

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: P1032562

Luminaire Tested: S124DIW-B1195D1340UB2750-4F0-XX-W2A-D\_3500K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1032562  
REPORT IS A COMBINATION OF REPORTS P997035 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIW-B1195D1340UB2750-4F0-XX-W2A-D\_3500K  
Description: Define 4 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

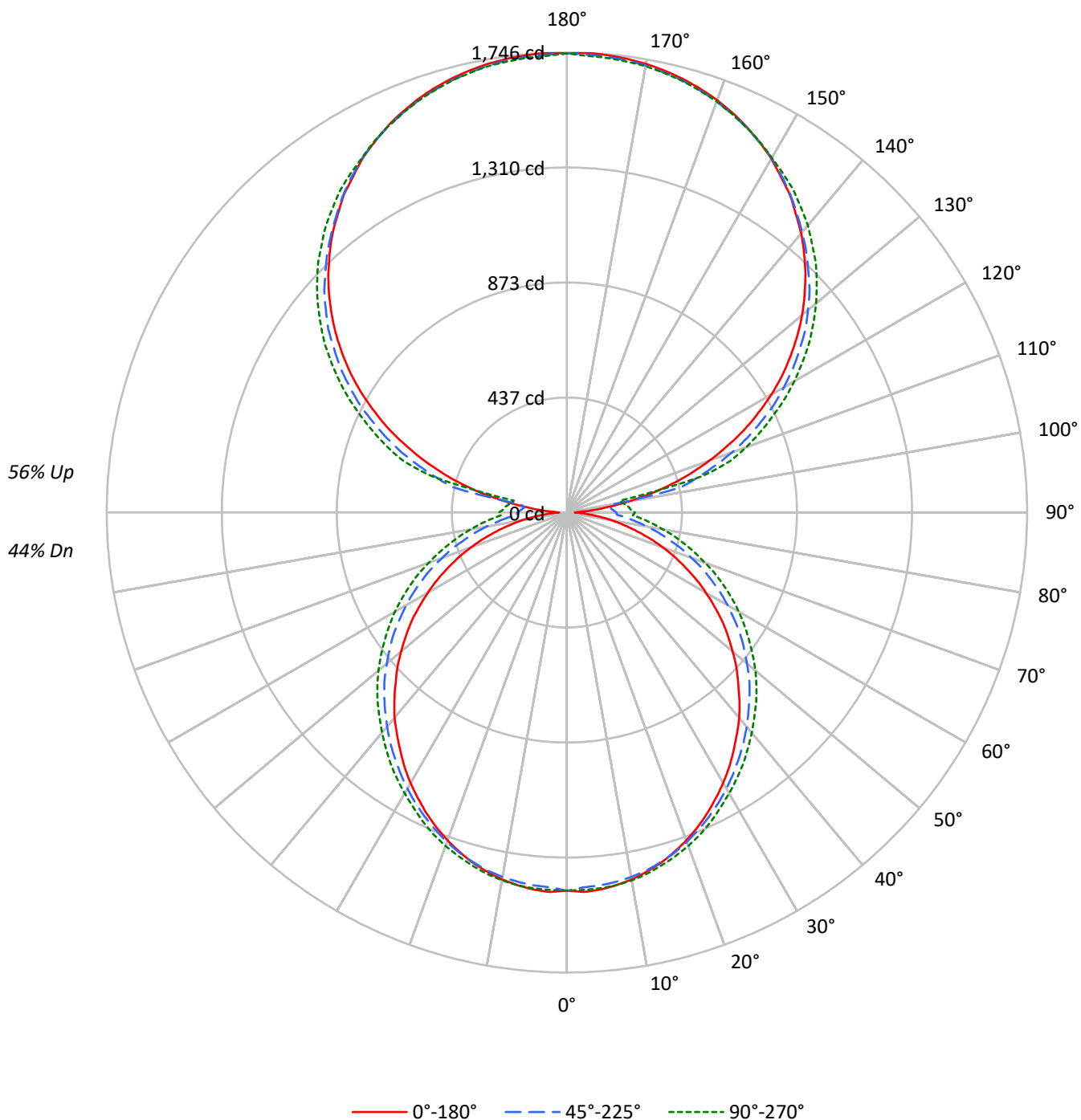
Lumens per Lamp: N/A  
Luminaire Lumens: 10288.0 lumens  
Efficiency: N/A  
Efficacy: 99.5 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 103.4  
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  | 91  | 87  | 83  | 87 | 83 | 80 | 76 | 69 | 66 | 64 | 56 | 54 | 52 | 43 | 42 | 41 |
| 2   | 87  | 79  | 72  | 67  | 79 | 72 | 67 | 62 | 60 | 56 | 52 | 48 | 45 | 43 | 38 | 36 | 34 |
| 3   | 79  | 69  | 61  | 55  | 72 | 63 | 57 | 51 | 52 | 47 | 43 | 42 | 39 | 36 | 33 | 30 | 28 |
| 4   | 72  | 61  | 53  | 46  | 65 | 56 | 49 | 43 | 46 | 41 | 37 | 37 | 33 | 30 | 29 | 26 | 24 |
| 5   | 66  | 54  | 46  | 40  | 60 | 50 | 42 | 37 | 41 | 36 | 31 | 33 | 29 | 26 | 26 | 23 | 21 |
| 6   | 61  | 48  | 40  | 34  | 55 | 44 | 37 | 32 | 37 | 31 | 27 | 30 | 26 | 23 | 24 | 21 | 18 |
| 7   | 56  | 43  | 35  | 30  | 51 | 40 | 33 | 28 | 33 | 28 | 24 | 27 | 23 | 20 | 22 | 18 | 16 |
| 8   | 52  | 39  | 31  | 26  | 47 | 36 | 29 | 24 | 30 | 25 | 21 | 25 | 21 | 18 | 20 | 17 | 14 |
| 9   | 48  | 36  | 28  | 23  | 44 | 33 | 26 | 22 | 28 | 22 | 19 | 23 | 19 | 16 | 18 | 15 | 13 |
| 10  | 45  | 33  | 26  | 21  | 41 | 30 | 24 | 19 | 26 | 20 | 17 | 21 | 17 | 14 | 17 | 14 | 12 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11702 | 11702 | 11702 |
| 5°  | 11735 | 11398 | 11418 |
| 10° | 11659 | 11173 | 11142 |
| 15° | 11550 | 10922 | 10829 |
| 20° | 11388 | 10649 | 10526 |
| 25° | 11206 | 10347 | 10199 |
| 30° | 11008 | 10049 | 9865  |
| 35° | 10786 | 9744  | 9569  |
| 40° | 10607 | 9452  | 9261  |
| 45° | 10343 | 9176  | 8989  |
| 50° | 10116 | 8864  | 8702  |
| 55° | 9883  | 8564  | 8372  |
| 60° | 9521  | 8190  | 8061  |
| 65° | 9124  | 7787  | 7687  |
| 70° | 8641  | 7325  | 7256  |
| 75° | 7965  | 6812  | 6843  |
| 80° | 7206  | 6291  | 6412  |
| 85° | 6200  | 5766  | 6064  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10343 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 136.0   | 1.3       |
| 10°-20°   | 389.6   | 3.8       |
| 20°-30°   | 589.1   | 5.7       |
| 30°-40°   | 712.7   | 6.9       |
| 40°-50°   | 753.4   | 7.3       |
| 50°-60°   | 709.1   | 6.9       |
| 60°-70°   | 588.4   | 5.7       |
| 70°-80°   | 412.9   | 4.0       |
| 80°-90°   | 236.4   | 2.3       |
| 90°-100°  | 196.4   | 1.9       |
| 100°-110° | 483.5   | 4.7       |
| 110°-120° | 796.2   | 7.7       |
| 120°-130° | 962.1   | 9.4       |
| 130°-140° | 1004.5  | 9.8       |
| 140°-150° | 926.9   | 9.0       |
| 150°-160° | 744.8   | 7.2       |
| 160°-170° | 480.4   | 4.7       |
| 170°-180° | 165.5   | 1.6       |
| 0°-30°    | 1114.7  | 10.8      |
| 0°-40°    | 1827.4  | 17.8      |
| 0°-60°    | 3289.9  | 32.0      |
| 0°-90°    | 4527.6  | 44.0      |
| 90°-120°  | 1476.1  | 14.3      |
| 90°-150°  | 4369.7  | 42.5      |
| 90°-180°  | 5760.0  | 56.0      |
| 0°-180°   | 10288.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1435 | 1435  | 1435 | 1435  | 1435 |      |
| 5°   | 1437 | 1432  | 1421 | 1434  | 1432 | 136  |
| 15°  | 1377 | 1379  | 1374 | 1388  | 1387 | 388  |
| 25°  | 1260 | 1270  | 1274 | 1292  | 1294 | 580  |
| 35°  | 1102 | 1122  | 1138 | 1160  | 1165 | 690  |
| 45°  | 919  | 950   | 980  | 1008  | 1016 | 710  |
| 55°  | 720  | 754   | 802  | 834   | 844  | 642  |
| 65°  | 498  | 550   | 604  | 644   | 657  | 494  |
| 75°  | 276  | 336   | 403  | 448   | 463  | 294  |
| 85°  | 85   | 153   | 225  | 273   | 289  | 89   |
| 90°  | 30   | 108   | 188  | 242   | 258  | 21   |
| 95°  | 93   | 101   | 168  | 220   | 236  | 105  |
| 105° | 407  | 447   | 513  | 564   | 530  | 427  |
| 115° | 742  | 760   | 810  | 848   | 860  | 731  |
| 125° | 1036 | 1040  | 1077 | 1112  | 1122 | 926  |
| 135° | 1280 | 1279  | 1296 | 1324  | 1336 | 987  |
| 145° | 1474 | 1476  | 1476 | 1487  | 1496 | 921  |
| 155° | 1615 | 1616  | 1612 | 1617  | 1613 | 745  |
| 165° | 1703 | 1697  | 1697 | 1707  | 1695 | 481  |
| 175° | 1742 | 1734  | 1736 | 1748  | 1732 | 166  |
| 180° | 1742 | 1742  | 1742 | 1742  | 1742 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1435.1 | 1435.1 | 1435.1 | 1435.1 | 1435.1 |
| 2.5°   | 1441.6 | 1436.8 | 1423.9 | 1435.1 | 1433.5 |
| 5°     | 1436.8 | 1431.9 | 1420.7 | 1433.5 | 1431.9 |
| 7.5°   | 1427.1 | 1423.9 | 1414.3 | 1428.7 | 1427.1 |
| 10°    | 1414.3 | 1412.6 | 1404.6 | 1419.1 | 1417.5 |
| 12.5°  | 1396.6 | 1396.6 | 1391.8 | 1404.6 | 1404.6 |
| 15°    | 1377.3 | 1378.9 | 1374.1 | 1388.5 | 1386.9 |
| 17.5°  | 1351.6 | 1356.4 | 1354.8 | 1369.3 | 1367.6 |
| 20°    | 1324.3 | 1329.1 | 1330.7 | 1346.8 | 1346.8 |
| 22.5°  | 1293.7 | 1300.1 | 1303.4 | 1319.4 | 1322.6 |
| 25°    | 1260.0 | 1269.6 | 1274.4 | 1292.1 | 1293.7 |
| 27.5°  | 1223.0 | 1237.5 | 1243.9 | 1260.0 | 1261.6 |
| 30°    | 1186.0 | 1198.9 | 1210.2 | 1227.8 | 1231.0 |
| 32.5°  | 1145.9 | 1161.9 | 1174.8 | 1195.7 | 1198.9 |
| 35°    | 1102.5 | 1121.8 | 1137.8 | 1160.3 | 1165.2 |
| 37.5°  | 1059.1 | 1081.6 | 1100.9 | 1123.4 | 1128.2 |
| 40°    | 1017.3 | 1038.2 | 1060.7 | 1084.8 | 1091.2 |
| 42.5°  | 969.1  | 993.2  | 1020.5 | 1047.8 | 1052.7 |
| 45°    | 919.3  | 949.8  | 980.3  | 1007.7 | 1015.7 |
| 47.5°  | 872.7  | 903.2  | 938.5  | 965.9  | 975.5  |
| 50°    | 821.2  | 856.6  | 891.9  | 924.1  | 933.7  |
| 52.5°  | 769.8  | 805.2  | 846.9  | 879.1  | 888.7  |
| 55°    | 720.0  | 753.7  | 801.9  | 834.1  | 843.7  |
| 57.5°  | 663.7  | 705.5  | 752.1  | 790.7  | 798.7  |
| 60°    | 609.1  | 650.9  | 703.9  | 740.9  | 753.7  |
| 62.5°  | 556.1  | 602.7  | 655.7  | 692.7  | 705.5  |
| 65°    | 498.2  | 549.6  | 604.3  | 644.4  | 657.3  |
| 67.5°  | 443.6  | 498.2  | 556.1  | 596.2  | 609.1  |
| 70°    | 387.3  | 442.0  | 503.0  | 546.4  | 557.7  |
| 72.5°  | 332.7  | 388.9  | 454.8  | 496.6  | 509.5  |
| 75°    | 276.4  | 335.9  | 403.4  | 448.4  | 462.8  |
| 77.5°  | 223.4  | 286.1  | 356.8  | 401.8  | 417.8  |
| 80°    | 175.2  | 239.5  | 310.2  | 358.4  | 371.2  |
| 82.5°  | 127.0  | 194.5  | 265.2  | 315.0  | 329.5  |
| 85°    | 85.2   | 152.7  | 225.0  | 273.2  | 289.3  |
| 87.5°  | 53.0   | 118.9  | 189.6  | 236.2  | 250.7  |
| 90°    | 29.6   | 108.2  | 187.8  | 242.2  | 257.7  |
| 92.5°  | 43.6   | 97.3   | 176.9  | 229.7  | 242.5  |
| 95°    | 92.6   | 101.3  | 168.5  | 219.7  | 235.5  |
| 97.5°  | 156.1  | 231.4  | 160.5  | 208.8  | 224.5  |
| 100°   | 231.4  | 296.7  | 179.4  | 200.7  | 213.3  |
| 102.5° | 317.4  | 368.4  | 445.1  | 193.7  | 206.5  |
| 105°   | 406.8  | 446.7  | 512.7  | 564.5  | 530.5  |
| 107.5° | 491.5  | 522.7  | 588.0  | 634.7  | 651.2  |
| 110°   | 575.9  | 602.3  | 666.3  | 705.9  | 722.6  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 657.6  | 684.7  | 740.4  | 774.4  | 792.5  |
| 115°   | 742.0  | 760.4  | 810.5  | 848.5  | 859.7  |
| 117.5° | 818.9  | 833.8  | 885.9  | 918.3  | 931.2  |
| 120°   | 895.5  | 905.6  | 950.9  | 985.6  | 995.9  |
| 122.5° | 968.4  | 971.0  | 1017.0 | 1050.6 | 1059.1 |
| 125°   | 1035.9 | 1039.5 | 1077.1 | 1111.5 | 1122.5 |
| 127.5° | 1102.4 | 1102.1 | 1140.8 | 1168.4 | 1178.3 |
| 130°   | 1164.6 | 1164.3 | 1193.9 | 1224.2 | 1233.8 |
| 132.5° | 1223.3 | 1224.3 | 1248.8 | 1277.4 | 1285.8 |
| 135°   | 1280.3 | 1279.0 | 1295.5 | 1323.8 | 1336.0 |
| 137.5° | 1332.4 | 1330.8 | 1343.7 | 1370.5 | 1377.3 |
| 140°   | 1383.3 | 1384.3 | 1388.5 | 1413.3 | 1422.6 |
| 142.5° | 1427.3 | 1432.5 | 1432.2 | 1452.5 | 1458.9 |
| 145°   | 1474.2 | 1476.5 | 1476.5 | 1487.4 | 1496.5 |
| 147.5° | 1510.7 | 1516.9 | 1515.6 | 1518.5 | 1526.2 |
| 150°   | 1551.1 | 1554.7 | 1553.4 | 1553.4 | 1554.7 |
| 152.5° | 1583.3 | 1587.3 | 1584.7 | 1587.3 | 1586.0 |
| 155°   | 1614.6 | 1615.9 | 1612.0 | 1617.2 | 1613.3 |
| 157.5° | 1642.0 | 1642.0 | 1636.8 | 1643.3 | 1636.8 |
| 160°   | 1665.4 | 1661.5 | 1660.2 | 1668.1 | 1660.2 |
| 162.5° | 1686.3 | 1681.1 | 1679.8 | 1687.6 | 1678.5 |
| 165°   | 1703.2 | 1696.7 | 1696.7 | 1707.2 | 1695.4 |
| 167.5° | 1717.6 | 1711.1 | 1709.8 | 1721.5 | 1708.5 |
| 170°   | 1729.3 | 1721.5 | 1722.8 | 1733.2 | 1720.2 |
| 172.5° | 1737.1 | 1729.3 | 1730.6 | 1741.0 | 1726.7 |
| 175°   | 1742.3 | 1734.5 | 1735.8 | 1747.5 | 1731.9 |
| 177.5° | 1746.2 | 1737.1 | 1739.7 | 1750.2 | 1734.5 |
| 180°   | 1742.3 | 1742.3 | 1742.3 | 1742.3 | 1742.3 |

(END OF REPORT)