

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: P1057951

Luminaire Tested: S122RDR-S485D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057951
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-S485D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

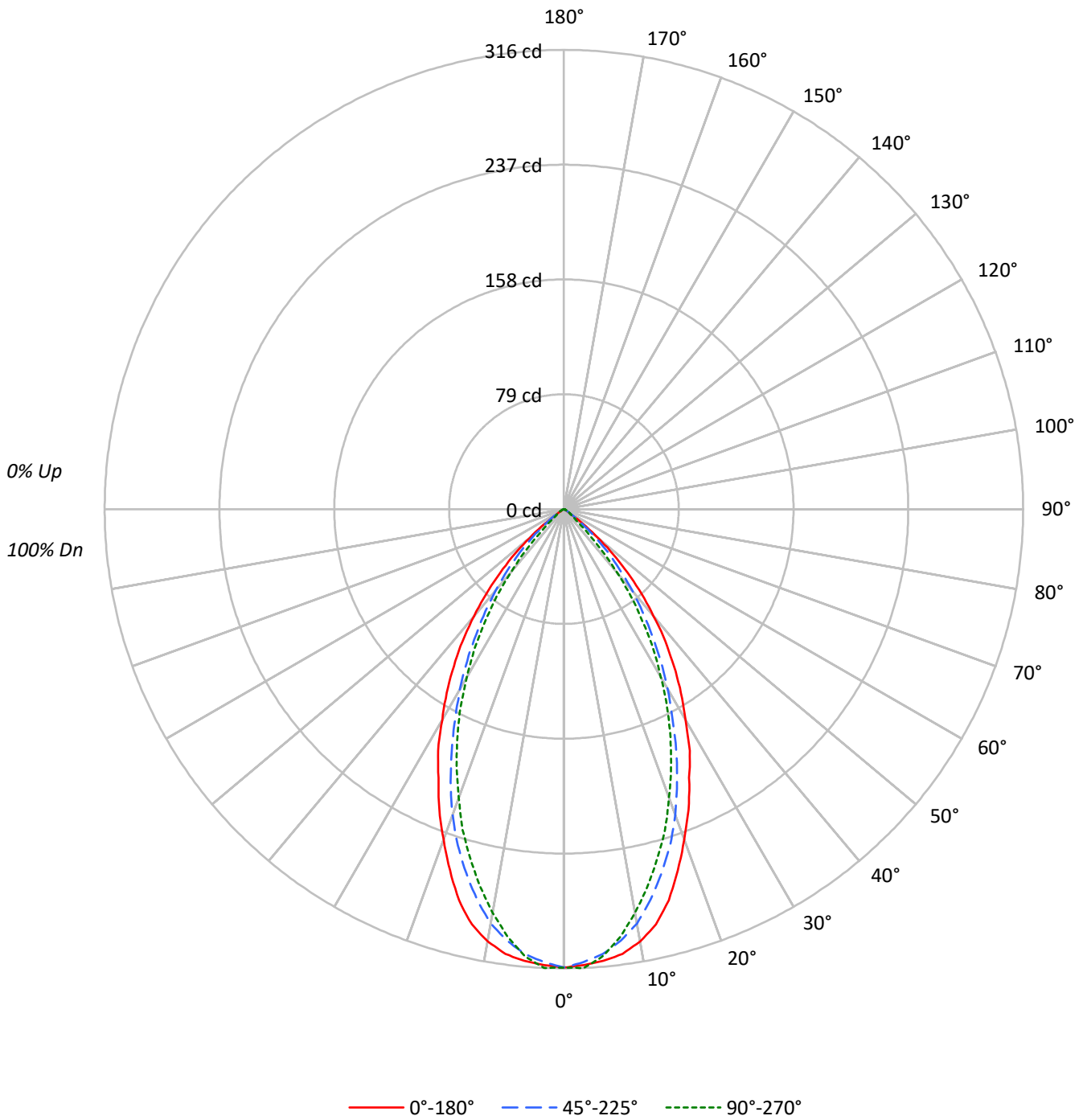
Lumens per Lamp: N/A
Luminaire Lumens: 296.6 lumens
Efficiency: N/A
Efficacy: 15.1 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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° | 5820 | 5820 | 5820 |
| 5° | 5779 | 5694 | 5718 |
| 10° | 5659 | 5423 | 5284 |
| 15° | 5324 | 4955 | 4751 |
| 20° | 4752 | 4399 | 4151 |
| 25° | 4153 | 3720 | 3530 |
| 30° | 3567 | 3041 | 2842 |
| 35° | 2973 | 2372 | 2133 |
| 40° | 2312 | 1751 | 1366 |
| 45° | 1618 | 1166 | 592 |
| 50° | 881 | 611 | 210 |
| 55° | 129 | 216 | 151 |
| 60° | 26 | 48 | 100 |
| 65° | 0 | 31 | 57 |
| 70° | 0 | 0 | 38 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1618 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 29.0 | 9.8 |
| 10°-20° | 73.0 | 24.6 |
| 20°-30° | 85.1 | 28.7 |
| 30°-40° | 68.2 | 23.0 |
| 40°-50° | 33.9 | 11.4 |
| 50°-60° | 6.7 | 2.3 |
| 60°-70° | 0.6 | 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° | 187.1 | 63.1 |
| 0°-40° | 255.3 | 86.1 |
| 0°-60° | 295.9 | 99.8 |
| 0°-90° | 296.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 296.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 315 | 315 | 315 | 315 | 315 | |
| 5° | 312 | 312 | 307 | 308 | 309 | 29 |
| 15° | 279 | 273 | 259 | 253 | 249 | 77 |
| 25° | 204 | 194 | 183 | 179 | 173 | 94 |
| 35° | 132 | 119 | 105 | 101 | 95 | 82 |
| 45° | 62 | 55 | 45 | 30 | 23 | 48 |
| 55° | 4 | 8 | 7 | 4 | 5 | 8 |
| 65° | 0 | 0 | 1 | 1 | 1 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 315.4 | 315.4 | 315.4 | 315.4 | 315.4 |
| 2.5° | 314.0 | 315.4 | 312.0 | 315.4 | 316.0 |
| 5° | 312.0 | 312.0 | 307.4 | 308.0 | 308.7 |
| 7.5° | 308.7 | 307.4 | 299.4 | 298.0 | 296.7 |
| 10° | 302.0 | 299.4 | 289.4 | 284.0 | 282.0 |
| 12.5° | 292.7 | 288.7 | 275.4 | 269.4 | 266.0 |
| 15° | 278.7 | 273.4 | 259.4 | 252.7 | 248.7 |
| 17.5° | 260.7 | 256.0 | 242.7 | 235.4 | 231.4 |
| 20° | 242.0 | 235.4 | 224.0 | 216.7 | 211.4 |
| 22.5° | 224.0 | 215.4 | 203.4 | 198.0 | 192.7 |
| 25° | 204.0 | 194.0 | 182.7 | 178.7 | 173.4 |
| 27.5° | 187.4 | 174.7 | 161.4 | 158.7 | 154.0 |
| 30° | 167.4 | 155.4 | 142.7 | 138.7 | 133.4 |
| 32.5° | 150.0 | 136.7 | 124.0 | 119.3 | 114.7 |
| 35° | 132.0 | 118.7 | 105.3 | 100.7 | 94.7 |
| 37.5° | 114.7 | 102.0 | 88.7 | 81.3 | 76.0 |
| 40° | 96.0 | 85.3 | 72.7 | 63.3 | 56.7 |
| 42.5° | 79.3 | 70.0 | 58.0 | 46.0 | 39.3 |
| 45° | 62.0 | 54.7 | 44.7 | 30.0 | 22.7 |
| 47.5° | 46.0 | 40.7 | 32.7 | 17.3 | 12.0 |
| 50° | 30.7 | 28.7 | 21.3 | 8.7 | 7.3 |
| 52.5° | 16.7 | 18.0 | 12.7 | 5.3 | 6.0 |
| 55° | 4.0 | 8.0 | 6.7 | 4.0 | 4.7 |
| 57.5° | 0.7 | 1.3 | 3.3 | 3.3 | 3.3 |
| 60° | 0.7 | 0.7 | 1.3 | 2.0 | 2.7 |
| 62.5° | 0.7 | 0.0 | 0.7 | 1.3 | 2.0 |
| 65° | 0.0 | 0.0 | 0.7 | 0.7 | 1.3 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.7 | 0.7 |
| 70° | 0.0 | 0.0 | 0.0 | 0.7 | 0.7 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| 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)