

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: P1056483

Luminaire Tested: S125R3DRP-S850D930-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056483
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DRP-S850D930-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

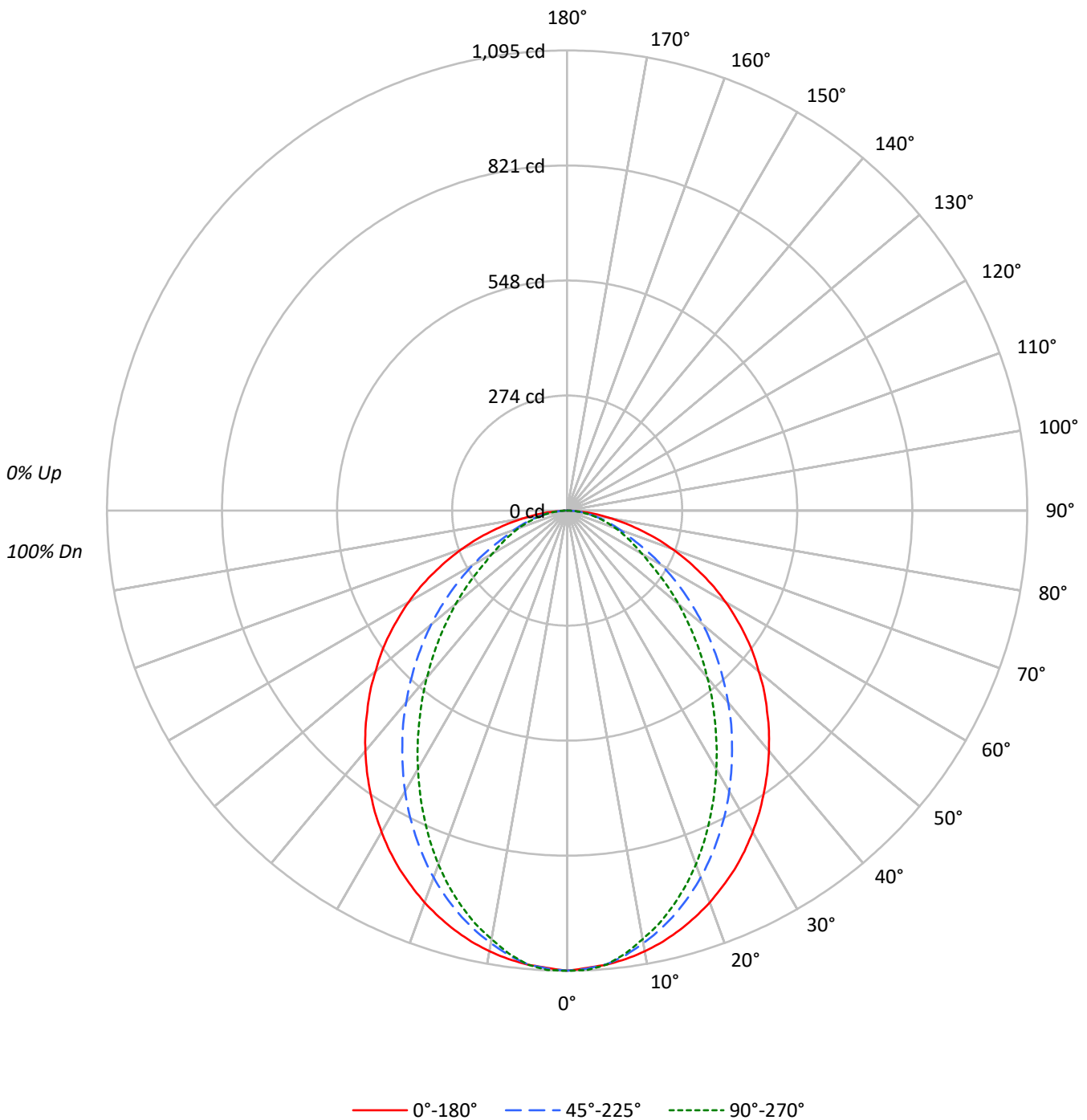
Lumens per Lamp: N/A
Luminaire Lumens: 2320.7 lumens
Efficiency: N/A
Efficacy: 87.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 110 | 105 | 101 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 90 | 88 | 86 |
| 2 | 101 | 93 | 87 | 81 | 98 | 91 | 85 | 80 | 88 | 83 | 79 | 84 | 80 | 77 | 81 | 78 | 75 | 73 |
| 3 | 92 | 83 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | 63 |
| 4 | 85 | 74 | 66 | 59 | 83 | 73 | 65 | 59 | 70 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 55 |
| 5 | 79 | 67 | 58 | 52 | 77 | 66 | 58 | 52 | 63 | 56 | 51 | 62 | 55 | 51 | 60 | 54 | 50 | 48 |
| 6 | 73 | 60 | 52 | 46 | 71 | 59 | 51 | 46 | 58 | 51 | 45 | 56 | 50 | 45 | 55 | 49 | 45 | 43 |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 46 | 41 | 53 | 46 | 41 | 51 | 45 | 40 | 50 | 44 | 40 | 38 |
| 8 | 63 | 51 | 42 | 37 | 62 | 50 | 42 | 37 | 49 | 42 | 37 | 47 | 41 | 36 | 46 | 40 | 36 | 34 |
| 9 | 59 | 47 | 39 | 33 | 58 | 46 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 31 |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7740 | 7740 | 7740 |
| 5° | 7695 | 7689 | 7695 |
| 10° | 7644 | 7503 | 7433 |
| 15° | 7566 | 7273 | 7125 |
| 20° | 7464 | 6992 | 6741 |
| 25° | 7352 | 6658 | 6283 |
| 30° | 7208 | 6296 | 5797 |
| 35° | 7050 | 5903 | 5291 |
| 40° | 6892 | 5500 | 4792 |
| 45° | 6724 | 5078 | 4296 |
| 50° | 6546 | 4644 | 3802 |
| 55° | 6381 | 4170 | 3306 |
| 60° | 6156 | 3666 | 2905 |
| 65° | 5851 | 3110 | 2700 |
| 70° | 5494 | 2780 | 2528 |
| 75° | 4966 | 2562 | 2382 |
| 80° | 4315 | 2325 | 2223 |
| 85° | 3374 | 2052 | 2052 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6724 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 102.4 | 4.4 |
| 10°-20° | 281.3 | 12.1 |
| 20°-30° | 397.4 | 17.1 |
| 30°-40° | 437.4 | 18.8 |
| 40°-50° | 408.0 | 17.6 |
| 50°-60° | 325.7 | 14.0 |
| 60°-70° | 219.2 | 9.4 |
| 70°-80° | 116.8 | 5.0 |
| 80°-90° | 32.5 | 1.4 |
| 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° | 781.1 | 33.7 |
| 0°-40° | 1218.5 | 52.5 |
| 0°-60° | 1952.3 | 84.1 |
| 0°-90° | 2320.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2320.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1095 | 1095 | 1095 | 1095 | 1095 | |
| 5° | 1084 | 1093 | 1084 | 1080 | 1084 | 103 |
| 15° | 1034 | 1028 | 994 | 977 | 974 | 291 |
| 25° | 942 | 914 | 854 | 816 | 806 | 434 |
| 35° | 817 | 769 | 684 | 630 | 613 | 511 |
| 45° | 673 | 609 | 508 | 446 | 430 | 519 |
| 55° | 518 | 439 | 338 | 284 | 268 | 462 |
| 65° | 350 | 273 | 186 | 165 | 161 | 347 |
| 75° | 182 | 121 | 94 | 88 | 87 | 194 |
| 85° | 42 | 28 | 25 | 26 | 25 | 50 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1094.9 | 1094.9 | 1094.9 | 1094.9 | 1094.9 |
| 2.5° | 1089.2 | 1098.2 | 1090.9 | 1092.5 | 1094.1 |
| 5° | 1084.3 | 1093.3 | 1083.5 | 1080.3 | 1084.3 |
| 7.5° | 1076.2 | 1083.5 | 1067.2 | 1059.9 | 1063.1 |
| 10° | 1064.8 | 1069.7 | 1045.2 | 1035.4 | 1035.4 |
| 12.5° | 1050.9 | 1050.9 | 1021.6 | 1007.7 | 1007.7 |
| 15° | 1033.8 | 1028.1 | 993.8 | 976.7 | 973.5 |
| 17.5° | 1014.2 | 1003.6 | 962.9 | 940.9 | 936.8 |
| 20° | 992.2 | 975.1 | 929.4 | 900.9 | 896.0 |
| 22.5° | 967.8 | 945.7 | 892.8 | 857.7 | 852.0 |
| 25° | 942.5 | 913.9 | 853.6 | 816.1 | 805.5 |
| 27.5° | 913.9 | 879.7 | 813.7 | 771.3 | 758.2 |
| 30° | 883.0 | 843.8 | 771.3 | 724.0 | 710.1 |
| 32.5° | 851.2 | 807.1 | 728.1 | 677.5 | 662.0 |
| 35° | 816.9 | 768.8 | 684.0 | 630.2 | 613.1 |
| 37.5° | 782.7 | 730.5 | 640.8 | 584.6 | 566.6 |
| 40° | 746.8 | 689.7 | 596.0 | 538.1 | 519.3 |
| 42.5° | 710.9 | 649.8 | 552.0 | 493.3 | 473.7 |
| 45° | 672.6 | 609.0 | 507.9 | 446.0 | 429.7 |
| 47.5° | 635.9 | 567.4 | 464.7 | 404.4 | 386.5 |
| 50° | 595.2 | 524.2 | 422.3 | 362.0 | 345.7 |
| 52.5° | 557.7 | 481.8 | 379.9 | 323.7 | 306.6 |
| 55° | 517.7 | 439.4 | 338.3 | 284.5 | 268.2 |
| 57.5° | 476.1 | 397.1 | 298.4 | 247.9 | 232.4 |
| 60° | 435.4 | 354.7 | 259.3 | 212.8 | 205.5 |
| 62.5° | 393.8 | 314.7 | 222.6 | 186.7 | 181.8 |
| 65° | 349.8 | 273.1 | 185.9 | 164.7 | 161.4 |
| 67.5° | 308.2 | 233.2 | 156.5 | 144.3 | 141.0 |
| 70° | 265.8 | 193.2 | 134.5 | 123.9 | 122.3 |
| 72.5° | 224.2 | 154.9 | 113.3 | 106.0 | 104.4 |
| 75° | 181.8 | 120.7 | 93.8 | 88.1 | 87.2 |
| 77.5° | 142.7 | 90.5 | 74.2 | 71.7 | 70.1 |
| 80° | 106.0 | 67.7 | 57.1 | 55.4 | 54.6 |
| 82.5° | 72.6 | 46.5 | 40.8 | 40.8 | 39.1 |
| 85° | 41.6 | 28.5 | 25.3 | 26.1 | 25.3 |
| 87.5° | 15.5 | 12.2 | 11.4 | 12.2 | 12.2 |
| 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 | 18.40 | 19.94 | 18.76 | 20.25 | 20.57 | 14.78 | 16.32 | 15.15 | 16.64 | 16.95 |
| | 3H | 20.18 | 21.57 | 20.56 | 21.90 | 22.26 | 16.26 | 17.64 | 16.63 | 17.97 | 18.33 |
| | 4H | 20.84 | 22.14 | 21.24 | 22.48 | 22.86 | 16.85 | 18.15 | 17.25 | 18.49 | 18.87 |
| | 6H | 21.31 | 22.51 | 21.73 | 22.88 | 23.27 | 17.31 | 18.51 | 17.72 | 18.88 | 19.27 |
| | 8H | 21.47 | 22.61 | 21.89 | 23.00 | 23.40 | 17.47 | 18.61 | 17.90 | 19.00 | 19.40 |
| | 12H | 21.56 | 22.66 | 21.99 | 23.04 | 23.47 | 17.58 | 18.68 | 18.01 | 19.06 | 19.49 |
| 4H | 2H | 18.53 | 19.83 | 18.93 | 20.18 | 20.56 | 15.46 | 16.76 | 15.86 | 17.11 | 17.48 |
| | 3H | 20.50 | 21.58 | 20.91 | 21.98 | 22.38 | 17.13 | 18.22 | 17.55 | 18.61 | 19.02 |
| | 4H | 21.25 | 22.22 | 21.68 | 22.64 | 23.08 | 17.84 | 18.81 | 18.27 | 19.23 | 19.67 |
| | 6H | 21.84 | 22.69 | 22.30 | 23.13 | 23.59 | 18.42 | 19.27 | 18.88 | 19.71 | 20.17 |
| | 8H | 22.05 | 22.84 | 22.51 | 23.29 | 23.75 | 18.63 | 19.42 | 19.09 | 19.87 | 20.33 |
| | 12H | 22.20 | 22.91 | 22.68 | 23.38 | 23.86 | 18.79 | 19.50 | 19.27 | 19.98 | 20.45 |
| 8H | 4H | 21.31 | 22.10 | 21.77 | 22.55 | 23.02 | 18.20 | 19.00 | 18.67 | 19.44 | 19.91 |
| | 6H | 21.97 | 22.63 | 22.47 | 23.12 | 23.60 | 18.90 | 19.56 | 19.40 | 20.05 | 20.53 |
| | 8H | 22.23 | 22.81 | 22.74 | 23.32 | 23.81 | 19.19 | 19.78 | 19.70 | 20.29 | 20.77 |
| | 12H | 22.43 | 22.96 | 22.94 | 23.45 | 24.01 | 19.43 | 19.95 | 19.94 | 20.44 | 21.01 |
| 12H | 4H | 21.31 | 22.01 | 21.79 | 22.49 | 22.96 | 18.25 | 18.96 | 18.73 | 19.44 | 19.91 |
| | 6H | 21.97 | 22.56 | 22.48 | 23.07 | 23.55 | 18.98 | 19.57 | 19.49 | 20.07 | 20.56 |
| | 8H | 22.26 | 22.78 | 22.77 | 23.27 | 23.84 | 19.32 | 19.84 | 19.83 | 20.33 | 20.90 |