

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: P1058540

Luminaire Tested: S122RDRP-H865D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058540
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H865D840-X4F0-XX-UDD-SVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

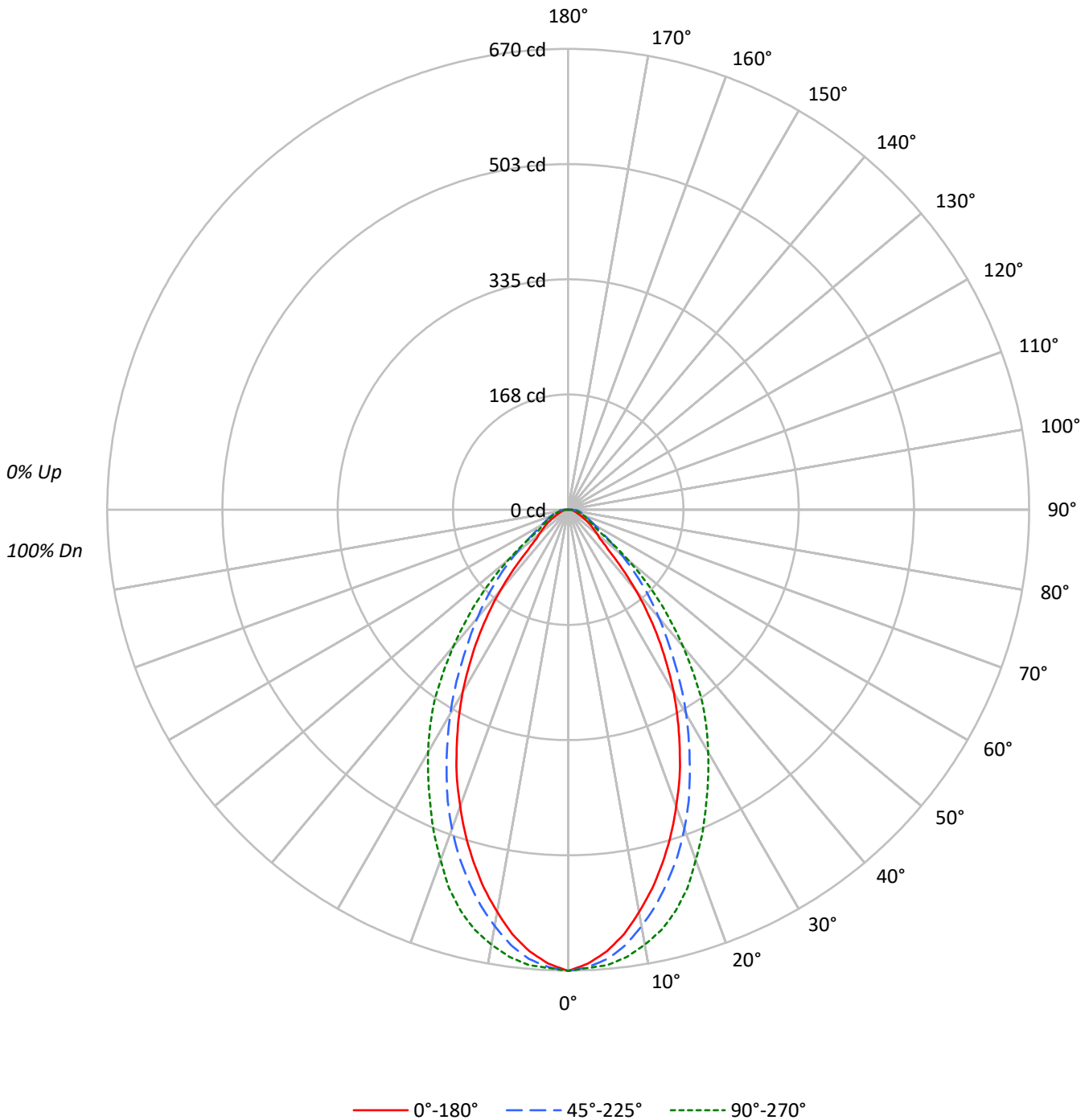
Lumens per Lamp: N/A
Luminaire Lumens: 808.8 lumens
Efficiency: N/A
Efficacy: 25.9 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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 | 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 | 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 | 75 | 80 | 77 | 74 | 72 | | | | | 72 | | | |
| 4 | 91 | 82 | 75 | 70 | 89 | 81 | 74 | 69 | 78 | 73 | 68 | 76 | 71 | 68 | 74 | 70 | 67 | 65 | | | | | 65 | | | |
| 5 | 86 | 75 | 68 | 63 | 84 | 74 | 68 | 63 | 72 | 66 | 62 | 71 | 65 | 61 | 69 | 64 | 61 | 59 | | | | | 59 | | | |
| 6 | 80 | 70 | 62 | 57 | 79 | 69 | 62 | 57 | 67 | 61 | 57 | 66 | 60 | 56 | 64 | 59 | 56 | 54 | | | | | 54 | | | |
| 7 | 76 | 65 | 57 | 52 | 74 | 64 | 57 | 52 | 62 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 51 | 50 | | | | | 50 | | | |
| 8 | 71 | 60 | 53 | 48 | 70 | 59 | 53 | 48 | 58 | 52 | 48 | 57 | 52 | 48 | 56 | 51 | 47 | 46 | | | | | 46 | | | |
| 9 | 67 | 56 | 49 | 45 | 66 | 56 | 49 | 44 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 42 | | | | | 42 | | | |
| 10 | 64 | 53 | 46 | 41 | 63 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 50 | 45 | 41 | 39 | | | | | 39 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 12372 | 12372 | 12372 |
| 5° | 11938 | 12144 | 12305 |
| 10° | 11126 | 11520 | 12029 |
| 15° | 10138 | 10681 | 11533 |
| 20° | 9011 | 9693 | 10639 |
| 25° | 7808 | 8513 | 9647 |
| 30° | 6537 | 7302 | 8672 |
| 35° | 5154 | 6046 | 7634 |
| 40° | 3695 | 4945 | 6258 |
| 45° | 2163 | 3907 | 4843 |
| 50° | 1562 | 2842 | 3267 |
| 55° | 1313 | 2030 | 1711 |
| 60° | 1052 | 1642 | 1461 |
| 65° | 865 | 1458 | 1349 |
| 70° | 734 | 1403 | 1268 |
| 75° | 706 | 1497 | 1233 |
| 80° | 786 | 1838 | 1318 |
| 85° | 1313 | 2879 | 1842 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4843 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 61.4 | 7.6 |
| 10°-20° | 157.4 | 19.5 |
| 20°-30° | 193.4 | 23.9 |
| 30°-40° | 171.0 | 21.1 |
| 40°-50° | 109.1 | 13.5 |
| 50°-60° | 53.3 | 6.6 |
| 60°-70° | 31.7 | 3.9 |
| 70°-80° | 20.3 | 2.5 |
| 80°-90° | 11.2 | 1.4 |
| 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° | 412.3 | 51.0 |
| 0°-40° | 583.3 | 72.1 |
| 0°-60° | 745.7 | 92.2 |
| 0°-90° | 808.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 808.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 670 | 670 | 670 | 670 | 670 | |
| 5° | 644 | 658 | 656 | 658 | 664 | 60 |
| 15° | 531 | 546 | 559 | 584 | 604 | 148 |
| 25° | 384 | 397 | 418 | 444 | 474 | 175 |
| 35° | 229 | 241 | 268 | 306 | 339 | 142 |
| 45° | 83 | 106 | 150 | 168 | 186 | 70 |
| 55° | 41 | 54 | 63 | 59 | 53 | 37 |
| 65° | 20 | 37 | 33 | 31 | 31 | 20 |
| 75° | 10 | 22 | 21 | 19 | 17 | 11 |
| 85° | 6 | 12 | 14 | 12 | 9 | 6 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 670.5 | 670.5 | 670.5 | 670.5 | 670.5 |
| 2.5° | 660.6 | 672.9 | 665.5 | 665.5 | 666.8 |
| 5° | 644.5 | 658.1 | 655.6 | 658.1 | 664.3 |
| 7.5° | 622.2 | 635.8 | 638.3 | 648.2 | 655.6 |
| 10° | 593.8 | 607.4 | 614.8 | 630.9 | 642.0 |
| 12.5° | 564.1 | 577.7 | 588.8 | 609.9 | 625.9 |
| 15° | 530.7 | 545.5 | 559.1 | 583.9 | 603.7 |
| 17.5° | 496.0 | 510.9 | 528.2 | 552.9 | 576.5 |
| 20° | 458.9 | 472.5 | 493.6 | 517.1 | 541.8 |
| 22.5° | 423.1 | 435.4 | 457.7 | 480.0 | 509.7 |
| 25° | 383.5 | 397.1 | 418.1 | 444.1 | 473.8 |
| 27.5° | 345.1 | 358.7 | 379.8 | 409.5 | 440.4 |
| 30° | 306.8 | 319.2 | 342.7 | 373.6 | 407.0 |
| 32.5° | 267.2 | 279.6 | 305.5 | 338.9 | 373.6 |
| 35° | 228.8 | 241.2 | 268.4 | 305.5 | 338.9 |
| 37.5° | 190.5 | 204.1 | 235.0 | 269.7 | 298.1 |
| 40° | 153.4 | 169.5 | 205.3 | 235.0 | 259.8 |
| 42.5° | 116.3 | 138.5 | 176.9 | 201.6 | 221.4 |
| 45° | 82.9 | 106.4 | 149.7 | 168.2 | 185.6 |
| 47.5° | 63.1 | 81.6 | 123.7 | 137.3 | 148.4 |
| 50° | 54.4 | 66.8 | 99.0 | 108.9 | 113.8 |
| 52.5° | 47.0 | 59.4 | 79.2 | 82.9 | 80.4 |
| 55° | 40.8 | 54.4 | 63.1 | 59.4 | 53.2 |
| 57.5° | 34.6 | 50.7 | 52.0 | 44.5 | 45.8 |
| 60° | 28.5 | 45.8 | 44.5 | 38.3 | 39.6 |
| 62.5° | 23.5 | 42.1 | 38.3 | 34.6 | 34.6 |
| 65° | 19.8 | 37.1 | 33.4 | 30.9 | 30.9 |
| 67.5° | 16.1 | 33.4 | 29.7 | 27.2 | 27.2 |
| 70° | 13.6 | 29.7 | 26.0 | 23.5 | 23.5 |
| 72.5° | 12.4 | 26.0 | 23.5 | 21.0 | 21.0 |
| 75° | 9.9 | 22.3 | 21.0 | 18.6 | 17.3 |
| 77.5° | 8.7 | 18.6 | 18.6 | 17.3 | 14.8 |
| 80° | 7.4 | 16.1 | 17.3 | 14.8 | 12.4 |
| 82.5° | 7.4 | 14.8 | 14.8 | 13.6 | 9.9 |
| 85° | 6.2 | 12.4 | 13.6 | 12.4 | 8.7 |
| 87.5° | 3.7 | 11.1 | 11.1 | 9.9 | 6.2 |
| 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 | 10.76 | 12.04 | 11.13 | 12.36 | 12.67 | 10.29 | 11.57 | 10.65 | 11.88 | 12.20 |
| | 3H | 11.94 | 13.08 | 12.32 | 13.41 | 13.78 | 11.85 | 12.99 | 12.23 | 13.32 | 13.69 |
| | 4H | 12.37 | 13.44 | 12.78 | 13.79 | 14.17 | 12.54 | 13.60 | 12.94 | 13.95 | 14.33 |
| | 6H | 12.72 | 13.70 | 13.14 | 14.07 | 14.46 | 13.18 | 14.16 | 13.60 | 14.53 | 14.92 |
| | 8H | 12.91 | 13.84 | 13.35 | 14.23 | 14.64 | 13.47 | 14.40 | 13.90 | 14.79 | 15.19 |
| | 12H | 13.13 | 14.02 | 13.57 | 14.40 | 14.83 | 13.79 | 14.68 | 14.22 | 15.06 | 15.49 |
| 4H | 2H | 11.27 | 12.33 | 11.67 | 12.68 | 13.06 | 10.89 | 11.95 | 11.29 | 12.30 | 12.69 |
| | 3H | 12.92 | 13.79 | 13.33 | 14.19 | 14.60 | 12.69 | 13.56 | 13.10 | 13.97 | 14.37 |
| | 4H | 13.68 | 14.47 | 14.12 | 14.89 | 15.33 | 13.53 | 14.32 | 13.97 | 14.74 | 15.18 |
| | 6H | 14.28 | 14.96 | 14.75 | 15.41 | 15.88 | 14.39 | 15.07 | 14.85 | 15.51 | 15.98 |
| | 8H | 14.58 | 15.22 | 15.05 | 15.67 | 16.14 | 14.78 | 15.41 | 15.25 | 15.86 | 16.33 |
| | 12H | 14.90 | 15.46 | 15.38 | 15.94 | 16.42 | 15.22 | 15.78 | 15.70 | 16.26 | 16.74 |
| 8H | 4H | 14.10 | 14.74 | 14.57 | 15.18 | 15.65 | 13.99 | 14.63 | 14.46 | 15.07 | 15.55 |
| | 6H | 15.05 | 15.57 | 15.55 | 16.07 | 16.55 | 15.10 | 15.62 | 15.60 | 16.12 | 16.60 |
| | 8H | 15.59 | 16.06 | 16.11 | 16.58 | 17.07 | 15.68 | 16.15 | 16.20 | 16.66 | 17.15 |
| | 12H | 16.16 | 16.57 | 16.67 | 17.07 | 17.64 | 16.35 | 16.76 | 16.86 | 17.26 | 17.83 |
| 12H | 4H | 14.17 | 14.73 | 14.66 | 15.21 | 15.69 | 14.07 | 14.64 | 14.56 | 15.12 | 15.59 |
| | 6H | 15.23 | 15.70 | 15.75 | 16.22 | 16.71 | 15.28 | 15.75 | 15.80 | 16.27 | 16.76 |
| | 8H | 15.92 | 16.34 | 16.44 | 16.83 | 17.40 | 15.99 | 16.41 | 16.51 | 16.90 | 17.47 |