

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: P1059008

Luminaire Tested: S123RDRP-S1000D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059008
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: S123RDRP-S1000D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

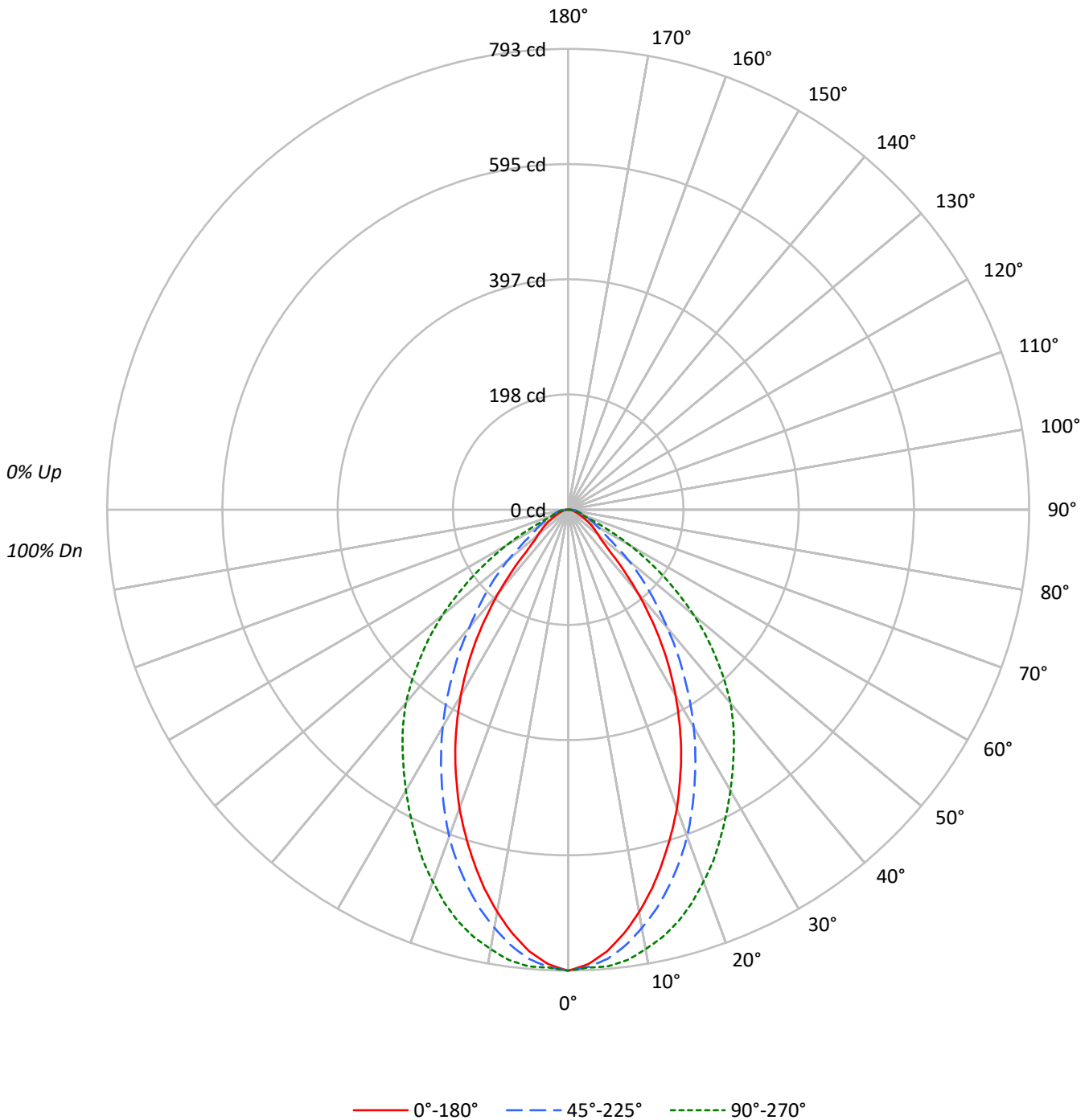
Lumens per Lamp: N/A
Luminaire Lumens: 1062.4 lumens
Efficiency: N/A
Efficacy: 30.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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 | 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° | 9315 | 9315 | 9315 |
| 5° | 8996 | 9146 | 9295 |
| 10° | 8381 | 8713 | 9155 |
| 15° | 7631 | 8151 | 8911 |
| 20° | 6830 | 7481 | 8509 |
| 25° | 5956 | 6676 | 8042 |
| 30° | 5009 | 5857 | 7569 |
| 35° | 3984 | 4964 | 7122 |
| 40° | 2840 | 4047 | 6657 |
| 45° | 1692 | 3250 | 5962 |
| 50° | 1248 | 2475 | 5163 |
| 55° | 1044 | 1683 | 4101 |
| 60° | 843 | 1388 | 2884 |
| 65° | 675 | 1189 | 1545 |
| 70° | 556 | 1033 | 954 |
| 75° | 526 | 998 | 894 |
| 80° | 548 | 1095 | 859 |
| 85° | 781 | 1563 | 1091 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5962 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 72.9 | 6.9 |
| 10°-20° | 189.3 | 17.8 |
| 20°-30° | 241.5 | 22.7 |
| 30°-40° | 227.2 | 21.4 |
| 40°-50° | 163.2 | 15.4 |
| 50°-60° | 93.6 | 8.8 |
| 60°-70° | 42.8 | 4.0 |
| 70°-80° | 21.5 | 2.0 |
| 80°-90° | 10.5 | 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° | 503.6 | 47.4 |
| 0°-40° | 730.8 | 68.8 |
| 0°-60° | 987.6 | 93.0 |
| 0°-90° | 1062.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1062.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 793 | 793 | 793 | 793 | 793 | |
| 5° | 763 | 778 | 776 | 782 | 789 | 71 |
| 15° | 628 | 650 | 670 | 706 | 733 | 175 |
| 25° | 460 | 481 | 515 | 571 | 621 | 210 |
| 35° | 278 | 298 | 346 | 425 | 497 | 172 |
| 45° | 102 | 124 | 196 | 288 | 359 | 85 |
| 55° | 51 | 52 | 82 | 152 | 200 | 46 |
| 65° | 24 | 34 | 43 | 48 | 56 | 24 |
| 75° | 12 | 23 | 22 | 20 | 20 | 13 |
| 85° | 6 | 12 | 12 | 10 | 8 | 6 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 793.3 | 793.3 | 793.3 | 793.3 | 793.3 |
| 2.5° | 782.8 | 794.4 | 787.5 | 787.5 | 788.6 |
| 5° | 763.2 | 778.2 | 775.9 | 781.7 | 788.6 |
| 7.5° | 735.4 | 751.6 | 756.2 | 770.1 | 781.7 |
| 10° | 702.9 | 721.5 | 730.7 | 752.7 | 767.8 |
| 12.5° | 667.0 | 687.9 | 702.9 | 730.7 | 752.7 |
| 15° | 627.7 | 649.7 | 670.5 | 706.4 | 733.0 |
| 17.5° | 587.1 | 609.1 | 635.8 | 677.5 | 708.7 |
| 20° | 546.6 | 568.6 | 598.7 | 642.7 | 680.9 |
| 22.5° | 502.6 | 524.6 | 557.0 | 606.8 | 653.1 |
| 25° | 459.7 | 480.6 | 515.3 | 570.9 | 620.7 |
| 27.5° | 414.6 | 435.4 | 473.6 | 533.9 | 589.4 |
| 30° | 369.4 | 390.3 | 432.0 | 496.8 | 558.2 |
| 32.5° | 324.3 | 343.9 | 389.1 | 460.9 | 526.9 |
| 35° | 277.9 | 297.6 | 346.3 | 425.0 | 496.8 |
| 37.5° | 230.5 | 250.1 | 306.9 | 392.6 | 466.7 |
| 40° | 185.3 | 207.3 | 264.0 | 360.2 | 434.3 |
| 42.5° | 141.3 | 164.4 | 229.3 | 325.4 | 397.2 |
| 45° | 101.9 | 123.9 | 195.7 | 288.4 | 359.0 |
| 47.5° | 77.6 | 89.2 | 165.6 | 251.3 | 321.9 |
| 50° | 68.3 | 69.5 | 135.5 | 217.7 | 282.6 |
| 52.5° | 59.1 | 60.2 | 105.4 | 185.3 | 240.9 |
| 55° | 51.0 | 52.1 | 82.2 | 151.7 | 200.3 |
| 57.5° | 42.8 | 45.2 | 67.2 | 120.4 | 161.0 |
| 60° | 35.9 | 40.5 | 59.1 | 91.5 | 122.8 |
| 62.5° | 29.0 | 37.1 | 51.0 | 67.2 | 88.0 |
| 65° | 24.3 | 33.6 | 42.8 | 47.5 | 55.6 |
| 67.5° | 19.7 | 31.3 | 35.9 | 33.6 | 33.6 |
| 70° | 16.2 | 27.8 | 30.1 | 27.8 | 27.8 |
| 72.5° | 13.9 | 26.6 | 25.5 | 23.2 | 23.2 |
| 75° | 11.6 | 23.2 | 22.0 | 19.7 | 19.7 |
| 77.5° | 10.4 | 19.7 | 18.5 | 17.4 | 16.2 |
| 80° | 8.1 | 16.2 | 16.2 | 15.1 | 12.7 |
| 82.5° | 6.9 | 13.9 | 13.9 | 12.7 | 10.4 |
| 85° | 5.8 | 11.6 | 11.6 | 10.4 | 8.1 |
| 87.5° | 4.6 | 10.4 | 10.4 | 9.3 | 5.8 |
| 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 | 7.74 | 9.06 | 8.11 | 9.37 | 9.69 | 14.96 | 16.28 | 15.32 | 16.59 | 16.91 |
| | 3H | 9.14 | 10.31 | 9.52 | 10.64 | 11.00 | 15.20 | 16.37 | 15.58 | 16.70 | 17.06 |
| | 4H | 9.70 | 10.79 | 10.11 | 11.14 | 11.53 | 15.30 | 16.39 | 15.71 | 16.74 | 17.13 |
| | 6H | 10.16 | 11.16 | 10.58 | 11.53 | 11.93 | 15.41 | 16.41 | 15.83 | 16.78 | 17.18 |
| | 8H | 10.35 | 11.29 | 10.78 | 11.69 | 12.09 | 15.46 | 16.41 | 15.89 | 16.80 | 17.20 |
| | 12H | 10.54 | 11.44 | 10.97 | 11.83 | 12.26 | 15.51 | 16.42 | 15.94 | 16.80 | 17.23 |
| 4H | 2H | 8.81 | 9.90 | 9.21 | 10.25 | 10.64 | 14.92 | 16.01 | 15.32 | 16.36 | 16.74 |
| | 3H | 10.50 | 11.39 | 10.91 | 11.80 | 12.20 | 15.29 | 16.18 | 15.70 | 16.59 | 16.99 |
| | 4H | 11.34 | 12.14 | 11.77 | 12.55 | 13.00 | 15.47 | 16.27 | 15.91 | 16.69 | 17.14 |
| | 6H | 11.99 | 12.69 | 12.46 | 13.13 | 13.60 | 15.70 | 16.39 | 16.16 | 16.83 | 17.30 |
| | 8H | 12.25 | 12.89 | 12.72 | 13.34 | 13.81 | 15.80 | 16.44 | 16.27 | 16.89 | 17.36 |
| | 12H | 12.50 | 13.07 | 12.99 | 13.56 | 14.03 | 15.91 | 16.48 | 16.40 | 16.97 | 17.44 |
| 8H | 4H | 11.77 | 12.42 | 12.24 | 12.86 | 13.34 | 15.52 | 16.16 | 15.99 | 16.61 | 17.08 |
| | 6H | 12.72 | 13.25 | 13.22 | 13.75 | 14.23 | 15.85 | 16.38 | 16.35 | 16.88 | 17.36 |
| | 8H | 13.19 | 13.66 | 13.71 | 14.18 | 14.67 | 16.04 | 16.52 | 16.56 | 17.03 | 17.52 |
| | 12H | 13.67 | 14.09 | 14.18 | 14.58 | 15.15 | 16.27 | 16.69 | 16.79 | 17.19 | 17.76 |
| 12H | 4H | 11.83 | 12.40 | 12.32 | 12.89 | 13.36 | 15.51 | 16.08 | 16.00 | 16.57 | 17.04 |
| | 6H | 12.87 | 13.35 | 13.39 | 13.86 | 14.35 | 15.88 | 16.36 | 16.40 | 16.87 | 17.36 |
| | 8H | 13.46 | 13.88 | 13.98 | 14.38 | 14.95 | 16.14 | 16.56 | 16.65 | 17.05 | 17.63 |