

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: P1059076

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059076
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
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-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

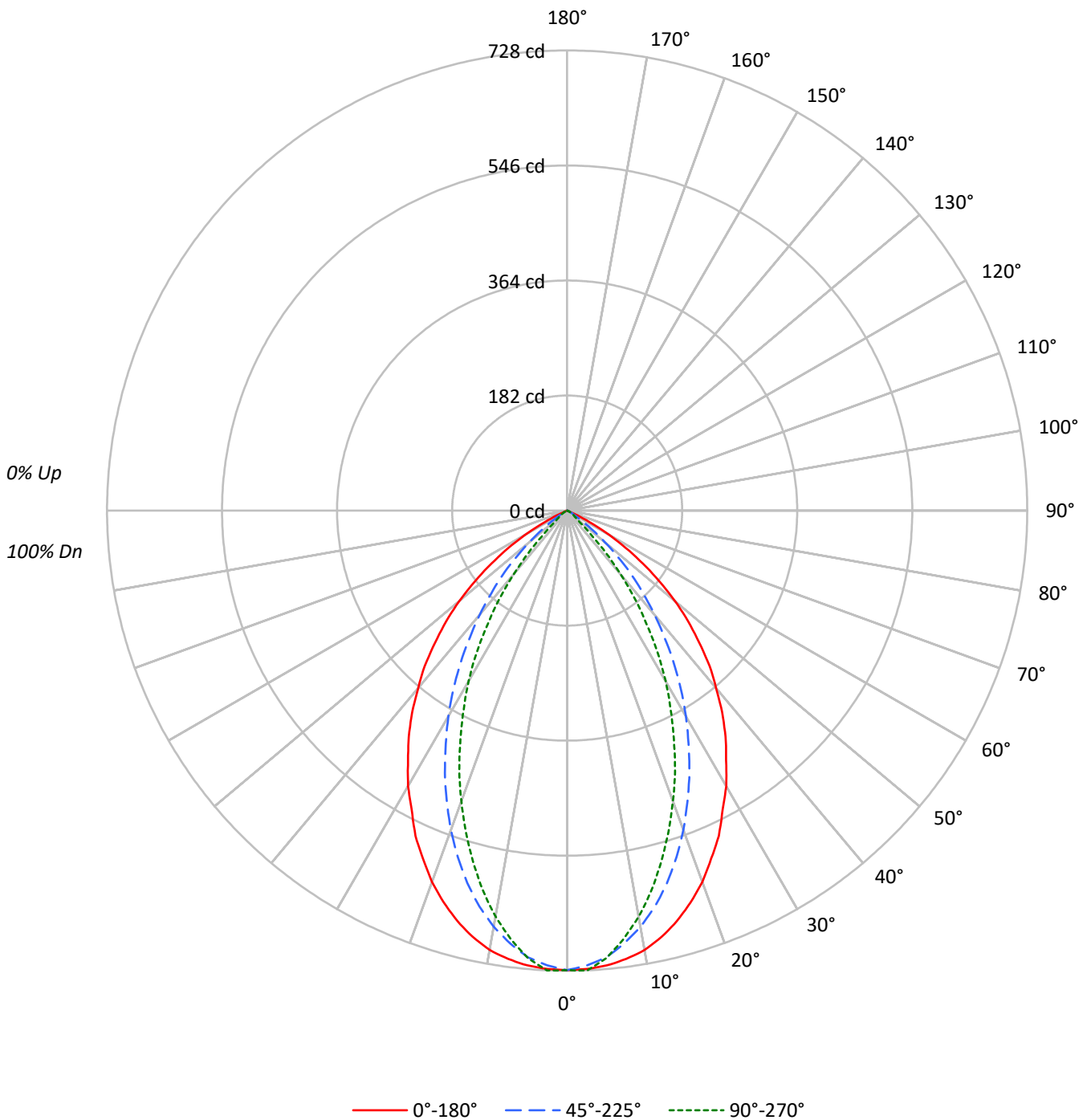
Lumens per Lamp: N/A
Luminaire Lumens: 829.7 lumens
Efficiency: N/A
Efficacy: 23.7 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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 | 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 | 113 | 110 | 107 | 104 | 110 | 107 | 105 | 103 | 103 | 101 | 100 | 100 | 98 | 97 | 96 | 95 | 94 | 92 | | | | 92 |
| 2 | 106 | 101 | 96 | 92 | 104 | 99 | 95 | 91 | 96 | 92 | 89 | 93 | 90 | 87 | 90 | 87 | 85 | 84 | | | | 84 |
| 3 | 100 | 92 | 87 | 82 | 98 | 91 | 86 | 82 | 88 | 84 | 80 | 86 | 82 | 79 | 83 | 80 | 78 | 76 | | | | 76 |
| 4 | 94 | 85 | 79 | 74 | 92 | 84 | 78 | 74 | 82 | 77 | 73 | 80 | 75 | 72 | 78 | 74 | 71 | 69 | | | | 69 |
| 5 | 88 | 79 | 72 | 67 | 86 | 78 | 71 | 67 | 76 | 70 | 66 | 74 | 69 | 65 | 72 | 68 | 65 | 63 | | | | 63 |
| 6 | 83 | 73 | 66 | 61 | 81 | 72 | 66 | 61 | 70 | 65 | 60 | 69 | 64 | 60 | 67 | 63 | 60 | 58 | | | | 58 |
| 7 | 78 | 68 | 61 | 56 | 77 | 67 | 60 | 56 | 66 | 60 | 56 | 64 | 59 | 55 | 63 | 58 | 55 | 53 | | | | 53 |
| 8 | 74 | 63 | 56 | 52 | 72 | 62 | 56 | 51 | 61 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 51 | 49 | | | | 49 |
| 9 | 70 | 59 | 52 | 48 | 68 | 58 | 52 | 48 | 57 | 52 | 47 | 56 | 51 | 47 | 55 | 51 | 47 | 46 | | | | 46 |
| 10 | 66 | 55 | 49 | 44 | 65 | 55 | 48 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 44 | 42 | | | | 42 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 8538 | 8538 | 8538 |
| 5° | 8515 | 8363 | 8377 |
| 10° | 8418 | 7971 | 7775 |
| 15° | 8169 | 7416 | 6989 |
| 20° | 7813 | 6715 | 6116 |
| 25° | 7357 | 5931 | 5172 |
| 30° | 6826 | 5095 | 4222 |
| 35° | 6260 | 4213 | 3138 |
| 40° | 5618 | 3302 | 2010 |
| 45° | 4899 | 2411 | 835 |
| 50° | 4065 | 1432 | 322 |
| 55° | 2995 | 600 | 240 |
| 60° | 1815 | 221 | 139 |
| 65° | 489 | 131 | 64 |
| 70° | 0 | 41 | 41 |
| 75° | 0 | 0 | 54 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4899 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 66.9 | 8.1 |
| 10°-20° | 172.7 | 20.8 |
| 20°-30° | 215.3 | 25.9 |
| 30°-40° | 192.5 | 23.2 |
| 40°-50° | 121.5 | 14.6 |
| 50°-60° | 50.8 | 6.1 |
| 60°-70° | 9.6 | 1.2 |
| 70°-80° | 0.3 | 0.0 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 455.0 | 54.8 |
| 0°-40° | 647.4 | 78.0 |
| 0°-60° | 819.8 | 98.8 |
| 0°-90° | 829.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 829.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 727 | 727 | 727 | 727 | 727 | |
| 5° | 722 | 721 | 710 | 712 | 711 | 68 |
| 15° | 672 | 656 | 610 | 584 | 575 | 189 |
| 25° | 568 | 522 | 458 | 418 | 399 | 260 |
| 35° | 437 | 374 | 294 | 241 | 219 | 272 |
| 45° | 295 | 230 | 145 | 77 | 50 | 228 |
| 55° | 146 | 101 | 29 | 12 | 12 | 131 |
| 65° | 18 | 13 | 5 | 2 | 2 | 25 |
| 75° | 0 | 0 | 0 | 0 | 1 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1059076

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

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 727.1 | 727.1 | 727.1 | 727.1 | 727.1 |
| 2.5° | 725.9 | 727.1 | 720.0 | 727.1 | 728.2 |
| 5° | 722.4 | 721.2 | 709.5 | 711.8 | 710.7 |
| 7.5° | 715.4 | 711.8 | 690.8 | 686.1 | 683.7 |
| 10° | 706.0 | 696.6 | 668.5 | 656.8 | 652.1 |
| 12.5° | 690.8 | 677.9 | 641.6 | 622.9 | 615.8 |
| 15° | 672.0 | 655.6 | 610.0 | 584.2 | 574.9 |
| 17.5° | 649.8 | 626.4 | 574.9 | 546.8 | 532.7 |
| 20° | 625.2 | 592.4 | 537.4 | 503.4 | 489.4 |
| 22.5° | 595.9 | 559.6 | 497.6 | 461.3 | 446.1 |
| 25° | 567.8 | 522.2 | 457.8 | 418.0 | 399.2 |
| 27.5° | 532.7 | 484.7 | 415.6 | 374.7 | 354.7 |
| 30° | 503.4 | 448.4 | 375.8 | 330.2 | 311.4 |
| 32.5° | 468.3 | 410.9 | 334.8 | 284.5 | 266.9 |
| 35° | 436.7 | 373.5 | 293.9 | 241.2 | 218.9 |
| 37.5° | 402.8 | 337.2 | 252.9 | 197.9 | 176.8 |
| 40° | 366.5 | 300.9 | 215.4 | 154.5 | 131.1 |
| 42.5° | 333.7 | 264.6 | 178.0 | 114.7 | 91.3 |
| 45° | 295.0 | 229.5 | 145.2 | 77.3 | 50.3 |
| 47.5° | 259.9 | 196.7 | 110.1 | 43.3 | 26.9 |
| 50° | 222.5 | 162.7 | 78.4 | 22.2 | 17.6 |
| 52.5° | 183.8 | 130.0 | 51.5 | 15.2 | 14.0 |
| 55° | 146.3 | 100.7 | 29.3 | 11.7 | 11.7 |
| 57.5° | 110.1 | 72.6 | 15.2 | 9.4 | 8.2 |
| 60° | 77.3 | 48.0 | 9.4 | 7.0 | 5.9 |
| 62.5° | 44.5 | 28.1 | 7.0 | 4.7 | 4.7 |
| 65° | 17.6 | 12.9 | 4.7 | 2.3 | 2.3 |
| 67.5° | 1.2 | 3.5 | 2.3 | 1.2 | 1.2 |
| 70° | 0.0 | 0.0 | 1.2 | 1.2 | 1.2 |
| 72.5° | 0.0 | 0.0 | 1.2 | 1.2 | 1.2 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 | 12.64 | 13.82 | 13.01 | 14.13 | 14.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 12.48 | 13.51 | 12.86 | 13.85 | 14.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 12.40 | 13.35 | 12.80 | 13.70 | 14.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 12.30 | 13.18 | 12.72 | 13.55 | 13.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 12.25 | 13.08 | 12.69 | 13.47 | 13.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 12.20 | 12.99 | 12.64 | 13.37 | 13.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4H | 2H | 12.40 | 13.36 | 12.81 | 13.71 | 14.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 12.24 | 13.00 | 12.65 | 13.41 | 13.82 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 12.13 | 12.81 | 12.57 | 13.24 | 13.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 12.04 | 12.62 | 12.50 | 13.07 | 13.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 11.97 | 12.52 | 12.44 | 12.96 | 13.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 11.91 | 12.39 | 12.40 | 12.88 | 13.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H | 4H | 11.97 | 12.52 | 12.44 | 12.96 | 13.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 11.85 | 12.29 | 12.36 | 12.79 | 13.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 11.78 | 12.18 | 12.31 | 12.70 | 13.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 11.73 | 12.08 | 12.25 | 12.57 | 13.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12H | 4H | 11.91 | 12.39 | 12.40 | 12.88 | 13.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 11.78 | 12.18 | 12.31 | 12.70 | 13.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 11.73 | 12.08 | 12.25 | 12.57 | 13.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |