

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: P1037487

Luminaire Tested: S123RDS-B1000DB2750-4F0-XX-W2A-F\_3000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1037487  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDS-B1000DB2750-4F0-XX-W2A-F\_3000K  
Description: Define 3 Regressed Direct Surface with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

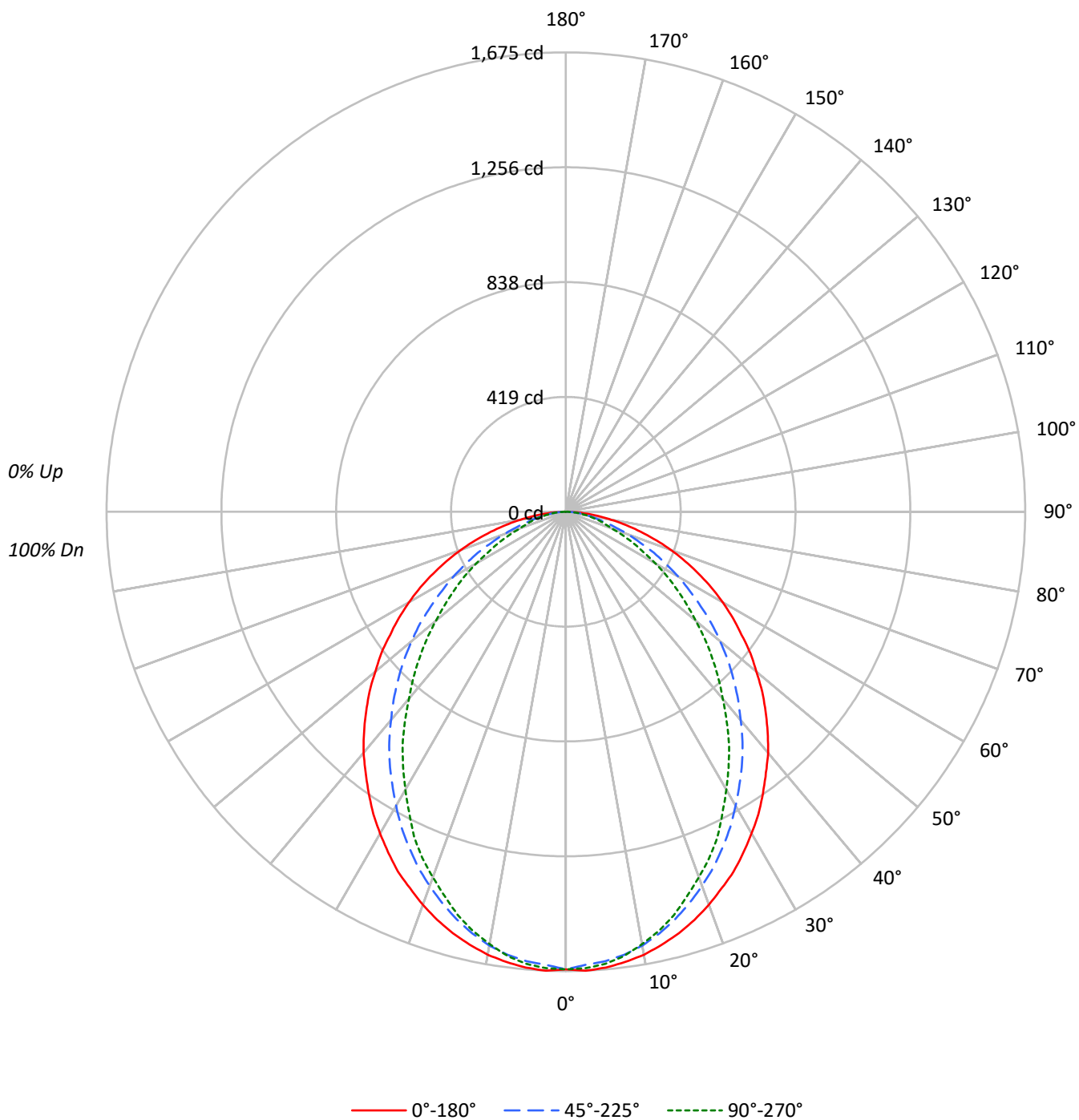
Lumens per Lamp: N/A  
Luminaire Lumens: 3769.0 lumens  
Efficiency: N/A  
Efficacy: 80.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
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  |     |     |  | 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  |  | 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 | 99  | 96  | 99  | 96  | 93  |  | 95  | 93  | 90  |  | 91  | 89  | 88  |  | 86  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  |  | 84  | 80  | 77  |  | 81  | 78  | 75  |  | 73  |
| 3   | 92  | 82  | 75  | 68  | 90  | 81  | 74  | 68  | 78  | 72  | 67  |  | 75  | 70  | 66  |  | 73  | 68  | 64  |  | 62  |
| 4   | 85  | 73  | 65  | 59  | 83  | 72  | 64  | 58  | 70  | 63  | 58  |  | 67  | 62  | 57  |  | 65  | 60  | 56  |  | 54  |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 57  | 51  | 63  | 56  | 50  |  | 61  | 55  | 50  |  | 59  | 54  | 49  |  | 47  |
| 6   | 73  | 60  | 51  | 45  | 71  | 59  | 51  | 45  | 57  | 50  | 45  |  | 55  | 49  | 44  |  | 54  | 48  | 44  |  | 42  |
| 7   | 67  | 54  | 46  | 40  | 66  | 54  | 46  | 40  | 52  | 45  | 40  |  | 51  | 44  | 39  |  | 49  | 44  | 39  |  | 37  |
| 8   | 63  | 50  | 42  | 36  | 61  | 49  | 41  | 36  | 48  | 41  | 36  |  | 47  | 40  | 36  |  | 46  | 40  | 35  |  | 34  |
| 9   | 59  | 46  | 38  | 33  | 58  | 45  | 38  | 33  | 44  | 37  | 32  |  | 43  | 37  | 32  |  | 42  | 36  | 32  |  | 30  |
| 10  | 55  | 43  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 34  | 30  |  | 40  | 34  | 29  |  | 39  | 34  | 29  |  | 28  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 17957 | 17957 | 17957 |
| 5°  | 18026 | 17778 | 17880 |
| 10° | 17924 | 17555 | 17496 |
| 15° | 17732 | 17143 | 16963 |
| 20° | 17467 | 16630 | 16243 |
| 25° | 17195 | 16054 | 15539 |
| 30° | 16834 | 15387 | 14547 |
| 35° | 16463 | 14721 | 13637 |
| 40° | 16122 | 13936 | 12510 |
| 45° | 15675 | 13161 | 11493 |
| 50° | 15180 | 12281 | 10354 |
| 55° | 14677 | 11275 | 9293  |
| 60° | 14215 | 10196 | 8127  |
| 65° | 13613 | 9029  | 6961  |
| 70° | 12859 | 7578  | 5621  |
| 75° | 11761 | 5964  | 5290  |
| 80° | 10482 | 5281  | 4866  |
| 85° | 8855  | 4681  | 4347  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 15675 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 156.8  | 4.2       |
| 10°-20°   | 436.3  | 11.6      |
| 20°-30°   | 628.2  | 16.7      |
| 30°-40°   | 707.4  | 18.8      |
| 40°-50°   | 676.7  | 18.0      |
| 50°-60°   | 553.9  | 14.7      |
| 60°-70°   | 373.5  | 9.9       |
| 70°-80°   | 187.3  | 5.0       |
| 80°-90°   | 49.0   | 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°    | 1221.3 | 32.4      |
| 0°-40°    | 1928.7 | 51.2      |
| 0°-60°    | 3159.3 | 83.8      |
| 0°-90°    | 3769.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3769.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1668 | 1668  | 1668 | 1668  | 1668 |      |
| 5°  | 1668 | 1662  | 1645 | 1658  | 1655 | 158  |
| 15° | 1591 | 1576  | 1538 | 1532  | 1522 | 448  |
| 25° | 1448 | 1414  | 1352 | 1323  | 1308 | 666  |
| 35° | 1253 | 1204  | 1120 | 1062  | 1038 | 784  |
| 45° | 1030 | 969   | 865  | 788   | 755  | 795  |
| 55° | 782  | 716   | 601  | 522   | 495  | 701  |
| 65° | 534  | 460   | 354  | 288   | 273  | 529  |
| 75° | 283  | 218   | 143  | 130   | 127  | 301  |
| 85° | 72   | 42    | 38   | 35    | 35   | 83   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1668.3 | 1668.3 | 1668.3 | 1668.3 | 1668.3 |
| 2.5°  | 1675.1 | 1669.7 | 1653.4 | 1668.3 | 1665.6 |
| 5°    | 1668.3 | 1661.5 | 1645.3 | 1657.5 | 1654.8 |
| 7.5°  | 1656.1 | 1649.4 | 1629.1 | 1637.2 | 1633.1 |
| 10°   | 1639.9 | 1630.4 | 1606.1 | 1607.4 | 1600.7 |
| 12.5° | 1616.9 | 1606.1 | 1574.9 | 1573.6 | 1565.5 |
| 15°   | 1591.2 | 1576.3 | 1538.4 | 1531.6 | 1522.2 |
| 17.5° | 1560.1 | 1543.8 | 1496.5 | 1482.9 | 1469.4 |
| 20°   | 1524.9 | 1503.2 | 1451.8 | 1434.2 | 1418.0 |
| 22.5° | 1485.6 | 1459.9 | 1404.5 | 1381.5 | 1366.6 |
| 25°   | 1447.8 | 1413.9 | 1351.7 | 1323.3 | 1308.4 |
| 27.5° | 1401.8 | 1365.2 | 1297.6 | 1259.7 | 1236.7 |
| 30°   | 1354.4 | 1313.8 | 1238.0 | 1192.0 | 1170.4 |
| 32.5° | 1307.0 | 1259.7 | 1178.5 | 1127.1 | 1104.1 |
| 35°   | 1252.9 | 1204.2 | 1120.3 | 1062.1 | 1037.8 |
| 37.5° | 1198.8 | 1146.0 | 1058.1 | 993.1  | 963.4  |
| 40°   | 1147.4 | 1087.8 | 991.8  | 921.4  | 890.3  |
| 42.5° | 1089.2 | 1029.7 | 929.5  | 851.1  | 824.0  |
| 45°   | 1029.7 | 968.8  | 864.6  | 787.5  | 755.0  |
| 47.5° | 971.5  | 903.8  | 801.0  | 717.1  | 688.7  |
| 50°   | 906.5  | 842.9  | 733.4  | 649.5  | 618.3  |
| 52.5° | 848.4  | 778.0  | 669.8  | 581.8  | 554.7  |
| 55°   | 782.1  | 715.8  | 600.8  | 522.3  | 495.2  |
| 57.5° | 722.5  | 650.8  | 534.5  | 460.0  | 437.0  |
| 60°   | 660.3  | 585.9  | 473.6  | 400.5  | 377.5  |
| 62.5° | 598.0  | 523.6  | 411.3  | 343.7  | 319.3  |
| 65°   | 534.5  | 460.0  | 354.5  | 288.2  | 273.3  |
| 67.5° | 470.9  | 395.1  | 292.3  | 242.2  | 226.0  |
| 70°   | 408.6  | 335.6  | 240.8  | 193.5  | 178.6  |
| 72.5° | 346.4  | 274.7  | 190.8  | 154.2  | 150.2  |
| 75°   | 282.8  | 217.8  | 143.4  | 129.9  | 127.2  |
| 77.5° | 224.6  | 165.1  | 112.3  | 104.2  | 101.5  |
| 80°   | 169.1  | 113.7  | 85.2   | 81.2   | 78.5   |
| 82.5° | 116.4  | 70.4   | 60.9   | 56.8   | 56.8   |
| 85°   | 71.7   | 41.9   | 37.9   | 35.2   | 35.2   |
| 87.5° | 32.5   | 17.6   | 17.6   | 16.2   | 14.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)