

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: P1038051

Luminaire Tested: S125DS-B850DB27-4F0-XX-W2A-F

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1038051  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125DS-B850DB27-4F0-XX-W2A-F  
Description: Define 5 Direct Surface with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

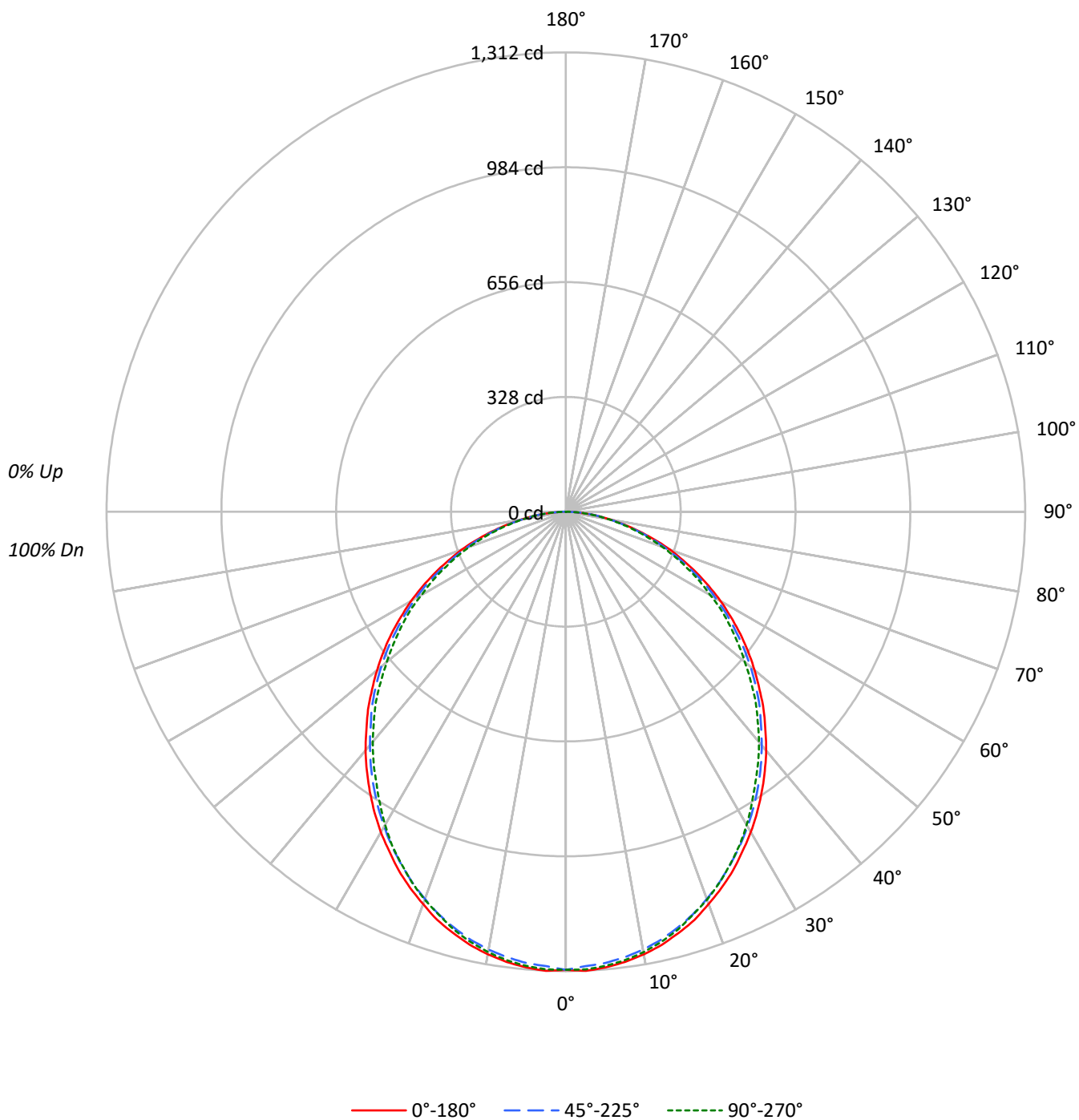
Lumens per Lamp: N/A  
Luminaire Lumens: 3405.0 lumens  
Efficiency: N/A  
Efficacy: 94.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Direct

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   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 94  | 92  |  | 94  | 91  | 89  |  | 90  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  |  | 82  | 78  | 74  |  | 79  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  |  | 73  | 67  | 63  |  | 70  |
| 4   | 83  | 71  | 62  | 56  | 81  | 70  | 62  | 55  | 67  | 60  | 55  |  | 65  | 59  | 54  |  | 63  |
| 5   | 76  | 64  | 55  | 48  | 74  | 63  | 54  | 48  | 60  | 53  | 47  |  | 58  | 52  | 47  |  | 57  |
| 6   | 71  | 57  | 49  | 42  | 69  | 56  | 48  | 42  | 55  | 47  | 42  |  | 53  | 46  | 41  |  | 51  |
| 7   | 66  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 50  | 42  | 37  |  | 48  | 42  | 37  |  | 47  |
| 8   | 61  | 48  | 39  | 33  | 60  | 47  | 39  | 33  | 46  | 38  | 33  |  | 44  | 38  | 33  |  | 43  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  |  | 41  | 34  | 30  |  | 40  |
| 10  | 54  | 40  | 33  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  |  | 38  | 32  | 27  |  | 37  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8382 | 8382 | 8382 |
| 5°  | 8401 | 8321 | 8374 |
| 10° | 8350 | 8262 | 8309 |
| 15° | 8259 | 8163 | 8197 |
| 20° | 8129 | 8024 | 8038 |
| 25° | 7990 | 7858 | 7851 |
| 30° | 7818 | 7680 | 7642 |
| 35° | 7634 | 7488 | 7383 |
| 40° | 7445 | 7280 | 7176 |
| 45° | 7240 | 7090 | 6949 |
| 50° | 7015 | 6861 | 6654 |
| 55° | 6798 | 6602 | 6416 |
| 60° | 6539 | 6339 | 6114 |
| 65° | 6229 | 6025 | 5822 |
| 70° | 5933 | 5661 | 5468 |
| 75° | 5407 | 5226 | 5048 |
| 80° | 4811 | 4734 | 4620 |
| 85° | 4183 | 4264 | 4036 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 7240 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 123.4  | 3.6       |
| 10°-20°   | 348.7  | 10.2      |
| 20°-30°   | 514.8  | 15.1      |
| 30°-40°   | 600.6  | 17.6      |
| 40°-50°   | 603.2  | 17.7      |
| 50°-60°   | 529.5  | 15.6      |
| 60°-70°   | 394.4  | 11.6      |
| 70°-80°   | 225.2  | 6.6       |
| 80°-90°   | 65.0   | 1.9       |
| 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°    | 986.9  | 29.0      |
| 0°-40°    | 1587.5 | 46.6      |
| 0°-60°    | 2720.3 | 79.9      |
| 0°-90°    | 3405.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3405.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1308 | 1308  | 1308 | 1308  | 1308 |      |
| 5°  | 1306 | 1304  | 1294 | 1303  | 1302 | 124  |
| 15° | 1245 | 1242  | 1231 | 1236  | 1236 | 351  |
| 25° | 1130 | 1125  | 1112 | 1114  | 1110 | 520  |
| 35° | 976  | 972   | 957  | 952   | 944  | 611  |
| 45° | 799  | 795   | 782  | 770   | 767  | 616  |
| 55° | 609  | 606   | 591  | 582   | 574  | 543  |
| 65° | 411  | 409   | 397  | 388   | 384  | 408  |
| 75° | 218  | 216   | 211  | 208   | 204  | 232  |
| 85° | 57   | 58    | 58   | 57    | 55   | 66   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1308.2 | 1308.2 | 1308.2 | 1308.2 | 1308.2 |
| 2.5°  | 1312.4 | 1309.3 | 1298.9 | 1309.3 | 1308.2 |
| 5°    | 1306.2 | 1304.1 | 1293.7 | 1303.1 | 1302.0 |
| 7.5°  | 1296.8 | 1294.8 | 1283.4 | 1292.7 | 1291.7 |
| 10°   | 1283.4 | 1281.3 | 1269.9 | 1278.2 | 1277.2 |
| 12.5° | 1266.8 | 1262.7 | 1252.3 | 1258.6 | 1258.6 |
| 15°   | 1245.1 | 1242.0 | 1230.6 | 1235.8 | 1235.8 |
| 17.5° | 1222.3 | 1217.2 | 1205.8 | 1212.0 | 1206.8 |
| 20°   | 1192.3 | 1190.2 | 1176.8 | 1184.0 | 1178.9 |
| 22.5° | 1162.3 | 1158.2 | 1145.7 | 1149.9 | 1146.8 |
| 25°   | 1130.2 | 1125.0 | 1111.6 | 1113.7 | 1110.5 |
| 27.5° | 1093.0 | 1089.8 | 1076.4 | 1077.4 | 1074.3 |
| 30°   | 1056.7 | 1053.6 | 1038.1 | 1036.0 | 1032.9 |
| 32.5° | 1017.4 | 1012.2 | 998.8  | 994.6  | 988.4  |
| 35°   | 976.0  | 971.9  | 957.4  | 952.2  | 943.9  |
| 37.5° | 933.6  | 928.4  | 914.9  | 907.7  | 902.5  |
| 40°   | 890.1  | 884.9  | 870.4  | 861.1  | 858.0  |
| 42.5° | 843.5  | 839.4  | 824.9  | 816.6  | 811.4  |
| 45°   | 799.0  | 794.9  | 782.5  | 770.0  | 766.9  |
| 47.5° | 750.4  | 751.4  | 735.9  | 723.5  | 716.2  |
| 50°   | 703.8  | 700.7  | 688.3  | 674.8  | 667.6  |
| 52.5° | 656.2  | 654.1  | 640.7  | 629.3  | 621.0  |
| 55°   | 608.6  | 605.5  | 591.0  | 581.7  | 574.4  |
| 57.5° | 557.9  | 556.8  | 544.4  | 532.0  | 528.9  |
| 60°   | 510.3  | 506.1  | 494.7  | 484.4  | 477.1  |
| 62.5° | 460.6  | 457.5  | 448.2  | 436.8  | 431.6  |
| 65°   | 410.9  | 408.8  | 397.4  | 388.1  | 384.0  |
| 67.5° | 362.2  | 358.1  | 349.8  | 341.5  | 339.5  |
| 70°   | 316.7  | 311.5  | 302.2  | 296.0  | 291.9  |
| 72.5° | 267.0  | 263.9  | 258.7  | 251.5  | 247.4  |
| 75°   | 218.4  | 216.3  | 211.1  | 208.0  | 203.9  |
| 77.5° | 172.8  | 171.8  | 168.7  | 166.6  | 163.5  |
| 80°   | 130.4  | 130.4  | 128.3  | 127.3  | 125.2  |
| 82.5° | 93.1   | 91.1   | 91.1   | 89.0   | 89.0   |
| 85°   | 56.9   | 58.0   | 58.0   | 56.9   | 54.9   |
| 87.5° | 27.9   | 27.9   | 26.9   | 26.9   | 24.8   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)