

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: P1037859

Luminaire Tested: S124RDS-B1195DB2750-4F0-XX-W2A-F\_4000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1037859  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDS-B1195DB2750-4F0-XX-W2A-F\_4000K  
Description: Define 4 Regressed Direct Surface with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

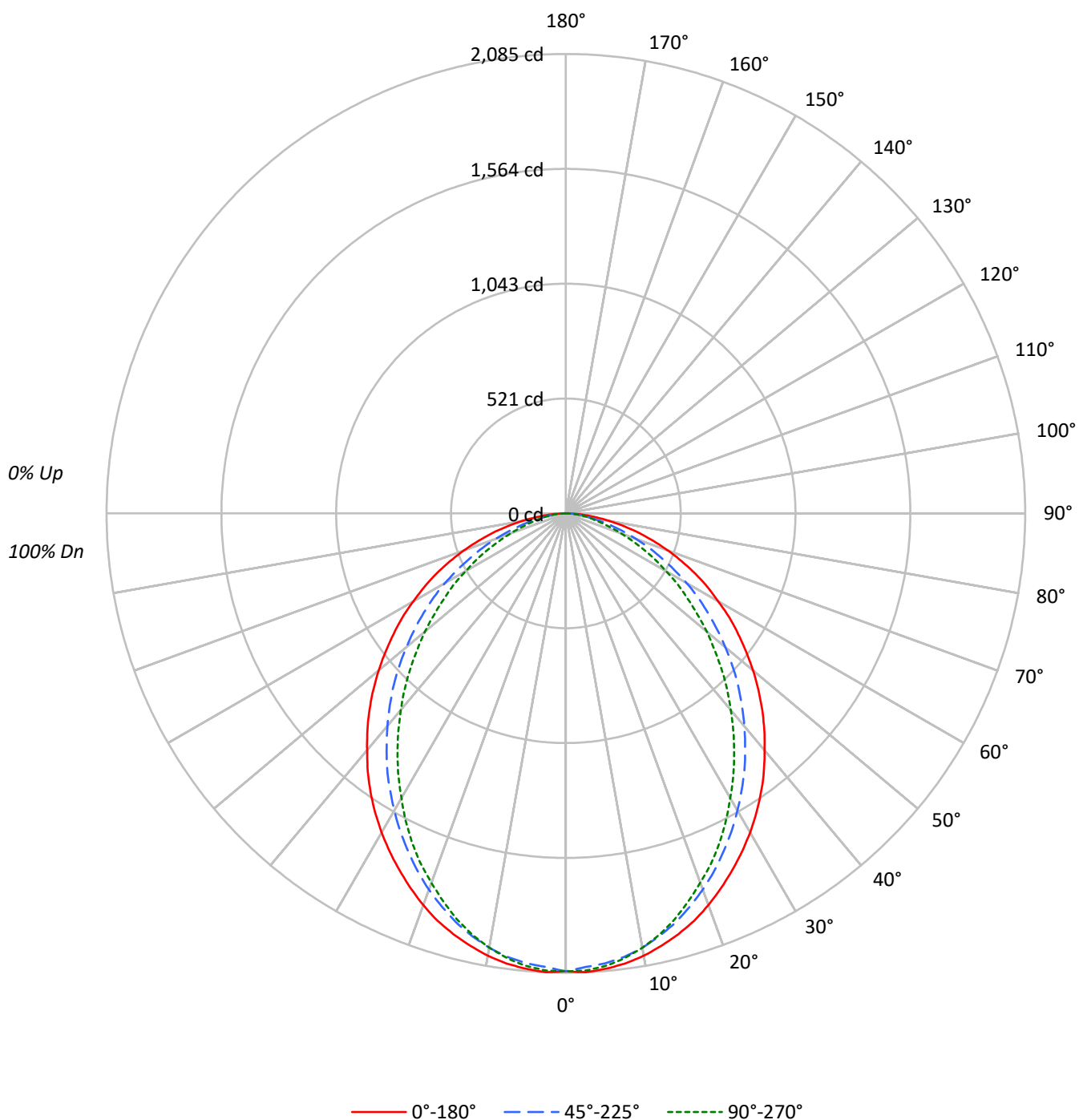
Lumens per Lamp: N/A  
Luminaire Lumens: 4802.0 lumens  
Efficiency: N/A  
Efficacy: 78.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

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  | 30  | 10  | 50  | 30 | 10 |
| 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 | 99  | 96  | 99  | 96  | 93  | 95  | 92  | 90  | 91  | 89  | 87  | 85  |    |    |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 74  | 72  |    |    |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  | 75  | 69  | 65  | 72  | 68  | 64  | 62  |    |    |
| 4   | 84  | 73  | 65  | 58  | 82  | 72  | 64  | 58  | 69  | 62  | 57  | 67  | 61  | 56  | 65  | 60  | 56  | 54  |    |    |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 56  | 50  | 62  | 55  | 50  | 61  | 54  | 49  | 59  | 53  | 49  | 47  |    |    |
| 6   | 72  | 59  | 51  | 45  | 70  | 58  | 50  | 44  | 57  | 49  | 44  | 55  | 49  | 44  | 53  | 48  | 43  | 41  |    |    |
| 7   | 67  | 54  | 46  | 40  | 65  | 53  | 45  | 40  | 52  | 45  | 39  | 50  | 44  | 39  | 49  | 43  | 39  | 37  |    |    |
| 8   | 63  | 50  | 41  | 36  | 61  | 49  | 41  | 36  | 48  | 40  | 35  | 46  | 40  | 35  | 45  | 39  | 35  | 33  |    |    |
| 9   | 59  | 46  | 38  | 32  | 57  | 45  | 37  | 32  | 44  | 37  | 32  | 43  | 36  | 32  | 42  | 36  | 32  | 30  |    |    |
| 10  | 55  | 42  | 35  | 29  | 54  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 29  | 39  | 33  | 29  | 27  |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16947 | 16947 | 16947 |
| 5°  | 16986 | 16777 | 16881 |
| 10° | 16879 | 16576 | 16576 |
| 15° | 16685 | 16228 | 16108 |
| 20° | 16419 | 15770 | 15480 |
| 25° | 16078 | 15234 | 14848 |
| 30° | 15748 | 14669 | 14054 |
| 35° | 15382 | 14083 | 13259 |
| 40° | 14940 | 13416 | 12399 |
| 45° | 14534 | 12755 | 11524 |
| 50° | 14070 | 11991 | 10598 |
| 55° | 13574 | 11199 | 9592  |
| 60° | 13028 | 10328 | 8564  |
| 65° | 12528 | 9242  | 7554  |
| 70° | 11799 | 8044  | 6411  |
| 75° | 10879 | 6667  | 5214  |
| 80° | 9491  | 5081  | 4781  |
| 85° | 8037  | 4613  | 4313  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14534 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 195.4  | 4.1       |
| 10°-20°   | 544.9  | 11.3      |
| 20°-30°   | 786.7  | 16.4      |
| 30°-40°   | 891.6  | 18.6      |
| 40°-50°   | 860.8  | 17.9      |
| 50°-60°   | 715.7  | 14.9      |
| 60°-70°   | 494.0  | 10.3      |
| 70°-80°   | 249.6  | 5.2       |
| 80°-90°   | 63.4   | 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°    | 1527.0 | 31.8      |
| 0°-40°    | 2418.5 | 50.4      |
| 0°-60°    | 3995.0 | 83.2      |
| 0°-90°    | 4802.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4802.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2078 | 2078  | 2078 | 2078  | 2078 |      |
| 5°  | 2075 | 2069  | 2050 | 2066  | 2062 | 197  |
| 15° | 1976 | 1962  | 1922 | 1919  | 1908 | 557  |
| 25° | 1787 | 1758  | 1693 | 1666  | 1650 | 823  |
| 35° | 1545 | 1494  | 1415 | 1361  | 1332 | 966  |
| 45° | 1260 | 1201  | 1106 | 1028  | 999  | 972  |
| 55° | 955  | 891   | 788  | 705   | 675  | 854  |
| 65° | 649  | 581   | 479  | 411   | 392  | 641  |
| 75° | 345  | 286   | 212  | 175   | 166  | 364  |
| 85° | 86   | 54    | 49   | 46    | 46   | 99   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2078.2 | 2078.2 | 2078.2 | 2078.2 | 2078.2 |
| 2.5°  | 2084.6 | 2078.2 | 2060.7 | 2078.2 | 2076.7 |
| 5°    | 2075.1 | 2068.7 | 2049.6 | 2065.5 | 2062.3 |
| 7.5°  | 2060.7 | 2054.4 | 2030.5 | 2041.6 | 2036.9 |
| 10°   | 2038.5 | 2030.5 | 2001.9 | 2008.2 | 2001.9 |
| 12.5° | 2009.8 | 2000.3 | 1965.3 | 1968.4 | 1958.9 |
| 15°   | 1976.4 | 1962.1 | 1922.3 | 1919.1 | 1908.0 |
| 17.5° | 1938.2 | 1917.5 | 1871.4 | 1863.4 | 1847.5 |
| 20°   | 1892.1 | 1871.4 | 1817.3 | 1804.5 | 1783.9 |
| 22.5° | 1841.1 | 1817.3 | 1758.4 | 1737.7 | 1721.8 |
| 25°   | 1787.0 | 1758.4 | 1693.1 | 1666.1 | 1650.2 |
| 27.5° | 1731.3 | 1696.3 | 1627.9 | 1596.1 | 1573.8 |
| 30°   | 1672.5 | 1632.7 | 1557.9 | 1518.1 | 1492.6 |
| 32.5° | 1610.4 | 1564.3 | 1486.3 | 1438.5 | 1414.7 |
| 35°   | 1545.2 | 1494.2 | 1414.7 | 1360.6 | 1331.9 |
| 37.5° | 1476.7 | 1424.2 | 1336.7 | 1277.8 | 1249.2 |
| 40°   | 1403.5 | 1351.0 | 1260.3 | 1193.5 | 1164.8 |
| 42.5° | 1333.5 | 1277.8 | 1182.3 | 1113.9 | 1083.7 |
| 45°   | 1260.3 | 1201.4 | 1106.0 | 1028.0 | 999.3  |
| 47.5° | 1185.5 | 1125.1 | 1026.4 | 945.2  | 913.4  |
| 50°   | 1109.1 | 1047.1 | 945.2  | 865.7  | 835.4  |
| 52.5° | 1031.2 | 970.7  | 865.7  | 784.5  | 752.7  |
| 55°   | 954.8  | 891.1  | 787.7  | 704.9  | 674.7  |
| 57.5° | 880.0  | 813.2  | 711.3  | 627.0  | 604.7  |
| 60°   | 798.8  | 735.2  | 633.3  | 550.6  | 525.1  |
| 62.5° | 725.6  | 658.8  | 553.8  | 479.0  | 459.9  |
| 65°   | 649.3  | 580.8  | 479.0  | 410.6  | 391.5  |
| 67.5° | 569.7  | 504.4  | 409.0  | 348.5  | 326.2  |
| 70°   | 494.9  | 428.1  | 337.4  | 284.8  | 268.9  |
| 72.5° | 415.3  | 356.5  | 272.1  | 229.1  | 214.8  |
| 75°   | 345.3  | 286.4  | 211.6  | 175.0  | 165.5  |
| 77.5° | 272.1  | 221.2  | 157.5  | 132.1  | 128.9  |
| 80°   | 202.1  | 155.9  | 108.2  | 103.4  | 101.8  |
| 82.5° | 141.6  | 100.3  | 78.0   | 74.8   | 73.2   |
| 85°   | 85.9   | 54.1   | 49.3   | 46.1   | 46.1   |
| 87.5° | 36.6   | 23.9   | 22.3   | 20.7   | 22.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)