

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: P1059369

Luminaire Tested: S123RDRP-S775D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059369
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S775D927-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

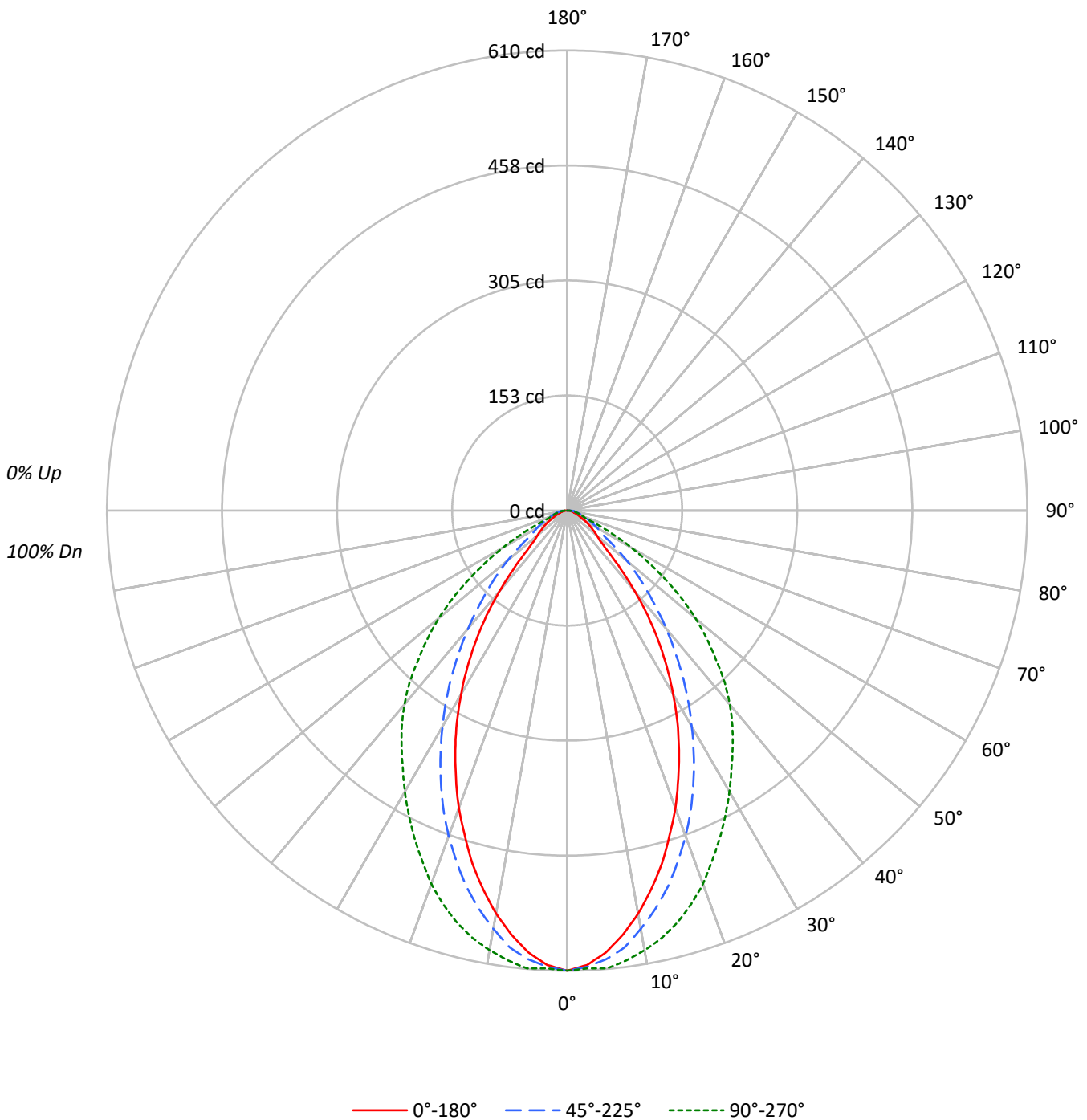
Lumens per Lamp: N/A
Luminaire Lumens: 818.7 lumens
Efficiency: N/A
Efficacy: 31.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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 | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 |
| 2 | 104 | 98 | 92 | 88 | 102 | 96 | 91 | 87 | 92 | 88 | 85 | 89 | 86 | 83 | 86 | 84 | 81 | 79 |
| 3 | 97 | 89 | 82 | 77 | 95 | 87 | 81 | 77 | 84 | 79 | 75 | 82 | 78 | 74 | 79 | 76 | 73 | 71 |
| 4 | 90 | 81 | 74 | 68 | 88 | 80 | 73 | 68 | 77 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 66 | 64 |
| 5 | 85 | 74 | 67 | 61 | 83 | 73 | 66 | 61 | 71 | 65 | 60 | 69 | 64 | 60 | 68 | 63 | 59 | 58 |
| 6 | 79 | 68 | 61 | 55 | 78 | 67 | 60 | 55 | 66 | 59 | 55 | 64 | 59 | 54 | 63 | 58 | 54 | 52 |
| 7 | 74 | 63 | 56 | 51 | 73 | 62 | 55 | 50 | 61 | 55 | 50 | 60 | 54 | 50 | 58 | 53 | 49 | 48 |
| 8 | 70 | 58 | 51 | 46 | 69 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 46 | 54 | 49 | 45 | 44 |
| 9 | 66 | 54 | 47 | 43 | 65 | 54 | 47 | 43 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 40 |
| 10 | 62 | 51 | 44 | 39 | 61 | 50 | 44 | 39 | 49 | 43 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 37 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7162 | 7162 | 7162 |
| 5° | 6930 | 7037 | 7180 |
| 10° | 6467 | 6712 | 7055 |
| 15° | 5895 | 6272 | 6871 |
| 20° | 5245 | 5737 | 6579 |
| 25° | 4545 | 5133 | 6203 |
| 30° | 3811 | 4479 | 5834 |
| 35° | 3019 | 3812 | 5485 |
| 40° | 2137 | 3135 | 5144 |
| 45° | 1259 | 2478 | 4630 |
| 50° | 941 | 1882 | 4055 |
| 55° | 790 | 1271 | 3257 |
| 60° | 641 | 1085 | 2313 |
| 65° | 506 | 925 | 1220 |
| 70° | 443 | 807 | 755 |
| 75° | 413 | 758 | 721 |
| 80° | 412 | 818 | 717 |
| 85° | 512 | 1226 | 916 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4630 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 56.1 | 6.9 |
| 10°-20° | 145.9 | 17.8 |
| 20°-30° | 185.8 | 22.7 |
| 30°-40° | 174.7 | 21.3 |
| 40°-50° | 125.8 | 15.4 |
| 50°-60° | 72.7 | 8.9 |
| 60°-70° | 33.2 | 4.1 |
| 70°-80° | 16.6 | 2.0 |
| 80°-90° | 7.8 | 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° | 387.8 | 47.4 |
| 0°-40° | 562.5 | 68.7 |
| 0°-60° | 761.0 | 93.0 |
| 0°-90° | 818.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 818.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 610 | 610 | 610 | 610 | 610 | |
| 5° | 588 | 598 | 597 | 603 | 609 | 55 |
| 15° | 485 | 502 | 516 | 545 | 565 | 135 |
| 25° | 351 | 369 | 396 | 440 | 479 | 160 |
| 35° | 211 | 229 | 266 | 327 | 383 | 131 |
| 45° | 76 | 95 | 149 | 224 | 279 | 64 |
| 55° | 39 | 40 | 62 | 118 | 159 | 35 |
| 65° | 18 | 26 | 33 | 37 | 44 | 19 |
| 75° | 9 | 17 | 17 | 16 | 16 | 10 |
| 85° | 4 | 8 | 9 | 8 | 7 | 4 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 609.9 | 609.9 | 609.9 | 609.9 | 609.9 |
| 2.5° | 603.0 | 610.6 | 605.3 | 606.1 | 607.6 |
| 5° | 587.9 | 597.7 | 597.0 | 603.0 | 609.1 |
| 7.5° | 566.7 | 578.0 | 584.1 | 593.2 | 601.5 |
| 10° | 542.4 | 555.3 | 562.9 | 579.5 | 591.7 |
| 12.5° | 514.4 | 531.1 | 540.9 | 562.9 | 580.3 |
| 15° | 484.9 | 502.3 | 515.9 | 544.7 | 565.2 |
| 17.5° | 451.5 | 470.5 | 487.9 | 522.0 | 547.0 |
| 20° | 419.7 | 437.9 | 459.1 | 496.2 | 526.5 |
| 22.5° | 384.9 | 404.5 | 428.8 | 468.2 | 502.3 |
| 25° | 350.8 | 368.9 | 396.2 | 440.2 | 478.8 |
| 27.5° | 316.7 | 334.9 | 363.6 | 412.1 | 454.5 |
| 30° | 281.1 | 300.0 | 330.3 | 384.1 | 430.3 |
| 32.5° | 246.2 | 264.4 | 298.5 | 356.8 | 405.3 |
| 35° | 210.6 | 228.8 | 265.9 | 327.3 | 382.6 |
| 37.5° | 175.8 | 194.7 | 234.1 | 303.0 | 359.9 |
| 40° | 139.4 | 159.8 | 204.5 | 278.0 | 335.6 |
| 42.5° | 105.3 | 127.3 | 175.0 | 252.3 | 309.1 |
| 45° | 75.8 | 94.7 | 149.2 | 224.2 | 278.8 |
| 47.5° | 59.1 | 68.9 | 125.8 | 195.5 | 250.8 |
| 50° | 51.5 | 53.0 | 103.0 | 168.9 | 222.0 |
| 52.5° | 44.7 | 46.2 | 81.1 | 143.9 | 191.7 |
| 55° | 38.6 | 40.2 | 62.1 | 118.2 | 159.1 |
| 57.5° | 32.6 | 34.8 | 51.5 | 93.9 | 128.0 |
| 60° | 27.3 | 30.3 | 46.2 | 72.0 | 98.5 |
| 62.5° | 22.0 | 27.3 | 39.4 | 53.0 | 70.5 |
| 65° | 18.2 | 25.8 | 33.3 | 37.1 | 43.9 |
| 67.5° | 15.2 | 23.5 | 28.0 | 26.5 | 25.8 |
| 70° | 12.9 | 21.2 | 23.5 | 21.2 | 22.0 |
| 72.5° | 10.6 | 19.7 | 19.7 | 18.2 | 18.2 |
| 75° | 9.1 | 17.4 | 16.7 | 15.9 | 15.9 |
| 77.5° | 7.6 | 15.2 | 14.4 | 13.6 | 12.9 |
| 80° | 6.1 | 12.1 | 12.1 | 11.4 | 10.6 |
| 82.5° | 5.3 | 9.8 | 9.8 | 9.8 | 8.3 |
| 85° | 3.8 | 8.3 | 9.1 | 8.3 | 6.8 |
| 87.5° | 3.0 | 7.6 | 7.6 | 6.8 | 4.5 |
| 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 | 6.80 | 8.12 | 7.17 | 8.44 | 8.75 | 14.17 | 15.49 | 14.54 | 15.80 | 16.12 |
| | 3H | 8.20 | 9.37 | 8.58 | 9.70 | 10.06 | 14.40 | 15.57 | 14.78 | 15.90 | 16.27 |
| | 4H | 8.75 | 9.84 | 9.15 | 10.19 | 10.58 | 14.52 | 15.61 | 14.92 | 15.96 | 16.34 |
| | 6H | 9.19 | 10.19 | 9.60 | 10.56 | 10.95 | 14.63 | 15.63 | 15.05 | 16.00 | 16.40 |
| | 8H | 9.36 | 10.31 | 9.79 | 10.71 | 11.11 | 14.68 | 15.63 | 15.11 | 16.02 | 16.43 |
| | 12H | 9.52 | 10.43 | 9.95 | 10.81 | 11.24 | 14.74 | 15.65 | 15.17 | 16.03 | 16.46 |
| 4H | 2H | 7.90 | 8.99 | 8.31 | 9.35 | 9.73 | 14.13 | 15.22 | 14.53 | 15.57 | 15.95 |
| | 3H | 9.57 | 10.46 | 9.98 | 10.87 | 11.27 | 14.49 | 15.38 | 14.90 | 15.79 | 16.19 |
| | 4H | 10.38 | 11.18 | 10.82 | 11.60 | 12.04 | 14.69 | 15.49 | 15.12 | 15.91 | 16.35 |
| | 6H | 11.02 | 11.71 | 11.48 | 12.16 | 12.62 | 14.91 | 15.61 | 15.38 | 16.05 | 16.52 |
| | 8H | 11.25 | 11.90 | 11.72 | 12.35 | 12.82 | 15.02 | 15.66 | 15.49 | 16.11 | 16.58 |
| | 12H | 11.47 | 12.04 | 11.95 | 12.52 | 12.99 | 15.15 | 15.72 | 15.63 | 16.20 | 16.67 |
| 8H | 4H | 10.82 | 11.47 | 11.29 | 11.92 | 12.39 | 14.72 | 15.37 | 15.19 | 15.82 | 16.29 |
| | 6H | 11.74 | 12.27 | 12.24 | 12.76 | 13.24 | 15.05 | 15.58 | 15.56 | 16.08 | 16.56 |
| | 8H | 12.15 | 12.63 | 12.67 | 13.14 | 13.64 | 15.24 | 15.72 | 15.76 | 16.23 | 16.73 |
| | 12H | 12.57 | 12.99 | 13.08 | 13.49 | 14.06 | 15.49 | 15.91 | 16.00 | 16.41 | 16.98 |
| 12H | 4H | 10.88 | 11.45 | 11.37 | 11.94 | 12.41 | 14.71 | 15.29 | 15.20 | 15.77 | 16.24 |
| | 6H | 11.87 | 12.35 | 12.39 | 12.86 | 13.35 | 15.07 | 15.55 | 15.59 | 16.06 | 16.55 |
| | 8H | 12.40 | 12.83 | 12.92 | 13.32 | 13.89 | 15.32 | 15.75 | 15.84 | 16.24 | 16.81 |