

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: P1037138

Luminaire Tested: S122RDS-B1005DB2750-4F0-XX-W2A-F\_3000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1037138  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDS-B1005DB2750-4F0-XX-W2A-F\_3000K  
Description: Define 2 Regressed Direct Surface with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

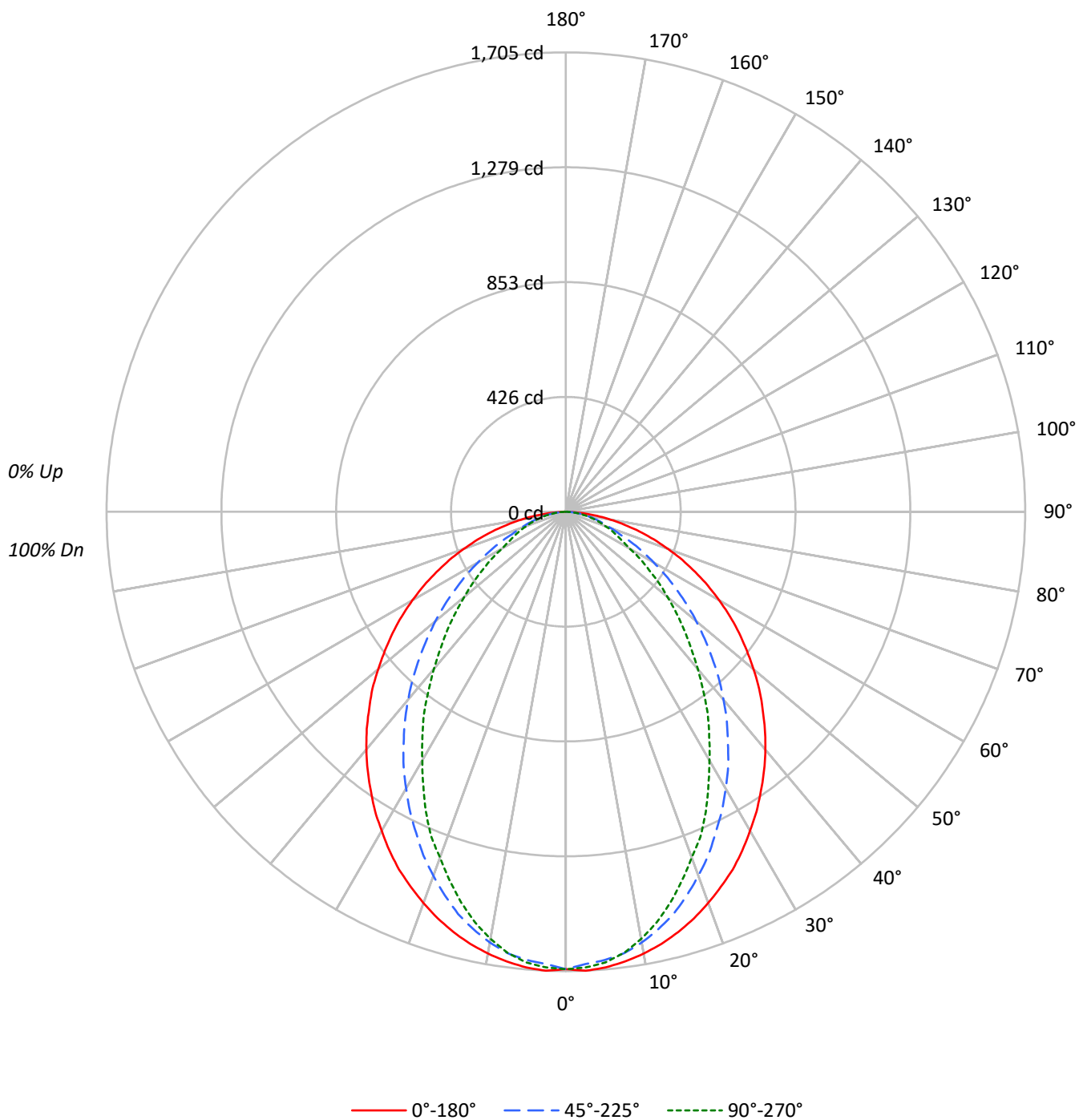
Lumens per Lamp: N/A  
Luminaire Lumens: 3491.0 lumens  
Efficiency: N/A  
Efficacy: 56.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

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  | 0   |  |  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |  |  |
| 1   | 110 | 106 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  | 95  | 93  | 91  | 92  | 90  | 88  | 86  |  |  |
| 2   | 101 | 94  | 87  | 82  | 98  | 92  | 86  | 81  | 88  | 83  | 79  | 85  | 81  | 78  | 82  | 79  | 76  | 74  |  |  |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  | 76  | 71  | 67  | 74  | 69  | 66  | 64  |  |  |
| 4   | 86  | 75  | 66  | 60  | 83  | 73  | 66  | 60  | 71  | 64  | 59  | 69  | 63  | 58  | 66  | 62  | 57  | 55  |  |  |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  | 62  | 56  | 51  | 60  | 55  | 51  | 49  |  |  |
| 6   | 74  | 61  | 53  | 47  | 72  | 60  | 52  | 46  | 58  | 51  | 46  | 57  | 50  | 46  | 55  | 50  | 45  | 43  |  |  |
| 7   | 68  | 56  | 47  | 42  | 67  | 55  | 47  | 42  | 53  | 46  | 41  | 52  | 46  | 41  | 51  | 45  | 41  | 39  |  |  |
| 8   | 64  | 51  | 43  | 38  | 62  | 51  | 43  | 37  | 49  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 37  | 35  |  |  |
| 9   | 60  | 47  | 39  | 34  | 59  | 47  | 39  | 34  | 46  | 39  | 34  | 44  | 38  | 34  | 44  | 38  | 34  | 32  |  |  |
| 10  | 56  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 36  | 31  | 41  | 35  | 31  | 41  | 35  | 31  | 29  |  |  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 26869 | 26869 | 26869 |
| 5°  | 26971 | 26533 | 26679 |
| 10° | 26766 | 26099 | 25877 |
| 15° | 26458 | 25326 | 24595 |
| 20° | 26033 | 24220 | 23004 |
| 25° | 25596 | 22966 | 21464 |
| 30° | 24990 | 21676 | 19486 |
| 35° | 24400 | 20275 | 17751 |
| 40° | 23807 | 18823 | 15744 |
| 45° | 23109 | 17195 | 13926 |
| 50° | 22395 | 15549 | 12143 |
| 55° | 21664 | 13777 | 10429 |
| 60° | 20816 | 11916 | 8655  |
| 65° | 19851 | 10012 | 7884  |
| 70° | 18698 | 8247  | 7252  |
| 75° | 17290 | 7517  | 6764  |
| 80° | 15260 | 6718  | 6162  |
| 85° | 12005 | 5303  | 5303  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle:  $45^\circ$

Luminance: 23109 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 159.1  | 4.6       |
| 10°-20°   | 436.7  | 12.5      |
| 20°-30°   | 613.1  | 17.6      |
| 30°-40°   | 668.4  | 19.1      |
| 40°-50°   | 614.3  | 17.6      |
| 50°-60°   | 482.4  | 13.8      |
| 60°-70°   | 314.0  | 9.0       |
| 70°-80°   | 161.7  | 4.6       |
| 80°-90°   | 41.3   | 1.2       |
| 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°    | 1209.0 | 34.6      |
| 0°-40°    | 1877.3 | 53.8      |
| 0°-60°    | 2974.0 | 85.2      |
| 0°-90°    | 3491.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3491.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1697 | 1697  | 1697 | 1697  | 1697 |      |
| 5°  | 1697 | 1690  | 1670 | 1684  | 1679 | 161  |
| 15° | 1614 | 1598  | 1545 | 1516  | 1501 | 455  |
| 25° | 1466 | 1416  | 1315 | 1252  | 1229 | 674  |
| 35° | 1263 | 1184  | 1049 | 952   | 919  | 790  |
| 45° | 1032 | 929   | 768  | 659   | 622  | 797  |
| 55° | 785  | 665   | 499  | 407   | 378  | 701  |
| 65° | 530  | 406   | 267  | 215   | 210  | 525  |
| 75° | 283  | 175   | 123  | 112   | 111  | 299  |
| 85° | 66   | 34    | 29   | 29    | 29   | 79   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 |
| 2.5°  | 1705.1 | 1697.4 | 1680.5 | 1695.9 | 1692.8 |
| 5°    | 1697.4 | 1689.8 | 1669.8 | 1683.6 | 1679.0 |
| 7.5°  | 1683.6 | 1674.4 | 1652.9 | 1659.0 | 1651.4 |
| 10°   | 1665.2 | 1654.4 | 1623.7 | 1619.1 | 1609.9 |
| 12.5° | 1642.1 | 1628.3 | 1586.8 | 1577.6 | 1560.7 |
| 15°   | 1614.5 | 1597.6 | 1545.4 | 1516.2 | 1500.8 |
| 17.5° | 1582.2 | 1557.6 | 1493.1 | 1459.3 | 1434.8 |
| 20°   | 1545.4 | 1514.6 | 1437.8 | 1399.4 | 1365.6 |
| 22.5° | 1505.4 | 1470.1 | 1381.0 | 1328.8 | 1305.7 |
| 25°   | 1465.5 | 1416.3 | 1314.9 | 1252.0 | 1228.9 |
| 27.5° | 1417.9 | 1365.6 | 1253.5 | 1181.3 | 1146.0 |
| 30°   | 1367.2 | 1308.8 | 1185.9 | 1107.6 | 1066.1 |
| 32.5° | 1318.0 | 1247.3 | 1121.4 | 1029.2 | 990.8  |
| 35°   | 1262.7 | 1184.4 | 1049.2 | 952.4  | 918.6  |
| 37.5° | 1208.9 | 1124.5 | 981.6  | 875.6  | 837.2  |
| 40°   | 1152.1 | 1059.9 | 910.9  | 801.9  | 761.9  |
| 42.5° | 1093.7 | 995.4  | 840.3  | 726.6  | 688.2  |
| 45°   | 1032.3 | 929.4  | 768.1  | 659.0  | 622.1  |
| 47.5° | 973.9  | 864.8  | 698.9  | 589.9  | 556.1  |
| 50°   | 909.4  | 800.3  | 631.4  | 525.4  | 493.1  |
| 52.5° | 846.4  | 731.2  | 566.8  | 465.5  | 436.3  |
| 55°   | 785.0  | 665.2  | 499.2  | 407.1  | 377.9  |
| 57.5° | 722.0  | 599.1  | 439.3  | 353.3  | 328.7  |
| 60°   | 657.5  | 534.6  | 376.4  | 298.0  | 273.4  |
| 62.5° | 594.5  | 471.6  | 322.6  | 248.9  | 236.6  |
| 65°   | 530.0  | 405.5  | 267.3  | 215.1  | 210.5  |
| 67.5° | 468.5  | 344.1  | 215.1  | 188.9  | 184.3  |
| 70°   | 404.0  | 284.2  | 178.2  | 162.8  | 156.7  |
| 72.5° | 342.6  | 228.9  | 149.0  | 136.7  | 133.6  |
| 75°   | 282.7  | 175.1  | 122.9  | 112.1  | 110.6  |
| 77.5° | 222.7  | 124.4  | 96.8   | 90.6   | 87.6   |
| 80°   | 167.4  | 89.1   | 73.7   | 67.6   | 67.6   |
| 82.5° | 116.7  | 59.9   | 50.7   | 47.6   | 47.6   |
| 85°   | 66.1   | 33.8   | 29.2   | 29.2   | 29.2   |
| 87.5° | 24.6   | 12.3   | 12.3   | 10.8   | 10.8   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)