

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: P1059374

Luminaire Tested: S123RDRP-S775D930-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059374
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S775D930-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

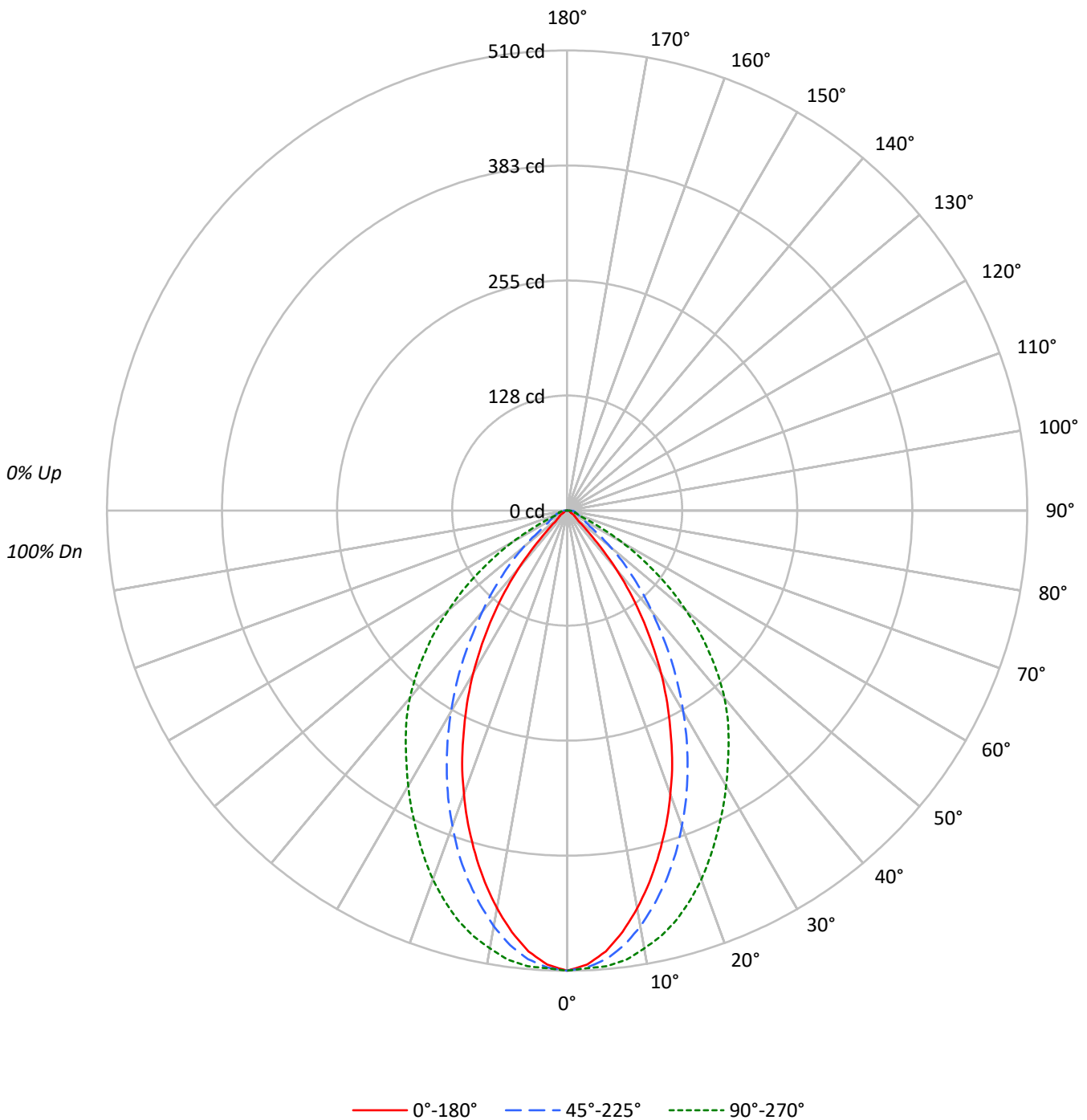
Lumens per Lamp: N/A
Luminaire Lumens: 612.5 lumens
Efficiency: N/A
Efficacy: 23.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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 | 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 | 98 | 98 | 96 | 95 | 95 | 93 | 92 | 90 |
| 2 | 105 | 99 | 94 | 89 | 102 | 97 | 92 | 88 | 94 | 90 | 86 | 90 | 87 | 85 | 88 | 85 | 83 | 81 |
| 3 | 98 | 90 | 84 | 79 | 96 | 89 | 83 | 78 | 86 | 81 | 77 | 83 | 79 | 76 | 81 | 78 | 75 | 73 |
| 4 | 92 | 83 | 76 | 71 | 90 | 81 | 75 | 70 | 79 | 74 | 69 | 77 | 72 | 69 | 75 | 71 | 68 | 66 |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 68 | 64 | 73 | 67 | 63 | 71 | 66 | 62 | 70 | 65 | 62 | 60 |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 65 | 60 | 57 | 55 |
| 7 | 76 | 65 | 58 | 53 | 75 | 64 | 58 | 53 | 63 | 57 | 53 | 62 | 56 | 52 | 61 | 56 | 52 | 50 |
| 8 | 72 | 61 | 54 | 49 | 70 | 60 | 53 | 49 | 59 | 53 | 48 | 58 | 52 | 48 | 57 | 52 | 48 | 46 |
| 9 | 68 | 57 | 50 | 45 | 67 | 56 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 45 | 43 |
| 10 | 64 | 53 | 46 | 42 | 63 | 53 | 46 | 42 | 52 | 46 | 42 | 51 | 45 | 42 | 50 | 45 | 41 | 40 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5987 | 5987 | 5987 |
| 5° | 5780 | 5882 | 5974 |
| 10° | 5336 | 5578 | 5875 |
| 15° | 4786 | 5156 | 5706 |
| 20° | 4180 | 4647 | 5436 |
| 25° | 3515 | 4092 | 5101 |
| 30° | 2823 | 3489 | 4778 |
| 35° | 2067 | 2873 | 4471 |
| 40° | 1278 | 2235 | 4159 |
| 45° | 492 | 1684 | 3703 |
| 50° | 243 | 1155 | 3133 |
| 55° | 192 | 639 | 2459 |
| 60° | 129 | 531 | 1649 |
| 65° | 108 | 478 | 736 |
| 70° | 106 | 429 | 429 |
| 75° | 141 | 458 | 426 |
| 80° | 210 | 582 | 473 |
| 85° | 310 | 943 | 633 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3703 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 46.7 | 7.6 |
| 10°-20° | 119.7 | 19.5 |
| 20°-30° | 148.6 | 24.3 |
| 30°-40° | 133.1 | 21.7 |
| 40°-50° | 87.5 | 14.3 |
| 50°-60° | 43.8 | 7.2 |
| 60°-70° | 17.3 | 2.8 |
| 70°-80° | 9.7 | 1.6 |
| 80°-90° | 6.1 | 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° | 315.0 | 51.4 |
| 0°-40° | 448.1 | 73.2 |
| 0°-60° | 579.4 | 94.6 |
| 0°-90° | 612.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 612.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 510 | 510 | 510 | 510 | 510 | |
| 5° | 490 | 498 | 499 | 502 | 507 | 45 |
| 15° | 394 | 406 | 424 | 453 | 469 | 110 |
| 25° | 271 | 288 | 316 | 360 | 394 | 124 |
| 35° | 144 | 164 | 200 | 262 | 312 | 89 |
| 45° | 30 | 49 | 101 | 171 | 223 | 28 |
| 55° | 9 | 11 | 31 | 84 | 120 | 8 |
| 65° | 4 | 11 | 17 | 22 | 26 | 4 |
| 75° | 3 | 10 | 10 | 9 | 9 | 3 |
| 85° | 2 | 7 | 7 | 7 | 5 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 509.9 | 509.9 | 509.9 | 509.9 | 509.9 |
| 2.5° | 503.7 | 510.7 | 506.8 | 506.8 | 507.6 |
| 5° | 490.4 | 498.2 | 499.0 | 502.1 | 506.8 |
| 7.5° | 470.9 | 481.0 | 485.7 | 495.1 | 502.1 |
| 10° | 447.5 | 458.4 | 467.8 | 484.2 | 492.7 |
| 12.5° | 421.8 | 432.7 | 446.7 | 469.4 | 482.6 |
| 15° | 393.7 | 406.2 | 424.1 | 453.0 | 469.4 |
| 17.5° | 364.9 | 377.4 | 399.2 | 431.9 | 453.0 |
| 20° | 334.5 | 348.5 | 371.9 | 409.3 | 435.0 |
| 22.5° | 304.1 | 319.7 | 344.6 | 385.2 | 414.8 |
| 25° | 271.3 | 288.5 | 315.8 | 360.2 | 393.7 |
| 27.5° | 240.1 | 258.1 | 286.9 | 335.3 | 373.5 |
| 30° | 208.2 | 226.1 | 257.3 | 309.5 | 352.4 |
| 32.5° | 175.4 | 195.7 | 228.4 | 285.4 | 331.4 |
| 35° | 144.2 | 163.7 | 200.4 | 262.0 | 311.9 |
| 37.5° | 113.8 | 133.3 | 171.5 | 239.4 | 292.4 |
| 40° | 83.4 | 103.7 | 145.8 | 217.5 | 271.3 |
| 42.5° | 54.6 | 75.6 | 123.2 | 195.7 | 247.9 |
| 45° | 29.6 | 49.1 | 101.4 | 170.7 | 223.0 |
| 47.5° | 16.4 | 26.5 | 81.9 | 147.4 | 198.8 |
| 50° | 13.3 | 14.8 | 63.2 | 125.5 | 171.5 |
| 52.5° | 10.9 | 12.5 | 45.2 | 104.5 | 146.6 |
| 55° | 9.4 | 10.9 | 31.2 | 84.2 | 120.1 |
| 57.5° | 7.8 | 9.4 | 24.9 | 64.7 | 94.3 |
| 60° | 5.5 | 9.4 | 22.6 | 47.6 | 70.2 |
| 62.5° | 4.7 | 9.4 | 19.5 | 32.7 | 46.8 |
| 65° | 3.9 | 10.9 | 17.2 | 21.8 | 26.5 |
| 67.5° | 3.1 | 10.9 | 14.8 | 14.0 | 14.0 |
| 70° | 3.1 | 10.9 | 12.5 | 11.7 | 12.5 |
| 72.5° | 3.1 | 11.7 | 11.7 | 10.9 | 10.9 |
| 75° | 3.1 | 10.1 | 10.1 | 9.4 | 9.4 |
| 77.5° | 3.1 | 9.4 | 9.4 | 8.6 | 8.6 |
| 80° | 3.1 | 8.6 | 8.6 | 7.8 | 7.0 |
| 82.5° | 3.1 | 7.8 | 7.8 | 7.0 | 6.2 |
| 85° | 2.3 | 7.0 | 7.0 | 7.0 | 4.7 |
| 87.5° | 2.3 | 6.2 | 7.0 | 6.2 | 3.9 |
| 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 | 0.00 | 0.00 | 0.00 | 0.27 | 0.59 | 12.76 | 14.02 | 13.13 | 14.33 | 14.65 |
| | 3H | 1.20 | 2.32 | 1.58 | 2.65 | 3.01 | 12.84 | 13.95 | 13.22 | 14.28 | 14.65 |
| | 4H | 2.36 | 3.40 | 2.77 | 3.75 | 4.13 | 12.91 | 13.94 | 13.31 | 14.29 | 14.68 |
| | 6H | 3.41 | 4.36 | 3.83 | 4.73 | 5.13 | 13.00 | 13.95 | 13.42 | 14.33 | 14.72 |
| | 8H | 3.95 | 4.85 | 4.38 | 5.24 | 5.65 | 13.06 | 13.96 | 13.49 | 14.35 | 14.76 |
| | 12H | 4.42 | 5.28 | 4.86 | 5.67 | 6.10 | 13.13 | 13.99 | 13.57 | 14.38 | 14.81 |
| 4H | 2H | 1.96 | 2.99 | 2.36 | 3.35 | 3.73 | 12.62 | 13.66 | 13.03 | 14.01 | 14.39 |
| | 3H | 4.41 | 5.25 | 4.82 | 5.66 | 6.06 | 12.80 | 13.64 | 13.21 | 14.05 | 14.45 |
| | 4H | 5.74 | 6.50 | 6.18 | 6.92 | 7.36 | 12.93 | 13.68 | 13.36 | 14.10 | 14.55 |
| | 6H | 6.88 | 7.53 | 7.34 | 7.98 | 8.45 | 13.14 | 13.80 | 13.61 | 14.24 | 14.71 |
| | 8H | 7.39 | 8.00 | 7.86 | 8.45 | 8.92 | 13.27 | 13.88 | 13.74 | 14.33 | 14.80 |
| | 12H | 7.84 | 8.38 | 8.32 | 8.86 | 9.33 | 13.43 | 13.97 | 13.91 | 14.45 | 14.92 |
| 8H | 4H | 6.66 | 7.27 | 7.13 | 7.72 | 8.19 | 12.93 | 13.54 | 13.40 | 13.99 | 14.46 |
| | 6H | 8.27 | 8.77 | 8.77 | 9.27 | 9.75 | 13.26 | 13.76 | 13.76 | 14.26 | 14.74 |
| | 8H | 9.09 | 9.54 | 9.61 | 10.06 | 10.55 | 13.49 | 13.94 | 14.01 | 14.45 | 14.95 |
| | 12H | 9.86 | 10.26 | 10.38 | 10.76 | 11.33 | 13.81 | 14.21 | 14.33 | 14.71 | 15.28 |
| 12H | 4H | 6.83 | 7.37 | 7.32 | 7.85 | 8.33 | 12.92 | 13.46 | 13.41 | 13.94 | 14.42 |
| | 6H | 8.58 | 9.03 | 9.11 | 9.55 | 10.04 | 13.29 | 13.74 | 13.82 | 14.26 | 14.75 |
| | 8H | 9.59 | 9.99 | 10.10 | 10.48 | 11.06 | 13.60 | 14.00 | 14.12 | 14.49 | 15.07 |