

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: P1061796

Luminaire Tested: S125RDR-S850D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061796  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-S850D927-X4F0-XX-UDD-BVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

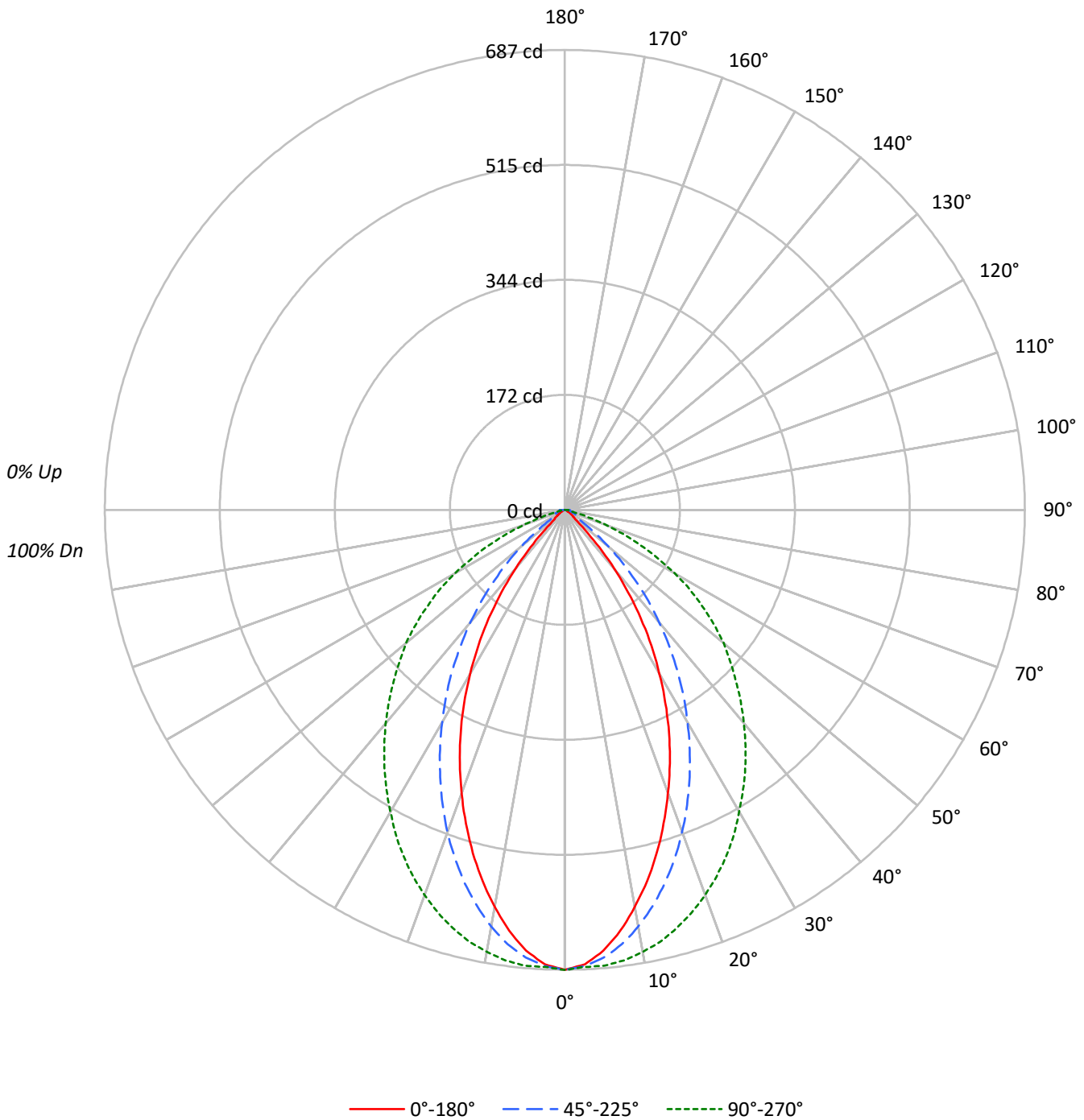
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 889.1 lumens  
Efficiency: N/A  
Efficacy: 34.5 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
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   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98  | 98  | 96  | 95  | 95  | 93  | 92  | 90  |    |    |    |   |
| 2   | 104 | 98  | 93  | 89  | 102 | 97  | 92  | 88  | 93  | 89  | 86  | 90  | 87  | 84  | 87  | 85  | 82  | 80  |    |    |    |   |
| 3   | 98  | 89  | 83  | 78  | 95  | 88  | 82  | 78  | 85  | 80  | 76  | 83  | 79  | 75  | 80  | 77  | 74  | 72  |    |    |    |   |
| 4   | 91  | 82  | 75  | 70  | 89  | 81  | 74  | 69  | 78  | 73  | 68  | 76  | 71  | 67  | 74  | 70  | 67  | 65  |    |    |    |   |
| 5   | 85  | 75  | 68  | 63  | 83  | 74  | 67  | 62  | 72  | 66  | 62  | 70  | 65  | 61  | 69  | 64  | 60  | 59  |    |    |    |   |
| 6   | 80  | 69  | 62  | 57  | 78  | 68  | 61  | 56  | 67  | 60  | 56  | 65  | 60  | 56  | 64  | 59  | 55  | 53  |    |    |    |   |
| 7   | 75  | 64  | 57  | 52  | 74  | 63  | 56  | 51  | 62  | 56  | 51  | 60  | 55  | 51  | 59  | 54  | 50  | 49  |    |    |    |   |
| 8   | 71  | 59  | 52  | 47  | 69  | 59  | 52  | 47  | 58  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 46  | 45  |    |    |    |   |
| 9   | 67  | 55  | 48  | 44  | 65  | 55  | 48  | 44  | 54  | 48  | 43  | 53  | 47  | 43  | 52  | 47  | 43  | 41  |    |    |    |   |
| 10  | 63  | 52  | 45  | 40  | 62  | 51  | 45  | 40  | 50  | 44  | 40  | 49  | 44  | 40  | 49  | 44  | 40  | 38  |    |    |    |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4732 | 4732 | 4732 |
| 5°  | 4570 | 4639 | 4723 |
| 10° | 4212 | 4420 | 4687 |
| 15° | 3783 | 4114 | 4610 |
| 20° | 3301 | 3754 | 4487 |
| 25° | 2796 | 3347 | 4333 |
| 30° | 2246 | 2914 | 4140 |
| 35° | 1663 | 2458 | 3947 |
| 40° | 1029 | 1963 | 3740 |
| 45° | 401  | 1435 | 3517 |
| 50° | 189  | 900  | 3312 |
| 55° | 138  | 385  | 3006 |
| 60° | 95   | 274  | 2608 |
| 65° | 62   | 287  | 2028 |
| 70° | 62   | 262  | 1276 |
| 75° | 82   | 263  | 407  |
| 80° | 123  | 301  | 274  |
| 85° | 182  | 600  | 419  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3517 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 63.0   | 7.1       |
| 10°-20°   | 163.3  | 18.4      |
| 20°-30°   | 208.0  | 23.4      |
| 30°-40°   | 193.6  | 21.8      |
| 40°-50°   | 133.2  | 15.0      |
| 50°-60°   | 75.4   | 8.5       |
| 60°-70°   | 35.6   | 4.0       |
| 70°-80°   | 11.1   | 1.3       |
| 80°-90°   | 5.8    | 0.7       |
| 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°    | 434.3  | 48.8      |
| 0°-40°    | 627.8  | 70.6      |
| 0°-60°    | 836.5  | 94.1      |
| 0°-90°    | 889.1  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 889.1  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 687 | 687   | 687 | 687   | 687 |      |
| 5°  | 661 | 670   | 671 | 677   | 683 | 61   |
| 15° | 531 | 548   | 577 | 621   | 647 | 148  |
| 25° | 368 | 392   | 441 | 515   | 570 | 168  |
| 35° | 198 | 225   | 292 | 392   | 470 | 122  |
| 45° | 41  | 66    | 147 | 266   | 361 | 39   |
| 55° | 12  | 13    | 32  | 154   | 250 | 11   |
| 65° | 4   | 5     | 18  | 55    | 124 | 4    |
| 75° | 3   | 7     | 10  | 11    | 15  | 3    |
| 85° | 2   | 6     | 8   | 7     | 5   | 3    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 687.2 | 687.2 | 687.2 | 687.2 | 687.2 |
| 2.5°  | 679.6 | 686.4 | 681.9 | 682.6 | 683.4 |
| 5°    | 661.2 | 670.4 | 671.2 | 677.3 | 683.4 |
| 7.5°  | 634.5 | 646.0 | 654.4 | 668.9 | 678.8 |
| 10°   | 602.4 | 616.2 | 632.2 | 655.9 | 670.4 |
| 12.5° | 568.1 | 584.1 | 606.3 | 639.9 | 660.5 |
| 15°   | 530.7 | 548.2 | 577.2 | 620.8 | 646.7 |
| 17.5° | 491.0 | 510.8 | 545.9 | 597.9 | 630.7 |
| 20°   | 450.5 | 471.9 | 512.3 | 571.9 | 612.4 |
| 22.5° | 410.0 | 432.2 | 477.2 | 543.7 | 592.5 |
| 25°   | 368.0 | 391.7 | 440.6 | 514.6 | 570.4 |
| 27.5° | 325.3 | 349.7 | 403.9 | 484.9 | 546.7 |
| 30°   | 282.5 | 308.5 | 366.5 | 454.3 | 520.7 |
| 32.5° | 240.5 | 266.5 | 329.9 | 423.8 | 495.5 |
| 35°   | 197.8 | 225.2 | 292.4 | 392.5 | 469.6 |
| 37.5° | 155.0 | 184.8 | 255.8 | 360.4 | 442.9 |
| 40°   | 114.5 | 142.8 | 218.4 | 329.1 | 416.1 |
| 42.5° | 76.4  | 103.8 | 184.8 | 297.8 | 388.6 |
| 45°   | 41.2  | 65.7  | 147.4 | 266.5 | 361.2 |
| 47.5° | 22.1  | 35.1  | 115.3 | 235.9 | 334.4 |
| 50°   | 17.6  | 19.9  | 84.0  | 207.7 | 309.2 |
| 52.5° | 14.5  | 16.0  | 55.0  | 181.0 | 280.2 |
| 55°   | 11.5  | 13.0  | 32.1  | 153.5 | 250.4 |
| 57.5° | 9.2   | 10.7  | 20.6  | 127.5 | 221.4 |
| 60°   | 6.9   | 8.4   | 19.9  | 102.3 | 189.4 |
| 62.5° | 5.3   | 6.1   | 18.3  | 78.6  | 155.8 |
| 65°   | 3.8   | 4.6   | 17.6  | 55.0  | 124.5 |
| 67.5° | 3.1   | 3.8   | 16.0  | 35.1  | 93.2  |
| 70°   | 3.1   | 3.1   | 13.0  | 22.9  | 63.4  |
| 72.5° | 3.1   | 5.3   | 11.5  | 15.3  | 38.2  |
| 75°   | 3.1   | 6.9   | 9.9   | 10.7  | 15.3  |
| 77.5° | 3.1   | 7.6   | 8.4   | 8.4   | 8.4   |
| 80°   | 3.1   | 6.9   | 7.6   | 7.6   | 6.9   |
| 82.5° | 3.1   | 6.1   | 6.9   | 7.6   | 6.1   |
| 85°   | 2.3   | 6.1   | 7.6   | 6.9   | 5.3   |
| 87.5° | 2.3   | 6.1   | 6.9   | 6.1   | 3.8   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)