

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: P1060476

Luminaire Tested: S124RDRP-S575D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060476  
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-S575D835-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: -

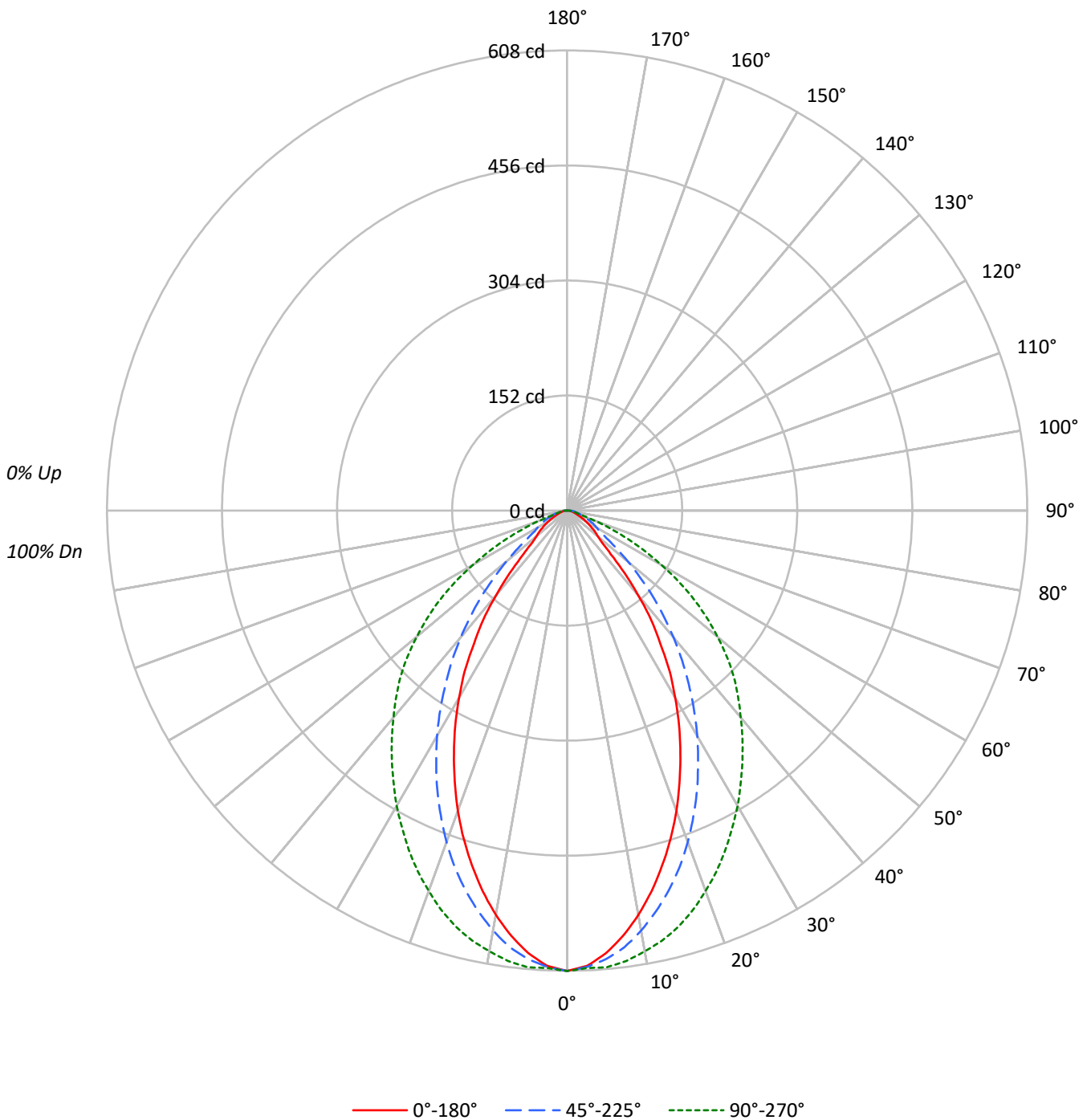
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 861.0 lumens  
Efficiency: N/A  
Efficacy: 43.9 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 | 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°  | 5238 | 5238 | 5238 |
| 5°  | 5076 | 5141 | 5235 |
| 10° | 4743 | 4926 | 5170 |
| 15° | 4326 | 4630 | 5072 |
| 20° | 3868 | 4272 | 4902 |
| 25° | 3364 | 3861 | 4701 |
| 30° | 2839 | 3419 | 4480 |
| 35° | 2258 | 2943 | 4244 |
| 40° | 1642 | 2453 | 4011 |
| 45° | 994  | 1936 | 3800 |
| 50° | 710  | 1403 | 3478 |
| 55° | 602  | 949  | 3072 |
| 60° | 491  | 773  | 2482 |
| 65° | 387  | 693  | 1787 |
| 70° | 325  | 582  | 942  |
| 75° | 293  | 542  | 476  |
| 80° | 302  | 541  | 471  |
| 85° | 405  | 810  | 534  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3800 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 56.0   | 6.5       |
| 10°-20°   | 146.8  | 17.0      |
| 20°-30°   | 190.3  | 22.1      |
| 30°-40°   | 183.2  | 21.3      |
| 40°-50°   | 136.3  | 15.8      |
| 50°-60°   | 83.8   | 9.7       |
| 60°-70°   | 41.2   | 4.8       |
| 70°-80°   | 16.1   | 1.9       |
| 80°-90°   | 7.3    | 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°    | 393.1  | 45.7      |
| 0°-40°    | 576.3  | 66.9      |
| 0°-60°    | 796.4  | 92.5      |
| 0°-90°    | 861.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 861.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 608 | 608   | 608 | 608   | 608 |      |
| 5°  | 587 | 596   | 595 | 600   | 606 | 55   |
| 15° | 485 | 501   | 519 | 550   | 569 | 136  |
| 25° | 354 | 373   | 406 | 457   | 495 | 162  |
| 35° | 215 | 235   | 280 | 350   | 404 | 134  |
| 45° | 82  | 101   | 159 | 245   | 312 | 68   |
| 55° | 40  | 42    | 63  | 144   | 205 | 36   |
| 65° | 19  | 20    | 34  | 54    | 88  | 20   |
| 75° | 9   | 16    | 16  | 15    | 14  | 10   |
| 85° | 4   | 8     | 8   | 8     | 5   | 4    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 608.3 | 608.3 | 608.3 | 608.3 | 608.3 |
| 2.5°  | 602.2 | 609.0 | 603.5 | 604.2 | 604.9 |
| 5°    | 587.2 | 596.1 | 594.7 | 600.1 | 605.6 |
| 7.5°  | 566.8 | 577.0 | 581.8 | 592.7 | 600.1 |
| 10°   | 542.4 | 553.9 | 563.4 | 581.1 | 591.3 |
| 12.5° | 515.2 | 528.8 | 542.4 | 566.2 | 581.8 |
| 15°   | 485.3 | 500.9 | 519.3 | 550.5 | 568.9 |
| 17.5° | 454.7 | 470.3 | 494.1 | 530.1 | 553.2 |
| 20°   | 422.1 | 439.1 | 466.2 | 506.3 | 534.9 |
| 22.5° | 388.1 | 406.4 | 436.3 | 481.9 | 515.9 |
| 25°   | 354.1 | 373.1 | 406.4 | 457.4 | 494.8 |
| 27.5° | 320.1 | 338.5 | 374.5 | 431.6 | 472.4 |
| 30°   | 285.5 | 304.5 | 343.9 | 403.7 | 450.6 |
| 32.5° | 252.2 | 269.8 | 312.0 | 377.2 | 426.8 |
| 35°   | 214.8 | 235.2 | 280.0 | 350.0 | 403.7 |
| 37.5° | 182.8 | 201.2 | 249.4 | 322.8 | 380.6 |
| 40°   | 146.1 | 166.5 | 218.2 | 296.3 | 356.8 |
| 42.5° | 112.1 | 132.5 | 188.3 | 269.8 | 334.4 |
| 45°   | 81.6  | 101.3 | 159.0 | 245.4 | 312.0 |
| 47.5° | 61.8  | 73.4  | 130.5 | 221.6 | 286.8 |
| 50°   | 53.0  | 56.4  | 104.7 | 195.7 | 259.6 |
| 52.5° | 46.9  | 48.3  | 81.6  | 169.9 | 232.4 |
| 55°   | 40.1  | 41.5  | 63.2  | 144.1 | 204.6 |
| 57.5° | 34.0  | 34.7  | 51.0  | 119.6 | 174.7 |
| 60°   | 28.5  | 29.2  | 44.9  | 95.8  | 144.1 |
| 62.5° | 23.8  | 24.5  | 40.1  | 74.1  | 114.9 |
| 65°   | 19.0  | 20.4  | 34.0  | 54.4  | 87.7  |
| 67.5° | 15.6  | 18.4  | 28.5  | 38.1  | 61.2  |
| 70°   | 12.9  | 17.7  | 23.1  | 26.5  | 37.4  |
| 72.5° | 10.9  | 16.3  | 19.7  | 19.0  | 18.4  |
| 75°   | 8.8   | 15.6  | 16.3  | 15.0  | 14.3  |
| 77.5° | 7.5   | 13.6  | 13.6  | 12.2  | 11.6  |
| 80°   | 6.1   | 10.9  | 10.9  | 10.9  | 9.5   |
| 82.5° | 5.4   | 8.8   | 9.5   | 9.5   | 7.5   |
| 85°   | 4.1   | 7.5   | 8.2   | 8.2   | 5.4   |
| 87.5° | 2.7   | 6.8   | 7.5   | 6.8   | 4.1   |
| 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 | 5.54             | 6.89  | 5.91  | 7.20  | 7.51  | 14.71          | 16.05 | 15.07 | 16.36 | 16.68 |
|                 | 3H   | 6.65             | 7.85  | 7.03  | 8.17  | 8.54  | 15.21          | 16.40 | 15.59 | 16.73 | 17.10 |
|                 | 4H   | 7.17             | 8.28  | 7.57  | 8.63  | 9.01  | 15.23          | 16.34 | 15.64 | 16.69 | 17.08 |
|                 | 6H   | 7.60             | 8.62  | 8.02  | 8.99  | 9.39  | 15.24          | 16.27 | 15.66 | 16.63 | 17.03 |
|                 | 8H   | 7.79             | 8.76  | 8.22  | 9.15  | 9.55  | 15.25          | 16.21 | 15.68 | 16.61 | 17.01 |
|                 | 12H  | 7.97             | 8.90  | 8.41  | 9.28  | 9.71  | 15.25          | 16.18 | 15.68 | 16.56 | 16.99 |
| 4H              | 2H   | 6.69             | 7.80  | 7.09  | 8.15  | 8.53  | 14.60          | 15.71 | 15.00 | 16.06 | 16.44 |
|                 | 3H   | 8.03             | 8.94  | 8.44  | 9.34  | 9.74  | 15.19          | 16.10 | 15.60 | 16.50 | 16.90 |
|                 | 4H   | 8.76             | 9.57  | 9.19  | 9.99  | 10.43 | 15.25          | 16.06 | 15.68 | 16.48 | 16.92 |
|                 | 6H   | 9.37             | 10.07 | 9.83  | 10.52 | 10.98 | 15.32          | 16.02 | 15.78 | 16.47 | 16.94 |
|                 | 8H   | 9.61             | 10.27 | 10.08 | 10.71 | 11.18 | 15.35          | 16.01 | 15.82 | 16.46 | 16.93 |
|                 | 12H  | 9.85             | 10.43 | 10.33 | 10.91 | 11.38 | 15.39          | 15.97 | 15.88 | 16.46 | 16.93 |
| 8H              | 4H   | 9.23             | 9.88  | 9.69  | 10.33 | 10.80 | 15.20          | 15.86 | 15.67 | 16.31 | 16.78 |
|                 | 6H   | 10.08            | 10.61 | 10.58 | 11.11 | 11.59 | 15.33          | 15.87 | 15.83 | 16.37 | 16.85 |
|                 | 8H   | 10.48            | 10.96 | 11.00 | 11.48 | 11.97 | 15.42          | 15.90 | 15.94 | 16.41 | 16.91 |
|                 | 12H  | 10.90            | 11.33 | 11.42 | 11.83 | 12.40 | 15.54          | 15.96 | 16.05 | 16.46 | 17.03 |
| 12H             | 4H   | 9.28             | 9.86  | 9.77  | 10.34 | 10.82 | 15.18          | 15.76 | 15.66 | 16.24 | 16.71 |
|                 | 6H   | 10.21            | 10.69 | 10.73 | 11.21 | 11.70 | 15.31          | 15.80 | 15.83 | 16.31 | 16.80 |
|                 | 8H   | 10.73            | 11.16 | 11.24 | 11.65 | 12.22 | 15.45          | 15.88 | 15.96 | 16.37 | 16.94 |