

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: P1058507

Luminaire Tested: S122RDRP-H675D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058507
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H675D940-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

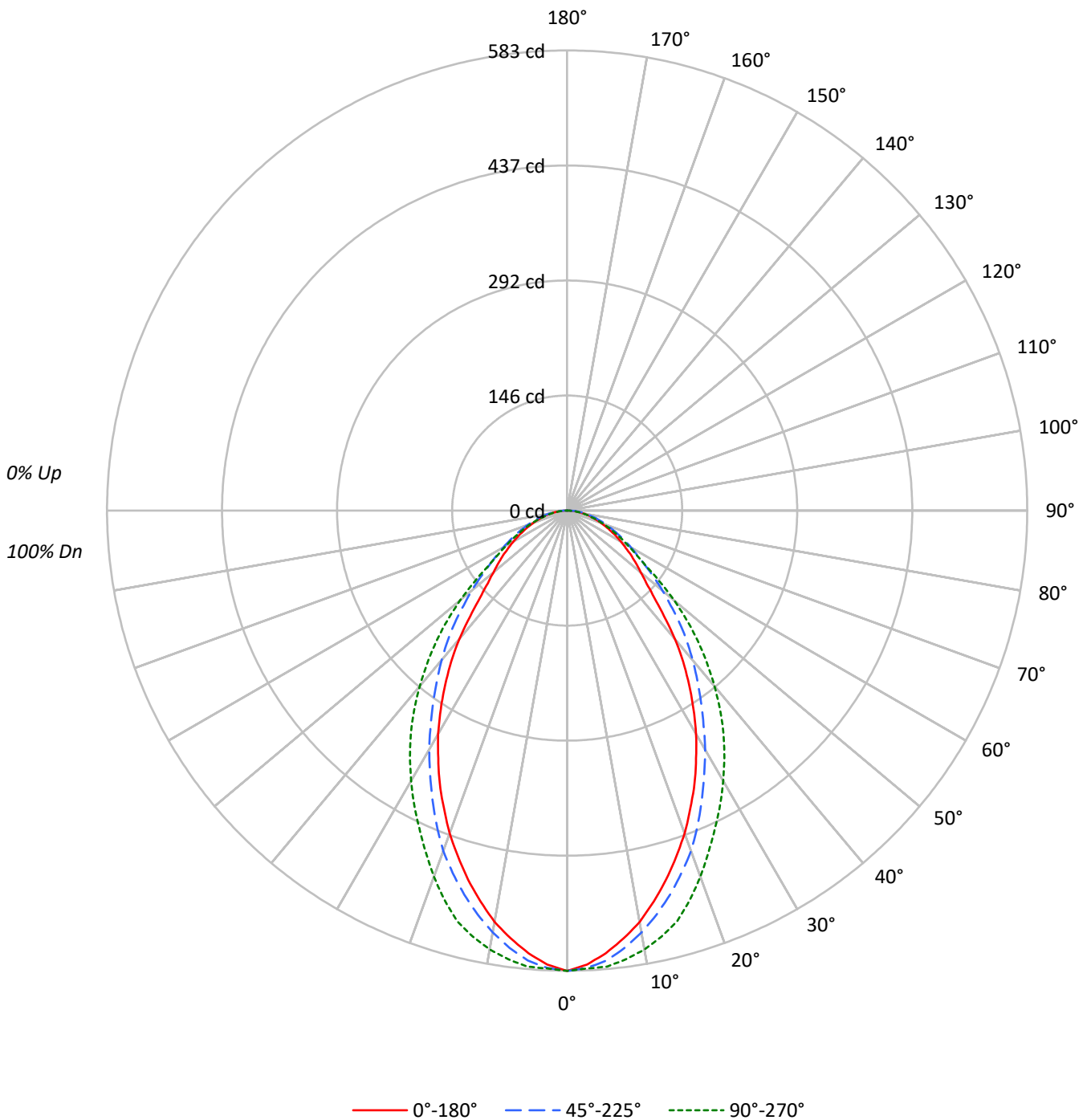
Lumens per Lamp: N/A
Luminaire Lumens: 949.8 lumens
Efficiency: N/A
Efficacy: 40.4 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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

TEST NUMBER: P1058507

CATALOG NUMBER: S122RDRP-H675D940-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1058507

CATALOG NUMBER: S122RDRP-H675D940-X4F0-XX-UDD-WVL-S

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 | 110 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 79 | 84 | 80 | 78 | 76 |
| 3 | 94 | 85 | 78 | 73 | 92 | 84 | 77 | 72 | 81 | 75 | 71 | 78 | 73 | 69 | 76 | 72 | 68 | 66 |
| 4 | 88 | 77 | 69 | 63 | 85 | 76 | 69 | 63 | 73 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 61 | 59 |
| 5 | 81 | 70 | 62 | 56 | 79 | 69 | 61 | 56 | 67 | 60 | 55 | 65 | 59 | 55 | 63 | 58 | 54 | 52 |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 56 | 50 | 61 | 55 | 50 | 60 | 54 | 49 | 58 | 53 | 49 | 47 |
| 7 | 71 | 59 | 51 | 45 | 69 | 58 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 44 | 43 |
| 8 | 67 | 54 | 47 | 41 | 65 | 54 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 |
| 9 | 63 | 50 | 43 | 38 | 61 | 50 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 37 | 47 | 41 | 37 | 36 |
| 10 | 59 | 47 | 40 | 35 | 58 | 46 | 39 | 35 | 45 | 39 | 35 | 45 | 39 | 34 | 44 | 38 | 34 | 33 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10761 | 10761 | 10761 |
| 5° | 10427 | 10599 | 10741 |
| 10° | 9914 | 10167 | 10579 |
| 15° | 9250 | 9622 | 10285 |
| 20° | 8544 | 9009 | 9691 |
| 25° | 7773 | 8221 | 9032 |
| 30° | 6963 | 7449 | 8423 |
| 35° | 6064 | 6654 | 7781 |
| 40° | 5119 | 5955 | 6995 |
| 45° | 4066 | 5258 | 6119 |
| 50° | 3499 | 4521 | 5078 |
| 55° | 3185 | 3867 | 3896 |
| 60° | 2904 | 3436 | 3310 |
| 65° | 2659 | 3104 | 2921 |
| 70° | 2466 | 2876 | 2606 |
| 75° | 2296 | 2716 | 2296 |
| 80° | 2157 | 2603 | 2072 |
| 85° | 2160 | 2689 | 1800 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6119 cd/sqm



TEST NUMBER: P1058507

CATALOG NUMBER: S122RDRP-H675D940-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 53.8 | 5.7 |
| 10°-20° | 142.3 | 15.0 |
| 20°-30° | 187.3 | 19.7 |
| 30°-40° | 188.4 | 19.8 |
| 40°-50° | 152.7 | 16.1 |
| 50°-60° | 105.1 | 11.1 |
| 60°-70° | 68.8 | 7.2 |
| 70°-80° | 38.4 | 4.0 |
| 80°-90° | 13.0 | 1.4 |
| 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° | 383.5 | 40.4 |
| 0°-40° | 571.8 | 60.2 |
| 0°-60° | 829.6 | 87.4 |
| 0°-90° | 949.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 949.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 583 | 583 | 583 | 583 | 583 | |
| 5° | 563 | 574 | 572 | 575 | 580 | 53 |
| 15° | 484 | 496 | 504 | 522 | 538 | 136 |
| 25° | 382 | 392 | 404 | 422 | 444 | 175 |
| 35° | 269 | 282 | 295 | 322 | 345 | 168 |
| 45° | 156 | 174 | 202 | 219 | 234 | 123 |
| 55° | 99 | 110 | 120 | 123 | 121 | 89 |
| 65° | 61 | 73 | 71 | 68 | 67 | 61 |
| 75° | 32 | 40 | 38 | 34 | 32 | 34 |
| 85° | 10 | 14 | 13 | 11 | 8 | 11 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1058507

CATALOG NUMBER: S122RDRP-H675D940-X4F0-XX-UDD-WVL-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 583.2 | 583.2 | 583.2 | 583.2 | 583.2 |
| 2.5° | 575.6 | 585.8 | 579.9 | 579.9 | 580.7 |
| 5° | 562.9 | 573.9 | 572.2 | 574.8 | 579.9 |
| 7.5° | 546.8 | 558.7 | 558.7 | 566.3 | 573.1 |
| 10° | 529.1 | 540.9 | 542.6 | 554.5 | 564.6 |
| 12.5° | 507.1 | 518.9 | 524.0 | 539.2 | 552.8 |
| 15° | 484.2 | 496.1 | 503.7 | 522.3 | 538.4 |
| 17.5° | 459.7 | 471.5 | 481.7 | 501.1 | 517.2 |
| 20° | 435.1 | 446.1 | 458.8 | 475.7 | 493.5 |
| 22.5° | 408.0 | 419.9 | 431.7 | 447.8 | 468.1 |
| 25° | 381.8 | 391.9 | 403.8 | 421.6 | 443.6 |
| 27.5° | 353.8 | 364.8 | 375.9 | 397.0 | 419.9 |
| 30° | 326.8 | 337.8 | 349.6 | 371.6 | 395.3 |
| 32.5° | 298.0 | 309.8 | 321.7 | 346.2 | 370.8 |
| 35° | 269.2 | 281.9 | 295.4 | 321.7 | 345.4 |
| 37.5° | 241.3 | 254.8 | 270.9 | 298.0 | 318.3 |
| 40° | 212.5 | 226.9 | 247.2 | 270.9 | 290.4 |
| 42.5° | 182.0 | 199.8 | 224.3 | 244.6 | 262.4 |
| 45° | 155.8 | 173.5 | 201.5 | 219.2 | 234.5 |
| 47.5° | 136.3 | 150.7 | 177.8 | 193.0 | 205.7 |
| 50° | 121.9 | 132.9 | 157.5 | 168.5 | 176.9 |
| 52.5° | 110.0 | 121.1 | 138.0 | 145.6 | 148.1 |
| 55° | 99.0 | 110.0 | 120.2 | 122.7 | 121.1 |
| 57.5° | 88.0 | 99.9 | 105.8 | 103.3 | 103.3 |
| 60° | 78.7 | 91.4 | 93.1 | 89.7 | 89.7 |
| 62.5° | 69.4 | 82.1 | 82.1 | 77.9 | 77.9 |
| 65° | 60.9 | 72.8 | 71.1 | 67.7 | 66.9 |
| 67.5° | 53.3 | 64.3 | 61.8 | 58.4 | 57.6 |
| 70° | 45.7 | 55.9 | 53.3 | 49.1 | 48.3 |
| 72.5° | 38.9 | 48.3 | 44.9 | 41.5 | 39.8 |
| 75° | 32.2 | 39.8 | 38.1 | 33.9 | 32.2 |
| 77.5° | 26.2 | 32.2 | 30.5 | 27.1 | 25.4 |
| 80° | 20.3 | 25.4 | 24.5 | 21.2 | 19.5 |
| 82.5° | 15.2 | 19.5 | 18.6 | 16.1 | 13.5 |
| 85° | 10.2 | 13.5 | 12.7 | 11.0 | 8.5 |
| 87.5° | 5.1 | 9.3 | 8.5 | 7.6 | 4.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P1058507
 CATALOG NUMBER: S122RDRP-H675D940-X4F0-XX-UDD-WVL-S

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 | 14.98 | 16.43 | 15.35 | 16.74 | 17.05 | 15.35 | 16.79 | 15.71 | 17.10 | 17.41 |
| | 3H | 16.53 | 17.82 | 16.91 | 18.15 | 18.51 | 16.69 | 17.98 | 17.07 | 18.31 | 18.67 |
| | 4H | 17.10 | 18.31 | 17.50 | 18.66 | 19.04 | 17.18 | 18.38 | 17.58 | 18.73 | 19.11 |
| | 6H | 17.53 | 18.64 | 17.94 | 19.01 | 19.41 | 17.53 | 18.64 | 17.94 | 19.01 | 19.41 |
| | 8H | 17.68 | 18.74 | 18.11 | 19.13 | 19.54 | 17.65 | 18.71 | 18.07 | 19.10 | 19.50 |
| | 12H | 17.80 | 18.81 | 18.23 | 19.20 | 19.62 | 17.72 | 18.74 | 18.15 | 19.12 | 19.55 |
| 4H | 2H | 15.57 | 16.78 | 15.97 | 17.13 | 17.51 | 15.86 | 17.07 | 16.26 | 17.42 | 17.80 |
| | 3H | 17.39 | 18.39 | 17.80 | 18.79 | 19.20 | 17.43 | 18.43 | 17.84 | 18.84 | 19.24 |
| | 4H | 18.14 | 19.04 | 18.57 | 19.46 | 19.90 | 18.04 | 18.94 | 18.47 | 19.36 | 19.80 |
| | 6H | 18.73 | 19.51 | 19.19 | 19.95 | 20.42 | 18.52 | 19.30 | 18.98 | 19.75 | 20.21 |
| | 8H | 18.94 | 19.67 | 19.40 | 20.11 | 20.58 | 18.68 | 19.42 | 19.15 | 19.86 | 20.33 |
| | 12H | 19.10 | 19.76 | 19.59 | 20.24 | 20.71 | 18.81 | 19.46 | 19.29 | 19.94 | 20.41 |
| 8H | 4H | 18.42 | 19.16 | 18.89 | 19.60 | 20.07 | 18.34 | 19.07 | 18.80 | 19.52 | 19.98 |
| | 6H | 19.18 | 19.79 | 19.68 | 20.28 | 20.76 | 18.96 | 19.56 | 19.46 | 20.05 | 20.53 |
| | 8H | 19.50 | 20.05 | 20.02 | 20.56 | 21.05 | 19.21 | 19.75 | 19.72 | 20.26 | 20.75 |
| | 12H | 19.79 | 20.27 | 20.30 | 20.76 | 21.33 | 19.42 | 19.90 | 19.93 | 20.39 | 20.96 |
| 12H | 4H | 18.44 | 19.10 | 18.93 | 19.58 | 20.05 | 18.37 | 19.03 | 18.86 | 19.51 | 19.98 |
| | 6H | 19.24 | 19.78 | 19.76 | 20.30 | 20.78 | 19.03 | 19.58 | 19.55 | 20.09 | 20.58 |
| | 8H | 19.64 | 20.12 | 20.15 | 20.61 | 21.18 | 19.35 | 19.83 | 19.86 | 20.33 | 20.89 |