

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: P1037919

Luminaire Tested: S124RDS-B795DB2750-4F0-XX-W2A-F\_4000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1037919  
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\_4000K  
Description: Define 4 Regressed Direct Surface with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

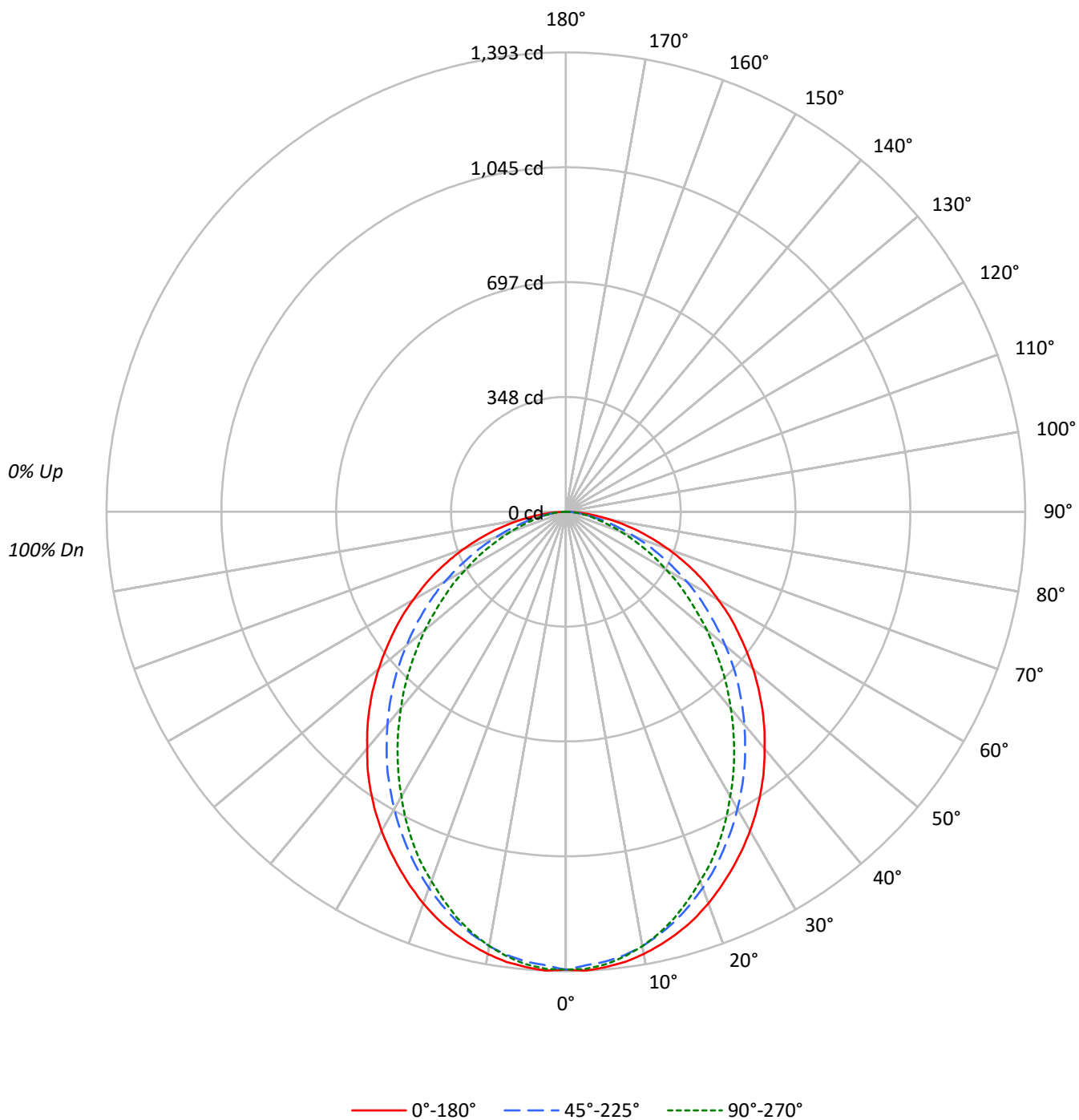
Lumens per Lamp: N/A  
Luminaire Lumens: 3208.0 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

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

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11322 | 11322 | 11322 |
| 5°  | 11348 | 11208 | 11277 |
| 10° | 11276 | 11074 | 11074 |
| 15° | 11146 | 10841 | 10760 |
| 20° | 10969 | 10535 | 10341 |
| 25° | 10741 | 10177 | 9919  |
| 30° | 10520 | 9800  | 9390  |
| 35° | 10275 | 9408  | 8858  |
| 40° | 9981  | 8963  | 8284  |
| 45° | 9710  | 8520  | 7699  |
| 50° | 9400  | 8011  | 7080  |
| 55° | 9068  | 7481  | 6408  |
| 60° | 8704  | 6900  | 5721  |
| 65° | 8368  | 6174  | 5046  |
| 70° | 7882  | 5374  | 4284  |
| 75° | 7269  | 4455  | 3485  |
| 80° | 6340  | 3395  | 3193  |
| 85° | 5370  | 3088  | 2882  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9710 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 130.6  | 4.1       |
| 10°-20°   | 364.0  | 11.3      |
| 20°-30°   | 525.5  | 16.4      |
| 30°-40°   | 595.6  | 18.6      |
| 40°-50°   | 575.1  | 17.9      |
| 50°-60°   | 478.1  | 14.9      |
| 60°-70°   | 330.0  | 10.3      |
| 70°-80°   | 166.8  | 5.2       |
| 80°-90°   | 42.3   | 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°    | 1020.1 | 31.8      |
| 0°-40°    | 1615.7 | 50.4      |
| 0°-60°    | 2668.9 | 83.2      |
| 0°-90°    | 3208.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3208.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1388 | 1388  | 1388 | 1388  | 1388 |      |
| 5°  | 1386 | 1382  | 1369 | 1380  | 1378 | 132  |
| 15° | 1320 | 1311  | 1284 | 1282  | 1275 | 372  |
| 25° | 1194 | 1175  | 1131 | 1113  | 1102 | 550  |
| 35° | 1032 | 998   | 945  | 909   | 890  | 645  |
| 45° | 842  | 803   | 739  | 687   | 668  | 649  |
| 55° | 638  | 595   | 526  | 471   | 451  | 571  |
| 65° | 434  | 388   | 320  | 274   | 262  | 428  |
| 75° | 231  | 191   | 141  | 117   | 111  | 243  |
| 85° | 57   | 36    | 33   | 31    | 31   | 66   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1388.4 | 1388.4 | 1388.4 | 1388.4 | 1388.4 |
| 2.5°  | 1392.6 | 1388.4 | 1376.7 | 1388.4 | 1387.3 |
| 5°    | 1386.3 | 1382.0 | 1369.2 | 1379.9 | 1377.7 |
| 7.5°  | 1376.7 | 1372.4 | 1356.5 | 1363.9 | 1360.7 |
| 10°   | 1361.8 | 1356.5 | 1337.4 | 1341.6 | 1337.4 |
| 12.5° | 1342.7 | 1336.3 | 1312.9 | 1315.0 | 1308.6 |
| 15°   | 1320.3 | 1310.8 | 1284.2 | 1282.1 | 1274.6 |
| 17.5° | 1294.8 | 1281.0 | 1250.2 | 1244.9 | 1234.2 |
| 20°   | 1264.0 | 1250.2 | 1214.0 | 1205.5 | 1191.7 |
| 22.5° | 1230.0 | 1214.0 | 1174.7 | 1160.9 | 1150.3 |
| 25°   | 1193.8 | 1174.7 | 1131.1 | 1113.0 | 1102.4 |
| 27.5° | 1156.6 | 1133.2 | 1087.5 | 1066.3 | 1051.4 |
| 30°   | 1117.3 | 1090.7 | 1040.8 | 1014.2 | 997.2  |
| 32.5° | 1075.8 | 1045.0 | 992.9  | 961.0  | 945.1  |
| 35°   | 1032.2 | 998.2  | 945.1  | 908.9  | 889.8  |
| 37.5° | 986.5  | 951.5  | 893.0  | 853.7  | 834.5  |
| 40°   | 937.6  | 902.6  | 842.0  | 797.3  | 778.2  |
| 42.5° | 890.9  | 853.7  | 789.9  | 744.2  | 724.0  |
| 45°   | 842.0  | 802.6  | 738.8  | 686.7  | 667.6  |
| 47.5° | 792.0  | 751.6  | 685.7  | 631.5  | 610.2  |
| 50°   | 741.0  | 699.5  | 631.5  | 578.3  | 558.1  |
| 52.5° | 688.9  | 648.5  | 578.3  | 524.1  | 502.8  |
| 55°   | 637.8  | 595.3  | 526.2  | 470.9  | 450.7  |
| 57.5° | 587.9  | 543.2  | 475.2  | 418.9  | 404.0  |
| 60°   | 533.7  | 491.1  | 423.1  | 367.8  | 350.8  |
| 62.5° | 484.8  | 440.1  | 370.0  | 320.0  | 307.2  |
| 65°   | 433.7  | 388.0  | 320.0  | 274.3  | 261.5  |
| 67.5° | 380.6  | 337.0  | 273.2  | 232.8  | 217.9  |
| 70°   | 330.6  | 286.0  | 225.4  | 190.3  | 179.7  |
| 72.5° | 277.5  | 238.1  | 181.8  | 153.1  | 143.5  |
| 75°   | 230.7  | 191.4  | 141.4  | 116.9  | 110.6  |
| 77.5° | 181.8  | 147.8  | 105.2  | 88.2   | 86.1   |
| 80°   | 135.0  | 104.2  | 72.3   | 69.1   | 68.0   |
| 82.5° | 94.6   | 67.0   | 52.1   | 50.0   | 48.9   |
| 85°   | 57.4   | 36.1   | 33.0   | 30.8   | 30.8   |
| 87.5° | 24.5   | 15.9   | 14.9   | 13.8   | 14.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)