

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: P1059287

Luminaire Tested: S123RDR-S560D927-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059287
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D927-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

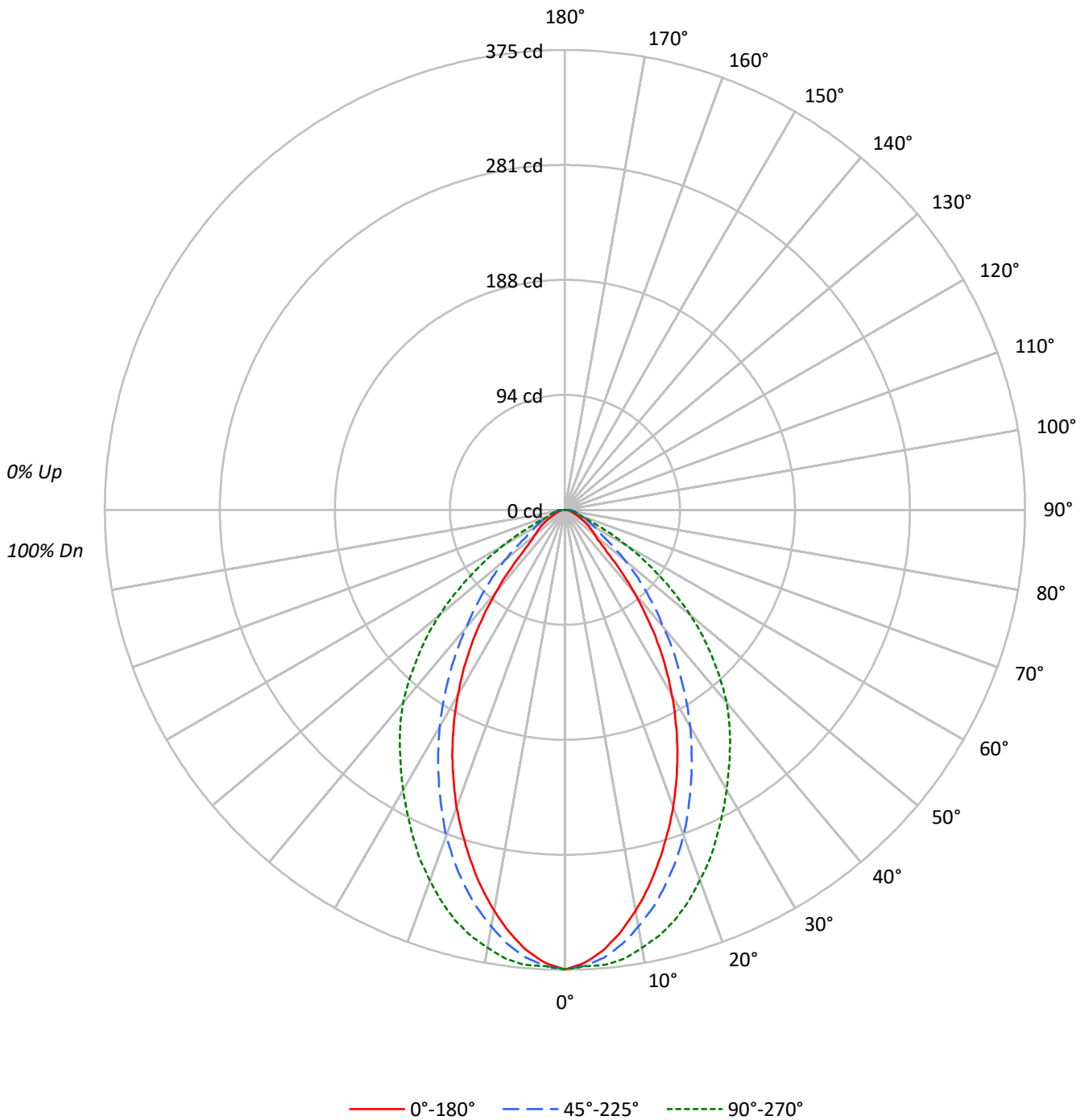
Lumens per Lamp: N/A
Luminaire Lumens: 501.8 lumens
Efficiency: N/A
Efficacy: 25.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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 | 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 | 105 | 102 | 109 | 106 | 103 | 100 | 101 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 | | | | 89 |
| 2 | 104 | 98 | 92 | 88 | 102 | 96 | 91 | 87 | 92 | 88 | 85 | 89 | 86 | 83 | 86 | 84 | 81 | 79 | | | | 79 |
| 3 | 97 | 89 | 82 | 77 | 95 | 87 | 81 | 77 | 84 | 79 | 75 | 82 | 78 | 74 | 79 | 76 | 73 | 71 | | | | 71 |
| 4 | 91 | 81 | 74 | 69 | 88 | 80 | 73 | 68 | 77 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 66 | 64 | | | | 64 |
| 5 | 85 | 74 | 67 | 61 | 83 | 73 | 66 | 61 | 71 | 65 | 61 | 69 | 64 | 60 | 68 | 63 | 59 | 58 | | | | 58 |
| 6 | 79 | 68 | 61 | 56 | 78 | 67 | 60 | 55 | 66 | 60 | 55 | 64 | 59 | 54 | 63 | 58 | 54 | 52 | | | | 52 |
| 7 | 74 | 63 | 56 | 51 | 73 | 62 | 55 | 50 | 61 | 55 | 50 | 60 | 54 | 50 | 58 | 53 | 49 | 48 | | | | 48 |
| 8 | 70 | 58 | 51 | 46 | 69 | 58 | 51 | 46 | 57 | 50 | 46 | 56 | 50 | 46 | 54 | 49 | 45 | 44 | | | | 44 |
| 9 | 66 | 54 | 47 | 43 | 65 | 54 | 47 | 43 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 40 | | | | 40 |
| 10 | 62 | 51 | 44 | 39 | 61 | 50 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 37 | | | | 37 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4400 | 4400 | 4400 |
| 5° | 4248 | 4320 | 4391 |
| 10° | 3959 | 4115 | 4323 |
| 15° | 3603 | 3850 | 4209 |
| 20° | 3226 | 3534 | 4019 |
| 25° | 2813 | 3154 | 3799 |
| 30° | 2366 | 2766 | 3574 |
| 35° | 1882 | 2344 | 3363 |
| 40° | 1341 | 1911 | 3144 |
| 45° | 799 | 1534 | 2816 |
| 50° | 590 | 1169 | 2439 |
| 55° | 493 | 794 | 1937 |
| 60° | 399 | 655 | 1362 |
| 65° | 320 | 561 | 731 |
| 70° | 264 | 488 | 450 |
| 75° | 250 | 472 | 422 |
| 80° | 257 | 521 | 406 |
| 85° | 364 | 741 | 512 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2816 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 34.4 | 6.9 |
| 10°-20° | 89.4 | 17.8 |
| 20°-30° | 114.0 | 22.7 |
| 30°-40° | 107.3 | 21.4 |
| 40°-50° | 77.1 | 15.4 |
| 50°-60° | 44.2 | 8.8 |
| 60°-70° | 20.2 | 4.0 |
| 70°-80° | 10.2 | 2.0 |
| 80°-90° | 5.0 | 1.0 |
| 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° | 237.9 | 47.4 |
| 0°-40° | 345.1 | 68.8 |
| 0°-60° | 466.4 | 93.0 |
| 0°-90° | 501.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 501.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 375 | 375 | 375 | 375 | 375 | |
| 5° | 360 | 368 | 366 | 369 | 372 | 33 |
| 15° | 296 | 307 | 317 | 334 | 346 | 83 |
| 25° | 217 | 227 | 243 | 270 | 293 | 99 |
| 35° | 131 | 141 | 164 | 201 | 235 | 81 |
| 45° | 48 | 58 | 92 | 136 | 170 | 40 |
| 55° | 24 | 25 | 39 | 72 | 95 | 22 |
| 65° | 12 | 16 | 20 | 22 | 26 | 12 |
| 75° | 6 | 11 | 10 | 9 | 9 | 6 |
| 85° | 3 | 6 | 6 | 5 | 4 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 374.7 | 374.7 | 374.7 | 374.7 | 374.7 |
| 2.5° | 369.7 | 375.2 | 371.9 | 371.9 | 372.5 |
| 5° | 360.4 | 367.6 | 366.5 | 369.2 | 372.5 |
| 7.5° | 347.3 | 355.0 | 357.2 | 363.7 | 369.2 |
| 10° | 332.0 | 340.7 | 345.1 | 355.5 | 362.6 |
| 12.5° | 315.0 | 324.9 | 332.0 | 345.1 | 355.5 |
| 15° | 296.4 | 306.8 | 316.7 | 333.6 | 346.2 |
| 17.5° | 277.3 | 287.7 | 300.3 | 320.0 | 334.7 |
| 20° | 258.2 | 268.6 | 282.8 | 303.6 | 321.6 |
| 22.5° | 237.4 | 247.8 | 263.1 | 286.6 | 308.5 |
| 25° | 217.1 | 227.0 | 243.4 | 269.6 | 293.2 |
| 27.5° | 195.8 | 205.7 | 223.7 | 252.1 | 278.4 |
| 30° | 174.5 | 184.3 | 204.0 | 234.6 | 263.6 |
| 32.5° | 153.1 | 162.4 | 183.8 | 217.7 | 248.9 |
| 35° | 131.3 | 140.6 | 163.5 | 200.7 | 234.6 |
| 37.5° | 108.8 | 118.1 | 144.9 | 185.4 | 220.4 |
| 40° | 87.5 | 97.9 | 124.7 | 170.1 | 205.1 |
| 42.5° | 66.7 | 77.7 | 108.3 | 153.7 | 187.6 |
| 45° | 48.1 | 58.5 | 92.4 | 136.2 | 169.6 |
| 47.5° | 36.6 | 42.1 | 78.2 | 118.7 | 152.1 |
| 50° | 32.3 | 32.8 | 64.0 | 102.8 | 133.5 |
| 52.5° | 27.9 | 28.4 | 49.8 | 87.5 | 113.8 |
| 55° | 24.1 | 24.6 | 38.8 | 71.7 | 94.6 |
| 57.5° | 20.2 | 21.3 | 31.7 | 56.9 | 76.0 |
| 60° | 17.0 | 19.1 | 27.9 | 43.2 | 58.0 |
| 62.5° | 13.7 | 17.5 | 24.1 | 31.7 | 41.6 |
| 65° | 11.5 | 15.9 | 20.2 | 22.4 | 26.3 |
| 67.5° | 9.3 | 14.8 | 17.0 | 15.9 | 15.9 |
| 70° | 7.7 | 13.1 | 14.2 | 13.1 | 13.1 |
| 72.5° | 6.6 | 12.6 | 12.0 | 10.9 | 10.9 |
| 75° | 5.5 | 10.9 | 10.4 | 9.3 | 9.3 |
| 77.5° | 4.9 | 9.3 | 8.8 | 8.2 | 7.7 |
| 80° | 3.8 | 7.7 | 7.7 | 7.1 | 6.0 |
| 82.5° | 3.3 | 6.6 | 6.6 | 6.0 | 4.9 |
| 85° | 2.7 | 5.5 | 5.5 | 4.9 | 3.8 |
| 87.5° | 2.2 | 4.9 | 4.9 | 4.4 | 2.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)