

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: P1060395

Luminaire Tested: S124RDRP-S350D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060395  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S350D835-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

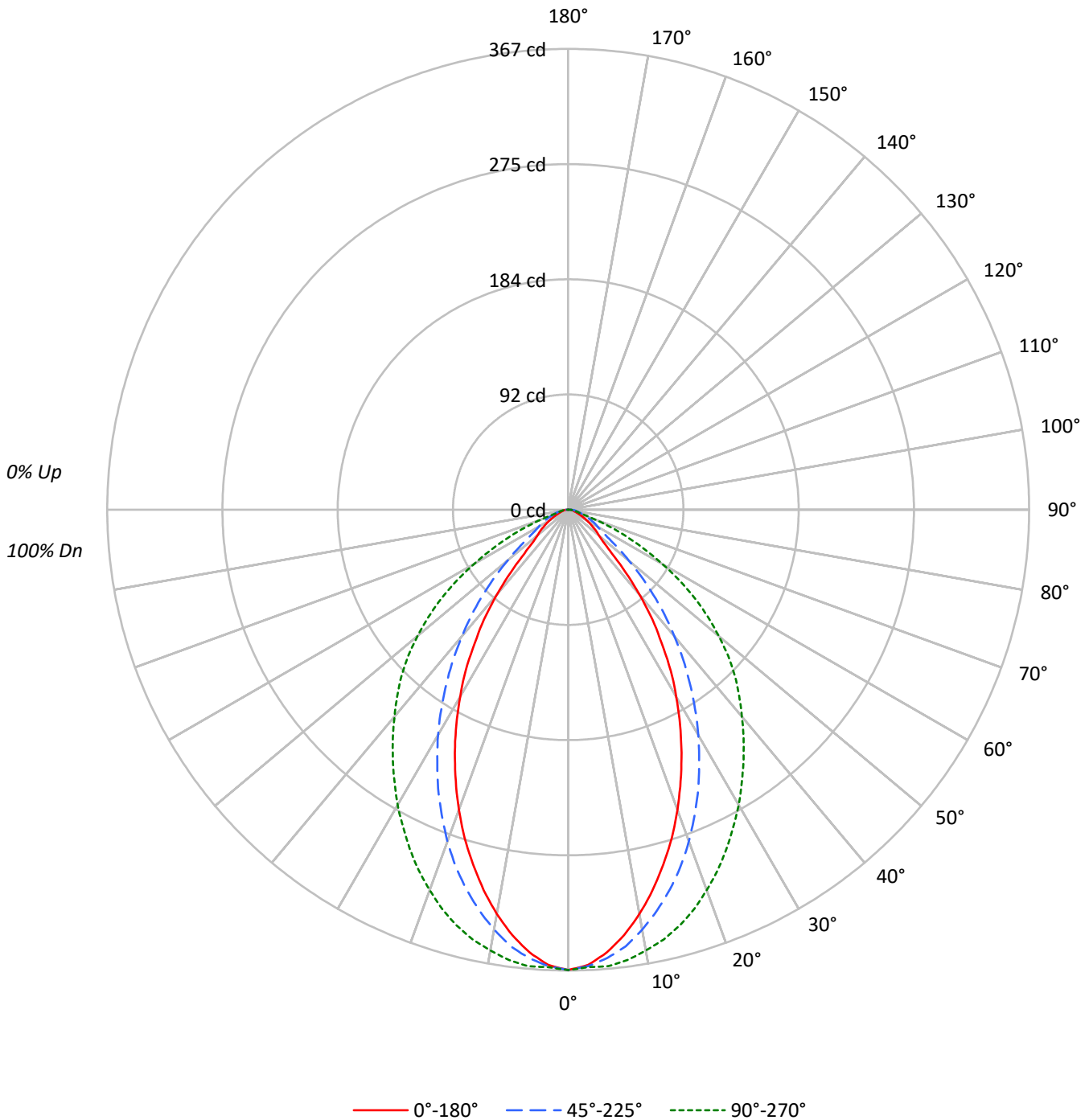
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 518.9 lumens  
Efficiency: N/A  
Efficacy: 41.5 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): 12.5  
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 | 104 | 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  | 76  | 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  | 66  | 75  | 70  | 66  | 73  | 68  | 65  | 63  |
| 5   | 84  | 73  | 66  | 60  | 82  | 72  | 65  | 60  | 70  | 64  | 60  | 69  | 63  | 59  | 67  | 62  | 58  | 57  |
| 6   | 79  | 67  | 60  | 54  | 77  | 67  | 59  | 54  | 65  | 59  | 54  | 63  | 58  | 53  | 62  | 57  | 53  | 51  |
| 7   | 74  | 62  | 55  | 49  | 72  | 61  | 54  | 49  | 60  | 54  | 49  | 59  | 53  | 49  | 57  | 52  | 48  | 47  |
| 8   | 69  | 58  | 50  | 45  | 68  | 57  | 50  | 45  | 56  | 49  | 45  | 55  | 49  | 45  | 53  | 48  | 44  | 43  |
| 9   | 65  | 54  | 46  | 42  | 64  | 53  | 46  | 41  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 39  |
| 10  | 62  | 50  | 43  | 38  | 60  | 49  | 43  | 38  | 49  | 42  | 38  | 48  | 42  | 38  | 47  | 42  | 38  | 36  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3157 | 3157 | 3157 |
| 5°  | 3059 | 3098 | 3155 |
| 10° | 2858 | 2969 | 3116 |
| 15° | 2608 | 2790 | 3057 |
| 20° | 2331 | 2575 | 2954 |
| 25° | 2028 | 2328 | 2833 |
| 30° | 1711 | 2061 | 2701 |
| 35° | 1360 | 1774 | 2558 |
| 40° | 990  | 1478 | 2418 |
| 45° | 599  | 1168 | 2289 |
| 50° | 429  | 845  | 2097 |
| 55° | 363  | 572  | 1851 |
| 60° | 296  | 465  | 1495 |
| 65° | 234  | 418  | 1076 |
| 70° | 196  | 350  | 566  |
| 75° | 176  | 326  | 286  |
| 80° | 183  | 327  | 283  |
| 85° | 247  | 484  | 326  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2289 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 33.8   | 6.5       |
| 10°-20°   | 88.5   | 17.0      |
| 20°-30°   | 114.7  | 22.1      |
| 30°-40°   | 110.4  | 21.3      |
| 40°-50°   | 82.2   | 15.8      |
| 50°-60°   | 50.5   | 9.7       |
| 60°-70°   | 24.8   | 4.8       |
| 70°-80°   | 9.7    | 1.9       |
| 80°-90°   | 4.4    | 0.9       |
| 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°    | 236.9  | 45.7      |
| 0°-40°    | 347.3  | 66.9      |
| 0°-60°    | 480.0  | 92.5      |
| 0°-90°    | 518.9  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 518.9  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 367 | 367   | 367 | 367   | 367 |      |
| 5°  | 354 | 359   | 358 | 362   | 365 | 33   |
| 15° | 292 | 302   | 313 | 332   | 343 | 82   |
| 25° | 213 | 225   | 245 | 276   | 298 | 98   |
| 35° | 129 | 142   | 169 | 211   | 243 | 81   |
| 45° | 49  | 61    | 96  | 148   | 188 | 41   |
| 55° | 24  | 25    | 38  | 87    | 123 | 22   |
| 65° | 12  | 12    | 20  | 33    | 53  | 12   |
| 75° | 5   | 9     | 10  | 9     | 9   | 6    |
| 85° | 2   | 4     | 5   | 5     | 3   | 3    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 366.6 | 366.6 | 366.6 | 366.6 | 366.6 |
| 2.5°  | 362.9 | 367.0 | 363.8 | 364.2 | 364.6 |
| 5°    | 353.9 | 359.3 | 358.4 | 361.7 | 365.0 |
| 7.5°  | 341.6 | 347.8 | 350.7 | 357.2 | 361.7 |
| 10°   | 326.9 | 333.9 | 339.6 | 350.3 | 356.4 |
| 12.5° | 310.5 | 318.7 | 326.9 | 341.2 | 350.7 |
| 15°   | 292.5 | 301.9 | 313.0 | 331.8 | 342.9 |
| 17.5° | 274.1 | 283.5 | 297.8 | 319.5 | 333.5 |
| 20°   | 254.4 | 264.6 | 281.0 | 305.2 | 322.4 |
| 22.5° | 233.9 | 245.0 | 263.0 | 290.4 | 310.9 |
| 25°   | 213.4 | 224.9 | 245.0 | 275.7 | 298.2 |
| 27.5° | 192.9 | 204.0 | 225.7 | 260.1 | 284.7 |
| 30°   | 172.1 | 183.5 | 207.3 | 243.3 | 271.6 |
| 32.5° | 152.0 | 162.6 | 188.0 | 227.4 | 257.3 |
| 35°   | 129.4 | 141.7 | 168.8 | 211.0 | 243.3 |
| 37.5° | 110.2 | 121.3 | 150.3 | 194.6 | 229.4 |
| 40°   | 88.1  | 100.4 | 131.5 | 178.6 | 215.1 |
| 42.5° | 67.6  | 79.9  | 113.5 | 162.6 | 201.5 |
| 45°   | 49.2  | 61.0  | 95.9  | 147.9 | 188.0 |
| 47.5° | 37.3  | 44.2  | 78.7  | 133.5 | 172.9 |
| 50°   | 32.0  | 34.0  | 63.1  | 118.0 | 156.5 |
| 52.5° | 28.3  | 29.1  | 49.2  | 102.4 | 140.1 |
| 55°   | 24.2  | 25.0  | 38.1  | 86.8  | 123.3 |
| 57.5° | 20.5  | 20.9  | 30.7  | 72.1  | 105.3 |
| 60°   | 17.2  | 17.6  | 27.0  | 57.8  | 86.8  |
| 62.5° | 14.3  | 14.7  | 24.2  | 44.7  | 69.2  |
| 65°   | 11.5  | 12.3  | 20.5  | 32.8  | 52.8  |
| 67.5° | 9.4   | 11.1  | 17.2  | 22.9  | 36.9  |
| 70°   | 7.8   | 10.7  | 13.9  | 16.0  | 22.5  |
| 72.5° | 6.6   | 9.8   | 11.9  | 11.5  | 11.1  |
| 75°   | 5.3   | 9.4   | 9.8   | 9.0   | 8.6   |
| 77.5° | 4.5   | 8.2   | 8.2   | 7.4   | 7.0   |
| 80°   | 3.7   | 6.6   | 6.6   | 6.6   | 5.7   |
| 82.5° | 3.3   | 5.3   | 5.7   | 5.7   | 4.5   |
| 85°   | 2.5   | 4.5   | 4.9   | 4.9   | 3.3   |
| 87.5° | 1.6   | 4.1   | 4.5   | 4.1   | 2.5   |
| 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 | 3.78             | 5.12 | 4.15 | 5.44  | 5.75  | 12.95          | 14.29 | 13.31 | 14.60 | 14.92 |
|                 | 3H   | 4.90             | 6.09 | 5.28 | 6.42  | 6.78  | 13.45          | 14.64 | 13.83 | 14.97 | 15.34 |
|                 | 4H   | 5.41             | 6.52 | 5.81 | 6.87  | 7.25  | 13.47          | 14.58 | 13.88 | 14.93 | 15.32 |
|                 | 6H   | 5.85             | 6.87 | 6.26 | 7.24  | 7.63  | 13.49          | 14.51 | 13.90 | 14.88 | 15.27 |
|                 | 8H   | 6.04             | 7.00 | 6.47 | 7.40  | 7.80  | 13.49          | 14.46 | 13.92 | 14.85 | 15.25 |
|                 | 12H  | 6.22             | 7.15 | 6.65 | 7.53  | 7.96  | 13.49          | 14.42 | 13.92 | 14.80 | 15.23 |
| 4H              | 2H   | 4.93             | 6.04 | 5.33 | 6.39  | 6.77  | 12.84          | 13.95 | 13.24 | 14.30 | 14.68 |
|                 | 3H   | 6.27             | 7.18 | 6.68 | 7.58  | 7.99  | 13.43          | 14.34 | 13.84 | 14.74 | 15.14 |
|                 | 4H   | 7.00             | 7.81 | 7.44 | 8.23  | 8.68  | 13.49          | 14.30 | 13.92 | 14.72 | 15.16 |
|                 | 6H   | 7.61             | 8.32 | 8.08 | 8.76  | 9.23  | 13.56          | 14.27 | 14.03 | 14.71 | 15.18 |
|                 | 8H   | 7.86             | 8.51 | 8.32 | 8.96  | 9.43  | 13.59          | 14.25 | 14.06 | 14.70 | 15.17 |
|                 | 12H  | 8.10             | 8.68 | 8.58 | 9.16  | 9.63  | 13.63          | 14.22 | 14.12 | 14.70 | 15.17 |
| 8H              | 4H   | 7.47             | 8.12 | 7.94 | 8.57  | 9.04  | 13.45          | 14.10 | 13.91 | 14.55 | 15.02 |
|                 | 6H   | 8.32             | 8.86 | 8.82 | 9.36  | 9.84  | 13.57          | 14.11 | 14.08 | 14.61 | 15.09 |
|                 | 8H   | 8.73             | 9.21 | 9.25 | 9.73  | 10.22 | 13.66          | 14.14 | 14.18 | 14.65 | 15.15 |
|                 | 12H  | 9.15             | 9.58 | 9.67 | 10.07 | 10.65 | 13.78          | 14.20 | 14.29 | 14.70 | 15.27 |
| 12H             | 4H   | 7.52             | 8.10 | 8.01 | 8.59  | 9.06  | 13.42          | 14.00 | 13.90 | 14.48 | 14.96 |
|                 | 6H   | 8.45             | 8.94 | 8.97 | 9.45  | 9.94  | 13.56          | 14.04 | 14.08 | 14.55 | 15.05 |
|                 | 8H   | 8.97             | 9.40 | 9.49 | 9.90  | 10.47 | 13.69          | 14.12 | 14.20 | 14.61 | 15.18 |