

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: P1059223

Luminaire Tested: S123RDR-S340D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059223
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S340D935-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

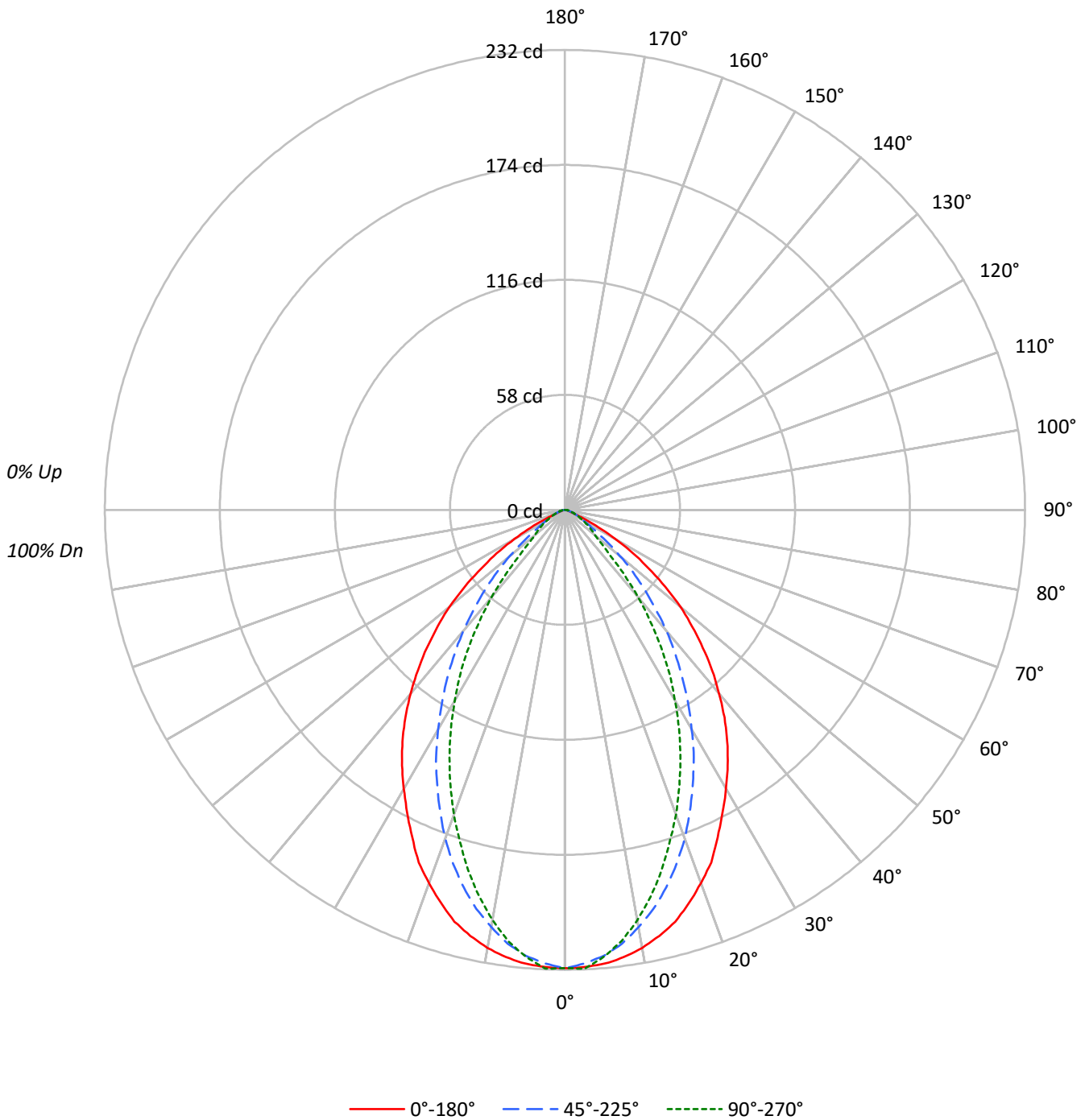
Lumens per Lamp: N/A
Luminaire Lumens: 298.5 lumens
Efficiency: N/A
Efficacy: 23.9 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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 | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 100 | 98 | 99 | 97 | 95 | 95 | 94 | 93 | 91 | | | 91 | |
| 2 | 105 | 99 | 94 | 90 | 103 | 97 | 93 | 89 | 94 | 90 | 87 | 91 | 88 | 85 | 88 | 86 | 83 | 82 | | | 82 | |
| 3 | 98 | 90 | 84 | 80 | 96 | 89 | 83 | 79 | 86 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 75 | 73 | | | 73 | |
| 4 | 92 | 83 | 76 | 71 | 90 | 82 | 75 | 70 | 79 | 74 | 70 | 77 | 73 | 69 | 75 | 71 | 68 | 66 | | | 66 | |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 68 | 63 | 73 | 67 | 63 | 71 | 66 | 62 | 70 | 65 | 62 | 60 | | | 60 | |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 62 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 65 | 60 | 56 | 55 | | | 55 | |
| 7 | 76 | 65 | 58 | 53 | 74 | 64 | 57 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 50 | | | 50 | |
| 8 | 71 | 60 | 53 | 48 | 70 | 60 | 53 | 48 | 58 | 52 | 48 | 57 | 52 | 48 | 56 | 51 | 48 | 46 | | | 46 | |
| 9 | 67 | 56 | 49 | 45 | 66 | 56 | 49 | 44 | 55 | 48 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 42 | | | 42 | |
| 10 | 64 | 52 | 46 | 41 | 63 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 49 | 44 | 41 | 39 | | | 39 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2715 | 2715 | 2715 |
| 5° | 2709 | 2662 | 2666 |
| 10° | 2676 | 2548 | 2505 |
| 15° | 2615 | 2397 | 2289 |
| 20° | 2504 | 2206 | 2044 |
| 25° | 2361 | 1976 | 1785 |
| 30° | 2203 | 1733 | 1505 |
| 35° | 2047 | 1478 | 1211 |
| 40° | 1855 | 1219 | 878 |
| 45° | 1634 | 945 | 530 |
| 50° | 1387 | 661 | 360 |
| 55° | 1054 | 395 | 301 |
| 60° | 688 | 251 | 235 |
| 65° | 289 | 189 | 189 |
| 70° | 100 | 134 | 148 |
| 75° | 82 | 95 | 113 |
| 80° | 47 | 74 | 95 |
| 85° | 54 | 54 | 94 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1634 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 21.4 | 7.2 |
| 10°-20° | 55.9 | 18.7 |
| 20°-30° | 71.7 | 24.0 |
| 30°-40° | 67.3 | 22.5 |
| 40°-50° | 46.9 | 15.7 |
| 50°-60° | 24.3 | 8.1 |
| 60°-70° | 8.3 | 2.8 |
| 70°-80° | 2.4 | 0.8 |
| 80°-90° | 0.5 | 0.2 |
| 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° | 148.9 | 49.9 |
| 0°-40° | 216.2 | 72.4 |
| 0°-60° | 287.3 | 96.3 |
| 0°-90° | 298.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 298.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 231 | 231 | 231 | 231 | 231 | |
| 5° | 230 | 229 | 226 | 227 | 226 | 22 |
| 15° | 215 | 210 | 197 | 191 | 188 | 60 |
| 25° | 182 | 171 | 152 | 142 | 138 | 84 |
| 35° | 143 | 125 | 103 | 90 | 84 | 89 |
| 45° | 98 | 80 | 57 | 39 | 32 | 76 |
| 55° | 52 | 39 | 19 | 15 | 15 | 46 |
| 65° | 10 | 9 | 7 | 6 | 7 | 12 |
| 75° | 2 | 2 | 2 | 2 | 2 | 2 |
| 85° | 0 | 0 | 0 | 0 | 1 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 231.2 | 231.2 | 231.2 | 231.2 | 231.2 |
| 2.5° | 230.9 | 231.2 | 229.1 | 231.2 | 231.6 |
| 5° | 229.8 | 229.4 | 225.8 | 226.9 | 226.2 |
| 7.5° | 227.6 | 226.6 | 220.8 | 219.4 | 219.4 |
| 10° | 224.4 | 222.3 | 213.7 | 211.2 | 210.1 |
| 12.5° | 220.1 | 217.3 | 206.2 | 201.5 | 199.7 |
| 15° | 215.1 | 209.7 | 197.2 | 190.8 | 188.3 |
| 17.5° | 208.0 | 200.8 | 187.2 | 179.7 | 175.7 |
| 20° | 200.4 | 191.5 | 176.5 | 167.5 | 163.6 |
| 22.5° | 192.6 | 181.8 | 164.6 | 155.0 | 150.7 |
| 25° | 182.2 | 170.7 | 152.5 | 142.1 | 137.8 |
| 27.5° | 172.2 | 160.0 | 140.7 | 128.9 | 124.6 |
| 30° | 162.5 | 148.2 | 127.8 | 116.3 | 111.0 |
| 32.5° | 152.8 | 136.7 | 115.6 | 103.1 | 98.1 |
| 35° | 142.8 | 125.3 | 103.1 | 89.8 | 84.5 |
| 37.5° | 132.1 | 114.2 | 91.3 | 77.0 | 70.5 |
| 40° | 121.0 | 102.4 | 79.5 | 63.4 | 57.3 |
| 42.5° | 109.9 | 91.6 | 67.6 | 51.2 | 44.0 |
| 45° | 98.4 | 80.5 | 56.9 | 39.4 | 31.9 |
| 47.5° | 87.0 | 69.4 | 46.5 | 28.6 | 24.0 |
| 50° | 75.9 | 59.1 | 36.2 | 21.1 | 19.7 |
| 52.5° | 63.7 | 49.0 | 27.2 | 17.5 | 17.2 |
| 55° | 51.5 | 38.7 | 19.3 | 15.0 | 14.7 |
| 57.5° | 40.8 | 30.1 | 14.0 | 12.5 | 12.2 |
| 60° | 29.3 | 21.5 | 10.7 | 10.4 | 10.0 |
| 62.5° | 19.3 | 14.7 | 8.6 | 8.2 | 8.2 |
| 65° | 10.4 | 8.9 | 6.8 | 6.4 | 6.8 |
| 67.5° | 4.3 | 5.0 | 5.0 | 5.4 | 5.4 |
| 70° | 2.9 | 3.2 | 3.9 | 4.3 | 4.3 |
| 72.5° | 2.1 | 2.5 | 2.9 | 3.2 | 3.2 |
| 75° | 1.8 | 1.8 | 2.1 | 2.5 | 2.5 |
| 77.5° | 1.1 | 1.4 | 1.4 | 1.8 | 2.1 |
| 80° | 0.7 | 1.1 | 1.1 | 1.4 | 1.4 |
| 82.5° | 0.4 | 0.7 | 0.7 | 1.1 | 1.1 |
| 85° | 0.4 | 0.4 | 0.4 | 0.4 | 0.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)