

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: P1056371

Luminaire Tested: S125R3DRP-S1090D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056371
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DRP-S1090D927-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

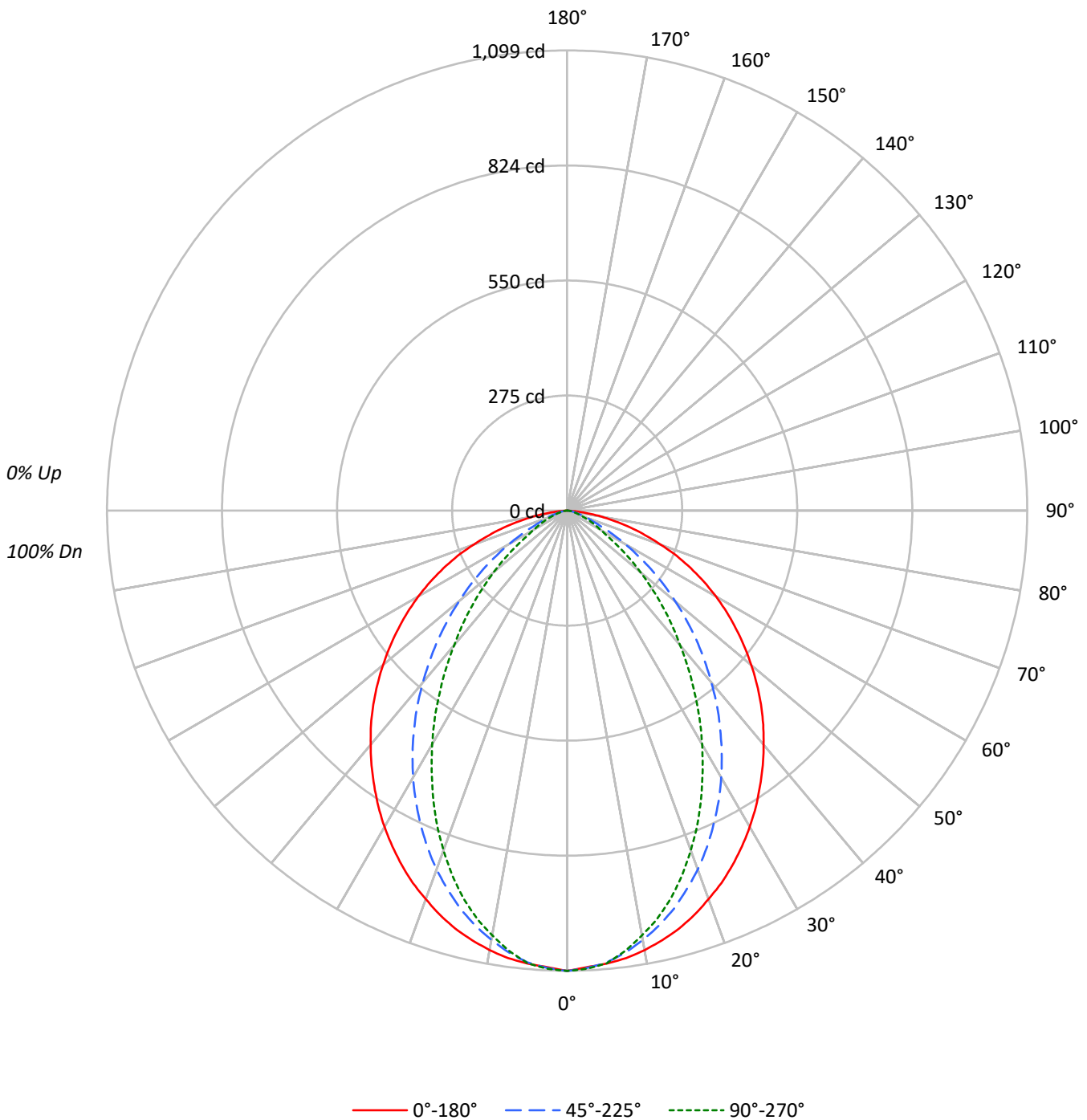
Lumens per Lamp: N/A
Luminaire Lumens: 1987.2 lumens
Efficiency: N/A
Efficacy: 57.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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 | 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 | 111 | 107 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 | | | | | 88 | | | |
| 2 | 102 | 96 | 90 | 85 | 100 | 94 | 89 | 84 | 90 | 86 | 82 | 87 | 84 | 80 | 84 | 81 | 79 | 77 | | | | | 77 | | | |
| 3 | 95 | 86 | 79 | 73 | 92 | 84 | 78 | 73 | 81 | 76 | 71 | 79 | 74 | 70 | 76 | 72 | 69 | 67 | | | | | 67 | | | |
| 4 | 88 | 77 | 70 | 64 | 86 | 76 | 69 | 63 | 74 | 67 | 62 | 71 | 66 | 62 | 69 | 65 | 61 | 59 | | | | | 59 | | | |
| 5 | 81 | 70 | 62 | 56 | 79 | 69 | 61 | 56 | 67 | 60 | 55 | 65 | 59 | 55 | 63 | 58 | 54 | 52 | | | | | 52 | | | |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 55 | 50 | 61 | 54 | 49 | 60 | 54 | 49 | 58 | 53 | 49 | 47 | | | | | 47 | | | |
| 7 | 71 | 58 | 50 | 45 | 69 | 58 | 50 | 45 | 56 | 49 | 44 | 55 | 49 | 44 | 54 | 48 | 44 | 42 | | | | | 42 | | | |
| 8 | 66 | 54 | 46 | 41 | 65 | 53 | 46 | 41 | 52 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 38 | | | | | 38 | | | |
| 9 | 62 | 50 | 42 | 37 | 61 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 37 | 46 | 41 | 36 | 35 | | | | | 35 | | | |
| 10 | 58 | 46 | 39 | 34 | 57 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 34 | 43 | 38 | 34 | 32 | | | | | 32 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7772 | 7772 | 7772 |
| 5° | 7708 | 7687 | 7701 |
| 10° | 7651 | 7476 | 7395 |
| 15° | 7562 | 7205 | 7011 |
| 20° | 7429 | 6862 | 6495 |
| 25° | 7289 | 6455 | 5908 |
| 30° | 7121 | 6008 | 5260 |
| 35° | 6932 | 5500 | 4577 |
| 40° | 6736 | 4942 | 3870 |
| 45° | 6544 | 4356 | 3206 |
| 50° | 6315 | 3706 | 2520 |
| 55° | 6073 | 3011 | 1831 |
| 60° | 5801 | 2245 | 1309 |
| 65° | 5450 | 1482 | 1022 |
| 70° | 4923 | 1031 | 715 |
| 75° | 4283 | 666 | 557 |
| 80° | 3359 | 497 | 456 |
| 85° | 1736 | 414 | 333 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6544 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 102.4 | 5.2 |
| 10°-20° | 278.4 | 14.0 |
| 20°-30° | 385.0 | 19.4 |
| 30°-40° | 407.9 | 20.5 |
| 40°-50° | 356.0 | 17.9 |
| 50°-60° | 253.2 | 12.7 |
| 60°-70° | 140.8 | 7.1 |
| 70°-80° | 54.1 | 2.7 |
| 80°-90° | 9.4 | 0.5 |
| 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° | 765.8 | 38.5 |
| 0°-40° | 1173.6 | 59.1 |
| 0°-60° | 1782.8 | 89.7 |
| 0°-90° | 1987.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1987.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1099 | 1099 | 1099 | 1099 | 1099 | |
| 5° | 1086 | 1094 | 1083 | 1080 | 1085 | 103 |
| 15° | 1033 | 1024 | 984 | 963 | 958 | 291 |
| 25° | 934 | 903 | 828 | 777 | 757 | 430 |
| 35° | 803 | 748 | 637 | 560 | 530 | 503 |
| 45° | 655 | 576 | 436 | 348 | 321 | 505 |
| 55° | 493 | 395 | 244 | 169 | 149 | 441 |
| 65° | 326 | 214 | 89 | 65 | 61 | 322 |
| 75° | 157 | 61 | 24 | 20 | 20 | 166 |
| 85° | 21 | 6 | 5 | 4 | 4 | 32 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: S125R3DRP-S1090D927-X4F0-XX-UDD-F-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1099.4 | 1099.4 | 1099.4 | 1099.4 | 1099.4 |
| 2.5° | 1091.3 | 1102.5 | 1093.3 | 1094.4 | 1095.4 |
| 5° | 1086.2 | 1094.4 | 1083.2 | 1080.1 | 1085.2 |
| 7.5° | 1078.1 | 1084.2 | 1064.8 | 1057.7 | 1060.8 |
| 10° | 1065.9 | 1067.9 | 1041.4 | 1031.2 | 1030.2 |
| 12.5° | 1050.6 | 1047.5 | 1014.9 | 998.7 | 997.6 |
| 15° | 1033.3 | 1024.1 | 984.4 | 963.0 | 957.9 |
| 17.5° | 1011.9 | 997.6 | 948.8 | 921.3 | 913.1 |
| 20° | 987.5 | 968.1 | 912.1 | 876.5 | 863.3 |
| 22.5° | 963.0 | 936.6 | 871.4 | 826.6 | 812.4 |
| 25° | 934.5 | 903.0 | 827.6 | 776.7 | 757.4 |
| 27.5° | 904.0 | 866.3 | 782.8 | 723.8 | 700.4 |
| 30° | 872.4 | 828.7 | 736.0 | 669.8 | 644.4 |
| 32.5° | 838.8 | 789.0 | 687.2 | 614.9 | 588.4 |
| 35° | 803.2 | 748.2 | 637.3 | 559.9 | 530.4 |
| 37.5° | 767.6 | 706.5 | 588.4 | 505.9 | 475.4 |
| 40° | 729.9 | 663.7 | 535.5 | 451.0 | 419.4 |
| 42.5° | 693.3 | 620.0 | 485.6 | 399.1 | 370.6 |
| 45° | 654.6 | 576.2 | 435.7 | 348.2 | 320.7 |
| 47.5° | 614.9 | 530.4 | 385.8 | 300.3 | 272.8 |
| 50° | 574.2 | 485.6 | 337.0 | 253.5 | 229.1 |
| 52.5° | 533.4 | 440.8 | 291.1 | 208.7 | 187.3 |
| 55° | 492.7 | 395.0 | 244.3 | 169.0 | 148.6 |
| 57.5° | 452.0 | 350.2 | 200.5 | 132.3 | 114.0 |
| 60° | 410.3 | 304.4 | 158.8 | 97.7 | 92.6 |
| 62.5° | 368.5 | 259.6 | 123.2 | 80.4 | 76.4 |
| 65° | 325.8 | 213.8 | 88.6 | 65.2 | 61.1 |
| 67.5° | 283.0 | 172.0 | 64.1 | 49.9 | 46.8 |
| 70° | 238.2 | 131.3 | 49.9 | 37.7 | 34.6 |
| 72.5° | 195.5 | 94.7 | 35.6 | 27.5 | 26.5 |
| 75° | 156.8 | 61.1 | 24.4 | 20.4 | 20.4 |
| 77.5° | 118.1 | 36.6 | 17.3 | 15.3 | 15.3 |
| 80° | 82.5 | 21.4 | 12.2 | 11.2 | 11.2 |
| 82.5° | 49.9 | 11.2 | 8.1 | 7.1 | 7.1 |
| 85° | 21.4 | 6.1 | 5.1 | 4.1 | 4.1 |
| 87.5° | 4.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| 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 | 18.29 | 19.73 | 18.65 | 20.04 | 20.36 | 10.92 | 12.37 | 11.29 | 12.68 | 12.99 |
| | 3H | 19.84 | 21.13 | 20.22 | 21.46 | 21.82 | 11.49 | 12.77 | 11.86 | 13.10 | 13.46 |
| | 4H | 20.37 | 21.57 | 20.77 | 21.92 | 22.30 | 11.61 | 12.81 | 12.01 | 13.16 | 13.54 |
| | 6H | 20.70 | 21.81 | 21.12 | 22.18 | 22.57 | 11.68 | 12.78 | 12.09 | 13.15 | 13.54 |
| | 8H | 20.79 | 21.84 | 21.21 | 22.23 | 22.63 | 11.68 | 12.73 | 12.11 | 13.12 | 13.53 |
| | 12H | 20.81 | 21.82 | 21.24 | 22.20 | 22.63 | 11.67 | 12.68 | 12.10 | 13.06 | 13.49 |
| 4H | 2H | 18.18 | 19.38 | 18.58 | 19.73 | 20.11 | 11.49 | 12.69 | 11.89 | 13.04 | 13.42 |
| | 3H | 19.85 | 20.84 | 20.26 | 21.24 | 21.64 | 12.16 | 13.15 | 12.57 | 13.55 | 13.95 |
| | 4H | 20.40 | 21.28 | 20.83 | 21.70 | 22.14 | 12.32 | 13.20 | 12.75 | 13.62 | 14.06 |
| | 6H | 20.79 | 21.56 | 21.25 | 22.00 | 22.46 | 12.43 | 13.19 | 12.89 | 13.64 | 14.10 |
| | 8H | 20.90 | 21.61 | 21.36 | 22.05 | 22.52 | 12.44 | 13.16 | 12.91 | 13.60 | 14.07 |
| | 12H | 20.94 | 21.58 | 21.43 | 22.06 | 22.53 | 12.44 | 13.08 | 12.93 | 13.56 | 14.03 |
| 8H | 4H | 20.30 | 21.01 | 20.77 | 21.46 | 21.93 | 12.59 | 13.30 | 13.05 | 13.75 | 14.22 |
| | 6H | 20.69 | 21.27 | 21.19 | 21.77 | 22.25 | 12.72 | 13.31 | 13.22 | 13.80 | 14.28 |
| | 8H | 20.80 | 21.32 | 21.31 | 21.83 | 22.32 | 12.75 | 13.27 | 13.27 | 13.79 | 14.28 |
| | 12H | 20.86 | 21.32 | 21.37 | 21.82 | 22.38 | 12.77 | 13.24 | 13.28 | 13.73 | 14.30 |
| 12H | 4H | 20.27 | 20.90 | 20.75 | 21.38 | 21.85 | 12.60 | 13.24 | 13.09 | 13.72 | 14.19 |
| | 6H | 20.64 | 21.16 | 21.15 | 21.67 | 22.16 | 12.73 | 13.26 | 13.25 | 13.77 | 14.26 |
| | 8H | 20.76 | 21.23 | 21.28 | 21.72 | 22.29 | 12.79 | 13.26 | 13.30 | 13.75 | 14.32 |