

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: P1032763

Luminaire Tested: S124DIW-B575D770UB2750-4F0-XX-W2A-F\_5000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1032763  
REPORT IS A COMBINATION OF REPORTS P997902 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIW-B575D770UB2750-4F0-XX-W2A-F\_5000K  
Description: Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

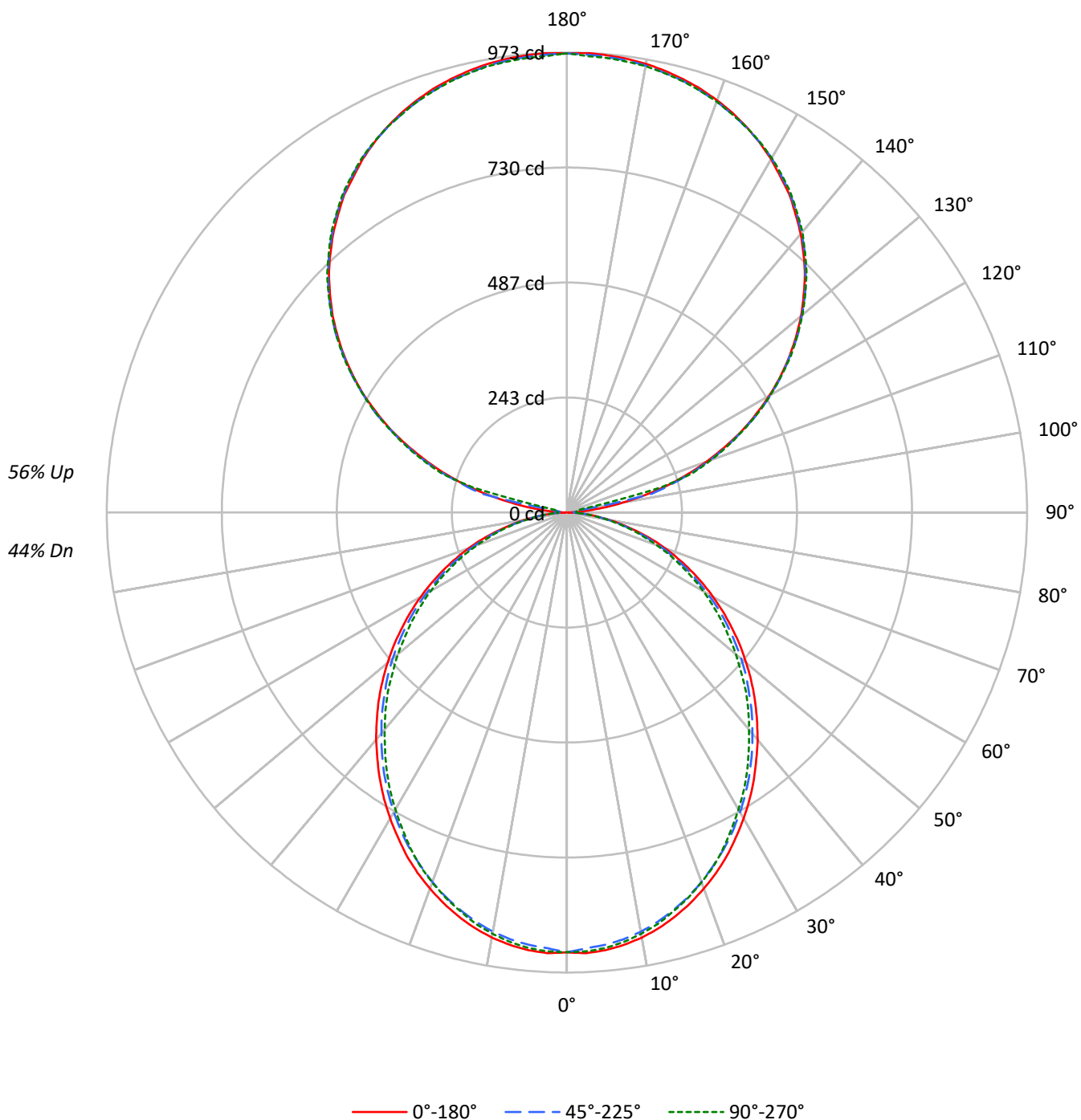
Lumens per Lamp: N/A  
Luminaire Lumens: 5393.0 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 47.2  
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   | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 80 | 80 | 80 | 65 | 65 | 65 | 51 | 51 | 51 |
| 1   | 96  | 92  | 88  | 85  | 88 | 85 | 81 | 78 | 70 | 68 | 66 | 57 | 55 | 54 | 45 | 44 | 43 |
| 2   | 88  | 80  | 74  | 69  | 80 | 74 | 69 | 64 | 61 | 58 | 54 | 50 | 47 | 45 | 40 | 38 | 36 |
| 3   | 80  | 71  | 63  | 58  | 73 | 65 | 59 | 54 | 54 | 50 | 46 | 44 | 41 | 38 | 35 | 33 | 31 |
| 4   | 73  | 63  | 55  | 49  | 67 | 58 | 51 | 45 | 48 | 43 | 39 | 39 | 36 | 33 | 31 | 29 | 26 |
| 5   | 67  | 56  | 48  | 42  | 61 | 51 | 44 | 39 | 43 | 38 | 34 | 35 | 31 | 28 | 28 | 25 | 23 |
| 6   | 62  | 50  | 42  | 36  | 56 | 46 | 39 | 34 | 39 | 33 | 29 | 32 | 28 | 25 | 26 | 23 | 20 |
| 7   | 57  | 45  | 37  | 32  | 52 | 42 | 35 | 30 | 35 | 30 | 26 | 29 | 25 | 22 | 23 | 20 | 18 |
| 8   | 53  | 41  | 33  | 28  | 48 | 38 | 31 | 26 | 32 | 27 | 23 | 27 | 22 | 19 | 21 | 18 | 16 |
| 9   | 49  | 37  | 30  | 25  | 45 | 35 | 28 | 23 | 29 | 24 | 20 | 24 | 20 | 17 | 20 | 17 | 15 |
| 10  | 46  | 34  | 27  | 22  | 42 | 32 | 25 | 21 | 27 | 22 | 18 | 23 | 19 | 16 | 18 | 15 | 13 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7584 | 7584 | 7584 |
| 5°  | 7589 | 7366 | 7375 |
| 10° | 7526 | 7161 | 7111 |
| 15° | 7417 | 6918 | 6813 |
| 20° | 7280 | 6655 | 6506 |
| 25° | 7125 | 6377 | 6174 |
| 30° | 6937 | 6077 | 5811 |
| 35° | 6744 | 5769 | 5459 |
| 40° | 6541 | 5438 | 5085 |
| 45° | 6330 | 5106 | 4735 |
| 50° | 6095 | 4785 | 4348 |
| 55° | 5841 | 4408 | 3963 |
| 60° | 5579 | 3997 | 3563 |
| 65° | 5282 | 3572 | 3111 |
| 70° | 4937 | 3059 | 2627 |
| 75° | 4424 | 2467 | 2104 |
| 80° | 3771 | 1783 | 1480 |
| 85° | 2925 | 992  | 797  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6330 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 87.7   | 1.6       |
| 10°-20°   | 247.0  | 4.6       |
| 20°-30°   | 363.4  | 6.7       |
| 30°-40°   | 422.5  | 7.8       |
| 40°-50°   | 422.5  | 7.8       |
| 50°-60°   | 369.5  | 6.9       |
| 60°-70°   | 274.3  | 5.1       |
| 70°-80°   | 155.6  | 2.9       |
| 80°-90°   | 46.6   | 0.9       |
| 90°-100°  | 32.2   | 0.6       |
| 100°-110° | 212.2  | 3.9       |
| 110°-120° | 405.3  | 7.5       |
| 120°-130° | 514.5  | 9.5       |
| 130°-140° | 550.4  | 10.2      |
| 140°-150° | 514.6  | 9.5       |
| 150°-160° | 415.0  | 7.7       |
| 160°-170° | 267.6  | 5.0       |
| 170°-180° | 92.2   | 1.7       |
| 0°-30°    | 698.1  | 12.9      |
| 0°-40°    | 1120.5 | 20.8      |
| 0°-60°    | 1912.5 | 35.5      |
| 0°-90°    | 2389.0 | 44.3      |
| 90°-120°  | 649.7  | 12.0      |
| 90°-150°  | 2229.1 | 41.3      |
| 90°-180°  | 3004.0 | 55.7      |
| 0°-180°   | 5393.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 930 | 930   | 930 | 930   | 930 |      |
| 5°   | 929 | 926   | 918 | 926   | 925 | 88   |
| 15°  | 884 | 882   | 870 | 875   | 873 | 249  |
| 25°  | 801 | 796   | 785 | 786   | 783 | 369  |
| 35°  | 689 | 684   | 674 | 668   | 665 | 431  |
| 45°  | 563 | 557   | 546 | 537   | 535 | 434  |
| 55°  | 426 | 423   | 413 | 404   | 399 | 381  |
| 65°  | 288 | 285   | 277 | 270   | 266 | 285  |
| 75°  | 154 | 150   | 146 | 143   | 142 | 163  |
| 85°  | 40  | 40    | 39  | 39    | 38  | 43   |
| 90°  | 2   | 10    | 16  | 20    | 22  | 5    |
| 95°  | 40  | 15    | 16  | 20    | 21  | 49   |
| 105° | 219 | 223   | 226 | 233   | 207 | 229  |
| 115° | 408 | 410   | 410 | 411   | 411 | 402  |
| 125° | 574 | 576   | 575 | 577   | 578 | 512  |
| 135° | 712 | 711   | 714 | 715   | 717 | 548  |
| 145° | 820 | 823   | 823 | 823   | 825 | 513  |
| 155° | 900 | 900   | 898 | 901   | 899 | 415  |
| 165° | 949 | 945   | 945 | 951   | 945 | 268  |
| 175° | 971 | 966   | 967 | 974   | 965 | 92   |
| 180° | 971 | 971   | 971 | 971   | 971 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 930.0 | 930.0 | 930.0 | 930.0 | 930.0 |
| 2.5°   | 933.0 | 930.7 | 922.5 | 930.0 | 929.2 |
| 5°     | 929.2 | 926.3 | 918.1 | 926.3 | 924.8 |
| 7.5°   | 922.5 | 919.6 | 910.6 | 917.3 | 916.6 |
| 10°    | 912.9 | 909.9 | 900.2 | 906.1 | 904.7 |
| 12.5°  | 900.2 | 897.2 | 886.8 | 893.5 | 891.2 |
| 15°    | 884.5 | 881.6 | 870.4 | 874.8 | 872.6 |
| 17.5°  | 866.6 | 862.9 | 852.5 | 855.5 | 854.0 |
| 20°    | 846.5 | 842.8 | 831.6 | 833.9 | 832.4 |
| 22.5°  | 824.9 | 819.7 | 808.5 | 813.0 | 810.0 |
| 25°    | 801.1 | 795.9 | 785.4 | 786.2 | 783.2 |
| 27.5°  | 774.2 | 769.0 | 759.3 | 757.9 | 754.1 |
| 30°    | 747.4 | 741.5 | 731.8 | 728.8 | 725.1 |
| 32.5°  | 719.1 | 713.9 | 703.5 | 699.7 | 696.0 |
| 35°    | 689.3 | 684.1 | 673.6 | 668.4 | 664.7 |
| 37.5°  | 658.0 | 653.5 | 642.3 | 637.1 | 631.9 |
| 40°    | 627.4 | 621.5 | 610.3 | 602.9 | 599.1 |
| 42.5°  | 594.7 | 591.7 | 579.0 | 570.1 | 567.8 |
| 45°    | 562.6 | 557.4 | 545.5 | 537.3 | 535.0 |
| 47.5°  | 529.1 | 525.4 | 514.2 | 505.2 | 499.3 |
| 50°    | 494.8 | 491.8 | 481.4 | 471.0 | 466.5 |
| 52.5°  | 461.3 | 457.5 | 446.4 | 437.4 | 431.5 |
| 55°    | 425.5 | 423.3 | 412.8 | 403.9 | 399.4 |
| 57.5°  | 392.0 | 389.7 | 379.3 | 370.4 | 365.9 |
| 60°    | 356.9 | 353.2 | 343.5 | 336.8 | 333.1 |
| 62.5°  | 322.7 | 319.7 | 309.3 | 303.3 | 299.6 |
| 65°    | 288.4 | 284.7 | 277.2 | 269.8 | 266.0 |
| 67.5°  | 253.4 | 250.4 | 242.9 | 235.5 | 234.7 |
| 70°    | 221.3 | 216.1 | 210.1 | 204.2 | 201.9 |
| 72.5°  | 187.0 | 181.8 | 177.4 | 172.9 | 170.6 |
| 75°    | 153.5 | 149.8 | 146.1 | 143.1 | 142.3 |
| 77.5°  | 120.7 | 119.2 | 115.5 | 114.8 | 112.5 |
| 80°    | 91.7  | 89.4  | 87.9  | 86.4  | 85.7  |
| 82.5°  | 63.3  | 62.6  | 62.6  | 61.9  | 61.1  |
| 85°    | 40.2  | 40.2  | 38.7  | 38.7  | 38.0  |
| 87.5°  | 19.4  | 18.6  | 17.9  | 17.9  | 17.9  |
| 90°    | 2.2   | 10.2  | 16.0  | 20.3  | 21.8  |
| 92.5°  | 10.9  | 9.4   | 15.2  | 19.6  | 19.6  |
| 95°    | 39.9  | 15.2  | 16.0  | 20.3  | 21.1  |
| 97.5°  | 76.2  | 92.2  | 16.0  | 19.6  | 20.3  |
| 100°   | 119.1 | 132.2 | 31.9  | 19.6  | 20.3  |
| 102.5° | 167.0 | 175.7 | 184.4 | 21.1  | 21.1  |
| 105°   | 218.6 | 222.9 | 226.5 | 233.1 | 206.9 |
| 107.5° | 265.8 | 267.9 | 273.0 | 276.6 | 279.5 |
| 110°   | 313.7 | 315.9 | 320.2 | 321.7 | 323.8 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 360.1 | 364.5 | 366.0 | 365.2 | 368.1 |
| 115°   | 408.1 | 410.2 | 409.5 | 411.0 | 411.0 |
| 117.5° | 450.9 | 453.8 | 456.0 | 455.3 | 455.3 |
| 120°   | 494.5 | 497.4 | 496.7 | 498.1 | 496.7 |
| 122.5° | 535.1 | 536.6 | 538.0 | 538.8 | 537.3 |
| 125°   | 573.6 | 576.5 | 575.1 | 577.3 | 578.0 |
| 127.5° | 610.7 | 611.4 | 615.0 | 614.3 | 613.6 |
| 130°   | 646.2 | 647.0 | 649.1 | 649.9 | 649.9 |
| 132.5° | 678.9 | 680.4 | 683.3 | 684.0 | 683.3 |
| 135°   | 711.6 | 710.9 | 713.8 | 715.2 | 716.7 |
| 137.5° | 740.6 | 740.6 | 744.3 | 745.7 | 745.0 |
| 140°   | 768.9 | 770.4 | 771.8 | 774.0 | 774.8 |
| 142.5° | 794.4 | 797.3 | 798.0 | 799.4 | 799.4 |
| 145°   | 820.5 | 822.7 | 822.7 | 823.4 | 824.9 |
| 147.5° | 840.8 | 845.2 | 844.5 | 845.2 | 845.9 |
| 150°   | 863.3 | 866.2 | 865.5 | 865.5 | 866.2 |
| 152.5° | 882.2 | 884.4 | 882.9 | 884.4 | 883.7 |
| 155°   | 899.6 | 900.4 | 898.2 | 901.1 | 898.9 |
| 157.5° | 914.9 | 914.9 | 912.0 | 915.6 | 912.0 |
| 160°   | 928.0 | 925.8 | 925.1 | 929.4 | 925.1 |
| 162.5° | 939.6 | 936.7 | 935.9 | 940.3 | 935.2 |
| 165°   | 949.0 | 945.4 | 945.4 | 951.2 | 944.7 |
| 167.5° | 957.0 | 953.4 | 952.6 | 959.2 | 951.9 |
| 170°   | 963.5 | 959.2 | 959.9 | 965.7 | 958.5 |
| 172.5° | 967.9 | 963.5 | 964.3 | 970.1 | 962.1 |
| 175°   | 970.8 | 966.4 | 967.2 | 973.7 | 965.0 |
| 177.5° | 973.0 | 967.9 | 969.3 | 975.2 | 966.4 |
| 180°   | 970.8 | 970.8 | 970.8 | 970.8 | 970.8 |

(END OF REPORT)