

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: P1059144

Luminaire Tested: S123RDR-S1165D935-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059144
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D935-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

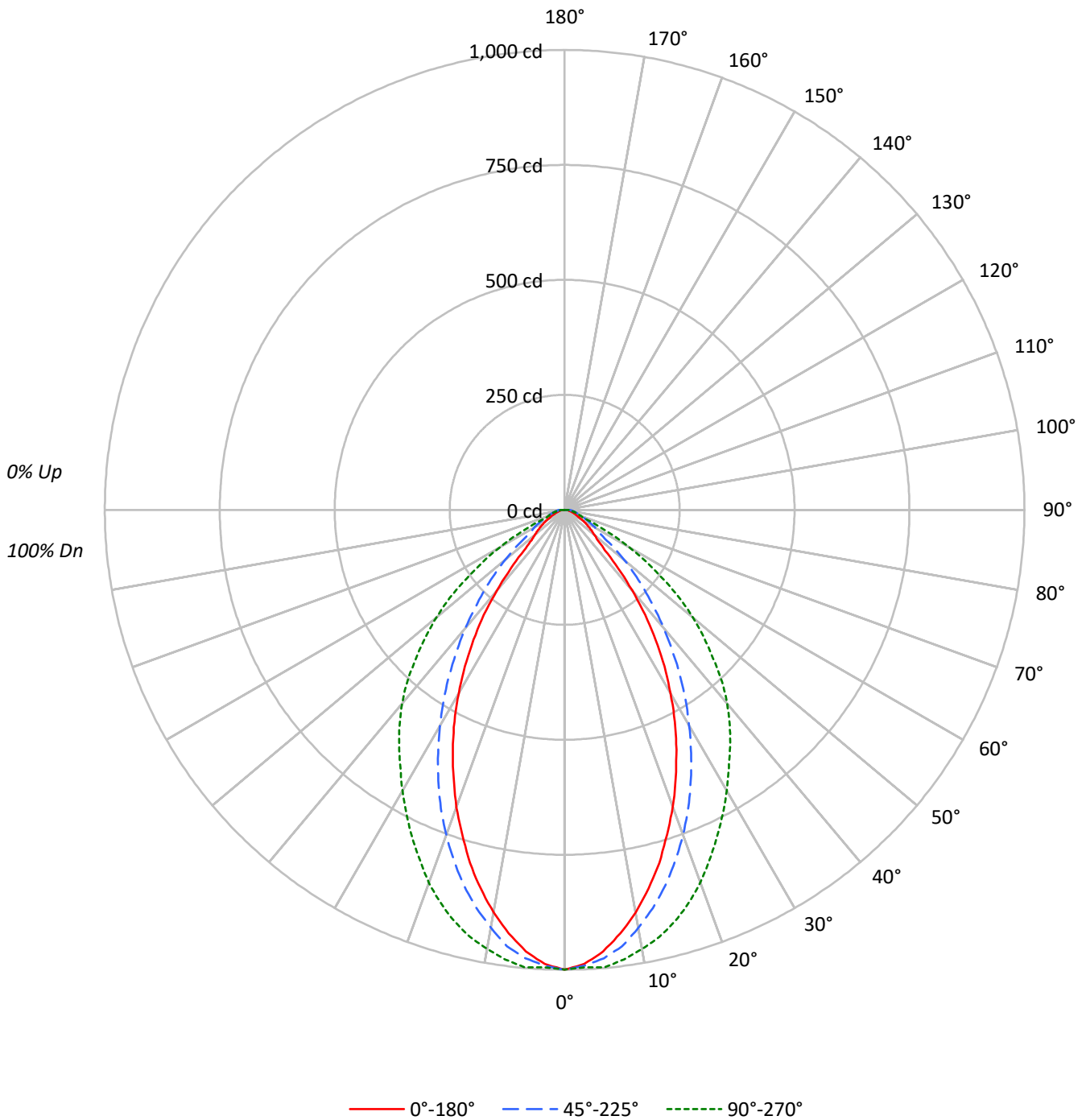
Lumens per Lamp: N/A
Luminaire Lumens: 1341.9 lumens
Efficiency: N/A
Efficacy: 32.1 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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 | | | | 100 |
| 1 | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 | | | | 89 |
| 2 | 104 | 98 | 92 | 88 | 102 | 96 | 91 | 87 | 92 | 88 | 85 | 89 | 86 | 83 | 86 | 84 | 81 | 79 | | | | 79 |
| 3 | 97 | 89 | 82 | 77 | 95 | 87 | 81 | 77 | 84 | 79 | 75 | 82 | 78 | 74 | 79 | 76 | 73 | 71 | | | | 71 |
| 4 | 90 | 81 | 74 | 68 | 88 | 80 | 73 | 68 | 77 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 66 | 64 | | | | 64 |
| 5 | 85 | 74 | 67 | 61 | 83 | 73 | 66 | 61 | 71 | 65 | 60 | 69 | 64 | 60 | 68 | 63 | 59 | 58 | | | | 58 |
| 6 | 79 | 68 | 61 | 55 | 78 | 67 | 60 | 55 | 66 | 59 | 55 | 64 | 59 | 54 | 63 | 58 | 54 | 52 | | | | 52 |
| 7 | 74 | 63 | 56 | 51 | 73 | 62 | 55 | 50 | 61 | 55 | 50 | 60 | 54 | 50 | 58 | 53 | 49 | 48 | | | | 48 |
| 8 | 70 | 58 | 51 | 46 | 69 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 46 | 54 | 49 | 45 | 44 | | | | 44 |
| 9 | 66 | 54 | 47 | 43 | 65 | 54 | 47 | 43 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 40 | | | | 40 |
| 10 | 62 | 51 | 44 | 39 | 61 | 50 | 44 | 39 | 49 | 43 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 37 | | | | 37 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11739 | 11739 | 11739 |
| 5° | 11358 | 11534 | 11768 |
| 10° | 10601 | 11002 | 11563 |
| 15° | 9662 | 10281 | 11262 |
| 20° | 8597 | 9403 | 10785 |
| 25° | 7450 | 8415 | 10168 |
| 30° | 6247 | 7341 | 9563 |
| 35° | 4948 | 6249 | 8989 |
| 40° | 3503 | 5140 | 8432 |
| 45° | 2063 | 4062 | 7589 |
| 50° | 1542 | 3085 | 6646 |
| 55° | 1296 | 2084 | 5339 |
| 60° | 1050 | 1778 | 3790 |
| 65° | 828 | 1517 | 2001 |
| 70° | 724 | 1322 | 1236 |
| 75° | 676 | 1239 | 1184 |
| 80° | 669 | 1346 | 1177 |
| 85° | 835 | 2007 | 1509 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7589 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 92.0 | 6.9 |
| 10°-20° | 239.1 | 17.8 |
| 20°-30° | 304.5 | 22.7 |
| 30°-40° | 286.4 | 21.3 |
| 40°-50° | 206.3 | 15.4 |
| 50°-60° | 119.1 | 8.9 |
| 60°-70° | 54.5 | 4.1 |
| 70°-80° | 27.2 | 2.0 |
| 80°-90° | 12.9 | 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° | 635.6 | 47.4 |
| 0°-40° | 922.0 | 68.7 |
| 0°-60° | 1247.4 | 93.0 |
| 0°-90° | 1341.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1341.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1000 | 1000 | 1000 | 1000 | 1000 | |
| 5° | 964 | 980 | 978 | 988 | 998 | 90 |
| 15° | 795 | 823 | 846 | 893 | 926 | 221 |
| 25° | 575 | 605 | 650 | 722 | 785 | 263 |
| 35° | 345 | 375 | 436 | 536 | 627 | 214 |
| 45° | 124 | 155 | 245 | 368 | 457 | 105 |
| 55° | 63 | 66 | 102 | 194 | 261 | 57 |
| 65° | 30 | 42 | 55 | 61 | 72 | 31 |
| 75° | 15 | 29 | 27 | 26 | 26 | 16 |
| 85° | 6 | 14 | 15 | 14 | 11 | 7 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1059144

CATALOG NUMBER: S123RDR-S1165D935-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|--------|-------|-------|-------|
| 0° | 999.7 | 999.7 | 999.7 | 999.7 | 999.7 |
| 2.5° | 988.5 | 1000.9 | 992.2 | 993.4 | 995.9 |
| 5° | 963.6 | 979.8 | 978.5 | 988.5 | 998.4 |
| 7.5° | 928.9 | 947.5 | 957.4 | 972.3 | 986.0 |
| 10° | 889.1 | 910.2 | 922.7 | 950.0 | 969.8 |
| 12.5° | 843.2 | 870.5 | 886.6 | 922.7 | 951.2 |
| 15° | 794.8 | 823.3 | 845.7 | 892.9 | 926.4 |
| 17.5° | 740.1 | 771.2 | 799.7 | 855.6 | 896.6 |
| 20° | 688.0 | 717.8 | 752.5 | 813.4 | 863.1 |
| 22.5° | 630.8 | 663.1 | 702.9 | 767.4 | 823.3 |
| 25° | 575.0 | 604.8 | 649.5 | 721.5 | 784.8 |
| 27.5° | 519.1 | 548.9 | 596.1 | 675.5 | 745.1 |
| 30° | 460.7 | 491.8 | 541.4 | 629.6 | 705.3 |
| 32.5° | 403.6 | 433.4 | 489.3 | 584.9 | 664.4 |
| 35° | 345.2 | 375.0 | 435.9 | 536.5 | 627.1 |
| 37.5° | 288.1 | 319.1 | 383.7 | 496.7 | 589.9 |
| 40° | 228.5 | 262.0 | 335.3 | 455.7 | 550.1 |
| 42.5° | 172.6 | 208.6 | 286.9 | 413.5 | 506.7 |
| 45° | 124.2 | 155.2 | 244.6 | 367.6 | 457.0 |
| 47.5° | 96.9 | 113.0 | 206.1 | 320.4 | 411.0 |
| 50° | 84.4 | 86.9 | 168.9 | 276.9 | 363.8 |
| 52.5° | 73.3 | 75.7 | 132.9 | 235.9 | 314.2 |
| 55° | 63.3 | 65.8 | 101.8 | 193.7 | 260.8 |
| 57.5° | 53.4 | 57.1 | 84.4 | 154.0 | 209.9 |
| 60° | 44.7 | 49.7 | 75.7 | 118.0 | 161.4 |
| 62.5° | 36.0 | 44.7 | 64.6 | 86.9 | 115.5 |
| 65° | 29.8 | 42.2 | 54.6 | 60.8 | 72.0 |
| 67.5° | 24.8 | 38.5 | 45.9 | 43.5 | 42.2 |
| 70° | 21.1 | 34.8 | 38.5 | 34.8 | 36.0 |
| 72.5° | 17.4 | 32.3 | 32.3 | 29.8 | 29.8 |
| 75° | 14.9 | 28.6 | 27.3 | 26.1 | 26.1 |
| 77.5° | 12.4 | 24.8 | 23.6 | 22.4 | 21.1 |
| 80° | 9.9 | 19.9 | 19.9 | 18.6 | 17.4 |
| 82.5° | 8.7 | 16.1 | 16.1 | 16.1 | 13.7 |
| 85° | 6.2 | 13.7 | 14.9 | 13.7 | 11.2 |
| 87.5° | 5.0 | 12.4 | 12.4 | 11.2 | 7.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)