

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: P1038050

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

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1038050  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125DS-B850DB27-4F0-XX-W2A-D  
Description: Define 5 Direct Surface with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

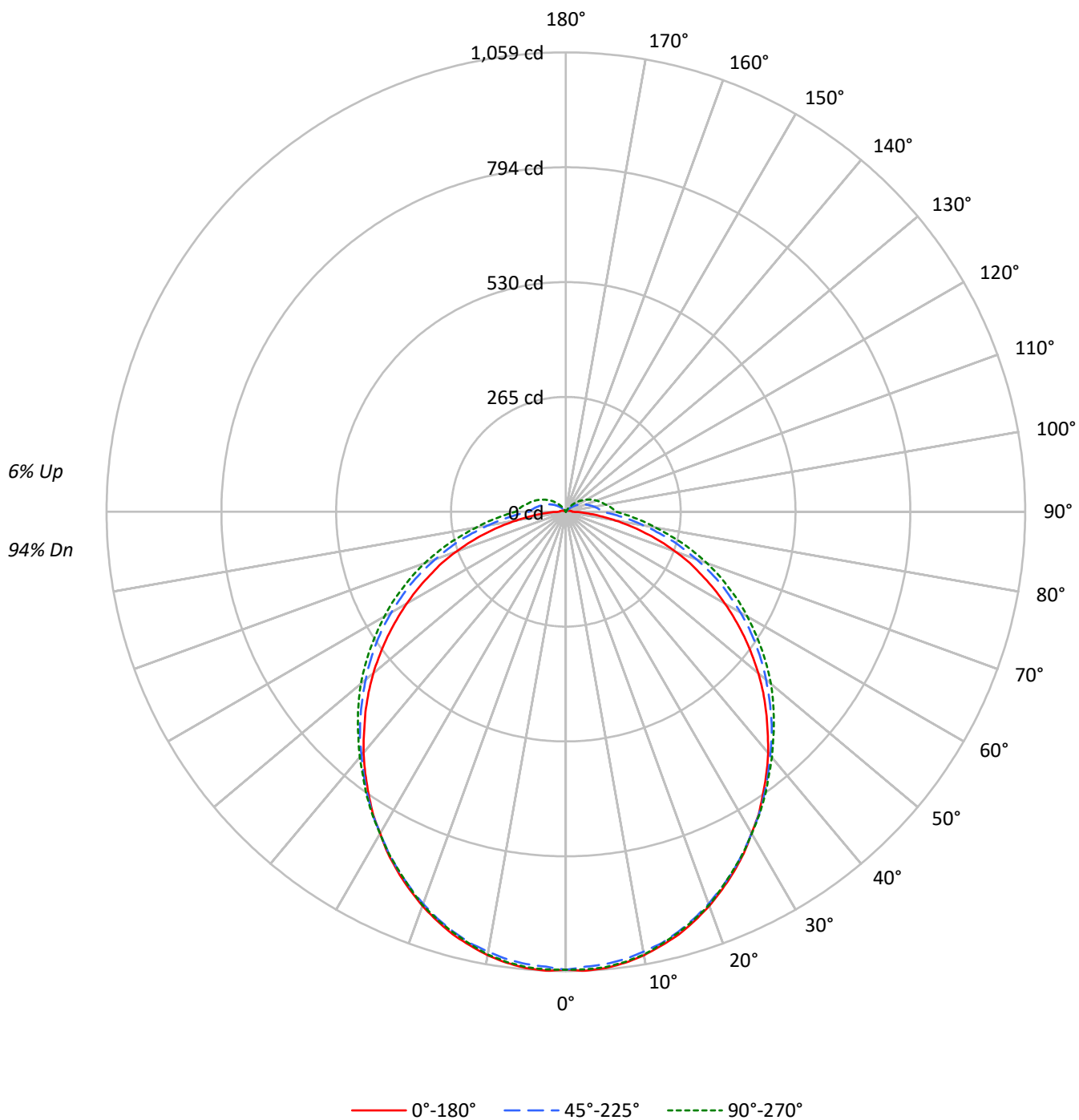
Lumens per Lamp: N/A  
Luminaire Lumens: 3271.0 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Direct

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   | 118 | 118 | 118 | 118 | 114 | 114 | 114 | 114 | 108 | 108 | 108 |  | 102 | 102 | 102 |  | 96 |
| 1   | 106 | 101 | 96  | 92  | 103 | 98  | 94  | 90  | 93  | 89  | 86  |  | 88  | 85  | 82  |  | 83 |
| 2   | 96  | 88  | 80  | 74  | 93  | 85  | 78  | 73  | 81  | 75  | 70  |  | 76  | 72  | 68  |  | 72 |
| 3   | 88  | 77  | 68  | 61  | 84  | 75  | 67  | 60  | 71  | 64  | 59  |  | 67  | 61  | 57  |  | 64 |
| 4   | 80  | 68  | 59  | 52  | 77  | 66  | 58  | 51  | 63  | 55  | 50  |  | 60  | 53  | 48  |  | 57 |
| 5   | 74  | 60  | 51  | 44  | 71  | 59  | 50  | 44  | 56  | 49  | 43  |  | 53  | 47  | 42  |  | 51 |
| 6   | 68  | 54  | 45  | 39  | 66  | 53  | 45  | 38  | 51  | 43  | 38  |  | 48  | 42  | 37  |  | 46 |
| 7   | 63  | 49  | 40  | 34  | 61  | 48  | 40  | 34  | 46  | 39  | 33  |  | 44  | 37  | 33  |  | 42 |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 42  | 35  | 30  |  | 40  | 34  | 29  |  | 39 |
| 9   | 55  | 41  | 33  | 27  | 53  | 40  | 33  | 27  | 39  | 32  | 27  |  | 37  | 31  | 26  |  | 36 |
| 10  | 51  | 38  | 30  | 25  | 50  | 37  | 30  | 25  | 36  | 29  | 24  |  | 35  | 28  | 24  |  | 33 |

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

|     | 0°   | 45°  | 90°   |
|-----|------|------|-------|
| 0°  | 6765 | 6765 | 6765  |
| 5°  | 6791 | 6731 | 6778  |
| 10° | 6755 | 6701 | 6741  |
| 15° | 6688 | 6647 | 6660  |
| 20° | 6593 | 6557 | 6578  |
| 25° | 6477 | 6454 | 6447  |
| 30° | 6334 | 6334 | 6341  |
| 35° | 6203 | 6235 | 6259  |
| 40° | 6070 | 6130 | 6182  |
| 45° | 5919 | 6069 | 6144  |
| 50° | 5778 | 6006 | 6150  |
| 55° | 5609 | 5978 | 6152  |
| 60° | 5426 | 5956 | 6194  |
| 65° | 5242 | 5979 | 6278  |
| 70° | 5043 | 5993 | 6478  |
| 75° | 4716 | 6201 | 6842  |
| 80° | 4317 | 6760 | 7752  |
| 85° | 4183 | 9358 | 11644 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 19918 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 99.9   | 3.1       |
| 10°-20°   | 283.6  | 8.7       |
| 20°-30°   | 421.8  | 12.9      |
| 30°-40°   | 499.5  | 15.3      |
| 40°-50°   | 516.4  | 15.8      |
| 50°-60°   | 475.7  | 14.5      |
| 60°-70°   | 384.6  | 11.8      |
| 70°-80°   | 257.3  | 7.9       |
| 80°-90°   | 133.0  | 4.1       |
| 90°-100°  | 74.9   | 2.3       |
| 100°-110° | 55.2   | 1.7       |
| 110°-120° | 37.0   | 1.1       |
| 120°-130° | 20.9   | 0.6       |
| 130°-140° | 9.2    | 0.3       |
| 140°-150° | 1.8    | 0.1       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| <hr/>     |        |           |
| 0°-30°    | 805.4  | 24.6      |
| 0°-40°    | 1304.9 | 39.9      |
| 0°-60°    | 2297.1 | 70.2      |
| 0°-90°    | 3072.0 | 93.9      |
| 90°-120°  | 167.1  | 5.1       |
| 90°-150°  | 199.0  | 6.1       |
| 90°-180°  | 199.0  | 6.1       |
| 0°-180°   | 3271.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1056 | 1056  | 1056 | 1056  | 1056 |      |
| 5°   | 1056 | 1054  | 1047 | 1055  | 1054 | 100  |
| 15°  | 1008 | 1009  | 1002 | 1008  | 1004 | 284  |
| 25°  | 916  | 919   | 913  | 917   | 912  | 422  |
| 35°  | 793  | 800   | 797  | 800   | 800  | 496  |
| 45°  | 653  | 665   | 670  | 677   | 678  | 504  |
| 55°  | 502  | 519   | 535  | 547   | 551  | 449  |
| 65°  | 346  | 370   | 394  | 410   | 414  | 343  |
| 75°  | 190  | 217   | 250  | 271   | 276  | 202  |
| 85°  | 57   | 91    | 127  | 150   | 158  | 59   |
| 90°  | 17   | 50    | 85   | 109   | 116  | 11   |
| 95°  | 14   | 40    | 76   | 98    | 106  | 11   |
| 105° | 9    | 26    | 57   | 78    | 85   | 10   |
| 115° | 6    | 14    | 40   | 59    | 65   | 6    |
| 125° | 4    | 3     | 24   | 40    | 46   | 3    |
| 135° | 2    | 1     | 8    | 22    | 27   | 2    |
| 145° | 1    | 0     | 0    | 5     | 9    | 0    |
| 155° | 0    | 0     | 0    | 0     | 0    | 0    |
| 165° | 0    | 0     | 0    | 0     | 0    | 0    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1055.9 | 1055.9 | 1055.9 | 1055.9 | 1055.9 |
| 2.5°   | 1059.0 | 1056.9 | 1049.7 | 1056.9 | 1055.9 |
| 5°     | 1055.9 | 1053.8 | 1046.6 | 1054.9 | 1053.8 |
| 7.5°   | 1048.7 | 1047.6 | 1040.4 | 1047.6 | 1046.6 |
| 10°    | 1038.3 | 1038.3 | 1030.0 | 1037.3 | 1036.2 |
| 12.5°  | 1023.8 | 1024.8 | 1018.6 | 1023.8 | 1020.7 |
| 15°    | 1008.3 | 1009.3 | 1002.1 | 1008.3 | 1004.1 |
| 17.5°  | 988.6  | 990.7  | 983.4  | 988.6  | 985.5  |
| 20°    | 966.9  | 968.9  | 961.7  | 964.8  | 964.8  |
| 22.5°  | 942.0  | 946.2  | 937.9  | 942.0  | 938.9  |
| 25°    | 916.2  | 919.3  | 913.0  | 917.2  | 912.0  |
| 27.5°  | 888.2  | 892.3  | 885.1  | 888.2  | 886.1  |
| 30°    | 856.1  | 862.3  | 856.1  | 858.2  | 857.1  |
| 32.5°  | 827.1  | 832.3  | 828.2  | 830.2  | 829.2  |
| 35°    | 793.0  | 800.2  | 797.1  | 800.2  | 800.2  |
| 37.5°  | 759.8  | 766.0  | 765.0  | 769.2  | 768.1  |
| 40°    | 725.7  | 734.0  | 732.9  | 737.1  | 739.1  |
| 42.5°  | 688.4  | 699.8  | 702.9  | 708.1  | 708.1  |
| 45°    | 653.2  | 664.6  | 669.8  | 677.0  | 678.1  |
| 47.5°  | 617.0  | 627.3  | 635.6  | 646.0  | 648.0  |
| 50°    | 579.7  | 591.1  | 602.5  | 613.9  | 617.0  |
| 52.5°  | 540.4  | 554.9  | 569.4  | 581.8  | 583.9  |
| 55°    | 502.1  | 518.6  | 535.2  | 546.6  | 550.7  |
| 57.5°  | 462.7  | 482.4  | 501.0  | 513.5  | 516.6  |
| 60°    | 423.4  | 444.1  | 464.8  | 480.3  | 483.4  |
| 62.5°  | 385.1  | 405.8  | 428.6  | 446.2  | 450.3  |
| 65°    | 345.8  | 369.6  | 394.4  | 409.9  | 414.1  |
| 67.5°  | 309.5  | 332.3  | 357.1  | 375.8  | 381.0  |
| 70°    | 269.2  | 293.0  | 319.9  | 339.5  | 345.8  |
| 72.5°  | 229.8  | 254.7  | 284.7  | 306.4  | 310.6  |
| 75°    | 190.5  | 217.4  | 250.5  | 271.2  | 276.4  |
| 77.5°  | 152.2  | 183.2  | 214.3  | 237.1  | 241.2  |
| 80°    | 117.0  | 148.0  | 183.2  | 206.0  | 210.1  |
| 82.5°  | 84.9   | 118.0  | 154.2  | 176.0  | 184.3  |
| 85°    | 56.9   | 91.1   | 127.3  | 150.1  | 158.4  |
| 87.5°  | 36.2   | 69.4   | 104.6  | 128.4  | 135.6  |
| 90°    | 16.6   | 49.7   | 84.9   | 108.7  | 115.9  |
| 92.5°  | 14.5   | 44.5   | 80.7   | 103.5  | 110.8  |
| 95°    | 13.5   | 40.4   | 75.6   | 98.3   | 105.6  |
| 97.5°  | 12.4   | 37.3   | 71.4   | 93.2   | 100.4  |
| 100°   | 11.4   | 33.1   | 66.3   | 88.0   | 94.2   |
| 102.5° | 10.4   | 30.0   | 62.1   | 82.8   | 89.0   |
| 105°   | 9.3    | 25.9   | 56.9   | 77.6   | 84.9   |
| 107.5° | 8.3    | 22.8   | 52.8   | 73.5   | 79.7   |
| 110°   | 7.2    | 19.7   | 48.7   | 68.3   | 75.6   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 7.2 | 16.6  | 44.5 | 63.1  | 70.4 |
| 115°   | 6.2 | 13.5  | 40.4 | 59.0  | 65.2 |
| 117.5° | 5.2 | 10.4  | 36.2 | 53.8  | 61.1 |
| 120°   | 5.2 | 8.3   | 32.1 | 49.7  | 55.9 |
| 122.5° | 4.1 | 5.2   | 28.0 | 44.5  | 50.7 |
| 125°   | 4.1 | 3.1   | 23.8 | 40.4  | 45.5 |
| 127.5° | 3.1 | 2.1   | 19.7 | 35.2  | 41.4 |
| 130°   | 3.1 | 2.1   | 16.6 | 31.1  | 36.2 |
| 132.5° | 2.1 | 2.1   | 12.4 | 26.9  | 31.1 |
| 135°   | 2.1 | 1.0   | 8.3  | 21.7  | 26.9 |
| 137.5° | 2.1 | 1.0   | 5.2  | 17.6  | 21.7 |
| 140°   | 1.0 | 1.0   | 2.1  | 13.5  | 17.6 |
| 142.5° | 1.0 | 0.0   | 0.0  | 9.3   | 13.5 |
| 145°   | 1.0 | 0.0   | 0.0  | 5.2   | 9.3  |
| 147.5° | 0.0 | 0.0   | 0.0  | 2.1   | 4.1  |
| 150°   | 0.0 | 0.0   | 0.0  | 0.0   | 1.0  |
| 152.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 155°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 157.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 160°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 162.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 165°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 167.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 170°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 172.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 175°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 177.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 180°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |

(END OF REPORT)