

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: P1061855

Luminaire Tested: S125RDR-H1090D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061855
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-85)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H1090D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

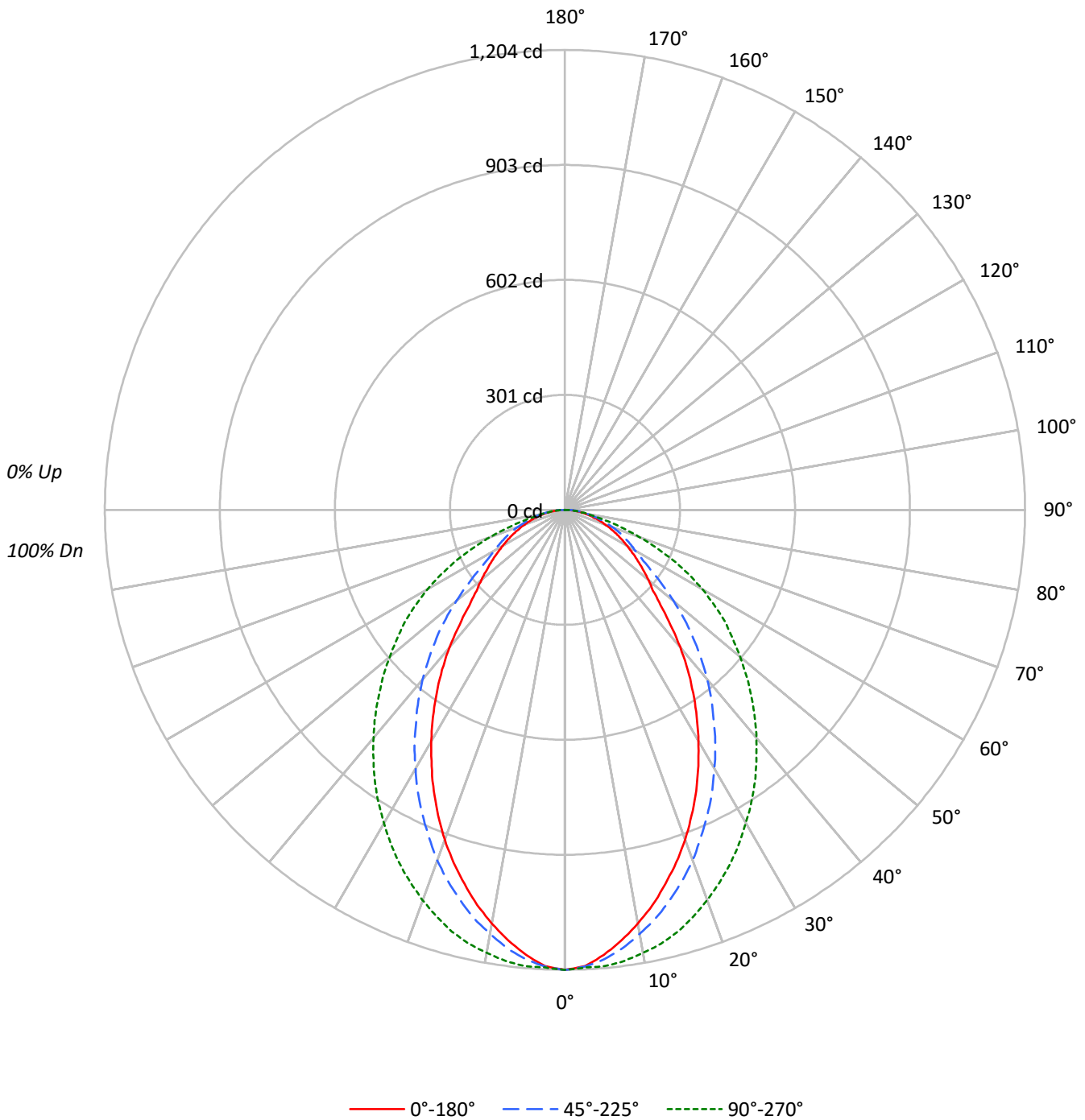
Lumens per Lamp: N/A
Luminaire Lumens: 2257.5 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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 | | | | |
| 1 | 110 | 106 | 102 | 99 | 107 | 104 | 100 | 97 | 99 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 88 | 86 | | | | |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 86 | 82 | 89 | 84 | 80 | 85 | 81 | 78 | 82 | 79 | 76 | 74 | | | | |
| 3 | 93 | 84 | 76 | 71 | 91 | 82 | 75 | 70 | 79 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 66 | 64 | | | | |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 69 | 64 | 59 | 67 | 62 | 58 | 56 | | | | |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 59 | 53 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 50 | | | | |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 53 | 48 | 59 | 52 | 47 | 58 | 52 | 47 | 56 | 51 | 46 | 44 | | | | |
| 7 | 69 | 57 | 49 | 43 | 68 | 56 | 48 | 43 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 40 | | | | |
| 8 | 65 | 52 | 44 | 39 | 63 | 52 | 44 | 39 | 50 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 | | | | |
| 9 | 61 | 48 | 41 | 35 | 59 | 48 | 40 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 33 | | | | |
| 10 | 57 | 45 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 42 | 36 | 32 | 30 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 8292 | 8292 | 8292 |
| 5° | 8082 | 8165 | 8290 |
| 10° | 7688 | 7881 | 8235 |
| 15° | 7229 | 7547 | 8147 |
| 20° | 6734 | 7158 | 7969 |
| 25° | 6170 | 6699 | 7769 |
| 30° | 5557 | 6217 | 7527 |
| 35° | 4915 | 5713 | 7291 |
| 40° | 4217 | 5201 | 7007 |
| 45° | 3444 | 4627 | 6713 |
| 50° | 3054 | 3969 | 6404 |
| 55° | 2802 | 3293 | 6138 |
| 60° | 2585 | 2915 | 5716 |
| 65° | 2411 | 2802 | 5096 |
| 70° | 2253 | 2663 | 4165 |
| 75° | 2080 | 2495 | 3073 |
| 80° | 1955 | 2335 | 2240 |
| 85° | 1809 | 2283 | 1904 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6713 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 111.4 | 4.9 |
| 10°-20° | 300.2 | 13.3 |
| 20°-30° | 412.6 | 18.3 |
| 30°-40° | 437.3 | 19.4 |
| 40°-50° | 381.7 | 16.9 |
| 50°-60° | 290.0 | 12.8 |
| 60°-70° | 194.3 | 8.6 |
| 70°-80° | 100.2 | 4.4 |
| 80°-90° | 30.0 | 1.3 |
| 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° | 824.2 | 36.5 |
| 0°-40° | 1261.4 | 55.9 |
| 0°-60° | 1933.1 | 85.6 |
| 0°-90° | 2257.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2257.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1204 | 1204 | 1204 | 1204 | 1204 | |
| 5° | 1169 | 1181 | 1181 | 1190 | 1199 | 109 |
| 15° | 1014 | 1033 | 1059 | 1106 | 1143 | 285 |
| 25° | 812 | 837 | 882 | 955 | 1023 | 372 |
| 35° | 585 | 618 | 680 | 776 | 867 | 365 |
| 45° | 354 | 389 | 475 | 588 | 689 | 279 |
| 55° | 233 | 241 | 274 | 403 | 511 | 209 |
| 65° | 148 | 152 | 172 | 230 | 313 | 147 |
| 75° | 78 | 83 | 94 | 100 | 116 | 84 |
| 85° | 23 | 29 | 29 | 26 | 24 | 26 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1204.3 | 1204.3 | 1204.3 | 1204.3 | 1204.3 |
| 2.5° | 1195.8 | 1204.3 | 1197.0 | 1197.0 | 1199.4 |
| 5° | 1169.4 | 1181.4 | 1181.4 | 1189.8 | 1199.4 |
| 7.5° | 1136.9 | 1150.1 | 1157.3 | 1176.6 | 1191.0 |
| 10° | 1099.6 | 1114.0 | 1127.3 | 1156.1 | 1177.8 |
| 12.5° | 1059.9 | 1075.5 | 1096.0 | 1133.3 | 1163.4 |
| 15° | 1014.2 | 1033.4 | 1058.7 | 1105.6 | 1142.9 |
| 17.5° | 968.5 | 987.7 | 1019.0 | 1074.3 | 1116.4 |
| 20° | 919.1 | 939.6 | 976.9 | 1037.0 | 1087.6 |
| 22.5° | 866.2 | 889.1 | 928.8 | 997.3 | 1056.3 |
| 25° | 812.1 | 837.3 | 881.8 | 955.2 | 1022.6 |
| 27.5° | 755.5 | 785.6 | 833.7 | 911.9 | 986.5 |
| 30° | 699.0 | 729.1 | 782.0 | 867.4 | 946.8 |
| 32.5° | 642.4 | 674.9 | 732.7 | 822.9 | 908.3 |
| 35° | 584.7 | 618.4 | 679.7 | 776.0 | 867.4 |
| 37.5° | 528.1 | 561.8 | 630.4 | 730.3 | 822.9 |
| 40° | 469.2 | 504.1 | 578.7 | 683.3 | 779.6 |
| 42.5° | 409.0 | 446.3 | 526.9 | 635.2 | 735.1 |
| 45° | 353.7 | 388.6 | 475.2 | 588.3 | 689.4 |
| 47.5° | 312.8 | 335.7 | 423.5 | 540.2 | 644.8 |
| 50° | 285.1 | 297.2 | 370.5 | 493.3 | 597.9 |
| 52.5° | 257.5 | 267.1 | 321.2 | 445.1 | 553.4 |
| 55° | 233.4 | 240.6 | 274.3 | 403.0 | 511.3 |
| 57.5° | 209.3 | 216.5 | 238.2 | 360.9 | 462.0 |
| 60° | 187.7 | 193.7 | 211.7 | 316.4 | 415.1 |
| 62.5° | 167.2 | 172.0 | 191.3 | 274.3 | 364.5 |
| 65° | 148.0 | 151.6 | 172.0 | 229.8 | 312.8 |
| 67.5° | 128.7 | 132.3 | 152.8 | 187.7 | 257.5 |
| 70° | 111.9 | 113.1 | 132.3 | 152.8 | 206.9 |
| 72.5° | 95.0 | 96.2 | 111.9 | 123.9 | 158.8 |
| 75° | 78.2 | 83.0 | 93.8 | 99.9 | 115.5 |
| 77.5° | 63.8 | 69.8 | 75.8 | 78.2 | 78.2 |
| 80° | 49.3 | 56.5 | 58.9 | 58.9 | 56.5 |
| 82.5° | 36.1 | 42.1 | 43.3 | 40.9 | 38.5 |
| 85° | 22.9 | 28.9 | 28.9 | 26.5 | 24.1 |
| 87.5° | 10.8 | 15.6 | 15.6 | 14.4 | 10.8 |
| 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 | 13.95 | 15.45 | 14.32 | 15.76 | 16.08 | 17.88 | 19.38 | 18.25 | 19.69 | 20.01 |
| | 3H | 15.53 | 16.87 | 15.90 | 17.20 | 17.56 | 19.31 | 20.65 | 19.68 | 20.98 | 21.34 |
| | 4H | 16.14 | 17.40 | 16.54 | 17.75 | 18.13 | 19.72 | 20.98 | 20.12 | 21.33 | 21.71 |
| | 6H | 16.63 | 17.80 | 17.05 | 18.16 | 18.56 | 19.94 | 21.10 | 20.35 | 21.47 | 21.86 |
| | 8H | 16.81 | 17.92 | 17.24 | 18.31 | 18.71 | 20.00 | 21.10 | 20.42 | 21.49 | 21.89 |
| | 12H | 16.93 | 17.99 | 17.36 | 18.37 | 18.80 | 20.03 | 21.09 | 20.46 | 21.47 | 21.90 |
| 4H | 2H | 14.69 | 15.95 | 15.09 | 16.30 | 16.68 | 18.01 | 19.27 | 18.41 | 19.62 | 20.00 |
| | 3H | 16.47 | 17.52 | 16.88 | 17.92 | 18.32 | 19.62 | 20.66 | 20.03 | 21.06 | 21.47 |
| | 4H | 17.21 | 18.15 | 17.64 | 18.56 | 19.00 | 20.15 | 21.09 | 20.58 | 21.50 | 21.94 |
| | 6H | 17.84 | 18.66 | 18.30 | 19.10 | 19.56 | 20.49 | 21.31 | 20.95 | 21.75 | 22.21 |
| | 8H | 18.07 | 18.84 | 18.53 | 19.28 | 19.75 | 20.59 | 21.35 | 21.05 | 21.80 | 22.26 |
| | 12H | 18.25 | 18.93 | 18.73 | 19.41 | 19.88 | 20.66 | 21.34 | 21.14 | 21.82 | 22.29 |
| 8H | 4H | 17.61 | 18.37 | 18.07 | 18.82 | 19.28 | 20.25 | 21.02 | 20.72 | 21.46 | 21.93 |
| | 6H | 18.39 | 19.03 | 18.89 | 19.52 | 19.99 | 20.69 | 21.32 | 21.19 | 21.82 | 22.29 |
| | 8H | 18.72 | 19.28 | 19.23 | 19.79 | 20.28 | 20.85 | 21.42 | 21.36 | 21.93 | 22.42 |
| | 12H | 18.99 | 19.49 | 19.50 | 19.99 | 20.55 | 20.99 | 21.49 | 21.50 | 21.98 | 22.54 |
| 12H | 4H | 17.65 | 18.33 | 18.13 | 18.81 | 19.28 | 20.25 | 20.94 | 20.74 | 21.41 | 21.89 |
| | 6H | 18.48 | 19.04 | 18.99 | 19.55 | 20.04 | 20.71 | 21.28 | 21.22 | 21.79 | 22.27 |
| | 8H | 18.87 | 19.37 | 19.38 | 19.87 | 20.43 | 20.92 | 21.42 | 21.43 | 21.91 | 22.48 |