

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: P#

Luminaire Tested: **4SNLED-LD5-52HL-RM-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33524)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-52HL-RM-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

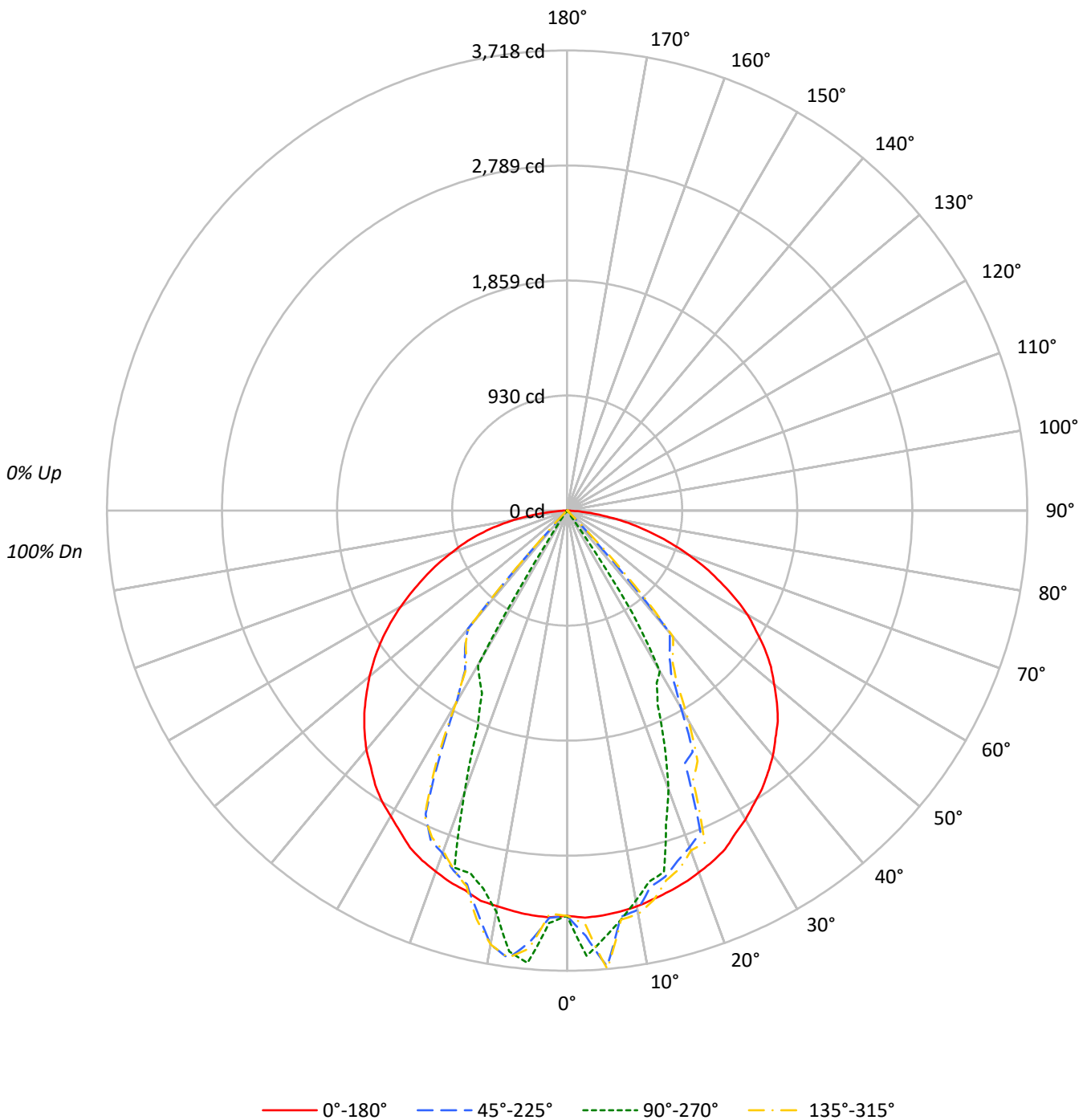
Lumens per Lamp: N/A
Luminaire Lumens: 4654.9 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 39
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	65
5	85	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	55	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	26455	26455	26455	26455
5°	26564	27209	26555	28814
10°	26499	24621	26484	25332
15°	26427	22981	26362	23041
20°	26458	18101	26383	18324
25°	26535	13099	26405	12361
30°	26413	11491	26134	11047
35°	26492	253	26103	307
40°	26583	55	25946	55
45°	26677	32	25675	24
50°	26472	25	25258	25
55°	26317	18	24700	18
60°	25819	20	23802	20
65°	24474	31	22730	21
70°	22703	34	21613	34
75°	20082	38	20412	38
80°	16314	43	17243	43
85°	9599	51	9797	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.4	7.1
10°-20°	895.9	19.2
20°-30°	1140.0	24.5
30°-40°	963.0	20.7
40°-50°	629.6	13.5
50°-60°	396.7	8.5
60°-70°	211.2	4.5
70°-80°	77.0	1.7
80°-90°	13.2	0.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2364.3	50.8
0°-40°	3327.3	71.5
0°-60°	4353.6	93.5
0°-90°	4654.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4654.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3274	3274	3274	3274	3274	
5°	3284	3464	3283	3669	3284	312
15°	3185	3023	3178	3031	3185	900
25°	3019	1726	3004	1629	3019	1388
35°	2744	32	2704	39	2744	1717
45°	2407	4	2317	3	2407	1851
55°	1951	2	1831	2	1951	1739
65°	1366	3	1268	2	1366	1353
75°	718	3	730	3	718	762
85°	140	3	143	3	140	178
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3292.4	3294.4	3295.4	3297.3	3300.3	3301.3	3303.2	3301.3	3301.3	3301.3	3301.3
5°	3283.6	3287.5	3290.4	3294.4	3301.3	3302.2	3310.1	3311.1	3315.0	3322.9	3328.8
7.5°	3268.8	3272.8	3278.7	3288.5	3298.3	3309.1	3322.9	3337.6	3358.2	3377.9	3402.5
10°	3247.2	3252.1	3259.0	3267.8	3316.0	3322.9	3353.3	3395.6	3407.4	3469.3	3515.4
12.5°	3215.8	3232.5	3250.2	3258.0	3304.2	3376.9	3479.1	3458.5	3435.9	3638.3	3635.3
15°	3185.3	3207.9	3199.1	3262.9	3305.2	3431.9	3388.7	3481.1	3650.0	3608.8	3610.7
17.5°	3152.9	3157.8	3206.9	3260.0	3335.6	3400.5	3453.5	3580.3	3613.7	3616.6	3580.3
20°	3111.6	3135.2	3206.9	3255.1	3382.8	3413.3	3528.2	3593.1	3579.3	3545.9	3484.0
22.5°	3069.4	3141.1	3213.8	3281.6	3371.0	3452.6	3509.5	3540.0	3468.3	3336.6	3265.9
25°	3019.3	3061.5	3156.8	3256.1	3368.1	3415.2	3448.6	3399.5	3306.2	3188.3	3069.4
27.5°	2941.7	3009.4	3131.3	3243.3	3344.5	3401.5	3347.4	3229.5	3079.2	3001.6	2947.5
30°	2881.7	2970.1	3070.4	3178.4	3283.6	3317.0	3179.4	3044.8	2941.7	2864.0	2852.2
32.5°	2809.0	2934.8	3030.1	3133.2	3221.7	3177.5	3043.8	2869.9	2784.5	2755.0	2766.8
35°	2744.2	2839.5	2964.3	3065.5	3129.3	3030.1	2818.8	2710.8	2669.5	2686.2	2664.6
37.5°	2666.5	2792.3	2907.3	2994.7	2973.1	2823.8	2644.9	2576.2	2581.1	2567.3	2526.0
40°	2586.0	2705.8	2825.7	2908.2	2832.6	2604.7	2485.8	2471.0	2474.0	2429.8	2370.8
42.5°	2491.7	2600.7	2720.6	2795.3	2632.2	2454.3	2373.8	2375.7	2350.2	2288.3	2256.8
45°	2407.2	2507.4	2632.2	2639.0	2438.6	2290.2	2266.7	2241.1	2184.1	2163.5	2139.9
47.5°	2299.1	2410.1	2513.3	2475.9	2249.0	2156.6	2138.9	2082.9	2054.4	2038.7	2019.1
50°	2184.1	2296.1	2390.5	2284.4	2070.2	2048.5	1990.6	1946.4	1926.7	1910.0	1892.3
52.5°	2075.1	2167.4	2263.7	2081.0	1932.6	1912.0	1846.1	1820.6	1801.0	1782.3	1778.4
55°	1951.3	2032.8	2098.7	1887.4	1801.0	1752.8	1705.6	1688.0	1669.3	1660.5	1675.2
57.5°	1810.8	1903.1	1893.3	1696.8	1658.5	1588.7	1571.0	1559.3	1545.5	1551.4	1428.6
60°	1684.0	1754.8	1706.6	1557.3	1492.4	1445.3	1429.6	1421.7	1429.6	1309.7	1151.5
62.5°	1527.8	1607.4	1510.1	1394.2	1325.4	1302.8	1289.1	1299.9	1184.9	1053.3	1014.9
65°	1365.7	1452.2	1308.7	1219.3	1176.1	1156.4	1155.4	1064.1	951.1	900.0	900.0
67.5°	1209.5	1298.9	1114.2	1039.5	1022.8	1024.8	967.8	829.2	797.8	763.4	664.2
70°	1043.4	1122.0	920.6	875.4	865.6	858.7	720.2	682.8	645.5	554.1	546.3
72.5°	878.4	916.7	739.8	729.0	727.1	604.2	576.7	512.9	469.6	458.8	453.9
75°	718.2	706.4	584.6	594.4	501.1	457.9	413.6	376.3	370.4	366.5	91.4
77.5°	566.9	508.0	460.8	400.9	358.6	304.6	295.7	289.8	190.6	68.8	56.0
80°	412.7	329.1	306.5	260.4	222.0	213.2	218.1	66.8	53.1	44.2	38.3
82.5°	262.3	210.3	171.9	150.3	146.4	63.9	47.2	38.3	33.4	28.5	23.6
85°	140.5	93.3	86.5	72.7	43.2	29.5	24.6	18.7	15.7	12.8	11.8
87.5°	44.2	37.3	30.5	24.6	14.7	9.8	7.9	6.9	5.9	4.9	4.9
90°	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):

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3299.3	3301.3	3300.3	3303.2	3303.2	3307.1	3310.1	3313.0	3318.9	3321.9	3344.5
5°	3341.5	3346.5	3361.2	3374.9	3391.6	3396.6	3425.1	3431.9	3465.3	3469.3	3579.3
7.5°	3435.9	3454.5	3489.9	3525.3	3560.6	3583.2	3622.5	3647.1	3673.6	3697.2	3784.7
10°	3549.8	3581.3	3615.7	3651.0	3671.7	3714.9	3738.5	3742.4	3735.5	3697.2	3555.7
12.5°	3661.8	3693.3	3678.5	3685.4	3710.0	3633.3	3644.2	3589.1	3627.5	3437.8	3297.3
15°	3646.1	3644.2	3607.8	3489.9	3509.5	3363.2	3304.2	3259.0	3295.4	3275.7	3254.1
17.5°	3599.0	3509.5	3446.7	3305.2	3245.3	3204.0	3205.0	3206.0	3188.3	3206.9	3151.9
20°	3399.5	3299.3	3206.0	3155.8	3138.2	3108.7	3123.4	3108.7	3109.7	3115.6	3031.1
22.5°	3134.2	3103.8	3049.7	3065.5	3059.6	3086.1	3066.4	3036.0	3045.8	3001.6	2937.7
25°	3027.1	2991.8	2989.8	2995.7	2986.8	2975.1	2957.4	2911.2	2908.2	2894.5	2865.0
27.5°	2919.1	2921.0	2926.9	2909.2	2877.8	2854.2	2827.7	2805.1	2813.9	2798.2	2757.9
30°	2844.4	2843.4	2808.0	2792.3	2734.3	2735.3	2728.4	2714.7	2705.8	2706.8	2681.3
32.5°	2738.3	2707.8	2667.5	2647.9	2643.0	2625.3	2611.5	2614.5	2621.4	2596.8	2623.3
35°	2629.2	2566.3	2560.4	2543.7	2528.0	2516.2	2521.1	2501.5	2500.5	2497.6	2281.4
37.5°	2482.8	2452.4	2449.4	2431.7	2420.9	2418.0	2399.3	2402.3	2411.1	2426.8	1945.4
40°	2362.0	2334.5	2327.6	2326.6	2303.0	2301.1	2306.0	2324.6	2337.4	2239.2	1854.0
42.5°	2232.3	2234.2	2212.6	2198.9	2201.8	2210.7	2234.2	2169.4	1879.6	1791.1	1694.8
45°	2121.3	2111.4	2099.6	2095.7	2121.3	2103.6	1844.2	1701.7	1667.3	1663.4	1393.2
47.5°	2005.3	2002.4	1997.5	2000.4	1855.0	1653.6	1594.6	1576.0	1581.9	1577.9	1196.7
50°	1888.4	1892.3	1892.3	1652.6	1517.0	1483.6	1488.5	1505.2	1401.1	1307.7	1115.2
52.5°	1787.2	1756.7	1505.2	1418.8	1388.3	1403.0	1367.7	1237.0	1142.7	1087.6	1031.6
55°	1599.5	1375.5	1319.5	1305.8	1316.6	1185.9	1105.3	1020.8	996.3	990.4	958.0
57.5°	1258.6	1213.4	1218.3	1163.3	1038.5	964.8	932.4	920.6	909.8	901.9	78.6
60°	1113.2	1126.0	1030.7	912.8	862.6	852.8	845.0	834.2	832.2	818.4	50.1
62.5°	1018.9	896.1	813.5	784.0	772.3	769.3	754.6	749.7	636.7	87.4	37.3
65°	768.3	718.2	702.5	695.6	682.8	682.8	566.9	89.4	72.7	62.9	33.4
67.5°	626.8	622.9	615.1	606.2	412.7	86.5	75.7	65.8	57.0	50.1	29.5
70°	530.6	528.6	481.4	88.4	73.7	64.8	57.0	51.1	47.2	42.2	26.5
72.5°	435.3	88.4	74.7	64.8	56.0	51.1	46.2	41.3	37.3	34.4	21.6
75°	67.8	59.9	53.1	48.1	44.2	39.3	35.4	32.4	31.4	27.5	14.7
77.5°	49.1	42.2	38.3	34.4	30.5	27.5	23.6	20.6	18.7	15.7	10.8
80°	34.4	30.5	27.5	22.6	19.7	16.7	14.7	12.8	11.8	9.8	4.9
82.5°	19.7	16.7	14.7	11.8	10.8	8.8	7.9	6.9	6.9	4.9	4.9
85°	8.8	8.8	6.9	5.9	4.9	4.9	4.9	3.9	3.9	2.9	2.9
87.5°	3.9	3.9	3.9	3.9	3.9	2.9	2.9	2.9	2.9	2.9	2.0
90°	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):

	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3375.9	3388.7	3413.3	3438.8	3410.3	3512.5	3504.6	3539.0	3557.7	3566.5	3587.2
5°	3676.6	3733.6	3752.2	3696.2	3663.8	3630.4	3554.7	3497.8	3504.6	3486.0	3418.2
7.5°	3670.7	3548.8	3384.8	3310.1	3304.2	3295.4	3318.9	3332.7	3334.7	3333.7	3331.7
10°	3360.2	3297.3	3286.5	3276.7	3280.6	3244.3	3227.6	3180.4	3206.0	3192.2	3197.1
12.5°	3265.9	3251.1	3193.2	3112.6	3160.8	3124.4	3103.8	3117.5	3101.8	3087.1	3082.2
15°	3209.9	3114.6	3082.2	3062.5	3048.7	3040.9	3047.8	3032.0	3027.1	3024.2	3031.1
17.5°	3093.9	3055.6	3020.3	2968.2	2969.2	2966.2	2985.9	3015.3	3017.3	2866.0	2729.4
20°	3002.6	2971.1	2925.9	2893.5	2937.7	2859.1	2555.5	2411.1	2388.5	2388.5	2392.4
22.5°	2929.9	2860.1	2863.1	2812.0	2398.3	2313.8	2315.8	2324.6	2284.4	2146.8	2132.1
25°	2830.6	2819.8	2604.7	2250.9	2253.9	2188.1	2086.9	1944.4	1790.1	1790.1	1764.6
27.5°	2756.0	2527.0	2212.6	2197.9	1976.8	1837.3	1750.8	1620.2	1602.5	1585.8	1587.7
30°	2692.1	2138.0	2145.8	1837.3	1674.2	1558.3	1551.4	1529.8	1519.0	1516.0	1505.2
32.5°	2128.1	2082.0	1796.0	1564.2	1500.3	1481.6	1472.8	1448.2	1447.2	1428.6	1298.9
35°	1995.5	1827.5	1503.2	1440.4	1421.7	1404.0	1389.3	932.4	110.0	44.2	38.3
37.5°	1844.2	1526.8	1390.3	1361.8	1344.1	993.3	99.2	34.4	24.6	17.7	15.7
40°	1563.2	1363.7	1320.5	1289.1	531.5	34.4	21.6	16.7	9.8	8.8	7.9
42.5°	1318.5	1285.1	1239.0	377.3	39.3	16.7	10.8	7.9	6.9	6.9	5.9
45°	1234.0	1204.6	499.1	37.3	24.6	7.9	6.9	6.9	5.9	3.9	3.9
47.5°	1155.4	1016.9	45.2	23.6	15.7	6.9	5.9	3.9	3.9	3.9	2.9
50°	1071.9	56.0	31.4	17.7	9.8	3.9	3.9	3.9	3.9	2.9	2.9
52.5°	200.4	39.3	25.5	15.7	4.9	3.9	3.9	3.9	2.9	2.9	2.9
55°	47.2	31.4	23.6	13.8	3.9	3.9	3.9	2.9	2.9	2.9	2.0
57.5°	35.4	23.6	18.7	12.8	3.9	2.9	2.9	2.9	2.9	2.9	2.0
60°	29.5	16.7	14.7	11.8	2.9	2.9	2.9	2.9	2.9	2.9	2.0
62.5°	20.6	13.8	10.8	8.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9
65°	16.7	10.8	8.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
67.5°	14.7	8.8	5.9	2.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
70°	11.8	2.9	2.9	2.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
72.5°	9.8	2.9	2.0	2.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
75°	9.8	4.9	2.0	2.0	2.9	2.9	3.9	3.9	2.9	2.9	2.9
77.5°	6.9	4.9	2.0	2.0	2.9	2.9	3.9	3.9	2.9	2.9	2.9
80°	3.9	4.9	2.0	2.9	2.9	5.9	6.9	3.9	2.9	2.9	2.9
82.5°	3.9	4.9	5.9	5.9	2.9	4.9	5.9	4.9	3.9	2.9	2.9
85°	3.9	2.9	3.9	4.9	2.9	4.9	4.9	3.9	3.9	2.9	2.9
87.5°	2.0	2.9	2.9	3.9	3.9	3.9	4.9	3.9	3.9	3.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3597.0	3600.9	3539.0	3517.4	3536.1	3532.1	3515.4	3453.5	3446.7	3405.4	3345.5
5°	3437.8	3464.4	3431.9	3487.9	3461.4	3487.9	3568.5	3605.8	3666.8	3704.1	3717.8
7.5°	3326.8	3332.7	3332.7	3337.6	3342.5	3343.5	3337.6	3333.7	3317.0	3296.3	3333.7
10°	3192.2	3199.1	3210.9	3208.9	3207.9	3228.5	3233.5	3275.7	3273.7	3281.6	3310.1
12.5°	3122.4	3069.4	3117.5	3104.8	3122.4	3094.9	3146.0	3137.2	3140.1	3163.7	3224.6
15°	3006.5	3023.2	3035.0	3035.0	3041.9	3036.0	3030.1	3070.4	3094.9	3095.9	3092.0
17.5°	2783.5	2656.7	2786.4	2753.0	3019.3	3026.2	3003.6	2984.9	2984.9	2999.6	3031.1
20°	2389.5	2392.4	2393.4	2406.2	2421.9	2420.9	2421.9	2809.0	2992.7	2950.5	2922.0
22.5°	2094.7	2058.4	2126.2	2121.3	2205.7	2299.1	2388.5	2379.7	2385.5	2658.7	2904.3
25°	1679.1	1726.3	1688.0	1704.7	1800.0	1911.0	1979.8	2159.6	2355.1	2341.3	2405.2
27.5°	1580.9	1568.1	1585.8	1585.8	1598.6	1613.3	1651.6	1752.8	1926.7	2109.5	2282.4
30°	1487.5	1498.3	1500.3	1518.0	1527.8	1537.6	1543.5	1581.9	1621.2	1747.9	1961.1
32.5°	1117.1	979.6	1289.1	1372.6	1443.3	1460.0	1471.8	1487.5	1516.0	1534.7	1641.8
35°	32.4	32.4	34.4	39.3	50.1	338.0	1287.1	1418.8	1437.4	1461.0	1480.7
37.5°	15.7	11.8	13.8	14.7	17.7	24.6	35.4	110.0	1225.2	1385.3	1407.0
40°	6.9	6.9	6.9	6.9	7.9	9.8	14.7	24.6	37.3	985.5	1329.3
42.5°	5.9	5.9	5.9	5.9	5.9	5.9	6.9	8.8	17.7	42.2	697.6
45°	3.9	3.9	2.9	3.9	3.9	4.9	5.9	5.9	7.9	26.5	48.1
47.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.9	5.9	17.7	25.5
50°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	13.8	17.7
52.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	5.9	15.7
55°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9	2.9	3.9	13.8
57.5°	2.0	2.0	2.0	2.0	2.0	2.9	2.0	2.0	2.9	2.9	12.8
60°	2.0	2.0	2.0	2.0	2.0	2.9	2.9	2.9	2.9	2.9	11.8
62.5°	2.9	2.9	2.0	2.9	2.0	2.0	2.9	2.9	2.9	2.9	7.9
65°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.0	2.9
67.5°	2.9	2.9	2.9	2.9	2.0	2.9	2.0	2.9	2.9	2.0	2.0
70°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.0	2.0	2.0	2.0
72.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.0	2.0	2.0	2.0
75°	2.9	2.9	2.9	2.9	2.9	2.9	3.9	3.9	2.0	2.0	2.0
77.5°	2.9	2.9	2.9	2.9	2.9	2.9	4.9	5.9	4.9	4.9	2.0
80°	2.9	2.9	2.9	2.9	2.9	2.9	4.9	4.9	4.9	4.9	6.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	3.9	3.9	3.9	3.9	4.9
85°	2.9	2.9	2.9	2.9	2.9	2.9	3.9	3.9	3.9	2.9	3.9
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3350.4	3317.0	3306.2	3283.6	3281.6	3283.6	3278.7	3271.8	3275.7	3268.8	3262.9
5°	3725.7	3636.3	3578.3	3500.7	3393.6	3370.0	3364.1	3330.7	3318.9	3315.0	3299.3
7.5°	3422.1	3585.2	3683.5	3716.9	3591.1	3561.6	3527.2	3499.7	3473.2	3423.1	3392.6
10°	3287.5	3295.4	3389.7	3499.7	3678.5	3703.1	3721.8	3661.8	3645.1	3517.4	3489.9
12.5°	3256.1	3257.0	3267.8	3334.7	3475.2	3490.9	3556.7	3592.1	3635.3	3659.9	3640.2
15°	3112.6	3192.2	3251.1	3257.0	3269.8	3297.3	3317.0	3439.8	3491.9	3631.4	3623.5
17.5°	3045.8	3071.3	3156.8	3226.6	3214.8	3205.0	3220.7	3237.4	3287.5	3427.0	3425.1
20°	2934.8	3016.3	3062.5	3135.2	3201.0	3204.0	3186.3	3176.5	3156.8	3179.4	3200.1
22.5°	2887.6	2900.4	2986.8	3037.9	3112.6	3139.1	3143.1	3144.1	3133.2	3121.5	3115.6
25°	2882.7	2842.4	2886.6	2950.5	3005.5	3034.0	3066.4	3077.2	3073.3	3073.3	3067.4
27.5°	2359.0	2829.6	2806.1	2848.3	2915.1	2934.8	2951.5	2984.9	3005.5	3020.3	3027.1
30°	2247.0	2331.5	2743.2	2749.1	2816.9	2814.9	2833.6	2861.1	2887.6	2922.0	2930.8
32.5°	1987.6	2194.9	2511.3	2649.8	2720.6	2727.5	2737.3	2745.2	2769.7	2808.0	2841.4
35°	1592.7	1999.4	2151.7	2602.7	2615.5	2629.2	2635.1	2653.8	2661.6	2677.4	2706.8
37.5°	1441.4	1652.6	2064.3	2250.9	2494.6	2506.4	2537.8	2545.7	2558.5	2571.2	2593.8
40°	1353.9	1411.9	1718.4	2010.2	2397.3	2405.2	2416.0	2435.7	2436.6	2451.4	2472.0
42.5°	1284.1	1321.5	1410.9	1919.8	2328.6	2327.6	2302.0	2314.8	2320.7	2336.4	2364.9
45°	1025.7	1239.9	1296.9	1568.1	1854.0	1987.6	2244.1	2201.8	2200.8	2206.7	2237.2
47.5°	52.1	1166.2	1206.5	1294.0	1750.8	1755.8	1789.2	2070.2	2113.4	2099.6	2102.6
50°	35.4	80.6	1124.0	1164.3	1509.1	1631.0	1655.5	1668.3	1830.4	2011.2	1981.7
52.5°	27.5	46.2	688.7	1080.8	1226.2	1315.6	1473.8	1564.2	1574.0	1646.7	1893.3
55°	24.6	35.4	74.7	997.3	1042.4	1062.1	1154.5	1312.6	1440.4	1478.7	1481.6
57.5°	21.6	32.4	51.1	451.0	948.1	952.1	967.8	1022.8	1137.8	1242.9	1361.8
60°	19.7	28.5	40.3	77.6	861.7	871.5	874.4	889.2	902.9	974.7	1111.2
62.5°	11.8	22.6	35.4	56.0	681.9	783.1	782.1	791.9	804.7	812.5	840.1
65°	9.8	17.7	30.5	47.2	83.5	104.1	632.7	703.5	711.3	722.1	727.1
67.5°	8.8	15.7	22.6	37.3	62.9	71.7	82.5	102.2	558.1	628.8	638.6
70°	7.9	10.8	18.7	31.4	51.1	55.0	61.9	70.7	83.5	103.2	505.0
72.5°	4.9	7.9	12.8	22.6	39.3	44.2	48.1	54.0	59.9	71.7	82.5
75°	2.0	5.9	10.8	16.7	30.5	33.4	36.4	40.3	45.2	53.1	59.0
77.5°	2.0	4.9	8.8	11.8	19.7	22.6	26.5	29.5	33.4	37.3	43.2
80°	6.9	3.9	5.9	8.8	13.8	14.7	16.7	18.7	21.6	24.6	28.5
82.5°	4.9	5.9	6.9	5.9	6.9	8.8	9.8	11.8	12.8	14.7	15.7
85°	3.9	3.9	4.9	4.9	4.9	4.9	4.9	4.9	5.9	6.9	8.8
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3262.9	3261.0	3255.1	3255.1	3254.1	3258.0	3261.0	3263.9	3262.9	3268.8	3262.9
5°	3287.5	3282.6	3273.7	3265.9	3262.9	3264.9	3262.0	3264.9	3261.0	3265.9	3257.0
7.5°	3355.3	3338.6	3304.2	3290.4	3272.8	3271.8	3262.9	3261.0	3255.1	3255.1	3244.3
10°	3475.2	3394.6	3384.8	3343.5	3328.8	3257.0	3272.8	3246.2	3243.3	3230.5	3225.6
12.5°	3573.4	3510.5	3491.9	3455.5	3414.2	3268.8	3301.3	3244.3	3241.3	3215.8	3189.2
15°	3575.4	3611.7	3560.6	3460.4	3451.6	3351.4	3285.5	3265.9	3240.3	3163.7	3176.5
17.5°	3460.4	3543.9	3568.5	3546.9	3484.0	3416.2	3323.9	3284.6	3207.9	3173.5	3149.9
20°	3273.7	3358.2	3463.4	3470.2	3509.5	3461.4	3340.6	3276.7	3184.3	3124.4	3104.8
22.5°	3125.4	3187.3	3308.1	3364.1	3412.3	3429.0	3352.3	3258.0	3143.1	3085.1	3073.3
25°	3046.8	3060.5	3096.9	3162.7	3268.8	3345.5	3356.3	3256.1	3196.1	3069.4	3002.6
27.5°	3018.3	3006.5	2991.8	3025.2	3104.8	3198.1	3260.0	3276.7	3127.3	3006.5	2939.7
30°	2945.6	2952.5	2929.9	2918.1	2970.1	3066.4	3176.5	3204.0	3089.0	2964.3	2887.6
32.5°	2856.2	2868.0	2871.9	2851.3	2840.5	2907.3	3026.2	3092.0	3086.1	2904.3	2818.8
35°	2744.2	2777.6	2786.4	2787.4	2769.7	2758.9	2827.7	2964.3	3016.3	2876.8	2753.0
37.5°	2626.3	2636.1	2684.2	2697.0	2697.0	2664.6	2715.7	2824.7	2897.4	2814.9	2672.4
40°	2478.9	2510.3	2555.5	2578.1	2600.7	2603.7	2575.2	2651.8	2771.7	2751.0	2596.8
42.5°	2371.8	2392.4	2419.9	2450.4	2496.6	2508.4	2478.9	2492.6	2617.4	2671.5	2498.5
45°	2247.0	2274.5	2282.4	2315.8	2363.9	2398.3	2397.3	2368.8	2469.1	2535.9	2426.8
47.5°	2119.3	2145.8	2159.6	2176.3	2211.6	2255.9	2280.4	2267.6	2287.3	2418.0	2331.5
50°	1987.6	2002.4	2029.9	2048.5	2072.1	2097.7	2156.6	2168.4	2140.9	2245.0	2226.4
52.5°	1862.9	1867.8	1886.4	1905.1	1936.5	1955.2	2002.4	2037.7	2035.8	2066.2	2109.5
55°	1765.6	1744.0	1747.9	1762.6	1783.3	1811.8	1838.3	1893.3	1912.0	1917.9	1986.6
57.5°	1379.5	1601.5	1621.2	1620.2	1644.7	1657.5	1682.1	1718.4	1785.2	1770.5	1847.1
60°	1253.7	1278.3	1463.9	1485.6	1494.4	1506.2	1535.7	1569.1	1618.2	1649.6	1683.1
62.5°	956.0	1105.3	1161.3	1325.4	1351.0	1357.8	1377.5	1393.2	1444.3	1516.0	1502.3
65°	739.8	803.7	974.7	1041.5	1181.0	1198.7	1226.2	1242.9	1257.6	1340.2	1344.1
67.5°	639.6	649.4	695.6	824.3	912.8	1049.3	1066.0	1080.8	1103.4	1162.3	1198.7
70°	546.3	558.1	570.8	581.6	696.6	787.0	913.7	918.7	933.4	972.7	1055.2
72.5°	103.2	466.7	474.6	481.4	494.2	554.1	675.0	773.2	779.1	797.8	873.5
75°	69.8	81.5	112.0	385.1	397.9	401.8	422.5	545.3	635.7	639.6	673.0
77.5°	50.1	56.0	67.8	80.6	205.3	308.5	313.4	336.0	429.4	497.2	503.0
80°	34.4	38.3	45.2	51.1	62.9	82.5	227.9	234.8	246.6	340.0	357.6
82.5°	19.7	22.6	26.5	32.4	37.3	47.2	60.9	78.6	160.2	171.0	227.0
85°	9.8	10.8	12.8	15.7	18.7	22.6	30.5	37.3	51.1	92.4	95.3
87.5°	4.9	4.9	4.9	4.9	7.9	8.8	10.8	13.8	17.7	26.5	34.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3263.9	3277.7	3289.5	3292.4	3292.4	3294.4	3297.3	3299.3	3301.3	3303.2	3301.3
5°	3258.0	3272.8	3282.6	3285.5	3285.5	3291.4	3296.3	3302.2	3305.2	3305.2	3303.2
7.5°	3243.3	3254.1	3266.9	3274.7	3275.7	3285.5	3294.4	3293.4	3297.3	3299.3	3304.2
10°	3223.6	3223.6	3245.3	3251.1	3256.1	3266.9	3269.8	3275.7	3289.5	3291.4	3304.2
12.5°	3213.8	3204.0	3229.5	3232.5	3249.2	3235.4	3253.1	3259.0	3245.3	3263.9	3239.4
15°	3169.6	3181.4	3177.5	3186.3	3215.8	3200.1	3248.2	3232.5	3267.8	3225.6	3300.3
17.5°	3133.2	3131.3	3147.0	3154.9	3160.8	3194.2	3206.9	3224.6	3238.4	3226.6	3256.1
20°	3106.7	3091.0	3102.8	3111.6	3132.3	3157.8	3165.7	3139.1	3185.3	3263.9	3282.6
22.5°	3056.6	3045.8	3059.6	3059.6	3091.0	3087.1	3116.5	3099.8	3143.1	3234.4	3329.7
25°	2988.8	2989.8	3004.5	3022.2	3028.1	3072.3	3088.0	3109.7	3163.7	3272.8	3330.7
27.5°	2920.0	2914.1	2923.0	2959.3	2989.8	3022.2	3027.1	3100.8	3174.5	3249.2	3300.3
30°	2851.3	2845.4	2851.3	2877.8	2914.1	2935.8	2989.8	3088.0	3156.8	3207.9	3256.1
32.5°	2777.6	2771.7	2785.4	2805.1	2868.9	2871.9	2979.0	3071.3	3125.4	3162.7	3153.9
35°	2699.0	2691.1	2703.9	2734.3	2793.3	2814.9	2926.9	2995.7	3056.6	3074.3	3033.0
37.5°	2604.7	2590.9	2606.6	2648.9	2710.8	2773.6	2867.0	2946.6	2979.0	2931.8	2882.7
40°	2506.4	2496.6	2524.1	2545.7	2618.4	2705.8	2812.9	2868.9	2848.3	2794.3	2740.2
42.5°	2419.0	2398.3	2422.9	2464.2	2546.7	2645.9	2732.4	2763.8	2714.7	2635.1	2572.2
45°	2311.9	2287.3	2316.8	2371.8	2460.2	2573.2	2641.0	2630.2	2546.7	2477.9	2391.4
47.5°	2199.9	2170.4	2199.9	2265.7	2364.9	2484.8	2533.9	2484.8	2379.7	2293.2	2223.4
50°	2089.8	2055.4	2083.9	2183.2	2280.4	2372.8	2371.8	2276.5	2213.6	2119.3	2058.4
52.5°	1980.8	1931.6	1960.1	2068.2	2165.5	2270.6	2193.0	2104.5	2028.9	1946.4	1926.7
55°	1846.1	1793.1	1831.4	1988.6	2063.3	2125.2	2001.4	1923.8	1849.1	1807.8	1783.3
57.5°	1718.4	1660.5	1693.9	1879.6	1934.6	1950.3	1836.3	1726.3	1682.1	1668.3	1632.9
60°	1586.8	1520.9	1552.4	1766.6	1804.9	1741.0	1629.0	1543.5	1534.7	1507.2	1479.7
62.5°	1461.0	1388.3	1407.9	1626.1	1643.7	1527.8	1424.6	1402.1	1380.4	1352.9	1338.2
65°	1316.6	1240.9	1268.4	1476.7	1460.0	1310.7	1252.7	1247.8	1219.3	1196.7	1218.3
67.5°	1183.9	1094.5	1132.8	1313.6	1238.0	1116.1	1092.6	1080.8	1058.2	1070.9	844.0
70°	1038.5	941.3	993.3	1137.8	1025.7	945.2	936.3	918.7	919.6	731.0	616.0
72.5°	876.4	791.9	867.6	945.2	811.6	788.0	775.2	773.2	623.9	507.0	478.5
75°	733.9	648.5	730.0	759.5	646.5	630.8	629.8	520.7	409.7	391.0	382.2
77.5°	572.8	507.0	584.6	540.4	496.2	478.5	429.4	322.3	308.5	295.7	111.0
80°	386.1	391.0	436.2	372.4	353.7	301.6	237.8	227.9	196.5	78.6	61.9
82.5°	234.8	294.8	278.1	232.9	227.9	164.1	150.3	76.6	57.0	45.2	39.3
85°	121.8	149.3	143.4	126.7	94.3	84.5	47.2	36.4	29.5	22.6	18.7
87.5°	41.3	55.0	53.1	42.2	32.4	25.5	16.7	13.8	9.8	7.9	6.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3299.3	3299.3	3297.3	3299.3	3300.3	3298.3	3298.3	3300.3	3301.3	3302.2	3307.1
5°	3304.2	3306.2	3309.1	3315.0	3316.0	3327.8	3332.7	3335.6	3338.6	3339.6	3332.7
7.5°	3315.0	3321.9	3327.8	3326.8	3319.9	3301.3	3295.4	3290.4	3299.3	3321.9	3348.4
10°	3324.8	3293.4	3234.4	3315.0	3290.4	3313.0	3379.9	3394.6	3439.8	3503.7	3522.3
12.5°	3257.0	3343.5	3362.2	3271.8	3438.8	3376.9	3450.6	3515.4	3534.1	3599.0	3559.7
15°	3329.7	3372.0	3400.5	3490.9	3481.1	3534.1	3554.7	3542.0	3544.9	3561.6	3605.8
17.5°	3328.8	3413.3	3431.9	3492.8	3534.1	3535.1	3529.2	3523.3	3539.0	3551.8	3525.3
20°	3385.8	3413.3	3449.6	3474.2	3482.0	3491.9	3510.5	3495.8	3466.3	3437.8	3426.0
22.5°	3357.3	3419.2	3450.6	3454.5	3449.6	3419.2	3391.6	3350.4	3336.6	3321.9	3326.8
25°	3363.2	3391.6	3387.7	3372.0	3351.4	3294.4	3280.6	3262.9	3236.4	3172.5	3114.6
27.5°	3320.9	3306.2	3288.5	3250.2	3212.8	3182.4	3148.0	3091.0	3043.8	2975.1	2949.5
30°	3250.2	3191.2	3148.0	3125.4	3089.0	3037.9	2985.9	2916.1	2856.2	2842.4	2829.6
32.5°	3114.6	3056.6	3021.2	2966.2	2904.3	2843.4	2783.5	2756.0	2743.2	2745.2	2733.4
35°	2976.0	2925.0	2871.9	2789.4	2743.2	2682.3	2660.7	2654.8	2643.0	2630.2	2616.4
37.5°	2828.7	2768.7	2689.1	2640.0	2593.8	2569.3	2558.5	2549.6	2529.0	2506.4	2490.7
40°	2686.2	2578.1	2533.9	2485.8	2472.0	2461.2	2445.5	2423.9	2395.4	2391.4	2384.6
42.5°	2495.6	2418.0	2379.7	2369.8	2353.1	2334.5	2320.7	2297.1	2285.3	2293.2	2299.1
45°	2314.8	2275.5	2262.7	2250.9	2219.5	2193.0	2184.1	2176.3	2186.1	2229.3	2126.2
47.5°	2168.4	2152.7	2137.0	2117.3	2087.8	2068.2	2077.0	2084.9	2093.7	1776.4	1621.2
50°	2041.7	2020.1	1995.5	1973.9	1956.2	1954.2	2000.4	1861.9	1559.3	1551.4	1394.2
52.5°	1903.1	1870.7	1856.0	1843.2	1851.1	1880.5	1556.3	1444.3	1385.3	1203.6	1123.0
55°	1753.8	1725.3	1725.3	1737.1	1694.8	1373.6	1356.9	1173.1	1062.1	1030.7	1017.9
57.5°	1604.4	1601.5	1618.2	1479.7	1246.8	1195.7	1005.1	964.8	947.1	943.2	922.6
60°	1467.9	1495.4	1251.7	1151.5	1001.2	902.9	875.4	870.5	851.8	845.0	826.3
62.5°	1358.8	1126.9	1049.3	856.8	806.6	793.9	779.1	772.3	755.6	667.1	195.5
65°	981.5	927.5	752.6	720.2	716.3	697.6	691.7	621.9	146.4	98.3	83.5
67.5°	740.8	657.3	634.7	628.8	610.1	572.8	170.0	97.3	83.5	72.7	63.9
70°	568.9	554.1	537.4	523.7	154.3	96.3	83.5	70.7	60.9	54.0	49.1
72.5°	465.7	455.9	265.3	101.2	82.5	69.8	61.9	54.0	47.2	43.2	39.3
75°	364.5	101.2	83.5	69.8	59.9	51.1	45.2	40.3	36.4	33.4	30.5
77.5°	82.5	66.8	57.0	48.1	43.2	38.3	34.4	29.5	26.5	23.6	19.7
80°	51.1	44.2	37.3	34.4	29.5	24.6	21.6	19.7	15.7	14.7	12.8
82.5°	33.4	26.5	23.6	19.7	15.7	14.7	12.8	9.8	8.8	7.9	6.9
85°	14.7	12.8	10.8	8.8	6.9	5.9	4.9	3.9	3.9	3.9	3.9
87.5°	4.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3309.1	3326.8	3343.5	3338.6	3320.9	3293.4	3285.5	3274.7	3282.6	3299.3	3306.2
5°	3332.7	3322.9	3358.2	3410.3	3494.8	3502.7	3561.6	3575.4	3622.5	3652.0	3651.0
7.5°	3366.1	3505.6	3563.6	3626.5	3655.0	3648.1	3656.9	3650.0	3639.2	3634.3	3628.4
10°	3536.1	3642.2	3663.8	3663.8	3619.6	3559.7	3534.1	3489.9	3401.5	3403.4	3388.7
12.5°	3635.3	3672.6	3621.6	3578.3	3400.5	3331.7	3257.0	3221.7	3201.0	3169.6	3181.4
15°	3583.2	3530.2	3499.7	3360.2	3251.1	3127.3	3129.3	3107.7	3085.1	3087.1	3072.3
17.5°	3506.6	3464.4	3248.2	3151.9	3098.9	3050.7	3041.9	3013.4	2998.6	2993.7	2992.7
20°	3401.5	3249.2	3088.0	3064.5	3000.6	2945.6	2936.7	2945.6	2990.8	2910.2	2637.1
22.5°	3278.7	3059.6	3012.4	2945.6	2902.4	2880.7	2934.8	2689.1	2317.8	2363.0	2314.8
25°	3070.4	2975.1	2894.5	2843.4	2838.5	2705.8	2254.9	2207.7	1969.0	1841.2	1697.8
27.5°	2918.1	2876.8	2792.3	2783.5	2719.6	2212.6	1977.8	1718.4	1623.1	1608.4	1576.9
30°	2825.7	2766.8	2715.7	2492.6	2170.4	1781.3	1586.8	1550.4	1533.7	1516.0	1488.5
32.5°	2714.7	2658.7	2683.3	2095.7	1730.2	1533.7	1494.4	1467.9	1437.4	1425.6	1326.4
35°	2601.7	2576.2	2096.7	1761.7	1487.5	1440.4	1410.9	1383.4	1100.4	266.3	90.4
37.5°	2480.9	2475.0	1884.5	1462.0	1393.2	1349.0	1265.5	261.3	61.9	42.2	31.4
40°	2386.5	1885.4	1489.5	1370.6	1314.6	1244.8	174.9	43.2	27.5	16.7	10.8
42.5°	2323.7	1695.8	1333.3	1286.1	1164.3	128.7	44.2	18.7	10.8	8.8	6.9
45°	1791.1	1339.2	1245.8	1196.7	147.4	44.2	25.5	8.8	6.9	5.9	3.9
47.5°	1652.6	1216.4	1161.3	261.3	49.1	23.6	17.7	5.9	3.9	3.9	3.9
50°	1251.7	1124.0	924.5	63.9	31.4	16.7	12.8	3.9	3.9	3.9	2.9
52.5°	1097.5	1037.5	99.2	42.2	24.6	12.8	7.9	2.9	2.9	2.9	2.9
55°	1003.1	658.3	59.0	32.4	20.6	11.8	4.9	2.9	2.9	2.9	2.0
57.5°	917.7	88.4	43.2	27.5	18.7	10.8	2.9	2.9	2.9	2.9	2.0
60°	778.2	63.9	35.4	24.6	17.7	9.8	2.9	2.9	2.9	2.9	2.9
62.5°	101.2	50.1	30.5	21.6	12.8	7.9	2.0	2.9	2.9	2.9	2.9
65°	73.7	39.3	27.5	14.7	7.9	2.9	2.0	2.9	2.9	2.9	2.9
67.5°	57.0	32.4	20.6	12.8	6.9	2.0	2.0	2.9	2.9	2.9	2.9
70°	45.2	27.5	16.7	10.8	5.9	2.0	2.0	2.9	2.9	2.9	2.9
72.5°	35.4	19.7	11.8	5.9	3.9	2.0	2.0	2.9	2.9	2.9	2.9
75°	26.5	15.7	8.8	4.9	2.0	2.0	2.0	2.9	2.9	2.9	2.9
77.5°	17.7	9.8	6.9	3.9	3.9	3.9	4.9	4.9	2.9	2.9	2.9
80°	11.8	6.9	4.9	4.9	4.9	3.9	4.9	4.9	2.9	4.9	2.9
82.5°	5.9	4.9	4.9	3.9	3.9	2.9	3.9	3.9	3.9	3.9	2.9
85°	3.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.9	3.9	2.9
87.5°	2.0	2.0	2.0	2.0	2.9	2.9	2.9	2.9	3.9	3.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3297.3	3300.3	3292.4	3334.7	3313.0	3315.0	3323.9	3301.3	3306.2	3290.4	3279.6
5°	3655.0	3660.9	3666.8	3668.7	3672.6	3677.6	3671.7	3668.7	3662.8	3643.2	3622.5
7.5°	3599.0	3592.1	3589.1	3593.1	3599.9	3602.9	3598.0	3604.9	3630.4	3641.2	3648.1
10°	3304.2	3272.8	3294.4	3291.4	3266.9	3349.4	3326.8	3339.6	3348.4	3438.8	3493.8
12.5°	3163.7	3183.4	3146.0	3127.3	3151.9	3168.6	3185.3	3149.9	3199.1	3176.5	3249.2
15°	3045.8	3034.0	3030.1	3031.1	3026.2	3049.7	3055.6	3063.5	3070.4	3100.8	3112.6
17.5°	2992.7	3012.4	3020.3	3026.2	3016.3	3005.5	2994.7	2979.0	2983.9	2976.0	2998.6
20°	2453.3	2387.5	2383.6	2421.9	2379.7	2403.2	2460.2	2841.4	2828.7	2977.0	2926.9
22.5°	2047.6	1985.7	1932.6	1886.4	1952.3	1979.8	2085.9	2205.7	2400.3	2369.8	2581.1
25°	1672.2	1649.6	1635.9	1629.0	1633.9	1632.0	1655.5	1711.5	1800.0	2008.3	2277.5
27.5°	1564.2	1553.4	1548.4	1532.7	1544.5	1540.6	1559.3	1571.0	1597.6	1618.2	1705.6
30°	1478.7	1465.9	1457.1	1440.4	1452.2	1453.1	1459.0	1489.5	1500.3	1518.0	1545.5
32.5°	540.4	318.3	298.7	283.9	310.5	404.8	710.4	1241.9	1416.8	1430.5	1462.0
35°	53.1	44.2	39.3	39.3	40.3	44.2	59.0	155.2	283.9	1097.5	1373.6
37.5°	20.6	17.7	14.7	13.8	14.7	16.7	22.6	29.5	40.3	83.5	372.4
40°	8.8	7.9	6.9	6.9	6.9	6.9	7.9	9.8	14.7	27.5	43.2
42.5°	5.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	6.9	8.8	17.7
45°	3.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.9	4.9	7.9
47.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.9
50°	2.9	2.9	2.9	2.9	2.0	2.9	2.0	2.9	2.9	2.9	2.9
52.5°	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9	2.9
55°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9
57.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
60°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
62.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9	2.9	2.0
65°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9	2.0
67.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
70°	2.9	2.9	2.0	2.9	2.0	2.0	2.9	2.9	2.9	2.0	2.0
72.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	5.9	5.9	3.9
75°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.9	5.9	4.9
77.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.9	4.9	4.9
80°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.9	3.9	3.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.9	3.9	3.9
85°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3261.0	3260.0	3280.6	3296.3	3290.4	3296.3	3303.2	3304.2	3306.2	3298.3	3295.4
5°	3583.2	3552.8	3493.8	3451.6	3402.5	3313.0	3268.8	3273.7	3274.7	3271.8	3275.7
7.5°	3645.1	3642.2	3621.6	3612.7	3579.3	3515.4	3413.3	3395.6	3352.3	3324.8	3302.2
10°	3489.9	3560.6	3579.3	3610.7	3630.4	3618.6	3532.1	3519.4	3491.9	3460.4	3467.3
12.5°	3321.9	3379.9	3382.8	3553.8	3592.1	3596.0	3562.6	3580.3	3584.2	3513.5	3472.2
15°	3115.6	3143.1	3201.0	3360.2	3476.1	3548.8	3570.5	3580.3	3532.1	3529.2	3512.5
17.5°	3025.2	3042.9	3069.4	3158.8	3334.7	3441.8	3533.1	3526.3	3544.9	3531.2	3488.9
20°	2911.2	2925.9	2973.1	3018.3	3104.8	3247.2	3418.2	3430.9	3455.5	3452.6	3464.4
22.5°	2909.2	2857.2	2865.0	2900.4	2990.8	3118.5	3300.3	3342.5	3358.2	3369.0	3381.8
25°	2307.9	2721.6	2797.2	2819.8	2878.8	2953.4	3167.6	3183.4	3212.8	3261.0	3296.3
27.5°	1999.4	2280.4	2583.0	2740.2	2777.6	2839.5	2967.2	2990.8	3091.0	3102.8	3157.8
30°	1577.9	1795.1	2247.0	2625.3	2687.2	2730.4	2820.8	2868.0	2911.2	2958.4	3016.3
32.5°	1484.6	1519.0	1769.5	2172.3	2653.8	2621.4	2688.2	2716.7	2763.8	2805.1	2847.3
35°	1399.1	1422.7	1475.7	1779.3	2161.5	2531.9	2577.1	2595.8	2622.3	2653.8	2684.2
37.5°	1309.7	1345.1	1381.4	1463.0	1999.4	2461.2	2460.2	2481.8	2497.6	2524.1	2549.6
40°	237.8	1235.0	1294.0	1347.0	1550.4	1963.1	2350.2	2360.0	2370.8	2387.5	2414.0
42.5°	38.3	206.3	1212.4	1263.5	1321.5	1757.7	2300.1	2259.8	2252.9	2264.7	2288.3
45°	19.7	50.1	243.7	1180.0	1232.1	1402.1	1880.5	2190.0	2183.2	2160.6	2165.5
47.5°	14.7	31.4	59.9	407.7	1153.5	1203.6	1735.1	1716.5	1847.1	2097.7	2059.4
50°	12.8	21.6	35.4	83.5	1018.9	1108.3	1336.2	1561.2	1630.0	1638.8	1939.5
52.5°	11.8	14.7	25.5	54.0	214.2	1024.8	1086.7	1165.3	1281.2	1529.8	1523.9
55°	10.8	13.8	21.6	36.4	74.7	923.6	987.4	1002.2	1026.7	1145.6	1302.8
57.5°	5.9	12.8	20.6	31.4	56.0	169.0	896.1	907.8	927.5	932.4	988.4
60°	2.9	11.8	18.7	27.5	41.3	78.6	805.7	819.4	831.2	833.2	850.9
62.5°	2.0	10.8	15.7	25.5	34.4	56.0	190.6	389.1	739.8	739.8	760.5
65°	2.0	7.9	9.8	16.7	31.4	46.2	80.6	93.3	181.8	447.0	667.1
67.5°	2.0	2.9	8.8	13.8	23.6	35.4	59.0	68.8	82.5	94.3	174.9
70°	2.0	2.0	7.9	8.8	14.7	26.5	42.2	48.1	56.0	63.9	73.7
72.5°	2.0	2.0	6.9	6.9	9.8	17.7	32.4	35.4	40.3	45.2	52.1
75°	4.9	3.9	5.9	5.9	6.9	13.8	24.6	27.5	29.5	33.4	38.3
77.5°	4.9	4.9	4.9	4.9	4.9	8.8	15.7	17.7	20.6	22.6	26.5
80°	3.9	3.9	3.9	4.9	4.9	5.9	9.8	10.8	11.8	14.7	15.7
82.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.9	6.9	8.8
85°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.9	3.9	3.9	3.9
87.5°	2.9	2.9	2.9	2.0	2.0	2.9	2.9	2.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3294.4	3288.5	3283.6	3286.5	3277.7	3273.7	3276.7	3277.7	3279.6	3284.6	3285.5
5°	3285.5	3283.6	3292.4	3297.3	3295.4	3297.3	3297.3	3293.4	3287.5	3291.4	3282.6
7.5°	3279.6	3266.9	3257.0	3259.0	3249.2	3261.0	3271.8	3287.5	3292.4	3292.4	3282.6
10°	3380.8	3367.1	3312.1	3274.7	3250.2	3228.5	3279.6	3227.6	3252.1	3158.8	3265.9
12.5°	3464.4	3483.0	3458.5	3356.3	3338.6	3273.7	3311.1	3247.2	3228.5	3121.5	3155.8
15°	3497.8	3462.4	3454.5	3426.0	3387.7	3369.0	3268.8	3258.0	3227.6	3239.4	3194.2
17.5°	3468.3	3486.0	3462.4	3443.7	3404.4	3360.2	3300.3	3247.2	3205.0	3110.6	3190.2
20°	3439.8	3463.4	3392.6	3404.4	3408.3	3357.3	3325.8	3281.6	3228.5	3140.1	3071.3
22.5°	3392.6	3375.9	3381.8	3364.1	3349.4	3356.3	3313.0	3282.6	3193.2	3152.9	3059.6
25°	3316.0	3310.1	3325.8	3323.9	3288.5	3276.7	3255.1	3222.7	3187.3	3122.4	3045.8
27.5°	3191.2	3221.7	3249.2	3262.0	3243.3	3211.8	3200.1	3181.4	3156.8	3091.0	3034.0
30°	3059.6	3093.9	3125.4	3152.9	3169.6	3155.8	3145.0	3134.2	3096.9	3053.7	2989.8
32.5°	2909.2	2954.4	2997.7	3031.1	3067.4	3078.2	3070.4	3061.5	3030.1	2990.8	2939.7
35°	2735.3	2797.2	2860.1	2920.0	2935.8	2961.3	2986.8	2972.1	2955.4	2916.1	2868.9
37.5°	2587.9	2632.2	2677.4	2753.0	2808.0	2840.5	2885.7	2891.5	2863.1	2844.4	2782.5
40°	2435.7	2475.9	2541.8	2586.0	2661.6	2699.0	2747.1	2768.7	2761.9	2751.0	2697.0
42.5°	2315.8	2335.4	2378.7	2418.0	2492.6	2569.3	2611.5	2635.1	2659.7	2650.8	2623.3
45°	2188.1	2205.7	2220.5	2254.9	2327.6	2395.4	2447.4	2482.8	2527.0	2547.7	2514.3
47.5°	2061.3	2066.2	2083.9	2112.4	2155.6	2207.7	2295.2	2348.2	2389.5	2429.8	2408.1
50°	1964.1	1946.4	1949.3	1967.0	2002.4	2053.5	2116.3	2191.0	2238.2	2287.3	2292.2
52.5°	1716.5	1859.9	1825.5	1835.3	1854.0	1878.6	1944.4	2018.1	2076.1	2118.3	2160.6
55°	1440.4	1468.9	1744.9	1705.6	1717.4	1739.1	1769.5	1843.2	1899.2	1958.2	2017.1
57.5°	1117.1	1329.3	1340.2	1595.6	1589.7	1591.7	1617.2	1659.5	1715.5	1789.2	1839.3
60°	868.5	958.0	1131.9	1220.3	1444.3	1452.2	1466.9	1491.5	1539.6	1609.4	1688.9
62.5°	766.4	778.2	840.1	972.7	1118.1	1294.0	1325.4	1329.3	1351.0	1420.7	1513.1
65°	673.0	680.9	699.6	713.3	835.1	1005.1	1156.4	1181.0	1194.7	1236.0	1314.6
67.5°	463.7	586.6	603.3	613.1	624.9	703.5	891.1	1015.9	1031.6	1068.0	1136.8
70°	89.4	185.7	508.0	518.8	524.7	542.3	572.8	771.3	875.4	909.8	941.3
72.5°	60.9	71.7	86.5	204.4	432.3	442.1	449.0	474.6	650.4	750.6	767.3
75°	44.2	49.1	58.0	71.7	88.4	287.9	356.7	369.4	382.2	527.6	612.1
77.5°	31.4	35.4	39.3	46.2	54.0	69.8	100.2	276.1	288.9	295.7	417.6
80°	17.7	21.6	26.5	30.5	34.4	39.3	51.1	63.9	142.5	208.3	219.1
82.5°	9.8	11.8	13.8	16.7	18.7	23.6	28.5	34.4	45.2	66.8	141.5
85°	4.9	4.9	4.9	6.9	7.9	10.8	12.8	14.7	20.6	28.5	39.3
87.5°	2.9	2.9	3.9	3.9	3.9	4.9	4.9	4.9	5.9	8.8	12.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	3273.7	3273.7	3273.7	3273.7	3273.7
2.5°	3286.5	3283.6	3283.6	3295.4	3292.4
5°	3280.6	3277.7	3276.7	3289.5	3283.6
7.5°	3275.7	3264.9	3262.0	3273.7	3268.8
10°	3256.1	3248.2	3253.1	3249.2	3247.2
12.5°	3222.7	3217.7	3197.1	3199.1	3215.8
15°	3162.7	3182.4	3147.0	3178.4	3185.3
17.5°	3052.7	3096.9	3131.3	3149.9	3152.9
20°	3101.8	3116.5	3098.9	3099.8	3111.6
22.5°	3037.9	3044.8	3049.7	3043.8	3069.4
25°	2935.8	2909.2	2966.2	2978.0	3019.3
27.5°	2904.3	2882.7	2909.2	2907.3	2941.7
30°	2878.8	2809.0	2820.8	2839.5	2881.7
32.5°	2842.4	2732.4	2720.6	2761.9	2809.0
35°	2778.6	2674.4	2646.9	2673.4	2744.2
37.5°	2724.5	2593.8	2538.8	2574.2	2666.5
40°	2644.0	2531.0	2445.5	2476.9	2586.0
42.5°	2547.7	2476.9	2345.3	2366.9	2491.7
45°	2450.4	2387.5	2248.0	2258.8	2407.2
47.5°	2351.2	2293.2	2146.8	2148.8	2299.1
50°	2253.9	2177.3	2056.4	2022.0	2184.1
52.5°	2127.1	2056.4	1965.0	1909.0	2075.1
55°	2007.3	1927.7	1860.9	1774.4	1951.3
57.5°	1890.4	1801.9	1756.7	1645.7	1810.8
60°	1730.2	1688.0	1621.2	1515.0	1684.0
62.5°	1566.1	1552.4	1484.6	1374.5	1527.8
65°	1374.5	1407.0	1337.2	1242.9	1365.7
67.5°	1193.8	1251.7	1175.1	1117.1	1209.5
70°	1001.2	1068.0	1024.8	1004.1	1043.4
72.5°	811.6	876.4	880.3	865.6	878.4
75°	626.8	698.6	737.9	715.3	718.2
77.5°	475.5	509.9	553.2	570.8	566.9
80°	293.8	353.7	389.1	425.4	412.7
82.5°	148.4	198.5	241.7	281.0	262.3
85°	61.9	79.6	111.0	146.4	140.5
87.5°	18.7	31.4	33.4	47.2	44.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)