

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: P1060511

Luminaire Tested: S124RDRP-S575D930-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060511  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S575D930-X4F0-XX-UDD-SVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

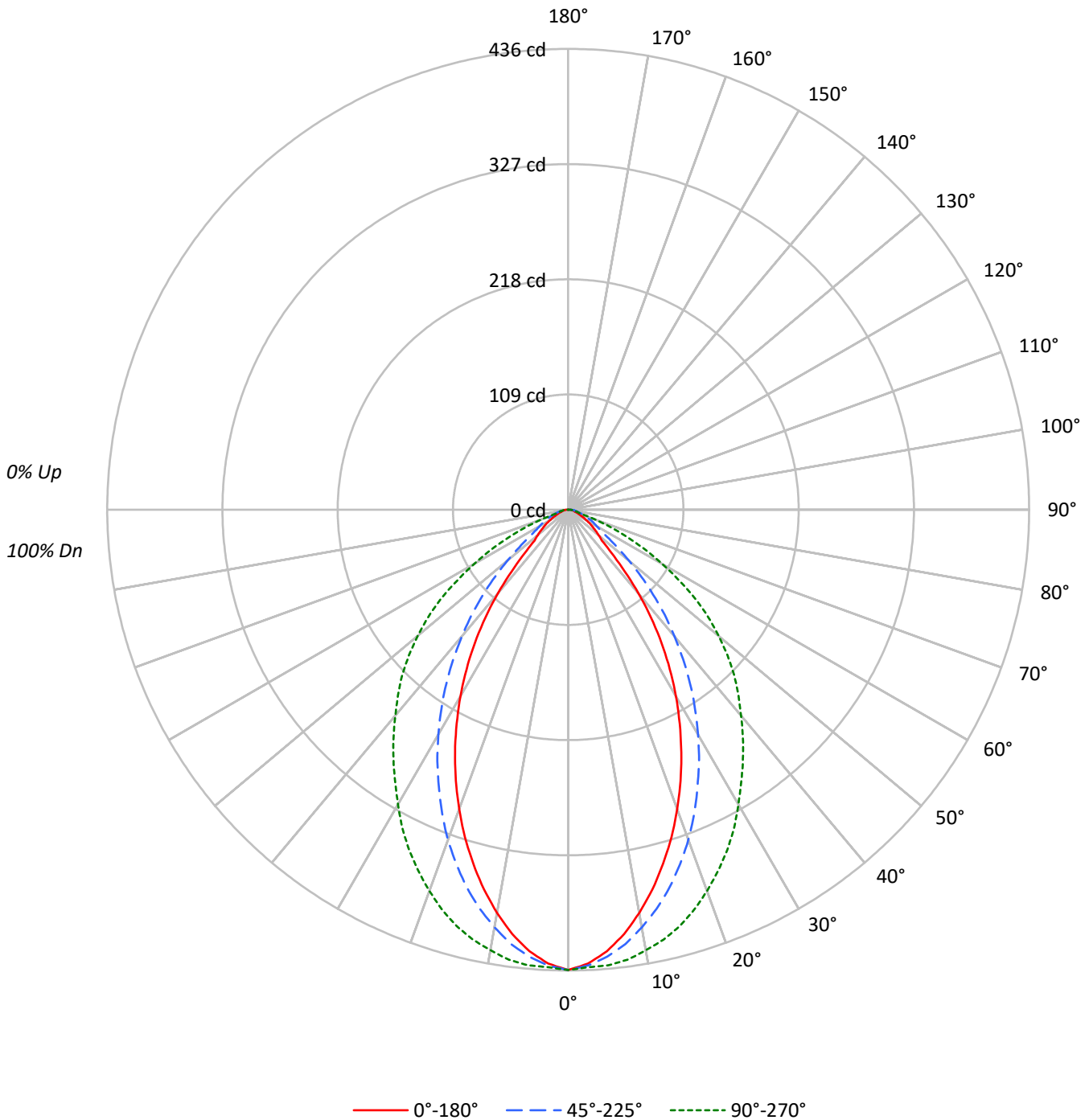
Lumens per Lamp: N/A  
Luminaire Lumens: 612.3 lumens  
Efficiency: N/A  
Efficacy: 31.2 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 19.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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   | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 101 | 99  | 97  | 98  | 96  | 94  | 94  | 93  | 91  | 89  |
| 2   | 104 | 97  | 92  | 88  | 101 | 96  | 91  | 87  | 92  | 88  | 85  | 89  | 86  | 83  | 86  | 83  | 81  | 79  |
| 3   | 97  | 88  | 82  | 77  | 94  | 87  | 81  | 76  | 84  | 79  | 75  | 81  | 77  | 73  | 79  | 75  | 72  | 70  |
| 4   | 90  | 80  | 73  | 68  | 88  | 79  | 72  | 67  | 77  | 71  | 67  | 75  | 70  | 66  | 73  | 68  | 65  | 63  |
| 5   | 84  | 73  | 66  | 61  | 82  | 72  | 65  | 60  | 70  | 64  | 60  | 69  | 63  | 59  | 67  | 62  | 59  | 57  |
| 6   | 79  | 68  | 60  | 55  | 77  | 67  | 60  | 54  | 65  | 59  | 54  | 63  | 58  | 54  | 62  | 57  | 53  | 51  |
| 7   | 74  | 62  | 55  | 50  | 72  | 62  | 54  | 49  | 60  | 54  | 49  | 59  | 53  | 49  | 58  | 52  | 49  | 47  |
| 8   | 69  | 58  | 50  | 45  | 68  | 57  | 50  | 45  | 56  | 49  | 45  | 55  | 49  | 45  | 54  | 48  | 45  | 43  |
| 9   | 65  | 54  | 47  | 42  | 64  | 53  | 46  | 42  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 39  |
| 10  | 62  | 50  | 43  | 39  | 61  | 50  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 47  | 42  | 38  | 36  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3750 | 3750 | 3750 |
| 5°  | 3625 | 3669 | 3740 |
| 10° | 3387 | 3507 | 3701 |
| 15° | 3092 | 3299 | 3635 |
| 20° | 2762 | 3046 | 3518 |
| 25° | 2406 | 2748 | 3380 |
| 30° | 2027 | 2440 | 3201 |
| 35° | 1619 | 2114 | 3029 |
| 40° | 1165 | 1756 | 2859 |
| 45° | 701  | 1383 | 2706 |
| 50° | 505  | 1002 | 2486 |
| 55° | 425  | 674  | 2204 |
| 60° | 343  | 534  | 1774 |
| 65° | 271  | 485  | 1276 |
| 70° | 237  | 405  | 682  |
| 75° | 220  | 369  | 333  |
| 80° | 218  | 387  | 302  |
| 85° | 326  | 543  | 385  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2706 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 40.0   | 6.5       |
| 10°-20°   | 104.7  | 17.1      |
| 20°-30°   | 135.9  | 22.2      |
| 30°-40°   | 130.6  | 21.3      |
| 40°-50°   | 96.9   | 15.8      |
| 50°-60°   | 59.4   | 9.7       |
| 60°-70°   | 28.8   | 4.7       |
| 70°-80°   | 11.0   | 1.8       |
| 80°-90°   | 4.9    | 0.8       |
| 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°    | 280.6  | 45.8      |
| 0°-40°    | 411.3  | 67.2      |
| 0°-60°    | 567.6  | 92.7      |
| 0°-90°    | 612.3  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 612.3  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 436 | 436   | 436 | 436   | 436 |      |
| 5°  | 419 | 426   | 424 | 428   | 433 | 39   |
| 15° | 347 | 357   | 370 | 392   | 408 | 97   |
| 25° | 253 | 266   | 289 | 326   | 356 | 116  |
| 35° | 154 | 168   | 201 | 249   | 288 | 95   |
| 45° | 58  | 72    | 114 | 173   | 222 | 48   |
| 55° | 28  | 29    | 45  | 101   | 147 | 25   |
| 65° | 13  | 14    | 24  | 38    | 63  | 14   |
| 75° | 7   | 10    | 11  | 10    | 10  | 7    |
| 85° | 3   | 6     | 6   | 5     | 4   | 3    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 435.5 | 435.5 | 435.5 | 435.5 | 435.5 |
| 2.5°  | 429.9 | 434.9 | 431.6 | 432.7 | 433.2 |
| 5°    | 419.4 | 425.5 | 424.4 | 428.3 | 432.7 |
| 7.5°  | 405.0 | 412.2 | 414.4 | 422.2 | 429.4 |
| 10°   | 387.3 | 396.1 | 401.1 | 413.9 | 423.3 |
| 12.5° | 367.9 | 377.3 | 386.7 | 403.9 | 416.6 |
| 15°   | 346.8 | 356.8 | 370.1 | 392.2 | 407.8 |
| 17.5° | 324.7 | 335.7 | 351.8 | 378.4 | 396.7 |
| 20°   | 301.4 | 313.0 | 332.4 | 361.8 | 383.9 |
| 22.5° | 277.6 | 289.8 | 311.4 | 344.0 | 370.1 |
| 25°   | 253.2 | 265.9 | 289.2 | 326.3 | 355.7 |
| 27.5° | 228.3 | 241.6 | 268.1 | 307.5 | 339.6 |
| 30°   | 203.9 | 216.6 | 245.4 | 288.1 | 321.9 |
| 32.5° | 178.9 | 192.2 | 223.3 | 268.1 | 304.7 |
| 35°   | 154.0 | 167.9 | 201.1 | 248.8 | 288.1 |
| 37.5° | 128.5 | 143.5 | 178.4 | 229.9 | 271.5 |
| 40°   | 103.6 | 118.0 | 156.2 | 210.5 | 254.3 |
| 42.5° | 79.2  | 94.7  | 135.2 | 191.1 | 238.2 |
| 45°   | 57.6  | 72.0  | 113.6 | 173.4 | 222.2 |
| 47.5° | 43.2  | 52.1  | 93.6  | 156.8 | 204.4 |
| 50°   | 37.7  | 39.3  | 74.8  | 138.5 | 185.6 |
| 52.5° | 32.7  | 33.8  | 58.2  | 118.6 | 166.8 |
| 55°   | 28.3  | 29.4  | 44.9  | 101.4 | 146.8 |
| 57.5° | 23.8  | 24.9  | 36.0  | 84.8  | 124.1 |
| 60°   | 19.9  | 21.1  | 31.0  | 67.6  | 103.0 |
| 62.5° | 16.6  | 17.2  | 27.7  | 51.5  | 82.5  |
| 65°   | 13.3  | 14.4  | 23.8  | 37.7  | 62.6  |
| 67.5° | 11.1  | 12.2  | 19.4  | 26.0  | 43.8  |
| 70°   | 9.4   | 12.2  | 16.1  | 18.3  | 27.1  |
| 72.5° | 7.8   | 11.1  | 13.3  | 12.7  | 12.7  |
| 75°   | 6.6   | 10.5  | 11.1  | 10.0  | 10.0  |
| 77.5° | 5.5   | 9.4   | 8.9   | 8.3   | 7.8   |
| 80°   | 4.4   | 7.8   | 7.8   | 6.6   | 6.1   |
| 82.5° | 3.9   | 6.1   | 6.1   | 6.1   | 5.0   |
| 85°   | 3.3   | 5.5   | 5.5   | 5.0   | 3.9   |
| 87.5° | 2.2   | 4.4   | 5.0   | 4.4   | 2.8   |
| 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 | 4.40             | 5.74  | 4.76  | 6.05  | 6.36  | 13.51          | 14.85 | 13.87 | 15.16 | 15.47 |
|                 | 3H   | 5.45             | 6.63  | 5.83  | 6.96  | 7.33  | 14.01          | 15.20 | 14.39 | 15.52 | 15.89 |
|                 | 4H   | 5.96             | 7.07  | 6.36  | 7.42  | 7.80  | 14.02          | 15.13 | 14.42 | 15.48 | 15.86 |
|                 | 6H   | 6.41             | 7.42  | 6.82  | 7.79  | 8.19  | 14.02          | 15.04 | 14.44 | 15.41 | 15.80 |
|                 | 8H   | 6.60             | 7.56  | 7.03  | 7.95  | 8.36  | 14.02          | 14.98 | 14.45 | 15.37 | 15.78 |
|                 | 12H  | 6.81             | 7.73  | 7.24  | 8.12  | 8.55  | 14.02          | 14.94 | 14.45 | 15.32 | 15.75 |
| 4H              | 2H   | 5.49             | 6.60  | 5.90  | 6.95  | 7.33  | 13.40          | 14.50 | 13.80 | 14.85 | 15.24 |
|                 | 3H   | 6.77             | 7.67  | 7.18  | 8.08  | 8.48  | 13.97          | 14.88 | 14.39 | 15.28 | 15.69 |
|                 | 4H   | 7.47             | 8.28  | 7.91  | 8.70  | 9.14  | 14.02          | 14.83 | 14.45 | 15.25 | 15.69 |
|                 | 6H   | 8.10             | 8.80  | 8.56  | 9.25  | 9.71  | 14.07          | 14.77 | 14.54 | 15.22 | 15.68 |
|                 | 8H   | 8.35             | 9.00  | 8.82  | 9.45  | 9.92  | 14.09          | 14.74 | 14.56 | 15.19 | 15.66 |
|                 | 12H  | 8.62             | 9.20  | 9.11  | 9.68  | 10.16 | 14.12          | 14.70 | 14.61 | 15.18 | 15.66 |
| 8H              | 4H   | 7.90             | 8.55  | 8.37  | 9.00  | 9.47  | 13.97          | 14.62 | 14.44 | 15.07 | 15.54 |
|                 | 6H   | 8.78             | 9.31  | 9.28  | 9.81  | 10.29 | 14.06          | 14.60 | 14.56 | 15.09 | 15.58 |
|                 | 8H   | 9.19             | 9.67  | 9.71  | 10.18 | 10.67 | 14.12          | 14.61 | 14.65 | 15.12 | 15.61 |
|                 | 12H  | 9.66             | 10.09 | 10.18 | 10.58 | 11.15 | 14.22          | 14.65 | 14.74 | 15.14 | 15.72 |
| 12H             | 4H   | 7.94             | 8.52  | 8.43  | 9.00  | 9.48  | 13.94          | 14.52 | 14.43 | 15.00 | 15.48 |
|                 | 6H   | 8.89             | 9.37  | 9.41  | 9.89  | 10.38 | 14.04          | 14.52 | 14.56 | 15.04 | 15.53 |
|                 | 8H   | 9.41             | 9.84  | 9.92  | 10.33 | 10.90 | 14.15          | 14.57 | 14.66 | 15.07 | 15.64 |