

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: P1037917

Luminaire Tested: S124RDS-B795DB2750-4F0-XX-W2A-F\_3000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1037917  
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-B795DB2750-4F0-XX-W2A-F\_3000K  
Description: Define 4 Regressed Direct Surface with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

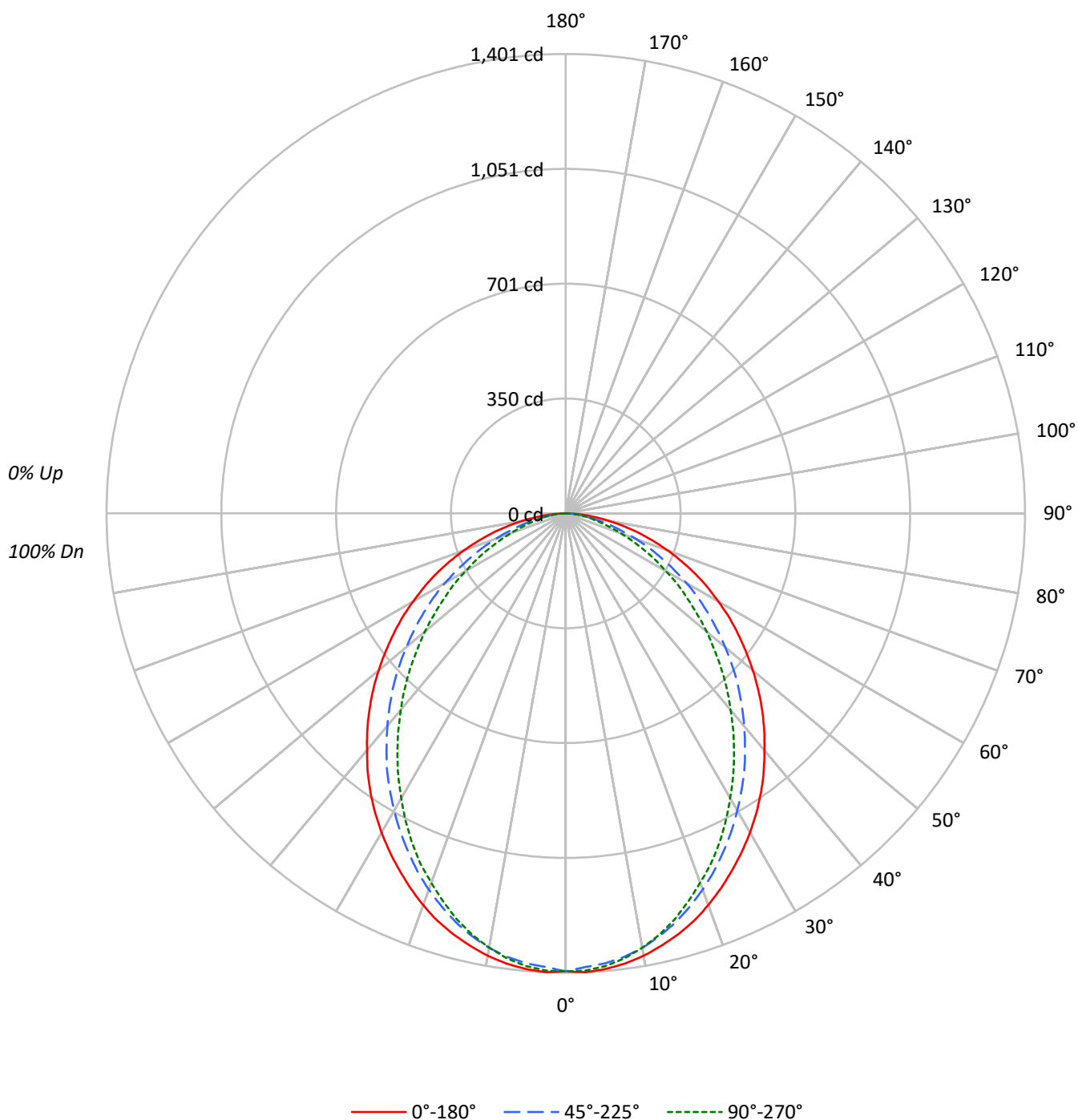
Lumens per Lamp: N/A  
Luminaire Lumens: 3227.0 lumens  
Efficiency: N/A  
Efficacy: 89.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35.9  
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 | 102 | 102 | 100 |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 92  | 90  | 91  | 89  | 87  | 87  | 87  | 85  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 74  | 74  | 74  | 72  |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  | 75  | 69  | 65  | 72  | 68  | 64  | 64  | 64  | 62  |
| 4   | 84  | 73  | 65  | 58  | 82  | 72  | 64  | 58  | 69  | 62  | 57  | 67  | 61  | 56  | 65  | 60  | 56  | 56  | 56  | 54  |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 56  | 50  | 62  | 55  | 50  | 61  | 54  | 49  | 59  | 53  | 49  | 49  | 49  | 47  |
| 6   | 72  | 59  | 51  | 45  | 70  | 58  | 50  | 44  | 57  | 49  | 44  | 55  | 49  | 44  | 53  | 48  | 43  | 43  | 43  | 41  |
| 7   | 67  | 54  | 46  | 40  | 65  | 53  | 45  | 40  | 52  | 45  | 39  | 50  | 44  | 39  | 49  | 43  | 39  | 39  | 39  | 37  |
| 8   | 63  | 50  | 41  | 36  | 61  | 49  | 41  | 36  | 48  | 40  | 35  | 46  | 40  | 35  | 45  | 39  | 35  | 35  | 35  | 33  |
| 9   | 59  | 46  | 38  | 32  | 57  | 45  | 37  | 32  | 44  | 37  | 32  | 43  | 36  | 32  | 42  | 36  | 32  | 32  | 32  | 30  |
| 10  | 55  | 42  | 35  | 29  | 54  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 29  | 39  | 33  | 29  | 29  | 29  | 27  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11389 | 11389 | 11389 |
| 5°  | 11415 | 11275 | 11344 |
| 10° | 11343 | 11139 | 11139 |
| 15° | 11213 | 10906 | 10825 |
| 20° | 11034 | 10597 | 10403 |
| 25° | 10805 | 10237 | 9977  |
| 30° | 10583 | 9858  | 9445  |
| 35° | 10337 | 9464  | 8911  |
| 40° | 10040 | 9015  | 8333  |
| 45° | 9767  | 8571  | 7745  |
| 50° | 9456  | 8058  | 7122  |
| 55° | 9122  | 7525  | 6446  |
| 60° | 8755  | 6941  | 5755  |
| 65° | 8418  | 6211  | 5077  |
| 70° | 7930  | 5405  | 4308  |
| 75° | 7313  | 4480  | 3504  |
| 80° | 6377  | 3414  | 3212  |
| 85° | 5399  | 3106  | 2900  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9767 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 131.3  | 4.1       |
| 10°-20°   | 366.2  | 11.3      |
| 20°-30°   | 528.7  | 16.4      |
| 30°-40°   | 599.1  | 18.6      |
| 40°-50°   | 578.5  | 17.9      |
| 50°-60°   | 480.9  | 14.9      |
| 60°-70°   | 331.9  | 10.3      |
| 70°-80°   | 167.7  | 5.2       |
| 80°-90°   | 42.6   | 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°    | 1026.2 | 31.8      |
| 0°-40°    | 1625.3 | 50.4      |
| 0°-60°    | 2684.7 | 83.2      |
| 0°-90°    | 3227.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3227.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1397 | 1397  | 1397 | 1397  | 1397 |      |
| 5°  | 1394 | 1390  | 1377 | 1388  | 1386 | 132  |
| 15° | 1328 | 1318  | 1292 | 1290  | 1282 | 374  |
| 25° | 1201 | 1182  | 1138 | 1120  | 1109 | 553  |
| 35° | 1038 | 1004  | 951  | 914   | 895  | 649  |
| 45° | 847  | 807   | 743  | 691   | 672  | 653  |
| 55° | 642  | 599   | 529  | 474   | 453  | 574  |
| 65° | 436  | 390   | 322  | 276   | 263  | 431  |
| 75° | 232  | 192   | 142  | 118   | 111  | 245  |
| 85° | 58   | 36    | 33   | 31    | 31   | 67   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1396.6 | 1396.6 | 1396.6 | 1396.6 | 1396.6 |
| 2.5°  | 1400.9 | 1396.6 | 1384.8 | 1396.6 | 1395.5 |
| 5°    | 1394.5 | 1390.2 | 1377.4 | 1388.0 | 1385.9 |
| 7.5°  | 1384.8 | 1380.6 | 1364.5 | 1372.0 | 1368.8 |
| 10°   | 1369.9 | 1364.5 | 1345.3 | 1349.6 | 1345.3 |
| 12.5° | 1350.6 | 1344.2 | 1320.7 | 1322.8 | 1316.4 |
| 15°   | 1328.2 | 1318.5 | 1291.8 | 1289.7 | 1282.2 |
| 17.5° | 1302.5 | 1288.6 | 1257.6 | 1252.2 | 1241.5 |
| 20°   | 1271.5 | 1257.6 | 1221.2 | 1212.7 | 1198.8 |
| 22.5° | 1237.3 | 1221.2 | 1181.7 | 1167.8 | 1157.1 |
| 25°   | 1200.9 | 1181.7 | 1137.8 | 1119.6 | 1108.9 |
| 27.5° | 1163.5 | 1140.0 | 1094.0 | 1072.6 | 1057.6 |
| 30°   | 1123.9 | 1097.2 | 1046.9 | 1020.2 | 1003.1 |
| 32.5° | 1082.2 | 1051.2 | 998.8  | 966.7  | 950.7  |
| 35°   | 1038.4 | 1004.1 | 950.7  | 914.3  | 895.1  |
| 37.5° | 992.4  | 957.1  | 898.3  | 858.7  | 839.5  |
| 40°   | 943.2  | 907.9  | 846.9  | 802.0  | 782.8  |
| 42.5° | 896.1  | 858.7  | 794.5  | 748.6  | 728.2  |
| 45°   | 846.9  | 807.4  | 743.2  | 690.8  | 671.6  |
| 47.5° | 796.7  | 756.0  | 689.7  | 635.2  | 613.8  |
| 50°   | 745.4  | 703.6  | 635.2  | 581.7  | 561.4  |
| 52.5° | 693.0  | 652.3  | 581.7  | 527.2  | 505.8  |
| 55°   | 641.6  | 598.8  | 529.3  | 473.7  | 453.4  |
| 57.5° | 591.4  | 546.5  | 478.0  | 421.3  | 406.4  |
| 60°   | 536.8  | 494.1  | 425.6  | 370.0  | 352.9  |
| 62.5° | 487.6  | 442.7  | 372.1  | 321.9  | 309.0  |
| 65°   | 436.3  | 390.3  | 321.9  | 275.9  | 263.1  |
| 67.5° | 382.8  | 339.0  | 274.8  | 234.2  | 219.2  |
| 70°   | 332.6  | 287.7  | 226.7  | 191.4  | 180.7  |
| 72.5° | 279.1  | 239.5  | 182.9  | 154.0  | 144.4  |
| 75°   | 232.1  | 192.5  | 142.2  | 117.6  | 111.2  |
| 77.5° | 182.9  | 148.6  | 105.9  | 88.8   | 86.6   |
| 80°   | 135.8  | 104.8  | 72.7   | 69.5   | 68.4   |
| 82.5° | 95.2   | 67.4   | 52.4   | 50.3   | 49.2   |
| 85°   | 57.7   | 36.4   | 33.2   | 31.0   | 31.0   |
| 87.5° | 24.6   | 16.0   | 15.0   | 13.9   | 15.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)