

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: P1057967

Luminaire Tested: S122RDRP-S485D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057967  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S485D835-X4F0-XX-UDD-WVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

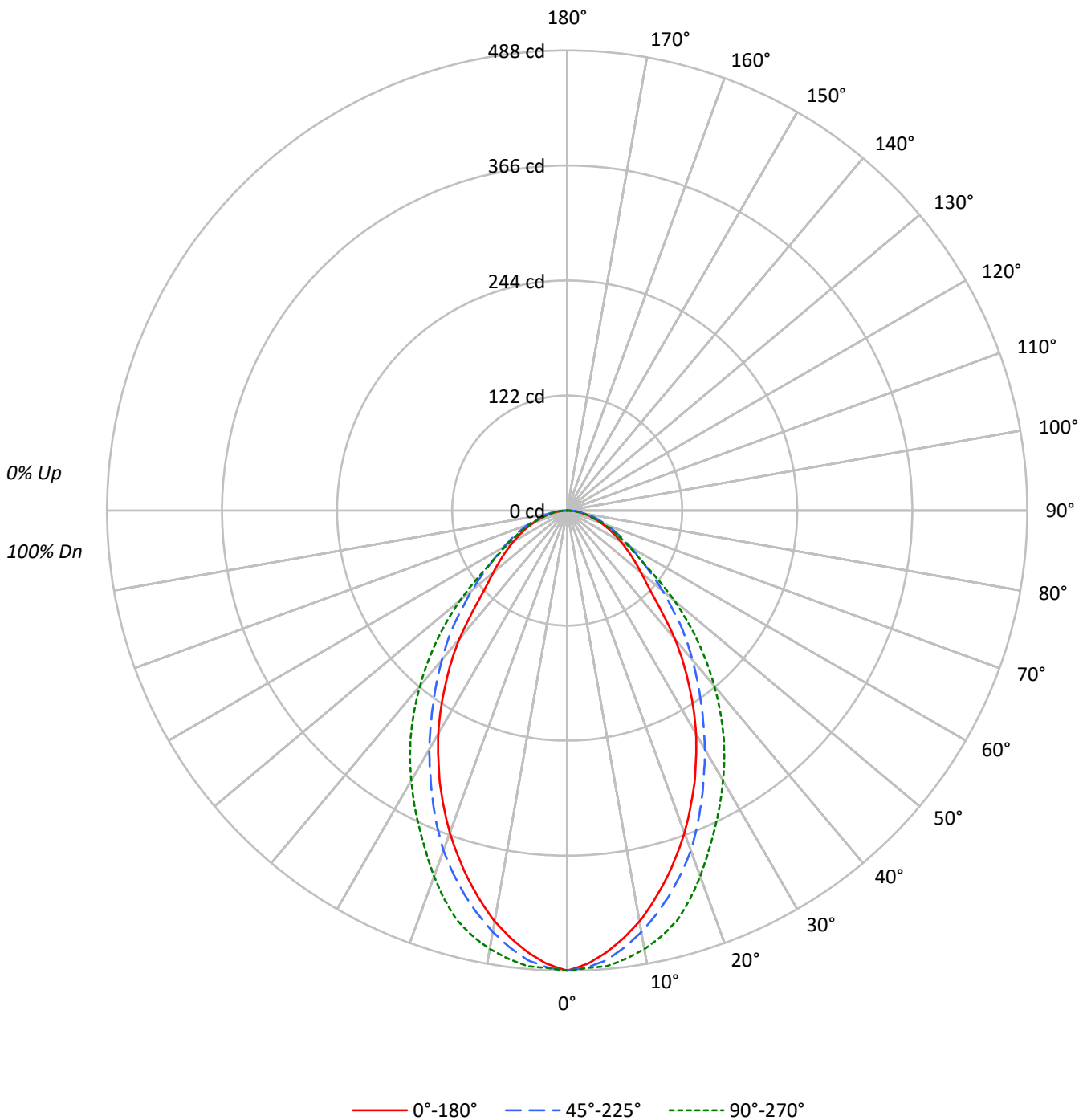
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 794.3 lumens  
Efficiency: N/A  
Efficacy: 40.5 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): 19.6  
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 | 99  | 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  | 79  | 84  | 80  | 78  | 76  |
| 3   | 94  | 85  | 78  | 73  | 92  | 84  | 77  | 72  | 81  | 75  | 71  | 78  | 73  | 69  | 76  | 72  | 68  | 66  |
| 4   | 88  | 77  | 69  | 63  | 85  | 76  | 69  | 63  | 73  | 67  | 62  | 71  | 66  | 61  | 69  | 64  | 61  | 59  |
| 5   | 81  | 70  | 62  | 56  | 79  | 69  | 61  | 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  | 45  | 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  | 39  | 35  | 45  | 39  | 35  | 45  | 39  | 34  | 44  | 38  | 34  | 33  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9001 | 9001 | 9001 |
| 5°  | 8721 | 8865 | 8982 |
| 10° | 8291 | 8503 | 8848 |
| 15° | 7735 | 8046 | 8600 |
| 20° | 7146 | 7535 | 8104 |
| 25° | 6501 | 6876 | 7554 |
| 30° | 5823 | 6230 | 7044 |
| 35° | 5071 | 5566 | 6506 |
| 40° | 4280 | 4979 | 5849 |
| 45° | 3400 | 4397 | 5117 |
| 50° | 2925 | 3781 | 4249 |
| 55° | 2664 | 3233 | 3256 |
| 60° | 2428 | 2875 | 2768 |
| 65° | 2227 | 2598 | 2441 |
| 70° | 2061 | 2406 | 2180 |
| 75° | 1918 | 2274 | 1918 |
| 80° | 1806 | 2178 | 1732 |
| 85° | 1800 | 2244 | 1503 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5117 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 45.0   | 5.7       |
| 10°-20°   | 119.0  | 15.0      |
| 20°-30°   | 156.6  | 19.7      |
| 30°-40°   | 157.5  | 19.8      |
| 40°-50°   | 127.7  | 16.1      |
| 50°-60°   | 87.9   | 11.1      |
| 60°-70°   | 57.6   | 7.2       |
| 70°-80°   | 32.1   | 4.0       |
| 80°-90°   | 10.9   | 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°    | 320.7  | 40.4      |
| 0°-40°    | 478.2  | 60.2      |
| 0°-60°    | 693.8  | 87.3      |
| 0°-90°    | 794.3  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 794.3  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 488 | 488   | 488 | 488   | 488 |      |
| 5°  | 471 | 480   | 479 | 481   | 485 | 44   |
| 15° | 405 | 415   | 421 | 437   | 450 | 113  |
| 25° | 319 | 328   | 338 | 353   | 371 | 146  |
| 35° | 225 | 236   | 247 | 269   | 289 | 140  |
| 45° | 130 | 145   | 168 | 183   | 196 | 103  |
| 55° | 83  | 92    | 100 | 103   | 101 | 74   |
| 65° | 51  | 61    | 60  | 57    | 56  | 51   |
| 75° | 27  | 33    | 32  | 28    | 27  | 29   |
| 85° | 8   | 11    | 11  | 9     | 7   | 9    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 487.8 | 487.8 | 487.8 | 487.8 | 487.8 |
| 2.5°  | 481.4 | 489.9 | 484.9 | 484.9 | 485.6 |
| 5°    | 470.8 | 480.0 | 478.6 | 480.7 | 484.9 |
| 7.5°  | 457.3 | 467.2 | 467.2 | 473.6 | 479.3 |
| 10°   | 442.5 | 452.4 | 453.8 | 463.7 | 472.2 |
| 12.5° | 424.1 | 434.0 | 438.2 | 451.0 | 462.3 |
| 15°   | 404.9 | 414.8 | 421.2 | 436.8 | 450.2 |
| 17.5° | 384.4 | 394.3 | 402.8 | 419.1 | 432.5 |
| 20°   | 363.9 | 373.1 | 383.7 | 397.9 | 412.7 |
| 22.5° | 341.2 | 351.1 | 361.0 | 374.5 | 391.5 |
| 25°   | 319.3 | 327.8 | 337.7 | 352.6 | 371.0 |
| 27.5° | 295.9 | 305.1 | 314.3 | 332.0 | 351.1 |
| 30°   | 273.3 | 282.5 | 292.4 | 310.8 | 330.6 |
| 32.5° | 249.2 | 259.1 | 269.0 | 289.5 | 310.1 |
| 35°   | 225.1 | 235.7 | 247.1 | 269.0 | 288.8 |
| 37.5° | 201.8 | 213.1 | 226.5 | 249.2 | 266.2 |
| 40°   | 177.7 | 189.7 | 206.7 | 226.5 | 242.8 |
| 42.5° | 152.2 | 167.1 | 187.6 | 204.6 | 219.5 |
| 45°   | 130.3 | 145.1 | 168.5 | 183.4 | 196.1 |
| 47.5° | 114.0 | 126.0 | 148.7 | 161.4 | 172.0 |
| 50°   | 101.9 | 111.1 | 131.7 | 140.9 | 148.0 |
| 52.5° | 92.0  | 101.2 | 115.4 | 121.8 | 123.9 |
| 55°   | 82.8  | 92.0  | 100.5 | 102.7 | 101.2 |
| 57.5° | 73.6  | 83.5  | 88.5  | 86.4  | 86.4  |
| 60°   | 65.8  | 76.5  | 77.9  | 75.0  | 75.0  |
| 62.5° | 58.1  | 68.7  | 68.7  | 65.1  | 65.1  |
| 65°   | 51.0  | 60.9  | 59.5  | 56.6  | 55.9  |
| 67.5° | 44.6  | 53.8  | 51.7  | 48.8  | 48.1  |
| 70°   | 38.2  | 46.7  | 44.6  | 41.1  | 40.4  |
| 72.5° | 32.6  | 40.4  | 37.5  | 34.7  | 33.3  |
| 75°   | 26.9  | 33.3  | 31.9  | 28.3  | 26.9  |
| 77.5° | 21.9  | 26.9  | 25.5  | 22.7  | 21.2  |
| 80°   | 17.0  | 21.2  | 20.5  | 17.7  | 16.3  |
| 82.5° | 12.7  | 16.3  | 15.6  | 13.5  | 11.3  |
| 85°   | 8.5   | 11.3  | 10.6  | 9.2   | 7.1   |
| 87.5° | 4.2   | 7.8   | 7.1   | 6.4   | 3.5   |
| 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 | 14.36            | 15.80 | 14.73 | 16.11 | 16.43 | 14.73          | 16.17 | 15.09 | 16.48 | 16.79 |
|                 | 3H   | 15.91            | 17.20 | 16.28 | 17.52 | 17.89 | 16.07          | 17.36 | 16.45 | 17.69 | 18.05 |
|                 | 4H   | 16.48            | 17.69 | 16.88 | 18.04 | 18.42 | 16.55          | 17.76 | 16.95 | 18.11 | 18.49 |
|                 | 6H   | 16.91            | 18.02 | 17.32 | 18.39 | 18.78 | 16.91          | 18.02 | 17.32 | 18.39 | 18.78 |
|                 | 8H   | 17.06            | 18.12 | 17.49 | 18.51 | 18.91 | 17.02          | 18.08 | 17.45 | 18.47 | 18.88 |
|                 | 12H  | 17.18            | 18.19 | 17.61 | 18.57 | 19.00 | 17.10          | 18.11 | 17.53 | 18.49 | 18.92 |
| 4H              | 2H   | 14.95            | 16.16 | 15.35 | 16.51 | 16.89 | 15.24          | 16.45 | 15.64 | 16.80 | 17.18 |
|                 | 3H   | 16.77            | 17.77 | 17.18 | 18.17 | 18.57 | 16.81          | 17.81 | 17.22 | 18.21 | 18.62 |
|                 | 4H   | 17.52            | 18.42 | 17.95 | 18.84 | 19.28 | 17.42          | 18.32 | 17.85 | 18.73 | 19.17 |
|                 | 6H   | 18.10            | 18.89 | 18.56 | 19.33 | 19.79 | 17.90          | 18.68 | 18.36 | 19.12 | 19.59 |
|                 | 8H   | 18.31            | 19.05 | 18.78 | 19.49 | 19.96 | 18.06          | 18.79 | 18.53 | 19.24 | 19.71 |
|                 | 12H  | 18.48            | 19.13 | 18.96 | 19.61 | 20.09 | 18.18          | 18.84 | 18.67 | 19.32 | 19.79 |
| 8H              | 4H   | 17.80            | 18.53 | 18.27 | 18.98 | 19.45 | 17.72          | 18.45 | 18.18 | 18.89 | 19.36 |
|                 | 6H   | 18.56            | 19.16 | 19.06 | 19.66 | 20.13 | 18.34          | 18.94 | 18.83 | 19.43 | 19.91 |
|                 | 8H   | 18.88            | 19.42 | 19.40 | 19.94 | 20.43 | 18.58          | 19.13 | 19.10 | 19.64 | 20.13 |
|                 | 12H  | 19.17            | 19.65 | 19.68 | 20.14 | 20.71 | 18.80          | 19.28 | 19.31 | 19.77 | 20.34 |
| 12H             | 4H   | 17.82            | 18.47 | 18.31 | 18.95 | 19.43 | 17.75          | 18.40 | 18.24 | 18.88 | 19.36 |
|                 | 6H   | 18.62            | 19.16 | 19.13 | 19.67 | 20.16 | 18.41          | 18.96 | 18.93 | 19.47 | 19.96 |
|                 | 8H   | 19.02            | 19.50 | 19.53 | 19.99 | 20.56 | 18.73          | 19.21 | 19.24 | 19.70 | 20.27 |