

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: P1175431

Luminaire Tested: S125RDRP-H850D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/18/2025

Test Information

Test Method: LM-79-2024
Report Number: P1175431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-82)
Test Lab: INNOVATION CENTER
Issue Date: 8/18/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-H850D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

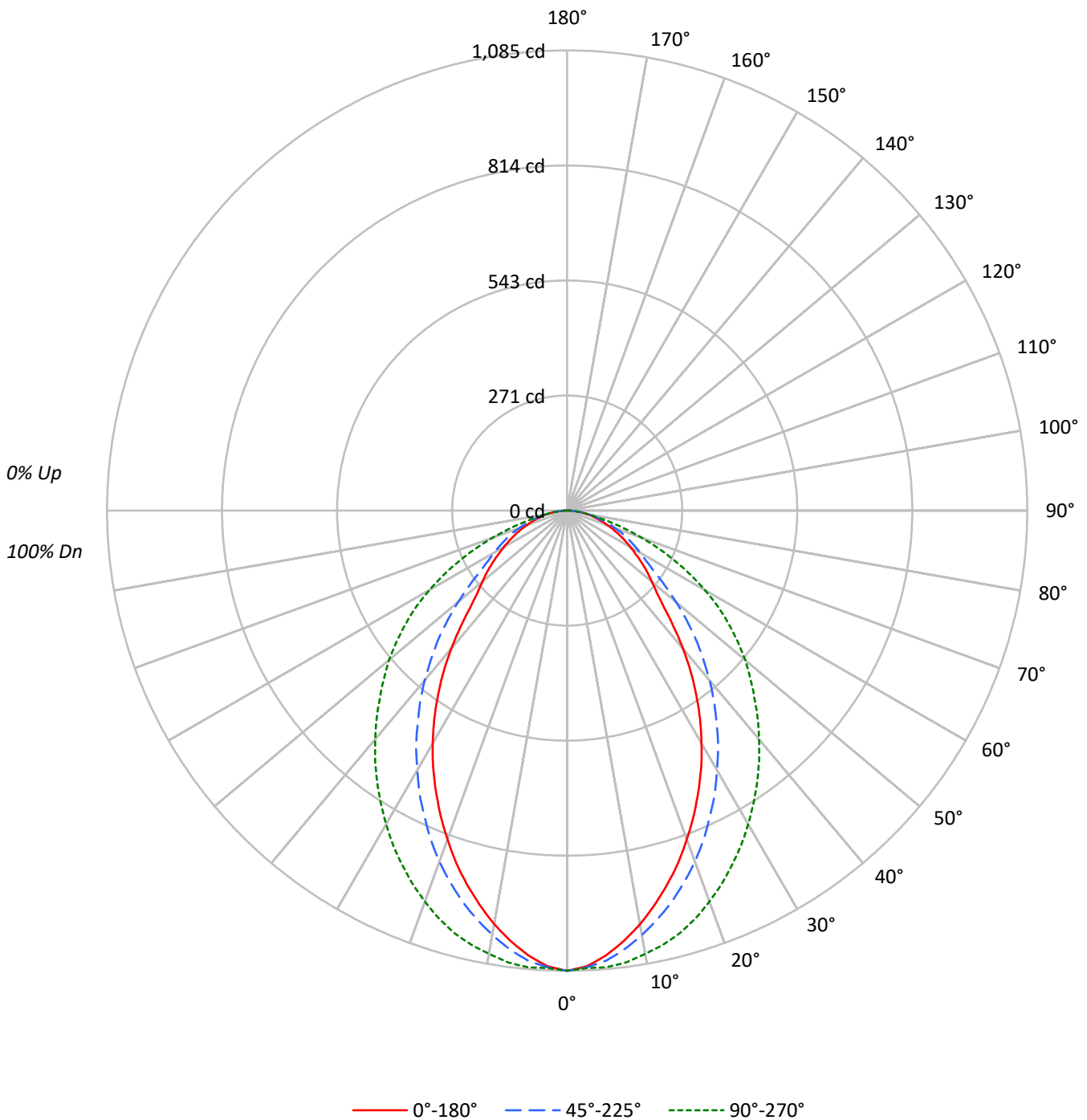
Lumens per Lamp: N/A
Luminaire Lumens: 2044.2 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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 | 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 | 73 | 69 | 77 | 72 | 68 | 74 | 70 | 66 | 64 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 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 | 47 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 46 | 44 |
| 7 | 69 | 57 | 48 | 43 | 68 | 56 | 48 | 43 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 40 |
| 8 | 65 | 52 | 44 | 39 | 63 | 51 | 44 | 39 | 50 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 |
| 9 | 61 | 48 | 40 | 35 | 59 | 48 | 40 | 35 | 46 | 40 | 35 | 45 | 39 | 35 | 44 | 39 | 35 | 33 |
| 10 | 57 | 45 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 41 | 36 | 32 | 30 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7471 | 7471 | 7471 |
| 5° | 7277 | 7359 | 7468 |
| 10° | 6923 | 7103 | 7419 |
| 15° | 6507 | 6802 | 7347 |
| 20° | 6047 | 6452 | 7188 |
| 25° | 5556 | 6046 | 6998 |
| 30° | 5038 | 5617 | 6789 |
| 35° | 4460 | 5164 | 6565 |
| 40° | 3825 | 4694 | 6325 |
| 45° | 3139 | 4179 | 6081 |
| 50° | 2792 | 3592 | 5871 |
| 55° | 2576 | 3007 | 5573 |
| 60° | 2373 | 2740 | 5163 |
| 65° | 2206 | 2581 | 4562 |
| 70° | 2057 | 2410 | 3726 |
| 75° | 1937 | 2229 | 2793 |
| 80° | 1828 | 2046 | 2010 |
| 85° | 1675 | 2038 | 1675 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6081 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 100.5 | 4.9 |
| 10°-20° | 270.8 | 13.2 |
| 20°-30° | 372.5 | 18.2 |
| 30°-40° | 395.1 | 19.3 |
| 40°-50° | 345.8 | 16.9 |
| 50°-60° | 265.4 | 13.0 |
| 60°-70° | 176.7 | 8.6 |
| 70°-80° | 90.6 | 4.4 |
| 80°-90° | 26.9 | 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° | 743.7 | 36.4 |
| 0°-40° | 1138.8 | 55.7 |
| 0°-60° | 1750.0 | 85.6 |
| 0°-90° | 2044.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2044.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1085 | 1085 | 1085 | 1085 | 1085 | |
| 5° | 1053 | 1067 | 1065 | 1072 | 1080 | 99 |
| 15° | 913 | 934 | 954 | 999 | 1031 | 256 |
| 25° | 731 | 756 | 796 | 863 | 921 | 336 |
| 35° | 531 | 555 | 614 | 705 | 781 | 331 |
| 45° | 322 | 349 | 429 | 536 | 624 | 255 |
| 55° | 215 | 219 | 250 | 372 | 464 | 192 |
| 65° | 135 | 136 | 158 | 208 | 280 | 135 |
| 75° | 73 | 77 | 84 | 88 | 105 | 77 |
| 85° | 21 | 24 | 26 | 25 | 21 | 24 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1175431

CATALOG NUMBER: S125RDRP-H850D850-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1085.1 | 1085.1 | 1085.1 | 1085.1 | 1085.1 |
| 2.5° | 1075.0 | 1086.0 | 1077.7 | 1078.6 | 1079.6 |
| 5° | 1052.9 | 1066.7 | 1064.8 | 1072.2 | 1080.5 |
| 7.5° | 1023.4 | 1038.1 | 1042.7 | 1061.1 | 1074.0 |
| 10° | 990.2 | 1006.8 | 1016.0 | 1043.6 | 1061.1 |
| 12.5° | 952.5 | 971.8 | 986.5 | 1022.5 | 1048.2 |
| 15° | 912.8 | 934.0 | 954.3 | 999.4 | 1030.7 |
| 17.5° | 870.5 | 891.7 | 918.4 | 970.0 | 1007.7 |
| 20° | 825.3 | 848.4 | 880.6 | 935.9 | 981.0 |
| 22.5° | 779.3 | 803.2 | 840.1 | 900.9 | 952.5 |
| 25° | 731.4 | 756.2 | 795.9 | 863.1 | 921.1 |
| 27.5° | 684.4 | 707.4 | 753.5 | 825.3 | 888.9 |
| 30° | 633.7 | 657.7 | 706.5 | 785.7 | 853.9 |
| 32.5° | 583.1 | 607.0 | 663.2 | 746.1 | 818.0 |
| 35° | 530.6 | 555.4 | 614.4 | 704.7 | 781.1 |
| 37.5° | 478.1 | 503.9 | 569.3 | 662.3 | 743.4 |
| 40° | 425.6 | 453.2 | 522.3 | 619.9 | 703.7 |
| 42.5° | 372.1 | 401.6 | 474.4 | 578.5 | 665.1 |
| 45° | 322.4 | 349.1 | 429.2 | 536.1 | 624.5 |
| 47.5° | 286.5 | 302.1 | 381.3 | 492.8 | 585.8 |
| 50° | 260.7 | 268.0 | 335.3 | 451.4 | 548.1 |
| 52.5° | 237.7 | 242.3 | 290.2 | 412.7 | 506.6 |
| 55° | 214.6 | 219.2 | 250.5 | 372.1 | 464.3 |
| 57.5° | 192.5 | 195.3 | 221.1 | 331.6 | 421.9 |
| 60° | 172.3 | 174.1 | 199.0 | 291.1 | 374.9 |
| 62.5° | 153.8 | 154.8 | 177.8 | 249.6 | 327.9 |
| 65° | 135.4 | 136.3 | 158.4 | 208.2 | 280.0 |
| 67.5° | 118.8 | 118.8 | 140.0 | 170.4 | 234.0 |
| 70° | 102.2 | 102.2 | 119.7 | 138.2 | 185.1 |
| 72.5° | 87.5 | 89.3 | 101.3 | 111.5 | 144.6 |
| 75° | 72.8 | 77.4 | 83.8 | 88.4 | 105.0 |
| 77.5° | 59.0 | 64.5 | 67.2 | 69.1 | 70.0 |
| 80° | 46.1 | 49.7 | 51.6 | 52.5 | 50.7 |
| 82.5° | 34.1 | 36.8 | 37.8 | 37.8 | 35.0 |
| 85° | 21.2 | 23.9 | 25.8 | 24.9 | 21.2 |
| 87.5° | 10.1 | 13.8 | 14.7 | 12.9 | 10.1 |
| 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 | 13.60 | 15.10 | 13.97 | 15.42 | 15.73 | 17.63 | 19.13 | 17.99 | 19.44 | 19.75 |
| | 3H | 15.19 | 16.53 | 15.57 | 16.86 | 17.22 | 19.02 | 20.36 | 19.39 | 20.69 | 21.05 |
| | 4H | 15.83 | 17.09 | 16.23 | 17.44 | 17.82 | 19.42 | 20.68 | 19.82 | 21.03 | 21.41 |
| | 6H | 16.34 | 17.51 | 16.75 | 17.87 | 18.27 | 19.63 | 20.79 | 20.04 | 21.16 | 21.55 |
| | 8H | 16.52 | 17.63 | 16.95 | 18.02 | 18.42 | 19.68 | 20.79 | 20.11 | 21.18 | 21.58 |
| | 12H | 16.65 | 17.71 | 17.08 | 18.09 | 18.52 | 19.72 | 20.78 | 20.15 | 21.16 | 21.59 |
| 4H | 2H | 14.37 | 15.63 | 14.77 | 15.98 | 16.36 | 17.76 | 19.02 | 18.16 | 19.37 | 19.75 |
| | 3H | 16.15 | 17.20 | 16.56 | 17.60 | 18.00 | 19.33 | 20.37 | 19.74 | 20.77 | 21.17 |
| | 4H | 16.92 | 17.86 | 17.35 | 18.28 | 18.72 | 19.84 | 20.78 | 20.27 | 21.19 | 21.63 |
| | 6H | 17.56 | 18.38 | 18.02 | 18.82 | 19.28 | 20.16 | 20.98 | 20.62 | 21.43 | 21.89 |
| | 8H | 17.79 | 18.56 | 18.26 | 19.00 | 19.47 | 20.26 | 21.03 | 20.73 | 21.47 | 21.94 |
| | 12H | 17.96 | 18.65 | 18.45 | 19.13 | 19.60 | 20.33 | 21.02 | 20.82 | 21.50 | 21.97 |
| 8H | 4H | 17.30 | 18.07 | 17.77 | 18.51 | 18.98 | 19.94 | 20.70 | 20.40 | 21.15 | 21.61 |
| | 6H | 18.08 | 18.72 | 18.58 | 19.21 | 19.68 | 20.36 | 20.99 | 20.85 | 21.48 | 21.96 |
| | 8H | 18.40 | 18.97 | 18.91 | 19.48 | 19.97 | 20.52 | 21.08 | 21.03 | 21.59 | 22.08 |
| | 12H | 18.66 | 19.16 | 19.17 | 19.65 | 20.22 | 20.65 | 21.16 | 21.16 | 21.65 | 22.21 |
| 12H | 4H | 17.34 | 18.03 | 17.83 | 18.51 | 18.98 | 19.94 | 20.62 | 20.42 | 21.10 | 21.57 |
| | 6H | 18.16 | 18.73 | 18.67 | 19.24 | 19.72 | 20.37 | 20.94 | 20.88 | 21.45 | 21.94 |
| | 8H | 18.54 | 19.04 | 19.05 | 19.53 | 20.10 | 20.58 | 21.08 | 21.09 | 21.57 | 22.14 |