

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: P1056600

Luminaire Tested: S125R3DRP-H610D950-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056600
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DRP-H610D950-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

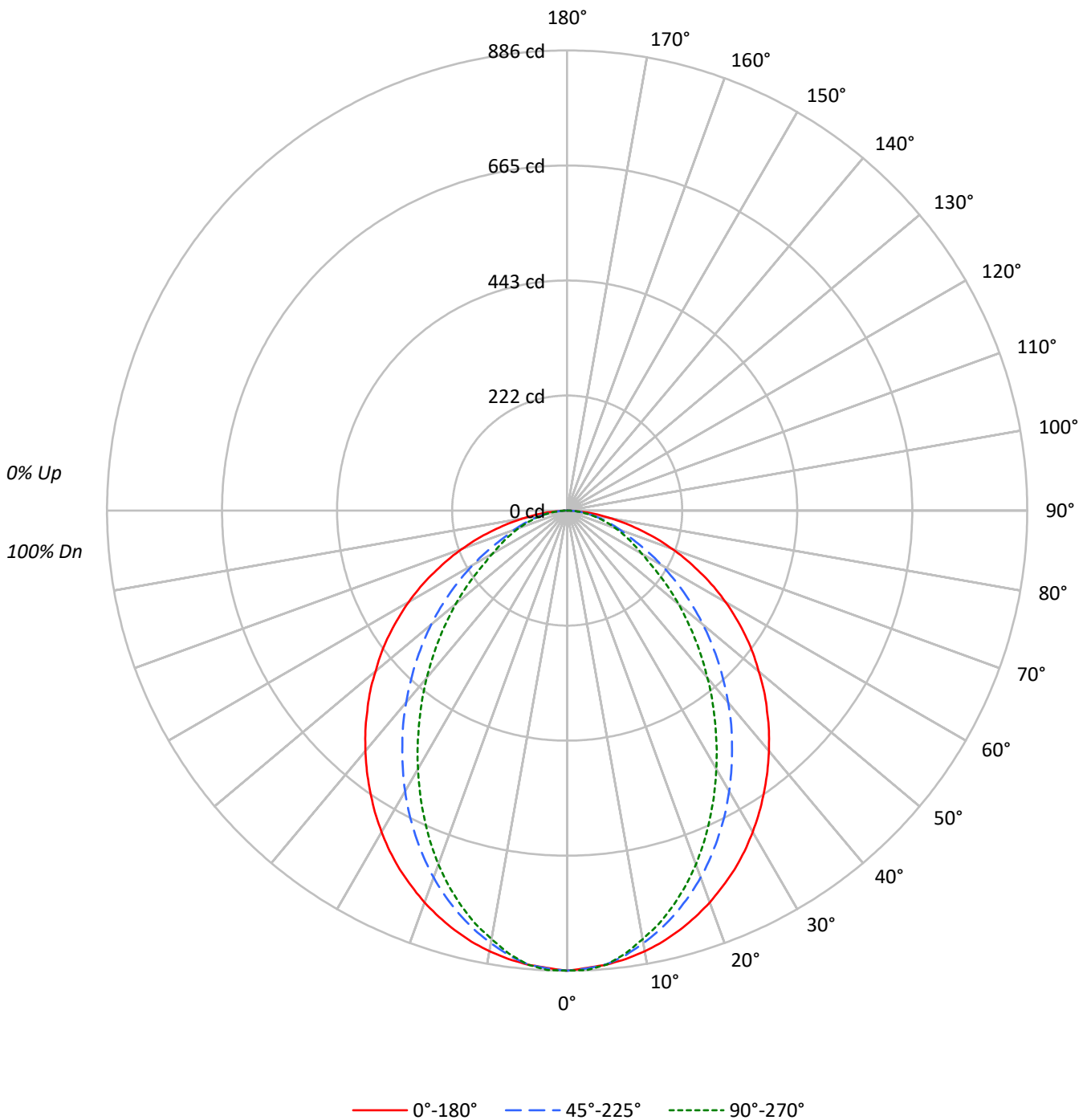
Lumens per Lamp: N/A
Luminaire Lumens: 1877.6 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
Input Voltage (V): 120
Input Current (Ain): 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 | 110 | 105 | 101 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 90 | 88 | 86 |
| 2 | 101 | 93 | 87 | 81 | 98 | 91 | 85 | 80 | 88 | 83 | 79 | 84 | 80 | 77 | 81 | 78 | 75 | 73 |
| 3 | 92 | 83 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | 63 |
| 4 | 85 | 74 | 66 | 59 | 83 | 73 | 65 | 59 | 70 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 55 |
| 5 | 79 | 67 | 58 | 52 | 77 | 66 | 58 | 52 | 63 | 56 | 51 | 62 | 55 | 51 | 60 | 54 | 50 | 48 |
| 6 | 73 | 60 | 52 | 46 | 71 | 59 | 51 | 46 | 58 | 51 | 45 | 56 | 50 | 45 | 55 | 49 | 45 | 43 |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 46 | 41 | 53 | 46 | 41 | 51 | 45 | 40 | 50 | 44 | 40 | 38 |
| 8 | 63 | 51 | 42 | 37 | 62 | 50 | 42 | 37 | 49 | 42 | 37 | 47 | 41 | 36 | 46 | 40 | 36 | 34 |
| 9 | 59 | 47 | 39 | 33 | 58 | 46 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 31 |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6263 | 6263 | 6263 |
| 5° | 6226 | 6221 | 6226 |
| 10° | 6184 | 6071 | 6013 |
| 15° | 6121 | 5885 | 5764 |
| 20° | 6039 | 5657 | 5453 |
| 25° | 5948 | 5387 | 5083 |
| 30° | 5832 | 5094 | 4690 |
| 35° | 5704 | 4776 | 4281 |
| 40° | 5576 | 4450 | 3878 |
| 45° | 5441 | 4109 | 3475 |
| 50° | 5296 | 3758 | 3076 |
| 55° | 5163 | 3375 | 2675 |
| 60° | 4981 | 2966 | 2350 |
| 65° | 4734 | 2516 | 2185 |
| 70° | 4444 | 2249 | 2044 |
| 75° | 4018 | 2073 | 1928 |
| 80° | 3493 | 1881 | 1799 |
| 85° | 2725 | 1655 | 1655 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5441 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 82.9 | 4.4 |
| 10°-20° | 227.6 | 12.1 |
| 20°-30° | 321.5 | 17.1 |
| 30°-40° | 353.9 | 18.8 |
| 40°-50° | 330.1 | 17.6 |
| 50°-60° | 263.5 | 14.0 |
| 60°-70° | 177.4 | 9.4 |
| 70°-80° | 94.5 | 5.0 |
| 80°-90° | 26.3 | 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° | 632.0 | 33.7 |
| 0°-40° | 985.9 | 52.5 |
| 0°-60° | 1579.6 | 84.1 |
| 0°-90° | 1877.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1877.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 886 | 886 | 886 | 886 | 886 | |
| 5° | 877 | 885 | 877 | 874 | 877 | 83 |
| 15° | 836 | 832 | 804 | 790 | 788 | 236 |
| 25° | 762 | 740 | 691 | 660 | 652 | 351 |
| 35° | 661 | 622 | 553 | 510 | 496 | 414 |
| 45° | 544 | 493 | 411 | 361 | 348 | 420 |
| 55° | 419 | 356 | 274 | 230 | 217 | 374 |
| 65° | 283 | 221 | 150 | 133 | 131 | 281 |
| 75° | 147 | 98 | 76 | 71 | 71 | 157 |
| 85° | 34 | 23 | 20 | 21 | 20 | 40 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1056600

CATALOG NUMBER: S125R3DRP-H610D950-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 885.9 | 885.9 | 885.9 | 885.9 | 885.9 |
| 2.5° | 881.3 | 888.5 | 882.6 | 883.9 | 885.2 |
| 5° | 877.3 | 884.6 | 876.7 | 874.0 | 877.3 |
| 7.5° | 870.7 | 876.7 | 863.5 | 857.5 | 860.2 |
| 10° | 861.5 | 865.5 | 845.7 | 837.7 | 837.7 |
| 12.5° | 850.3 | 850.3 | 826.5 | 815.3 | 815.3 |
| 15° | 836.4 | 831.8 | 804.1 | 790.3 | 787.6 |
| 17.5° | 820.6 | 812.0 | 779.0 | 761.2 | 757.9 |
| 20° | 802.8 | 788.9 | 752.0 | 728.9 | 724.9 |
| 22.5° | 783.0 | 765.2 | 722.3 | 693.9 | 689.3 |
| 25° | 762.5 | 739.5 | 690.6 | 660.3 | 651.7 |
| 27.5° | 739.5 | 711.8 | 658.3 | 624.0 | 613.5 |
| 30° | 714.4 | 682.7 | 624.0 | 585.8 | 574.6 |
| 32.5° | 688.7 | 653.0 | 589.1 | 548.2 | 535.6 |
| 35° | 661.0 | 622.0 | 553.4 | 509.9 | 496.1 |
| 37.5° | 633.3 | 591.0 | 518.5 | 473.0 | 458.5 |
| 40° | 604.2 | 558.1 | 482.2 | 435.4 | 420.2 |
| 42.5° | 575.2 | 525.7 | 446.6 | 399.1 | 383.3 |
| 45° | 544.2 | 492.8 | 411.0 | 360.8 | 347.6 |
| 47.5° | 514.5 | 459.1 | 376.0 | 327.2 | 312.7 |
| 50° | 481.5 | 424.2 | 341.7 | 292.9 | 279.7 |
| 52.5° | 451.2 | 389.8 | 307.4 | 261.9 | 248.0 |
| 55° | 418.9 | 355.5 | 273.8 | 230.2 | 217.0 |
| 57.5° | 385.2 | 321.2 | 241.4 | 200.5 | 188.0 |
| 60° | 352.3 | 286.9 | 209.8 | 172.2 | 166.2 |
| 62.5° | 318.6 | 254.6 | 180.1 | 151.1 | 147.1 |
| 65° | 283.0 | 221.0 | 150.4 | 133.2 | 130.6 |
| 67.5° | 249.3 | 188.7 | 126.7 | 116.8 | 114.1 |
| 70° | 215.0 | 156.3 | 108.8 | 100.3 | 98.9 |
| 72.5° | 181.4 | 125.3 | 91.7 | 85.8 | 84.4 |
| 75° | 147.1 | 97.6 | 75.9 | 71.2 | 70.6 |
| 77.5° | 115.4 | 73.2 | 60.0 | 58.0 | 56.7 |
| 80° | 85.8 | 54.8 | 46.2 | 44.9 | 44.2 |
| 82.5° | 58.7 | 37.6 | 33.0 | 33.0 | 31.7 |
| 85° | 33.6 | 23.1 | 20.4 | 21.1 | 20.4 |
| 87.5° | 12.5 | 9.9 | 9.2 | 9.9 | 9.9 |
| 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 | 17.66 | 19.20 | 18.03 | 19.51 | 19.83 | 14.04 | 15.58 | 14.41 | 15.90 | 16.21 |
| | 3H | 19.45 | 20.83 | 19.82 | 21.16 | 21.52 | 15.52 | 16.90 | 15.90 | 17.23 | 17.59 |
| | 4H | 20.10 | 21.40 | 20.50 | 21.75 | 22.13 | 16.11 | 17.41 | 16.51 | 17.76 | 18.14 |
| | 6H | 20.58 | 21.78 | 20.99 | 22.14 | 22.54 | 16.57 | 17.77 | 16.98 | 18.14 | 18.53 |
| | 8H | 20.73 | 21.88 | 21.16 | 22.26 | 22.67 | 16.73 | 17.88 | 17.16 | 18.27 | 18.67 |
| | 12H | 20.83 | 21.92 | 21.26 | 22.30 | 22.73 | 16.85 | 17.94 | 17.28 | 18.33 | 18.75 |
| 4H | 2H | 17.80 | 19.10 | 18.20 | 19.44 | 19.82 | 14.72 | 16.02 | 15.12 | 16.37 | 16.75 |
| | 3H | 19.77 | 20.85 | 20.18 | 21.25 | 21.65 | 16.40 | 17.48 | 16.81 | 17.88 | 18.28 |
| | 4H | 20.51 | 21.49 | 20.94 | 21.90 | 22.34 | 17.10 | 18.07 | 17.53 | 18.49 | 18.93 |
| | 6H | 21.11 | 21.95 | 21.56 | 22.40 | 22.86 | 17.69 | 18.53 | 18.14 | 18.98 | 19.44 |
| | 8H | 21.31 | 22.11 | 21.78 | 22.55 | 23.02 | 17.90 | 18.69 | 18.36 | 19.13 | 19.60 |
| | 12H | 21.46 | 22.17 | 21.94 | 22.65 | 23.12 | 18.06 | 18.77 | 18.54 | 19.24 | 19.71 |
| 8H | 4H | 20.57 | 21.37 | 21.04 | 21.81 | 22.28 | 17.47 | 18.26 | 17.93 | 18.70 | 19.17 |
| | 6H | 21.23 | 21.89 | 21.73 | 22.38 | 22.86 | 18.17 | 18.82 | 18.66 | 19.31 | 19.79 |
| | 8H | 21.49 | 22.08 | 22.00 | 22.59 | 23.07 | 18.45 | 19.04 | 18.96 | 19.55 | 20.04 |
| | 12H | 21.70 | 22.22 | 22.21 | 22.71 | 23.27 | 18.69 | 19.21 | 19.20 | 19.71 | 20.27 |
| 12H | 4H | 20.57 | 21.28 | 21.05 | 21.75 | 22.23 | 17.51 | 18.22 | 17.99 | 18.70 | 19.17 |
| | 6H | 21.23 | 21.82 | 21.74 | 22.33 | 22.82 | 18.24 | 18.83 | 18.75 | 19.34 | 19.83 |
| | 8H | 21.52 | 22.04 | 22.03 | 22.54 | 23.10 | 18.58 | 19.10 | 19.09 | 19.60 | 20.16 |