

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060424

Luminaire Tested: S124RDR-S350D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060424
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S350D927-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

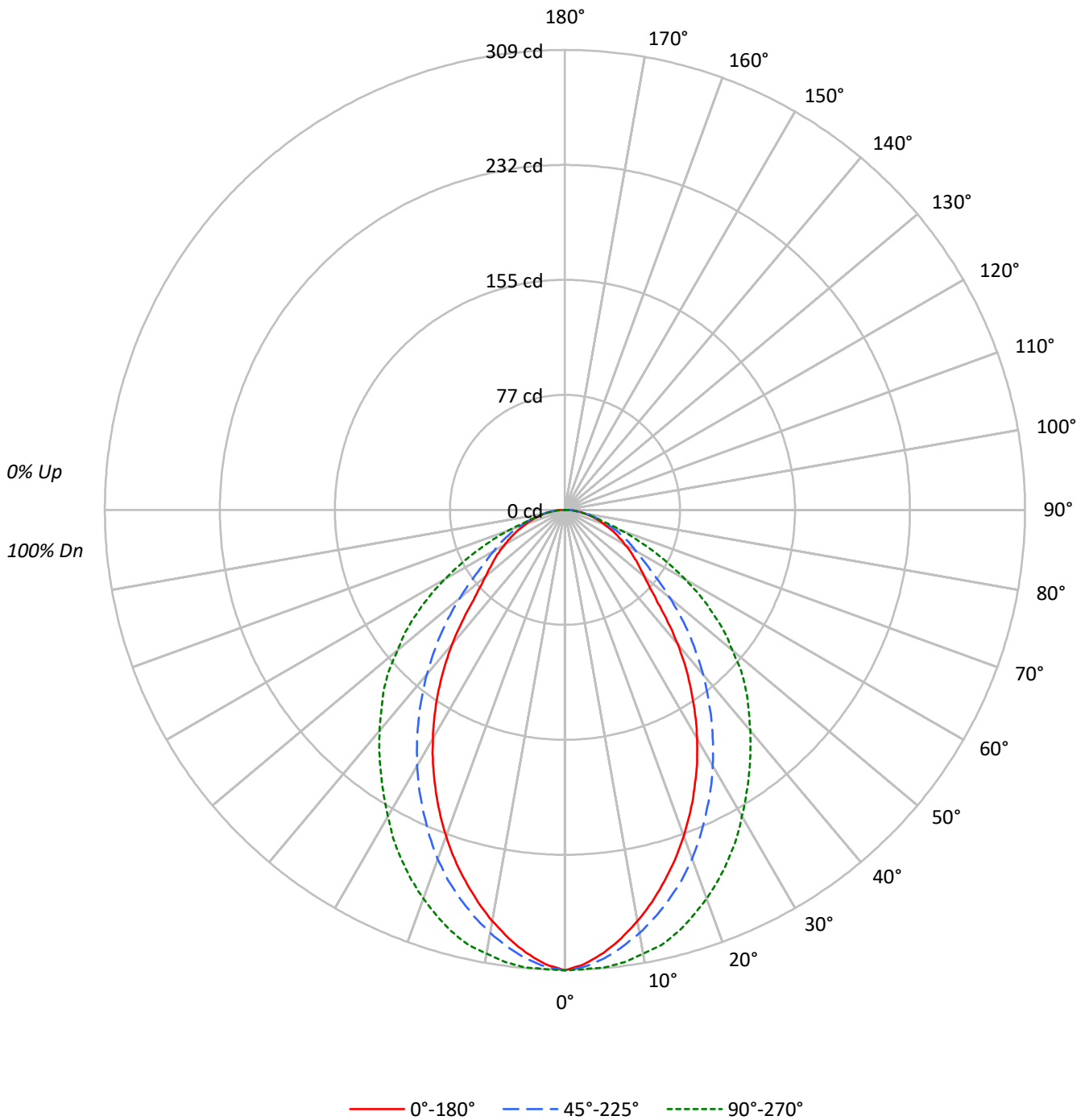
Lumens per Lamp: N/A
Luminaire Lumens: 563.3 lumens
Efficiency: N/A
Efficacy: 45.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 110 | 106 | 102 | 99 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 87 |
| 2 | 102 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 79 | 83 | 80 | 77 | 75 |
| 3 | 94 | 84 | 77 | 71 | 91 | 83 | 76 | 71 | 80 | 74 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 65 |
| 4 | 87 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 72 | 66 | 61 | 70 | 64 | 60 | 68 | 63 | 59 | 57 |
| 5 | 80 | 69 | 60 | 54 | 78 | 68 | 60 | 54 | 65 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 |
| 6 | 75 | 62 | 54 | 48 | 73 | 62 | 54 | 48 | 60 | 53 | 48 | 58 | 52 | 47 | 57 | 51 | 47 | 45 |
| 7 | 70 | 57 | 49 | 43 | 68 | 56 | 49 | 43 | 55 | 48 | 43 | 54 | 47 | 43 | 52 | 47 | 42 | 41 |
| 8 | 65 | 53 | 45 | 39 | 64 | 52 | 44 | 39 | 51 | 44 | 39 | 50 | 43 | 39 | 48 | 43 | 39 | 37 |
| 9 | 61 | 49 | 41 | 36 | 60 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | 45 | 39 | 35 | 34 |
| 10 | 58 | 45 | 38 | 33 | 56 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 33 | 42 | 36 | 32 | 31 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2664 | 2664 | 2664 |
| 5° | 2582 | 2616 | 2667 |
| 10° | 2454 | 2524 | 2649 |
| 15° | 2302 | 2414 | 2617 |
| 20° | 2137 | 2288 | 2548 |
| 25° | 1957 | 2133 | 2466 |
| 30° | 1764 | 1974 | 2364 |
| 35° | 1555 | 1801 | 2267 |
| 40° | 1323 | 1622 | 2176 |
| 45° | 1074 | 1433 | 2097 |
| 50° | 930 | 1234 | 1964 |
| 55° | 862 | 1046 | 1821 |
| 60° | 804 | 944 | 1598 |
| 65° | 754 | 886 | 1328 |
| 70° | 702 | 816 | 1005 |
| 75° | 669 | 755 | 722 |
| 80° | 625 | 689 | 610 |
| 85° | 573 | 642 | 484 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2097 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 28.6 | 5.1 |
| 10°-20° | 76.8 | 13.6 |
| 20°-30° | 104.9 | 18.6 |
| 30°-40° | 109.9 | 19.5 |
| 40°-50° | 95.1 | 16.9 |
| 50°-60° | 71.4 | 12.7 |
| 60°-70° | 46.1 | 8.2 |
| 70°-80° | 23.6 | 4.2 |
| 80°-90° | 7.1 | 1.3 |
| 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° | 210.2 | 37.3 |
| 0°-40° | 320.1 | 56.8 |
| 0°-60° | 486.6 | 86.4 |
| 0°-90° | 563.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 563.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 309 | 309 | 309 | 309 | 309 | |
| 5° | 299 | 303 | 303 | 305 | 308 | 28 |
| 15° | 258 | 265 | 271 | 283 | 294 | 72 |
| 25° | 206 | 214 | 224 | 242 | 260 | 95 |
| 35° | 148 | 156 | 171 | 194 | 216 | 92 |
| 45° | 88 | 97 | 118 | 147 | 172 | 70 |
| 55° | 57 | 59 | 70 | 100 | 121 | 52 |
| 65° | 37 | 38 | 44 | 52 | 65 | 37 |
| 75° | 20 | 22 | 23 | 22 | 22 | 21 |
| 85° | 6 | 7 | 6 | 6 | 5 | 7 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 309.4 | 309.4 | 309.4 | 309.4 | 309.4 |
| 2.5° | 305.5 | 309.4 | 307.2 | 307.8 | 308.8 |
| 5° | 298.7 | 303.3 | 302.6 | 304.9 | 308.5 |
| 7.5° | 290.3 | 295.2 | 296.1 | 301.3 | 306.5 |
| 10° | 280.6 | 286.1 | 288.7 | 296.5 | 302.9 |
| 12.5° | 269.9 | 275.7 | 280.2 | 290.0 | 299.4 |
| 15° | 258.2 | 264.7 | 270.8 | 283.2 | 293.5 |
| 17.5° | 246.2 | 252.7 | 260.8 | 274.4 | 286.1 |
| 20° | 233.2 | 240.3 | 249.7 | 264.0 | 278.0 |
| 22.5° | 219.9 | 227.4 | 237.4 | 253.0 | 269.2 |
| 25° | 206.0 | 213.7 | 224.5 | 242.0 | 259.5 |
| 27.5° | 192.0 | 199.8 | 211.8 | 230.3 | 249.4 |
| 30° | 177.4 | 185.5 | 198.5 | 218.6 | 237.7 |
| 32.5° | 162.8 | 171.6 | 184.9 | 206.3 | 226.7 |
| 35° | 147.9 | 156.3 | 171.3 | 194.0 | 215.7 |
| 37.5° | 133.0 | 141.7 | 157.6 | 182.0 | 204.7 |
| 40° | 117.7 | 126.8 | 144.3 | 170.0 | 193.6 |
| 42.5° | 102.5 | 112.2 | 130.7 | 157.6 | 182.6 |
| 45° | 88.2 | 97.3 | 117.7 | 146.6 | 172.2 |
| 47.5° | 77.5 | 83.7 | 104.8 | 135.9 | 160.6 |
| 50° | 69.4 | 72.7 | 92.1 | 124.2 | 146.6 |
| 52.5° | 63.2 | 65.5 | 80.4 | 111.6 | 135.3 |
| 55° | 57.4 | 59.4 | 69.7 | 99.6 | 121.3 |
| 57.5° | 52.2 | 53.2 | 61.6 | 87.9 | 108.0 |
| 60° | 46.7 | 47.7 | 54.8 | 75.2 | 92.8 |
| 62.5° | 41.8 | 42.5 | 49.3 | 63.2 | 78.8 |
| 65° | 37.0 | 37.6 | 43.5 | 52.5 | 65.2 |
| 67.5° | 32.4 | 33.4 | 37.9 | 42.8 | 51.9 |
| 70° | 27.9 | 29.8 | 32.4 | 34.7 | 39.9 |
| 72.5° | 24.0 | 25.9 | 27.2 | 27.9 | 28.2 |
| 75° | 20.1 | 22.4 | 22.7 | 22.4 | 21.7 |
| 77.5° | 16.2 | 18.2 | 18.2 | 17.5 | 16.9 |
| 80° | 12.6 | 14.3 | 13.9 | 13.3 | 12.3 |
| 82.5° | 9.4 | 10.4 | 10.1 | 9.4 | 8.4 |
| 85° | 5.8 | 6.8 | 6.5 | 6.2 | 4.9 |
| 87.5° | 2.9 | 3.9 | 3.6 | 3.2 | 1.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)