

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-LD5-61HL-RM-UNV-L930-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-LD5-61HL-RM-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

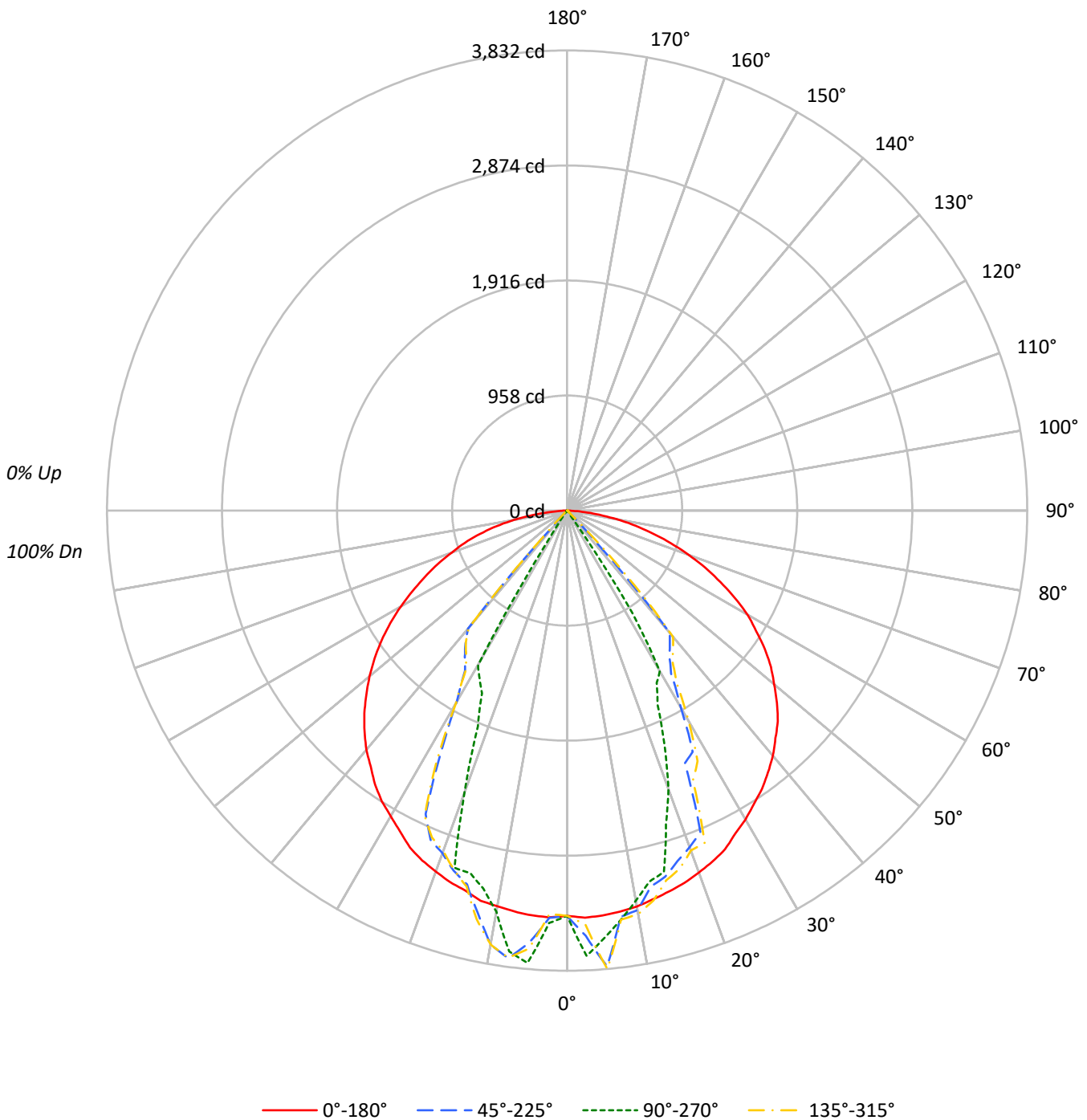
Lumens per Lamp: N/A
Luminaire Lumens: 4798.0 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 48
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°	27268	27268	27268	27268
5°	27379	28045	27371	29699
10°	27314	25377	27297	26110
15°	27239	23687	27172	23749
20°	27271	18657	27193	18887
25°	27349	13502	27216	12741
30°	27224	11844	26937	11386
35°	27306	261	26904	316
40°	27399	57	26743	57
45°	27495	34	26463	25
50°	27286	26	26033	26
55°	27125	18	25459	18
60°	26614	20	24533	20
65°	25227	32	23429	21
70°	23402	35	22277	35
75°	20700	39	21038	39
80°	16812	45	17773	45
85°	9892	53	10104	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	338.5	7.1
10°-20°	923.4	19.2
20°-30°	1175.0	24.5
30°-40°	992.6	20.7
40°-50°	648.9	13.5
50°-60°	408.9	8.5
60°-70°	217.6	4.5
70°-80°	79.3	1.7
80°-90°	13.6	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°	2437.0	50.8
0°-40°	3429.5	71.5
0°-60°	4487.3	93.5
0°-90°	4798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4798.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3374	3374	3374	3374	3374	
5°	3384	3571	3383	3781	3384	322
15°	3283	3116	3275	3124	3283	928
25°	3112	1779	3097	1679	3112	1431
35°	2828	33	2787	40	2828	1769
45°	2481	4	2388	3	2481	1908
55°	2011	2	1888	2	2011	1792
65°	1408	3	1307	2	1408	1394
75°	740	3	752	3	740	786
85°	145	3	148	3	145	183
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°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3393.6	3395.6	3396.6	3398.6	3401.7	3402.7	3404.7	3402.7	3402.7	3402.7	3402.7
5°	3384.4	3388.5	3391.5	3395.6	3402.7	3403.7	3411.8	3412.8	3416.8	3424.9	3431.0
7.5°	3369.2	3373.3	3379.4	3389.5	3399.6	3410.8	3424.9	3440.1	3461.4	3481.7	3507.0
10°	3347.0	3352.0	3359.1	3368.2	3417.9	3424.9	3456.3	3499.9	3512.0	3575.8	3623.4
12.5°	3314.6	3331.8	3350.0	3358.1	3405.7	3480.6	3586.0	3564.7	3541.4	3750.0	3747.0
15°	3283.2	3306.5	3297.3	3363.2	3406.7	3537.4	3492.8	3588.0	3762.2	3719.6	3721.7
17.5°	3249.8	3254.8	3305.4	3360.1	3438.1	3505.0	3559.6	3690.3	3724.7	3727.7	3690.3
20°	3207.2	3231.5	3305.4	3355.1	3486.7	3518.1	3636.6	3703.4	3689.3	3654.8	3591.0
22.5°	3163.7	3237.6	3312.5	3382.4	3474.6	3558.6	3617.4	3648.8	3574.8	3439.1	3366.2
25°	3112.0	3155.6	3253.8	3356.1	3471.5	3520.1	3554.6	3503.9	3407.7	3286.2	3163.7
27.5°	3032.0	3101.9	3227.5	3342.9	3447.2	3506.0	3450.3	3328.7	3173.8	3093.8	3038.1
30°	2970.2	3061.4	3164.7	3276.1	3384.4	3418.9	3277.1	3138.4	3032.0	2952.0	2939.9
32.5°	2895.3	3024.9	3123.2	3229.5	3320.6	3275.1	3137.3	2958.1	2870.0	2839.6	2851.8
35°	2828.5	2926.7	3055.3	3159.6	3225.4	3123.2	2905.4	2794.0	2751.5	2768.7	2746.4
37.5°	2748.5	2878.1	2996.6	3086.7	3064.4	2910.5	2726.2	2655.3	2660.4	2646.2	2603.6
40°	2665.4	2789.0	2912.5	2997.6	2919.6	2684.7	2562.1	2546.9	2550.0	2504.4	2443.6
42.5°	2568.2	2680.6	2804.2	2881.1	2713.0	2529.7	2446.7	2448.7	2422.4	2358.6	2326.2
45°	2481.1	2584.4	2713.0	2720.1	2513.5	2360.6	2336.3	2310.0	2251.2	2230.0	2205.7
47.5°	2369.7	2484.2	2590.5	2552.0	2318.1	2222.9	2204.6	2146.9	2117.6	2101.4	2081.1
50°	2251.2	2366.7	2463.9	2354.5	2133.8	2111.5	2051.7	2006.2	1985.9	1968.7	1950.5
52.5°	2138.8	2234.0	2333.3	2144.9	1992.0	1970.7	1902.9	1876.5	1856.3	1837.0	1833.0
55°	2011.2	2095.3	2163.1	1945.4	1856.3	1806.7	1758.0	1739.8	1720.6	1711.5	1726.7
57.5°	1866.4	1961.6	1951.5	1748.9	1709.4	1637.5	1619.3	1607.2	1593.0	1599.1	1472.5
60°	1735.8	1808.7	1759.1	1605.1	1538.3	1489.7	1473.5	1465.4	1473.5	1349.9	1186.9
62.5°	1574.7	1656.8	1556.5	1437.0	1366.1	1342.8	1328.7	1339.8	1221.3	1085.6	1046.1
65°	1407.7	1496.8	1348.9	1256.8	1212.2	1191.9	1190.9	1096.8	980.3	927.6	927.6
67.5°	1246.6	1338.8	1148.4	1071.4	1054.2	1056.2	997.5	854.7	822.3	786.9	684.6
70°	1075.5	1156.5	948.9	902.3	892.2	885.1	742.3	703.8	665.3	571.2	563.1
72.5°	905.4	944.8	762.6	751.4	749.4	622.8	594.5	528.6	484.1	472.9	467.9
75°	740.3	728.1	602.6	612.7	516.5	471.9	426.3	387.9	381.8	377.7	94.2
77.5°	584.3	523.6	475.0	413.2	369.6	313.9	304.8	298.7	196.5	70.9	57.7
80°	425.3	339.3	316.0	268.4	228.9	219.8	224.8	68.9	54.7	45.6	39.5
82.5°	270.4	216.7	177.2	154.9	150.9	65.8	48.6	39.5	34.4	29.4	24.3
85°	144.8	96.2	89.1	74.9	44.6	30.4	25.3	19.2	16.2	13.2	12.2
87.5°	45.6	38.5	31.4	25.3	15.2	10.1	8.1	7.1	6.1	5.1	5.1
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°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3400.6	3402.7	3401.7	3404.7	3404.7	3408.7	3411.8	3414.8	3420.9	3423.9	3447.2
5°	3444.2	3449.3	3464.4	3478.6	3495.8	3500.9	3530.3	3537.4	3571.8	3575.8	3689.3
7.5°	3541.4	3560.6	3597.1	3633.6	3670.0	3693.3	3733.8	3759.1	3786.5	3810.8	3900.9
10°	3658.9	3691.3	3726.7	3763.2	3784.5	3829.0	3853.3	3857.4	3850.3	3810.8	3665.0
12.5°	3774.3	3806.7	3791.5	3798.6	3824.0	3745.0	3756.1	3699.4	3738.9	3543.4	3398.6
15°	3758.1	3756.1	3718.6	3597.1	3617.4	3466.5	3405.7	3359.1	3396.6	3376.3	3354.1
17.5°	3709.5	3617.4	3552.5	3406.7	3344.9	3302.4	3303.4	3304.4	3286.2	3305.4	3248.7
20°	3503.9	3400.6	3304.4	3252.8	3234.6	3204.2	3219.4	3204.2	3205.2	3211.3	3124.2
22.5°	3230.5	3199.1	3143.4	3159.6	3153.5	3180.9	3160.6	3129.2	3139.4	3093.8	3028.0
25°	3120.1	3083.7	3081.6	3087.7	3078.6	3066.5	3048.2	3000.6	2997.6	2983.4	2953.0
27.5°	3008.7	3010.8	3016.8	2998.6	2966.2	2941.9	2914.5	2891.3	2900.4	2884.2	2842.6
30°	2931.8	2930.8	2894.3	2878.1	2818.3	2819.4	2812.3	2798.1	2789.0	2790.0	2763.7
32.5°	2822.4	2791.0	2749.5	2729.2	2724.2	2705.9	2691.8	2694.8	2701.9	2676.6	2703.9
35°	2710.0	2645.2	2639.1	2621.9	2605.7	2593.5	2598.6	2578.3	2577.3	2574.3	2351.5
37.5°	2559.1	2527.7	2524.7	2506.4	2495.3	2492.3	2473.0	2476.0	2485.2	2501.4	2005.1
40°	2434.5	2406.2	2399.1	2398.1	2373.8	2371.7	2376.8	2396.0	2409.2	2307.9	1911.0
42.5°	2300.9	2302.9	2280.6	2266.4	2269.5	2278.6	2302.9	2236.0	1937.3	1846.1	1746.9
45°	2186.4	2176.3	2164.1	2160.1	2186.4	2168.2	1900.8	1754.0	1718.5	1714.5	1436.0
47.5°	2066.9	2063.9	2058.8	2061.9	1912.0	1704.4	1643.6	1624.4	1630.4	1626.4	1233.5
50°	1946.4	1950.5	1950.5	1703.4	1563.6	1529.2	1534.2	1551.5	1444.1	1347.9	1149.4
52.5°	1842.1	1810.7	1551.5	1462.3	1430.9	1446.1	1409.7	1275.0	1177.8	1121.1	1063.3
55°	1648.7	1417.8	1360.1	1345.9	1357.0	1222.3	1139.3	1052.2	1026.9	1020.8	987.4
57.5°	1297.3	1250.7	1255.7	1199.0	1070.4	994.5	961.1	948.9	937.8	929.7	81.0
60°	1147.4	1160.6	1062.3	940.8	889.1	879.0	870.9	859.8	857.8	843.6	51.6
62.5°	1050.2	923.6	838.5	808.1	796.0	792.9	777.8	772.7	656.2	90.1	38.5
65°	791.9	740.3	724.1	717.0	703.8	703.8	584.3	92.2	74.9	64.8	34.4
67.5°	646.1	642.1	633.9	624.8	425.3	89.1	78.0	67.9	58.7	51.6	30.4
70°	546.9	544.8	496.2	91.1	76.0	66.8	58.7	52.7	48.6	43.5	27.3
72.5°	448.6	91.1	77.0	66.8	57.7	52.7	47.6	42.5	38.5	35.4	22.3
75°	69.9	61.8	54.7	49.6	45.6	40.5	36.5	33.4	32.4	28.4	15.2
77.5°	50.6	43.5	39.5	35.4	31.4	28.4	24.3	21.3	19.2	16.2	11.1
80°	35.4	31.4	28.4	23.3	20.3	17.2	15.2	13.2	12.2	10.1	5.1
82.5°	20.3	17.2	15.2	12.2	11.1	9.1	8.1	7.1	7.1	5.1	5.1
85°	9.1	9.1	7.1	6.1	5.1	5.1	5.1	4.1	4.1	3.0	3.0
87.5°	4.1	4.1	4.1	4.1	4.1	3.0	3.0	3.0	3.0	3.0	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



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CANDELA DISTRIBUTION (continued):

	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
0°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3479.6	3492.8	3518.1	3544.4	3515.1	3620.4	3612.3	3647.7	3667.0	3676.1	3697.4
5°	3789.5	3848.3	3867.5	3809.8	3776.4	3741.9	3663.9	3605.2	3612.3	3593.1	3523.2
7.5°	3783.4	3657.9	3488.7	3411.8	3405.7	3396.6	3420.9	3435.1	3437.1	3436.1	3434.1
10°	3463.4	3398.6	3387.5	3377.4	3381.4	3343.9	3326.7	3278.1	3304.4	3290.3	3295.3
12.5°	3366.2	3351.0	3291.3	3208.2	3257.9	3220.4	3199.1	3213.3	3197.1	3181.9	3176.8
15°	3308.5	3210.3	3176.8	3156.6	3142.4	3134.3	3141.4	3125.2	3120.1	3117.1	3124.2
17.5°	3189.0	3149.5	3113.0	3059.4	3060.4	3057.3	3077.6	3108.0	3110.0	2954.0	2813.3
20°	3094.8	3062.4	3015.8	2982.4	3028.0	2947.0	2634.0	2485.2	2461.9	2461.9	2465.9
22.5°	3019.9	2948.0	2951.0	2898.3	2472.0	2384.9	2386.9	2396.0	2354.5	2212.7	2197.6
25°	2917.6	2906.4	2684.7	2320.1	2323.1	2255.3	2151.0	2004.1	1845.1	1845.1	1818.8
27.5°	2840.6	2604.7	2280.6	2265.4	2037.6	1893.7	1804.6	1669.9	1651.7	1634.5	1636.5
30°	2774.8	2203.6	2211.7	1893.7	1725.6	1606.1	1599.1	1576.8	1565.6	1562.6	1551.5
32.5°	2193.5	2145.9	1851.2	1612.2	1546.4	1527.1	1518.0	1492.7	1491.7	1472.5	1338.8
35°	2056.8	1883.6	1549.4	1484.6	1465.4	1447.1	1432.0	961.1	113.4	45.6	39.5
37.5°	1900.8	1573.7	1433.0	1403.6	1385.4	1023.8	102.3	35.4	25.3	18.2	16.2
40°	1611.2	1405.6	1361.1	1328.7	547.9	35.4	22.3	17.2	10.1	9.1	8.1
42.5°	1359.0	1324.6	1277.0	388.9	40.5	17.2	11.1	8.1	7.1	7.1	6.1
45°	1271.9	1241.6	514.5	38.5	25.3	8.1	7.1	7.1	6.1	4.1	4.1
47.5°	1190.9	1048.1	46.6	24.3	16.2	7.1	6.1	4.1	4.1	4.1	3.0
50°	1104.9	57.7	32.4	18.2	10.1	4.1	4.1	4.1	4.1	3.0	3.0
52.5°	206.6	40.5	26.3	16.2	5.1	4.1	4.1	4.1	3.0	3.0	3.0
55°	48.6	32.4	24.3	14.2	4.1	4.1	4.1	3.0	3.0	3.0	2.0
57.5°	36.5	24.3	19.2	13.2	4.1	3.0	3.0	3.0	3.0	3.0	2.0
60°	30.4	17.2	15.2	12.2	3.0	3.0	3.0	3.0	3.0	3.0	2.0
62.5°	21.3	14.2	11.1	9.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
65°	17.2	11.1	9.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
67.5°	15.2	9.1	6.1	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
70°	12.2	3.0	3.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
72.5°	10.1	3.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
75°	10.1	5.1	2.0	2.0	3.0	3.0	4.1	4.1	3.0	3.0	3.0
77.5°	7.1	5.1	2.0	2.0	3.0	3.0	4.1	4.1	3.0	3.0	3.0
80°	4.1	5.1	2.0	3.0	3.0	6.1	7.1	4.1	3.0	3.0	3.0
82.5°	4.1	5.1	6.1	6.1	3.0	5.1	6.1	5.1	4.1	3.0	3.0
85°	4.1	3.0	4.1	5.1	3.0	5.1	5.1	4.1	4.1	3.0	3.0
87.5°	2.0	3.0	3.0	4.1	4.1	4.1	5.1	4.1	4.1	4.1	3.0
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-LD5-61HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3707.5	3711.5	3647.7	3625.5	3644.7	3640.7	3623.4	3559.6	3552.5	3510.0	3448.2
5°	3543.4	3570.8	3537.4	3595.1	3567.7	3595.1	3678.1	3716.6	3779.4	3817.9	3832.1
7.5°	3429.0	3435.1	3435.1	3440.1	3445.2	3446.2	3440.1	3436.1	3418.9	3397.6	3436.1
10°	3290.3	3297.3	3309.5	3307.5	3306.5	3327.7	3332.8	3376.3	3374.3	3382.4	3411.8
12.5°	3218.4	3163.7	3213.3	3200.1	3218.4	3190.0	3242.7	3233.5	3236.6	3260.9	3323.7
15°	3098.9	3116.1	3128.2	3128.2	3135.3	3129.2	3123.2	3164.7	3190.0	3191.0	3187.0
17.5°	2869.0	2738.3	2872.0	2837.6	3112.0	3119.1	3095.8	3076.6	3076.6	3091.8	3124.2
20°	2462.9	2465.9	2466.9	2480.1	2496.3	2495.3	2496.3	2895.3	3084.7	3041.1	3011.8
22.5°	2159.1	2121.6	2191.5	2186.4	2273.5	2369.7	2461.9	2452.8	2458.8	2740.4	2993.5
25°	1730.7	1779.3	1739.8	1757.0	1855.3	1969.7	2040.6	2225.9	2427.4	2413.3	2479.1
27.5°	1629.4	1616.3	1634.5	1634.5	1647.7	1662.9	1702.3	1806.7	1985.9	2174.3	2352.5
30°	1533.2	1544.4	1546.4	1564.6	1574.7	1584.9	1590.9	1630.4	1671.0	1801.6	2021.3
32.5°	1151.4	1009.7	1328.7	1414.7	1487.7	1504.9	1517.0	1533.2	1562.6	1581.8	1692.2
35°	33.4	33.4	35.4	40.5	51.6	348.4	1326.6	1462.3	1481.6	1505.9	1526.1
37.5°	16.2	12.2	14.2	15.2	18.2	25.3	36.5	113.4	1262.8	1427.9	1450.2
40°	7.1	7.1	7.1	7.1	8.1	10.1	15.2	25.3	38.5	1015.7	1370.2
42.5°	6.1	6.1	6.1	6.1	6.1	6.1	7.1	9.1	18.2	43.5	719.0
45°	4.1	4.1	3.0	4.1	4.1	5.1	6.1	6.1	8.1	27.3	49.6
47.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.1	6.1	18.2	26.3
50°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	14.2	18.2
52.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6.1	16.2
55°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	4.1	14.2
57.5°	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	3.0	3.0	13.2
60°	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	12.2
62.5°	3.0	3.0	2.0	3.0	2.0	2.0	3.0	3.0	3.0	3.0	8.1
65°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	3.0
67.5°	3.0	3.0	3.0	3.0	2.0	3.0	2.0	3.0	3.0	2.0	2.0
70°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0
72.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0
75°	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	2.0	2.0	2.0
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	5.1	6.1	5.1	5.1	2.0
80°	3.0	3.0	3.0	3.0	3.0	3.0	5.1	5.1	5.1	5.1	7.1
82.5°	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.1	4.1	5.1
85°	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.1	3.0	4.1
87.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	3.0	3.0	3.0
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-LD5-61HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3453.3	3418.9	3407.7	3384.4	3382.4	3384.4	3379.4	3372.3	3376.3	3369.2	3363.2
5°	3840.2	3748.0	3688.2	3608.2	3497.9	3473.6	3467.5	3433.0	3420.9	3416.8	3400.6
7.5°	3527.2	3695.3	3796.6	3831.0	3701.4	3671.0	3635.6	3607.2	3579.9	3528.2	3496.8
10°	3388.5	3396.6	3493.8	3607.2	3791.5	3816.9	3836.1	3774.3	3757.1	3625.5	3597.1
12.5°	3356.1	3357.1	3368.2	3437.1	3581.9	3598.1	3666.0	3702.4	3747.0	3772.3	3752.0
15°	3208.2	3290.3	3351.0	3357.1	3370.3	3398.6	3418.9	3545.5	3599.1	3742.9	3734.8
17.5°	3139.4	3165.7	3253.8	3325.7	3313.6	3303.4	3319.6	3336.8	3388.5	3532.3	3530.3
20°	3024.9	3109.0	3156.6	3231.5	3299.4	3302.4	3284.2	3274.1	3253.8	3277.1	3298.4
22.5°	2976.3	2989.5	3078.6	3131.3	3208.2	3235.6	3239.6	3240.6	3229.5	3217.3	3211.3
25°	2971.3	2929.7	2975.3	3041.1	3097.8	3127.2	3160.6	3171.8	3167.7	3167.7	3161.6
27.5°	2431.5	2916.6	2892.3	2935.8	3004.7	3024.9	3042.1	3076.6	3097.8	3113.0	3120.1
30°	2316.0	2403.1	2827.5	2833.5	2903.4	2901.4	2920.6	2949.0	2976.3	3011.8	3020.9
32.5°	2048.7	2262.4	2588.5	2731.2	2804.2	2811.3	2821.4	2829.5	2854.8	2894.3	2928.7
35°	1641.6	2060.8	2217.8	2682.6	2695.8	2710.0	2716.1	2735.3	2743.4	2759.6	2790.0
37.5°	1485.6	1703.4	2127.7	2320.1	2571.2	2583.4	2615.8	2623.9	2637.1	2650.2	2673.5
40°	1395.5	1455.2	1771.2	2072.0	2471.0	2479.1	2490.2	2510.5	2511.5	2526.7	2548.0
42.5°	1323.6	1362.1	1454.2	1978.8	2400.1	2399.1	2372.8	2385.9	2392.0	2408.2	2437.6
45°	1057.3	1278.0	1336.8	1616.3	1911.0	2048.7	2313.0	2269.5	2268.4	2274.5	2305.9
47.5°	53.7	1202.1	1243.6	1333.7	1804.6	1809.7	1844.1	2133.8	2178.3	2164.1	2167.2
50°	36.5	83.0	1158.5	1200.0	1555.5	1681.1	1706.4	1719.6	1886.7	2073.0	2042.6
52.5°	28.4	47.6	709.9	1114.0	1263.8	1356.0	1519.0	1612.2	1622.3	1697.3	1951.5
55°	25.3	36.5	77.0	1027.9	1074.5	1094.7	1189.9	1353.0	1484.6	1524.1	1527.1
57.5°	22.3	33.4	52.7	464.8	977.3	981.3	997.5	1054.2	1172.7	1281.1	1403.6
60°	20.3	29.4	41.5	80.0	888.1	898.3	901.3	916.5	930.7	1004.6	1145.4
62.5°	12.2	23.3	36.5	57.7	702.8	807.1	806.1	816.2	829.4	837.5	865.9
65°	10.1	18.2	31.4	48.6	86.1	107.3	652.2	725.1	733.2	744.3	749.4
67.5°	9.1	16.2	23.3	38.5	64.8	73.9	85.1	105.3	575.2	648.1	658.3
70°	8.1	11.1	19.2	32.4	52.7	56.7	63.8	72.9	86.1	106.3	520.5
72.5°	5.1	8.1	13.2	23.3	40.5	45.6	49.6	55.7	61.8	73.9	85.1
75°	2.0	6.1	11.1	17.2	31.4	34.4	37.5	41.5	46.6	54.7	60.8
77.5°	2.0	5.1	9.1	12.2	20.3	23.3	27.3	30.4	34.4	38.5	44.6
80°	7.1	4.1	6.1	9.1	14.2	15.2	17.2	19.2	22.3	25.3	29.4
82.5°	5.1	6.1	7.1	6.1	7.1	9.1	10.1	12.2	13.2	15.2	16.2
85°	4.1	4.1	5.1	5.1	5.1	5.1	5.1	5.1	6.1	7.1	9.1
87.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1
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-LD5-61HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3363.2	3361.1	3355.1	3355.1	3354.1	3358.1	3361.1	3364.2	3363.2	3369.2	3363.2
5°	3388.5	3383.4	3374.3	3366.2	3363.2	3365.2	3362.2	3365.2	3361.1	3366.2	3357.1
7.5°	3458.4	3441.2	3405.7	3391.5	3373.3	3372.3	3363.2	3361.1	3355.1	3355.1	3343.9
10°	3581.9	3498.9	3488.7	3446.2	3431.0	3357.1	3373.3	3346.0	3342.9	3329.8	3324.7
12.5°	3683.2	3618.4	3599.1	3561.7	3519.1	3369.2	3402.7	3343.9	3340.9	3314.6	3287.2
15°	3685.2	3722.7	3670.0	3566.7	3557.6	3454.3	3386.5	3366.2	3339.9	3260.9	3274.1
17.5°	3566.7	3652.8	3678.1	3655.8	3591.0	3521.2	3426.0	3385.5	3306.5	3271.0	3246.7
20°	3374.3	3461.4	3569.8	3576.9	3617.4	3567.7	3443.2	3377.4	3282.2	3220.4	3200.1
22.5°	3221.4	3285.2	3409.8	3467.5	3517.1	3534.3	3455.3	3358.1	3239.6	3179.9	3167.7
25°	3140.4	3154.6	3192.0	3259.9	3369.2	3448.2	3459.4	3356.1	3294.3	3163.7	3094.8
27.5°	3111.0	3098.9	3083.7	3118.1	3200.1	3296.3	3360.1	3377.4	3223.4	3098.9	3030.0
30°	3036.1	3043.2	3019.9	3007.7	3061.4	3160.6	3274.1	3302.4	3183.9	3055.3	2976.3
32.5°	2943.9	2956.1	2960.1	2938.9	2927.7	2996.6	3119.1	3187.0	3180.9	2993.5	2905.4
35°	2828.5	2862.9	2872.0	2873.0	2854.8	2843.7	2914.5	3055.3	3109.0	2965.2	2837.6
37.5°	2706.9	2717.1	2766.7	2779.9	2779.9	2746.4	2799.1	2911.5	2986.4	2901.4	2754.5
40°	2555.0	2587.4	2634.0	2657.3	2680.6	2683.7	2654.3	2733.3	2856.8	2835.6	2676.6
42.5°	2444.7	2465.9	2494.3	2525.7	2573.3	2585.4	2555.0	2569.2	2697.8	2753.5	2575.3
45°	2316.0	2344.4	2352.5	2386.9	2436.6	2472.0	2471.0	2441.6	2544.9	2613.8	2501.4
47.5°	2184.4	2211.7	2225.9	2243.1	2279.6	2325.2	2350.5	2337.3	2357.6	2492.3	2403.1
50°	2048.7	2063.9	2092.2	2111.5	2135.8	2162.1	2222.9	2235.0	2206.7	2314.0	2294.8
52.5°	1920.1	1925.1	1944.4	1963.6	1996.0	2015.3	2063.9	2100.3	2098.3	2129.7	2174.3
55°	1819.8	1797.5	1801.6	1816.8	1838.0	1867.4	1894.8	1951.5	1970.7	1976.8	2047.7
57.5°	1421.8	1650.7	1671.0	1669.9	1695.3	1708.4	1733.7	1771.2	1840.1	1824.9	1903.9
60°	1292.2	1317.5	1508.9	1531.2	1540.3	1552.5	1582.8	1617.3	1667.9	1700.3	1734.8
62.5°	985.4	1139.3	1197.0	1366.1	1392.5	1399.5	1419.8	1436.0	1488.7	1562.6	1548.4
65°	762.6	828.4	1004.6	1073.5	1217.3	1235.5	1263.8	1281.1	1296.3	1381.3	1385.4
67.5°	659.3	669.4	717.0	849.7	940.8	1081.6	1098.8	1114.0	1137.3	1198.0	1235.5
70°	563.1	575.2	588.4	599.5	718.0	811.2	941.8	946.9	962.1	1002.6	1087.6
72.5°	106.3	481.0	489.1	496.2	509.4	571.2	695.7	797.0	803.1	822.3	900.3
75°	71.9	84.1	115.4	397.0	410.1	414.2	435.5	562.0	655.2	659.3	693.7
77.5°	51.6	57.7	69.9	83.0	211.7	318.0	323.1	346.3	442.5	512.4	518.5
80°	35.4	39.5	46.6	52.7	64.8	85.1	234.9	242.0	254.2	350.4	368.6
82.5°	20.3	23.3	27.3	33.4	38.5	48.6	62.8	81.0	165.1	176.2	233.9
85°	10.1	11.1	13.2	16.2	19.2	23.3	31.4	38.5	52.7	95.2	98.2
87.5°	5.1	5.1	5.1	5.1	8.1	9.1	11.1	14.2	18.2	27.3	35.4
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-LD5-61HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3364.2	3378.4	3390.5	3393.6	3393.6	3395.6	3398.6	3400.6	3402.7	3404.7	3402.7
5°	3358.1	3373.3	3383.4	3386.5	3386.5	3392.5	3397.6	3403.7	3406.7	3406.7	3404.7
7.5°	3342.9	3354.1	3367.2	3375.3	3376.3	3386.5	3395.6	3394.6	3398.6	3400.6	3405.7
10°	3322.7	3322.7	3344.9	3351.0	3356.1	3367.2	3370.3	3376.3	3390.5	3392.5	3405.7
12.5°	3312.5	3302.4	3328.7	3331.8	3349.0	3334.8	3353.0	3359.1	3344.9	3364.2	3338.9
15°	3267.0	3279.1	3275.1	3284.2	3314.6	3298.4	3348.0	3331.8	3368.2	3324.7	3401.7
17.5°	3229.5	3227.5	3243.7	3251.8	3257.9	3292.3	3305.4	3323.7	3337.9	3325.7	3356.1
20°	3202.2	3186.0	3198.1	3207.2	3228.5	3254.8	3262.9	3235.6	3283.2	3364.2	3383.4
22.5°	3150.5	3139.4	3153.5	3153.5	3186.0	3181.9	3212.3	3195.1	3239.6	3333.8	3432.0
25°	3080.6	3081.6	3096.8	3115.1	3121.1	3166.7	3182.9	3205.2	3260.9	3373.3	3433.0
27.5°	3009.7	3003.7	3012.8	3050.2	3081.6	3115.1	3120.1	3196.1	3272.0	3349.0	3401.7
30°	2938.9	2932.8	2938.9	2966.2	3003.7	3025.9	3081.6	3182.9	3253.8	3306.5	3356.1
32.5°	2862.9	2856.8	2871.0	2891.3	2957.1	2960.1	3070.5	3165.7	3221.4	3259.9	3250.8
35°	2781.9	2773.8	2786.9	2818.3	2879.1	2901.4	3016.8	3087.7	3150.5	3168.7	3126.2
37.5°	2684.7	2670.5	2686.7	2730.2	2794.0	2858.8	2955.1	3037.1	3070.5	3021.9	2971.3
40°	2583.4	2573.3	2601.6	2623.9	2698.8	2789.0	2899.4	2957.1	2935.8	2880.1	2824.4
42.5°	2493.3	2472.0	2497.3	2539.8	2624.9	2727.2	2816.3	2848.7	2798.1	2716.1	2651.2
45°	2382.9	2357.6	2387.9	2444.7	2535.8	2652.3	2722.1	2711.0	2624.9	2554.0	2464.9
47.5°	2267.4	2237.1	2267.4	2335.3	2437.6	2561.1	2611.8	2561.1	2452.8	2363.6	2291.7
50°	2154.0	2118.6	2147.9	2250.2	2350.5	2445.7	2444.7	2346.4	2281.6	2184.4	2121.6
52.5°	2041.6	1991.0	2020.3	2131.7	2232.0	2340.3	2260.3	2169.2	2091.2	2006.2	1985.9
55°	1902.9	1848.2	1887.7	2049.7	2126.7	2190.5	2062.9	1982.9	1905.9	1863.4	1838.0
57.5°	1771.2	1711.5	1745.9	1937.3	1994.0	2010.2	1892.7	1779.3	1733.7	1719.6	1683.1
60°	1635.5	1567.7	1600.1	1820.8	1860.3	1794.5	1679.1	1590.9	1581.8	1553.5	1525.1
62.5°	1505.9	1430.9	1451.2	1676.0	1694.2	1574.7	1468.4	1445.1	1422.8	1394.5	1379.3
65°	1357.0	1279.0	1307.4	1522.1	1504.9	1350.9	1291.2	1286.1	1256.8	1233.5	1255.7
67.5°	1220.3	1128.1	1167.6	1354.0	1276.0	1150.4	1126.1	1114.0	1090.7	1103.8	869.9
70°	1070.4	970.2	1023.8	1172.7	1057.3	974.2	965.1	946.9	947.9	753.4	635.0
72.5°	903.3	816.2	894.2	974.2	836.5	812.2	799.0	797.0	643.1	522.6	493.2
75°	756.5	668.4	752.4	782.8	666.4	650.2	649.1	536.7	422.3	403.1	393.9
77.5°	590.4	522.6	602.6	557.0	511.4	493.2	442.5	332.2	318.0	304.8	114.4
80°	398.0	403.1	449.6	383.8	364.6	310.9	245.1	234.9	202.5	81.0	63.8
82.5°	242.0	303.8	286.6	240.0	234.9	169.1	154.9	79.0	58.7	46.6	40.5
85°	125.6	153.9	147.9	130.6	97.2	87.1	48.6	37.5	30.4	23.3	19.2
87.5°	42.5	56.7	54.7	43.5	33.4	26.3	17.2	14.2	10.1	8.1	7.1
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-LD5-61HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3400.6	3400.6	3398.6	3400.6	3401.7	3399.6	3399.6	3401.7	3402.7	3403.7	3408.7
5°	3405.7	3407.7	3410.8	3416.8	3417.9	3430.0	3435.1	3438.1	3441.2	3442.2	3435.1
7.5°	3416.8	3423.9	3430.0	3429.0	3421.9	3402.7	3396.6	3391.5	3400.6	3423.9	3451.3
10°	3427.0	3394.6	3333.8	3416.8	3391.5	3414.8	3483.7	3498.9	3545.5	3611.3	3630.5
12.5°	3357.1	3446.2	3465.5	3372.3	3544.4	3480.6	3556.6	3623.4	3642.7	3709.5	3669.0
15°	3432.0	3475.6	3505.0	3598.1	3588.0	3642.7	3663.9	3650.8	3653.8	3671.0	3716.6
17.5°	3431.0	3518.1	3537.4	3600.1	3642.7	3643.7	3637.6	3631.5	3647.7	3660.9	3633.6
20°	3489.8	3518.1	3555.6	3580.9	3589.0	3599.1	3618.4	3603.2	3572.8	3543.4	3531.3
22.5°	3460.4	3524.2	3556.6	3560.6	3555.6	3524.2	3495.8	3453.3	3439.1	3423.9	3429.0
25°	3466.5	3495.8	3491.8	3475.6	3454.3	3395.6	3381.4	3363.2	3335.8	3270.0	3210.3
27.5°	3422.9	3407.7	3389.5	3350.0	3311.5	3280.1	3244.7	3186.0	3137.3	3066.5	3040.1
30°	3350.0	3289.2	3244.7	3221.4	3183.9	3131.3	3077.6	3005.7	2943.9	2929.7	2916.6
32.5°	3210.3	3150.5	3114.0	3057.3	2993.5	2930.8	2869.0	2840.6	2827.5	2829.5	2817.3
35°	3067.5	3014.8	2960.1	2875.1	2827.5	2764.7	2742.4	2736.3	2724.2	2711.0	2696.8
37.5°	2915.6	2853.8	2771.8	2721.1	2673.5	2648.2	2637.1	2628.0	2606.7	2583.4	2567.2
40°	2768.7	2657.3	2611.8	2562.1	2548.0	2536.8	2520.6	2498.3	2469.0	2464.9	2457.8
42.5°	2572.3	2492.3	2452.8	2442.6	2425.4	2406.2	2392.0	2367.7	2355.5	2363.6	2369.7
45°	2385.9	2345.4	2332.2	2320.1	2287.7	2260.3	2251.2	2243.1	2253.3	2297.8	2191.5
47.5°	2235.0	2218.8	2202.6	2182.4	2152.0	2131.7	2140.8	2148.9	2158.1	1831.0	1671.0
50°	2104.4	2082.1	2056.8	2034.5	2016.3	2014.3	2061.9	1919.1	1607.2	1599.1	1437.0
52.5°	1961.6	1928.2	1913.0	1899.8	1907.9	1938.3	1604.1	1488.7	1427.9	1240.6	1157.5
55°	1807.7	1778.3	1778.3	1790.5	1746.9	1415.8	1398.5	1209.2	1094.7	1062.3	1049.2
57.5°	1653.7	1650.7	1667.9	1525.1	1285.1	1232.5	1036.0	994.5	976.2	972.2	950.9
60°	1513.0	1541.3	1290.2	1186.9	1031.9	930.7	902.3	897.3	878.0	870.9	851.7
62.5°	1400.6	1161.6	1081.6	883.1	831.4	818.3	803.1	796.0	778.8	687.6	201.5
65°	1011.7	956.0	775.7	742.3	738.3	719.0	712.9	641.0	150.9	101.3	86.1
67.5°	763.6	677.5	654.2	648.1	628.9	590.4	175.2	100.3	86.1	74.9	65.8
70°	586.4	571.2	553.9	539.8	159.0	99.2	86.1	72.9	62.8	55.7	50.6
72.5°	480.0	469.9	273.4	104.3	85.1	71.9	63.8	55.7	48.6	44.6	40.5
75°	375.7	104.3	86.1	71.9	61.8	52.7	46.6	41.5	37.5	34.4	31.4
77.5°	85.1	68.9	58.7	49.6	44.6	39.5	35.4	30.4	27.3	24.3	20.3
80°	52.7	45.6	38.5	35.4	30.4	25.3	22.3	20.3	16.2	15.2	13.2
82.5°	34.4	27.3	24.3	20.3	16.2	15.2	13.2	10.1	9.1	8.1	7.1
85°	15.2	13.2	11.1	9.1	7.1	6.1	5.1	4.1	4.1	4.1	4.1
87.5°	5.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	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-LD5-61HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3410.8	3429.0	3446.2	3441.2	3422.9	3394.6	3386.5	3375.3	3383.4	3400.6	3407.7
5°	3435.1	3424.9	3461.4	3515.1	3602.2	3610.3	3671.0	3685.2	3733.8	3764.2	3763.2
7.5°	3469.5	3613.3	3673.1	3737.9	3767.2	3760.2	3769.3	3762.2	3751.0	3746.0	3739.9
10°	3644.7	3754.1	3776.4	3776.4	3730.8	3669.0	3642.7	3597.1	3506.0	3508.0	3492.8
12.5°	3747.0	3785.5	3732.8	3688.2	3505.0	3434.1	3357.1	3320.6	3299.4	3267.0	3279.1
15°	3693.3	3638.6	3607.2	3463.4	3351.0	3223.4	3225.4	3203.2	3179.9	3181.9	3166.7
17.5°	3614.3	3570.8	3348.0	3248.7	3194.1	3144.4	3135.3	3105.9	3090.8	3085.7	3084.7
20°	3506.0	3349.0	3182.9	3158.6	3092.8	3036.1	3027.0	3036.1	3082.7	2999.6	2718.1
22.5°	3379.4	3153.5	3104.9	3036.1	2991.5	2969.2	3024.9	2771.8	2389.0	2435.5	2385.9
25°	3164.7	3066.5	2983.4	2930.8	2925.7	2789.0	2324.1	2275.5	2029.4	1897.8	1749.9
27.5°	3007.7	2965.2	2878.1	2869.0	2803.2	2280.6	2038.6	1771.2	1673.0	1657.8	1625.4
30°	2912.5	2851.8	2799.1	2569.2	2237.1	1836.0	1635.5	1598.0	1580.8	1562.6	1534.2
32.5°	2798.1	2740.4	2765.7	2160.1	1783.4	1580.8	1540.3	1513.0	1481.6	1469.4	1367.1
35°	2681.6	2655.3	2161.1	1815.8	1533.2	1484.6	1454.2	1425.9	1134.2	274.4	93.2
37.5°	2557.1	2551.0	1942.4	1506.9	1436.0	1390.4	1304.4	269.4	63.8	43.5	32.4
40°	2459.8	1943.4	1535.3	1412.7	1355.0	1283.1	180.3	44.6	28.4	17.2	11.1
42.5°	2395.0	1747.9	1374.2	1325.6	1200.0	132.7	45.6	19.2	11.1	9.1	7.1
45°	1846.1	1380.3	1284.1	1233.5	151.9	45.6	26.3	9.1	7.1	6.1	4.1
47.5°	1703.4	1253.7	1197.0	269.4	50.6	24.3	18.2	6.1	4.1	4.1	4.1
50°	1290.2	1158.5	952.9	65.8	32.4	17.2	13.2	4.1	4.1	4.1	3.0
52.5°	1131.2	1069.4	102.3	43.5	25.3	13.2	8.1	3.0	3.0	3.0	3.0
55°	1034.0	678.5	60.8	33.4	21.3	12.2	5.1	3.0	3.0	3.0	2.0
57.5°	945.9	91.1	44.6	28.4	19.2	11.1	3.0	3.0	3.0	3.0	2.0
60°	802.1	65.8	36.5	25.3	18.2	10.1	3.0	3.0	3.0	3.0	3.0
62.5°	104.3	51.6	31.4	22.3	13.2	8.1	2.0	3.0	3.0	3.0	3.0
65°	76.0	40.5	28.4	15.2	8.1	3.0	2.0	3.0	3.0	3.0	3.0
67.5°	58.7	33.4	21.3	13.2	7.1	2.0	2.0	3.0	3.0	3.0	3.0
70°	46.6	28.4	17.2	11.1	6.1	2.0	2.0	3.0	3.0	3.0	3.0
72.5°	36.5	20.3	12.2	6.1	4.1	2.0	2.0	3.0	3.0	3.0	3.0
75°	27.3	16.2	9.1	5.1	2.0	2.0	2.0	3.0	3.0	3.0	3.0
77.5°	18.2	10.1	7.1	4.1	4.1	4.1	5.1	5.1	3.0	3.0	3.0
80°	12.2	7.1	5.1	5.1	5.1	4.1	5.1	5.1	3.0	5.1	3.0
82.5°	6.1	5.1	5.1	4.1	4.1	3.0	4.1	4.1	4.1	4.1	3.0
85°	4.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	3.0
87.5°	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	4.1	4.1	3.0
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-LD5-61HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3398.6	3401.7	3393.6	3437.1	3414.8	3416.8	3426.0	3402.7	3407.7	3391.5	3380.4
5°	3767.2	3773.3	3779.4	3781.4	3785.5	3790.5	3784.5	3781.4	3775.3	3755.1	3733.8
7.5°	3709.5	3702.4	3699.4	3703.4	3710.5	3713.6	3708.5	3715.6	3741.9	3753.1	3760.2
10°	3405.7	3373.3	3395.6	3392.5	3367.2	3452.3	3429.0	3442.2	3451.3	3544.4	3601.2
12.5°	3260.9	3281.1	3242.7	3223.4	3248.7	3266.0	3283.2	3246.7	3297.3	3274.1	3349.0
15°	3139.4	3127.2	3123.2	3124.2	3119.1	3143.4	3149.5	3157.6	3164.7	3196.1	3208.2
17.5°	3084.7	3104.9	3113.0	3119.1	3109.0	3097.8	3086.7	3070.5	3075.6	3067.5	3090.8
20°	2528.7	2460.9	2456.8	2496.3	2452.8	2477.1	2535.8	2928.7	2915.6	3068.5	3016.8
22.5°	2110.5	2046.7	1992.0	1944.4	2012.2	2040.6	2150.0	2273.5	2474.0	2442.6	2660.4
25°	1723.6	1700.3	1686.1	1679.1	1684.1	1682.1	1706.4	1764.1	1855.3	2070.0	2347.4
27.5°	1612.2	1601.1	1596.0	1579.8	1592.0	1587.9	1607.2	1619.3	1646.6	1667.9	1758.0
30°	1524.1	1510.9	1501.8	1484.6	1496.8	1497.8	1503.9	1535.3	1546.4	1564.6	1593.0
32.5°	557.0	328.1	307.9	292.7	320.0	417.2	732.2	1280.1	1460.3	1474.5	1506.9
35°	54.7	45.6	40.5	40.5	41.5	45.6	60.8	160.0	292.7	1131.2	1415.8
37.5°	21.3	18.2	15.2	14.2	15.2	17.2	23.3	30.4	41.5	86.1	383.8
40°	9.1	8.1	7.1	7.1	7.1	7.1	8.1	10.1	15.2	28.4	44.6
42.5°	6.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	7.1	9.1	18.2
45°	4.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	5.1	8.1
47.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1
50°	3.0	3.0	3.0	3.0	2.0	3.0	2.0	3.0	3.0	3.0	3.0
52.5°	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
55°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
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	3.0	3.0	2.0
65°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	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°	3.0	3.0	2.0	3.0	2.0	2.0	3.0	3.0	3.0	2.0	2.0
72.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6.1	6.1	4.1
75°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.1	6.1	5.1
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.1	5.1	5.1
80°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.1
82.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.1
85°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
87.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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-LD5-61HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3361.1	3360.1	3381.4	3397.6	3391.5	3397.6	3404.7	3405.7	3407.7	3399.6	3396.6
5°	3693.3	3661.9	3601.2	3557.6	3507.0	3414.8	3369.2	3374.3	3375.3	3372.3	3376.3
7.5°	3757.1	3754.1	3732.8	3723.7	3689.3	3623.4	3518.1	3499.9	3455.3	3427.0	3403.7
10°	3597.1	3670.0	3689.3	3721.7	3741.9	3729.8	3640.7	3627.5	3599.1	3566.7	3573.8
12.5°	3423.9	3483.7	3486.7	3662.9	3702.4	3706.5	3672.0	3690.3	3694.3	3621.4	3578.9
15°	3211.3	3239.6	3299.4	3463.4	3582.9	3657.9	3680.1	3690.3	3640.7	3637.6	3620.4
17.5°	3118.1	3136.3	3163.7	3255.8	3437.1	3547.5	3641.7	3634.6	3653.8	3639.6	3596.1
20°	3000.6	3015.8	3064.4	3111.0	3200.1	3347.0	3523.2	3536.3	3561.7	3558.6	3570.8
22.5°	2998.6	2944.9	2953.0	2989.5	3082.7	3214.3	3401.7	3445.2	3461.4	3472.5	3485.7
25°	2378.8	2805.2	2883.2	2906.4	2967.2	3044.2	3264.9	3281.1	3311.5	3361.1	3397.6
27.5°	2060.8	2350.5	2662.4	2824.4	2862.9	2926.7	3058.4	3082.7	3186.0	3198.1	3254.8
30°	1626.4	1850.2	2316.0	2705.9	2769.7	2814.3	2907.5	2956.1	3000.6	3049.2	3109.0
32.5°	1530.2	1565.6	1823.9	2239.1	2735.3	2701.9	2770.7	2800.1	2848.7	2891.3	2934.8
35°	1442.1	1466.4	1521.1	1834.0	2227.9	2609.7	2656.3	2675.6	2702.9	2735.3	2766.7
37.5°	1349.9	1386.4	1423.9	1507.9	2060.8	2536.8	2535.8	2558.1	2574.3	2601.6	2628.0
40°	245.1	1273.0	1333.7	1388.4	1598.0	2023.4	2422.4	2432.5	2443.6	2460.9	2488.2
42.5°	39.5	212.7	1249.7	1302.3	1362.1	1811.7	2370.7	2329.2	2322.1	2334.3	2358.6
45°	20.3	51.6	251.1	1216.3	1269.9	1445.1	1938.3	2257.3	2250.2	2226.9	2232.0
47.5°	15.2	32.4	61.8	420.3	1188.9	1240.6	1788.4	1769.2	1903.9	2162.1	2122.6
50°	13.2	22.3	36.5	86.1	1050.2	1142.3	1377.3	1609.2	1680.1	1689.2	1999.1
52.5°	12.2	15.2	26.3	55.7	220.8	1056.2	1120.0	1201.1	1320.6	1576.8	1570.7
55°	11.1	14.2	22.3	37.5	77.0	951.9	1017.8	1033.0	1058.3	1180.8	1342.8
57.5°	6.1	13.2	21.3	32.4	57.7	174.2	923.6	935.7	956.0	961.1	1018.8
60°	3.0	12.2	19.2	28.4	42.5	81.0	830.4	844.6	856.7	858.8	877.0
62.5°	2.0	11.1	16.2	26.3	35.4	57.7	196.5	401.0	762.6	762.6	783.8
65°	2.0	8.1	10.1	17.2	32.4	47.6	83.0	96.2	187.3	460.8	687.6
67.5°	2.0	3.0	9.1	14.2	24.3	36.5	60.8	70.9	85.1	97.2	180.3
70°	2.0	2.0	8.1	9.1	15.2	27.3	43.5	49.6	57.7	65.8	76.0
72.5°	2.0	2.0	7.1	7.1	10.1	18.2	33.4	36.5	41.5	46.6	53.7
75°	5.1	4.1	6.1	6.1	7.1	14.2	25.3	28.4	30.4	34.4	39.5
77.5°	5.1	5.1	5.1	5.1	5.1	9.1	16.2	18.2	21.3	23.3	27.3
80°	4.1	4.1	4.1	5.1	5.1	6.1	10.1	11.1	12.2	15.2	16.2
82.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	6.1	7.1	9.1
85°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.1	4.1
87.5°	3.0	3.0	3.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0
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-LD5-61HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3395.6	3389.5	3384.4	3387.5	3378.4	3374.3	3377.4	3378.4	3380.4	3385.5	3386.5
5°	3386.5	3384.4	3393.6	3398.6	3396.6	3398.6	3398.6	3394.6	3388.5	3392.5	3383.4
7.5°	3380.4	3367.2	3357.1	3359.1	3349.0	3361.1	3372.3	3388.5	3393.6	3393.6	3383.4
10°	3484.7	3470.5	3413.8	3375.3	3350.0	3327.7	3380.4	3326.7	3352.0	3255.8	3366.2
12.5°	3570.8	3590.0	3564.7	3459.4	3441.2	3374.3	3412.8	3347.0	3327.7	3217.3	3252.8
15°	3605.2	3568.8	3560.6	3531.3	3491.8	3472.5	3369.2	3358.1	3326.7	3338.9	3292.3
17.5°	3574.8	3593.1	3568.8	3549.5	3509.0	3463.4	3401.7	3347.0	3303.4	3206.2	3288.2
20°	3545.5	3569.8	3496.8	3509.0	3513.1	3460.4	3428.0	3382.4	3327.7	3236.6	3165.7
22.5°	3496.8	3479.6	3485.7	3467.5	3452.3	3459.4	3414.8	3383.4	3291.3	3249.8	3153.5
25°	3417.9	3411.8	3428.0	3426.0	3389.5	3377.4	3355.1	3321.7	3285.2	3218.4	3139.4
27.5°	3289.2	3320.6	3349.0	3362.2	3342.9	3310.5	3298.4	3279.1	3253.8	3186.0	3127.2
30°	3153.5	3189.0	3221.4	3249.8	3267.0	3252.8	3241.6	3230.5	3192.0	3147.5	3081.6
32.5°	2998.6	3045.2	3089.7	3124.2	3161.6	3172.8	3164.7	3155.6	3123.2	3082.7	3030.0
35°	2819.4	2883.2	2948.0	3009.7	3025.9	3052.3	3078.6	3063.4	3046.2	3005.7	2957.1
37.5°	2667.4	2713.0	2759.6	2837.6	2894.3	2927.7	2974.3	2980.4	2951.0	2931.8	2868.0
40°	2510.5	2552.0	2619.9	2665.4	2743.4	2781.9	2831.5	2853.8	2846.7	2835.6	2779.9
42.5°	2386.9	2407.2	2451.7	2492.3	2569.2	2648.2	2691.8	2716.1	2741.4	2732.3	2703.9
45°	2255.3	2273.5	2288.7	2324.1	2399.1	2469.0	2522.6	2559.1	2604.7	2625.9	2591.5
47.5°	2124.6	2129.7	2147.9	2177.3	2221.9	2275.5	2365.7	2420.4	2462.9	2504.4	2482.1
50°	2024.4	2006.2	2009.2	2027.4	2063.9	2116.5	2181.4	2258.3	2306.9	2357.6	2362.6
52.5°	1769.2	1917.0	1881.6	1891.7	1911.0	1936.3	2004.1	2080.1	2139.8	2183.4	2226.9
55°	1484.6	1514.0	1798.6	1758.0	1770.2	1792.5	1823.9	1899.8	1957.5	2018.3	2079.1
57.5°	1151.4	1370.2	1381.3	1644.6	1638.5	1640.6	1666.9	1710.4	1768.2	1844.1	1895.8
60°	895.2	987.4	1166.6	1257.8	1488.7	1496.8	1512.0	1537.3	1586.9	1658.8	1740.8
62.5°	789.9	802.1	865.9	1002.6	1152.5	1333.7	1366.1	1370.2	1392.5	1464.4	1559.6
65°	693.7	701.8	721.0	735.2	860.8	1036.0	1191.9	1217.3	1231.4	1274.0	1355.0
67.5°	478.0	604.6	621.8	631.9	644.1	725.1	918.5	1047.1	1063.3	1100.8	1171.7
70°	92.2	191.4	523.6	534.7	540.8	559.0	590.4	795.0	902.3	937.8	970.2
72.5°	62.8	73.9	89.1	210.6	445.6	455.7	462.8	489.1	670.4	773.7	790.9
75°	45.6	50.6	59.7	73.9	91.1	296.7	367.6	380.8	393.9	543.8	630.9
77.5°	32.4	36.5	40.5	47.6	55.7	71.9	103.3	284.6	297.7	304.8	430.4
80°	18.2	22.3	27.3	31.4	35.4	40.5	52.7	65.8	146.8	214.7	225.8
82.5°	10.1	12.2	14.2	17.2	19.2	24.3	29.4	35.4	46.6	68.9	145.8
85°	5.1	5.1	5.1	7.1	8.1	11.1	13.2	15.2	21.3	29.4	40.5
87.5°	3.0	3.0	4.1	4.1	4.1	5.1	5.1	5.1	6.1	9.1	13.2
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-LD5-61HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	3374.3	3374.3	3374.3	3374.3	3374.3
2.5°	3387.5	3384.4	3384.4	3396.6	3393.6
5°	3381.4	3378.4	3377.4	3390.5	3384.4
7.5°	3376.3	3365.2	3362.2	3374.3	3369.2
10°	3356.1	3348.0	3353.0	3349.0	3347.0
12.5°	3321.7	3316.6	3295.3	3297.3	3314.6
15°	3259.9	3280.1	3243.7	3276.1	3283.2
17.5°	3146.5	3192.0	3227.5	3246.7	3249.8
20°	3197.1	3212.3	3194.1	3195.1	3207.2
22.5°	3131.3	3138.4	3143.4	3137.3	3163.7
25°	3025.9	2998.6	3057.3	3069.5	3112.0
27.5°	2993.5	2971.3	2998.6	2996.6	3032.0
30°	2967.2	2895.3	2907.5	2926.7	2970.2
32.5°	2929.7	2816.3	2804.2	2846.7	2895.3
35°	2863.9	2756.6	2728.2	2755.6	2828.5
37.5°	2808.2	2673.5	2616.8	2653.3	2748.5
40°	2725.2	2608.7	2520.6	2553.0	2665.4
42.5°	2625.9	2553.0	2417.3	2439.6	2568.2
45°	2525.7	2460.9	2317.1	2328.2	2481.1
47.5°	2423.4	2363.6	2212.7	2214.8	2369.7
50°	2323.1	2244.1	2119.6	2084.1	2251.2
52.5°	2192.5	2119.6	2025.4	1967.7	2138.8
55°	2068.9	1986.9	1918.1	1828.9	2011.2
57.5°	1948.4	1857.3	1810.7	1696.3	1866.4
60°	1783.4	1739.8	1671.0	1561.6	1735.8
62.5°	1614.2	1600.1	1530.2	1416.8	1574.7
65°	1416.8	1450.2	1378.3	1281.1	1407.7
67.5°	1230.4	1290.2	1211.2	1151.4	1246.6
70°	1031.9	1100.8	1056.2	1035.0	1075.5
72.5°	836.5	903.3	907.4	892.2	905.4
75°	646.1	720.0	760.5	737.2	740.3
77.5°	490.1	525.6	570.1	588.4	584.3
80°	302.8	364.6	401.0	438.5	425.3
82.5°	152.9	204.6	249.1	289.6	270.4
85°	63.8	82.0	114.4	150.9	144.8
87.5°	19.2	32.4	34.4	48.6	45.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)