

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: P1055291

Luminaire Tested: S122R3DRP-H1005D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055291
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DRP-H1005D927-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

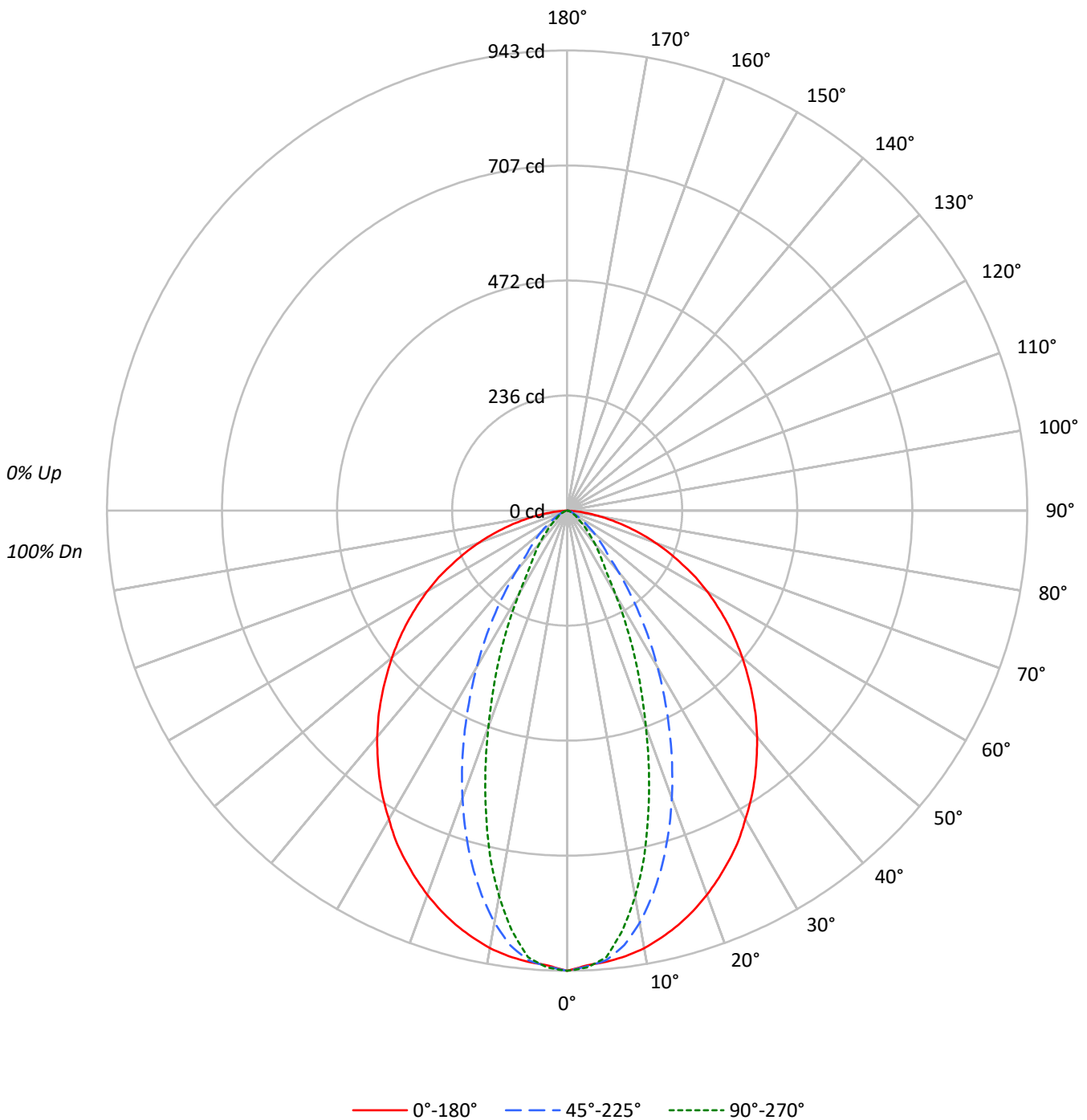
Lumens per Lamp: N/A
Luminaire Lumens: 1080.8 lumens
Efficiency: N/A
Efficacy: 29.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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

TEST NUMBER: P1055291

CATALOG NUMBER: S122R3DRP-H1005D927-X4F0-XX-UDD-F-S

Luminous Intensity Polar Plot





TEST NUMBER: P1055291

CATALOG NUMBER: S122R3DRP-H1005D927-X4F0-XX-UDD-F-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 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 92 | 90 | | | | 90 |
| 2 | 104 | 98 | 93 | 88 | 102 | 96 | 91 | 87 | 93 | 89 | 85 | 90 | 86 | 83 | 87 | 84 | 82 | 80 | | | | 80 |
| 3 | 97 | 89 | 83 | 78 | 95 | 88 | 82 | 77 | 85 | 80 | 76 | 82 | 78 | 74 | 80 | 76 | 73 | 71 | | | | 71 |
| 4 | 91 | 81 | 74 | 69 | 89 | 80 | 74 | 69 | 78 | 72 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 | | | | 64 |
| 5 | 85 | 75 | 67 | 62 | 83 | 74 | 67 | 62 | 72 | 66 | 61 | 70 | 65 | 61 | 68 | 64 | 60 | 58 | | | | 58 |
| 6 | 80 | 69 | 62 | 56 | 78 | 68 | 61 | 56 | 66 | 60 | 56 | 65 | 59 | 55 | 63 | 59 | 55 | 53 | | | | 53 |
| 7 | 75 | 64 | 57 | 52 | 74 | 63 | 56 | 51 | 62 | 56 | 51 | 60 | 55 | 51 | 59 | 54 | 50 | 49 | | | | 49 |
| 8 | 71 | 59 | 52 | 47 | 69 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 47 | 55 | 50 | 47 | 45 | | | | 45 |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 48 | 44 | 54 | 48 | 44 | 53 | 47 | 43 | 52 | 47 | 43 | 42 | | | | 42 |
| 10 | 63 | 52 | 45 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 44 | 40 | 49 | 44 | 40 | 39 | | | | 39 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 17868 | 17868 | 17868 |
| 5° | 17649 | 17584 | 17474 |
| 10° | 17520 | 16497 | 15452 |
| 15° | 17251 | 14758 | 12604 |
| 20° | 16894 | 12652 | 9506 |
| 25° | 16477 | 10364 | 6790 |
| 30° | 15979 | 8090 | 4323 |
| 35° | 15503 | 5935 | 2886 |
| 40° | 14978 | 4002 | 2171 |
| 45° | 14399 | 2819 | 1549 |
| 50° | 13797 | 2146 | 1091 |
| 55° | 13209 | 1490 | 803 |
| 60° | 12569 | 1008 | 656 |
| 65° | 11656 | 726 | 520 |
| 70° | 10625 | 576 | 449 |
| 75° | 9223 | 505 | 337 |
| 80° | 7310 | 382 | 382 |
| 85° | 4022 | 500 | 261 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14399 cd/sqm



TEST NUMBER: P1055291

CATALOG NUMBER: S122R3DRP-H1005D927-X4F0-XX-UDD-F-S

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 86.2 | 8.0 |
| 10°-20° | 211.6 | 19.6 |
| 20°-30° | 241.8 | 22.4 |
| 30°-40° | 205.0 | 19.0 |
| 40°-50° | 153.0 | 14.2 |
| 50°-60° | 98.9 | 9.1 |
| 60°-70° | 55.1 | 5.1 |
| 70°-80° | 24.2 | 2.2 |
| 80°-90° | 5.0 | 0.5 |
| 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° | 539.6 | 49.9 |
| 0°-40° | 744.6 | 68.9 |
| 0°-60° | 996.4 | 92.2 |
| 0°-90° | 1080.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1080.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 943 | 943 | 943 | 943 | 943 | |
| 5° | 928 | 940 | 925 | 915 | 919 | 88 |
| 15° | 880 | 858 | 752 | 673 | 643 | 248 |
| 25° | 788 | 696 | 496 | 363 | 325 | 363 |
| 35° | 670 | 505 | 257 | 140 | 125 | 419 |
| 45° | 537 | 319 | 105 | 68 | 58 | 415 |
| 55° | 400 | 151 | 45 | 28 | 24 | 358 |
| 65° | 260 | 56 | 16 | 13 | 12 | 258 |
| 75° | 126 | 12 | 7 | 6 | 5 | 134 |
| 85° | 18 | 1 | 2 | 1 | 1 | 26 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1055291

CATALOG NUMBER: S122R3DRP-H1005D927-X4F0-XX-UDD-F-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 943.1 | 943.1 | 943.1 | 943.1 | 943.1 |
| 2.5° | 932.6 | 946.5 | 935.0 | 935.0 | 937.3 |
| 5° | 928.0 | 939.6 | 924.6 | 915.3 | 918.8 |
| 7.5° | 921.1 | 929.2 | 898.0 | 870.2 | 867.9 |
| 10° | 910.7 | 914.2 | 857.5 | 814.8 | 803.2 |
| 12.5° | 895.7 | 887.6 | 807.8 | 747.7 | 728.1 |
| 15° | 879.5 | 857.5 | 752.4 | 672.6 | 642.6 |
| 17.5° | 859.8 | 820.5 | 691.1 | 594.0 | 557.0 |
| 20° | 837.9 | 782.4 | 627.5 | 512.0 | 471.5 |
| 22.5° | 813.6 | 739.6 | 561.7 | 434.5 | 394.1 |
| 25° | 788.2 | 695.7 | 495.8 | 362.9 | 324.8 |
| 27.5° | 761.6 | 649.5 | 431.1 | 298.2 | 256.6 |
| 30° | 730.4 | 602.1 | 369.8 | 235.8 | 197.6 |
| 32.5° | 701.5 | 552.4 | 313.2 | 182.6 | 150.2 |
| 35° | 670.3 | 505.0 | 256.6 | 139.8 | 124.8 |
| 37.5° | 637.9 | 457.7 | 206.9 | 117.9 | 105.2 |
| 40° | 605.6 | 410.3 | 161.8 | 99.4 | 87.8 |
| 42.5° | 572.1 | 364.0 | 124.8 | 83.2 | 71.7 |
| 45° | 537.4 | 319.0 | 105.2 | 68.2 | 57.8 |
| 47.5° | 502.7 | 273.9 | 87.8 | 54.3 | 46.2 |
| 50° | 468.1 | 231.1 | 72.8 | 42.8 | 37.0 |
| 52.5° | 434.5 | 190.7 | 57.8 | 34.7 | 30.0 |
| 55° | 399.9 | 151.4 | 45.1 | 27.7 | 24.3 |
| 57.5° | 365.2 | 117.9 | 34.7 | 23.1 | 20.8 |
| 60° | 331.7 | 89.0 | 26.6 | 18.5 | 17.3 |
| 62.5° | 297.0 | 71.7 | 20.8 | 15.0 | 13.9 |
| 65° | 260.0 | 55.5 | 16.2 | 12.7 | 11.6 |
| 67.5° | 226.5 | 40.4 | 12.7 | 10.4 | 9.2 |
| 70° | 191.8 | 27.7 | 10.4 | 9.2 | 8.1 |
| 72.5° | 158.3 | 17.3 | 8.1 | 6.9 | 6.9 |
| 75° | 126.0 | 11.6 | 6.9 | 5.8 | 4.6 |
| 77.5° | 95.9 | 6.9 | 4.6 | 4.6 | 3.5 |
| 80° | 67.0 | 4.6 | 3.5 | 3.5 | 3.5 |
| 82.5° | 41.6 | 3.5 | 2.3 | 2.3 | 2.3 |
| 85° | 18.5 | 1.2 | 2.3 | 1.2 | 1.2 |
| 87.5° | 3.5 | 1.2 | 1.2 | 1.2 | 1.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P1055291

CATALOG NUMBER: S122R3DRP-H1005D927-X4F0-XX-UDD-F-S

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 | 18.27 | 19.59 | 18.63 | 19.90 | 20.22 | 4.57 | 5.89 | 4.94 | 6.21 | 6.52 |
| | 3H | 20.74 | 21.91 | 21.12 | 22.24 | 22.60 | 5.42 | 6.59 | 5.80 | 6.92 | 7.29 |
| | 4H | 21.69 | 22.79 | 22.10 | 23.14 | 23.52 | 5.69 | 6.79 | 6.10 | 7.14 | 7.52 |
| | 6H | 22.38 | 23.38 | 22.80 | 23.75 | 24.15 | 5.89 | 6.89 | 6.31 | 7.26 | 7.66 |
| | 8H | 22.58 | 23.53 | 23.01 | 23.92 | 24.32 | 5.97 | 6.92 | 6.40 | 7.31 | 7.71 |
| | 12H | 22.66 | 23.57 | 23.09 | 23.95 | 24.38 | 5.99 | 6.90 | 6.42 | 7.28 | 7.71 |
| 4H | 2H | 18.05 | 19.15 | 18.46 | 19.50 | 19.88 | 5.15 | 6.24 | 5.55 | 6.59 | 6.97 |
| | 3H | 20.54 | 21.43 | 20.95 | 21.83 | 22.24 | 6.18 | 7.07 | 6.59 | 7.47 | 7.88 |
| | 4H | 21.48 | 22.28 | 21.91 | 22.70 | 23.14 | 6.54 | 7.34 | 6.98 | 7.76 | 8.21 |
| | 6H | 22.23 | 22.92 | 22.70 | 23.37 | 23.84 | 6.84 | 7.53 | 7.30 | 7.98 | 8.44 |
| | 8H | 22.48 | 23.12 | 22.95 | 23.57 | 24.04 | 6.94 | 7.58 | 7.41 | 8.03 | 8.50 |
| | 12H | 22.61 | 23.18 | 23.09 | 23.66 | 24.13 | 6.99 | 7.56 | 7.47 | 8.04 | 8.51 |
| 8H | 4H | 21.35 | 21.99 | 21.82 | 22.44 | 22.91 | 6.92 | 7.56 | 7.38 | 8.01 | 8.48 |
| | 6H | 22.09 | 22.61 | 22.59 | 23.11 | 23.59 | 7.28 | 7.81 | 7.78 | 8.30 | 8.78 |
| | 8H | 22.33 | 22.80 | 22.85 | 23.32 | 23.81 | 7.42 | 7.89 | 7.94 | 8.41 | 8.90 |
| | 12H | 22.48 | 22.89 | 23.00 | 23.39 | 23.96 | 7.51 | 7.92 | 8.02 | 8.42 | 8.99 |
| 12H | 4H | 21.30 | 21.87 | 21.79 | 22.35 | 22.83 | 7.04 | 7.61 | 7.52 | 8.09 | 8.56 |
| | 6H | 22.02 | 22.50 | 22.55 | 23.01 | 23.50 | 7.40 | 7.87 | 7.92 | 8.39 | 8.88 |
| | 8H | 22.29 | 22.70 | 22.80 | 23.20 | 23.77 | 7.58 | 7.99 | 8.09 | 8.49 | 9.06 |