

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: P1055198

Luminaire Tested: S122R3DR-S485D830-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055198
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S485D830-X4F0-XX-UDD-FLL-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

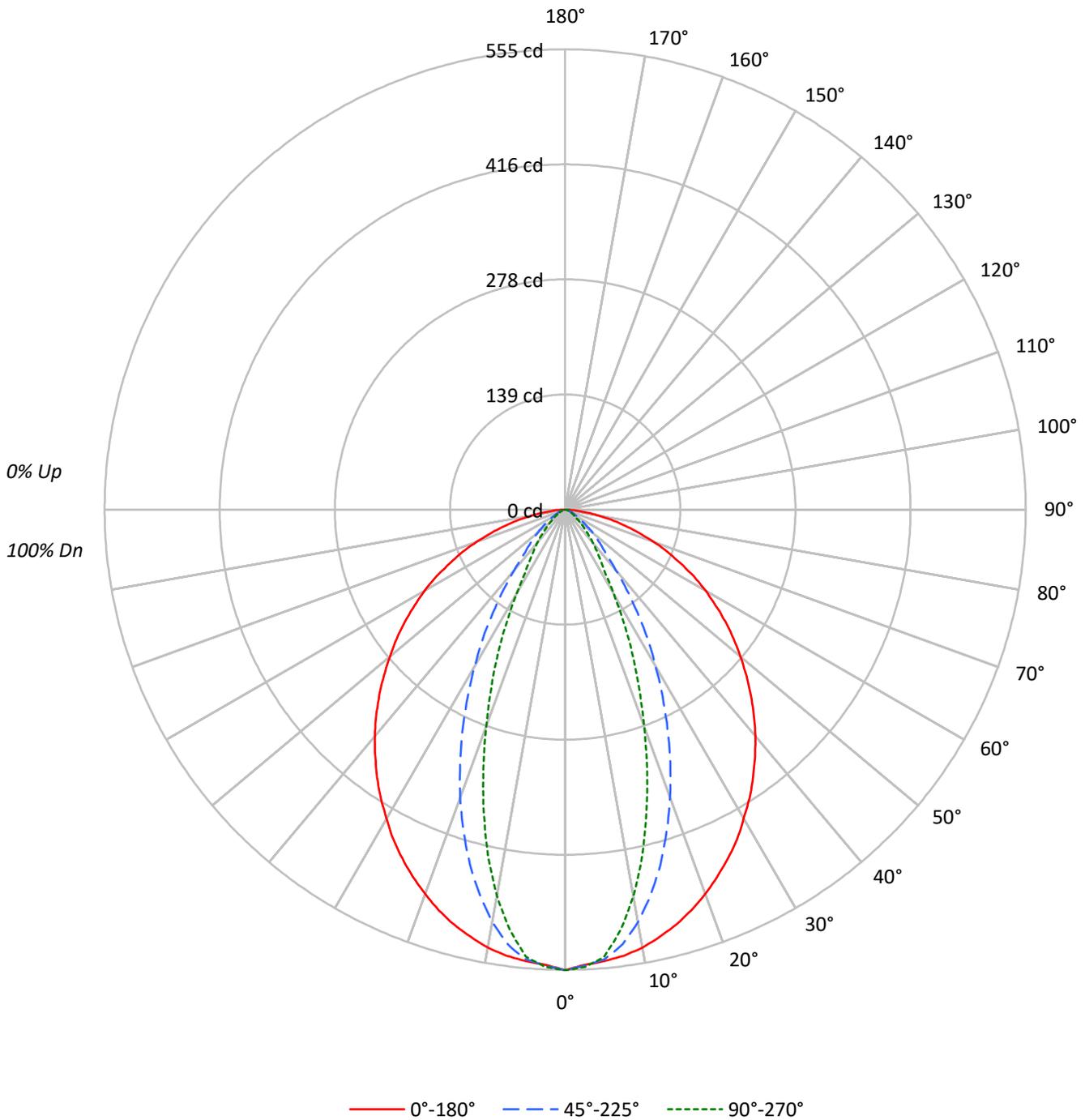
Lumens per Lamp: N/A
Luminaire Lumens: 636.5 lumens
Efficiency: N/A
Efficacy: 33.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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





TEST NUMBER: P1055198

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|----|
| RF | 20 | | | | | | | | | 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 | 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 | 94 | 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 | 83 | 78 | 95 | 88 | 82 | 77 | 85 | 80 | 76 | 82 | 78 | 74 | 80 | 76 | 73 | 71 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 91 | 81 | 74 | 69 | 89 | 80 | 74 | 69 | 78 | 72 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 85 | 75 | 67 | 62 | 83 | 74 | 67 | 62 | 72 | 66 | 61 | 70 | 65 | 61 | 68 | 64 | 60 | 58 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 80 | 69 | 62 | 56 | 78 | 68 | 61 | 56 | 66 | 60 | 56 | 65 | 59 | 55 | 63 | 59 | 55 | 53 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 75 | 64 | 57 | 52 | 74 | 63 | 56 | 51 | 62 | 56 | 51 | 60 | 55 | 51 | 59 | 54 | 50 | 49 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 71 | 59 | 52 | 47 | 69 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 47 | 55 | 50 | 47 | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 48 | 44 | 54 | 48 | 44 | 53 | 47 | 43 | 52 | 47 | 43 | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 63 | 52 | 45 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 44 | 40 | 49 | 44 | 40 | 39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10523 | 10523 | 10523 |
| 5° | 10395 | 10355 | 10291 |
| 10° | 10319 | 9715 | 9102 |
| 15° | 10160 | 8691 | 7422 |
| 20° | 9950 | 7452 | 5599 |
| 25° | 9704 | 6104 | 3999 |
| 30° | 9411 | 4765 | 2546 |
| 35° | 9131 | 3495 | 1700 |
| 40° | 8822 | 2357 | 1279 |
| 45° | 8480 | 1659 | 911 |
| 50° | 8126 | 1264 | 643 |
| 55° | 7779 | 875 | 472 |
| 60° | 7400 | 595 | 386 |
| 65° | 6863 | 426 | 305 |
| 70° | 6260 | 338 | 266 |
| 75° | 5432 | 300 | 198 |
| 80° | 4310 | 218 | 218 |
| 85° | 2369 | 304 | 152 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8480 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 50.8 | 8.0 |
| 10°-20° | 124.6 | 19.6 |
| 20°-30° | 142.4 | 22.4 |
| 30°-40° | 120.7 | 19.0 |
| 40°-50° | 90.1 | 14.2 |
| 50°-60° | 58.2 | 9.1 |
| 60°-70° | 32.5 | 5.1 |
| 70°-80° | 14.2 | 2.2 |
| 80°-90° | 3.0 | 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° | 317.8 | 49.9 |
| 0°-40° | 438.5 | 68.9 |
| 0°-60° | 586.8 | 92.2 |
| 0°-90° | 636.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 636.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 555 | 555 | 555 | 555 | 555 | |
| 5° | 547 | 553 | 544 | 539 | 541 | 52 |
| 15° | 518 | 505 | 443 | 396 | 378 | 146 |
| 25° | 464 | 410 | 292 | 214 | 191 | 214 |
| 35° | 395 | 297 | 151 | 82 | 74 | 247 |
| 45° | 316 | 188 | 62 | 40 | 34 | 244 |
| 55° | 236 | 89 | 26 | 16 | 14 | 211 |
| 65° | 153 | 33 | 10 | 8 | 7 | 152 |
| 75° | 74 | 7 | 4 | 3 | 3 | 79 |
| 85° | 11 | 1 | 1 | 1 | 1 | 16 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1055198

CATALOG NUMBER: S122R3DR-S485D830-X4F0-XX-UDD-FLL-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 555.4 | 555.4 | 555.4 | 555.4 | 555.4 |
| 2.5° | 549.3 | 557.5 | 550.6 | 550.6 | 552.0 |
| 5° | 546.6 | 553.4 | 544.5 | 539.1 | 541.1 |
| 7.5° | 542.5 | 547.2 | 528.9 | 512.5 | 511.2 |
| 10° | 536.4 | 538.4 | 505.0 | 479.9 | 473.1 |
| 12.5° | 527.5 | 522.7 | 475.8 | 440.4 | 428.8 |
| 15° | 518.0 | 505.0 | 443.1 | 396.1 | 378.4 |
| 17.5° | 506.4 | 483.3 | 407.0 | 349.9 | 328.1 |
| 20° | 493.5 | 460.8 | 369.6 | 301.5 | 277.7 |
| 22.5° | 479.2 | 435.6 | 330.8 | 255.9 | 232.1 |
| 25° | 464.2 | 409.8 | 292.0 | 213.7 | 191.3 |
| 27.5° | 448.5 | 382.5 | 253.9 | 175.6 | 151.1 |
| 30° | 430.2 | 354.6 | 217.8 | 138.9 | 116.4 |
| 32.5° | 413.2 | 325.4 | 184.5 | 107.5 | 88.5 |
| 35° | 394.8 | 297.4 | 151.1 | 82.4 | 73.5 |
| 37.5° | 375.7 | 269.5 | 121.8 | 69.4 | 61.9 |
| 40° | 356.7 | 241.6 | 95.3 | 58.5 | 51.7 |
| 42.5° | 336.9 | 214.4 | 73.5 | 49.0 | 42.2 |
| 45° | 316.5 | 187.9 | 61.9 | 40.2 | 34.0 |
| 47.5° | 296.1 | 161.3 | 51.7 | 32.0 | 27.2 |
| 50° | 275.7 | 136.1 | 42.9 | 25.2 | 21.8 |
| 52.5° | 255.9 | 112.3 | 34.0 | 20.4 | 17.7 |
| 55° | 235.5 | 89.2 | 26.5 | 16.3 | 14.3 |
| 57.5° | 215.1 | 69.4 | 20.4 | 13.6 | 12.3 |
| 60° | 195.3 | 52.4 | 15.7 | 10.9 | 10.2 |
| 62.5° | 174.9 | 42.2 | 12.3 | 8.8 | 8.2 |
| 65° | 153.1 | 32.7 | 9.5 | 7.5 | 6.8 |
| 67.5° | 133.4 | 23.8 | 7.5 | 6.1 | 5.4 |
| 70° | 113.0 | 16.3 | 6.1 | 5.4 | 4.8 |
| 72.5° | 93.2 | 10.2 | 4.8 | 4.1 | 4.1 |
| 75° | 74.2 | 6.8 | 4.1 | 3.4 | 2.7 |
| 77.5° | 56.5 | 4.1 | 2.7 | 2.7 | 2.0 |
| 80° | 39.5 | 2.7 | 2.0 | 2.0 | 2.0 |
| 82.5° | 24.5 | 2.0 | 1.4 | 1.4 | 1.4 |
| 85° | 10.9 | 0.7 | 1.4 | 0.7 | 0.7 |
| 87.5° | 2.0 | 0.7 | 0.7 | 0.7 | 0.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)