

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: P1059458

Luminaire Tested: S123RDRP-H1000D930-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059458  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-H1000D930-X4F0-XX-UDD-SVL-S  
Description: DEFINE 3 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: -

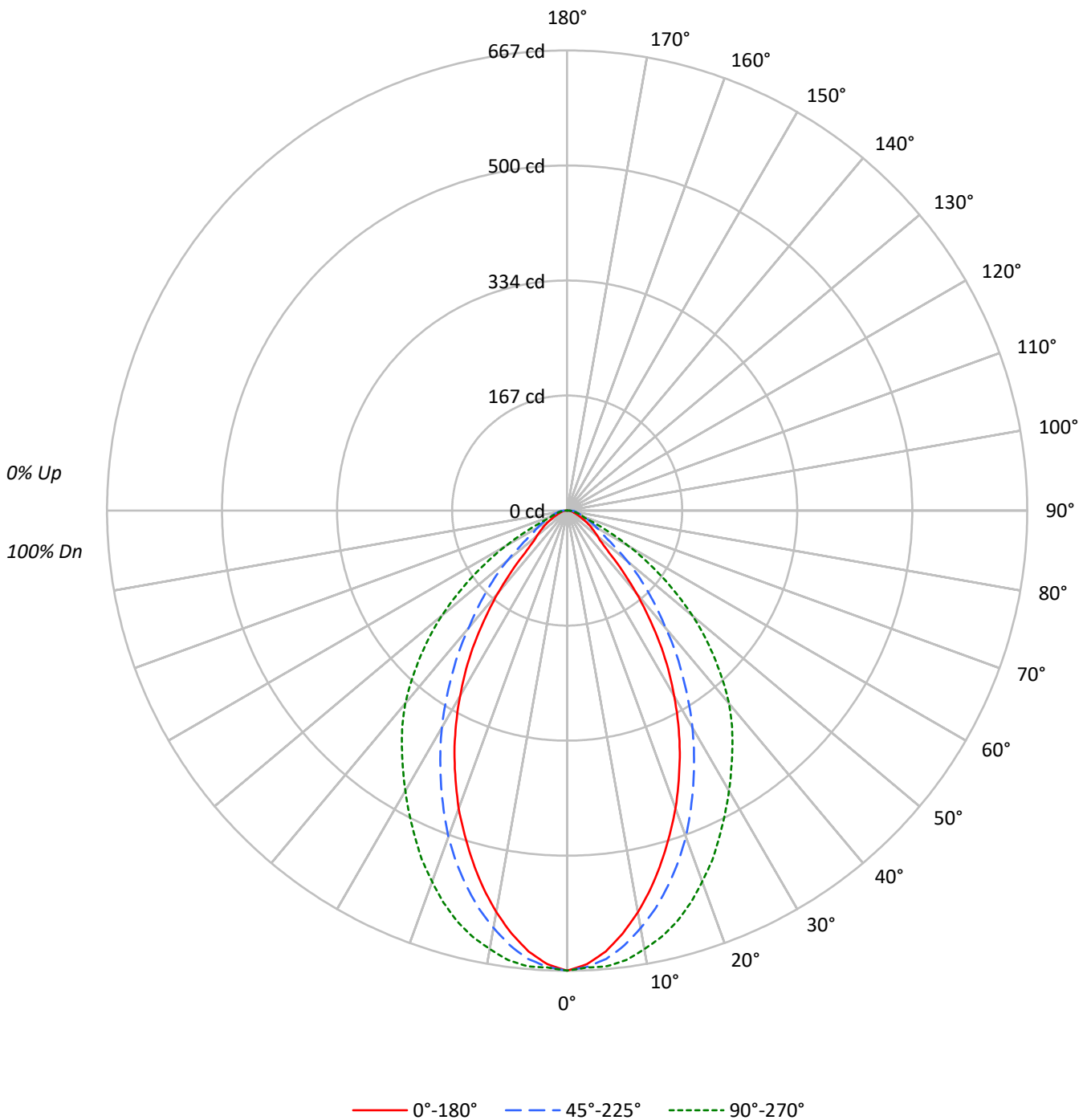
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 893.1 lumens  
Efficiency: N/A  
Efficacy: 28.6 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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 | 101 | 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   | 91  | 81  | 74  | 69  | 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  | 61  | 69  | 64  | 60  | 68  | 63  | 59  | 58  |    |    |    |    | 58  |   |  |   |
| 6   | 79  | 68  | 61  | 56  | 78  | 67  | 60  | 55  | 66  | 60  | 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  | 56  | 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  | 50  | 43  | 39  | 49  | 43  | 39  | 48  | 43  | 39  | 37  |    |    |    |    | 37  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7830 | 7830 | 7830 |
| 5°  | 7562 | 7688 | 7814 |
| 10° | 7046 | 7325 | 7695 |
| 15° | 6414 | 6851 | 7491 |
| 20° | 5742 | 6289 | 7153 |
| 25° | 5008 | 5613 | 6761 |
| 30° | 4210 | 4923 | 6362 |
| 35° | 3349 | 4173 | 5986 |
| 40° | 2388 | 3403 | 5596 |
| 45° | 1423 | 2732 | 5012 |
| 50° | 1049 | 2081 | 4339 |
| 55° | 876  | 1415 | 3448 |
| 60° | 709  | 1165 | 2424 |
| 65° | 567  | 1000 | 1298 |
| 70° | 467  | 869  | 803  |
| 75° | 440  | 839  | 749  |
| 80° | 460  | 920  | 724  |
| 85° | 660  | 1307 | 916  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5012 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 61.3   | 6.9       |
| 10°-20°   | 159.1  | 17.8      |
| 20°-30°   | 203.0  | 22.7      |
| 30°-40°   | 191.0  | 21.4      |
| 40°-50°   | 137.2  | 15.4      |
| 50°-60°   | 78.7   | 8.8       |
| 60°-70°   | 36.0   | 4.0       |
| 70°-80°   | 18.1   | 2.0       |
| 80°-90°   | 8.8    | 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°    | 423.4  | 47.4      |
| 0°-40°    | 614.3  | 68.8      |
| 0°-60°    | 830.2  | 93.0      |
| 0°-90°    | 893.1  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 893.1  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 667 | 667   | 667 | 667   | 667 |      |
| 5°  | 642 | 654   | 652 | 657   | 663 | 60   |
| 15° | 528 | 546   | 564 | 594   | 616 | 147  |
| 25° | 386 | 404   | 433 | 480   | 522 | 176  |
| 35° | 234 | 250   | 291 | 357   | 418 | 145  |
| 45° | 86  | 104   | 164 | 242   | 302 | 72   |
| 55° | 43  | 44    | 69  | 128   | 168 | 38   |
| 65° | 20  | 28    | 36  | 40    | 47  | 21   |
| 75° | 10  | 20    | 18  | 16    | 16  | 11   |
| 85° | 5   | 10    | 10  | 9     | 7   | 5    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 666.8 | 666.8 | 666.8 | 666.8 | 666.8 |
| 2.5°  | 658.1 | 667.8 | 662.0 | 662.0 | 662.9 |
| 5°    | 641.5 | 654.2 | 652.2 | 657.1 | 662.9 |
| 7.5°  | 618.2 | 631.8 | 635.7 | 647.4 | 657.1 |
| 10°   | 590.9 | 606.5 | 614.3 | 632.8 | 645.4 |
| 12.5° | 560.7 | 578.2 | 590.9 | 614.3 | 632.8 |
| 15°   | 527.6 | 546.1 | 563.6 | 593.8 | 616.2 |
| 17.5° | 493.6 | 512.0 | 534.4 | 569.5 | 595.8 |
| 20°   | 459.5 | 478.0 | 503.3 | 540.3 | 572.4 |
| 22.5° | 422.5 | 441.0 | 468.2 | 510.1 | 549.0 |
| 25°   | 386.5 | 404.0 | 433.2 | 479.9 | 521.8 |
| 27.5° | 348.5 | 366.0 | 398.2 | 448.8 | 495.5 |
| 30°   | 310.5 | 328.1 | 363.1 | 417.6 | 469.2 |
| 32.5° | 272.6 | 289.1 | 327.1 | 387.4 | 442.9 |
| 35°   | 233.6 | 250.2 | 291.1 | 357.3 | 417.6 |
| 37.5° | 193.7 | 210.3 | 258.0 | 330.0 | 392.3 |
| 40°   | 155.8 | 174.3 | 222.0 | 302.8 | 365.1 |
| 42.5° | 118.8 | 138.2 | 192.7 | 273.5 | 333.9 |
| 45°   | 85.7  | 104.2 | 164.5 | 242.4 | 301.8 |
| 47.5° | 65.2  | 75.0  | 139.2 | 211.2 | 270.6 |
| 50°   | 57.4  | 58.4  | 113.9 | 183.0 | 237.5 |
| 52.5° | 49.6  | 50.6  | 88.6  | 155.8 | 202.5 |
| 55°   | 42.8  | 43.8  | 69.1  | 127.5 | 168.4 |
| 57.5° | 36.0  | 38.0  | 56.5  | 101.2 | 135.3 |
| 60°   | 30.2  | 34.1  | 49.6  | 76.9  | 103.2 |
| 62.5° | 24.3  | 31.2  | 42.8  | 56.5  | 74.0  |
| 65°   | 20.4  | 28.2  | 36.0  | 39.9  | 46.7  |
| 67.5° | 16.5  | 26.3  | 30.2  | 28.2  | 28.2  |
| 70°   | 13.6  | 23.4  | 25.3  | 23.4  | 23.4  |
| 72.5° | 11.7  | 22.4  | 21.4  | 19.5  | 19.5  |
| 75°   | 9.7   | 19.5  | 18.5  | 16.5  | 16.5  |
| 77.5° | 8.8   | 16.5  | 15.6  | 14.6  | 13.6  |
| 80°   | 6.8   | 13.6  | 13.6  | 12.7  | 10.7  |
| 82.5° | 5.8   | 11.7  | 11.7  | 10.7  | 8.8   |
| 85°   | 4.9   | 9.7   | 9.7   | 8.8   | 6.8   |
| 87.5° | 3.9   | 8.8   | 8.8   | 7.8   | 4.9   |
| 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 | 7.14             | 8.46  | 7.50  | 8.77  | 9.09  | 14.36          | 15.67 | 14.72 | 15.99 | 16.30 |
|                 | 3H   | 8.54             | 9.71  | 8.92  | 10.04 | 10.40 | 14.59          | 15.76 | 14.97 | 16.09 | 16.46 |
|                 | 4H   | 9.10             | 10.19 | 9.50  | 10.54 | 10.92 | 14.70          | 15.79 | 15.10 | 16.14 | 16.52 |
|                 | 6H   | 9.56             | 10.56 | 9.97  | 10.93 | 11.32 | 14.81          | 15.81 | 15.22 | 16.18 | 16.57 |
|                 | 8H   | 9.74             | 10.69 | 10.17 | 11.08 | 11.49 | 14.85          | 15.80 | 15.28 | 16.19 | 16.60 |
|                 | 12H  | 9.93             | 10.84 | 10.37 | 11.22 | 11.65 | 14.91          | 15.81 | 15.34 | 16.20 | 16.63 |
| 4H              | 2H   | 8.21             | 9.30  | 8.61  | 9.65  | 10.03 | 14.32          | 15.41 | 14.72 | 15.76 | 16.14 |
|                 | 3H   | 9.90             | 10.79 | 10.31 | 11.20 | 11.60 | 14.69          | 15.58 | 15.10 | 15.98 | 16.39 |
|                 | 4H   | 10.73            | 11.53 | 11.17 | 11.95 | 12.39 | 14.87          | 15.67 | 15.30 | 16.09 | 16.53 |
|                 | 6H   | 11.39            | 12.08 | 11.85 | 12.53 | 12.99 | 15.09          | 15.78 | 15.55 | 16.23 | 16.69 |
|                 | 8H   | 11.64            | 12.29 | 12.11 | 12.74 | 13.21 | 15.19          | 15.84 | 15.66 | 16.28 | 16.76 |
|                 | 12H  | 11.90            | 12.47 | 12.39 | 12.95 | 13.43 | 15.31          | 15.88 | 15.80 | 16.36 | 16.84 |
| 8H              | 4H   | 11.17            | 11.81 | 11.64 | 12.26 | 12.73 | 14.91          | 15.56 | 15.38 | 16.01 | 16.48 |
|                 | 6H   | 12.12            | 12.65 | 12.62 | 13.14 | 13.62 | 15.25          | 15.78 | 15.75 | 16.27 | 16.75 |
|                 | 8H   | 12.58            | 13.06 | 13.10 | 13.57 | 14.07 | 15.44          | 15.91 | 15.96 | 16.43 | 16.92 |
|                 | 12H  | 13.06            | 13.48 | 13.57 | 13.98 | 14.55 | 15.67          | 16.09 | 16.19 | 16.59 | 17.16 |
| 12H             | 4H   | 11.23            | 11.80 | 11.71 | 12.28 | 12.76 | 14.91          | 15.48 | 15.39 | 15.96 | 16.43 |
|                 | 6H   | 12.27            | 12.74 | 12.79 | 13.26 | 13.75 | 15.27          | 15.75 | 15.79 | 16.27 | 16.76 |
|                 | 8H   | 12.86            | 13.28 | 13.37 | 13.77 | 14.35 | 15.53          | 15.96 | 16.05 | 16.45 | 17.02 |