

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: P1057858

Luminaire Tested: S122RDR-S1005D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057858
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-S1005D940-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

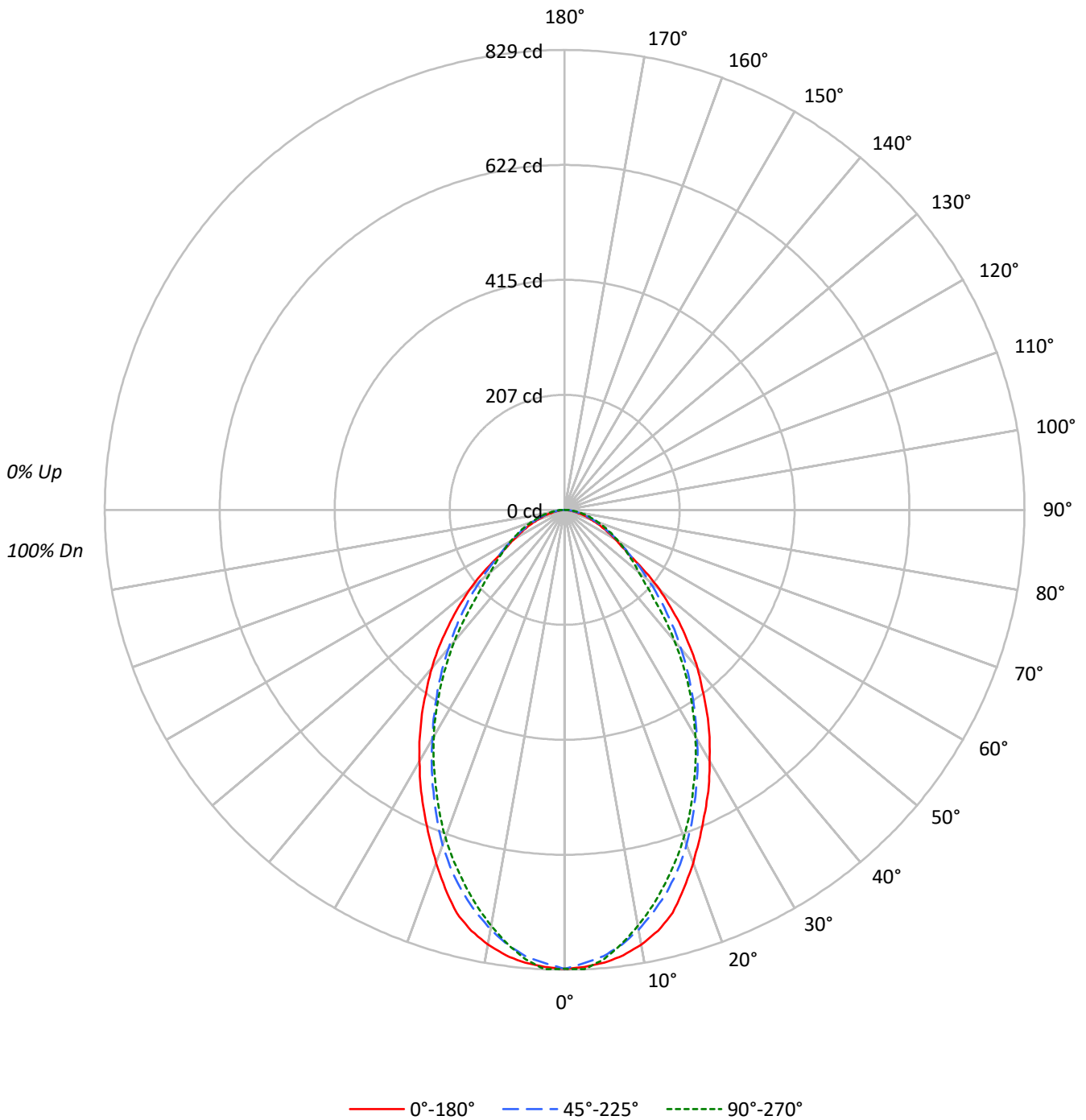
Lumens per Lamp: N/A
Luminaire Lumens: 1256.5 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 | | | | 88 |
| 2 | 103 | 96 | 91 | 86 | 100 | 94 | 89 | 85 | 91 | 87 | 83 | 88 | 84 | 81 | 85 | 82 | 79 | 77 | | | | 77 |
| 3 | 95 | 87 | 80 | 74 | 93 | 85 | 79 | 74 | 82 | 77 | 73 | 80 | 75 | 71 | 77 | 73 | 70 | 68 | | | | 68 |
| 4 | 89 | 79 | 71 | 65 | 87 | 77 | 70 | 65 | 75 | 69 | 64 | 73 | 68 | 63 | 71 | 66 | 63 | 61 | | | | 61 |
| 5 | 83 | 72 | 64 | 58 | 81 | 71 | 63 | 58 | 69 | 62 | 57 | 67 | 61 | 57 | 65 | 60 | 56 | 54 | | | | 54 |
| 6 | 77 | 66 | 58 | 52 | 75 | 65 | 57 | 52 | 63 | 56 | 52 | 61 | 56 | 51 | 60 | 55 | 51 | 49 | | | | 49 |
| 7 | 72 | 60 | 53 | 47 | 71 | 60 | 52 | 47 | 58 | 52 | 47 | 57 | 51 | 47 | 56 | 50 | 46 | 44 | | | | 44 |
| 8 | 68 | 56 | 48 | 43 | 66 | 55 | 48 | 43 | 54 | 47 | 43 | 53 | 47 | 43 | 52 | 46 | 42 | 41 | | | | 41 |
| 9 | 64 | 52 | 45 | 40 | 63 | 51 | 44 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 37 | | | | 37 |
| 10 | 60 | 48 | 41 | 36 | 59 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 45 | 40 | 36 | 34 | | | | 34 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 15266 | 15266 | 15266 |
| 5° | 15178 | 14959 | 15057 |
| 10° | 14909 | 14392 | 14268 |
| 15° | 14371 | 13615 | 13338 |
| 20° | 13298 | 12624 | 12340 |
| 25° | 12204 | 11400 | 11186 |
| 30° | 11144 | 10161 | 10048 |
| 35° | 10090 | 8993 | 8785 |
| 40° | 8980 | 7838 | 7426 |
| 45° | 7735 | 6738 | 5947 |
| 50° | 6390 | 5672 | 4992 |
| 55° | 4620 | 4703 | 4491 |
| 60° | 3842 | 4034 | 4085 |
| 65° | 3279 | 3510 | 3737 |
| 70° | 2703 | 3129 | 3410 |
| 75° | 2253 | 2631 | 3101 |
| 80° | 1679 | 2104 | 2795 |
| 85° | 550 | 1122 | 2519 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7735 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 76.5 | 6.1 |
| 10°-20° | 201.4 | 16.0 |
| 20°-30° | 260.7 | 20.7 |
| 30°-40° | 255.6 | 20.3 |
| 40°-50° | 201.3 | 16.0 |
| 50°-60° | 131.9 | 10.5 |
| 60°-70° | 80.3 | 6.4 |
| 70°-80° | 40.1 | 3.2 |
| 80°-90° | 8.6 | 0.7 |
| 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° | 538.5 | 42.9 |
| 0°-40° | 794.2 | 63.2 |
| 0°-60° | 1127.4 | 89.7 |
| 0°-90° | 1256.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1256.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 827 | 827 | 827 | 827 | 827 | |
| 5° | 819 | 819 | 808 | 813 | 813 | 77 |
| 15° | 752 | 742 | 713 | 704 | 698 | 210 |
| 25° | 599 | 580 | 560 | 557 | 549 | 276 |
| 35° | 448 | 423 | 399 | 398 | 390 | 279 |
| 45° | 296 | 278 | 258 | 240 | 228 | 228 |
| 55° | 144 | 152 | 146 | 141 | 140 | 136 |
| 65° | 75 | 76 | 80 | 84 | 86 | 75 |
| 75° | 32 | 33 | 37 | 42 | 44 | 34 |
| 85° | 3 | 4 | 5 | 9 | 12 | 5 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1057858

CATALOG NUMBER: S122RDR-S1005D940-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 827.3 | 827.3 | 827.3 | 827.3 | 827.3 |
| 2.5° | 824.7 | 826.0 | 818.1 | 826.0 | 828.7 |
| 5° | 819.4 | 819.4 | 807.6 | 812.9 | 812.9 |
| 7.5° | 810.2 | 808.9 | 790.5 | 790.5 | 789.1 |
| 10° | 795.7 | 790.5 | 768.1 | 764.1 | 761.5 |
| 12.5° | 777.3 | 768.1 | 741.7 | 735.1 | 731.2 |
| 15° | 752.3 | 741.7 | 712.7 | 703.5 | 698.2 |
| 17.5° | 715.4 | 704.8 | 679.8 | 669.3 | 664.0 |
| 20° | 677.2 | 661.4 | 642.9 | 633.7 | 628.4 |
| 22.5° | 637.6 | 619.2 | 602.1 | 595.5 | 590.2 |
| 25° | 599.4 | 579.7 | 559.9 | 557.3 | 549.4 |
| 27.5° | 562.5 | 538.8 | 519.1 | 517.8 | 511.2 |
| 30° | 523.0 | 498.0 | 476.9 | 478.2 | 471.6 |
| 32.5° | 486.1 | 462.4 | 437.4 | 438.7 | 430.8 |
| 35° | 447.9 | 422.9 | 399.2 | 397.9 | 390.0 |
| 37.5° | 408.4 | 384.7 | 362.3 | 357.0 | 349.1 |
| 40° | 372.8 | 349.1 | 325.4 | 316.2 | 308.3 |
| 42.5° | 334.6 | 313.5 | 292.5 | 278.0 | 267.4 |
| 45° | 296.4 | 278.0 | 258.2 | 239.8 | 227.9 |
| 47.5° | 259.5 | 245.0 | 227.9 | 205.5 | 197.6 |
| 50° | 222.6 | 212.1 | 197.6 | 177.9 | 173.9 |
| 52.5° | 184.4 | 180.5 | 171.3 | 158.1 | 156.8 |
| 55° | 143.6 | 151.5 | 146.2 | 141.0 | 139.6 |
| 57.5° | 121.2 | 122.5 | 126.5 | 125.2 | 125.2 |
| 60° | 104.1 | 104.1 | 109.3 | 110.7 | 110.7 |
| 62.5° | 88.3 | 89.6 | 94.9 | 97.5 | 97.5 |
| 65° | 75.1 | 76.4 | 80.4 | 84.3 | 85.6 |
| 67.5° | 61.9 | 64.6 | 68.5 | 72.5 | 73.8 |
| 70° | 50.1 | 52.7 | 58.0 | 61.9 | 63.2 |
| 72.5° | 40.8 | 42.2 | 47.4 | 51.4 | 52.7 |
| 75° | 31.6 | 32.9 | 36.9 | 42.2 | 43.5 |
| 77.5° | 22.4 | 25.0 | 29.0 | 32.9 | 35.6 |
| 80° | 15.8 | 17.1 | 19.8 | 25.0 | 26.3 |
| 82.5° | 9.2 | 10.5 | 13.2 | 17.1 | 18.4 |
| 85° | 2.6 | 4.0 | 5.3 | 9.2 | 11.9 |
| 87.5° | 0.0 | 0.0 | 0.0 | 2.6 | 5.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)