.20 | 13.02 | 13.45 |
| 4H | 2H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.22 | 12.27 | 11.62 | 12.62 | 13.01 |
| | 3H | 0.00 | 0.11 | 0.00 | 0.52 | 0.92 | 11.64 | 12.50 | 12.05 | 12.90 | 13.31 |
| | 4H | 0.54 | 1.31 | 0.98 | 1.73 | 2.17 | 11.64 | 12.41 | 12.07 | 12.83 | 13.27 |
| | 6H | 1.68 | 2.34 | 2.15 | 2.79 | 3.26 | 11.68 | 12.34 | 12.14 | 12.79 | 13.26 |
| | 8H | 2.19 | 2.80 | 2.66 | 3.25 | 3.72 | 11.71 | 12.33 | 12.18 | 12.77 | 13.25 |
| | 12H | 2.73 | 3.28 | 3.22 | 3.76 | 4.24 | 11.77 | 12.32 | 12.26 | 12.80 | 13.28 |
| 8H | 4H | 1.62 | 2.24 | 2.09 | 2.69 | 3.16 | 11.55 | 12.17 | 12.02 | 12.61 | 13.08 |
| | 6H | 3.18 | 3.69 | 3.69 | 4.19 | 4.67 | 11.63 | 12.13 | 12.13 | 12.63 | 13.11 |
| | 8H | 3.98 | 4.43 | 4.50 | 4.95 | 5.44 | 11.72 | 12.17 | 12.24 | 12.69 | 13.18 |
| | 12H | 4.80 | 5.21 | 5.32 | 5.70 | 6.27 | 11.89 | 12.29 | 12.40 | 12.79 | 13.36 |
| 12H | 4H | 1.82 | 2.36 | 2.30 | 2.85 | 3.32 | 11.51 | 12.06 | 12.00 | 12.54 | 13.02 |
| | 6H | 3.54 | 4.00 | 4.07 | 4.52 | 5.01 | 11.60 | 12.06 | 12.13 | 12.57 | 13.07 |
| | 8H | 4.54 | 4.95 | 5.06 | 5.44 | 6.01 | 11.74 | 12.15 | 12.26 | 12.64 | 13.21 |