

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: P1029271

Luminaire Tested: S122DIW-B1005D710UB2750-4F0-XX-W2A-F\_3500K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1029271  
REPORT IS A COMBINATION OF REPORTS P985339 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DIW-B1005D710UB2750-4F0-XX-W2A-F\_3500K  
Description: Define 2 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

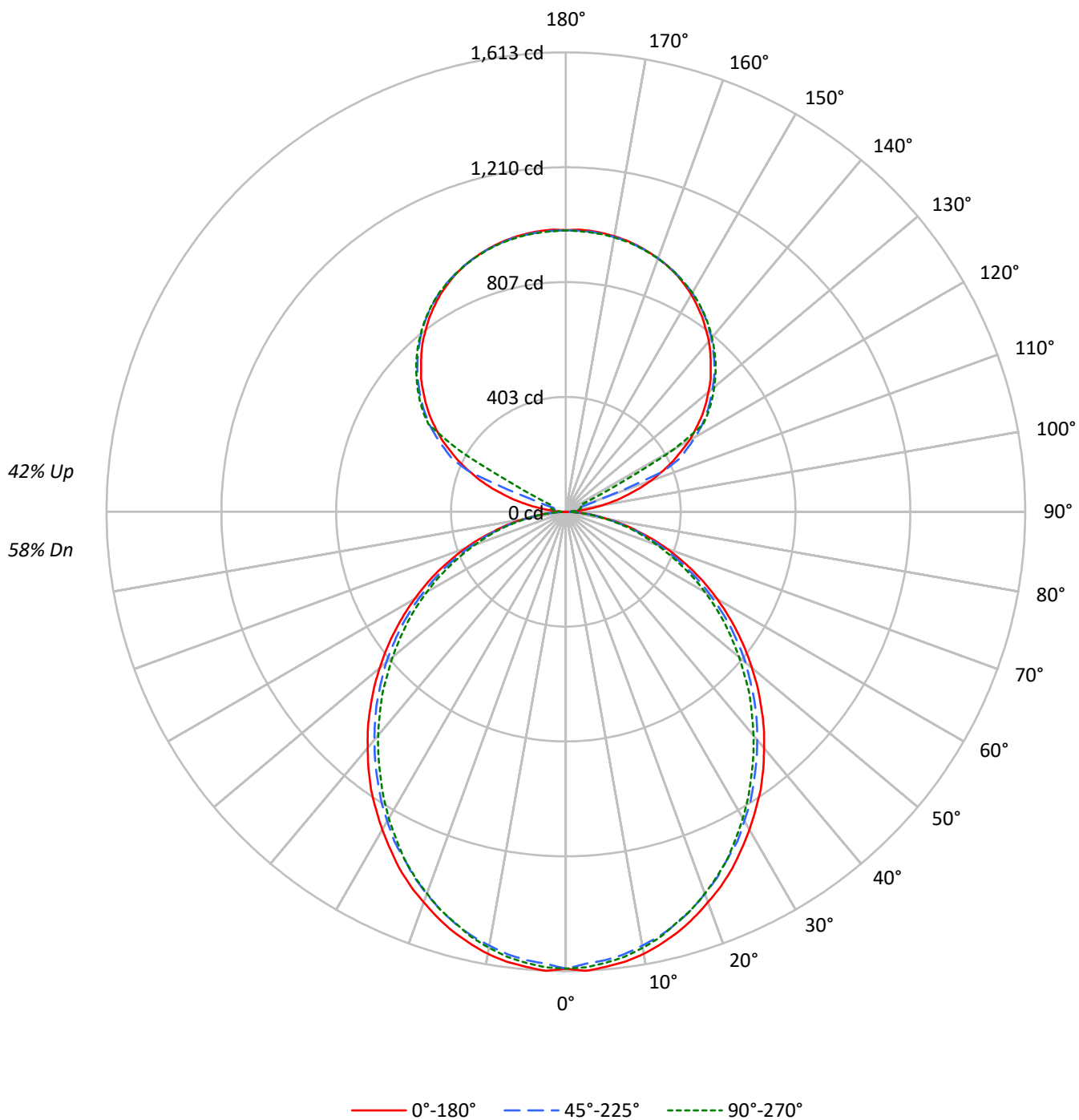
Lumens per Lamp: N/A  
Luminaire Lumens: 6980.0 lumens  
Efficiency: N/A  
Efficacy: 82.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 84.5  
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   | 109 | 109 | 109 | 109 | 102 | 102 | 102 | 102 | 88 | 88 | 88 | 75 | 75 | 75 | 64 | 64 | 64 |
| 1   | 100 | 95  | 91  | 88  | 93  | 89  | 86  | 83  | 77 | 75 | 72 | 66 | 65 | 63 | 57 | 55 | 54 |
| 2   | 91  | 83  | 77  | 72  | 84  | 78  | 72  | 68  | 68 | 64 | 60 | 58 | 55 | 53 | 50 | 48 | 46 |
| 3   | 83  | 73  | 66  | 60  | 77  | 69  | 62  | 57  | 60 | 55 | 50 | 52 | 48 | 45 | 44 | 41 | 39 |
| 4   | 76  | 65  | 57  | 51  | 70  | 61  | 54  | 48  | 53 | 48 | 43 | 46 | 42 | 38 | 39 | 36 | 33 |
| 5   | 70  | 58  | 50  | 43  | 65  | 54  | 47  | 41  | 48 | 42 | 37 | 41 | 37 | 33 | 36 | 32 | 29 |
| 6   | 64  | 52  | 44  | 38  | 60  | 49  | 41  | 36  | 43 | 37 | 33 | 37 | 33 | 29 | 32 | 29 | 26 |
| 7   | 59  | 47  | 39  | 33  | 55  | 44  | 37  | 32  | 39 | 33 | 29 | 34 | 29 | 26 | 29 | 26 | 23 |
| 8   | 55  | 43  | 35  | 29  | 51  | 40  | 33  | 28  | 36 | 30 | 26 | 31 | 26 | 23 | 27 | 23 | 20 |
| 9   | 51  | 39  | 31  | 26  | 48  | 37  | 30  | 25  | 33 | 27 | 23 | 29 | 24 | 21 | 25 | 21 | 19 |
| 10  | 48  | 36  | 29  | 24  | 45  | 34  | 27  | 23  | 30 | 25 | 21 | 27 | 22 | 19 | 23 | 20 | 17 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 25392 | 25392 | 25392 |
| 5°  | 25433 | 24202 | 24031 |
| 10° | 25225 | 23099 | 22641 |
| 15° | 24856 | 21987 | 21179 |
| 20° | 24357 | 20779 | 19795 |
| 25° | 23859 | 19517 | 18413 |
| 30° | 23232 | 18330 | 16963 |
| 35° | 22644 | 17079 | 15537 |
| 40° | 21913 | 15843 | 14190 |
| 45° | 21189 | 14619 | 12870 |
| 50° | 20396 | 13372 | 11499 |
| 55° | 19564 | 12039 | 10202 |
| 60° | 18629 | 10597 | 8852  |
| 65° | 17601 | 9129  | 7433  |
| 70° | 16296 | 7525  | 6002  |
| 75° | 14494 | 5800  | 4636  |
| 80° | 12311 | 3942  | 2983  |
| 85° | 8927  | 1836  | 1270  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 21189 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 151.0  | 2.2       |
| 10°-20°   | 424.8  | 6.1       |
| 20°-30°   | 624.2  | 8.9       |
| 30°-40°   | 725.0  | 10.4      |
| 40°-50°   | 724.1  | 10.4      |
| 50°-60°   | 631.4  | 9.0       |
| 60°-70°   | 466.7  | 6.7       |
| 70°-80°   | 264.1  | 3.8       |
| 80°-90°   | 71.4   | 1.0       |
| 90°-100°  | 32.6   | 0.5       |
| 100°-110° | 121.5  | 1.7       |
| 110°-120° | 322.2  | 4.6       |
| 120°-130° | 534.4  | 7.7       |
| 130°-140° | 567.6  | 8.1       |
| 140°-150° | 527.5  | 7.6       |
| 150°-160° | 424.1  | 6.1       |
| 160°-170° | 273.3  | 3.9       |
| 170°-180° | 94.1   | 1.3       |
| 0°-30°    | 1200.0 | 17.2      |
| 0°-40°    | 1925.0 | 27.6      |
| 0°-60°    | 3280.5 | 47.0      |
| 0°-90°    | 4082.7 | 58.5      |
| 90°-120°  | 476.3  | 6.8       |
| 90°-150°  | 2105.8 | 30.2      |
| 90°-180°  | 2897.0 | 41.5      |
| 0°-180°   | 6980.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1604 | 1604  | 1604 | 1604  | 1604 |      |
| 5°   | 1604 | 1598  | 1581 | 1593  | 1590 | 152  |
| 15°  | 1527 | 1518  | 1498 | 1504  | 1496 | 430  |
| 25°  | 1382 | 1370  | 1343 | 1346  | 1343 | 636  |
| 35°  | 1192 | 1177  | 1152 | 1143  | 1135 | 745  |
| 45°  | 970  | 959   | 936  | 919   | 913  | 749  |
| 55°  | 734  | 725   | 706  | 688   | 680  | 656  |
| 65°  | 495  | 486   | 470  | 456   | 449  | 490  |
| 75°  | 259  | 256   | 248  | 239   | 242  | 277  |
| 85°  | 63   | 62    | 60   | 56    | 54   | 70   |
| 90°  | 1    | 9     | 14   | 18    | 19   | 6    |
| 95°  | 46   | 23    | 28   | 32    | 31   | 55   |
| 105° | 217  | 239   | 44   | 52    | 54   | 232  |
| 115° | 411  | 423   | 441  | 110   | 59   | 405  |
| 125° | 581  | 591   | 604  | 609   | 611  | 519  |
| 135° | 719  | 731   | 737  | 744   | 743  | 556  |
| 145° | 834  | 834   | 846  | 851   | 847  | 522  |
| 155° | 919  | 912   | 921  | 925   | 920  | 423  |
| 165° | 968  | 964   | 966  | 971   | 966  | 274  |
| 175° | 990  | 985   | 987  | 992   | 985  | 94   |
| 180° | 988  | 988   | 988  | 988   | 988  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 |
| 2.5°   | 1613.3 | 1605.6 | 1588.6 | 1604.1 | 1601.0 |
| 5°     | 1604.1 | 1597.9 | 1580.9 | 1593.3 | 1590.2 |
| 7.5°   | 1593.3 | 1584.0 | 1567.0 | 1579.4 | 1576.3 |
| 10°    | 1576.3 | 1565.5 | 1547.0 | 1559.3 | 1554.7 |
| 12.5°  | 1553.2 | 1543.9 | 1525.4 | 1533.1 | 1530.0 |
| 15°    | 1526.9 | 1517.7 | 1497.6 | 1503.8 | 1496.1 |
| 17.5°  | 1494.6 | 1485.3 | 1465.3 | 1473.0 | 1465.3 |
| 20°    | 1459.1 | 1449.8 | 1428.2 | 1432.9 | 1426.7 |
| 22.5°  | 1423.6 | 1409.7 | 1389.7 | 1389.7 | 1386.6 |
| 25°    | 1382.0 | 1369.6 | 1343.4 | 1346.5 | 1343.4 |
| 27.5°  | 1335.7 | 1324.9 | 1304.8 | 1300.2 | 1292.5 |
| 30°    | 1289.4 | 1277.1 | 1253.9 | 1249.3 | 1243.2 |
| 32.5°  | 1240.1 | 1230.8 | 1206.1 | 1196.9 | 1190.7 |
| 35°    | 1192.3 | 1176.8 | 1152.2 | 1142.9 | 1135.2 |
| 37.5°  | 1138.3 | 1124.4 | 1099.7 | 1088.9 | 1081.2 |
| 40°    | 1082.7 | 1070.4 | 1045.7 | 1031.8 | 1025.7 |
| 42.5°  | 1028.8 | 1016.4 | 991.7  | 976.3  | 967.1  |
| 45°    | 970.2  | 959.4  | 936.2  | 919.3  | 913.1  |
| 47.5°  | 913.1  | 902.3  | 877.6  | 860.6  | 851.4  |
| 50°    | 852.9  | 845.2  | 823.6  | 802.0  | 794.3  |
| 52.5°  | 794.3  | 783.5  | 763.5  | 746.5  | 735.7  |
| 55°    | 734.2  | 724.9  | 706.4  | 687.9  | 680.2  |
| 57.5°  | 674.0  | 666.3  | 646.3  | 627.7  | 621.6  |
| 60°    | 613.9  | 607.7  | 586.1  | 569.1  | 564.5  |
| 62.5°  | 555.3  | 544.5  | 529.0  | 513.6  | 507.4  |
| 65°    | 495.1  | 485.8  | 470.4  | 456.5  | 448.8  |
| 67.5°  | 433.4  | 425.7  | 411.8  | 401.0  | 394.8  |
| 70°    | 376.3  | 370.2  | 356.3  | 345.5  | 339.3  |
| 72.5°  | 317.7  | 311.6  | 303.8  | 293.1  | 288.4  |
| 75°    | 259.1  | 256.0  | 248.3  | 239.1  | 242.2  |
| 77.5°  | 206.7  | 200.5  | 197.4  | 192.8  | 188.2  |
| 80°    | 154.2  | 152.7  | 149.6  | 145.0  | 141.9  |
| 82.5°  | 104.9  | 104.9  | 103.3  | 97.2   | 97.2   |
| 85°    | 63.2   | 61.7   | 60.2   | 55.5   | 54.0   |
| 87.5°  | 27.8   | 24.7   | 21.6   | 17.0   | 15.4   |
| 90°    | 0.7    | 8.6    | 14.3   | 17.9   | 19.3   |
| 92.5°  | 17.9   | 15.0   | 17.2   | 18.6   | 19.3   |
| 95°    | 46.5   | 22.9   | 27.9   | 31.5   | 30.7   |
| 97.5°  | 83.7   | 25.0   | 36.5   | 38.6   | 39.3   |
| 100°   | 126.6  | 28.6   | 40.8   | 46.5   | 47.9   |
| 102.5° | 173.8  | 172.3  | 42.2   | 50.1   | 52.2   |
| 105°   | 217.4  | 238.8  | 43.6   | 51.5   | 54.3   |
| 107.5° | 268.2  | 286.0  | 45.1   | 52.9   | 55.8   |
| 110°   | 316.8  | 331.8  | 125.1  | 53.6   | 56.5   |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 362.6 | 375.4 | 363.3 | 55.1  | 57.2  |
| 115°   | 411.2 | 423.3 | 441.2 | 110.1 | 58.6  |
| 117.5° | 453.4 | 467.7 | 479.8 | 377.6 | 190.2 |
| 120°   | 500.6 | 511.3 | 524.2 | 532.8 | 436.2 |
| 122.5° | 540.6 | 552.1 | 566.4 | 570.7 | 571.4 |
| 125°   | 581.4 | 590.7 | 604.3 | 609.3 | 611.4 |
| 127.5° | 618.6 | 628.6 | 639.3 | 646.5 | 647.2 |
| 130°   | 653.6 | 665.0 | 672.9 | 680.8 | 680.1 |
| 132.5° | 689.4 | 698.7 | 706.5 | 713.0 | 712.2 |
| 135°   | 719.4 | 730.8 | 737.3 | 744.4 | 743.0 |
| 137.5° | 750.9 | 759.4 | 766.6 | 773.7 | 771.6 |
| 140°   | 781.6 | 787.3 | 795.2 | 801.6 | 798.1 |
| 142.5° | 807.3 | 812.4 | 821.7 | 827.4 | 823.8 |
| 145°   | 834.5 | 833.8 | 846.0 | 851.0 | 847.4 |
| 147.5° | 858.1 | 856.0 | 868.1 | 871.7 | 868.8 |
| 150°   | 881.0 | 876.0 | 887.4 | 891.7 | 888.2 |
| 152.5° | 900.3 | 894.6 | 905.3 | 909.6 | 904.6 |
| 155°   | 918.9 | 912.5 | 921.1 | 925.3 | 919.6 |
| 157.5° | 933.9 | 928.2 | 934.6 | 939.6 | 933.9 |
| 160°   | 946.8 | 942.5 | 946.8 | 951.1 | 946.1 |
| 162.5° | 958.2 | 953.9 | 957.5 | 962.5 | 956.1 |
| 165°   | 968.2 | 964.0 | 966.1 | 971.1 | 966.1 |
| 167.5° | 976.1 | 971.8 | 974.0 | 979.0 | 972.5 |
| 170°   | 982.5 | 978.3 | 979.7 | 984.7 | 978.3 |
| 172.5° | 986.8 | 982.5 | 984.0 | 989.0 | 982.5 |
| 175°   | 990.4 | 985.4 | 986.8 | 991.8 | 984.7 |
| 177.5° | 991.8 | 986.8 | 987.6 | 992.6 | 986.1 |
| 180°   | 988.3 | 988.3 | 988.3 | 988.3 | 988.3 |

(END OF REPORT)