

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: P1057963

Luminaire Tested: S122RDRP-S485D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057963  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S485D835-X4F0-XX-UDD-SVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

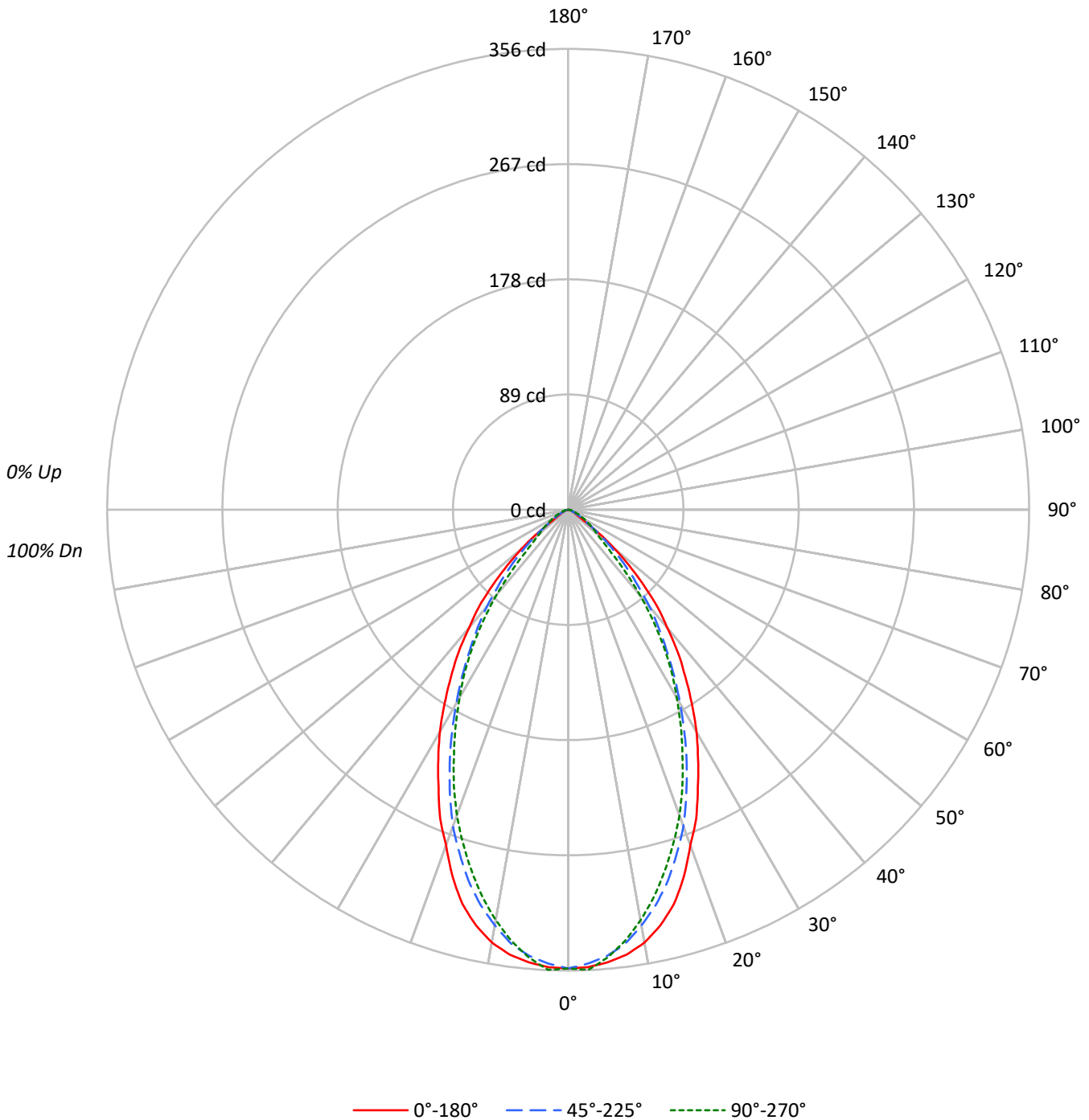
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 381.1 lumens  
Efficiency: N/A  
Efficacy: 19.4 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91  
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   | 113 | 110 | 107 | 104 | 110 | 107 | 105 | 103 | 103 | 101 | 99  | 100 | 98  | 96  | 96  | 95  | 94  | 92  |
| 2   | 106 | 101 | 96  | 92  | 104 | 99  | 95  | 91  | 96  | 92  | 89  | 93  | 90  | 87  | 90  | 87  | 85  | 84  |
| 3   | 100 | 93  | 87  | 82  | 98  | 91  | 86  | 82  | 88  | 84  | 80  | 86  | 82  | 79  | 84  | 81  | 78  | 76  |
| 4   | 94  | 85  | 79  | 74  | 92  | 84  | 78  | 74  | 82  | 77  | 73  | 80  | 76  | 72  | 78  | 74  | 71  | 70  |
| 5   | 88  | 79  | 72  | 68  | 87  | 78  | 72  | 67  | 76  | 71  | 67  | 74  | 70  | 66  | 73  | 69  | 65  | 64  |
| 6   | 83  | 73  | 67  | 62  | 82  | 72  | 66  | 62  | 71  | 65  | 61  | 69  | 64  | 61  | 68  | 64  | 60  | 59  |
| 7   | 79  | 68  | 62  | 57  | 77  | 68  | 61  | 57  | 66  | 60  | 56  | 65  | 60  | 56  | 64  | 59  | 56  | 54  |
| 8   | 74  | 64  | 57  | 53  | 73  | 63  | 57  | 52  | 62  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 52  | 50  |
| 9   | 70  | 60  | 53  | 49  | 69  | 59  | 53  | 49  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 52  | 48  | 47  |
| 10  | 67  | 56  | 50  | 45  | 66  | 56  | 49  | 45  | 55  | 49  | 45  | 54  | 49  | 45  | 53  | 48  | 45  | 44  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6540 | 6540 | 6540 |
| 5°  | 6500 | 6407 | 6433 |
| 10° | 6361 | 6110 | 6031 |
| 15° | 6027 | 5676 | 5513 |
| 20° | 5418 | 5111 | 4931 |
| 25° | 4825 | 4408 | 4249 |
| 30° | 4221 | 3678 | 3571 |
| 35° | 3552 | 2980 | 2883 |
| 40° | 2862 | 2351 | 2079 |
| 45° | 2142 | 1699 | 1237 |
| 50° | 1341 | 1097 | 812  |
| 55° | 454  | 592  | 660  |
| 60° | 262  | 365  | 520  |
| 65° | 183  | 249  | 402  |
| 70° | 151  | 189  | 308  |
| 75° | 100  | 150  | 250  |
| 80° | 74   | 149  | 223  |
| 85° | 0    | 0    | 148  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2142 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 32.7   | 8.6       |
| 10°-20°   | 83.6   | 21.9      |
| 20°-30°   | 100.7  | 26.4      |
| 30°-40°   | 86.0   | 22.6      |
| 40°-50°   | 50.4   | 13.2      |
| 50°-60°   | 18.2   | 4.8       |
| 60°-70°   | 6.5    | 1.7       |
| 70°-80°   | 2.6    | 0.7       |
| 80°-90°   | 0.5    | 0.1       |
| 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°    | 217.0  | 56.9      |
| 0°-40°    | 303.0  | 79.5      |
| 0°-60°    | 371.6  | 97.5      |
| 0°-90°    | 381.1  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 381.1  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 354 | 354   | 354 | 354   | 354 |      |
| 5°  | 351 | 352   | 346 | 347   | 347 | 33   |
| 15° | 316 | 310   | 297 | 291   | 289 | 88   |
| 25° | 237 | 227   | 216 | 213   | 209 | 109  |
| 35° | 158 | 146   | 132 | 131   | 128 | 98   |
| 45° | 82  | 74    | 65  | 54    | 47  | 63   |
| 55° | 14  | 20    | 18  | 19    | 20  | 18   |
| 65° | 4   | 5     | 6   | 8     | 9   | 5    |
| 75° | 1   | 2     | 2   | 3     | 4   | 2    |
| 85° | 0   | 0     | 0   | 1     | 1   | 0    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 354.4 | 354.4 | 354.4 | 354.4 | 354.4 |
| 2.5°  | 353.7 | 354.4 | 350.9 | 354.4 | 355.8 |
| 5°    | 350.9 | 351.6 | 345.9 | 347.3 | 347.3 |
| 7.5°  | 346.6 | 345.9 | 338.1 | 336.7 | 336.0 |
| 10°   | 339.5 | 337.4 | 326.1 | 324.0 | 321.9 |
| 12.5° | 328.9 | 324.7 | 312.7 | 309.1 | 306.3 |
| 15°   | 315.5 | 310.5 | 297.1 | 291.4 | 288.6 |
| 17.5° | 297.1 | 291.4 | 278.7 | 273.0 | 270.2 |
| 20°   | 275.9 | 270.2 | 260.3 | 253.9 | 251.1 |
| 22.5° | 258.2 | 249.0 | 238.4 | 234.1 | 230.6 |
| 25°   | 237.0 | 227.1 | 216.5 | 212.9 | 208.7 |
| 27.5° | 217.2 | 205.1 | 194.5 | 191.7 | 188.2 |
| 30°   | 198.1 | 185.3 | 172.6 | 172.6 | 167.6 |
| 32.5° | 177.6 | 165.5 | 152.1 | 151.4 | 148.5 |
| 35°   | 157.7 | 145.7 | 132.3 | 130.9 | 128.0 |
| 37.5° | 139.4 | 127.3 | 114.6 | 110.4 | 106.8 |
| 40°   | 118.8 | 108.2 | 97.6  | 90.5  | 86.3  |
| 42.5° | 102.6 | 90.5  | 79.9  | 71.4  | 65.8  |
| 45°   | 82.1  | 73.6  | 65.1  | 54.5  | 47.4  |
| 47.5° | 63.7  | 58.0  | 50.9  | 38.9  | 35.4  |
| 50°   | 46.7  | 43.9  | 38.2  | 29.0  | 28.3  |
| 52.5° | 29.7  | 31.1  | 27.6  | 22.6  | 24.8  |
| 55°   | 14.1  | 19.8  | 18.4  | 19.1  | 20.5  |
| 57.5° | 9.2   | 9.9   | 13.4  | 15.6  | 17.0  |
| 60°   | 7.1   | 7.1   | 9.9   | 12.7  | 14.1  |
| 62.5° | 5.7   | 5.7   | 7.8   | 10.6  | 11.3  |
| 65°   | 4.2   | 5.0   | 5.7   | 7.8   | 9.2   |
| 67.5° | 3.5   | 3.5   | 4.2   | 6.4   | 7.1   |
| 70°   | 2.8   | 2.8   | 3.5   | 5.0   | 5.7   |
| 72.5° | 2.1   | 2.1   | 2.8   | 4.2   | 4.2   |
| 75°   | 1.4   | 2.1   | 2.1   | 2.8   | 3.5   |
| 77.5° | 1.4   | 1.4   | 1.4   | 2.1   | 2.8   |
| 80°   | 0.7   | 0.7   | 1.4   | 1.4   | 2.1   |
| 82.5° | 0.7   | 0.7   | 0.7   | 0.7   | 1.4   |
| 85°   | 0.0   | 0.0   | 0.0   | 0.7   | 0.7   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 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 | 2.41             | 3.57 | 2.77 | 3.88 | 4.20 | 5.82           | 6.98 | 6.18 | 7.29 | 7.61 |
|                 | 3H   | 2.92             | 3.94 | 3.30 | 4.27 | 4.64 | 6.55           | 7.58 | 6.93 | 7.91 | 8.27 |
|                 | 4H   | 3.05             | 3.99 | 3.45 | 4.35 | 4.73 | 6.76           | 7.71 | 7.17 | 8.06 | 8.45 |
|                 | 6H   | 3.12             | 3.98 | 3.53 | 4.36 | 4.75 | 6.91           | 7.77 | 7.32 | 8.15 | 8.54 |
|                 | 8H   | 3.12             | 3.94 | 3.55 | 4.33 | 4.74 | 6.94           | 7.75 | 7.37 | 8.15 | 8.55 |
|                 | 12H  | 3.09             | 3.87 | 3.52 | 4.25 | 4.68 | 6.94           | 7.72 | 7.37 | 8.10 | 8.53 |
| 4H              | 2H   | 2.72             | 3.67 | 3.13 | 4.02 | 4.41 | 5.79           | 6.73 | 6.19 | 7.09 | 7.47 |
|                 | 3H   | 3.37             | 4.13 | 3.78 | 4.54 | 4.95 | 6.67           | 7.43 | 7.08 | 7.84 | 8.25 |
|                 | 4H   | 3.60             | 4.28 | 4.04 | 4.71 | 5.15 | 6.94           | 7.62 | 7.37 | 8.04 | 8.49 |
|                 | 6H   | 3.72             | 4.30 | 4.18 | 4.75 | 5.22 | 7.16           | 7.74 | 7.62 | 8.19 | 8.66 |
|                 | 8H   | 3.73             | 4.28 | 4.20 | 4.73 | 5.20 | 7.20           | 7.74 | 7.67 | 8.19 | 8.67 |
|                 | 12H  | 3.70             | 4.17 | 4.19 | 4.66 | 5.14 | 7.22           | 7.69 | 7.71 | 8.18 | 8.66 |
| 8H              | 4H   | 3.70             | 4.25 | 4.18 | 4.70 | 5.17 | 6.87           | 7.41 | 7.34 | 7.86 | 8.33 |
|                 | 6H   | 3.87             | 4.31 | 4.37 | 4.81 | 5.29 | 7.12           | 7.56 | 7.62 | 8.06 | 8.54 |
|                 | 8H   | 3.91             | 4.31 | 4.44 | 4.83 | 5.32 | 7.18           | 7.57 | 7.70 | 8.09 | 8.59 |
|                 | 12H  | 3.89             | 4.24 | 4.41 | 4.73 | 5.31 | 7.23           | 7.58 | 7.75 | 8.08 | 8.66 |
| 12H             | 4H   | 3.69             | 4.17 | 4.18 | 4.65 | 5.13 | 6.82           | 7.30 | 7.31 | 7.78 | 8.26 |
|                 | 6H   | 3.86             | 4.26 | 4.39 | 4.78 | 5.27 | 7.07           | 7.46 | 7.59 | 7.98 | 8.48 |
|                 | 8H   | 3.94             | 4.28 | 4.45 | 4.78 | 5.36 | 7.15           | 7.50 | 7.67 | 7.99 | 8.57 |