

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: P1060270

Luminaire Tested: S124RDR-S1020D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060270
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D930-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

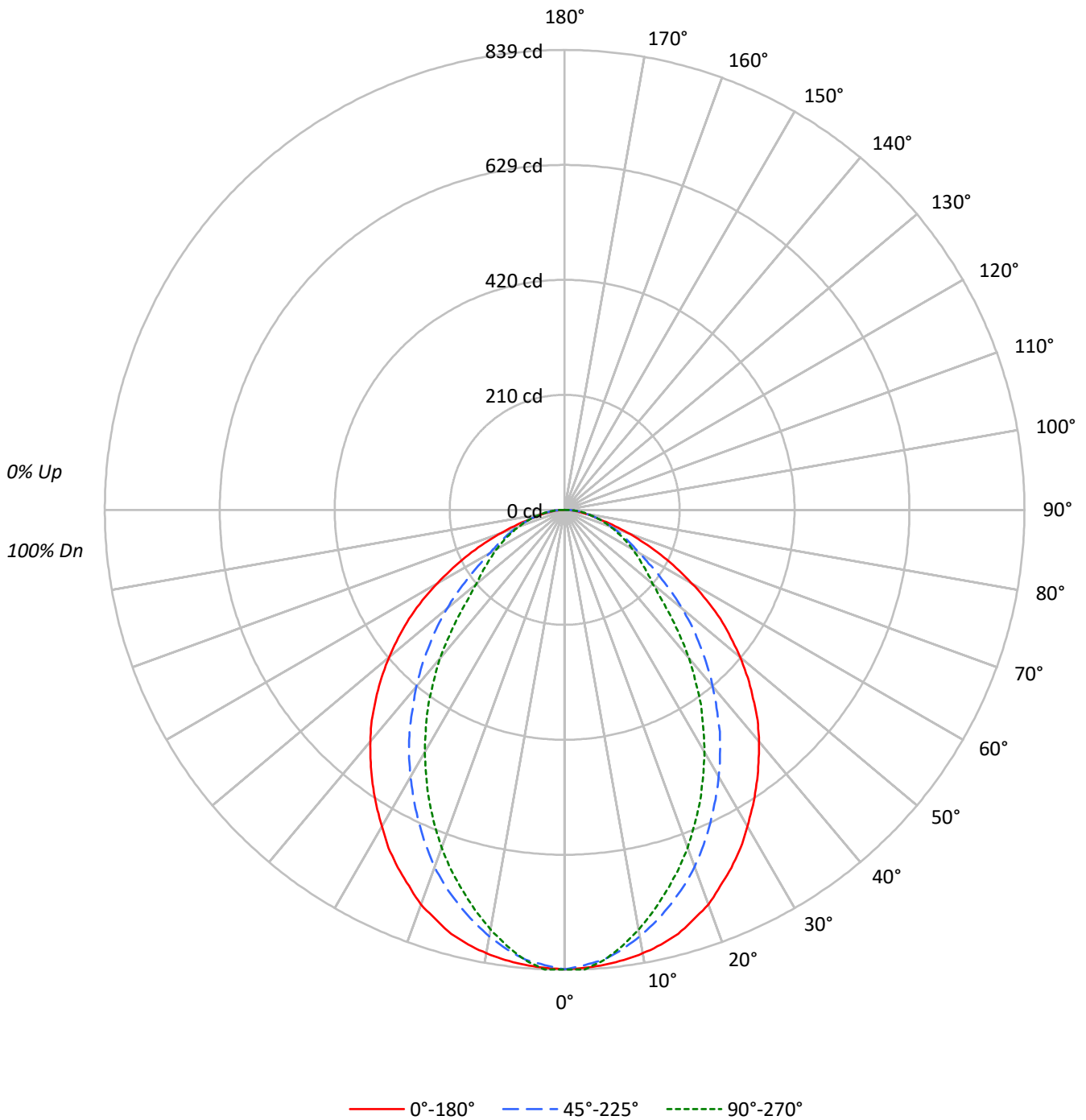
Lumens per Lamp: N/A
Luminaire Lumens: 1616.3 lumens
Efficiency: N/A
Efficacy: 46.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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: P1060270

CATALOG NUMBER: S124RDR-S1020D930-X4F0-XX-UDD-WVL-B

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 | 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 | 100 | 100 | 100 | 100 | 100 | 100 | | | | | | | | | | | | | | | | |
| 1 | 110 | 106 | 102 | 99 | 107 | 104 | 100 | 97 | 99 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 88 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | | | | | | | | | | | | | | | | |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 86 | 82 | 89 | 84 | 80 | 85 | 82 | 78 | 82 | 79 | 76 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | | | | | | | | | | | | | | | | |
| 3 | 93 | 84 | 76 | 71 | 91 | 82 | 75 | 70 | 79 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 66 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | | | | | | | | | | | | | | | | |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 69 | 64 | 59 | 67 | 62 | 58 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | | | | | | | | | | | | | | | | |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 59 | 53 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | | | | | | | | | | | | | | | | |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 46 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | | | | | | | | | | | | | | | | |
| 7 | 69 | 57 | 48 | 43 | 68 | 56 | 48 | 43 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | | | | | | | | | | | | | | | | |
| 8 | 65 | 52 | 44 | 39 | 63 | 51 | 44 | 39 | 50 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | | | | | | | | | | | | | | | | |
| 9 | 61 | 48 | 40 | 35 | 59 | 48 | 40 | 35 | 46 | 40 | 35 | 45 | 39 | 35 | 44 | 39 | 35 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | | | | | | | | | | | | | | | | |
| 10 | 57 | 45 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 41 | 36 | 32 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7218 | 7218 | 7218 |
| 5° | 7203 | 7118 | 7127 |
| 10° | 7183 | 6908 | 6796 |
| 15° | 7139 | 6648 | 6411 |
| 20° | 7022 | 6354 | 6011 |
| 25° | 6841 | 5980 | 5559 |
| 30° | 6631 | 5592 | 5073 |
| 35° | 6420 | 5188 | 4556 |
| 40° | 6201 | 4728 | 3975 |
| 45° | 5926 | 4246 | 3322 |
| 50° | 5594 | 3747 | 2811 |
| 55° | 5205 | 3180 | 2603 |
| 60° | 4614 | 2697 | 2459 |
| 65° | 3935 | 2488 | 2329 |
| 70° | 3074 | 2306 | 2208 |
| 75° | 2096 | 2129 | 2129 |
| 80° | 1805 | 2003 | 2053 |
| 85° | 1561 | 1946 | 2144 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5926 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 78.0 | 4.8 |
| 10°-20° | 211.8 | 13.1 |
| 20°-30° | 294.0 | 18.2 |
| 30°-40° | 315.2 | 19.5 |
| 40°-50° | 279.2 | 17.3 |
| 50°-60° | 210.4 | 13.0 |
| 60°-70° | 136.3 | 8.4 |
| 70°-80° | 69.9 | 4.3 |
| 80°-90° | 21.5 | 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° | 583.8 | 36.1 |
| 0°-40° | 899.0 | 55.6 |
| 0°-60° | 1388.6 | 85.9 |
| 0°-90° | 1616.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1616.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 838 | 838 | 838 | 838 | 838 | |
| 5° | 833 | 834 | 824 | 824 | 824 | 79 |
| 15° | 801 | 783 | 746 | 727 | 719 | 225 |
| 25° | 720 | 682 | 629 | 596 | 585 | 331 |
| 35° | 611 | 556 | 494 | 449 | 433 | 382 |
| 45° | 487 | 424 | 349 | 294 | 273 | 375 |
| 55° | 347 | 289 | 212 | 178 | 173 | 308 |
| 65° | 193 | 156 | 122 | 115 | 114 | 191 |
| 75° | 63 | 66 | 64 | 64 | 64 | 75 |
| 85° | 16 | 17 | 20 | 22 | 22 | 18 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 838.2 | 838.2 | 838.2 | 838.2 | 838.2 |
| 2.5° | 836.3 | 839.2 | 831.3 | 837.3 | 839.2 |
| 5° | 833.3 | 834.3 | 823.5 | 824.5 | 824.5 |
| 7.5° | 828.4 | 826.4 | 808.7 | 803.8 | 802.8 |
| 10° | 821.5 | 815.6 | 790.0 | 780.1 | 777.2 |
| 12.5° | 812.6 | 801.8 | 769.3 | 755.5 | 749.6 |
| 15° | 800.8 | 783.1 | 745.7 | 726.9 | 719.1 |
| 17.5° | 783.1 | 760.4 | 721.0 | 697.4 | 688.5 |
| 20° | 766.3 | 735.8 | 693.4 | 663.9 | 656.0 |
| 22.5° | 742.7 | 710.2 | 661.9 | 630.4 | 620.6 |
| 25° | 720.0 | 681.6 | 629.4 | 595.9 | 585.1 |
| 27.5° | 695.4 | 652.1 | 595.9 | 560.5 | 546.7 |
| 30° | 666.9 | 620.6 | 562.4 | 525.0 | 510.2 |
| 32.5° | 639.3 | 590.0 | 528.0 | 486.6 | 470.8 |
| 35° | 610.7 | 555.5 | 493.5 | 449.2 | 433.4 |
| 37.5° | 581.2 | 523.0 | 455.1 | 411.7 | 391.0 |
| 40° | 551.6 | 490.5 | 420.6 | 371.3 | 353.6 |
| 42.5° | 521.1 | 457.0 | 385.1 | 333.9 | 311.3 |
| 45° | 486.6 | 423.6 | 348.7 | 294.5 | 272.8 |
| 47.5° | 453.1 | 391.0 | 315.2 | 256.1 | 236.4 |
| 50° | 417.6 | 356.6 | 279.7 | 222.6 | 209.8 |
| 52.5° | 382.2 | 321.1 | 245.3 | 197.0 | 191.1 |
| 55° | 346.7 | 288.6 | 211.8 | 178.3 | 173.4 |
| 57.5° | 307.3 | 255.1 | 182.2 | 161.5 | 157.6 |
| 60° | 267.9 | 218.7 | 156.6 | 145.8 | 142.8 |
| 62.5° | 229.5 | 187.2 | 138.9 | 130.0 | 128.1 |
| 65° | 193.1 | 155.6 | 122.1 | 115.2 | 114.3 |
| 67.5° | 157.6 | 128.1 | 106.4 | 102.4 | 100.5 |
| 70° | 122.1 | 102.4 | 91.6 | 89.6 | 87.7 |
| 72.5° | 90.6 | 82.7 | 77.8 | 76.8 | 75.8 |
| 75° | 63.0 | 66.0 | 64.0 | 64.0 | 64.0 |
| 77.5° | 50.2 | 51.2 | 52.2 | 53.2 | 52.2 |
| 80° | 36.4 | 39.4 | 40.4 | 42.4 | 41.4 |
| 82.5° | 25.6 | 27.6 | 30.5 | 31.5 | 32.5 |
| 85° | 15.8 | 16.7 | 19.7 | 21.7 | 21.7 |
| 87.5° | 6.9 | 7.9 | 9.9 | 11.8 | 12.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)