

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: P1059244

Luminaire Tested: S123RDR-S340D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059244
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S340D950-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

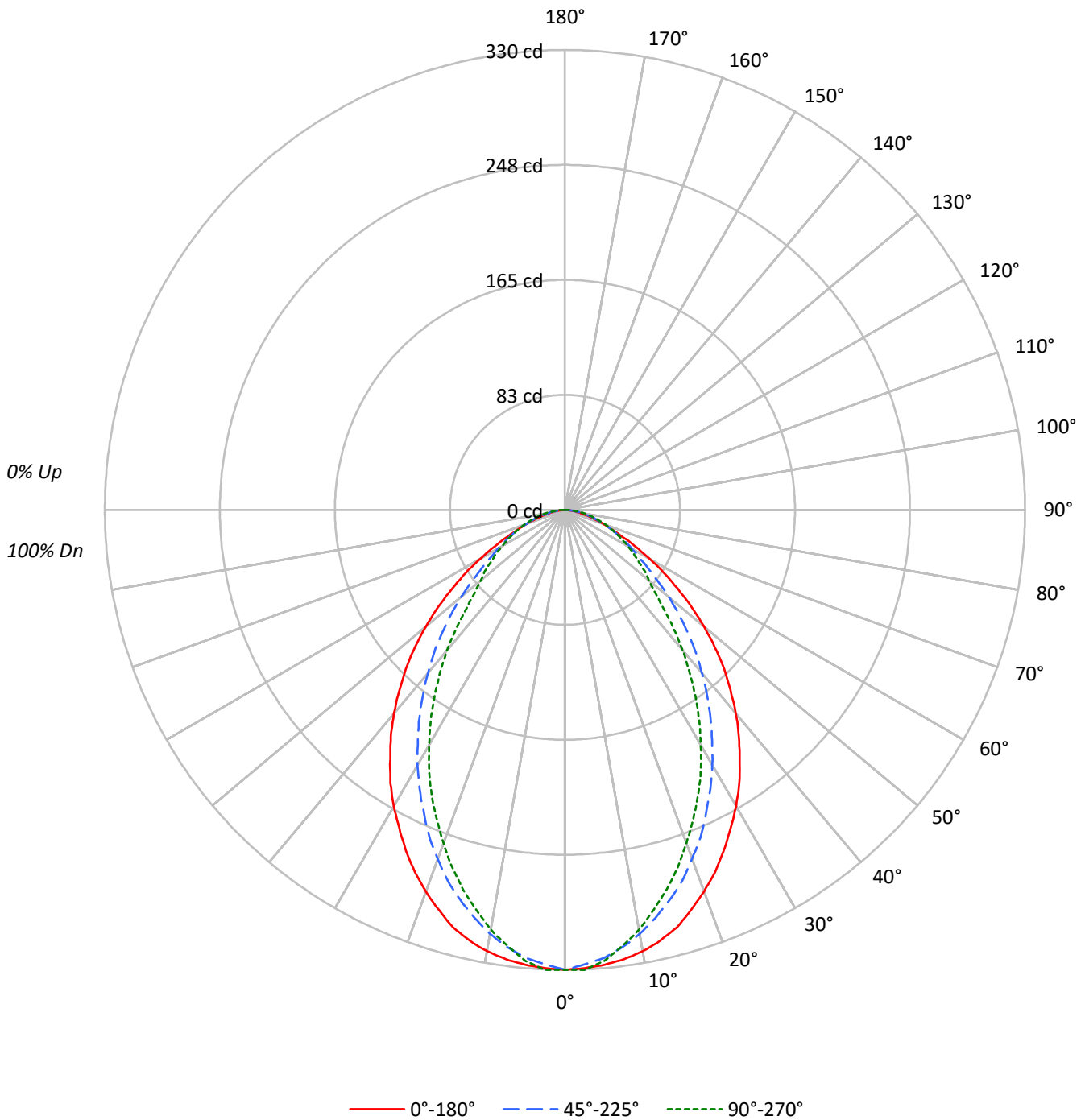
Lumens per Lamp: N/A
Luminaire Lumens: 577.1 lumens
Efficiency: N/A
Efficacy: 46.2 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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 | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 98 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 88 | | | | |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 80 | 84 | 81 | 78 | 76 | | | | |
| 3 | 94 | 85 | 78 | 73 | 92 | 84 | 77 | 72 | 81 | 75 | 71 | 78 | 73 | 69 | 76 | 72 | 68 | 66 | | | | |
| 4 | 87 | 77 | 69 | 63 | 85 | 76 | 68 | 63 | 73 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 | | | | |
| 5 | 81 | 70 | 62 | 56 | 79 | 69 | 61 | 56 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 54 | 52 | | | | |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 55 | 50 | 61 | 54 | 49 | 59 | 53 | 49 | 58 | 53 | 48 | 47 | | | | |
| 7 | 71 | 58 | 50 | 45 | 69 | 58 | 50 | 45 | 56 | 49 | 44 | 55 | 49 | 44 | 53 | 48 | 44 | 42 | | | | |
| 8 | 66 | 54 | 46 | 41 | 65 | 53 | 46 | 41 | 52 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 38 | | | | |
| 9 | 62 | 50 | 42 | 37 | 61 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 37 | 46 | 41 | 37 | 35 | | | | |
| 10 | 58 | 46 | 39 | 34 | 57 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 34 | 43 | 38 | 34 | 32 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3875 | 3875 | 3875 |
| 5° | 3862 | 3805 | 3829 |
| 10° | 3835 | 3683 | 3646 |
| 15° | 3770 | 3524 | 3428 |
| 20° | 3643 | 3330 | 3181 |
| 25° | 3494 | 3103 | 2928 |
| 30° | 3329 | 2866 | 2640 |
| 35° | 3132 | 2609 | 2337 |
| 40° | 2925 | 2341 | 2013 |
| 45° | 2680 | 2067 | 1652 |
| 50° | 2377 | 1776 | 1434 |
| 55° | 2021 | 1486 | 1314 |
| 60° | 1649 | 1294 | 1221 |
| 65° | 1256 | 1145 | 1134 |
| 70° | 982 | 1020 | 1061 |
| 75° | 789 | 916 | 989 |
| 80° | 588 | 751 | 913 |
| 85° | 323 | 485 | 795 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2680 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 30.6 | 5.3 |
| 10°-20° | 82.4 | 14.3 |
| 20°-30° | 112.0 | 19.4 |
| 30°-40° | 116.1 | 20.1 |
| 40°-50° | 97.9 | 17.0 |
| 50°-60° | 69.5 | 12.0 |
| 60°-70° | 42.5 | 7.4 |
| 70°-80° | 21.1 | 3.7 |
| 80°-90° | 4.8 | 0.8 |
| 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° | 225.1 | 39.0 |
| 0°-40° | 341.2 | 59.1 |
| 0°-60° | 508.7 | 88.1 |
| 0°-90° | 577.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 577.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 330 | 330 | 330 | 330 | 330 | |
| 5° | 328 | 328 | 323 | 325 | 325 | 31 |
| 15° | 310 | 304 | 290 | 285 | 282 | 87 |
| 25° | 270 | 258 | 240 | 231 | 226 | 124 |
| 35° | 218 | 202 | 182 | 169 | 163 | 137 |
| 45° | 161 | 144 | 124 | 108 | 100 | 124 |
| 55° | 99 | 88 | 73 | 66 | 64 | 89 |
| 65° | 45 | 44 | 41 | 41 | 41 | 46 |
| 75° | 17 | 19 | 20 | 21 | 22 | 19 |
| 85° | 2 | 3 | 4 | 5 | 6 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1059244

CATALOG NUMBER: S123RDR-S340D950-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 330.0 | 330.0 | 330.0 | 330.0 | 330.0 |
| 2.5° | 329.2 | 329.6 | 326.4 | 330.0 | 330.3 |
| 5° | 327.6 | 327.6 | 322.8 | 324.8 | 324.8 |
| 7.5° | 325.2 | 324.4 | 316.5 | 316.5 | 315.7 |
| 10° | 321.6 | 319.2 | 308.9 | 307.0 | 305.8 |
| 12.5° | 316.5 | 312.5 | 299.8 | 296.2 | 293.9 |
| 15° | 310.1 | 304.2 | 289.9 | 284.7 | 282.0 |
| 17.5° | 301.0 | 295.1 | 279.2 | 272.1 | 268.9 |
| 20° | 291.5 | 282.8 | 266.5 | 259.4 | 254.6 |
| 22.5° | 281.2 | 270.1 | 254.2 | 245.5 | 240.3 |
| 25° | 269.7 | 257.8 | 239.5 | 230.8 | 226.0 |
| 27.5° | 257.4 | 244.3 | 225.7 | 215.7 | 211.0 |
| 30° | 245.5 | 230.4 | 211.4 | 200.3 | 194.7 |
| 32.5° | 232.8 | 215.7 | 196.3 | 184.8 | 179.3 |
| 35° | 218.5 | 201.9 | 182.0 | 169.3 | 163.0 |
| 37.5° | 205.0 | 188.0 | 167.4 | 153.9 | 146.7 |
| 40° | 190.8 | 173.7 | 152.7 | 138.8 | 131.3 |
| 42.5° | 175.7 | 159.4 | 138.8 | 122.5 | 115.4 |
| 45° | 161.4 | 144.4 | 124.5 | 107.5 | 99.5 |
| 47.5° | 145.9 | 130.1 | 110.6 | 93.2 | 87.6 |
| 50° | 130.1 | 115.4 | 97.2 | 81.3 | 78.5 |
| 52.5° | 114.6 | 102.3 | 83.7 | 73.4 | 72.2 |
| 55° | 98.7 | 88.4 | 72.6 | 66.2 | 64.2 |
| 57.5° | 84.1 | 76.5 | 62.3 | 59.1 | 58.3 |
| 60° | 70.2 | 63.8 | 55.1 | 53.1 | 52.0 |
| 62.5° | 56.7 | 53.1 | 48.0 | 47.2 | 46.4 |
| 65° | 45.2 | 43.6 | 41.2 | 41.2 | 40.8 |
| 67.5° | 35.7 | 35.7 | 35.3 | 36.1 | 35.7 |
| 70° | 28.6 | 29.0 | 29.7 | 30.5 | 30.9 |
| 72.5° | 22.6 | 23.8 | 24.6 | 25.8 | 26.2 |
| 75° | 17.4 | 18.6 | 20.2 | 21.0 | 21.8 |
| 77.5° | 12.7 | 13.9 | 15.5 | 16.7 | 17.4 |
| 80° | 8.7 | 9.5 | 11.1 | 12.7 | 13.5 |
| 82.5° | 5.6 | 5.9 | 7.1 | 8.7 | 9.5 |
| 85° | 2.4 | 2.8 | 3.6 | 5.2 | 5.9 |
| 87.5° | 0.0 | 0.0 | 0.4 | 1.6 | 2.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)