

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: P1059152

Luminaire Tested: S123RDR-S1165D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059152
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D940-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

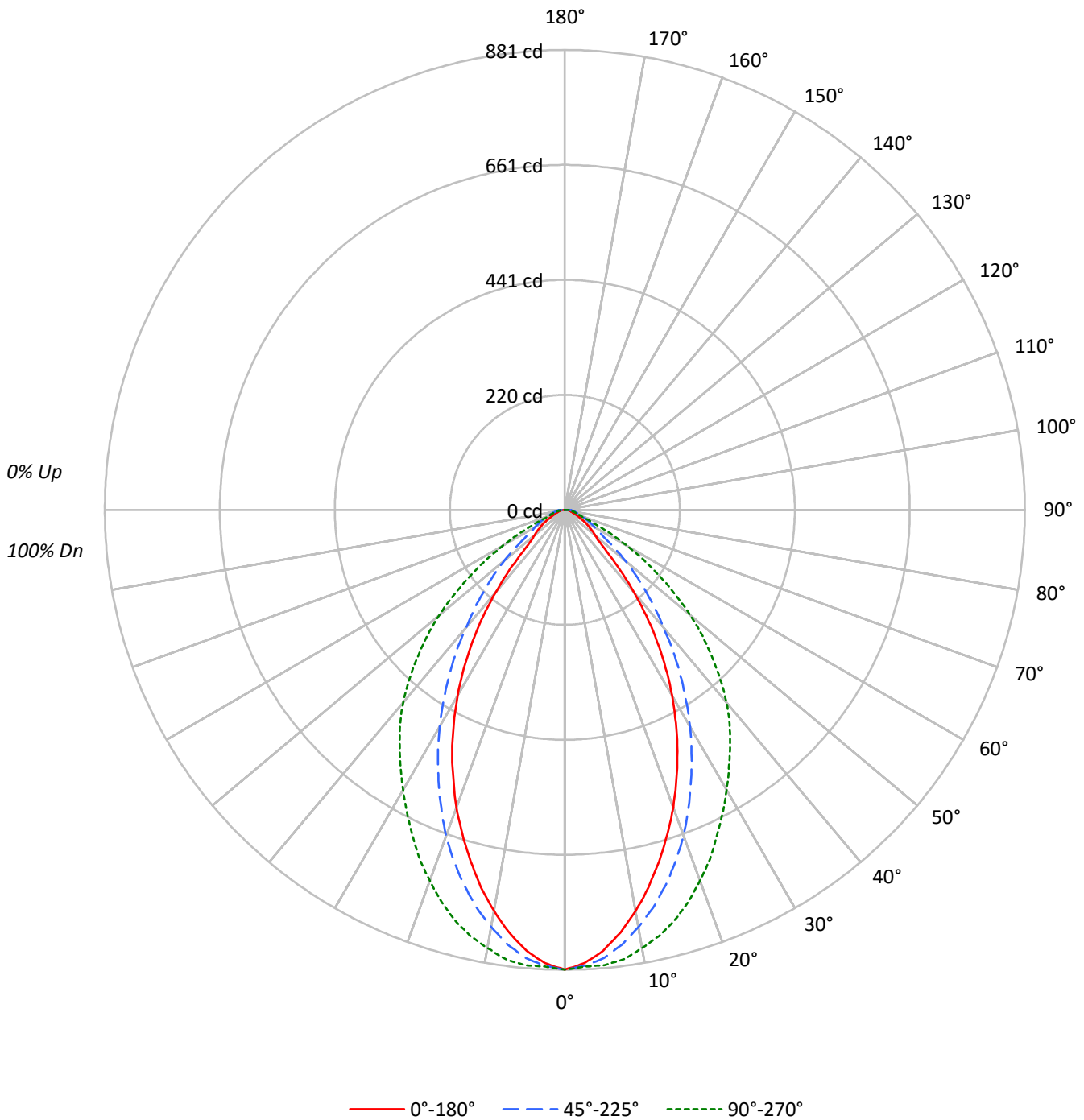
Lumens per Lamp: N/A
Luminaire Lumens: 1179.6 lumens
Efficiency: N/A
Efficacy: 28.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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 | 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 | 101 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 |
| 2 | 104 | 98 | 92 | 88 | 102 | 96 | 91 | 87 | 92 | 88 | 85 | 89 | 86 | 83 | 86 | 84 | 81 | 79 |
| 3 | 97 | 89 | 82 | 77 | 95 | 87 | 81 | 77 | 84 | 79 | 75 | 82 | 78 | 74 | 79 | 76 | 73 | 71 |
| 4 | 91 | 81 | 74 | 69 | 88 | 80 | 73 | 68 | 77 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 66 | 64 |
| 5 | 85 | 74 | 67 | 61 | 83 | 73 | 66 | 61 | 71 | 65 | 61 | 69 | 64 | 60 | 68 | 63 | 59 | 58 |
| 6 | 79 | 68 | 61 | 56 | 78 | 67 | 60 | 55 | 66 | 60 | 55 | 64 | 59 | 54 | 63 | 58 | 54 | 52 |
| 7 | 74 | 63 | 56 | 51 | 73 | 62 | 55 | 50 | 61 | 55 | 50 | 60 | 54 | 50 | 58 | 53 | 49 | 48 |
| 8 | 70 | 58 | 51 | 46 | 69 | 58 | 51 | 46 | 57 | 50 | 46 | 56 | 50 | 46 | 54 | 49 | 45 | 44 |
| 9 | 66 | 54 | 47 | 43 | 65 | 54 | 47 | 43 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 40 |
| 10 | 62 | 51 | 44 | 39 | 61 | 50 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 37 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10343 | 10343 | 10343 |
| 5° | 9987 | 10155 | 10321 |
| 10° | 9306 | 9674 | 10165 |
| 15° | 8472 | 9051 | 9894 |
| 20° | 7584 | 8307 | 9447 |
| 25° | 6614 | 7414 | 8930 |
| 30° | 5562 | 6503 | 8403 |
| 35° | 4424 | 5512 | 7907 |
| 40° | 3153 | 4494 | 7391 |
| 45° | 1878 | 3609 | 6619 |
| 50° | 1387 | 2748 | 5731 |
| 55° | 1159 | 1869 | 4553 |
| 60° | 937 | 1541 | 3201 |
| 65° | 750 | 1323 | 1714 |
| 70° | 618 | 1147 | 1061 |
| 75° | 585 | 1107 | 994 |
| 80° | 609 | 1217 | 953 |
| 85° | 862 | 1738 | 1213 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6619 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 80.9 | 6.9 |
| 10°-20° | 210.2 | 17.8 |
| 20°-30° | 268.1 | 22.7 |
| 30°-40° | 252.2 | 21.4 |
| 40°-50° | 181.2 | 15.4 |
| 50°-60° | 103.9 | 8.8 |
| 60°-70° | 47.5 | 4.0 |
| 70°-80° | 23.9 | 2.0 |
| 80°-90° | 11.6 | 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° | 559.2 | 47.4 |
| 0°-40° | 811.4 | 68.8 |
| 0°-60° | 1096.5 | 93.0 |
| 0°-90° | 1179.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1179.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 881 | 881 | 881 | 881 | 881 | |
| 5° | 847 | 864 | 862 | 868 | 876 | 79 |
| 15° | 697 | 721 | 744 | 784 | 814 | 195 |
| 25° | 510 | 534 | 572 | 634 | 689 | 233 |
| 35° | 309 | 330 | 384 | 472 | 552 | 191 |
| 45° | 113 | 138 | 217 | 320 | 399 | 95 |
| 55° | 57 | 58 | 91 | 168 | 222 | 51 |
| 65° | 27 | 37 | 48 | 53 | 62 | 27 |
| 75° | 13 | 26 | 24 | 22 | 22 | 14 |
| 85° | 6 | 13 | 13 | 12 | 9 | 6 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 880.8 | 880.8 | 880.8 | 880.8 | 880.8 |
| 2.5° | 869.2 | 882.0 | 874.3 | 874.3 | 875.6 |
| 5° | 847.3 | 864.0 | 861.5 | 867.9 | 875.6 |
| 7.5° | 816.5 | 834.5 | 839.6 | 855.0 | 867.9 |
| 10° | 780.5 | 801.0 | 811.3 | 835.8 | 852.5 |
| 12.5° | 740.6 | 763.8 | 780.5 | 811.3 | 835.8 |
| 15° | 696.9 | 721.3 | 744.5 | 784.3 | 813.9 |
| 17.5° | 651.9 | 676.3 | 705.9 | 752.2 | 786.9 |
| 20° | 606.9 | 631.3 | 664.8 | 713.6 | 756.0 |
| 22.5° | 558.0 | 582.5 | 618.5 | 673.8 | 725.2 |
| 25° | 510.5 | 533.6 | 572.2 | 633.9 | 689.2 |
| 27.5° | 460.3 | 483.5 | 525.9 | 592.7 | 654.5 |
| 30° | 410.2 | 433.3 | 479.6 | 551.6 | 619.7 |
| 32.5° | 360.0 | 381.9 | 432.0 | 511.7 | 585.0 |
| 35° | 308.6 | 330.4 | 384.5 | 471.9 | 551.6 |
| 37.5° | 255.9 | 277.7 | 340.7 | 435.9 | 518.2 |
| 40° | 205.7 | 230.2 | 293.2 | 399.9 | 482.2 |
| 42.5° | 156.9 | 182.6 | 254.6 | 361.3 | 441.0 |
| 45° | 113.1 | 137.6 | 217.3 | 320.2 | 398.6 |
| 47.5° | 86.1 | 99.0 | 183.9 | 279.0 | 357.4 |
| 50° | 75.9 | 77.1 | 150.4 | 241.7 | 313.7 |
| 52.5° | 65.6 | 66.9 | 117.0 | 205.7 | 267.4 |
| 55° | 56.6 | 57.9 | 91.3 | 168.4 | 222.4 |
| 57.5° | 47.6 | 50.1 | 74.6 | 133.7 | 178.7 |
| 60° | 39.9 | 45.0 | 65.6 | 101.6 | 136.3 |
| 62.5° | 32.1 | 41.1 | 56.6 | 74.6 | 97.7 |
| 65° | 27.0 | 37.3 | 47.6 | 52.7 | 61.7 |
| 67.5° | 21.9 | 34.7 | 39.9 | 37.3 | 37.3 |
| 70° | 18.0 | 30.9 | 33.4 | 30.9 | 30.9 |
| 72.5° | 15.4 | 29.6 | 28.3 | 25.7 | 25.7 |
| 75° | 12.9 | 25.7 | 24.4 | 21.9 | 21.9 |
| 77.5° | 11.6 | 21.9 | 20.6 | 19.3 | 18.0 |
| 80° | 9.0 | 18.0 | 18.0 | 16.7 | 14.1 |
| 82.5° | 7.7 | 15.4 | 15.4 | 14.1 | 11.6 |
| 85° | 6.4 | 12.9 | 12.9 | 11.6 | 9.0 |
| 87.5° | 5.1 | 11.6 | 11.6 | 10.3 | 6.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)