

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057976

Luminaire Tested: S122RDR-S485D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1057976  
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: S122RDR-S485D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

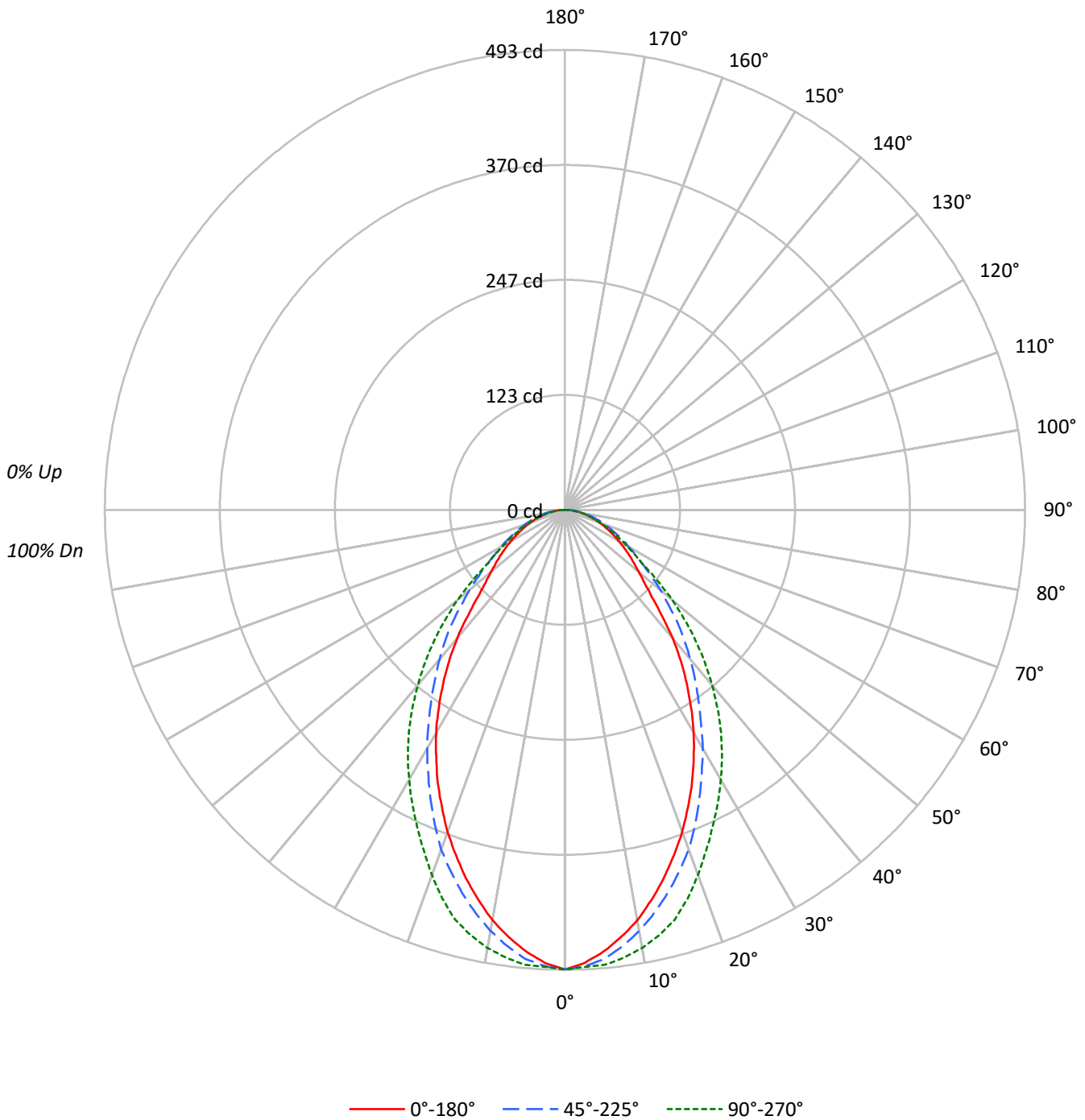
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 802.1 lumens  
Efficiency: N/A  
Efficacy: 40.9 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 (Ain): 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 | 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°  | 9090 | 9090 | 9090 |
| 5°  | 8806 | 8952 | 9071 |
| 10° | 8372 | 8587 | 8934 |
| 15° | 7811 | 8127 | 8686 |
| 20° | 7216 | 7609 | 8185 |
| 25° | 6564 | 6943 | 7627 |
| 30° | 5881 | 6292 | 7114 |
| 35° | 5120 | 5620 | 6571 |
| 40° | 4321 | 5030 | 5906 |
| 45° | 3432 | 4441 | 5167 |
| 50° | 2954 | 3818 | 4289 |
| 55° | 2689 | 3265 | 3288 |
| 60° | 2454 | 2901 | 2797 |
| 65° | 2249 | 2624 | 2467 |
| 70° | 2083 | 2428 | 2201 |
| 75° | 1939 | 2296 | 1939 |
| 80° | 1828 | 2200 | 1743 |
| 85° | 1821 | 2265 | 1503 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5167 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 45.5   | 5.7       |
| 10°-20°   | 120.2  | 15.0      |
| 20°-30°   | 158.2  | 19.7      |
| 30°-40°   | 159.1  | 19.8      |
| 40°-50°   | 128.9  | 16.1      |
| 50°-60°   | 88.8   | 11.1      |
| 60°-70°   | 58.1   | 7.2       |
| 70°-80°   | 32.4   | 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°    | 323.9  | 40.4      |
| 0°-40°    | 482.9  | 60.2      |
| 0°-60°    | 700.6  | 87.4      |
| 0°-90°    | 802.1  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 802.1  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 493 | 493   | 493 | 493   | 493 |      |
| 5°  | 475 | 485   | 483 | 485   | 490 | 44   |
| 15° | 409 | 419   | 425 | 441   | 455 | 115  |
| 25° | 322 | 331   | 341 | 356   | 375 | 148  |
| 35° | 227 | 238   | 250 | 272   | 292 | 142  |
| 45° | 132 | 147   | 170 | 185   | 198 | 104  |
| 55° | 84  | 93    | 102 | 104   | 102 | 75   |
| 65° | 52  | 62    | 60  | 57    | 56  | 51   |
| 75° | 27  | 34    | 32  | 29    | 27  | 29   |
| 85° | 9   | 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°    | 492.6 | 492.6 | 492.6 | 492.6 | 492.6 |
| 2.5°  | 486.1 | 494.7 | 489.7 | 489.7 | 490.4 |
| 5°    | 475.4 | 484.7 | 483.3 | 485.4 | 489.7 |
| 7.5°  | 461.8 | 471.8 | 471.8 | 478.3 | 484.0 |
| 10°   | 446.8 | 456.8 | 458.3 | 468.3 | 476.8 |
| 12.5° | 428.2 | 438.2 | 442.5 | 455.4 | 466.8 |
| 15°   | 408.9 | 418.9 | 425.4 | 441.1 | 454.7 |
| 17.5° | 388.2 | 398.2 | 406.8 | 423.2 | 436.8 |
| 20°   | 367.5 | 376.8 | 387.5 | 401.8 | 416.8 |
| 22.5° | 344.6 | 354.6 | 364.6 | 378.2 | 395.3 |
| 25°   | 322.4 | 331.0 | 341.0 | 356.0 | 374.6 |
| 27.5° | 298.8 | 308.1 | 317.4 | 335.3 | 354.6 |
| 30°   | 276.0 | 285.3 | 295.3 | 313.8 | 333.9 |
| 32.5° | 251.7 | 261.7 | 271.7 | 292.4 | 313.1 |
| 35°   | 227.3 | 238.1 | 249.5 | 271.7 | 291.7 |
| 37.5° | 203.8 | 215.2 | 228.8 | 251.7 | 268.8 |
| 40°   | 179.4 | 191.6 | 208.8 | 228.8 | 245.2 |
| 42.5° | 153.7 | 168.7 | 189.5 | 206.6 | 221.6 |
| 45°   | 131.5 | 146.6 | 170.2 | 185.2 | 198.0 |
| 47.5° | 115.1 | 127.3 | 150.1 | 163.0 | 173.7 |
| 50°   | 102.9 | 112.2 | 133.0 | 142.3 | 149.4 |
| 52.5° | 92.9  | 102.2 | 116.5 | 123.0 | 125.1 |
| 55°   | 83.6  | 92.9  | 101.5 | 103.7 | 102.2 |
| 57.5° | 74.4  | 84.4  | 89.4  | 87.2  | 87.2  |
| 60°   | 66.5  | 77.2  | 78.6  | 75.8  | 75.8  |
| 62.5° | 58.6  | 69.3  | 69.3  | 65.8  | 65.8  |
| 65°   | 51.5  | 61.5  | 60.1  | 57.2  | 56.5  |
| 67.5° | 45.0  | 54.3  | 52.2  | 49.3  | 48.6  |
| 70°   | 38.6  | 47.2  | 45.0  | 41.5  | 40.8  |
| 72.5° | 32.9  | 40.8  | 37.9  | 35.0  | 33.6  |
| 75°   | 27.2  | 33.6  | 32.2  | 28.6  | 27.2  |
| 77.5° | 22.2  | 27.2  | 25.7  | 22.9  | 21.4  |
| 80°   | 17.2  | 21.4  | 20.7  | 17.9  | 16.4  |
| 82.5° | 12.9  | 16.4  | 15.7  | 13.6  | 11.4  |
| 85°   | 8.6   | 11.4  | 10.7  | 9.3   | 7.1   |
| 87.5° | 4.3   | 7.9   | 7.1   | 6.4   | 3.6   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)