

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: P1037918

Luminaire Tested: S124RDS-B795DB2750-4F0-XX-W2A-F\_3500K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1037918  
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\_3500K  
Description: Define 4 Regressed Direct Surface with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

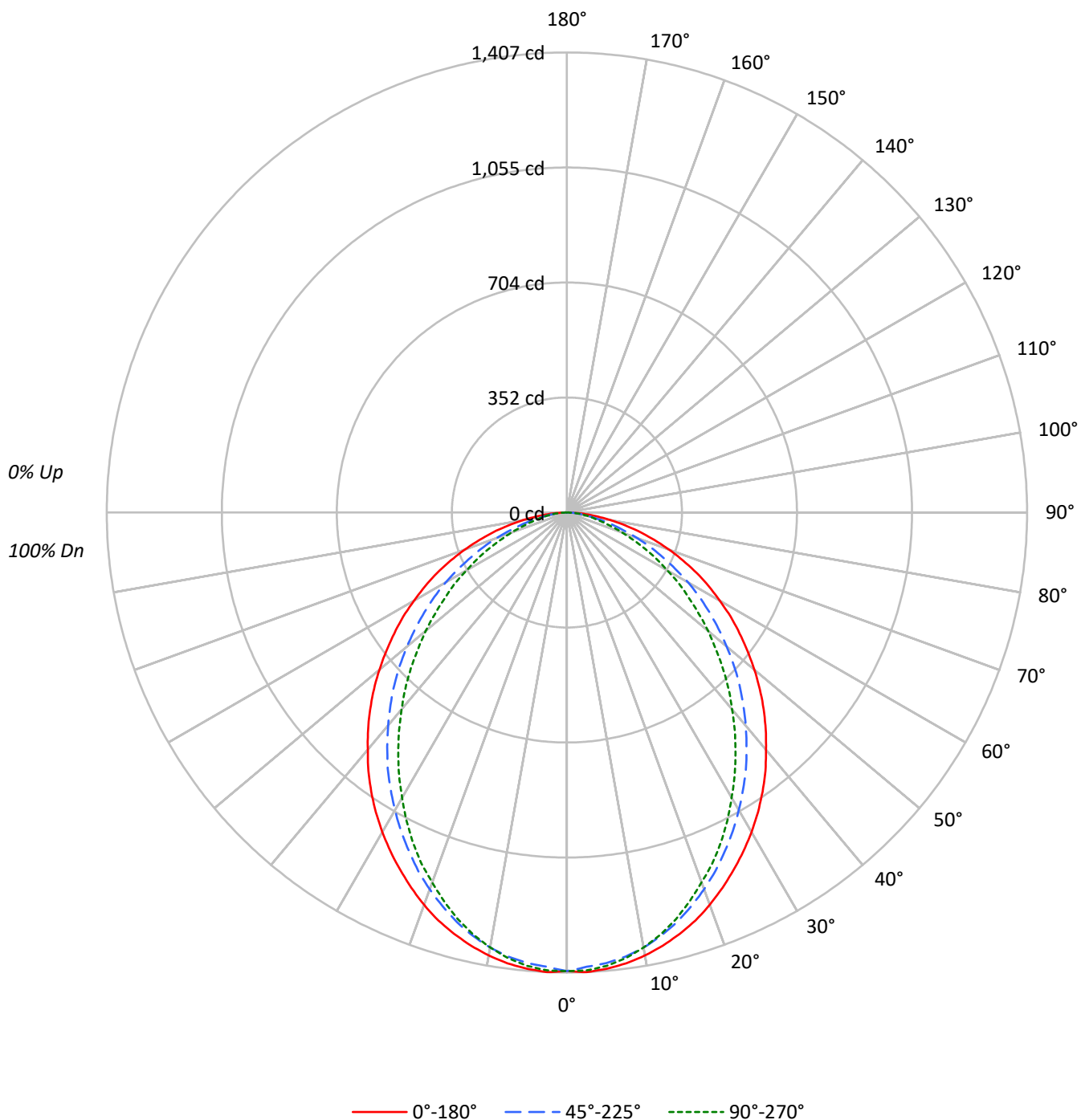
Lumens per Lamp: N/A  
Luminaire Lumens: 3241.0 lumens  
Efficiency: N/A  
Efficacy: 90.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 92  | 90  |  | 91  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  |  | 84  | 80  | 76  |  | 81  |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  |  | 75  | 69  | 65  |  | 72  |
| 4   | 84  | 73  | 65  | 58  | 82  | 72  | 64  | 58  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 65  |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 56  | 50  | 62  | 55  | 50  |  | 61  | 54  | 49  |  | 59  |
| 6   | 72  | 59  | 51  | 45  | 70  | 58  | 50  | 44  | 57  | 49  | 44  |  | 55  | 49  | 44  |  | 53  |
| 7   | 67  | 54  | 46  | 40  | 65  | 53  | 45  | 40  | 52  | 45  | 39  |  | 50  | 44  | 39  |  | 49  |
| 8   | 63  | 50  | 41  | 36  | 61  | 49  | 41  | 36  | 48  | 40  | 35  |  | 46  | 40  | 35  |  | 45  |
| 9   | 59  | 46  | 38  | 32  | 57  | 45  | 37  | 32  | 44  | 37  | 32  |  | 43  | 36  | 32  |  | 42  |
| 10  | 55  | 42  | 35  | 29  | 54  | 42  | 34  | 29  | 41  | 34  | 29  |  | 40  | 33  | 29  |  | 39  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11438 | 11438 | 11438 |
| 5°  | 11464 | 11323 | 11394 |
| 10° | 11392 | 11187 | 11187 |
| 15° | 11261 | 10953 | 10871 |
| 20° | 11082 | 10643 | 10448 |
| 25° | 10852 | 10282 | 10021 |
| 30° | 10629 | 9901  | 9486  |
| 35° | 10382 | 9505  | 8948  |
| 40° | 10084 | 9055  | 8369  |
| 45° | 9809  | 8608  | 7778  |
| 50° | 9497  | 8094  | 7154  |
| 55° | 9161  | 7558  | 6474  |
| 60° | 8794  | 6972  | 5780  |
| 65° | 8455  | 6238  | 5098  |
| 70° | 7963  | 5429  | 4327  |
| 75° | 7344  | 4499  | 3519  |
| 80° | 6405  | 3428  | 3226  |
| 85° | 5427  | 3116  | 2910  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9809 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 131.9  | 4.1       |
| 10°-20°   | 367.8  | 11.3      |
| 20°-30°   | 530.9  | 16.4      |
| 30°-40°   | 601.7  | 18.6      |
| 40°-50°   | 581.0  | 17.9      |
| 50°-60°   | 483.0  | 14.9      |
| 60°-70°   | 333.4  | 10.3      |
| 70°-80°   | 168.5  | 5.2       |
| 80°-90°   | 42.8   | 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°    | 1030.6 | 31.8      |
| 0°-40°    | 1632.3 | 50.4      |
| 0°-60°    | 2696.4 | 83.2      |
| 0°-90°    | 3241.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3241.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1403 | 1403  | 1403 | 1403  | 1403 |      |
| 5°  | 1400 | 1396  | 1383 | 1394  | 1392 | 133  |
| 15° | 1334 | 1324  | 1297 | 1295  | 1288 | 376  |
| 25° | 1206 | 1187  | 1143 | 1124  | 1114 | 556  |
| 35° | 1043 | 1008  | 955  | 918   | 899  | 652  |
| 45° | 851  | 811   | 746  | 694   | 674  | 656  |
| 55° | 644  | 601   | 532  | 476   | 455  | 576  |
| 65° | 438  | 392   | 323  | 277   | 264  | 433  |
| 75° | 233  | 193   | 143  | 118   | 112  | 246  |
| 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°    | 1402.7 | 1402.7 | 1402.7 | 1402.7 | 1402.7 |
| 2.5°  | 1407.0 | 1402.7 | 1390.8 | 1402.7 | 1401.6 |
| 5°    | 1400.5 | 1396.2 | 1383.3 | 1394.1 | 1391.9 |
| 7.5°  | 1390.8 | 1386.6 | 1370.4 | 1378.0 | 1374.7 |
| 10°   | 1375.8 | 1370.4 | 1351.1 | 1355.4 | 1351.1 |
| 12.5° | 1356.5 | 1350.0 | 1326.4 | 1328.6 | 1322.1 |
| 15°   | 1333.9 | 1324.3 | 1297.4 | 1295.3 | 1287.7 |
| 17.5° | 1308.1 | 1294.2 | 1263.0 | 1257.7 | 1246.9 |
| 20°   | 1277.0 | 1263.0 | 1226.5 | 1217.9 | 1204.0 |
| 22.5° | 1242.6 | 1226.5 | 1186.8 | 1172.8 | 1162.1 |
| 25°   | 1206.1 | 1186.8 | 1142.8 | 1124.5 | 1113.8 |
| 27.5° | 1168.5 | 1144.9 | 1098.7 | 1077.2 | 1062.2 |
| 30°   | 1128.8 | 1101.9 | 1051.5 | 1024.6 | 1007.4 |
| 32.5° | 1086.9 | 1055.8 | 1003.1 | 970.9  | 954.8  |
| 35°   | 1042.9 | 1008.5 | 954.8  | 918.3  | 898.9  |
| 37.5° | 996.7  | 961.2  | 902.2  | 862.4  | 843.1  |
| 40°   | 947.3  | 911.8  | 850.6  | 805.5  | 786.2  |
| 42.5° | 900.0  | 862.4  | 798.0  | 751.8  | 731.4  |
| 45°   | 850.6  | 810.9  | 746.4  | 693.8  | 674.5  |
| 47.5° | 800.1  | 759.3  | 692.7  | 638.0  | 616.5  |
| 50°   | 748.6  | 706.7  | 638.0  | 584.3  | 563.9  |
| 52.5° | 696.0  | 655.1  | 584.3  | 529.5  | 508.0  |
| 55°   | 644.4  | 601.4  | 531.6  | 475.8  | 455.4  |
| 57.5° | 593.9  | 548.8  | 480.1  | 423.2  | 408.1  |
| 60°   | 539.2  | 496.2  | 427.5  | 371.6  | 354.4  |
| 62.5° | 489.8  | 444.6  | 373.8  | 323.3  | 310.4  |
| 65°   | 438.2  | 392.0  | 323.3  | 277.1  | 264.2  |
| 67.5° | 384.5  | 340.5  | 276.0  | 235.2  | 220.2  |
| 70°   | 334.0  | 288.9  | 227.7  | 192.2  | 181.5  |
| 72.5° | 280.3  | 240.6  | 183.7  | 154.7  | 145.0  |
| 75°   | 233.1  | 193.3  | 142.8  | 118.1  | 111.7  |
| 77.5° | 183.7  | 149.3  | 106.3  | 89.1   | 87.0   |
| 80°   | 136.4  | 105.3  | 73.0   | 69.8   | 68.7   |
| 82.5° | 95.6   | 67.7   | 52.6   | 50.5   | 49.4   |
| 85°   | 58.0   | 36.5   | 33.3   | 31.1   | 31.1   |
| 87.5° | 24.7   | 16.1   | 15.0   | 14.0   | 15.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)