

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: P987716

Luminaire Tested: S122DW-B865DB50-4F0-XX-W2A-D

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P987716  
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-B865DB50-4F0-XX-W2A-D  
Description: Define 2 Direct Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

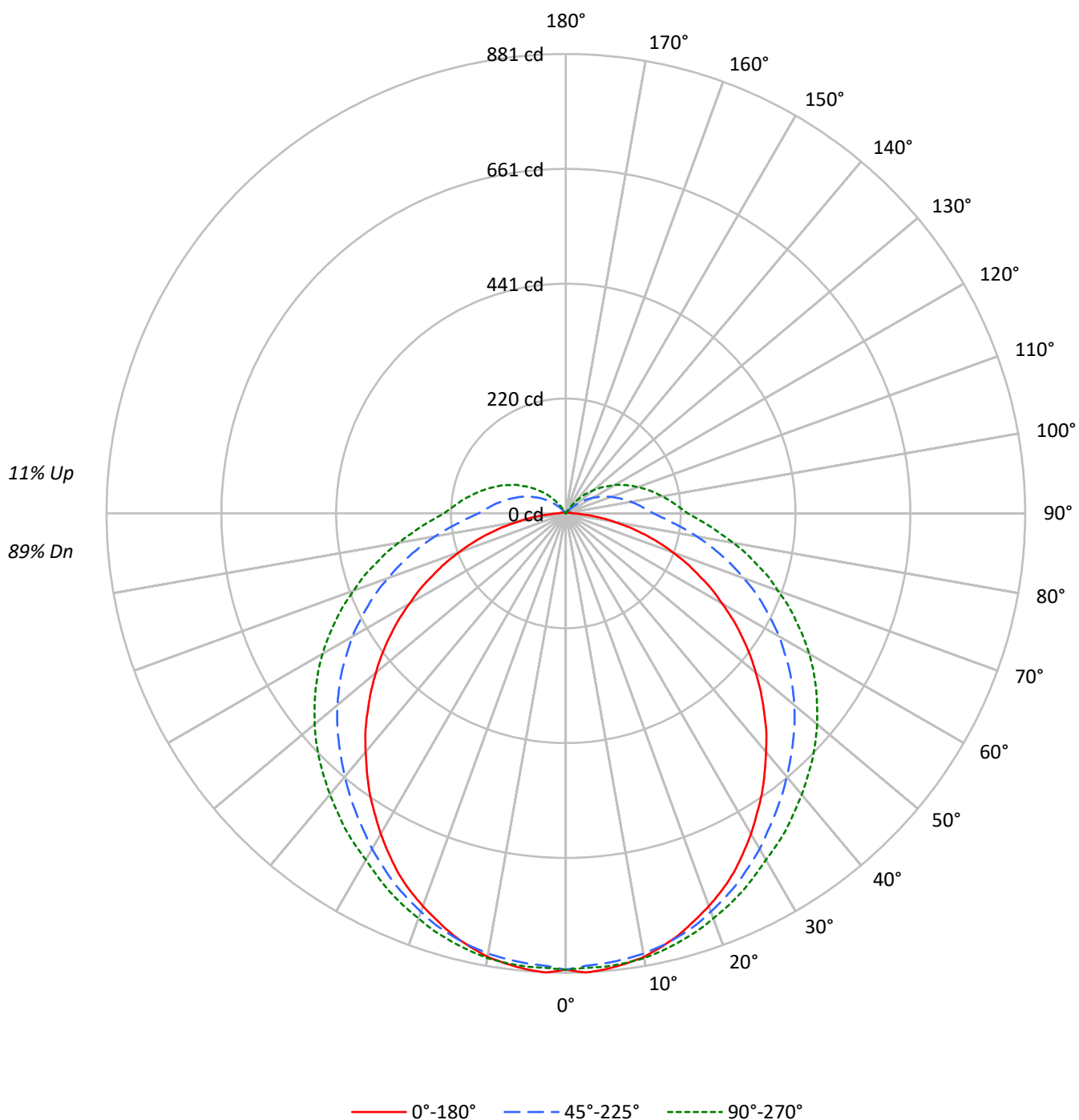
Lumens per Lamp: N/A  
Luminaire Lumens: 3339.0 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 46.8  
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°  | 13852 | 13852 | 13852 |
| 5°  | 13945 | 13764 | 13864 |
| 10° | 13883 | 13780 | 13923 |
| 15° | 13716 | 13759 | 13925 |
| 20° | 13501 | 13693 | 13929 |
| 25° | 13290 | 13644 | 13978 |
| 30° | 12981 | 13584 | 14025 |
| 35° | 12671 | 13552 | 14263 |
| 40° | 12342 | 13628 | 14545 |
| 45° | 12037 | 13799 | 14963 |
| 50° | 11712 | 14086 | 15490 |
| 55° | 11376 | 14456 | 16169 |
| 60° | 10960 | 14978 | 17064 |
| 65° | 10544 | 15675 | 18241 |
| 70° | 10094 | 16786 | 20017 |
| 75° | 9541  | 18849 | 23192 |
| 80° | 8669  | 23236 | 29708 |
| 85° | 8300  | 37323 | 50218 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 92030 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 83.0   | 2.5       |
| 10°-20°   | 237.9  | 7.1       |
| 20°-30°   | 360.5  | 10.8      |
| 30°-40°   | 439.0  | 13.1      |
| 40°-50°   | 472.3  | 14.1      |
| 50°-60°   | 458.7  | 13.7      |
| 60°-70°   | 400.6  | 12.0      |
| 70°-80°   | 308.3  | 9.2       |
| 80°-90°   | 206.5  | 6.2       |
| 90°-100°  | 142.5  | 4.3       |
| 100°-110° | 104.0  | 3.1       |
| 110°-120° | 68.7   | 2.1       |
| 120°-130° | 38.3   | 1.1       |
| 130°-140° | 16.1   | 0.5       |
| 140°-150° | 2.7    | 0.1       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| <hr/>     |        |           |
| 0°-30°    | 681.4  | 20.4      |
| 0°-40°    | 1120.4 | 33.6      |
| 0°-60°    | 2051.4 | 61.4      |
| 0°-90°    | 2966.8 | 88.9      |
| 90°-120°  | 315.2  | 9.4       |
| 90°-150°  | 372.2  | 11.1      |
| 90°-180°  | 372.0  | 11.1      |
| 0°-180°   | 3339.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 875 | 875   | 875 | 875   | 875 |      |
| 5°   | 878 | 874   | 866 | 874   | 872 | 83   |
| 15°  | 837 | 840   | 840 | 851   | 850 | 236  |
| 25°  | 761 | 770   | 781 | 796   | 800 | 350  |
| 35°  | 656 | 677   | 701 | 729   | 738 | 410  |
| 45°  | 538 | 572   | 616 | 656   | 668 | 415  |
| 55°  | 412 | 458   | 524 | 569   | 586 | 369  |
| 65°  | 282 | 344   | 418 | 470   | 487 | 280  |
| 75°  | 156 | 227   | 308 | 363   | 379 | 165  |
| 85°  | 46  | 124   | 206 | 259   | 276 | 48   |
| 90°  | 13  | 86    | 167 | 218   | 233 | 9    |
| 95°  | 10  | 70    | 146 | 194   | 209 | 8    |
| 105° | 6   | 43    | 109 | 154   | 167 | 7    |
| 115° | 5   | 19    | 76  | 114   | 128 | 5    |
| 125° | 2   | 2     | 43  | 77    | 89  | 3    |
| 135° | 1   | 1     | 14  | 41    | 51  | 1    |
| 145° | 0   | 0     | 0   | 8     | 14  | 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°     | 875.1 | 875.1 | 875.1 | 875.1 | 875.1 |
| 2.5°   | 881.4 | 877.6 | 868.7 | 875.1 | 872.5 |
| 5°     | 877.6 | 873.8 | 866.2 | 873.8 | 872.5 |
| 7.5°   | 871.3 | 868.7 | 862.4 | 871.3 | 870.0 |
| 10°    | 863.7 | 861.1 | 857.3 | 867.5 | 866.2 |
| 12.5°  | 851.0 | 852.3 | 849.7 | 859.9 | 858.6 |
| 15°    | 837.0 | 839.6 | 839.6 | 851.0 | 849.7 |
| 17.5°  | 819.3 | 824.4 | 828.2 | 839.6 | 839.6 |
| 20°    | 801.5 | 807.9 | 812.9 | 826.9 | 826.9 |
| 22.5°  | 782.5 | 790.1 | 797.7 | 811.7 | 814.2 |
| 25°    | 760.9 | 769.8 | 781.2 | 796.5 | 800.3 |
| 27.5°  | 735.6 | 749.5 | 762.2 | 781.2 | 783.8 |
| 30°    | 710.2 | 726.7 | 743.2 | 763.5 | 767.3 |
| 32.5°  | 682.3 | 701.3 | 721.6 | 745.7 | 753.3 |
| 35°    | 655.7 | 677.2 | 701.3 | 729.2 | 738.1 |
| 37.5°  | 626.5 | 650.6 | 681.0 | 711.5 | 720.4 |
| 40°    | 597.3 | 625.2 | 659.5 | 692.5 | 703.9 |
| 42.5°  | 569.4 | 597.3 | 637.9 | 674.7 | 686.1 |
| 45°    | 537.7 | 572.0 | 616.4 | 655.7 | 668.4 |
| 47.5°  | 507.3 | 544.1 | 594.8 | 635.4 | 649.3 |
| 50°    | 475.6 | 514.9 | 572.0 | 615.1 | 629.0 |
| 52.5°  | 445.1 | 487.0 | 547.9 | 592.3 | 607.5 |
| 55°    | 412.2 | 457.8 | 523.8 | 569.4 | 585.9 |
| 57.5°  | 380.5 | 431.2 | 497.1 | 546.6 | 563.1 |
| 60°    | 346.2 | 400.8 | 473.1 | 521.2 | 539.0 |
| 62.5°  | 315.8 | 372.9 | 445.1 | 497.1 | 513.6 |
| 65°    | 281.5 | 343.7 | 418.5 | 470.5 | 487.0 |
| 67.5°  | 251.1 | 315.8 | 391.9 | 443.9 | 461.6 |
| 70°    | 218.1 | 284.1 | 362.7 | 417.2 | 432.5 |
| 72.5°  | 187.7 | 256.2 | 336.1 | 389.3 | 408.4 |
| 75°    | 156.0 | 227.0 | 308.2 | 362.7 | 379.2 |
| 77.5°  | 125.6 | 199.1 | 281.5 | 336.1 | 353.8 |
| 80°    | 95.1  | 172.5 | 254.9 | 308.2 | 325.9 |
| 82.5°  | 69.8  | 145.8 | 229.6 | 282.8 | 299.3 |
| 85°    | 45.7  | 124.3 | 205.5 | 258.7 | 276.5 |
| 87.5°  | 27.9  | 104.0 | 185.2 | 237.2 | 253.6 |
| 90°    | 12.7  | 86.2  | 167.4 | 218.1 | 233.4 |
| 92.5°  | 11.4  | 78.6  | 156.0 | 205.5 | 220.7 |
| 95°    | 10.1  | 69.8  | 145.8 | 194.0 | 209.3 |
| 97.5°  | 8.9   | 63.4  | 137.0 | 183.9 | 199.1 |
| 100°   | 8.9   | 55.8  | 126.8 | 173.7 | 187.7 |
| 102.5° | 7.6   | 49.5  | 117.9 | 163.6 | 177.6 |
| 105°   | 6.3   | 43.1  | 109.1 | 153.5 | 167.4 |
| 107.5° | 6.3   | 36.8  | 100.2 | 143.3 | 157.3 |
| 110°   | 5.1   | 30.4  | 92.6  | 133.2 | 147.1 |



TEST NUMBER: P987716

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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°   |
|--------|-----|-------|------|-------|-------|
| 112.5° | 5.1 | 25.4  | 83.7 | 124.3 | 138.2 |
| 115°   | 5.1 | 19.0  | 76.1 | 114.1 | 128.1 |
| 117.5° | 3.8 | 14.0  | 67.2 | 105.3 | 117.9 |
| 120°   | 3.8 | 8.9   | 59.6 | 95.1  | 109.1 |
| 122.5° | 3.8 | 5.1   | 52.0 | 86.2  | 97.7  |
| 125°   | 2.5 | 2.5   | 43.1 | 77.4  | 88.8  |
| 127.5° | 2.5 | 1.3   | 35.5 | 67.2  | 78.6  |
| 130°   | 2.5 | 1.3   | 27.9 | 58.3  | 68.5  |
| 132.5° | 2.5 | 1.3   | 20.3 | 49.5  | 59.6  |
| 135°   | 1.3 | 1.3   | 14.0 | 40.6  | 50.7  |
| 137.5° | 1.3 | 1.3   | 7.6  | 31.7  | 40.6  |
| 140°   | 1.3 | 0.0   | 2.5  | 22.8  | 30.4  |
| 142.5° | 1.3 | 0.0   | 0.0  | 15.2  | 21.6  |
| 145°   | 0.0 | 0.0   | 0.0  | 7.6   | 14.0  |
| 147.5° | 0.0 | 0.0   | 0.0  | 1.3   | 5.1   |
| 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)