

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056533

Luminaire Tested: S125R3DR-H1270D927-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056533
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: S125R3DR-H1270D927-X4F0-XX-UDD-FLL-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

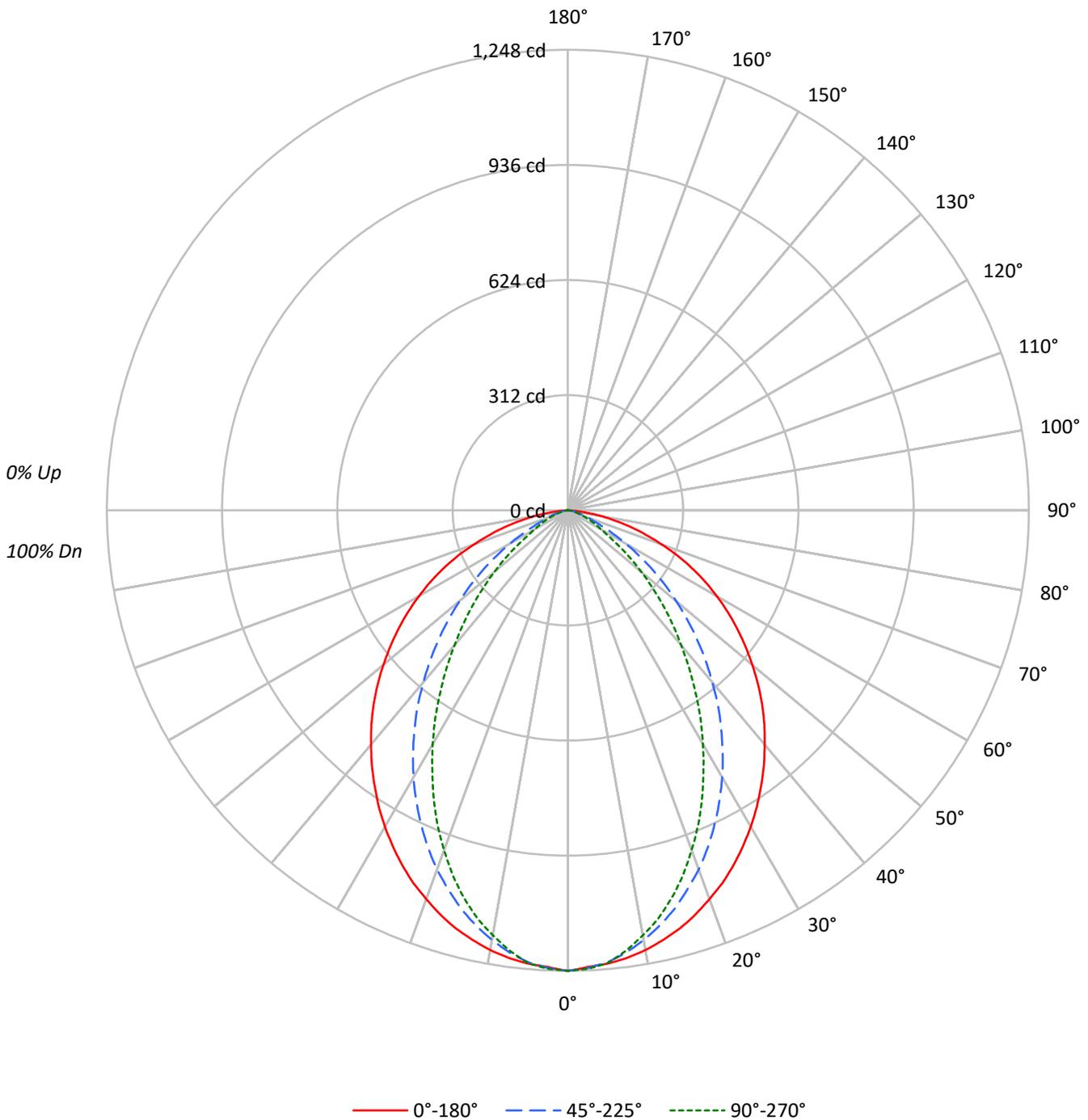
Lumens per Lamp: N/A
Luminaire Lumens: 2255.9 lumens
Efficiency: N/A
Efficacy: 61.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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 | 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° | 8824 | 8824 | 8824 |
| 5° | 8750 | 8726 | 8743 |
| 10° | 8686 | 8487 | 8396 |
| 15° | 8585 | 8179 | 7959 |
| 20° | 8433 | 7790 | 7373 |
| 25° | 8275 | 7329 | 6707 |
| 30° | 8085 | 6821 | 5972 |
| 35° | 7869 | 6244 | 5196 |
| 40° | 7647 | 5610 | 4394 |
| 45° | 7429 | 4945 | 3639 |
| 50° | 7168 | 4207 | 2859 |
| 55° | 6895 | 3419 | 2079 |
| 60° | 6584 | 2549 | 1487 |
| 65° | 6186 | 1681 | 1159 |
| 70° | 5589 | 1170 | 812 |
| 75° | 4862 | 757 | 631 |
| 80° | 3811 | 566 | 517 |
| 85° | 1971 | 470 | 373 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7429 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 116.3 | 5.2 |
| 10°-20° | 316.1 | 14.0 |
| 20°-30° | 437.0 | 19.4 |
| 30°-40° | 463.0 | 20.5 |
| 40°-50° | 404.1 | 17.9 |
| 50°-60° | 287.4 | 12.7 |
| 60°-70° | 159.8 | 7.1 |
| 70°-80° | 61.4 | 2.7 |
| 80°-90° | 10.6 | 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° | 869.4 | 38.5 |
| 0°-40° | 1332.4 | 59.1 |
| 0°-60° | 2024.0 | 89.7 |
| 0°-90° | 2255.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2255.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1248 | 1248 | 1248 | 1248 | 1248 | |
| 5° | 1233 | 1242 | 1230 | 1226 | 1232 | 117 |
| 15° | 1173 | 1163 | 1118 | 1093 | 1088 | 330 |
| 25° | 1061 | 1025 | 940 | 882 | 860 | 488 |
| 35° | 912 | 849 | 724 | 636 | 602 | 570 |
| 45° | 743 | 654 | 495 | 395 | 364 | 573 |
| 55° | 559 | 448 | 277 | 192 | 169 | 500 |
| 65° | 370 | 243 | 100 | 74 | 69 | 365 |
| 75° | 178 | 69 | 28 | 23 | 23 | 189 |
| 85° | 24 | 7 | 6 | 5 | 5 | 36 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1056533

CATALOG NUMBER: S125R3DR-H1270D927-X4F0-XX-UDD-FLL-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1248.2 | 1248.2 | 1248.2 | 1248.2 | 1248.2 |
| 2.5° | 1238.9 | 1251.6 | 1241.2 | 1242.4 | 1243.5 |
| 5° | 1233.1 | 1242.4 | 1229.7 | 1226.2 | 1232.0 |
| 7.5° | 1223.9 | 1230.8 | 1208.9 | 1200.8 | 1204.2 |
| 10° | 1210.0 | 1212.3 | 1182.3 | 1170.7 | 1169.6 |
| 12.5° | 1192.7 | 1189.2 | 1152.2 | 1133.7 | 1132.6 |
| 15° | 1173.0 | 1162.6 | 1117.6 | 1093.3 | 1087.5 |
| 17.5° | 1148.8 | 1132.6 | 1077.1 | 1045.9 | 1036.7 |
| 20° | 1121.0 | 1099.1 | 1035.5 | 995.1 | 980.0 |
| 22.5° | 1093.3 | 1063.2 | 989.3 | 938.4 | 922.2 |
| 25° | 1060.9 | 1025.1 | 939.6 | 881.8 | 859.8 |
| 27.5° | 1026.3 | 983.5 | 888.7 | 821.7 | 795.1 |
| 30° | 990.4 | 940.7 | 835.6 | 760.4 | 731.6 |
| 32.5° | 952.3 | 895.7 | 780.1 | 698.0 | 668.0 |
| 35° | 911.8 | 849.4 | 723.5 | 635.6 | 602.1 |
| 37.5° | 871.4 | 802.1 | 668.0 | 574.4 | 539.7 |
| 40° | 828.6 | 753.5 | 607.9 | 512.0 | 476.1 |
| 42.5° | 787.0 | 703.8 | 551.3 | 453.0 | 420.7 |
| 45° | 743.1 | 654.1 | 494.6 | 395.2 | 364.0 |
| 47.5° | 698.0 | 602.1 | 438.0 | 340.9 | 309.7 |
| 50° | 651.8 | 551.3 | 382.5 | 287.8 | 260.0 |
| 52.5° | 605.6 | 500.4 | 330.5 | 236.9 | 212.6 |
| 55° | 559.4 | 448.4 | 277.4 | 191.8 | 168.7 |
| 57.5° | 513.1 | 397.6 | 227.7 | 150.2 | 129.4 |
| 60° | 465.7 | 345.6 | 180.3 | 110.9 | 105.2 |
| 62.5° | 418.4 | 294.7 | 139.8 | 91.3 | 86.7 |
| 65° | 369.8 | 242.7 | 100.5 | 74.0 | 69.3 |
| 67.5° | 321.3 | 195.3 | 72.8 | 56.6 | 53.2 |
| 70° | 270.4 | 149.1 | 56.6 | 42.8 | 39.3 |
| 72.5° | 221.9 | 107.5 | 40.4 | 31.2 | 30.0 |
| 75° | 178.0 | 69.3 | 27.7 | 23.1 | 23.1 |
| 77.5° | 134.1 | 41.6 | 19.6 | 17.3 | 17.3 |
| 80° | 93.6 | 24.3 | 13.9 | 12.7 | 12.7 |
| 82.5° | 56.6 | 12.7 | 9.2 | 8.1 | 8.1 |
| 85° | 24.3 | 6.9 | 5.8 | 4.6 | 4.6 |
| 87.5° | 4.6 | 2.3 | 2.3 | 2.3 | 2.3 |
| 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 | 18.73 | 20.17 | 19.09 | 20.49 | 20.80 | 11.36 | 12.81 | 11.73 | 13.12 | 13.44 |
| | 3H | 20.29 | 21.57 | 20.66 | 21.90 | 22.26 | 11.93 | 13.21 | 12.31 | 13.54 | 13.91 |
| | 4H | 20.81 | 22.01 | 21.21 | 22.36 | 22.74 | 12.05 | 13.25 | 12.45 | 13.60 | 13.98 |
| | 6H | 21.15 | 22.25 | 21.56 | 22.62 | 23.01 | 12.12 | 13.22 | 12.53 | 13.59 | 13.98 |
| | 8H | 21.23 | 22.28 | 21.66 | 22.67 | 23.07 | 12.12 | 13.17 | 12.55 | 13.56 | 13.96 |
| | 12H | 21.25 | 22.26 | 21.68 | 22.64 | 23.07 | 12.11 | 13.12 | 12.54 | 13.50 | 13.93 |
| 4H | 2H | 18.62 | 19.83 | 19.02 | 20.18 | 20.56 | 11.93 | 13.13 | 12.33 | 13.48 | 13.86 |
| | 3H | 20.29 | 21.28 | 20.70 | 21.68 | 22.08 | 12.60 | 13.59 | 13.01 | 13.99 | 14.39 |
| | 4H | 20.84 | 21.72 | 21.27 | 22.14 | 22.58 | 12.76 | 13.64 | 13.19 | 14.06 | 14.50 |
| | 6H | 21.23 | 22.00 | 21.69 | 22.44 | 22.90 | 12.87 | 13.63 | 13.33 | 14.08 | 14.54 |
| | 8H | 21.34 | 22.05 | 21.80 | 22.50 | 22.96 | 12.88 | 13.59 | 13.35 | 14.04 | 14.51 |
| | 12H | 21.38 | 22.02 | 21.87 | 22.50 | 22.97 | 12.88 | 13.52 | 13.37 | 14.00 | 14.47 |
| 8H | 4H | 20.74 | 21.46 | 21.21 | 21.90 | 22.37 | 13.03 | 13.74 | 13.49 | 14.19 | 14.65 |
| | 6H | 21.13 | 21.71 | 21.63 | 22.21 | 22.69 | 13.16 | 13.75 | 13.66 | 14.24 | 14.72 |
| | 8H | 21.24 | 21.76 | 21.75 | 22.27 | 22.76 | 13.19 | 13.71 | 13.71 | 14.23 | 14.72 |
| | 12H | 21.30 | 21.76 | 21.81 | 22.26 | 22.83 | 13.21 | 13.67 | 13.72 | 14.17 | 14.74 |
| 12H | 4H | 20.71 | 21.34 | 21.19 | 21.82 | 22.29 | 13.04 | 13.68 | 13.53 | 14.16 | 14.63 |
| | 6H | 21.08 | 21.60 | 21.59 | 22.11 | 22.60 | 13.17 | 13.70 | 13.69 | 14.21 | 14.70 |
| | 8H | 21.20 | 21.67 | 21.72 | 22.16 | 22.73 | 13.23 | 13.69 | 13.74 | 14.19 | 14.76 |