

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: P1057978

Luminaire Tested: S122RDR-S485D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057978
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-S485D850-X4F0-XX-UDD-BVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

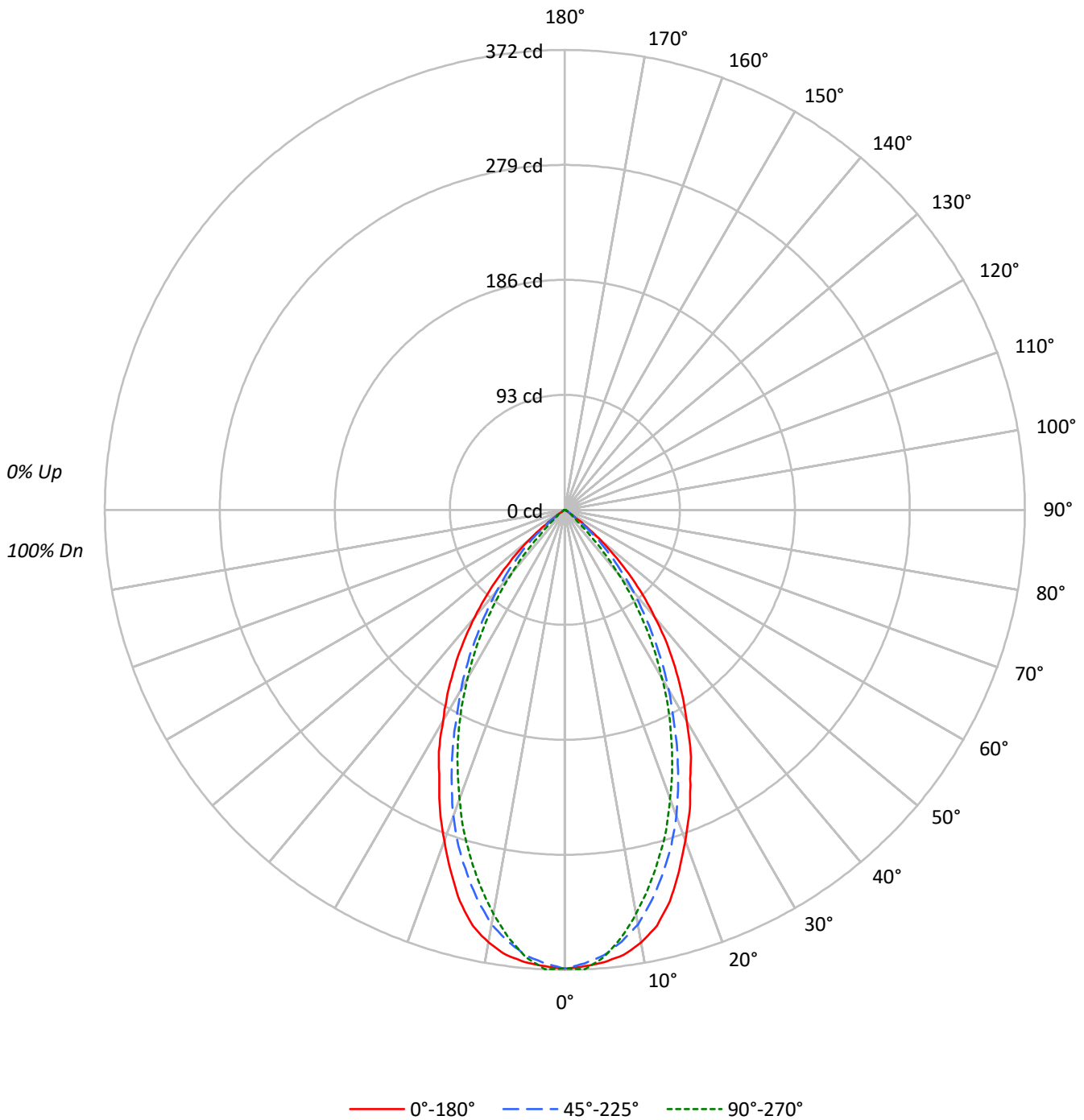
Lumens per Lamp: N/A
Luminaire Lumens: 349.0 lumens
Efficiency: N/A
Efficacy: 17.8 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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 | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | | 100 | 99 | 98 | | 97 | 96 | 95 | 93 |
| 2 | 107 | 102 | 98 | 94 | 105 | 100 | 97 | 93 | 97 | 94 | 91 | | 94 | 92 | 89 | | 91 | 89 | 87 | 86 |
| 3 | 101 | 95 | 90 | 85 | 99 | 93 | 89 | 85 | 91 | 87 | 83 | | 88 | 85 | 82 | | 86 | 83 | 81 | 79 |
| 4 | 96 | 88 | 82 | 78 | 94 | 87 | 81 | 77 | 85 | 80 | 76 | | 83 | 79 | 75 | | 81 | 77 | 75 | 73 |
| 5 | 91 | 82 | 76 | 71 | 89 | 81 | 75 | 71 | 79 | 74 | 70 | | 77 | 73 | 70 | | 76 | 72 | 69 | 67 |
| 6 | 86 | 76 | 70 | 66 | 84 | 76 | 70 | 65 | 74 | 69 | 65 | | 73 | 68 | 64 | | 71 | 67 | 64 | 62 |
| 7 | 81 | 71 | 65 | 61 | 80 | 71 | 65 | 61 | 69 | 64 | 60 | | 68 | 63 | 60 | | 67 | 63 | 60 | 58 |
| 8 | 77 | 67 | 61 | 56 | 76 | 66 | 60 | 56 | 65 | 60 | 56 | | 64 | 59 | 56 | | 63 | 59 | 56 | 54 |
| 9 | 73 | 63 | 57 | 53 | 72 | 62 | 57 | 52 | 61 | 56 | 52 | | 61 | 56 | 52 | | 60 | 55 | 52 | 51 |
| 10 | 69 | 59 | 53 | 49 | 68 | 59 | 53 | 49 | 58 | 53 | 49 | | 57 | 52 | 49 | | 56 | 52 | 49 | 47 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6848 | 6848 | 6848 |
| 5° | 6802 | 6700 | 6728 |
| 10° | 6659 | 6380 | 6217 |
| 15° | 6264 | 5830 | 5590 |
| 20° | 5593 | 5176 | 4884 |
| 25° | 4888 | 4377 | 4153 |
| 30° | 4195 | 3577 | 3343 |
| 35° | 3498 | 2793 | 2509 |
| 40° | 2722 | 2060 | 1607 |
| 45° | 1905 | 1373 | 697 |
| 50° | 1036 | 721 | 247 |
| 55° | 151 | 251 | 177 |
| 60° | 30 | 59 | 114 |
| 65° | 0 | 35 | 70 |
| 70° | 0 | 0 | 43 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1905 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 34.1 | 9.8 |
| 10°-20° | 85.9 | 24.6 |
| 20°-30° | 100.2 | 28.7 |
| 30°-40° | 80.3 | 23.0 |
| 40°-50° | 39.9 | 11.4 |
| 50°-60° | 7.9 | 2.3 |
| 60°-70° | 0.7 | 0.2 |
| 70°-80° | 0.1 | 0.0 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 220.2 | 63.1 |
| 0°-40° | 300.4 | 86.1 |
| 0°-60° | 348.2 | 99.8 |
| 0°-90° | 349.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 349.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 371 | 371 | 371 | 371 | 371 | |
| 5° | 367 | 367 | 362 | 362 | 363 | 35 |
| 15° | 328 | 322 | 305 | 297 | 293 | 91 |
| 25° | 240 | 228 | 215 | 210 | 204 | 110 |
| 35° | 155 | 140 | 124 | 118 | 111 | 97 |
| 45° | 73 | 64 | 53 | 35 | 27 | 56 |
| 55° | 5 | 9 | 8 | 5 | 6 | 9 |
| 65° | 0 | 0 | 1 | 1 | 2 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P1057978

CATALOG NUMBER: S122RDR-S485D850-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 371.1 | 371.1 | 371.1 | 371.1 | 371.1 |
| 2.5° | 369.5 | 371.1 | 367.2 | 371.1 | 371.9 |
| 5° | 367.2 | 367.2 | 361.7 | 362.4 | 363.2 |
| 7.5° | 363.2 | 361.7 | 352.2 | 350.7 | 349.1 |
| 10° | 355.4 | 352.2 | 340.5 | 334.2 | 331.8 |
| 12.5° | 344.4 | 339.7 | 324.0 | 316.9 | 313.0 |
| 15° | 327.9 | 321.6 | 305.2 | 297.3 | 292.6 |
| 17.5° | 306.7 | 301.3 | 285.6 | 276.9 | 272.2 |
| 20° | 284.8 | 276.9 | 263.6 | 255.0 | 248.7 |
| 22.5° | 263.6 | 253.4 | 239.3 | 233.0 | 226.7 |
| 25° | 240.1 | 228.3 | 215.0 | 210.2 | 204.0 |
| 27.5° | 220.4 | 205.5 | 189.9 | 186.7 | 181.2 |
| 30° | 196.9 | 182.8 | 167.9 | 163.2 | 156.9 |
| 32.5° | 176.5 | 160.8 | 145.9 | 140.4 | 134.9 |
| 35° | 155.3 | 139.6 | 124.0 | 118.5 | 111.4 |
| 37.5° | 134.9 | 120.0 | 104.3 | 95.7 | 89.4 |
| 40° | 113.0 | 100.4 | 85.5 | 74.5 | 66.7 |
| 42.5° | 93.4 | 82.4 | 68.3 | 54.1 | 46.3 |
| 45° | 73.0 | 64.3 | 52.6 | 35.3 | 26.7 |
| 47.5° | 54.1 | 47.9 | 38.4 | 20.4 | 14.1 |
| 50° | 36.1 | 33.7 | 25.1 | 10.2 | 8.6 |
| 52.5° | 19.6 | 21.2 | 14.9 | 6.3 | 7.1 |
| 55° | 4.7 | 9.4 | 7.8 | 4.7 | 5.5 |
| 57.5° | 0.8 | 1.6 | 3.9 | 3.9 | 3.9 |
| 60° | 0.8 | 0.8 | 1.6 | 2.4 | 3.1 |
| 62.5° | 0.8 | 0.0 | 0.8 | 1.6 | 2.4 |
| 65° | 0.0 | 0.0 | 0.8 | 0.8 | 1.6 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.8 | 0.8 |
| 70° | 0.0 | 0.0 | 0.0 | 0.8 | 0.8 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 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)