

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: P1060262

Luminaire Tested: S124RDR-S1020D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060262
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D927-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

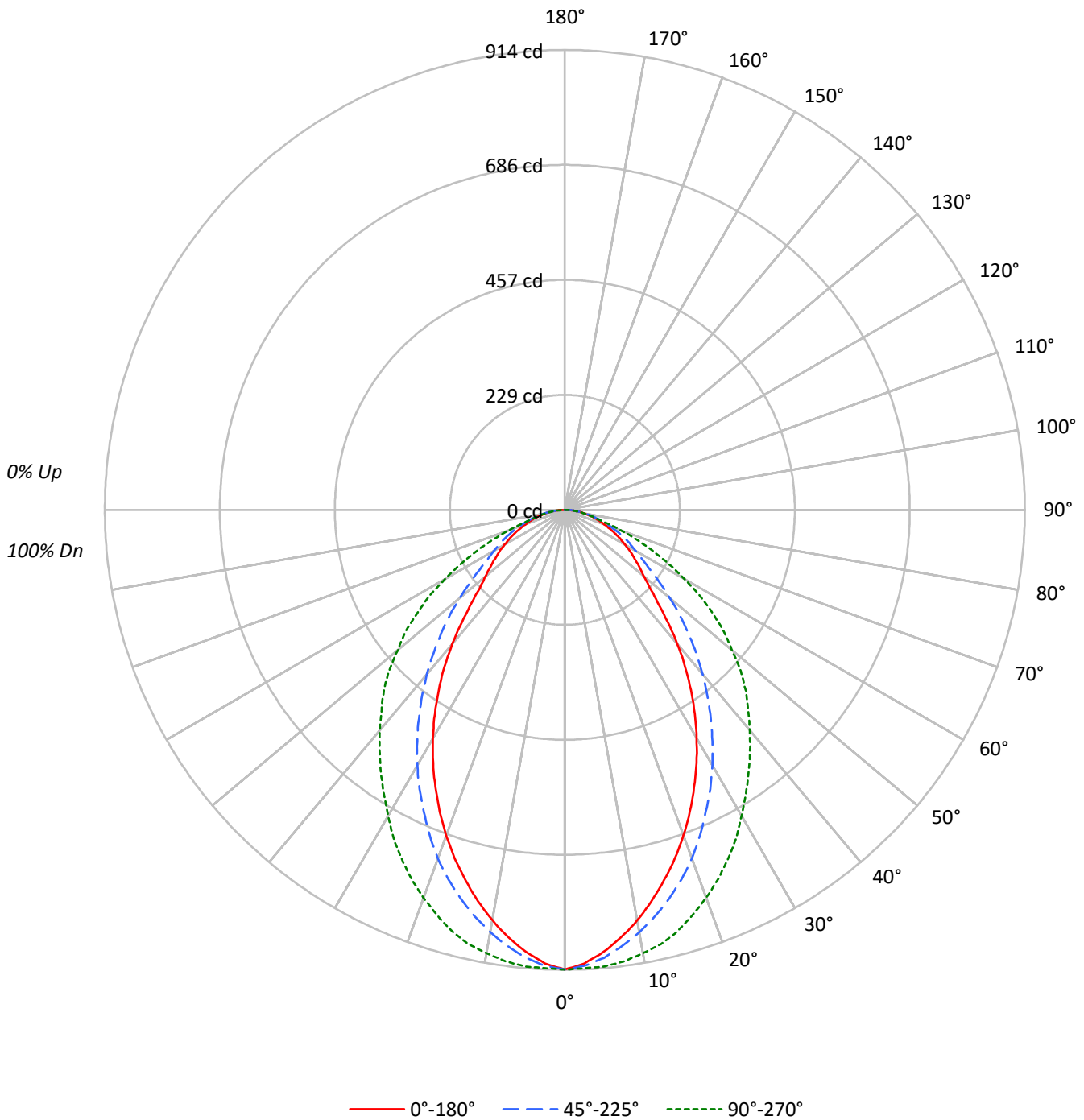
Lumens per Lamp: N/A
Luminaire Lumens: 1663.2 lumens
Efficiency: N/A
Efficacy: 47.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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





TEST NUMBER: P1060262

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|----|--|--|--|--|--|--|--|--|----|---|
| RF | 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 | 102 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 79 | 83 | 80 | 77 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | | | | | | | | | | | | | | |
| 3 | 94 | 84 | 77 | 71 | 91 | 83 | 76 | 71 | 80 | 74 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | |
| 4 | 87 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 72 | 66 | 61 | 70 | 64 | 60 | 68 | 63 | 59 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | |
| 5 | 80 | 69 | 60 | 54 | 78 | 68 | 60 | 54 | 65 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | | | | | | | | | | | | | | |
| 6 | 75 | 62 | 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 | 43 | 68 | 56 | 49 | 43 | 55 | 48 | 43 | 54 | 47 | 43 | 52 | 47 | 42 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | | | | | | | | | | | | | | |
| 8 | 65 | 53 | 45 | 39 | 64 | 52 | 44 | 39 | 51 | 44 | 39 | 50 | 43 | 39 | 48 | 43 | 39 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | | | | | | | | | | | | | | |
| 9 | 61 | 49 | 41 | 36 | 60 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | 45 | 39 | 35 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | | | | | | | | | | | | | | |
| 10 | 58 | 45 | 38 | 33 | 56 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 33 | 42 | 36 | 32 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7867 | 7867 | 7867 |
| 5° | 7624 | 7723 | 7872 |
| 10° | 7243 | 7452 | 7821 |
| 15° | 6796 | 7128 | 7726 |
| 20° | 6309 | 6757 | 7521 |
| 25° | 5778 | 6297 | 7279 |
| 30° | 5208 | 5828 | 6979 |
| 35° | 4591 | 5315 | 6694 |
| 40° | 3907 | 4790 | 6426 |
| 45° | 3172 | 4233 | 6193 |
| 50° | 2745 | 3644 | 5798 |
| 55° | 2545 | 3091 | 5376 |
| 60° | 2375 | 2787 | 4717 |
| 65° | 2225 | 2614 | 3922 |
| 70° | 2075 | 2412 | 2966 |
| 75° | 1976 | 2229 | 2136 |
| 80° | 1850 | 2043 | 1805 |
| 85° | 1699 | 1897 | 1423 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6193 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 84.4 | 5.1 |
| 10°-20° | 226.7 | 13.6 |
| 20°-30° | 309.6 | 18.6 |
| 30°-40° | 324.3 | 19.5 |
| 40°-50° | 280.7 | 16.9 |
| 50°-60° | 210.9 | 12.7 |
| 60°-70° | 136.0 | 8.2 |
| 70°-80° | 69.8 | 4.2 |
| 80°-90° | 20.8 | 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° | 620.6 | 37.3 |
| 0°-40° | 945.0 | 56.8 |
| 0°-60° | 1436.6 | 86.4 |
| 0°-90° | 1663.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1663.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 914 | 914 | 914 | 914 | 914 | |
| 5° | 882 | 895 | 894 | 900 | 911 | 83 |
| 15° | 762 | 781 | 800 | 836 | 867 | 214 |
| 25° | 608 | 631 | 663 | 714 | 766 | 279 |
| 35° | 437 | 462 | 506 | 573 | 637 | 272 |
| 45° | 260 | 287 | 348 | 433 | 508 | 205 |
| 55° | 170 | 175 | 206 | 294 | 358 | 152 |
| 65° | 109 | 111 | 128 | 155 | 192 | 109 |
| 75° | 59 | 66 | 67 | 66 | 64 | 63 |
| 85° | 17 | 20 | 19 | 18 | 14 | 20 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 913.6 | 913.6 | 913.6 | 913.6 | 913.6 |
| 2.5° | 902.1 | 913.6 | 906.9 | 908.8 | 911.7 |
| 5° | 882.0 | 895.4 | 893.5 | 900.2 | 910.7 |
| 7.5° | 857.1 | 871.4 | 874.3 | 889.6 | 904.9 |
| 10° | 828.3 | 844.6 | 852.3 | 875.3 | 894.4 |
| 12.5° | 796.7 | 814.0 | 827.4 | 856.1 | 883.9 |
| 15° | 762.3 | 781.4 | 799.6 | 836.0 | 866.6 |
| 17.5° | 726.8 | 746.0 | 769.9 | 810.1 | 844.6 |
| 20° | 688.5 | 709.6 | 737.4 | 779.5 | 820.7 |
| 22.5° | 649.3 | 671.3 | 701.0 | 746.9 | 794.8 |
| 25° | 608.1 | 631.1 | 662.7 | 714.4 | 766.1 |
| 27.5° | 566.9 | 589.9 | 625.3 | 679.9 | 736.4 |
| 30° | 523.8 | 547.8 | 586.1 | 645.4 | 701.9 |
| 32.5° | 480.7 | 506.6 | 545.8 | 609.0 | 669.4 |
| 35° | 436.7 | 461.6 | 505.6 | 572.7 | 636.8 |
| 37.5° | 392.6 | 418.5 | 465.4 | 537.2 | 604.3 |
| 40° | 347.6 | 374.4 | 426.1 | 501.8 | 571.7 |
| 42.5° | 302.6 | 331.3 | 385.9 | 465.4 | 539.1 |
| 45° | 260.5 | 287.3 | 347.6 | 432.8 | 508.5 |
| 47.5° | 228.9 | 247.1 | 309.3 | 401.2 | 474.0 |
| 50° | 204.9 | 214.5 | 272.0 | 366.8 | 432.8 |
| 52.5° | 186.7 | 193.4 | 237.5 | 329.4 | 399.3 |
| 55° | 169.5 | 175.2 | 205.9 | 294.0 | 358.1 |
| 57.5° | 154.2 | 157.0 | 181.9 | 259.5 | 318.9 |
| 60° | 137.9 | 140.8 | 161.8 | 222.2 | 273.9 |
| 62.5° | 123.5 | 125.4 | 145.6 | 186.7 | 232.7 |
| 65° | 109.2 | 111.1 | 128.3 | 155.1 | 192.5 |
| 67.5° | 95.8 | 98.6 | 112.0 | 126.4 | 153.2 |
| 70° | 82.4 | 88.1 | 95.8 | 102.5 | 117.8 |
| 72.5° | 70.9 | 76.6 | 80.4 | 82.4 | 83.3 |
| 75° | 59.4 | 66.1 | 67.0 | 66.1 | 64.2 |
| 77.5° | 47.9 | 53.6 | 53.6 | 51.7 | 49.8 |
| 80° | 37.3 | 42.1 | 41.2 | 39.3 | 36.4 |
| 82.5° | 27.8 | 30.6 | 29.7 | 27.8 | 24.9 |
| 85° | 17.2 | 20.1 | 19.2 | 18.2 | 14.4 |
| 87.5° | 8.6 | 11.5 | 10.5 | 9.6 | 5.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)