

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: P1056539

Luminaire Tested: S125R3DR-H1270D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056539
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-H1270D935-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

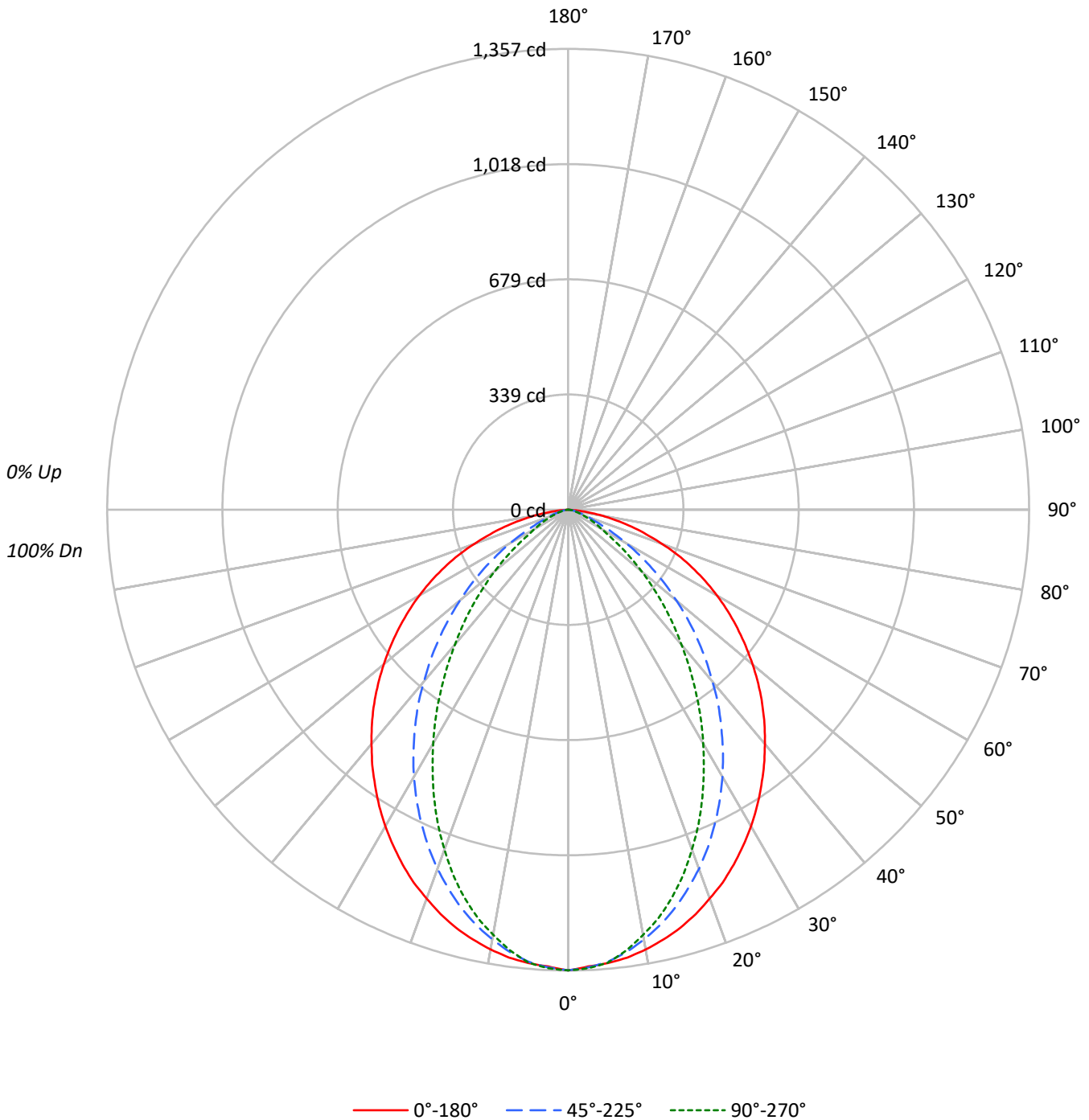
Lumens per Lamp: N/A
Luminaire Lumens: 2451.9 lumens
Efficiency: N/A
Efficacy: 67.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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 | 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° | 9590 | 9590 | 9590 |
| 5° | 9511 | 9484 | 9502 |
| 10° | 9440 | 9224 | 9125 |
| 15° | 9331 | 8889 | 8651 |
| 20° | 9166 | 8467 | 8014 |
| 25° | 8994 | 7966 | 7289 |
| 30° | 8787 | 7414 | 6490 |
| 35° | 8553 | 6786 | 5648 |
| 40° | 8311 | 6097 | 4776 |
| 45° | 8075 | 5375 | 3956 |
| 50° | 7791 | 4573 | 3108 |
| 55° | 7492 | 3716 | 2260 |
| 60° | 7157 | 2771 | 1616 |
| 65° | 6724 | 1828 | 1261 |
| 70° | 6075 | 1271 | 883 |
| 75° | 5282 | 822 | 686 |
| 80° | 4140 | 615 | 562 |
| 85° | 2141 | 511 | 406 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8075 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 126.4 | 5.2 |
| 10°-20° | 343.5 | 14.0 |
| 20°-30° | 475.0 | 19.4 |
| 30°-40° | 503.3 | 20.5 |
| 40°-50° | 439.3 | 17.9 |
| 50°-60° | 312.4 | 12.7 |
| 60°-70° | 173.7 | 7.1 |
| 70°-80° | 66.8 | 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° | 944.9 | 38.5 |
| 0°-40° | 1448.1 | 59.1 |
| 0°-60° | 2199.8 | 89.7 |
| 0°-90° | 2451.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2451.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1357 | 1357 | 1357 | 1357 | 1357 | |
| 5° | 1340 | 1350 | 1336 | 1333 | 1339 | 127 |
| 15° | 1275 | 1264 | 1215 | 1188 | 1182 | 359 |
| 25° | 1153 | 1114 | 1021 | 958 | 934 | 531 |
| 35° | 991 | 923 | 786 | 691 | 654 | 620 |
| 45° | 808 | 711 | 538 | 430 | 396 | 623 |
| 55° | 608 | 487 | 302 | 208 | 183 | 544 |
| 65° | 402 | 264 | 109 | 80 | 75 | 397 |
| 75° | 193 | 75 | 30 | 25 | 25 | 205 |
| 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° | 1356.6 | 1356.6 | 1356.6 | 1356.6 | 1356.6 |
| 2.5° | 1346.5 | 1360.4 | 1349.0 | 1350.3 | 1351.6 |
| 5° | 1340.3 | 1350.3 | 1336.5 | 1332.7 | 1339.0 |
| 7.5° | 1330.2 | 1337.7 | 1313.9 | 1305.1 | 1308.9 |
| 10° | 1315.1 | 1317.6 | 1285.0 | 1272.4 | 1271.2 |
| 12.5° | 1296.3 | 1292.5 | 1252.3 | 1232.2 | 1231.0 |
| 15° | 1274.9 | 1263.6 | 1214.6 | 1188.3 | 1182.0 |
| 17.5° | 1248.6 | 1231.0 | 1170.7 | 1136.8 | 1126.7 |
| 20° | 1218.4 | 1194.5 | 1125.5 | 1081.5 | 1065.2 |
| 22.5° | 1188.3 | 1155.6 | 1075.2 | 1019.9 | 1002.4 |
| 25° | 1153.1 | 1114.2 | 1021.2 | 958.4 | 934.5 |
| 27.5° | 1115.4 | 1068.9 | 965.9 | 893.1 | 864.2 |
| 30° | 1076.5 | 1022.5 | 908.2 | 826.5 | 795.1 |
| 32.5° | 1035.0 | 973.5 | 847.9 | 758.7 | 726.0 |
| 35° | 991.1 | 923.2 | 786.3 | 690.9 | 654.4 |
| 37.5° | 947.1 | 871.7 | 726.0 | 624.3 | 586.6 |
| 40° | 900.6 | 819.0 | 660.7 | 556.4 | 517.5 |
| 42.5° | 855.4 | 765.0 | 599.2 | 492.4 | 457.2 |
| 45° | 807.7 | 710.9 | 537.6 | 429.6 | 395.7 |
| 47.5° | 758.7 | 654.4 | 476.1 | 370.5 | 336.6 |
| 50° | 708.4 | 599.2 | 415.8 | 312.8 | 282.6 |
| 52.5° | 658.2 | 543.9 | 359.2 | 257.5 | 231.1 |
| 55° | 607.9 | 487.4 | 301.5 | 208.5 | 183.4 |
| 57.5° | 557.7 | 432.1 | 247.5 | 163.3 | 140.7 |
| 60° | 506.2 | 375.6 | 196.0 | 120.6 | 114.3 |
| 62.5° | 454.7 | 320.3 | 152.0 | 99.2 | 94.2 |
| 65° | 402.0 | 263.8 | 109.3 | 80.4 | 75.4 |
| 67.5° | 349.2 | 212.3 | 79.1 | 61.5 | 57.8 |
| 70° | 293.9 | 162.0 | 61.5 | 46.5 | 42.7 |
| 72.5° | 241.2 | 116.8 | 44.0 | 33.9 | 32.7 |
| 75° | 193.4 | 75.4 | 30.1 | 25.1 | 25.1 |
| 77.5° | 145.7 | 45.2 | 21.4 | 18.8 | 18.8 |
| 80° | 101.7 | 26.4 | 15.1 | 13.8 | 13.8 |
| 82.5° | 61.5 | 13.8 | 10.0 | 8.8 | 8.8 |
| 85° | 26.4 | 7.5 | 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 | 19.02 | 20.46 | 19.38 | 20.77 | 21.09 | 11.65 | 13.10 | 12.02 | 13.41 | 13.73 |
| | 3H | 20.57 | 21.86 | 20.95 | 22.19 | 22.55 | 12.22 | 13.50 | 12.60 | 13.83 | 14.20 |
| | 4H | 21.10 | 22.30 | 21.50 | 22.65 | 23.03 | 12.34 | 13.54 | 12.74 | 13.89 | 14.27 |
| | 6H | 21.43 | 22.54 | 21.85 | 22.91 | 23.30 | 12.41 | 13.51 | 12.82 | 13.88 | 14.27 |
| | 8H | 21.52 | 22.57 | 21.94 | 22.96 | 23.36 | 12.41 | 13.46 | 12.84 | 13.85 | 14.26 |
| | 12H | 21.54 | 22.55 | 21.97 | 22.93 | 23.36 | 12.40 | 13.41 | 12.83 | 13.79 | 14.22 |
| 4H | 2H | 18.91 | 20.11 | 19.31 | 20.46 | 20.84 | 12.22 | 13.42 | 12.62 | 13.77 | 14.15 |
| | 3H | 20.58 | 21.57 | 20.99 | 21.97 | 22.37 | 12.89 | 13.88 | 13.30 | 14.28 | 14.68 |
| | 4H | 21.13 | 22.01 | 21.56 | 22.43 | 22.87 | 13.05 | 13.93 | 13.48 | 14.35 | 14.79 |
| | 6H | 21.52 | 22.29 | 21.98 | 22.73 | 23.19 | 13.16 | 13.92 | 13.62 | 14.37 | 14.83 |
| | 8H | 21.63 | 22.34 | 22.09 | 22.78 | 23.25 | 13.17 | 13.88 | 13.64 | 14.33 | 14.80 |
| | 12H | 21.67 | 22.31 | 22.16 | 22.79 | 23.26 | 13.17 | 13.81 | 13.66 | 14.29 | 14.76 |
| 8H | 4H | 21.03 | 21.74 | 21.50 | 22.19 | 22.66 | 13.32 | 14.03 | 13.78 | 14.48 | 14.95 |
| | 6H | 21.42 | 22.00 | 21.92 | 22.50 | 22.98 | 13.45 | 14.04 | 13.95 | 14.53 | 15.01 |
| | 8H | 21.53 | 22.05 | 22.04 | 22.56 | 23.05 | 13.48 | 14.00 | 14.00 | 14.52 | 15.01 |
| | 12H | 21.59 | 22.05 | 22.10 | 22.55 | 23.11 | 13.50 | 13.96 | 14.01 | 14.46 | 15.03 |
| 12H | 4H | 21.00 | 21.63 | 21.48 | 22.11 | 22.58 | 13.33 | 13.97 | 13.82 | 14.45 | 14.92 |
| | 6H | 21.37 | 21.89 | 21.88 | 22.40 | 22.89 | 13.46 | 13.99 | 13.98 | 14.50 | 14.99 |
| | 8H | 21.49 | 21.96 | 22.01 | 22.45 | 23.02 | 13.52 | 13.99 | 14.03 | 14.48 | 15.05 |