

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: P1058087

Luminaire Tested: S122RDRP-S675D935-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058087
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: S122RDRP-S675D935-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

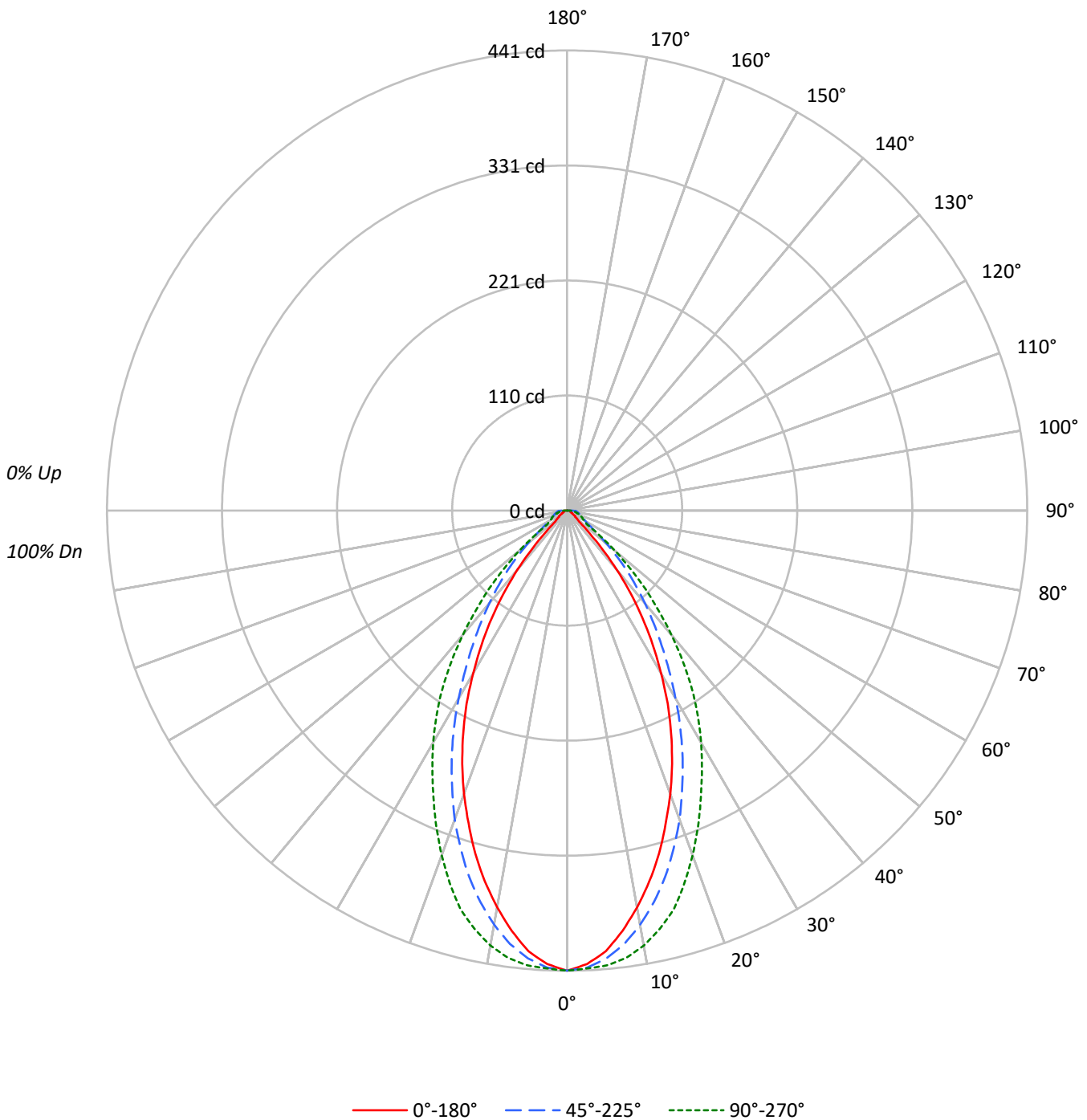
Lumens per Lamp: N/A
Luminaire Lumens: 475.3 lumens
Efficiency: N/A
Efficacy: 18.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
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 | 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° | 8136 | 8136 | 8136 |
| 5° | 7854 | 7980 | 8104 |
| 10° | 7233 | 7549 | 7930 |
| 15° | 6503 | 6938 | 7552 |
| 20° | 5673 | 6188 | 6900 |
| 25° | 4799 | 5330 | 6173 |
| 30° | 3833 | 4428 | 5472 |
| 35° | 2836 | 3557 | 4699 |
| 40° | 1790 | 2787 | 3743 |
| 45° | 705 | 2093 | 2756 |
| 50° | 365 | 1407 | 1697 |
| 55° | 299 | 923 | 759 |
| 60° | 218 | 749 | 686 |
| 65° | 183 | 699 | 699 |
| 70° | 183 | 728 | 685 |
| 75° | 242 | 841 | 720 |
| 80° | 361 | 1073 | 808 |
| 85° | 529 | 1778 | 1080 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 3553 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 40.3 | 8.5 |
| 10°-20° | 101.9 | 21.4 |
| 20°-30° | 121.0 | 25.5 |
| 30°-40° | 100.7 | 21.2 |
| 40°-50° | 56.2 | 11.8 |
| 50°-60° | 22.7 | 4.8 |
| 60°-70° | 14.5 | 3.1 |
| 70°-80° | 10.9 | 2.3 |
| 80°-90° | 6.9 | 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° | 263.2 | 55.4 |
| 0°-40° | 363.9 | 76.6 |
| 0°-60° | 442.9 | 93.2 |
| 0°-90° | 475.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 475.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 441 | 441 | 441 | 441 | 441 | |
| 5° | 424 | 432 | 431 | 434 | 438 | 39 |
| 15° | 340 | 350 | 363 | 382 | 395 | 95 |
| 25° | 236 | 245 | 262 | 282 | 303 | 107 |
| 35° | 126 | 138 | 158 | 184 | 209 | 78 |
| 45° | 27 | 46 | 80 | 94 | 106 | 25 |
| 55° | 9 | 19 | 29 | 28 | 24 | 8 |
| 65° | 4 | 17 | 16 | 15 | 16 | 4 |
| 75° | 3 | 12 | 12 | 11 | 10 | 4 |
| 85° | 2 | 8 | 8 | 8 | 5 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 440.9 | 440.9 | 440.9 | 440.9 | 440.9 |
| 2.5° | 435.0 | 441.7 | 438.4 | 438.4 | 439.2 |
| 5° | 424.0 | 431.6 | 430.8 | 434.1 | 437.5 |
| 7.5° | 406.3 | 414.7 | 418.9 | 426.5 | 432.5 |
| 10° | 386.0 | 395.3 | 402.9 | 414.7 | 423.2 |
| 12.5° | 364.0 | 373.3 | 384.3 | 399.5 | 410.5 |
| 15° | 340.4 | 350.5 | 363.2 | 381.8 | 395.3 |
| 17.5° | 314.2 | 325.2 | 339.5 | 359.8 | 374.2 |
| 20° | 288.9 | 299.8 | 315.1 | 335.3 | 351.4 |
| 22.5° | 262.7 | 272.0 | 288.0 | 308.3 | 327.7 |
| 25° | 235.7 | 244.9 | 261.8 | 282.1 | 303.2 |
| 27.5° | 208.6 | 217.9 | 234.8 | 255.9 | 279.6 |
| 30° | 179.9 | 190.0 | 207.8 | 231.4 | 256.8 |
| 32.5° | 152.9 | 163.0 | 181.6 | 207.8 | 233.1 |
| 35° | 125.9 | 137.7 | 157.9 | 184.1 | 208.6 |
| 37.5° | 99.7 | 113.2 | 136.0 | 160.5 | 182.4 |
| 40° | 74.3 | 88.7 | 115.7 | 136.8 | 155.4 |
| 42.5° | 49.0 | 65.9 | 97.1 | 114.9 | 129.2 |
| 45° | 27.0 | 45.6 | 80.2 | 93.8 | 105.6 |
| 47.5° | 15.2 | 29.6 | 63.3 | 74.3 | 81.1 |
| 50° | 12.7 | 22.0 | 49.0 | 56.6 | 59.1 |
| 52.5° | 10.1 | 20.3 | 37.2 | 41.4 | 39.7 |
| 55° | 9.3 | 19.4 | 28.7 | 27.9 | 23.6 |
| 57.5° | 7.6 | 19.4 | 22.8 | 20.3 | 20.3 |
| 60° | 5.9 | 18.6 | 20.3 | 17.7 | 18.6 |
| 62.5° | 5.1 | 17.7 | 18.6 | 16.9 | 16.9 |
| 65° | 4.2 | 16.9 | 16.0 | 15.2 | 16.0 |
| 67.5° | 3.4 | 15.2 | 15.2 | 14.4 | 14.4 |
| 70° | 3.4 | 14.4 | 13.5 | 12.7 | 12.7 |
| 72.5° | 3.4 | 12.7 | 12.7 | 11.8 | 11.8 |
| 75° | 3.4 | 11.8 | 11.8 | 11.0 | 10.1 |
| 77.5° | 3.4 | 10.1 | 11.0 | 10.1 | 9.3 |
| 80° | 3.4 | 9.3 | 10.1 | 9.3 | 7.6 |
| 82.5° | 3.4 | 8.4 | 9.3 | 8.4 | 6.8 |
| 85° | 2.5 | 7.6 | 8.4 | 7.6 | 5.1 |
| 87.5° | 2.5 | 7.6 | 8.4 | 6.8 | 4.2 |
| 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 | 5.64 | 6.86 | 6.01 | 7.17 | 7.49 | 6.73 | 7.95 | 7.10 | 8.26 | 8.58 |
| | 3H | 6.98 | 8.07 | 7.36 | 8.40 | 8.76 | 8.77 | 9.85 | 9.15 | 10.18 | 10.55 |
| | 4H | 7.56 | 8.57 | 7.96 | 8.92 | 9.30 | 9.72 | 10.73 | 10.12 | 11.08 | 11.46 |
| | 6H | 8.13 | 9.06 | 8.54 | 9.43 | 9.82 | 10.66 | 11.59 | 11.08 | 11.96 | 12.36 |
| | 8H | 8.45 | 9.33 | 8.88 | 9.72 | 10.13 | 11.11 | 11.99 | 11.54 | 12.38 | 12.79 |
| | 12H | 8.76 | 9.60 | 9.19 | 9.98 | 10.41 | 11.54 | 12.38 | 11.97 | 12.76 | 13.19 |
| 4H | 2H | 6.60 | 7.61 | 7.01 | 7.96 | 8.35 | 7.40 | 8.41 | 7.81 | 8.76 | 9.15 |
| | 3H | 8.64 | 9.47 | 9.05 | 9.88 | 10.28 | 9.69 | 10.52 | 10.10 | 10.93 | 11.33 |
| | 4H | 9.72 | 10.47 | 10.15 | 10.89 | 11.33 | 10.84 | 11.58 | 11.27 | 12.00 | 12.45 |
| | 6H | 10.59 | 11.24 | 11.06 | 11.69 | 12.15 | 12.00 | 12.65 | 12.47 | 13.10 | 13.57 |
| | 8H | 11.00 | 11.61 | 11.47 | 12.06 | 12.53 | 12.57 | 13.17 | 13.04 | 13.62 | 14.09 |
| | 12H | 11.38 | 11.91 | 11.87 | 12.40 | 12.87 | 13.11 | 13.65 | 13.60 | 14.13 | 14.61 |
| 8H | 4H | 10.49 | 11.09 | 10.96 | 11.54 | 12.01 | 11.39 | 11.99 | 11.86 | 12.44 | 12.91 |
| | 6H | 11.83 | 12.33 | 12.33 | 12.82 | 13.30 | 12.84 | 13.33 | 13.34 | 13.83 | 14.31 |
| | 8H | 12.54 | 12.99 | 13.07 | 13.50 | 14.00 | 13.60 | 14.05 | 14.12 | 14.56 | 15.06 |
| | 12H | 13.23 | 13.62 | 13.75 | 14.12 | 14.69 | 14.39 | 14.78 | 14.91 | 15.28 | 15.85 |
| 12H | 4H | 10.64 | 11.18 | 11.13 | 11.66 | 12.14 | 11.49 | 12.03 | 11.98 | 12.51 | 12.99 |
| | 6H | 12.15 | 12.60 | 12.67 | 13.11 | 13.61 | 13.06 | 13.51 | 13.59 | 14.03 | 14.52 |
| | 8H | 13.05 | 13.44 | 13.57 | 13.94 | 14.51 | 13.97 | 14.36 | 14.48 | 14.86 | 15.43 |