

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: P1062208

Luminaire Tested: S125RDR-H850D930-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062208
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-H850D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

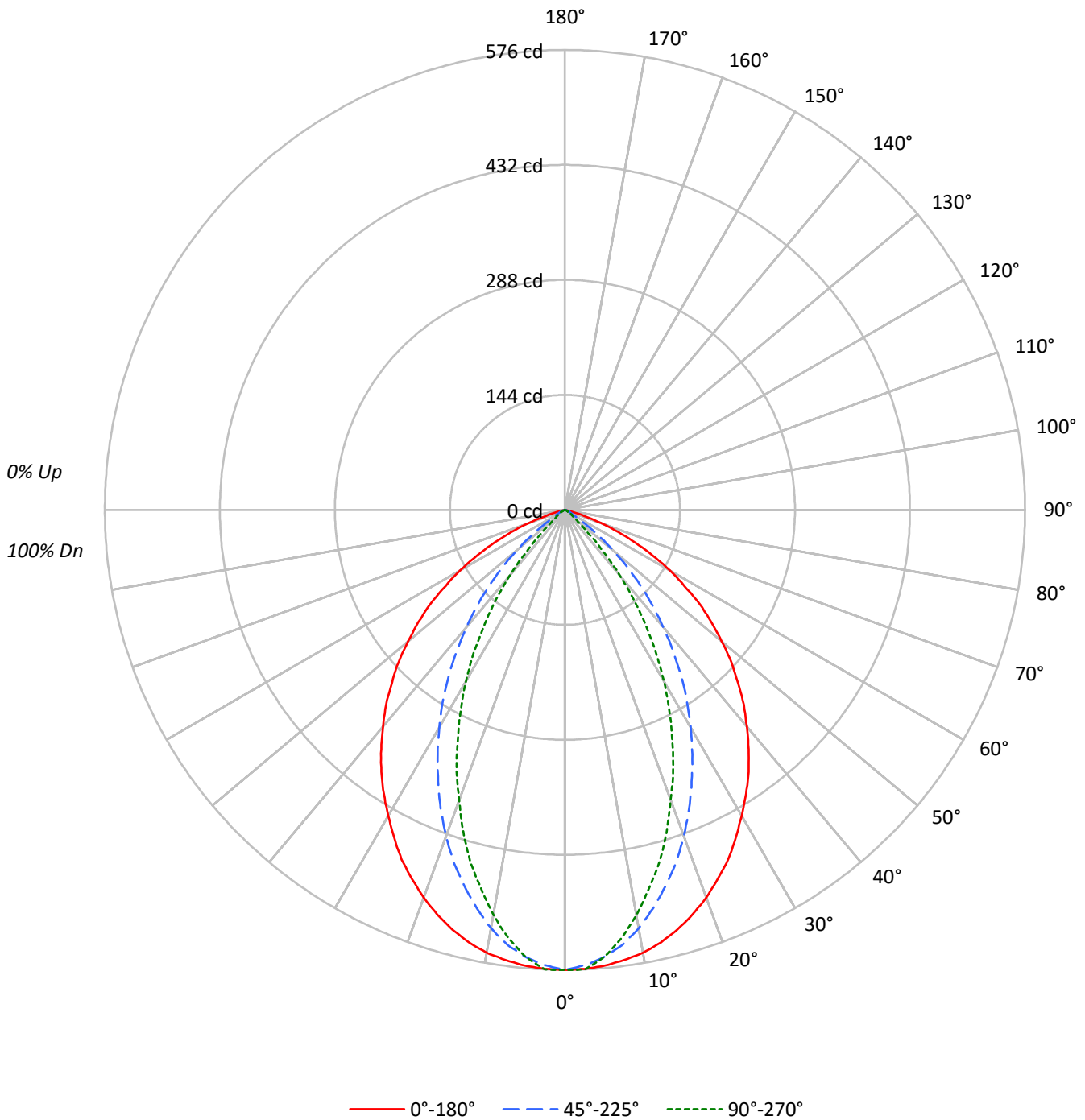
Lumens per Lamp: N/A
Luminaire Lumens: 744.4 lumens
Efficiency: N/A
Efficacy: 31.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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 | 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° | 3967 | 3967 | 3967 |
| 5° | 3962 | 3888 | 3888 |
| 10° | 3938 | 3720 | 3603 |
| 15° | 3880 | 3474 | 3257 |
| 20° | 3787 | 3186 | 2835 |
| 25° | 3673 | 2853 | 2414 |
| 30° | 3517 | 2502 | 1970 |
| 35° | 3367 | 2134 | 1476 |
| 40° | 3184 | 1722 | 956 |
| 45° | 2983 | 1303 | 415 |
| 50° | 2744 | 830 | 154 |
| 55° | 2473 | 365 | 109 |
| 60° | 2093 | 157 | 73 |
| 65° | 1585 | 99 | 37 |
| 70° | 964 | 46 | 16 |
| 75° | 202 | 21 | 21 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2983 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 53.1 | 7.1 |
| 10°-20° | 138.5 | 18.6 |
| 20°-30° | 177.8 | 23.9 |
| 30°-40° | 167.4 | 22.5 |
| 40°-50° | 117.0 | 15.7 |
| 50°-60° | 62.5 | 8.4 |
| 60°-70° | 24.9 | 3.3 |
| 70°-80° | 3.2 | 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° | 369.4 | 49.6 |
| 0°-40° | 536.7 | 72.1 |
| 0°-60° | 716.2 | 96.2 |
| 0°-90° | 744.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 744.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 576 | 576 | 576 | 576 | 576 | |
| 5° | 573 | 572 | 562 | 564 | 562 | 54 |
| 15° | 544 | 527 | 487 | 464 | 457 | 153 |
| 25° | 484 | 441 | 376 | 334 | 318 | 222 |
| 35° | 401 | 337 | 254 | 196 | 176 | 250 |
| 45° | 306 | 230 | 134 | 65 | 43 | 236 |
| 55° | 206 | 126 | 30 | 11 | 9 | 183 |
| 65° | 97 | 39 | 6 | 3 | 2 | 97 |
| 75° | 8 | 2 | 1 | 1 | 1 | 15 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1062208

CATALOG NUMBER: S125RDR-H850D930-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 576.2 | 576.2 | 576.2 | 576.2 | 576.2 |
| 2.5° | 575.5 | 576.2 | 570.9 | 575.5 | 576.2 |
| 5° | 573.2 | 571.7 | 562.5 | 564.0 | 562.5 |
| 7.5° | 568.6 | 564.8 | 549.6 | 544.3 | 541.2 |
| 10° | 563.3 | 554.9 | 532.1 | 520.7 | 515.4 |
| 12.5° | 554.9 | 542.8 | 510.8 | 493.4 | 485.8 |
| 15° | 544.3 | 526.8 | 487.3 | 464.5 | 456.9 |
| 17.5° | 531.4 | 508.6 | 462.9 | 434.8 | 423.4 |
| 20° | 516.9 | 486.5 | 434.8 | 401.4 | 386.9 |
| 22.5° | 500.2 | 465.2 | 405.9 | 368.7 | 354.2 |
| 25° | 483.5 | 440.9 | 375.5 | 334.5 | 317.8 |
| 27.5° | 462.9 | 415.8 | 345.1 | 301.0 | 282.8 |
| 30° | 442.4 | 390.7 | 314.7 | 266.8 | 247.8 |
| 32.5° | 421.9 | 364.1 | 284.3 | 231.1 | 212.1 |
| 35° | 400.6 | 336.8 | 253.9 | 196.1 | 175.6 |
| 37.5° | 377.8 | 309.4 | 221.2 | 162.7 | 141.4 |
| 40° | 354.2 | 282.8 | 191.6 | 130.0 | 106.4 |
| 42.5° | 331.4 | 256.2 | 161.9 | 98.1 | 72.2 |
| 45° | 306.3 | 229.6 | 133.8 | 64.6 | 42.6 |
| 47.5° | 282.8 | 203.7 | 104.9 | 37.2 | 22.0 |
| 50° | 256.2 | 177.1 | 77.5 | 19.8 | 14.4 |
| 52.5° | 231.1 | 151.3 | 51.7 | 12.9 | 11.4 |
| 55° | 206.0 | 126.2 | 30.4 | 10.6 | 9.1 |
| 57.5° | 177.1 | 101.9 | 16.7 | 8.4 | 6.8 |
| 60° | 152.0 | 79.8 | 11.4 | 6.1 | 5.3 |
| 62.5° | 123.1 | 58.5 | 8.4 | 4.6 | 3.8 |
| 65° | 97.3 | 38.8 | 6.1 | 3.0 | 2.3 |
| 67.5° | 72.2 | 22.8 | 3.8 | 1.5 | 1.5 |
| 70° | 47.9 | 12.2 | 2.3 | 0.8 | 0.8 |
| 72.5° | 25.1 | 5.3 | 1.5 | 0.8 | 0.8 |
| 75° | 7.6 | 2.3 | 0.8 | 0.8 | 0.8 |
| 77.5° | 0.0 | 0.8 | 0.0 | 0.0 | 0.8 |
| 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 | 13.73 | 15.00 | 14.10 | 15.31 | 15.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 14.32 | 15.43 | 14.70 | 15.76 | 16.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 14.28 | 15.31 | 14.68 | 15.66 | 16.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 14.20 | 15.14 | 14.61 | 15.51 | 15.91 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 14.15 | 15.04 | 14.58 | 15.43 | 15.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 14.10 | 14.96 | 14.54 | 15.34 | 15.77 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4H | 2H | 13.51 | 14.54 | 13.91 | 14.89 | 15.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 14.10 | 14.93 | 14.51 | 15.34 | 15.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 14.05 | 14.79 | 14.48 | 15.21 | 15.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 13.96 | 14.60 | 14.43 | 15.05 | 15.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 13.90 | 14.49 | 14.37 | 14.94 | 15.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 13.85 | 14.37 | 14.34 | 14.86 | 15.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H | 4H | 13.90 | 14.49 | 14.37 | 14.94 | 15.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 13.79 | 14.27 | 14.30 | 14.77 | 15.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 13.73 | 14.16 | 14.25 | 14.68 | 15.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 13.68 | 14.06 | 14.20 | 14.56 | 15.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12H | 4H | 13.85 | 14.37 | 14.34 | 14.86 | 15.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 13.73 | 14.16 | 14.25 | 14.68 | 15.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 13.68 | 14.06 | 14.20 | 14.56 | 15.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |