

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: P1057894

Luminaire Tested: S122RDR-S290D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057894
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-S290D840-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

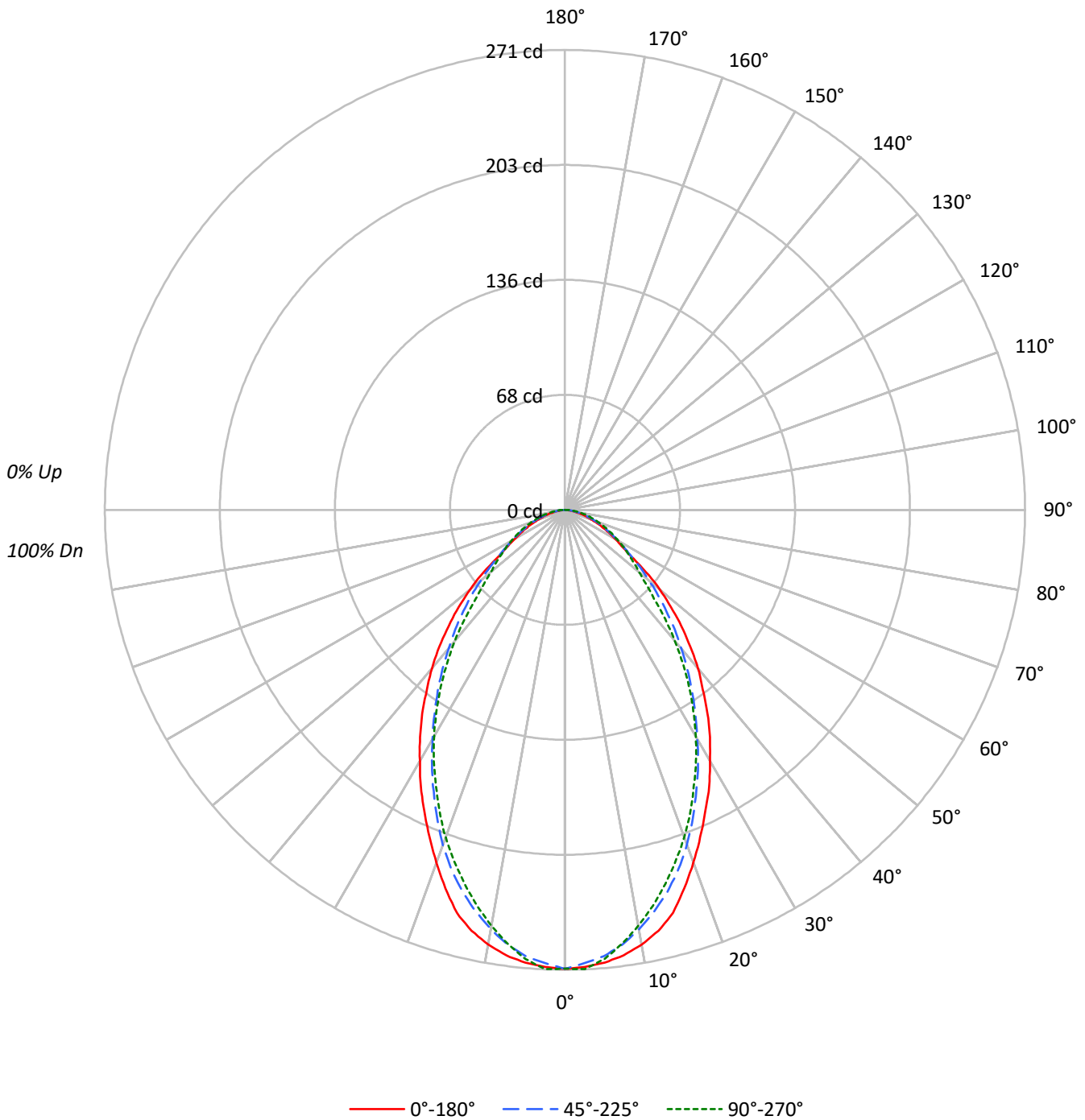
Lumens per Lamp: N/A
Luminaire Lumens: 410.7 lumens
Efficiency: N/A
Efficacy: 32.9 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1057894

CATALOG NUMBER: S122RDR-S290D840-X4F0-XX-UDD-WVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1057894

CATALOG NUMBER: S122RDR-S290D840-X4F0-XX-UDD-WVL-B

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 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 | | | | 88 |
| 2 | 103 | 96 | 91 | 86 | 100 | 94 | 89 | 85 | 91 | 87 | 83 | 88 | 84 | 81 | 85 | 82 | 79 | 77 | | | | 77 |
| 3 | 95 | 87 | 80 | 74 | 93 | 85 | 79 | 74 | 82 | 77 | 73 | 80 | 75 | 71 | 77 | 73 | 70 | 68 | | | | 68 |
| 4 | 89 | 79 | 71 | 65 | 87 | 77 | 70 | 65 | 75 | 69 | 64 | 73 | 68 | 63 | 71 | 66 | 63 | 61 | | | | 61 |
| 5 | 83 | 72 | 64 | 58 | 81 | 71 | 63 | 58 | 69 | 62 | 57 | 67 | 61 | 57 | 65 | 60 | 56 | 54 | | | | 54 |
| 6 | 77 | 66 | 58 | 52 | 75 | 65 | 57 | 52 | 63 | 56 | 52 | 61 | 56 | 51 | 60 | 55 | 51 | 49 | | | | 49 |
| 7 | 72 | 60 | 53 | 47 | 71 | 60 | 52 | 47 | 58 | 52 | 47 | 57 | 51 | 47 | 56 | 50 | 46 | 44 | | | | 44 |
| 8 | 68 | 56 | 48 | 43 | 66 | 55 | 48 | 43 | 54 | 47 | 43 | 53 | 47 | 43 | 52 | 46 | 42 | 41 | | | | 41 |
| 9 | 64 | 52 | 45 | 40 | 63 | 51 | 44 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 37 | | | | 37 |
| 10 | 60 | 48 | 41 | 36 | 59 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 45 | 40 | 36 | 34 | | | | 34 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4990 | 4990 | 4990 |
| 5° | 4960 | 4890 | 4922 |
| 10° | 4874 | 4703 | 4664 |
| 15° | 4698 | 4451 | 4359 |
| 20° | 4346 | 4126 | 4033 |
| 25° | 3989 | 3726 | 3657 |
| 30° | 3641 | 3322 | 3286 |
| 35° | 3298 | 2940 | 2872 |
| 40° | 2936 | 2563 | 2428 |
| 45° | 2529 | 2202 | 1944 |
| 50° | 2090 | 1854 | 1631 |
| 55° | 1509 | 1538 | 1467 |
| 60° | 1255 | 1318 | 1336 |
| 65° | 1070 | 1148 | 1223 |
| 70° | 885 | 1020 | 1117 |
| 75° | 734 | 863 | 1012 |
| 80° | 553 | 691 | 914 |
| 85° | 191 | 360 | 826 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2529 cd/sqm



TEST NUMBER: P1057894

CATALOG NUMBER: S122RDR-S290D840-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 25.0 | 6.1 |
| 10°-20° | 65.8 | 16.0 |
| 20°-30° | 85.2 | 20.7 |
| 30°-40° | 83.6 | 20.3 |
| 40°-50° | 65.8 | 16.0 |
| 50°-60° | 43.1 | 10.5 |
| 60°-70° | 26.3 | 6.4 |
| 70°-80° | 13.1 | 3.2 |
| 80°-90° | 2.8 | 0.7 |
| 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° | 176.0 | 42.9 |
| 0°-40° | 259.6 | 63.2 |
| 0°-60° | 368.5 | 89.7 |
| 0°-90° | 410.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 410.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 270 | 270 | 270 | 270 | 270 | |
| 5° | 268 | 268 | 264 | 266 | 266 | 25 |
| 15° | 246 | 242 | 233 | 230 | 228 | 68 |
| 25° | 196 | 190 | 183 | 182 | 180 | 90 |
| 35° | 146 | 138 | 130 | 130 | 128 | 91 |
| 45° | 97 | 91 | 84 | 78 | 74 | 75 |
| 55° | 47 | 50 | 48 | 46 | 46 | 45 |
| 65° | 24 | 25 | 26 | 28 | 28 | 24 |
| 75° | 10 | 11 | 12 | 14 | 14 | 11 |
| 85° | 1 | 1 | 2 | 3 | 4 | 2 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1057894

CATALOG NUMBER: S122RDR-S290D840-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 270.4 | 270.4 | 270.4 | 270.4 | 270.4 |
| 2.5° | 269.6 | 270.0 | 267.4 | 270.0 | 270.8 |
| 5° | 267.8 | 267.8 | 264.0 | 265.7 | 265.7 |
| 7.5° | 264.8 | 264.4 | 258.4 | 258.4 | 257.9 |
| 10° | 260.1 | 258.4 | 251.0 | 249.7 | 248.9 |
| 12.5° | 254.1 | 251.0 | 242.4 | 240.3 | 239.0 |
| 15° | 245.9 | 242.4 | 233.0 | 229.9 | 228.2 |
| 17.5° | 233.8 | 230.4 | 222.2 | 218.7 | 217.0 |
| 20° | 221.3 | 216.2 | 210.1 | 207.1 | 205.4 |
| 22.5° | 208.4 | 202.4 | 196.8 | 194.6 | 192.9 |
| 25° | 195.9 | 189.5 | 183.0 | 182.1 | 179.6 |
| 27.5° | 183.9 | 176.1 | 169.7 | 169.2 | 167.1 |
| 30° | 170.9 | 162.8 | 155.9 | 156.3 | 154.2 |
| 32.5° | 158.9 | 151.1 | 143.0 | 143.4 | 140.8 |
| 35° | 146.4 | 138.2 | 130.5 | 130.0 | 127.5 |
| 37.5° | 133.5 | 125.7 | 118.4 | 116.7 | 114.1 |
| 40° | 121.9 | 114.1 | 106.4 | 103.3 | 100.8 |
| 42.5° | 109.4 | 102.5 | 95.6 | 90.9 | 87.4 |
| 45° | 96.9 | 90.9 | 84.4 | 78.4 | 74.5 |
| 47.5° | 84.8 | 80.1 | 74.5 | 67.2 | 64.6 |
| 50° | 72.8 | 69.3 | 64.6 | 58.1 | 56.8 |
| 52.5° | 60.3 | 59.0 | 56.0 | 51.7 | 51.2 |
| 55° | 46.9 | 49.5 | 47.8 | 46.1 | 45.6 |
| 57.5° | 39.6 | 40.0 | 41.3 | 40.9 | 40.9 |
| 60° | 34.0 | 34.0 | 35.7 | 36.2 | 36.2 |
| 62.5° | 28.9 | 29.3 | 31.0 | 31.9 | 31.9 |
| 65° | 24.5 | 25.0 | 26.3 | 27.6 | 28.0 |
| 67.5° | 20.2 | 21.1 | 22.4 | 23.7 | 24.1 |
| 70° | 16.4 | 17.2 | 18.9 | 20.2 | 20.7 |
| 72.5° | 13.3 | 13.8 | 15.5 | 16.8 | 17.2 |
| 75° | 10.3 | 10.8 | 12.1 | 13.8 | 14.2 |
| 77.5° | 7.3 | 8.2 | 9.5 | 10.8 | 11.6 |
| 80° | 5.2 | 5.6 | 6.5 | 8.2 | 8.6 |
| 82.5° | 3.0 | 3.4 | 4.3 | 5.6 | 6.0 |
| 85° | 0.9 | 1.3 | 1.7 | 3.0 | 3.9 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.9 | 1.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)