

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: P1058327

Luminaire Tested: S122RDR-H290D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058327
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D930-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

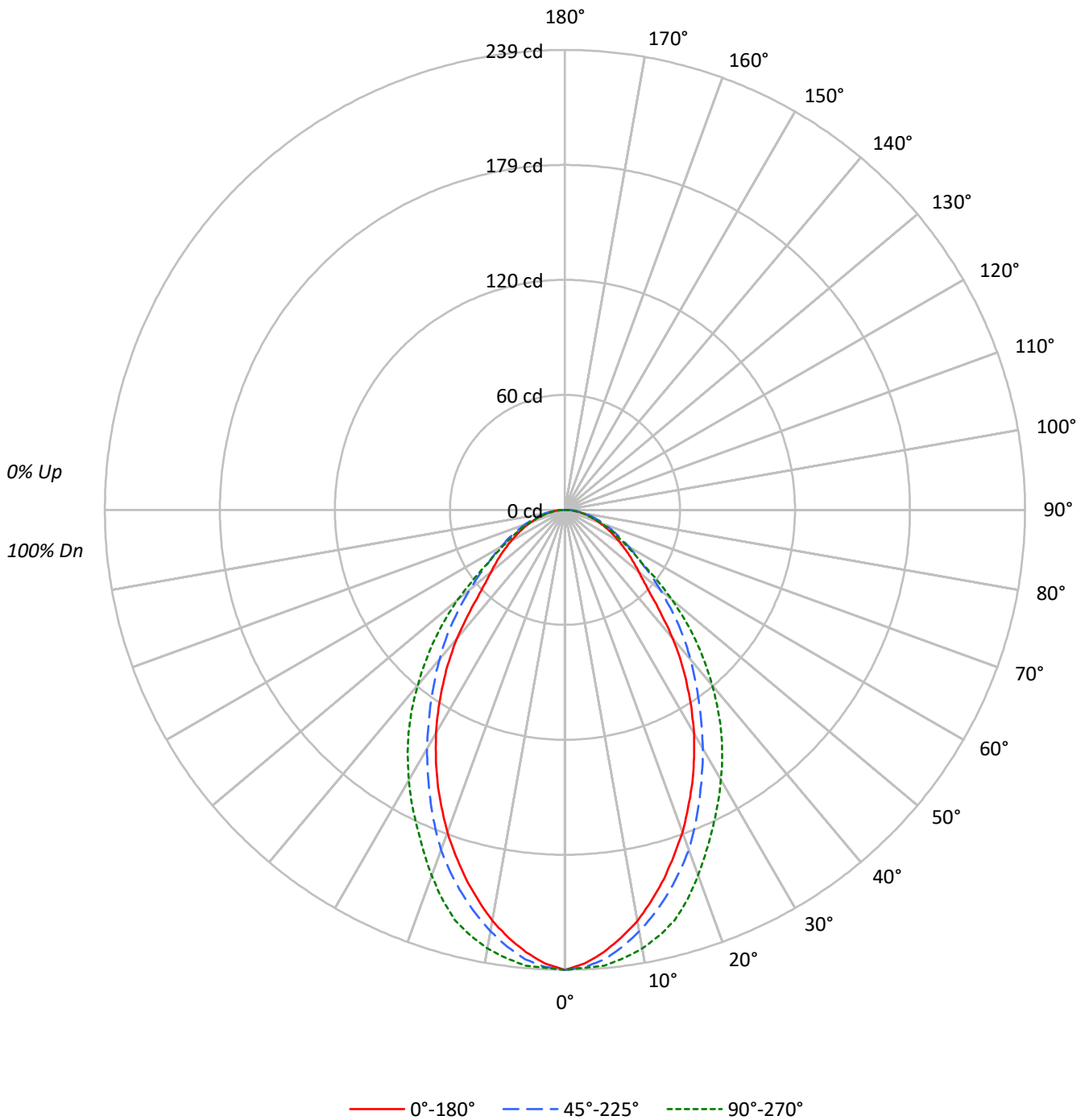
Lumens per Lamp: N/A
Luminaire Lumens: 389.4 lumens
Efficiency: N/A
Efficacy: 33.3 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 110 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 86 | 83 | 79 | 84 | 80 | 78 | 76 |
| 3 | 94 | 85 | 78 | 73 | 92 | 84 | 77 | 72 | 81 | 75 | 71 | 78 | 73 | 69 | 76 | 72 | 68 | 66 |
| 4 | 88 | 77 | 69 | 63 | 85 | 76 | 69 | 63 | 73 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 61 | 59 |
| 5 | 81 | 70 | 62 | 56 | 79 | 69 | 61 | 56 | 67 | 60 | 55 | 65 | 59 | 55 | 63 | 58 | 54 | 52 |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 56 | 50 | 61 | 55 | 50 | 60 | 54 | 49 | 58 | 53 | 49 | 47 |
| 7 | 71 | 59 | 51 | 45 | 69 | 58 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 44 | 43 |
| 8 | 67 | 54 | 47 | 41 | 65 | 54 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 |
| 9 | 63 | 50 | 43 | 38 | 61 | 50 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 37 | 47 | 41 | 37 | 36 |
| 10 | 59 | 47 | 40 | 35 | 58 | 46 | 39 | 35 | 45 | 39 | 35 | 45 | 39 | 34 | 44 | 38 | 34 | 33 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4412 | 4412 | 4412 |
| 5° | 4275 | 4345 | 4403 |
| 10° | 4064 | 4167 | 4338 |
| 15° | 3792 | 3945 | 4216 |
| 20° | 3503 | 3694 | 3973 |
| 25° | 3186 | 3370 | 3701 |
| 30° | 2855 | 3053 | 3454 |
| 35° | 2487 | 2728 | 3190 |
| 40° | 2098 | 2440 | 2866 |
| 45° | 1668 | 2156 | 2508 |
| 50° | 1435 | 1852 | 2081 |
| 55° | 1306 | 1586 | 1596 |
| 60° | 1192 | 1410 | 1358 |
| 65° | 1092 | 1275 | 1196 |
| 70° | 1009 | 1182 | 1068 |
| 75° | 941 | 1112 | 941 |
| 80° | 882 | 1073 | 850 |
| 85° | 889 | 1101 | 741 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2508 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 22.1 | 5.7 |
| 10°-20° | 58.4 | 15.0 |
| 20°-30° | 76.8 | 19.7 |
| 30°-40° | 77.2 | 19.8 |
| 40°-50° | 62.6 | 16.1 |
| 50°-60° | 43.1 | 11.1 |
| 60°-70° | 28.2 | 7.2 |
| 70°-80° | 15.7 | 4.0 |
| 80°-90° | 5.3 | 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° | 157.2 | 40.4 |
| 0°-40° | 234.4 | 60.2 |
| 0°-60° | 340.1 | 87.3 |
| 0°-90° | 389.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 389.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 239 | 239 | 239 | 239 | 239 | |
| 5° | 231 | 235 | 235 | 236 | 238 | 22 |
| 15° | 198 | 203 | 206 | 214 | 221 | 56 |
| 25° | 156 | 161 | 166 | 173 | 182 | 72 |
| 35° | 110 | 116 | 121 | 132 | 142 | 69 |
| 45° | 64 | 71 | 83 | 90 | 96 | 51 |
| 55° | 41 | 45 | 49 | 50 | 50 | 36 |
| 65° | 25 | 30 | 29 | 28 | 27 | 25 |
| 75° | 13 | 16 | 16 | 14 | 13 | 14 |
| 85° | 4 | 6 | 5 | 4 | 4 | 5 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1058327

CATALOG NUMBER: S122RDR-H290D930-X4F0-XX-UDD-WVL-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 239.1 | 239.1 | 239.1 | 239.1 | 239.1 |
| 2.5° | 236.0 | 240.1 | 237.7 | 237.7 | 238.1 |
| 5° | 230.8 | 235.3 | 234.6 | 235.6 | 237.7 |
| 7.5° | 224.2 | 229.0 | 229.0 | 232.2 | 234.9 |
| 10° | 216.9 | 221.8 | 222.4 | 227.3 | 231.5 |
| 12.5° | 207.9 | 212.7 | 214.8 | 221.1 | 226.6 |
| 15° | 198.5 | 203.4 | 206.5 | 214.1 | 220.7 |
| 17.5° | 188.4 | 193.3 | 197.5 | 205.4 | 212.0 |
| 20° | 178.4 | 182.9 | 188.1 | 195.0 | 202.3 |
| 22.5° | 167.3 | 172.1 | 177.0 | 183.6 | 191.9 |
| 25° | 156.5 | 160.7 | 165.5 | 172.8 | 181.8 |
| 27.5° | 145.1 | 149.6 | 154.1 | 162.8 | 172.1 |
| 30° | 134.0 | 138.5 | 143.3 | 152.3 | 162.1 |
| 32.5° | 122.2 | 127.0 | 131.9 | 141.9 | 152.0 |
| 35° | 110.4 | 115.6 | 121.1 | 131.9 | 141.6 |
| 37.5° | 98.9 | 104.5 | 111.0 | 122.2 | 130.5 |
| 40° | 87.1 | 93.0 | 101.3 | 111.0 | 119.0 |
| 42.5° | 74.6 | 81.9 | 92.0 | 100.3 | 107.6 |
| 45° | 63.9 | 71.1 | 82.6 | 89.9 | 96.1 |
| 47.5° | 55.9 | 61.8 | 72.9 | 79.1 | 84.3 |
| 50° | 50.0 | 54.5 | 64.5 | 69.1 | 72.5 |
| 52.5° | 45.1 | 49.6 | 56.6 | 59.7 | 60.7 |
| 55° | 40.6 | 45.1 | 49.3 | 50.3 | 49.6 |
| 57.5° | 36.1 | 40.9 | 43.4 | 42.3 | 42.3 |
| 60° | 32.3 | 37.5 | 38.2 | 36.8 | 36.8 |
| 62.5° | 28.5 | 33.7 | 33.7 | 31.9 | 31.9 |
| 65° | 25.0 | 29.8 | 29.2 | 27.8 | 27.4 |
| 67.5° | 21.9 | 26.4 | 25.3 | 23.9 | 23.6 |
| 70° | 18.7 | 22.9 | 21.9 | 20.1 | 19.8 |
| 72.5° | 16.0 | 19.8 | 18.4 | 17.0 | 16.3 |
| 75° | 13.2 | 16.3 | 15.6 | 13.9 | 13.2 |
| 77.5° | 10.8 | 13.2 | 12.5 | 11.1 | 10.4 |
| 80° | 8.3 | 10.4 | 10.1 | 8.7 | 8.0 |
| 82.5° | 6.2 | 8.0 | 7.6 | 6.6 | 5.6 |
| 85° | 4.2 | 5.6 | 5.2 | 4.5 | 3.5 |
| 87.5° | 2.1 | 3.8 | 3.5 | 3.1 | 1.7 |
| 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 | 11.88 | 13.32 | 12.25 | 13.63 | 13.95 | 12.24 | 13.68 | 12.61 | 13.99 | 14.31 |
| | 3H | 13.43 | 14.72 | 13.81 | 15.05 | 15.41 | 13.59 | 14.88 | 13.97 | 15.21 | 15.57 |
| | 4H | 14.00 | 15.21 | 14.40 | 15.56 | 15.94 | 14.07 | 15.28 | 14.47 | 15.63 | 16.01 |
| | 6H | 14.43 | 15.55 | 14.85 | 15.91 | 16.31 | 14.43 | 15.54 | 14.84 | 15.91 | 16.30 |
| | 8H | 14.58 | 15.64 | 15.01 | 16.03 | 16.44 | 14.54 | 15.60 | 14.97 | 15.99 | 16.40 |
| | 12H | 14.70 | 15.71 | 15.13 | 16.10 | 16.53 | 14.62 | 15.63 | 15.05 | 16.02 | 16.45 |
| 4H | 2H | 12.47 | 13.68 | 12.87 | 14.03 | 14.41 | 12.76 | 13.97 | 13.16 | 14.32 | 14.70 |
| | 3H | 14.29 | 15.30 | 14.71 | 15.70 | 16.10 | 14.33 | 15.33 | 14.74 | 15.73 | 16.14 |
| | 4H | 15.04 | 15.94 | 15.48 | 16.36 | 16.80 | 14.94 | 15.84 | 15.37 | 16.25 | 16.69 |
| | 6H | 15.63 | 16.41 | 16.09 | 16.86 | 17.32 | 15.42 | 16.20 | 15.88 | 16.65 | 17.11 |
| | 8H | 15.84 | 16.57 | 16.30 | 17.01 | 17.48 | 15.58 | 16.32 | 16.05 | 16.76 | 17.23 |
| | 12H | 16.01 | 16.66 | 16.49 | 17.14 | 17.61 | 15.71 | 16.36 | 16.19 | 16.84 | 17.31 |
| 8H | 4H | 15.33 | 16.06 | 15.79 | 16.50 | 16.97 | 15.24 | 15.97 | 15.70 | 16.41 | 16.88 |
| | 6H | 16.08 | 16.69 | 16.58 | 17.18 | 17.66 | 15.86 | 16.46 | 16.36 | 16.95 | 17.43 |
| | 8H | 16.41 | 16.95 | 16.92 | 17.46 | 17.95 | 16.11 | 16.65 | 16.62 | 17.16 | 17.65 |
| | 12H | 16.69 | 17.17 | 17.21 | 17.67 | 18.23 | 16.32 | 16.80 | 16.83 | 17.29 | 17.86 |
| 12H | 4H | 15.35 | 16.00 | 15.83 | 16.48 | 16.95 | 15.27 | 15.92 | 15.76 | 16.40 | 16.88 |
| | 6H | 16.14 | 16.69 | 16.66 | 17.20 | 17.69 | 15.93 | 16.48 | 16.45 | 16.99 | 17.48 |
| | 8H | 16.54 | 17.02 | 17.05 | 17.51 | 18.08 | 16.25 | 16.73 | 16.77 | 17.23 | 17.79 |