

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: P1056500

Luminaire Tested: S125R3DRP-H1090D840-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056500
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-H1090D840-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

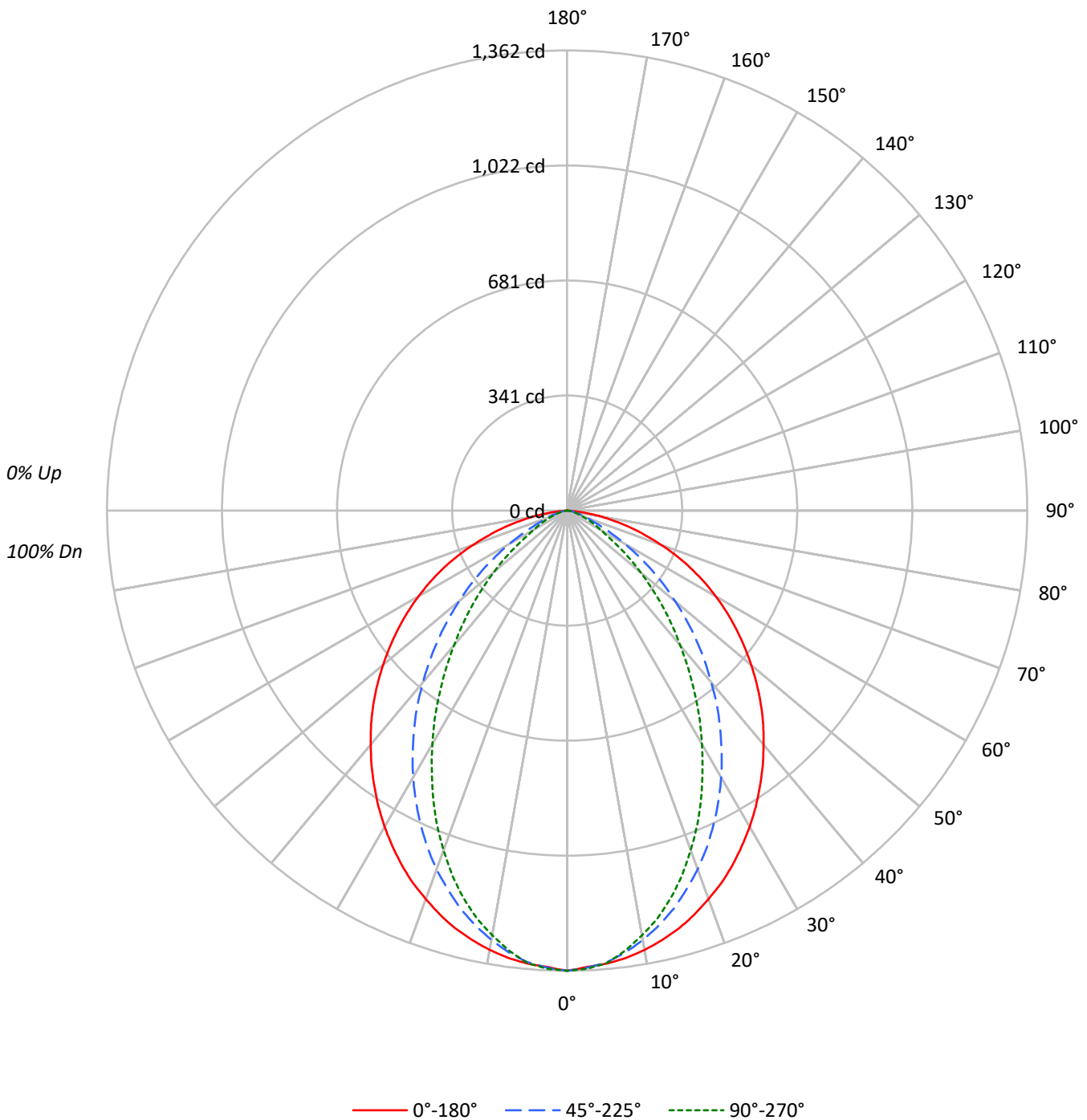
Lumens per Lamp: N/A
Luminaire Lumens: 2461.8 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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 | 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° | 9629 | 9629 | 9629 |
| 5° | 9550 | 9523 | 9540 |
| 10° | 9478 | 9262 | 9162 |
| 15° | 9369 | 8925 | 8686 |
| 20° | 9203 | 8501 | 8046 |
| 25° | 9031 | 7997 | 7319 |
| 30° | 8823 | 7443 | 6516 |
| 35° | 8588 | 6813 | 5671 |
| 40° | 8345 | 6122 | 4795 |
| 45° | 8107 | 5397 | 3972 |
| 50° | 7823 | 4591 | 3121 |
| 55° | 7523 | 3731 | 2269 |
| 60° | 7185 | 2781 | 1623 |
| 65° | 6751 | 1835 | 1266 |
| 70° | 6100 | 1277 | 887 |
| 75° | 5304 | 828 | 688 |
| 80° | 4161 | 615 | 566 |
| 85° | 2149 | 511 | 406 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8107 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 126.9 | 5.2 |
| 10°-20° | 344.9 | 14.0 |
| 20°-30° | 476.9 | 19.4 |
| 30°-40° | 505.3 | 20.5 |
| 40°-50° | 441.0 | 17.9 |
| 50°-60° | 313.7 | 12.7 |
| 60°-70° | 174.4 | 7.1 |
| 70°-80° | 67.1 | 2.7 |
| 80°-90° | 11.6 | 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° | 948.7 | 38.5 |
| 0°-40° | 1454.0 | 59.1 |
| 0°-60° | 2208.7 | 89.7 |
| 0°-90° | 2461.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2461.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1362 | 1362 | 1362 | 1362 | 1362 | |
| 5° | 1346 | 1356 | 1342 | 1338 | 1344 | 128 |
| 15° | 1280 | 1269 | 1220 | 1193 | 1187 | 361 |
| 25° | 1158 | 1119 | 1025 | 962 | 938 | 533 |
| 35° | 995 | 927 | 790 | 694 | 657 | 623 |
| 45° | 811 | 714 | 540 | 431 | 397 | 625 |
| 55° | 610 | 489 | 303 | 209 | 184 | 546 |
| 65° | 404 | 265 | 110 | 81 | 76 | 399 |
| 75° | 194 | 76 | 30 | 25 | 25 | 206 |
| 85° | 26 | 8 | 6 | 5 | 5 | 39 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1362.1 | 1362.1 | 1362.1 | 1362.1 | 1362.1 |
| 2.5° | 1352.0 | 1365.8 | 1354.5 | 1355.8 | 1357.0 |
| 5° | 1345.7 | 1355.8 | 1341.9 | 1338.1 | 1344.4 |
| 7.5° | 1335.6 | 1343.1 | 1319.2 | 1310.4 | 1314.1 |
| 10° | 1320.4 | 1323.0 | 1290.2 | 1277.6 | 1276.3 |
| 12.5° | 1301.5 | 1297.7 | 1257.4 | 1237.2 | 1235.9 |
| 15° | 1280.1 | 1268.7 | 1219.5 | 1193.1 | 1186.8 |
| 17.5° | 1253.6 | 1235.9 | 1175.4 | 1141.4 | 1131.3 |
| 20° | 1223.3 | 1199.4 | 1130.0 | 1085.9 | 1069.5 |
| 22.5° | 1193.1 | 1160.3 | 1079.6 | 1024.1 | 1006.4 |
| 25° | 1157.8 | 1118.7 | 1025.3 | 962.3 | 938.3 |
| 27.5° | 1119.9 | 1073.3 | 969.8 | 896.7 | 867.7 |
| 30° | 1080.8 | 1026.6 | 911.8 | 829.8 | 798.3 |
| 32.5° | 1039.2 | 977.4 | 851.3 | 761.7 | 729.0 |
| 35° | 995.1 | 927.0 | 789.5 | 693.6 | 657.1 |
| 37.5° | 950.9 | 875.2 | 729.0 | 626.8 | 589.0 |
| 40° | 904.3 | 822.3 | 663.4 | 558.7 | 519.6 |
| 42.5° | 858.9 | 768.0 | 601.6 | 494.4 | 459.1 |
| 45° | 810.9 | 713.8 | 539.8 | 431.3 | 397.3 |
| 47.5° | 761.7 | 657.1 | 478.0 | 372.0 | 338.0 |
| 50° | 711.3 | 601.6 | 417.4 | 314.0 | 283.8 |
| 52.5° | 660.9 | 546.1 | 360.7 | 258.5 | 232.1 |
| 55° | 610.4 | 489.3 | 302.7 | 209.4 | 184.1 |
| 57.5° | 560.0 | 433.8 | 248.4 | 164.0 | 141.3 |
| 60° | 508.2 | 377.1 | 196.7 | 121.1 | 114.8 |
| 62.5° | 456.5 | 321.6 | 152.6 | 99.6 | 94.6 |
| 65° | 403.6 | 264.8 | 109.7 | 80.7 | 75.7 |
| 67.5° | 350.6 | 213.1 | 79.5 | 61.8 | 58.0 |
| 70° | 295.1 | 162.7 | 61.8 | 46.7 | 42.9 |
| 72.5° | 242.1 | 117.3 | 44.1 | 34.1 | 32.8 |
| 75° | 194.2 | 75.7 | 30.3 | 25.2 | 25.2 |
| 77.5° | 146.3 | 45.4 | 21.4 | 18.9 | 18.9 |
| 80° | 102.2 | 26.5 | 15.1 | 13.9 | 13.9 |
| 82.5° | 61.8 | 13.9 | 10.1 | 8.8 | 8.8 |
| 85° | 26.5 | 7.6 | 6.3 | 5.0 | 5.0 |
| 87.5° | 5.0 | 2.5 | 2.5 | 2.5 | 2.5 |
| 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 | 19.03 | 20.47 | 19.39 | 20.79 | 21.10 | 11.67 | 13.11 | 12.03 | 13.43 | 13.74 |
| | 3H | 20.59 | 21.88 | 20.97 | 22.20 | 22.57 | 12.23 | 13.52 | 12.61 | 13.85 | 14.21 |
| | 4H | 21.11 | 22.31 | 21.51 | 22.66 | 23.04 | 12.36 | 13.56 | 12.76 | 13.91 | 14.29 |
| | 6H | 21.45 | 22.55 | 21.86 | 22.92 | 23.32 | 12.42 | 13.53 | 12.84 | 13.90 | 14.29 |
| | 8H | 21.53 | 22.58 | 21.96 | 22.97 | 23.37 | 12.43 | 13.48 | 12.86 | 13.87 | 14.27 |
| | 12H | 21.55 | 22.56 | 21.99 | 22.94 | 23.37 | 12.42 | 13.42 | 12.85 | 13.81 | 14.23 |
| 4H | 2H | 18.93 | 20.13 | 19.33 | 20.48 | 20.86 | 12.23 | 13.44 | 12.64 | 13.79 | 14.17 |
| | 3H | 20.59 | 21.58 | 21.00 | 21.98 | 22.38 | 12.91 | 13.89 | 13.32 | 14.30 | 14.70 |
| | 4H | 21.14 | 22.03 | 21.58 | 22.44 | 22.88 | 13.06 | 13.95 | 13.50 | 14.36 | 14.81 |
| | 6H | 21.54 | 22.30 | 22.00 | 22.74 | 23.21 | 13.18 | 13.94 | 13.64 | 14.38 | 14.85 |
| | 8H | 21.64 | 22.35 | 22.11 | 22.80 | 23.27 | 13.19 | 13.90 | 13.65 | 14.35 | 14.81 |
| | 12H | 21.69 | 22.32 | 22.17 | 22.80 | 23.27 | 13.19 | 13.82 | 13.67 | 14.30 | 14.77 |
| 8H | 4H | 21.05 | 21.76 | 21.51 | 22.20 | 22.67 | 13.33 | 14.05 | 13.80 | 14.49 | 14.96 |
| | 6H | 21.43 | 22.02 | 21.93 | 22.51 | 22.99 | 13.47 | 14.05 | 13.97 | 14.55 | 15.02 |
| | 8H | 21.54 | 22.06 | 22.06 | 22.58 | 23.07 | 13.49 | 14.02 | 14.01 | 14.53 | 15.02 |
| | 12H | 21.60 | 22.07 | 22.12 | 22.56 | 23.13 | 13.52 | 13.98 | 14.03 | 14.47 | 15.04 |
| 12H | 4H | 21.01 | 21.64 | 21.49 | 22.12 | 22.60 | 13.35 | 13.98 | 13.83 | 14.46 | 14.93 |
| | 6H | 21.38 | 21.90 | 21.90 | 22.42 | 22.91 | 13.48 | 14.00 | 14.00 | 14.52 | 15.01 |
| | 8H | 21.51 | 21.97 | 22.02 | 22.46 | 23.03 | 13.54 | 14.00 | 14.05 | 14.49 | 15.06 |