

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: P1217271

Luminaire Tested: S122DRP-H290D935-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217271
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2511-596-2)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-H290D935-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

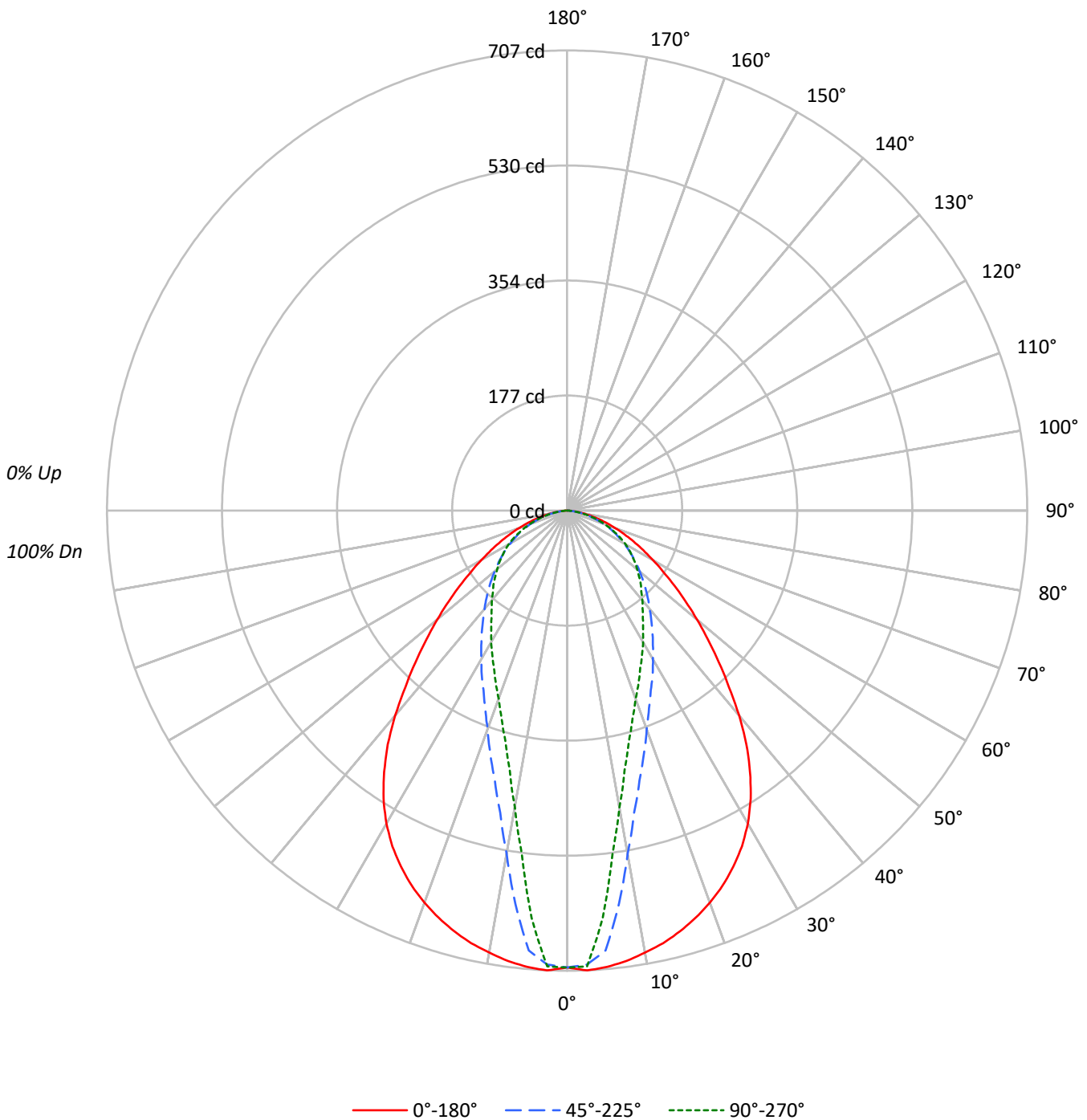
Lumens per Lamp: N/A
Luminaire Lumens: 943.4 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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 | 0 | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | |
| 1 | 110 | 106 | 102 | 99 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | | |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 78 | 83 | 79 | 77 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | | |
| 3 | 93 | 84 | 77 | 71 | 91 | 82 | 76 | 70 | 80 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 67 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | | |
| 4 | 86 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 70 | 64 | 60 | 68 | 63 | 59 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | |
| 5 | 80 | 69 | 60 | 54 | 78 | 67 | 60 | 54 | 65 | 59 | 53 | 63 | 58 | 53 | 62 | 57 | 52 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | | |
| 6 | 75 | 63 | 54 | 48 | 73 | 62 | 54 | 48 | 60 | 53 | 48 | 58 | 52 | 47 | 57 | 51 | 47 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | | |
| 7 | 70 | 57 | 49 | 44 | 68 | 57 | 49 | 44 | 55 | 48 | 43 | 54 | 48 | 43 | 52 | 47 | 43 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | | |
| 8 | 65 | 53 | 45 | 40 | 64 | 52 | 45 | 40 | 51 | 44 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | | |
| 9 | 62 | 49 | 41 | 36 | 60 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 45 | 40 | 36 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | | |
| 10 | 58 | 46 | 38 | 33 | 57 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 43 | 37 | 33 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 13300 | 13300 | 13300 |
| 5° | 13385 | 12898 | 11943 |
| 10° | 13267 | 10300 | 8905 |
| 15° | 13130 | 8418 | 7191 |
| 20° | 12922 | 7206 | 6202 |
| 25° | 12624 | 6361 | 5565 |
| 30° | 12146 | 5769 | 5104 |
| 35° | 11333 | 5285 | 4693 |
| 40° | 10162 | 4882 | 4447 |
| 45° | 8839 | 4563 | 4287 |
| 50° | 7675 | 4286 | 4135 |
| 55° | 6639 | 4053 | 4026 |
| 60° | 5760 | 3816 | 3926 |
| 65° | 5039 | 3577 | 3712 |
| 70° | 4343 | 3285 | 3407 |
| 75° | 3616 | 2891 | 3001 |
| 80° | 2837 | 2357 | 2280 |
| 85° | 1761 | 1522 | 1522 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8839 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 60.4 | 6.4 |
| 10°-20° | 133.3 | 14.1 |
| 20°-30° | 163.5 | 17.3 |
| 30°-40° | 169.0 | 17.9 |
| 40°-50° | 152.6 | 16.2 |
| 50°-60° | 123.7 | 13.1 |
| 60°-70° | 86.7 | 9.2 |
| 70°-80° | 44.7 | 4.7 |
| 80°-90° | 9.5 | 1.0 |
| 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° | 357.2 | 37.9 |
| 0°-40° | 526.2 | 55.8 |
| 0°-60° | 802.5 | 85.1 |
| 0°-90° | 943.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 943.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 702 | 702 | 702 | 702 | 702 | |
| 5° | 704 | 702 | 678 | 648 | 628 | 67 |
| 15° | 669 | 564 | 429 | 383 | 367 | 189 |
| 25° | 604 | 401 | 304 | 275 | 266 | 277 |
| 35° | 490 | 296 | 228 | 209 | 203 | 305 |
| 45° | 330 | 214 | 170 | 161 | 160 | 255 |
| 55° | 201 | 146 | 123 | 121 | 122 | 181 |
| 65° | 112 | 90 | 80 | 82 | 83 | 112 |
| 75° | 49 | 42 | 40 | 41 | 41 | 53 |
| 85° | 8 | 7 | 7 | 7 | 7 | 11 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1217271

CATALOG NUMBER: S122DRP-H290D935-X4F0-XX-UDD-G-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 702.0 | 702.0 | 702.0 | 702.0 | 702.0 |
| 2.5° | 707.1 | 704.6 | 698.0 | 704.2 | 700.9 |
| 5° | 703.8 | 702.4 | 678.2 | 647.8 | 628.0 |
| 7.5° | 698.0 | 692.9 | 609.4 | 551.9 | 532.5 |
| 10° | 689.6 | 663.9 | 535.4 | 481.9 | 462.9 |
| 12.5° | 680.8 | 620.3 | 475.7 | 425.5 | 408.3 |
| 15° | 669.4 | 564.3 | 429.2 | 382.7 | 366.6 |
| 17.5° | 656.2 | 515.6 | 392.2 | 347.5 | 334.7 |
| 20° | 640.9 | 473.5 | 357.4 | 318.2 | 307.6 |
| 22.5° | 624.0 | 438.0 | 328.5 | 296.6 | 286.7 |
| 25° | 603.9 | 401.0 | 304.3 | 275.4 | 266.2 |
| 27.5° | 581.5 | 372.8 | 284.2 | 257.1 | 249.4 |
| 30° | 555.2 | 345.3 | 263.7 | 239.5 | 233.3 |
| 32.5° | 525.1 | 319.7 | 245.4 | 224.1 | 216.8 |
| 35° | 490.0 | 296.3 | 228.5 | 209.1 | 202.9 |
| 37.5° | 452.6 | 273.2 | 212.4 | 195.6 | 190.4 |
| 40° | 410.9 | 253.0 | 197.4 | 182.4 | 179.8 |
| 42.5° | 368.0 | 232.9 | 183.8 | 171.0 | 168.8 |
| 45° | 329.9 | 213.5 | 170.3 | 160.8 | 160.0 |
| 47.5° | 293.0 | 195.9 | 157.8 | 150.5 | 149.8 |
| 50° | 260.4 | 177.6 | 145.4 | 140.6 | 140.3 |
| 52.5° | 229.2 | 161.5 | 133.7 | 131.1 | 131.8 |
| 55° | 201.0 | 146.1 | 122.7 | 121.2 | 121.9 |
| 57.5° | 175.0 | 131.8 | 111.7 | 112.1 | 113.2 |
| 60° | 152.0 | 117.2 | 100.7 | 102.2 | 103.6 |
| 62.5° | 131.8 | 103.6 | 90.1 | 92.3 | 93.7 |
| 65° | 112.4 | 90.1 | 79.8 | 81.7 | 82.8 |
| 67.5° | 95.2 | 77.3 | 69.6 | 71.8 | 72.1 |
| 70° | 78.4 | 65.6 | 59.3 | 61.5 | 61.5 |
| 72.5° | 63.7 | 53.5 | 49.4 | 50.5 | 50.9 |
| 75° | 49.4 | 42.5 | 39.5 | 40.6 | 41.0 |
| 77.5° | 37.4 | 32.2 | 30.0 | 31.1 | 30.8 |
| 80° | 26.0 | 22.7 | 21.6 | 21.2 | 20.9 |
| 82.5° | 16.1 | 14.3 | 13.2 | 13.5 | 13.2 |
| 85° | 8.1 | 7.0 | 7.0 | 7.0 | 7.0 |
| 87.5° | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 |
| 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 | 17.49 | 18.99 | 17.85 | 19.30 | 19.61 | 15.99 | 17.49 | 16.35 | 17.80 | 18.12 |
| | 3H | 19.07 | 20.42 | 19.45 | 20.75 | 21.11 | 17.70 | 19.05 | 18.08 | 19.37 | 19.74 |
| | 4H | 19.60 | 20.86 | 20.00 | 21.21 | 21.59 | 18.28 | 19.54 | 18.68 | 19.89 | 20.27 |
| | 6H | 19.93 | 21.09 | 20.34 | 21.46 | 21.85 | 18.63 | 19.79 | 19.04 | 20.16 | 20.55 |
| | 8H | 20.00 | 21.11 | 20.43 | 21.50 | 21.90 | 18.70 | 19.81 | 19.13 | 20.20 | 20.60 |
| | 12H | 20.03 | 21.09 | 20.46 | 21.47 | 21.90 | 18.73 | 19.80 | 19.16 | 20.18 | 20.61 |
| 4H | 2H | 17.80 | 19.06 | 18.20 | 19.41 | 19.79 | 16.55 | 17.81 | 16.95 | 18.16 | 18.54 |
| | 3H | 19.58 | 20.63 | 19.99 | 21.03 | 21.43 | 18.46 | 19.51 | 18.87 | 19.91 | 20.31 |
| | 4H | 20.21 | 21.15 | 20.64 | 21.57 | 22.01 | 19.16 | 20.10 | 19.59 | 20.52 | 20.96 |
| | 6H | 20.64 | 21.46 | 21.10 | 21.91 | 22.37 | 19.61 | 20.43 | 20.07 | 20.87 | 21.33 |
| | 8H | 20.75 | 21.51 | 21.21 | 21.96 | 22.43 | 19.71 | 20.48 | 20.18 | 20.92 | 21.39 |
| | 12H | 20.80 | 21.48 | 21.28 | 21.96 | 22.43 | 19.77 | 20.45 | 20.25 | 20.93 | 21.40 |
| 8H | 4H | 20.36 | 21.12 | 20.82 | 21.57 | 22.03 | 19.40 | 20.16 | 19.86 | 20.61 | 21.08 |
| | 6H | 20.86 | 21.50 | 21.36 | 21.99 | 22.46 | 19.94 | 20.57 | 20.43 | 21.06 | 21.54 |
| | 8H | 21.01 | 21.58 | 21.53 | 22.09 | 22.57 | 20.09 | 20.65 | 20.60 | 21.16 | 21.65 |
| | 12H | 21.10 | 21.60 | 21.61 | 22.09 | 22.66 | 20.18 | 20.68 | 20.69 | 21.17 | 21.74 |
| 12H | 4H | 20.36 | 21.04 | 20.84 | 21.52 | 21.99 | 19.41 | 20.09 | 19.89 | 20.57 | 21.04 |
| | 6H | 20.87 | 21.43 | 21.38 | 21.94 | 22.43 | 19.96 | 20.52 | 20.47 | 21.03 | 21.52 |
| | 8H | 21.05 | 21.55 | 21.56 | 22.04 | 22.61 | 20.15 | 20.65 | 20.66 | 21.14 | 21.70 |