

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: P1061786

Luminaire Tested: S125RDR-S850D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061786
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-87)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-S850D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

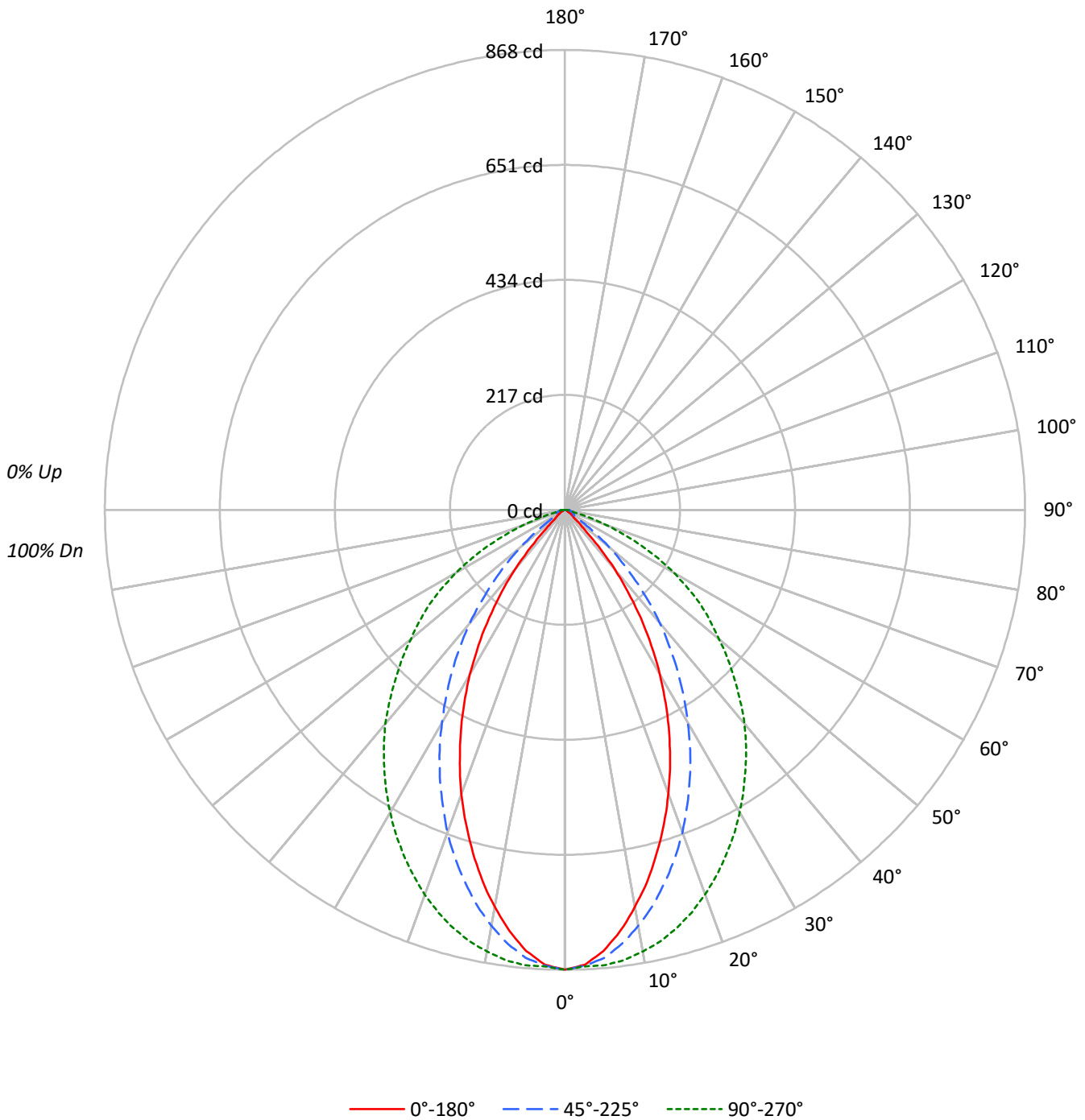
Lumens per Lamp: N/A
Luminaire Lumens: 1116.2 lumens
Efficiency: N/A
Efficacy: 43.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
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 | 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 | 83 | 78 | 95 | 88 | 82 | 78 | 85 | 80 | 76 | 83 | 79 | 75 | 80 | 77 | 74 | 72 |
| 4 | 91 | 82 | 75 | 70 | 89 | 81 | 74 | 69 | 78 | 73 | 68 | 76 | 71 | 68 | 74 | 70 | 67 | 65 |
| 5 | 85 | 75 | 68 | 63 | 84 | 74 | 67 | 62 | 72 | 66 | 62 | 70 | 65 | 61 | 69 | 64 | 61 | 59 |
| 6 | 80 | 69 | 62 | 57 | 78 | 68 | 62 | 57 | 67 | 61 | 56 | 65 | 60 | 56 | 64 | 59 | 55 | 54 |
| 7 | 75 | 64 | 57 | 52 | 74 | 63 | 56 | 52 | 62 | 56 | 51 | 61 | 55 | 51 | 59 | 54 | 51 | 49 |
| 8 | 71 | 60 | 52 | 47 | 69 | 59 | 52 | 47 | 58 | 52 | 47 | 57 | 51 | 47 | 55 | 50 | 47 | 45 |
| 9 | 67 | 55 | 48 | 44 | 66 | 55 | 48 | 44 | 54 | 48 | 44 | 53 | 47 | 43 | 52 | 47 | 43 | 42 |
| 10 | 63 | 52 | 45 | 41 | 62 | 51 | 45 | 40 | 50 | 44 | 40 | 50 | 44 | 40 | 49 | 44 | 40 | 39 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5975 | 5975 | 5975 |
| 5° | 5777 | 5865 | 5961 |
| 10° | 5320 | 5574 | 5918 |
| 15° | 4777 | 5188 | 5820 |
| 20° | 4182 | 4746 | 5662 |
| 25° | 3532 | 4238 | 5465 |
| 30° | 2846 | 3687 | 5242 |
| 35° | 2093 | 3108 | 4994 |
| 40° | 1307 | 2507 | 4736 |
| 45° | 489 | 1832 | 4402 |
| 50° | 229 | 1145 | 4064 |
| 55° | 167 | 474 | 3758 |
| 60° | 118 | 251 | 3253 |
| 65° | 70 | 297 | 2577 |
| 70° | 64 | 344 | 1635 |
| 75° | 85 | 341 | 511 |
| 80° | 127 | 424 | 381 |
| 85° | 253 | 679 | 506 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4402 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 79.6 | 7.1 |
| 10°-20° | 206.0 | 18.5 |
| 20°-30° | 262.5 | 23.5 |
| 30°-40° | 244.3 | 21.9 |
| 40°-50° | 167.4 | 15.0 |
| 50°-60° | 92.2 | 8.3 |
| 60°-70° | 43.6 | 3.9 |
| 70°-80° | 13.7 | 1.2 |
| 80°-90° | 7.0 | 0.6 |
| 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° | 548.0 | 49.1 |
| 0°-40° | 792.3 | 71.0 |
| 0°-60° | 1051.8 | 94.2 |
| 0°-90° | 1116.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1116.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 868 | 868 | 868 | 868 | 868 | |
| 5° | 836 | 846 | 849 | 855 | 862 | 77 |
| 15° | 670 | 692 | 728 | 782 | 816 | 187 |
| 25° | 465 | 494 | 558 | 648 | 719 | 212 |
| 35° | 249 | 284 | 370 | 492 | 594 | 154 |
| 45° | 50 | 84 | 188 | 334 | 452 | 48 |
| 55° | 14 | 16 | 40 | 186 | 313 | 13 |
| 65° | 4 | 5 | 18 | 68 | 158 | 5 |
| 75° | 3 | 5 | 13 | 14 | 19 | 3 |
| 85° | 3 | 8 | 9 | 8 | 6 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1061786

CATALOG NUMBER: S125RDR-S850D850-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 867.8 | 867.8 | 867.8 | 867.8 | 867.8 |
| 2.5° | 859.3 | 867.8 | 861.4 | 861.4 | 862.5 |
| 5° | 835.8 | 846.5 | 848.6 | 855.0 | 862.5 |
| 7.5° | 801.6 | 815.5 | 826.2 | 844.3 | 857.1 |
| 10° | 761.0 | 778.1 | 797.3 | 827.2 | 846.5 |
| 12.5° | 718.2 | 736.4 | 765.2 | 806.9 | 833.6 |
| 15° | 670.1 | 691.5 | 727.8 | 782.3 | 816.5 |
| 17.5° | 621.0 | 644.5 | 689.4 | 753.5 | 796.2 |
| 20° | 570.7 | 595.3 | 647.7 | 719.3 | 772.7 |
| 22.5° | 518.4 | 545.1 | 602.8 | 684.0 | 747.1 |
| 25° | 464.9 | 493.8 | 557.9 | 647.7 | 719.3 |
| 27.5° | 411.5 | 441.4 | 511.9 | 610.3 | 690.4 |
| 30° | 358.0 | 389.0 | 463.8 | 571.8 | 659.4 |
| 32.5° | 303.5 | 337.7 | 416.8 | 533.3 | 627.4 |
| 35° | 249.0 | 284.3 | 369.8 | 491.6 | 594.2 |
| 37.5° | 195.6 | 231.9 | 323.8 | 452.1 | 561.1 |
| 40° | 145.4 | 181.7 | 278.9 | 412.5 | 526.9 |
| 42.5° | 94.1 | 132.5 | 231.9 | 371.9 | 489.5 |
| 45° | 50.2 | 84.4 | 188.1 | 333.5 | 452.1 |
| 47.5° | 26.7 | 44.9 | 146.4 | 295.0 | 416.8 |
| 50° | 21.4 | 24.6 | 106.9 | 256.5 | 379.4 |
| 52.5° | 17.1 | 19.2 | 68.4 | 217.0 | 346.3 |
| 55° | 13.9 | 16.0 | 39.5 | 186.0 | 313.1 |
| 57.5° | 10.7 | 12.8 | 22.4 | 155.0 | 274.7 |
| 60° | 8.6 | 9.6 | 18.2 | 124.0 | 236.2 |
| 62.5° | 5.3 | 7.5 | 18.2 | 96.2 | 197.7 |
| 65° | 4.3 | 5.3 | 18.2 | 68.4 | 158.2 |
| 67.5° | 4.3 | 4.3 | 18.2 | 44.9 | 118.6 |
| 70° | 3.2 | 3.2 | 17.1 | 28.9 | 81.2 |
| 72.5° | 3.2 | 3.2 | 15.0 | 19.2 | 47.0 |
| 75° | 3.2 | 5.3 | 12.8 | 13.9 | 19.2 |
| 77.5° | 3.2 | 8.6 | 11.8 | 11.8 | 10.7 |
| 80° | 3.2 | 8.6 | 10.7 | 9.6 | 9.6 |
| 82.5° | 3.2 | 8.6 | 8.6 | 8.6 | 7.5 |
| 85° | 3.2 | 7.5 | 8.6 | 7.5 | 6.4 |
| 87.5° | 3.2 | 7.5 | 7.5 | 7.5 | 4.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)