

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: P201400

Luminaire Tested: **8LBLED-LD4-16-ASYMF-UNV-L840-CD2-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P201400  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28235)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8LBLELD4-16-ASYMF-UNV-L840-CD2-U  
Description: 8 ft. Low Bay Linear, 10000 lm, Frst Asym lens, 4K  
Light Source: (616) 4000K CCT, 80 CRI LEDS  
2UT217098A8404C, 2UT217056A8404B  
Ballast/Driver: OSRAM  
(OT85W01800CC), (OT50W01000CC)

**Summary**

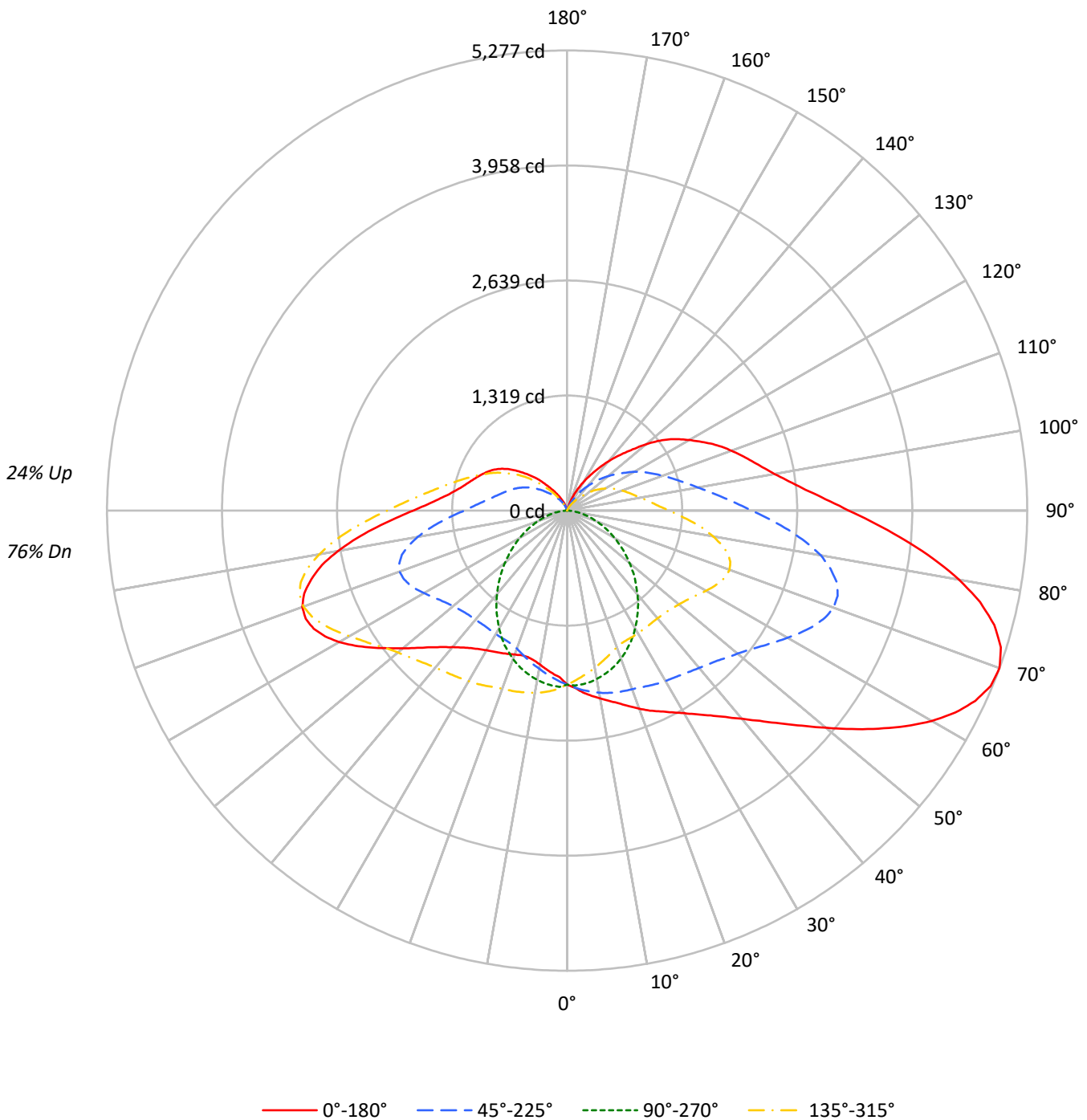
Lumens per Lamp: N/A  
Luminaire Lumens: 17295.7 lumens  
Efficiency: N/A  
Efficacy: 129.5 lumens/watt  
Spacing Criteria (0/90/45): 2.01 / 1.17 / 1.78  
Luminous Opening: Rectangular w/ Sides (W: 8' x L: 0.17' x H: 0.21')  
CIE Type: Semi-Direct  
  
Input Watts (W): 133.6  
Input Voltage (V): NR  
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	80	80	80	76
1	98	90	84	78	92	86	80	75	77	72	68	69	65	62	61	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	61	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	37	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	54	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	17	13	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°	16068	16068	16068	16068
5°	15272	16141	13687	16254
10°	14662	15965	12027	16063
15°	14306	15710	10876	15776
20°	14260	15347	10365	15381
25°	14288	14872	10128	14942
30°	14516	14295	10005	14295
35°	15067	13620	10111	13620
40°	16031	12892	10513	12871
45°	17507	12204	11243	12115
50°	19550	11348	12396	11299
55°	22038	10534	13842	10480
60°	24632	9686	15400	9686
65°	26814	8823	16654	8859
70°	28111	7849	17222	7893
75°	27951	6847	16740	6904
80°	26267	5564	15354	5806
85°	23595	3834	13310	4262



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.4	1.1
10°-20°	552.5	3.2
20°-30°	891.1	5.2
30°-40°	1208.0	7.0
40°-50°	1552.1	9.0
50°-60°	1985.0	11.5
60°-70°	2424.6	14.0
70°-80°	2475.5	14.3
80°-90°	1941.3	11.2
90°-100°	1354.9	7.8
100°-110°	1009.9	5.8
110°-120°	755.9	4.4
120°-130°	512.7	3.0
130°-140°	283.0	1.6
140°-150°	120.9	0.7
150°-160°	35.6	0.2
160°-170°	3.4	0.0
170°-180°	0.0	0.0
0°-30°	1633.0	9.4
0°-40°	2840.9	16.4
0°-60°	6378.1	36.9
0°-90°	13219.5	76.4
90°-120°	3120.6	18.0
90°-150°	4037.2	23.3
90°-180°	4076.0	23.6
0°-180°	17295.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1994	1994	1994	1994	1994	
5°	2094	2000	1877	2014	2094	203
15°	2288	1897	1739	1905	2288	654
25°	2541	1693	1801	1701	2541	1182
35°	2868	1410	1924	1410	2868	1815
45°	3450	1099	2216	1091	3450	2693
55°	4360	778	2738	774	4360	3917
65°	5163	489	3207	491	5163	5088
75°	5072	241	3037	243	5072	5302
85°	3889	54	2194	60	3889	3316
90°	3229	0	1763	0	3229	1777
95°	2744	0	1480	0	2744	2178
105°	2192	0	1191	2	2192	2327
115°	1817	0	1031	2	1817	1803
125°	1424	0	830	2	1424	1273
135°	939	0	546	2	939	738
145°	546	0	287	2	546	350
155°	241	0	128	4	241	117
165°	34	0	20	4	34	14
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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	2034.2	2033.3	2032.4	2031.6	2030.7	2029.8	2028.9	2028.1	2027.2	2026.3	2027.0
5°	2094.1	2091.9	2089.7	2087.4	2085.2	2083.0	2080.8	2078.5	2076.3	2074.1	2073.2
7.5°	2141.9	2139.2	2136.6	2133.9	2131.3	2128.6	2126.0	2123.3	2120.7	2118.0	2115.3
10°	2185.8	2181.8	2177.8	2173.8	2169.8	2165.9	2161.9	2157.9	2153.9	2149.9	2146.8
12.5°	2235.7	2230.6	2225.5	2220.4	2215.3	2210.2	2205.1	2200.0	2194.9	2189.8	2184.5
15°	2287.5	2281.7	2276.0	2270.2	2264.5	2258.7	2253.0	2247.2	2241.5	2235.7	2227.1
17.5°	2351.3	2343.3	2335.3	2327.4	2319.4	2311.4	2303.4	2295.5	2287.5	2279.5	2267.3
20°	2417.2	2407.4	2397.7	2387.9	2378.2	2368.4	2358.7	2348.9	2339.2	2329.4	2312.8
22.5°	2483.0	2471.7	2460.4	2449.1	2437.8	2426.5	2415.2	2403.9	2392.6	2381.3	2360.5
25°	2540.8	2529.3	2517.8	2506.2	2494.7	2483.2	2471.7	2460.1	2448.6	2437.1	2412.5
27.5°	2608.6	2595.7	2582.9	2570.0	2557.2	2544.3	2531.5	2518.6	2505.8	2492.9	2464.5
30°	2682.4	2667.6	2652.7	2637.9	2623.0	2608.2	2593.3	2578.5	2563.6	2548.8	2516.2
32.5°	2770.2	2752.7	2735.2	2717.7	2700.2	2682.6	2665.1	2647.6	2630.1	2612.6	2574.9
35°	2867.9	2847.5	2827.1	2806.7	2786.3	2766.0	2745.6	2725.2	2704.8	2684.4	2641.2
37.5°	2983.5	2960.0	2936.5	2913.0	2889.5	2866.1	2842.6	2819.1	2795.6	2772.1	2722.2
40°	3117.2	3089.9	3062.7	3035.4	3008.2	2980.9	2953.7	2926.4	2899.2	2871.9	2814.5
42.5°	3270.7	3239.7	3208.7	3177.6	3146.6	3115.6	3084.6	3053.5	3022.5	2991.5	2924.8
45°	3450.2	3414.3	3378.4	3342.5	3306.6	3270.7	3234.8	3198.9	3163.0	3127.1	3050.2
47.5°	3651.7	3610.9	3570.1	3529.4	3488.6	3447.8	3407.0	3366.3	3325.5	3284.7	3196.5
50°	3875.0	3829.6	3784.2	3738.7	3693.3	3647.9	3602.5	3557.0	3511.6	3466.2	3364.5
52.5°	4116.3	4065.8	4015.3	3964.7	3914.2	3863.7	3813.2	3762.6	3712.1	3661.6	3546.4
55°	4359.6	4306.0	4252.4	4198.7	4145.1	4091.5	4037.9	3984.2	3930.6	3877.0	3747.8
57.5°	4601.0	4544.7	4488.4	4432.1	4375.8	4319.6	4263.3	4207.0	4150.7	4094.4	3951.9
60°	4826.3	4768.7	4711.1	4653.5	4595.9	4538.2	4480.6	4423.0	4365.4	4307.8	4153.3
62.5°	5017.8	4960.8	4903.9	4846.9	4790.0	4733.0	4676.1	4619.1	4562.2	4505.2	4340.8
65°	5163.4	5109.5	5055.7	5001.8	4948.0	4894.1	4840.3	4786.4	4732.6	4678.7	4506.1
67.5°	5257.1	5204.6	5152.1	5099.5	5047.0	4994.5	4942.0	4889.4	4836.9	4784.4	4608.9
70°	5277.0	5227.4	5177.7	5128.1	5078.5	5028.8	4979.2	4929.6	4879.9	4830.3	4655.0
72.5°	5215.2	5168.2	5121.2	5074.3	5027.3	4980.3	4933.3	4886.4	4839.4	4792.4	4621.3
75°	5071.6	5027.5	4983.4	4939.3	4895.2	4851.2	4807.1	4763.0	4718.9	4674.8	4511.3
77.5°	4850.3	4809.1	4767.9	4726.6	4685.4	4644.2	4603.0	4561.7	4520.5	4479.3	4325.5
80°	4565.1	4526.5	4488.0	4449.4	4410.8	4372.3	4333.7	4295.1	4256.6	4218.0	4077.5
82.5°	4236.0	4199.4	4162.9	4126.3	4089.7	4053.2	4016.6	3980.0	3943.5	3906.9	3779.5
85°	3889.0	3854.4	3819.9	3785.3	3750.7	3716.2	3681.6	3647.0	3612.5	3577.9	3463.3
87.5°	3544.0	3511.0	3478.0	3444.9	3411.9	3378.9	3345.9	3312.8	3279.8	3246.8	3144.4
90°	3228.9	3197.9	3166.8	3135.8	3104.8	3073.7	3042.7	3011.7	2980.6	2949.6	2856.8
92.5°	2965.6	2936.3	2907.1	2877.8	2848.6	2819.3	2790.1	2760.8	2731.6	2702.3	2617.4
95°	2744.2	2716.3	2688.4	2660.4	2632.5	2604.6	2576.7	2548.7	2520.8	2492.9	2414.0
97.5°	2562.7	2535.4	2508.2	2480.9	2453.7	2426.4	2399.2	2371.9	2344.7	2317.4	2242.7
100°	2415.2	2388.4	2361.6	2334.7	2307.9	2281.1	2254.3	2227.4	2200.6	2173.8	2101.3
102.5°	2293.5	2267.1	2240.8	2214.4	2188.0	2161.7	2135.3	2108.9	2082.6	2056.2	1985.3
105°	2191.8	2166.1	2140.4	2114.7	2089.0	2063.2	2037.5	2011.8	1986.1	1960.4	1889.9
107.5°	2098.1	2072.4	2046.7	2021.0	1995.3	1969.5	1943.8	1918.1	1892.4	1866.7	1797.6
110°	2006.3	1980.6	1954.9	1929.2	1903.5	1877.8	1852.1	1826.4	1800.7	1775.0	1707.4



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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°	1914.6	1888.9	1863.2	1837.5	1811.8	1786.0	1760.3	1734.6	1708.9	1683.2	1617.8
115°	1816.9	1791.4	1765.9	1740.4	1714.9	1689.5	1664.0	1638.5	1613.0	1587.5	1525.0
117.5°	1713.1	1689.0	1664.8	1640.7	1616.5	1592.4	1568.2	1544.1	1519.9	1495.8	1436.2
120°	1617.4	1594.4	1571.3	1548.3	1525.2	1502.2	1479.1	1456.1	1433.0	1410.0	1352.2
122.5°	1523.7	1501.8	1479.8	1457.9	1435.9	1414.0	1392.0	1370.1	1348.1	1326.2	1269.0
125°	1424.0	1402.5	1381.0	1359.5	1338.0	1316.5	1295.0	1273.5	1252.0	1230.5	1175.8
127.5°	1310.3	1289.7	1269.1	1248.5	1227.9	1207.2	1186.6	1166.0	1145.4	1124.8	1074.9
130°	1182.6	1163.3	1144.0	1124.8	1105.5	1086.2	1066.9	1047.7	1028.4	1009.1	965.2
132.5°	1053.0	1036.6	1020.2	1003.8	987.4	971.0	954.6	938.2	921.8	905.4	866.2
135°	939.3	925.6	911.8	898.1	884.4	870.6	856.9	843.2	829.4	815.7	779.6
137.5°	837.6	825.0	812.3	799.7	787.1	774.4	761.8	749.2	736.5	723.9	690.7
140°	735.9	724.6	713.3	702.0	690.7	679.4	668.1	656.8	645.5	634.2	604.5
142.5°	638.2	628.4	618.7	608.9	599.2	589.4	579.7	569.9	560.2	550.4	524.0
145°	546.5	537.6	528.8	519.9	511.0	502.2	493.3	484.4	475.6	466.7	444.1
147.5°	458.7	451.6	444.5	437.4	430.3	423.3	416.2	409.1	402.0	394.9	375.2
150°	380.9	374.7	368.5	362.3	356.1	349.9	343.7	337.5	331.3	325.1	308.0
152.5°	309.1	303.8	298.5	293.2	287.9	282.5	277.2	271.9	266.6	261.3	246.7
155°	241.3	236.9	232.4	228.0	223.6	219.1	214.7	210.3	205.8	201.4	188.8
157.5°	179.5	176.0	172.4	168.9	165.3	161.8	158.2	154.7	151.1	147.6	137.2
160°	121.7	118.8	115.9	113.0	110.1	107.3	104.4	101.5	98.6	95.7	88.4
162.5°	69.8	67.8	65.8	63.8	61.8	59.9	57.9	55.9	53.9	51.9	47.7
165°	33.9	32.8	31.7	30.6	29.5	28.3	27.2	26.1	25.0	23.9	21.7
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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	2027.6	2028.3	2028.9	2029.6	2030.2	2030.9	2031.5	2032.2	2028.2	2024.2	2020.2
5°	2072.3	2071.4	2070.5	2069.7	2068.8	2067.9	2067.0	2066.1	2059.9	2053.7	2047.5
7.5°	2112.7	2110.0	2107.4	2104.7	2102.1	2099.4	2096.8	2094.1	2085.7	2077.3	2068.8
10°	2143.7	2140.6	2137.5	2134.4	2131.3	2128.2	2125.1	2122.0	2110.5	2099.0	2087.4
12.5°	2179.2	2173.8	2168.5	2163.2	2157.9	2152.5	2147.2	2141.9	2127.5	2113.1	2098.7
15°	2218.4	2209.8	2201.1	2192.5	2183.8	2175.2	2166.5	2157.9	2140.6	2123.3	2106.0
17.5°	2255.1	2243.0	2230.8	2218.6	2206.4	2194.3	2182.1	2169.9	2149.3	2128.7	2108.1
20°	2296.2	2279.5	2262.9	2246.3	2229.7	2213.0	2196.4	2179.8	2155.6	2131.5	2107.3
22.5°	2339.6	2318.8	2298.0	2277.1	2256.3	2235.5	2214.6	2193.8	2165.0	2136.2	2107.4
25°	2387.9	2363.3	2338.7	2314.1	2289.5	2264.9	2240.3	2215.7	2181.1	2146.6	2112.0
27.5°	2436.2	2407.8	2379.5	2351.1	2322.8	2294.4	2266.1	2237.7	2196.7	2155.7	2114.7
30°	2483.6	2451.1	2418.5	2385.9	2353.3	2320.8	2288.2	2255.6	2208.0	2160.3	2112.7
32.5°	2537.3	2499.6	2461.9	2424.3	2386.6	2348.9	2311.3	2273.6	2220.0	2166.3	2112.7
35°	2598.0	2554.8	2511.6	2468.3	2425.1	2381.9	2338.7	2295.5	2234.8	2174.1	2113.3
37.5°	2672.4	2622.5	2572.7	2522.8	2473.0	2423.1	2373.3	2323.4	2255.6	2187.8	2120.0
40°	2757.1	2699.7	2642.3	2584.9	2527.5	2470.1	2412.7	2355.3	2280.6	2205.9	2131.3
42.5°	2858.1	2791.4	2724.7	2658.0	2591.3	2524.6	2457.9	2391.2	2309.0	2226.8	2144.6
45°	2973.3	2896.4	2819.5	2742.7	2665.8	2588.9	2512.0	2435.1	2344.5	2253.8	2163.2
47.5°	3108.3	3020.1	2931.9	2843.7	2755.5	2667.3	2579.1	2490.9	2390.5	2290.1	2189.8
50°	3262.8	3161.1	3059.4	2957.6	2855.9	2754.2	2652.5	2550.8	2440.4	2330.1	2219.7
52.5°	3431.2	3315.9	3200.7	3085.5	2970.3	2855.0	2739.8	2624.6	2502.7	2380.8	2259.0
55°	3618.6	3489.4	3360.2	3231.1	3101.9	2972.7	2843.5	2714.3	2579.8	2445.3	2310.8
57.5°	3809.4	3666.9	3524.4	3382.0	3239.5	3097.0	2954.5	2812.0	2664.2	2516.4	2368.6
60°	3998.9	3844.4	3690.0	3535.5	3381.1	3226.6	3072.2	2917.7	2756.2	2594.6	2433.1
62.5°	4176.4	4011.9	3847.5	3683.1	3518.7	3354.2	3189.8	3025.4	2850.1	2674.8	2499.6
65°	4333.5	4160.8	3988.2	3815.6	3643.0	3470.3	3297.7	3125.1	2936.3	2747.5	2558.7
67.5°	4433.4	4257.9	4082.4	3906.9	3731.4	3555.9	3380.4	3204.9	3004.6	2804.3	2603.9
70°	4479.7	4304.5	4129.2	3953.9	3778.6	3603.4	3428.1	3252.8	3043.8	2834.9	2625.9
72.5°	4450.3	4279.2	4108.1	3937.1	3766.0	3594.9	3423.9	3252.8	3039.8	2826.9	2613.9
75°	4347.7	4184.2	4020.6	3857.1	3693.5	3530.0	3366.4	3202.9	2990.4	2777.9	2565.4
77.5°	4171.7	4017.9	3864.1	3710.4	3556.6	3402.8	3249.0	3095.2	2888.5	2681.7	2475.0
80°	3937.0	3796.5	3656.0	3515.6	3375.1	3234.6	3094.1	2953.6	2755.7	2557.8	2360.0
82.5°	3652.1	3524.7	3397.3	3269.8	3142.4	3015.0	2887.6	2760.2	2575.8	2391.5	2207.1
85°	3348.8	3234.2	3119.6	3005.1	2890.5	2775.9	2661.4	2546.8	2377.5	2208.2	2038.9
87.5°	3042.0	2939.7	2837.3	2734.9	2632.5	2530.2	2427.8	2325.4	2171.8	2018.3	1864.7
90°	2763.9	2671.1	2578.2	2485.4	2392.5	2299.7	2206.8	2114.0	1975.1	1836.1	1697.2
92.5°	2532.6	2447.7	2362.8	2278.0	2193.1	2108.2	2023.4	1938.5	1812.2	1685.9	1559.6
95°	2335.1	2256.2	2177.3	2098.5	2019.6	1940.7	1861.8	1782.9	1667.0	1551.1	1435.2
97.5°	2168.0	2093.4	2018.7	1944.0	1869.3	1794.7	1720.0	1645.3	1538.1	1430.8	1323.6
100°	2028.9	1956.4	1884.0	1811.5	1739.1	1666.6	1594.2	1521.7	1422.0	1322.3	1222.5
102.5°	1914.4	1843.5	1772.6	1701.6	1630.7	1559.8	1488.9	1418.0	1323.6	1229.2	1134.8
105°	1819.5	1749.0	1678.5	1608.1	1537.6	1467.1	1396.7	1326.2	1236.2	1146.3	1056.3
107.5°	1728.4	1659.3	1590.2	1521.0	1451.9	1382.8	1313.6	1244.5	1158.1	1071.7	985.2
110°	1639.8	1572.2	1504.6	1437.1	1369.5	1301.9	1234.3	1166.7	1083.8	1000.9	918.1





TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	1552.5	1487.1	1421.7	1356.4	1291.0	1225.6	1160.3	1094.9	1015.6	936.2	856.9
115°	1462.5	1400.0	1337.5	1275.1	1212.6	1150.1	1087.6	1025.1	949.5	874.0	798.4
117.5°	1376.6	1317.0	1257.4	1197.7	1138.1	1078.5	1018.9	959.3	887.5	815.7	743.9
120°	1294.3	1236.5	1178.7	1120.8	1063.0	1005.2	947.3	889.5	822.1	754.8	687.4
122.5°	1211.9	1154.7	1097.5	1040.4	983.2	926.0	868.9	811.7	749.7	687.6	625.6
125°	1121.0	1066.3	1011.6	956.8	902.1	847.4	792.6	737.9	681.0	624.0	567.1
127.5°	1025.1	975.2	925.4	875.5	825.7	775.8	726.0	676.1	622.9	569.7	516.5
130°	921.4	877.5	833.6	789.8	745.9	702.0	658.2	614.3	565.1	515.9	466.7
132.5°	827.0	787.7	748.5	709.3	670.1	630.8	591.6	552.4	507.2	462.0	416.8
135°	743.5	707.3	671.2	635.1	599.0	562.8	526.7	490.6	449.6	408.6	367.6
137.5°	657.4	624.2	591.0	557.7	524.5	491.3	458.0	424.8	388.5	352.1	315.8
140°	574.8	545.1	515.4	485.8	456.1	426.4	396.7	367.0	334.2	301.4	268.6
142.5°	497.7	471.3	444.9	418.6	392.2	365.8	339.5	313.1	284.1	255.1	226.0
145°	421.5	398.9	376.3	353.7	331.1	308.5	285.9	263.3	237.8	212.3	186.8
147.5°	355.5	335.7	316.0	296.3	276.6	256.8	237.1	217.4	195.7	174.0	152.2
150°	291.0	273.9	256.8	239.8	222.7	205.6	188.6	171.5	154.0	136.5	119.0
152.5°	232.0	217.4	202.8	188.1	173.5	158.9	144.2	129.6	116.1	102.6	89.1
155°	176.2	163.5	150.9	138.3	125.7	113.0	100.4	87.8	78.3	68.7	59.2
157.5°	126.8	116.3	105.9	95.5	85.1	74.6	64.2	53.8	47.8	41.8	35.9
160°	81.1	73.8	66.5	59.1	51.8	44.5	37.2	29.9	26.6	23.3	19.9
162.5°	43.5	39.3	35.1	30.8	26.6	22.4	18.2	14.0	12.4	10.9	9.3
165°	19.5	17.3	15.1	12.8	10.6	8.4	6.2	4.0	3.6	3.1	2.7
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: P201400

CATALOG NUMBER: 8LBLELD4-16-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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	2016.2	2012.3	2008.3	2004.3	2000.3	1996.3	1997.6	1999.0	2000.3	2001.6	2003.0
5°	2041.3	2035.1	2028.9	2022.7	2016.5	2010.3	2009.2	2008.1	2007.0	2005.9	2004.7
7.5°	2060.4	2052.0	2043.6	2035.1	2026.7	2018.3	2014.8	2011.2	2007.7	2004.1	2000.6
10°	2075.9	2064.4	2052.9	2041.3	2029.8	2018.3	2011.9	2005.4	1999.0	1992.6	1986.1
12.5°	2084.3	2069.9	2055.5	2041.1	2026.7	2012.3	2003.2	1994.1	1985.0	1975.9	1966.9
15°	2088.7	2071.5	2054.2	2036.9	2019.6	2002.3	1990.6	1978.8	1967.1	1955.3	1943.6
17.5°	2087.5	2066.8	2046.2	2025.6	2005.0	1984.4	1970.0	1955.6	1941.2	1926.8	1912.3
20°	2083.2	2059.0	2034.9	2010.7	1986.6	1962.4	1945.1	1927.8	1910.6	1893.3	1876.0
22.5°	2078.6	2049.7	2020.9	1992.1	1963.3	1934.5	1914.1	1893.7	1873.3	1852.9	1832.6
25°	2077.4	2042.9	2008.3	1973.7	1939.2	1904.6	1881.1	1857.6	1834.1	1810.6	1787.2
27.5°	2073.7	2032.7	1991.7	1950.7	1909.7	1868.7	1842.1	1815.5	1788.9	1762.3	1735.8
30°	2065.0	2017.4	1969.7	1922.1	1874.4	1826.8	1797.1	1767.4	1737.7	1708.0	1678.4
32.5°	2059.1	2005.4	1951.8	1898.2	1844.5	1790.9	1757.2	1723.5	1689.9	1656.2	1622.5
35°	2052.6	1991.9	1931.2	1870.4	1809.7	1749.0	1711.3	1673.7	1636.0	1598.3	1560.7
37.5°	2052.2	1984.3	1916.5	1848.7	1780.9	1713.1	1671.4	1629.8	1588.1	1546.5	1504.8
40°	2056.6	1981.9	1907.2	1832.6	1757.9	1683.2	1635.3	1587.5	1539.6	1491.8	1443.9
42.5°	2062.4	1980.1	1897.9	1815.7	1733.5	1651.3	1597.9	1544.5	1491.1	1437.7	1384.3
45°	2072.6	1981.9	1891.3	1800.7	1710.0	1619.4	1561.6	1503.7	1445.9	1388.1	1330.2
47.5°	2089.4	1989.0	1888.6	1788.3	1687.9	1587.5	1523.9	1460.3	1396.7	1333.1	1269.5
50°	2109.4	1999.0	1888.7	1778.3	1668.0	1557.6	1488.2	1418.9	1349.5	1280.2	1210.8
52.5°	2137.1	2015.2	1893.3	1771.5	1649.6	1527.7	1453.0	1378.3	1303.7	1229.0	1154.3
55°	2176.3	2041.7	1907.2	1772.7	1638.2	1503.7	1423.0	1342.4	1261.7	1181.1	1100.4
57.5°	2220.8	2073.0	1925.2	1777.4	1629.6	1481.8	1395.2	1308.5	1221.9	1135.2	1048.6
60°	2271.6	2110.0	1948.5	1787.0	1625.4	1463.9	1371.0	1278.2	1185.3	1092.5	999.6
62.5°	2324.3	2149.0	1973.7	1798.5	1623.2	1447.9	1349.1	1250.2	1151.4	1052.6	953.7
65°	2369.9	2181.2	1992.4	1803.6	1614.8	1426.0	1321.8	1217.7	1113.5	1009.4	905.2
67.5°	2403.6	2203.3	2003.0	1802.6	1602.3	1402.0	1292.8	1183.5	1074.3	965.0	855.8
70°	2416.9	2208.0	1999.0	1790.0	1581.1	1372.1	1259.3	1146.5	1033.7	920.9	808.2
72.5°	2401.0	2188.0	1975.1	1762.1	1549.2	1336.2	1220.8	1105.3	989.9	874.4	759.0
75°	2352.9	2140.3	1927.8	1715.3	1502.8	1290.3	1173.7	1057.2	940.6	824.1	707.5
77.5°	2268.2	2061.5	1854.7	1648.0	1441.2	1234.5	1118.2	1001.8	885.5	769.2	652.8
80°	2162.1	1964.2	1766.3	1568.5	1370.6	1172.7	1057.7	942.7	827.7	712.7	597.6
82.5°	2022.7	1838.4	1654.0	1469.6	1285.3	1100.9	989.0	877.1	765.2	653.3	541.3
85°	1869.6	1700.3	1531.0	1361.7	1192.4	1023.1	915.4	807.7	700.0	592.3	484.6
87.5°	1711.1	1557.6	1404.0	1250.4	1096.9	943.3	840.7	738.1	635.5	532.9	430.3
90°	1558.3	1419.3	1280.4	1141.5	1002.5	863.6	767.6	671.7	575.7	479.8	383.8
92.5°	1433.3	1306.9	1180.6	1054.3	928.0	801.7	712.6	623.5	534.5	445.4	356.3
95°	1319.3	1203.5	1087.6	971.7	855.8	739.9	657.7	575.5	493.3	411.1	328.8
97.5°	1216.3	1109.1	1001.8	894.6	787.3	680.1	604.5	529.0	453.4	377.8	302.3
100°	1122.8	1023.1	923.4	823.6	723.9	624.2	554.8	485.5	416.1	346.8	277.4
102.5°	1040.4	946.0	851.6	757.2	662.8	568.4	505.2	442.1	378.9	315.8	252.6
105°	966.3	876.4	786.4	696.4	606.5	516.5	459.1	401.7	344.3	286.9	229.6
107.5°	898.8	812.4	726.0	639.5	553.1	466.7	414.8	363.0	311.1	259.3	207.4
110°	835.2	752.3	669.4	586.6	503.7	420.8	374.0	327.3	280.5	233.8	187.0



TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	777.6	698.2	618.9	539.6	460.2	380.9	338.6	296.3	253.9	211.6	169.3
115°	722.8	647.3	571.7	496.1	420.6	345.0	306.7	268.3	230.0	191.7	153.3
117.5°	672.1	600.3	528.5	456.7	384.9	313.1	278.3	243.5	208.7	173.9	139.2
120°	620.0	552.7	485.3	417.9	350.6	283.2	251.7	220.3	188.8	157.3	125.9
122.5°	563.5	501.5	439.4	377.4	315.3	253.3	225.2	197.0	168.9	140.7	112.6
125°	510.1	453.2	396.2	339.3	282.3	225.4	200.4	175.3	150.3	125.2	100.2
127.5°	463.3	410.2	357.0	303.8	250.6	197.4	175.5	153.5	131.6	109.7	87.7
130°	417.5	368.3	319.1	269.9	220.7	171.5	152.4	133.4	114.3	95.3	76.2
132.5°	371.6	326.4	281.2	236.0	190.8	145.6	129.4	113.2	97.1	80.9	64.7
135°	326.6	285.7	244.7	203.7	162.7	121.7	108.2	94.7	81.1	67.6	54.1
137.5°	279.4	243.1	206.7	170.4	134.0	97.7	86.8	76.0	65.1	54.3	43.4
140°	235.8	203.0	170.2	137.4	104.6	71.8	63.8	55.8	47.9	39.9	31.9
142.5°	197.0	168.0	139.0	109.9	80.9	51.9	46.1	40.4	34.6	28.8	23.1
145°	161.3	135.9	110.4	84.9	59.4	33.9	30.1	26.4	22.6	18.8	15.1
147.5°	130.5	108.8	87.1	65.3	43.6	21.9	19.5	17.0	14.6	12.2	9.7
150°	101.5	84.0	66.5	49.0	31.5	14.0	12.4	10.9	9.3	7.8	6.2
152.5°	75.6	62.0	48.5	35.0	21.5	8.0	7.1	6.2	5.3	4.4	3.6
155°	49.7	40.1	30.6	21.1	11.5	2.0	1.8	1.6	1.3	1.1	0.9
157.5°	29.9	23.9	17.9	12.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	16.6	13.3	10.0	6.6	3.3	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	7.8	6.2	4.7	3.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.2	1.8	1.3	0.9	0.4	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: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	2004.3	2005.6	2007.0	2008.3	2003.4	1998.5	1993.7	1988.8	1983.9	1979.0	1974.2
5°	2003.6	2002.5	2001.4	2000.3	1993.4	1986.6	1979.7	1972.8	1966.0	1959.1	1952.2
7.5°	1997.0	1993.5	1989.9	1986.4	1977.3	1968.2	1959.1	1950.0	1941.0	1931.9	1922.8
10°	1979.7	1973.3	1966.8	1960.4	1950.2	1940.0	1929.8	1919.6	1909.5	1899.3	1889.1
12.5°	1957.8	1948.7	1939.6	1930.5	1919.2	1907.9	1896.6	1885.3	1874.0	1862.7	1851.4
15°	1931.8	1920.1	1908.3	1896.6	1884.0	1871.3	1858.7	1846.1	1833.4	1820.8	1808.2
17.5°	1897.9	1883.5	1869.1	1854.7	1841.4	1828.1	1814.8	1801.5	1788.3	1775.0	1761.7
20°	1858.7	1841.5	1824.2	1806.9	1793.2	1779.4	1765.7	1751.9	1738.2	1724.4	1710.7
22.5°	1812.2	1791.8	1771.4	1751.0	1737.5	1724.0	1710.5	1697.0	1683.4	1669.9	1656.4
25°	1763.7	1740.2	1716.7	1693.2	1679.7	1666.2	1652.6	1639.1	1625.6	1612.1	1598.5
27.5°	1709.2	1682.6	1656.0	1629.4	1616.5	1603.7	1590.8	1578.0	1565.1	1552.3	1539.4
30°	1648.7	1619.0	1589.3	1559.6	1547.9	1536.1	1524.4	1512.6	1500.9	1489.1	1477.4
32.5°	1588.8	1555.2	1521.5	1487.8	1477.4	1467.0	1456.5	1446.1	1435.7	1425.3	1414.8
35°	1523.0	1485.3	1447.7	1410.0	1402.0	1394.0	1386.1	1378.1	1370.1	1362.1	1354.2
37.5°	1463.2	1421.5	1379.9	1338.2	1333.3	1328.4	1323.6	1318.7	1313.8	1308.9	1304.1
40°	1396.1	1348.2	1300.4	1252.5	1252.3	1252.1	1251.8	1251.6	1251.4	1251.2	1250.9
42.5°	1330.9	1277.5	1224.1	1170.7	1175.4	1180.0	1184.7	1189.3	1194.0	1198.6	1203.3
45°	1272.4	1214.6	1156.7	1098.9	1107.3	1115.7	1124.2	1132.6	1141.0	1149.4	1157.9
47.5°	1205.9	1142.3	1078.7	1015.1	1028.8	1042.6	1056.3	1070.1	1083.8	1097.6	1111.3
50°	1141.5	1072.1	1002.8	933.4	952.5	971.5	990.6	1009.6	1028.7	1047.7	1066.8
52.5°	1079.6	1005.0	930.3	855.6	879.5	903.5	927.4	951.3	975.3	999.2	1023.1
55°	1019.8	939.1	858.5	777.8	806.8	835.9	864.9	893.9	923.0	952.0	981.0
57.5°	961.9	875.3	788.6	702.0	736.1	770.2	804.4	838.5	872.6	906.7	940.9
60°	906.8	813.9	721.1	628.2	667.4	706.6	745.9	785.1	824.3	863.5	902.8
62.5°	854.9	756.1	657.2	558.4	602.1	645.7	689.4	733.0	776.7	820.3	864.0
65°	801.1	696.9	592.8	488.6	536.7	584.8	632.9	681.0	729.0	777.1	825.2
67.5°	746.5	637.3	528.0	418.8	471.1	523.4	575.7	628.0	680.3	732.6	784.9
70°	695.4	582.6	469.8	357.0	412.2	467.4	522.5	577.7	632.9	688.1	743.2
72.5°	643.5	528.1	412.6	297.2	354.6	412.0	469.4	526.8	584.1	641.5	698.9
75°	591.0	474.4	357.9	241.3	300.0	358.7	417.5	476.2	534.9	593.6	652.4
77.5°	536.5	420.2	303.8	187.5	246.9	306.3	365.7	425.1	484.4	543.8	603.2
80°	482.6	367.6	252.6	137.6	196.8	255.9	315.1	374.3	433.4	492.6	551.8
82.5°	429.4	317.5	205.6	93.7	151.8	209.8	267.9	326.0	384.0	442.1	500.2
85°	376.9	269.2	161.5	53.8	110.5	167.3	224.0	280.7	337.5	394.2	450.9
87.5°	327.7	225.1	122.5	19.9	74.0	128.1	182.1	236.2	290.3	344.4	398.4
90°	287.9	191.9	96.0	0.0	50.7	101.5	152.2	203.0	253.7	304.5	355.2
92.5°	267.2	178.2	89.1	0.0	47.0	94.0	140.9	187.9	234.9	281.9	328.8
95°	246.6	164.4	82.2	0.0	43.4	86.9	130.3	173.7	217.2	260.6	304.0
97.5°	226.7	151.1	75.6	0.0	40.3	80.7	121.0	161.3	201.7	242.0	282.3
100°	208.1	138.7	69.4	0.0	37.0	74.0	111.0	148.0	185.1	222.1	259.1
102.5°	189.5	126.3	63.2	0.0	34.1	68.2	102.4	136.5	170.6	204.7	238.9
105°	172.2	114.8	57.4	0.0	31.2	62.5	93.7	125.0	156.2	187.5	218.7
107.5°	155.6	103.7	51.9	0.0	28.6	57.2	85.8	114.4	142.9	171.5	200.1
110°	140.3	93.5	46.8	0.0	25.9	51.8	77.8	103.7	129.6	155.5	181.5



TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	127.0	84.6	42.3	0.0	23.5	47.0	70.5	94.0	117.4	140.9	164.4
115°	115.0	76.7	38.3	0.0	20.8	41.7	62.5	83.3	104.2	125.0	145.8
117.5°	104.4	69.6	34.8	0.0	18.6	37.2	55.8	74.4	93.1	111.7	130.3
120°	94.4	62.9	31.5	0.0	16.6	33.2	49.9	66.5	83.1	99.7	116.4
122.5°	84.4	56.3	28.1	0.0	14.8	29.7	44.5	59.4	74.2	89.1	103.9
125°	75.1	50.1	25.0	0.0	13.1	26.2	39.2	52.3	65.4	78.5	91.5
127.5°	65.8	43.9	21.9	0.0	11.1	22.2	33.2	44.3	55.4	66.5	77.5
130°	57.2	38.1	19.1	0.0	9.3	18.6	27.9	37.2	46.6	55.9	65.2
132.5°	48.5	32.4	16.2	0.0	7.5	15.1	22.6	30.1	37.7	45.2	52.7
135°	40.6	27.0	13.5	0.0	6.0	12.0	17.9	23.9	29.9	35.9	41.8
137.5°	32.6	21.7	10.9	0.0	4.4	8.9	13.3	17.7	22.2	26.6	31.0
140°	23.9	16.0	8.0	0.0	3.1	6.2	9.3	12.4	15.5	18.6	21.7
142.5°	17.3	11.5	5.8	0.0	1.8	3.6	5.3	7.1	8.9	10.7	12.4
145°	11.3	7.5	3.8	0.0	1.1	2.2	3.3	4.4	5.6	6.7	7.8
147.5°	7.3	4.9	2.4	0.0	0.7	1.3	2.0	2.7	3.3	4.0	4.7
150°	4.7	3.1	1.6	0.0	0.2	0.4	0.7	0.9	1.1	1.3	1.6
152.5°	2.7	1.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.7	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P201400

CATALOG NUMBER: 8LBLEDD4-16-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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	1969.3	1964.4	1963.3	1962.2	1961.1	1960.0	1958.9	1957.8	1956.7	1955.6	1954.5
5°	1945.4	1938.5	1935.6	1932.7	1929.9	1927.0	1924.1	1921.2	1918.4	1915.5	1912.6
7.5°	1913.7	1904.6	1901.1	1897.5	1894.0	1890.4	1886.9	1883.3	1879.8	1876.2	1872.7
10°	1878.9	1868.7	1864.3	1859.8	1855.4	1851.0	1846.5	1842.1	1837.7	1833.2	1828.8
12.5°	1840.1	1828.8	1824.1	1819.5	1814.8	1810.2	1805.5	1800.9	1796.2	1791.6	1786.9
15°	1795.5	1782.9	1778.7	1774.5	1770.3	1766.1	1761.9	1757.7	1753.5	1749.3	1745.1
17.5°	1748.4	1735.1	1731.6	1728.0	1724.5	1720.9	1717.4	1713.8	1710.3	1706.7	1703.2
20°	1696.9	1683.2	1681.4	1679.7	1677.9	1676.1	1674.4	1672.6	1670.8	1669.1	1667.3
22.5°	1642.9	1629.4	1630.9	1632.5	1634.0	1635.6	1637.1	1638.7	1640.2	1641.8	1643.3
25°	1585.0	1571.5	1578.4	1585.3	1592.1	1599.0	1605.9	1612.8	1619.6	1626.5	1633.4
27.5°	1526.6	1513.7	1526.6	1539.4	1552.3	1565.1	1578.0	1590.8	1603.7	1616.5	1629.4
30°	1465.6	1453.9	1473.0	1492.0	1511.1	1530.1	1549.2	1568.2	1587.3	1606.3	1625.4
32.5°	1404.4	1394.0	1419.0	1444.1	1469.1	1494.2	1519.2	1544.3	1569.3	1594.4	1619.4
35°	1346.2	1338.2	1369.0	1399.8	1430.6	1461.4	1492.2	1523.0	1553.8	1584.6	1615.4
37.5°	1299.2	1294.3	1329.5	1364.8	1400.0	1435.2	1470.5	1505.7	1540.9	1576.2	1611.4
40°	1250.7	1250.5	1290.8	1331.1	1371.5	1411.8	1452.1	1492.4	1532.8	1573.1	1613.4
42.5°	1207.9	1212.6	1257.8	1303.0	1348.2	1393.4	1438.6	1483.8	1529.0	1574.2	1619.4
45°	1166.3	1174.7	1225.4	1276.2	1326.9	1377.7	1428.4	1479.2	1529.9	1580.7	1631.4
47.5°	1125.1	1138.8	1195.5	1252.2	1309.0	1365.7	1422.4	1479.1	1535.9	1592.6	1649.3
50°	1085.8	1104.9	1168.1	1231.2	1294.4	1357.5	1420.7	1483.8	1547.0	1610.1	1673.3
52.5°	1047.1	1071.0	1141.2	1211.5	1281.7	1352.0	1422.2	1492.5	1562.7	1633.0	1703.2
55°	1010.1	1039.1	1117.1	1195.1	1273.1	1351.1	1429.1	1507.1	1585.1	1663.1	1741.1
57.5°	975.0	1009.1	1095.7	1182.4	1269.0	1355.7	1442.3	1529.0	1615.6	1702.3	1788.9
60°	942.0	981.2	1076.5	1171.8	1267.1	1362.4	1457.6	1552.9	1648.2	1743.5	1838.8
62.5°	907.6	951.3	1055.7	1160.0	1264.4	1368.8	1473.1	1577.5	1681.9	1786.2	1890.6
65°	873.3	921.4	1034.2	1147.0	1259.8	1372.6	1485.3	1598.1	1710.9	1823.7	1936.5
67.5°	837.2	889.5	1009.8	1130.1	1250.5	1370.8	1491.1	1611.4	1731.8	1852.1	1972.4
70°	798.4	853.6	979.0	1104.4	1229.9	1355.3	1480.7	1606.1	1731.6	1857.0	1982.4
72.5°	756.3	813.7	941.3	1069.0	1196.6	1324.2	1451.9	1579.5	1707.1	1834.8	1962.4
75°	711.1	769.8	896.6	1023.3	1150.1	1276.8	1403.6	1530.3	1657.1	1783.8	1910.6
77.5°	662.6	722.0	843.4	964.9	1086.3	1207.7	1329.2	1450.6	1572.0	1693.5	1814.9
80°	610.9	670.1	784.2	898.3	1012.5	1126.6	1240.7	1354.8	1469.0	1583.1	1697.2
82.5°	558.2	616.3	723.1	829.9	936.7	1043.5	1150.3	1257.1	1363.9	1470.7	1577.5
85°	507.7	564.4	660.4	756.3	852.3	948.2	1044.2	1140.1	1236.1	1332.0	1428.0
87.5°	452.5	506.6	593.2	679.9	766.5	853.2	939.8	1026.5	1113.1	1199.8	1286.4
90°	406.0	456.7	535.8	614.9	694.0	773.1	852.3	931.4	1010.5	1089.6	1168.7
92.5°	375.8	422.8	493.7	564.6	635.5	706.4	777.4	848.3	919.2	990.1	1061.0
95°	347.5	390.9	456.9	523.0	589.0	655.0	721.1	787.1	853.1	919.2	985.2
97.5°	322.7	363.0	424.2	485.3	546.5	607.6	668.8	729.9	791.1	852.2	913.4
100°	296.1	333.1	390.7	448.3	505.9	563.5	621.2	678.8	736.4	794.0	851.6
102.5°	273.0	307.1	361.8	416.6	471.3	526.0	580.8	635.5	690.2	745.0	799.7
105°	250.0	281.2	333.7	386.2	438.8	491.3	543.8	596.3	648.9	701.4	753.9
107.5°	228.7	257.3	307.6	357.9	408.2	458.5	508.8	559.1	609.4	659.7	710.0
110°	207.4	233.3	281.8	330.4	378.9	427.4	476.0	524.5	573.0	621.6	670.1



TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	187.9	211.4	257.9	304.5	351.0	397.5	444.1	490.6	537.1	583.7	630.2
115°	166.7	187.5	232.3	277.0	321.8	366.5	411.3	456.0	500.8	545.5	590.3
117.5°	148.9	167.5	209.8	252.1	294.5	336.8	379.1	421.4	463.8	506.1	548.4
120°	133.0	149.6	189.3	228.9	268.6	308.3	347.9	387.6	427.3	466.9	506.6
122.5°	118.8	133.6	169.9	206.3	242.6	279.0	315.3	351.7	388.0	424.4	460.7
125°	104.6	117.7	150.9	184.2	217.4	250.6	283.9	317.1	350.3	383.6	416.8
127.5°	88.6	99.7	129.8	160.0	190.1	220.2	250.4	280.5	310.6	340.8	370.9
130°	74.5	83.8	109.7	135.6	161.6	187.5	213.4	239.3	265.3	291.2	317.1
132.5°	60.3	67.8	90.0	112.1	134.3	156.4	178.6	200.7	222.9	245.0	267.2
135°	47.8	53.8	73.1	92.4	111.7	131.0	150.2	169.5	188.8	208.1	227.4
137.5°	35.5	39.9	56.7	73.6	90.4	107.3	124.1	141.0	157.8	174.7	191.5
140°	24.8	27.9	42.5	57.1	71.8	86.4	101.0	115.6	130.3	144.9	159.5
142.5°	14.2	16.0	28.6	41.2	53.9	66.5	79.1	91.7	104.4	117.0	129.6
145°	8.9	10.0	20.4	30.8	41.2	51.6	62.1	72.5	82.9	93.3	103.7
147.5°	5.3	6.0	14.2	22.4	30.6	38.8	47.0	55.2	63.4	71.6	79.8
150°	1.8	2.0	8.4	14.8	21.3	27.7	34.1	40.5	47.0	53.4	59.8
152.5°	0.0	0.0	4.7	9.3	14.0	18.6	23.3	27.9	32.6	37.2	41.9
155°	0.0	0.0	2.9	5.8	8.6	11.5	14.4	17.3	20.1	23.0	25.9
157.5°	0.0	0.0	1.1	2.2	3.3	4.4	5.6	6.7	7.8	8.9	10.0
160°	0.0	0.0	0.2	0.4	0.7	0.9	1.1	1.3	1.6	1.8	2.0
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: P201400

CATALOG NUMBER: 8LBLELD4-16-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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	1952.1	1949.6	1947.2	1944.7	1942.3	1939.8	1937.4	1934.9	1932.5	1930.5	1928.5
5°	1909.7	1906.8	1904.0	1901.1	1898.2	1895.3	1892.5	1889.6	1886.7	1885.6	1884.5
7.5°	1869.6	1866.5	1863.4	1860.3	1857.2	1854.1	1851.0	1847.9	1844.8	1843.7	1842.6
10°	1826.1	1823.5	1820.8	1818.2	1815.5	1812.9	1810.2	1807.6	1804.9	1803.6	1802.2
12.5°	1784.7	1782.5	1780.3	1778.1	1775.8	1773.6	1771.4	1769.2	1767.0	1766.1	1765.2
15°	1744.0	1742.9	1741.8	1740.7	1739.5	1738.4	1737.3	1736.2	1735.1	1735.5	1736.0
17.5°	1705.0	1706.7	1708.5	1710.3	1712.0	1713.8	1715.6	1717.3	1719.1	1721.3	1723.5
20°	1673.7	1680.1	1686.6	1693.0	1699.4	1705.8	1712.3	1718.7	1725.1	1728.6	1732.2
22.5°	1653.9	1664.6	1675.2	1685.9	1696.5	1707.2	1717.8	1728.5	1739.1	1743.5	1748.0
25°	1646.9	1660.4	1673.9	1687.4	1701.0	1714.5	1728.0	1741.5	1755.0	1760.1	1765.2
27.5°	1644.9	1660.4	1675.9	1691.4	1707.0	1722.5	1738.0	1753.5	1769.0	1775.0	1781.0
30°	1643.1	1660.8	1678.6	1696.3	1714.0	1731.7	1749.5	1767.2	1784.9	1792.0	1799.1
32.5°	1640.0	1660.6	1681.2	1701.8	1722.5	1743.1	1763.7	1784.3	1804.9	1813.5	1822.2
35°	1639.3	1663.3	1687.2	1711.1	1735.1	1759.0	1782.9	1806.9	1830.8	1841.2	1851.6
37.5°	1639.5	1667.7	1695.8	1724.0	1752.1	1780.3	1808.4	1836.6	1864.7	1877.3	1890.0
40°	1646.2	1679.0	1711.8	1744.6	1777.4	1810.2	1843.0	1875.8	1908.6	1923.7	1938.7
42.5°	1657.5	1695.6	1733.7	1771.8	1810.0	1848.1	1886.2	1924.3	1962.4	1980.1	1997.9
45°	1675.7	1720.0	1764.3	1808.6	1853.0	1897.3	1941.6	1985.9	2030.2	2050.8	2071.4
47.5°	1700.3	1751.2	1802.2	1853.2	1904.1	1955.1	2006.1	2057.0	2108.0	2132.6	2157.2
50°	1732.9	1792.5	1852.1	1911.7	1971.3	2030.9	2090.5	2150.1	2209.7	2237.2	2264.7
52.5°	1771.7	1840.1	1908.6	1977.1	2045.5	2114.0	2182.5	2250.9	2319.4	2349.8	2380.1
55°	1817.5	1894.0	1970.4	2046.9	2123.3	2199.8	2276.2	2352.7	2429.1	2463.4	2497.8
57.5°	1873.8	1958.7	2043.5	2128.4	2213.3	2298.2	2383.0	2467.9	2552.8	2589.6	2626.4
60°	1932.5	2026.3	2120.0	2213.7	2307.5	2401.2	2494.9	2588.7	2682.4	2719.6	2756.8
62.5°	1991.0	2091.4	2191.8	2292.2	2392.5	2492.9	2593.3	2693.7	2794.1	2831.1	2868.1
65°	2040.4	2144.4	2248.3	2352.2	2456.2	2560.1	2664.0	2768.0	2871.9	2909.1	2946.3
67.5°	2078.5	2184.7	2290.8	2397.0	2503.1	2609.3	2715.4	2821.6	2927.7	2962.9	2998.2
70°	2088.5	2194.7	2300.8	2407.0	2513.1	2619.3	2725.4	2831.6	2937.7	2970.5	3003.3
72.5°	2065.7	2168.9	2272.2	2375.5	2478.7	2582.0	2685.3	2788.5	2891.8	2921.9	2952.1
75°	2008.5	2106.5	2204.4	2302.4	2400.3	2498.3	2596.2	2694.2	2792.1	2819.4	2846.6
77.5°	1906.6	1998.4	2090.1	2181.8	2273.6	2365.3	2457.0	2548.8	2640.5	2667.1	2693.7
80°	1780.5	1863.8	1947.2	2030.5	2113.8	2197.1	2280.5	2363.8	2447.1	2471.7	2496.3
82.5°	1650.2	1722.9	1795.6	1868.3	1940.9	2013.6	2086.3	2159.0	2231.7	2254.3	2276.9
85°	1493.1	1558.3	1623.4	1688.6	1753.7	1818.9	1884.0	1949.2	2014.3	2034.2	2054.2
87.5°	1343.3	1400.3	1457.2	1514.2	1571.1	1628.1	1685.0	1742.0	1798.9	1817.3	1835.7
90°	1217.4	1266.2	1314.9	1363.7	1412.4	1461.2	1509.9	1558.7	1607.4	1624.7	1642.0
92.5°	1106.0	1151.0	1195.9	1240.9	1285.9	1330.9	1375.8	1420.8	1465.8	1481.1	1496.4
95°	1025.8	1066.3	1106.9	1147.4	1188.0	1228.5	1269.1	1309.6	1350.2	1364.6	1379.0
97.5°	951.7	990.1	1028.4	1066.7	1105.1	1143.4	1181.7	1220.1	1258.4	1271.9	1285.4
100°	888.8	926.0	963.3	1000.5	1037.7	1074.9	1112.2	1149.4	1186.6	1199.5	1212.3
102.5°	835.8	871.9	908.1	944.2	980.3	1016.4	1052.6	1088.7	1124.8	1137.7	1150.5
105°	789.8	825.7	861.6	897.5	933.3	969.2	1005.1	1041.0	1076.9	1089.5	1102.2
107.5°	746.1	782.2	818.4	854.5	890.6	926.7	962.9	999.0	1035.1	1047.5	1059.9
110°	706.0	741.9	777.8	813.7	849.6	885.5	921.4	957.3	993.2	1005.8	1018.5





TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	666.1	702.0	737.9	773.8	809.7	845.6	881.5	917.4	953.3	966.2	979.0
115°	626.2	662.1	698.0	733.9	769.8	805.7	841.6	877.5	913.4	926.5	939.6
117.5°	584.1	619.8	655.4	691.1	726.8	762.5	798.1	833.8	869.5	883.0	896.5
120°	541.4	576.2	611.0	645.8	680.5	715.3	750.1	784.9	819.7	833.7	847.6
122.5°	494.4	528.1	561.7	595.4	629.1	662.8	696.4	730.1	763.8	778.0	792.2
125°	448.5	480.2	511.9	543.6	575.2	606.9	638.6	670.3	702.0	716.2	730.4
127.5°	400.8	430.7	460.7	490.6	520.5	550.4	580.4	610.3	640.2	653.7	667.2
130°	346.1	375.2	404.2	433.2	462.3	491.3	520.3	549.4	578.4	590.1	601.9
132.5°	294.9	322.6	350.3	378.0	405.7	433.4	461.1	488.8	516.5	527.4	538.2
135°	252.4	277.5	302.5	327.5	352.6	377.6	402.6	427.7	452.7	463.1	473.5
137.5°	212.5	233.6	254.6	275.7	296.7	317.8	338.8	359.9	380.9	391.8	402.6
140°	176.6	193.6	210.7	227.8	244.8	261.9	279.0	296.0	313.1	323.1	333.1
142.5°	144.0	158.4	172.8	187.2	201.7	216.1	230.5	244.9	259.3	267.9	276.6
145°	115.9	128.1	140.3	152.5	164.6	176.8	189.0	201.2	213.4	221.6	229.8
147.5°	90.0	100.2	110.4	120.6	130.7	140.9	151.1	161.3	171.5	179.3	187.0
150°	68.0	76.2	84.4	92.6	100.8	109.0	117.2	125.4	133.6	141.1	148.7
152.5°	48.3	54.7	61.2	67.6	74.0	80.4	86.9	93.3	99.7	106.8	113.9
155°	31.0	36.1	41.2	46.3	51.4	56.5	61.6	66.7	71.8	78.0	84.2
157.5°	14.2	18.4	22.6	26.8	31.1	35.3	39.5	43.7	47.9	53.4	59.0
160°	4.9	7.8	10.6	13.5	16.4	19.3	22.1	25.0	27.9	32.3	36.8
162.5°	0.9	1.8	2.7	3.6	4.4	5.3	6.2	7.1	8.0	11.5	15.1
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.4
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



TEST NUMBER: P201400

CATALOG NUMBER: 8LBLELD4-16-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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	1926.5	1924.5	1922.6	1920.6	1918.6	1916.6	1914.6	1916.8	1919.0	1921.2	1923.4
5°	1883.4	1882.3	1881.1	1880.0	1878.9	1877.8	1876.7	1878.0	1879.3	1880.7	1882.0
7.5°	1841.5	1840.4	1839.2	1838.1	1837.0	1835.9	1834.8	1835.7	1836.6	1837.5	1838.4
10°	1800.9	1799.6	1798.2	1796.9	1795.6	1794.2	1792.9	1793.6	1794.2	1794.9	1795.6
12.5°	1764.3	1763.4	1762.6	1761.7	1760.8	1759.9	1759.0	1759.2	1759.4	1759.7	1759.9
15°	1736.4	1736.9	1737.3	1737.8	1738.2	1738.7	1739.1	1738.7	1738.2	1737.8	1737.3
17.5°	1725.8	1728.0	1730.2	1732.4	1734.7	1736.9	1739.1	1737.1	1735.1	1733.1	1731.1
20°	1735.7	1739.3	1742.8	1746.4	1749.9	1753.5	1757.0	1753.2	1749.5	1745.7	1741.9
22.5°	1752.4	1756.8	1761.3	1765.7	1770.1	1774.6	1779.0	1773.9	1768.8	1763.7	1758.6
25°	1770.3	1775.4	1780.5	1785.6	1790.7	1795.8	1800.9	1795.4	1789.8	1784.3	1778.7
27.5°	1786.9	1792.9	1798.9	1804.9	1810.8	1816.8	1822.8	1816.4	1810.0	1803.5	1797.1
30°	1806.2	1813.3	1820.4	1827.5	1834.6	1841.7	1848.8	1841.3	1833.7	1826.2	1818.7
32.5°	1830.8	1839.5	1848.1	1856.8	1865.4	1874.1	1882.7	1874.1	1865.4	1856.8	1848.1
35°	1862.0	1872.4	1882.9	1893.3	1903.7	1914.1	1924.5	1914.3	1904.1	1893.9	1883.7
37.5°	1902.6	1915.2	1927.9	1940.5	1953.1	1965.8	1978.4	1965.8	1953.1	1940.5	1927.9
40°	1953.8	1968.9	1983.9	1999.0	2014.1	2029.1	2044.2	2029.8	2015.4	2001.0	1986.6
42.5°	2015.6	2033.3	2051.1	2068.8	2086.5	2104.3	2122.0	2105.8	2089.6	2073.5	2057.3
45°	2092.0	2112.6	2133.3	2153.9	2174.5	2195.1	2215.7	2196.4	2177.1	2157.9	2138.6
47.5°	2181.8	2206.4	2231.0	2255.6	2280.2	2304.8	2329.4	2306.6	2283.8	2260.9	2238.1
50°	2292.1	2319.6	2347.1	2374.6	2402.0	2429.5	2457.0	2431.1	2405.2	2379.2	2353.3
52.5°	2410.5	2440.9	2471.2	2501.6	2532.0	2562.3	2592.7	2564.3	2536.0	2507.6	2479.2
55°	2532.1	2566.5	2600.8	2635.2	2669.5	2703.9	2738.2	2707.2	2676.2	2645.1	2614.1
57.5°	2663.1	2699.9	2736.7	2773.5	2810.2	2847.0	2883.8	2851.0	2818.2	2785.4	2752.6
60°	2794.1	2831.3	2868.5	2905.7	2943.0	2980.2	3017.4	2983.9	2950.5	2917.0	2883.6
62.5°	2905.1	2942.1	2979.1	3016.1	3053.1	3090.1	3127.1	3094.1	3061.1	3028.1	2995.1
65°	2983.6	3020.8	3058.0	3095.2	3132.5	3169.7	3206.9	3174.8	3142.6	3110.5	3078.4
67.5°	3033.4	3068.6	3103.9	3139.1	3174.3	3209.6	3244.8	3214.4	3184.1	3153.7	3123.4
70°	3036.1	3068.9	3101.6	3134.4	3167.2	3200.0	3232.8	3204.7	3176.5	3148.4	3120.3
72.5°	2982.2	3012.3	3042.5	3072.6	3102.7	3132.9	3163.0	3136.9	3110.7	3084.6	3058.4
75°	2873.9	2901.1	2928.4	2955.6	2982.9	3010.1	3037.4	3013.5	2989.5	2965.6	2941.7
77.5°	2720.3	2746.9	2773.4	2800.0	2826.6	2853.2	2879.8	2855.4	2831.1	2806.7	2782.3
80°	2520.9	2545.5	2570.0	2594.6	2619.2	2643.8	2668.4	2645.8	2623.2	2600.6	2578.0
82.5°	2299.5	2322.1	2344.7	2367.3	2389.9	2412.5	2435.1	2414.0	2393.0	2371.9	2350.9
85°	2074.1	2094.1	2114.0	2134.0	2153.9	2173.9	2193.8	2174.5	2155.2	2136.0	2116.7
87.5°	1854.1	1872.5	1890.8	1909.2	1927.6	1946.0	1964.4	1946.5	1928.5	1910.6	1892.6
90°	1659.3	1676.6	1693.8	1711.1	1728.4	1745.7	1763.0	1746.6	1730.2	1713.8	1697.4
92.5°	1511.7	1527.0	1542.3	1557.6	1572.9	1588.2	1603.5	1588.9	1574.2	1559.6	1545.0
95°	1393.4	1407.8	1422.2	1436.6	1451.0	1465.4	1479.8	1466.5	1453.2	1439.9	1426.6
97.5°	1299.0	1312.5	1326.0	1339.5	1353.1	1366.6	1380.1	1367.5	1354.8	1342.2	1329.6
100°	1225.2	1238.0	1250.9	1263.7	1276.6	1289.4	1302.3	1290.1	1277.9	1265.7	1253.5
102.5°	1163.4	1176.2	1189.1	1201.9	1214.8	1227.6	1240.5	1228.8	1217.0	1205.3	1193.5
105°	1114.8	1127.4	1140.1	1152.7	1165.3	1178.0	1190.6	1178.9	1167.1	1155.4	1143.6
107.5°	1072.3	1084.7	1097.2	1109.6	1122.0	1134.4	1146.8	1135.3	1123.7	1112.2	1100.7
110°	1031.1	1043.7	1056.4	1069.0	1081.6	1094.3	1106.9	1095.4	1083.9	1072.3	1060.8



TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	991.9	1004.7	1017.6	1030.4	1043.3	1056.1	1069.0	1057.3	1045.5	1033.8	1022.0
115°	952.6	965.7	978.8	991.9	1004.9	1018.0	1031.1	1019.1	1007.2	995.2	983.2
117.5°	910.1	923.6	937.1	950.6	964.2	977.7	991.2	979.0	966.8	954.6	942.4
120°	861.6	875.5	889.5	903.4	917.4	931.3	945.3	932.9	920.5	908.1	895.7
122.5°	806.4	820.6	834.7	848.9	863.1	877.3	891.5	878.9	866.2	853.6	841.0
125°	744.5	758.7	772.9	787.1	801.2	815.4	829.6	817.6	805.7	793.7	781.8
127.5°	680.7	694.2	707.8	721.3	734.8	748.3	761.8	750.3	738.8	727.2	715.7
130°	613.6	625.4	637.1	648.9	660.6	672.4	684.1	673.7	663.3	652.8	642.4
132.5°	549.1	560.0	570.8	581.7	592.6	603.4	614.3	605.4	596.6	587.7	578.8
135°	484.0	494.4	504.8	515.2	525.7	536.1	546.5	538.5	530.5	522.6	514.6
137.5°	413.5	424.3	435.2	446.0	456.9	467.7	478.6	470.6	462.6	454.7	446.7
140°	343.0	353.0	363.0	373.0	382.9	392.9	402.9	396.2	389.6	382.9	376.3
142.5°	285.2	293.8	302.5	311.1	319.7	328.4	337.0	332.4	327.7	323.1	318.4
145°	238.0	246.2	254.4	262.6	270.8	279.0	287.2	283.4	279.7	275.9	272.1
147.5°	194.8	202.5	210.3	218.0	225.8	233.5	241.3	238.2	235.1	232.0	228.9
150°	156.2	163.7	171.3	178.8	186.3	193.9	201.4	198.7	196.1	193.4	190.8
152.5°	121.0	128.1	135.1	142.2	149.3	156.4	163.5	161.3	159.1	156.9	154.7
155°	90.4	96.6	102.8	109.0	115.2	121.4	127.6	126.1	124.5	123.0	121.4
157.5°	64.5	70.0	75.6	81.1	86.6	92.2	97.7	96.4	95.1	93.7	92.4
160°	41.2	45.6	50.1	54.5	58.9	63.4	67.8	66.9	66.0	65.1	64.2
162.5°	18.6	22.2	25.7	29.3	32.8	36.4	39.9	39.5	39.0	38.6	38.1
165°	6.6	8.8	11.1	13.3	15.5	17.7	19.9	19.9	19.9	19.9	19.9
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: P201400

CATALOG NUMBER: 8LBLELD4-16-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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	1925.7	1927.9	1930.1	1932.3	1934.5	1937.6	1940.7	1943.8	1946.9	1950.0	1953.1
5°	1883.3	1884.6	1886.0	1887.3	1888.6	1892.4	1896.2	1899.9	1903.7	1907.5	1911.3
7.5°	1839.2	1840.1	1841.0	1841.9	1842.8	1847.5	1852.1	1856.8	1861.4	1866.1	1870.7
10°	1796.2	1796.9	1797.6	1798.2	1798.9	1803.6	1808.2	1812.9	1817.5	1822.2	1826.8
12.5°	1760.1	1760.3	1760.6	1760.8	1761.0	1765.9	1770.8	1775.6	1780.5	1785.4	1790.3
15°	1736.9	1736.4	1736.0	1735.5	1735.1	1738.2	1741.3	1744.4	1747.5	1750.6	1753.7
17.5°	1729.1	1727.1	1725.1	1723.1	1721.1	1721.3	1721.5	1721.8	1722.0	1722.2	1722.4
20°	1738.2	1734.4	1730.6	1726.9	1723.1	1718.9	1714.7	1710.5	1706.3	1702.0	1697.8
22.5°	1753.5	1748.4	1743.3	1738.2	1733.1	1724.9	1716.7	1708.5	1700.3	1692.1	1683.9
25°	1773.2	1767.6	1762.1	1756.5	1751.0	1739.3	1727.5	1715.8	1704.0	1692.3	1680.5
27.5°	1790.7	1784.3	1777.8	1771.4	1765.0	1751.3	1737.5	1723.8	1710.0	1696.3	1682.5
30°	1811.1	1803.6	1796.1	1788.5	1781.0	1764.8	1748.6	1732.5	1716.3	1700.1	1683.9
32.5°	1839.5	1830.8	1822.2	1813.5	1804.9	1785.4	1765.9	1746.4	1726.9	1707.4	1687.9
35°	1873.6	1863.4	1853.2	1843.0	1832.8	1809.8	1786.7	1763.7	1740.6	1717.6	1694.5
37.5°	1915.2	1902.6	1890.0	1877.3	1864.7	1838.3	1812.0	1785.6	1759.2	1732.9	1706.5
40°	1972.2	1957.8	1943.4	1929.0	1914.6	1883.4	1852.1	1820.9	1789.6	1758.4	1727.1
42.5°	2041.1	2024.9	2008.8	1992.6	1976.4	1939.2	1901.9	1864.7	1827.5	1790.2	1753.0
45°	2119.3	2100.0	2080.8	2061.5	2042.2	1999.2	1956.2	1913.2	1870.2	1827.3	1784.3
47.5°	2215.3	2192.5	2169.6	2146.8	2124.0	2074.4	2024.7	1975.1	1925.4	1875.8	1826.1
50°	2327.4	2301.5	2275.5	2249.6	2223.7	2166.1	2108.5	2050.9	1993.3	1935.6	1878.0
52.5°	2450.9	2422.5	2394.1	2365.8	2337.4	2271.1	2204.9	2138.6	2072.4	2006.1	1939.9
55°	2583.1	2552.1	2521.0	2490.0	2459.0	2384.1	2309.2	2234.3	2159.4	2084.5	2009.6
57.5°	2719.9	2687.1	2654.3	2621.5	2588.7	2505.2	2421.6	2338.1	2254.5	2171.0	2087.4
60°	2850.1	2816.7	2783.2	2749.8	2716.3	2625.0	2533.7	2442.4	2351.1	2259.8	2168.5
62.5°	2962.0	2929.0	2896.0	2863.0	2830.0	2732.3	2634.6	2536.8	2439.1	2341.4	2243.7
65°	3046.2	3014.1	2982.0	2949.8	2917.7	2815.8	2713.8	2611.9	2510.0	2408.0	2306.1
67.5°	3093.0	3062.7	3032.3	3002.0	2971.6	2867.4	2763.3	2659.1	2555.0	2450.8	2346.7
70°	3092.1	3064.0	3035.9	3007.7	2979.6	2875.7	2771.7	2667.8	2563.9	2459.9	2356.0
72.5°	3032.3	3006.1	2980.0	2953.8	2927.7	2826.7	2725.6	2624.6	2523.5	2422.5	2321.4
75°	2917.7	2893.8	2869.9	2845.9	2822.0	2726.5	2631.0	2535.5	2440.0	2344.4	2248.9
77.5°	2758.0	2733.6	2709.2	2684.9	2660.5	2572.1	2483.7	2395.2	2306.8	2218.4	2130.0
80°	2555.4	2532.8	2510.2	2487.6	2465.0	2384.3	2303.7	2223.0	2142.4	2061.7	1981.1
82.5°	2329.8	2308.8	2287.7	2266.7	2245.6	2173.8	2102.0	2030.2	1958.4	1886.7	1814.9
85°	2097.4	2078.1	2058.9	2039.6	2020.3	1957.1	1894.0	1830.8	1767.7	1704.5	1641.4
87.5°	1874.7	1856.7	1838.8	1820.8	1802.9	1747.9	1693.0	1638.0	1583.1	1528.1	1473.2
90°	1681.0	1664.6	1648.2	1631.8	1615.4	1566.7	1517.9	1469.2	1420.4	1371.7	1322.9
92.5°	1530.3	1515.7	1501.1	1486.4	1471.8	1428.4	1384.9	1341.5	1298.1	1254.6	1211.2
95°	1413.3	1400.0	1386.7	1373.4	1360.1	1320.0	1279.9	1239.8	1199.7	1159.6	1119.5
97.5°	1316.9	1304.3	1291.7	1279.0	1266.4	1228.7	1191.1	1153.4	1115.7	1078.1	1040.4
100°	1241.4	1229.2	1217.0	1204.8	1192.6	1156.5	1120.4	1084.2	1048.1	1012.0	975.9
102.5°	1181.8	1170.0	1158.3	1146.5	1134.8	1099.3	1063.9	1028.4	993.0	957.5	922.1
105°	1131.9	1120.1	1108.4	1096.6	1084.9	1050.1	1015.3	980.5	945.7	911.0	876.2
107.5°	1089.1	1077.6	1066.1	1054.5	1043.0	1008.4	973.9	939.3	904.7	870.2	835.6
110°	1049.3	1037.8	1026.2	1014.7	1003.2	968.6	934.0	899.5	864.9	830.3	795.7



TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	1010.3	998.5	986.8	975.0	963.3	928.9	894.6	860.2	825.9	791.5	757.2
115°	971.3	959.3	947.3	935.4	923.4	889.1	854.7	820.4	786.0	751.7	717.3
117.5°	930.3	918.1	905.9	893.7	881.5	847.2	812.8	778.5	744.1	709.8	675.4
120°	883.2	870.8	858.4	846.0	833.6	799.9	766.2	732.6	698.9	665.2	631.5
122.5°	828.3	815.7	803.1	790.4	777.8	745.4	713.1	680.7	648.4	616.0	583.7
125°	769.8	757.9	745.9	734.0	722.0	690.5	659.1	627.6	596.1	564.7	533.2
127.5°	704.2	692.7	681.1	669.6	658.1	628.9	599.6	570.4	541.1	511.9	482.6
130°	632.0	621.6	611.1	600.7	590.3	563.7	537.1	510.5	483.9	457.4	430.8
132.5°	570.0	561.1	552.2	543.4	534.5	509.0	483.5	458.0	432.5	407.1	381.6
135°	506.6	498.6	490.7	482.7	474.7	451.9	429.0	406.2	383.4	360.5	337.7
137.5°	438.7	430.7	422.8	414.8	406.8	388.2	369.6	351.0	332.4	313.7	295.1
140°	369.6	363.0	356.3	349.7	343.0	327.9	312.9	297.8	282.7	267.7	252.6
142.5°	313.8	309.1	304.5	299.8	295.2	282.3	269.5	256.6	243.8	230.9	218.1
145°	268.4	264.6	260.8	257.1	253.3	242.2	231.1	220.1	209.0	197.9	186.8
147.5°	225.8	222.7	219.6	216.5	213.4	204.1	194.8	185.5	176.2	166.8	157.5
150°	188.1	185.5	182.8	180.2	177.5	169.5	161.5	153.6	145.6	137.6	129.6
152.5°	152.4	150.2	148.0	145.8	143.6	137.0	130.3	123.7	117.0	110.4	103.7
155°	119.9	118.3	116.8	115.2	113.7	108.2	102.6	97.1	91.5	86.0	80.4
157.5°	91.1	89.8	88.4	87.1	85.8	81.1	76.5	71.8	67.2	62.5	57.9
160°	63.4	62.5	61.6	60.7	59.8	56.3	52.7	49.2	45.6	42.1	38.5
162.5°	37.7	37.2	36.8	36.3	35.9	34.1	32.3	30.6	28.8	27.0	25.2
165°	19.9	19.9	19.9	19.9	19.9	19.2	18.6	17.9	17.3	16.6	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: P201400

CATALOG NUMBER: 8LBLELD4-16-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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	1956.2	1959.3	1962.4	1963.3	1964.2	1965.1	1966.0	1966.8	1967.7	1968.6	1969.5
5°	1915.0	1918.8	1922.6	1924.8	1927.0	1929.2	1931.4	1933.7	1935.9	1938.1	1940.3
7.5°	1875.4	1880.0	1884.7	1887.6	1890.5	1893.3	1896.2	1899.1	1902.0	1904.8	1907.7
10°	1831.5	1836.1	1840.8	1844.3	1847.9	1851.4	1855.0	1858.5	1862.1	1865.6	1869.2
12.5°	1795.1	1800.0	1804.9	1807.6	1810.2	1812.9	1815.5	1818.2	1820.8	1823.5	1826.1
15°	1756.8	1759.9	1763.0	1765.4	1767.9	1770.3	1772.7	1775.2	1777.6	1780.0	1782.5
17.5°	1722.7	1722.9	1723.1	1724.4	1725.8	1727.1	1728.4	1729.8	1731.1	1732.4	1733.8
20°	1693.6	1689.4	1685.2	1685.0	1684.8	1684.5	1684.3	1684.1	1683.9	1683.6	1683.4
22.5°	1675.7	1667.5	1659.3	1656.0	1652.7	1649.3	1646.0	1642.7	1639.4	1636.0	1632.7
25°	1668.8	1657.0	1645.3	1637.3	1629.3	1621.4	1613.4	1605.4	1597.4	1589.5	1581.5
27.5°	1668.8	1655.0	1641.3	1627.1	1612.9	1598.8	1584.6	1570.4	1556.2	1542.1	1527.9
30°	1667.8	1651.6	1635.4	1615.2	1595.1	1574.9	1554.7	1534.6	1514.4	1494.2	1474.1
32.5°	1668.4	1648.9	1629.4	1603.7	1578.0	1552.3	1526.6	1500.8	1475.1	1449.4	1423.7
35°	1671.5	1648.4	1625.4	1593.9	1562.5	1531.0	1499.5	1468.1	1436.6	1405.1	1373.7
37.5°	1680.1	1653.8	1627.4	1590.4	1553.4	1516.4	1479.4	1442.3	1405.3	1368.3	1331.3
40°	1695.9	1664.6	1633.4	1591.3	1549.2	1507.1	1465.0	1422.8	1380.7	1338.6	1296.5
42.5°	1715.8	1678.5	1641.3	1594.5	1547.8	1501.0	1454.3	1407.5	1360.8	1314.0	1267.3
45°	1741.3	1698.3	1655.3	1603.2	1551.1	1499.1	1447.0	1394.9	1342.8	1290.8	1238.7
47.5°	1776.5	1726.8	1677.2	1619.1	1561.1	1503.0	1445.0	1386.9	1328.9	1270.8	1212.8
50°	1820.4	1762.8	1705.2	1640.3	1575.3	1510.4	1445.5	1380.5	1315.6	1250.7	1185.7
52.5°	1873.6	1807.4	1741.1	1668.9	1596.6	1524.4	1452.1	1379.9	1307.6	1235.4	1163.1
55°	1934.7	1859.8	1784.9	1704.5	1624.0	1543.6	1463.2	1382.7	1302.3	1221.9	1141.4
57.5°	2003.9	1920.3	1836.8	1747.7	1658.6	1569.6	1480.5	1391.4	1302.3	1213.3	1124.2
60°	2077.2	1985.9	1894.6	1796.4	1698.3	1600.1	1501.9	1403.8	1305.6	1207.4	1109.3
62.5°	2145.9	2048.2	1950.5	1843.5	1736.4	1629.4	1522.4	1415.3	1308.3	1201.3	1094.2
65°	2204.2	2102.2	2000.3	1884.6	1769.0	1653.3	1537.6	1422.0	1306.3	1190.6	1075.0
67.5°	2242.5	2138.4	2034.2	1911.2	1788.2	1665.3	1542.3	1419.3	1296.3	1173.4	1050.4
70°	2252.1	2148.1	2044.2	1916.3	1788.5	1660.6	1532.8	1404.9	1277.1	1149.2	1021.4
72.5°	2220.4	2119.3	2018.3	1889.3	1760.4	1631.4	1502.4	1373.5	1244.5	1115.5	986.6
75°	2153.4	2057.9	1962.4	1834.5	1706.7	1578.8	1451.0	1323.1	1195.3	1067.4	939.6
77.5°	2041.5	1953.1	1864.7	1741.7	1618.7	1495.8	1372.8	1249.8	1126.8	1003.9	880.9
80°	1900.4	1819.8	1739.1	1624.1	1509.1	1394.1	1279.1	1164.0	1049.0	934.0	819.0
82.5°	1743.1	1671.3	1599.5	1494.5	1389.4	1284.4	1179.3	1074.3	969.2	864.2	759.1
85°	1578.2	1515.1	1451.9	1356.2	1260.4	1164.7	1069.0	973.2	877.5	781.8	686.0
87.5°	1418.2	1363.3	1308.3	1223.2	1138.1	1053.0	967.9	882.9	797.8	712.7	627.6
90°	1274.2	1225.4	1176.7	1100.5	1024.2	948.0	871.8	795.5	719.3	643.1	566.8
92.5°	1167.8	1124.3	1080.9	1011.1	941.3	871.5	801.7	731.9	662.1	592.3	522.5
95°	1079.4	1039.3	999.2	934.7	870.2	805.7	741.2	676.8	612.3	547.8	483.3
97.5°	1002.7	965.1	927.4	867.6	807.7	747.9	688.1	628.2	568.4	508.6	448.7
100°	939.7	903.6	867.5	811.0	754.5	698.0	641.5	585.0	528.5	472.0	415.5
102.5°	886.6	851.2	815.7	761.9	708.0	654.2	600.3	546.5	492.6	438.8	384.9
105°	841.4	806.6	771.8	719.7	667.6	615.6	563.5	511.4	459.3	407.3	355.2
107.5°	801.0	766.5	731.9	681.4	630.9	580.3	529.8	479.3	428.8	378.2	327.7
110°	761.2	726.6	692.0	643.5	595.0	546.4	497.9	449.4	400.9	352.3	303.8



TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	722.8	688.5	654.1	607.1	560.1	513.2	466.2	419.2	372.2	325.3	278.3
115°	683.0	648.6	614.3	569.3	524.3	479.3	434.3	389.4	344.4	299.4	254.4
117.5°	641.1	606.7	572.4	529.6	486.9	444.1	401.3	358.6	315.8	273.0	230.3
120°	597.9	564.2	530.5	490.6	450.7	410.8	370.9	331.1	291.2	251.3	211.4
122.5°	551.3	519.0	486.6	449.8	413.0	376.3	339.5	302.7	265.9	229.2	192.4
125°	501.7	470.3	438.8	405.6	372.3	339.1	305.8	272.6	239.3	206.1	172.8
127.5°	453.4	424.1	394.9	364.8	334.6	304.5	274.3	244.2	214.0	183.9	153.7
130°	404.2	377.6	351.0	324.2	297.4	270.6	243.8	216.9	190.1	163.3	136.5
132.5°	356.1	330.6	305.1	281.8	258.6	235.3	212.0	188.8	165.5	142.2	119.0
135°	314.9	292.0	269.2	248.6	228.0	207.4	186.8	166.2	145.6	125.0	104.4
137.5°	276.5	257.9	239.3	220.5	201.6	182.8	164.0	145.1	126.3	107.5	88.6
140°	237.5	222.5	207.4	190.6	173.7	156.9	140.0	123.2	106.3	89.5	72.6
142.5°	205.2	192.4	179.5	164.4	149.4	134.3	119.2	104.2	89.1	74.0	59.0
145°	175.8	164.7	153.6	140.3	127.0	113.7	100.4	87.1	73.8	60.5	47.2
147.5°	148.2	138.9	129.6	118.1	106.6	95.0	83.5	72.0	60.5	48.9	37.4
150°	121.7	113.7	105.7	96.4	87.1	77.8	68.5	59.1	49.8	40.5	31.2
152.5°	97.1	90.4	83.8	76.5	69.2	61.8	54.5	47.2	39.9	32.5	25.2
155°	74.9	69.3	63.8	58.3	52.7	47.2	41.7	36.1	30.6	25.1	19.5
157.5°	53.2	48.6	43.9	40.4	36.8	33.3	29.7	26.2	22.6	19.1	15.5
160°	35.0	31.4	27.9	25.7	23.5	21.3	19.1	16.8	14.6	12.4	10.2
162.5°	23.5	21.7	19.9	18.4	16.8	15.3	13.7	12.2	10.6	9.1	7.5
165°	15.3	14.7	14.0	12.9	11.8	10.7	9.6	8.4	7.3	6.2	5.1
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: P201400

CATALOG NUMBER: 8LBLELD4-16-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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	1970.4	1976.4	1982.4	1988.4	1994.4	2000.3	2006.3	2012.3	2018.3	2024.3	2024.3
5°	1942.5	1950.5	1958.5	1966.4	1974.4	1982.4	1990.4	1998.3	2006.3	2014.3	2016.7
7.5°	1910.6	1920.1	1929.6	1939.2	1948.7	1958.2	1967.7	1977.3	1986.8	1996.3	2001.6
10°	1872.7	1883.8	1894.9	1905.9	1917.0	1928.1	1939.2	1950.2	1961.3	1972.4	1980.2
12.5°	1828.8	1841.2	1853.6	1866.0	1878.4	1890.9	1903.3	1915.7	1928.1	1940.5	1950.9
15°	1784.9	1798.2	1811.5	1824.8	1838.1	1851.4	1864.7	1878.0	1891.3	1904.6	1917.5
17.5°	1735.1	1749.3	1763.5	1777.6	1791.8	1806.0	1820.2	1834.3	1848.5	1862.7	1878.2
20°	1683.2	1697.4	1711.6	1725.8	1740.0	1754.1	1768.3	1782.5	1796.7	1810.9	1829.5
22.5°	1629.4	1643.4	1657.3	1671.3	1685.2	1699.2	1713.1	1727.1	1741.0	1755.0	1776.5
25°	1573.5	1587.7	1601.9	1616.1	1630.3	1644.4	1658.6	1672.8	1687.0	1701.2	1725.1
27.5°	1513.7	1526.8	1539.9	1552.9	1566.0	1579.1	1592.2	1605.2	1618.3	1631.4	1659.1
30°	1453.9	1465.6	1477.4	1489.1	1500.9	1512.6	1524.4	1536.1	1547.9	1559.6	1590.8
32.5°	1398.0	1407.8	1417.5	1427.3	1437.0	1446.8	1456.5	1466.3	1476.0	1485.8	1520.4
35°	1342.2	1349.7	1357.3	1364.8	1372.3	1379.9	1387.4	1394.9	1402.5	1410.0	1448.1
37.5°	1294.3	1298.5	1302.7	1306.9	1311.1	1315.4	1319.6	1323.8	1328.0	1332.2	1374.7
40°	1254.4	1254.0	1253.5	1253.1	1252.7	1252.2	1251.8	1251.4	1250.9	1250.5	1298.4
42.5°	1220.5	1215.0	1209.4	1203.9	1198.4	1192.8	1187.3	1181.8	1176.2	1170.7	1223.7
45°	1186.6	1176.0	1165.3	1154.7	1144.1	1133.4	1122.8	1112.2	1101.5	1090.9	1149.0
47.5°	1154.7	1138.5	1122.3	1106.2	1090.0	1073.8	1057.6	1041.5	1025.3	1009.1	1072.5
50°	1120.8	1099.5	1078.3	1057.0	1035.7	1014.5	993.2	971.9	950.7	929.4	998.1
52.5°	1090.9	1064.1	1037.3	1010.5	983.7	956.8	930.0	903.2	876.4	849.6	924.1
55°	1061.0	1029.1	997.2	965.3	933.4	901.4	869.5	837.6	805.7	773.8	853.8
57.5°	1035.1	997.9	960.6	923.4	886.2	848.9	811.7	774.5	737.2	700.0	785.5
60°	1011.1	968.6	926.0	883.5	840.9	798.4	755.8	713.3	670.7	628.2	719.5
62.5°	987.2	939.6	891.9	844.3	796.6	749.0	701.3	653.7	606.0	558.4	655.2
65°	959.3	907.2	855.1	803.1	751.0	698.9	646.8	594.8	542.7	490.6	592.5
67.5°	927.4	871.1	814.8	758.5	702.2	646.0	589.7	533.4	477.1	420.8	527.8
70°	893.5	834.1	774.7	715.3	655.9	596.6	537.2	477.8	418.4	359.0	469.6
72.5°	857.6	795.6	733.5	671.5	609.4	547.4	485.3	423.3	361.2	299.2	412.0
75°	811.7	748.5	685.4	622.2	559.1	495.9	432.8	369.6	306.5	243.3	357.2
77.5°	757.9	695.0	632.0	569.1	506.2	443.2	380.3	317.4	254.4	191.5	304.7
80°	704.0	641.7	579.5	517.2	454.9	392.7	330.4	268.1	205.9	143.6	255.5
82.5°	654.1	592.3	530.5	468.6	406.8	345.0	283.2	221.3	159.5	97.7	206.7
85°	590.3	531.4	472.4	413.5	354.5	295.6	236.6	177.7	118.7	59.8	164.4
87.5°	542.5	484.9	427.3	369.6	312.0	254.4	196.8	139.1	81.5	23.9	123.4
90°	490.6	436.1	381.6	327.1	272.6	218.0	163.5	109.0	54.5	0.0	93.1
92.5°	452.7	402.4	352.1	301.8	251.5	201.2	150.9	100.6	50.3	0.0	86.2
95°	418.8	372.3	325.7	279.2	232.7	186.1	139.6	93.1	46.5	0.0	79.3
97.5°	388.9	345.7	302.5	259.3	216.1	172.8	129.6	86.4	43.2	0.0	72.7
100°	359.0	319.1	279.2	239.3	199.4	159.6	119.7	79.8	39.9	0.0	66.5
102.5°	331.1	294.5	258.0	221.4	184.8	148.3	111.7	75.1	38.6	2.0	62.5
105°	303.1	269.6	236.2	202.7	169.3	135.8	102.4	68.9	35.5	2.0	57.2
107.5°	277.2	246.4	215.6	184.8	154.0	123.2	92.4	61.6	30.8	0.0	49.9
110°	255.3	226.9	198.6	170.2	141.8	113.5	85.1	56.7	28.4	0.0	45.0





TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	231.3	205.8	180.3	154.9	129.4	103.9	78.4	53.0	27.5	2.0	42.8
115°	209.4	186.4	163.3	140.3	117.2	94.2	71.1	48.1	25.0	2.0	39.0
117.5°	187.5	166.9	146.3	125.7	105.1	84.4	63.8	43.2	22.6	2.0	35.5
120°	171.5	152.7	133.8	115.0	96.2	77.3	58.5	39.7	20.8	2.0	32.4
122.5°	155.6	138.5	121.5	104.4	87.3	70.3	53.2	36.1	19.1	2.0	29.0
125°	139.6	124.3	109.0	93.7	78.4	63.2	47.9	32.6	17.3	2.0	25.7
127.5°	123.6	110.1	96.6	83.1	69.6	56.0	42.5	29.0	15.5	2.0	21.9
130°	109.7	97.7	85.8	73.8	61.8	49.9	37.9	25.9	14.0	2.0	18.4
132.5°	95.7	85.3	74.9	64.5	54.1	43.6	33.2	22.8	12.4	2.0	15.1
135°	83.8	74.7	65.6	56.5	47.4	38.4	29.3	20.2	11.1	2.0	12.2
137.5°	69.8	62.3	54.7	47.2	39.7	32.1	24.6	17.1	9.5	2.0	9.3
140°	55.8	49.8	43.8	37.9	31.9	25.9	19.9	14.0	8.0	2.0	7.1
142.5°	43.9	39.2	34.6	29.9	25.3	20.6	16.0	11.3	6.7	2.0	5.3
145°	33.9	30.4	26.8	23.3	19.7	16.2	12.6	9.1	5.5	2.0	4.2
147.5°	25.9	23.2	20.6	17.9	15.3	12.6	10.0	7.3	4.7	2.0	3.8
150°	21.9	19.7	17.5	15.3	13.1	10.8	8.6	6.4	4.2	2.0	3.1
152.5°	17.9	16.4	14.8	13.3	11.7	10.2	8.6	7.1	5.5	4.0	4.7
155°	14.0	12.9	11.8	10.7	9.6	8.4	7.3	6.2	5.1	4.0	4.4
157.5°	12.0	11.1	10.2	9.3	8.4	7.6	6.7	5.8	4.9	4.0	4.2
160°	8.0	7.6	7.1	6.7	6.2	5.8	5.3	4.9	4.4	4.0	4.0
162.5°	6.0	5.6	5.1	4.7	4.2	3.8	3.3	2.9	2.4	2.0	2.0
165°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.8
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: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	2024.3	2024.3	2024.3	2024.3	2024.3	2024.3	2024.3	2024.3	2026.3	2028.3	2030.3
5°	2019.2	2021.6	2024.0	2026.5	2028.9	2031.3	2033.8	2036.2	2040.4	2044.6	2048.8
7.5°	2006.9	2012.3	2017.6	2022.9	2028.2	2033.6	2038.9	2044.2	2050.6	2057.0	2063.5
10°	1987.9	1995.7	2003.4	2011.2	2018.9	2026.7	2034.4	2042.2	2051.1	2059.9	2068.8
12.5°	1961.3	1971.7	1982.1	1992.6	2003.0	2013.4	2023.8	2034.2	2045.7	2057.2	2068.8
15°	1930.3	1943.2	1956.0	1968.9	1981.7	1994.6	2007.4	2020.3	2034.9	2049.5	2064.2
17.5°	1893.7	1909.2	1924.7	1940.3	1955.8	1971.3	1986.8	2002.3	2020.3	2038.2	2056.2
20°	1848.1	1866.7	1885.3	1904.0	1922.6	1941.2	1959.8	1978.4	2000.1	2021.8	2043.5
22.5°	1798.0	1819.5	1841.0	1862.5	1884.0	1905.5	1927.0	1948.5	1975.5	2002.6	2029.6
25°	1749.1	1773.0	1796.9	1820.9	1844.8	1868.7	1892.7	1916.6	1949.8	1983.1	2016.3
27.5°	1686.8	1714.5	1742.2	1769.9	1797.6	1825.3	1853.0	1880.7	1920.6	1960.5	2000.4
30°	1622.1	1653.3	1684.6	1715.8	1747.1	1778.3	1809.6	1840.8	1887.1	1933.4	1979.7
32.5°	1554.9	1589.5	1624.1	1658.6	1693.2	1727.8	1762.3	1796.9	1850.5	1904.1	1957.8
35°	1486.2	1524.3	1562.4	1600.6	1638.7	1676.8	1714.9	1753.0	1813.7	1874.4	1935.2
37.5°	1417.3	1459.8	1502.4	1544.9	1587.5	1630.0	1672.6	1715.1	1782.5	1849.8	1917.2
40°	1346.2	1394.1	1441.9	1489.8	1537.6	1585.5	1633.3	1681.2	1755.4	1829.7	1903.9
42.5°	1276.6	1329.6	1382.5	1435.5	1488.4	1541.4	1594.3	1647.3	1729.3	1811.3	1893.3
45°	1207.0	1265.1	1323.1	1381.2	1439.2	1497.3	1555.3	1613.4	1704.0	1794.7	1885.3
47.5°	1135.9	1199.2	1262.6	1326.0	1389.4	1452.7	1516.1	1579.5	1679.4	1779.4	1879.3
50°	1066.8	1135.5	1204.2	1272.8	1341.5	1410.2	1478.9	1547.6	1656.8	1766.1	1875.3
52.5°	998.5	1073.0	1147.4	1221.9	1296.3	1370.8	1445.2	1519.7	1639.6	1759.5	1879.3
55°	933.8	1013.8	1093.8	1173.8	1253.8	1333.8	1413.8	1493.8	1626.5	1759.3	1892.0
57.5°	871.1	956.6	1042.1	1127.7	1213.2	1298.7	1384.3	1469.8	1615.2	1760.5	1905.9
60°	810.8	902.1	993.4	1084.7	1176.0	1267.3	1358.6	1449.9	1609.0	1768.1	1927.2
62.5°	752.1	848.9	945.7	1042.6	1139.4	1236.2	1333.1	1429.9	1603.2	1776.5	1949.8
65°	694.5	796.4	898.3	1000.3	1102.2	1204.1	1306.1	1408.0	1594.8	1781.6	1968.4
67.5°	634.9	741.9	848.9	956.0	1063.0	1170.0	1277.1	1384.1	1582.6	1781.2	1979.7
70°	580.2	690.7	801.3	911.9	1022.5	1133.0	1243.6	1354.2	1561.4	1768.6	1975.8
72.5°	524.8	637.6	750.4	863.1	975.9	1088.7	1201.5	1314.3	1525.7	1737.1	1948.5
75°	471.1	585.0	698.9	812.8	926.7	1040.6	1154.5	1268.4	1478.9	1689.4	1899.9
77.5°	418.0	531.2	644.4	757.7	870.9	984.1	1097.4	1210.6	1414.7	1618.8	1822.9
80°	367.4	479.3	591.2	703.1	815.0	926.9	1038.8	1150.7	1343.5	1536.3	1729.1
82.5°	315.7	424.8	533.8	642.8	751.8	860.9	969.9	1078.9	1258.8	1438.8	1618.7
85°	269.0	373.6	478.2	582.8	687.4	792.0	896.6	1001.2	1166.1	1330.9	1495.8
87.5°	222.9	322.4	421.9	521.4	620.9	720.4	819.9	919.4	1069.0	1218.6	1368.1
90°	186.1	279.2	372.3	465.3	558.4	651.5	744.5	837.6	973.7	1109.7	1245.8
92.5°	172.4	258.6	344.8	431.0	517.2	603.4	689.6	775.8	899.4	1023.1	1146.7
95°	158.7	238.0	317.3	396.7	476.0	555.3	634.7	714.0	827.9	941.8	1055.7
97.5°	145.4	218.0	290.7	363.4	436.1	508.7	581.4	654.1	759.8	865.5	971.2
100°	133.0	199.4	265.9	332.4	398.9	465.3	531.8	598.3	697.6	796.9	896.1
102.5°	123.0	183.5	244.0	304.5	365.0	425.5	486.0	546.5	640.7	734.8	829.0
105°	112.4	167.5	222.7	277.9	333.1	388.2	443.4	498.6	588.1	677.6	767.2
107.5°	99.7	149.6	199.4	249.3	299.1	349.0	398.8	448.7	534.7	620.7	706.6
110°	90.0	135.0	180.0	224.9	269.9	314.9	359.9	404.9	486.9	568.9	650.9



TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	83.6	124.3	165.1	205.9	246.7	287.4	328.2	369.0	447.0	525.0	603.0
115°	76.0	113.0	150.0	187.1	224.1	261.1	298.1	335.1	409.6	484.0	558.5
117.5°	68.9	102.4	135.8	169.3	202.7	236.2	269.6	303.1	373.8	444.5	515.2
120°	62.7	93.1	123.4	153.8	184.1	214.5	244.8	275.2	341.0	406.8	472.6
122.5°	56.1	83.1	110.1	137.2	164.2	191.2	218.3	245.3	306.0	366.7	427.5
125°	49.4	73.1	96.8	120.6	144.3	168.0	191.7	215.4	271.7	328.0	384.3
127.5°	41.9	61.8	81.8	101.7	121.7	141.6	161.6	181.5	234.0	286.5	339.0
130°	34.8	51.2	67.6	84.0	100.4	116.8	133.2	149.6	197.0	244.4	291.9
132.5°	28.2	41.2	54.3	67.4	80.5	93.5	106.6	119.7	161.8	203.9	246.0
135°	22.4	32.6	42.8	52.9	63.1	73.3	83.5	93.7	130.0	166.4	202.7
137.5°	16.6	23.9	31.2	38.6	45.9	53.2	60.5	67.8	99.5	131.2	162.9
140°	12.2	17.3	22.4	27.5	32.6	37.7	42.8	47.9	75.4	102.9	130.3
142.5°	8.6	12.0	15.3	18.6	21.9	25.3	28.6	31.9	55.2	78.4	101.7
145°	6.4	8.6	10.8	13.1	15.3	17.5	19.7	21.9	40.7	59.6	78.4
147.5°	5.5	7.3	9.1	10.8	12.6	14.4	16.1	17.9	32.5	47.2	61.8
150°	4.2	5.3	6.4	7.6	8.7	9.8	10.9	12.0	23.1	34.2	45.2
152.5°	5.3	6.0	6.7	7.3	8.0	8.7	9.3	10.0	17.5	25.1	32.6
155°	4.9	5.3	5.8	6.2	6.7	7.1	7.6	8.0	12.4	16.9	21.3
157.5°	4.4	4.7	4.9	5.1	5.3	5.6	5.8	6.0	8.4	10.9	13.3
160°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.1	6.2	7.3
162.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.9	3.3
165°	3.6	3.3	3.1	2.9	2.7	2.4	2.2	2.0	1.8	1.6	1.3
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: P201400

CATALOG NUMBER: 8LBLELD4-16-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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	2032.3	2034.2	2036.2	2038.2	2040.2	2042.2	2043.3	2044.4	2045.5	2046.6	2047.8
5°	2053.0	2057.3	2061.5	2065.7	2069.9	2074.1	2076.3	2078.5	2080.8	2083.0	2085.2
7.5°	2069.9	2076.3	2082.7	2089.2	2095.6	2102.0	2106.0	2110.0	2114.0	2118.0	2121.9
10°	2077.7	2086.5	2095.4	2104.3	2113.1	2122.0	2128.4	2134.8	2141.3	2147.7	2154.1
12.5°	2080.3	2091.8	2103.3	2114.9	2126.4	2137.9	2146.5	2155.2	2163.8	2172.5	2181.1
15°	2078.8	2093.4	2108.0	2122.7	2137.3	2151.9	2163.0	2174.1	2185.1	2196.2	2207.3
17.5°	2074.1	2092.1	2110.0	2128.0	2145.9	2163.9	2179.2	2194.5	2209.8	2225.1	2240.3
20°	2065.2	2087.0	2108.7	2130.4	2152.1	2173.8	2194.2	2214.6	2235.0	2255.4	2275.7
22.5°	2056.6	2083.7	2110.7	2137.7	2164.8	2191.8	2215.7	2239.7	2263.6	2287.5	2311.5
25°	2049.5	2082.8	2116.0	2149.2	2182.5	2215.7	2243.0	2270.2	2297.5	2324.7	2352.0
27.5°	2040.3	2080.1	2120.0	2159.9	2199.8	2239.7	2270.1	2300.4	2330.8	2361.1	2391.5
30°	2026.0	2072.4	2118.7	2165.0	2211.3	2257.6	2292.2	2326.7	2361.3	2395.9	2430.4
32.5°	2011.4	2065.0	2118.6	2172.3	2225.9	2279.5	2318.7	2357.9	2397.2	2436.4	2475.6
35°	1995.9	2056.6	2117.3	2178.1	2238.8	2299.5	2344.3	2389.0	2433.8	2478.5	2523.3
37.5°	1984.6	2051.9	2119.3	2186.7	2254.0	2321.4	2373.0	2424.7	2476.3	2527.9	2579.6
40°	1978.1	2052.4	2126.6	2200.8	2275.1	2349.3	2408.5	2467.6	2526.8	2586.0	2645.1
42.5°	1975.3	2057.2	2139.2	2221.2	2303.2	2385.2	2453.2	2521.3	2589.3	2657.3	2725.4
45°	1975.9	2066.6	2157.2	2247.8	2338.5	2429.1	2507.3	2585.5	2663.8	2742.0	2820.2
47.5°	1979.3	2079.2	2179.2	2279.1	2379.1	2479.0	2569.2	2659.4	2749.6	2839.8	2929.9
50°	1984.6	2093.8	2203.1	2312.3	2421.6	2530.8	2634.7	2738.7	2842.6	2946.5	3050.5
52.5°	1999.2	2119.1	2239.0	2358.8	2478.7	2598.6	2716.7	2834.8	2952.9	3071.0	3189.2
55°	2024.7	2157.5	2290.2	2422.9	2555.7	2688.4	2819.8	2951.2	3082.6	3214.0	3345.4
57.5°	2051.3	2196.6	2342.0	2487.4	2632.7	2778.1	2923.0	3067.9	3212.9	3357.8	3502.7
60°	2086.3	2245.4	2404.5	2563.6	2722.7	2881.8	3038.5	3195.1	3351.8	3508.5	3665.1
62.5°	2123.1	2296.3	2469.6	2642.9	2816.2	2989.5	3155.7	3321.9	3488.1	3654.3	3820.5
65°	2155.2	2342.0	2528.8	2715.6	2902.4	3089.2	3261.8	3434.4	3607.1	3779.7	3952.3
67.5°	2178.3	2376.8	2575.4	2773.9	2972.5	3171.0	3346.3	3521.6	3696.8	3872.1	4047.4
70°	2183.0	2390.1	2597.3	2804.5	3011.7	3218.9	3393.3	3567.7	3742.1	3916.5	4090.8
72.5°	2159.9	2371.3	2582.7	2794.1	3005.5	3216.9	3387.1	3557.3	3727.4	3897.6	4067.8
75°	2110.4	2321.0	2531.5	2742.0	2952.5	3163.0	3325.7	3488.3	3651.0	3813.6	3976.3
77.5°	2027.0	2231.0	2435.1	2639.2	2843.3	3047.4	3202.7	3358.1	3513.4	3668.7	3824.1
80°	1921.9	2114.6	2307.4	2500.2	2693.0	2885.8	3029.8	3173.9	3317.9	3461.9	3606.0
82.5°	1798.7	1978.6	2158.6	2338.5	2518.5	2698.4	2829.4	2960.3	3091.3	3222.2	3353.2
85°	1660.7	1825.5	1990.4	2155.3	2320.1	2485.0	2604.0	2723.0	2842.0	2961.0	3079.9
87.5°	1517.7	1667.3	1816.9	1966.4	2116.0	2265.6	2372.6	2479.7	2586.7	2693.7	2800.8
90°	1381.9	1517.9	1654.0	1790.1	1926.1	2062.2	2158.6	2255.0	2351.4	2447.8	2544.1
92.5°	1270.4	1394.0	1517.7	1641.3	1765.0	1888.6	1976.8	2065.0	2153.2	2241.4	2329.6
95°	1169.6	1283.5	1397.4	1511.3	1625.2	1739.1	1822.4	1905.7	1989.0	2072.3	2155.7
97.5°	1076.9	1182.7	1288.4	1394.1	1499.8	1605.5	1683.5	1761.5	1839.5	1917.5	1995.5
100°	995.4	1094.7	1194.0	1293.2	1392.5	1491.8	1566.9	1642.0	1717.2	1792.3	1867.4
102.5°	923.2	1017.3	1111.5	1205.7	1299.8	1394.0	1466.9	1539.8	1612.7	1685.6	1758.6
105°	856.7	946.2	1035.7	1125.3	1214.8	1304.3	1375.0	1445.7	1516.4	1587.1	1657.7
107.5°	792.6	878.6	964.6	1050.5	1136.5	1222.5	1292.3	1362.1	1431.9	1501.7	1571.6
110°	732.9	814.8	896.8	978.8	1060.8	1142.8	1211.5	1280.2	1348.9	1417.6	1486.2



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CATALOG NUMBER: 8LBLELD4-16-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°	681.0	759.0	837.0	915.0	993.0	1071.0	1137.7	1204.4	1271.1	1337.8	1404.5
115°	632.9	707.4	781.8	856.3	930.7	1005.2	1068.8	1132.4	1196.0	1259.6	1323.1
117.5°	585.9	656.5	727.2	797.9	868.6	939.3	1000.2	1061.2	1122.1	1183.1	1244.0
120°	538.4	604.3	670.1	735.9	801.7	867.5	927.1	986.7	1046.3	1105.9	1165.6
122.5°	488.2	548.9	609.6	670.4	731.1	791.8	850.1	908.4	966.6	1024.9	1083.2
125°	440.6	496.8	553.1	609.4	665.7	722.0	777.2	832.3	887.5	942.7	997.8
127.5°	391.5	444.1	496.6	549.1	601.6	654.1	704.6	755.2	805.7	856.2	906.8
130°	339.3	386.7	434.1	481.6	529.0	576.4	622.7	669.0	715.3	761.6	808.0
132.5°	288.1	330.2	372.3	414.4	456.5	498.6	542.3	585.9	629.6	673.2	716.9
135°	239.1	275.4	311.8	348.1	384.5	420.8	463.1	505.4	547.8	590.1	632.4
137.5°	194.6	226.2	257.9	289.6	321.3	353.0	392.0	431.0	470.0	509.0	548.0
140°	157.8	185.3	212.8	240.2	267.7	295.2	328.4	361.7	394.9	428.1	461.4
142.5°	125.0	148.2	171.5	194.8	218.0	241.3	269.7	298.0	326.4	354.8	383.1
145°	97.3	116.1	135.0	153.8	172.7	191.5	215.0	238.5	262.0	285.5	308.9
147.5°	76.4	91.1	105.7	120.3	135.0	149.6	168.9	188.2	207.4	226.7	246.0
150°	56.3	67.4	78.5	89.5	100.6	111.7	128.1	144.5	160.9	177.3	193.7
152.5°	40.1	47.7	55.2	62.7	70.3	77.8	90.9	103.9	117.0	130.1	143.1
155°	25.7	30.2	34.6	39.0	43.5	47.9	58.1	68.3	78.5	88.7	98.8
157.5°	15.7	18.2	20.6	23.0	25.5	27.9	35.2	42.5	49.8	57.1	64.5
160°	8.4	9.6	10.7	11.8	12.9	14.0	18.2	22.4	26.6	30.8	35.1
162.5°	3.8	4.2	4.7	5.1	5.6	6.0	8.0	10.0	12.0	14.0	15.9
165°	1.1	0.9	0.7	0.4	0.2	0.0	0.7	1.3	2.0	2.7	3.3
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: P201400

CATALOG NUMBER: 8LBLELD4-16-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°	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3	1994.3
2.5°	2048.9	2050.0	2051.1	2052.2	2050.2	2048.2	2046.2	2044.2	2042.2	2040.2	2038.2
5°	2087.4	2089.7	2091.9	2094.1	2094.1	2094.1	2094.1	2094.1	2094.1	2094.1	2094.1
7.5°	2125.9	2129.9	2133.9	2137.9	2138.3	2138.8	2139.2	2139.7	2140.1	2140.6	2141.0
10°	2160.5	2167.0	2173.4	2179.8	2180.5	2181.1	2181.8	2182.5	2183.1	2183.8	2184.5
12.5°	2189.8	2198.4	2207.1	2215.7	2217.9	2220.1	2222.4	2224.6	2226.8	2229.0	2231.3
15°	2218.4	2229.4	2240.5	2251.6	2255.6	2259.6	2263.6	2267.6	2271.5	2275.5	2279.5
17.5°	2255.6	2270.9	2286.2	2301.5	2307.0	2312.6	2318.1	2323.6	2329.2	2334.7	2340.2
20°	2296.1	2316.5	2336.9	2357.3	2364.0	2370.6	2377.3	2383.9	2390.6	2397.2	2403.9
22.5°	2335.4	2359.3	2383.3	2407.2	2415.6	2424.0	2432.5	2440.9	2449.3	2457.7	2466.2
25°	2379.2	2406.5	2433.7	2461.0	2469.9	2478.7	2487.6	2496.5	2505.3	2514.2	2523.1
27.5°	2421.8	2452.2	2482.5	2512.9	2523.5	2534.2	2544.8	2555.4	2566.1	2576.7	2587.3
30°	2465.0	2499.6	2534.1	2568.7	2581.3	2594.0	2606.6	2619.2	2631.9	2644.5	2657.1
32.5°	2514.8	2554.1	2593.3	2632.5	2647.8	2663.1	2678.4	2693.7	2709.0	2724.3	2739.6
35°	2568.0	2612.8	2657.5	2702.3	2720.7	2739.1	2757.5	2775.9	2794.3	2812.7	2831.1
37.5°	2631.2	2682.8	2734.5	2786.1	2808.0	2830.0	2851.9	2873.8	2895.8	2917.7	2939.6
40°	2704.3	2763.5	2822.6	2881.8	2908.0	2934.1	2960.3	2986.4	3012.6	3038.7	3064.9
42.5°	2793.4	2861.4	2929.5	2997.5	3027.9	3058.2	3088.6	3118.9	3149.3	3179.6	3210.0
45°	2898.4	2976.7	3054.9	3133.1	3168.3	3203.6	3238.8	3274.0	3309.3	3344.5	3379.7
47.5°	3020.1	3110.3	3200.5	3290.7	3330.8	3370.9	3411.0	3451.1	3491.3	3531.4	3571.5
50°	3154.4	3258.3	3362.3	3466.2	3511.6	3557.0	3602.5	3647.9	3693.3	3738.7	3784.2
52.5°	3307.3	3425.4	3543.5	3661.6	3712.1	3762.6	3813.2	3863.7	3914.2	3964.7	4015.3
55°	3476.8	3608.2	3739.6	3871.0	3925.3	3979.6	4033.9	4088.2	4142.4	4196.7	4251.0
57.5°	3647.6	3792.6	3937.5	4082.4	4140.0	4197.6	4255.3	4312.9	4370.5	4428.1	4485.8
60°	3821.8	3978.5	4135.1	4291.8	4351.2	4410.6	4470.0	4529.4	4588.7	4648.1	4707.5
62.5°	3986.7	4152.9	4319.1	4485.3	4544.5	4603.6	4662.8	4722.0	4781.1	4840.3	4899.5
65°	4124.9	4297.6	4470.2	4642.8	4700.6	4758.5	4816.3	4874.2	4932.0	4989.9	5047.7
67.5°	4222.7	4397.9	4573.2	4748.5	4805.0	4861.5	4918.0	4974.5	5031.1	5087.6	5144.1
70°	4265.2	4439.6	4614.0	4788.4	4842.7	4897.0	4951.3	5005.6	5059.8	5114.1	5168.4
72.5°	4238.0	4408.1	4578.3	4748.5	4800.4	4852.2	4904.1	4955.9	5007.8	5059.6	5111.5
75°	4138.9	4301.6	4464.2	4626.9	4676.3	4725.7	4775.1	4824.5	4874.0	4923.4	4972.8
77.5°	3979.4	4134.7	4290.1	4445.4	4490.4	4535.4	4580.4	4625.4	4670.3	4715.3	4760.3
80°	3750.0	3894.0	4038.1	4182.1	4224.7	4267.2	4309.8	4352.3	4394.9	4437.4	4480.0
82.5°	3484.1	3615.1	3746.0	3877.0	3916.9	3956.8	3996.7	4036.6	4076.4	4116.3	4156.2
85°	3198.9	3317.9	3436.9	3555.9	3592.9	3629.9	3666.9	3703.9	3741.0	3778.0	3815.0
87.5°	2907.8	3014.8	3121.9	3228.9	3263.9	3298.9	3333.9	3368.9	3404.0	3439.0	3474.0
90°	2640.5	2736.9	2833.3	2929.7	2962.9	2996.2	3029.4	3062.7	3095.9	3129.2	3162.4
92.5°	2417.8	2506.0	2594.2	2682.4	2713.9	2745.3	2776.8	2808.3	2839.7	2871.2	2902.7
95°	2239.0	2322.3	2405.6	2488.9	2517.3	2545.6	2574.0	2602.4	2630.7	2659.1	2687.5
97.5°	2073.5	2151.5	2229.5	2307.5	2335.9	2364.2	2392.6	2420.9	2449.3	2477.6	2506.0
100°	1942.5	2017.7	2092.8	2167.9	2195.4	2222.9	2250.3	2277.8	2305.3	2332.8	2360.2
102.5°	1831.5	1904.4	1977.3	2050.2	2077.2	2104.3	2131.3	2158.3	2185.4	2212.4	2239.4
105°	1728.4	1799.1	1869.8	1940.5	1968.4	1996.3	2024.3	2052.2	2080.1	2108.0	2136.0
107.5°	1641.4	1711.2	1781.0	1850.8	1878.3	1905.8	1933.2	1960.7	1988.2	2015.7	2043.1
110°	1554.9	1623.6	1692.3	1761.0	1788.3	1815.5	1842.8	1870.0	1897.3	1924.5	1951.8



TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-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°	1471.2	1537.9	1604.6	1671.3	1698.3	1725.4	1752.4	1779.4	1806.5	1833.5	1860.5
115°	1386.7	1450.3	1513.9	1577.5	1604.1	1630.7	1657.3	1683.9	1710.5	1737.1	1763.7
117.5°	1305.0	1365.9	1426.9	1487.8	1512.8	1537.9	1562.9	1587.9	1613.0	1638.0	1663.0
120°	1225.2	1284.8	1344.4	1404.0	1427.7	1451.4	1475.1	1498.8	1522.6	1546.3	1570.0
122.5°	1141.5	1199.7	1258.0	1316.3	1339.3	1362.4	1385.4	1408.5	1431.5	1454.6	1477.6
125°	1053.0	1108.2	1163.3	1218.5	1241.3	1264.2	1287.0	1309.8	1332.7	1355.5	1378.3
127.5°	957.3	1007.8	1058.4	1108.9	1131.3	1153.7	1176.0	1198.4	1220.8	1243.2	1265.5
130°	854.3	900.6	946.9	993.2	1014.2	1035.3	1056.3	1077.4	1098.4	1119.5	1140.5
132.5°	760.5	804.2	847.8	891.5	909.4	927.4	945.3	963.3	981.2	999.2	1017.1
135°	674.7	717.1	759.4	801.7	817.0	832.3	847.6	862.9	878.1	893.4	908.7
137.5°	587.0	626.0	665.0	704.0	718.8	733.7	748.5	763.4	778.2	793.1	807.9
140°	494.6	527.8	561.1	594.3	610.0	625.8	641.5	657.2	673.0	688.7	704.4
142.5°	411.5	439.9	468.2	496.6	512.3	528.1	543.8	559.5	575.3	591.0	606.7
145°	332.4	355.9	379.4	402.9	418.9	434.8	450.8	466.7	482.7	498.6	514.6
147.5°	265.3	284.5	303.8	323.1	338.2	353.2	368.3	383.4	398.4	413.5	428.6
150°	210.1	226.5	242.9	259.3	272.8	286.3	299.8	313.3	326.9	340.4	353.9
152.5°	156.2	169.3	182.3	195.4	208.0	220.7	233.3	245.9	258.6	271.2	283.8
155°	109.0	119.2	129.4	139.6	150.9	162.2	173.5	184.8	196.1	207.4	218.7
157.5°	71.8	79.1	86.4	93.7	103.2	112.8	122.3	131.8	141.4	150.9	160.4
160°	39.3	43.5	47.7	51.9	59.7	67.4	75.2	82.9	90.7	98.4	106.2
162.5°	17.9	19.9	21.9	23.9	29.0	34.1	39.2	44.3	49.4	54.5	59.6
165°	4.0	4.7	5.3	6.0	9.1	12.2	15.3	18.4	21.5	24.6	27.7
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: P201400

CATALOG NUMBER: 8LBLED-LD4-16-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	357.5°	360°
0°	1994.3	1994.3
2.5°	2036.2	2034.2
5°	2094.1	2094.1
7.5°	2141.5	2141.9
10°	2185.1	2185.8
12.5°	2233.5	2235.7
15°	2283.5	2287.5
17.5°	2345.8	2351.3
20°	2410.5	2417.2
22.5°	2474.6	2483.0
25°	2531.9	2540.8
27.5°	2598.0	2608.6
30°	2669.8	2682.4
32.5°	2754.9	2770.2
35°	2849.5	2867.9
37.5°	2961.6	2983.5
40°	3091.0	3117.2
42.5°	3240.3	3270.7
45°	3415.0	3450.2
47.5°	3611.6	3651.7
50°	3829.6	3875.0
52.5°	4065.8	4116.3
55°	4305.3	4359.6
57.5°	4543.4	4601.0
60°	4766.9	4826.3
62.5°	4958.6	5017.8
65°	5105.6	5163.4
67.5°	5200.6	5257.1
70°	5222.7	5277.0
72.5°	5163.3	5215.2
75°	5022.2	5071.6
77.5°	4805.3	4850.3
80°	4522.5	4565.1
82.5°	4196.1	4236.0
85°	3852.0	3889.0
87.5°	3509.0	3544.0
90°	3195.7	3228.9
92.5°	2934.1	2965.6
95°	2715.8	2744.2
97.5°	2534.3	2562.7
100°	2387.7	2415.2
102.5°	2266.5	2293.5
105°	2163.9	2191.8
107.5°	2070.6	2098.1
110°	1979.0	2006.3





TEST NUMBER: P201400

CATALOG NUMBER: 8LBLED-LD4-16-ASYMF-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (continued):**

	357.5°	360°
112.5°	1887.6	1914.6
115°	1790.3	1816.9
117.5°	1688.1	1713.1
120°	1593.7	1617.4
122.5°	1500.7	1523.7
125°	1401.2	1424.0
127.5°	1287.9	1310.3
130°	1161.6	1182.6
132.5°	1035.1	1053.0
135°	924.0	939.3
137.5°	822.8	837.6
140°	720.2	735.9
142.5°	622.5	638.2
145°	530.5	546.5
147.5°	443.6	458.7
150°	367.4	380.9
152.5°	296.5	309.1
155°	230.0	241.3
157.5°	170.0	179.5
160°	113.9	121.7
162.5°	64.7	69.8
165°	30.8	33.9
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)