

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: P1058494

Luminaire Tested: S122RDRP-H675D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058494
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H675D935-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

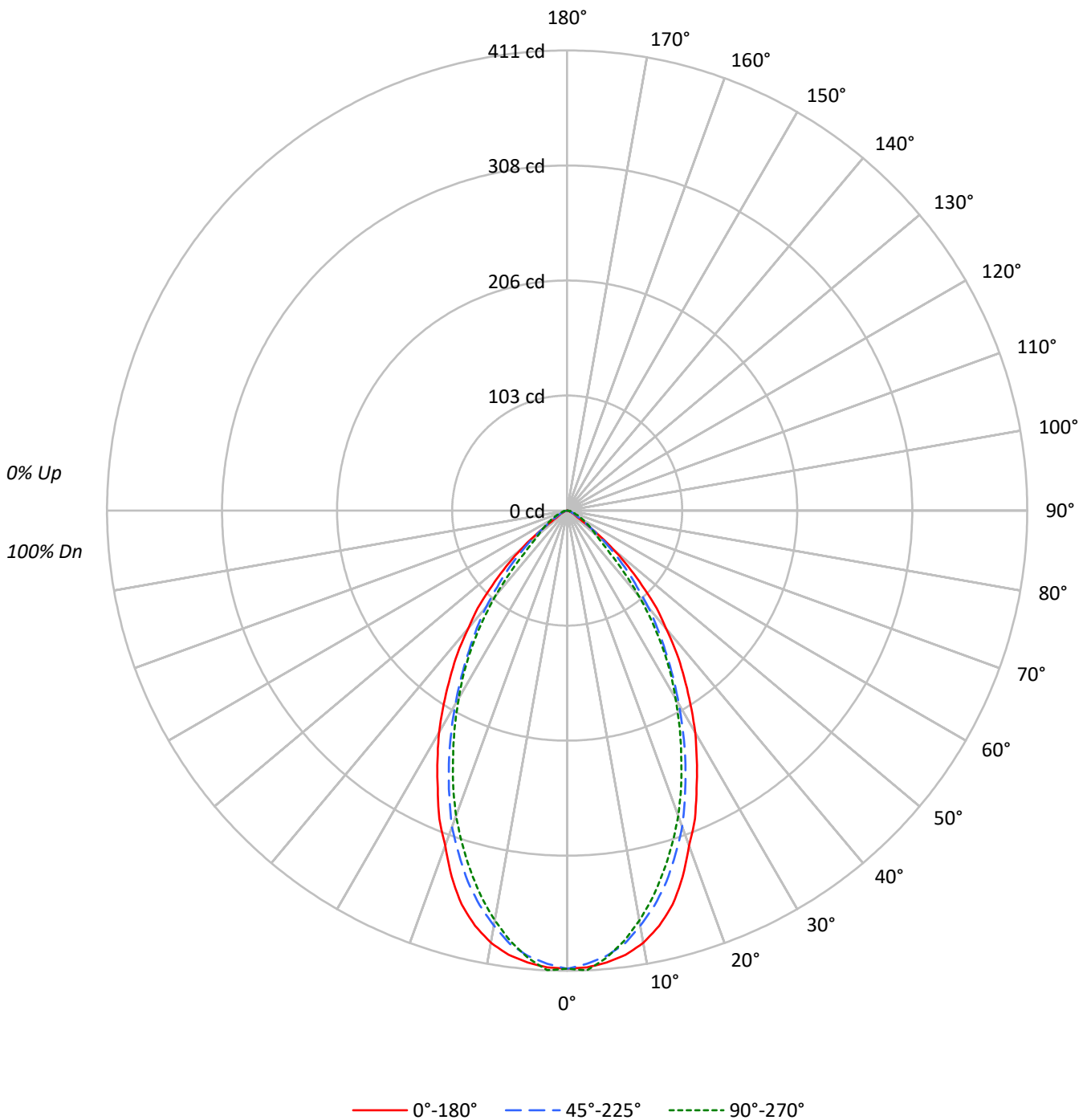
Lumens per Lamp: N/A
Luminaire Lumens: 440.1 lumens
Efficiency: N/A
Efficacy: 18.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

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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 | 113 | 110 | 107 | 104 | 110 | 107 | 105 | 103 | 103 | 101 | 99 | 100 | 98 | 96 | 96 | 95 | 94 | 92 |
| 2 | 106 | 101 | 96 | 92 | 104 | 99 | 95 | 91 | 96 | 92 | 89 | 93 | 90 | 87 | 90 | 87 | 85 | 84 |
| 3 | 100 | 93 | 87 | 82 | 98 | 91 | 86 | 82 | 88 | 84 | 80 | 86 | 82 | 79 | 84 | 80 | 78 | 76 |
| 4 | 94 | 85 | 79 | 74 | 92 | 84 | 78 | 74 | 82 | 77 | 73 | 80 | 76 | 72 | 78 | 74 | 71 | 70 |
| 5 | 88 | 79 | 72 | 68 | 87 | 78 | 72 | 67 | 76 | 71 | 67 | 74 | 70 | 66 | 73 | 69 | 65 | 64 |
| 6 | 83 | 73 | 67 | 62 | 82 | 72 | 66 | 62 | 71 | 65 | 61 | 69 | 64 | 61 | 68 | 64 | 60 | 59 |
| 7 | 79 | 68 | 62 | 57 | 77 | 68 | 61 | 57 | 66 | 60 | 56 | 65 | 60 | 56 | 64 | 59 | 56 | 54 |
| 8 | 74 | 64 | 57 | 53 | 73 | 63 | 57 | 52 | 62 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 50 |
| 9 | 70 | 60 | 53 | 49 | 69 | 59 | 53 | 49 | 58 | 52 | 48 | 57 | 52 | 48 | 56 | 52 | 48 | 47 |
| 10 | 67 | 56 | 50 | 45 | 66 | 56 | 49 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 45 | 44 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7551 | 7551 | 7551 |
| 5° | 7504 | 7398 | 7428 |
| 10° | 7345 | 7055 | 6963 |
| 15° | 6959 | 6552 | 6365 |
| 20° | 6254 | 5903 | 5693 |
| 25° | 5571 | 5088 | 4905 |
| 30° | 4873 | 4246 | 4125 |
| 35° | 4102 | 3440 | 3329 |
| 40° | 3305 | 2715 | 2399 |
| 45° | 2471 | 1960 | 1427 |
| 50° | 1547 | 1266 | 939 |
| 55° | 524 | 682 | 762 |
| 60° | 303 | 421 | 602 |
| 65° | 214 | 284 | 463 |
| 70° | 178 | 221 | 351 |
| 75° | 114 | 178 | 292 |
| 80° | 85 | 170 | 266 |
| 85° | 0 | 0 | 169 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2471 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 37.7 | 8.6 |
| 10°-20° | 96.5 | 21.9 |
| 20°-30° | 116.2 | 26.4 |
| 30°-40° | 99.3 | 22.6 |
| 40°-50° | 58.2 | 13.2 |
| 50°-60° | 21.1 | 4.8 |
| 60°-70° | 7.5 | 1.7 |
| 70°-80° | 3.0 | 0.7 |
| 80°-90° | 0.5 | 0.1 |
| 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° | 250.5 | 56.9 |
| 0°-40° | 349.8 | 79.5 |
| 0°-60° | 429.1 | 97.5 |
| 0°-90° | 440.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 440.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 409 | 409 | 409 | 409 | 409 | |
| 5° | 405 | 406 | 399 | 401 | 401 | 38 |
| 15° | 364 | 358 | 343 | 336 | 333 | 101 |
| 25° | 274 | 262 | 250 | 246 | 241 | 126 |
| 35° | 182 | 168 | 153 | 151 | 148 | 114 |
| 45° | 95 | 85 | 75 | 63 | 55 | 73 |
| 55° | 16 | 23 | 21 | 22 | 24 | 20 |
| 65° | 5 | 6 | 6 | 9 | 11 | 5 |
| 75° | 2 | 2 | 2 | 3 | 4 | 2 |
| 85° | 0 | 0 | 0 | 1 | 1 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: S122RDRP-H675D935-X4F0-XX-UDD-SVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 409.2 | 409.2 | 409.2 | 409.2 | 409.2 |
| 2.5° | 408.4 | 409.2 | 405.1 | 409.2 | 410.8 |
| 5° | 405.1 | 405.9 | 399.4 | 401.0 | 401.0 |
| 7.5° | 400.2 | 399.4 | 390.4 | 388.8 | 387.9 |
| 10° | 392.0 | 389.6 | 376.5 | 374.1 | 371.6 |
| 12.5° | 379.8 | 374.9 | 361.0 | 356.9 | 353.6 |
| 15° | 364.3 | 358.5 | 343.0 | 336.5 | 333.2 |
| 17.5° | 343.0 | 336.5 | 321.8 | 315.3 | 312.0 |
| 20° | 318.5 | 312.0 | 300.6 | 293.2 | 289.9 |
| 22.5° | 298.1 | 287.5 | 275.2 | 270.3 | 266.2 |
| 25° | 273.6 | 262.2 | 249.9 | 245.8 | 240.9 |
| 27.5° | 250.7 | 236.8 | 224.6 | 221.3 | 217.2 |
| 30° | 228.7 | 214.0 | 199.3 | 199.3 | 193.6 |
| 32.5° | 205.0 | 191.1 | 175.6 | 174.8 | 171.5 |
| 35° | 182.1 | 168.2 | 152.7 | 151.1 | 147.8 |
| 37.5° | 160.9 | 147.0 | 132.3 | 127.4 | 123.3 |
| 40° | 137.2 | 125.0 | 112.7 | 104.5 | 99.6 |
| 42.5° | 118.4 | 104.5 | 92.3 | 82.5 | 76.0 |
| 45° | 94.7 | 84.9 | 75.1 | 62.9 | 54.7 |
| 47.5° | 73.5 | 67.0 | 58.8 | 44.9 | 40.8 |
| 50° | 53.9 | 50.6 | 44.1 | 33.5 | 32.7 |
| 52.5° | 34.3 | 35.9 | 31.9 | 26.1 | 28.6 |
| 55° | 16.3 | 22.9 | 21.2 | 22.1 | 23.7 |
| 57.5° | 10.6 | 11.4 | 15.5 | 18.0 | 19.6 |
| 60° | 8.2 | 8.2 | 11.4 | 14.7 | 16.3 |
| 62.5° | 6.5 | 6.5 | 9.0 | 12.3 | 13.1 |
| 65° | 4.9 | 5.7 | 6.5 | 9.0 | 10.6 |
| 67.5° | 4.1 | 4.1 | 4.9 | 7.4 | 8.2 |
| 70° | 3.3 | 3.3 | 4.1 | 5.7 | 6.5 |
| 72.5° | 2.5 | 2.5 | 3.3 | 4.9 | 4.9 |
| 75° | 1.6 | 2.5 | 2.5 | 3.3 | 4.1 |
| 77.5° | 1.6 | 1.6 | 1.6 | 2.5 | 3.3 |
| 80° | 0.8 | 0.8 | 1.6 | 1.6 | 2.5 |
| 82.5° | 0.8 | 0.8 | 0.8 | 0.8 | 1.6 |
| 85° | 0.0 | 0.0 | 0.0 | 0.8 | 0.8 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 | 2.89 | 4.05 | 3.26 | 4.37 | 4.68 | 6.31 | 7.48 | 6.68 | 7.79 | 8.10 |
| | 3H | 3.42 | 4.44 | 3.80 | 4.78 | 5.14 | 7.04 | 8.06 | 7.42 | 8.40 | 8.76 |
| | 4H | 3.56 | 4.51 | 3.96 | 4.86 | 5.25 | 7.26 | 8.21 | 7.67 | 8.56 | 8.95 |
| | 6H | 3.63 | 4.49 | 4.04 | 4.87 | 5.26 | 7.42 | 8.28 | 7.83 | 8.66 | 9.05 |
| | 8H | 3.63 | 4.45 | 4.06 | 4.84 | 5.25 | 7.45 | 8.26 | 7.88 | 8.66 | 9.06 |
| | 12H | 3.59 | 4.37 | 4.03 | 4.76 | 5.19 | 7.44 | 8.22 | 7.88 | 8.61 | 9.04 |
| 4H | 2H | 3.20 | 4.15 | 3.60 | 4.50 | 4.88 | 6.28 | 7.22 | 6.68 | 7.58 | 7.96 |
| | 3H | 3.87 | 4.64 | 4.29 | 5.05 | 5.45 | 7.15 | 7.92 | 7.57 | 8.33 | 8.73 |
| | 4H | 4.12 | 4.80 | 4.56 | 5.23 | 5.67 | 7.44 | 8.12 | 7.88 | 8.54 | 8.99 |
| | 6H | 4.23 | 4.82 | 4.70 | 5.27 | 5.74 | 7.67 | 8.25 | 8.14 | 8.70 | 9.17 |
| | 8H | 4.24 | 4.79 | 4.72 | 5.24 | 5.71 | 7.71 | 8.26 | 8.18 | 8.71 | 9.18 |
| | 12H | 4.21 | 4.69 | 4.70 | 5.17 | 5.65 | 7.73 | 8.21 | 8.22 | 8.69 | 9.17 |
| 8H | 4H | 4.23 | 4.77 | 4.70 | 5.22 | 5.70 | 7.37 | 7.92 | 7.84 | 8.36 | 8.84 |
| | 6H | 4.38 | 4.82 | 4.89 | 5.33 | 5.81 | 7.63 | 8.07 | 8.14 | 8.57 | 9.06 |
| | 8H | 4.42 | 4.82 | 4.95 | 5.34 | 5.83 | 7.69 | 8.09 | 8.22 | 8.61 | 9.10 |
| | 12H | 4.40 | 4.75 | 4.92 | 5.25 | 5.82 | 7.75 | 8.09 | 8.26 | 8.59 | 9.17 |
| 12H | 4H | 4.21 | 4.69 | 4.70 | 5.18 | 5.65 | 7.32 | 7.80 | 7.81 | 8.29 | 8.76 |
| | 6H | 4.38 | 4.78 | 4.91 | 5.29 | 5.79 | 7.58 | 7.98 | 8.11 | 8.50 | 8.99 |
| | 8H | 4.45 | 4.80 | 4.97 | 5.29 | 5.87 | 7.66 | 8.01 | 8.18 | 8.51 | 9.08 |