

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: P1037145

Luminaire Tested: S122RDS-B1005DB35-4F0-XX-W2A-F

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1037145  
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-B1005DB35-4F0-XX-W2A-F  
Description: Define 2 Regressed Direct Surface with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

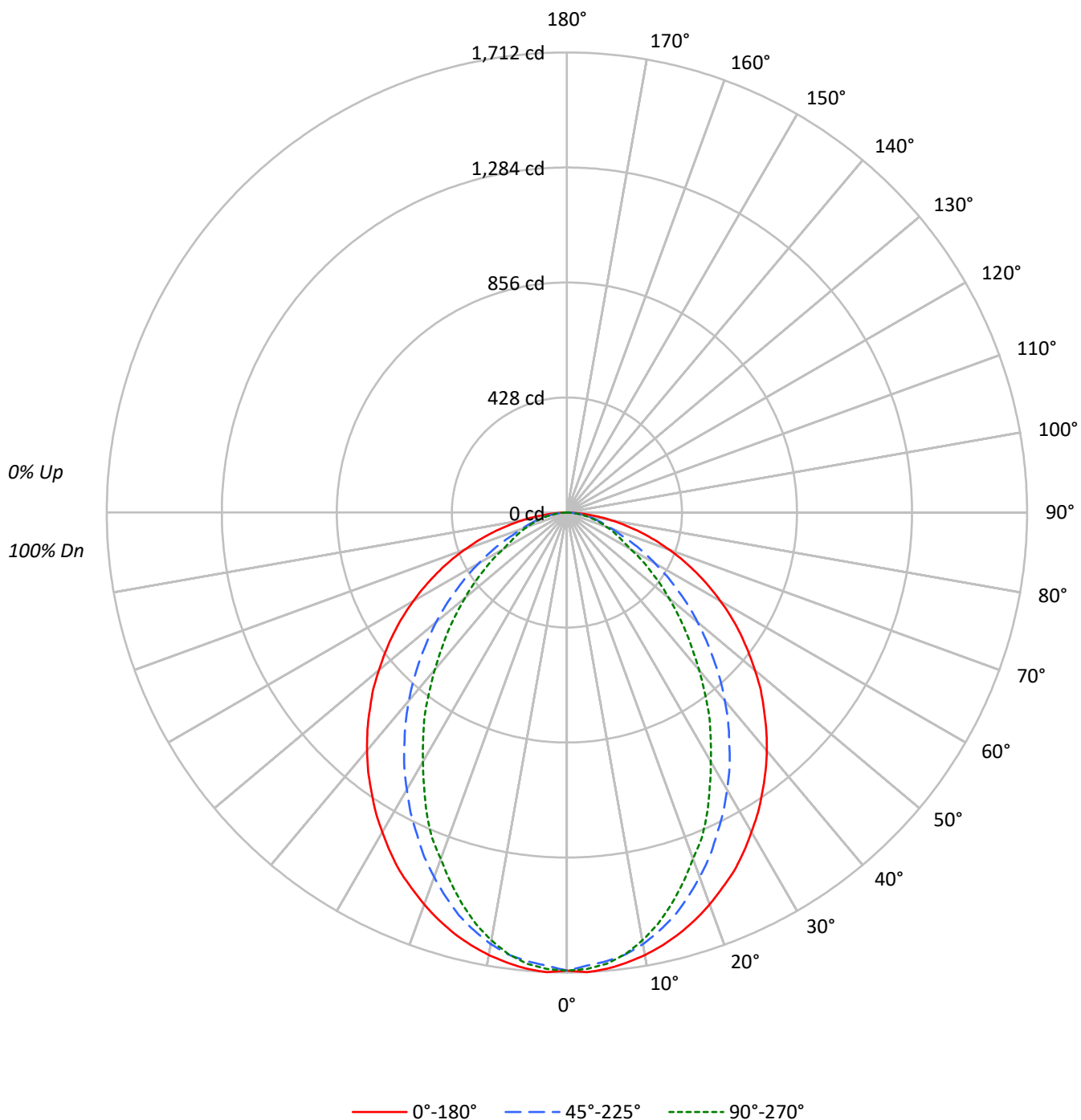
Lumens per Lamp: N/A  
Luminaire Lumens: 3506.0 lumens  
Efficiency: N/A  
Efficacy: 57.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

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  |     |     | 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 | 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°  | 26984 | 26984 | 26984 |
| 5°  | 27087 | 26647 | 26793 |
| 10° | 26880 | 26211 | 25988 |
| 15° | 26571 | 25434 | 24701 |
| 20° | 26144 | 24324 | 23103 |
| 25° | 25706 | 23065 | 21556 |
| 30° | 25096 | 21769 | 19570 |
| 35° | 24505 | 20362 | 17828 |
| 40° | 23910 | 18903 | 15812 |
| 45° | 23208 | 17269 | 13987 |
| 50° | 22491 | 15615 | 12195 |
| 55° | 21755 | 13837 | 10473 |
| 60° | 20904 | 11967 | 8693  |
| 65° | 19934 | 10053 | 7918  |
| 70° | 18777 | 8284  | 7285  |
| 75° | 17363 | 7547  | 6795  |
| 80° | 15333 | 6755  | 6190  |
| 85° | 12041 | 5321  | 5321  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 23208 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 159.8  | 4.6       |
| 10°-20°   | 438.6  | 12.5      |
| 20°-30°   | 615.8  | 17.6      |
| 30°-40°   | 671.2  | 19.1      |
| 40°-50°   | 616.9  | 17.6      |
| 50°-60°   | 484.5  | 13.8      |
| 60°-70°   | 315.4  | 9.0       |
| 70°-80°   | 162.4  | 4.6       |
| 80°-90°   | 41.5   | 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       |
| <hr/>     |        |           |
| 0°-30°    | 1214.2 | 34.6      |
| 0°-40°    | 1885.4 | 53.8      |
| 0°-60°    | 2986.8 | 85.2      |
| 0°-90°    | 3506.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3506.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1705 | 1705  | 1705 | 1705  | 1705 |      |
| 5°  | 1705 | 1697  | 1677 | 1691  | 1686 | 162  |
| 15° | 1621 | 1604  | 1552 | 1523  | 1507 | 457  |
| 25° | 1472 | 1422  | 1321 | 1257  | 1234 | 677  |
| 35° | 1268 | 1190  | 1054 | 956   | 923  | 794  |
| 45° | 1037 | 933   | 771  | 662   | 625  | 801  |
| 55° | 788  | 668   | 501  | 409   | 380  | 704  |
| 65° | 532  | 407   | 268  | 216   | 211  | 528  |
| 75° | 284  | 176   | 123  | 113   | 111  | 300  |
| 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°    | 1704.7 | 1704.7 | 1704.7 | 1704.7 | 1704.7 |
| 2.5°  | 1712.4 | 1704.7 | 1687.8 | 1703.2 | 1700.1 |
| 5°    | 1704.7 | 1697.0 | 1677.0 | 1690.8 | 1686.2 |
| 7.5°  | 1690.8 | 1681.6 | 1660.0 | 1666.2 | 1658.4 |
| 10°   | 1672.3 | 1661.5 | 1630.7 | 1626.1 | 1616.8 |
| 12.5° | 1649.2 | 1635.3 | 1593.7 | 1584.4 | 1567.4 |
| 15°   | 1621.4 | 1604.5 | 1552.0 | 1522.7 | 1507.3 |
| 17.5° | 1589.0 | 1564.3 | 1499.5 | 1465.6 | 1440.9 |
| 20°   | 1552.0 | 1521.1 | 1444.0 | 1405.4 | 1371.5 |
| 22.5° | 1511.9 | 1476.4 | 1386.9 | 1334.5 | 1311.3 |
| 25°   | 1471.8 | 1422.4 | 1320.6 | 1257.3 | 1234.2 |
| 27.5° | 1424.0 | 1371.5 | 1258.9 | 1186.4 | 1150.9 |
| 30°   | 1373.0 | 1314.4 | 1191.0 | 1112.3 | 1070.7 |
| 32.5° | 1323.7 | 1252.7 | 1126.2 | 1033.6 | 995.1  |
| 35°   | 1268.1 | 1189.5 | 1053.7 | 956.5  | 922.6  |
| 37.5° | 1214.1 | 1129.3 | 985.8  | 879.4  | 840.8  |
| 40°   | 1157.1 | 1064.5 | 914.8  | 805.3  | 765.2  |
| 42.5° | 1098.4 | 999.7  | 843.9  | 729.7  | 691.1  |
| 45°   | 1036.7 | 933.4  | 771.4  | 661.8  | 624.8  |
| 47.5° | 978.1  | 868.6  | 701.9  | 592.4  | 558.5  |
| 50°   | 913.3  | 803.8  | 634.1  | 527.6  | 495.2  |
| 52.5° | 850.1  | 734.3  | 569.3  | 467.5  | 438.1  |
| 55°   | 788.3  | 668.0  | 501.4  | 408.8  | 379.5  |
| 57.5° | 725.1  | 601.7  | 441.2  | 354.8  | 330.1  |
| 60°   | 660.3  | 536.9  | 378.0  | 299.3  | 274.6  |
| 62.5° | 597.0  | 473.6  | 324.0  | 249.9  | 237.6  |
| 65°   | 532.2  | 407.3  | 268.4  | 216.0  | 211.4  |
| 67.5° | 470.5  | 345.6  | 216.0  | 189.8  | 185.1  |
| 70°   | 405.7  | 285.4  | 179.0  | 163.5  | 157.4  |
| 72.5° | 344.0  | 229.9  | 149.6  | 137.3  | 134.2  |
| 75°   | 283.9  | 175.9  | 123.4  | 112.6  | 111.1  |
| 77.5° | 223.7  | 125.0  | 97.2   | 91.0   | 87.9   |
| 80°   | 168.2  | 89.5   | 74.1   | 67.9   | 67.9   |
| 82.5° | 117.2  | 60.2   | 50.9   | 47.8   | 47.8   |
| 85°   | 66.3   | 33.9   | 29.3   | 29.3   | 29.3   |
| 87.5° | 24.7   | 12.3   | 12.3   | 10.8   | 10.8   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)