

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: P1056046

Luminaire Tested: S124R3DR-S575D927-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056046
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S575D927-X4F0-XX-UDD-FLL-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

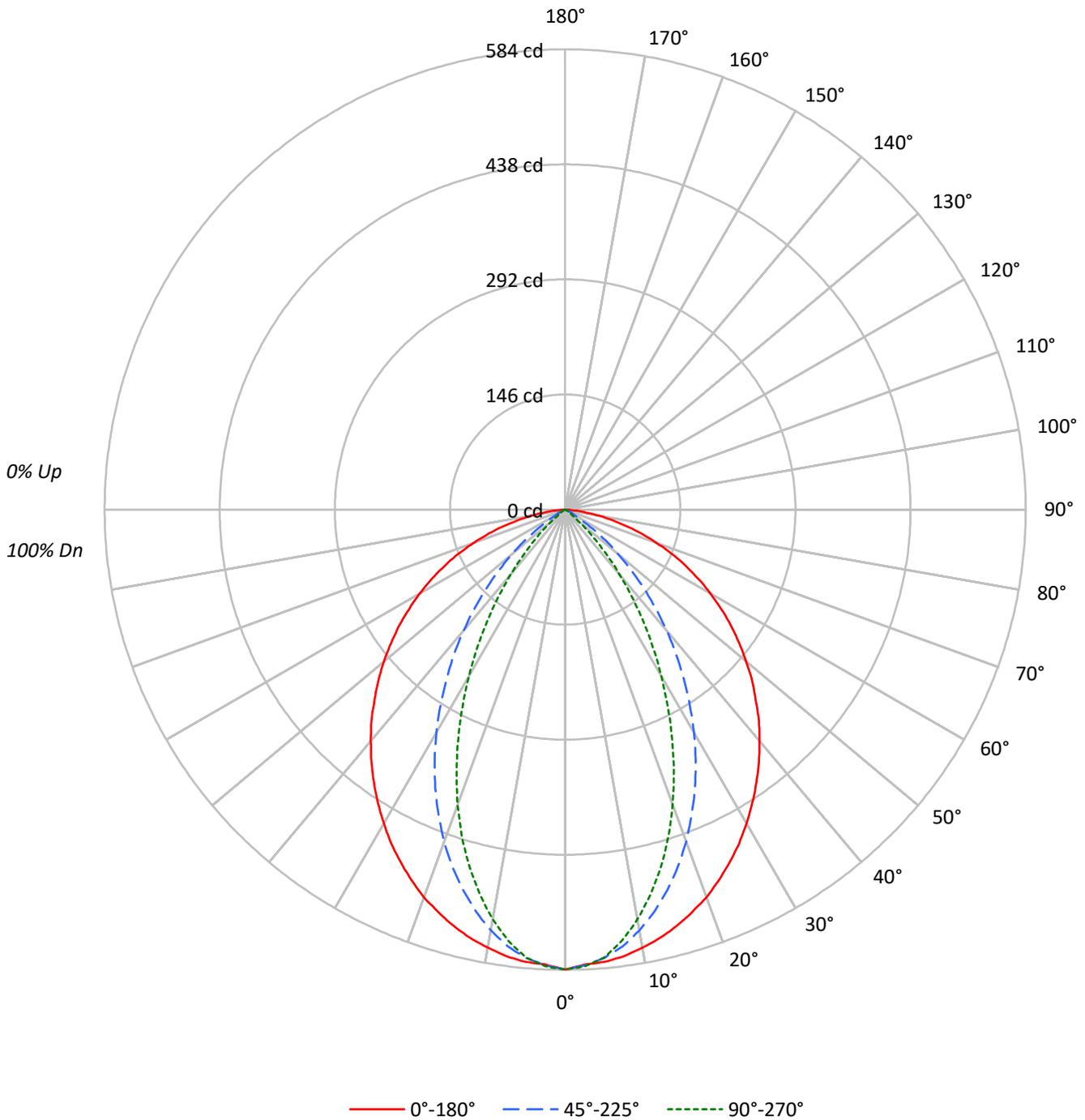
Lumens per Lamp: N/A
Luminaire Lumens: 815.5 lumens
Efficiency: N/A
Efficacy: 42.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99 | 97 | 98 | 96 | 94 | 95 | 93 | 92 | 90 |
| 2 | 104 | 98 | 93 | 88 | 102 | 96 | 91 | 87 | 93 | 89 | 85 | 90 | 86 | 83 | 87 | 84 | 82 | 80 |
| 3 | 97 | 89 | 82 | 77 | 95 | 87 | 81 | 77 | 84 | 79 | 75 | 82 | 78 | 74 | 79 | 76 | 73 | 71 |
| 4 | 90 | 81 | 74 | 68 | 88 | 80 | 73 | 68 | 77 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | 64 |
| 5 | 84 | 74 | 66 | 61 | 83 | 73 | 66 | 61 | 71 | 65 | 60 | 69 | 64 | 60 | 67 | 63 | 59 | 57 |
| 6 | 79 | 68 | 60 | 55 | 77 | 67 | 60 | 55 | 65 | 59 | 54 | 64 | 58 | 54 | 62 | 57 | 54 | 52 |
| 7 | 74 | 63 | 55 | 50 | 73 | 62 | 55 | 50 | 60 | 54 | 50 | 59 | 53 | 49 | 58 | 53 | 49 | 47 |
| 8 | 70 | 58 | 51 | 46 | 68 | 57 | 50 | 46 | 56 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 43 |
| 9 | 66 | 54 | 47 | 42 | 64 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 50 | 45 | 41 | 40 |
| 10 | 62 | 50 | 43 | 39 | 61 | 50 | 43 | 39 | 49 | 43 | 39 | 48 | 42 | 39 | 47 | 42 | 38 | 37 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5159 | 5159 | 5159 |
| 5° | 5113 | 5067 | 5062 |
| 10° | 5069 | 4869 | 4740 |
| 15° | 5006 | 4577 | 4294 |
| 20° | 4925 | 4220 | 3751 |
| 25° | 4816 | 3801 | 3131 |
| 30° | 4695 | 3335 | 2488 |
| 35° | 4563 | 2828 | 1852 |
| 40° | 4424 | 2305 | 1235 |
| 45° | 4270 | 1759 | 679 |
| 50° | 4124 | 1204 | 188 |
| 55° | 3960 | 652 | 123 |
| 60° | 3763 | 202 | 71 |
| 65° | 3519 | 132 | 36 |
| 70° | 3180 | 59 | 16 |
| 75° | 2736 | 20 | 0 |
| 80° | 2067 | 0 | 0 |
| 85° | 872 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4270 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 53.8 | 6.6 |
| 10°-20° | 141.3 | 17.3 |
| 20°-30° | 182.6 | 22.4 |
| 30°-40° | 174.5 | 21.4 |
| 40°-50° | 130.5 | 16.0 |
| 50°-60° | 77.7 | 9.5 |
| 60°-70° | 39.4 | 4.8 |
| 70°-80° | 13.7 | 1.7 |
| 80°-90° | 1.9 | 0.2 |
| 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° | 377.8 | 46.3 |
| 0°-40° | 552.3 | 67.7 |
| 0°-60° | 760.5 | 93.3 |
| 0°-90° | 815.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 815.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 584 | 584 | 584 | 584 | 584 | |
| 5° | 576 | 581 | 571 | 568 | 570 | 55 |
| 15° | 547 | 536 | 500 | 476 | 469 | 154 |
| 25° | 494 | 459 | 390 | 338 | 321 | 227 |
| 35° | 423 | 364 | 262 | 195 | 172 | 264 |
| 45° | 342 | 262 | 141 | 75 | 54 | 264 |
| 55° | 257 | 160 | 42 | 10 | 8 | 229 |
| 65° | 168 | 65 | 6 | 2 | 2 | 166 |
| 75° | 80 | 9 | 1 | 1 | 0 | 85 |
| 85° | 9 | 0 | 0 | 0 | 0 | 14 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1056046

CATALOG NUMBER: S124R3DR-S575D927-X4F0-XX-UDD-FLL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 583.5 | 583.5 | 583.5 | 583.5 | 583.5 |
| 2.5° | 577.8 | 584.7 | 578.9 | 579.5 | 580.1 |
| 5° | 576.1 | 580.6 | 570.9 | 568.1 | 570.4 |
| 7.5° | 571.5 | 573.2 | 558.9 | 551.5 | 552.0 |
| 10° | 564.6 | 562.9 | 542.3 | 529.7 | 528.0 |
| 12.5° | 556.6 | 550.9 | 522.3 | 504.0 | 500.0 |
| 15° | 546.9 | 535.5 | 500.0 | 476.5 | 469.1 |
| 17.5° | 535.5 | 518.9 | 475.4 | 444.5 | 435.3 |
| 20° | 523.4 | 500.6 | 448.5 | 410.2 | 398.7 |
| 22.5° | 509.1 | 480.0 | 419.3 | 374.1 | 359.8 |
| 25° | 493.7 | 459.4 | 389.6 | 338.1 | 320.9 |
| 27.5° | 477.7 | 437.1 | 358.1 | 301.5 | 281.5 |
| 30° | 459.9 | 413.6 | 326.7 | 264.3 | 243.7 |
| 32.5° | 441.6 | 389.6 | 294.0 | 230.0 | 207.1 |
| 35° | 422.8 | 364.4 | 262.0 | 195.1 | 171.6 |
| 37.5° | 403.3 | 339.2 | 231.1 | 161.9 | 137.9 |
| 40° | 383.3 | 313.5 | 199.7 | 130.4 | 107.0 |
| 42.5° | 363.8 | 287.8 | 169.9 | 100.7 | 78.9 |
| 45° | 341.5 | 262.0 | 140.7 | 74.9 | 54.3 |
| 47.5° | 321.5 | 236.8 | 112.7 | 50.9 | 32.0 |
| 50° | 299.8 | 209.9 | 87.5 | 29.7 | 13.7 |
| 52.5° | 278.0 | 184.8 | 64.1 | 13.2 | 10.3 |
| 55° | 256.9 | 159.6 | 42.3 | 9.7 | 8.0 |
| 57.5° | 234.5 | 134.4 | 22.9 | 7.4 | 5.7 |
| 60° | 212.8 | 109.8 | 11.4 | 5.7 | 4.0 |
| 62.5° | 190.5 | 86.4 | 9.2 | 3.4 | 2.3 |
| 65° | 168.2 | 64.6 | 6.3 | 2.3 | 1.7 |
| 67.5° | 145.9 | 44.0 | 4.0 | 1.1 | 0.6 |
| 70° | 123.0 | 26.9 | 2.3 | 0.6 | 0.6 |
| 72.5° | 101.3 | 13.7 | 1.1 | 0.6 | 0.6 |
| 75° | 80.1 | 8.6 | 0.6 | 0.6 | 0.0 |
| 77.5° | 59.5 | 4.6 | 0.6 | 0.6 | 0.0 |
| 80° | 40.6 | 1.7 | 0.0 | 0.0 | 0.0 |
| 82.5° | 23.5 | 0.6 | 0.0 | 0.0 | 0.0 |
| 85° | 8.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)