

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: P1062235

Luminaire Tested: S125RDR-H850D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062235
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-48)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D950-X4F0-XX-UDD-BVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

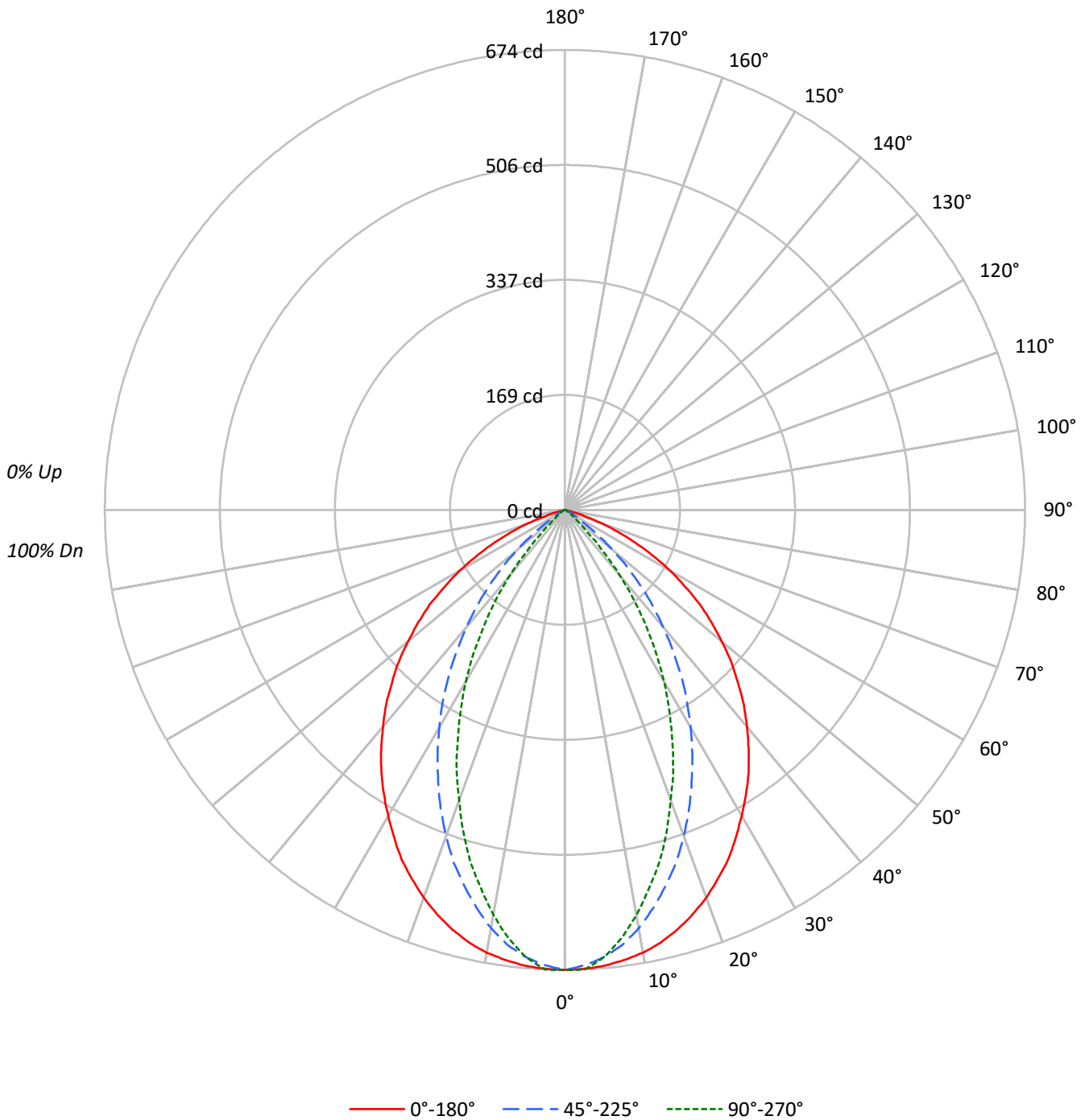
Lumens per Lamp: N/A
Luminaire Lumens: 871.1 lumens
Efficiency: N/A
Efficacy: 37.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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 | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 97 | 96 | 95 | 94 | 93 | 91 | | | | |
| 2 | 105 | 99 | 94 | 90 | 103 | 97 | 93 | 89 | 94 | 90 | 87 | 91 | 88 | 85 | 88 | 86 | 83 | 82 | | | | |
| 3 | 98 | 90 | 84 | 80 | 96 | 89 | 83 | 79 | 86 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 75 | 73 | | | | |
| 4 | 92 | 83 | 76 | 71 | 90 | 82 | 75 | 70 | 79 | 74 | 70 | 77 | 72 | 69 | 75 | 71 | 68 | 66 | | | | |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 68 | 63 | 73 | 67 | 63 | 71 | 66 | 62 | 70 | 65 | 62 | 60 | | | | |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 62 | 57 | 67 | 61 | 57 | 66 | 61 | 57 | 65 | 60 | 56 | 54 | | | | |
| 7 | 76 | 65 | 58 | 53 | 74 | 64 | 57 | 52 | 63 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 51 | 50 | | | | |
| 8 | 71 | 60 | 53 | 48 | 70 | 59 | 53 | 48 | 58 | 52 | 48 | 57 | 52 | 48 | 56 | 51 | 47 | 46 | | | | |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 44 | 42 | | | | |
| 10 | 64 | 52 | 46 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 49 | 44 | 41 | 39 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4642 | 4642 | 4642 |
| 5° | 4636 | 4549 | 4549 |
| 10° | 4608 | 4353 | 4217 |
| 15° | 4540 | 4064 | 3811 |
| 20° | 4432 | 3728 | 3318 |
| 25° | 4298 | 3338 | 2825 |
| 30° | 4116 | 2928 | 2306 |
| 35° | 3940 | 2497 | 1727 |
| 40° | 3726 | 2015 | 1119 |
| 45° | 3491 | 1525 | 485 |
| 50° | 3211 | 972 | 181 |
| 55° | 2894 | 427 | 128 |
| 60° | 2450 | 183 | 85 |
| 65° | 1856 | 116 | 44 |
| 70° | 1127 | 54 | 18 |
| 75° | 237 | 24 | 24 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3491 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 62.1 | 7.1 |
| 10°-20° | 162.0 | 18.6 |
| 20°-30° | 208.0 | 23.9 |
| 30°-40° | 195.8 | 22.5 |
| 40°-50° | 136.9 | 15.7 |
| 50°-60° | 73.1 | 8.4 |
| 60°-70° | 29.2 | 3.3 |
| 70°-80° | 3.8 | 0.4 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 432.2 | 49.6 |
| 0°-40° | 628.0 | 72.1 |
| 0°-60° | 838.1 | 96.2 |
| 0°-90° | 871.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 871.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 674 | 674 | 674 | 674 | 674 | |
| 5° | 671 | 669 | 658 | 660 | 658 | 64 |
| 15° | 637 | 616 | 570 | 544 | 535 | 179 |
| 25° | 566 | 516 | 439 | 391 | 372 | 260 |
| 35° | 469 | 394 | 297 | 230 | 206 | 293 |
| 45° | 358 | 269 | 157 | 76 | 50 | 276 |
| 55° | 241 | 148 | 36 | 12 | 11 | 214 |
| 65° | 114 | 45 | 7 | 4 | 3 | 113 |
| 75° | 9 | 3 | 1 | 1 | 1 | 17 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P1062235

CATALOG NUMBER: S125RDR-H850D950-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 674.2 | 674.2 | 674.2 | 674.2 | 674.2 |
| 2.5° | 673.3 | 674.2 | 668.0 | 673.3 | 674.2 |
| 5° | 670.7 | 668.9 | 658.2 | 660.0 | 658.2 |
| 7.5° | 665.3 | 660.9 | 643.1 | 636.9 | 633.3 |
| 10° | 659.1 | 649.3 | 622.6 | 609.3 | 603.1 |
| 12.5° | 649.3 | 635.1 | 597.7 | 577.3 | 568.4 |
| 15° | 636.9 | 616.4 | 570.2 | 543.5 | 534.6 |
| 17.5° | 621.8 | 595.1 | 541.7 | 508.8 | 495.4 |
| 20° | 604.9 | 569.3 | 508.8 | 469.7 | 452.8 |
| 22.5° | 585.3 | 544.4 | 475.0 | 431.4 | 414.5 |
| 25° | 565.7 | 515.9 | 439.4 | 391.4 | 371.8 |
| 27.5° | 541.7 | 486.6 | 403.8 | 352.2 | 330.9 |
| 30° | 517.7 | 457.2 | 368.3 | 312.2 | 290.0 |
| 32.5° | 493.7 | 426.1 | 332.7 | 270.4 | 248.2 |
| 35° | 468.8 | 394.0 | 297.1 | 229.5 | 205.5 |
| 37.5° | 442.1 | 362.0 | 258.8 | 190.4 | 165.4 |
| 40° | 414.5 | 330.9 | 224.2 | 152.1 | 124.5 |
| 42.5° | 387.8 | 299.8 | 189.5 | 114.7 | 84.5 |
| 45° | 358.5 | 268.6 | 156.6 | 75.6 | 49.8 |
| 47.5° | 330.9 | 238.4 | 122.8 | 43.6 | 25.8 |
| 50° | 299.8 | 207.3 | 90.7 | 23.1 | 16.9 |
| 52.5° | 270.4 | 177.0 | 60.5 | 15.1 | 13.3 |
| 55° | 241.1 | 147.7 | 35.6 | 12.5 | 10.7 |
| 57.5° | 207.3 | 119.2 | 19.6 | 9.8 | 8.0 |
| 60° | 177.9 | 93.4 | 13.3 | 7.1 | 6.2 |
| 62.5° | 144.1 | 68.5 | 9.8 | 5.3 | 4.4 |
| 65° | 113.9 | 45.4 | 7.1 | 3.6 | 2.7 |
| 67.5° | 84.5 | 26.7 | 4.4 | 1.8 | 1.8 |
| 70° | 56.0 | 14.2 | 2.7 | 0.9 | 0.9 |
| 72.5° | 29.4 | 6.2 | 1.8 | 0.9 | 0.9 |
| 75° | 8.9 | 2.7 | 0.9 | 0.9 | 0.9 |
| 77.5° | 0.0 | 0.9 | 0.0 | 0.0 | 0.9 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 | 14.28 | 15.54 | 14.64 | 15.85 | 16.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 14.86 | 15.97 | 15.24 | 16.31 | 16.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 14.83 | 15.86 | 15.23 | 16.21 | 16.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 14.74 | 15.69 | 15.16 | 16.06 | 16.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 14.69 | 15.59 | 15.13 | 15.98 | 16.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 14.65 | 15.50 | 15.08 | 15.88 | 16.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4H | 2H | 14.05 | 15.08 | 14.46 | 15.43 | 15.82 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 14.64 | 15.48 | 15.06 | 15.88 | 16.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 14.59 | 15.33 | 15.03 | 15.76 | 16.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 14.51 | 15.14 | 14.97 | 15.59 | 16.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 14.45 | 15.04 | 14.92 | 15.49 | 15.96 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 14.39 | 14.92 | 14.88 | 15.40 | 15.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H | 4H | 14.45 | 15.04 | 14.92 | 15.49 | 15.96 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 14.34 | 14.82 | 14.84 | 15.32 | 15.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 14.27 | 14.70 | 14.80 | 15.22 | 15.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 14.22 | 14.60 | 14.74 | 15.10 | 15.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12H | 4H | 14.39 | 14.92 | 14.88 | 15.40 | 15.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 14.27 | 14.70 | 14.80 | 15.22 | 15.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 14.22 | 14.60 | 14.74 | 15.10 | 15.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |