

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: P1000306

Luminaire Tested: SA4XXDP-B1195DB2750-4F0-XX-W2A-F\_5000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1000306  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA4XXDP-B1195DB2750-4F0-XX-W2A-F\_5000K  
Description: Define 4 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

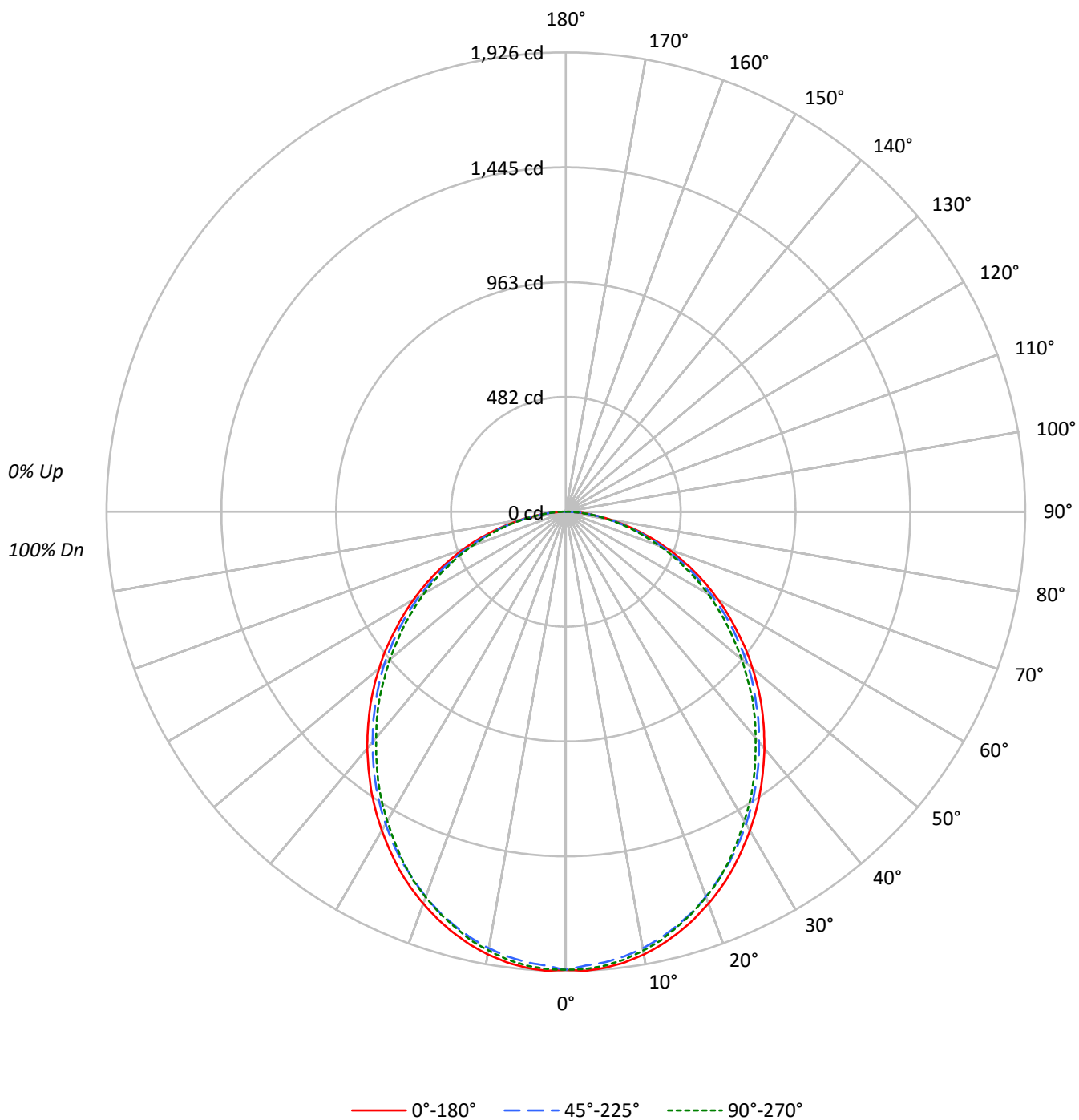
Lumens per Lamp: N/A  
Luminaire Lumens: 4929.0 lumens  
Efficiency: N/A  
Efficacy: 80.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 61.3  
Input Voltage (V):  
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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 95  | 92  |  | 94  | 91  | 89  |  | 90  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  |  | 82  | 78  | 74  |  | 79  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  |  | 73  | 67  | 63  |  | 70  |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 67  | 60  | 55  |  | 65  | 59  | 54  |  | 63  |
| 5   | 77  | 64  | 55  | 48  | 74  | 63  | 54  | 48  | 61  | 53  | 48  |  | 59  | 52  | 47  |  | 57  |
| 6   | 71  | 58  | 49  | 42  | 69  | 57  | 48  | 42  | 55  | 47  | 42  |  | 53  | 47  | 41  |  | 52  |
| 7   | 66  | 52  | 44  | 38  | 64  | 52  | 43  | 37  | 50  | 43  | 37  |  | 49  | 42  | 37  |  | 47  |
| 8   | 61  | 48  | 39  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  |  | 45  | 38  | 33  |  | 43  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  | 42  | 35  | 30  |  | 41  | 35  | 30  |  | 40  |
| 10  | 54  | 41  | 33  | 28  | 52  | 40  | 33  | 28  | 39  | 32  | 27  |  | 38  | 32  | 27  |  | 37  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 15660 | 15660 | 15660 |
| 5°  | 15707 | 15517 | 15631 |
| 10° | 15608 | 15391 | 15468 |
| 15° | 15420 | 15173 | 15212 |
| 20° | 15169 | 14902 | 14915 |
| 25° | 14884 | 14592 | 14551 |
| 30° | 14533 | 14228 | 14098 |
| 35° | 14170 | 13847 | 13664 |
| 40° | 13792 | 13415 | 13170 |
| 45° | 13398 | 12990 | 12741 |
| 50° | 12961 | 12610 | 12221 |
| 55° | 12491 | 12120 | 11726 |
| 60° | 12021 | 11570 | 11217 |
| 65° | 11490 | 11045 | 10599 |
| 70° | 10896 | 10345 | 9942  |
| 75° | 9988  | 9502  | 9260  |
| 80° | 8889  | 8528  | 8312  |
| 85° | 7775  | 7485  | 7345  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13398 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 181.0  | 3.7       |
| 10°-20°   | 509.9  | 10.3      |
| 20°-30°   | 750.5  | 15.2      |
| 30°-40°   | 872.4  | 17.7      |
| 40°-50°   | 872.3  | 17.7      |
| 50°-60°   | 763.0  | 15.5      |
| 60°-70°   | 566.4  | 11.5      |
| 70°-80°   | 321.4  | 6.5       |
| 80°-90°   | 92.1   | 1.9       |
| 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°    | 1441.4 | 29.2      |
| 0°-40°    | 2313.8 | 46.9      |
| 0°-60°    | 3949.1 | 80.1      |
| 0°-90°    | 4929.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4929.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1920 | 1920  | 1920 | 1920  | 1920 |      |
| 5°  | 1919 | 1913  | 1896 | 1913  | 1910 | 182  |
| 15° | 1826 | 1820  | 1797 | 1806  | 1802 | 515  |
| 25° | 1654 | 1643  | 1622 | 1623  | 1617 | 761  |
| 35° | 1423 | 1413  | 1391 | 1380  | 1373 | 890  |
| 45° | 1162 | 1151  | 1126 | 1109  | 1105 | 896  |
| 55° | 879  | 874   | 852  | 834   | 825  | 787  |
| 65° | 596  | 588   | 572  | 557   | 549  | 589  |
| 75° | 317  | 309   | 302  | 295   | 294  | 336  |
| 85° | 83   | 83    | 80   | 80    | 78   | 95   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1920.4 | 1920.4 | 1920.4 | 1920.4 | 1920.4 |
| 2.5°  | 1926.5 | 1921.9 | 1905.0 | 1920.4 | 1918.8 |
| 5°    | 1918.8 | 1912.7 | 1895.7 | 1912.7 | 1909.6 |
| 7.5°  | 1905.0 | 1898.8 | 1880.4 | 1894.2 | 1892.7 |
| 10°   | 1885.0 | 1878.8 | 1858.8 | 1871.1 | 1868.1 |
| 12.5° | 1858.8 | 1852.7 | 1831.1 | 1845.0 | 1840.4 |
| 15°   | 1826.5 | 1820.3 | 1797.3 | 1806.5 | 1801.9 |
| 17.5° | 1789.6 | 1781.9 | 1760.3 | 1766.5 | 1763.4 |
| 20°   | 1748.0 | 1740.3 | 1717.3 | 1721.9 | 1718.8 |
| 22.5° | 1703.4 | 1692.6 | 1669.6 | 1678.8 | 1672.6 |
| 25°   | 1654.2 | 1643.4 | 1621.8 | 1623.4 | 1617.2 |
| 27.5° | 1598.8 | 1588.0 | 1568.0 | 1564.9 | 1557.2 |
| 30°   | 1543.4 | 1531.1 | 1511.1 | 1504.9 | 1497.2 |
| 32.5° | 1484.9 | 1474.1 | 1452.6 | 1444.9 | 1437.2 |
| 35°   | 1423.4 | 1412.6 | 1391.0 | 1380.3 | 1372.6 |
| 37.5° | 1358.7 | 1349.5 | 1326.4 | 1315.6 | 1304.9 |
| 40°   | 1295.6 | 1283.3 | 1260.2 | 1244.9 | 1237.2 |
| 42.5° | 1227.9 | 1221.8 | 1195.6 | 1177.1 | 1172.5 |
| 45°   | 1161.8 | 1151.0 | 1126.4 | 1109.4 | 1104.8 |
| 47.5° | 1092.5 | 1084.8 | 1061.7 | 1043.3 | 1031.0 |
| 50°   | 1021.7 | 1015.6 | 994.0  | 972.5  | 963.3  |
| 52.5° | 952.5  | 944.8  | 921.7  | 903.3  | 890.9  |
| 55°   | 878.6  | 874.0  | 852.5  | 834.0  | 824.8  |
| 57.5° | 809.4  | 804.8  | 783.2  | 764.8  | 755.5  |
| 60°   | 737.1  | 729.4  | 709.4  | 695.5  | 687.8  |
| 62.5° | 666.3  | 660.1  | 638.6  | 626.3  | 618.6  |
| 65°   | 595.5  | 587.8  | 572.4  | 557.0  | 549.3  |
| 67.5° | 523.2  | 517.0  | 501.6  | 486.2  | 484.7  |
| 70°   | 457.0  | 446.2  | 433.9  | 421.6  | 417.0  |
| 72.5° | 386.2  | 375.5  | 366.2  | 357.0  | 352.4  |
| 75°   | 317.0  | 309.3  | 301.6  | 295.4  | 293.9  |
| 77.5° | 249.3  | 246.2  | 238.5  | 237.0  | 232.4  |
| 80°   | 189.3  | 184.7  | 181.6  | 178.5  | 177.0  |
| 82.5° | 130.8  | 129.3  | 129.3  | 127.7  | 126.2  |
| 85°   | 83.1   | 83.1   | 80.0   | 80.0   | 78.5   |
| 87.5° | 40.0   | 38.5   | 36.9   | 36.9   | 36.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)