

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: P1057874

Luminaire Tested: S122RDRP-S290D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057874  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S290D830-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

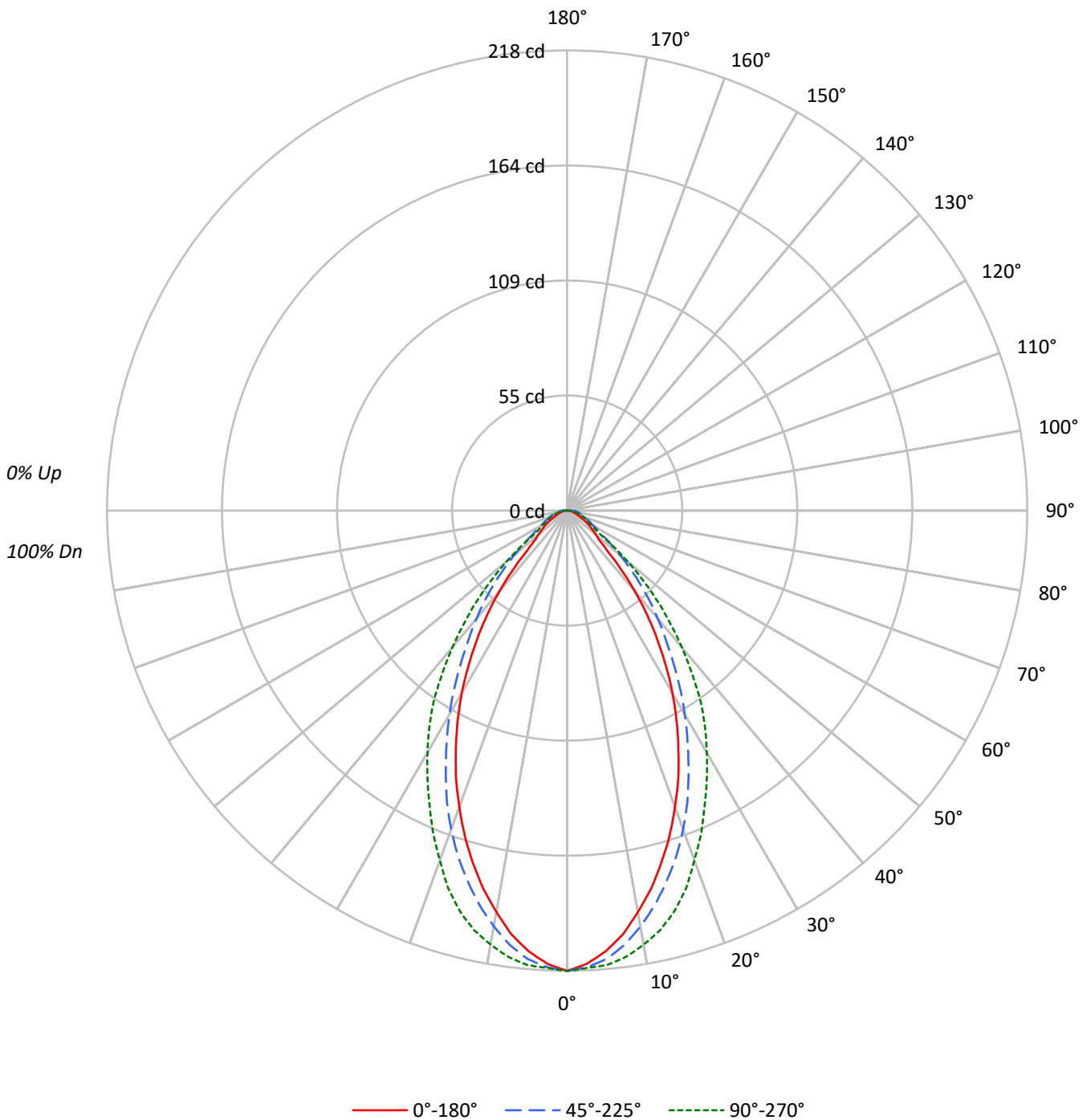
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 263.1 lumens  
Efficiency: N/A  
Efficacy: 21.0 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
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   | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 101 | 99  | 97  | 98  | 96  | 94  | 94  | 93  | 91  | 89  |
| 2   | 104 | 98  | 93  | 88  | 102 | 96  | 91  | 87  | 93  | 89  | 85  | 90  | 86  | 83  | 87  | 84  | 82  | 80  |
| 3   | 97  | 89  | 83  | 78  | 95  | 88  | 82  | 77  | 85  | 80  | 76  | 82  | 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  | 66  | 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  | 44  | 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°  | 4024 | 4024 | 4024 |
| 5°  | 3882 | 3951 | 4003 |
| 10° | 3618 | 3747 | 3912 |
| 15° | 3297 | 3475 | 3752 |
| 20° | 2932 | 3154 | 3460 |
| 25° | 2539 | 2769 | 3137 |
| 30° | 2126 | 2376 | 2821 |
| 35° | 1676 | 1967 | 2485 |
| 40° | 1202 | 1609 | 2035 |
| 45° | 705  | 1271 | 1576 |
| 50° | 508  | 924  | 1062 |
| 55° | 428  | 660  | 557  |
| 60° | 343  | 535  | 476  |
| 65° | 279  | 476  | 441  |
| 70° | 237  | 459  | 410  |
| 75° | 228  | 485  | 399  |
| 80° | 255  | 595  | 425  |
| 85° | 423  | 932  | 593  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1576 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 20.0   | 7.6       |
| 10°-20°   | 51.2   | 19.5      |
| 20°-30°   | 62.9   | 23.9      |
| 30°-40°   | 55.6   | 21.1      |
| 40°-50°   | 35.5   | 13.5      |
| 50°-60°   | 17.3   | 6.6       |
| 60°-70°   | 10.3   | 3.9       |
| 70°-80°   | 6.6    | 2.5       |
| 80°-90°   | 3.6    | 1.4       |
| 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°    | 134.1  | 51.0      |
| 0°-40°    | 189.7  | 72.1      |
| 0°-60°    | 242.6  | 92.2      |
| 0°-90°    | 263.1  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 263.1  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 218 | 218   | 218 | 218   | 218 |      |
| 5°  | 210 | 214   | 213 | 214   | 216 | 19   |
| 15° | 173 | 178   | 182 | 190   | 196 | 48   |
| 25° | 125 | 129   | 136 | 144   | 154 | 57   |
| 35° | 74  | 78    | 87  | 99    | 110 | 46   |
| 45° | 27  | 35    | 49  | 55    | 60  | 23   |
| 55° | 13  | 18    | 20  | 19    | 17  | 12   |
| 65° | 6   | 12    | 11  | 10    | 10  | 6    |
| 75° | 3   | 7     | 7   | 6     | 6   | 4    |
| 85° | 2   | 4     | 4   | 4     | 3   | 2    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 218.1 | 218.1 | 218.1 | 218.1 | 218.1 |
| 2.5°  | 214.9 | 218.9 | 216.5 | 216.5 | 216.9 |
| 5°    | 209.6 | 214.1 | 213.3 | 214.1 | 216.1 |
| 7.5°  | 202.4 | 206.8 | 207.6 | 210.9 | 213.3 |
| 10°   | 193.1 | 197.6 | 200.0 | 205.2 | 208.8 |
| 12.5° | 183.5 | 187.9 | 191.5 | 198.4 | 203.6 |
| 15°   | 172.6 | 177.5 | 181.9 | 189.9 | 196.4 |
| 17.5° | 161.4 | 166.2 | 171.8 | 179.9 | 187.5 |
| 20°   | 149.3 | 153.7 | 160.6 | 168.2 | 176.2 |
| 22.5° | 137.6 | 141.6 | 148.9 | 156.1 | 165.8 |
| 25°   | 124.7 | 129.2 | 136.0 | 144.5 | 154.1 |
| 27.5° | 112.3 | 116.7 | 123.5 | 133.2 | 143.3 |
| 30°   | 99.8  | 103.8 | 111.5 | 121.5 | 132.4 |
| 32.5° | 86.9  | 90.9  | 99.4  | 110.3 | 121.5 |
| 35°   | 74.4  | 78.5  | 87.3  | 99.4  | 110.3 |
| 37.5° | 62.0  | 66.4  | 76.5  | 87.7  | 97.0  |
| 40°   | 49.9  | 55.1  | 66.8  | 76.5  | 84.5  |
| 42.5° | 37.8  | 45.1  | 57.5  | 65.6  | 72.0  |
| 45°   | 27.0  | 34.6  | 48.7  | 54.7  | 60.4  |
| 47.5° | 20.5  | 26.6  | 40.2  | 44.7  | 48.3  |
| 50°   | 17.7  | 21.7  | 32.2  | 35.4  | 37.0  |
| 52.5° | 15.3  | 19.3  | 25.8  | 27.0  | 26.2  |
| 55°   | 13.3  | 17.7  | 20.5  | 19.3  | 17.3  |
| 57.5° | 11.3  | 16.5  | 16.9  | 14.5  | 14.9  |
| 60°   | 9.3   | 14.9  | 14.5  | 12.5  | 12.9  |
| 62.5° | 7.6   | 13.7  | 12.5  | 11.3  | 11.3  |
| 65°   | 6.4   | 12.1  | 10.9  | 10.1  | 10.1  |
| 67.5° | 5.2   | 10.9  | 9.7   | 8.9   | 8.9   |
| 70°   | 4.4   | 9.7   | 8.5   | 7.6   | 7.6   |
| 72.5° | 4.0   | 8.5   | 7.6   | 6.8   | 6.8   |
| 75°   | 3.2   | 7.2   | 6.8   | 6.0   | 5.6   |
| 77.5° | 2.8   | 6.0   | 6.0   | 5.6   | 4.8   |
| 80°   | 2.4   | 5.2   | 5.6   | 4.8   | 4.0   |
| 82.5° | 2.4   | 4.8   | 4.8   | 4.4   | 3.2   |
| 85°   | 2.0   | 4.0   | 4.4   | 4.0   | 2.8   |
| 87.5° | 1.2   | 3.6   | 3.6   | 3.2   | 2.0   |
| 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 | 6.87             | 8.15  | 7.23  | 8.46  | 8.78  | 6.40           | 7.68  | 6.76  | 7.99  | 8.31  |
|                 | 3H   | 8.05             | 9.18  | 8.43  | 9.51  | 9.88  | 7.96           | 9.10  | 8.34  | 9.43  | 9.79  |
|                 | 4H   | 8.47             | 9.53  | 8.87  | 9.88  | 10.27 | 8.63           | 9.70  | 9.04  | 10.05 | 10.43 |
|                 | 6H   | 8.81             | 9.79  | 9.23  | 10.16 | 10.55 | 9.27           | 10.25 | 9.69  | 10.62 | 11.02 |
|                 | 8H   | 9.01             | 9.93  | 9.44  | 10.32 | 10.73 | 9.56           | 10.49 | 9.99  | 10.88 | 11.28 |
|                 | 12H  | 9.22             | 10.11 | 9.65  | 10.49 | 10.92 | 9.87           | 10.76 | 10.31 | 11.14 | 11.57 |
| 4H              | 2H   | 7.38             | 8.44  | 7.78  | 8.79  | 9.17  | 7.00           | 8.06  | 7.40  | 8.41  | 8.80  |
|                 | 3H   | 9.02             | 9.90  | 9.44  | 10.30 | 10.71 | 8.80           | 9.67  | 9.21  | 10.07 | 10.48 |
|                 | 4H   | 9.78             | 10.56 | 10.21 | 10.98 | 11.43 | 9.63           | 10.41 | 10.06 | 10.83 | 11.27 |
|                 | 6H   | 10.37            | 11.05 | 10.84 | 11.50 | 11.97 | 10.47          | 11.15 | 10.94 | 11.60 | 12.07 |
|                 | 8H   | 10.67            | 11.30 | 11.14 | 11.75 | 12.22 | 10.86          | 11.50 | 11.33 | 11.94 | 12.41 |
|                 | 12H  | 10.98            | 11.54 | 11.46 | 12.02 | 12.50 | 11.29          | 11.86 | 11.78 | 12.34 | 12.81 |
| 8H              | 4H   | 10.19            | 10.83 | 10.66 | 11.27 | 11.74 | 10.08          | 10.72 | 10.55 | 11.16 | 11.63 |
|                 | 6H   | 11.13            | 11.65 | 11.63 | 12.15 | 12.63 | 11.18          | 11.70 | 11.68 | 12.20 | 12.68 |
|                 | 8H   | 11.67            | 12.14 | 12.19 | 12.66 | 13.15 | 11.75          | 12.22 | 12.28 | 12.74 | 13.23 |
|                 | 12H  | 12.23            | 12.65 | 12.75 | 13.14 | 13.71 | 12.42          | 12.84 | 12.94 | 13.33 | 13.90 |
| 12H             | 4H   | 10.26            | 10.82 | 10.75 | 11.30 | 11.78 | 10.16          | 10.72 | 10.65 | 11.21 | 11.68 |
|                 | 6H   | 11.31            | 11.78 | 11.83 | 12.30 | 12.79 | 11.36          | 11.83 | 11.88 | 12.35 | 12.84 |
|                 | 8H   | 12.00            | 12.41 | 12.51 | 12.91 | 13.48 | 12.07          | 12.48 | 12.58 | 12.98 | 13.55 |