

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: P1058316

Luminaire Tested: S122RDRP-H290D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058316  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H290D927-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

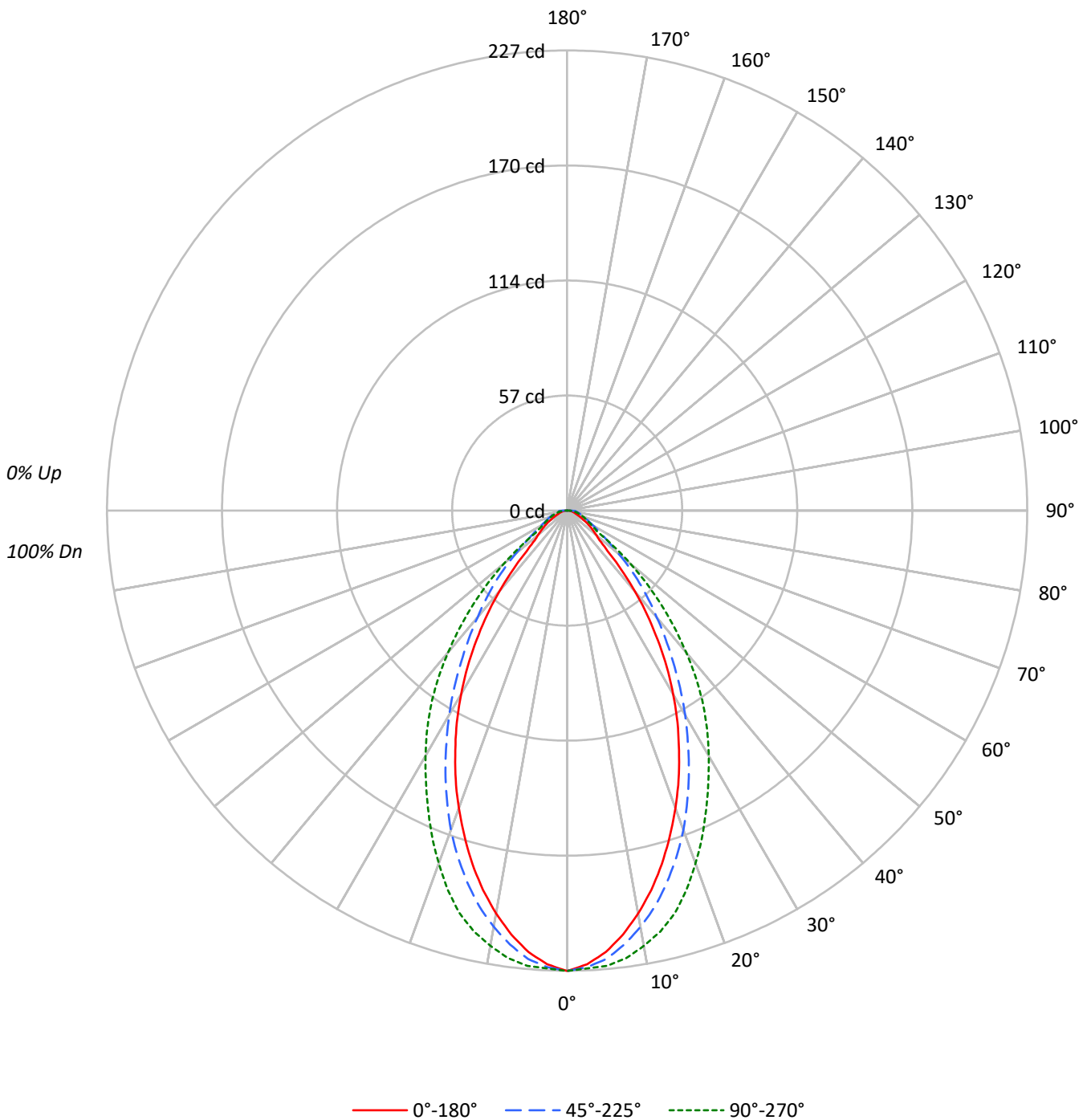
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 275.4 lumens  
Efficiency: N/A  
Efficacy: 23.5 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
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

TEST NUMBER: P1058316

CATALOG NUMBER: S122RDRP-H290D927-X4F0-XX-UDD-SVL-W

### Luminous Intensity Polar Plot



TEST NUMBER: P1058316

CATALOG NUMBER: S122RDRP-H290D927-X4F0-XX-UDD-SVL-W

**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 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99  | 97  | 98  | 96  | 94  | 94  | 93  | 91  | 89  |
| 2   | 104 | 98  | 93  | 88  | 102 | 96  | 91  | 87  | 93  | 89  | 85  | 90  | 86  | 84  | 87  | 84  | 82  | 80  |
| 3   | 97  | 89  | 83  | 78  | 95  | 88  | 82  | 77  | 85  | 80  | 76  | 83  | 78  | 75  | 80  | 77  | 74  | 72  |
| 4   | 91  | 82  | 75  | 70  | 89  | 81  | 74  | 69  | 78  | 73  | 68  | 76  | 71  | 68  | 74  | 70  | 67  | 65  |
| 5   | 86  | 75  | 68  | 63  | 84  | 74  | 68  | 63  | 72  | 67  | 62  | 71  | 65  | 61  | 69  | 64  | 61  | 59  |
| 6   | 80  | 70  | 62  | 57  | 79  | 69  | 62  | 57  | 67  | 61  | 57  | 66  | 60  | 56  | 64  | 59  | 56  | 54  |
| 7   | 76  | 65  | 57  | 52  | 74  | 64  | 57  | 52  | 62  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 51  | 50  |
| 8   | 71  | 60  | 53  | 48  | 70  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 51  | 47  | 46  |
| 9   | 67  | 56  | 49  | 45  | 66  | 56  | 49  | 45  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 42  |
| 10  | 64  | 53  | 46  | 41  | 63  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 50  | 45  | 41  | 39  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4191 | 4191 | 4191 |
| 5°  | 4049 | 4112 | 4175 |
| 10° | 3781 | 3907 | 4085 |
| 15° | 3448 | 3630 | 3926 |
| 20° | 3067 | 3293 | 3637 |
| 25° | 2659 | 2893 | 3304 |
| 30° | 2229 | 2480 | 2977 |
| 35° | 1755 | 2052 | 2638 |
| 40° | 1253 | 1657 | 2202 |
| 45° | 739  | 1313 | 1709 |
| 50° | 534  | 950  | 1163 |
| 55° | 444  | 685  | 586  |
| 60° | 362  | 546  | 498  |
| 65° | 293  | 485  | 458  |
| 70° | 254  | 475  | 437  |
| 75° | 242  | 478  | 435  |
| 80° | 255  | 574  | 468  |
| 85° | 360  | 932  | 572  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1709 cd/sqm



TEST NUMBER: P1058316

CATALOG NUMBER: S122RDRP-H290D927-X4F0-XX-UDD-SVL-W

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 20.8   | 7.6       |
| 10°-20°   | 53.5   | 19.4      |
| 20°-30°   | 66.0   | 24.0      |
| 30°-40°   | 58.7   | 21.3      |
| 40°-50°   | 37.5   | 13.6      |
| 50°-60°   | 18.0   | 6.5       |
| 60°-70°   | 10.6   | 3.8       |
| 70°-80°   | 6.7    | 2.4       |
| 80°-90°   | 3.6    | 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°    | 140.3  | 51.0      |
| 0°-40°    | 199.1  | 72.3      |
| 0°-60°    | 254.5  | 92.4      |
| 0°-90°    | 275.4  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 275.4  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 227 | 227   | 227 | 227   | 227 |      |
| 5°  | 219 | 223   | 222 | 223   | 225 | 20   |
| 15° | 180 | 185   | 190 | 199   | 206 | 50   |
| 25° | 131 | 136   | 142 | 152   | 162 | 60   |
| 35° | 78  | 84    | 91  | 105   | 117 | 48   |
| 45° | 28  | 37    | 50  | 58    | 66  | 24   |
| 55° | 14  | 18    | 21  | 21    | 18  | 12   |
| 65° | 7   | 12    | 11  | 10    | 10  | 7    |
| 75° | 3   | 7     | 7   | 6     | 6   | 4    |
| 85° | 2   | 4     | 4   | 4     | 3   | 2    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



TEST NUMBER: P1058316

CATALOG NUMBER: S122RDRP-H290D927-X4F0-XX-UDD-SVL-W

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 227.1 | 227.1 | 227.1 | 227.1 | 227.1 |
| 2.5°  | 224.0 | 227.8 | 225.4 | 225.4 | 226.1 |
| 5°    | 218.6 | 222.7 | 222.0 | 223.4 | 225.4 |
| 7.5°  | 210.9 | 215.3 | 215.9 | 219.7 | 222.7 |
| 10°   | 201.8 | 206.5 | 208.5 | 213.9 | 218.0 |
| 12.5° | 191.7 | 196.4 | 200.1 | 206.8 | 212.6 |
| 15°   | 180.5 | 184.9 | 190.0 | 198.7 | 205.5 |
| 17.5° | 168.4 | 174.1 | 179.2 | 188.3 | 196.0 |
| 20°   | 156.2 | 161.6 | 167.7 | 176.5 | 185.2 |
| 22.5° | 143.7 | 148.8 | 154.9 | 164.0 | 174.1 |
| 25°   | 130.6 | 135.6 | 142.1 | 152.2 | 162.3 |
| 27.5° | 117.8 | 122.8 | 128.9 | 140.0 | 150.8 |
| 30°   | 104.6 | 109.7 | 116.4 | 127.9 | 139.7 |
| 32.5° | 91.4  | 96.8  | 103.6 | 116.1 | 128.6 |
| 35°   | 77.9  | 84.0  | 91.1  | 104.9 | 117.1 |
| 37.5° | 64.8  | 70.9  | 79.6  | 93.1  | 104.6 |
| 40°   | 52.0  | 59.0  | 68.8  | 81.0  | 91.4  |
| 42.5° | 39.5  | 47.2  | 59.4  | 69.2  | 78.3  |
| 45°   | 28.3  | 36.8  | 50.3  | 58.4  | 65.5  |
| 47.5° | 21.6  | 27.7  | 41.5  | 47.9  | 53.0  |
| 50°   | 18.6  | 22.3  | 33.1  | 37.8  | 40.5  |
| 52.5° | 16.2  | 19.6  | 26.3  | 28.7  | 28.7  |
| 55°   | 13.8  | 17.9  | 21.3  | 20.6  | 18.2  |
| 57.5° | 11.8  | 16.2  | 17.5  | 14.8  | 15.5  |
| 60°   | 9.8   | 14.8  | 14.8  | 13.2  | 13.5  |
| 62.5° | 8.1   | 13.8  | 12.8  | 11.5  | 11.8  |
| 65°   | 6.7   | 12.1  | 11.1  | 10.1  | 10.5  |
| 67.5° | 5.4   | 10.8  | 9.8   | 9.1   | 9.1   |
| 70°   | 4.7   | 9.8   | 8.8   | 8.1   | 8.1   |
| 72.5° | 4.0   | 8.4   | 7.8   | 7.1   | 7.1   |
| 75°   | 3.4   | 7.4   | 6.7   | 6.4   | 6.1   |
| 77.5° | 3.0   | 6.4   | 6.1   | 5.4   | 5.1   |
| 80°   | 2.4   | 5.4   | 5.4   | 5.1   | 4.4   |
| 82.5° | 2.0   | 4.7   | 4.7   | 4.4   | 3.7   |
| 85°   | 1.7   | 4.0   | 4.4   | 3.7   | 2.7   |
| 87.5° | 1.3   | 3.7   | 3.7   | 3.0   | 2.0   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



TEST NUMBER: P1058316  
 CATALOG NUMBER: S122RDRP-H290D927-X4F0-XX-UDD-SVL-W

**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 | 6.65             | 7.93  | 7.01  | 8.24  | 8.55  | 6.42           | 7.70  | 6.79  | 8.01  | 8.33  |
|                 | 3H   | 7.88             | 9.02  | 8.26  | 9.35  | 9.71  | 8.02           | 9.16  | 8.40  | 9.49  | 9.85  |
|                 | 4H   | 8.33             | 9.39  | 8.73  | 9.74  | 10.13 | 8.74           | 9.80  | 9.15  | 10.15 | 10.54 |
|                 | 6H   | 8.71             | 9.68  | 9.13  | 10.06 | 10.45 | 9.40           | 10.38 | 9.82  | 10.75 | 11.14 |
|                 | 8H   | 8.86             | 9.79  | 9.29  | 10.18 | 10.58 | 9.73           | 10.65 | 10.16 | 11.04 | 11.45 |
|                 | 12H  | 9.02             | 9.90  | 9.45  | 10.29 | 10.72 | 10.03          | 10.91 | 10.46 | 11.29 | 11.72 |
| 4H              | 2H   | 7.19             | 8.25  | 7.60  | 8.60  | 8.99  | 7.02           | 8.07  | 7.42  | 8.42  | 8.81  |
|                 | 3H   | 8.89             | 9.76  | 9.30  | 10.17 | 10.57 | 8.86           | 9.73  | 9.27  | 10.14 | 10.54 |
|                 | 4H   | 9.68             | 10.47 | 10.12 | 10.89 | 11.33 | 9.74           | 10.52 | 10.17 | 10.94 | 11.38 |
|                 | 6H   | 10.33            | 11.00 | 10.79 | 11.45 | 11.92 | 10.59          | 11.27 | 11.05 | 11.71 | 12.18 |
|                 | 8H   | 10.57            | 11.21 | 11.04 | 11.66 | 12.13 | 11.02          | 11.65 | 11.49 | 12.10 | 12.57 |
|                 | 12H  | 10.82            | 11.38 | 11.31 | 11.86 | 12.34 | 11.42          | 11.98 | 11.90 | 12.46 | 12.93 |
| 8H              | 4H   | 10.10            | 10.74 | 10.57 | 11.18 | 11.65 | 10.16          | 10.79 | 10.63 | 11.24 | 11.71 |
|                 | 6H   | 11.08            | 11.60 | 11.58 | 12.10 | 12.58 | 11.25          | 11.77 | 11.75 | 12.27 | 12.75 |
|                 | 8H   | 11.57            | 12.03 | 12.09 | 12.55 | 13.04 | 11.84          | 12.31 | 12.37 | 12.83 | 13.32 |
|                 | 12H  | 12.06            | 12.48 | 12.58 | 12.97 | 13.54 | 12.44          | 12.86 | 12.96 | 13.35 | 13.92 |
| 12H             | 4H   | 10.17            | 10.73 | 10.66 | 11.21 | 11.69 | 10.23          | 10.79 | 10.72 | 11.27 | 11.75 |
|                 | 6H   | 11.25            | 11.72 | 11.77 | 12.23 | 12.72 | 11.41          | 11.88 | 11.94 | 12.40 | 12.89 |
|                 | 8H   | 11.88            | 12.29 | 12.40 | 12.79 | 13.36 | 12.13          | 12.54 | 12.64 | 13.04 | 13.61 |