

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: P1058325

Luminaire Tested: S122RDR-H290D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058325
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D930-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

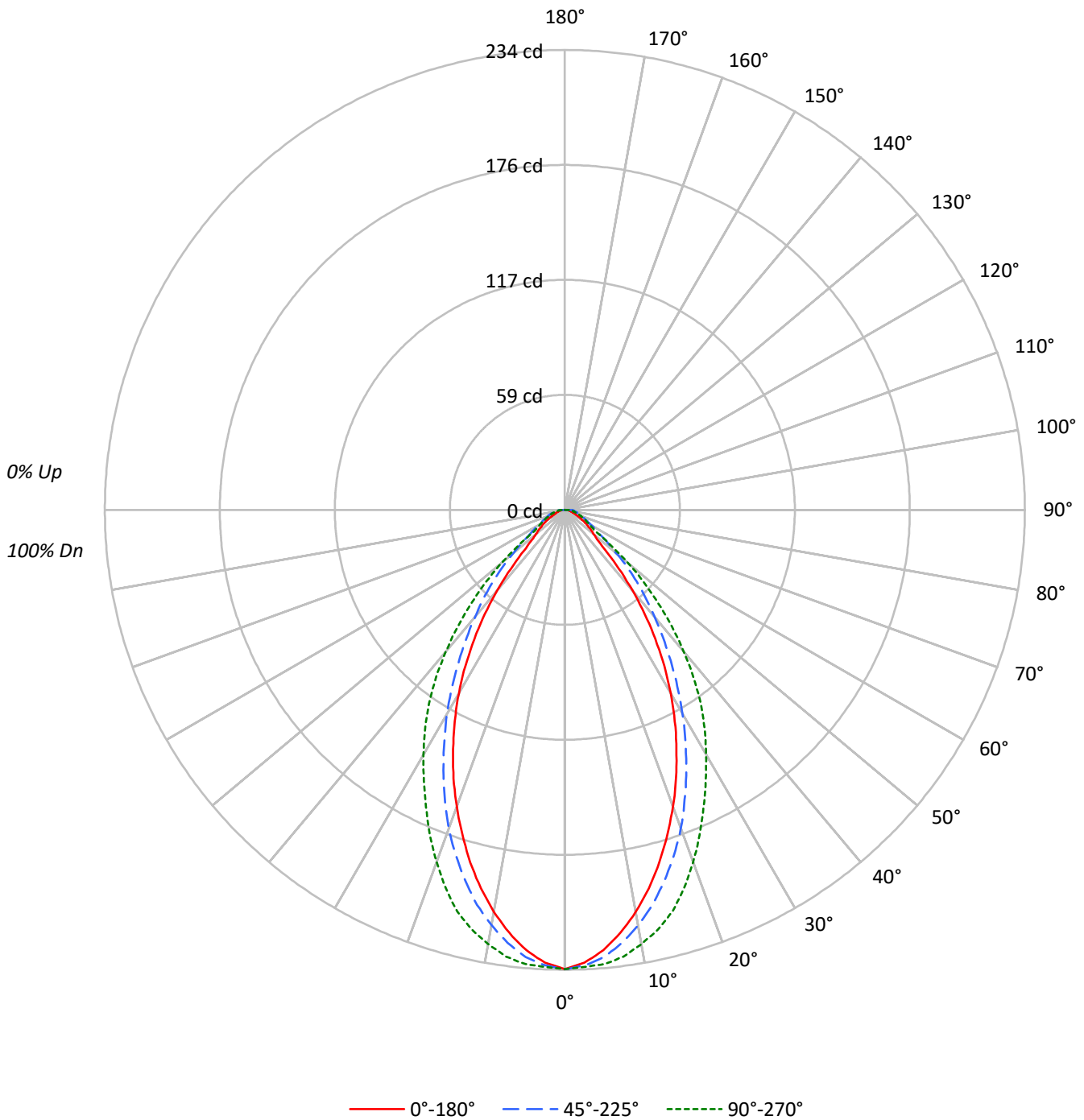
Lumens per Lamp: N/A
Luminaire Lumens: 283.5 lumens
Efficiency: N/A
Efficacy: 24.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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 | 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 | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 | | | | |
| 2 | 104 | 98 | 93 | 88 | 102 | 96 | 91 | 87 | 93 | 89 | 85 | 90 | 86 | 84 | 87 | 84 | 82 | 80 | | | | |
| 3 | 97 | 89 | 83 | 78 | 95 | 88 | 82 | 77 | 85 | 80 | 76 | 83 | 78 | 75 | 80 | 77 | 74 | 72 | | | | |
| 4 | 91 | 82 | 75 | 70 | 89 | 81 | 74 | 69 | 78 | 73 | 68 | 76 | 71 | 68 | 74 | 70 | 67 | 65 | | | | |
| 5 | 86 | 75 | 68 | 63 | 84 | 74 | 68 | 63 | 72 | 67 | 62 | 71 | 65 | 61 | 69 | 64 | 61 | 59 | | | | |
| 6 | 80 | 70 | 62 | 57 | 79 | 69 | 62 | 57 | 67 | 61 | 57 | 66 | 60 | 56 | 64 | 59 | 56 | 54 | | | | |
| 7 | 76 | 65 | 57 | 52 | 74 | 64 | 57 | 52 | 62 | 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 | 45 | 66 | 56 | 49 | 45 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 42 | | | | |
| 10 | 64 | 53 | 46 | 41 | 63 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 50 | 45 | 41 | 39 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4312 | 4312 | 4312 |
| 5° | 4168 | 4232 | 4297 |
| 10° | 3892 | 4021 | 4203 |
| 15° | 3549 | 3735 | 4040 |
| 20° | 3158 | 3389 | 3745 |
| 25° | 2736 | 2977 | 3400 |
| 30° | 2295 | 2553 | 3064 |
| 35° | 1807 | 2113 | 2714 |
| 40° | 1289 | 1705 | 2267 |
| 45° | 762 | 1349 | 1759 |
| 50° | 548 | 976 | 1197 |
| 55° | 457 | 705 | 605 |
| 60° | 373 | 565 | 513 |
| 65° | 301 | 502 | 472 |
| 70° | 264 | 486 | 448 |
| 75° | 250 | 492 | 449 |
| 80° | 255 | 595 | 478 |
| 85° | 360 | 953 | 593 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1759 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 21.4 | 7.6 |
| 10°-20° | 55.1 | 19.4 |
| 20°-30° | 67.9 | 24.0 |
| 30°-40° | 60.4 | 21.3 |
| 40°-50° | 38.6 | 13.6 |
| 50°-60° | 18.5 | 6.5 |
| 60°-70° | 10.9 | 3.8 |
| 70°-80° | 7.0 | 2.5 |
| 80°-90° | 3.7 | 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° | 144.4 | 50.9 |
| 0°-40° | 204.9 | 72.3 |
| 0°-60° | 262.0 | 92.4 |
| 0°-90° | 283.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 283.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 234 | 234 | 234 | 234 | 234 | |
| 5° | 225 | 229 | 228 | 230 | 232 | 21 |
| 15° | 186 | 190 | 196 | 204 | 212 | 52 |
| 25° | 134 | 140 | 146 | 157 | 167 | 62 |
| 35° | 80 | 86 | 94 | 108 | 120 | 50 |
| 45° | 29 | 38 | 52 | 60 | 67 | 24 |
| 55° | 14 | 18 | 22 | 21 | 19 | 13 |
| 65° | 7 | 12 | 12 | 10 | 11 | 7 |
| 75° | 4 | 8 | 7 | 7 | 6 | 4 |
| 85° | 2 | 4 | 4 | 4 | 3 | 2 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 233.7 | 233.7 | 233.7 | 233.7 | 233.7 |
| 2.5° | 230.6 | 234.4 | 232.0 | 232.0 | 232.7 |
| 5° | 225.0 | 229.2 | 228.5 | 229.9 | 232.0 |
| 7.5° | 217.0 | 221.6 | 222.3 | 226.1 | 229.2 |
| 10° | 207.7 | 212.5 | 214.6 | 220.2 | 224.3 |
| 12.5° | 197.2 | 202.1 | 205.9 | 212.9 | 218.8 |
| 15° | 185.8 | 190.3 | 195.5 | 204.5 | 211.5 |
| 17.5° | 173.3 | 179.2 | 184.4 | 193.8 | 201.8 |
| 20° | 160.8 | 166.3 | 172.6 | 181.6 | 190.7 |
| 22.5° | 147.9 | 153.1 | 159.4 | 168.8 | 179.2 |
| 25° | 134.4 | 139.6 | 146.2 | 156.6 | 167.0 |
| 27.5° | 121.2 | 126.4 | 132.7 | 144.1 | 155.2 |
| 30° | 107.7 | 112.9 | 119.8 | 131.6 | 143.8 |
| 32.5° | 94.1 | 99.7 | 106.6 | 119.5 | 132.3 |
| 35° | 80.2 | 86.5 | 93.8 | 108.0 | 120.5 |
| 37.5° | 66.7 | 72.9 | 82.0 | 95.8 | 107.7 |
| 40° | 53.5 | 60.8 | 70.8 | 83.3 | 94.1 |
| 42.5° | 40.6 | 48.6 | 61.1 | 71.2 | 80.6 |
| 45° | 29.2 | 37.9 | 51.7 | 60.1 | 67.4 |
| 47.5° | 22.2 | 28.5 | 42.7 | 49.3 | 54.5 |
| 50° | 19.1 | 22.9 | 34.0 | 38.9 | 41.7 |
| 52.5° | 16.7 | 20.1 | 27.1 | 29.5 | 29.5 |
| 55° | 14.2 | 18.4 | 21.9 | 21.2 | 18.8 |
| 57.5° | 12.2 | 16.7 | 18.1 | 15.3 | 16.0 |
| 60° | 10.1 | 15.3 | 15.3 | 13.5 | 13.9 |
| 62.5° | 8.3 | 14.2 | 13.2 | 11.8 | 12.2 |
| 65° | 6.9 | 12.5 | 11.5 | 10.4 | 10.8 |
| 67.5° | 5.6 | 11.1 | 10.1 | 9.4 | 9.4 |
| 70° | 4.9 | 10.1 | 9.0 | 8.3 | 8.3 |
| 72.5° | 4.2 | 8.7 | 8.0 | 7.3 | 7.3 |
| 75° | 3.5 | 7.6 | 6.9 | 6.6 | 6.3 |
| 77.5° | 3.1 | 6.6 | 6.3 | 5.6 | 5.2 |
| 80° | 2.4 | 5.6 | 5.6 | 5.2 | 4.5 |
| 82.5° | 2.1 | 4.9 | 4.9 | 4.5 | 3.8 |
| 85° | 1.7 | 4.2 | 4.5 | 3.8 | 2.8 |
| 87.5° | 1.4 | 3.8 | 3.8 | 3.1 | 2.1 |
| 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 | 6.76 | 8.04 | 7.13 | 8.35 | 8.67 | 6.55 | 7.82 | 6.91 | 8.14 | 8.45 |
| | 3H | 8.00 | 9.13 | 8.38 | 9.46 | 9.83 | 8.14 | 9.27 | 8.52 | 9.60 | 9.97 |
| | 4H | 8.45 | 9.51 | 8.85 | 9.86 | 10.24 | 8.86 | 9.92 | 9.26 | 10.27 | 10.65 |
| | 6H | 8.82 | 9.80 | 9.24 | 10.17 | 10.56 | 9.51 | 10.48 | 9.92 | 10.85 | 11.25 |
| | 8H | 8.98 | 9.90 | 9.41 | 10.29 | 10.70 | 9.83 | 10.75 | 10.26 | 11.15 | 11.55 |
| | 12H | 9.13 | 10.02 | 9.57 | 10.40 | 10.83 | 10.13 | 11.01 | 10.56 | 11.40 | 11.83 |
| 4H | 2H | 7.31 | 8.37 | 7.72 | 8.72 | 9.11 | 7.14 | 8.20 | 7.55 | 8.55 | 8.94 |
| | 3H | 9.01 | 9.88 | 9.42 | 10.28 | 10.69 | 8.97 | 9.84 | 9.39 | 10.25 | 10.65 |
| | 4H | 9.80 | 10.58 | 10.23 | 11.00 | 11.44 | 9.85 | 10.63 | 10.29 | 11.05 | 11.50 |
| | 6H | 10.44 | 11.12 | 10.90 | 11.56 | 12.03 | 10.69 | 11.37 | 11.16 | 11.82 | 12.28 |
| | 8H | 10.69 | 11.32 | 11.16 | 11.77 | 12.24 | 11.11 | 11.75 | 11.58 | 12.19 | 12.67 |
| | 12H | 10.94 | 11.50 | 11.42 | 11.98 | 12.45 | 11.52 | 12.08 | 12.00 | 12.56 | 13.03 |
| 8H | 4H | 10.22 | 10.85 | 10.68 | 11.30 | 11.77 | 10.27 | 10.90 | 10.74 | 11.35 | 11.82 |
| | 6H | 11.20 | 11.72 | 11.70 | 12.21 | 12.69 | 11.35 | 11.87 | 11.86 | 12.37 | 12.85 |
| | 8H | 11.69 | 12.16 | 12.21 | 12.68 | 13.17 | 11.94 | 12.41 | 12.46 | 12.92 | 13.42 |
| | 12H | 12.20 | 12.61 | 12.71 | 13.10 | 13.67 | 12.54 | 12.95 | 13.06 | 13.45 | 14.02 |
| 12H | 4H | 10.28 | 10.84 | 10.77 | 11.33 | 11.80 | 10.35 | 10.91 | 10.83 | 11.39 | 11.86 |
| | 6H | 11.37 | 11.83 | 11.89 | 12.35 | 12.84 | 11.52 | 11.99 | 12.04 | 12.50 | 13.00 |
| | 8H | 12.01 | 12.42 | 12.52 | 12.92 | 13.49 | 12.23 | 12.64 | 12.74 | 13.14 | 13.71 |