

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: P1060916

Luminaire Tested: S124RDRP-H575D930-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060916  
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-H575D930-X4F0-XX-UDD-SVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

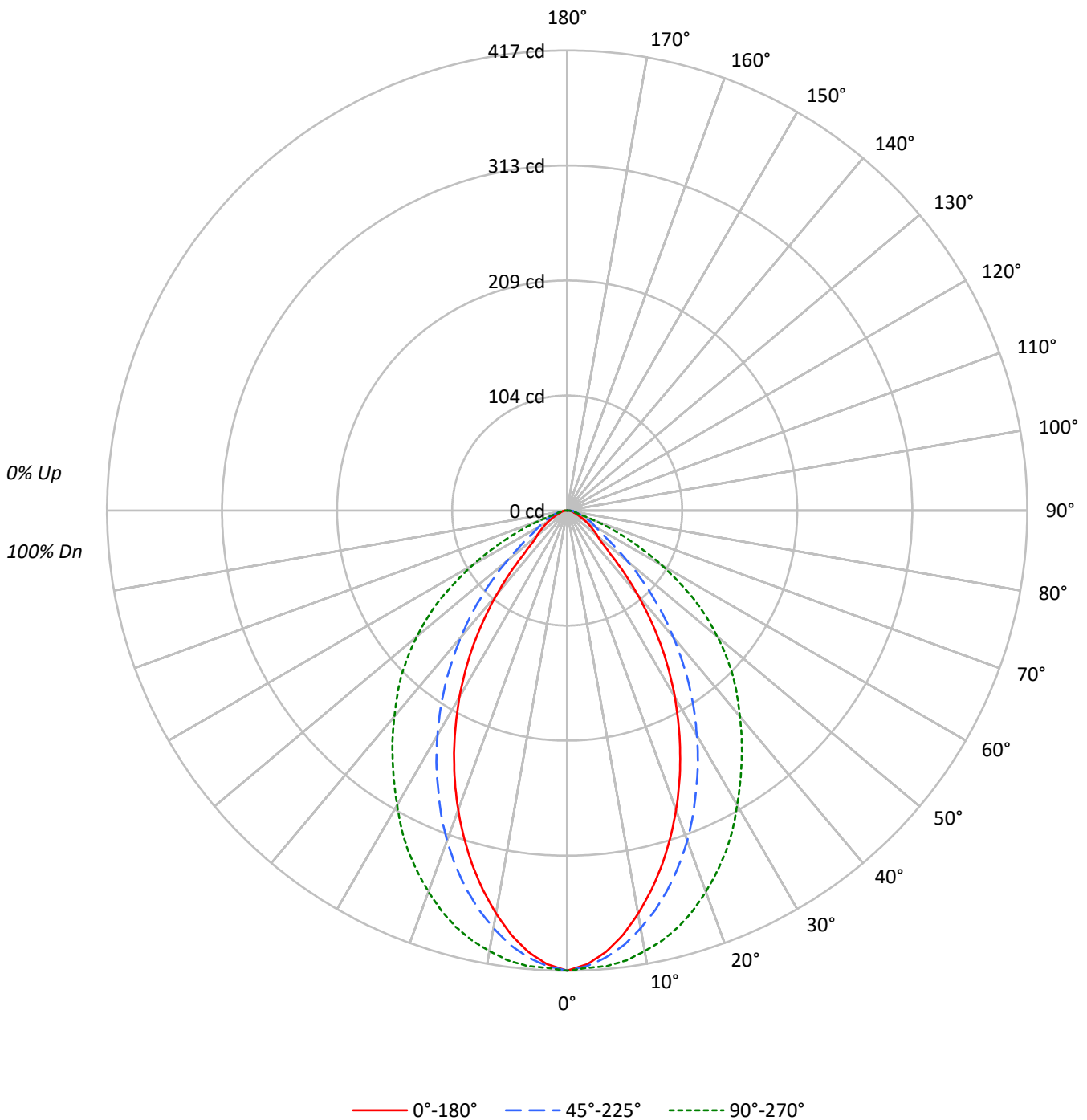
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 586.3 lumens  
Efficiency: N/A  
Efficacy: 33.7 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): 17.4  
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  | 73  | 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  | 50  | 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°  | 3590 | 3590 | 3590 |
| 5°  | 3471 | 3512 | 3581 |
| 10° | 3242 | 3359 | 3544 |
| 15° | 2961 | 3159 | 3480 |
| 20° | 2645 | 2917 | 3369 |
| 25° | 2303 | 2631 | 3236 |
| 30° | 1941 | 2337 | 3065 |
| 35° | 1551 | 2025 | 2899 |
| 40° | 1115 | 1682 | 2737 |
| 45° | 672  | 1324 | 2590 |
| 50° | 484  | 959  | 2381 |
| 55° | 407  | 646  | 2111 |
| 60° | 329  | 512  | 1700 |
| 65° | 259  | 465  | 1221 |
| 70° | 227  | 388  | 655  |
| 75° | 213  | 353  | 316  |
| 80° | 208  | 367  | 288  |
| 85° | 316  | 524  | 366  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2590 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 38.3   | 6.5       |
| 10°-20°   | 100.3  | 17.1      |
| 20°-30°   | 130.1  | 22.2      |
| 30°-40°   | 125.1  | 21.3      |
| 40°-50°   | 92.8   | 15.8      |
| 50°-60°   | 56.9   | 9.7       |
| 60°-70°   | 27.6   | 4.7       |
| 70°-80°   | 10.5   | 1.8       |
| 80°-90°   | 4.7    | 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°    | 268.7  | 45.8      |
| 0°-40°    | 393.8  | 67.2      |
| 0°-60°    | 543.4  | 92.7      |
| 0°-90°    | 586.3  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 586.3  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 417 | 417   | 417 | 417   | 417 |      |
| 5°  | 402 | 407   | 406 | 410   | 414 | 37   |
| 15° | 332 | 342   | 354 | 376   | 390 | 93   |
| 25° | 242 | 255   | 277 | 312   | 341 | 111  |
| 35° | 148 | 161   | 193 | 238   | 276 | 91   |
| 45° | 55  | 69    | 109 | 166   | 213 | 46   |
| 55° | 27  | 28    | 43  | 97    | 141 | 24   |
| 65° | 13  | 14    | 23  | 36    | 60  | 13   |
| 75° | 6   | 10    | 11  | 10    | 10  | 7    |
| 85° | 3   | 5     | 5   | 5     | 4   | 3    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 416.9 | 416.9 | 416.9 | 416.9 | 416.9 |
| 2.5°  | 411.6 | 416.4 | 413.2 | 414.3 | 414.8 |
| 5°    | 401.6 | 407.4 | 406.3 | 410.1 | 414.3 |
| 7.5°  | 387.8 | 394.7 | 396.8 | 404.2 | 411.1 |
| 10°   | 370.8 | 379.3 | 384.1 | 396.3 | 405.3 |
| 12.5° | 352.2 | 361.3 | 370.3 | 386.7 | 398.9 |
| 15°   | 332.1 | 341.6 | 354.4 | 375.6 | 390.4 |
| 17.5° | 310.9 | 321.5 | 336.8 | 362.3 | 379.8 |
| 20°   | 288.6 | 299.7 | 318.3 | 346.4 | 367.6 |
| 22.5° | 265.8 | 277.4 | 298.1 | 329.4 | 354.4 |
| 25°   | 242.4 | 254.6 | 276.9 | 312.4 | 340.6 |
| 27.5° | 218.6 | 231.3 | 256.7 | 294.4 | 325.2 |
| 30°   | 195.2 | 207.4 | 235.0 | 275.8 | 308.2 |
| 32.5° | 171.3 | 184.1 | 213.8 | 256.7 | 291.8 |
| 35°   | 147.5 | 160.7 | 192.6 | 238.2 | 275.8 |
| 37.5° | 123.1 | 137.4 | 170.8 | 220.1 | 259.9 |
| 40°   | 99.2  | 113.0 | 149.6 | 201.6 | 243.5 |
| 42.5° | 75.9  | 90.7  | 129.4 | 183.0 | 228.1 |
| 45°   | 55.2  | 69.0  | 108.7 | 166.0 | 212.7 |
| 47.5° | 41.4  | 49.9  | 89.6  | 150.1 | 195.7 |
| 50°   | 36.1  | 37.7  | 71.6  | 132.6 | 177.7 |
| 52.5° | 31.3  | 32.4  | 55.7  | 113.5 | 159.7 |
| 55°   | 27.1  | 28.1  | 43.0  | 97.1  | 140.6 |
| 57.5° | 22.8  | 23.9  | 34.5  | 81.2  | 118.8 |
| 60°   | 19.1  | 20.2  | 29.7  | 64.7  | 98.7  |
| 62.5° | 15.9  | 16.4  | 26.5  | 49.3  | 79.0  |
| 65°   | 12.7  | 13.8  | 22.8  | 36.1  | 59.9  |
| 67.5° | 10.6  | 11.7  | 18.6  | 24.9  | 41.9  |
| 70°   | 9.0   | 11.7  | 15.4  | 17.5  | 26.0  |
| 72.5° | 7.4   | 10.6  | 12.7  | 12.2  | 12.2  |
| 75°   | 6.4   | 10.1  | 10.6  | 9.5   | 9.5   |
| 77.5° | 5.3   | 9.0   | 8.5   | 8.0   | 7.4   |
| 80°   | 4.2   | 7.4   | 7.4   | 6.4   | 5.8   |
| 82.5° | 3.7   | 5.8   | 5.8   | 5.8   | 4.8   |
| 85°   | 3.2   | 5.3   | 5.3   | 4.8   | 3.7   |
| 87.5° | 2.1   | 4.2   | 4.8   | 4.2   | 2.7   |
| 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 | 4.26             | 5.60 | 4.63  | 5.91  | 6.23  | 13.36          | 14.69 | 13.72 | 15.01 | 15.32 |
|                 | 3H   | 5.31             | 6.49 | 5.69  | 6.82  | 7.19  | 13.86          | 15.04 | 14.24 | 15.37 | 15.74 |
|                 | 4H   | 5.82             | 6.93 | 6.22  | 7.28  | 7.66  | 13.87          | 14.98 | 14.27 | 15.33 | 15.71 |
|                 | 6H   | 6.27             | 7.28 | 6.68  | 7.65  | 8.05  | 13.87          | 14.89 | 14.28 | 15.26 | 15.65 |
|                 | 8H   | 6.45             | 7.42 | 6.88  | 7.81  | 8.21  | 13.86          | 14.83 | 14.29 | 15.22 | 15.62 |
|                 | 12H  | 6.67             | 7.59 | 7.10  | 7.97  | 8.40  | 13.86          | 14.79 | 14.30 | 15.17 | 15.60 |
| 4H              | 2H   | 5.35             | 6.46 | 5.75  | 6.81  | 7.19  | 13.24          | 14.35 | 13.65 | 14.70 | 15.08 |
|                 | 3H   | 6.62             | 7.53 | 7.04  | 7.93  | 8.34  | 13.82          | 14.73 | 14.23 | 15.13 | 15.53 |
|                 | 4H   | 7.33             | 8.14 | 7.76  | 8.56  | 9.00  | 13.87          | 14.68 | 14.30 | 15.10 | 15.54 |
|                 | 6H   | 7.96             | 8.65 | 8.42  | 9.10  | 9.57  | 13.92          | 14.62 | 14.38 | 15.07 | 15.53 |
|                 | 8H   | 8.20             | 8.85 | 8.67  | 9.30  | 9.77  | 13.94          | 14.59 | 14.41 | 15.04 | 15.51 |
|                 | 12H  | 8.47             | 9.05 | 8.96  | 9.53  | 10.01 | 13.97          | 14.55 | 14.46 | 15.03 | 15.51 |
| 8H              | 4H   | 7.76             | 8.41 | 8.22  | 8.86  | 9.33  | 13.82          | 14.47 | 14.29 | 14.92 | 15.39 |
|                 | 6H   | 8.63             | 9.16 | 9.13  | 9.66  | 10.14 | 13.91          | 14.45 | 14.41 | 14.94 | 15.42 |
|                 | 8H   | 9.03             | 9.51 | 9.55  | 10.02 | 10.52 | 13.97          | 14.45 | 14.49 | 14.97 | 15.46 |
|                 | 12H  | 9.51             | 9.93 | 10.02 | 10.43 | 11.00 | 14.07          | 14.50 | 14.59 | 14.99 | 15.56 |
| 12H             | 4H   | 7.80             | 8.38 | 8.28  | 8.86  | 9.33  | 13.79          | 14.37 | 14.28 | 14.85 | 15.32 |
|                 | 6H   | 8.74             | 9.22 | 9.26  | 9.73  | 10.22 | 13.89          | 14.37 | 14.41 | 14.89 | 15.38 |
|                 | 8H   | 9.25             | 9.68 | 9.76  | 10.17 | 10.74 | 13.99          | 14.42 | 14.51 | 14.91 | 15.49 |