

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: P1059169

Luminaire Tested: S123RDRP-S340D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059169
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-S340D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

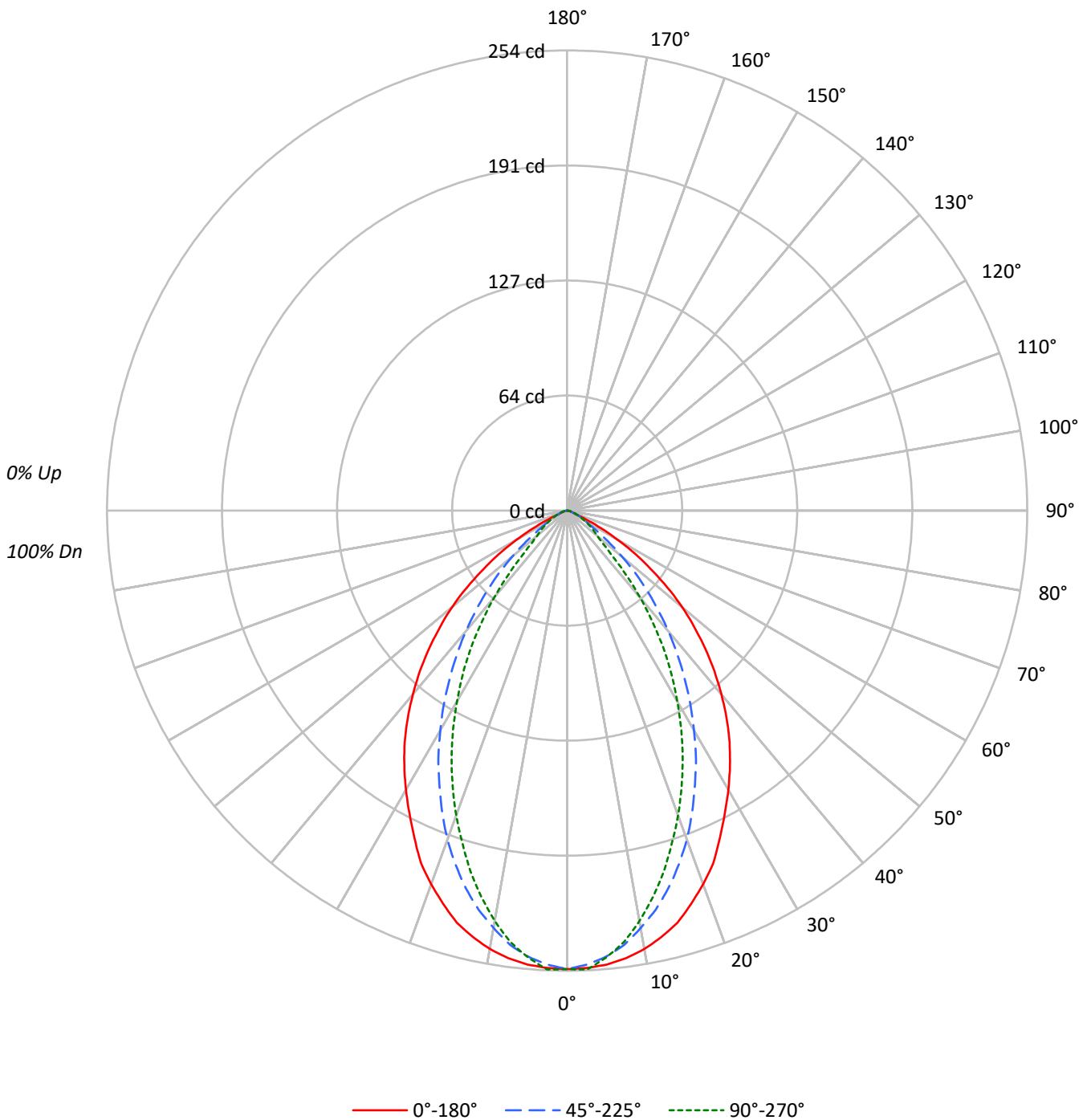
Lumens per Lamp: N/A
Luminaire Lumens: 326.8 lumens
Efficiency: N/A
Efficacy: 26.1 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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 | 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 | 47 | 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° | 2972 | 2972 | 2972 |
| 5° | 2965 | 2914 | 2919 |
| 10° | 2930 | 2789 | 2742 |
| 15° | 2863 | 2625 | 2505 |
| 20° | 2742 | 2414 | 2238 |
| 25° | 2583 | 2162 | 1955 |
| 30° | 2412 | 1897 | 1647 |
| 35° | 2241 | 1617 | 1326 |
| 40° | 2030 | 1334 | 961 |
| 45° | 1790 | 1035 | 580 |
| 50° | 1518 | 723 | 395 |
| 55° | 1155 | 434 | 330 |
| 60° | 754 | 277 | 258 |
| 65° | 317 | 206 | 206 |
| 70° | 106 | 148 | 161 |
| 75° | 91 | 109 | 122 |
| 80° | 54 | 81 | 108 |
| 85° | 54 | 54 | 108 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1790 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 23.4 | 7.2 |
| 10°-20° | 61.2 | 18.7 |
| 20°-30° | 78.5 | 24.0 |
| 30°-40° | 73.6 | 22.5 |
| 40°-50° | 51.4 | 15.7 |
| 50°-60° | 26.6 | 8.1 |
| 60°-70° | 9.1 | 2.8 |
| 70°-80° | 2.6 | 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° | 163.0 | 49.9 |
| 0°-40° | 236.6 | 72.4 |
| 0°-60° | 314.6 | 96.3 |
| 0°-90° | 326.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 326.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 253 | 253 | 253 | 253 | 253 | |
| 5° | 252 | 251 | 247 | 248 | 248 | 24 |
| 15° | 236 | 230 | 216 | 209 | 206 | 66 |
| 25° | 199 | 187 | 167 | 156 | 151 | 92 |
| 35° | 156 | 137 | 113 | 98 | 92 | 97 |
| 45° | 108 | 88 | 62 | 43 | 35 | 83 |
| 55° | 56 | 42 | 21 | 16 | 16 | 51 |
| 65° | 11 | 10 | 7 | 7 | 7 | 13 |
| 75° | 2 | 2 | 2 | 3 | 3 | 2 |
| 85° | 0 | 0 | 0 | 0 | 1 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: S123RDRP-S340D830-X4F0-XX-UDD-SVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 253.1 | 253.1 | 253.1 | 253.1 | 253.1 |
| 2.5° | 252.7 | 253.1 | 250.8 | 253.1 | 253.5 |
| 5° | 251.5 | 251.2 | 247.2 | 248.4 | 247.6 |
| 7.5° | 249.2 | 248.0 | 241.8 | 240.2 | 240.2 |
| 10° | 245.7 | 243.3 | 233.9 | 231.2 | 230.0 |
| 12.5° | 241.0 | 237.8 | 225.7 | 220.6 | 218.6 |
| 15° | 235.5 | 229.6 | 215.9 | 208.8 | 206.1 |
| 17.5° | 227.6 | 219.8 | 204.9 | 196.7 | 192.4 |
| 20° | 219.4 | 209.6 | 193.2 | 183.4 | 179.1 |
| 22.5° | 210.8 | 199.0 | 180.2 | 169.7 | 165.0 |
| 25° | 199.4 | 186.9 | 166.9 | 155.6 | 150.9 |
| 27.5° | 188.5 | 175.1 | 154.0 | 141.1 | 136.4 |
| 30° | 177.9 | 162.2 | 139.9 | 127.3 | 121.5 |
| 32.5° | 167.3 | 149.7 | 126.6 | 112.8 | 107.4 |
| 35° | 156.3 | 137.1 | 112.8 | 98.3 | 92.5 |
| 37.5° | 144.6 | 125.0 | 99.9 | 84.2 | 77.2 |
| 40° | 132.4 | 112.1 | 87.0 | 69.4 | 62.7 |
| 42.5° | 120.3 | 100.3 | 74.1 | 56.0 | 48.2 |
| 45° | 107.8 | 88.2 | 62.3 | 43.1 | 34.9 |
| 47.5° | 95.2 | 76.0 | 50.9 | 31.3 | 26.3 |
| 50° | 83.1 | 64.7 | 39.6 | 23.1 | 21.6 |
| 52.5° | 69.7 | 53.7 | 29.8 | 19.2 | 18.8 |
| 55° | 56.4 | 42.3 | 21.2 | 16.5 | 16.1 |
| 57.5° | 44.7 | 32.9 | 15.3 | 13.7 | 13.3 |
| 60° | 32.1 | 23.5 | 11.8 | 11.4 | 11.0 |
| 62.5° | 21.2 | 16.1 | 9.4 | 9.0 | 9.0 |
| 65° | 11.4 | 9.8 | 7.4 | 7.1 | 7.4 |
| 67.5° | 4.7 | 5.5 | 5.5 | 5.9 | 5.9 |
| 70° | 3.1 | 3.5 | 4.3 | 4.7 | 4.7 |
| 72.5° | 2.4 | 2.7 | 3.1 | 3.5 | 3.5 |
| 75° | 2.0 | 2.0 | 2.4 | 2.7 | 2.7 |
| 77.5° | 1.2 | 1.6 | 1.6 | 2.0 | 2.4 |
| 80° | 0.8 | 1.2 | 1.2 | 1.6 | 1.6 |
| 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 |

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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 | 10.12 | 11.38 | 10.48 | 11.69 | 12.00 | 3.62 | 4.88 | 3.98 | 5.19 | 5.50 |
| | 3H | 10.07 | 11.18 | 10.45 | 11.51 | 11.87 | 4.40 | 5.51 | 4.78 | 5.84 | 6.20 |
| | 4H | 10.02 | 11.05 | 10.42 | 11.40 | 11.78 | 4.59 | 5.62 | 5.00 | 5.97 | 6.36 |
| | 6H | 9.95 | 10.89 | 10.36 | 11.26 | 11.66 | 4.74 | 5.69 | 5.16 | 6.06 | 6.45 |
| | 8H | 9.90 | 10.80 | 10.34 | 11.19 | 11.59 | 4.78 | 5.68 | 5.22 | 6.07 | 6.47 |
| | 12H | 9.86 | 10.71 | 10.29 | 11.10 | 11.53 | 4.80 | 5.66 | 5.24 | 6.04 | 6.47 |
| 4H | 2H | 9.96 | 10.99 | 10.36 | 11.34 | 11.73 | 3.87 | 4.90 | 4.27 | 5.25 | 5.63 |
| | 3H | 9.95 | 10.78 | 10.36 | 11.19 | 11.59 | 4.78 | 5.62 | 5.19 | 6.02 | 6.42 |
| | 4H | 9.90 | 10.64 | 10.33 | 11.06 | 11.50 | 5.05 | 5.79 | 5.48 | 6.21 | 6.65 |
| | 6H | 9.84 | 10.48 | 10.30 | 10.92 | 11.39 | 5.27 | 5.91 | 5.74 | 6.36 | 6.83 |
| | 8H | 9.79 | 10.38 | 10.26 | 10.83 | 11.30 | 5.34 | 5.94 | 5.81 | 6.38 | 6.86 |
| | 12H | 9.74 | 10.27 | 10.23 | 10.75 | 11.23 | 5.38 | 5.91 | 5.87 | 6.39 | 6.87 |
| 8H | 4H | 9.78 | 10.38 | 10.25 | 10.83 | 11.30 | 5.03 | 5.63 | 5.50 | 6.07 | 6.55 |
| | 6H | 9.72 | 10.21 | 10.23 | 10.70 | 11.19 | 5.32 | 5.80 | 5.82 | 6.30 | 6.78 |
| | 8H | 9.67 | 10.11 | 10.20 | 10.62 | 11.12 | 5.43 | 5.87 | 5.96 | 6.38 | 6.88 |
| | 12H | 9.63 | 10.02 | 10.15 | 10.52 | 11.09 | 5.51 | 5.89 | 6.03 | 6.39 | 6.96 |
| 12H | 4H | 9.74 | 10.26 | 10.22 | 10.75 | 11.22 | 5.00 | 5.52 | 5.48 | 6.00 | 6.48 |
| | 6H | 9.66 | 10.10 | 10.19 | 10.62 | 11.11 | 5.28 | 5.71 | 5.80 | 6.23 | 6.73 |
| | 8H | 9.64 | 10.02 | 10.15 | 10.52 | 11.09 | 5.43 | 5.81 | 5.94 | 6.31 | 6.88 |