

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: P1030750

Luminaire Tested: S123DIW-B1165D1535UB2750-4F0-XX-W2A-D\_2700K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1030750  
REPORT IS A COMBINATION OF REPORTS P990999 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIW-B1165D1535UB2750-4F0-XX-W2A-D\_2700K  
Description: Define 3 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

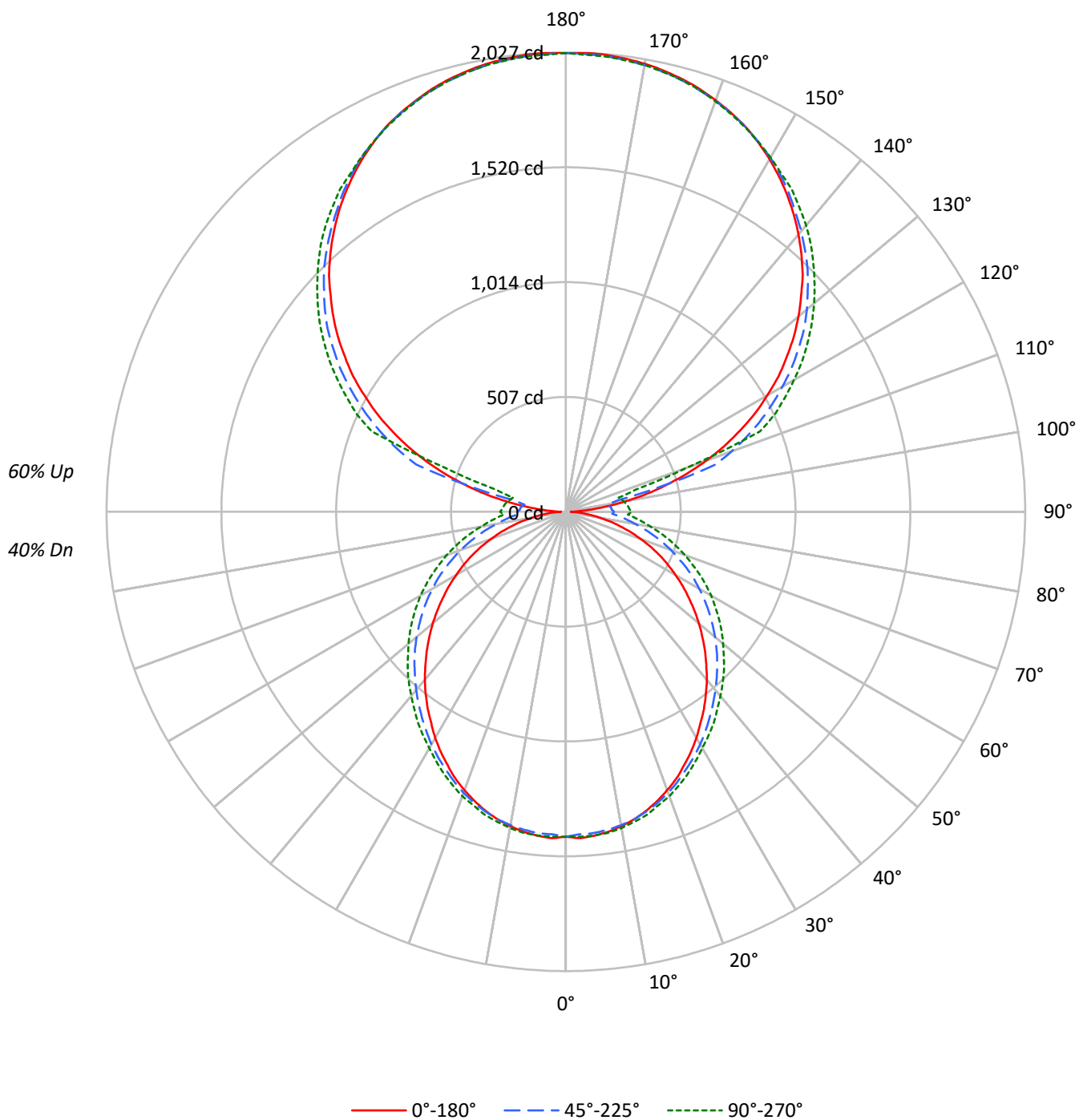
Lumens per Lamp: N/A  
Luminaire Lumens: 10994.0 lumens  
Efficiency: N/A  
Efficacy: 96.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 113.5  
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

TEST NUMBER: P1030750

CATALOG NUMBER: S123DIW-B1165D1535UB2750-4F0-XX-W2A-D\_2700K

### Luminous Intensity Polar Plot



TEST NUMBER: P1030750

CATALOG NUMBER: S123DIW-B1165D1535UB2750-4F0-XX-W2A-D\_2700K

**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 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 105 | 105 | 105 | 105 | 95 | 95 | 95 | 95 | 78 | 78 | 78 | 62 | 62 | 62 | 47 | 47 | 47 |    |    | 40 |
| 1   | 95  | 90  | 86  | 82  | 86 | 82 | 78 | 75 | 67 | 64 | 62 | 53 | 51 | 50 | 40 | 39 | 38 |    |    | 32 |
| 2   | 86  | 78  | 72  | 66  | 78 | 71 | 66 | 61 | 58 | 54 | 51 | 46 | 43 | 41 | 35 | 33 | 31 |    |    | 26 |
| 3   | 78  | 68  | 61  | 55  | 71 | 62 | 56 | 51 | 51 | 46 | 42 | 40 | 37 | 34 | 31 | 28 | 26 |    |    | 22 |
| 4   | 71  | 60  | 52  | 46  | 64 | 55 | 48 | 43 | 45 | 40 | 36 | 36 | 32 | 29 | 27 | 25 | 22 |    |    | 19 |
| 5   | 65  | 54  | 45  | 39  | 59 | 49 | 42 | 36 | 40 | 35 | 31 | 32 | 28 | 25 | 24 | 22 | 19 |    |    | 16 |
| 6   | 60  | 48  | 40  | 34  | 54 | 44 | 37 | 31 | 36 | 31 | 26 | 29 | 25 | 22 | 22 | 19 | 17 |    |    | 14 |
| 7   | 55  | 43  | 35  | 30  | 50 | 39 | 32 | 27 | 33 | 27 | 23 | 26 | 22 | 19 | 20 | 17 | 15 |    |    | 12 |
| 8   | 51  | 39  | 31  | 26  | 47 | 36 | 29 | 24 | 30 | 24 | 20 | 24 | 20 | 17 | 18 | 16 | 13 |    |    | 11 |
| 9   | 48  | 36  | 28  | 23  | 43 | 33 | 26 | 21 | 27 | 22 | 18 | 22 | 18 | 15 | 17 | 14 | 12 |    |    | 10 |
| 10  | 45  | 33  | 25  | 20  | 40 | 30 | 23 | 19 | 25 | 20 | 16 | 20 | 16 | 14 | 16 | 13 | 11 |    |    | 9  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 15434 | 15434 | 15434 |
| 5°  | 15477 | 14982 | 14969 |
| 10° | 15332 | 14576 | 14464 |
| 15° | 15129 | 14128 | 13929 |
| 20° | 14841 | 13628 | 13354 |
| 25° | 14487 | 13066 | 12758 |
| 30° | 14123 | 12556 | 12160 |
| 35° | 13716 | 12022 | 11673 |
| 40° | 13328 | 11534 | 11158 |
| 45° | 12898 | 11061 | 10734 |
| 50° | 12471 | 10593 | 10273 |
| 55° | 12000 | 10112 | 9850  |
| 60° | 11539 | 9621  | 9416  |
| 65° | 11064 | 9096  | 8908  |
| 70° | 10348 | 8509  | 8384  |
| 75° | 9449  | 7839  | 7845  |
| 80° | 8393  | 7161  | 7228  |
| 85° | 7348  | 6611  | 6785  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12898 cd/sqm

TEST NUMBER: P1030750

CATALOG NUMBER: S123DIW-B1165D1535UB2750-4F0-XX-W2A-D\_2700K

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 136.0   | 1.2       |
| 10°-20°   | 387.8   | 3.5       |
| 20°-30°   | 579.9   | 5.3       |
| 30°-40°   | 692.3   | 6.3       |
| 40°-50°   | 724.4   | 6.6       |
| 50°-60°   | 679.8   | 6.2       |
| 60°-70°   | 567.8   | 5.2       |
| 70°-80°   | 406.0   | 3.7       |
| 80°-90°   | 245.6   | 2.2       |
| 90°-100°  | 223.2   | 2.0       |
| 100°-110° | 456.7   | 4.2       |
| 110°-120° | 920.2   | 8.4       |
| 120°-130° | 1116.1  | 10.2      |
| 130°-140° | 1166.0  | 10.6      |
| 140°-150° | 1076.5  | 9.8       |
| 150°-160° | 865.1   | 7.9       |
| 160°-170° | 558.3   | 5.1       |
| 170°-180° | 192.4   | 1.7       |
| 0°-30°    | 1103.7  | 10.0      |
| 0°-40°    | 1796.0  | 16.3      |
| 0°-60°    | 3200.1  | 29.1      |
| 0°-90°    | 4419.6  | 40.2      |
| 90°-120°  | 1600.1  | 14.6      |
| 90°-150°  | 4958.7  | 45.1      |
| 90°-180°  | 6574.0  | 59.8      |
| 0°-180°   | 10994.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1434 | 1434  | 1434 | 1434  | 1434 |      |
| 5°   | 1436 | 1432  | 1423 | 1436  | 1434 | 136  |
| 15°  | 1367 | 1371  | 1370 | 1386  | 1384 | 385  |
| 25°  | 1234 | 1250  | 1254 | 1275  | 1275 | 569  |
| 35°  | 1062 | 1087  | 1107 | 1131  | 1137 | 664  |
| 45°  | 868  | 906   | 945  | 975   | 987  | 670  |
| 55°  | 662  | 714   | 770  | 812   | 825  | 593  |
| 65°  | 458  | 519   | 587  | 634   | 650  | 452  |
| 75°  | 248  | 322   | 400  | 451   | 470  | 265  |
| 85°  | 76   | 155   | 237  | 290   | 306  | 79   |
| 90°  | 22   | 113   | 213  | 272   | 290  | 20   |
| 95°  | 109  | 108   | 201  | 260   | 276  | 123  |
| 105° | 461  | 515   | 446  | 224   | 241  | 488  |
| 115° | 848  | 876   | 946  | 999   | 1017 | 838  |
| 125° | 1190 | 1202  | 1253 | 1289  | 1303 | 1063 |
| 135° | 1478 | 1486  | 1509 | 1542  | 1545 | 1138 |
| 145° | 1704 | 1713  | 1716 | 1731  | 1738 | 1066 |
| 155° | 1875 | 1872  | 1874 | 1881  | 1872 | 864  |
| 165° | 1978 | 1973  | 1972 | 1984  | 1973 | 559  |
| 175° | 2024 | 2017  | 2018 | 2029  | 2017 | 193  |
| 180° | 2024 | 2024  | 2024 | 2024  | 2024 |      |

TEST NUMBER: P1030750

CATALOG NUMBER: S123DIW-B1165D1535UB2750-4F0-XX-W2A-D\_2700K

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1433.9 | 1433.9 | 1433.9 | 1433.9 | 1433.9 |
| 2.5°   | 1441.7 | 1437.0 | 1424.5 | 1437.0 | 1435.5 |
| 5°     | 1435.5 | 1432.3 | 1423.0 | 1435.5 | 1433.9 |
| 7.5°   | 1424.5 | 1424.5 | 1415.1 | 1430.8 | 1429.2 |
| 10°    | 1408.9 | 1412.0 | 1404.2 | 1419.8 | 1416.7 |
| 12.5°  | 1390.2 | 1394.8 | 1390.2 | 1404.2 | 1401.1 |
| 15°    | 1366.7 | 1371.4 | 1369.9 | 1385.5 | 1383.9 |
| 17.5°  | 1338.6 | 1348.0 | 1346.4 | 1360.5 | 1357.4 |
| 20°    | 1307.4 | 1316.7 | 1319.9 | 1333.9 | 1335.5 |
| 22.5°  | 1274.6 | 1283.9 | 1288.6 | 1307.4 | 1305.8 |
| 25°    | 1234.0 | 1249.6 | 1254.3 | 1274.6 | 1274.6 |
| 27.5°  | 1194.9 | 1212.1 | 1221.5 | 1238.6 | 1240.2 |
| 30°    | 1152.7 | 1173.0 | 1185.5 | 1204.3 | 1204.3 |
| 32.5°  | 1105.9 | 1129.3 | 1146.5 | 1166.8 | 1171.5 |
| 35°    | 1062.1 | 1087.1 | 1107.4 | 1130.9 | 1137.1 |
| 37.5°  | 1015.3 | 1043.4 | 1066.8 | 1093.4 | 1098.1 |
| 40°    | 968.4  | 996.5  | 1027.8 | 1054.3 | 1060.6 |
| 42.5°  | 916.9  | 952.8  | 985.6  | 1015.3 | 1024.7 |
| 45°    | 868.5  | 905.9  | 945.0  | 974.7  | 987.2  |
| 47.5°  | 816.9  | 859.1  | 902.8  | 935.6  | 945.0  |
| 50°    | 766.9  | 810.7  | 859.1  | 895.0  | 905.9  |
| 52.5°  | 713.8  | 760.7  | 815.4  | 852.8  | 866.9  |
| 55°    | 662.3  | 713.8  | 770.1  | 812.2  | 824.7  |
| 57.5°  | 612.3  | 665.4  | 726.3  | 768.5  | 782.5  |
| 60°    | 559.2  | 615.4  | 679.5  | 723.2  | 740.4  |
| 62.5°  | 509.2  | 567.0  | 635.7  | 679.5  | 695.1  |
| 65°    | 457.7  | 518.6  | 587.3  | 634.2  | 649.8  |
| 67.5°  | 406.1  | 470.2  | 538.9  | 590.4  | 602.9  |
| 70°    | 351.4  | 418.6  | 493.6  | 543.6  | 559.2  |
| 72.5°  | 301.5  | 368.6  | 446.7  | 498.3  | 513.9  |
| 75°    | 248.4  | 321.8  | 399.9  | 451.4  | 470.2  |
| 77.5°  | 203.1  | 276.5  | 354.6  | 409.2  | 423.3  |
| 80°    | 154.6  | 231.2  | 312.4  | 365.5  | 381.1  |
| 82.5°  | 112.5  | 190.6  | 273.3  | 326.5  | 342.1  |
| 85°    | 76.5   | 154.6  | 237.4  | 290.5  | 306.1  |
| 87.5°  | 46.9   | 125.0  | 204.6  | 257.7  | 273.3  |
| 90°    | 21.8   | 113.3  | 212.6  | 271.7  | 290.3  |
| 92.5°  | 53.3   | 111.5  | 203.1  | 265.2  | 280.7  |
| 95°    | 108.9  | 108.2  | 201.2  | 260.2  | 275.8  |
| 97.5°  | 182.5  | 196.7  | 193.4  | 252.3  | 269.4  |
| 100°   | 268.3  | 348.2  | 185.5  | 242.9  | 260.0  |
| 102.5° | 365.9  | 429.2  | 237.8  | 232.0  | 250.6  |
| 105°   | 460.7  | 514.7  | 446.4  | 224.1  | 241.1  |
| 107.5° | 559.8  | 606.1  | 692.8  | 503.3  | 320.4  |
| 110°   | 659.1  | 699.2  | 778.2  | 769.2  | 566.7  |

TEST NUMBER: P1030750

CATALOG NUMBER: S123DIW-B1165D1535UB2750-4F0-XX-W2A-D\_2700K

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 755.3  | 787.6  | 863.6  | 916.1  | 927.2  |
| 115°   | 848.5  | 876.3  | 946.0  | 998.6  | 1017.1 |
| 117.5° | 941.7  | 964.7  | 1025.3 | 1074.9 | 1088.9 |
| 120°   | 1025.8 | 1047.3 | 1103.3 | 1151.2 | 1162.2 |
| 122.5° | 1113.0 | 1126.8 | 1181.2 | 1223.1 | 1235.5 |
| 125°   | 1189.7 | 1201.8 | 1253.1 | 1288.9 | 1302.8 |
| 127.5° | 1267.9 | 1278.4 | 1325.0 | 1360.7 | 1368.6 |
| 130°   | 1340.1 | 1350.6 | 1387.9 | 1423.5 | 1429.9 |
| 132.5° | 1407.7 | 1419.7 | 1447.8 | 1481.9 | 1488.3 |
| 135°   | 1478.4 | 1485.9 | 1509.0 | 1541.7 | 1545.0 |
| 137.5° | 1538.5 | 1549.1 | 1563.0 | 1595.5 | 1600.3 |
| 140°   | 1597.2 | 1606.2 | 1615.3 | 1644.9 | 1649.6 |
| 142.5° | 1652.8 | 1660.3 | 1664.8 | 1689.6 | 1692.9 |
| 145°   | 1704.0 | 1712.9 | 1715.9 | 1731.4 | 1737.6 |
| 147.5° | 1752.0 | 1759.5 | 1762.5 | 1770.2 | 1768.9 |
| 150°   | 1797.1 | 1801.6 | 1804.6 | 1807.6 | 1806.2 |
| 152.5° | 1837.7 | 1839.2 | 1840.7 | 1846.7 | 1839.2 |
| 155°   | 1875.3 | 1872.3 | 1873.8 | 1881.3 | 1872.3 |
| 157.5° | 1905.4 | 1905.4 | 1903.9 | 1912.9 | 1900.9 |
| 160°   | 1932.5 | 1931.0 | 1929.5 | 1938.5 | 1928.0 |
| 162.5° | 1958.0 | 1953.5 | 1952.0 | 1962.5 | 1953.5 |
| 165°   | 1977.6 | 1973.1 | 1971.6 | 1983.6 | 1973.1 |
| 167.5° | 1994.1 | 1988.1 | 1988.1 | 2000.1 | 1988.1 |
| 170°   | 2007.7 | 2001.6 | 2001.6 | 2013.7 | 2001.6 |
| 172.5° | 2016.7 | 2009.2 | 2010.7 | 2022.7 | 2009.2 |
| 175°   | 2024.2 | 2016.7 | 2018.2 | 2028.7 | 2016.7 |
| 177.5° | 2027.2 | 2019.7 | 2021.2 | 2033.2 | 2018.2 |
| 180°   | 2024.2 | 2024.2 | 2024.2 | 2024.2 | 2024.2 |

(END OF REPORT)