

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1058492

Luminaire Tested: S122RDR-H675D935-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058492
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D935-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

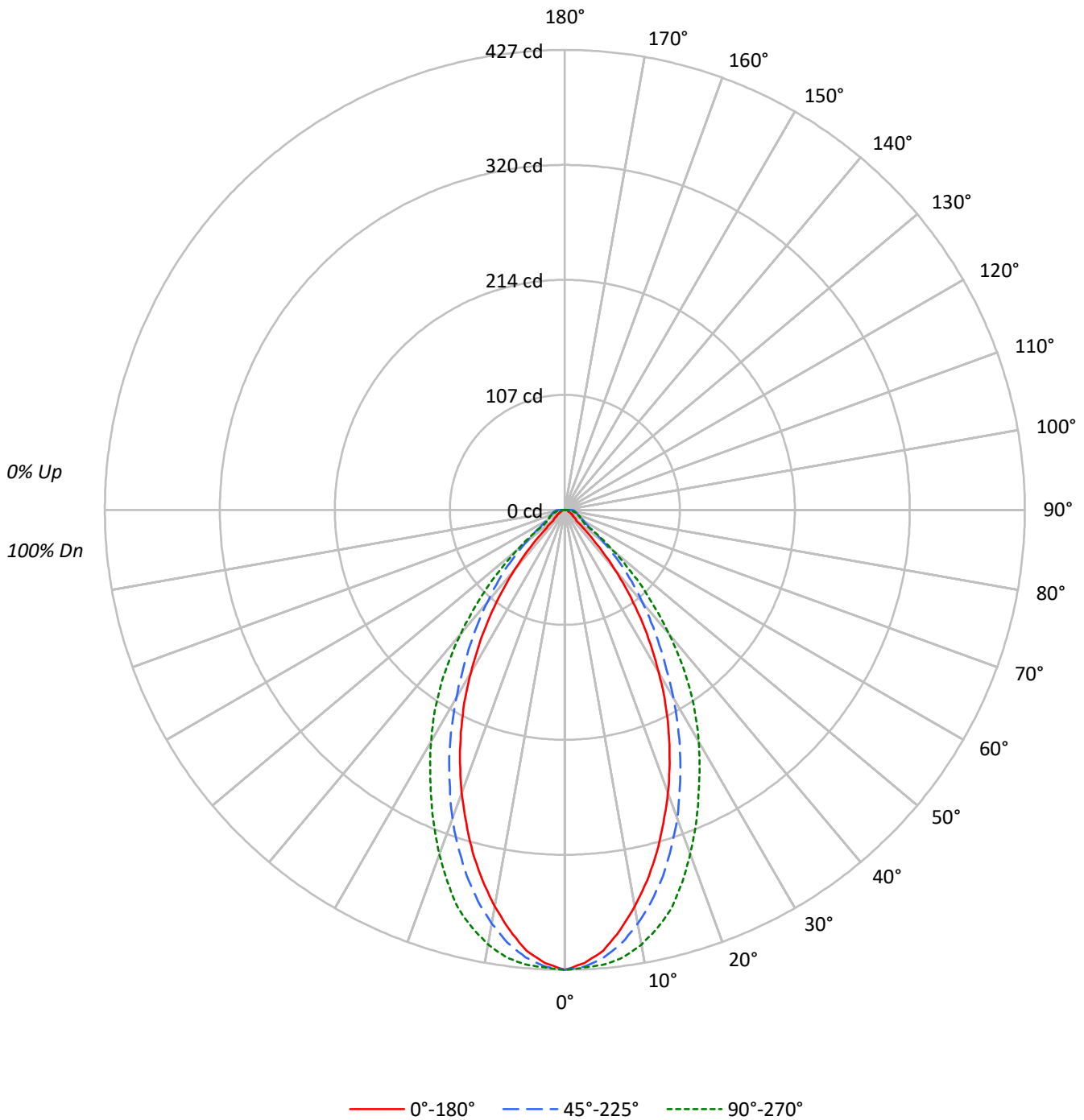
Lumens per Lamp: N/A
Luminaire Lumens: 460.3 lumens
Efficiency: N/A
Efficacy: 19.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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





TEST NUMBER: P1058492

CATALOG NUMBER: S122RDR-H675D935-X4F0-XX-UDD-BVL-S

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7879 | 7879 | 7879 |
| 5° | 7606 | 7726 | 7848 |
| 10° | 7004 | 7309 | 7678 |
| 15° | 6296 | 6719 | 7313 |
| 20° | 5492 | 5991 | 6682 |
| 25° | 4646 | 5163 | 5978 |
| 30° | 3712 | 4287 | 5297 |
| 35° | 2746 | 3447 | 4550 |
| 40° | 1734 | 2700 | 3625 |
| 45° | 684 | 2028 | 2667 |
| 50° | 353 | 1361 | 1645 |
| 55° | 290 | 894 | 737 |
| 60° | 210 | 723 | 664 |
| 65° | 179 | 677 | 677 |
| 70° | 178 | 707 | 664 |
| 75° | 235 | 820 | 699 |
| 80° | 351 | 1041 | 786 |
| 85° | 529 | 1736 | 1037 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 3469 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 39.1 | 8.5 |
| 10°-20° | 98.6 | 21.4 |
| 20°-30° | 117.2 | 25.5 |
| 30°-40° | 97.5 | 21.2 |
| 40°-50° | 54.5 | 11.8 |
| 50°-60° | 22.0 | 4.8 |
| 60°-70° | 14.1 | 3.1 |
| 70°-80° | 10.6 | 2.3 |
| 80°-90° | 6.7 | 1.5 |
| 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° | 254.9 | 55.4 |
| 0°-40° | 352.4 | 76.6 |
| 0°-60° | 428.9 | 93.2 |
| 0°-90° | 460.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 460.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 427 | 427 | 427 | 427 | 427 | |
| 5° | 411 | 418 | 417 | 420 | 424 | 38 |
| 15° | 330 | 339 | 352 | 370 | 383 | 92 |
| 25° | 228 | 237 | 254 | 273 | 294 | 104 |
| 35° | 122 | 133 | 153 | 178 | 202 | 76 |
| 45° | 26 | 44 | 78 | 91 | 102 | 25 |
| 55° | 9 | 19 | 28 | 27 | 23 | 8 |
| 65° | 4 | 16 | 16 | 15 | 16 | 4 |
| 75° | 3 | 12 | 12 | 11 | 10 | 3 |
| 85° | 2 | 7 | 8 | 7 | 5 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 427.0 | 427.0 | 427.0 | 427.0 | 427.0 |
| 2.5° | 421.2 | 427.8 | 424.5 | 424.5 | 425.3 |
| 5° | 410.6 | 418.0 | 417.1 | 420.4 | 423.7 |
| 7.5° | 393.4 | 401.6 | 405.7 | 413.1 | 418.8 |
| 10° | 373.8 | 382.8 | 390.1 | 401.6 | 409.8 |
| 12.5° | 352.5 | 361.5 | 372.2 | 386.9 | 397.5 |
| 15° | 329.6 | 339.4 | 351.7 | 369.7 | 382.8 |
| 17.5° | 304.3 | 314.9 | 328.8 | 348.4 | 362.3 |
| 20° | 279.7 | 290.4 | 305.1 | 324.7 | 340.3 |
| 22.5° | 254.4 | 263.4 | 278.9 | 298.5 | 317.4 |
| 25° | 228.2 | 237.2 | 253.6 | 273.2 | 293.6 |
| 27.5° | 202.0 | 211.0 | 227.4 | 247.8 | 270.7 |
| 30° | 174.2 | 184.0 | 201.2 | 224.1 | 248.6 |
| 32.5° | 148.0 | 157.9 | 175.9 | 201.2 | 225.7 |
| 35° | 121.9 | 133.3 | 153.0 | 178.3 | 202.0 |
| 37.5° | 96.5 | 109.6 | 131.7 | 155.4 | 176.7 |
| 40° | 72.0 | 85.9 | 112.1 | 132.5 | 150.5 |
| 42.5° | 47.4 | 63.8 | 94.1 | 111.2 | 125.1 |
| 45° | 26.2 | 44.2 | 77.7 | 90.8 | 102.2 |
| 47.5° | 14.7 | 28.6 | 61.3 | 72.0 | 78.5 |
| 50° | 12.3 | 21.3 | 47.4 | 54.8 | 57.3 |
| 52.5° | 9.8 | 19.6 | 36.0 | 40.1 | 38.4 |
| 55° | 9.0 | 18.8 | 27.8 | 27.0 | 22.9 |
| 57.5° | 7.4 | 18.8 | 22.1 | 19.6 | 19.6 |
| 60° | 5.7 | 18.0 | 19.6 | 17.2 | 18.0 |
| 62.5° | 4.9 | 17.2 | 18.0 | 16.4 | 16.4 |
| 65° | 4.1 | 16.4 | 15.5 | 14.7 | 15.5 |
| 67.5° | 3.3 | 14.7 | 14.7 | 13.9 | 13.9 |
| 70° | 3.3 | 13.9 | 13.1 | 12.3 | 12.3 |
| 72.5° | 3.3 | 12.3 | 12.3 | 11.5 | 11.5 |
| 75° | 3.3 | 11.5 | 11.5 | 10.6 | 9.8 |
| 77.5° | 3.3 | 9.8 | 10.6 | 9.8 | 9.0 |
| 80° | 3.3 | 9.0 | 9.8 | 9.0 | 7.4 |
| 82.5° | 3.3 | 8.2 | 9.0 | 8.2 | 6.5 |
| 85° | 2.5 | 7.4 | 8.2 | 7.4 | 4.9 |
| 87.5° | 2.5 | 7.4 | 8.2 | 6.5 | 4.1 |
| 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 | 5.54 | 6.76 | 5.90 | 7.07 | 7.38 | 6.60 | 7.82 | 6.97 | 8.13 | 8.45 |
| | 3H | 6.87 | 7.95 | 7.25 | 8.29 | 8.65 | 8.64 | 9.72 | 9.02 | 10.05 | 10.42 |
| | 4H | 7.45 | 8.46 | 7.85 | 8.81 | 9.20 | 9.59 | 10.61 | 10.00 | 10.96 | 11.34 |
| | 6H | 8.02 | 8.95 | 8.44 | 9.32 | 9.72 | 10.54 | 11.47 | 10.96 | 11.85 | 12.24 |
| | 8H | 8.35 | 9.23 | 8.78 | 9.62 | 10.03 | 10.99 | 11.87 | 11.42 | 12.26 | 12.67 |
| | 12H | 8.66 | 9.50 | 9.10 | 9.89 | 10.32 | 11.41 | 12.25 | 11.85 | 12.64 | 13.07 |
| 4H | 2H | 6.49 | 7.50 | 6.90 | 7.86 | 8.24 | 7.28 | 8.29 | 7.68 | 8.64 | 9.02 |
| | 3H | 8.53 | 9.36 | 8.94 | 9.77 | 10.17 | 9.57 | 10.40 | 9.98 | 10.81 | 11.21 |
| | 4H | 9.62 | 10.36 | 10.05 | 10.78 | 11.23 | 10.72 | 11.47 | 11.15 | 11.89 | 12.33 |
| | 6H | 10.49 | 11.14 | 10.95 | 11.58 | 12.05 | 11.89 | 12.54 | 12.35 | 12.99 | 13.45 |
| | 8H | 10.90 | 11.51 | 11.37 | 11.96 | 12.43 | 12.45 | 13.06 | 12.92 | 13.50 | 13.98 |
| | 12H | 11.29 | 11.82 | 11.78 | 12.31 | 12.78 | 12.99 | 13.53 | 13.48 | 14.01 | 14.49 |
| 8H | 4H | 10.39 | 10.99 | 10.86 | 11.44 | 11.91 | 11.27 | 11.87 | 11.74 | 12.32 | 12.79 |
| | 6H | 11.73 | 12.22 | 12.23 | 12.72 | 13.20 | 12.73 | 13.22 | 13.23 | 13.72 | 14.20 |
| | 8H | 12.44 | 12.89 | 12.97 | 13.41 | 13.90 | 13.49 | 13.94 | 14.01 | 14.45 | 14.94 |
| | 12H | 13.14 | 13.54 | 13.66 | 14.03 | 14.61 | 14.28 | 14.67 | 14.79 | 15.17 | 15.74 |
| 12H | 4H | 10.54 | 11.08 | 11.03 | 11.56 | 12.03 | 11.38 | 11.91 | 11.86 | 12.39 | 12.87 |
| | 6H | 12.05 | 12.49 | 12.57 | 13.01 | 13.50 | 12.95 | 13.40 | 13.48 | 13.91 | 14.41 |
| | 8H | 12.95 | 13.35 | 13.47 | 13.84 | 14.41 | 13.86 | 14.25 | 14.38 | 14.75 | 15.32 |