

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: P1058149

Luminaire Tested: S122RDR-S865D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058149  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S865D927-X4F0-XX-UDD-BVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

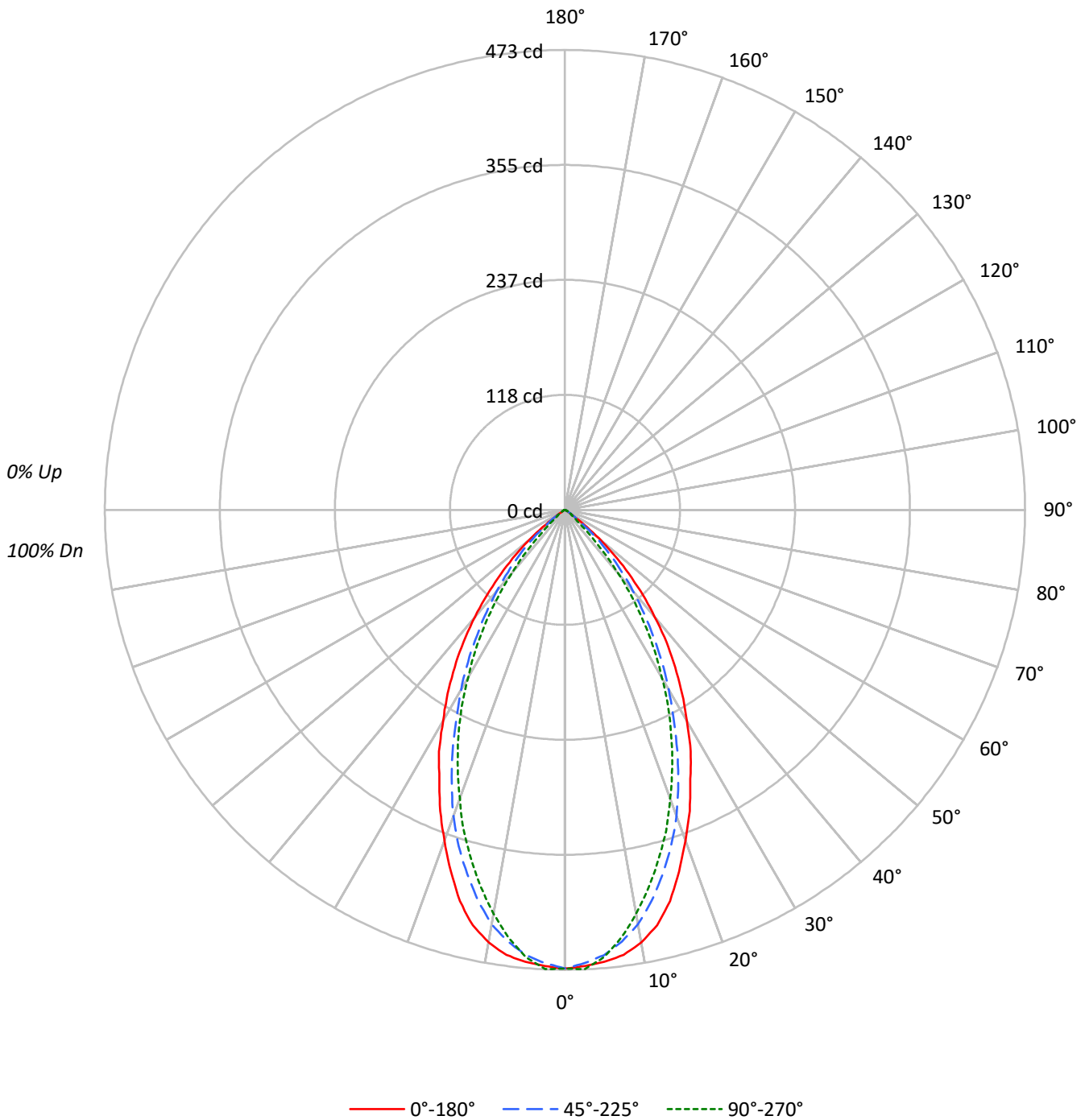
Lumens per Lamp: N/A  
Luminaire Lumens: 443.6 lumens  
Efficiency: N/A  
Efficacy: 12.7 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 100 | 99  | 98  | 97  | 96  | 95  | 93  |
| 2   | 107 | 102 | 98  | 94  | 105 | 100 | 97  | 93  | 97  | 94  | 91  | 94  | 92  | 89  | 91  | 89  | 87  | 86  |
| 3   | 101 | 95  | 90  | 85  | 99  | 93  | 89  | 85  | 91  | 87  | 83  | 88  | 85  | 82  | 86  | 83  | 81  | 79  |
| 4   | 96  | 88  | 82  | 78  | 94  | 87  | 81  | 77  | 85  | 80  | 76  | 83  | 79  | 75  | 81  | 77  | 75  | 73  |
| 5   | 91  | 82  | 76  | 71  | 89  | 81  | 75  | 71  | 79  | 74  | 70  | 77  | 73  | 70  | 76  | 72  | 69  | 67  |
| 6   | 86  | 76  | 70  | 66  | 84  | 76  | 70  | 65  | 74  | 69  | 65  | 73  | 68  | 64  | 71  | 67  | 64  | 62  |
| 7   | 81  | 71  | 65  | 61  | 80  | 71  | 65  | 61  | 69  | 64  | 60  | 68  | 63  | 60  | 67  | 63  | 60  | 58  |
| 8   | 77  | 67  | 61  | 56  | 76  | 66  | 60  | 56  | 65  | 60  | 56  | 64  | 59  | 56  | 63  | 59  | 56  | 54  |
| 9   | 73  | 63  | 57  | 53  | 72  | 62  | 57  | 52  | 61  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 52  | 51  |
| 10  | 69  | 59  | 53  | 49  | 68  | 59  | 53  | 49  | 58  | 53  | 49  | 57  | 52  | 49  | 56  | 52  | 49  | 47  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8704 | 8704 | 8704 |
| 5°  | 8645 | 8515 | 8552 |
| 10° | 8464 | 8109 | 7903 |
| 15° | 7962 | 7410 | 7106 |
| 20° | 7108 | 6580 | 6207 |
| 25° | 6214 | 5562 | 5279 |
| 30° | 5333 | 4547 | 4249 |
| 35° | 4449 | 3550 | 3190 |
| 40° | 3459 | 2618 | 2043 |
| 45° | 2419 | 1743 | 885  |
| 50° | 1318 | 916  | 316  |
| 55° | 193  | 322  | 225  |
| 60° | 37   | 74   | 148  |
| 65° | 0    | 44   | 87   |
| 70° | 0    | 0    | 54   |
| 75° | 0    | 0    | 0    |
| 80° | 0    | 0    | 0    |
| 85° | 0    | 0    | 0    |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2419 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 43.3   | 9.8       |
| 10°-20°   | 109.2  | 24.6      |
| 20°-30°   | 127.3  | 28.7      |
| 30°-40°   | 102.0  | 23.0      |
| 40°-50°   | 50.7   | 11.4      |
| 50°-60°   | 10.0   | 2.3       |
| 60°-70°   | 0.9    | 0.2       |
| 70°-80°   | 0.1    | 0.0       |
| 80°-90°   | 0.0    | 0.0       |
| 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°    | 279.9  | 63.1      |
| 0°-40°    | 381.9  | 86.1      |
| 0°-60°    | 442.6  | 99.8      |
| 0°-90°    | 443.6  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 443.6  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 472 | 472   | 472 | 472   | 472 |      |
| 5°  | 467 | 467   | 460 | 461   | 462 | 44   |
| 15° | 417 | 409   | 388 | 378   | 372 | 116  |
| 25° | 305 | 290   | 273 | 267   | 259 | 140  |
| 35° | 198 | 178   | 158 | 151   | 142 | 123  |
| 45° | 93  | 82    | 67  | 45    | 34  | 72   |
| 55° | 6   | 12    | 10  | 6     | 7   | 12   |
| 65° | 0   | 0     | 1   | 1     | 2   | 0    |
| 75° | 0   | 0     | 0   | 0     | 0   | 0    |
| 85° | 0   | 0     | 0   | 0     | 0   | 0    |
| 90° | 0   | 0     | 0   | 0     | 0   | 0    |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 471.7 | 471.7 | 471.7 | 471.7 | 471.7 |
| 2.5°  | 469.7 | 471.7 | 466.7 | 471.7 | 472.7 |
| 5°    | 466.7 | 466.7 | 459.7 | 460.7 | 461.7 |
| 7.5°  | 461.7 | 459.7 | 447.8 | 445.8 | 443.8 |
| 10°   | 451.7 | 447.8 | 432.8 | 424.8 | 421.8 |
| 12.5° | 437.8 | 431.8 | 411.9 | 402.9 | 397.9 |
| 15°   | 416.8 | 408.9 | 387.9 | 377.9 | 372.0 |
| 17.5° | 389.9 | 382.9 | 363.0 | 352.0 | 346.0 |
| 20°   | 362.0 | 352.0 | 335.1 | 324.1 | 316.1 |
| 22.5° | 335.1 | 322.1 | 304.2 | 296.2 | 288.2 |
| 25°   | 305.2 | 290.2 | 273.2 | 267.3 | 259.3 |
| 27.5° | 280.2 | 261.3 | 241.3 | 237.3 | 230.4 |
| 30°   | 250.3 | 232.4 | 213.4 | 207.4 | 199.4 |
| 32.5° | 224.4 | 204.4 | 185.5 | 178.5 | 171.5 |
| 35°   | 197.5 | 177.5 | 157.6 | 150.6 | 141.6 |
| 37.5° | 171.5 | 152.6 | 132.6 | 121.7 | 113.7 |
| 40°   | 143.6 | 127.6 | 108.7 | 94.7  | 84.8  |
| 42.5° | 118.7 | 104.7 | 86.8  | 68.8  | 58.8  |
| 45°   | 92.7  | 81.8  | 66.8  | 44.9  | 33.9  |
| 47.5° | 68.8  | 60.8  | 48.9  | 25.9  | 18.0  |
| 50°   | 45.9  | 42.9  | 31.9  | 13.0  | 11.0  |
| 52.5° | 24.9  | 26.9  | 18.9  | 8.0   | 9.0   |
| 55°   | 6.0   | 12.0  | 10.0  | 6.0   | 7.0   |
| 57.5° | 1.0   | 2.0   | 5.0   | 5.0   | 5.0   |
| 60°   | 1.0   | 1.0   | 2.0   | 3.0   | 4.0   |
| 62.5° | 1.0   | 0.0   | 1.0   | 2.0   | 3.0   |
| 65°   | 0.0   | 0.0   | 1.0   | 1.0   | 2.0   |
| 67.5° | 0.0   | 0.0   | 0.0   | 1.0   | 1.0   |
| 70°   | 0.0   | 0.0   | 0.0   | 1.0   | 1.0   |
| 72.5° | 0.0   | 0.0   | 0.0   | 0.0   | 1.0   |
| 75°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 77.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 80°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)