

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P201314

Luminaire Tested: **8LBLED-LD4-22-SYMW-UNV-L850-CD2-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P201314  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28136)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8LBLED-LD4-22-SYMW-UNV-L850-CD2-U  
Description: 8 ft. Low Bay Linear, 22000 lm, Wht Sym lens, 5K  
Light Source: (784) 5000K CCT, 80 CRI LEDS  
2UT217098A8504C  
Ballast/Driver: OSRAM  
2x(OTi85W01920CC)

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23227.2 lumens  
Efficiency: N/A  
Efficacy: 131.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 2.12 / 1.93  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 8' x H: 0.21')  
CIE Type: Semi-Direct

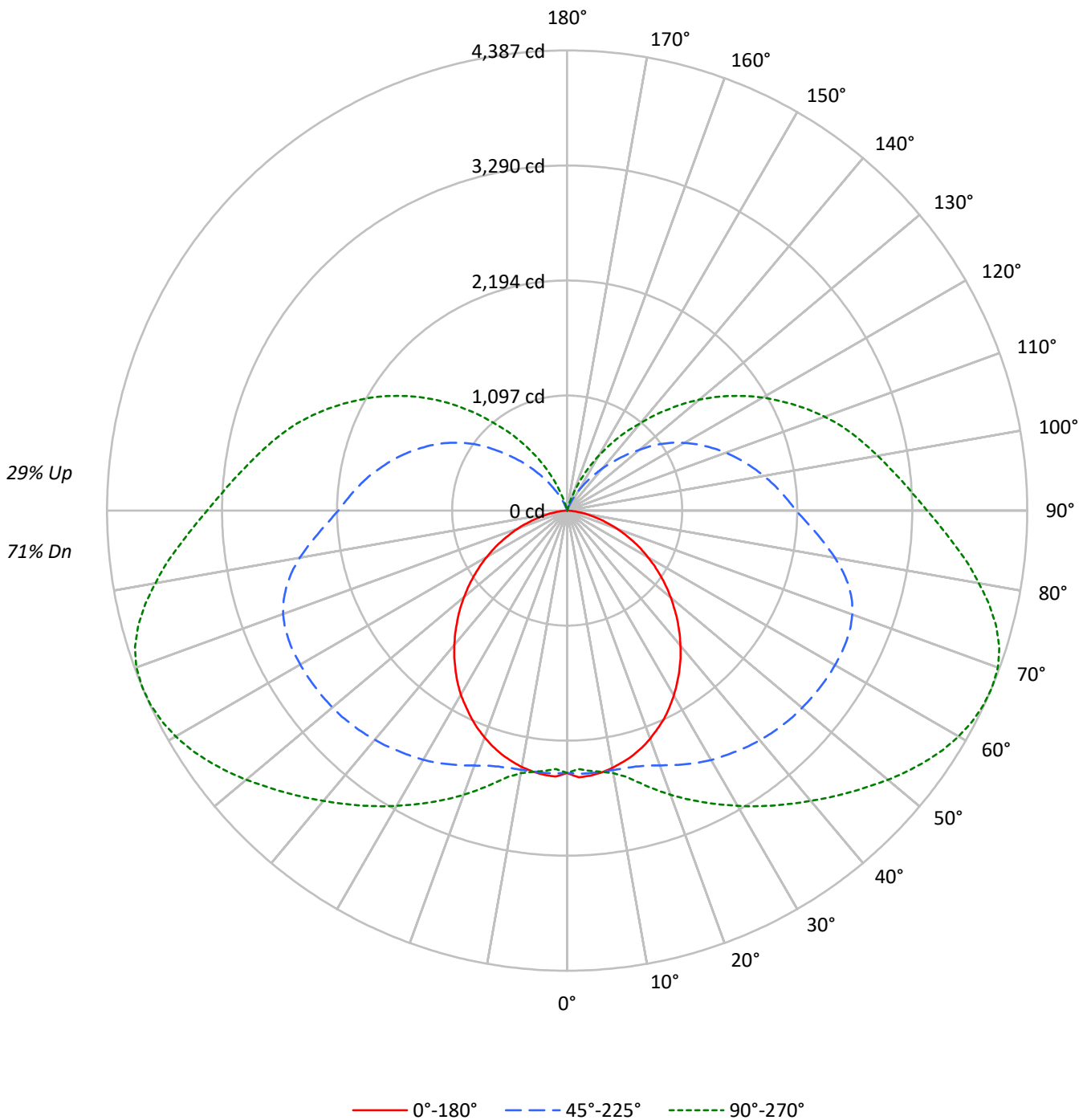
Input Watts (W): 176.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P201314

CATALOG NUMBER: 8LBLEDD4-22-SYMW-UNV-L850-CD2-U

### Luminous Intensity Polar Plot





TEST NUMBER: P201314

CATALOG NUMBER: 8LBLED-LD4-22-SYMW-UNV-L850-CD2-U

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20 |    |    |    | 20 |    |    |    | 20 |    |
| RC  | 80  |     |     |     | 70  |     |     |     | 50 |    |    |    | 30 |    |    |    | 10 | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |
| 0   | 112 | 112 | 112 | 112 | 106 | 106 | 106 | 106 | 95 | 95 | 95 | 85 | 85 | 85 | 75 | 75 | 75 | 71 |
| 1   | 97  | 90  | 84  | 79  | 91  | 85  | 80  | 75  | 75 | 71 | 67 | 66 | 63 | 60 | 58 | 55 | 53 | 49 |
| 2   | 86  | 76  | 67  | 60  | 81  | 71  | 64  | 57  | 63 | 57 | 51 | 55 | 50 | 46 | 48 | 44 | 40 | 36 |
| 3   | 77  | 65  | 55  | 48  | 72  | 61  | 52  | 45  | 54 | 47 | 41 | 47 | 41 | 36 | 41 | 36 | 32 | 28 |
| 4   | 70  | 56  | 46  | 39  | 65  | 53  | 44  | 37  | 47 | 39 | 33 | 41 | 35 | 30 | 35 | 30 | 26 | 23 |
| 5   | 64  | 50  | 40  | 32  | 60  | 47  | 38  | 31  | 41 | 34 | 28 | 36 | 30 | 25 | 31 | 26 | 22 | 19 |
| 6   | 59  | 44  | 34  | 27  | 55  | 42  | 33  | 26  | 37 | 29 | 24 | 32 | 26 | 21 | 28 | 23 | 19 | 16 |
| 7   | 54  | 40  | 30  | 24  | 50  | 37  | 29  | 23  | 33 | 26 | 20 | 29 | 23 | 18 | 25 | 20 | 16 | 14 |
| 8   | 50  | 36  | 27  | 21  | 47  | 34  | 25  | 20  | 30 | 23 | 18 | 26 | 20 | 16 | 23 | 18 | 14 | 12 |
| 9   | 47  | 33  | 24  | 18  | 44  | 31  | 23  | 17  | 27 | 21 | 16 | 24 | 18 | 14 | 21 | 16 | 13 | 10 |
| 10  | 43  | 30  | 22  | 16  | 41  | 28  | 21  | 15  | 25 | 19 | 14 | 22 | 17 | 13 | 20 | 15 | 11 | 9  |

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

|     | 0°    | 90°   | 180°  |
|-----|-------|-------|-------|
| 0°  | 20153 | 20153 | 20153 |
| 5°  | 20469 | 18165 | 20402 |
| 10° | 20285 | 17058 | 20217 |
| 15° | 20027 | 16817 | 19941 |
| 20° | 19650 | 17008 | 19544 |
| 25° | 19221 | 17245 | 19075 |
| 30° | 18643 | 17589 | 18585 |
| 35° | 18015 | 18029 | 17935 |
| 40° | 17285 | 18582 | 17221 |
| 45° | 16518 | 19286 | 16426 |
| 50° | 15673 | 20145 | 15598 |
| 55° | 14749 | 21080 | 14664 |
| 60° | 13735 | 21986 | 13638 |
| 65° | 12544 | 22751 | 12431 |
| 70° | 11099 | 23282 | 10962 |
| 75° | 9233  | 23328 | 8879  |
| 80° | 7084  | 22939 | 6579  |
| 85° | 4012  | 22479 | 3570  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 238.9   | 1.0       |
| 10°-20°   | 719.5   | 3.1       |
| 20°-30°   | 1217.9  | 5.2       |
| 30°-40°   | 1703.0  | 7.3       |
| 40°-50°   | 2145.7  | 9.2       |
| 50°-60°   | 2519.5  | 10.8      |
| 60°-70°   | 2754.9  | 11.9      |
| 70°-80°   | 2721.9  | 11.7      |
| 80°-90°   | 2391.1  | 10.3      |
| 90°-100°  | 2035.3  | 8.8       |
| 100°-110° | 1697.4  | 7.3       |
| 110°-120° | 1314.7  | 5.7       |
| 120°-130° | 915.1   | 3.9       |
| 130°-140° | 534.1   | 2.3       |
| 140°-150° | 243.7   | 1.0       |
| 150°-160° | 69.6    | 0.3       |
| 160°-170° | 5.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-30°    | 2176.2  | 9.4       |
| 0°-40°    | 3879.2  | 16.7      |
| 0°-60°    | 8544.4  | 36.8      |
| 0°-90°    | 16412.4 | 70.7      |
| 90°-120°  | 5047.4  | 21.7      |
| 90°-150°  | 6740.3  | 29.0      |
| 90°-180°  | 6815.0  | 29.3      |
| 0°-180°   | 23227.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|------|------|------|------|------|------|------|
| 0°   | 2501 | 2501 | 2501 | 2501 | 2501 |      |
| 5°   | 2537 | 2514 | 2491 | 2510 | 2528 | 241  |
| 15°  | 2418 | 2526 | 2689 | 2526 | 2407 | 681  |
| 25°  | 2188 | 2668 | 3067 | 2668 | 2172 | 1006 |
| 35°  | 1865 | 2804 | 3432 | 2800 | 1857 | 1165 |
| 45°  | 1487 | 2898 | 3801 | 2894 | 1479 | 1147 |
| 55°  | 1089 | 2941 | 4170 | 2933 | 1083 | 975  |
| 65°  | 695  | 2939 | 4381 | 2929 | 688  | 688  |
| 75°  | 325  | 2781 | 4233 | 2768 | 313  | 349  |
| 85°  | 56   | 2378 | 3705 | 2372 | 50   | 71   |
| 90°  | 0    | 2182 | 3432 | 2182 | 0    | 3    |
| 95°  | 0    | 2044 | 3206 | 2046 | 0    | 1    |
| 105° | 2    | 1759 | 2818 | 1765 | 0    | 2    |
| 115° | 2    | 1454 | 2389 | 1458 | 2    | 2    |
| 125° | 4    | 1112 | 1905 | 1112 | 2    | 4    |
| 135° | 4    | 705  | 1366 | 705  | 2    | 3    |
| 145° | 6    | 361  | 847  | 357  | 4    | 3    |
| 155° | 6    | 102  | 376  | 96   | 4    | 3    |
| 165° | 6    | 10   | 27   | 0    | 4    | 1    |
| 175° | 0    | 0    | 0    | 0    | 0    | 0    |
| 180° | 0    | 0    | 0    | 0    | 0    |      |



TEST NUMBER: P201314

CATALOG NUMBER: 8LBLELD4-22-SYMW-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 25°    | 30°    | 35°    | 40°    | 45°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 |
| 2.5°   | 2545.1 | 2543.0 | 2532.6 | 2515.9 | 2509.6 | 2505.4 | 2503.4 | 2497.1 | 2495.0 | 2499.2 | 2511.7 |
| 5°     | 2536.7 | 2532.6 | 2524.2 | 2509.6 | 2503.4 | 2501.3 | 2499.2 | 2492.9 | 2490.8 | 2497.1 | 2513.8 |
| 7.5°   | 2518.0 | 2515.9 | 2507.5 | 2492.9 | 2490.8 | 2486.7 | 2486.7 | 2482.5 | 2482.5 | 2492.9 | 2511.7 |
| 10°    | 2490.8 | 2488.8 | 2480.4 | 2470.0 | 2467.9 | 2467.9 | 2467.9 | 2467.9 | 2472.1 | 2488.8 | 2511.7 |
| 12.5°  | 2455.4 | 2455.4 | 2449.1 | 2440.8 | 2442.9 | 2442.9 | 2444.9 | 2449.1 | 2461.6 | 2486.7 | 2515.9 |
| 15°    | 2417.8 | 2415.7 | 2409.5 | 2407.4 | 2413.7 | 2415.7 | 2422.0 | 2432.4 | 2453.3 | 2488.8 | 2526.3 |
| 17.5°  | 2369.8 | 2369.8 | 2363.6 | 2365.7 | 2378.2 | 2384.4 | 2394.9 | 2413.7 | 2447.0 | 2495.0 | 2549.3 |
| 20°    | 2313.5 | 2315.6 | 2313.5 | 2319.8 | 2340.6 | 2353.2 | 2365.7 | 2397.0 | 2444.9 | 2511.7 | 2584.7 |
| 22.5°  | 2250.9 | 2255.1 | 2255.1 | 2271.8 | 2298.9 | 2317.7 | 2336.5 | 2380.3 | 2449.1 | 2540.9 | 2626.4 |
| 25°    | 2188.4 | 2188.4 | 2194.6 | 2217.6 | 2255.1 | 2278.1 | 2307.3 | 2369.8 | 2463.7 | 2572.2 | 2668.2 |
| 27.5°  | 2113.3 | 2119.5 | 2129.9 | 2161.2 | 2213.4 | 2244.7 | 2280.1 | 2369.8 | 2480.4 | 2603.5 | 2709.9 |
| 30°    | 2034.0 | 2040.2 | 2056.9 | 2100.7 | 2167.5 | 2207.1 | 2257.2 | 2369.8 | 2495.0 | 2628.5 | 2745.4 |
| 32.5°  | 1950.5 | 1961.0 | 1983.9 | 2040.2 | 2121.6 | 2175.8 | 2240.5 | 2367.8 | 2507.5 | 2649.4 | 2774.6 |
| 35°    | 1865.0 | 1875.4 | 1910.9 | 1977.7 | 2084.0 | 2146.6 | 2221.7 | 2361.5 | 2513.8 | 2668.2 | 2803.8 |
| 37.5°  | 1775.3 | 1794.1 | 1833.7 | 1917.2 | 2046.5 | 2121.6 | 2200.9 | 2355.2 | 2520.0 | 2682.8 | 2833.0 |
| 40°    | 1679.3 | 1698.1 | 1754.4 | 1854.6 | 2008.9 | 2088.2 | 2175.8 | 2346.9 | 2524.2 | 2697.4 | 2858.0 |
| 42.5°  | 1585.5 | 1610.5 | 1675.2 | 1796.2 | 1971.4 | 2059.0 | 2150.8 | 2334.4 | 2522.1 | 2707.8 | 2878.9 |
| 45°    | 1487.4 | 1516.6 | 1595.9 | 1739.8 | 1929.7 | 2023.5 | 2121.6 | 2317.7 | 2518.0 | 2714.1 | 2897.6 |
| 47.5°  | 1387.3 | 1422.7 | 1516.6 | 1683.5 | 1888.0 | 1986.0 | 2092.4 | 2301.0 | 2511.7 | 2718.2 | 2914.3 |
| 50°    | 1289.2 | 1331.0 | 1437.3 | 1627.2 | 1842.1 | 1946.4 | 2056.9 | 2282.2 | 2501.3 | 2720.3 | 2924.8 |
| 52.5°  | 1191.2 | 1237.1 | 1362.2 | 1570.9 | 1794.1 | 1904.6 | 2021.5 | 2259.3 | 2488.8 | 2718.2 | 2935.2 |
| 55°    | 1089.0 | 1139.0 | 1287.1 | 1510.4 | 1744.0 | 1858.7 | 1981.8 | 2230.1 | 2470.0 | 2709.9 | 2941.4 |
| 57.5°  | 990.9  | 1047.2 | 1216.2 | 1451.9 | 1691.9 | 1812.8 | 1944.3 | 2198.8 | 2449.1 | 2703.6 | 2947.7 |
| 60°    | 890.8  | 955.4  | 1143.2 | 1385.2 | 1637.6 | 1762.8 | 1898.4 | 2163.3 | 2424.1 | 2689.0 | 2947.7 |
| 62.5°  | 792.7  | 865.7  | 1072.3 | 1324.7 | 1583.4 | 1712.7 | 1852.5 | 2123.7 | 2397.0 | 2674.4 | 2947.7 |
| 65°    | 694.7  | 778.1  | 999.3  | 1257.9 | 1522.9 | 1658.5 | 1800.3 | 2082.0 | 2363.6 | 2653.6 | 2939.4 |
| 67.5°  | 598.7  | 694.7  | 924.2  | 1189.1 | 1460.3 | 1600.1 | 1746.1 | 2034.0 | 2326.0 | 2626.4 | 2922.7 |
| 70°    | 504.8  | 611.2  | 849.1  | 1116.1 | 1395.6 | 1533.3 | 1685.6 | 1981.8 | 2282.2 | 2591.0 | 2893.5 |
| 72.5°  | 411.0  | 532.0  | 769.8  | 1043.1 | 1326.8 | 1468.6 | 1623.0 | 1921.3 | 2228.0 | 2543.0 | 2847.6 |
| 75°    | 325.4  | 452.7  | 694.7  | 968.0  | 1255.9 | 1399.8 | 1554.2 | 1854.6 | 2163.3 | 2480.4 | 2780.8 |
| 77.5°  | 248.2  | 379.7  | 621.7  | 895.0  | 1180.8 | 1331.0 | 1483.2 | 1781.6 | 2088.2 | 2401.1 | 2693.2 |
| 80°    | 175.2  | 308.7  | 548.7  | 819.9  | 1105.7 | 1253.8 | 1404.0 | 1702.3 | 2008.9 | 2307.3 | 2593.1 |
| 82.5°  | 108.5  | 244.1  | 475.6  | 746.8  | 1032.6 | 1178.7 | 1326.8 | 1623.0 | 1919.2 | 2209.2 | 2484.6 |
| 85°    | 56.3   | 183.6  | 406.8  | 678.0  | 961.7  | 1105.7 | 1251.7 | 1541.7 | 1827.5 | 2109.1 | 2378.2 |
| 87.5°  | 18.8   | 133.5  | 350.5  | 617.5  | 897.0  | 1041.0 | 1182.8 | 1464.5 | 1741.9 | 2011.0 | 2273.9 |
| 90°    | 0.0    | 100.1  | 308.7  | 569.5  | 842.8  | 982.6  | 1124.4 | 1395.6 | 1666.8 | 1931.8 | 2182.1 |
| 92.5°  | 0.0    | 85.5   | 281.6  | 536.1  | 805.2  | 942.9  | 1080.6 | 1349.7 | 1610.5 | 1867.1 | 2111.2 |
| 95°    | 0.0    | 68.8   | 258.7  | 502.8  | 765.6  | 901.2  | 1036.8 | 1299.7 | 1556.3 | 1806.6 | 2044.4 |
| 97.5°  | 0.0    | 54.2   | 233.6  | 471.5  | 726.0  | 857.4  | 988.8  | 1249.6 | 1499.9 | 1746.1 | 1975.6 |
| 100°   | 2.1    | 41.7   | 206.5  | 431.8  | 684.3  | 813.6  | 940.8  | 1195.4 | 1439.4 | 1677.3 | 1904.6 |
| 102.5° | 2.1    | 29.2   | 181.5  | 398.5  | 640.4  | 765.6  | 890.8  | 1139.0 | 1378.9 | 1614.7 | 1831.6 |
| 105°   | 2.1    | 20.9   | 156.5  | 363.0  | 598.7  | 719.7  | 842.8  | 1084.8 | 1318.4 | 1545.8 | 1758.6 |
| 107.5° | 2.1    | 14.6   | 133.5  | 329.6  | 557.0  | 671.7  | 790.6  | 1026.4 | 1255.9 | 1477.0 | 1685.6 |
| 110°   | 2.1    | 10.4   | 112.7  | 294.1  | 511.1  | 625.8  | 740.6  | 968.0  | 1191.2 | 1406.1 | 1610.5 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 5°  | 10°  | 15°   | 20°   | 22.5° | 25°   | 30°   | 35°    | 40°    | 45°    |
|--------|-----|-----|------|-------|-------|-------|-------|-------|--------|--------|--------|
| 112.5° | 2.1 | 8.3 | 91.8 | 260.8 | 465.2 | 577.9 | 688.4 | 909.6 | 1126.5 | 1335.1 | 1533.3 |
| 115°   | 2.1 | 8.3 | 73.0 | 229.5 | 419.3 | 527.8 | 634.2 | 851.1 | 1057.7 | 1262.1 | 1454.0 |
| 117.5° | 2.1 | 6.3 | 56.3 | 198.2 | 377.6 | 477.7 | 579.9 | 786.5 | 990.9  | 1189.1 | 1374.8 |
| 120°   | 2.1 | 6.3 | 41.7 | 166.9 | 333.8 | 427.7 | 527.8 | 723.9 | 920.0  | 1111.9 | 1289.2 |
| 122.5° | 4.2 | 6.3 | 31.3 | 139.8 | 294.1 | 379.7 | 475.6 | 661.3 | 844.9  | 1030.5 | 1205.8 |
| 125°   | 4.2 | 4.2 | 25.0 | 112.7 | 252.4 | 331.7 | 417.2 | 596.6 | 763.5  | 940.8  | 1111.9 |
| 127.5° | 4.2 | 4.2 | 18.8 | 85.5  | 210.7 | 283.7 | 360.9 | 527.8 | 690.5  | 849.1  | 1011.8 |
| 130°   | 4.2 | 4.2 | 16.7 | 62.6  | 171.1 | 235.7 | 306.7 | 456.9 | 609.2  | 755.2  | 903.3  |
| 132.5° | 4.2 | 4.2 | 12.5 | 45.9  | 135.6 | 194.0 | 256.6 | 390.1 | 529.9  | 671.7  | 805.2  |
| 135°   | 4.2 | 4.2 | 10.4 | 33.4  | 102.2 | 154.4 | 208.6 | 327.5 | 454.8  | 588.3  | 705.1  |
| 137.5° | 4.2 | 4.2 | 10.4 | 25.0  | 75.1  | 116.8 | 164.8 | 273.3 | 385.9  | 504.8  | 611.2  |
| 140°   | 4.2 | 4.2 | 8.3  | 20.9  | 52.2  | 85.5  | 125.2 | 219.0 | 315.0  | 425.6  | 527.8  |
| 142.5° | 4.2 | 4.2 | 6.3  | 16.7  | 37.6  | 60.5  | 89.7  | 169.0 | 254.5  | 350.5  | 440.2  |
| 145°   | 6.3 | 4.2 | 6.3  | 14.6  | 27.1  | 41.7  | 62.6  | 127.3 | 196.1  | 281.6  | 360.9  |
| 147.5° | 4.2 | 4.2 | 4.2  | 10.4  | 20.9  | 29.2  | 41.7  | 87.6  | 148.1  | 219.0  | 285.8  |
| 150°   | 6.3 | 4.2 | 4.2  | 8.3   | 16.7  | 20.9  | 29.2  | 58.4  | 102.2  | 160.6  | 219.0  |
| 152.5° | 6.3 | 4.2 | 4.2  | 8.3   | 12.5  | 16.7  | 20.9  | 37.6  | 66.8   | 108.5  | 156.5  |
| 155°   | 6.3 | 4.2 | 4.2  | 6.3   | 10.4  | 12.5  | 16.7  | 25.0  | 39.6   | 66.8   | 102.2  |
| 157.5° | 6.3 | 6.3 | 6.3  | 6.3   | 8.3   | 10.4  | 12.5  | 18.8  | 22.9   | 37.6   | 58.4   |
| 160°   | 6.3 | 6.3 | 4.2  | 4.2   | 6.3   | 6.3   | 8.3   | 12.5  | 16.7   | 20.9   | 29.2   |
| 162.5° | 6.3 | 6.3 | 6.3  | 4.2   | 4.2   | 4.2   | 6.3   | 8.3   | 10.4   | 14.6   | 18.8   |
| 165°   | 6.3 | 6.3 | 4.2  | 4.2   | 4.2   | 4.2   | 4.2   | 4.2   | 6.3    | 8.3    | 10.4   |
| 167.5° | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0    | 0.0    | 0.0    |
| 170°   | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0    | 0.0    | 0.0    |
| 172.5° | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0    | 0.0    | 0.0    |
| 175°   | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0    | 0.0    | 0.0    |
| 177.5° | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0    | 0.0    | 0.0    |
| 180°   | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0    | 0.0    | 0.0    |



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CATALOG NUMBER: 8LBLELD4-22-SYMW-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

|        | 50°    | 55°    | 60°    | 65°    | 67.5°  | 70°    | 75°    | 80°    | 85°    | 90°    | 95°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 |
| 2.5°   | 2515.9 | 2505.4 | 2501.3 | 2492.9 | 2486.7 | 2482.5 | 2476.2 | 2472.1 | 2467.9 | 2465.8 | 2465.8 |
| 5°     | 2518.0 | 2507.5 | 2503.4 | 2497.1 | 2495.0 | 2490.8 | 2486.7 | 2490.8 | 2488.8 | 2490.8 | 2488.8 |
| 7.5°   | 2520.0 | 2511.7 | 2511.7 | 2509.6 | 2507.5 | 2507.5 | 2503.4 | 2507.5 | 2509.6 | 2511.7 | 2509.6 |
| 10°    | 2526.3 | 2524.2 | 2528.4 | 2530.5 | 2530.5 | 2530.5 | 2530.5 | 2534.7 | 2543.0 | 2543.0 | 2540.9 |
| 12.5°  | 2536.7 | 2543.0 | 2555.5 | 2565.9 | 2570.1 | 2570.1 | 2578.5 | 2586.8 | 2597.2 | 2599.3 | 2597.2 |
| 15°    | 2557.6 | 2576.4 | 2603.5 | 2626.4 | 2636.9 | 2643.1 | 2659.8 | 2674.4 | 2684.9 | 2689.0 | 2684.9 |
| 17.5°  | 2595.1 | 2630.6 | 2672.3 | 2705.7 | 2718.2 | 2726.6 | 2749.5 | 2764.1 | 2776.6 | 2787.1 | 2782.9 |
| 20°    | 2645.2 | 2693.2 | 2743.3 | 2782.9 | 2799.6 | 2810.0 | 2835.1 | 2862.2 | 2874.7 | 2883.0 | 2880.9 |
| 22.5°  | 2699.5 | 2755.8 | 2812.1 | 2860.1 | 2878.9 | 2891.4 | 2922.7 | 2947.7 | 2966.5 | 2976.9 | 2974.8 |
| 25°    | 2751.6 | 2816.3 | 2885.1 | 2937.3 | 2960.2 | 2974.8 | 3008.2 | 3037.4 | 3058.3 | 3066.6 | 3064.5 |
| 27.5°  | 2803.8 | 2878.9 | 2954.0 | 3014.5 | 3037.4 | 3056.2 | 3095.8 | 3127.1 | 3152.1 | 3158.4 | 3158.4 |
| 30°    | 2845.5 | 2933.1 | 3014.5 | 3083.3 | 3108.3 | 3133.4 | 3177.2 | 3218.9 | 3241.9 | 3250.2 | 3248.1 |
| 32.5°  | 2885.1 | 2983.2 | 3075.0 | 3152.1 | 3183.4 | 3208.5 | 3260.6 | 3306.5 | 3333.6 | 3342.0 | 3333.6 |
| 35°    | 2924.8 | 3033.2 | 3135.5 | 3218.9 | 3252.3 | 3283.6 | 3342.0 | 3394.1 | 3423.3 | 3431.7 | 3427.5 |
| 37.5°  | 2962.3 | 3083.3 | 3193.9 | 3285.7 | 3325.3 | 3358.7 | 3419.2 | 3481.8 | 3513.0 | 3521.4 | 3513.0 |
| 40°    | 2997.8 | 3129.2 | 3250.2 | 3350.3 | 3394.1 | 3433.8 | 3504.7 | 3567.3 | 3602.8 | 3613.2 | 3609.0 |
| 42.5°  | 3031.2 | 3175.1 | 3306.5 | 3417.1 | 3467.2 | 3508.9 | 3588.1 | 3657.0 | 3694.5 | 3707.1 | 3696.6 |
| 45°    | 3060.4 | 3221.0 | 3362.8 | 3481.8 | 3536.0 | 3584.0 | 3673.7 | 3748.8 | 3786.3 | 3800.9 | 3788.4 |
| 47.5°  | 3089.6 | 3262.7 | 3415.0 | 3546.4 | 3609.0 | 3659.1 | 3759.2 | 3838.5 | 3882.3 | 3894.8 | 3882.3 |
| 50°    | 3116.7 | 3304.4 | 3471.3 | 3613.2 | 3679.9 | 3736.3 | 3844.7 | 3930.3 | 3974.1 | 3992.9 | 3976.2 |
| 52.5°  | 3141.7 | 3344.1 | 3523.5 | 3675.8 | 3748.8 | 3811.4 | 3928.2 | 4020.0 | 4072.1 | 4084.6 | 4068.0 |
| 55°    | 3166.7 | 3381.6 | 3569.4 | 3734.2 | 3813.5 | 3880.2 | 4007.5 | 4103.4 | 4155.6 | 4170.2 | 4153.5 |
| 57.5°  | 3187.6 | 3415.0 | 3613.2 | 3790.5 | 3871.9 | 3949.0 | 4076.3 | 4176.4 | 4230.7 | 4247.4 | 4230.7 |
| 60°    | 3202.2 | 3442.1 | 3652.8 | 3836.4 | 3921.9 | 4001.2 | 4136.8 | 4236.9 | 4291.2 | 4307.9 | 4291.2 |
| 62.5°  | 3212.6 | 3463.0 | 3679.9 | 3871.9 | 3963.7 | 4045.0 | 4182.7 | 4280.7 | 4337.1 | 4353.8 | 4337.1 |
| 65°    | 3214.7 | 3471.3 | 3694.5 | 3894.8 | 3988.7 | 4070.0 | 4209.8 | 4307.9 | 4366.3 | 4380.9 | 4364.2 |
| 67.5°  | 3202.2 | 3463.0 | 3694.5 | 3899.0 | 3992.9 | 4076.3 | 4216.1 | 4314.1 | 4370.4 | 4387.1 | 4370.4 |
| 70°    | 3177.2 | 3437.9 | 3673.7 | 3882.3 | 3976.2 | 4059.6 | 4197.3 | 4297.4 | 4353.8 | 4370.4 | 4351.7 |
| 72.5°  | 3129.2 | 3394.1 | 3629.9 | 3842.7 | 3932.4 | 4013.7 | 4149.3 | 4247.4 | 4301.6 | 4320.4 | 4299.5 |
| 75°    | 3060.4 | 3325.3 | 3561.0 | 3765.5 | 3859.3 | 3934.4 | 4070.0 | 4166.0 | 4216.1 | 4232.8 | 4214.0 |
| 77.5°  | 2970.7 | 3237.7 | 3465.1 | 3667.4 | 3761.3 | 3830.1 | 3961.6 | 4055.4 | 4105.5 | 4120.1 | 4101.3 |
| 80°    | 2866.3 | 3131.3 | 3350.3 | 3550.6 | 3638.2 | 3702.9 | 3834.3 | 3924.0 | 3972.0 | 3986.6 | 3976.2 |
| 82.5°  | 2751.6 | 3010.3 | 3223.1 | 3419.2 | 3502.6 | 3567.3 | 3696.6 | 3784.2 | 3832.2 | 3853.1 | 3836.4 |
| 85°    | 2634.8 | 2883.0 | 3091.6 | 3281.5 | 3364.9 | 3433.8 | 3552.7 | 3640.3 | 3688.3 | 3705.0 | 3694.5 |
| 87.5°  | 2518.0 | 2757.9 | 2960.2 | 3143.8 | 3221.0 | 3291.9 | 3410.8 | 3498.4 | 3546.4 | 3563.1 | 3550.6 |
| 90°    | 2419.9 | 2649.4 | 2843.4 | 3024.9 | 3104.2 | 3168.8 | 3283.6 | 3367.0 | 3415.0 | 3431.7 | 3421.3 |
| 92.5°  | 2340.6 | 2559.7 | 2747.4 | 2914.3 | 2989.4 | 3058.3 | 3168.8 | 3250.2 | 3298.2 | 3312.8 | 3302.3 |
| 95°    | 2265.5 | 2478.3 | 2659.8 | 2822.5 | 2895.6 | 2962.3 | 3066.6 | 3145.9 | 3191.8 | 3206.4 | 3198.0 |
| 97.5°  | 2194.6 | 2399.1 | 2574.3 | 2732.8 | 2807.9 | 2868.4 | 2968.6 | 3043.7 | 3089.6 | 3102.1 | 3089.6 |
| 100°   | 2115.3 | 2321.9 | 2492.9 | 2649.4 | 2714.1 | 2774.6 | 2874.7 | 2949.8 | 2989.4 | 3006.1 | 2995.7 |
| 102.5° | 2040.2 | 2238.4 | 2407.4 | 2561.8 | 2630.6 | 2691.1 | 2782.9 | 2855.9 | 2901.8 | 2912.2 | 2901.8 |
| 105°   | 1963.1 | 2155.0 | 2319.8 | 2472.1 | 2540.9 | 2599.3 | 2691.1 | 2762.0 | 2805.8 | 2818.4 | 2807.9 |
| 107.5° | 1883.8 | 2069.4 | 2234.2 | 2378.2 | 2444.9 | 2499.2 | 2593.1 | 2661.9 | 2699.5 | 2722.4 | 2705.7 |
| 110°   | 1798.2 | 1981.8 | 2140.4 | 2280.1 | 2344.8 | 2397.0 | 2488.8 | 2557.6 | 2593.1 | 2613.9 | 2599.3 |





TEST NUMBER: P201314

CATALOG NUMBER: 8LBLED-LD4-22-SYMW-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

|        | 50°    | 55°    | 60°    | 65°    | 67.5°  | 70°    | 75°    | 80°    | 85°    | 90°    | 95°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 1719.0 | 1892.1 | 2044.4 | 2180.0 | 2240.5 | 2292.7 | 2382.4 | 2449.1 | 2482.5 | 2503.4 | 2488.8 |
| 115°   | 1635.5 | 1796.2 | 1946.4 | 2075.7 | 2136.2 | 2184.2 | 2273.9 | 2336.5 | 2369.8 | 2388.6 | 2376.1 |
| 117.5° | 1545.8 | 1702.3 | 1844.1 | 1971.4 | 2027.7 | 2075.7 | 2161.2 | 2223.8 | 2255.1 | 2269.7 | 2257.2 |
| 120°   | 1458.2 | 1610.5 | 1744.0 | 1865.0 | 1921.3 | 1967.2 | 2050.7 | 2109.1 | 2138.3 | 2155.0 | 2142.5 |
| 122.5° | 1366.4 | 1514.5 | 1635.5 | 1756.5 | 1808.7 | 1852.5 | 1927.6 | 1990.2 | 2017.3 | 2031.9 | 2023.5 |
| 125°   | 1268.4 | 1414.4 | 1531.2 | 1641.8 | 1691.9 | 1733.6 | 1806.6 | 1858.7 | 1890.0 | 1904.6 | 1896.3 |
| 127.5° | 1166.1 | 1305.9 | 1424.8 | 1527.0 | 1575.0 | 1620.9 | 1681.4 | 1739.8 | 1760.7 | 1777.4 | 1769.0 |
| 130°   | 1051.4 | 1191.2 | 1301.7 | 1406.1 | 1451.9 | 1489.5 | 1556.3 | 1604.2 | 1631.4 | 1646.0 | 1639.7 |
| 132.5° | 938.8  | 1068.1 | 1184.9 | 1278.8 | 1322.6 | 1362.2 | 1422.7 | 1468.6 | 1506.2 | 1508.3 | 1499.9 |
| 135°   | 830.3  | 942.9  | 1049.3 | 1149.5 | 1193.3 | 1232.9 | 1287.1 | 1328.9 | 1364.3 | 1366.4 | 1356.0 |
| 137.5° | 726.0  | 830.3  | 922.1  | 1015.9 | 1061.8 | 1103.6 | 1153.6 | 1193.3 | 1226.6 | 1232.9 | 1218.3 |
| 140°   | 625.8  | 721.8  | 805.2  | 888.7  | 932.5  | 972.1  | 1026.4 | 1059.8 | 1086.9 | 1089.0 | 1080.6 |
| 142.5° | 529.9  | 617.5  | 690.5  | 767.7  | 807.3  | 842.8  | 903.3  | 936.7  | 961.7  | 968.0  | 955.4  |
| 145°   | 440.2  | 517.4  | 586.2  | 653.0  | 686.3  | 719.7  | 780.2  | 819.9  | 840.7  | 847.0  | 834.5  |
| 147.5° | 354.6  | 419.3  | 479.8  | 540.3  | 569.5  | 600.8  | 650.9  | 700.9  | 719.7  | 723.9  | 713.5  |
| 150°   | 275.4  | 329.6  | 383.8  | 433.9  | 458.9  | 486.1  | 529.9  | 575.8  | 600.8  | 605.0  | 596.6  |
| 152.5° | 202.4  | 248.2  | 292.1  | 333.8  | 354.6  | 375.5  | 413.1  | 456.9  | 488.2  | 490.2  | 481.9  |
| 155°   | 137.7  | 175.2  | 210.7  | 242.0  | 260.8  | 277.5  | 306.7  | 340.0  | 373.4  | 375.5  | 369.2  |
| 157.5° | 83.4   | 108.5  | 137.7  | 162.7  | 175.2  | 189.8  | 210.7  | 235.7  | 264.9  | 271.2  | 264.9  |
| 160°   | 41.7   | 56.3   | 73.0   | 89.7   | 100.1  | 110.6  | 121.0  | 141.9  | 158.5  | 173.1  | 164.8  |
| 162.5° | 20.9   | 25.0   | 29.2   | 37.6   | 41.7   | 48.0   | 56.3   | 64.7   | 73.0   | 87.6   | 77.2   |
| 165°   | 12.5   | 14.6   | 16.7   | 16.7   | 18.8   | 18.8   | 18.8   | 18.8   | 18.8   | 27.1   | 18.8   |
| 167.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 170°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 172.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 175°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 177.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 180°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



TEST NUMBER: P201314

CATALOG NUMBER: 8LBLELD4-22-SYMW-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

|        | 100°   | 105°   | 110°   | 112.5° | 115°   | 120°   | 125°   | 130°   | 135°   | 140°   | 145°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 |
| 2.5°   | 2472.1 | 2476.2 | 2484.6 | 2488.8 | 2492.9 | 2497.1 | 2505.4 | 2518.0 | 2507.5 | 2497.1 | 2499.2 |
| 5°     | 2488.8 | 2488.8 | 2490.8 | 2497.1 | 2497.1 | 2499.2 | 2507.5 | 2520.0 | 2509.6 | 2495.0 | 2495.0 |
| 7.5°   | 2509.6 | 2507.5 | 2509.6 | 2511.7 | 2509.6 | 2509.6 | 2513.8 | 2520.0 | 2507.5 | 2490.8 | 2486.7 |
| 10°    | 2538.8 | 2532.6 | 2530.5 | 2532.6 | 2530.5 | 2524.2 | 2526.3 | 2526.3 | 2509.6 | 2484.6 | 2474.2 |
| 12.5°  | 2591.0 | 2580.5 | 2572.2 | 2570.1 | 2563.9 | 2553.4 | 2547.2 | 2538.8 | 2513.8 | 2484.6 | 2463.7 |
| 15°    | 2676.5 | 2659.8 | 2643.1 | 2636.9 | 2626.4 | 2601.4 | 2580.5 | 2561.8 | 2526.3 | 2484.6 | 2455.4 |
| 17.5°  | 2772.5 | 2751.6 | 2728.7 | 2720.3 | 2705.7 | 2670.2 | 2634.8 | 2599.3 | 2549.3 | 2490.8 | 2449.1 |
| 20°    | 2864.3 | 2839.2 | 2812.1 | 2797.5 | 2782.9 | 2739.1 | 2697.4 | 2651.5 | 2586.8 | 2509.6 | 2447.0 |
| 22.5°  | 2956.1 | 2926.8 | 2889.3 | 2876.8 | 2858.0 | 2807.9 | 2757.9 | 2705.7 | 2628.5 | 2536.7 | 2451.2 |
| 25°    | 3045.8 | 3012.4 | 2976.9 | 2956.1 | 2935.2 | 2878.9 | 2818.4 | 2755.8 | 2668.2 | 2568.0 | 2465.8 |
| 27.5°  | 3135.5 | 3097.9 | 3054.1 | 3031.2 | 3010.3 | 2947.7 | 2878.9 | 2807.9 | 2709.9 | 2597.2 | 2484.6 |
| 30°    | 3223.1 | 3181.4 | 3129.2 | 3104.2 | 3079.1 | 3008.2 | 2928.9 | 2849.7 | 2743.3 | 2622.3 | 2497.1 |
| 32.5°  | 3310.7 | 3264.8 | 3206.4 | 3177.2 | 3148.0 | 3066.6 | 2979.0 | 2889.3 | 2772.5 | 2645.2 | 2507.5 |
| 35°    | 3396.2 | 3346.2 | 3281.5 | 3246.0 | 3214.7 | 3127.1 | 3029.1 | 2928.9 | 2799.6 | 2664.0 | 2513.8 |
| 37.5°  | 3483.8 | 3427.5 | 3356.6 | 3317.0 | 3281.5 | 3185.5 | 3077.0 | 2964.4 | 2828.8 | 2678.6 | 2520.0 |
| 40°    | 3571.5 | 3511.0 | 3431.7 | 3390.0 | 3346.2 | 3241.9 | 3125.0 | 2999.9 | 2853.8 | 2693.2 | 2522.1 |
| 42.5°  | 3661.2 | 3594.4 | 3506.8 | 3460.9 | 3415.0 | 3298.2 | 3168.8 | 3031.2 | 2874.7 | 2703.6 | 2520.0 |
| 45°    | 3750.9 | 3675.8 | 3581.9 | 3529.7 | 3479.7 | 3352.4 | 3212.6 | 3058.3 | 2893.5 | 2709.9 | 2515.9 |
| 47.5°  | 3840.6 | 3761.3 | 3659.1 | 3602.8 | 3542.3 | 3406.7 | 3254.4 | 3087.5 | 2910.2 | 2712.0 | 2511.7 |
| 50°    | 3932.4 | 3846.8 | 3736.3 | 3673.7 | 3611.1 | 3458.8 | 3296.1 | 3112.5 | 2920.6 | 2714.1 | 2501.3 |
| 52.5°  | 4022.1 | 3930.3 | 3811.4 | 3744.6 | 3671.6 | 3511.0 | 3335.7 | 3137.5 | 2928.9 | 2712.0 | 2486.7 |
| 55°    | 4103.4 | 4007.5 | 3882.3 | 3811.4 | 3730.0 | 3558.9 | 3371.2 | 3158.4 | 2933.1 | 2705.7 | 2467.9 |
| 57.5°  | 4178.5 | 4080.5 | 3949.0 | 3869.8 | 3790.5 | 3604.8 | 3404.6 | 3181.4 | 2937.3 | 2695.3 | 2447.0 |
| 60°    | 4236.9 | 4138.9 | 4001.2 | 3921.9 | 3836.4 | 3642.4 | 3431.7 | 3193.9 | 2937.3 | 2680.7 | 2419.9 |
| 62.5°  | 4280.7 | 4182.7 | 4045.0 | 3961.6 | 3871.9 | 3673.7 | 3452.5 | 3206.4 | 2937.3 | 2666.1 | 2392.8 |
| 65°    | 4307.9 | 4211.9 | 4070.0 | 3986.6 | 3894.8 | 3688.3 | 3463.0 | 3208.5 | 2928.9 | 2645.2 | 2359.4 |
| 67.5°  | 4312.0 | 4216.1 | 4074.2 | 3992.9 | 3899.0 | 3688.3 | 3456.7 | 3198.0 | 2912.2 | 2618.1 | 2321.9 |
| 70°    | 4293.3 | 4197.3 | 4057.5 | 3974.1 | 3882.3 | 3669.5 | 3433.8 | 3173.0 | 2883.0 | 2582.6 | 2278.1 |
| 72.5°  | 4245.3 | 4147.2 | 4011.6 | 3926.1 | 3836.4 | 3625.7 | 3385.8 | 3127.1 | 2835.1 | 2532.6 | 2225.9 |
| 75°    | 4161.8 | 4065.9 | 3932.4 | 3853.1 | 3761.3 | 3554.8 | 3312.8 | 3060.4 | 2768.3 | 2470.0 | 2161.2 |
| 77.5°  | 4051.3 | 3957.4 | 3826.0 | 3746.7 | 3661.2 | 3458.8 | 3221.0 | 2970.7 | 2686.9 | 2392.8 | 2086.1 |
| 80°    | 3919.8 | 3830.1 | 3700.8 | 3623.6 | 3540.2 | 3344.1 | 3110.4 | 2866.3 | 2586.8 | 2301.0 | 2002.7 |
| 82.5°  | 3780.1 | 3692.5 | 3567.3 | 3488.0 | 3408.7 | 3218.9 | 2995.7 | 2753.7 | 2480.4 | 2203.0 | 1913.0 |
| 85°    | 3644.5 | 3550.6 | 3425.4 | 3352.4 | 3273.1 | 3087.5 | 2876.8 | 2636.9 | 2371.9 | 2102.8 | 1825.4 |
| 87.5°  | 3502.6 | 3410.8 | 3287.7 | 3218.9 | 3143.8 | 2956.1 | 2755.8 | 2522.1 | 2269.7 | 2013.1 | 1739.8 |
| 90°    | 3373.3 | 3283.6 | 3164.7 | 3095.8 | 3024.9 | 2843.4 | 2647.3 | 2426.2 | 2182.1 | 1933.8 | 1668.9 |
| 92.5°  | 3254.4 | 3170.9 | 3058.3 | 2991.5 | 2922.7 | 2749.5 | 2561.8 | 2346.9 | 2111.2 | 1871.3 | 1612.6 |
| 95°    | 3152.1 | 3070.8 | 2966.5 | 2901.8 | 2830.9 | 2666.1 | 2482.5 | 2271.8 | 2046.5 | 1812.8 | 1560.4 |
| 97.5°  | 3049.9 | 2972.7 | 2870.5 | 2807.9 | 2741.2 | 2580.5 | 2403.2 | 2200.9 | 1979.7 | 1748.2 | 1504.1 |
| 100°   | 2956.1 | 2880.9 | 2776.6 | 2720.3 | 2655.6 | 2501.3 | 2326.0 | 2127.9 | 1910.9 | 1683.5 | 1443.6 |
| 102.5° | 2864.3 | 2789.2 | 2689.0 | 2632.7 | 2570.1 | 2415.7 | 2244.7 | 2048.6 | 1837.9 | 1618.8 | 1385.2 |
| 105°   | 2770.4 | 2697.4 | 2597.2 | 2540.9 | 2478.3 | 2328.1 | 2161.2 | 1971.4 | 1764.9 | 1552.1 | 1324.7 |
| 107.5° | 2668.2 | 2597.2 | 2501.3 | 2444.9 | 2386.5 | 2236.3 | 2075.7 | 1890.0 | 1691.9 | 1483.2 | 1262.1 |
| 110°   | 2563.9 | 2492.9 | 2405.3 | 2344.8 | 2288.5 | 2142.5 | 1986.0 | 1808.7 | 1614.7 | 1412.3 | 1197.4 |



TEST NUMBER: P201314

CATALOG NUMBER: 8LBLED-LD4-22-SYMW-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

|        | 100°   | 105°   | 110°   | 112.5° | 115°   | 120°   | 125°   | 130°   | 135°   | 140°   | 145°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 2455.4 | 2386.5 | 2301.0 | 2244.7 | 2186.3 | 2046.5 | 1896.3 | 1725.2 | 1537.5 | 1339.3 | 1130.7 |
| 115°   | 2344.8 | 2276.0 | 2190.4 | 2134.1 | 2082.0 | 1948.4 | 1802.4 | 1639.7 | 1458.2 | 1266.3 | 1063.9 |
| 117.5° | 2223.8 | 2163.3 | 2082.0 | 2031.9 | 1977.7 | 1844.1 | 1708.5 | 1552.1 | 1378.9 | 1189.1 | 995.1  |
| 120°   | 2111.2 | 2052.8 | 1973.5 | 1919.2 | 1871.3 | 1744.0 | 1614.7 | 1462.4 | 1291.3 | 1114.0 | 924.2  |
| 122.5° | 1992.3 | 1929.7 | 1856.7 | 1810.8 | 1758.6 | 1641.8 | 1516.6 | 1370.6 | 1203.7 | 1028.5 | 847.0  |
| 125°   | 1867.1 | 1808.7 | 1737.7 | 1693.9 | 1646.0 | 1535.4 | 1416.5 | 1270.5 | 1111.9 | 942.9  | 767.7  |
| 127.5° | 1739.8 | 1685.6 | 1616.8 | 1577.1 | 1531.2 | 1422.7 | 1308.0 | 1166.1 | 1007.6 | 849.1  | 686.3  |
| 130°   | 1610.5 | 1556.3 | 1493.7 | 1451.9 | 1408.1 | 1305.9 | 1193.3 | 1053.5 | 903.3  | 755.2  | 607.1  |
| 132.5° | 1474.9 | 1422.7 | 1360.2 | 1322.6 | 1283.0 | 1184.9 | 1070.2 | 934.6  | 801.1  | 667.6  | 529.9  |
| 135°   | 1335.1 | 1287.1 | 1230.8 | 1195.4 | 1155.7 | 1055.6 | 947.1  | 824.0  | 705.1  | 582.0  | 454.8  |
| 137.5° | 1199.5 | 1155.7 | 1101.5 | 1066.0 | 1022.2 | 928.3  | 832.4  | 721.8  | 613.3  | 498.6  | 379.7  |
| 140°   | 1066.0 | 1026.4 | 974.2  | 934.6  | 897.0  | 809.4  | 721.8  | 621.7  | 523.6  | 419.3  | 312.9  |
| 142.5° | 940.8  | 905.4  | 847.0  | 809.4  | 774.0  | 696.8  | 619.6  | 525.7  | 438.1  | 344.2  | 252.4  |
| 145°   | 817.8  | 786.5  | 721.8  | 688.4  | 659.2  | 590.4  | 513.2  | 436.0  | 356.7  | 275.4  | 196.1  |
| 147.5° | 698.9  | 661.3  | 600.8  | 571.6  | 544.5  | 484.0  | 419.3  | 348.4  | 283.7  | 212.8  | 143.9  |
| 150°   | 584.1  | 538.2  | 486.1  | 461.0  | 438.1  | 385.9  | 329.6  | 271.2  | 214.9  | 154.4  | 100.1  |
| 152.5° | 465.2  | 417.2  | 381.8  | 356.7  | 335.9  | 294.1  | 248.2  | 198.2  | 152.3  | 104.3  | 62.6   |
| 155°   | 344.2  | 310.8  | 277.5  | 264.9  | 246.2  | 210.7  | 173.1  | 133.5  | 96.0   | 62.6   | 35.5   |
| 157.5° | 237.8  | 212.8  | 191.9  | 179.4  | 164.8  | 137.7  | 106.4  | 77.2   | 54.2   | 33.4   | 16.7   |
| 160°   | 143.9  | 127.3  | 112.7  | 102.2  | 91.8   | 73.0   | 52.2   | 35.5   | 22.9   | 10.4   | 6.3    |
| 162.5° | 64.7   | 54.2   | 48.0   | 41.7   | 35.5   | 27.1   | 16.7   | 8.3    | 4.2    | 2.1    | 2.1    |
| 165°   | 12.5   | 8.3    | 6.3    | 4.2    | 2.1    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 167.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 170°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 172.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 175°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 177.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 180°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



TEST NUMBER: P201314

CATALOG NUMBER: 8LBLED-LD4-22-SYMW-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

|        | 150°   | 155°   | 157.5° | 160°   | 165°   | 170°   | 175°   | 180°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 | 2501.3 |
| 2.5°   | 2501.3 | 2503.4 | 2505.4 | 2505.4 | 2511.7 | 2522.1 | 2536.7 | 2538.8 |
| 5°     | 2495.0 | 2497.1 | 2497.1 | 2499.2 | 2505.4 | 2513.8 | 2526.3 | 2528.4 |
| 7.5°   | 2484.6 | 2484.6 | 2484.6 | 2484.6 | 2488.8 | 2497.1 | 2507.5 | 2509.6 |
| 10°    | 2470.0 | 2465.8 | 2463.7 | 2461.6 | 2463.7 | 2472.1 | 2480.4 | 2482.5 |
| 12.5°  | 2453.3 | 2442.9 | 2438.7 | 2436.6 | 2436.6 | 2438.7 | 2447.0 | 2447.0 |
| 15°    | 2434.5 | 2417.8 | 2411.6 | 2407.4 | 2399.1 | 2399.1 | 2407.4 | 2407.4 |
| 17.5°  | 2415.7 | 2392.8 | 2380.3 | 2371.9 | 2359.4 | 2357.3 | 2361.5 | 2357.3 |
| 20°    | 2399.1 | 2363.6 | 2346.9 | 2332.3 | 2313.5 | 2307.3 | 2307.3 | 2301.0 |
| 22.5°  | 2382.4 | 2334.4 | 2311.4 | 2290.6 | 2261.4 | 2250.9 | 2244.7 | 2240.5 |
| 25°    | 2371.9 | 2303.1 | 2273.9 | 2248.9 | 2209.2 | 2186.3 | 2180.0 | 2171.7 |
| 27.5°  | 2369.8 | 2278.1 | 2238.4 | 2207.1 | 2152.9 | 2125.8 | 2109.1 | 2098.6 |
| 30°    | 2369.8 | 2253.0 | 2200.9 | 2157.1 | 2090.3 | 2048.6 | 2031.9 | 2027.7 |
| 32.5°  | 2367.8 | 2234.2 | 2171.7 | 2115.3 | 2029.8 | 1975.6 | 1950.5 | 1944.3 |
| 35°    | 2361.5 | 2215.5 | 2142.5 | 2073.6 | 1969.3 | 1900.5 | 1865.0 | 1856.7 |
| 37.5°  | 2353.2 | 2192.5 | 2115.3 | 2036.1 | 1906.7 | 1823.3 | 1779.5 | 1767.0 |
| 40°    | 2344.8 | 2169.6 | 2082.0 | 1996.4 | 1844.1 | 1744.0 | 1687.7 | 1673.1 |
| 42.5°  | 2330.2 | 2144.5 | 2052.8 | 1958.9 | 1785.7 | 1664.7 | 1600.1 | 1577.1 |
| 45°    | 2315.6 | 2115.3 | 2017.3 | 1917.2 | 1727.3 | 1583.4 | 1502.0 | 1479.1 |
| 47.5°  | 2296.8 | 2084.0 | 1981.8 | 1871.3 | 1673.1 | 1504.1 | 1412.3 | 1383.1 |
| 50°    | 2276.0 | 2052.8 | 1942.2 | 1827.5 | 1614.7 | 1426.9 | 1314.3 | 1283.0 |
| 52.5°  | 2253.0 | 2017.3 | 1902.6 | 1781.6 | 1556.3 | 1353.9 | 1222.5 | 1182.8 |
| 55°    | 2223.8 | 1977.7 | 1856.7 | 1729.4 | 1495.8 | 1278.8 | 1128.6 | 1082.7 |
| 57.5°  | 2192.5 | 1938.0 | 1812.8 | 1681.4 | 1435.3 | 1207.9 | 1036.8 | 984.7  |
| 60°    | 2155.0 | 1892.1 | 1758.6 | 1627.2 | 1372.7 | 1134.9 | 945.0  | 884.5  |
| 62.5°  | 2115.3 | 1846.2 | 1710.6 | 1570.9 | 1310.1 | 1063.9 | 855.3  | 786.5  |
| 65°    | 2073.6 | 1794.1 | 1656.4 | 1512.4 | 1243.3 | 988.8  | 767.7  | 688.4  |
| 67.5°  | 2023.5 | 1737.7 | 1595.9 | 1449.9 | 1174.5 | 913.7  | 682.2  | 592.5  |
| 70°    | 1973.5 | 1677.3 | 1529.1 | 1383.1 | 1103.6 | 838.6  | 600.8  | 498.6  |
| 72.5°  | 1913.0 | 1612.6 | 1462.4 | 1314.3 | 1030.5 | 765.6  | 521.5  | 404.7  |
| 75°    | 1846.2 | 1545.8 | 1393.5 | 1243.3 | 955.4  | 688.4  | 442.3  | 312.9  |
| 77.5°  | 1775.3 | 1472.8 | 1322.6 | 1170.3 | 884.5  | 615.4  | 369.2  | 235.7  |
| 80°    | 1700.2 | 1395.6 | 1247.5 | 1095.2 | 809.4  | 542.4  | 298.3  | 162.7  |
| 82.5°  | 1616.8 | 1320.5 | 1172.4 | 1020.1 | 738.5  | 471.5  | 233.6  | 100.1  |
| 85°    | 1537.5 | 1245.4 | 1101.5 | 951.3  | 669.6  | 400.5  | 175.2  | 50.1   |
| 87.5°  | 1460.3 | 1176.6 | 1036.8 | 888.7  | 611.2  | 346.3  | 127.3  | 14.6   |
| 90°    | 1397.7 | 1120.3 | 982.6  | 838.6  | 565.3  | 306.7  | 96.0   | 0.0    |
| 92.5°  | 1347.6 | 1076.4 | 940.8  | 801.1  | 532.0  | 279.5  | 81.4   | 0.0    |
| 95°    | 1299.7 | 1030.5 | 901.2  | 761.4  | 498.6  | 256.6  | 64.7   | 0.0    |
| 97.5°  | 1247.5 | 986.7  | 857.4  | 721.8  | 465.2  | 231.6  | 52.2   | 0.0    |
| 100°   | 1195.4 | 938.8  | 813.6  | 682.2  | 427.7  | 206.5  | 37.6   | 0.0    |
| 102.5° | 1139.0 | 888.7  | 765.6  | 638.4  | 394.3  | 179.4  | 25.0   | 0.0    |
| 105°   | 1084.8 | 838.6  | 719.7  | 594.5  | 358.8  | 156.5  | 16.7   | 0.0    |
| 107.5° | 1026.4 | 788.6  | 671.7  | 552.8  | 323.4  | 131.4  | 10.4   | 0.0    |
| 110°   | 968.0  | 738.5  | 623.8  | 509.0  | 290.0  | 108.5  | 8.3    | 0.0    |



TEST NUMBER: P201314

CATALOG NUMBER: 8LBLED-LD4-22-SYMW-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

|        | 150°  | 155°  | 157.5° | 160°  | 165°  | 170° | 175° | 180° |
|--------|-------|-------|--------|-------|-------|------|------|------|
| 112.5° | 909.6 | 686.3 | 575.8  | 463.1 | 256.6 | 87.6 | 6.3  | 2.1  |
| 115°   | 847.0 | 632.1 | 525.7  | 417.2 | 223.2 | 68.8 | 6.3  | 2.1  |
| 117.5° | 784.4 | 575.8 | 477.7  | 373.4 | 191.9 | 52.2 | 4.2  | 2.1  |
| 120°   | 719.7 | 525.7 | 425.6  | 331.7 | 162.7 | 37.6 | 4.2  | 2.1  |
| 122.5° | 657.1 | 473.6 | 377.6  | 287.9 | 133.5 | 29.2 | 4.2  | 2.1  |
| 125°   | 592.5 | 413.1 | 329.6  | 248.2 | 106.4 | 22.9 | 4.2  | 2.1  |
| 127.5° | 523.6 | 356.7 | 279.5  | 204.4 | 81.4  | 16.7 | 4.2  | 2.1  |
| 130°   | 452.7 | 300.4 | 231.6  | 166.9 | 58.4  | 12.5 | 4.2  | 2.1  |
| 132.5° | 385.9 | 252.4 | 187.8  | 131.4 | 41.7  | 10.4 | 4.2  | 2.1  |
| 135°   | 325.4 | 204.4 | 148.1  | 98.0  | 29.2  | 8.3  | 2.1  | 2.1  |
| 137.5° | 267.0 | 162.7 | 112.7  | 70.9  | 20.9  | 6.3  | 4.2  | 2.1  |
| 140°   | 214.9 | 123.1 | 81.4   | 50.1  | 14.6  | 4.2  | 4.2  | 2.1  |
| 142.5° | 166.9 | 87.6  | 56.3   | 33.4  | 10.4  | 4.2  | 2.1  | 2.1  |
| 145°   | 123.1 | 58.4  | 37.6   | 20.9  | 8.3   | 4.2  | 4.2  | 4.2  |
| 147.5° | 83.4  | 39.6  | 22.9   | 14.6  | 6.3   | 4.2  | 4.2  | 2.1  |
| 150°   | 54.2  | 25.0  | 14.6   | 10.4  | 4.2   | 4.2  | 4.2  | 2.1  |
| 152.5° | 33.4  | 14.6  | 8.3    | 6.3   | 4.2   | 4.2  | 4.2  | 2.1  |
| 155°   | 16.7  | 8.3   | 6.3    | 4.2   | 4.2   | 4.2  | 4.2  | 4.2  |
| 157.5° | 8.3   | 6.3   | 4.2    | 4.2   | 4.2   | 4.2  | 4.2  | 4.2  |
| 160°   | 4.2   | 4.2   | 2.1    | 2.1   | 4.2   | 4.2  | 4.2  | 4.2  |
| 162.5° | 2.1   | 2.1   | 2.1    | 2.1   | 4.2   | 4.2  | 4.2  | 4.2  |
| 165°   | 0.0   | 2.1   | 2.1    | 2.1   | 4.2   | 4.2  | 4.2  | 4.2  |
| 167.5° | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 170°   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 172.5° | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 175°   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 180°   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |

(END OF REPORT)