

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: P1056480

Luminaire Tested: S125R3DRP-S850D927-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056480
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-S850D927-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

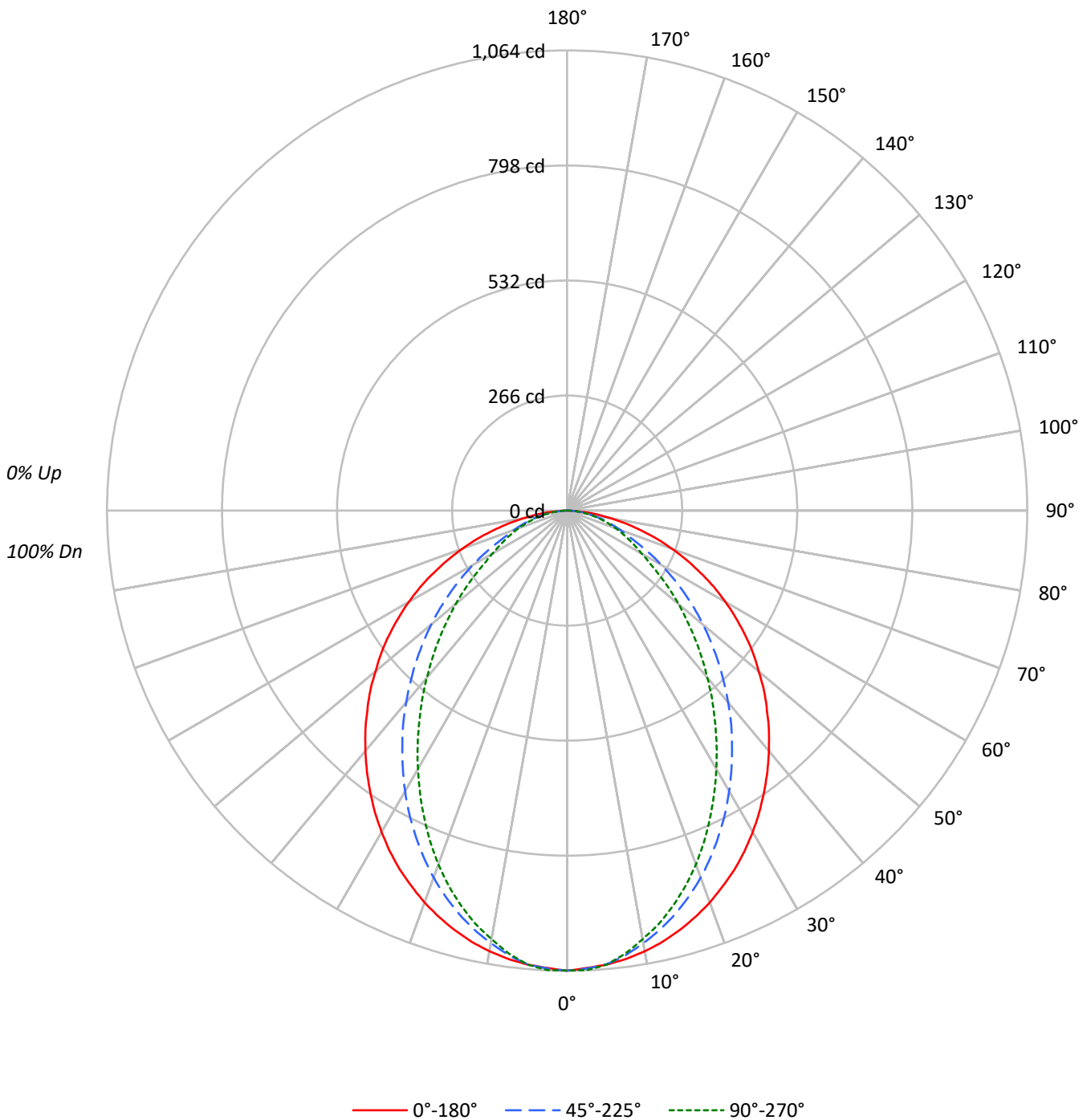
Lumens per Lamp: N/A
Luminaire Lumens: 2254.9 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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

TEST NUMBER: P1056480

CATALOG NUMBER: S125R3DRP-S850D927-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P1056480

CATALOG NUMBER: S125R3DRP-S850D927-X4F0-XX-UDD-F-W

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° | 7521 | 7521 | 7521 |
| 5° | 7477 | 7471 | 7477 |
| 10° | 7427 | 7290 | 7222 |
| 15° | 7352 | 7068 | 6923 |
| 20° | 7253 | 6794 | 6550 |
| 25° | 7143 | 6469 | 6105 |
| 30° | 7003 | 6117 | 5632 |
| 35° | 6851 | 5736 | 5141 |
| 40° | 6696 | 5344 | 4657 |
| 45° | 6533 | 4934 | 4174 |
| 50° | 6360 | 4514 | 3694 |
| 55° | 6199 | 4052 | 3212 |
| 60° | 5981 | 3562 | 2822 |
| 65° | 5684 | 3021 | 2625 |
| 70° | 5339 | 2701 | 2456 |
| 75° | 4826 | 2488 | 2316 |
| 80° | 4193 | 2259 | 2162 |
| 85° | 3277 | 1995 | 1995 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6533 cd/sqm



TEST NUMBER: P1056480

CATALOG NUMBER: S125R3DRP-S850D927-X4F0-XX-UDD-F-W

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 99.5 | 4.4 |
| 10°-20° | 273.3 | 12.1 |
| 20°-30° | 386.1 | 17.1 |
| 30°-40° | 425.0 | 18.8 |
| 40°-50° | 396.5 | 17.6 |
| 50°-60° | 316.5 | 14.0 |
| 60°-70° | 213.0 | 9.4 |
| 70°-80° | 113.4 | 5.0 |
| 80°-90° | 31.5 | 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° | 758.9 | 33.7 |
| 0°-40° | 1184.0 | 52.5 |
| 0°-60° | 1897.0 | 84.1 |
| 0°-90° | 2254.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2254.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1064 | 1064 | 1064 | 1064 | 1064 | |
| 5° | 1054 | 1062 | 1053 | 1050 | 1054 | 100 |
| 15° | 1004 | 999 | 966 | 949 | 946 | 283 |
| 25° | 916 | 888 | 829 | 793 | 783 | 422 |
| 35° | 794 | 747 | 665 | 612 | 596 | 497 |
| 45° | 654 | 592 | 494 | 433 | 418 | 505 |
| 55° | 503 | 427 | 329 | 276 | 261 | 449 |
| 65° | 340 | 265 | 181 | 160 | 157 | 337 |
| 75° | 177 | 117 | 91 | 86 | 85 | 188 |
| 85° | 40 | 28 | 25 | 25 | 25 | 48 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P1056480

CATALOG NUMBER: S125R3DRP-S850D927-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1063.9 | 1063.9 | 1063.9 | 1063.9 | 1063.9 |
| 2.5° | 1058.4 | 1067.1 | 1059.9 | 1061.5 | 1063.1 |
| 5° | 1053.6 | 1062.3 | 1052.8 | 1049.6 | 1053.6 |
| 7.5° | 1045.7 | 1052.8 | 1037.0 | 1029.8 | 1033.0 |
| 10° | 1034.6 | 1039.3 | 1015.6 | 1006.1 | 1006.1 |
| 12.5° | 1021.1 | 1021.1 | 992.6 | 979.1 | 979.1 |
| 15° | 1004.5 | 998.9 | 965.7 | 949.0 | 945.9 |
| 17.5° | 985.5 | 975.2 | 935.6 | 914.2 | 910.2 |
| 20° | 964.1 | 947.4 | 903.1 | 875.4 | 870.6 |
| 22.5° | 940.3 | 918.9 | 867.4 | 833.4 | 827.8 |
| 25° | 915.8 | 888.0 | 829.4 | 793.0 | 782.7 |
| 27.5° | 888.0 | 854.8 | 790.6 | 749.4 | 736.7 |
| 30° | 857.9 | 819.9 | 749.4 | 703.5 | 690.0 |
| 32.5° | 827.0 | 784.3 | 707.4 | 658.3 | 643.3 |
| 35° | 793.8 | 747.0 | 664.6 | 612.4 | 595.7 |
| 37.5° | 760.5 | 709.8 | 622.7 | 568.0 | 550.6 |
| 40° | 725.6 | 670.2 | 579.1 | 522.8 | 504.6 |
| 42.5° | 690.8 | 631.4 | 536.3 | 479.3 | 460.3 |
| 45° | 653.5 | 591.8 | 493.5 | 433.3 | 417.5 |
| 47.5° | 617.9 | 551.4 | 451.5 | 392.9 | 375.5 |
| 50° | 578.3 | 509.4 | 410.4 | 351.7 | 335.9 |
| 52.5° | 541.9 | 468.2 | 369.2 | 314.5 | 297.9 |
| 55° | 503.0 | 427.0 | 328.8 | 276.5 | 260.6 |
| 57.5° | 462.6 | 385.8 | 289.9 | 240.8 | 225.8 |
| 60° | 423.0 | 344.6 | 251.9 | 206.8 | 199.6 |
| 62.5° | 382.6 | 305.8 | 216.3 | 181.4 | 176.7 |
| 65° | 339.8 | 265.4 | 180.6 | 160.0 | 156.9 |
| 67.5° | 299.4 | 226.6 | 152.1 | 140.2 | 137.0 |
| 70° | 258.3 | 187.7 | 130.7 | 120.4 | 118.8 |
| 72.5° | 217.8 | 150.5 | 110.1 | 103.0 | 101.4 |
| 75° | 176.7 | 117.2 | 91.1 | 85.6 | 84.8 |
| 77.5° | 138.6 | 87.9 | 72.1 | 69.7 | 68.1 |
| 80° | 103.0 | 65.8 | 55.5 | 53.9 | 53.1 |
| 82.5° | 70.5 | 45.2 | 39.6 | 39.6 | 38.0 |
| 85° | 40.4 | 27.7 | 24.6 | 25.3 | 24.6 |
| 87.5° | 15.1 | 11.9 | 11.1 | 11.9 | 11.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P1056480
 CATALOG NUMBER: S125R3DRP-S850D927-X4F0-XX-UDD-F-W

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 | 18.30 | 19.84 | 18.66 | 20.15 | 20.47 | 14.68 | 16.22 | 15.05 | 16.53 | 16.85 |
| | 3H | 20.08 | 21.47 | 20.46 | 21.79 | 22.16 | 16.16 | 17.54 | 16.53 | 17.87 | 18.23 |
| | 4H | 20.74 | 22.04 | 21.14 | 22.38 | 22.76 | 16.75 | 18.05 | 17.15 | 18.39 | 18.77 |
| | 6H | 21.21 | 22.41 | 21.63 | 22.78 | 23.17 | 17.21 | 18.41 | 17.62 | 18.78 | 19.17 |
| | 8H | 21.37 | 22.51 | 21.79 | 22.90 | 23.30 | 17.37 | 18.51 | 17.80 | 18.90 | 19.30 |
| | 12H | 21.46 | 22.56 | 21.89 | 22.94 | 23.37 | 17.48 | 18.58 | 17.91 | 18.96 | 19.39 |
| 4H | 2H | 18.43 | 19.73 | 18.83 | 20.08 | 20.46 | 15.36 | 16.66 | 15.76 | 17.00 | 17.38 |
| | 3H | 20.40 | 21.48 | 20.81 | 21.88 | 22.28 | 17.03 | 18.11 | 17.44 | 18.51 | 18.91 |
| | 4H | 21.15 | 22.12 | 21.58 | 22.54 | 22.98 | 17.74 | 18.71 | 18.17 | 19.13 | 19.56 |
| | 6H | 21.74 | 22.59 | 22.20 | 23.03 | 23.49 | 18.32 | 19.17 | 18.78 | 19.61 | 20.07 |
| | 8H | 21.95 | 22.74 | 22.41 | 23.19 | 23.65 | 18.53 | 19.32 | 18.99 | 19.77 | 20.24 |
| | 12H | 22.10 | 22.81 | 22.58 | 23.28 | 23.75 | 18.69 | 19.40 | 19.17 | 19.88 | 20.35 |
| 8H | 4H | 21.21 | 22.00 | 21.67 | 22.45 | 22.91 | 18.10 | 18.89 | 18.56 | 19.34 | 19.81 |
| | 6H | 21.87 | 22.53 | 22.37 | 23.02 | 23.49 | 18.80 | 19.46 | 19.30 | 19.95 | 20.43 |
| | 8H | 22.13 | 22.71 | 22.64 | 23.22 | 23.71 | 19.09 | 19.68 | 19.60 | 20.19 | 20.67 |
| | 12H | 22.33 | 22.85 | 22.84 | 23.35 | 23.91 | 19.33 | 19.85 | 19.84 | 20.34 | 20.91 |
| 12H | 4H | 21.20 | 21.91 | 21.69 | 22.39 | 22.86 | 18.15 | 18.86 | 18.63 | 19.34 | 19.81 |
| | 6H | 21.87 | 22.46 | 22.38 | 22.96 | 23.45 | 18.88 | 19.47 | 19.39 | 19.97 | 20.46 |
| | 8H | 22.16 | 22.68 | 22.67 | 23.17 | 23.74 | 19.22 | 19.74 | 19.73 | 20.23 | 20.80 |