

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: P1056396

Luminaire Tested: S125R3DR-S1270D850-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056396  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-S1270D850-X4F0-XX-UDD-FLL-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

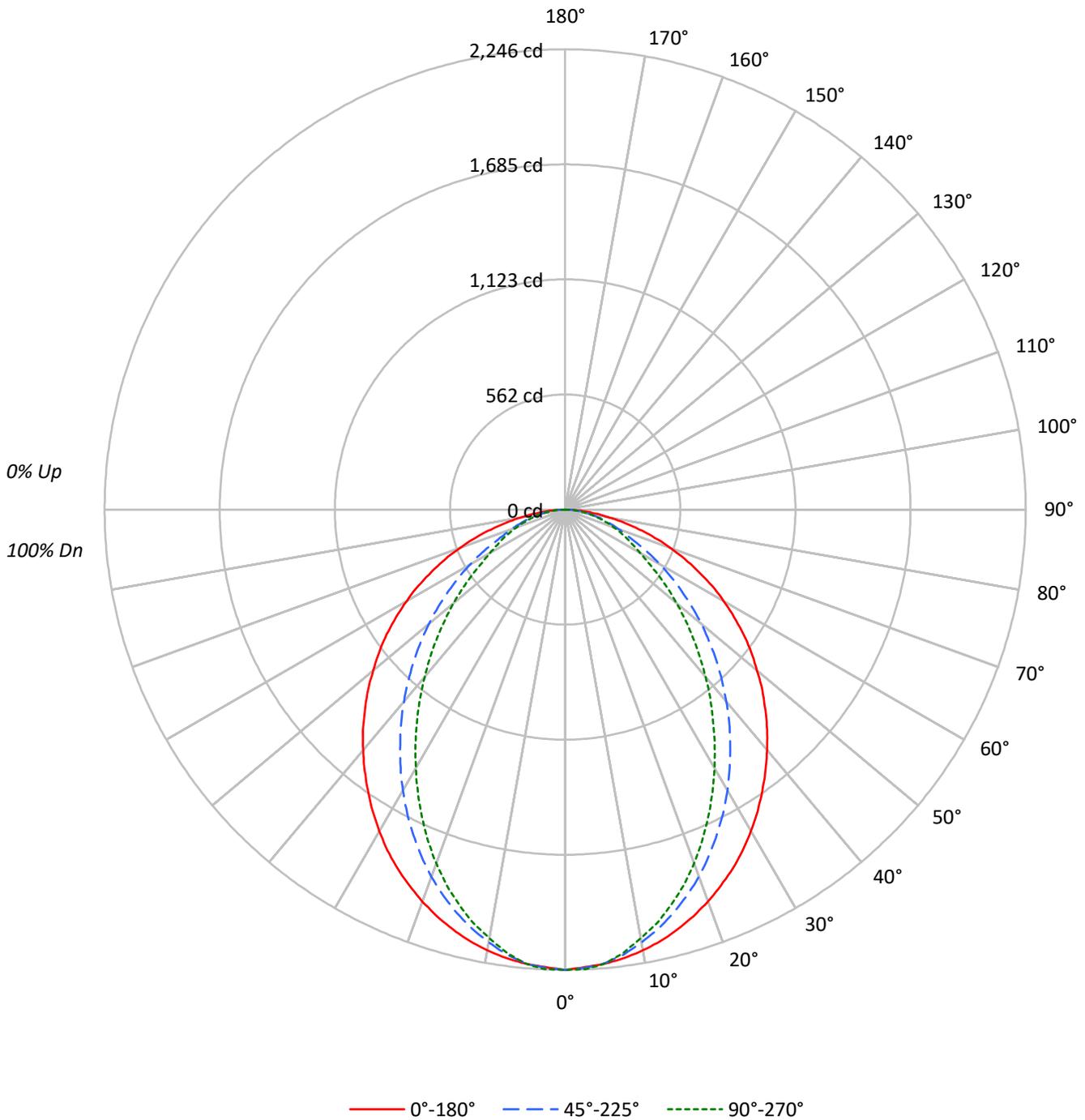
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4760.8 lumens  
Efficiency: N/A  
Efficacy: 113.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.9  
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 | 105 | 101 | 98  | 107 | 103 | 100 | 96  | 99  | 96  | 93  | 95  | 93  | 90  | 91  | 90  | 88  | 86  |    |    |    |   |
| 2   | 101 | 93  | 87  | 81  | 98  | 91  | 85  | 80  | 88  | 83  | 79  | 84  | 80  | 77  | 81  | 78  | 75  | 73  |    |    |    |   |
| 3   | 92  | 83  | 75  | 69  | 90  | 81  | 74  | 68  | 78  | 72  | 67  | 75  | 70  | 66  | 73  | 69  | 65  | 63  |    |    |    |   |
| 4   | 85  | 74  | 66  | 59  | 83  | 73  | 65  | 59  | 70  | 63  | 58  | 68  | 62  | 57  | 66  | 61  | 57  | 55  |    |    |    |   |
| 5   | 79  | 67  | 58  | 52  | 77  | 66  | 58  | 52  | 63  | 56  | 51  | 62  | 55  | 51  | 60  | 54  | 50  | 48  |    |    |    |   |
| 6   | 73  | 60  | 52  | 46  | 71  | 59  | 51  | 46  | 58  | 51  | 45  | 56  | 50  | 45  | 55  | 49  | 45  | 43  |    |    |    |   |
| 7   | 68  | 55  | 47  | 41  | 66  | 54  | 46  | 41  | 53  | 46  | 41  | 51  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |    |   |
| 8   | 63  | 51  | 42  | 37  | 62  | 50  | 42  | 37  | 49  | 42  | 37  | 47  | 41  | 36  | 46  | 40  | 36  | 34  |    |    |    |   |
| 9   | 59  | 47  | 39  | 33  | 58  | 46  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 33  | 31  |    |    |    |   |
| 10  | 56  | 43  | 36  | 31  | 55  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |    |    |    |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 15879 | 15879 | 15879 |
| 5°  | 15786 | 15774 | 15786 |
| 10° | 15680 | 15392 | 15248 |
| 15° | 15522 | 14921 | 14615 |
| 20° | 15313 | 14344 | 13828 |
| 25° | 15082 | 13660 | 12890 |
| 30° | 14786 | 12915 | 11892 |
| 35° | 14463 | 12111 | 10855 |
| 40° | 14138 | 11283 | 9832  |
| 45° | 13795 | 10417 | 8812  |
| 50° | 13428 | 9529  | 7800  |
| 55° | 13090 | 8555  | 6782  |
| 60° | 12627 | 7520  | 5959  |
| 65° | 12002 | 6378  | 5540  |
| 70° | 11269 | 5705  | 5186  |
| 75° | 10188 | 5252  | 4889  |
| 80° | 8851  | 4767  | 4564  |
| 85° | 6919  | 4202  | 4202  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13795 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 210.2  | 4.4       |
| 10°-20°   | 577.1  | 12.1      |
| 20°-30°   | 815.1  | 17.1      |
| 30°-40°   | 897.4  | 18.8      |
| 40°-50°   | 837.1  | 17.6      |
| 50°-60°   | 668.2  | 14.0      |
| 60°-70°   | 449.7  | 9.4       |
| 70°-80°   | 239.5  | 5.0       |
| 80°-90°   | 66.6   | 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°    | 1602.4 | 33.7      |
| 0°-40°    | 2499.8 | 52.5      |
| 0°-60°    | 4005.1 | 84.1      |
| 0°-90°    | 4760.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4760.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2246 | 2246  | 2246 | 2246  | 2246 |      |
| 5°  | 2224 | 2243  | 2223 | 2216  | 2224 | 211  |
| 15° | 2121 | 2109  | 2039 | 2004  | 1997 | 598  |
| 25° | 1934 | 1875  | 1751 | 1674  | 1652 | 890  |
| 35° | 1676 | 1577  | 1403 | 1293  | 1258 | 1049 |
| 45° | 1380 | 1249  | 1042 | 915   | 881  | 1065 |
| 55° | 1062 | 902   | 694  | 584   | 550  | 948  |
| 65° | 718  | 560   | 381  | 338   | 331  | 712  |
| 75° | 373  | 248   | 192  | 181   | 179  | 397  |
| 85° | 85   | 58    | 52   | 54    | 52   | 102  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2246.2 | 2246.2 | 2246.2 | 2246.2 | 2246.2 |
| 2.5°  | 2234.5 | 2252.9 | 2237.9 | 2241.2 | 2244.6 |
| 5°    | 2224.5 | 2242.9 | 2222.8 | 2216.1 | 2224.5 |
| 7.5°  | 2207.8 | 2222.8 | 2189.4 | 2174.3 | 2181.0 |
| 10°   | 2184.3 | 2194.4 | 2144.2 | 2124.1 | 2124.1 |
| 12.5° | 2155.9 | 2155.9 | 2095.7 | 2067.3 | 2067.3 |
| 15°   | 2120.8 | 2109.1 | 2038.8 | 2003.7 | 1997.0 |
| 17.5° | 2080.6 | 2058.9 | 1975.3 | 1930.1 | 1921.8 |
| 20°   | 2035.5 | 2000.4 | 1906.7 | 1848.2 | 1838.1 |
| 22.5° | 1985.3 | 1940.1 | 1831.4 | 1759.5 | 1747.8 |
| 25°   | 1933.5 | 1874.9 | 1751.2 | 1674.2 | 1652.5 |
| 27.5° | 1874.9 | 1804.7 | 1669.2 | 1582.2 | 1555.5 |
| 30°   | 1811.4 | 1731.1 | 1582.2 | 1485.2 | 1456.8 |
| 32.5° | 1746.1 | 1655.8 | 1493.6 | 1389.9 | 1358.1 |
| 35°   | 1675.9 | 1577.2 | 1403.3 | 1292.9 | 1257.8 |
| 37.5° | 1605.6 | 1498.6 | 1314.6 | 1199.2 | 1162.4 |
| 40°   | 1532.0 | 1415.0 | 1222.6 | 1103.9 | 1065.4 |
| 42.5° | 1458.5 | 1333.0 | 1132.3 | 1011.9 | 971.7  |
| 45°   | 1379.8 | 1249.4 | 1042.0 | 914.9  | 881.4  |
| 47.5° | 1304.6 | 1164.1 | 953.3  | 829.6  | 792.8  |
| 50°   | 1221.0 | 1075.4 | 866.4  | 742.6  | 709.2  |
| 52.5° | 1144.0 | 988.5  | 779.4  | 664.0  | 628.9  |
| 55°   | 1062.1 | 901.5  | 694.1  | 583.7  | 550.3  |
| 57.5° | 976.8  | 814.5  | 612.2  | 508.5  | 476.7  |
| 60°   | 893.1  | 727.6  | 531.9  | 436.5  | 421.5  |
| 62.5° | 807.8  | 645.6  | 456.6  | 383.0  | 373.0  |
| 65°   | 717.5  | 560.3  | 381.3  | 337.9  | 331.2  |
| 67.5° | 632.2  | 478.3  | 321.1  | 296.0  | 289.3  |
| 70°   | 545.2  | 396.4  | 276.0  | 254.2  | 250.9  |
| 72.5° | 459.9  | 317.8  | 232.5  | 217.4  | 214.1  |
| 75°   | 373.0  | 247.5  | 192.3  | 180.6  | 179.0  |
| 77.5° | 292.7  | 185.7  | 152.2  | 147.2  | 143.8  |
| 80°   | 217.4  | 138.8  | 117.1  | 113.7  | 112.1  |
| 82.5° | 148.9  | 95.3   | 83.6   | 83.6   | 80.3   |
| 85°   | 85.3   | 58.5   | 51.8   | 53.5   | 51.8   |
| 87.5° | 31.8   | 25.1   | 23.4   | 25.1   | 25.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)