

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: P1059054

Luminaire Tested: S123RDRP-S1000D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059054  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1000D930-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

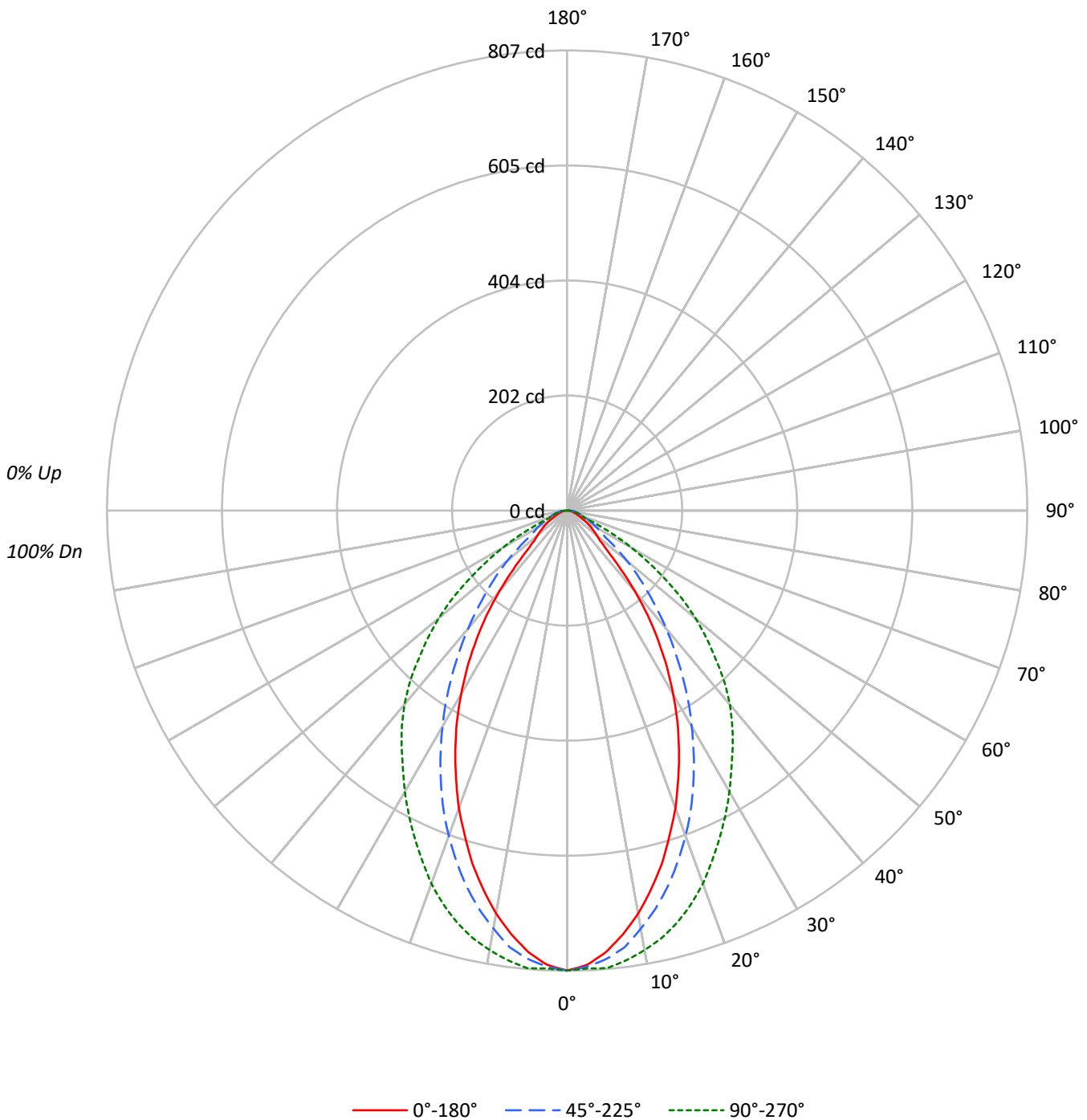
Lumens per Lamp: N/A  
Luminaire Lumens: 1082.7 lumens  
Efficiency: N/A  
Efficacy: 30.9 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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  | 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 |    |    |    |    | 100 |   |  |   |
| 1   | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99  | 97  | 98  | 96  | 94  | 94  | 93  | 91  | 89  |    |    |    |    | 89  |   |  |   |
| 2   | 104 | 98  | 92  | 88  | 102 | 96  | 91  | 87  | 92  | 88  | 85  | 89  | 86  | 83  | 86  | 84  | 81  | 79  |    |    |    |    | 79  |   |  |   |
| 3   | 97  | 89  | 82  | 77  | 95  | 87  | 81  | 77  | 84  | 79  | 75  | 82  | 78  | 74  | 79  | 76  | 73  | 71  |    |    |    |    | 71  |   |  |   |
| 4   | 90  | 81  | 74  | 68  | 88  | 80  | 73  | 68  | 77  | 72  | 67  | 75  | 70  | 66  | 73  | 69  | 66  | 64  |    |    |    |    | 64  |   |  |   |
| 5   | 85  | 74  | 67  | 61  | 83  | 73  | 66  | 61  | 71  | 65  | 60  | 69  | 64  | 60  | 68  | 63  | 59  | 58  |    |    |    |    | 58  |   |  |   |
| 6   | 79  | 68  | 61  | 55  | 78  | 67  | 60  | 55  | 66  | 59  | 55  | 64  | 59  | 54  | 63  | 58  | 54  | 52  |    |    |    |    | 52  |   |  |   |
| 7   | 74  | 63  | 56  | 51  | 73  | 62  | 55  | 50  | 61  | 55  | 50  | 60  | 54  | 50  | 58  | 53  | 49  | 48  |    |    |    |    | 48  |   |  |   |
| 8   | 70  | 58  | 51  | 46  | 69  | 58  | 51  | 46  | 57  | 50  | 46  | 55  | 50  | 46  | 54  | 49  | 45  | 44  |    |    |    |    | 44  |   |  |   |
| 9   | 66  | 54  | 47  | 43  | 65  | 54  | 47  | 43  | 53  | 47  | 42  | 52  | 46  | 42  | 51  | 46  | 42  | 40  |    |    |    |    | 40  |   |  |   |
| 10  | 62  | 51  | 44  | 39  | 61  | 50  | 44  | 39  | 49  | 43  | 39  | 49  | 43  | 39  | 48  | 43  | 39  | 37  |    |    |    |    | 37  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9471 | 9471 | 9471 |
| 5°  | 9165 | 9306 | 9496 |
| 10° | 8554 | 8876 | 9330 |
| 15° | 7795 | 8294 | 9087 |
| 20° | 6937 | 7588 | 8702 |
| 25° | 6010 | 6789 | 8204 |
| 30° | 5040 | 5924 | 7716 |
| 35° | 3992 | 5042 | 7253 |
| 40° | 2827 | 4146 | 6804 |
| 45° | 1664 | 3278 | 6123 |
| 50° | 1244 | 2490 | 5363 |
| 55° | 1046 | 1683 | 4307 |
| 60° | 848  | 1435 | 3060 |
| 65° | 667  | 1225 | 1614 |
| 70° | 584  | 1068 | 999  |
| 75° | 544  | 998  | 953  |
| 80° | 541  | 1082 | 947  |
| 85° | 674  | 1617 | 1213 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6123 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 74.2   | 6.9       |
| 10°-20°   | 192.9  | 17.8      |
| 20°-30°   | 245.7  | 22.7      |
| 30°-40°   | 231.1  | 21.3      |
| 40°-50°   | 166.4  | 15.4      |
| 50°-60°   | 96.1   | 8.9       |
| 60°-70°   | 44.0   | 4.1       |
| 70°-80°   | 21.9   | 2.0       |
| 80°-90°   | 10.4   | 1.0       |
| 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°    | 512.8  | 47.4      |
| 0°-40°    | 743.9  | 68.7      |
| 0°-60°    | 1006.5 | 93.0      |
| 0°-90°    | 1082.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1082.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 807 | 807   | 807 | 807   | 807 |      |
| 5°  | 778 | 790   | 790 | 798   | 806 | 72   |
| 15° | 641 | 664   | 682 | 720   | 748 | 179  |
| 25° | 464 | 488   | 524 | 582   | 633 | 212  |
| 35° | 278 | 303   | 352 | 433   | 506 | 173  |
| 45° | 100 | 125   | 197 | 297   | 369 | 85   |
| 55° | 51  | 53    | 82  | 156   | 210 | 46   |
| 65° | 24  | 34    | 44  | 49    | 58  | 25   |
| 75° | 12  | 23    | 22  | 21    | 21  | 13   |
| 85° | 5   | 11    | 12  | 11    | 9   | 5    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 806.6 | 806.6 | 806.6 | 806.6 | 806.6 |
| 2.5°  | 797.6 | 807.6 | 800.6 | 801.6 | 803.6 |
| 5°    | 777.5 | 790.5 | 789.5 | 797.6 | 805.6 |
| 7.5°  | 749.5 | 764.5 | 772.5 | 784.5 | 795.5 |
| 10°   | 717.4 | 734.4 | 744.4 | 766.5 | 782.5 |
| 12.5° | 680.3 | 702.4 | 715.4 | 744.4 | 767.5 |
| 15°   | 641.2 | 664.3 | 682.3 | 720.4 | 747.5 |
| 17.5° | 597.2 | 622.2 | 645.3 | 690.3 | 723.4 |
| 20°   | 555.1 | 579.1 | 607.2 | 656.3 | 696.4 |
| 22.5° | 509.0 | 535.0 | 567.1 | 619.2 | 664.3 |
| 25°   | 463.9 | 487.9 | 524.0 | 582.1 | 633.2 |
| 27.5° | 418.8 | 442.9 | 480.9 | 545.1 | 601.2 |
| 30°   | 371.7 | 396.8 | 436.9 | 508.0 | 569.1 |
| 32.5° | 325.6 | 349.7 | 394.8 | 471.9 | 536.0 |
| 35°   | 278.5 | 302.6 | 351.7 | 432.8 | 506.0 |
| 37.5° | 232.5 | 257.5 | 309.6 | 400.8 | 475.9 |
| 40°   | 184.4 | 211.4 | 270.5 | 367.7 | 443.9 |
| 42.5° | 139.3 | 168.3 | 231.5 | 333.6 | 408.8 |
| 45°   | 100.2 | 125.2 | 197.4 | 296.6 | 368.7 |
| 47.5° | 78.2  | 91.2  | 166.3 | 258.5 | 331.6 |
| 50°   | 68.1  | 70.1  | 136.3 | 223.4 | 293.6 |
| 52.5° | 59.1  | 61.1  | 107.2 | 190.4 | 253.5 |
| 55°   | 51.1  | 53.1  | 82.2  | 156.3 | 210.4 |
| 57.5° | 43.1  | 46.1  | 68.1  | 124.2 | 169.3 |
| 60°   | 36.1  | 40.1  | 61.1  | 95.2  | 130.3 |
| 62.5° | 29.1  | 36.1  | 52.1  | 70.1  | 93.2  |
| 65°   | 24.0  | 34.1  | 44.1  | 49.1  | 58.1  |
| 67.5° | 20.0  | 31.1  | 37.1  | 35.1  | 34.1  |
| 70°   | 17.0  | 28.1  | 31.1  | 28.1  | 29.1  |
| 72.5° | 14.0  | 26.1  | 26.1  | 24.0  | 24.0  |
| 75°   | 12.0  | 23.0  | 22.0  | 21.0  | 21.0  |
| 77.5° | 10.0  | 20.0  | 19.0  | 18.0  | 17.0  |
| 80°   | 8.0   | 16.0  | 16.0  | 15.0  | 14.0  |
| 82.5° | 7.0   | 13.0  | 13.0  | 13.0  | 11.0  |
| 85°   | 5.0   | 11.0  | 12.0  | 11.0  | 9.0   |
| 87.5° | 4.0   | 10.0  | 10.0  | 9.0   | 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 | 7.78             | 9.10  | 8.15  | 9.42  | 9.73  | 15.14          | 16.46 | 15.51 | 16.77 | 17.09 |
|                 | 3H   | 9.17             | 10.34 | 9.55  | 10.67 | 11.04 | 15.37          | 16.54 | 15.75 | 16.87 | 17.24 |
|                 | 4H   | 9.72             | 10.81 | 10.13 | 11.16 | 11.55 | 15.49          | 16.58 | 15.89 | 16.93 | 17.31 |
|                 | 6H   | 10.16            | 11.16 | 10.57 | 11.53 | 11.92 | 15.60          | 16.60 | 16.02 | 16.97 | 17.37 |
|                 | 8H   | 10.33            | 11.28 | 10.76 | 11.67 | 12.08 | 15.65          | 16.60 | 16.08 | 16.99 | 17.40 |
|                 | 12H  | 10.49            | 11.39 | 10.92 | 11.78 | 12.21 | 15.71          | 16.62 | 16.15 | 17.00 | 17.43 |
| 4H              | 2H   | 8.88             | 9.97  | 9.29  | 10.32 | 10.71 | 15.10          | 16.19 | 15.50 | 16.54 | 16.93 |
|                 | 3H   | 10.55            | 11.44 | 10.96 | 11.84 | 12.25 | 15.46          | 16.36 | 15.88 | 16.76 | 17.16 |
|                 | 4H   | 11.35            | 12.15 | 11.79 | 12.57 | 13.02 | 15.66          | 16.46 | 16.09 | 16.88 | 17.32 |
|                 | 6H   | 11.99            | 12.68 | 12.45 | 13.12 | 13.59 | 15.88          | 16.58 | 16.35 | 17.02 | 17.49 |
|                 | 8H   | 12.22            | 12.87 | 12.69 | 13.31 | 13.79 | 15.99          | 16.63 | 16.46 | 17.08 | 17.55 |
|                 | 12H  | 12.43            | 13.01 | 12.92 | 13.49 | 13.96 | 16.12          | 16.69 | 16.60 | 17.17 | 17.64 |
| 8H              | 4H   | 11.80            | 12.44 | 12.26 | 12.89 | 13.36 | 15.70          | 16.34 | 16.16 | 16.79 | 17.26 |
|                 | 6H   | 12.70            | 13.23 | 13.21 | 13.73 | 14.21 | 16.02          | 16.55 | 16.52 | 17.05 | 17.53 |
|                 | 8H   | 13.12            | 13.60 | 13.64 | 14.11 | 14.60 | 16.21          | 16.69 | 16.73 | 17.20 | 17.70 |
|                 | 12H  | 13.54            | 13.96 | 14.05 | 14.45 | 15.03 | 16.46          | 16.88 | 16.98 | 17.38 | 17.95 |
| 12H             | 4H   | 11.85            | 12.42 | 12.34 | 12.91 | 13.38 | 15.69          | 16.26 | 16.17 | 16.74 | 17.21 |
|                 | 6H   | 12.84            | 13.31 | 13.36 | 13.83 | 14.32 | 16.04          | 16.52 | 16.56 | 17.03 | 17.52 |
|                 | 8H   | 13.37            | 13.80 | 13.89 | 14.29 | 14.86 | 16.29          | 16.72 | 16.81 | 17.21 | 17.78 |