

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: P1061781

Luminaire Tested: S125RDRP-S850D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1061781
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-83)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-S850D840-X4F0-XX-UDD-SVL-W
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

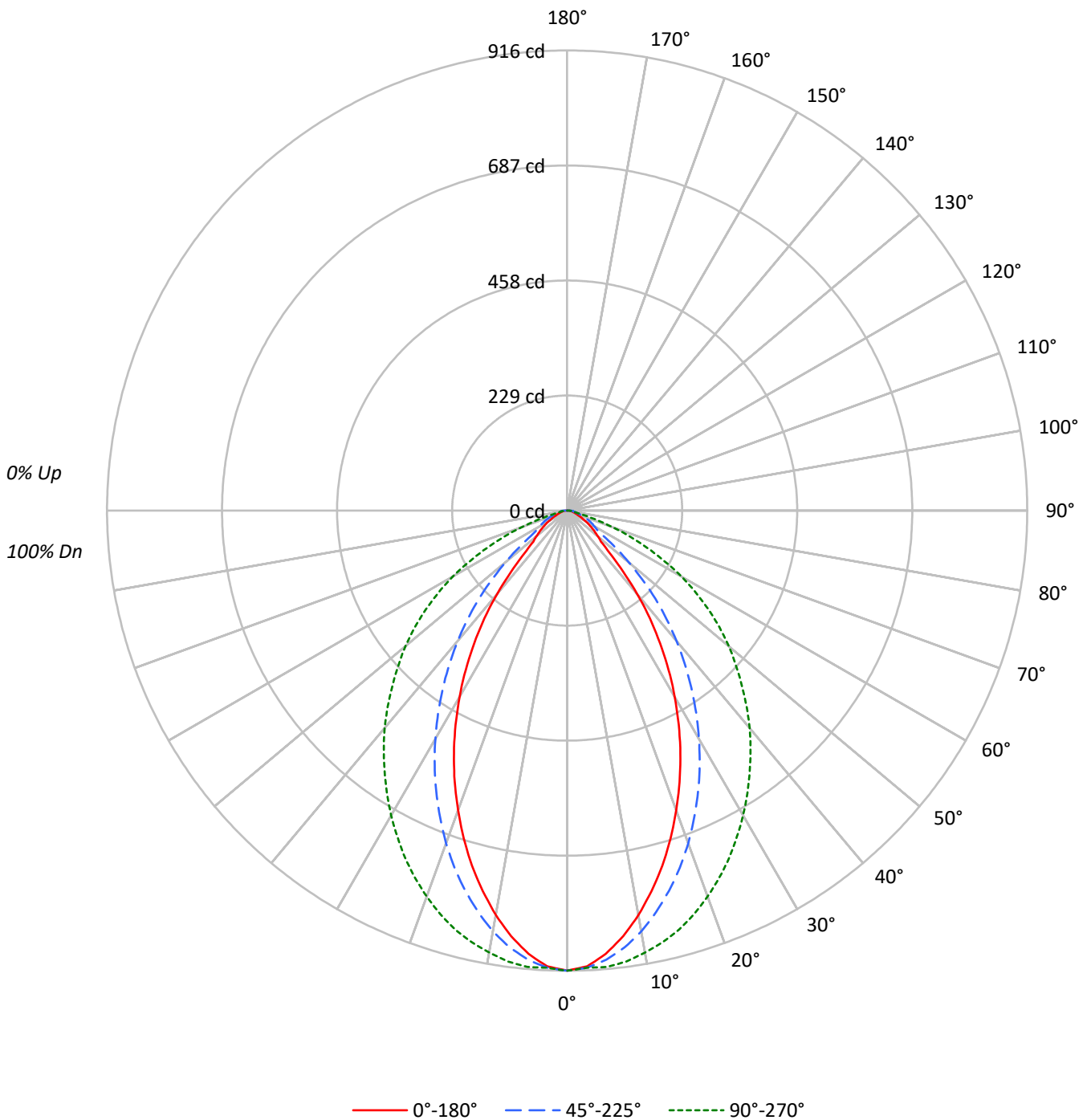
Lumens per Lamp: N/A
Luminaire Lumens: 1326.5 lumens
Efficiency: N/A
Efficacy: 51.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.15 / 1.02
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
Input Voltage (V): 120
Input Current (A_{in}): 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 | 108 | 104 | 101 | 109 | 105 | 103 | 100 | 101 | 99 | 97 | 98 | 96 | 94 | 94 | 92 | 91 | 89 | | | | 89 |
| 2 | 104 | 97 | 92 | 87 | 101 | 95 | 90 | 86 | 92 | 88 | 84 | 89 | 85 | 82 | 86 | 83 | 81 | 79 | | | | 79 |
| 3 | 96 | 88 | 81 | 76 | 94 | 86 | 80 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 79 | 75 | 72 | 70 | | | | 70 |
| 4 | 90 | 80 | 73 | 67 | 88 | 79 | 72 | 67 | 76 | 71 | 66 | 74 | 69 | 65 | 72 | 68 | 64 | 62 | | | | 62 |
| 5 | 84 | 73 | 66 | 60 | 82 | 72 | 65 | 60 | 70 | 64 | 59 | 68 | 63 | 59 | 66 | 62 | 58 | 56 | | | | 56 |
| 6 | 78 | 67 | 59 | 54 | 77 | 66 | 59 | 54 | 64 | 58 | 53 | 63 | 57 | 53 | 61 | 56 | 53 | 51 | | | | 51 |
| 7 | 73 | 62 | 54 | 49 | 72 | 61 | 54 | 49 | 60 | 53 | 49 | 58 | 53 | 48 | 57 | 52 | 48 | 46 | | | | 46 |
| 8 | 69 | 57 | 50 | 45 | 68 | 57 | 50 | 45 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 42 | | | | 42 |
| 9 | 65 | 53 | 46 | 41 | 64 | 53 | 46 | 41 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 44 | 40 | 39 | | | | 39 |
| 10 | 61 | 50 | 43 | 38 | 60 | 49 | 42 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 46 | 41 | 37 | 36 | | | | 36 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6306 | 6306 | 6306 |
| 5° | 6121 | 6202 | 6303 |
| 10° | 5716 | 5947 | 6246 |
| 15° | 5217 | 5584 | 6154 |
| 20° | 4649 | 5163 | 5990 |
| 25° | 4051 | 4687 | 5797 |
| 30° | 3404 | 4171 | 5571 |
| 35° | 2707 | 3624 | 5326 |
| 40° | 1950 | 3044 | 5082 |
| 45° | 1156 | 2417 | 4786 |
| 50° | 855 | 1720 | 4503 |
| 55° | 724 | 1064 | 4123 |
| 60° | 589 | 858 | 3631 |
| 65° | 459 | 793 | 2871 |
| 70° | 393 | 686 | 1921 |
| 75° | 362 | 596 | 777 |
| 80° | 385 | 619 | 539 |
| 85° | 458 | 924 | 616 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4786 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 84.4 | 6.4 |
| 10°-20° | 221.7 | 16.7 |
| 20°-30° | 289.7 | 21.8 |
| 30°-40° | 282.3 | 21.3 |
| 40°-50° | 211.7 | 16.0 |
| 50°-60° | 132.7 | 10.0 |
| 60°-70° | 69.1 | 5.2 |
| 70°-80° | 25.0 | 1.9 |
| 80°-90° | 9.9 | 0.7 |
| 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° | 595.8 | 44.9 |
| 0°-40° | 878.1 | 66.2 |
| 0°-60° | 1222.5 | 92.2 |
| 0°-90° | 1326.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1326.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 916 | 916 | 916 | 916 | 916 | |
| 5° | 886 | 897 | 897 | 904 | 912 | 82 |
| 15° | 732 | 753 | 783 | 832 | 863 | 204 |
| 25° | 533 | 562 | 617 | 701 | 763 | 244 |
| 35° | 322 | 356 | 431 | 546 | 634 | 200 |
| 45° | 119 | 154 | 248 | 384 | 492 | 100 |
| 55° | 60 | 63 | 89 | 232 | 344 | 54 |
| 65° | 28 | 30 | 49 | 93 | 176 | 29 |
| 75° | 14 | 18 | 22 | 23 | 29 | 15 |
| 85° | 6 | 10 | 12 | 11 | 8 | 6 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 915.8 | 915.8 | 915.8 | 915.8 | 915.8 |
| 2.5° | 908.0 | 916.8 | 910.9 | 910.9 | 910.9 |
| 5° | 885.6 | 897.3 | 897.3 | 904.1 | 911.9 |
| 7.5° | 854.5 | 868.1 | 876.9 | 893.4 | 905.1 |
| 10° | 817.5 | 834.1 | 850.6 | 877.9 | 893.4 |
| 12.5° | 775.7 | 795.1 | 818.5 | 856.4 | 879.8 |
| 15° | 731.9 | 753.3 | 783.4 | 832.1 | 863.3 |
| 17.5° | 684.2 | 709.5 | 745.5 | 803.9 | 841.8 |
| 20° | 634.5 | 659.8 | 704.6 | 770.8 | 817.5 |
| 22.5° | 584.9 | 612.2 | 660.8 | 735.8 | 791.2 |
| 25° | 533.3 | 562.5 | 617.0 | 700.7 | 763.0 |
| 27.5° | 480.8 | 510.9 | 571.3 | 664.7 | 731.9 |
| 30° | 428.2 | 459.4 | 524.6 | 625.8 | 700.7 |
| 32.5° | 375.7 | 408.8 | 477.9 | 585.9 | 667.6 |
| 35° | 322.1 | 356.2 | 431.1 | 546.0 | 633.6 |
| 37.5° | 270.6 | 304.6 | 384.4 | 505.1 | 599.5 |
| 40° | 217.0 | 254.0 | 338.7 | 464.2 | 565.4 |
| 42.5° | 164.5 | 202.4 | 292.9 | 423.4 | 528.5 |
| 45° | 118.7 | 153.8 | 248.2 | 383.5 | 491.5 |
| 47.5° | 91.5 | 110.9 | 202.4 | 342.6 | 455.5 |
| 50° | 79.8 | 85.6 | 160.6 | 304.6 | 420.4 |
| 52.5° | 69.1 | 73.0 | 120.7 | 269.6 | 382.5 |
| 55° | 60.3 | 63.3 | 88.6 | 231.6 | 343.5 |
| 57.5° | 50.6 | 54.5 | 70.1 | 194.6 | 303.6 |
| 60° | 42.8 | 44.8 | 62.3 | 160.6 | 263.7 |
| 62.5° | 35.0 | 37.0 | 55.5 | 126.5 | 219.0 |
| 65° | 28.2 | 30.2 | 48.7 | 93.4 | 176.2 |
| 67.5° | 23.4 | 24.3 | 40.9 | 66.2 | 135.3 |
| 70° | 19.5 | 20.4 | 34.1 | 45.7 | 95.4 |
| 72.5° | 16.5 | 19.5 | 27.3 | 33.1 | 60.3 |
| 75° | 13.6 | 18.5 | 22.4 | 23.4 | 29.2 |
| 77.5° | 11.7 | 17.5 | 18.5 | 18.5 | 16.5 |
| 80° | 9.7 | 14.6 | 15.6 | 14.6 | 13.6 |
| 82.5° | 7.8 | 11.7 | 12.7 | 12.7 | 10.7 |
| 85° | 5.8 | 9.7 | 11.7 | 10.7 | 7.8 |
| 87.5° | 3.9 | 8.8 | 9.7 | 8.8 | 5.8 |
| 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 | 6.32 | 7.67 | 6.68 | 7.98 | 8.30 | 15.93 | 17.28 | 16.29 | 17.59 | 17.91 |
| | 3H | 7.17 | 8.37 | 7.55 | 8.70 | 9.07 | 16.77 | 17.97 | 17.15 | 18.30 | 18.66 |
| | 4H | 7.60 | 8.72 | 8.00 | 9.07 | 9.45 | 16.84 | 17.96 | 17.25 | 18.31 | 18.70 |
| | 6H | 8.02 | 9.05 | 8.44 | 9.42 | 9.82 | 16.83 | 17.85 | 17.24 | 18.22 | 18.62 |
| | 8H | 8.20 | 9.18 | 8.63 | 9.57 | 9.97 | 16.81 | 17.79 | 17.24 | 18.18 | 18.58 |
| | 12H | 8.36 | 9.30 | 8.80 | 9.68 | 10.11 | 16.80 | 17.73 | 17.23 | 18.12 | 18.55 |
| 4H | 2H | 7.28 | 8.40 | 7.68 | 8.75 | 9.13 | 15.79 | 16.91 | 16.19 | 17.26 | 17.64 |
| | 3H | 8.33 | 9.25 | 8.74 | 9.65 | 10.06 | 16.70 | 17.62 | 17.11 | 18.02 | 18.42 |
| | 4H | 8.89 | 9.71 | 9.33 | 10.13 | 10.57 | 16.80 | 17.62 | 17.24 | 18.04 | 18.48 |
| | 6H | 9.49 | 10.20 | 9.96 | 10.65 | 11.11 | 16.83 | 17.54 | 17.29 | 17.98 | 18.45 |
| | 8H | 9.73 | 10.39 | 10.20 | 10.84 | 11.31 | 16.83 | 17.49 | 17.30 | 17.94 | 18.41 |
| | 12H | 9.96 | 10.54 | 10.44 | 11.02 | 11.50 | 16.84 | 17.43 | 17.33 | 17.91 | 18.39 |
| 8H | 4H | 9.37 | 10.03 | 9.83 | 10.47 | 10.94 | 16.73 | 17.39 | 17.20 | 17.84 | 18.31 |
| | 6H | 10.18 | 10.72 | 10.68 | 11.22 | 11.70 | 16.78 | 17.32 | 17.28 | 17.82 | 18.30 |
| | 8H | 10.56 | 11.05 | 11.08 | 11.56 | 12.05 | 16.82 | 17.30 | 17.34 | 17.82 | 18.31 |
| | 12H | 10.95 | 11.38 | 11.46 | 11.87 | 12.44 | 16.88 | 17.31 | 17.39 | 17.80 | 18.37 |
| 12H | 4H | 9.42 | 10.00 | 9.90 | 10.49 | 10.96 | 16.69 | 17.28 | 17.18 | 17.76 | 18.24 |
| | 6H | 10.30 | 10.79 | 10.82 | 11.30 | 11.79 | 16.75 | 17.24 | 17.27 | 17.75 | 18.24 |
| | 8H | 10.79 | 11.22 | 11.31 | 11.72 | 12.29 | 16.82 | 17.25 | 17.34 | 17.74 | 18.32 |