

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: P1061830

Luminaire Tested: S125RDR-S850D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061830
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-48)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-S850D950-X4F0-XX-UDD-BVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

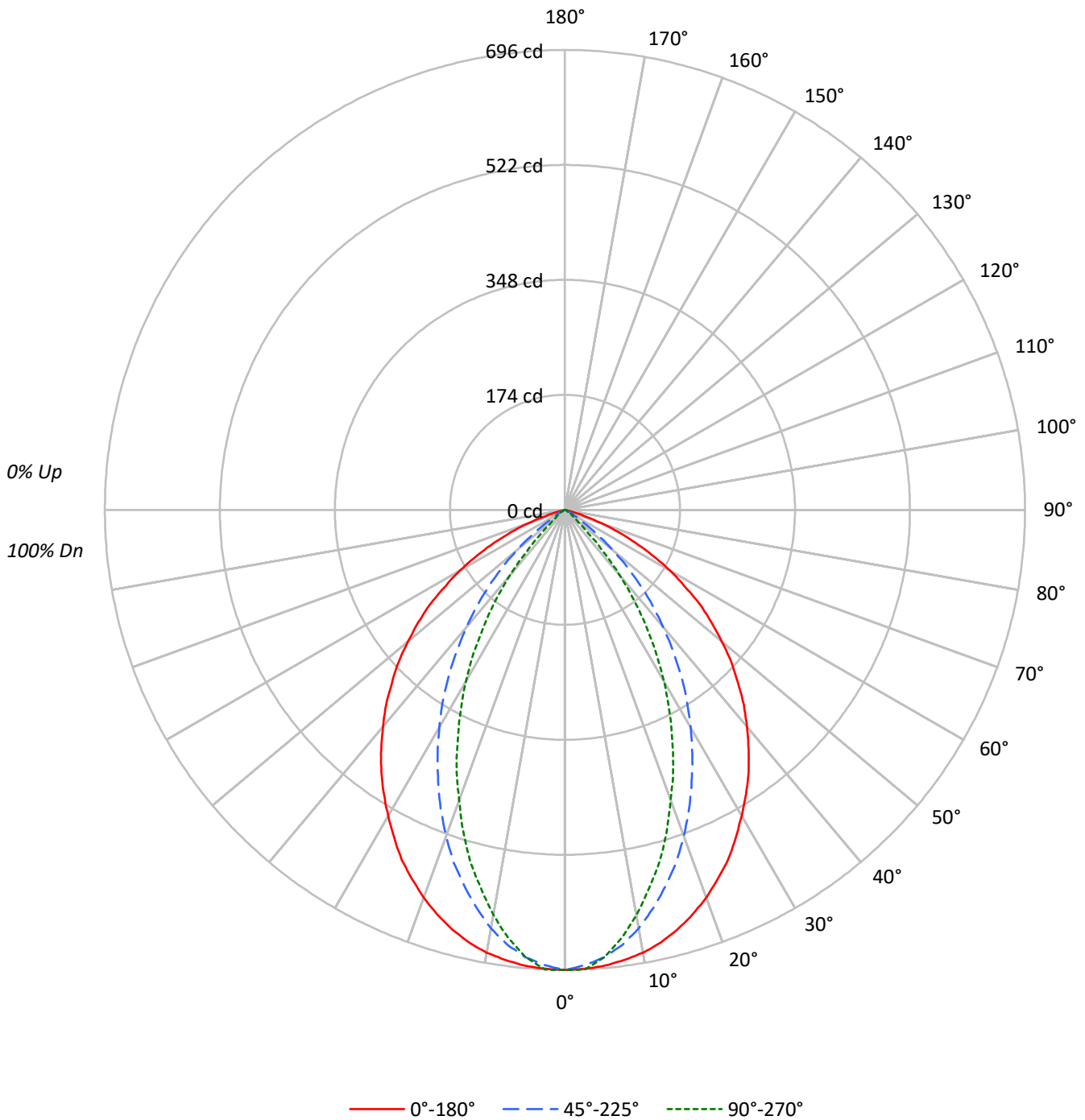
Lumens per Lamp: N/A
Luminaire Lumens: 899.5 lumens
Efficiency: N/A
Efficacy: 34.9 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 97 | 96 | 95 | 94 | 93 | 91 |
| 2 | 105 | 99 | 94 | 90 | 103 | 97 | 93 | 89 | 94 | 90 | 87 | 91 | 88 | 85 | 88 | 86 | 83 | 82 |
| 3 | 98 | 90 | 84 | 80 | 96 | 89 | 83 | 79 | 86 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 75 | 73 |
| 4 | 92 | 83 | 76 | 71 | 90 | 82 | 75 | 70 | 79 | 74 | 70 | 77 | 72 | 69 | 75 | 71 | 68 | 66 |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 68 | 63 | 73 | 67 | 63 | 71 | 66 | 62 | 70 | 65 | 62 | 60 |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 62 | 57 | 67 | 61 | 57 | 66 | 61 | 57 | 65 | 60 | 56 | 54 |
| 7 | 76 | 65 | 58 | 53 | 74 | 64 | 57 | 52 | 63 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 51 | 50 |
| 8 | 71 | 60 | 53 | 48 | 70 | 59 | 53 | 48 | 58 | 52 | 48 | 57 | 52 | 48 | 56 | 51 | 47 | 46 |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 44 | 42 |
| 10 | 64 | 52 | 46 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 49 | 44 | 41 | 39 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4794 | 4794 | 4794 |
| 5° | 4787 | 4698 | 4698 |
| 10° | 4758 | 4496 | 4354 |
| 15° | 4688 | 4197 | 3935 |
| 20° | 4577 | 3850 | 3425 |
| 25° | 4438 | 3448 | 2917 |
| 30° | 4250 | 3024 | 2380 |
| 35° | 4069 | 2579 | 1784 |
| 40° | 3847 | 2081 | 1156 |
| 45° | 3605 | 1575 | 500 |
| 50° | 3316 | 1004 | 187 |
| 55° | 2988 | 441 | 132 |
| 60° | 2530 | 190 | 88 |
| 65° | 1916 | 119 | 46 |
| 70° | 1166 | 56 | 18 |
| 75° | 245 | 24 | 24 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3605 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 64.2 | 7.1 |
| 10°-20° | 167.3 | 18.6 |
| 20°-30° | 214.8 | 23.9 |
| 30°-40° | 202.2 | 22.5 |
| 40°-50° | 141.4 | 15.7 |
| 50°-60° | 75.5 | 8.4 |
| 60°-70° | 30.1 | 3.3 |
| 70°-80° | 3.9 | 0.4 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 446.3 | 49.6 |
| 0°-40° | 648.5 | 72.1 |
| 0°-60° | 865.5 | 96.2 |
| 0°-90° | 899.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 899.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 696 | 696 | 696 | 696 | 696 | |
| 5° | 693 | 691 | 680 | 682 | 680 | 66 |
| 15° | 658 | 637 | 589 | 561 | 552 | 185 |
| 25° | 584 | 533 | 454 | 404 | 384 | 268 |
| 35° | 484 | 407 | 307 | 237 | 212 | 302 |
| 45° | 370 | 277 | 162 | 78 | 51 | 286 |
| 55° | 249 | 152 | 37 | 13 | 11 | 221 |
| 65° | 118 | 47 | 7 | 4 | 3 | 117 |
| 75° | 9 | 3 | 1 | 1 | 1 | 18 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P1061830

CATALOG NUMBER: S125RDR-S850D950-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 696.3 | 696.3 | 696.3 | 696.3 | 696.3 |
| 2.5° | 695.3 | 696.3 | 689.8 | 695.3 | 696.3 |
| 5° | 692.6 | 690.8 | 679.7 | 681.6 | 679.7 |
| 7.5° | 687.1 | 682.5 | 664.1 | 657.7 | 654.0 |
| 10° | 680.6 | 670.5 | 643.0 | 629.2 | 622.8 |
| 12.5° | 670.5 | 655.8 | 617.3 | 596.1 | 587.0 |
| 15° | 657.7 | 636.6 | 588.8 | 561.2 | 552.0 |
| 17.5° | 642.1 | 614.5 | 559.4 | 525.4 | 511.6 |
| 20° | 624.6 | 587.9 | 525.4 | 485.0 | 467.5 |
| 22.5° | 604.4 | 562.2 | 490.5 | 445.5 | 428.0 |
| 25° | 584.2 | 532.8 | 453.8 | 404.2 | 384.0 |
| 27.5° | 559.4 | 502.4 | 417.0 | 363.7 | 341.7 |
| 30° | 534.6 | 472.1 | 380.3 | 322.4 | 299.4 |
| 32.5° | 509.8 | 440.0 | 343.5 | 279.2 | 256.3 |
| 35° | 484.1 | 406.9 | 306.8 | 237.0 | 212.2 |
| 37.5° | 456.5 | 373.9 | 267.3 | 196.6 | 170.9 |
| 40° | 428.0 | 341.7 | 231.5 | 157.1 | 128.6 |
| 42.5° | 400.5 | 309.6 | 195.7 | 118.5 | 87.3 |
| 45° | 370.2 | 277.4 | 161.7 | 78.1 | 51.4 |
| 47.5° | 341.7 | 246.2 | 126.8 | 45.0 | 26.6 |
| 50° | 309.6 | 214.0 | 93.7 | 23.9 | 17.5 |
| 52.5° | 279.2 | 182.8 | 62.5 | 15.6 | 13.8 |
| 55° | 248.9 | 152.5 | 36.7 | 12.9 | 11.0 |
| 57.5° | 214.0 | 123.1 | 20.2 | 10.1 | 8.3 |
| 60° | 183.7 | 96.4 | 13.8 | 7.3 | 6.4 |
| 62.5° | 148.8 | 70.7 | 10.1 | 5.5 | 4.6 |
| 65° | 117.6 | 46.8 | 7.3 | 3.7 | 2.8 |
| 67.5° | 87.3 | 27.6 | 4.6 | 1.8 | 1.8 |
| 70° | 57.9 | 14.7 | 2.8 | 0.9 | 0.9 |
| 72.5° | 30.3 | 6.4 | 1.8 | 0.9 | 0.9 |
| 75° | 9.2 | 2.8 | 0.9 | 0.9 | 0.9 |
| 77.5° | 0.0 | 0.9 | 0.0 | 0.0 | 0.9 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)