

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: P1059178

Luminaire Tested: S123RDR-S340D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059178
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-S340D835-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, 80 CRI LEDS
Ballast/Driver: -

Summary

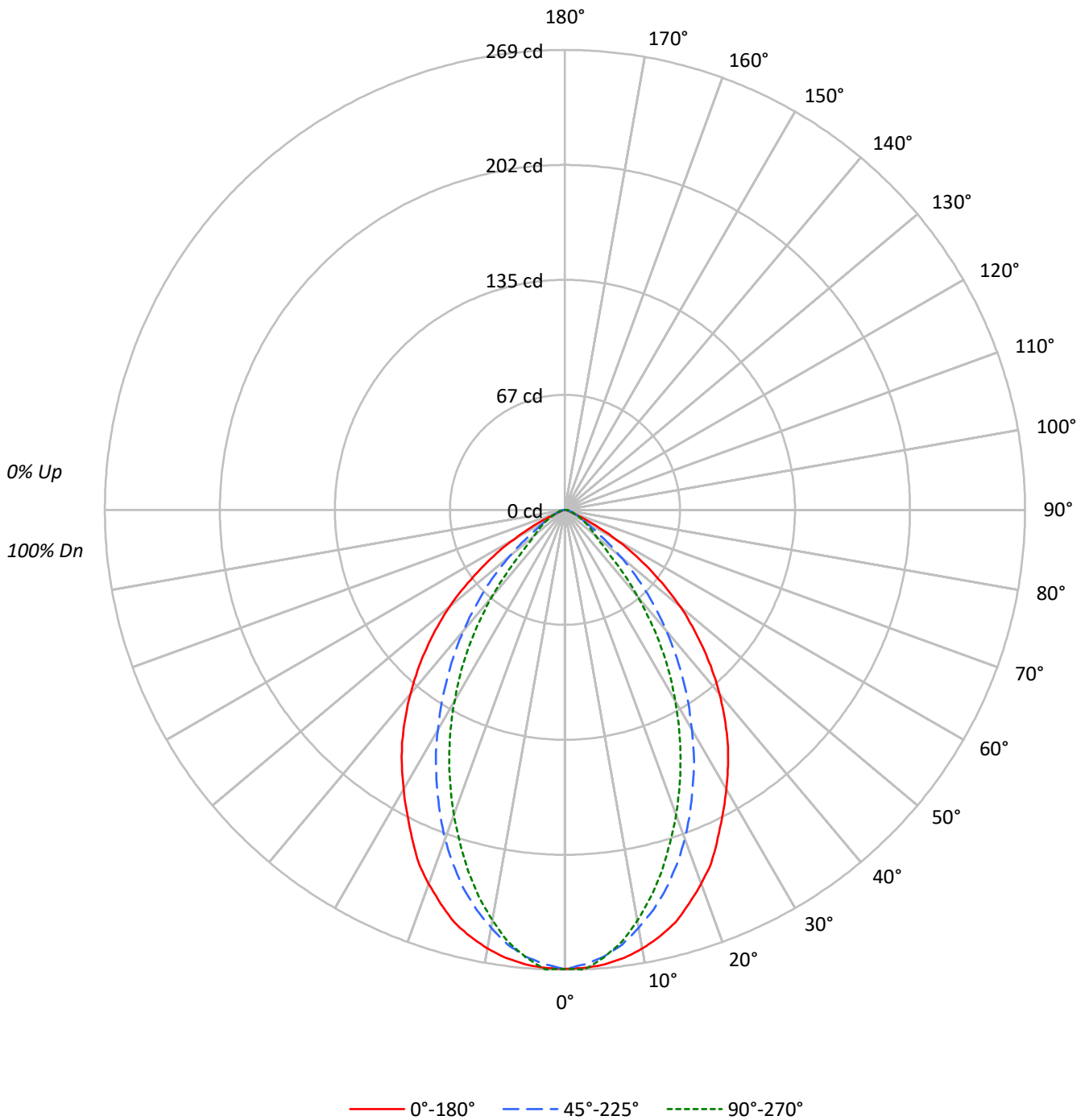
Lumens per Lamp: N/A
Luminaire Lumens: 346.7 lumens
Efficiency: N/A
Efficacy: 27.7 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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 | | | | |
| 1 | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 100 | 98 | 99 | 97 | 95 | 95 | 94 | 93 | 91 | | | | |
| 2 | 105 | 99 | 94 | 90 | 103 | 97 | 93 | 89 | 94 | 90 | 87 | 91 | 88 | 85 | 88 | 86 | 83 | 82 | | | | |
| 3 | 98 | 90 | 84 | 80 | 96 | 89 | 83 | 79 | 86 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 75 | 73 | | | | |
| 4 | 92 | 83 | 76 | 71 | 90 | 82 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 69 | 75 | 71 | 68 | 66 | | | | |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 68 | 63 | 73 | 67 | 63 | 71 | 66 | 62 | 70 | 65 | 62 | 60 | | | | |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 62 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 65 | 60 | 56 | 55 | | | | |
| 7 | 76 | 65 | 58 | 53 | 74 | 64 | 57 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 50 | | | | |
| 8 | 71 | 60 | 53 | 48 | 70 | 60 | 53 | 48 | 58 | 52 | 48 | 57 | 52 | 48 | 56 | 51 | 48 | 46 | | | | |
| 9 | 67 | 56 | 49 | 45 | 66 | 56 | 49 | 44 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 42 | | | | |
| 10 | 64 | 52 | 46 | 41 | 63 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 49 | 44 | 41 | 39 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3153 | 3153 | 3153 |
| 5° | 3146 | 3092 | 3097 |
| 10° | 3107 | 2959 | 2909 |
| 15° | 3037 | 2785 | 2659 |
| 20° | 2909 | 2560 | 2374 |
| 25° | 2742 | 2295 | 2073 |
| 30° | 2559 | 2012 | 1748 |
| 35° | 2378 | 1716 | 1406 |
| 40° | 2154 | 1415 | 1019 |
| 45° | 1898 | 1098 | 614 |
| 50° | 1609 | 767 | 418 |
| 55° | 1226 | 459 | 348 |
| 60° | 801 | 294 | 272 |
| 65° | 336 | 220 | 220 |
| 70° | 113 | 158 | 172 |
| 75° | 95 | 113 | 132 |
| 80° | 54 | 81 | 115 |
| 85° | 54 | 54 | 108 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1898 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 24.8 | 7.2 |
| 10°-20° | 64.9 | 18.7 |
| 20°-30° | 83.2 | 24.0 |
| 30°-40° | 78.1 | 22.5 |
| 40°-50° | 54.5 | 15.7 |
| 50°-60° | 28.2 | 8.1 |
| 60°-70° | 9.6 | 2.8 |
| 70°-80° | 2.7 | 0.8 |
| 80°-90° | 0.6 | 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° | 172.9 | 49.9 |
| 0°-40° | 251.1 | 72.4 |
| 0°-60° | 333.7 | 96.3 |
| 0°-90° | 346.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 346.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 268 | 268 | 268 | 268 | 268 | |
| 5° | 267 | 266 | 262 | 264 | 263 | 25 |
| 15° | 250 | 244 | 229 | 222 | 219 | 70 |
| 25° | 212 | 198 | 177 | 165 | 160 | 97 |
| 35° | 166 | 146 | 120 | 104 | 98 | 103 |
| 45° | 114 | 94 | 66 | 46 | 37 | 88 |
| 55° | 60 | 45 | 22 | 18 | 17 | 54 |
| 65° | 12 | 10 | 8 | 8 | 8 | 14 |
| 75° | 2 | 2 | 2 | 3 | 3 | 2 |
| 85° | 0 | 0 | 0 | 0 | 1 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1059178

CATALOG NUMBER: S123RDR-S340D835-X4F0-XX-UDD-SVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 268.5 | 268.5 | 268.5 | 268.5 | 268.5 |
| 2.5° | 268.1 | 268.5 | 266.1 | 268.5 | 269.0 |
| 5° | 266.9 | 266.5 | 262.3 | 263.6 | 262.7 |
| 7.5° | 264.4 | 263.1 | 256.5 | 254.8 | 254.8 |
| 10° | 260.6 | 258.2 | 248.2 | 245.3 | 244.0 |
| 12.5° | 255.7 | 252.3 | 239.4 | 234.0 | 232.0 |
| 15° | 249.8 | 243.6 | 229.1 | 221.6 | 218.7 |
| 17.5° | 241.5 | 233.2 | 217.4 | 208.7 | 204.1 |
| 20° | 232.8 | 222.4 | 204.9 | 194.6 | 190.0 |
| 22.5° | 223.6 | 211.2 | 191.2 | 180.0 | 175.0 |
| 25° | 211.6 | 198.3 | 177.1 | 165.0 | 160.0 |
| 27.5° | 200.0 | 185.8 | 163.4 | 149.7 | 144.7 |
| 30° | 188.7 | 172.1 | 148.4 | 135.1 | 128.9 |
| 32.5° | 177.5 | 158.8 | 134.3 | 119.7 | 113.9 |
| 35° | 165.9 | 145.5 | 119.7 | 104.3 | 98.1 |
| 37.5° | 153.4 | 132.6 | 106.0 | 89.4 | 81.9 |
| 40° | 140.5 | 118.9 | 92.3 | 73.6 | 66.5 |
| 42.5° | 127.6 | 106.4 | 78.6 | 59.4 | 51.1 |
| 45° | 114.3 | 93.5 | 66.1 | 45.7 | 37.0 |
| 47.5° | 101.0 | 80.6 | 54.0 | 33.3 | 27.9 |
| 50° | 88.1 | 68.6 | 42.0 | 24.5 | 22.9 |
| 52.5° | 74.0 | 57.0 | 31.6 | 20.4 | 20.0 |
| 55° | 59.9 | 44.9 | 22.4 | 17.5 | 17.0 |
| 57.5° | 47.4 | 34.9 | 16.2 | 14.5 | 14.1 |
| 60° | 34.1 | 24.9 | 12.5 | 12.1 | 11.6 |
| 62.5° | 22.4 | 17.0 | 10.0 | 9.6 | 9.6 |
| 65° | 12.1 | 10.4 | 7.9 | 7.5 | 7.9 |
| 67.5° | 5.0 | 5.8 | 5.8 | 6.2 | 6.2 |
| 70° | 3.3 | 3.7 | 4.6 | 5.0 | 5.0 |
| 72.5° | 2.5 | 2.9 | 3.3 | 3.7 | 3.7 |
| 75° | 2.1 | 2.1 | 2.5 | 2.9 | 2.9 |
| 77.5° | 1.2 | 1.7 | 1.7 | 2.1 | 2.5 |
| 80° | 0.8 | 1.2 | 1.2 | 1.7 | 1.7 |
| 82.5° | 0.4 | 0.8 | 0.8 | 1.2 | 1.2 |
| 85° | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 |
| 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)