

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: P1036894

Luminaire Tested: S122DS-B1005DB2750-4F0-XX-W2A-F\_3000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1036894  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DS-B1005DB2750-4F0-XX-W2A-F\_3000K  
Description: Define 2 Direct Surface with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

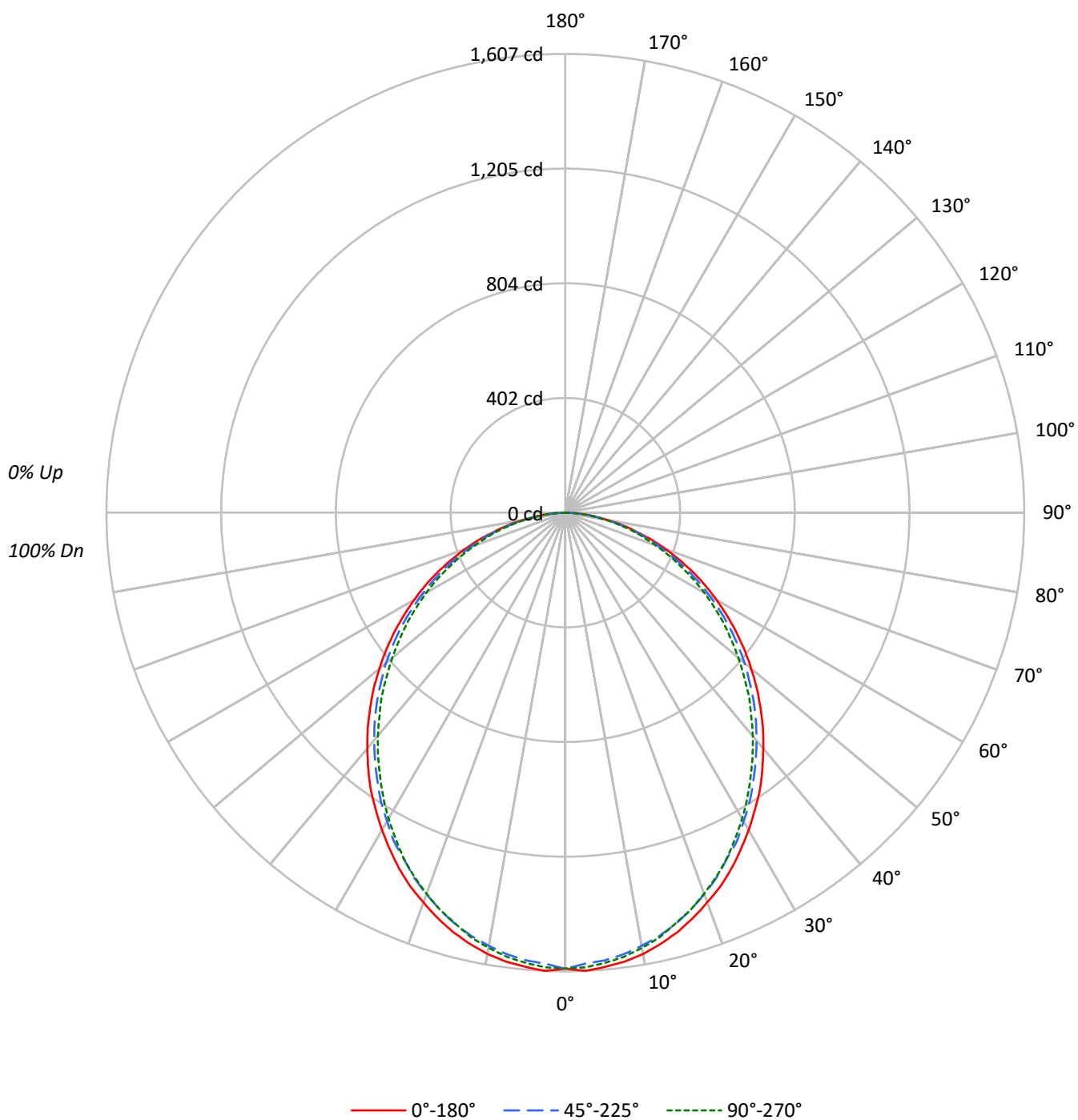
Lumens per Lamp: N/A  
Luminaire Lumens: 4064.0 lumens  
Efficiency: N/A  
Efficacy: 66.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

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  |     |     | 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   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 95  | 92  |  | 94  | 91  | 89  |  | 90  | 88  | 86  | 84  |
| 2   | 99  | 91  | 85  | 79  | 97  | 89  | 83  | 78  | 86  | 81  | 76  |  | 83  | 78  | 74  |  | 80  | 76  | 73  | 71  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  |  | 73  | 68  | 63  |  | 71  | 66  | 62  | 60  |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 68  | 61  | 55  |  | 65  | 59  | 54  |  | 63  | 58  | 54  | 51  |
| 5   | 77  | 64  | 55  | 49  | 75  | 63  | 55  | 48  | 61  | 53  | 48  |  | 59  | 52  | 47  |  | 57  | 51  | 47  | 45  |
| 6   | 71  | 58  | 49  | 43  | 69  | 57  | 48  | 42  | 55  | 48  | 42  |  | 53  | 47  | 42  |  | 52  | 46  | 41  | 39  |
| 7   | 66  | 52  | 44  | 38  | 64  | 52  | 43  | 38  | 50  | 43  | 37  |  | 49  | 42  | 37  |  | 47  | 41  | 37  | 35  |
| 8   | 61  | 48  | 40  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  |  | 45  | 38  | 33  |  | 44  | 38  | 33  | 31  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  | 42  | 35  | 30  |  | 41  | 35  | 30  |  | 40  | 34  | 30  | 28  |
| 10  | 54  | 41  | 33  | 28  | 53  | 40  | 33  | 28  | 39  | 32  | 27  |  | 38  | 32  | 27  |  | 37  | 32  | 27  | 26  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 25286 | 25286 | 25286 |
| 5°  | 25382 | 25015 | 25163 |
| 10° | 25231 | 24763 | 24885 |
| 15° | 24919 | 24441 | 24416 |
| 20° | 24476 | 23959 | 23934 |
| 25° | 24036 | 23366 | 23366 |
| 30° | 23471 | 22824 | 22628 |
| 35° | 22943 | 22172 | 21846 |
| 40° | 22280 | 21519 | 21106 |
| 45° | 21627 | 20870 | 20356 |
| 50° | 20917 | 20198 | 19479 |
| 55° | 20177 | 19415 | 18695 |
| 60° | 19353 | 18479 | 17798 |
| 65° | 18465 | 17548 | 16743 |
| 70° | 17346 | 16421 | 15639 |
| 75° | 15779 | 15125 | 14746 |
| 80° | 14002 | 13582 | 12881 |
| 85° | 11442 | 10879 | 9771  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 21627 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 150.3  | 3.7       |
| 10°-20°   | 423.0  | 10.4      |
| 20°-30°   | 621.6  | 15.3      |
| 30°-40°   | 722.0  | 17.8      |
| 40°-50°   | 721.1  | 17.7      |
| 50°-60°   | 628.8  | 15.5      |
| 60°-70°   | 464.8  | 11.4      |
| 70°-80°   | 263.0  | 6.5       |
| 80°-90°   | 69.4   | 1.7       |
| 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°    | 1195.0 | 29.4      |
| 0°-40°    | 1917.0 | 47.2      |
| 0°-60°    | 3266.8 | 80.4      |
| 0°-90°    | 4064.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4064.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1597 | 1597  | 1597 | 1597  | 1597 |      |
| 5°  | 1597 | 1591  | 1574 | 1587  | 1584 | 152  |
| 15° | 1521 | 1511  | 1491 | 1498  | 1490 | 428  |
| 25° | 1376 | 1364  | 1338 | 1341  | 1338 | 633  |
| 35° | 1187 | 1172  | 1147 | 1138  | 1130 | 741  |
| 45° | 966  | 955   | 932  | 915   | 909  | 746  |
| 55° | 731  | 722   | 704  | 685   | 677  | 654  |
| 65° | 493  | 484   | 468  | 455   | 447  | 487  |
| 75° | 258  | 255   | 247  | 238   | 241  | 275  |
| 85° | 63   | 61    | 60   | 55    | 54   | 74   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1597.4 | 1597.4 | 1597.4 | 1597.4 | 1597.4 |
| 2.5°  | 1606.6 | 1598.9 | 1582.0 | 1597.4 | 1594.3 |
| 5°    | 1597.4 | 1591.2 | 1574.3 | 1586.6 | 1583.6 |
| 7.5°  | 1586.6 | 1577.4 | 1560.5 | 1572.8 | 1569.7 |
| 10°   | 1569.7 | 1559.0 | 1540.6 | 1552.8 | 1548.2 |
| 12.5° | 1546.7 | 1537.5 | 1519.1 | 1526.7 | 1523.7 |
| 15°   | 1520.6 | 1511.4 | 1491.4 | 1497.5 | 1489.9 |
| 17.5° | 1488.3 | 1479.1 | 1459.1 | 1466.8 | 1459.1 |
| 20°   | 1453.0 | 1443.8 | 1422.3 | 1426.9 | 1420.8 |
| 22.5° | 1417.7 | 1403.9 | 1383.9 | 1383.9 | 1380.8 |
| 25°   | 1376.2 | 1363.9 | 1337.8 | 1340.9 | 1337.8 |
| 27.5° | 1330.1 | 1319.4 | 1299.4 | 1294.8 | 1287.1 |
| 30°   | 1284.1 | 1271.8 | 1248.7 | 1244.1 | 1238.0 |
| 32.5° | 1234.9 | 1225.7 | 1201.1 | 1191.9 | 1185.8 |
| 35°   | 1187.3 | 1171.9 | 1147.4 | 1138.1 | 1130.5 |
| 37.5° | 1133.5 | 1119.7 | 1095.1 | 1084.4 | 1076.7 |
| 40°   | 1078.2 | 1065.9 | 1041.4 | 1027.5 | 1021.4 |
| 42.5° | 1024.5 | 1012.2 | 987.6  | 972.3  | 963.0  |
| 45°   | 966.1  | 955.4  | 932.3  | 915.4  | 909.3  |
| 47.5° | 909.3  | 898.5  | 874.0  | 857.1  | 847.8  |
| 50°   | 849.4  | 841.7  | 820.2  | 798.7  | 791.0  |
| 52.5° | 791.0  | 780.3  | 760.3  | 743.4  | 732.6  |
| 55°   | 731.1  | 721.9  | 703.5  | 685.0  | 677.4  |
| 57.5° | 671.2  | 663.5  | 643.6  | 625.1  | 619.0  |
| 60°   | 611.3  | 605.2  | 583.7  | 566.8  | 562.2  |
| 62.5° | 552.9  | 542.2  | 526.8  | 511.5  | 505.3  |
| 65°   | 493.0  | 483.8  | 468.5  | 454.6  | 447.0  |
| 67.5° | 431.6  | 423.9  | 410.1  | 399.3  | 393.2  |
| 70°   | 374.8  | 368.6  | 354.8  | 344.1  | 337.9  |
| 72.5° | 316.4  | 310.3  | 302.6  | 291.8  | 287.2  |
| 75°   | 258.0  | 255.0  | 247.3  | 238.1  | 241.1  |
| 77.5° | 205.8  | 199.7  | 196.6  | 192.0  | 187.4  |
| 80°   | 153.6  | 152.1  | 149.0  | 144.4  | 141.3  |
| 82.5° | 104.4  | 104.4  | 102.9  | 96.8   | 96.8   |
| 85°   | 63.0   | 61.4   | 59.9   | 55.3   | 53.8   |
| 87.5° | 27.6   | 24.6   | 21.5   | 16.9   | 15.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)