

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: P987577

Luminaire Tested: S122DW-B1005DB2750-4F0-XX-W2A-D\_3000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P987577  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DW-B1005DB2750-4F0-XX-W2A-D\_3000K  
Description: Define 2 Direct Wall Mount with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

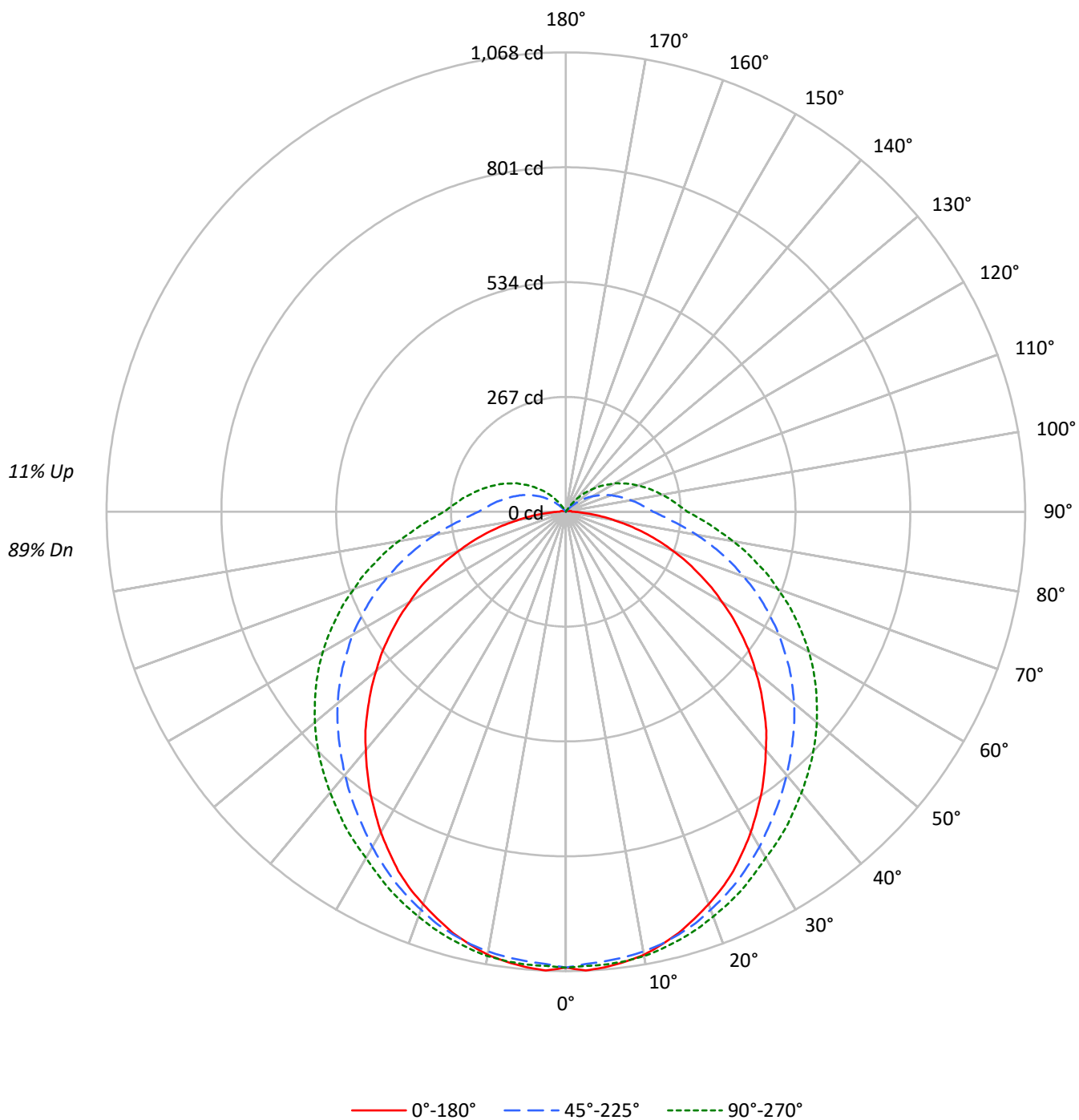
Lumens per Lamp: N/A  
Luminaire Lumens: 4044.0 lumens  
Efficiency: N/A  
Efficacy: 66.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 61.3  
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 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |
| 0   | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | 98 | 98 | 98 | 92 | 92 | 92 |
| 1   | 104 | 98  | 93  | 88  | 100 | 95  | 90  | 86  | 88  | 85  | 81  | 82 | 79 | 77 | 77 | 75 | 72 |
| 2   | 94  | 84  | 77  | 70  | 90  | 81  | 74  | 68  | 76  | 70  | 65  | 71 | 66 | 62 | 66 | 62 | 59 |
| 3   | 85  | 73  | 64  | 57  | 81  | 71  | 63  | 56  | 66  | 59  | 54  | 62 | 56 | 51 | 58 | 53 | 49 |
| 4   | 77  | 64  | 55  | 48  | 74  | 62  | 54  | 47  | 58  | 51  | 45  | 55 | 48 | 43 | 51 | 46 | 42 |
| 5   | 71  | 57  | 48  | 41  | 68  | 56  | 47  | 40  | 52  | 44  | 39  | 49 | 42 | 37 | 46 | 40 | 36 |
| 6   | 65  | 51  | 42  | 35  | 63  | 50  | 41  | 35  | 47  | 39  | 34  | 44 | 37 | 32 | 42 | 36 | 31 |
| 7   | 60  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 43  | 35  | 30  | 40 | 34 | 29 | 38 | 32 | 28 |
| 8   | 56  | 42  | 34  | 28  | 54  | 41  | 33  | 27  | 39  | 32  | 26  | 37 | 30 | 25 | 35 | 29 | 25 |
| 9   | 52  | 39  | 30  | 25  | 50  | 38  | 30  | 24  | 36  | 29  | 24  | 34 | 27 | 23 | 32 | 26 | 22 |
| 10  | 49  | 36  | 28  | 22  | 47  | 35  | 27  | 22  | 33  | 26  | 21  | 31 | 25 | 21 | 30 | 24 | 20 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16776 | 16776 | 16776 |
| 5°  | 16889 | 16670 | 16792 |
| 10° | 16813 | 16689 | 16863 |
| 15° | 16614 | 16663 | 16865 |
| 20° | 16353 | 16586 | 16870 |
| 25° | 16096 | 16526 | 16928 |
| 30° | 15723 | 16452 | 16986 |
| 35° | 15345 | 16414 | 17276 |
| 40° | 14950 | 16504 | 17616 |
| 45° | 14580 | 16711 | 18121 |
| 50° | 14185 | 17058 | 18763 |
| 55° | 13777 | 17508 | 19583 |
| 60° | 13274 | 18137 | 20667 |
| 65° | 12772 | 18986 | 22091 |
| 70° | 12228 | 20332 | 24242 |
| 75° | 11553 | 22831 | 28091 |
| 80° | 10501 | 28140 | 35989 |
| 85° | 10044 | 45187 | 60807 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 111482 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 100.5  | 2.5       |
| 10°-20°   | 288.2  | 7.1       |
| 20°-30°   | 436.6  | 10.8      |
| 30°-40°   | 531.7  | 13.1      |
| 40°-50°   | 572.0  | 14.1      |
| 50°-60°   | 555.5  | 13.7      |
| 60°-70°   | 485.2  | 12.0      |
| 70°-80°   | 373.4  | 9.2       |
| 80°-90°   | 250.1  | 6.2       |
| 90°-100°  | 172.5  | 4.3       |
| 100°-110° | 126.0  | 3.1       |
| 110°-120° | 83.2   | 2.1       |
| 120°-130° | 46.3   | 1.1       |
| 130°-140° | 19.5   | 0.5       |
| 140°-150° | 3.3    | 0.1       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 825.2  | 20.4      |
| 0°-40°    | 1356.9 | 33.6      |
| 0°-60°    | 2484.5 | 61.4      |
| 0°-90°    | 3593.2 | 88.9      |
| 90°-120°  | 381.7  | 9.4       |
| 90°-150°  | 450.8  | 11.1      |
| 90°-180°  | 451.0  | 11.2      |
| 0°-180°   | 4044.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1060 | 1060  | 1060 | 1060  | 1060 |      |
| 5°   | 1063 | 1058  | 1049 | 1058  | 1057 | 101  |
| 15°  | 1014 | 1017  | 1017 | 1031  | 1029 | 286  |
| 25°  | 922  | 932   | 946  | 965   | 969  | 424  |
| 35°  | 794  | 820   | 849  | 883   | 894  | 496  |
| 45°  | 651  | 693   | 746  | 794   | 810  | 503  |
| 55°  | 499  | 554   | 634  | 690   | 710  | 447  |
| 65°  | 341  | 416   | 507  | 570   | 590  | 339  |
| 75°  | 189  | 275   | 373  | 439   | 459  | 200  |
| 85°  | 55   | 150   | 249  | 313   | 335  | 58   |
| 90°  | 15   | 104   | 203  | 264   | 283  | 11   |
| 95°  | 12   | 84    | 177  | 235   | 253  | 10   |
| 105° | 8    | 52    | 132  | 186   | 203  | 9    |
| 115° | 6    | 23    | 92   | 138   | 155  | 6    |
| 125° | 3    | 3     | 52   | 94    | 108  | 3    |
| 135° | 2    | 2     | 17   | 49    | 61   | 2    |
| 145° | 0    | 0     | 0    | 9     | 17   | 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°     | 1059.8 | 1059.8 | 1059.8 | 1059.8 | 1059.8 |
| 2.5°   | 1067.5 | 1062.9 | 1052.2 | 1059.8 | 1056.8 |
| 5°     | 1062.9 | 1058.3 | 1049.1 | 1058.3 | 1056.8 |
| 7.5°   | 1055.2 | 1052.2 | 1044.5 | 1055.2 | 1053.7 |
| 10°    | 1046.0 | 1042.9 | 1038.3 | 1050.6 | 1049.1 |
| 12.5°  | 1030.7 | 1032.2 | 1029.1 | 1041.4 | 1039.9 |
| 15°    | 1013.8 | 1016.8 | 1016.8 | 1030.7 | 1029.1 |
| 17.5°  | 992.3  | 998.4  | 1003.0 | 1016.8 | 1016.8 |
| 20°    | 970.8  | 978.4  | 984.6  | 1001.5 | 1001.5 |
| 22.5°  | 947.7  | 956.9  | 966.1  | 983.0  | 986.1  |
| 25°    | 921.6  | 932.4  | 946.2  | 964.6  | 969.2  |
| 27.5°  | 890.9  | 907.8  | 923.1  | 946.2  | 949.3  |
| 30°    | 860.2  | 880.1  | 900.1  | 924.7  | 929.3  |
| 32.5°  | 826.4  | 849.4  | 874.0  | 903.2  | 912.4  |
| 35°    | 794.1  | 820.2  | 849.4  | 883.2  | 894.0  |
| 37.5°  | 758.8  | 788.0  | 824.8  | 861.7  | 872.5  |
| 40°    | 723.5  | 757.3  | 798.7  | 838.7  | 852.5  |
| 42.5°  | 689.7  | 723.5  | 772.6  | 817.2  | 831.0  |
| 45°    | 651.3  | 692.7  | 746.5  | 794.1  | 809.5  |
| 47.5°  | 614.4  | 658.9  | 720.4  | 769.5  | 786.4  |
| 50°    | 576.0  | 623.6  | 692.7  | 745.0  | 761.9  |
| 52.5°  | 539.1  | 589.8  | 663.6  | 717.3  | 735.7  |
| 55°    | 499.2  | 554.5  | 634.4  | 689.7  | 709.6  |
| 57.5°  | 460.8  | 522.2  | 602.1  | 662.0  | 682.0  |
| 60°    | 419.3  | 485.4  | 572.9  | 631.3  | 652.8  |
| 62.5°  | 382.5  | 451.6  | 539.1  | 602.1  | 622.1  |
| 65°    | 341.0  | 416.3  | 506.9  | 569.9  | 589.8  |
| 67.5°  | 304.1  | 382.5  | 474.6  | 537.6  | 559.1  |
| 70°    | 264.2  | 344.1  | 439.3  | 505.3  | 523.8  |
| 72.5°  | 227.3  | 310.3  | 407.0  | 471.6  | 494.6  |
| 75°    | 188.9  | 274.9  | 373.3  | 439.3  | 459.3  |
| 77.5°  | 152.1  | 241.2  | 341.0  | 407.0  | 428.5  |
| 80°    | 115.2  | 208.9  | 308.7  | 373.3  | 394.8  |
| 82.5°  | 84.5   | 176.6  | 278.0  | 342.5  | 362.5  |
| 85°    | 55.3   | 150.5  | 248.8  | 313.3  | 334.8  |
| 87.5°  | 33.8   | 126.0  | 224.3  | 287.2  | 307.2  |
| 90°    | 15.4   | 104.4  | 202.8  | 264.2  | 282.6  |
| 92.5°  | 13.8   | 95.2   | 188.9  | 248.8  | 267.3  |
| 95°    | 12.3   | 84.5   | 176.6  | 235.0  | 253.4  |
| 97.5°  | 10.8   | 76.8   | 165.9  | 222.7  | 241.2  |
| 100°   | 10.8   | 67.6   | 153.6  | 210.4  | 227.3  |
| 102.5° | 9.2    | 59.9   | 142.8  | 198.1  | 215.0  |
| 105°   | 7.7    | 52.2   | 132.1  | 185.9  | 202.8  |
| 107.5° | 7.7    | 44.5   | 121.3  | 173.6  | 190.5  |
| 110°   | 6.1    | 36.9   | 112.1  | 161.3  | 178.2  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°   | 67.5° | 90°   |
|--------|-----|-------|-------|-------|-------|
| 112.5° | 6.1 | 30.7  | 101.4 | 150.5 | 167.4 |
| 115°   | 6.1 | 23.0  | 92.2  | 138.2 | 155.1 |
| 117.5° | 4.6 | 16.9  | 81.4  | 127.5 | 142.8 |
| 120°   | 4.6 | 10.8  | 72.2  | 115.2 | 132.1 |
| 122.5° | 4.6 | 6.1   | 63.0  | 104.4 | 118.3 |
| 125°   | 3.1 | 3.1   | 52.2  | 93.7  | 107.5 |
| 127.5° | 3.1 | 1.5   | 43.0  | 81.4  | 95.2  |
| 130°   | 3.1 | 1.5   | 33.8  | 70.7  | 82.9  |
| 132.5° | 3.1 | 1.5   | 24.6  | 59.9  | 72.2  |
| 135°   | 1.5 | 1.5   | 16.9  | 49.2  | 61.4  |
| 137.5° | 1.5 | 1.5   | 9.2   | 38.4  | 49.2  |
| 140°   | 1.5 | 0.0   | 3.1   | 27.6  | 36.9  |
| 142.5° | 1.5 | 0.0   | 0.0   | 18.4  | 26.1  |
| 145°   | 0.0 | 0.0   | 0.0   | 9.2   | 16.9  |
| 147.5° | 0.0 | 0.0   | 0.0   | 1.5   | 6.1   |
| 150°   | 0.0 | 0.0   | 0.0   | 0.0   | 0.0   |
| 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)