

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: P1058481

Luminaire Tested: S122RDRP-H675D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058481  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H675D927-X4F0-XX-UDD-WVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

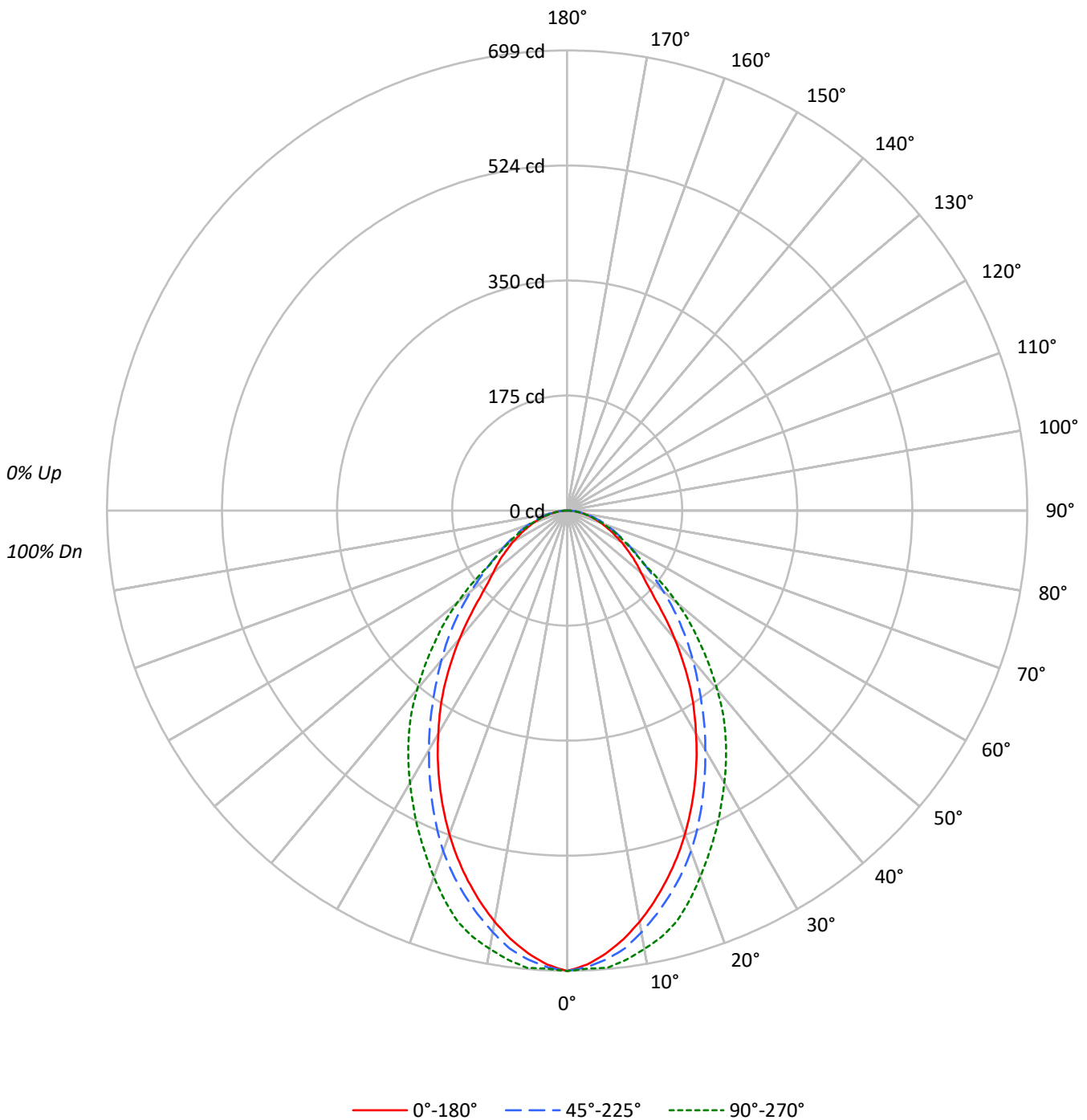
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1140.3 lumens  
Efficiency: N/A  
Efficacy: 48.5 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
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<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   | 110 | 106 | 103 | 100 | 108 | 104 | 101 | 98  | 100 | 97  | 95  | 96  | 94  | 92  | 93  | 91  | 89  | 87  |
| 2   | 102 | 95  | 89  | 84  | 100 | 93  | 88  | 83  | 90  | 85  | 81  | 87  | 83  | 80  | 84  | 81  | 78  | 76  |
| 3   | 94  | 85  | 78  | 73  | 92  | 84  | 77  | 72  | 81  | 75  | 71  | 78  | 74  | 70  | 76  | 72  | 68  | 67  |
| 4   | 88  | 77  | 69  | 64  | 85  | 76  | 69  | 63  | 73  | 67  | 62  | 71  | 66  | 62  | 69  | 65  | 61  | 59  |
| 5   | 81  | 70  | 62  | 56  | 80  | 69  | 62  | 56  | 67  | 60  | 55  | 65  | 59  | 55  | 63  | 58  | 54  | 52  |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 56  | 50  | 61  | 55  | 50  | 60  | 54  | 49  | 58  | 53  | 49  | 47  |
| 7   | 71  | 59  | 51  | 46  | 69  | 58  | 51  | 45  | 57  | 50  | 45  | 55  | 49  | 45  | 54  | 49  | 44  | 43  |
| 8   | 67  | 54  | 47  | 41  | 65  | 54  | 46  | 41  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 39  |
| 9   | 63  | 50  | 43  | 38  | 61  | 50  | 43  | 38  | 49  | 42  | 38  | 48  | 42  | 37  | 47  | 41  | 37  | 36  |
| 10  | 59  | 47  | 40  | 35  | 58  | 46  | 40  | 35  | 46  | 39  | 35  | 45  | 39  | 35  | 44  | 38  | 34  | 33  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 12906 | 12906 | 12906 |
| 5°  | 12510 | 12677 | 12914 |
| 10° | 11879 | 12189 | 12668 |
| 15° | 11120 | 11537 | 12327 |
| 20° | 10278 | 10810 | 11623 |
| 25° | 9341  | 9891  | 10903 |
| 30° | 8348  | 8943  | 10176 |
| 35° | 7319  | 8013  | 9454  |
| 40° | 6123  | 7157  | 8532  |
| 45° | 4906  | 6339  | 7458  |
| 50° | 4211  | 5463  | 6261  |
| 55° | 3848  | 4645  | 4620  |
| 60° | 3499  | 4108  | 4026  |
| 65° | 3187  | 3676  | 3515  |
| 70° | 2919  | 3367  | 3124  |
| 75° | 2738  | 3108  | 2738  |
| 80° | 2561  | 2880  | 2402  |
| 85° | 2541  | 3028  | 2075  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7458 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 64.6   | 5.7       |
| 10°-20°   | 170.9  | 15.0      |
| 20°-30°   | 225.5  | 19.8      |
| 30°-40°   | 227.0  | 19.9      |
| 40°-50°   | 184.8  | 16.2      |
| 50°-60°   | 126.0  | 11.0      |
| 60°-70°   | 81.8   | 7.2       |
| 70°-80°   | 45.0   | 3.9       |
| 80°-90°   | 14.7   | 1.3       |
| 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°    | 461.0  | 40.4      |
| 0°-40°    | 688.0  | 60.3      |
| 0°-60°    | 998.8  | 87.6      |
| 0°-90°    | 1140.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1140.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 699 | 699   | 699 | 699   | 699 |      |
| 5°  | 675 | 688   | 684 | 690   | 697 | 63   |
| 15° | 582 | 597   | 604 | 629   | 645 | 163  |
| 25° | 459 | 474   | 486 | 508   | 536 | 210  |
| 35° | 325 | 341   | 356 | 387   | 420 | 202  |
| 45° | 188 | 211   | 243 | 264   | 286 | 148  |
| 55° | 120 | 132   | 144 | 145   | 144 | 107  |
| 65° | 73  | 86    | 84  | 80    | 80  | 73   |
| 75° | 38  | 47    | 44  | 39    | 38  | 41   |
| 85° | 12  | 16    | 14  | 11    | 10  | 13   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 699.4 | 699.4 | 699.4 | 699.4 | 699.4 |
| 2.5°  | 690.4 | 701.7 | 694.2 | 694.9 | 696.4 |
| 5°    | 675.4 | 688.1 | 684.4 | 690.4 | 697.2 |
| 7.5°  | 656.6 | 669.3 | 670.9 | 679.9 | 688.1 |
| 10°   | 634.0 | 648.3 | 650.5 | 664.1 | 676.1 |
| 12.5° | 609.2 | 625.0 | 628.0 | 647.5 | 663.3 |
| 15°   | 582.1 | 597.1 | 603.9 | 628.7 | 645.3 |
| 17.5° | 553.5 | 567.8 | 578.3 | 600.9 | 619.7 |
| 20°   | 523.4 | 537.0 | 550.5 | 570.8 | 591.9 |
| 22.5° | 491.1 | 506.1 | 518.9 | 539.2 | 563.3 |
| 25°   | 458.8 | 473.8 | 485.8 | 507.7 | 535.5 |
| 27.5° | 425.7 | 440.7 | 452.7 | 476.1 | 506.1 |
| 30°   | 391.8 | 407.6 | 419.7 | 446.0 | 477.6 |
| 32.5° | 358.7 | 374.5 | 388.1 | 415.9 | 449.0 |
| 35°   | 324.9 | 341.4 | 355.7 | 386.6 | 419.7 |
| 37.5° | 288.8 | 307.6 | 325.6 | 356.5 | 388.8 |
| 40°   | 254.2 | 275.3 | 297.1 | 325.6 | 354.2 |
| 42.5° | 219.6 | 242.9 | 270.0 | 294.1 | 320.4 |
| 45°   | 188.0 | 211.3 | 242.9 | 264.0 | 285.8 |
| 47.5° | 163.2 | 182.8 | 216.6 | 233.9 | 253.4 |
| 50°   | 146.7 | 160.2 | 190.3 | 203.8 | 218.1 |
| 52.5° | 133.1 | 144.4 | 165.5 | 174.5 | 182.0 |
| 55°   | 119.6 | 131.6 | 144.4 | 145.2 | 143.6 |
| 57.5° | 106.0 | 119.6 | 126.3 | 121.1 | 124.1 |
| 60°   | 94.8  | 108.3 | 111.3 | 106.0 | 109.1 |
| 62.5° | 82.7  | 97.8  | 97.8  | 92.5  | 94.0  |
| 65°   | 73.0  | 86.5  | 84.2  | 79.7  | 80.5  |
| 67.5° | 63.2  | 76.7  | 73.0  | 68.4  | 68.4  |
| 70°   | 54.1  | 66.9  | 62.4  | 57.9  | 57.9  |
| 72.5° | 45.9  | 56.4  | 53.4  | 48.1  | 47.4  |
| 75°   | 38.4  | 47.4  | 43.6  | 39.1  | 38.4  |
| 77.5° | 30.8  | 38.4  | 35.3  | 31.6  | 30.1  |
| 80°   | 24.1  | 30.8  | 27.1  | 24.1  | 22.6  |
| 82.5° | 18.0  | 23.3  | 20.3  | 17.3  | 15.8  |
| 85°   | 12.0  | 15.8  | 14.3  | 11.3  | 9.8   |
| 87.5° | 6.0   | 10.5  | 9.0   | 7.5   | 6.0   |
| 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 | 15.61            | 17.04 | 15.97 | 17.36 | 17.67 | 15.85          | 17.29 | 16.22 | 17.60 | 17.92 |
|                 | 3H   | 17.13            | 18.42 | 17.51 | 18.75 | 19.11 | 17.21          | 18.50 | 17.59 | 18.83 | 19.19 |
|                 | 4H   | 17.70            | 18.90 | 18.10 | 19.25 | 19.63 | 17.69          | 18.90 | 18.09 | 19.25 | 19.63 |
|                 | 6H   | 18.12            | 19.23 | 18.53 | 19.60 | 19.99 | 18.04          | 19.15 | 18.45 | 19.52 | 19.91 |
|                 | 8H   | 18.27            | 19.33 | 18.70 | 19.72 | 20.12 | 18.15          | 19.21 | 18.58 | 19.60 | 20.00 |
|                 | 12H  | 18.38            | 19.40 | 18.82 | 19.78 | 20.21 | 18.22          | 19.23 | 18.65 | 19.61 | 20.04 |
| 4H              | 2H   | 16.18            | 17.38 | 16.58 | 17.73 | 18.11 | 16.38          | 17.58 | 16.78 | 17.93 | 18.31 |
|                 | 3H   | 17.98            | 18.98 | 18.39 | 19.38 | 19.78 | 17.95          | 18.95 | 18.36 | 19.35 | 19.75 |
|                 | 4H   | 18.72            | 19.62 | 19.16 | 20.04 | 20.48 | 18.54          | 19.44 | 18.98 | 19.86 | 20.30 |
|                 | 6H   | 19.31            | 20.09 | 19.77 | 20.53 | 21.00 | 19.01          | 19.79 | 19.47 | 20.24 | 20.70 |
|                 | 8H   | 19.52            | 20.25 | 19.98 | 20.69 | 21.16 | 19.16          | 19.89 | 19.63 | 20.34 | 20.81 |
|                 | 12H  | 19.68            | 20.33 | 20.17 | 20.81 | 21.29 | 19.27          | 19.92 | 19.76 | 20.40 | 20.88 |
| 8H              | 4H   | 18.99            | 19.72 | 19.45 | 20.16 | 20.63 | 18.83          | 19.56 | 19.30 | 20.01 | 20.48 |
|                 | 6H   | 19.74            | 20.34 | 20.24 | 20.84 | 21.32 | 19.43          | 20.03 | 19.92 | 20.52 | 21.00 |
|                 | 8H   | 20.07            | 20.61 | 20.58 | 21.12 | 21.61 | 19.65          | 20.19 | 20.16 | 20.70 | 21.19 |
|                 | 12H  | 20.35            | 20.83 | 20.86 | 21.32 | 21.89 | 19.83          | 20.31 | 20.34 | 20.80 | 21.37 |
| 12H             | 4H   | 19.00            | 19.65 | 19.49 | 20.13 | 20.60 | 18.87          | 19.52 | 19.35 | 20.00 | 20.47 |
|                 | 6H   | 19.79            | 20.33 | 20.31 | 20.84 | 21.33 | 19.49          | 20.03 | 20.01 | 20.55 | 21.04 |
|                 | 8H   | 20.19            | 20.66 | 20.70 | 21.16 | 21.72 | 19.78          | 20.26 | 20.29 | 20.75 | 21.32 |