

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: P1059078

Luminaire Tested: S123RDRP-S1000D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059078
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1000D950-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

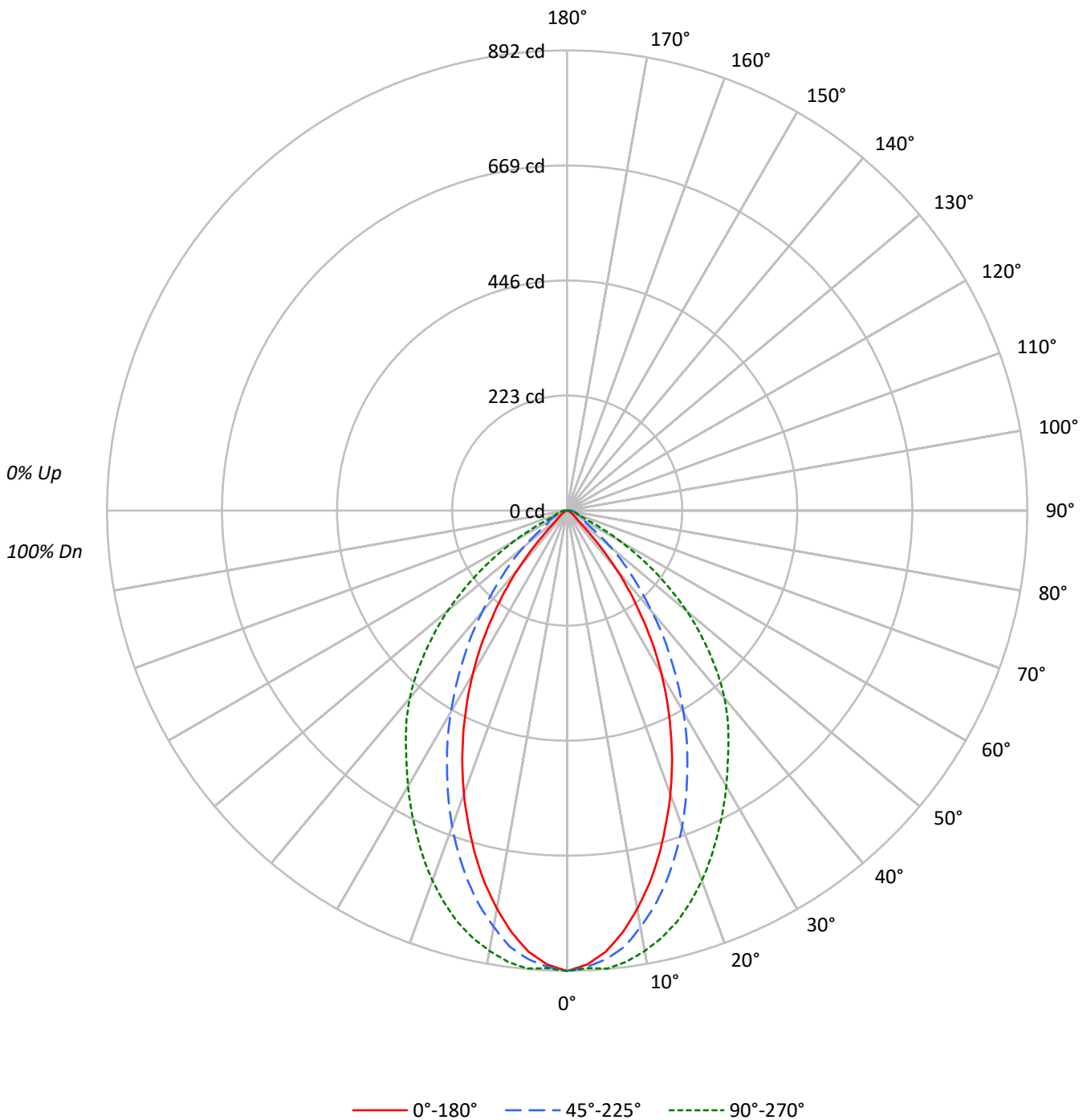
Lumens per Lamp: N/A
Luminaire Lumens: 1071.4 lumens
Efficiency: N/A
Efficacy: 30.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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 | 90 | 102 | 97 | 92 | 88 | 94 | 90 | 87 | 91 | 87 | 85 | 88 | 85 | 83 | 81 |
| 3 | 98 | 90 | 84 | 79 | 96 | 89 | 83 | 79 | 86 | 81 | 77 | 83 | 79 | 76 | 81 | 78 | 75 | 73 |
| 4 | 92 | 83 | 76 | 71 | 90 | 81 | 75 | 70 | 79 | 74 | 70 | 77 | 72 | 69 | 75 | 71 | 68 | 66 |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 69 | 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 | 65 | 58 | 53 | 63 | 57 | 53 | 62 | 56 | 52 | 61 | 56 | 52 | 50 |
| 8 | 72 | 61 | 54 | 49 | 70 | 60 | 53 | 49 | 59 | 53 | 49 | 58 | 52 | 48 | 57 | 52 | 48 | 47 |
| 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 | 42 | 40 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10479 | 10479 | 10479 |
| 5° | 10118 | 10284 | 10505 |
| 10° | 9341 | 9774 | 10333 |
| 15° | 8382 | 9038 | 10022 |
| 20° | 7313 | 8147 | 9539 |
| 25° | 6169 | 7142 | 8949 |
| 30° | 4961 | 6106 | 8363 |
| 35° | 3631 | 5026 | 7817 |
| 40° | 2266 | 3918 | 7280 |
| 45° | 857 | 2921 | 6485 |
| 50° | 407 | 2013 | 5528 |
| 55° | 311 | 1103 | 4273 |
| 60° | 221 | 937 | 2809 |
| 65° | 164 | 814 | 1173 |
| 70° | 161 | 766 | 766 |
| 75° | 213 | 798 | 798 |
| 80° | 318 | 953 | 872 |
| 85° | 633 | 1576 | 1266 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6485 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 81.9 | 7.6 |
| 10°-20° | 210.1 | 19.6 |
| 20°-30° | 260.0 | 24.3 |
| 30°-40° | 233.1 | 21.8 |
| 40°-50° | 152.8 | 14.3 |
| 50°-60° | 76.5 | 7.1 |
| 60°-70° | 29.8 | 2.8 |
| 70°-80° | 16.8 | 1.6 |
| 80°-90° | 10.4 | 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° | 552.0 | 51.5 |
| 0°-40° | 785.1 | 73.3 |
| 0°-60° | 1014.4 | 94.7 |
| 0°-90° | 1071.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1071.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 892 | 892 | 892 | 892 | 892 | |
| 5° | 858 | 872 | 872 | 882 | 891 | 80 |
| 15° | 690 | 718 | 744 | 793 | 824 | 192 |
| 25° | 476 | 505 | 551 | 630 | 691 | 217 |
| 35° | 253 | 287 | 351 | 456 | 545 | 158 |
| 45° | 52 | 83 | 176 | 301 | 390 | 49 |
| 55° | 15 | 19 | 54 | 148 | 209 | 14 |
| 65° | 6 | 18 | 29 | 39 | 42 | 6 |
| 75° | 5 | 18 | 18 | 18 | 18 | 5 |
| 85° | 5 | 12 | 12 | 12 | 9 | 4 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1059078

CATALOG NUMBER: S123RDRP-S1000D950-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 892.4 | 892.4 | 892.4 | 892.4 | 892.4 |
| 2.5° | 880.7 | 893.6 | 885.4 | 886.5 | 887.7 |
| 5° | 858.4 | 872.5 | 872.5 | 881.9 | 891.2 |
| 7.5° | 824.4 | 840.8 | 852.5 | 869.0 | 881.9 |
| 10° | 783.4 | 803.3 | 819.7 | 849.0 | 866.6 |
| 12.5° | 738.8 | 763.4 | 784.5 | 823.2 | 847.9 |
| 15° | 689.5 | 717.7 | 743.5 | 792.7 | 824.4 |
| 17.5° | 636.8 | 664.9 | 698.9 | 756.4 | 795.1 |
| 20° | 585.2 | 613.3 | 652.0 | 716.5 | 763.4 |
| 22.5° | 531.2 | 560.5 | 601.6 | 673.1 | 728.2 |
| 25° | 476.1 | 505.4 | 551.2 | 629.7 | 690.7 |
| 27.5° | 421.0 | 450.3 | 501.9 | 587.5 | 654.4 |
| 30° | 365.9 | 395.2 | 450.3 | 541.8 | 616.8 |
| 32.5° | 310.8 | 342.4 | 399.9 | 499.6 | 579.3 |
| 35° | 253.3 | 287.3 | 350.6 | 456.2 | 545.3 |
| 37.5° | 200.5 | 232.2 | 303.7 | 418.6 | 511.3 |
| 40° | 147.8 | 181.8 | 255.6 | 382.3 | 474.9 |
| 42.5° | 96.2 | 132.5 | 212.3 | 342.4 | 433.9 |
| 45° | 51.6 | 83.3 | 175.9 | 301.4 | 390.5 |
| 47.5° | 28.1 | 45.7 | 141.9 | 258.0 | 345.9 |
| 50° | 22.3 | 25.8 | 110.2 | 220.5 | 302.6 |
| 52.5° | 18.8 | 21.1 | 78.6 | 185.3 | 254.5 |
| 55° | 15.2 | 18.8 | 53.9 | 147.8 | 208.7 |
| 57.5° | 12.9 | 16.4 | 42.2 | 114.9 | 163.0 |
| 60° | 9.4 | 14.1 | 39.9 | 84.4 | 119.6 |
| 62.5° | 7.0 | 15.2 | 35.2 | 58.6 | 78.6 |
| 65° | 5.9 | 17.6 | 29.3 | 38.7 | 42.2 |
| 67.5° | 4.7 | 18.8 | 25.8 | 24.6 | 24.6 |
| 70° | 4.7 | 17.6 | 22.3 | 21.1 | 22.3 |
| 72.5° | 4.7 | 18.8 | 19.9 | 18.8 | 19.9 |
| 75° | 4.7 | 17.6 | 17.6 | 17.6 | 17.6 |
| 77.5° | 4.7 | 16.4 | 16.4 | 15.2 | 15.2 |
| 80° | 4.7 | 14.1 | 14.1 | 14.1 | 12.9 |
| 82.5° | 4.7 | 12.9 | 12.9 | 12.9 | 10.6 |
| 85° | 4.7 | 11.7 | 11.7 | 11.7 | 9.4 |
| 87.5° | 3.5 | 10.6 | 11.7 | 10.6 | 7.0 |
| 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 | 0.51 | 1.77 | 0.88 | 2.08 | 2.40 | 14.77 | 16.02 | 15.13 | 16.33 | 16.65 |
| | 3H | 2.85 | 3.96 | 3.23 | 4.30 | 4.66 | 14.85 | 15.96 | 15.23 | 16.29 | 16.65 |
| | 4H | 3.96 | 4.99 | 4.36 | 5.34 | 5.73 | 14.92 | 15.96 | 15.33 | 16.31 | 16.69 |
| | 6H | 4.95 | 5.90 | 5.37 | 6.27 | 6.67 | 15.03 | 15.98 | 15.44 | 16.35 | 16.74 |
| | 8H | 5.43 | 6.33 | 5.86 | 6.72 | 7.13 | 15.09 | 15.98 | 15.52 | 16.38 | 16.78 |
| | 12H | 5.99 | 6.85 | 6.42 | 7.23 | 7.66 | 15.17 | 16.03 | 15.60 | 16.41 | 16.84 |
| 4H | 2H | 3.77 | 4.80 | 4.17 | 5.15 | 5.53 | 14.62 | 15.65 | 15.02 | 16.01 | 16.39 |
| | 3H | 6.09 | 6.93 | 6.50 | 7.34 | 7.74 | 14.80 | 15.64 | 15.21 | 16.05 | 16.45 |
| | 4H | 7.46 | 8.22 | 7.90 | 8.64 | 9.08 | 14.95 | 15.70 | 15.38 | 16.12 | 16.57 |
| | 6H | 8.55 | 9.20 | 9.01 | 9.65 | 10.11 | 15.17 | 15.82 | 15.64 | 16.27 | 16.74 |
| | 8H | 9.00 | 9.61 | 9.48 | 10.06 | 10.53 | 15.30 | 15.91 | 15.77 | 16.35 | 16.83 |
| | 12H | 9.50 | 10.04 | 9.99 | 10.52 | 11.00 | 15.47 | 16.01 | 15.96 | 16.49 | 16.97 |
| 8H | 4H | 8.43 | 9.04 | 8.90 | 9.49 | 9.96 | 14.94 | 15.55 | 15.41 | 16.00 | 16.47 |
| | 6H | 9.96 | 10.46 | 10.46 | 10.95 | 11.43 | 15.28 | 15.78 | 15.79 | 16.28 | 16.76 |
| | 8H | 10.73 | 11.18 | 11.25 | 11.70 | 12.19 | 15.51 | 15.96 | 16.04 | 16.48 | 16.97 |
| | 12H | 11.53 | 11.93 | 12.05 | 12.43 | 13.00 | 15.85 | 16.25 | 16.37 | 16.74 | 17.32 |
| 12H | 4H | 8.61 | 9.15 | 9.10 | 9.63 | 10.11 | 14.93 | 15.47 | 15.42 | 15.95 | 16.43 |
| | 6H | 10.27 | 10.72 | 10.79 | 11.24 | 11.73 | 15.30 | 15.75 | 15.82 | 16.27 | 16.76 |
| | 8H | 11.23 | 11.62 | 11.74 | 12.12 | 12.69 | 15.61 | 16.01 | 16.13 | 16.51 | 17.08 |