

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: P1060612

Luminaire Tested: S124RDR-S795D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060612  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S795D940-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

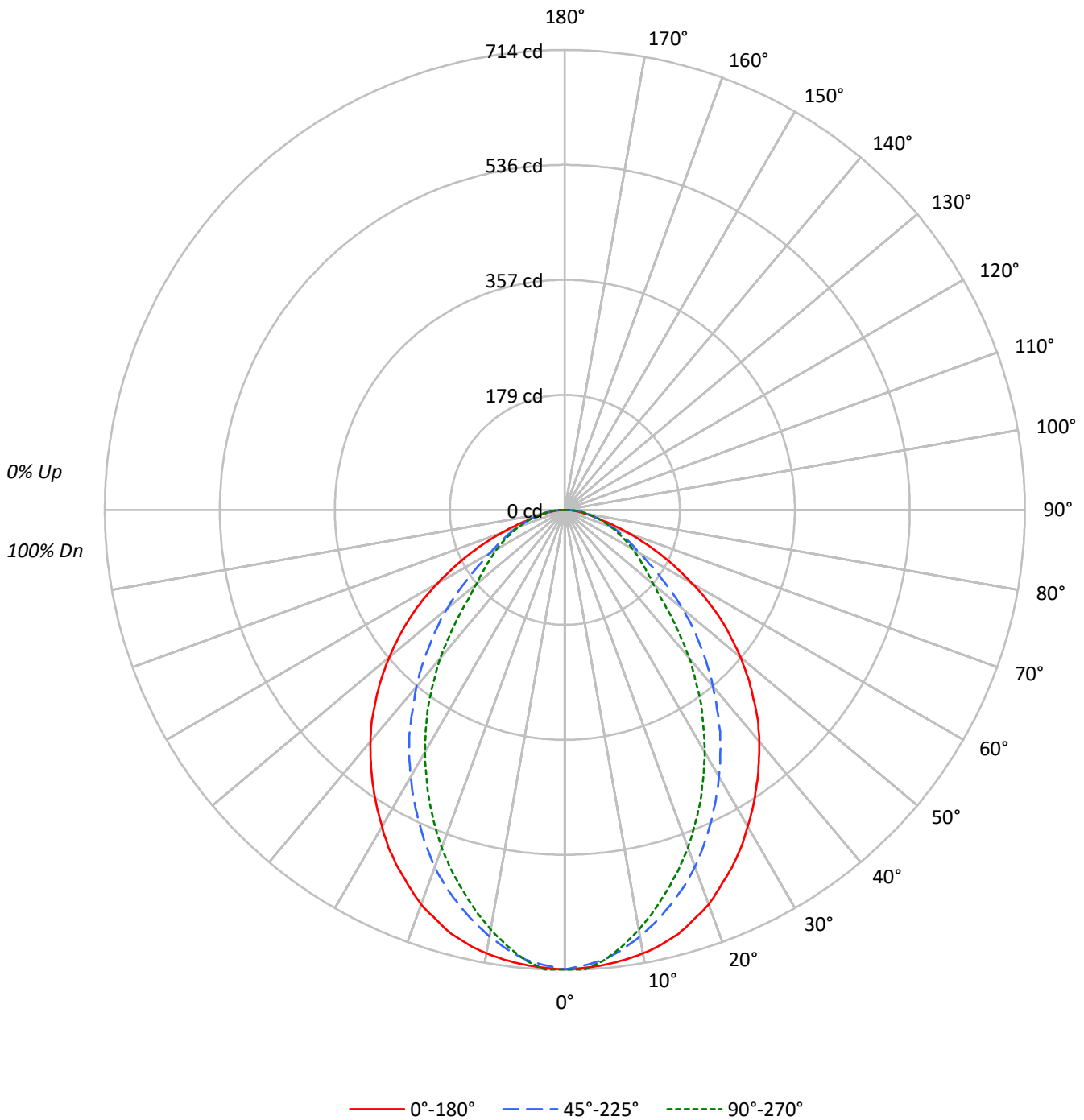
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1375.7 lumens  
Efficiency: N/A  
Efficacy: 53.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12  
Luminous Opening: Rectangular (W 0.31' 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 |    |    |    | 100 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 88  | 86  |    |    |    | 86  |
| 2   | 101 | 94  | 88  | 83  | 99  | 92  | 86  | 82  | 89  | 84  | 80  | 85  | 82  | 78  | 82  | 79  | 76  | 74  |    |    |    | 74  |
| 3   | 93  | 84  | 76  | 71  | 91  | 82  | 75  | 70  | 79  | 74  | 69  | 77  | 72  | 68  | 74  | 70  | 66  | 64  |    |    |    | 64  |
| 4   | 86  | 75  | 67  | 61  | 84  | 74  | 67  | 61  | 72  | 65  | 60  | 69  | 64  | 59  | 67  | 62  | 58  | 56  |    |    |    | 56  |
| 5   | 80  | 68  | 60  | 54  | 78  | 67  | 59  | 53  | 65  | 58  | 53  | 63  | 57  | 52  | 61  | 56  | 52  | 50  |    |    |    | 50  |
| 6   | 74  | 62  | 54  | 48  | 72  | 61  | 53  | 47  | 59  | 52  | 47  | 58  | 51  | 47  | 56  | 51  | 46  | 44  |    |    |    | 44  |
| 7   | 69  | 57  | 48  | 43  | 68  | 56  | 48  | 43  | 54  | 47  | 42  | 53  | 47  | 42  | 52  | 46  | 42  | 40  |    |    |    | 40  |
| 8   | 65  | 52  | 44  | 39  | 63  | 51  | 44  | 39  | 50  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 36  |    |    |    | 36  |
| 9   | 61  | 48  | 40  | 35  | 59  | 48  | 40  | 35  | 46  | 40  | 35  | 45  | 39  | 35  | 44  | 39  | 35  | 33  |    |    |    | 33  |
| 10  | 57  | 45  | 37  | 32  | 56  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 41  | 36  | 32  | 30  |    |    |    | 30  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6143 | 6143 | 6143 |
| 5°  | 6130 | 6059 | 6066 |
| 10° | 6114 | 5879 | 5784 |
| 15° | 6076 | 5657 | 5456 |
| 20° | 5977 | 5408 | 5116 |
| 25° | 5822 | 5090 | 4732 |
| 30° | 5644 | 4760 | 4318 |
| 35° | 5464 | 4415 | 3878 |
| 40° | 5278 | 4024 | 3384 |
| 45° | 5043 | 3614 | 2828 |
| 50° | 4762 | 3190 | 2393 |
| 55° | 4430 | 2705 | 2214 |
| 60° | 3927 | 2296 | 2094 |
| 65° | 3348 | 2119 | 1981 |
| 70° | 2618 | 1964 | 1878 |
| 75° | 1787 | 1813 | 1813 |
| 80° | 1537 | 1706 | 1746 |
| 85° | 1324 | 1660 | 1818 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5043 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 66.4   | 4.8       |
| 10°-20°   | 180.3  | 13.1      |
| 20°-30°   | 250.3  | 18.2      |
| 30°-40°   | 268.3  | 19.5      |
| 40°-50°   | 237.7  | 17.3      |
| 50°-60°   | 179.1  | 13.0      |
| 60°-70°   | 116.0  | 8.4       |
| 70°-80°   | 59.5   | 4.3       |
| 80°-90°   | 18.3   | 1.3       |
| 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°    | 496.9  | 36.1      |
| 0°-40°    | 765.2  | 55.6      |
| 0°-60°    | 1181.9 | 85.9      |
| 0°-90°    | 1375.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1375.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 713 | 713   | 713 | 713   | 713 |      |
| 5°  | 709 | 710   | 701 | 702   | 702 | 67   |
| 15° | 682 | 666   | 635 | 619   | 612 | 192  |
| 25° | 613 | 580   | 536 | 507   | 498 | 282  |
| 35° | 520 | 473   | 420 | 382   | 369 | 325  |
| 45° | 414 | 360   | 297 | 251   | 232 | 319  |
| 55° | 295 | 246   | 180 | 152   | 148 | 262  |
| 65° | 164 | 132   | 104 | 98    | 97  | 163  |
| 75° | 54  | 56    | 54  | 54    | 54  | 63   |
| 85° | 13  | 14    | 17  | 18    | 18  | 15   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 713.4 | 713.4 | 713.4 | 713.4 | 713.4 |
| 2.5°  | 711.8 | 714.3 | 707.6 | 712.6 | 714.3 |
| 5°    | 709.2 | 710.1 | 700.9 | 701.7 | 701.7 |
| 7.5°  | 705.0 | 703.4 | 688.3 | 684.1 | 683.3 |
| 10°   | 699.2 | 694.1 | 672.4 | 664.0 | 661.5 |
| 12.5° | 691.6 | 682.4 | 654.7 | 643.0 | 638.0 |
| 15°   | 681.6 | 666.5 | 634.6 | 618.7 | 612.0 |
| 17.5° | 666.5 | 647.2 | 613.7 | 593.5 | 586.0 |
| 20°   | 652.2 | 626.2 | 590.2 | 565.0 | 558.3 |
| 22.5° | 632.1 | 604.4 | 563.4 | 536.5 | 528.2 |
| 25°   | 612.8 | 580.1 | 535.7 | 507.2 | 498.0 |
| 27.5° | 591.9 | 555.0 | 507.2 | 477.0 | 465.3 |
| 30°   | 567.6 | 528.2 | 478.7 | 446.8 | 434.3 |
| 32.5° | 544.1 | 502.2 | 449.4 | 414.1 | 400.7 |
| 35°   | 519.8 | 472.8 | 420.0 | 382.3 | 368.9 |
| 37.5° | 494.6 | 445.2 | 387.3 | 350.4 | 332.8 |
| 40°   | 469.5 | 417.5 | 358.0 | 316.1 | 301.0 |
| 42.5° | 443.5 | 389.0 | 327.8 | 284.2 | 264.9 |
| 45°   | 414.1 | 360.5 | 296.8 | 250.7 | 232.2 |
| 47.5° | 385.6 | 332.8 | 268.3 | 218.0 | 201.2 |
| 50°   | 355.5 | 303.5 | 238.1 | 189.5 | 178.6 |
| 52.5° | 325.3 | 273.3 | 208.7 | 167.7 | 162.6 |
| 55°   | 295.1 | 245.6 | 180.2 | 151.7 | 147.5 |
| 57.5° | 261.6 | 217.1 | 155.1 | 137.5 | 134.1 |
| 60°   | 228.0 | 186.1 | 133.3 | 124.1 | 121.6 |
| 62.5° | 195.3 | 159.3 | 118.2 | 110.7 | 109.0 |
| 65°   | 164.3 | 132.5 | 104.0 | 98.1  | 97.2  |
| 67.5° | 134.1 | 109.0 | 90.5  | 87.2  | 85.5  |
| 70°   | 104.0 | 87.2  | 78.0  | 76.3  | 74.6  |
| 72.5° | 77.1  | 70.4  | 66.2  | 65.4  | 64.6  |
| 75°   | 53.7  | 56.2  | 54.5  | 54.5  | 54.5  |
| 77.5° | 42.8  | 43.6  | 44.4  | 45.3  | 44.4  |
| 80°   | 31.0  | 33.5  | 34.4  | 36.0  | 35.2  |
| 82.5° | 21.8  | 23.5  | 26.0  | 26.8  | 27.7  |
| 85°   | 13.4  | 14.3  | 16.8  | 18.4  | 18.4  |
| 87.5° | 5.9   | 6.7   | 8.4   | 10.1  | 10.9  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)