

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: P1056404

Luminaire Tested: S125R3DR-S1270D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056404
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-S1270D935-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

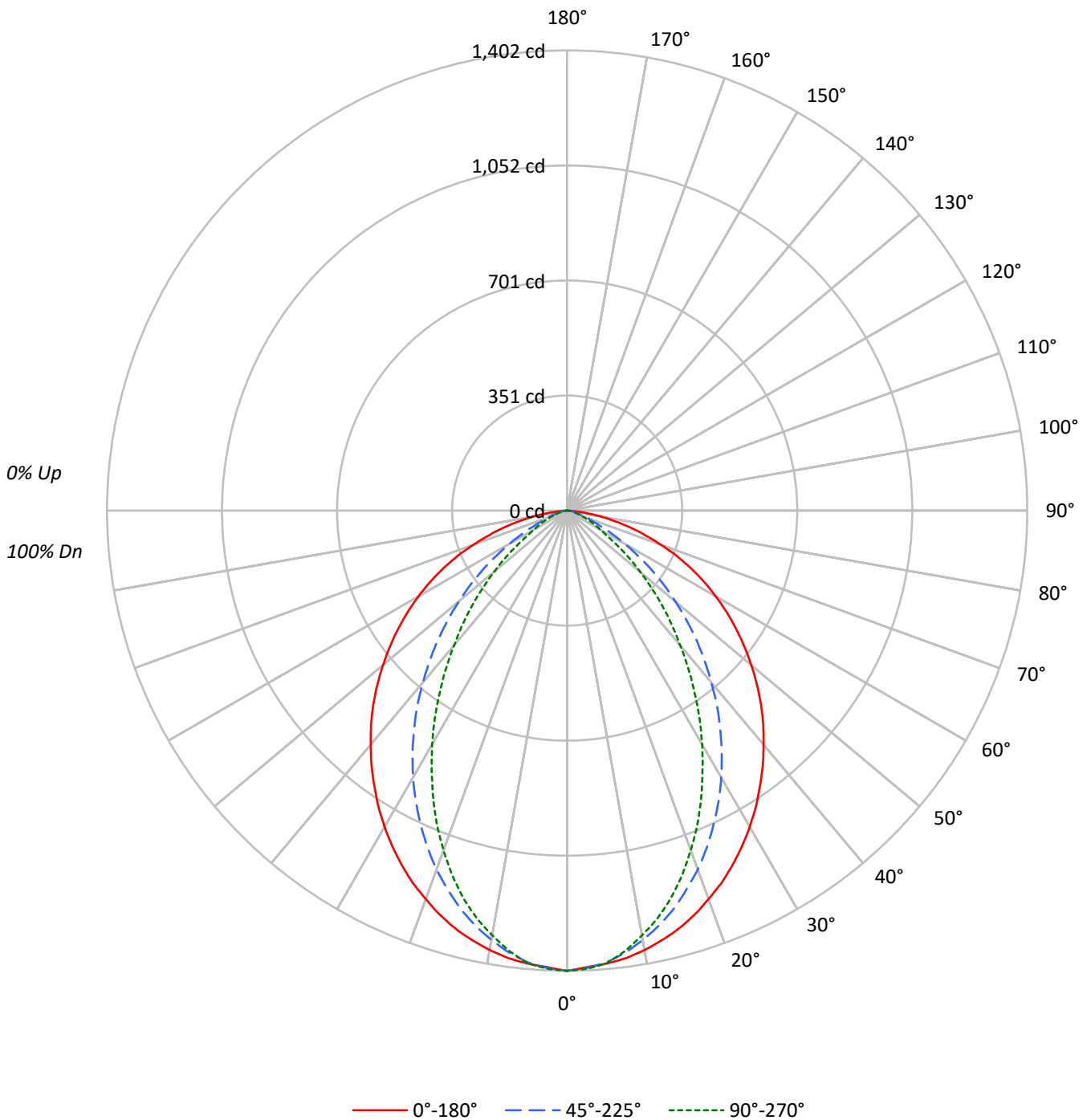
Lumens per Lamp: N/A
Luminaire Lumens: 2534.7 lumens
Efficiency: N/A
Efficacy: 60.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 111 | 107 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 |
| 2 | 102 | 96 | 90 | 85 | 100 | 94 | 89 | 84 | 90 | 86 | 82 | 87 | 84 | 80 | 84 | 81 | 79 | 77 |
| 3 | 95 | 86 | 79 | 73 | 92 | 84 | 78 | 73 | 81 | 76 | 71 | 79 | 74 | 70 | 76 | 72 | 69 | 67 |
| 4 | 88 | 77 | 70 | 64 | 86 | 76 | 69 | 63 | 74 | 67 | 62 | 71 | 66 | 62 | 69 | 65 | 61 | 59 |
| 5 | 81 | 70 | 62 | 56 | 79 | 69 | 61 | 56 | 67 | 60 | 55 | 65 | 59 | 55 | 63 | 58 | 54 | 52 |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 55 | 50 | 61 | 54 | 49 | 60 | 54 | 49 | 58 | 53 | 49 | 47 |
| 7 | 71 | 58 | 50 | 45 | 69 | 58 | 50 | 45 | 56 | 49 | 44 | 55 | 49 | 44 | 54 | 48 | 44 | 42 |
| 8 | 66 | 54 | 46 | 41 | 65 | 53 | 46 | 41 | 52 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 38 |
| 9 | 62 | 50 | 42 | 37 | 61 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 37 | 46 | 41 | 36 | 35 |
| 10 | 58 | 46 | 39 | 34 | 57 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 34 | 43 | 38 | 34 | 32 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 9914 | 9914 | 9914 |
| 5° | 9832 | 9804 | 9823 |
| 10° | 9759 | 9536 | 9433 |
| 15° | 9646 | 9190 | 8943 |
| 20° | 9476 | 8753 | 8284 |
| 25° | 9298 | 8235 | 7536 |
| 30° | 9084 | 7663 | 6710 |
| 35° | 8842 | 7015 | 5838 |
| 40° | 8592 | 6303 | 4937 |
| 45° | 8347 | 5557 | 4089 |
| 50° | 8055 | 4727 | 3214 |
| 55° | 7746 | 3840 | 2337 |
| 60° | 7399 | 2864 | 1671 |
| 65° | 6950 | 1890 | 1303 |
| 70° | 6281 | 1315 | 912 |
| 75° | 5463 | 852 | 710 |
| 80° | 4283 | 635 | 582 |
| 85° | 2214 | 527 | 422 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8347 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 130.6 | 5.2 |
| 10°-20° | 355.1 | 14.0 |
| 20°-30° | 491.0 | 19.4 |
| 30°-40° | 520.3 | 20.5 |
| 40°-50° | 454.1 | 17.9 |
| 50°-60° | 323.0 | 12.7 |
| 60°-70° | 179.6 | 7.1 |
| 70°-80° | 69.1 | 2.7 |
| 80°-90° | 12.0 | 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° | 976.8 | 38.5 |
| 0°-40° | 1497.0 | 59.1 |
| 0°-60° | 2274.1 | 89.7 |
| 0°-90° | 2534.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2534.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1402 | 1402 | 1402 | 1402 | 1402 | |
| 5° | 1386 | 1396 | 1382 | 1378 | 1384 | 131 |
| 15° | 1318 | 1306 | 1256 | 1228 | 1222 | 371 |
| 25° | 1192 | 1152 | 1056 | 991 | 966 | 549 |
| 35° | 1024 | 954 | 813 | 714 | 676 | 641 |
| 45° | 835 | 735 | 556 | 444 | 409 | 644 |
| 55° | 628 | 504 | 312 | 216 | 190 | 562 |
| 65° | 416 | 273 | 113 | 83 | 78 | 411 |
| 75° | 200 | 78 | 31 | 26 | 26 | 212 |
| 85° | 27 | 8 | 6 | 5 | 5 | 40 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1056404

CATALOG NUMBER: S125R3DR-S1270D935-X4F0-XX-UDD-F-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1402.4 | 1402.4 | 1402.4 | 1402.4 | 1402.4 |
| 2.5° | 1392.0 | 1406.3 | 1394.6 | 1395.9 | 1397.2 |
| 5° | 1385.5 | 1395.9 | 1381.6 | 1377.7 | 1384.2 |
| 7.5° | 1375.1 | 1382.9 | 1358.2 | 1349.2 | 1353.1 |
| 10° | 1359.5 | 1362.1 | 1328.4 | 1315.4 | 1314.1 |
| 12.5° | 1340.1 | 1336.2 | 1294.6 | 1273.8 | 1272.5 |
| 15° | 1318.0 | 1306.3 | 1255.7 | 1228.4 | 1221.9 |
| 17.5° | 1290.7 | 1272.5 | 1210.2 | 1175.2 | 1164.8 |
| 20° | 1259.6 | 1234.9 | 1163.5 | 1118.0 | 1101.1 |
| 22.5° | 1228.4 | 1194.6 | 1111.5 | 1054.4 | 1036.2 |
| 25° | 1192.0 | 1151.8 | 1055.7 | 990.8 | 966.1 |
| 27.5° | 1153.1 | 1105.0 | 998.6 | 923.2 | 893.4 |
| 30° | 1112.8 | 1057.0 | 938.8 | 854.4 | 822.0 |
| 32.5° | 1070.0 | 1006.4 | 876.5 | 784.3 | 750.5 |
| 35° | 1024.5 | 954.4 | 812.9 | 714.2 | 676.5 |
| 37.5° | 979.1 | 901.2 | 750.5 | 645.4 | 606.4 |
| 40° | 931.0 | 846.6 | 683.0 | 575.2 | 535.0 |
| 42.5° | 884.3 | 790.8 | 619.4 | 509.0 | 472.7 |
| 45° | 834.9 | 735.0 | 555.8 | 444.1 | 409.0 |
| 47.5° | 784.3 | 676.5 | 492.1 | 383.1 | 348.0 |
| 50° | 732.4 | 619.4 | 429.8 | 323.3 | 292.2 |
| 52.5° | 680.4 | 562.3 | 371.4 | 266.2 | 238.9 |
| 55° | 628.5 | 503.8 | 311.6 | 215.6 | 189.6 |
| 57.5° | 576.5 | 446.7 | 255.8 | 168.8 | 145.4 |
| 60° | 523.3 | 388.3 | 202.6 | 124.7 | 118.2 |
| 62.5° | 470.1 | 331.1 | 157.1 | 102.6 | 97.4 |
| 65° | 415.5 | 272.7 | 113.0 | 83.1 | 77.9 |
| 67.5° | 361.0 | 219.4 | 81.8 | 63.6 | 59.7 |
| 70° | 303.9 | 167.5 | 63.6 | 48.0 | 44.1 |
| 72.5° | 249.3 | 120.8 | 45.4 | 35.1 | 33.8 |
| 75° | 200.0 | 77.9 | 31.2 | 26.0 | 26.0 |
| 77.5° | 150.6 | 46.7 | 22.1 | 19.5 | 19.5 |
| 80° | 105.2 | 27.3 | 15.6 | 14.3 | 14.3 |
| 82.5° | 63.6 | 14.3 | 10.4 | 9.1 | 9.1 |
| 85° | 27.3 | 7.8 | 6.5 | 5.2 | 5.2 |
| 87.5° | 5.2 | 2.6 | 2.6 | 2.6 | 2.6 |
| 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 | 19.13 | 20.58 | 19.50 | 20.89 | 21.20 | 11.77 | 13.21 | 12.13 | 13.53 | 13.84 |
| | 3H | 20.69 | 21.98 | 21.07 | 22.31 | 22.67 | 12.33 | 13.62 | 12.71 | 13.95 | 14.31 |
| | 4H | 21.21 | 22.41 | 21.61 | 22.76 | 23.14 | 12.46 | 13.66 | 12.86 | 14.01 | 14.39 |
| | 6H | 21.55 | 22.66 | 21.96 | 23.02 | 23.42 | 12.52 | 13.63 | 12.94 | 14.00 | 14.39 |
| | 8H | 21.63 | 22.68 | 22.06 | 23.07 | 23.48 | 12.53 | 13.58 | 12.95 | 13.97 | 14.37 |
| | 12H | 21.66 | 22.66 | 22.09 | 23.04 | 23.47 | 12.52 | 13.52 | 12.95 | 13.91 | 14.33 |
| 4H | 2H | 19.03 | 20.23 | 19.43 | 20.58 | 20.96 | 12.33 | 13.54 | 12.74 | 13.89 | 14.27 |
| | 3H | 20.69 | 21.68 | 21.11 | 22.08 | 22.49 | 13.01 | 13.99 | 13.42 | 14.40 | 14.80 |
| | 4H | 21.24 | 22.13 | 21.68 | 22.54 | 22.98 | 13.16 | 14.05 | 13.60 | 14.46 | 14.91 |
| | 6H | 21.64 | 22.40 | 22.10 | 22.85 | 23.31 | 13.28 | 14.04 | 13.74 | 14.48 | 14.95 |
| | 8H | 21.74 | 22.45 | 22.21 | 22.90 | 23.37 | 13.29 | 14.00 | 13.75 | 14.45 | 14.92 |
| | 12H | 21.79 | 22.42 | 22.27 | 22.90 | 23.37 | 13.29 | 13.92 | 13.77 | 14.40 | 14.88 |
| 8H | 4H | 21.15 | 21.86 | 21.61 | 22.31 | 22.77 | 13.43 | 14.15 | 13.90 | 14.59 | 15.06 |
| | 6H | 21.53 | 22.12 | 22.03 | 22.61 | 23.09 | 13.57 | 14.15 | 14.07 | 14.65 | 15.13 |
| | 8H | 21.64 | 22.17 | 22.16 | 22.68 | 23.17 | 13.60 | 14.12 | 14.11 | 14.63 | 15.12 |
| | 12H | 21.70 | 22.17 | 22.22 | 22.66 | 23.23 | 13.62 | 14.08 | 14.13 | 14.58 | 15.14 |
| 12H | 4H | 21.11 | 21.74 | 21.59 | 22.22 | 22.70 | 13.45 | 14.08 | 13.93 | 14.56 | 15.04 |
| | 6H | 21.48 | 22.01 | 22.00 | 22.52 | 23.01 | 13.58 | 14.11 | 14.10 | 14.62 | 15.11 |
| | 8H | 21.61 | 22.07 | 22.12 | 22.57 | 23.13 | 13.64 | 14.10 | 14.15 | 14.60 | 15.16 |