

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: P1056041

Luminaire Tested: S124R3DR-S575D840-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056041
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S575D840-X4F0-XX-UDD-FLL-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

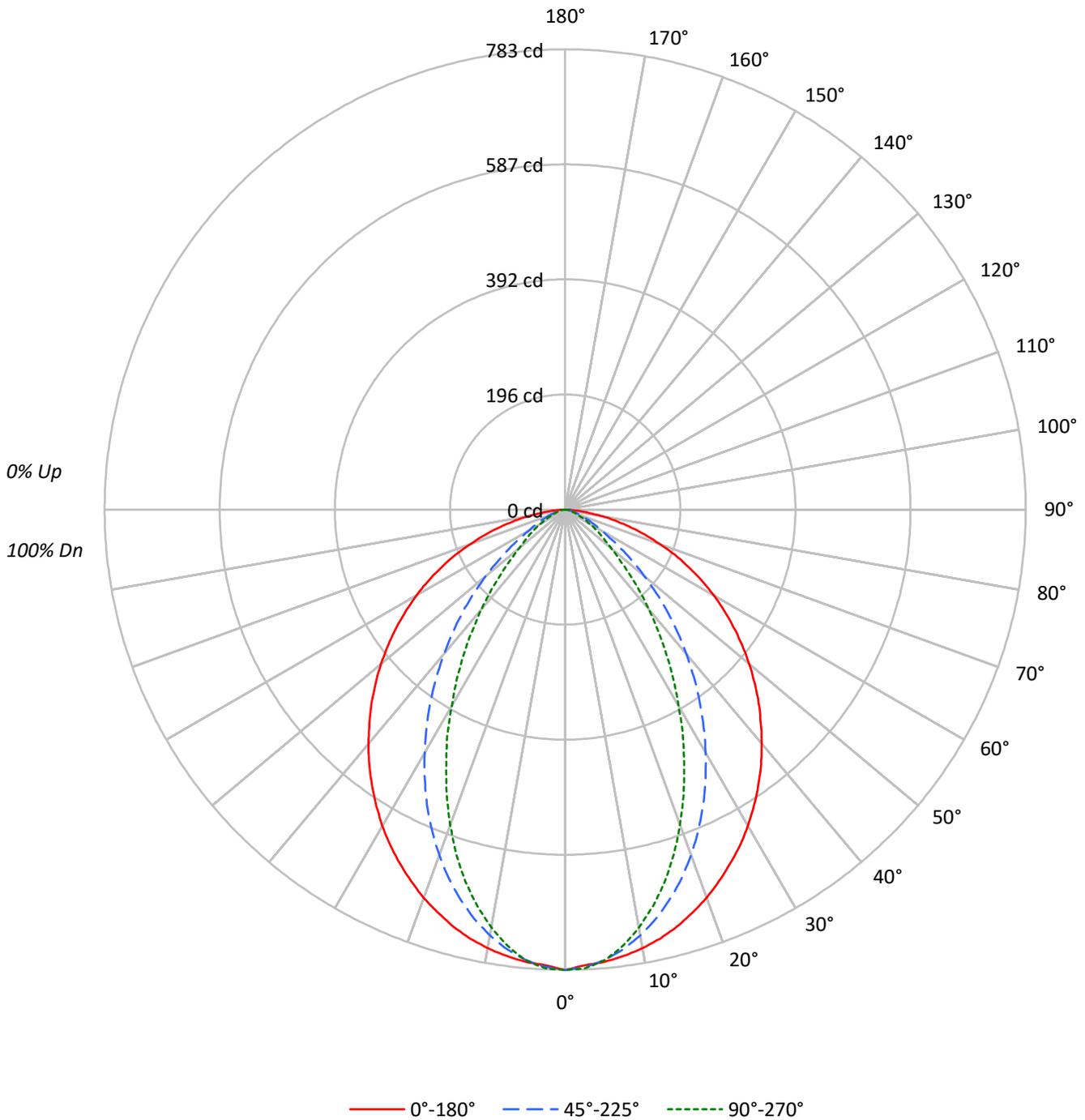
Lumens per Lamp: N/A
Luminaire Lumens: 1266.4 lumens
Efficiency: N/A
Efficacy: 66.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 94 | 92 | 90 | 89 |
| 2 | 103 | 96 | 91 | 86 | 101 | 94 | 89 | 85 | 91 | 87 | 83 | 88 | 84 | 81 | 85 | 82 | 79 | 78 |
| 3 | 95 | 87 | 80 | 74 | 93 | 85 | 79 | 74 | 82 | 77 | 73 | 80 | 75 | 71 | 77 | 73 | 70 | 68 |
| 4 | 89 | 78 | 71 | 65 | 86 | 77 | 70 | 65 | 75 | 69 | 64 | 73 | 67 | 63 | 71 | 66 | 62 | 60 |
| 5 | 82 | 71 | 64 | 58 | 80 | 70 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 56 | 65 | 60 | 56 | 54 |
| 6 | 77 | 65 | 57 | 52 | 75 | 64 | 57 | 52 | 63 | 56 | 51 | 61 | 55 | 51 | 60 | 54 | 50 | 48 |
| 7 | 72 | 60 | 52 | 47 | 70 | 59 | 52 | 47 | 58 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 44 |
| 8 | 67 | 55 | 48 | 42 | 66 | 55 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 40 |
| 9 | 63 | 51 | 44 | 39 | 62 | 51 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 38 | 48 | 42 | 38 | 37 |
| 10 | 60 | 48 | 41 | 36 | 59 | 47 | 40 | 36 | 46 | 40 | 36 | 45 | 40 | 35 | 45 | 39 | 35 | 34 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6925 | 6925 | 6925 |
| 5° | 6854 | 6829 | 6829 |
| 10° | 6802 | 6606 | 6482 |
| 15° | 6722 | 6288 | 5994 |
| 20° | 6614 | 5887 | 5372 |
| 25° | 6481 | 5414 | 4667 |
| 30° | 6343 | 4877 | 3932 |
| 35° | 6179 | 4305 | 3235 |
| 40° | 6002 | 3694 | 2551 |
| 45° | 5818 | 3073 | 1906 |
| 50° | 5617 | 2418 | 1395 |
| 55° | 5395 | 1788 | 1113 |
| 60° | 5158 | 1238 | 851 |
| 65° | 4851 | 960 | 626 |
| 70° | 4392 | 680 | 491 |
| 75° | 3836 | 475 | 372 |
| 80° | 3080 | 372 | 336 |
| 85° | 1704 | 294 | 294 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5818 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 72.6 | 5.7 |
| 10°-20° | 194.1 | 15.3 |
| 20°-30° | 258.9 | 20.4 |
| 30°-40° | 260.7 | 20.6 |
| 40°-50° | 213.8 | 16.9 |
| 50°-60° | 146.1 | 11.5 |
| 60°-70° | 81.7 | 6.4 |
| 70°-80° | 32.4 | 2.6 |
| 80°-90° | 6.2 | 0.5 |
| 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° | 525.7 | 41.5 |
| 0°-40° | 786.4 | 62.1 |
| 0°-60° | 1146.3 | 90.5 |
| 0°-90° | 1266.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1266.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 783 | 783 | 783 | 783 | 783 | |
| 5° | 772 | 781 | 769 | 766 | 769 | 73 |
| 15° | 734 | 726 | 687 | 663 | 655 | 207 |
| 25° | 664 | 632 | 555 | 499 | 478 | 306 |
| 35° | 572 | 512 | 399 | 323 | 300 | 358 |
| 45° | 465 | 380 | 246 | 173 | 152 | 359 |
| 55° | 350 | 246 | 116 | 77 | 72 | 313 |
| 65° | 232 | 117 | 46 | 33 | 30 | 229 |
| 75° | 112 | 31 | 14 | 12 | 11 | 120 |
| 85° | 17 | 3 | 3 | 3 | 3 | 24 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1056041

CATALOG NUMBER: S124R3DR-S575D840-X4F0-XX-UDD-FLL-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 783.2 | 783.2 | 783.2 | 783.2 | 783.2 |
| 2.5° | 775.9 | 785.4 | 778.9 | 779.6 | 781.0 |
| 5° | 772.3 | 781.0 | 769.4 | 765.7 | 769.4 |
| 7.5° | 765.7 | 772.3 | 754.8 | 747.5 | 749.0 |
| 10° | 757.7 | 759.9 | 735.8 | 723.4 | 722.0 |
| 12.5° | 747.5 | 744.6 | 713.2 | 695.0 | 690.6 |
| 15° | 734.4 | 726.4 | 687.0 | 662.9 | 654.9 |
| 17.5° | 719.1 | 705.2 | 657.8 | 626.4 | 614.8 |
| 20° | 703.0 | 682.6 | 625.7 | 585.6 | 571.0 |
| 22.5° | 684.1 | 658.5 | 591.4 | 542.6 | 525.8 |
| 25° | 664.4 | 631.5 | 555.0 | 498.8 | 478.4 |
| 27.5° | 643.9 | 603.8 | 517.1 | 454.3 | 433.9 |
| 30° | 621.3 | 573.9 | 477.7 | 409.8 | 385.1 |
| 32.5° | 597.3 | 543.3 | 438.3 | 366.1 | 342.8 |
| 35° | 572.5 | 511.9 | 398.9 | 323.1 | 299.7 |
| 37.5° | 547.0 | 479.9 | 359.5 | 282.2 | 258.9 |
| 40° | 520.0 | 447.0 | 320.1 | 243.6 | 221.0 |
| 42.5° | 492.3 | 413.5 | 282.2 | 207.1 | 186.0 |
| 45° | 465.3 | 379.9 | 245.8 | 172.8 | 152.4 |
| 47.5° | 436.8 | 346.4 | 210.0 | 140.7 | 123.2 |
| 50° | 408.4 | 312.9 | 175.8 | 113.0 | 101.4 |
| 52.5° | 379.2 | 279.3 | 144.4 | 92.6 | 84.6 |
| 55° | 350.0 | 245.8 | 116.0 | 77.3 | 72.2 |
| 57.5° | 320.9 | 212.2 | 89.7 | 65.6 | 59.8 |
| 60° | 291.7 | 179.4 | 70.0 | 53.2 | 48.1 |
| 62.5° | 261.8 | 146.6 | 57.6 | 42.3 | 37.9 |
| 65° | 231.9 | 116.7 | 45.9 | 32.8 | 29.9 |
| 67.5° | 202.0 | 89.0 | 35.0 | 25.5 | 23.3 |
| 70° | 169.9 | 63.4 | 26.3 | 19.7 | 19.0 |
| 72.5° | 142.2 | 43.0 | 19.0 | 15.3 | 14.6 |
| 75° | 112.3 | 30.6 | 13.9 | 11.7 | 10.9 |
| 77.5° | 86.8 | 19.7 | 10.2 | 9.5 | 8.8 |
| 80° | 60.5 | 10.9 | 7.3 | 6.6 | 6.6 |
| 82.5° | 37.2 | 5.8 | 5.1 | 4.4 | 4.4 |
| 85° | 16.8 | 2.9 | 2.9 | 2.9 | 2.9 |
| 87.5° | 2.9 | 1.5 | 1.5 | 1.5 | 1.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)