

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: P1030983

Luminaire Tested: S123DIW-B775D1535UB2750-4F0-XX-W2A-F\_5000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1030983  
REPORT IS A COMBINATION OF REPORTS P992000 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIW-B775D1535UB2750-4F0-XX-W2A-F\_5000K  
Description: Define 3 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

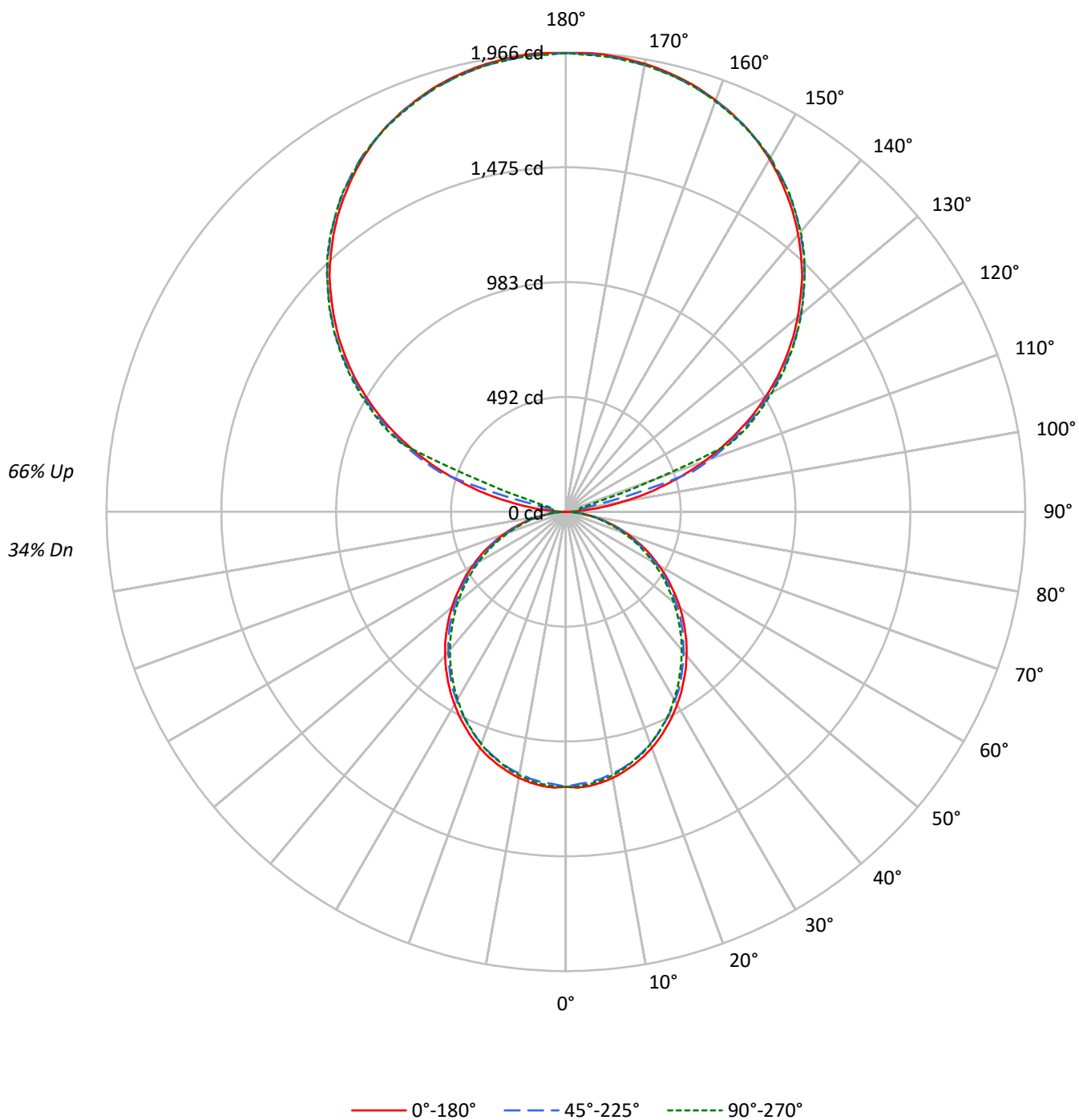
Lumens per Lamp: N/A  
Luminaire Lumens: 9052.0 lumens  
Efficiency: N/A  
Efficacy: 102.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 88.1  
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   | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 74 | 74 | 74 | 57 | 57 | 57 | 41 | 41 | 41 |
| 1   | 94  | 90  | 86  | 83  | 85 | 81 | 78 | 75 | 65 | 63 | 61 | 50 | 49 | 47 | 36 | 36 | 35 |
| 2   | 86  | 78  | 72  | 67  | 77 | 71 | 66 | 62 | 57 | 53 | 50 | 44 | 42 | 40 | 32 | 31 | 29 |
| 3   | 78  | 69  | 62  | 56  | 70 | 62 | 56 | 51 | 50 | 46 | 42 | 39 | 36 | 33 | 28 | 26 | 25 |
| 4   | 71  | 61  | 53  | 47  | 64 | 55 | 49 | 43 | 44 | 40 | 36 | 35 | 31 | 29 | 25 | 23 | 21 |
| 5   | 65  | 54  | 46  | 40  | 59 | 49 | 42 | 37 | 40 | 35 | 31 | 31 | 27 | 25 | 23 | 20 | 19 |
| 6   | 60  | 48  | 41  | 35  | 54 | 44 | 37 | 32 | 36 | 31 | 27 | 28 | 24 | 21 | 21 | 18 | 16 |
| 7   | 56  | 44  | 36  | 30  | 50 | 40 | 33 | 28 | 32 | 27 | 23 | 25 | 22 | 19 | 19 | 16 | 14 |
| 8   | 51  | 39  | 32  | 27  | 46 | 36 | 29 | 25 | 29 | 24 | 21 | 23 | 19 | 17 | 17 | 15 | 13 |
| 9   | 48  | 36  | 29  | 24  | 43 | 33 | 26 | 22 | 27 | 22 | 18 | 21 | 18 | 15 | 16 | 13 | 12 |
| 10  | 45  | 33  | 26  | 21  | 40 | 30 | 24 | 20 | 25 | 20 | 17 | 20 | 16 | 14 | 15 | 12 | 11 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 12668 | 12668 | 12668 |
| 5°  | 12699 | 12231 | 12212 |
| 10° | 12587 | 11818 | 11695 |
| 15° | 12412 | 11387 | 11133 |
| 20° | 12211 | 10909 | 10574 |
| 25° | 11951 | 10404 | 9978  |
| 30° | 11668 | 9882  | 9350  |
| 35° | 11370 | 9349  | 8726  |
| 40° | 11058 | 8790  | 8112  |
| 45° | 10715 | 8244  | 7471  |
| 50° | 10367 | 7636  | 6828  |
| 55° | 9920  | 7003  | 6176  |
| 60° | 9459  | 6305  | 5482  |
| 65° | 9026  | 5548  | 4759  |
| 70° | 8405  | 4710  | 3915  |
| 75° | 7505  | 3730  | 3040  |
| 80° | 6482  | 2622  | 2149  |
| 85° | 5052  | 1409  | 1077  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10715 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 111.0  | 1.2       |
| 10°-20°   | 313.3  | 3.5       |
| 20°-30°   | 462.7  | 5.1       |
| 30°-40°   | 540.4  | 6.0       |
| 40°-50°   | 543.3  | 6.0       |
| 50°-60°   | 477.2  | 5.3       |
| 60°-70°   | 355.4  | 3.9       |
| 70°-80°   | 202.3  | 2.2       |
| 80°-90°   | 61.4   | 0.7       |
| 90°-100°  | 69.2   | 0.8       |
| 100°-110° | 334.7  | 3.7       |
| 110°-120° | 820.2  | 9.1       |
| 120°-130° | 1041.3 | 11.5      |
| 130°-140° | 1112.4 | 12.3      |
| 140°-150° | 1040.2 | 11.5      |
| 150°-160° | 839.0  | 9.3       |
| 160°-170° | 541.5  | 6.0       |
| 170°-180° | 186.6  | 2.1       |
| 0°-30°    | 886.9  | 9.8       |
| 0°-40°    | 1427.3 | 15.8      |
| 0°-60°    | 2447.8 | 27.0      |
| 0°-90°    | 3066.9 | 33.9      |
| 90°-120°  | 1224.2 | 13.5      |
| 90°-150°  | 4418.0 | 48.8      |
| 90°-180°  | 5985.0 | 66.1      |
| 0°-180°   | 9052.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1177 | 1177  | 1177 | 1177  | 1177 |      |
| 5°   | 1178 | 1173  | 1162 | 1172  | 1170 | 112  |
| 15°  | 1121 | 1117  | 1104 | 1112  | 1106 | 316  |
| 25°  | 1018 | 1012  | 999  | 1000  | 997  | 469  |
| 35°  | 880  | 874   | 861  | 855   | 850  | 551  |
| 45°  | 722  | 718   | 704  | 692   | 687  | 557  |
| 55°  | 548  | 546   | 533  | 522   | 517  | 490  |
| 65°  | 373  | 368   | 358  | 350   | 347  | 368  |
| 75°  | 197  | 193   | 190  | 185   | 182  | 211  |
| 85°  | 53   | 51    | 51   | 49    | 49   | 56   |
| 90°  | 2    | 16    | 35   | 41    | 44   | 9    |
| 95°  | 89   | 29    | 45   | 55    | 55   | 106  |
| 105° | 435  | 451   | 319  | 61    | 64   | 461  |
| 115° | 815  | 824   | 837  | 852   | 858  | 805  |
| 125° | 1149 | 1161  | 1167 | 1170  | 1173 | 1027 |
| 135° | 1431 | 1440  | 1445 | 1450  | 1445 | 1102 |
| 145° | 1651 | 1661  | 1664 | 1667  | 1667 | 1034 |
| 155° | 1819 | 1816  | 1817 | 1825  | 1816 | 838  |
| 165° | 1918 | 1914  | 1912 | 1924  | 1914 | 542  |
| 175° | 1963 | 1956  | 1957 | 1968  | 1956 | 187  |
| 180° | 1963 | 1963  | 1963 | 1963  | 1963 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1176.9 | 1176.9 | 1176.9 | 1176.9 | 1176.9 |
| 2.5°   | 1182.0 | 1177.9 | 1166.8 | 1176.9 | 1175.9 |
| 5°     | 1177.9 | 1172.9 | 1161.7 | 1171.9 | 1169.8 |
| 7.5°   | 1168.8 | 1163.8 | 1152.6 | 1161.7 | 1160.7 |
| 10°    | 1156.7 | 1151.6 | 1138.5 | 1147.6 | 1145.5 |
| 12.5°  | 1140.5 | 1136.4 | 1124.3 | 1130.4 | 1129.4 |
| 15°    | 1121.3 | 1117.2 | 1104.1 | 1112.2 | 1106.1 |
| 17.5°  | 1100.0 | 1095.0 | 1081.8 | 1087.9 | 1085.8 |
| 20°    | 1075.7 | 1069.7 | 1056.5 | 1060.5 | 1057.5 |
| 22.5°  | 1048.4 | 1042.3 | 1029.2 | 1032.2 | 1028.2 |
| 25°    | 1018.0 | 1012.0 | 998.8  | 999.8  | 996.8  |
| 27.5°  | 986.7  | 980.6  | 966.4  | 967.4  | 964.4  |
| 30°    | 952.3  | 947.2  | 933.0  | 933.0  | 926.0  |
| 32.5°  | 917.9  | 910.8  | 900.7  | 893.6  | 890.5  |
| 35°    | 880.4  | 874.3  | 861.2  | 855.1  | 850.1  |
| 37.5°  | 843.0  | 834.9  | 821.7  | 814.6  | 811.6  |
| 40°    | 803.5  | 797.4  | 783.3  | 775.2  | 771.1  |
| 42.5°  | 764.0  | 757.0  | 742.8  | 734.7  | 730.6  |
| 45°    | 721.5  | 717.5  | 704.3  | 692.2  | 687.1  |
| 47.5°  | 680.0  | 674.0  | 661.8  | 649.7  | 645.6  |
| 50°    | 637.5  | 632.5  | 619.3  | 608.2  | 602.1  |
| 52.5°  | 593.0  | 590.0  | 575.8  | 566.7  | 560.6  |
| 55°    | 547.5  | 546.5  | 533.3  | 522.2  | 517.1  |
| 57.5°  | 505.0  | 500.9  | 490.8  | 480.7  | 474.6  |
| 60°    | 458.4  | 457.4  | 445.3  | 436.2  | 431.1  |
| 62.5°  | 416.9  | 413.9  | 401.8  | 392.6  | 389.6  |
| 65°    | 373.4  | 368.4  | 358.2  | 350.1  | 347.1  |
| 67.5°  | 326.9  | 322.8  | 314.7  | 307.6  | 303.6  |
| 70°    | 285.4  | 279.3  | 273.2  | 266.1  | 261.1  |
| 72.5°  | 241.9  | 237.8  | 230.7  | 224.7  | 222.6  |
| 75°    | 197.3  | 193.3  | 190.3  | 185.2  | 182.2  |
| 77.5°  | 157.9  | 155.8  | 151.8  | 147.7  | 147.7  |
| 80°    | 119.4  | 116.4  | 114.4  | 113.3  | 113.3  |
| 82.5°  | 82.0   | 82.0   | 82.0   | 79.9   | 78.9   |
| 85°    | 52.6   | 50.6   | 50.6   | 48.6   | 48.6   |
| 87.5°  | 26.3   | 23.3   | 22.3   | 21.3   | 21.3   |
| 90°    | 1.5    | 16.0   | 35.0   | 40.8   | 43.8   |
| 92.5°  | 33.5   | 24.8   | 37.9   | 48.1   | 49.6   |
| 95°    | 89.0   | 29.2   | 45.2   | 55.4   | 55.4   |
| 97.5°  | 161.9  | 121.1  | 46.7   | 58.3   | 59.8   |
| 100°   | 246.5  | 275.7  | 48.1   | 59.8   | 61.3   |
| 102.5° | 342.8  | 361.7  | 107.9  | 59.8   | 62.7   |
| 105°   | 434.7  | 450.7  | 319.4  | 61.3   | 64.2   |
| 107.5° | 532.4  | 545.5  | 567.4  | 342.8  | 151.7  |
| 110°   | 630.1  | 641.8  | 657.8  | 609.7  | 401.1  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 723.4  | 733.7  | 749.7  | 762.8  | 759.9  |
| 115°   | 815.3  | 824.1  | 837.2  | 851.8  | 857.6  |
| 117.5° | 905.8  | 916.0  | 923.3  | 934.9  | 936.4  |
| 120°   | 988.9  | 1002.0 | 1006.4 | 1018.1 | 1018.1 |
| 122.5° | 1073.5 | 1083.7 | 1089.5 | 1096.8 | 1098.3 |
| 125°   | 1149.4 | 1161.0 | 1166.9 | 1169.8 | 1172.7 |
| 127.5° | 1225.2 | 1236.9 | 1244.2 | 1248.5 | 1245.6 |
| 130°   | 1295.2 | 1306.9 | 1312.7 | 1318.5 | 1315.6 |
| 132.5° | 1362.3 | 1374.0 | 1378.3 | 1384.2 | 1379.8 |
| 135°   | 1430.9 | 1439.6 | 1445.4 | 1449.8 | 1445.4 |
| 137.5° | 1489.2 | 1500.9 | 1503.8 | 1511.1 | 1508.2 |
| 140°   | 1547.5 | 1556.3 | 1560.7 | 1566.5 | 1563.6 |
| 142.5° | 1601.5 | 1610.3 | 1614.6 | 1619.0 | 1614.6 |
| 145°   | 1651.1 | 1661.3 | 1664.2 | 1667.1 | 1667.1 |
| 147.5° | 1699.2 | 1706.5 | 1709.4 | 1712.4 | 1705.1 |
| 150°   | 1743.0 | 1747.4 | 1750.3 | 1753.2 | 1748.8 |
| 152.5° | 1782.4 | 1783.8 | 1785.3 | 1791.1 | 1783.8 |
| 155°   | 1818.8 | 1815.9 | 1817.4 | 1824.7 | 1815.9 |
| 157.5° | 1848.0 | 1848.0 | 1846.5 | 1855.3 | 1843.6 |
| 160°   | 1874.3 | 1872.8 | 1871.3 | 1880.1 | 1869.9 |
| 162.5° | 1899.1 | 1894.7 | 1893.2 | 1903.4 | 1894.7 |
| 165°   | 1918.0 | 1913.6 | 1912.2 | 1923.9 | 1913.6 |
| 167.5° | 1934.1 | 1928.2 | 1928.2 | 1939.9 | 1928.2 |
| 170°   | 1947.2 | 1941.4 | 1941.4 | 1953.0 | 1941.4 |
| 172.5° | 1955.9 | 1948.6 | 1950.1 | 1961.8 | 1948.6 |
| 175°   | 1963.2 | 1955.9 | 1957.4 | 1967.6 | 1955.9 |
| 177.5° | 1966.1 | 1958.9 | 1960.3 | 1972.0 | 1957.4 |
| 180°   | 1963.2 | 1963.2 | 1963.2 | 1963.2 | 1963.2 |

(END OF REPORT)