

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: P1059402

Luminaire Tested: S123RDR-S775D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059402
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S775D950-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

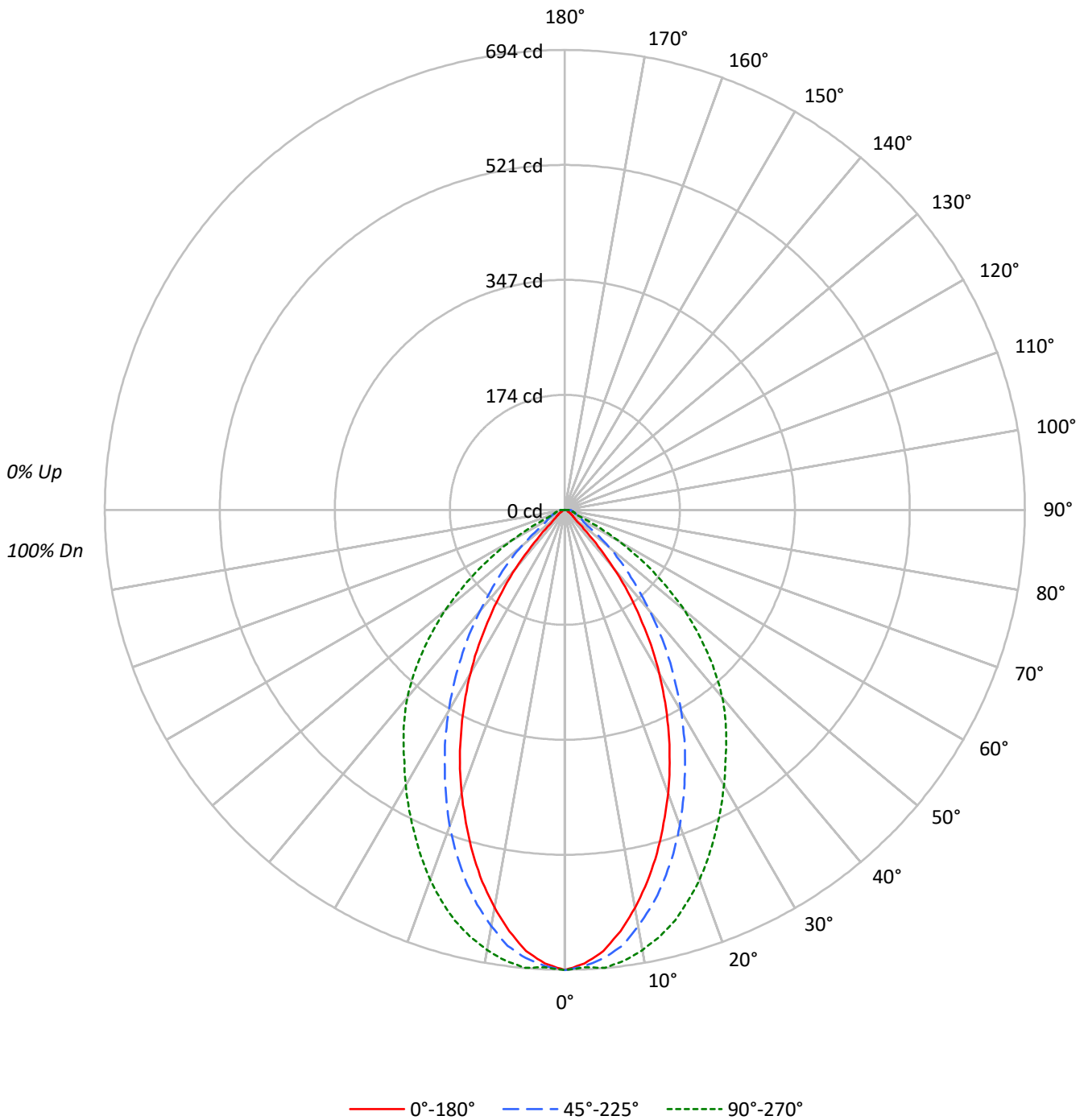
Lumens per Lamp: N/A
Luminaire Lumens: 833.8 lumens
Efficiency: N/A
Efficacy: 32.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
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 | 101 | 102 | 100 | 98 | 98 | 96 | 95 | 95 | 93 | 92 | 90 |
| 2 | 105 | 99 | 94 | 90 | 102 | 97 | 92 | 88 | 94 | 90 | 87 | 91 | 87 | 85 | 88 | 85 | 83 | 81 |
| 3 | 98 | 90 | 84 | 79 | 96 | 89 | 83 | 79 | 86 | 81 | 77 | 83 | 79 | 76 | 81 | 78 | 75 | 73 |
| 4 | 92 | 83 | 76 | 71 | 90 | 81 | 75 | 70 | 79 | 74 | 70 | 77 | 72 | 69 | 75 | 71 | 68 | 66 |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 69 | 64 | 73 | 67 | 63 | 71 | 66 | 62 | 70 | 65 | 62 | 60 |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 65 | 60 | 57 | 55 |
| 7 | 76 | 65 | 58 | 53 | 75 | 65 | 58 | 53 | 63 | 57 | 53 | 62 | 56 | 52 | 61 | 56 | 52 | 50 |
| 8 | 72 | 61 | 54 | 49 | 70 | 60 | 53 | 49 | 59 | 53 | 49 | 58 | 52 | 48 | 57 | 52 | 48 | 47 |
| 9 | 68 | 57 | 50 | 45 | 67 | 56 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 45 | 43 |
| 10 | 64 | 53 | 46 | 42 | 63 | 53 | 46 | 42 | 52 | 46 | 42 | 51 | 45 | 42 | 50 | 45 | 42 | 40 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 8155 | 8155 | 8155 |
| 5° | 7874 | 8002 | 8174 |
| 10° | 7269 | 7606 | 8041 |
| 15° | 6523 | 7034 | 7798 |
| 20° | 5691 | 6340 | 7424 |
| 25° | 4800 | 5557 | 6964 |
| 30° | 3860 | 4751 | 6508 |
| 35° | 2825 | 3912 | 6082 |
| 40° | 1763 | 3049 | 5665 |
| 45° | 668 | 2273 | 5047 |
| 50° | 316 | 1567 | 4300 |
| 55° | 244 | 860 | 3325 |
| 60° | 171 | 728 | 2186 |
| 65° | 128 | 633 | 914 |
| 70° | 127 | 594 | 594 |
| 75° | 168 | 622 | 622 |
| 80° | 250 | 744 | 676 |
| 85° | 498 | 1226 | 984 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5047 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 63.7 | 7.6 |
| 10°-20° | 163.5 | 19.6 |
| 20°-30° | 202.3 | 24.3 |
| 30°-40° | 181.4 | 21.8 |
| 40°-50° | 118.9 | 14.3 |
| 50°-60° | 59.5 | 7.1 |
| 60°-70° | 23.2 | 2.8 |
| 70°-80° | 13.1 | 1.6 |
| 80°-90° | 8.1 | 1.0 |
| 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° | 429.6 | 51.5 |
| 0°-40° | 611.0 | 73.3 |
| 0°-60° | 789.4 | 94.7 |
| 0°-90° | 833.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 833.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 694 | 694 | 694 | 694 | 694 | |
| 5° | 668 | 679 | 679 | 686 | 694 | 62 |
| 15° | 537 | 558 | 579 | 617 | 642 | 149 |
| 25° | 370 | 393 | 429 | 490 | 538 | 169 |
| 35° | 197 | 224 | 273 | 355 | 424 | 123 |
| 45° | 40 | 65 | 137 | 234 | 304 | 38 |
| 55° | 12 | 15 | 42 | 115 | 162 | 11 |
| 65° | 5 | 14 | 23 | 30 | 33 | 5 |
| 75° | 4 | 14 | 14 | 14 | 14 | 4 |
| 85° | 4 | 9 | 9 | 9 | 7 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1059402

CATALOG NUMBER: S123RDR-S775D950-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 694.5 | 694.5 | 694.5 | 694.5 | 694.5 |
| 2.5° | 685.3 | 695.4 | 689.0 | 689.9 | 690.8 |
| 5° | 668.0 | 678.9 | 678.9 | 686.2 | 693.5 |
| 7.5° | 641.5 | 654.3 | 663.4 | 676.2 | 686.2 |
| 10° | 609.6 | 625.1 | 637.9 | 660.7 | 674.4 |
| 12.5° | 574.9 | 594.1 | 610.5 | 640.6 | 659.8 |
| 15° | 536.6 | 558.5 | 578.6 | 616.9 | 641.5 |
| 17.5° | 495.5 | 517.4 | 543.9 | 588.6 | 618.7 |
| 20° | 455.4 | 477.3 | 507.4 | 557.6 | 594.1 |
| 22.5° | 413.4 | 436.2 | 468.1 | 523.8 | 566.7 |
| 25° | 370.5 | 393.3 | 428.9 | 490.0 | 537.5 |
| 27.5° | 327.6 | 350.4 | 390.6 | 457.2 | 509.2 |
| 30° | 284.7 | 307.5 | 350.4 | 421.6 | 480.0 |
| 32.5° | 241.8 | 266.5 | 311.2 | 388.7 | 450.8 |
| 35° | 197.1 | 223.6 | 272.9 | 355.0 | 424.3 |
| 37.5° | 156.0 | 180.7 | 236.4 | 325.8 | 397.9 |
| 40° | 115.0 | 141.4 | 198.9 | 297.5 | 369.6 |
| 42.5° | 74.8 | 103.1 | 165.2 | 266.5 | 337.6 |
| 45° | 40.2 | 64.8 | 136.9 | 234.5 | 303.9 |
| 47.5° | 21.9 | 35.6 | 110.4 | 200.8 | 269.2 |
| 50° | 17.3 | 20.1 | 85.8 | 171.6 | 235.4 |
| 52.5° | 14.6 | 16.4 | 61.1 | 144.2 | 198.0 |
| 55° | 11.9 | 14.6 | 42.0 | 115.0 | 162.4 |
| 57.5° | 10.0 | 12.8 | 32.9 | 89.4 | 126.8 |
| 60° | 7.3 | 11.0 | 31.0 | 65.7 | 93.1 |
| 62.5° | 5.5 | 11.9 | 27.4 | 45.6 | 61.1 |
| 65° | 4.6 | 13.7 | 22.8 | 30.1 | 32.9 |
| 67.5° | 3.7 | 14.6 | 20.1 | 19.2 | 19.2 |
| 70° | 3.7 | 13.7 | 17.3 | 16.4 | 17.3 |
| 72.5° | 3.7 | 14.6 | 15.5 | 14.6 | 15.5 |
| 75° | 3.7 | 13.7 | 13.7 | 13.7 | 13.7 |
| 77.5° | 3.7 | 12.8 | 12.8 | 11.9 | 11.9 |
| 80° | 3.7 | 11.0 | 11.0 | 11.0 | 10.0 |
| 82.5° | 3.7 | 10.0 | 10.0 | 10.0 | 8.2 |
| 85° | 3.7 | 9.1 | 9.1 | 9.1 | 7.3 |
| 87.5° | 2.7 | 8.2 | 9.1 | 8.2 | 5.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)