

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: P201388

Luminaire Tested: **8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P201388  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28238)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8LBLEDD4-9-ASYMF-UNV-L840-CD2-U  
Description: 8 ft. Low Bay Linear, 6000 lm, Frst Asym lens, 4K  
Light Source: (616) 4000K CCT, 80 CRI LEDS  
2UT217098A8404C, 2UT217056A8404B  
Ballast/Driver: OSRAM  
(OT50W0880CC), (OT30W0600CC)

**Summary**

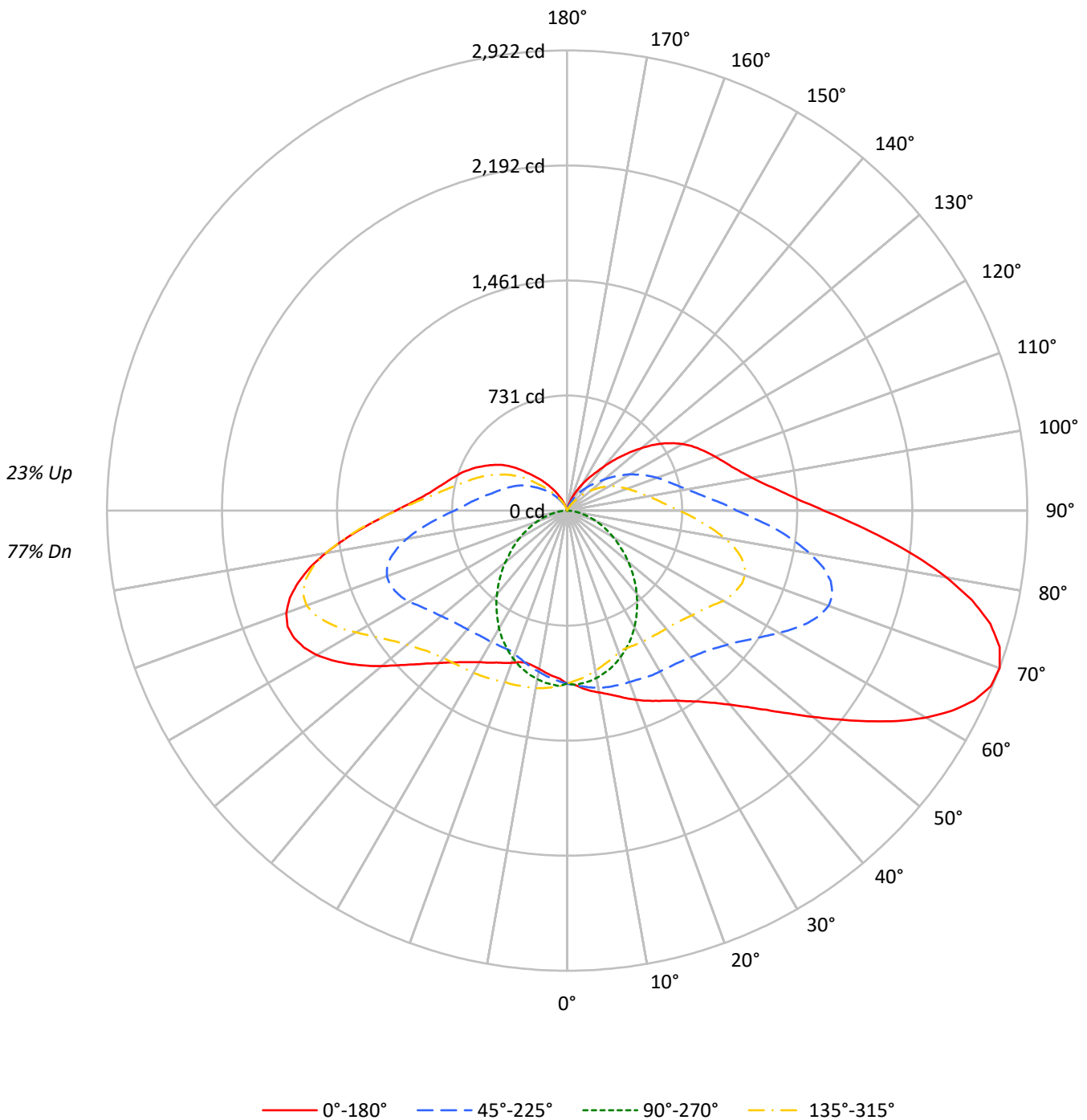
Lumens per Lamp: N/A  
Luminaire Lumens: 9626.4 lumens  
Efficiency: N/A  
Efficacy: 146.8 lumens/watt  
Spacing Criteria (0/90/45): 2.05 / 1.17 / 1.8  
Luminous Opening: Rectangular w/ Sides (W: 8' x L: 0.17' x H: 0.21')  
CIE Type: Semi-Direct  
  
Input Watts (W): 65.59  
Input Voltage (V): NR  
Input 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: 25 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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81	77
1	98	90	84	78	92	86	80	75	77	72	68	69	65	62	62	59	56	52
2	86	75	66	59	81	71	63	56	64	57	51	57	51	46	50	46	42	38
3	77	64	54	46	72	60	51	44	54	46	40	48	42	36	42	37	33	29
4	70	55	45	37	65	52	43	35	47	39	32	41	35	29	37	31	26	23
5	63	49	38	31	59	46	36	29	41	33	27	37	30	24	32	27	22	19
6	58	43	33	26	54	41	32	25	37	29	23	33	26	21	29	23	19	16
7	53	39	29	22	50	37	28	21	33	25	20	29	23	18	26	20	16	14
8	50	35	26	19	47	33	25	19	30	22	17	27	20	16	24	18	14	12
9	46	32	23	17	43	30	22	16	27	20	15	25	18	14	22	16	12	10
10	43	29	21	15	41	28	20	15	25	18	13	23	17	12	20	15	11	9

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

	0°	90°	180°	270°
0°	8853	8853	8853	8853
5°	8261	8883	7693	8947
10°	7867	8786	6847	8851
15°	7623	8638	6258	8704
20°	7545	8415	6069	8499
25°	7496	8157	5988	8227
30°	7538	7833	6011	7925
35°	7781	7463	6173	7540
40°	8265	7066	6495	7128
45°	9079	6623	7007	6690
50°	10280	6157	7745	6254
55°	11787	5665	8569	5801
60°	13422	5215	9367	5371
65°	14811	4771	9937	4915
70°	15566	4267	10108	4443
75°	15332	3692	9751	3919
80°	14073	3077	8959	3320
85°	12253	2138	7941	2423



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.3	1.1
10°-20°	304.5	3.2
20°-30°	491.5	5.1
30°-40°	667.7	6.9
40°-50°	863.6	9.0
50°-60°	1117.8	11.6
60°-70°	1374.4	14.3
70°-80°	1389.6	14.4
80°-90°	1069.6	11.1
90°-100°	740.9	7.7
100°-110°	555.0	5.8
110°-120°	418.5	4.3
120°-130°	283.8	2.9
130°-140°	155.3	1.6
140°-150°	66.6	0.7
150°-160°	20.7	0.2
160°-170°	2.7	0.0
170°-180°	0.0	0.0
0°-30°	900.3	9.4
0°-40°	1567.9	16.3
0°-60°	3549.3	36.9
0°-90°	7382.9	76.7
90°-120°	1714.4	17.8
90°-150°	2220.1	23.1
90°-180°	2243.0	23.3
0°-180°	9626.4	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1099	1099	1099	1099	1099	
5°	1133	1101	1055	1109	1133	109
15°	1219	1043	1001	1051	1219	348
25°	1333	929	1065	937	1333	619
35°	1481	773	1175	781	1481	938
45°	1789	596	1381	602	1789	1400
55°	2332	418	1695	428	2332	2098
65°	2852	264	1913	272	2852	2805
75°	2782	130	1769	138	2782	2902
85°	2020	30	1309	34	2020	1738
90°	1629	0	1087	2	1629	897
95°	1369	0	933	0	1369	1082
105°	1081	0	767	0	1081	1150
115°	927	0	644	2	927	919
125°	742	0	506	2	742	664
135°	488	0	322	2	488	382
145°	268	0	180	2	268	173
155°	132	0	72	2	132	64
165°	38	0	0	4	38	11
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1106.8	1106.6	1106.4	1106.1	1105.9	1105.7	1105.5	1105.2	1105.0	1104.8	1105.5
5°	1132.8	1131.5	1130.1	1128.8	1127.5	1126.1	1124.8	1123.5	1122.1	1120.8	1120.8
7.5°	1154.8	1153.2	1151.7	1150.1	1148.6	1147.0	1145.5	1143.9	1142.4	1140.8	1139.9
10°	1172.8	1170.8	1168.8	1166.8	1164.8	1162.8	1160.8	1158.8	1156.8	1154.8	1153.5
12.5°	1192.9	1190.4	1188.0	1185.5	1183.1	1180.6	1178.2	1175.7	1173.3	1170.8	1168.4
15°	1218.9	1215.8	1212.7	1209.6	1206.5	1203.3	1200.2	1197.1	1194.0	1190.9	1186.7
17.5°	1248.9	1245.1	1241.3	1237.6	1233.8	1230.0	1226.2	1222.5	1218.7	1214.9	1208.4
20°	1278.9	1274.0	1269.1	1264.2	1259.3	1254.5	1249.6	1244.7	1239.8	1234.9	1226.4
22.5°	1306.9	1301.3	1295.8	1290.2	1284.7	1279.1	1273.6	1268.0	1262.5	1256.9	1246.4
25°	1333.0	1327.0	1321.0	1315.0	1309.0	1302.9	1296.9	1290.9	1284.9	1278.9	1266.7
27.5°	1361.0	1354.5	1348.1	1341.6	1335.2	1328.7	1322.3	1315.8	1309.4	1302.9	1288.9
30°	1393.0	1385.4	1377.9	1370.3	1362.8	1355.2	1347.7	1340.1	1332.6	1325.0	1308.8
32.5°	1435.0	1426.1	1417.2	1408.3	1399.4	1390.6	1381.7	1372.8	1363.9	1355.0	1336.1
35°	1481.1	1470.9	1460.6	1450.4	1440.2	1429.9	1419.7	1409.5	1399.2	1389.0	1367.0
37.5°	1539.1	1527.1	1515.1	1503.1	1491.1	1479.0	1467.0	1455.0	1443.0	1431.0	1405.7
40°	1607.2	1593.6	1580.1	1566.5	1552.9	1539.4	1525.8	1512.2	1498.7	1485.1	1455.3
42.5°	1691.2	1675.2	1659.2	1643.2	1627.2	1611.1	1595.1	1579.1	1563.1	1547.1	1512.4
45°	1789.3	1770.6	1751.9	1733.3	1714.6	1695.9	1677.2	1658.6	1639.9	1621.2	1580.7
47.5°	1905.4	1883.8	1862.2	1840.7	1819.1	1797.5	1775.9	1754.4	1732.8	1711.2	1664.3
50°	2037.5	2013.0	1988.6	1964.1	1939.6	1915.2	1890.7	1866.2	1841.8	1817.3	1762.6
52.5°	2179.6	2152.5	2125.3	2098.2	2071.1	2043.9	2016.8	1989.7	1962.5	1935.4	1872.5
55°	2331.7	2302.1	2272.5	2243.0	2213.4	2183.8	2154.2	2124.7	2095.1	2065.5	1994.3
57.5°	2485.8	2454.2	2422.6	2391.1	2359.5	2327.9	2296.3	2264.8	2233.2	2201.6	2122.0
60°	2629.9	2597.7	2565.4	2533.2	2500.9	2468.7	2436.4	2404.2	2371.9	2339.7	2252.3
62.5°	2754.0	2721.8	2689.5	2657.3	2625.0	2592.8	2560.5	2528.3	2496.0	2463.8	2370.4
65°	2852.1	2820.5	2788.9	2757.4	2725.8	2694.2	2662.6	2631.1	2599.5	2567.9	2470.0
67.5°	2912.1	2881.4	2850.7	2820.0	2789.3	2758.7	2728.0	2697.3	2666.6	2635.9	2536.1
70°	2922.1	2893.0	2863.8	2834.7	2805.6	2776.4	2747.3	2718.2	2689.0	2659.9	2560.7
72.5°	2880.1	2852.7	2825.4	2798.0	2770.7	2743.3	2716.0	2688.6	2661.3	2633.9	2537.6
75°	2782.0	2756.4	2730.8	2705.3	2679.7	2654.1	2628.5	2603.0	2577.4	2551.8	2460.9
77.5°	2633.9	2609.9	2585.9	2561.9	2537.9	2513.8	2489.8	2465.8	2441.8	2417.8	2334.2
80°	2445.8	2425.8	2405.8	2385.7	2365.7	2345.7	2325.7	2305.6	2285.6	2265.6	2187.8
82.5°	2237.6	2219.4	2201.1	2182.9	2164.7	2146.4	2128.2	2110.0	2091.7	2073.5	2004.3
85°	2019.5	2003.0	1986.6	1970.1	1953.7	1937.2	1920.8	1904.3	1887.9	1871.4	1810.9
87.5°	1811.3	1796.2	1781.1	1765.9	1750.8	1735.7	1720.6	1705.4	1690.3	1675.2	1621.6
90°	1629.2	1615.0	1600.7	1586.5	1572.3	1558.0	1543.8	1529.6	1515.3	1501.1	1454.0
92.5°	1479.1	1466.0	1452.9	1439.7	1426.6	1413.5	1400.4	1387.2	1374.1	1361.0	1319.9
95°	1369.0	1355.7	1342.3	1329.0	1315.6	1302.3	1288.9	1275.6	1262.2	1248.9	1210.2
97.5°	1268.9	1256.2	1243.5	1230.9	1218.2	1205.5	1192.8	1180.2	1167.5	1154.8	1119.0
100°	1192.9	1180.7	1168.4	1156.2	1144.0	1131.7	1119.5	1107.3	1095.0	1082.8	1048.3
102.5°	1130.8	1119.0	1107.2	1095.4	1083.6	1071.9	1060.1	1048.3	1036.5	1024.7	991.1
105°	1080.8	1069.2	1057.7	1046.1	1034.5	1023.0	1011.4	999.8	988.3	976.7	943.8
107.5°	1038.8	1027.0	1015.2	1003.4	991.6	979.9	968.1	956.3	944.5	932.7	900.7
110°	1000.7	989.1	977.6	966.0	954.4	942.9	931.3	919.7	908.2	896.6	864.6



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**CANDELA DISTRIBUTION (continued):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
112.5°	962.7	951.1	939.6	928.0	916.4	904.9	893.3	881.7	870.2	858.6	826.6
115°	926.7	914.7	902.7	890.7	878.7	866.6	854.6	842.6	830.6	818.6	787.0
117.5°	888.6	876.6	864.6	852.6	840.6	828.6	816.6	804.6	792.6	780.6	748.8
120°	844.6	832.6	820.6	808.6	796.6	784.5	772.5	760.5	748.5	736.5	705.8
122.5°	796.6	784.8	773.0	761.2	749.4	737.7	725.9	714.1	702.3	690.5	660.5
125°	742.5	730.9	719.4	707.8	696.3	684.7	673.2	661.6	650.1	638.5	610.0
127.5°	682.5	671.6	660.7	649.8	638.9	628.0	617.1	606.2	595.3	584.4	557.7
130°	616.4	606.6	596.8	587.1	577.3	567.5	557.7	548.0	538.2	528.4	503.7
132.5°	552.4	543.3	534.2	525.0	515.9	506.8	497.7	488.5	479.4	470.3	448.3
135°	488.4	480.6	472.8	465.0	457.2	449.5	441.7	433.9	426.1	418.3	398.5
137.5°	428.3	421.0	413.6	406.3	399.0	391.6	384.3	377.0	369.6	362.3	346.1
140°	366.3	360.1	353.8	347.6	341.4	335.1	328.9	322.7	316.4	310.2	296.9
142.5°	310.2	305.5	300.9	296.2	291.5	286.9	282.2	277.5	272.9	268.2	256.9
145°	268.2	264.4	260.6	256.9	253.1	249.3	245.5	241.8	238.0	234.2	224.2
147.5°	230.2	226.9	223.5	220.2	216.8	213.5	210.1	206.8	203.4	200.1	191.4
150°	194.1	191.2	188.3	185.4	182.5	179.7	176.8	173.9	171.0	168.1	160.8
152.5°	162.1	159.7	157.2	154.8	152.3	149.9	147.4	145.0	142.5	140.1	133.9
155°	132.1	130.1	128.1	126.1	124.1	122.1	120.1	118.1	116.1	114.1	108.8
157.5°	104.1	102.5	101.0	99.4	97.9	96.3	94.8	93.2	91.7	90.1	85.4
160°	80.1	78.8	77.4	76.1	74.7	73.4	72.0	70.7	69.3	68.0	64.4
162.5°	56.0	54.9	53.8	52.7	51.6	50.4	49.3	48.2	47.1	46.0	43.8
165°	38.0	37.3	36.7	36.0	35.3	34.7	34.0	33.3	32.7	32.0	30.7
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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**CANDELA DISTRIBUTION (continued):**

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1106.1	1106.8	1107.5	1108.1	1108.8	1109.5	1110.1	1110.8	1109.2	1107.7	1106.1
5°	1120.8	1120.8	1120.8	1120.8	1120.8	1120.8	1120.8	1120.8	1118.4	1115.9	1113.5
7.5°	1139.0	1138.1	1137.2	1136.4	1135.5	1134.6	1133.7	1132.8	1129.0	1125.2	1121.5
10°	1152.1	1150.8	1149.5	1148.1	1146.8	1145.5	1144.1	1142.8	1137.5	1132.1	1126.8
12.5°	1165.9	1163.5	1161.0	1158.6	1156.1	1153.7	1151.2	1148.8	1141.9	1135.0	1128.1
15°	1182.4	1178.2	1174.0	1169.7	1165.5	1161.3	1157.0	1152.8	1144.6	1136.4	1128.1
17.5°	1202.0	1195.5	1189.1	1182.6	1176.2	1169.7	1163.3	1156.8	1147.0	1137.2	1127.5
20°	1218.0	1209.5	1201.1	1192.6	1184.2	1175.7	1167.3	1158.8	1146.8	1134.8	1122.8
22.5°	1236.0	1225.5	1215.1	1204.6	1194.2	1183.7	1173.3	1162.8	1148.3	1133.9	1119.4
25°	1254.4	1242.2	1230.0	1217.7	1205.5	1193.3	1181.0	1168.8	1151.2	1133.7	1116.1
27.5°	1274.9	1260.9	1246.9	1232.9	1218.9	1204.9	1190.9	1176.9	1155.8	1134.6	1113.5
30°	1292.5	1276.3	1260.1	1243.8	1227.6	1211.4	1195.1	1178.9	1154.9	1130.9	1106.8
32.5°	1317.2	1298.3	1279.4	1260.5	1241.6	1222.7	1203.8	1184.9	1157.5	1130.2	1102.8
35°	1345.0	1323.0	1301.0	1278.9	1256.9	1234.9	1212.9	1190.9	1160.4	1130.0	1099.5
37.5°	1380.3	1355.0	1329.6	1304.3	1278.9	1253.6	1228.2	1202.9	1168.6	1134.4	1100.1
40°	1425.5	1395.7	1365.9	1336.1	1306.3	1276.5	1246.7	1216.9	1178.9	1140.8	1102.8
42.5°	1477.7	1443.0	1408.3	1373.7	1339.0	1304.3	1269.6	1234.9	1192.9	1150.8	1108.8
45°	1540.2	1499.8	1459.3	1418.8	1378.3	1337.9	1297.4	1256.9	1210.4	1163.9	1117.5
47.5°	1617.4	1570.4	1523.5	1476.6	1429.7	1382.7	1335.8	1288.9	1236.9	1184.8	1132.8
50°	1707.9	1653.2	1598.5	1543.8	1489.1	1434.4	1379.7	1325.0	1267.4	1209.8	1152.2
52.5°	1809.5	1746.6	1683.7	1620.7	1557.8	1494.9	1431.9	1369.0	1305.0	1240.9	1176.9
55°	1923.2	1852.0	1780.8	1709.7	1638.5	1567.3	1496.2	1425.0	1353.4	1281.8	1210.2
57.5°	2042.4	1962.8	1883.2	1803.5	1723.9	1644.3	1564.7	1485.1	1405.7	1326.3	1246.9
60°	2164.9	2077.5	1990.1	1902.7	1815.3	1727.9	1640.5	1553.1	1465.5	1377.9	1290.3
62.5°	2277.0	2183.6	2090.2	1996.8	1903.4	1810.0	1716.6	1623.2	1526.9	1430.6	1334.3
65°	2372.2	2274.3	2176.5	2078.6	1980.8	1882.9	1785.1	1687.2	1582.9	1478.6	1374.3
67.5°	2436.2	2336.4	2236.5	2136.7	2036.8	1937.0	1837.1	1737.3	1626.1	1514.9	1403.7
70°	2461.5	2362.4	2263.2	2164.0	2064.8	1965.7	1866.5	1767.3	1651.0	1534.7	1418.4
72.5°	2441.3	2345.0	2248.7	2152.5	2056.2	1959.9	1863.6	1767.3	1648.5	1529.8	1411.0
75°	2369.9	2279.0	2188.0	2097.1	2006.1	1915.2	1824.2	1733.3	1615.4	1497.6	1379.7
77.5°	2250.6	2166.9	2083.3	1999.7	1916.1	1832.4	1748.8	1665.2	1551.6	1437.9	1324.3
80°	2109.9	2032.1	1954.3	1876.4	1798.6	1720.8	1642.9	1565.1	1458.4	1351.6	1244.9
82.5°	1935.2	1866.0	1796.9	1727.7	1658.6	1589.4	1520.3	1451.1	1352.8	1254.5	1156.2
85°	1750.4	1689.9	1629.4	1569.0	1508.5	1448.0	1387.5	1327.0	1237.8	1148.6	1059.5
87.5°	1568.0	1514.4	1460.8	1407.3	1353.7	1300.1	1246.5	1192.9	1113.3	1033.7	954.0
90°	1406.8	1359.7	1312.5	1265.4	1218.2	1171.1	1123.9	1076.8	1005.4	934.0	862.6
92.5°	1278.7	1237.6	1196.4	1155.3	1114.1	1073.0	1031.8	990.7	925.5	860.4	795.2
95°	1171.5	1132.8	1094.1	1055.5	1016.8	978.1	939.4	900.7	842.0	783.3	724.6
97.5°	1083.2	1047.4	1011.6	975.8	940.0	904.2	868.4	832.6	778.3	724.1	669.8
100°	1013.9	979.4	944.9	910.5	876.0	841.5	807.1	772.6	721.9	671.2	620.5
102.5°	957.5	924.0	890.4	856.8	823.2	789.7	756.1	722.5	674.5	626.4	578.4
105°	910.9	878.0	845.1	812.1	779.2	746.3	713.4	680.5	634.5	588.4	542.4
107.5°	868.7	836.6	804.6	772.6	740.6	708.5	676.5	644.5	600.0	555.5	511.1
110°	832.6	800.5	768.5	736.5	704.5	672.4	640.4	608.4	565.5	522.6	479.7





TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
112.5°	794.6	762.5	730.5	698.5	666.5	634.4	602.4	570.4	529.5	488.6	447.6
115°	755.4	723.9	692.3	660.7	629.1	597.6	566.0	534.4	495.0	455.7	416.3
117.5°	717.0	685.2	653.4	621.6	589.8	558.0	526.2	494.4	457.5	420.6	383.6
120°	675.1	644.4	613.7	583.1	552.4	521.7	491.0	460.3	425.6	390.9	356.2
122.5°	630.5	600.4	570.4	540.4	510.4	480.3	450.3	420.3	388.7	357.1	325.6
125°	581.6	553.1	524.6	496.2	467.7	439.2	410.8	382.3	353.4	324.5	295.6
127.5°	531.0	504.3	477.6	451.0	424.3	397.6	370.9	344.2	318.2	292.2	266.2
130°	479.0	454.3	429.6	405.0	380.3	355.6	330.9	306.2	283.1	260.0	236.8
132.5°	426.3	404.3	382.3	360.2	338.2	316.2	294.2	272.2	251.7	231.3	210.8
135°	378.7	358.9	339.1	319.4	299.6	279.8	260.0	240.2	222.2	204.2	186.2
137.5°	329.8	313.6	297.4	281.1	264.9	248.7	232.4	216.2	199.5	182.8	166.1
140°	283.5	270.2	256.8	243.5	230.1	216.8	203.4	190.1	175.2	160.3	145.4
142.5°	245.5	234.2	222.8	211.5	200.1	188.8	177.4	166.1	152.5	139.0	125.4
145°	214.2	204.2	194.2	184.1	174.1	164.1	154.1	144.1	132.1	120.1	108.1
147.5°	182.8	174.1	165.4	156.8	148.1	139.4	130.8	122.1	111.9	101.6	91.4
150°	153.4	146.1	138.8	131.4	124.1	116.8	109.4	102.1	93.6	85.2	76.7
152.5°	127.7	121.4	115.2	109.0	102.8	96.5	90.3	84.1	77.2	70.3	63.4
155°	103.4	98.1	92.7	87.4	82.0	76.7	71.3	66.0	60.7	55.3	50.0
157.5°	80.7	76.1	71.4	66.7	62.0	57.4	52.7	48.0	44.4	40.9	37.3
160°	60.9	57.3	53.8	50.2	46.7	43.1	39.6	36.0	33.3	30.7	28.0
162.5°	41.6	39.3	37.1	34.9	32.7	30.4	28.2	26.0	24.2	22.4	20.7
165°	29.3	28.0	26.7	25.3	24.0	22.7	21.3	20.0	18.7	17.3	16.0
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: P201388

CATALOG NUMBER: 8LBLELD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1104.6	1103.0	1101.5	1099.9	1098.4	1096.8	1097.9	1099.0	1100.1	1101.2	1102.4
5°	1111.0	1108.6	1106.1	1103.7	1101.2	1098.8	1099.0	1099.2	1099.5	1099.7	1099.9
7.5°	1117.7	1113.9	1110.1	1106.4	1102.6	1098.8	1098.1	1097.5	1096.8	1096.1	1095.5
10°	1121.5	1116.1	1110.8	1105.5	1100.1	1094.8	1093.0	1091.2	1089.5	1087.7	1085.9
12.5°	1121.2	1114.4	1107.5	1100.6	1093.7	1086.8	1083.9	1081.0	1078.1	1075.2	1072.4
15°	1119.9	1111.7	1103.5	1095.2	1087.0	1078.8	1074.8	1070.8	1066.8	1062.8	1058.8
17.5°	1117.7	1107.9	1098.1	1088.4	1078.6	1068.8	1063.2	1057.7	1052.1	1046.5	1041.0
20°	1110.8	1098.8	1086.8	1074.8	1062.8	1050.8	1044.1	1037.4	1030.8	1024.1	1017.4
22.5°	1105.0	1090.5	1076.1	1061.6	1047.2	1032.7	1024.7	1016.7	1008.7	1000.7	992.7
25°	1098.5	1081.0	1063.4	1045.8	1028.3	1010.7	1001.6	992.5	983.4	974.3	965.1
27.5°	1092.4	1071.2	1050.1	1029.0	1007.8	986.7	976.2	965.8	955.3	944.9	934.4
30°	1082.8	1058.8	1034.8	1010.7	986.7	962.7	950.7	938.7	926.7	914.7	902.6
32.5°	1075.5	1048.1	1020.8	993.4	966.1	938.7	924.9	911.1	897.3	883.5	869.8
35°	1069.0	1038.6	1008.1	977.6	947.2	916.7	900.7	884.7	868.7	852.7	836.6
37.5°	1065.9	1031.6	997.4	963.1	928.9	894.6	876.4	858.1	839.9	821.7	803.4
40°	1064.8	1026.7	988.7	950.7	912.6	874.6	853.7	832.8	811.9	791.0	770.1
42.5°	1066.8	1024.7	982.7	940.7	898.6	856.6	832.8	809.0	785.2	761.4	737.7
45°	1071.0	1024.5	978.0	931.6	885.1	838.6	811.7	784.8	757.9	731.0	704.0
47.5°	1080.8	1028.7	976.7	924.7	872.6	820.6	790.8	761.0	731.2	701.4	671.6
50°	1094.6	1037.0	979.4	921.8	864.2	806.6	773.2	739.9	706.5	673.2	639.8
52.5°	1112.8	1048.8	984.7	920.7	856.6	792.6	756.1	719.6	683.2	646.7	610.2
55°	1138.6	1067.0	995.4	923.8	852.2	780.6	740.3	700.1	659.8	619.6	579.3
57.5°	1167.5	1088.2	1008.8	929.4	850.0	770.6	727.0	683.4	639.8	596.2	552.7
60°	1202.7	1115.0	1027.4	939.8	852.2	764.6	717.2	669.8	622.5	575.1	527.7
62.5°	1238.0	1141.7	1045.4	949.1	852.8	756.5	705.8	655.1	604.4	553.7	503.0
65°	1270.0	1165.7	1061.4	957.1	852.8	748.5	694.7	640.9	587.1	533.3	479.4
67.5°	1292.5	1181.3	1070.1	958.9	847.7	736.5	680.0	623.5	567.1	510.6	454.1
70°	1302.1	1185.7	1069.4	953.1	836.8	720.5	662.0	603.5	545.0	486.5	428.1
72.5°	1292.3	1173.5	1054.8	936.0	817.3	698.5	638.9	579.3	519.7	460.1	400.5
75°	1261.8	1144.0	1026.1	908.2	790.4	672.5	612.2	552.0	491.7	431.4	371.2
77.5°	1210.7	1097.0	983.4	869.8	756.1	642.5	582.2	522.0	461.7	401.4	341.2
80°	1138.1	1031.4	924.6	817.9	711.1	604.4	545.7	487.0	428.3	369.6	310.9
82.5°	1057.9	959.6	861.3	763.0	664.7	566.4	509.2	452.1	394.9	337.8	280.6
85°	970.3	881.1	791.9	702.8	613.6	524.4	469.5	414.5	359.6	304.7	249.7
87.5°	874.4	794.8	715.2	635.5	555.9	476.3	424.5	372.7	320.9	269.1	217.2
90°	791.2	719.9	648.5	577.1	505.7	434.3	386.0	337.8	289.5	241.3	193.0
92.5°	730.1	664.9	599.8	534.6	469.5	404.3	359.4	314.5	269.5	224.6	179.7
95°	665.9	607.1	548.4	489.7	431.0	372.3	330.9	289.6	248.2	206.8	165.5
97.5°	615.5	561.3	507.0	452.7	398.5	344.2	306.0	267.7	229.5	191.2	153.0
100°	569.8	519.0	468.3	417.6	366.9	316.2	281.1	245.9	210.8	175.7	140.5
102.5°	530.4	482.3	434.3	386.3	338.2	290.2	258.0	225.7	193.5	161.2	129.0
105°	496.4	450.3	404.3	358.3	312.2	266.2	236.6	207.0	177.5	147.9	118.3
107.5°	466.6	422.1	377.6	333.2	288.7	244.2	217.1	189.9	162.8	135.7	108.5
110°	436.8	393.8	350.9	308.0	265.1	222.2	197.5	172.8	148.1	123.4	98.8



TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
112.5°	406.7	365.8	324.9	283.9	243.0	202.1	179.6	157.2	134.7	112.3	89.8
115°	376.9	337.6	298.2	258.8	219.5	180.1	160.1	140.1	120.1	100.1	80.0
117.5°	346.7	309.8	272.9	235.9	199.0	162.1	144.1	126.1	108.1	90.1	72.0
120°	321.5	286.9	252.2	217.5	182.8	148.1	131.6	115.2	98.7	82.3	65.8
122.5°	294.0	262.4	230.8	199.3	167.7	136.1	121.0	105.9	90.7	75.6	60.5
125°	266.7	237.7	208.8	179.9	151.0	122.1	108.5	95.0	81.4	67.8	54.3
127.5°	240.2	214.1	188.1	162.1	136.1	110.1	97.9	85.6	73.4	61.2	48.9
130°	213.7	190.6	167.5	144.3	121.2	98.1	87.2	76.3	65.4	54.5	43.6
132.5°	190.4	169.9	149.5	129.0	108.6	88.1	78.3	68.5	58.7	48.9	39.2
135°	168.2	150.1	132.1	114.1	96.1	78.1	69.4	60.7	52.1	43.4	34.7
137.5°	149.4	132.8	116.1	99.4	82.7	66.0	58.7	51.3	44.0	36.7	29.3
140°	130.5	115.6	100.7	85.8	70.9	56.0	49.8	43.6	37.3	31.1	24.9
142.5°	111.8	98.3	84.7	71.1	57.6	44.0	39.1	34.2	29.3	24.4	19.6
145°	96.1	84.0	72.0	60.0	48.0	36.0	32.0	28.0	24.0	20.0	16.0
147.5°	81.2	70.9	60.7	50.5	40.2	30.0	26.7	23.3	20.0	16.7	13.3
150°	68.3	59.8	51.4	42.9	34.5	26.0	23.1	20.2	17.3	14.4	11.6
152.5°	56.5	49.6	42.7	35.8	28.9	22.0	19.6	17.1	14.7	12.2	9.8
155°	44.7	39.3	34.0	28.7	23.3	18.0	16.0	14.0	12.0	10.0	8.0
157.5°	33.8	30.2	26.7	23.1	19.6	16.0	14.2	12.4	10.7	8.9	7.1
160°	25.3	22.7	20.0	17.3	14.7	12.0	10.7	9.3	8.0	6.7	5.3
162.5°	18.9	17.1	15.3	13.6	11.8	10.0	8.9	7.8	6.7	5.6	4.4
165°	14.7	13.3	12.0	10.7	9.3	8.0	7.1	6.2	5.3	4.4	3.6
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: P201388

CATALOG NUMBER: 8LBLELD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1103.5	1104.6	1105.7	1106.8	1104.8	1102.8	1100.8	1098.8	1096.8	1094.8	1092.8
5°	1100.1	1100.4	1100.6	1100.8	1098.1	1095.5	1092.8	1090.1	1087.5	1084.8	1082.1
7.5°	1094.8	1094.1	1093.5	1092.8	1089.5	1086.1	1082.8	1079.5	1076.1	1072.8	1069.5
10°	1084.1	1082.4	1080.6	1078.8	1075.0	1071.2	1067.5	1063.7	1059.9	1056.1	1052.4
12.5°	1069.5	1066.6	1063.7	1060.8	1056.8	1052.8	1048.8	1044.8	1040.7	1036.7	1032.7
15°	1054.8	1050.8	1046.8	1042.8	1038.6	1034.3	1030.1	1025.9	1021.6	1017.4	1013.2
17.5°	1035.4	1029.8	1024.3	1018.7	1014.3	1009.8	1005.4	1000.9	996.5	992.0	987.6
20°	1010.7	1004.1	997.4	990.7	986.5	982.3	978.0	973.8	969.6	965.4	961.1
22.5°	984.7	976.7	968.7	960.7	956.7	952.7	948.7	944.7	940.7	936.7	932.7
25°	956.0	946.9	937.8	928.7	925.1	921.6	918.0	914.4	910.9	907.3	903.7
27.5°	924.0	913.5	903.1	892.6	890.2	887.7	885.3	882.8	880.4	877.9	875.5
30°	890.6	878.6	866.6	854.6	852.8	851.0	849.3	847.5	845.7	843.9	842.2
32.5°	856.0	842.2	828.4	814.6	813.9	813.3	812.6	811.9	811.3	810.6	809.9
35°	820.6	804.6	788.6	772.6	773.3	773.9	774.6	775.3	775.9	776.6	777.3
37.5°	785.2	767.0	748.7	730.5	733.4	736.3	739.2	742.1	744.9	747.8	750.7
40°	749.2	728.3	707.4	686.5	692.1	697.6	703.2	708.7	714.3	719.8	725.4
42.5°	713.9	690.1	666.3	642.5	650.7	658.9	667.2	675.4	683.6	691.8	700.1
45°	677.1	650.2	623.3	596.4	607.7	619.1	630.4	641.8	653.1	664.5	675.8
47.5°	641.8	612.0	582.2	552.4	566.6	580.9	595.1	609.3	623.6	637.8	652.0
50°	606.5	573.1	539.8	506.4	524.0	541.5	559.1	576.7	594.2	611.8	629.4
52.5°	573.7	537.3	500.8	464.3	484.5	504.8	525.0	545.3	565.5	585.8	606.0
55°	539.1	498.8	458.6	418.3	442.1	465.9	489.7	513.5	537.3	561.1	584.9
57.5°	509.1	465.5	421.9	378.3	404.8	431.2	457.7	484.1	510.6	537.0	563.5
60°	480.3	433.0	385.6	338.2	367.6	396.9	426.3	455.6	485.0	514.3	543.7
62.5°	452.3	401.6	350.9	300.2	332.0	363.8	395.6	427.4	459.2	491.0	522.8
65°	425.6	371.8	318.0	264.2	298.2	332.2	366.3	400.3	434.3	468.3	502.4
67.5°	397.6	341.2	284.7	228.2	264.2	300.2	336.3	372.3	408.3	444.3	480.4
70°	369.6	311.1	252.6	194.1	231.7	269.3	306.9	344.5	382.0	419.6	457.2
72.5°	340.9	281.3	221.7	162.1	201.7	241.3	280.9	320.5	360.0	399.6	439.2
75°	310.9	250.6	190.4	130.1	169.2	208.4	247.5	286.6	325.8	364.9	404.0
77.5°	280.9	220.6	160.4	100.1	139.0	177.9	216.8	255.7	294.7	333.6	372.5
80°	252.2	193.5	134.8	76.1	114.1	152.1	190.2	228.2	266.2	304.2	342.3
82.5°	223.5	166.3	109.2	52.0	89.1	126.3	163.4	200.6	237.7	274.9	312.0
85°	194.8	139.9	84.9	30.0	65.8	101.6	137.4	173.2	209.1	244.9	280.7
87.5°	165.4	113.6	61.8	10.0	44.2	78.5	112.7	147.0	181.2	215.5	249.7
90°	144.8	96.5	48.3	0.0	32.0	64.0	96.1	128.1	160.1	192.1	224.2
92.5°	134.8	89.8	44.9	0.0	29.6	59.2	88.7	118.3	147.9	177.5	207.0
95°	124.1	82.7	41.4	0.0	27.4	54.7	82.1	109.4	136.8	164.1	191.5
97.5°	114.7	76.5	38.2	0.0	25.1	50.3	75.4	100.5	125.7	150.8	175.9
100°	105.4	70.3	35.1	0.0	23.1	46.3	69.4	92.5	115.7	138.8	161.9
102.5°	96.7	64.5	32.2	0.0	21.1	42.2	63.4	84.5	105.6	126.7	147.9
105°	88.7	59.2	29.6	0.0	19.3	38.7	58.0	77.4	96.7	116.1	135.4
107.5°	81.4	54.3	27.1	0.0	17.6	35.1	52.7	70.3	87.8	105.4	123.0
110°	74.1	49.4	24.7	0.0	16.0	32.0	48.0	64.0	80.1	96.1	112.1



TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
112.5°	67.4	44.9	22.5	0.0	14.2	28.5	42.7	56.9	71.2	85.4	99.6
115°	60.0	40.0	20.0	0.0	12.9	25.8	38.7	51.6	64.5	77.4	90.3
117.5°	54.0	36.0	18.0	0.0	11.6	23.1	34.7	46.3	57.8	69.4	81.0
120°	49.4	32.9	16.5	0.0	10.2	20.5	30.7	40.9	51.2	61.4	71.6
122.5°	45.4	30.2	15.1	0.0	9.1	18.2	27.4	36.5	45.6	54.7	63.9
125°	40.7	27.1	13.6	0.0	7.8	15.6	23.4	31.2	38.9	46.7	54.5
127.5°	36.7	24.5	12.2	0.0	6.2	12.4	18.7	24.9	31.1	37.3	43.6
130°	32.7	21.8	10.9	0.0	4.9	9.8	14.7	19.6	24.4	29.3	34.2
132.5°	29.4	19.6	9.8	0.0	3.8	7.6	11.3	15.1	18.9	22.7	26.4
135°	26.0	17.4	8.7	0.0	2.7	5.3	8.0	10.7	13.3	16.0	18.7
137.5°	22.0	14.7	7.3	0.0	1.6	3.1	4.7	6.2	7.8	9.3	10.9
140°	18.7	12.4	6.2	0.0	0.7	1.3	2.0	2.7	3.3	4.0	4.7
142.5°	14.7	9.8	4.9	0.0	0.2	0.4	0.7	0.9	1.1	1.3	1.6
145°	12.0	8.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	10.0	6.7	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	8.7	5.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	7.3	4.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	6.0	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	5.3	3.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	4.0	2.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	3.3	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.7	1.8	0.9	0.0	0.0	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: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1090.8	1088.8	1088.1	1087.5	1086.8	1086.1	1085.5	1084.8	1084.1	1083.5	1082.8
5°	1079.5	1076.8	1075.9	1075.0	1074.1	1073.2	1072.4	1071.5	1070.6	1069.7	1068.8
7.5°	1066.1	1062.8	1061.5	1060.1	1058.8	1057.5	1056.1	1054.8	1053.5	1052.1	1050.8
10°	1048.6	1044.8	1043.5	1042.1	1040.8	1039.4	1038.1	1036.7	1035.4	1034.0	1032.7
12.5°	1028.7	1024.7	1023.4	1022.0	1020.7	1019.4	1018.0	1016.7	1015.4	1014.0	1012.7
15°	1008.9	1004.7	1003.6	1002.5	1001.4	1000.3	999.1	998.0	996.9	995.8	994.7
17.5°	983.1	978.7	978.7	978.7	978.7	978.7	978.7	978.7	978.7	978.7	978.7
20°	956.9	952.7	953.4	954.0	954.7	955.4	956.0	956.7	957.4	958.0	958.7
22.5°	928.7	924.7	927.6	930.5	933.4	936.3	939.1	942.0	944.9	947.8	950.7
25°	900.2	896.6	902.8	909.1	915.3	921.5	927.8	934.0	940.2	946.5	952.7
27.5°	873.0	870.6	880.2	889.7	899.3	908.9	918.4	928.0	937.6	947.1	956.7
30°	840.4	838.6	851.9	865.3	878.6	892.0	905.3	918.7	932.0	945.4	958.7
32.5°	809.3	808.6	825.7	842.8	860.0	877.1	894.2	911.3	928.5	945.6	962.7
35°	777.9	778.6	799.5	820.4	841.3	862.2	883.1	904.0	924.9	945.8	966.7
37.5°	753.6	756.5	780.5	804.5	828.6	852.6	876.6	900.6	924.7	948.7	972.7
40°	730.9	736.5	763.4	790.3	817.2	844.1	871.1	898.0	924.9	951.8	978.7
42.5°	708.3	716.5	746.5	776.5	806.6	836.6	866.6	896.6	926.7	956.7	986.7
45°	687.2	698.5	731.9	765.2	798.6	831.9	865.3	898.6	932.0	965.3	998.7
47.5°	666.3	680.5	717.6	754.8	791.9	829.0	866.2	903.3	940.4	977.6	1014.7
50°	646.9	664.5	705.6	746.8	787.9	829.0	870.2	911.3	952.4	993.6	1034.7
52.5°	626.3	646.5	691.6	736.8	781.9	827.1	872.2	917.4	962.5	1007.7	1052.8
55°	608.7	632.5	682.1	731.7	781.3	830.9	880.4	930.0	979.6	1029.2	1078.8
57.5°	589.9	616.4	671.1	725.8	780.5	835.2	890.0	944.7	999.4	1054.1	1108.8
60°	573.0	602.4	662.9	723.4	783.9	844.4	904.8	965.3	1025.8	1086.3	1146.8
62.5°	554.6	586.4	651.3	716.3	781.2	846.1	911.1	976.0	1040.9	1105.9	1170.8
65°	536.4	570.4	639.1	707.8	776.6	845.3	914.0	982.7	1051.5	1120.2	1188.9
67.5°	516.4	552.4	624.7	697.0	769.2	841.5	913.8	986.1	1058.3	1130.6	1202.9
70°	494.8	532.4	606.7	681.0	755.2	829.5	903.8	978.1	1052.3	1126.6	1200.9
72.5°	478.8	518.4	592.2	666.1	739.9	813.7	887.6	961.4	1035.2	1109.1	1182.9
75°	443.2	482.3	555.9	629.5	703.1	776.7	850.4	924.0	997.6	1071.2	1144.8
77.5°	411.4	450.3	521.2	592.2	663.1	734.1	805.0	876.0	946.9	1017.9	1088.8
80°	380.3	418.3	484.8	551.3	617.8	684.3	750.7	817.2	883.7	950.2	1016.7
82.5°	349.2	386.3	447.7	509.1	570.4	631.8	693.2	754.6	815.9	877.3	938.7
85°	316.5	352.3	408.3	464.4	520.4	576.4	632.5	688.5	744.5	800.6	856.6
87.5°	284.0	318.2	370.0	421.8	473.7	525.5	577.3	629.1	681.0	732.8	784.6
90°	256.2	288.2	335.1	382.0	429.0	475.9	522.8	569.7	616.7	663.6	710.5
92.5°	236.6	266.2	308.7	351.2	393.6	436.1	478.6	521.1	563.5	606.0	648.5
95°	218.8	246.2	285.8	325.4	364.9	404.5	444.1	483.7	523.2	562.8	602.4
97.5°	201.1	226.2	263.3	300.5	337.6	374.7	411.9	449.0	486.1	523.3	560.4
100°	185.1	208.2	243.3	278.5	313.6	348.7	383.9	419.0	454.1	489.3	524.4
102.5°	169.0	190.1	223.0	255.9	288.9	321.8	354.7	387.6	420.6	453.5	486.4
105°	154.8	174.1	205.7	237.3	268.8	300.4	332.0	363.6	395.1	426.7	458.3
107.5°	140.5	158.1	188.3	218.6	248.8	279.1	309.3	339.6	369.8	400.1	430.3
110°	128.1	144.1	173.2	202.4	231.5	260.6	289.8	318.9	348.0	377.2	406.3



TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
112.5°	113.9	128.1	156.1	184.1	212.2	240.2	268.2	296.2	324.3	352.3	380.3
115°	103.2	116.1	142.8	169.5	196.2	222.9	249.5	276.2	302.9	329.6	356.3
117.5°	92.5	104.1	129.7	155.2	180.8	206.4	231.9	257.5	283.1	308.6	334.2
120°	81.9	92.1	116.1	140.1	164.1	188.1	212.2	236.2	260.2	284.2	308.2
122.5°	73.0	82.1	104.3	126.6	148.8	171.0	193.3	215.5	237.7	260.0	282.2
125°	62.3	70.1	90.3	110.6	130.8	151.0	171.3	191.5	211.7	232.0	252.2
127.5°	49.8	56.0	74.9	93.8	112.7	131.6	150.6	169.5	188.4	207.3	226.2
130°	39.1	44.0	61.1	78.2	95.4	112.5	129.6	146.7	163.9	181.0	198.1
132.5°	30.2	34.0	49.1	64.2	79.4	94.5	109.6	124.7	139.9	155.0	170.1
135°	21.3	24.0	37.1	50.2	63.4	76.5	89.6	102.7	115.9	129.0	142.1
137.5°	12.4	14.0	25.6	37.1	48.7	60.3	71.8	83.4	95.0	106.5	118.1
140°	5.3	6.0	16.0	26.0	36.0	46.0	56.1	66.1	76.1	86.1	96.1
142.5°	1.8	2.0	10.2	18.5	26.7	34.9	43.2	51.4	59.6	67.9	76.1
145°	0.0	0.0	6.4	12.9	19.3	25.8	32.2	38.7	45.1	51.6	58.0
147.5°	0.0	0.0	4.7	9.3	14.0	18.7	23.3	28.0	32.7	37.3	42.0
150°	0.0	0.0	3.3	6.7	10.0	13.3	16.7	20.0	23.3	26.7	30.0
152.5°	0.0	0.0	1.8	3.6	5.3	7.1	8.9	10.7	12.4	14.2	16.0
155°	0.0	0.0	0.9	1.8	2.7	3.6	4.4	5.3	6.2	7.1	8.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	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: P201388

CATALOG NUMBER: 8LBLELD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1082.1	1081.5	1080.8	1080.1	1079.5	1078.8	1078.1	1077.5	1076.8	1075.9	1075.0
5°	1067.5	1066.1	1064.8	1063.5	1062.1	1060.8	1059.5	1058.1	1056.8	1056.6	1056.4
7.5°	1049.7	1048.6	1047.5	1046.4	1045.2	1044.1	1043.0	1041.9	1040.8	1040.6	1040.4
10°	1031.8	1030.9	1030.0	1029.1	1028.3	1027.4	1026.5	1025.6	1024.7	1024.3	1023.8
12.5°	1012.3	1011.8	1011.4	1010.9	1010.5	1010.0	1009.6	1009.1	1008.7	1008.7	1008.7
15°	994.9	995.1	995.4	995.6	995.8	996.0	996.3	996.5	996.7	997.1	997.6
17.5°	980.5	982.3	984.0	985.8	987.6	989.4	991.1	992.9	994.7	996.3	997.8
20°	963.8	968.9	974.0	979.1	984.3	989.4	994.5	999.6	1004.7	1007.4	1010.0
22.5°	958.3	965.8	973.4	980.9	988.5	996.0	1003.6	1011.1	1018.7	1021.8	1024.9
25°	961.8	970.9	980.0	989.1	998.3	1007.4	1016.5	1025.6	1034.7	1038.0	1041.4
27.5°	967.2	977.6	988.1	998.5	1009.0	1019.4	1029.9	1040.3	1050.8	1055.0	1059.2
30°	970.5	982.3	994.1	1005.9	1017.6	1029.4	1041.2	1053.0	1064.8	1069.9	1075.0
32.5°	976.5	990.3	1004.1	1017.9	1031.6	1045.4	1059.2	1073.0	1086.8	1092.8	1098.8
35°	982.5	998.3	1014.1	1029.9	1045.6	1061.4	1077.2	1093.0	1108.8	1116.1	1123.5
37.5°	990.9	1009.2	1027.4	1045.6	1063.9	1082.1	1100.3	1118.6	1136.8	1145.5	1154.2
40°	1000.0	1021.4	1042.7	1064.1	1085.4	1106.8	1128.1	1149.5	1170.8	1181.0	1191.3
42.5°	1011.4	1036.1	1060.8	1085.5	1110.1	1134.8	1159.5	1184.2	1208.9	1220.9	1232.9
45°	1027.4	1056.1	1084.8	1113.5	1142.1	1170.8	1199.5	1228.2	1256.9	1270.7	1284.5
47.5°	1047.6	1080.5	1113.4	1146.3	1179.3	1212.2	1245.1	1278.0	1310.9	1326.7	1342.5
50°	1072.3	1109.9	1147.5	1185.1	1222.6	1260.2	1297.8	1335.4	1373.0	1391.0	1409.0
52.5°	1095.9	1139.1	1182.2	1225.3	1268.5	1311.6	1354.7	1397.9	1441.0	1460.6	1480.2
55°	1126.8	1174.9	1222.9	1270.9	1319.0	1367.0	1415.0	1463.1	1511.1	1531.6	1552.0
57.5°	1161.1	1213.3	1265.6	1317.8	1370.1	1422.3	1474.6	1526.8	1579.1	1600.2	1621.4
60°	1201.7	1256.7	1311.6	1366.5	1421.5	1476.4	1531.3	1586.3	1641.2	1662.8	1684.3
62.5°	1228.8	1286.9	1344.9	1403.0	1461.0	1519.1	1577.1	1635.2	1693.2	1714.3	1735.5
65°	1249.2	1309.4	1369.7	1430.0	1490.2	1550.5	1610.8	1671.0	1731.3	1751.5	1771.8
67.5°	1263.2	1323.4	1383.7	1444.0	1504.2	1564.5	1624.8	1685.0	1745.3	1764.9	1784.4
70°	1260.3	1319.7	1379.0	1438.4	1497.8	1557.2	1616.5	1675.9	1735.3	1753.3	1771.3
72.5°	1239.8	1296.7	1353.7	1410.6	1467.5	1524.4	1581.4	1638.3	1695.2	1712.1	1729.0
75°	1198.8	1252.9	1306.9	1361.0	1415.0	1469.1	1523.1	1577.2	1631.2	1646.5	1661.9
77.5°	1138.8	1188.9	1238.9	1288.9	1339.0	1389.0	1439.0	1489.1	1539.1	1554.0	1568.9
80°	1062.7	1108.8	1154.8	1200.8	1246.9	1292.9	1338.9	1385.0	1431.0	1445.0	1459.0
82.5°	980.7	1022.8	1064.8	1106.8	1148.9	1190.9	1232.9	1275.0	1317.0	1329.9	1342.8
85°	895.1	933.6	972.0	1010.5	1049.0	1087.5	1125.9	1164.4	1202.9	1214.7	1226.5
87.5°	817.7	850.9	884.0	917.1	950.3	983.4	1016.5	1049.7	1082.8	1094.8	1106.8
90°	741.0	771.4	801.9	832.4	862.8	893.3	923.8	954.2	984.7	996.0	1007.4
92.5°	677.6	706.8	735.9	765.0	794.2	823.3	852.4	881.6	910.7	920.7	930.7
95°	629.5	656.7	683.8	710.9	738.1	765.2	792.3	819.5	846.6	856.2	865.7
97.5°	585.8	611.1	636.5	661.8	687.2	712.5	737.9	763.2	788.6	798.6	808.6
100°	549.5	574.6	599.8	624.9	650.0	675.1	700.3	725.4	750.5	760.1	769.6
102.5°	511.5	536.6	561.8	586.9	612.0	637.1	662.3	687.4	712.5	722.1	731.6
105°	483.2	508.1	533.0	557.9	582.9	607.8	632.7	657.6	682.5	691.8	701.2
107.5°	455.0	479.7	504.4	529.1	553.7	578.4	603.1	627.8	652.5	661.8	671.2
110°	430.5	454.8	479.0	503.3	527.5	551.8	576.0	600.3	624.5	633.8	643.2





TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
112.5°	404.1	427.9	451.7	475.5	499.2	523.0	546.8	570.6	594.4	603.3	612.2
115°	379.2	402.1	425.0	447.9	470.8	493.7	516.6	539.5	562.4	571.5	580.6
117.5°	356.0	377.8	399.6	421.4	443.2	465.0	486.8	508.6	530.4	539.1	547.7
120°	328.9	349.6	370.3	391.0	411.6	432.3	453.0	473.7	494.4	503.3	512.2
122.5°	302.4	322.7	342.9	363.1	383.4	403.6	423.8	444.1	464.3	472.8	481.2
125°	272.2	292.2	312.2	332.2	352.3	372.3	392.3	412.3	432.3	440.5	448.8
127.5°	244.9	263.6	282.2	300.9	319.6	338.3	356.9	375.6	394.3	401.9	409.4
130°	215.0	231.9	248.8	265.7	282.7	299.6	316.5	333.4	350.3	357.9	365.4
132.5°	185.4	200.8	216.1	231.5	246.8	262.2	277.5	292.9	308.2	314.7	321.1
135°	156.8	171.5	186.1	200.8	215.5	230.2	244.8	259.5	274.2	279.5	284.9
137.5°	131.7	145.2	158.8	172.4	185.9	199.5	213.1	226.6	240.2	245.1	250.0
140°	107.9	119.7	131.4	143.2	155.0	166.8	178.5	190.3	202.1	207.2	212.3
142.5°	86.1	96.1	106.1	116.1	126.1	136.1	146.1	156.1	166.1	171.2	176.3
145°	66.2	74.5	82.7	90.9	99.2	107.4	115.6	123.9	132.1	137.4	142.8
147.5°	48.9	55.8	62.7	69.6	76.5	83.4	90.3	97.2	104.1	109.2	114.3
150°	35.6	41.1	46.7	52.3	57.8	63.4	69.0	74.5	80.1	84.8	89.4
152.5°	20.7	25.3	30.0	34.7	39.3	44.0	48.7	53.3	58.0	62.2	66.5
155°	11.3	14.7	18.0	21.3	24.7	28.0	31.3	34.7	38.0	41.8	45.6
157.5°	2.4	4.9	7.3	9.8	12.2	14.7	17.1	19.6	22.0	25.1	28.2
160°	0.9	1.8	2.7	3.6	4.4	5.3	6.2	7.1	8.0	10.4	12.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.7
165°	0.0	0.0	0.0	0.0	0.0	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: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1074.1	1073.2	1072.4	1071.5	1070.6	1069.7	1068.8	1069.2	1069.7	1070.1	1070.6
5°	1056.1	1055.9	1055.7	1055.5	1055.2	1055.0	1054.8	1054.8	1054.8	1054.8	1054.8
7.5°	1040.1	1039.9	1039.7	1039.5	1039.2	1039.0	1038.8	1039.0	1039.2	1039.5	1039.7
10°	1023.4	1022.9	1022.5	1022.0	1021.6	1021.1	1020.7	1020.7	1020.7	1020.7	1020.7
12.5°	1008.7	1008.7	1008.7	1008.7	1008.7	1008.7	1008.7	1008.3	1007.8	1007.4	1006.9
15°	998.0	998.5	998.9	999.4	999.8	1000.3	1000.7	1000.3	999.8	999.4	998.9
17.5°	999.4	1000.9	1002.5	1004.0	1005.6	1007.1	1008.7	1007.1	1005.6	1004.0	1002.5
20°	1012.7	1015.4	1018.0	1020.7	1023.4	1026.0	1028.7	1025.6	1022.5	1019.4	1016.3
22.5°	1028.1	1031.2	1034.3	1037.4	1040.6	1043.7	1046.8	1043.2	1039.7	1036.1	1032.5
25°	1044.7	1048.1	1051.4	1054.8	1058.1	1061.5	1064.8	1060.8	1056.8	1052.8	1048.8
27.5°	1063.5	1067.7	1071.9	1076.1	1080.4	1084.6	1088.8	1084.1	1079.5	1074.8	1070.1
30°	1080.1	1085.2	1090.4	1095.5	1100.6	1105.7	1110.8	1105.5	1100.1	1094.8	1089.5
32.5°	1104.8	1110.8	1116.8	1122.8	1128.8	1134.8	1140.8	1134.4	1127.9	1121.5	1115.0
35°	1130.8	1138.2	1145.5	1152.9	1160.2	1167.6	1174.9	1167.3	1159.8	1152.2	1144.6
37.5°	1162.8	1171.5	1180.2	1188.9	1197.5	1206.2	1214.9	1206.2	1197.5	1188.9	1180.2
40°	1201.5	1211.7	1222.0	1232.2	1242.4	1252.7	1262.9	1252.9	1242.9	1232.9	1222.9
42.5°	1244.9	1256.9	1269.0	1281.0	1293.0	1305.0	1317.0	1305.7	1294.3	1283.0	1271.6
45°	1298.3	1312.1	1325.8	1339.6	1353.4	1367.2	1381.0	1367.4	1353.9	1340.3	1326.7
47.5°	1358.3	1374.1	1389.9	1405.7	1421.5	1437.3	1453.1	1437.5	1422.0	1406.4	1390.8
50°	1427.0	1445.0	1463.1	1481.1	1499.1	1517.1	1535.1	1517.5	1500.0	1482.4	1464.8
52.5°	1499.7	1519.3	1538.9	1558.5	1578.0	1597.6	1617.2	1598.5	1579.8	1561.1	1542.4
55°	1572.5	1592.9	1613.4	1633.8	1654.3	1674.7	1695.2	1675.6	1656.1	1636.5	1616.9
57.5°	1642.5	1663.6	1684.8	1705.9	1727.0	1748.2	1769.3	1749.1	1728.8	1708.6	1688.3
60°	1705.9	1727.5	1749.0	1770.6	1792.2	1813.7	1835.3	1814.8	1794.4	1773.9	1753.5
62.5°	1756.6	1777.7	1798.9	1820.0	1841.1	1862.3	1883.4	1863.8	1844.2	1824.7	1805.1
65°	1792.0	1812.2	1832.5	1852.7	1872.9	1893.2	1913.4	1894.7	1876.0	1857.4	1838.7
67.5°	1804.0	1823.6	1843.1	1862.7	1882.3	1901.8	1921.4	1903.8	1886.3	1868.7	1851.1
70°	1789.3	1807.3	1825.4	1843.4	1861.4	1879.4	1897.4	1881.4	1865.4	1849.4	1833.4
72.5°	1745.9	1762.8	1779.7	1796.6	1813.5	1830.4	1847.3	1832.6	1817.9	1803.3	1788.6
75°	1677.2	1692.6	1707.9	1723.3	1738.6	1754.0	1769.3	1756.0	1742.6	1729.3	1715.9
77.5°	1583.8	1598.7	1613.6	1628.5	1643.4	1658.3	1673.2	1660.3	1647.4	1634.5	1621.6
80°	1473.0	1487.0	1501.1	1515.1	1529.1	1543.1	1557.1	1544.9	1532.6	1520.4	1508.2
82.5°	1355.7	1368.6	1381.4	1394.3	1407.2	1420.1	1433.0	1421.4	1409.9	1398.3	1386.8
85°	1238.2	1250.0	1261.8	1273.6	1285.3	1297.1	1308.9	1297.8	1286.7	1275.6	1264.5
87.5°	1118.8	1130.8	1142.9	1154.9	1166.9	1178.9	1190.9	1180.2	1169.5	1158.9	1148.2
90°	1018.7	1030.1	1041.4	1052.8	1064.1	1075.5	1086.8	1076.3	1065.9	1055.4	1045.0
92.5°	940.7	950.7	960.7	970.7	980.7	990.7	1000.7	990.9	981.1	971.4	961.6
95°	875.3	884.9	894.4	904.0	913.6	923.1	932.7	923.6	914.5	905.3	896.2
97.5°	818.6	828.6	838.6	848.6	858.6	868.6	878.6	869.7	860.8	851.9	843.0
100°	779.2	788.8	798.3	807.9	817.5	827.0	836.6	827.5	818.4	809.2	800.1
102.5°	741.2	750.8	760.3	769.9	779.5	789.0	798.6	789.7	780.8	771.9	763.0
105°	710.5	719.9	729.2	738.6	747.9	757.3	766.6	757.9	749.2	740.6	731.9
107.5°	680.5	689.8	699.2	708.5	717.8	727.2	736.5	727.8	719.2	710.5	701.8
110°	652.5	661.8	671.2	680.5	689.8	699.2	708.5	699.4	690.3	681.2	672.1



TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
112.5°	621.1	630.0	638.9	647.8	656.7	665.6	674.5	665.8	657.1	648.5	639.8
115°	589.8	598.9	608.0	617.1	626.3	635.4	644.5	635.6	626.7	617.8	608.9
117.5°	556.4	565.1	573.7	582.4	591.1	599.7	608.4	600.2	592.0	583.7	575.5
120°	521.1	530.0	538.8	547.7	556.6	565.5	574.4	566.4	558.4	550.4	542.4
122.5°	489.7	498.1	506.6	515.0	523.5	531.9	540.4	532.4	524.4	516.4	508.4
125°	457.0	465.2	473.5	481.7	489.9	498.2	506.4	498.4	490.4	482.4	474.4
127.5°	417.0	424.5	432.1	439.6	447.2	454.7	462.3	455.0	447.6	440.3	433.0
130°	373.0	380.5	388.1	395.6	403.2	410.7	418.3	411.0	403.6	396.3	389.0
132.5°	327.6	334.0	340.5	346.9	353.4	359.8	366.3	360.1	353.8	347.6	341.4
135°	290.2	295.5	300.9	306.2	311.5	316.9	322.2	317.3	312.4	307.5	302.6
137.5°	254.9	259.8	264.6	269.5	274.4	279.3	284.2	280.2	276.2	272.2	268.2
140°	217.5	222.6	227.7	232.8	238.0	243.1	248.2	244.4	240.6	236.9	233.1
142.5°	181.5	186.6	191.7	196.8	202.0	207.1	212.2	209.3	206.4	203.5	200.6
145°	148.1	153.4	158.8	164.1	169.4	174.8	180.1	177.4	174.8	172.1	169.4
147.5°	119.4	124.5	129.7	134.8	139.9	145.0	150.1	147.9	145.7	143.4	141.2
150°	94.1	98.8	103.4	108.1	112.8	117.4	122.1	120.1	118.1	116.1	114.1
152.5°	70.7	74.9	79.2	83.4	87.6	91.9	96.1	94.5	93.0	91.4	89.9
155°	49.4	53.2	56.9	60.7	64.5	68.3	72.1	71.0	69.9	68.7	67.6
157.5°	31.3	34.4	37.6	40.7	43.8	46.9	50.0	49.1	48.2	47.3	46.4
160°	15.3	17.8	20.2	22.7	25.1	27.6	30.0	29.3	28.7	28.0	27.3
162.5°	4.0	5.3	6.7	8.0	9.3	10.7	12.0	11.8	11.6	11.3	11.1
165°	0.0	0.0	0.0	0.0	0.0	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: P201388

CATALOG NUMBER: 8LBLELD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1071.0	1071.5	1071.9	1072.4	1072.8	1074.4	1075.9	1077.5	1079.0	1080.6	1082.1
5°	1054.8	1054.8	1054.8	1054.8	1054.8	1056.8	1058.8	1060.8	1062.8	1064.8	1066.8
7.5°	1039.9	1040.1	1040.4	1040.6	1040.8	1042.6	1044.4	1046.1	1047.9	1049.7	1051.5
10°	1020.7	1020.7	1020.7	1020.7	1020.7	1022.7	1024.7	1026.7	1028.7	1030.8	1032.8
12.5°	1006.5	1006.0	1005.6	1005.1	1004.7	1006.9	1009.1	1011.4	1013.6	1015.8	1018.0
15°	998.5	998.0	997.6	997.1	996.7	997.6	998.5	999.4	1000.3	1001.1	1002.0
17.5°	1000.9	999.4	997.8	996.3	994.7	993.8	992.9	992.0	991.1	990.3	989.4
20°	1013.1	1010.0	1006.9	1003.8	1000.7	997.4	994.0	990.7	987.4	984.0	980.7
22.5°	1029.0	1025.4	1021.8	1018.3	1014.7	1008.5	1002.3	996.0	989.8	983.6	977.4
25°	1044.7	1040.7	1036.7	1032.7	1028.7	1020.9	1013.1	1005.4	997.6	989.8	982.0
27.5°	1065.5	1060.8	1056.1	1051.5	1046.8	1037.2	1027.7	1018.1	1008.5	999.0	989.4
30°	1084.1	1078.8	1073.5	1068.1	1062.8	1051.9	1041.0	1030.1	1019.2	1008.3	997.4
32.5°	1108.6	1102.1	1095.7	1089.2	1082.8	1069.7	1056.6	1043.4	1030.3	1017.2	1004.1
35°	1137.1	1129.5	1121.9	1114.4	1106.8	1091.5	1076.1	1060.8	1045.4	1030.1	1014.7
37.5°	1171.5	1162.8	1154.2	1145.5	1136.8	1119.0	1101.2	1083.4	1065.6	1047.9	1030.1
40°	1212.8	1202.8	1192.8	1182.8	1172.8	1151.9	1131.0	1110.1	1089.2	1068.3	1047.4
42.5°	1260.3	1248.9	1237.6	1226.2	1214.9	1190.4	1166.0	1141.5	1117.0	1092.6	1068.1
45°	1313.2	1299.6	1286.0	1272.5	1258.9	1230.9	1202.9	1174.8	1146.8	1118.8	1090.8
47.5°	1375.3	1359.7	1344.1	1328.6	1313.0	1280.7	1248.5	1216.2	1184.0	1151.7	1119.5
50°	1447.3	1429.7	1412.1	1394.6	1377.0	1339.9	1302.7	1265.6	1228.5	1191.3	1154.2
52.5°	1523.8	1505.1	1486.4	1467.7	1449.0	1406.3	1363.6	1320.9	1278.2	1235.6	1192.9
55°	1597.4	1577.8	1558.2	1538.7	1519.1	1471.5	1423.9	1376.3	1328.7	1281.2	1233.6
57.5°	1668.1	1647.8	1627.6	1607.3	1587.1	1535.3	1483.5	1431.7	1379.9	1328.0	1276.2
60°	1733.0	1712.6	1692.1	1671.7	1651.2	1596.5	1541.8	1487.1	1432.4	1377.6	1322.9
62.5°	1785.5	1765.9	1746.4	1726.8	1707.2	1649.4	1591.6	1533.8	1476.0	1418.1	1360.3
65°	1820.0	1801.3	1782.7	1764.0	1745.3	1685.5	1625.7	1565.8	1506.0	1446.2	1386.4
67.5°	1833.6	1816.0	1798.4	1780.9	1763.3	1702.8	1642.3	1581.8	1521.3	1460.9	1400.4
70°	1817.3	1801.3	1785.3	1769.3	1753.3	1693.9	1634.5	1575.2	1515.8	1456.4	1397.0
72.5°	1773.9	1759.2	1744.6	1729.9	1715.2	1657.8	1600.5	1543.1	1485.7	1428.4	1371.0
75°	1702.6	1689.2	1675.9	1662.5	1649.2	1594.9	1540.7	1486.4	1432.1	1377.9	1323.6
77.5°	1608.7	1595.8	1582.9	1570.0	1557.1	1506.8	1456.6	1406.3	1356.1	1305.8	1255.6
80°	1495.9	1483.7	1471.5	1459.2	1447.0	1401.2	1355.4	1309.6	1263.8	1217.9	1172.1
82.5°	1375.2	1363.7	1352.1	1340.6	1329.0	1287.4	1245.8	1204.2	1162.6	1121.1	1079.5
85°	1253.3	1242.2	1231.1	1220.0	1208.9	1171.1	1133.3	1095.5	1057.7	1019.8	982.0
87.5°	1137.5	1126.8	1116.2	1105.5	1094.8	1060.8	1026.8	992.7	958.7	924.7	890.7
90°	1034.5	1024.1	1013.6	1003.2	992.7	961.8	930.9	900.0	869.1	838.1	807.2
92.5°	951.8	942.0	932.3	922.5	912.7	884.2	855.8	827.3	798.8	770.4	741.9
95°	887.1	878.0	868.8	859.7	850.6	824.4	798.1	771.9	745.6	719.4	693.1
97.5°	834.2	825.3	816.4	807.5	798.6	773.2	747.9	722.5	697.2	671.8	646.5
100°	791.0	781.9	772.7	763.6	754.5	729.8	705.1	680.5	655.8	631.1	606.4
102.5°	754.1	745.2	736.3	727.4	718.5	693.6	668.7	643.8	618.9	594.0	569.1
105°	723.2	714.5	705.9	697.2	688.5	663.8	639.1	614.4	589.7	565.1	540.4
107.5°	693.2	684.5	675.8	667.2	658.5	634.3	610.0	585.8	561.5	537.3	513.0
110°	662.9	653.8	644.7	635.6	626.5	603.1	579.8	556.4	533.1	509.7	486.4



TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
112.5°	631.1	622.4	613.8	605.1	596.4	573.5	550.6	527.7	504.8	481.9	459.0
115°	600.0	591.1	582.2	573.3	564.4	542.6	520.8	499.0	477.2	455.5	433.7
117.5°	567.3	559.1	550.8	542.6	534.4	513.3	492.1	471.0	449.9	428.7	407.6
120°	534.4	526.4	518.4	510.4	502.4	482.2	461.9	441.7	421.4	401.2	380.9
122.5°	500.3	492.3	484.3	476.3	468.3	448.7	429.2	409.6	390.0	370.5	350.9
125°	466.3	458.3	450.3	442.3	434.3	415.2	396.1	376.9	357.8	338.7	319.6
127.5°	425.6	418.3	411.0	403.6	396.3	378.7	361.2	343.6	326.0	308.5	290.9
130°	381.6	374.3	367.0	359.6	352.3	337.0	321.6	306.3	290.9	275.6	260.2
132.5°	335.1	328.9	322.7	316.4	310.2	296.9	283.5	270.2	256.8	243.5	230.1
135°	297.8	292.9	288.0	283.1	278.2	266.0	253.7	241.5	229.3	217.0	204.8
137.5°	264.2	260.2	256.2	252.2	248.2	236.9	225.5	214.2	202.8	191.5	180.1
140°	229.3	225.5	221.8	218.0	214.2	204.2	194.2	184.2	174.2	164.1	154.1
142.5°	197.7	194.8	191.9	189.0	186.1	177.0	167.9	158.8	149.7	140.5	131.4
145°	166.8	164.1	161.4	158.8	156.1	148.3	140.5	132.8	125.0	117.2	109.4
147.5°	139.0	136.8	134.5	132.3	130.1	123.4	116.8	110.1	103.4	96.8	90.1
150°	112.1	110.1	108.1	106.1	104.1	98.5	93.0	87.4	81.8	76.3	70.7
152.5°	88.3	86.8	85.2	83.7	82.1	77.2	72.3	67.4	62.5	57.6	52.7
155°	66.5	65.4	64.2	63.1	62.0	57.8	53.6	49.3	45.1	40.9	36.7
157.5°	45.6	44.7	43.8	42.9	42.0	38.7	35.3	32.0	28.7	25.3	22.0
160°	26.7	26.0	25.3	24.7	24.0	21.8	19.6	17.3	15.1	12.9	10.7
162.5°	10.9	10.7	10.4	10.2	10.0	8.9	7.8	6.7	5.6	4.4	3.3
165°	0.0	0.0	0.0	0.0	0.0	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: P201388

CATALOG NUMBER: 8LBLEDD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1083.7	1085.2	1086.8	1087.0	1087.2	1087.5	1087.7	1087.9	1088.1	1088.4	1088.6
5°	1068.8	1070.8	1072.8	1073.2	1073.7	1074.1	1074.6	1075.0	1075.5	1075.9	1076.4
7.5°	1053.2	1055.0	1056.8	1057.7	1058.6	1059.5	1060.4	1061.2	1062.1	1063.0	1063.9
10°	1034.8	1036.8	1038.8	1039.7	1040.6	1041.5	1042.4	1043.2	1044.1	1045.0	1045.9
12.5°	1020.3	1022.5	1024.7	1024.9	1025.1	1025.4	1025.6	1025.8	1026.0	1026.3	1026.5
15°	1002.9	1003.8	1004.7	1004.7	1004.7	1004.7	1004.7	1004.7	1004.7	1004.7	1004.7
17.5°	988.5	987.6	986.7	986.3	985.8	985.4	984.9	984.5	984.0	983.6	983.1
20°	977.4	974.0	970.7	969.1	967.6	966.0	964.5	962.9	961.4	959.8	958.3
22.5°	971.1	964.9	958.7	955.4	952.0	948.7	945.4	942.0	938.7	935.4	932.0
25°	974.3	966.5	958.7	952.0	945.4	938.7	932.0	925.4	918.7	912.0	905.4
27.5°	979.8	970.3	960.7	950.7	940.7	930.7	920.7	910.6	900.6	890.6	880.6
30°	986.5	975.6	964.7	950.7	936.7	922.7	908.7	894.6	880.6	866.6	852.6
32.5°	990.9	977.8	964.7	947.4	930.0	912.7	895.3	878.0	860.6	843.3	825.9
35°	999.4	984.0	968.7	948.0	927.3	906.7	886.0	865.3	844.6	824.0	803.3
37.5°	1012.3	994.5	976.7	952.5	928.2	904.0	879.7	855.5	831.2	807.0	782.7
40°	1026.5	1005.6	984.7	957.3	930.0	902.6	875.3	847.9	820.6	793.2	765.9
42.5°	1043.6	1019.2	994.7	964.2	933.8	903.3	872.8	842.4	811.9	781.4	751.0
45°	1062.7	1034.7	1006.7	972.9	939.1	905.3	871.5	837.7	803.9	770.1	736.3
47.5°	1087.2	1055.0	1022.7	985.3	948.0	910.6	873.3	835.9	798.6	761.2	723.9
50°	1117.1	1079.9	1042.8	1001.2	959.6	918.0	876.4	834.9	793.3	751.7	710.1
52.5°	1150.2	1107.5	1064.8	1019.0	973.2	927.4	881.6	835.7	789.9	744.1	698.3
55°	1186.0	1138.4	1090.8	1040.3	989.8	939.4	888.9	838.4	787.9	737.5	687.0
57.5°	1224.4	1172.6	1120.8	1065.4	1010.1	954.7	899.3	844.0	788.6	733.2	677.9
60°	1268.2	1213.5	1158.8	1097.6	1036.5	975.3	914.2	853.0	791.9	730.7	669.6
62.5°	1302.5	1244.7	1186.9	1121.1	1055.2	989.4	923.6	857.7	791.9	726.1	660.2
65°	1326.5	1266.7	1206.9	1137.1	1067.2	997.4	927.6	857.7	787.9	718.1	648.2
67.5°	1339.9	1279.4	1218.9	1145.7	1072.6	999.4	926.2	853.1	779.9	706.7	633.6
70°	1337.7	1278.3	1218.9	1143.5	1068.1	992.7	917.3	842.0	766.6	691.2	615.8
72.5°	1313.6	1256.3	1198.9	1123.5	1048.1	972.7	897.3	822.0	746.6	671.2	595.8
75°	1269.3	1215.1	1160.8	1086.5	1012.3	938.0	863.7	789.5	715.2	640.9	566.7
77.5°	1205.3	1155.1	1104.8	1033.0	961.1	889.3	817.5	745.6	673.8	602.0	530.1
80°	1126.3	1080.5	1034.7	967.1	899.5	831.9	764.3	696.7	629.1	561.5	493.9
82.5°	1037.9	996.3	954.7	892.2	829.7	767.2	704.7	642.3	579.8	517.3	454.8
85°	944.2	906.4	868.6	812.1	755.6	699.2	642.7	586.2	529.7	473.3	416.8
87.5°	856.6	822.6	788.6	737.2	685.8	634.5	583.1	531.7	480.3	429.0	377.6
90°	776.3	745.4	714.5	667.8	621.1	574.4	527.7	481.0	434.3	387.6	340.9
92.5°	713.4	685.0	656.5	613.8	571.1	528.4	485.7	443.0	400.3	357.6	314.9
95°	666.9	640.6	614.4	574.2	533.9	493.7	453.4	413.2	372.9	332.7	292.4
97.5°	621.1	595.8	570.4	533.0	495.7	458.3	421.0	383.6	346.3	308.9	271.6
100°	581.8	557.1	532.4	497.3	462.1	427.0	391.9	356.7	321.6	286.5	251.3
102.5°	544.2	519.3	494.4	461.5	428.6	395.6	362.7	329.8	296.9	263.9	231.0
105°	515.7	491.0	466.3	434.7	403.1	371.6	340.0	308.4	276.8	245.3	213.7
107.5°	488.8	464.5	440.3	409.8	379.4	348.9	318.4	288.0	257.5	227.0	196.6
110°	463.0	439.7	416.3	386.7	357.1	327.6	298.0	268.4	238.8	209.3	179.7



TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
112.5°	436.1	413.2	390.3	362.1	333.8	305.6	277.3	249.1	220.8	192.6	164.3
115°	411.9	390.1	368.3	341.2	314.0	286.9	259.8	232.6	205.5	178.4	151.2
117.5°	386.5	365.3	344.2	318.4	292.6	266.8	241.0	215.3	189.5	163.7	137.9
120°	360.7	340.4	320.2	295.7	271.3	246.8	222.4	197.9	173.5	149.0	124.6
122.5°	331.3	311.8	292.2	269.7	247.3	224.8	202.4	179.9	157.5	135.0	112.6
125°	300.4	281.3	262.2	241.7	221.3	200.8	180.4	159.9	139.5	119.0	98.6
127.5°	273.3	255.8	238.2	219.3	200.4	181.5	162.6	143.6	124.7	105.8	86.9
130°	244.9	229.5	214.2	196.8	179.5	162.1	144.8	127.4	110.1	92.7	75.4
132.5°	216.8	203.4	190.1	174.3	158.5	142.7	126.9	111.2	95.4	79.6	63.8
135°	192.6	180.3	168.1	153.6	139.2	124.7	110.3	95.8	81.4	66.9	52.5
137.5°	168.8	157.4	146.1	133.0	119.9	106.7	93.6	80.5	67.4	54.2	41.1
140°	144.1	134.1	124.1	112.5	101.0	89.4	77.8	66.3	54.7	43.1	31.6
142.5°	122.3	113.2	104.1	94.1	84.1	74.1	64.1	54.0	44.0	34.0	24.0
145°	101.7	93.9	86.1	77.4	68.7	60.1	51.4	42.7	34.0	25.4	16.7
147.5°	83.4	76.8	70.1	62.8	55.4	48.1	40.7	33.4	26.0	18.7	11.3
150°	65.1	59.6	54.0	48.2	42.4	36.7	30.9	25.1	19.3	13.6	7.8
152.5°	47.8	42.9	38.0	33.8	29.6	25.3	21.1	16.9	12.7	8.4	4.2
155°	32.4	28.2	24.0	21.3	18.7	16.0	13.3	10.7	8.0	5.3	2.7
157.5°	18.7	15.3	12.0	10.7	9.3	8.0	6.7	5.3	4.0	2.7	1.3
160°	8.4	6.2	4.0	3.6	3.1	2.7	2.2	1.8	1.3	0.9	0.4
162.5°	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	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: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1088.8	1091.7	1094.6	1097.5	1100.4	1103.2	1106.1	1109.0	1111.9	1114.8	1114.1
5°	1076.8	1080.4	1083.9	1087.5	1091.0	1094.6	1098.1	1101.7	1105.2	1108.8	1109.0
7.5°	1064.8	1068.8	1072.8	1076.8	1080.8	1084.8	1088.8	1092.8	1096.8	1100.8	1102.1
10°	1046.8	1051.2	1055.7	1060.1	1064.6	1069.0	1073.5	1077.9	1082.4	1086.8	1089.2
12.5°	1026.7	1031.6	1036.5	1041.4	1046.3	1051.2	1056.1	1061.0	1065.9	1070.8	1074.4
15°	1004.7	1009.8	1014.9	1020.1	1025.2	1030.3	1035.4	1040.6	1045.7	1050.8	1055.5
17.5°	982.7	987.8	992.9	998.0	1003.1	1008.3	1013.4	1018.5	1023.6	1028.7	1034.5
20°	956.7	961.6	966.5	971.4	976.3	981.1	986.0	990.9	995.8	1000.7	1007.8
22.5°	928.7	933.4	938.0	942.7	947.4	952.0	956.7	961.4	966.0	970.7	979.4
25°	898.7	902.9	907.1	911.4	915.6	919.8	924.0	928.3	932.5	936.7	946.7
27.5°	870.6	874.2	877.7	881.3	884.9	888.4	892.0	895.6	899.1	902.7	914.0
30°	838.6	841.5	844.4	847.3	850.2	853.0	855.9	858.8	861.7	864.6	877.5
32.5°	808.6	810.2	811.7	813.3	814.8	816.4	817.9	819.5	821.0	822.6	837.3
35°	782.6	782.4	782.2	781.9	781.7	781.5	781.3	781.0	780.8	780.6	797.3
37.5°	758.5	756.3	754.1	751.8	749.6	747.4	745.2	742.9	740.7	738.5	757.4
40°	738.5	733.4	728.3	723.2	718.1	712.9	707.8	702.7	697.6	692.5	714.3
42.5°	720.5	712.5	704.5	696.5	688.5	680.5	672.5	664.5	656.5	648.5	673.0
45°	702.5	691.4	680.3	669.1	658.0	646.9	635.8	624.6	613.5	602.4	629.8
47.5°	686.5	672.3	658.0	643.8	629.6	615.3	601.1	586.9	572.6	558.4	588.6
50°	668.5	651.4	634.3	617.1	600.0	582.9	565.8	548.6	531.5	514.4	547.8
52.5°	652.5	631.8	611.1	590.4	569.7	549.1	528.4	507.7	487.0	466.3	503.2
55°	636.5	613.4	590.2	567.1	544.0	520.8	497.7	474.6	451.4	428.3	468.1
57.5°	622.5	596.5	570.5	544.4	518.4	492.4	466.4	440.3	414.3	388.3	431.4
60°	608.4	579.5	550.6	521.7	492.8	463.9	435.0	406.1	377.2	348.3	394.8
62.5°	594.4	562.8	531.2	499.7	468.1	436.5	404.9	373.4	341.8	310.2	360.0
65°	578.4	544.4	510.4	476.3	442.3	408.3	374.3	340.2	306.2	272.2	324.9
67.5°	560.4	524.4	488.4	452.3	416.3	380.3	344.3	308.2	272.2	236.2	291.6
70°	540.4	502.8	465.2	427.6	390.0	352.5	314.9	277.3	239.7	202.1	259.3
72.5°	520.4	481.3	442.1	403.0	363.8	324.7	285.5	246.4	207.2	168.1	226.6
75°	492.4	453.0	413.7	374.3	334.9	295.6	256.2	216.8	177.5	138.1	196.8
77.5°	458.3	419.4	380.5	341.6	302.7	263.7	224.8	185.9	147.0	108.1	166.6
80°	426.3	388.1	349.8	311.6	273.3	235.1	196.8	158.6	120.3	82.1	139.5
82.5°	392.3	354.9	317.6	280.2	242.8	205.5	168.1	130.7	93.4	56.0	111.8
85°	360.3	324.0	287.8	251.5	215.3	179.0	142.8	106.5	70.3	34.0	87.8
87.5°	326.2	291.7	257.3	222.8	188.3	153.9	119.4	84.9	50.5	16.0	66.5
90°	294.2	261.7	229.3	196.8	164.3	131.9	99.4	66.9	34.5	2.0	49.6
92.5°	272.2	242.0	211.7	181.5	151.2	121.0	90.7	60.5	30.2	0.0	44.7
95°	252.2	224.2	196.2	168.1	140.1	112.1	84.1	56.0	28.0	0.0	41.1
97.5°	234.2	208.2	182.2	156.1	130.1	104.1	78.1	52.0	26.0	0.0	38.0
100°	216.2	192.2	168.2	144.1	120.1	96.1	72.1	48.0	24.0	0.0	34.9
102.5°	198.1	176.1	154.1	132.1	110.1	88.0	66.0	44.0	22.0	0.0	32.2
105°	182.1	161.9	141.6	121.4	101.2	80.9	60.7	40.5	20.2	0.0	29.6
107.5°	166.1	147.9	129.6	111.4	93.2	74.9	56.7	38.5	20.2	2.0	29.1
110°	150.1	133.6	117.2	100.7	84.3	67.8	51.4	34.9	18.5	2.0	26.5





TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
112.5°	136.1	121.2	106.3	91.4	76.5	61.6	46.7	31.8	16.9	2.0	24.2
115°	124.1	110.5	97.0	83.4	69.8	56.3	42.7	29.1	15.6	2.0	22.0
117.5°	112.1	99.9	87.6	75.4	63.2	50.9	38.7	26.5	14.2	2.0	20.0
120°	100.1	89.2	78.3	67.4	56.5	45.6	34.7	23.8	12.9	2.0	18.5
122.5°	90.1	80.3	70.5	60.7	50.9	41.2	31.4	21.6	11.8	2.0	16.9
125°	78.1	69.6	61.2	52.7	44.3	35.8	27.4	18.9	10.5	2.0	15.3
127.5°	68.0	60.7	53.3	46.0	38.7	31.3	24.0	16.7	9.3	2.0	13.6
130°	58.0	51.8	45.6	39.3	33.1	26.9	20.7	14.4	8.2	2.0	12.0
132.5°	48.0	42.9	37.8	32.7	27.6	22.4	17.3	12.2	7.1	2.0	10.7
135°	38.0	34.0	30.0	26.0	22.0	18.0	14.0	10.0	6.0	2.0	9.3
137.5°	28.0	25.1	22.2	19.3	16.4	13.6	10.7	7.8	4.9	2.0	8.0
140°	20.0	18.0	16.0	14.0	12.0	10.0	8.0	6.0	4.0	2.0	6.7
142.5°	14.0	12.7	11.3	10.0	8.7	7.3	6.0	4.7	3.3	2.0	5.6
145°	8.0	7.3	6.7	6.0	5.3	4.7	4.0	3.3	2.7	2.0	4.7
147.5°	4.0	3.8	3.6	3.3	3.1	2.9	2.7	2.4	2.2	2.0	4.2
150°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0
152.5°	0.0	0.2	0.4	0.7	0.9	1.1	1.3	1.6	1.8	2.0	3.8
155°	0.0	0.2	0.4	0.7	0.9	1.1	1.3	1.6	1.8	2.0	3.6
157.5°	0.0	0.2	0.4	0.7	0.9	1.1	1.3	1.6	1.8	2.0	3.1
160°	0.0	0.2	0.4	0.7	0.9	1.1	1.3	1.6	1.8	2.0	3.1
162.5°	0.0	0.4	0.9	1.3	1.8	2.2	2.7	3.1	3.6	4.0	4.9
165°	0.0	0.4	0.9	1.3	1.8	2.2	2.7	3.1	3.6	4.0	4.7
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: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1113.5	1112.8	1112.1	1111.5	1110.8	1110.1	1109.5	1108.8	1109.7	1110.6	1111.5
5°	1109.2	1109.5	1109.7	1109.9	1110.1	1110.4	1110.6	1110.8	1112.6	1114.4	1116.1
7.5°	1103.5	1104.8	1106.1	1107.5	1108.8	1110.1	1111.5	1112.8	1115.5	1118.1	1120.8
10°	1091.7	1094.1	1096.6	1099.0	1101.5	1103.9	1106.4	1108.8	1112.8	1116.8	1120.8
12.5°	1077.9	1081.5	1085.0	1088.6	1092.1	1095.7	1099.2	1102.8	1107.9	1113.0	1118.1
15°	1060.1	1064.8	1069.5	1074.1	1078.8	1083.5	1088.1	1092.8	1099.5	1106.1	1112.8
17.5°	1040.3	1046.1	1051.9	1057.6	1063.4	1069.2	1075.0	1080.8	1089.2	1097.7	1106.1
20°	1014.9	1022.1	1029.2	1036.3	1043.4	1050.6	1057.7	1064.8	1075.2	1085.7	1096.1
22.5°	988.1	996.7	1005.4	1014.1	1022.8	1031.4	1040.1	1048.8	1061.9	1075.0	1088.1
25°	956.7	966.7	976.7	986.7	996.7	1006.7	1016.7	1026.7	1043.2	1059.6	1076.1
27.5°	925.4	936.7	948.0	959.4	970.7	982.0	993.4	1004.7	1024.5	1044.3	1064.1
30°	890.4	903.3	916.2	929.1	942.0	954.9	967.8	980.7	1003.8	1027.0	1050.1
32.5°	852.0	866.6	881.3	896.0	910.7	925.3	940.0	954.7	981.4	1008.1	1034.8
35°	814.0	830.6	847.3	864.0	880.7	897.3	914.0	930.7	960.7	990.7	1020.8
37.5°	776.3	795.2	814.1	833.1	852.0	870.9	889.8	908.7	942.3	975.9	1009.4
40°	736.1	757.9	779.7	801.4	823.2	845.0	866.8	888.6	925.7	962.9	1000.0
42.5°	697.4	721.9	746.3	770.8	795.2	819.7	844.1	868.6	909.7	950.9	992.0
45°	657.1	684.5	711.8	739.2	766.5	793.9	821.2	848.6	894.4	940.2	986.0
47.5°	618.9	649.1	679.4	709.6	739.9	770.1	800.4	830.6	881.7	932.9	984.0
50°	581.1	614.5	647.8	681.2	714.5	747.9	781.2	814.6	871.3	928.0	984.7
52.5°	540.1	577.1	614.0	650.9	687.8	724.8	761.7	798.6	861.8	924.9	988.1
55°	507.9	547.7	587.5	627.4	667.2	707.0	746.8	786.6	856.9	927.1	997.4
57.5°	474.6	517.7	560.9	604.0	647.2	690.3	733.5	776.6	854.7	932.7	1010.8
60°	441.3	487.7	534.2	580.7	627.2	673.6	720.1	766.6	853.3	940.0	1026.8
62.5°	409.8	459.6	509.4	559.3	609.1	658.9	708.7	758.5	854.1	949.8	1045.4
65°	377.6	430.3	483.0	535.7	588.4	641.1	693.8	746.5	850.4	954.2	1058.1
67.5°	346.9	402.3	457.7	513.0	568.4	623.8	679.1	734.5	845.3	956.0	1066.8
70°	316.4	373.6	430.7	487.9	545.0	602.2	659.3	716.5	832.6	948.7	1064.8
72.5°	285.1	343.6	402.1	460.5	519.0	577.5	636.0	694.5	812.8	931.1	1049.4
75°	255.5	314.2	372.9	431.7	490.4	549.1	607.8	666.5	783.9	901.3	1018.7
77.5°	225.1	283.6	342.1	400.5	459.0	517.5	576.0	634.5	747.9	861.3	974.7
80°	196.8	254.2	311.6	368.9	426.3	483.7	541.0	598.4	704.7	811.0	917.3
82.5°	167.6	223.5	279.3	335.1	390.9	446.8	502.6	558.4	656.5	754.5	852.6
85°	141.6	195.5	249.3	303.1	356.9	410.8	464.6	518.4	607.4	696.3	785.3
87.5°	117.0	167.4	217.9	268.4	318.9	369.3	419.8	470.3	550.6	630.9	711.2
90°	97.2	144.8	192.4	239.9	287.5	335.1	382.7	430.3	502.4	574.4	646.5
92.5°	89.4	134.1	178.8	223.5	268.2	312.9	357.6	402.3	467.2	532.2	597.1
95°	82.3	123.4	164.6	205.7	246.9	288.0	329.2	370.3	429.5	488.6	547.8
97.5°	76.0	114.1	152.1	190.1	228.1	266.2	304.2	342.2	396.9	451.6	506.3
100°	69.8	104.7	139.6	174.6	209.5	244.4	279.3	314.2	365.6	417.0	468.3
102.5°	64.5	96.7	129.0	161.2	193.5	225.7	258.0	290.2	338.9	387.6	436.3
105°	59.2	88.7	118.3	147.9	177.5	207.0	236.6	266.2	312.7	359.2	405.6
107.5°	56.3	83.4	110.5	137.7	164.8	191.9	219.1	246.2	290.5	334.7	379.0
110°	50.9	75.4	99.9	124.3	148.8	173.3	197.7	222.2	265.1	308.0	350.9



TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
112.5°	46.5	68.7	90.9	113.2	135.4	157.6	179.9	202.1	243.0	283.9	324.9
115°	42.0	62.0	82.0	102.1	122.1	142.1	162.1	182.1	221.2	260.4	299.5
117.5°	38.0	56.0	74.0	92.1	110.1	128.1	146.1	164.1	200.6	237.1	273.5
120°	34.9	51.4	67.8	84.3	100.7	117.2	133.6	150.1	184.3	218.6	252.8
122.5°	31.8	46.7	61.6	76.5	91.4	106.3	121.2	136.1	167.5	198.8	230.2
125°	28.7	42.0	55.4	68.7	82.1	95.4	108.8	122.1	150.8	179.5	208.2
127.5°	25.1	36.7	48.3	59.8	71.4	83.0	94.5	106.1	132.1	158.1	184.1
130°	22.0	32.0	42.0	52.1	62.1	72.1	82.1	92.1	114.3	136.6	158.8
132.5°	19.4	28.0	36.7	45.4	54.1	62.7	71.4	80.1	98.8	117.5	136.1
135°	16.7	24.0	31.3	38.7	46.0	53.3	60.7	68.0	84.2	100.5	116.7
137.5°	14.0	20.0	26.0	32.0	38.0	44.0	50.0	56.0	70.2	84.5	98.7
140°	11.3	16.0	20.7	25.3	30.0	34.7	39.3	44.0	56.5	68.9	81.4
142.5°	9.1	12.7	16.2	19.8	23.3	26.9	30.4	34.0	44.7	55.4	66.0
145°	7.3	10.0	12.7	15.3	18.0	20.7	23.3	26.0	35.1	44.2	53.4
147.5°	6.4	8.7	10.9	13.1	15.3	17.6	19.8	22.0	29.3	36.7	44.0
150°	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	25.8	31.6	37.4
152.5°	5.6	7.3	9.1	10.9	12.7	14.4	16.2	18.0	22.2	26.4	30.7
155°	5.1	6.7	8.2	9.8	11.3	12.9	14.4	16.0	18.9	21.8	24.7
157.5°	4.2	5.3	6.4	7.6	8.7	9.8	10.9	12.0	13.8	15.6	17.3
160°	4.2	5.3	6.4	7.6	8.7	9.8	10.9	12.0	12.9	13.8	14.7
162.5°	5.8	6.7	7.6	8.4	9.3	10.2	11.1	12.0	12.2	12.4	12.7
165°	5.3	6.0	6.7	7.3	8.0	8.7	9.3	10.0	10.2	10.4	10.7
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: P201388

CATALOG NUMBER: 8LBLELD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1112.4	1113.2	1114.1	1115.0	1115.9	1116.8	1116.6	1116.4	1116.1	1115.9	1115.7
5°	1117.9	1119.7	1121.5	1123.2	1125.0	1126.8	1127.5	1128.1	1128.8	1129.5	1130.1
7.5°	1123.5	1126.1	1128.8	1131.5	1134.1	1136.8	1138.6	1140.4	1142.1	1143.9	1145.7
10°	1124.8	1128.8	1132.8	1136.8	1140.8	1144.8	1147.5	1150.1	1152.8	1155.5	1158.1
12.5°	1123.2	1128.4	1133.5	1138.6	1143.7	1148.8	1152.8	1156.8	1160.8	1164.8	1168.9
15°	1119.5	1126.1	1132.8	1139.5	1146.1	1152.8	1158.1	1163.5	1168.8	1174.2	1179.5
17.5°	1114.6	1123.0	1131.5	1139.9	1148.4	1156.8	1164.4	1171.9	1179.5	1187.1	1194.6
20°	1106.6	1117.0	1127.5	1137.9	1148.4	1158.8	1168.8	1178.8	1188.8	1198.8	1208.9
22.5°	1101.2	1114.4	1127.5	1140.6	1153.7	1166.8	1178.6	1190.4	1202.2	1214.0	1225.7
25°	1092.6	1109.0	1125.5	1142.0	1158.4	1174.9	1188.2	1201.6	1214.9	1228.2	1241.6
27.5°	1083.9	1103.7	1123.5	1143.3	1163.1	1182.9	1197.8	1212.7	1227.6	1242.5	1257.4
30°	1073.2	1096.4	1119.5	1142.6	1165.8	1188.9	1205.8	1222.7	1239.6	1256.5	1273.4
32.5°	1061.5	1088.1	1114.8	1141.5	1168.2	1194.9	1214.2	1233.6	1252.9	1272.3	1291.6
35°	1050.8	1080.8	1110.8	1140.9	1170.9	1200.9	1223.4	1245.8	1268.3	1290.7	1313.2
37.5°	1043.0	1076.6	1110.2	1143.7	1177.3	1210.9	1236.7	1262.5	1288.3	1314.1	1339.8
40°	1037.2	1074.3	1111.5	1148.6	1185.8	1222.9	1252.9	1282.9	1313.0	1343.0	1373.0
42.5°	1033.2	1074.3	1115.5	1156.6	1197.8	1238.9	1273.8	1308.7	1343.6	1378.5	1413.5
45°	1031.8	1077.7	1123.5	1169.3	1215.1	1260.9	1302.0	1343.2	1384.3	1425.5	1466.6
47.5°	1035.2	1086.3	1137.5	1188.6	1239.8	1290.9	1338.3	1385.6	1433.0	1480.4	1527.7
50°	1041.4	1098.2	1154.9	1211.6	1268.3	1325.0	1380.4	1435.7	1491.1	1546.5	1601.8
52.5°	1051.2	1114.4	1177.5	1240.7	1303.8	1367.0	1429.3	1491.5	1553.8	1616.1	1678.3
55°	1067.7	1137.9	1208.2	1278.5	1348.7	1419.0	1490.8	1562.7	1634.5	1706.3	1778.2
57.5°	1088.8	1166.9	1244.9	1323.0	1401.0	1479.1	1558.7	1638.3	1717.9	1797.5	1877.2
60°	1113.5	1200.2	1286.9	1373.7	1460.4	1547.1	1634.5	1721.9	1809.3	1896.7	1984.1
62.5°	1141.0	1236.7	1332.3	1427.9	1523.6	1619.2	1711.9	1804.7	1897.4	1990.1	2082.9
65°	1161.9	1265.8	1369.6	1473.5	1577.3	1681.2	1778.6	1876.0	1973.4	2070.8	2168.3
67.5°	1177.5	1288.3	1399.0	1509.8	1620.5	1731.3	1830.7	1930.1	2029.5	2128.9	2228.3
70°	1180.9	1296.9	1413.0	1529.1	1645.2	1761.3	1860.3	1959.2	2058.2	2157.1	2256.1
72.5°	1167.7	1286.1	1404.4	1522.7	1641.0	1759.3	1855.6	1951.9	2048.2	2144.5	2240.7
75°	1136.1	1253.6	1371.0	1488.4	1605.8	1723.2	1814.4	1905.6	1996.7	2087.9	2179.1
77.5°	1088.1	1201.6	1315.0	1428.4	1541.8	1655.2	1740.8	1826.4	1912.1	1997.7	2083.3
80°	1023.6	1129.9	1236.2	1342.5	1448.8	1555.1	1632.9	1710.8	1788.6	1866.4	1944.3
82.5°	950.7	1048.7	1146.8	1244.9	1342.9	1441.0	1510.2	1579.3	1648.5	1717.7	1786.8
85°	874.2	963.2	1052.1	1141.1	1230.0	1319.0	1379.7	1440.4	1501.1	1561.8	1622.6
87.5°	791.5	871.7	952.0	1032.3	1112.6	1192.9	1245.8	1298.7	1351.7	1404.6	1457.5
90°	718.5	790.6	862.6	934.7	1006.7	1078.8	1125.5	1172.2	1218.9	1265.6	1312.3
92.5°	662.0	727.0	791.9	856.8	921.8	986.7	1028.1	1069.4	1110.8	1152.2	1193.5
95°	606.9	666.1	725.2	784.4	843.5	902.7	941.2	979.6	1018.1	1056.6	1095.0
97.5°	561.0	615.8	670.5	725.2	779.9	834.6	870.6	906.6	942.7	978.7	1014.7
100°	519.7	571.1	622.5	673.8	725.2	776.6	810.8	845.1	879.3	913.6	947.8
102.5°	485.0	533.7	582.4	631.1	679.8	728.5	761.9	795.2	828.6	861.9	895.3
105°	452.1	498.6	545.1	591.5	638.0	684.5	717.4	750.3	783.2	816.1	849.1
107.5°	423.2	467.5	511.7	556.0	600.2	644.5	677.2	709.9	742.6	775.3	807.9
110°	393.8	436.8	479.7	522.6	565.5	608.4	640.9	673.4	705.8	738.3	770.8



TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
112.5°	365.8	406.7	447.6	488.6	529.5	570.4	602.9	635.3	667.8	700.3	732.7
115°	338.7	377.8	417.0	456.1	495.3	534.4	566.6	598.9	631.1	663.4	695.6
117.5°	310.0	346.5	383.0	419.4	455.9	492.4	524.9	557.3	589.8	622.3	654.7
120°	287.1	321.3	355.6	389.8	424.1	458.3	489.4	520.6	551.7	582.8	614.0
122.5°	261.5	292.9	324.2	355.6	386.9	418.3	448.3	478.3	508.4	538.4	568.4
125°	236.9	265.5	294.2	322.9	351.6	380.3	408.5	436.8	465.0	493.3	521.5
127.5°	210.1	236.2	262.2	288.2	314.2	340.2	367.6	394.9	422.3	449.6	477.0
130°	181.0	203.3	225.5	247.7	270.0	292.2	318.0	343.8	369.6	395.4	421.2
132.5°	154.8	173.5	192.2	210.8	229.5	248.2	272.4	296.7	320.9	345.1	369.4
135°	133.0	149.2	165.5	181.7	198.0	214.2	236.4	258.7	280.9	303.1	325.4
137.5°	112.9	127.2	141.4	155.6	169.9	184.1	202.8	221.5	240.2	258.9	277.5
140°	93.8	106.3	118.7	131.2	143.6	156.1	171.4	186.8	202.1	217.5	232.8
142.5°	76.7	87.4	98.1	108.7	119.4	130.1	143.0	155.9	168.8	181.7	194.6
145°	62.5	71.6	80.7	89.9	99.0	108.1	119.0	129.9	140.8	151.7	162.5
147.5°	51.4	58.7	66.1	73.4	80.8	88.1	97.0	105.9	114.8	123.7	132.5
150°	43.2	48.9	54.7	60.5	66.3	72.1	79.2	86.3	93.4	100.5	107.7
152.5°	34.9	39.1	43.3	47.6	51.8	56.0	61.6	67.1	72.7	78.3	83.8
155°	27.6	30.4	33.3	36.2	39.1	42.0	46.5	50.9	55.4	59.8	64.3
157.5°	19.1	20.9	22.7	24.4	26.2	28.0	31.6	35.1	38.7	42.2	45.8
160°	15.6	16.4	17.3	18.2	19.1	20.0	22.4	24.9	27.3	29.8	32.2
162.5°	12.9	13.1	13.3	13.6	13.8	14.0	15.3	16.7	18.0	19.3	20.7
165°	10.9	11.1	11.3	11.6	11.8	12.0	12.2	12.4	12.7	12.9	13.1
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: P201388

CATALOG NUMBER: 8LBLELD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1115.5	1115.2	1115.0	1114.8	1113.9	1113.0	1112.1	1111.2	1110.4	1109.5	1108.6
5°	1130.8	1131.5	1132.1	1132.8	1132.8	1132.8	1132.8	1132.8	1132.8	1132.8	1132.8
7.5°	1147.5	1149.2	1151.0	1152.8	1153.0	1153.2	1153.5	1153.7	1153.9	1154.1	1154.4
10°	1160.8	1163.5	1166.1	1168.8	1169.2	1169.7	1170.1	1170.6	1171.0	1171.5	1171.9
12.5°	1172.9	1176.9	1180.9	1184.9	1185.8	1186.7	1187.6	1188.5	1189.3	1190.2	1191.1
15°	1184.9	1190.2	1195.6	1200.9	1202.9	1204.9	1206.9	1208.9	1210.9	1212.9	1214.9
17.5°	1202.2	1209.8	1217.3	1224.9	1227.6	1230.2	1232.9	1235.6	1238.2	1240.9	1243.6
20°	1218.9	1228.9	1238.9	1248.9	1252.2	1255.6	1258.9	1262.2	1265.6	1268.9	1272.2
22.5°	1237.5	1249.3	1261.1	1272.9	1276.7	1280.5	1284.2	1288.0	1291.8	1295.6	1299.3
25°	1254.9	1268.2	1281.6	1294.9	1299.1	1303.4	1307.6	1311.8	1316.1	1320.3	1324.5
27.5°	1272.3	1287.2	1302.1	1317.0	1321.9	1326.8	1331.7	1336.6	1341.4	1346.3	1351.2
30°	1290.3	1307.2	1324.1	1341.0	1346.8	1352.6	1358.3	1364.1	1369.9	1375.7	1381.4
32.5°	1311.0	1330.3	1349.7	1369.0	1376.3	1383.7	1391.0	1398.3	1405.7	1413.0	1420.3
35°	1335.6	1358.1	1380.5	1403.0	1411.7	1420.4	1429.0	1437.7	1446.4	1455.1	1463.7
37.5°	1365.6	1391.4	1417.2	1443.0	1453.7	1464.4	1475.0	1485.7	1496.4	1507.1	1517.7
40°	1403.0	1433.1	1463.1	1493.1	1505.8	1518.5	1531.1	1543.8	1556.5	1569.2	1581.8
42.5°	1448.4	1483.3	1518.2	1553.1	1568.4	1583.8	1599.1	1614.5	1629.8	1645.2	1660.5
45°	1507.8	1548.9	1590.1	1631.2	1648.8	1666.3	1683.9	1701.5	1719.0	1736.6	1754.2
47.5°	1575.1	1622.5	1669.8	1717.2	1738.1	1759.0	1779.9	1800.8	1821.8	1842.7	1863.6
50°	1657.2	1712.6	1767.9	1823.3	1847.1	1870.9	1894.7	1918.5	1942.3	1966.1	1989.9
52.5°	1740.6	1802.9	1865.1	1927.4	1955.4	1983.4	2011.5	2039.5	2067.5	2095.5	2123.6
55°	1850.0	1921.8	1993.7	2065.5	2095.1	2124.7	2154.2	2183.8	2213.4	2243.0	2272.5
57.5°	1956.8	2036.4	2116.0	2195.6	2227.8	2260.1	2292.3	2324.6	2356.8	2389.1	2421.3
60°	2071.5	2158.9	2246.3	2333.7	2366.6	2399.5	2432.4	2465.3	2498.3	2531.2	2564.1
62.5°	2175.6	2268.3	2361.1	2453.8	2487.2	2520.5	2553.9	2587.2	2620.6	2653.9	2687.3
65°	2265.7	2363.1	2460.5	2557.9	2590.6	2623.3	2656.0	2688.7	2721.3	2754.0	2786.7
67.5°	2327.7	2427.1	2526.5	2625.9	2657.7	2689.5	2721.3	2753.1	2784.9	2816.7	2848.5
70°	2355.0	2454.0	2552.9	2651.9	2681.9	2711.9	2742.0	2772.0	2802.0	2832.0	2862.1
72.5°	2337.0	2433.3	2529.6	2625.9	2654.1	2682.4	2710.6	2738.9	2767.1	2795.4	2823.6
75°	2270.3	2361.4	2452.6	2543.8	2570.3	2596.7	2623.2	2649.7	2676.1	2702.6	2729.1
77.5°	2168.9	2254.6	2340.2	2425.8	2448.9	2472.0	2495.2	2518.3	2541.4	2564.5	2587.7
80°	2022.1	2099.9	2177.8	2255.6	2276.7	2297.9	2319.0	2340.1	2361.3	2382.4	2403.5
82.5°	1856.0	1925.2	1994.3	2063.5	2082.8	2102.2	2121.5	2140.9	2160.2	2179.6	2198.9
85°	1683.3	1744.0	1804.7	1865.4	1882.5	1899.6	1916.8	1933.9	1951.0	1968.1	1985.3
87.5°	1510.4	1563.4	1616.3	1669.2	1685.0	1700.8	1716.6	1732.4	1748.1	1763.9	1779.7
90°	1359.0	1405.7	1452.4	1499.1	1513.6	1528.0	1542.5	1556.9	1571.4	1585.8	1600.3
92.5°	1234.9	1276.3	1317.6	1359.0	1372.3	1385.7	1399.0	1412.4	1425.7	1439.1	1452.4
95°	1133.5	1172.0	1210.4	1248.9	1262.2	1275.6	1288.9	1302.3	1315.6	1329.0	1342.3
97.5°	1050.7	1086.8	1122.8	1158.8	1171.0	1183.3	1195.5	1207.7	1220.0	1232.2	1244.4
100°	982.1	1016.3	1050.6	1084.8	1096.8	1108.8	1120.8	1132.8	1144.9	1156.9	1168.9
102.5°	928.6	962.0	995.3	1028.7	1040.0	1051.4	1062.7	1074.1	1085.4	1096.8	1108.1
105°	882.0	914.9	947.8	980.7	991.8	1002.9	1014.1	1025.2	1036.3	1047.4	1058.6
107.5°	840.6	873.3	906.0	938.7	949.8	960.9	972.1	983.2	994.3	1005.4	1016.6
110°	803.3	835.7	868.2	900.7	911.8	922.9	934.0	945.1	956.3	967.4	978.5



TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
112.5°	765.2	797.7	830.1	862.6	873.7	884.8	896.0	907.1	918.2	929.3	940.5
115°	727.9	760.1	792.4	824.6	835.9	847.3	858.6	870.0	881.3	892.7	904.0
117.5°	687.2	719.7	752.1	784.6	796.2	807.7	819.3	830.8	842.4	853.9	865.5
120°	645.1	676.2	707.4	738.5	750.3	762.1	773.9	785.7	797.4	809.2	821.0
122.5°	598.4	628.5	658.5	688.5	700.5	712.5	724.5	736.5	748.6	760.6	772.6
125°	549.8	578.0	606.3	634.5	646.5	658.5	670.5	682.5	694.5	706.5	718.5
127.5°	504.3	531.7	559.0	586.4	597.1	607.8	618.4	629.1	639.8	650.5	661.1
130°	447.0	472.8	498.6	524.4	534.6	544.8	555.1	565.3	575.5	585.7	596.0
132.5°	393.6	417.8	442.1	466.3	475.9	485.4	495.0	504.6	514.1	523.7	533.3
135°	347.6	369.8	392.1	414.3	422.5	430.8	439.0	447.2	455.5	463.7	471.9
137.5°	296.2	314.9	333.6	352.3	360.7	369.2	377.6	386.1	394.5	403.0	411.4
140°	248.2	263.5	278.9	294.2	302.2	310.2	318.2	326.2	334.3	342.3	350.3
142.5°	207.5	220.4	233.3	246.2	253.3	260.4	267.5	274.6	281.8	288.9	296.0
145°	173.4	184.3	195.2	206.1	213.0	219.9	226.8	233.7	240.6	247.5	254.4
147.5°	141.4	150.3	159.2	168.1	175.0	181.9	188.8	195.7	202.6	209.5	216.4
150°	114.8	121.9	129.0	136.1	142.5	149.0	155.4	161.9	168.3	174.8	181.2
152.5°	89.4	95.0	100.5	106.1	112.3	118.5	124.8	131.0	137.2	143.4	149.7
155°	68.7	73.2	77.6	82.1	87.7	93.2	98.8	104.3	109.9	115.4	121.0
157.5°	49.3	52.9	56.4	60.0	64.9	69.8	74.7	79.6	84.5	89.4	94.3
160°	34.7	37.1	39.6	42.0	46.2	50.5	54.7	58.9	63.2	67.4	71.6
162.5°	22.0	23.3	24.7	26.0	29.3	32.7	36.0	39.3	42.7	46.0	49.3
165°	13.3	13.6	13.8	14.0	16.7	19.3	22.0	24.7	27.3	30.0	32.7
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: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	357.5°	360°
0°	1098.8	1098.8
2.5°	1107.7	1106.8
5°	1132.8	1132.8
7.5°	1154.6	1154.8
10°	1172.4	1172.8
12.5°	1192.0	1192.9
15°	1216.9	1218.9
17.5°	1246.2	1248.9
20°	1275.6	1278.9
22.5°	1303.1	1306.9
25°	1328.8	1333.0
27.5°	1356.1	1361.0
30°	1387.2	1393.0
32.5°	1427.7	1435.0
35°	1472.4	1481.1
37.5°	1528.4	1539.1
40°	1594.5	1607.2
42.5°	1675.9	1691.2
45°	1771.7	1789.3
47.5°	1884.5	1905.4
50°	2013.7	2037.5
52.5°	2151.6	2179.6
55°	2302.1	2331.7
57.5°	2453.6	2485.8
60°	2597.0	2629.9
62.5°	2720.6	2754.0
65°	2819.4	2852.1
67.5°	2880.3	2912.1
70°	2892.1	2922.1
72.5°	2851.9	2880.1
75°	2755.5	2782.0
77.5°	2610.8	2633.9
80°	2424.7	2445.8
82.5°	2218.3	2237.6
85°	2002.4	2019.5
87.5°	1795.5	1811.3
90°	1614.7	1629.2
92.5°	1465.8	1479.1
95°	1355.7	1369.0
97.5°	1256.7	1268.9
100°	1180.9	1192.9
102.5°	1119.5	1130.8
105°	1069.7	1080.8
107.5°	1027.7	1038.8
110°	989.6	1000.7





TEST NUMBER: P201388

CATALOG NUMBER: 8LBLED-LD4-9-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	357.5°	360°
112.5°	951.6	962.7
115°	915.4	926.7
117.5°	877.0	888.6
120°	832.8	844.6
122.5°	784.6	796.6
125°	730.5	742.5
127.5°	671.8	682.5
130°	606.2	616.4
132.5°	542.8	552.4
135°	480.2	488.4
137.5°	419.9	428.3
140°	358.3	366.3
142.5°	303.1	310.2
145°	261.3	268.2
147.5°	223.3	230.2
150°	187.7	194.1
152.5°	155.9	162.1
155°	126.5	132.1
157.5°	99.2	104.1
160°	75.9	80.1
162.5°	52.7	56.0
165°	35.3	38.0
167.5°	0.0	0.0
170°	0.0	0.0
172.5°	0.0	0.0
175°	0.0	0.0
177.5°	0.0	0.0
180°	0.0	0.0

(END OF REPORT)