

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059205

Luminaire Tested: S123RDRP-S340D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059205
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: S123RDRP-S340D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

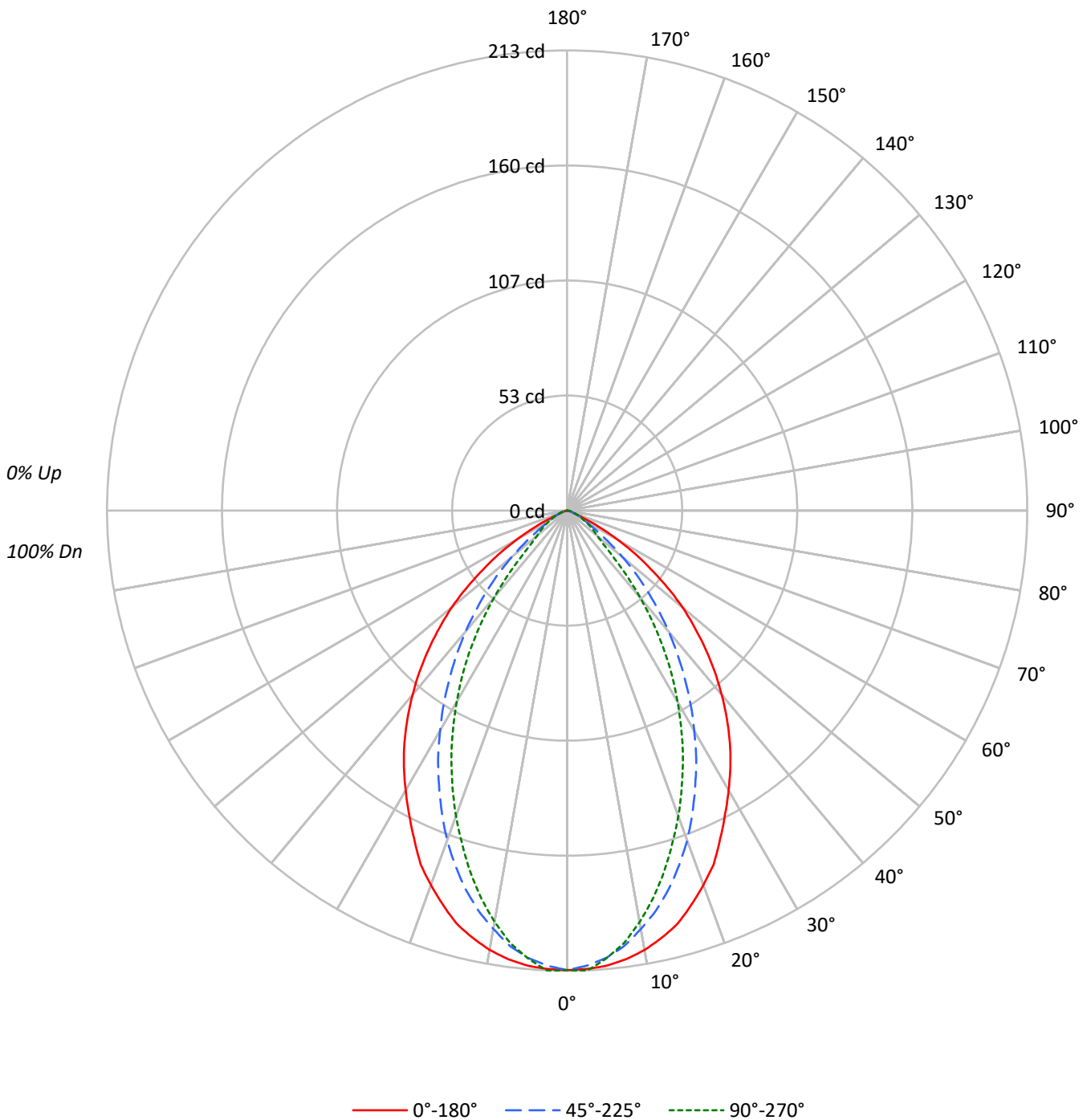
Lumens per Lamp: N/A
Luminaire Lumens: 274.6 lumens
Efficiency: N/A
Efficacy: 22.0 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1059205

CATALOG NUMBER: S123RDRP-S340D927-X4F0-XX-UDD-SVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1059205

CATALOG NUMBER: S123RDRP-S340D927-X4F0-XX-UDD-SVL-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 | 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 | 70 | 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 | 48 | 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° | 2498 | 2498 | 2498 |
| 5° | 2492 | 2449 | 2453 |
| 10° | 2462 | 2344 | 2305 |
| 15° | 2406 | 2206 | 2106 |
| 20° | 2304 | 2029 | 1881 |
| 25° | 2171 | 1818 | 1643 |
| 30° | 2027 | 1595 | 1384 |
| 35° | 1884 | 1359 | 1114 |
| 40° | 1706 | 1121 | 808 |
| 45° | 1505 | 870 | 487 |
| 50° | 1275 | 608 | 331 |
| 55° | 970 | 364 | 276 |
| 60° | 634 | 233 | 216 |
| 65° | 267 | 175 | 175 |
| 70° | 89 | 124 | 137 |
| 75° | 73 | 91 | 104 |
| 80° | 47 | 68 | 88 |
| 85° | 40 | 40 | 94 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1505 cd/sqm



TEST NUMBER: P1059205

CATALOG NUMBER: S123RDRP-S340D927-X4F0-XX-UDD-SVL-B

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 19.6 | 7.2 |
| 10°-20° | 51.4 | 18.7 |
| 20°-30° | 65.9 | 24.0 |
| 30°-40° | 61.9 | 22.5 |
| 40°-50° | 43.2 | 15.7 |
| 50°-60° | 22.3 | 8.1 |
| 60°-70° | 7.6 | 2.8 |
| 70°-80° | 2.2 | 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° | 137.0 | 49.9 |
| 0°-40° | 198.9 | 72.4 |
| 0°-60° | 264.4 | 96.3 |
| 0°-90° | 274.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 274.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 213 | 213 | 213 | 213 | 213 | |
| 5° | 211 | 211 | 208 | 209 | 208 | 20 |
| 15° | 198 | 193 | 182 | 176 | 173 | 55 |
| 25° | 168 | 157 | 140 | 131 | 127 | 77 |
| 35° | 131 | 115 | 95 | 83 | 78 | 82 |
| 45° | 91 | 74 | 52 | 36 | 29 | 70 |
| 55° | 47 | 36 | 18 | 14 | 14 | 43 |
| 65° | 10 | 8 | 6 | 6 | 6 | 11 |
| 75° | 2 | 2 | 2 | 2 | 2 | 2 |
| 85° | 0 | 0 | 0 | 0 | 1 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1059205

CATALOG NUMBER: S123RDRP-S340D927-X4F0-XX-UDD-SVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 212.7 | 212.7 | 212.7 | 212.7 | 212.7 |
| 2.5° | 212.4 | 212.7 | 210.8 | 212.7 | 213.1 |
| 5° | 211.4 | 211.1 | 207.8 | 208.8 | 208.1 |
| 7.5° | 209.4 | 208.5 | 203.2 | 201.9 | 201.9 |
| 10° | 206.5 | 204.5 | 196.6 | 194.3 | 193.3 |
| 12.5° | 202.5 | 199.9 | 189.7 | 185.4 | 183.8 |
| 15° | 197.9 | 193.0 | 181.5 | 175.5 | 173.2 |
| 17.5° | 191.3 | 184.7 | 172.2 | 165.3 | 161.7 |
| 20° | 184.4 | 176.2 | 162.4 | 154.1 | 150.5 |
| 22.5° | 177.2 | 167.3 | 151.5 | 142.6 | 138.6 |
| 25° | 167.6 | 157.1 | 140.3 | 130.7 | 126.8 |
| 27.5° | 158.4 | 147.2 | 129.4 | 118.6 | 114.6 |
| 30° | 149.5 | 136.3 | 117.6 | 107.0 | 102.1 |
| 32.5° | 140.6 | 125.8 | 106.4 | 94.8 | 90.2 |
| 35° | 131.4 | 115.3 | 94.8 | 82.7 | 77.7 |
| 37.5° | 121.5 | 105.1 | 84.0 | 70.8 | 64.9 |
| 40° | 111.3 | 94.2 | 73.1 | 58.3 | 52.7 |
| 42.5° | 101.1 | 84.3 | 62.2 | 47.1 | 40.5 |
| 45° | 90.6 | 74.1 | 52.4 | 36.2 | 29.3 |
| 47.5° | 80.0 | 63.9 | 42.8 | 26.3 | 22.1 |
| 50° | 69.8 | 54.3 | 33.3 | 19.4 | 18.1 |
| 52.5° | 58.6 | 45.1 | 25.0 | 16.1 | 15.8 |
| 55° | 47.4 | 35.6 | 17.8 | 13.8 | 13.5 |
| 57.5° | 37.5 | 27.7 | 12.8 | 11.5 | 11.2 |
| 60° | 27.0 | 19.8 | 9.9 | 9.6 | 9.2 |
| 62.5° | 17.8 | 13.5 | 7.9 | 7.6 | 7.6 |
| 65° | 9.6 | 8.2 | 6.3 | 5.9 | 6.3 |
| 67.5° | 4.0 | 4.6 | 4.6 | 4.9 | 4.9 |
| 70° | 2.6 | 3.0 | 3.6 | 4.0 | 4.0 |
| 72.5° | 2.0 | 2.3 | 2.6 | 3.0 | 3.0 |
| 75° | 1.6 | 1.6 | 2.0 | 2.3 | 2.3 |
| 77.5° | 1.0 | 1.3 | 1.3 | 1.6 | 2.0 |
| 80° | 0.7 | 1.0 | 1.0 | 1.3 | 1.3 |
| 82.5° | 0.3 | 0.7 | 0.7 | 1.0 | 1.0 |
| 85° | 0.3 | 0.3 | 0.3 | 0.3 | 0.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P1059205
 CATALOG NUMBER: S123RDRP-S340D927-X4F0-XX-UDD-SVL-B

CIE UGR TABLE:

| Reflectances: | | | | | | | | | | | |
|-----------------|------|------------------|-------|------|-------|-------|----------------|------|------|------|------|
| Ceiling | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X=2H | Y=2H | 9.52 | 10.78 | 9.88 | 11.09 | 11.41 | 3.01 | 4.27 | 3.37 | 4.58 | 4.90 |
| | 3H | 9.47 | 10.58 | 9.85 | 10.91 | 11.28 | 3.79 | 4.89 | 4.17 | 5.23 | 5.59 |
| | 4H | 9.42 | 10.45 | 9.82 | 10.80 | 11.18 | 3.99 | 5.02 | 4.39 | 5.37 | 5.76 |
| | 6H | 9.35 | 10.29 | 9.77 | 10.66 | 11.06 | 4.13 | 5.08 | 4.55 | 5.45 | 5.84 |
| | 8H | 9.31 | 10.20 | 9.74 | 10.59 | 11.00 | 4.17 | 5.06 | 4.60 | 5.45 | 5.86 |
| | 12H | 9.26 | 10.11 | 9.70 | 10.50 | 10.93 | 4.19 | 5.04 | 4.62 | 5.43 | 5.86 |
| 4H | 2H | 9.37 | 10.40 | 9.77 | 10.75 | 11.13 | 3.27 | 4.30 | 3.68 | 4.65 | 5.04 |
| | 3H | 9.35 | 10.19 | 9.77 | 10.59 | 11.00 | 4.18 | 5.02 | 4.60 | 5.42 | 5.83 |
| | 4H | 9.30 | 10.04 | 9.73 | 10.46 | 10.91 | 4.46 | 5.20 | 4.89 | 5.62 | 6.06 |
| | 6H | 9.24 | 9.88 | 9.71 | 10.33 | 10.80 | 4.67 | 5.31 | 5.13 | 5.75 | 6.22 |
| | 8H | 9.19 | 9.78 | 9.66 | 10.23 | 10.71 | 4.73 | 5.32 | 5.20 | 5.77 | 6.25 |
| | 12H | 9.14 | 9.67 | 9.63 | 10.15 | 10.63 | 4.77 | 5.30 | 5.26 | 5.78 | 6.26 |
| 8H | 4H | 9.19 | 9.78 | 9.66 | 10.23 | 10.70 | 4.44 | 5.03 | 4.91 | 5.48 | 5.95 |
| | 6H | 9.12 | 9.61 | 9.63 | 10.11 | 10.59 | 4.70 | 5.19 | 5.21 | 5.68 | 6.17 |
| | 8H | 9.07 | 9.51 | 9.60 | 10.03 | 10.52 | 4.81 | 5.25 | 5.34 | 5.76 | 6.26 |
| | 12H | 9.04 | 9.42 | 9.55 | 9.92 | 10.49 | 4.89 | 5.27 | 5.41 | 5.77 | 6.34 |
| 12H | 4H | 9.14 | 9.66 | 9.63 | 10.15 | 10.62 | 4.40 | 4.92 | 4.89 | 5.41 | 5.88 |
| | 6H | 9.07 | 9.50 | 9.59 | 10.02 | 10.51 | 4.66 | 5.10 | 5.19 | 5.62 | 6.11 |
| | 8H | 9.04 | 9.42 | 9.55 | 9.92 | 10.49 | 4.81 | 5.19 | 5.32 | 5.69 | 6.26 |