

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: P1056036

Luminaire Tested: S124R3DR-S575D830-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056036
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S575D830-X4F0-XX-UDD-FLL-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

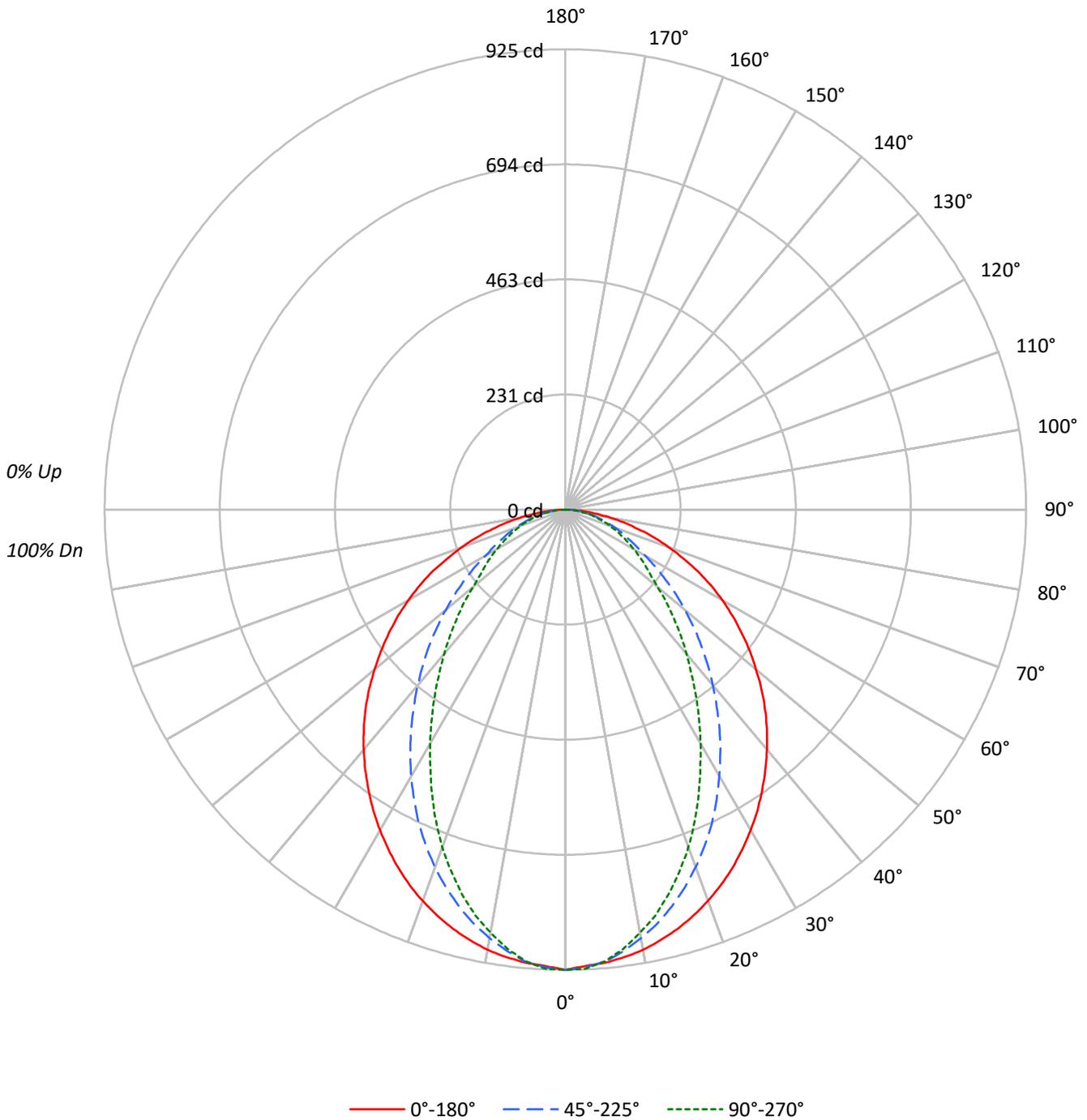
Lumens per Lamp: N/A
Luminaire Lumens: 1842.4 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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 | 110 | 105 | 102 | 98 | 107 | 103 | 100 | 97 | 99 | 96 | 93 | 95 | 93 | 91 | 92 | 90 | 88 | 86 |
| 2 | 101 | 93 | 87 | 82 | 98 | 91 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 78 | 76 | 73 |
| 3 | 93 | 83 | 75 | 69 | 90 | 81 | 74 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 73 | 69 | 65 | 63 |
| 4 | 85 | 74 | 66 | 60 | 83 | 73 | 65 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 |
| 6 | 73 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 42 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 |
| 8 | 64 | 51 | 43 | 38 | 62 | 51 | 43 | 38 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 |
| 9 | 60 | 47 | 39 | 34 | 59 | 47 | 39 | 34 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 34 | 32 |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 41 | 35 | 31 | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 8178 | 8178 | 8178 |
| 5° | 8113 | 8095 | 8089 |
| 10° | 8067 | 7852 | 7754 |
| 15° | 7981 | 7557 | 7326 |
| 20° | 7877 | 7199 | 6795 |
| 25° | 7749 | 6786 | 6175 |
| 30° | 7596 | 6316 | 5546 |
| 35° | 7434 | 5826 | 4937 |
| 40° | 7267 | 5318 | 4367 |
| 45° | 7090 | 4825 | 3839 |
| 50° | 6872 | 4307 | 3315 |
| 55° | 6662 | 3787 | 3010 |
| 60° | 6428 | 3250 | 2792 |
| 65° | 6138 | 2948 | 2607 |
| 70° | 5700 | 2727 | 2464 |
| 75° | 5162 | 2511 | 2326 |
| 80° | 4506 | 2322 | 2184 |
| 85° | 3449 | 2140 | 1998 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7090 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 86.1 | 4.7 |
| 10°-20° | 233.6 | 12.7 |
| 20°-30° | 323.5 | 17.6 |
| 30°-40° | 347.2 | 18.8 |
| 40°-50° | 315.7 | 17.1 |
| 50°-60° | 248.6 | 13.5 |
| 60°-70° | 170.2 | 9.2 |
| 70°-80° | 91.6 | 5.0 |
| 80°-90° | 25.9 | 1.4 |
| 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° | 643.2 | 34.9 |
| 0°-40° | 990.3 | 53.8 |
| 0°-60° | 1554.7 | 84.4 |
| 0°-90° | 1842.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1842.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 925 | 925 | 925 | 925 | 925 | |
| 5° | 914 | 924 | 912 | 907 | 911 | 87 |
| 15° | 872 | 862 | 826 | 803 | 800 | 246 |
| 25° | 794 | 762 | 696 | 645 | 633 | 366 |
| 35° | 689 | 635 | 540 | 474 | 457 | 431 |
| 45° | 567 | 495 | 386 | 319 | 307 | 437 |
| 55° | 432 | 350 | 246 | 198 | 195 | 386 |
| 65° | 293 | 210 | 141 | 125 | 125 | 289 |
| 75° | 151 | 92 | 74 | 67 | 68 | 161 |
| 85° | 34 | 23 | 21 | 20 | 20 | 41 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1056036

CATALOG NUMBER: S124R3DR-S575D830-X4F0-XX-UDD-FLL-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 925.0 | 925.0 | 925.0 | 925.0 | 925.0 |
| 2.5° | 918.2 | 929.1 | 920.9 | 922.3 | 923.6 |
| 5° | 914.1 | 924.3 | 912.1 | 907.3 | 911.4 |
| 7.5° | 907.3 | 914.1 | 895.1 | 886.2 | 890.3 |
| 10° | 898.5 | 899.8 | 874.6 | 861.7 | 863.7 |
| 12.5° | 886.2 | 882.8 | 852.2 | 833.8 | 835.2 |
| 15° | 871.9 | 862.4 | 825.6 | 803.2 | 800.4 |
| 17.5° | 855.6 | 839.9 | 796.4 | 767.8 | 762.3 |
| 20° | 837.2 | 816.1 | 765.1 | 728.3 | 722.2 |
| 22.5° | 816.8 | 789.6 | 731.0 | 687.5 | 678.6 |
| 25° | 794.3 | 761.6 | 695.6 | 645.3 | 633.0 |
| 27.5° | 769.8 | 731.7 | 657.5 | 602.4 | 586.7 |
| 30° | 744.0 | 700.4 | 618.7 | 559.5 | 543.2 |
| 32.5° | 717.4 | 668.4 | 579.2 | 516.6 | 499.6 |
| 35° | 688.8 | 635.0 | 539.8 | 474.4 | 457.4 |
| 37.5° | 659.6 | 600.3 | 499.6 | 433.6 | 415.9 |
| 40° | 629.6 | 565.6 | 460.8 | 392.7 | 378.4 |
| 42.5° | 599.0 | 530.2 | 422.7 | 354.6 | 341.7 |
| 45° | 567.0 | 494.8 | 385.9 | 319.2 | 307.0 |
| 47.5° | 534.3 | 458.8 | 348.5 | 285.9 | 274.3 |
| 50° | 499.6 | 422.7 | 313.1 | 253.2 | 241.0 |
| 52.5° | 466.2 | 385.9 | 279.1 | 221.2 | 215.1 |
| 55° | 432.2 | 349.9 | 245.7 | 198.1 | 195.3 |
| 57.5° | 398.2 | 313.8 | 215.1 | 179.7 | 177.0 |
| 60° | 363.5 | 278.4 | 183.8 | 160.6 | 157.9 |
| 62.5° | 328.8 | 243.7 | 160.6 | 142.3 | 140.9 |
| 65° | 293.4 | 209.6 | 140.9 | 125.2 | 124.6 |
| 67.5° | 255.9 | 177.0 | 123.2 | 110.3 | 109.6 |
| 70° | 220.5 | 144.3 | 105.5 | 95.3 | 95.3 |
| 72.5° | 187.2 | 114.3 | 89.2 | 81.0 | 81.0 |
| 75° | 151.1 | 91.9 | 73.5 | 67.4 | 68.1 |
| 77.5° | 119.1 | 72.1 | 59.2 | 55.1 | 55.1 |
| 80° | 88.5 | 53.8 | 45.6 | 42.2 | 42.9 |
| 82.5° | 59.9 | 37.4 | 32.7 | 30.6 | 30.6 |
| 85° | 34.0 | 23.1 | 21.1 | 19.7 | 19.7 |
| 87.5° | 12.3 | 10.9 | 10.2 | 8.8 | 9.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)