

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: P1057989

Luminaire Tested: S122RDRP-S485D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057989
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D927-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

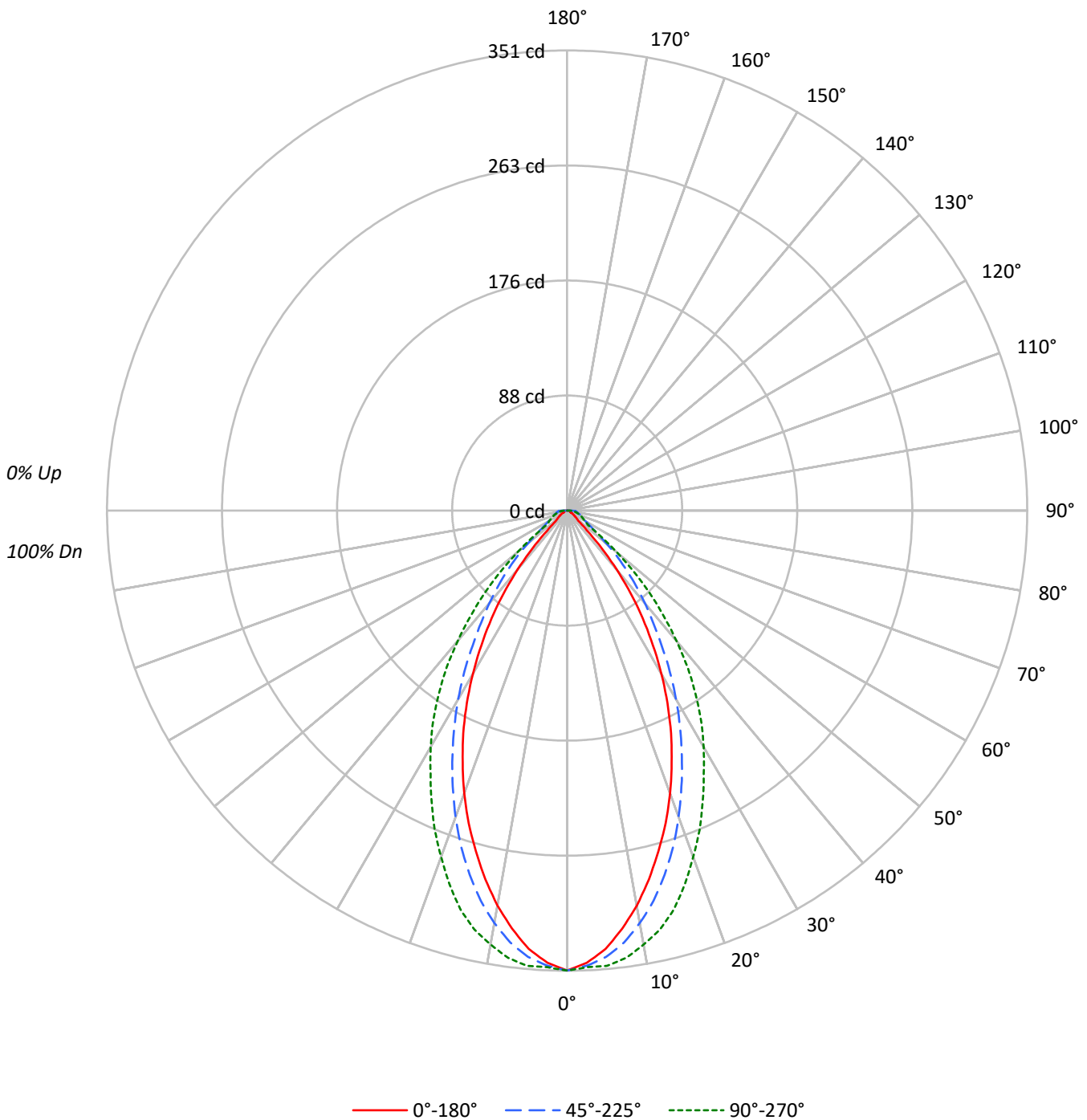
Lumens per Lamp: N/A
Luminaire Lumens: 381.8 lumens
Efficiency: N/A
Efficacy: 19.5 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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 | 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 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 97 | 98 | 96 | 95 | 95 | 93 | 92 | 90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 105 | 99 | 94 | 90 | 102 | 97 | 92 | 89 | 94 | 90 | 87 | 91 | 87 | 85 | 88 | 85 | 83 | 81 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 98 | 91 | 85 | 80 | 96 | 89 | 84 | 79 | 86 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 75 | 74 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 92 | 83 | 77 | 72 | 90 | 82 | 76 | 71 | 80 | 75 | 70 | 78 | 73 | 70 | 76 | 72 | 69 | 67 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 87 | 77 | 70 | 65 | 85 | 76 | 70 | 65 | 74 | 69 | 64 | 72 | 67 | 64 | 71 | 66 | 63 | 61 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 82 | 72 | 65 | 60 | 80 | 71 | 64 | 59 | 69 | 63 | 59 | 68 | 62 | 58 | 66 | 62 | 58 | 56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 77 | 67 | 60 | 55 | 76 | 66 | 59 | 55 | 64 | 59 | 54 | 63 | 58 | 54 | 62 | 57 | 54 | 52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 73 | 62 | 55 | 51 | 72 | 62 | 55 | 51 | 60 | 54 | 50 | 59 | 54 | 50 | 58 | 53 | 50 | 48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 69 | 58 | 52 | 47 | 68 | 58 | 51 | 47 | 57 | 51 | 47 | 56 | 50 | 47 | 55 | 50 | 46 | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 66 | 55 | 48 | 44 | 64 | 54 | 48 | 44 | 53 | 48 | 44 | 53 | 47 | 43 | 52 | 47 | 43 | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6473 | 6473 | 6473 |
| 5° | 6218 | 6331 | 6457 |
| 10° | 5732 | 5985 | 6299 |
| 15° | 5137 | 5490 | 6016 |
| 20° | 4509 | 4884 | 5522 |
| 25° | 3818 | 4217 | 4982 |
| 30° | 3062 | 3541 | 4436 |
| 35° | 2264 | 2832 | 3843 |
| 40° | 1419 | 2219 | 3124 |
| 45° | 556 | 1670 | 2315 |
| 50° | 273 | 1128 | 1418 |
| 55° | 216 | 740 | 631 |
| 60° | 166 | 602 | 579 |
| 65° | 122 | 563 | 563 |
| 70° | 151 | 577 | 577 |
| 75° | 157 | 642 | 599 |
| 80° | 234 | 839 | 659 |
| 85° | 466 | 1419 | 953 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 2623 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 32.0 | 8.4 |
| 10°-20° | 81.0 | 21.2 |
| 20°-30° | 96.9 | 25.4 |
| 30°-40° | 81.6 | 21.4 |
| 40°-50° | 46.4 | 12.2 |
| 50°-60° | 18.3 | 4.8 |
| 60°-70° | 11.5 | 3.0 |
| 70°-80° | 8.6 | 2.2 |
| 80°-90° | 5.5 | 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° | 210.0 | 55.0 |
| 0°-40° | 291.5 | 76.3 |
| 0°-60° | 356.3 | 93.3 |
| 0°-90° | 381.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 381.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 351 | 351 | 351 | 351 | 351 | |
| 5° | 336 | 343 | 342 | 346 | 349 | 31 |
| 15° | 269 | 278 | 287 | 304 | 315 | 75 |
| 25° | 188 | 196 | 207 | 228 | 245 | 85 |
| 35° | 100 | 110 | 126 | 153 | 171 | 62 |
| 45° | 21 | 38 | 64 | 80 | 89 | 20 |
| 55° | 7 | 15 | 23 | 24 | 20 | 6 |
| 65° | 3 | 13 | 13 | 12 | 13 | 3 |
| 75° | 2 | 9 | 9 | 8 | 8 | 2 |
| 85° | 2 | 6 | 7 | 6 | 4 | 2 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 350.8 | 350.8 | 350.8 | 350.8 | 350.8 |
| 2.5° | 345.2 | 351.4 | 347.5 | 348.0 | 348.6 |
| 5° | 335.7 | 343.0 | 341.8 | 345.8 | 348.6 |
| 7.5° | 321.6 | 329.5 | 332.3 | 339.0 | 344.1 |
| 10° | 305.9 | 314.9 | 319.4 | 330.1 | 336.2 |
| 12.5° | 288.0 | 298.1 | 304.8 | 318.3 | 327.2 |
| 15° | 268.9 | 278.4 | 287.4 | 304.2 | 314.9 |
| 17.5° | 249.8 | 259.3 | 268.9 | 287.4 | 298.6 |
| 20° | 229.6 | 238.6 | 248.7 | 268.3 | 281.2 |
| 22.5° | 208.2 | 217.8 | 227.9 | 248.1 | 263.8 |
| 25° | 187.5 | 195.9 | 207.1 | 228.5 | 244.7 |
| 27.5° | 165.6 | 174.0 | 186.4 | 208.2 | 225.7 |
| 30° | 143.7 | 152.1 | 166.2 | 188.6 | 208.2 |
| 32.5° | 121.8 | 130.8 | 145.9 | 170.6 | 190.3 |
| 35° | 100.5 | 109.5 | 125.7 | 152.7 | 170.6 |
| 37.5° | 79.7 | 89.8 | 107.8 | 134.2 | 151.0 |
| 40° | 58.9 | 70.7 | 92.1 | 115.6 | 129.7 |
| 42.5° | 39.3 | 53.9 | 77.5 | 97.1 | 108.9 |
| 45° | 21.3 | 37.6 | 64.0 | 80.3 | 88.7 |
| 47.5° | 11.8 | 24.1 | 51.1 | 64.0 | 69.0 |
| 50° | 9.5 | 16.8 | 39.3 | 48.8 | 49.4 |
| 52.5° | 7.9 | 15.2 | 29.2 | 34.8 | 32.0 |
| 55° | 6.7 | 14.6 | 23.0 | 23.6 | 19.6 |
| 57.5° | 5.6 | 14.0 | 19.1 | 16.8 | 16.8 |
| 60° | 4.5 | 14.0 | 16.3 | 15.2 | 15.7 |
| 62.5° | 3.4 | 14.0 | 14.6 | 13.5 | 14.0 |
| 65° | 2.8 | 12.9 | 12.9 | 12.3 | 12.9 |
| 67.5° | 2.8 | 11.8 | 11.8 | 11.2 | 11.8 |
| 70° | 2.8 | 11.2 | 10.7 | 10.7 | 10.7 |
| 72.5° | 2.2 | 10.1 | 10.1 | 9.5 | 9.5 |
| 75° | 2.2 | 9.0 | 9.0 | 8.4 | 8.4 |
| 77.5° | 2.2 | 8.4 | 8.4 | 7.9 | 7.3 |
| 80° | 2.2 | 7.3 | 7.9 | 7.3 | 6.2 |
| 82.5° | 2.2 | 6.7 | 7.3 | 6.7 | 5.1 |
| 85° | 2.2 | 6.2 | 6.7 | 6.2 | 4.5 |
| 87.5° | 1.7 | 6.2 | 6.2 | 5.1 | 3.4 |
| 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 | 4.16 | 5.39 | 4.53 | 5.70 | 6.01 | 6.19 | 7.41 | 6.56 | 7.72 | 8.04 |
| | 3H | 5.71 | 6.80 | 6.09 | 7.13 | 7.49 | 8.17 | 9.26 | 8.55 | 9.59 | 9.96 |
| | 4H | 6.26 | 7.28 | 6.67 | 7.63 | 8.01 | 9.08 | 10.10 | 9.49 | 10.45 | 10.83 |
| | 6H | 6.81 | 7.74 | 7.23 | 8.11 | 8.51 | 9.97 | 10.90 | 10.39 | 11.27 | 11.67 |
| | 8H | 7.10 | 7.98 | 7.53 | 8.37 | 8.78 | 10.38 | 11.26 | 10.81 | 11.65 | 12.06 |
| | 12H | 7.45 | 8.29 | 7.89 | 8.68 | 9.11 | 10.83 | 11.67 | 11.26 | 12.05 | 12.48 |
| 4H | 2H | 5.35 | 6.37 | 5.76 | 6.72 | 7.10 | 6.81 | 7.82 | 7.22 | 8.18 | 8.56 |
| | 3H | 7.56 | 8.39 | 7.97 | 8.80 | 9.20 | 9.07 | 9.90 | 9.48 | 10.31 | 10.71 |
| | 4H | 8.61 | 9.36 | 9.05 | 9.78 | 10.23 | 10.13 | 10.88 | 10.57 | 11.30 | 11.75 |
| | 6H | 9.50 | 10.15 | 9.97 | 10.60 | 11.07 | 11.25 | 11.90 | 11.72 | 12.35 | 12.81 |
| | 8H | 9.88 | 10.49 | 10.35 | 10.94 | 11.41 | 11.78 | 12.38 | 12.25 | 12.83 | 13.30 |
| | 12H | 10.30 | 10.83 | 10.78 | 11.32 | 11.79 | 12.36 | 12.89 | 12.85 | 13.38 | 13.85 |
| 8H | 4H | 9.42 | 10.02 | 9.89 | 10.47 | 10.94 | 10.63 | 11.23 | 11.10 | 11.68 | 12.15 |
| | 6H | 10.80 | 11.29 | 11.30 | 11.79 | 12.27 | 12.03 | 12.53 | 12.54 | 13.03 | 13.51 |
| | 8H | 11.51 | 11.95 | 12.03 | 12.47 | 12.96 | 12.77 | 13.22 | 13.30 | 13.73 | 14.23 |
| | 12H | 12.26 | 12.65 | 12.77 | 13.15 | 13.72 | 13.61 | 14.00 | 14.12 | 14.50 | 15.07 |
| 12H | 4H | 9.58 | 10.12 | 10.07 | 10.60 | 11.07 | 10.73 | 11.26 | 11.22 | 11.75 | 12.22 |
| | 6H | 11.13 | 11.58 | 11.65 | 12.09 | 12.58 | 12.25 | 12.70 | 12.77 | 13.21 | 13.71 |
| | 8H | 12.04 | 12.43 | 12.55 | 12.93 | 13.50 | 13.14 | 13.53 | 13.65 | 14.02 | 14.60 |