

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: P201266

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P201266
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28138)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8LBLED-LD4-22-SYMF-UNV-L850-CD2-U
Description: 8 ft. Low Bay Linear, 22000 lm, Frst Sym lens, 5K
Light Source: (784) 5000K CCT, 80 CRI LEDS
2UT217098A8504C
Ballast/Driver: OSRAM
2x(OTi85W01920CC)

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24570.7 lumens
Efficiency: N/A
Efficacy: 139.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.99 / 1.87
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 8' x H: 0.21')
CIE Type: Semi-Direct

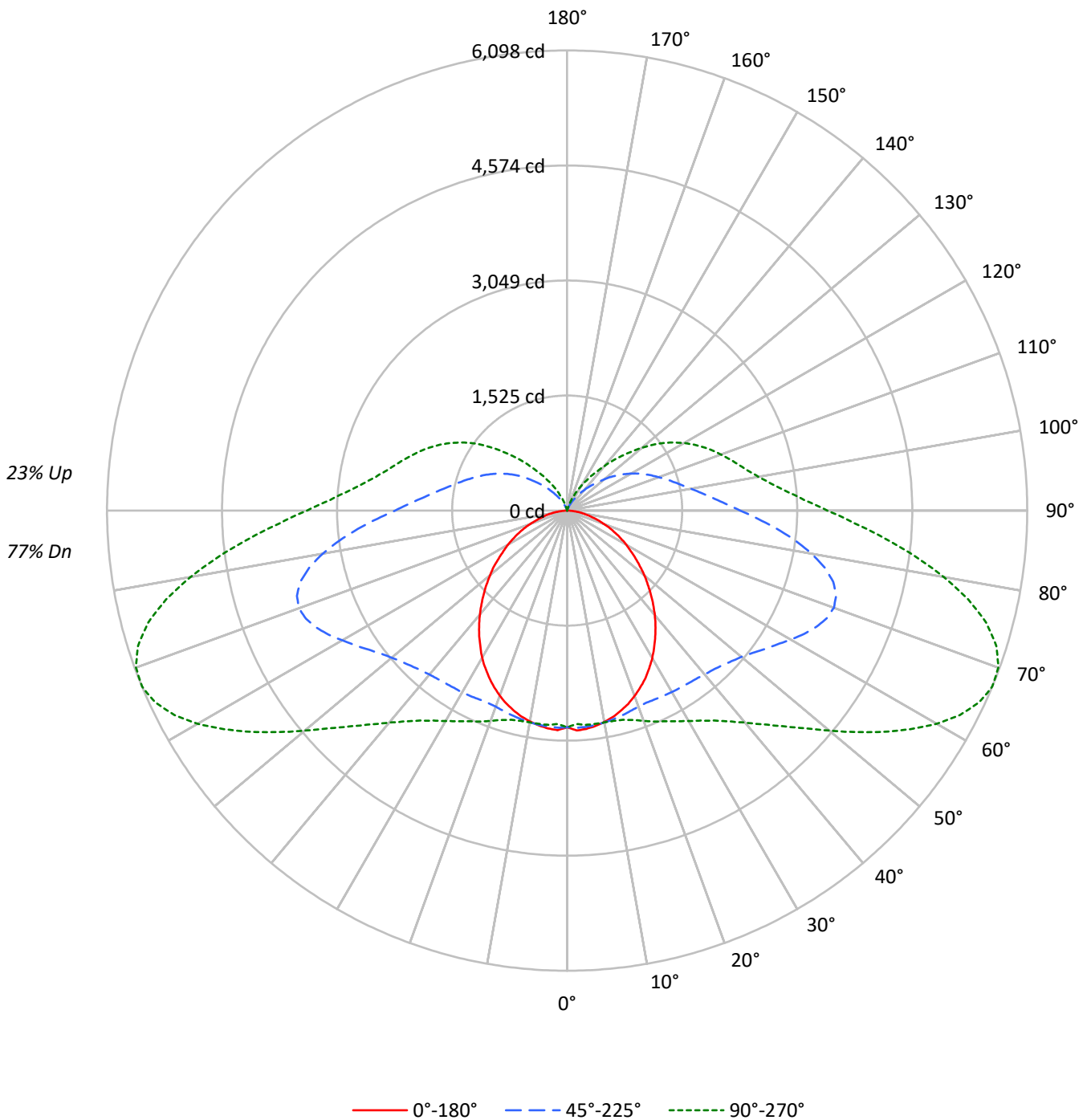
Input Watts (W): 176.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	114	114	114	114	108	108	108	108	98	98	98	89	89	89	81	81	81	77
1	98	91	84	78	92	86	80	75	77	73	68	69	65	62	62	59	56	52
2	86	75	66	59	81	71	63	56	64	57	51	57	51	47	50	46	42	38
3	77	64	54	46	72	61	51	44	54	46	40	48	42	37	43	37	33	29
4	70	55	45	37	65	52	43	36	47	39	32	42	35	30	37	31	27	23
5	63	49	38	31	59	46	37	29	41	33	27	37	30	25	32	27	22	19
6	58	43	33	26	55	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	30	23	18	26	21	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	44	30	22	16	27	20	15	25	18	14	22	17	13	10
10	43	29	21	15	41	28	20	15	25	18	14	23	17	12	20	15	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	23128	23128	23128
5°	23433	20783	23382
10°	23157	19116	23106
15°	22741	17952	22706
20°	22202	17501	22166
25°	21548	17328	21457
30°	20670	17420	20651
35°	19668	17843	19628
40°	18595	18861	18510
45°	17422	20494	17375
50°	16233	22882	16182
55°	15031	25837	15004
60°	13961	28843	13993
65°	12770	31266	12808
70°	11512	32395	11512
75°	10005	31698	9946
80°	8350	29169	8265
85°	6243	25618	5943



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.5	1.1
10°-20°	792.7	3.2
20°-30°	1274.1	5.2
30°-40°	1725.2	7.0
40°-50°	2216.3	9.0
50°-60°	2851.5	11.6
60°-70°	3488.5	14.2
70°-80°	3526.8	14.4
80°-90°	2727.3	11.1
90°-100°	1894.8	7.7
100°-110°	1415.3	5.8
110°-120°	1060.7	4.3
120°-130°	714.3	2.9
130°-140°	391.7	1.6
140°-150°	167.0	0.7
150°-160°	47.7	0.2
160°-170°	4.1	0.0
170°-180°	0.0	0.0
0°-30°	2339.4	9.5
0°-40°	4064.6	16.5
0°-60°	9132.4	37.2
0°-90°	18875.0	76.8
90°-120°	4370.8	17.8
90°-150°	5643.8	23.0
90°-180°	5696.0	23.2
0°-180°	24570.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2871	2871	2871	2871	2871	
5°	2904	2877	2850	2873	2898	275
15°	2745	2810	2871	2810	2741	774
25°	2453	2758	3081	2760	2443	1127
35°	2036	2796	3396	2798	2032	1272
45°	1569	2902	4039	2914	1565	1210
55°	1110	3198	5111	3213	1108	994
65°	707	3644	6021	3668	709	702
75°	353	3651	5752	3663	350	377
85°	88	2791	4222	2783	83	96
90°	2	2293	3448	2280	0	6
95°	2	1934	2916	1926	0	1
105°	2	1462	2351	1462	0	2
115°	2	1137	1990	1137	0	2
125°	2	816	1560	812	0	3
135°	4	492	1024	486	0	3
145°	4	250	563	240	0	3
155°	4	79	234	75	0	2
165°	4	4	23	10	0	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6
2.5°	2916.5	2914.4	2901.9	2883.1	2874.7	2872.7	2870.6	2862.2	2860.1	2864.3	2881.0
5°	2904.0	2901.9	2889.4	2870.6	2864.3	2862.2	2860.1	2853.9	2853.9	2860.1	2876.8
7.5°	2878.9	2876.8	2864.3	2849.7	2843.5	2841.4	2841.4	2837.2	2837.2	2847.6	2866.4
10°	2843.5	2841.4	2830.9	2818.4	2814.2	2814.2	2814.2	2812.2	2816.3	2828.9	2849.7
12.5°	2801.7	2797.6	2789.2	2778.8	2778.8	2778.8	2780.9	2780.9	2787.1	2808.0	2833.0
15°	2745.4	2747.5	2739.1	2730.8	2735.0	2737.1	2741.2	2745.4	2755.8	2780.9	2810.1
17.5°	2687.0	2687.0	2680.7	2676.6	2684.9	2689.1	2695.3	2701.6	2720.4	2751.7	2785.0
20°	2614.0	2616.1	2614.0	2616.1	2626.5	2632.8	2641.1	2655.7	2680.7	2724.5	2764.2
22.5°	2534.7	2538.9	2538.9	2547.2	2563.9	2574.3	2584.8	2605.6	2641.1	2697.4	2753.8
25°	2453.3	2451.3	2461.7	2476.3	2493.0	2507.6	2520.1	2551.4	2603.5	2678.6	2757.9
27.5°	2355.3	2359.5	2374.1	2394.9	2420.0	2438.7	2457.5	2501.3	2576.4	2676.6	2768.4
30°	2255.2	2261.4	2280.2	2309.4	2344.9	2369.9	2390.8	2459.6	2561.8	2676.6	2776.7
32.5°	2146.7	2157.1	2182.1	2219.7	2269.8	2299.0	2332.3	2424.1	2549.3	2672.4	2785.0
35°	2036.1	2048.6	2082.0	2127.9	2186.3	2221.8	2273.9	2397.0	2532.6	2668.2	2795.5
37.5°	1923.5	1938.1	1975.6	2034.0	2109.1	2163.4	2225.9	2367.8	2520.1	2668.2	2810.1
40°	1806.6	1823.3	1871.3	1938.1	2034.0	2105.0	2180.1	2338.6	2507.6	2670.3	2833.0
42.5°	1687.7	1706.5	1764.9	1844.2	1969.3	2052.8	2136.2	2313.6	2499.2	2680.7	2862.2
45°	1568.8	1593.8	1658.5	1754.5	1910.9	1998.6	2094.5	2290.6	2495.1	2699.5	2901.9
47.5°	1449.9	1479.1	1554.2	1668.9	1850.4	1954.7	2054.9	2271.8	2499.2	2724.5	2954.0
50°	1335.2	1368.5	1452.0	1591.8	1794.1	1906.8	2017.3	2259.3	2507.6	2762.1	3016.6
52.5°	1218.3	1262.1	1353.9	1522.9	1744.0	1863.0	1986.0	2251.0	2524.3	2812.2	3098.0
55°	1109.8	1155.7	1262.1	1456.1	1696.1	1825.4	1956.8	2248.9	2553.5	2872.7	3198.1
57.5°	999.3	1055.6	1172.4	1391.5	1646.0	1787.9	1933.9	2253.1	2588.9	2937.3	3300.3
60°	905.4	955.5	1091.1	1328.9	1602.2	1752.4	1913.0	2257.2	2626.5	3012.4	3419.2
62.5°	805.3	859.5	1020.1	1268.4	1558.4	1721.1	1892.2	2263.5	2666.1	3089.6	3540.2
65°	707.2	763.5	949.2	1210.0	1514.6	1687.7	1867.1	2263.5	2697.4	3160.6	3644.5
67.5°	613.3	673.8	878.3	1147.4	1464.5	1646.0	1835.8	2253.1	2716.2	3210.6	3725.9
70°	523.6	590.4	809.4	1080.6	1410.3	1595.9	1792.0	2230.1	2714.1	3229.4	3761.4
72.5°	433.9	511.1	734.3	1013.9	1351.8	1539.6	1739.9	2186.3	2684.9	3206.5	3738.4
75°	352.6	436.0	667.6	947.1	1285.1	1472.8	1675.2	2119.6	2620.2	3135.5	3650.8
77.5°	277.5	369.3	596.6	874.1	1210.0	1395.7	1593.8	2034.0	2518.0	3010.3	3496.4
80°	206.5	308.8	529.9	801.1	1128.6	1310.1	1502.0	1925.5	2384.5	2841.4	3289.9
82.5°	143.9	252.4	465.2	728.1	1045.2	1218.3	1401.9	1796.2	2230.1	2645.3	3052.1
85°	87.6	202.4	400.5	657.1	959.6	1122.4	1295.5	1660.6	2061.1	2432.5	2791.3
87.5°	37.6	156.5	344.2	588.3	874.1	1028.5	1187.0	1531.3	1881.7	2211.3	2530.5
90°	2.1	116.8	294.2	523.6	792.7	936.7	1084.8	1393.6	1716.9	2009.0	2292.7
92.5°	0.0	100.1	264.9	484.0	736.4	869.9	1007.6	1291.3	1583.4	1844.2	2096.6
95°	2.1	83.4	239.9	440.2	680.1	807.3	934.6	1199.6	1462.4	1702.3	1933.9
97.5°	2.1	68.8	212.8	400.5	627.9	744.8	863.7	1109.8	1347.7	1575.1	1789.9
100°	2.1	54.2	187.8	363.0	573.7	682.2	794.8	1026.4	1249.6	1462.4	1664.8
102.5°	2.1	39.6	166.9	327.5	523.6	625.9	730.2	949.2	1159.9	1364.4	1556.3
105°	2.1	27.1	146.0	294.2	477.7	573.7	671.7	878.3	1078.6	1274.7	1462.4
107.5°	2.1	18.8	127.3	262.9	427.7	523.6	615.4	811.5	1003.4	1193.3	1376.9
110°	2.1	16.7	110.6	235.7	388.0	475.6	563.3	748.9	932.5	1114.0	1293.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	2.1	14.6	93.9	210.7	348.4	427.7	513.2	688.4	867.8	1043.1	1214.2
115°	2.1	14.6	77.2	187.8	315.0	385.9	465.2	630.0	801.1	970.1	1137.0
117.5°	2.1	14.6	62.6	166.9	283.7	348.4	417.2	575.8	734.3	899.1	1061.9
120°	2.1	12.5	50.1	146.0	256.6	315.0	379.7	523.6	669.7	824.0	980.5
122.5°	2.1	12.5	41.7	127.3	229.5	283.7	342.1	469.4	609.2	751.0	897.1
125°	2.1	10.4	35.5	106.4	202.4	254.5	306.7	421.4	550.8	682.2	815.7
127.5°	4.2	10.4	29.2	87.6	175.2	221.1	271.2	375.5	488.2	607.1	734.3
130°	4.2	10.4	25.0	66.8	148.1	189.8	233.7	329.6	433.9	536.1	646.7
132.5°	4.2	8.3	22.9	52.2	123.1	160.6	200.3	285.8	377.6	469.4	565.4
135°	4.2	8.3	18.8	41.7	98.1	131.4	169.0	244.1	325.4	411.0	492.3
137.5°	4.2	6.3	16.7	33.4	75.1	106.4	139.8	206.5	277.5	350.5	425.6
140°	4.2	6.3	14.6	27.1	56.3	79.3	110.6	169.0	231.6	296.2	360.9
142.5°	4.2	6.3	12.5	22.9	43.8	60.5	83.4	137.7	191.9	246.2	302.5
145°	4.2	6.3	10.4	18.8	33.4	45.9	60.5	106.4	154.4	202.4	250.3
147.5°	4.2	6.3	10.4	16.7	27.1	35.5	45.9	77.2	121.0	160.6	202.4
150°	4.2	6.3	8.3	14.6	22.9	27.1	33.4	54.2	87.6	123.1	158.5
152.5°	4.2	4.2	8.3	12.5	16.7	20.9	25.0	39.6	60.5	87.6	118.9
155°	4.2	4.2	6.3	10.4	14.6	16.7	18.8	27.1	39.6	56.3	79.3
157.5°	4.2	4.2	6.3	8.3	10.4	12.5	14.6	18.8	27.1	35.5	48.0
160°	4.2	4.2	6.3	8.3	8.3	10.4	10.4	12.5	16.7	20.9	27.1
162.5°	4.2	4.2	6.3	6.3	6.3	8.3	8.3	8.3	10.4	10.4	12.5
165°	4.2	4.2	4.2	6.3	4.2	6.3	4.2	6.3	6.3	4.2	4.2
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6
2.5°	2887.3	2872.7	2866.4	2858.1	2851.8	2847.6	2841.4	2837.2	2830.9	2830.9	2833.0
5°	2883.1	2868.5	2864.3	2856.0	2851.8	2849.7	2845.5	2847.6	2847.6	2849.7	2847.6
7.5°	2874.7	2862.2	2858.1	2853.9	2849.7	2847.6	2845.5	2849.7	2849.7	2851.8	2851.8
10°	2860.1	2851.8	2851.8	2847.6	2845.5	2843.5	2839.3	2845.5	2845.5	2849.7	2847.6
12.5°	2843.5	2841.4	2843.5	2845.5	2845.5	2843.5	2841.4	2849.7	2853.9	2853.9	2856.0
15°	2824.7	2828.9	2839.3	2845.5	2849.7	2849.7	2853.9	2862.2	2868.5	2870.6	2870.6
17.5°	2810.1	2820.5	2839.3	2856.0	2864.3	2868.5	2878.9	2895.6	2906.0	2908.1	2908.1
20°	2799.6	2824.7	2858.1	2889.4	2899.8	2908.1	2929.0	2949.9	2964.5	2966.5	2966.5
22.5°	2808.0	2849.7	2895.6	2931.1	2945.7	2956.1	2979.1	3006.2	3022.9	3025.0	3025.0
25°	2828.9	2878.9	2931.1	2974.9	2991.6	3004.1	3029.1	3058.3	3075.0	3081.3	3079.2
27.5°	2847.6	2908.1	2968.6	3018.7	3037.5	3054.2	3085.5	3118.8	3139.7	3146.0	3141.8
30°	2864.3	2935.2	3004.1	3064.6	3089.6	3108.4	3146.0	3185.6	3212.7	3219.0	3212.7
32.5°	2881.0	2966.5	3047.9	3118.8	3143.9	3171.0	3219.0	3264.9	3292.0	3300.3	3296.2
35°	2904.0	3004.1	3100.1	3181.4	3214.8	3246.1	3302.4	3356.7	3390.0	3396.3	3390.0
37.5°	2935.2	3052.1	3158.5	3260.7	3296.2	3340.0	3406.7	3471.4	3511.0	3519.4	3511.0
40°	2974.9	3112.6	3237.7	3356.7	3404.6	3450.5	3531.9	3609.1	3652.9	3667.5	3661.2
42.5°	3027.0	3187.7	3333.7	3475.6	3529.8	3588.2	3684.2	3773.9	3824.0	3840.6	3824.0
45°	3091.7	3281.6	3450.5	3615.3	3677.9	3748.9	3863.6	3965.8	4024.2	4038.8	4024.2
47.5°	3177.2	3392.1	3588.2	3778.1	3853.2	3936.6	4072.2	4189.0	4251.6	4268.3	4253.7
50°	3269.0	3525.6	3750.9	3967.9	4061.8	4149.4	4308.0	4437.3	4504.1	4535.3	4508.2
52.5°	3383.8	3671.7	3936.6	4178.6	4291.3	4395.6	4570.8	4712.7	4794.0	4821.1	4783.6
55°	3521.5	3846.9	4143.1	4422.7	4535.3	4652.2	4846.2	4996.4	5081.9	5111.1	5084.0
57.5°	3673.8	4032.6	4360.1	4654.3	4785.7	4904.6	5121.6	5278.0	5353.1	5390.7	5357.3
60°	3832.3	4224.5	4579.2	4892.1	5036.0	5159.1	5380.2	5534.6	5613.9	5651.4	5620.2
62.5°	3986.7	4410.2	4783.6	5109.0	5246.7	5382.3	5603.5	5751.6	5832.9	5866.3	5837.1
65°	4120.2	4566.6	4950.5	5286.4	5428.2	5561.7	5770.4	5912.2	5997.8	6020.7	5999.8
67.5°	4220.3	4673.0	5061.1	5392.8	5530.4	5664.0	5862.2	5993.6	6077.0	6097.9	6079.1
70°	4266.2	4714.8	5098.6	5422.0	5557.6	5676.5	5864.2	5989.4	6068.7	6081.2	6066.6
72.5°	4237.0	4673.0	5044.4	5353.1	5482.5	5586.8	5759.9	5878.8	5953.9	5964.4	5953.9
75°	4128.5	4545.8	4896.3	5184.1	5305.1	5392.8	5557.6	5668.1	5743.2	5751.6	5739.1
77.5°	3945.0	4333.0	4654.3	4931.7	5031.9	5117.4	5273.8	5371.9	5432.4	5444.9	5430.3
80°	3698.8	4055.5	4343.4	4591.7	4687.6	4760.7	4912.9	5019.3	5052.7	5069.4	5048.5
82.5°	3417.2	3736.3	3992.9	4218.2	4303.8	4393.5	4491.5	4589.6	4637.6	4652.2	4635.5
85°	3114.7	3398.4	3625.8	3828.1	3903.2	3984.6	4070.1	4166.1	4207.8	4222.4	4205.7
87.5°	2812.2	3062.5	3262.8	3442.2	3511.0	3584.0	3686.3	3736.3	3792.7	3809.4	3790.6
90°	2541.0	2766.3	2945.7	3108.4	3173.1	3239.8	3319.1	3381.7	3433.8	3448.4	3431.8
92.5°	2321.9	2524.3	2689.1	2835.1	2891.4	2954.0	3031.2	3091.7	3137.6	3152.2	3135.5
95°	2140.4	2326.1	2480.5	2616.1	2670.3	2728.7	2814.2	2862.2	2904.0	2916.5	2904.0
97.5°	1986.0	2161.3	2307.3	2438.7	2490.9	2545.1	2628.6	2676.6	2716.2	2726.6	2716.2
100°	1850.4	2021.5	2165.4	2290.6	2342.8	2394.9	2476.3	2524.3	2561.8	2574.3	2561.8
102.5°	1737.8	1902.6	2044.5	2171.7	2221.8	2273.9	2351.1	2407.4	2436.7	2451.3	2438.7
105°	1639.7	1800.4	1942.2	2067.4	2119.6	2169.6	2248.9	2301.1	2334.4	2351.1	2336.5
107.5°	1550.0	1708.6	1852.5	1973.5	2025.7	2075.7	2157.1	2209.3	2240.6	2259.3	2242.6
110°	1464.5	1621.0	1758.6	1883.8	1936.0	1988.1	2069.5	2121.6	2152.9	2169.6	2155.0



TEST NUMBER: P201266

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	1381.0	1533.3	1675.2	1796.2	1846.3	1898.4	1981.9	2036.1	2065.3	2084.1	2067.4
115°	1297.6	1447.8	1585.5	1702.3	1752.4	1806.6	1888.0	1944.3	1975.6	1990.2	1973.5
117.5°	1216.2	1360.2	1491.6	1606.4	1656.4	1708.6	1787.9	1844.2	1877.6	1892.2	1875.5
120°	1132.8	1270.5	1399.8	1504.1	1556.3	1604.3	1685.6	1739.9	1773.2	1787.9	1771.2
122.5°	1043.1	1178.7	1301.8	1404.0	1454.1	1500.0	1579.2	1633.5	1664.8	1679.4	1664.8
125°	951.3	1078.6	1197.5	1299.7	1341.4	1385.2	1462.4	1514.6	1547.9	1560.5	1547.9
127.5°	859.5	976.3	1086.9	1176.6	1222.5	1264.2	1337.2	1387.3	1416.5	1431.1	1420.7
130°	767.7	878.3	978.4	1059.8	1099.4	1139.1	1205.8	1251.7	1280.9	1293.4	1283.0
132.5°	669.7	776.1	874.1	945.0	982.6	1016.0	1076.5	1116.1	1141.1	1155.7	1143.2
135°	582.0	669.7	761.5	834.5	872.0	901.2	955.5	988.8	1011.8	1024.3	1011.8
137.5°	502.8	577.9	653.0	717.6	753.1	784.4	836.6	867.8	888.7	901.2	888.7
140°	429.8	494.4	561.2	613.3	644.6	669.7	717.6	744.8	763.5	774.0	761.5
142.5°	358.8	417.2	473.6	521.5	548.7	569.5	615.4	636.3	650.9	657.1	650.9
145°	298.3	346.3	394.3	438.1	459.0	475.6	521.5	544.5	557.0	563.3	557.0
147.5°	242.0	281.6	321.3	356.7	375.5	396.4	427.7	454.8	465.2	469.4	465.2
150°	189.8	225.3	256.6	285.8	300.4	315.0	342.1	369.3	379.7	385.9	379.7
152.5°	143.9	173.2	198.2	221.1	233.7	246.2	269.1	294.2	304.6	308.8	304.6
155°	104.3	125.2	148.1	164.8	175.2	183.6	200.3	217.0	233.7	233.7	233.7
157.5°	64.7	81.4	100.1	114.7	121.0	129.3	141.9	156.5	169.0	175.2	175.2
160°	33.4	43.8	56.3	66.8	73.0	79.3	87.6	100.1	108.5	114.7	110.6
162.5°	14.6	18.8	25.0	29.2	33.4	35.5	41.7	48.0	52.2	62.6	54.2
165°	4.2	4.2	6.3	8.3	8.3	8.3	10.4	12.5	14.6	22.9	16.7
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: P201266

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

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6
2.5°	2837.2	2843.5	2851.8	2856.0	2862.2	2866.4	2876.8	2889.4	2878.9	2864.3	2866.4
5°	2847.6	2845.5	2851.8	2856.0	2860.1	2862.2	2872.7	2885.2	2872.7	2858.1	2858.1
7.5°	2851.8	2849.7	2851.8	2853.9	2856.0	2856.0	2866.4	2876.8	2864.3	2845.5	2841.4
10°	2845.5	2843.5	2845.5	2849.7	2849.7	2849.7	2856.0	2864.3	2849.7	2826.8	2818.4
12.5°	2849.7	2843.5	2843.5	2845.5	2845.5	2841.4	2843.5	2849.7	2830.9	2805.9	2793.4
15°	2864.3	2853.9	2849.7	2849.7	2845.5	2835.1	2830.9	2830.9	2810.1	2776.7	2760.0
17.5°	2899.8	2883.1	2870.6	2864.3	2856.0	2837.2	2822.6	2814.2	2787.1	2749.6	2722.5
20°	2954.0	2931.1	2912.3	2899.8	2889.4	2856.0	2826.8	2803.8	2766.3	2720.4	2684.9
22.5°	3008.3	2983.2	2956.1	2943.6	2929.0	2891.4	2851.8	2812.2	2755.8	2693.3	2645.3
25°	3060.4	3035.4	3004.1	2991.6	2972.8	2929.0	2878.9	2833.0	2760.0	2674.5	2605.6
27.5°	3120.9	3089.6	3056.2	3037.5	3016.6	2966.5	2910.2	2853.9	2772.5	2674.5	2578.5
30°	3189.8	3152.2	3108.4	3087.5	3062.5	3004.1	2935.2	2868.5	2780.9	2674.5	2563.9
32.5°	3269.0	3225.2	3173.1	3143.9	3114.7	3045.8	2964.5	2887.3	2787.1	2672.4	2551.4
35°	3360.8	3310.8	3248.2	3214.8	3179.3	3098.0	3002.0	2908.1	2797.6	2670.3	2534.7
37.5°	3475.6	3417.2	3342.1	3300.3	3258.6	3162.6	3052.1	2939.4	2814.2	2672.4	2522.2
40°	3613.3	3544.4	3456.8	3404.6	3354.6	3244.0	3112.6	2979.1	2837.2	2676.6	2509.7
42.5°	3776.0	3692.5	3594.5	3534.0	3475.6	3337.9	3187.7	3029.1	2868.5	2684.9	2503.4
45°	3970.0	3882.4	3757.2	3682.1	3617.4	3456.8	3283.6	3095.9	2914.4	2705.8	2501.3
47.5°	4193.2	4082.6	3947.0	3859.4	3782.2	3596.6	3396.3	3179.3	2966.5	2732.9	2505.5
50°	4443.6	4318.4	4161.9	4070.1	3974.2	3761.4	3529.8	3277.4	3033.3	2772.5	2515.9
52.5°	4718.9	4581.2	4412.3	4303.8	4197.4	3951.2	3680.0	3402.6	3110.5	2822.6	2534.7
55°	5004.7	4856.6	4668.9	4549.9	4431.0	4159.8	3857.3	3538.2	3212.7	2885.2	2566.0
57.5°	5282.2	5129.9	4923.4	4802.4	4668.9	4381.0	4047.2	3686.3	3323.3	2958.2	2601.5
60°	5538.8	5386.5	5177.9	5054.8	4908.8	4600.0	4241.2	3849.0	3438.0	3035.4	2643.2
62.5°	5755.8	5609.7	5401.1	5275.9	5125.7	4806.5	4426.9	4007.5	3563.2	3116.7	2682.8
65°	5916.4	5778.7	5576.3	5447.0	5303.1	4971.4	4583.3	4147.3	3667.5	3187.7	2718.3
67.5°	5997.8	5868.4	5672.3	5549.2	5407.4	5077.7	4689.7	4241.2	3746.8	3237.7	2741.2
70°	5989.4	5866.3	5682.7	5561.7	5426.1	5109.0	4727.3	4278.7	3782.2	3256.5	2737.1
72.5°	5880.9	5757.8	5593.0	5476.2	5346.9	5050.6	4675.1	4245.4	3755.1	3227.3	2703.7
75°	5666.1	5553.4	5386.5	5290.5	5173.7	4898.3	4539.5	4122.3	3663.3	3150.1	2634.8
77.5°	5357.3	5271.8	5109.0	5019.3	4904.6	4650.1	4312.1	3936.6	3502.7	3020.8	2528.4
80°	4979.7	4908.8	4750.2	4670.9	4558.3	4337.2	4045.1	3682.1	3289.9	2845.5	2390.8
82.5°	4566.6	4485.3	4360.1	4287.1	4180.7	3982.5	3705.0	3408.8	3043.7	2645.3	2230.1
85°	4139.0	4063.9	3949.1	3886.5	3792.7	3615.3	3367.1	3106.3	2783.0	2424.1	2057.0
87.5°	3732.2	3659.2	3550.7	3494.3	3408.8	3250.3	3033.3	2803.8	2518.0	2211.3	1873.4
90°	3379.6	3310.8	3208.5	3156.4	3079.2	2935.2	2739.1	2532.6	2280.2	1998.6	1708.6
92.5°	3089.6	3027.0	2931.1	2881.0	2812.2	2680.7	2503.4	2315.7	2088.3	1844.2	1575.1
95°	2860.1	2799.6	2714.1	2666.1	2601.5	2465.9	2309.4	2134.2	1925.5	1702.3	1454.1
97.5°	2674.5	2624.4	2530.5	2484.6	2432.5	2294.8	2152.9	1979.8	1785.8	1577.1	1345.6
100°	2524.3	2467.9	2382.4	2338.6	2284.4	2155.0	2011.1	1848.4	1660.6	1462.4	1247.5
102.5°	2407.4	2349.0	2269.8	2219.7	2167.5	2036.1	1894.2	1735.7	1556.3	1364.4	1157.8
105°	2303.1	2246.8	2167.5	2117.5	2065.3	1936.0	1800.4	1639.7	1462.4	1276.7	1076.5
107.5°	2205.1	2155.0	2075.7	2025.7	1973.5	1844.2	1708.6	1550.0	1376.9	1195.4	1001.4
110°	2121.6	2067.4	1984.0	1936.0	1879.6	1756.6	1621.0	1466.6	1293.4	1116.1	930.4



TEST NUMBER: P201266

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

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	2038.2	1979.8	1896.3	1848.4	1792.0	1668.9	1535.4	1383.1	1214.2	1043.1	863.7
115°	1946.4	1890.1	1802.5	1754.5	1698.1	1577.1	1447.8	1299.7	1137.0	970.1	796.9
117.5°	1848.4	1792.0	1704.4	1658.5	1604.3	1485.4	1362.3	1218.3	1059.8	899.1	730.2
120°	1742.0	1687.7	1604.3	1558.4	1506.2	1391.5	1272.6	1128.6	978.4	824.0	667.6
122.5°	1633.5	1581.3	1500.0	1454.1	1404.0	1295.5	1178.7	1038.9	895.0	751.0	607.1
125°	1516.6	1464.5	1387.3	1343.5	1293.4	1189.1	1076.5	945.0	811.5	682.2	544.5
127.5°	1381.0	1339.3	1264.2	1220.4	1174.5	1082.7	974.2	855.3	732.2	607.1	484.0
130°	1251.7	1207.9	1137.0	1097.3	1057.7	974.2	878.3	763.5	642.5	534.1	423.5
132.5°	1116.1	1076.5	1016.0	982.6	947.1	872.0	774.0	661.3	559.1	465.2	367.2
135°	988.8	955.5	901.2	872.0	836.6	757.3	665.5	571.6	486.1	402.6	315.0
137.5°	869.9	836.6	786.5	755.2	717.6	646.7	571.6	494.4	415.1	344.2	267.0
140°	744.8	717.6	671.7	644.6	611.2	550.8	488.2	415.1	352.6	287.9	221.1
142.5°	638.4	615.4	569.5	544.5	515.3	465.2	406.8	350.5	294.2	237.8	181.5
145°	546.6	523.6	473.6	454.8	427.7	383.9	335.9	285.8	239.9	191.9	146.0
147.5°	456.9	429.8	385.9	369.3	348.4	310.8	273.3	233.7	194.0	152.3	112.7
150°	373.4	342.1	306.7	296.2	275.4	246.2	214.9	181.5	150.2	116.8	81.4
152.5°	294.2	267.0	237.8	227.4	210.7	191.9	164.8	137.7	112.7	81.4	56.3
155°	219.0	198.2	175.2	169.0	156.5	141.9	118.9	98.1	75.1	54.2	39.6
157.5°	154.4	137.7	121.0	116.8	108.5	96.0	77.2	60.5	48.0	35.5	27.1
160°	96.0	85.5	73.0	68.8	62.6	54.2	41.7	35.5	29.2	22.9	16.7
162.5°	45.9	39.6	35.5	33.4	29.2	25.0	22.9	18.8	16.7	14.6	12.5
165°	16.7	16.7	16.7	14.6	14.6	14.6	14.6	12.5	10.4	10.4	8.3
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: P201266

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

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6	2870.6
2.5°	2868.5	2872.7	2872.7	2874.7	2881.0	2893.5	2910.2	2912.3
5°	2860.1	2862.2	2862.2	2862.2	2868.5	2878.9	2895.6	2897.7
7.5°	2841.4	2841.4	2841.4	2841.4	2847.6	2856.0	2870.6	2872.7
10°	2816.3	2814.2	2814.2	2812.2	2816.3	2822.6	2839.3	2837.2
12.5°	2785.0	2780.9	2778.8	2778.8	2776.7	2783.0	2793.4	2795.5
15°	2749.6	2741.2	2737.1	2732.9	2730.8	2730.8	2743.3	2741.2
17.5°	2707.9	2695.3	2689.1	2682.8	2674.5	2674.5	2682.8	2680.7
20°	2659.9	2643.2	2632.8	2624.4	2611.9	2607.7	2611.9	2609.8
22.5°	2611.9	2584.8	2574.3	2561.8	2543.0	2534.7	2532.6	2530.5
25°	2555.6	2522.2	2507.6	2495.1	2467.9	2457.5	2447.1	2442.9
27.5°	2505.5	2457.5	2438.7	2417.9	2386.6	2372.0	2355.3	2351.1
30°	2461.7	2390.8	2361.5	2340.7	2301.1	2278.1	2257.2	2253.1
32.5°	2428.3	2330.3	2290.6	2265.6	2211.3	2180.1	2152.9	2140.4
35°	2399.1	2273.9	2221.8	2182.1	2117.5	2079.9	2042.4	2031.9
37.5°	2372.0	2225.9	2157.1	2102.9	2029.8	1975.6	1933.9	1917.2
40°	2344.9	2182.1	2098.7	2029.8	1933.9	1871.3	1819.1	1798.3
42.5°	2319.8	2138.3	2048.6	1965.2	1840.0	1764.9	1708.6	1679.4
45°	2296.9	2098.7	2000.6	1908.8	1748.2	1660.6	1591.8	1564.6
47.5°	2280.2	2061.1	1952.7	1852.5	1662.7	1554.2	1483.3	1447.8
50°	2267.7	2025.7	1906.8	1796.2	1587.6	1452.0	1372.7	1331.0
52.5°	2261.4	1994.4	1865.0	1746.1	1518.7	1353.9	1260.0	1228.8
55°	2263.5	1969.3	1829.6	1700.2	1454.1	1260.0	1155.7	1107.8
57.5°	2267.7	1946.4	1794.1	1654.3	1389.4	1168.3	1051.4	1001.4
60°	2276.0	1927.6	1762.8	1610.5	1328.9	1089.0	955.5	907.5
62.5°	2284.4	1910.9	1731.5	1568.8	1270.5	1016.0	859.5	805.3
65°	2286.4	1885.9	1698.1	1527.1	1212.1	943.0	761.5	709.3
67.5°	2278.1	1854.6	1656.4	1479.1	1151.6	872.0	669.7	615.4
70°	2253.1	1812.9	1608.4	1424.9	1084.8	803.2	582.0	523.6
72.5°	2207.2	1758.6	1552.1	1364.4	1020.1	730.2	502.8	431.8
75°	2142.5	1691.9	1485.4	1295.5	951.3	661.3	429.8	350.5
77.5°	2054.9	1606.4	1406.1	1218.3	876.2	590.4	367.2	275.4
80°	1942.2	1516.6	1318.5	1134.9	803.2	525.7	306.7	204.4
82.5°	1808.7	1414.4	1224.6	1049.3	734.3	459.0	250.3	141.9
85°	1671.0	1303.9	1126.5	959.6	661.3	396.4	202.4	83.4
87.5°	1535.4	1193.3	1032.7	878.3	586.2	340.0	156.5	33.4
90°	1401.9	1086.9	934.6	790.7	521.5	287.9	116.8	0.0
92.5°	1291.3	1007.6	869.9	732.2	479.8	260.8	100.1	0.0
95°	1193.3	932.5	801.1	673.8	436.0	235.7	83.4	0.0
97.5°	1103.6	861.6	740.6	619.6	396.4	208.6	68.8	0.0
100°	1018.1	790.7	678.0	569.5	358.8	185.7	52.2	0.0
102.5°	943.0	728.1	621.7	515.3	321.3	162.7	37.6	0.0
105°	869.9	667.6	569.5	467.3	287.9	141.9	22.9	0.0
107.5°	805.3	611.2	517.4	423.5	256.6	123.1	14.6	0.0
110°	742.7	559.1	467.3	381.8	229.5	106.4	12.5	0.0



TEST NUMBER: P201266

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

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	684.3	509.0	423.5	342.1	206.5	89.7	12.5	0.0
115°	623.8	461.0	381.8	308.8	183.6	73.0	10.4	0.0
117.5°	571.6	415.1	344.2	281.6	160.6	58.4	10.4	0.0
120°	519.5	375.5	312.9	252.4	139.8	43.8	10.4	0.0
122.5°	467.3	340.0	279.5	225.3	121.0	35.5	8.3	0.0
125°	419.3	302.5	248.3	196.1	100.1	31.3	8.3	0.0
127.5°	371.3	264.9	214.9	169.0	79.3	27.1	6.3	0.0
130°	323.4	227.4	183.6	141.9	60.5	22.9	6.3	0.0
132.5°	279.5	191.9	154.4	116.8	48.0	18.8	4.2	0.0
135°	235.7	160.6	127.3	91.8	37.6	16.7	4.2	0.0
137.5°	198.2	131.4	100.1	68.8	31.3	12.5	4.2	0.0
140°	162.7	104.3	75.1	52.2	25.0	10.4	2.1	0.0
142.5°	129.3	77.2	56.3	39.6	20.9	8.3	2.1	0.0
145°	100.1	56.3	41.7	31.3	18.8	6.3	2.1	0.0
147.5°	73.0	43.8	33.4	27.1	14.6	6.3	2.1	0.0
150°	52.2	33.4	27.1	20.9	10.4	4.2	2.1	0.0
152.5°	39.6	25.0	20.9	16.7	8.3	4.2	2.1	0.0
155°	29.2	18.8	16.7	12.5	6.3	4.2	2.1	0.0
157.5°	20.9	14.6	12.5	8.3	6.3	4.2	2.1	0.0
160°	12.5	10.4	8.3	6.3	4.2	2.1	2.1	0.0
162.5°	10.4	6.3	6.3	6.3	4.2	2.1	2.1	0.0
165°	6.3	4.2	4.2	4.2	2.1	2.1	2.1	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)