

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-L940-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-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

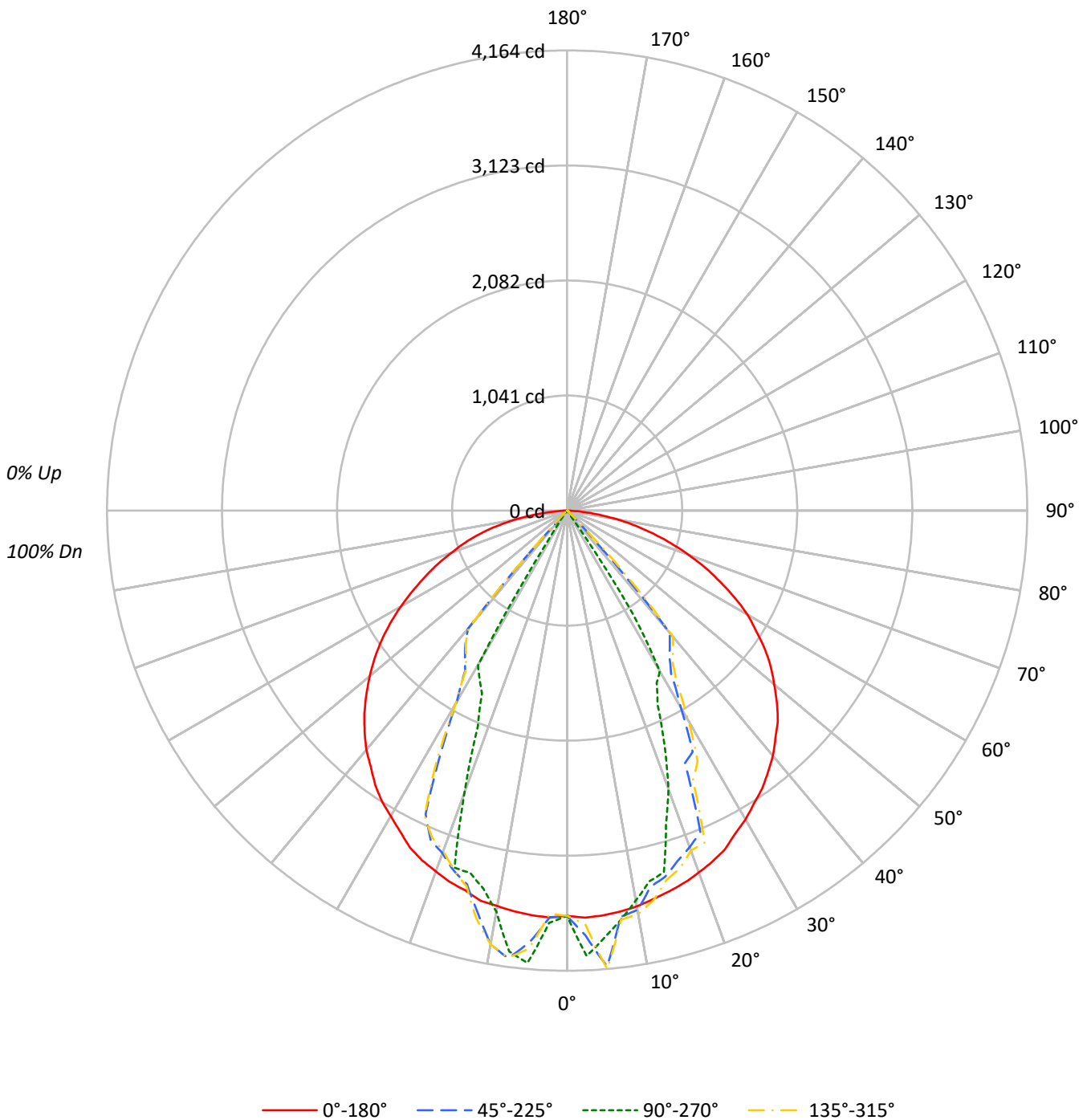
Lumens per Lamp: N/A
Luminaire Lumens: 5213.0 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	29627	29627	29627	29627
5°	29748	30470	29739	32268
10°	29676	27572	29658	28368
15°	29595	25736	29522	25803
20°	29629	20271	29545	20520
25°	29715	14669	29570	13843
30°	29580	12868	29266	12370
35°	29667	284	29232	344
40°	29769	62	29056	62
45°	29874	37	28752	27
50°	29645	29	28285	29
55°	29472	20	27660	20
60°	28915	22	26655	22
65°	27407	35	25456	23
70°	25426	38	24205	38
75°	22490	43	22859	43
80°	18267	49	19311	49
85°	10746	58	10972	58



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	367.8	7.1
10°-20°	1003.3	19.2
20°-30°	1276.7	24.5
30°-40°	1078.4	20.7
40°-50°	705.0	13.5
50°-60°	444.2	8.5
60°-70°	236.5	4.5
70°-80°	86.2	1.7
80°-90°	14.8	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°	2647.8	50.8
0°-40°	3726.2	71.5
0°-60°	4875.5	93.5
0°-90°	5213.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5213.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3666	3666	3666	3666	3666	
5°	3677	3880	3676	4108	3677	350
15°	3567	3386	3558	3394	3567	1008
25°	3381	1933	3365	1824	3381	1555
35°	3073	36	3028	44	3073	1922
45°	2696	4	2594	3	2696	2073
55°	2185	2	2051	2	2185	1947
65°	1529	3	1420	2	1529	1515
75°	804	3	818	3	804	854
85°	157	3	161	3	157	199
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°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3687.1	3689.3	3690.4	3692.6	3695.9	3697.0	3699.2	3697.0	3697.0	3697.0	3697.0
5°	3677.2	3681.6	3684.9	3689.3	3697.0	3698.1	3706.9	3708.0	3712.4	3721.2	3727.8
7.5°	3660.7	3665.1	3671.7	3682.7	3693.7	3705.8	3721.2	3737.7	3760.8	3782.8	3810.3
10°	3636.5	3642.0	3649.7	3659.6	3713.5	3721.2	3755.3	3802.6	3815.8	3885.1	3936.8
12.5°	3601.3	3620.0	3639.8	3648.6	3700.3	3781.7	3896.1	3873.0	3847.7	4074.4	4071.1
15°	3567.1	3592.5	3582.5	3654.1	3701.4	3843.3	3794.9	3898.3	4087.6	4041.4	4043.6
17.5°	3530.8	3536.3	3591.4	3650.8	3735.5	3808.1	3867.5	4009.5	4046.9	4050.2	4009.5
20°	3484.6	3511.0	3591.4	3645.3	3788.3	3822.4	3951.1	4023.8	4008.4	3971.0	3901.6
22.5°	3437.3	3517.6	3599.1	3675.0	3775.1	3866.4	3930.2	3964.4	3884.0	3736.6	3657.4
25°	3381.2	3428.5	3535.2	3646.4	3771.8	3824.6	3862.0	3807.0	3702.5	3570.4	3437.3
27.5°	3294.3	3370.2	3506.6	3632.1	3745.4	3809.2	3748.7	3616.7	3448.3	3361.4	3300.9
30°	3227.2	3326.2	3438.4	3559.4	3677.2	3714.6	3560.5	3409.8	3294.3	3207.3	3194.1
32.5°	3145.7	3286.6	3393.3	3508.8	3607.9	3558.3	3408.7	3214.0	3118.2	3085.2	3098.4
35°	3073.1	3179.8	3319.6	3432.9	3504.4	3393.3	3156.7	3035.7	2989.5	3008.2	2984.0
37.5°	2986.2	3127.0	3255.8	3353.7	3329.5	3162.2	2962.0	2885.0	2890.5	2875.1	2828.8
40°	2896.0	3030.2	3164.4	3256.9	3172.1	2916.9	2783.7	2767.2	2770.5	2721.0	2655.0
42.5°	2790.3	2912.5	3046.7	3130.3	2947.7	2748.5	2658.3	2660.5	2631.9	2562.6	2527.4
45°	2695.7	2807.9	2947.7	2955.4	2730.9	2564.8	2538.4	2509.8	2445.9	2422.8	2396.4
47.5°	2574.7	2699.0	2814.5	2772.7	2518.6	2415.1	2395.3	2332.6	2300.7	2283.1	2261.1
50°	2445.9	2571.4	2677.0	2558.2	2318.3	2294.1	2229.2	2179.7	2157.7	2139.0	2119.2
52.5°	2323.8	2427.2	2535.1	2330.4	2164.3	2141.2	2067.4	2038.8	2016.8	1995.9	1991.5
55°	2185.2	2276.5	2350.2	2113.7	2016.8	1962.9	1910.1	1890.3	1869.4	1859.5	1876.0
57.5°	2027.8	2131.3	2120.3	1900.2	1857.3	1779.2	1759.4	1746.2	1730.8	1737.4	1599.8
60°	1885.9	1965.1	1911.2	1744.0	1671.3	1618.5	1600.9	1592.1	1600.9	1466.7	1289.5
62.5°	1711.0	1800.1	1691.1	1561.3	1484.3	1459.0	1443.6	1455.7	1327.0	1179.5	1136.6
65°	1529.4	1626.2	1465.6	1365.5	1317.0	1295.0	1293.9	1191.6	1065.1	1007.9	1007.9
67.5°	1354.5	1454.6	1247.7	1164.1	1145.4	1147.6	1083.8	928.6	893.4	854.9	743.8
70°	1168.5	1256.5	1031.0	980.4	969.4	961.7	806.5	764.7	722.9	620.6	611.8
72.5°	983.7	1026.6	828.5	816.4	814.2	676.7	645.9	574.4	525.9	513.8	508.3
75°	804.3	791.1	654.7	665.7	561.1	512.7	463.2	421.4	414.8	410.4	102.3
77.5°	634.9	568.9	516.0	448.9	401.6	341.1	331.2	324.6	213.5	77.0	62.7
80°	462.1	368.6	343.3	291.6	248.7	238.8	244.3	74.8	59.4	49.5	42.9
82.5°	293.8	235.5	192.6	168.3	163.9	71.5	52.8	42.9	37.4	31.9	26.4
85°	157.3	104.5	96.8	81.4	48.4	33.0	27.5	20.9	17.6	14.3	13.2
87.5°	49.5	41.8	34.1	27.5	16.5	11.0	8.8	7.7	6.6	5.5	5.5
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°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3694.8	3697.0	3695.9	3699.2	3699.2	3703.6	3706.9	3710.2	3716.8	3720.1	3745.4
5°	3742.1	3747.6	3764.1	3779.5	3798.2	3803.7	3835.6	3843.3	3880.7	3885.1	4008.4
7.5°	3847.7	3868.6	3908.2	3947.8	3987.5	4012.8	4056.8	4084.3	4114.0	4140.4	4238.3
10°	3975.4	4010.6	4049.1	4088.7	4111.8	4160.2	4186.6	4191.0	4183.3	4140.4	3982.0
12.5°	4100.8	4136.0	4119.5	4127.2	4154.7	4068.9	4081.0	4019.4	4062.3	3849.9	3692.6
15°	4083.2	4081.0	4040.3	3908.2	3930.2	3766.3	3700.3	3649.7	3690.4	3668.4	3644.2
17.5°	4030.4	3930.2	3859.8	3701.4	3634.3	3588.1	3589.2	3590.3	3570.4	3591.4	3529.7
20°	3807.0	3694.8	3590.3	3534.1	3514.3	3481.3	3497.8	3481.3	3482.4	3489.0	3394.4
22.5°	3509.9	3475.8	3415.3	3432.9	3426.3	3456.0	3434.0	3399.9	3410.9	3361.4	3289.9
25°	3390.0	3350.4	3348.2	3354.8	3344.9	3331.7	3311.9	3260.2	3256.9	3241.5	3208.5
27.5°	3269.0	3271.2	3277.8	3258.0	3222.8	3196.3	3166.6	3141.3	3151.2	3133.6	3088.5
30°	3185.3	3184.2	3144.6	3127.0	3062.1	3063.2	3055.5	3040.1	3030.2	3031.3	3002.7
32.5°	3066.5	3032.4	2987.3	2965.3	2959.8	2940.0	2924.6	2927.9	2935.6	2908.1	2937.8
35°	2944.4	2874.0	2867.4	2848.7	2831.1	2817.8	2823.3	2801.3	2800.2	2796.9	2554.9
37.5°	2780.4	2746.3	2743.0	2723.2	2711.1	2707.8	2686.9	2690.2	2700.1	2717.7	2178.6
40°	2645.1	2614.3	2606.6	2605.5	2579.1	2576.9	2582.4	2603.3	2617.6	2507.6	2076.3
42.5°	2499.9	2502.1	2477.9	2462.5	2465.8	2475.7	2502.1	2429.4	2104.9	2005.8	1898.0
45°	2375.5	2364.5	2351.3	2346.9	2375.5	2355.7	2065.2	1905.7	1867.2	1862.8	1560.2
47.5°	2245.7	2242.4	2236.9	2240.2	2077.4	1851.8	1785.8	1764.9	1771.5	1767.1	1340.2
50°	2114.8	2119.2	2119.2	1850.7	1698.9	1661.4	1666.9	1685.6	1569.0	1464.5	1248.8
52.5°	2001.4	1967.3	1685.6	1588.8	1554.7	1571.2	1531.6	1385.3	1279.6	1218.0	1155.3
55°	1791.3	1540.4	1477.7	1462.3	1474.4	1328.1	1237.8	1143.2	1115.7	1109.1	1072.8
57.5°	1409.5	1358.9	1364.4	1302.7	1163.0	1080.5	1044.2	1031.0	1018.9	1010.1	88.0
60°	1246.6	1260.9	1154.2	1022.2	966.1	955.1	946.3	934.1	931.9	916.5	56.1
62.5°	1141.0	1003.5	911.0	878.0	864.8	861.5	845.0	839.5	713.0	97.9	41.8
65°	860.4	804.3	786.7	779.0	764.7	764.7	634.9	100.1	81.4	70.4	37.4
67.5°	702.0	697.6	688.8	678.9	462.1	96.8	84.7	73.7	63.8	56.1	33.0
70°	594.2	592.0	539.1	99.0	82.5	72.6	63.8	57.2	52.8	47.3	29.7
72.5°	487.4	99.0	83.6	72.6	62.7	57.2	51.7	46.2	41.8	38.5	24.2
75°	75.9	67.1	59.4	53.9	49.5	44.0	39.6	36.3	35.2	30.8	16.5
77.5°	55.0	47.3	42.9	38.5	34.1	30.8	26.4	23.1	20.9	17.6	12.1
80°	38.5	34.1	30.8	25.3	22.0	18.7	16.5	14.3	13.2	11.0	5.5
82.5°	22.0	18.7	16.5	13.2	12.1	9.9	8.8	7.7	7.7	5.5	5.5
85°	9.9	9.9	7.7	6.6	5.5	5.5	5.5	4.4	4.4	3.3	3.3
87.5°	4.4	4.4	4.4	4.4	4.4	3.3	3.3	3.3	3.3	3.3	2.2
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°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3780.6	3794.9	3822.4	3851.0	3819.1	3933.5	3924.7	3963.3	3984.2	3994.1	4017.2
5°	4117.3	4181.1	4202.0	4139.3	4103.0	4065.6	3980.9	3917.0	3924.7	3903.8	3827.9
7.5°	4110.7	3974.3	3790.5	3706.9	3700.3	3690.4	3716.8	3732.2	3734.4	3733.3	3731.1
10°	3763.0	3692.6	3680.5	3669.5	3673.9	3633.2	3614.5	3561.6	3590.3	3574.8	3580.3
12.5°	3657.4	3640.9	3575.9	3485.7	3539.6	3498.9	3475.8	3491.2	3473.6	3457.1	3451.6
15°	3594.7	3487.9	3451.6	3429.6	3414.2	3405.4	3413.1	3395.5	3390.0	3386.7	3394.4
17.5°	3464.8	3421.9	3382.3	3324.0	3325.1	3321.8	3343.8	3376.8	3379.0	3209.6	3056.6
20°	3362.5	3327.3	3276.7	3240.4	3289.9	3201.8	2861.9	2700.1	2674.8	2674.8	2679.2
22.5°	3281.1	3202.9	3206.2	3149.0	2685.8	2591.2	2593.4	2603.3	2558.2	2404.1	2387.6
25°	3169.9	3157.8	2916.9	2520.8	2524.1	2450.3	2337.0	2177.5	2004.7	2004.7	1976.1
27.5°	3086.3	2829.9	2477.9	2461.4	2213.8	2057.5	1960.7	1814.4	1794.6	1775.9	1778.1
30°	3014.8	2394.2	2403.0	2057.5	1874.9	1745.1	1737.4	1713.2	1701.1	1697.7	1685.6
32.5°	2383.2	2331.5	2011.3	1751.7	1680.1	1659.2	1649.3	1621.8	1620.7	1599.8	1454.6
35°	2234.7	2046.5	1683.4	1613.0	1592.1	1572.3	1555.8	1044.2	123.2	49.5	42.9
37.5°	2065.2	1709.9	1556.9	1525.0	1505.2	1112.4	111.1	38.5	27.5	19.8	17.6
40°	1750.6	1527.2	1478.8	1443.6	595.3	38.5	24.2	18.7	11.0	9.9	8.8
42.5°	1476.6	1439.2	1387.5	422.5	44.0	18.7	12.1	8.8	7.7	7.7	6.6
45°	1382.0	1349.0	558.9	41.8	27.5	8.8	7.7	7.7	6.6	4.4	4.4
47.5°	1293.9	1138.8	50.6	26.4	17.6	7.7	6.6	4.4	4.4	4.4	3.3
50°	1200.4	62.7	35.2	19.8	11.0	4.4	4.4	4.4	4.4	3.3	3.3
52.5°	224.5	44.0	28.6	17.6	5.5	4.4	4.4	4.4	3.3	3.3	3.3
55°	52.8	35.2	26.4	15.4	4.4	4.4	4.4	3.3	3.3	3.3	2.2
57.5°	39.6	26.4	20.9	14.3	4.4	3.3	3.3	3.3	3.3	3.3	2.2
60°	33.0	18.7	16.5	13.2	3.3	3.3	3.3	3.3	3.3	3.3	2.2
62.5°	23.1	15.4	12.1	9.9	3.3	3.3	3.3	3.3	3.3	3.3	3.3
65°	18.7	12.1	9.9	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
67.5°	16.5	9.9	6.6	2.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3
70°	13.2	3.3	3.3	2.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3
72.5°	11.0	3.3	2.2	2.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3
75°	11.0	5.5	2.2	2.2	3.3	3.3	4.4	4.4	3.3	3.3	3.3
77.5°	7.7	5.5	2.2	2.2	3.3	3.3	4.4	4.4	3.3	3.3	3.3
80°	4.4	5.5	2.2	3.3	3.3	6.6	7.7	4.4	3.3	3.3	3.3
82.5°	4.4	5.5	6.6	6.6	3.3	5.5	6.6	5.5	4.4	3.3	3.3
85°	4.4	3.3	4.4	5.5	3.3	5.5	5.5	4.4	4.4	3.3	3.3
87.5°	2.2	3.3	3.3	4.4	4.4	4.4	5.5	4.4	4.4	4.4	3.3
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	4028.2	4032.6	3963.3	3939.0	3959.9	3955.5	3936.8	3867.5	3859.8	3813.6	3746.5
5°	3849.9	3879.6	3843.3	3906.0	3876.3	3906.0	3996.3	4038.1	4106.3	4148.1	4163.5
7.5°	3725.6	3732.2	3732.2	3737.7	3743.2	3744.3	3737.7	3733.3	3714.6	3691.5	3733.3
10°	3574.8	3582.5	3595.8	3593.6	3592.5	3615.6	3621.1	3668.4	3666.2	3675.0	3706.9
12.5°	3496.7	3437.3	3491.2	3476.9	3496.7	3465.9	3523.1	3513.2	3516.5	3542.9	3611.2
15°	3366.9	3385.6	3398.8	3398.8	3406.5	3399.9	3393.3	3438.4	3465.9	3467.0	3462.6
17.5°	3117.1	2975.2	3120.4	3083.0	3381.2	3388.9	3363.6	3342.7	3342.7	3359.2	3394.4
20°	2675.9	2679.2	2680.3	2694.6	2712.2	2711.1	2712.2	3145.7	3351.5	3304.2	3272.3
22.5°	2345.8	2305.1	2381.0	2375.5	2470.2	2574.7	2674.8	2664.9	2671.5	2977.4	3252.5
25°	1880.4	1933.2	1890.3	1909.0	2015.7	2140.1	2217.1	2418.4	2637.4	2622.0	2693.5
27.5°	1770.4	1756.1	1775.9	1775.9	1790.2	1806.7	1849.6	1962.9	2157.7	2362.3	2556.0
30°	1665.8	1677.9	1680.1	1700.0	1711.0	1722.0	1728.6	1771.5	1815.5	1957.4	2196.2
32.5°	1251.0	1097.0	1443.6	1537.1	1616.3	1635.0	1648.2	1665.8	1697.7	1718.7	1838.6
35°	36.3	36.3	38.5	44.0	56.1	378.5	1441.4	1588.8	1609.7	1636.1	1658.1
37.5°	17.6	13.2	15.4	16.5	19.8	27.5	39.6	123.2	1372.1	1551.4	1575.6
40°	7.7	7.7	7.7	7.7	8.8	11.0	16.5	27.5	41.8	1103.6	1488.7
42.5°	6.6	6.6	6.6	6.6	6.6	6.6	7.7	9.9	19.8	47.3	781.2
45°	4.4	4.4	3.3	4.4	4.4	5.5	6.6	6.6	8.8	29.7	53.9
47.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	5.5	6.6	19.8	28.6
50°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	15.4	19.8
52.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	6.6	17.6
55°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3	4.4	15.4
57.5°	2.2	2.2	2.2	2.2	2.2	3.3	2.2	2.2	3.3	3.3	14.3
60°	2.2	2.2	2.2	2.2	2.2	3.3	3.3	3.3	3.3	3.3	13.2
62.5°	3.3	3.3	2.2	3.3	2.2	2.2	3.3	3.3	3.3	3.3	8.8
65°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.2	3.3
67.5°	3.3	3.3	3.3	3.3	2.2	3.3	2.2	3.3	3.3	2.2	2.2
70°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.2	2.2	2.2	2.2
72.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.2	2.2	2.2	2.2
75°	3.3	3.3	3.3	3.3	3.3	3.3	4.4	4.4	2.2	2.2	2.2
77.5°	3.3	3.3	3.3	3.3	3.3	3.3	5.5	6.6	5.5	5.5	2.2
80°	3.3	3.3	3.3	3.3	3.3	3.3	5.5	5.5	5.5	5.5	7.7
82.5°	3.3	3.3	3.3	3.3	3.3	3.3	4.4	4.4	4.4	4.4	5.5
85°	3.3	3.3	3.3	3.3	3.3	3.3	4.4	4.4	4.4	3.3	4.4
87.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.4	3.3	3.3	3.3
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3752.0	3714.6	3702.5	3677.2	3675.0	3677.2	3671.7	3664.0	3668.4	3660.7	3654.1
5°	4172.3	4072.2	4007.3	3920.3	3800.4	3774.0	3767.4	3730.0	3716.8	3712.4	3694.8
7.5°	3832.3	4015.0	4125.0	4162.4	4021.6	3988.6	3950.0	3919.2	3889.5	3833.4	3799.3
10°	3681.6	3690.4	3796.0	3919.2	4119.5	4147.0	4167.9	4100.8	4082.1	3939.0	3908.2
12.5°	3646.4	3647.5	3659.6	3734.4	3891.7	3909.3	3983.1	4022.7	4071.1	4098.6	4076.6
15°	3485.7	3574.8	3640.9	3647.5	3661.8	3692.6	3714.6	3852.1	3910.4	4066.7	4057.9
17.5°	3410.9	3439.5	3535.2	3613.4	3600.2	3589.2	3606.8	3625.5	3681.6	3837.8	3835.6
20°	3286.6	3377.9	3429.6	3511.0	3584.7	3588.1	3568.2	3557.2	3535.2	3560.5	3583.6
22.5°	3233.8	3248.1	3344.9	3402.1	3485.7	3515.4	3519.8	3520.9	3508.8	3495.6	3489.0
25°	3228.3	3183.1	3232.7	3304.2	3365.8	3397.7	3434.0	3446.1	3441.7	3441.7	3435.1
27.5°	2641.8	3168.8	3142.4	3189.7	3264.6	3286.6	3305.3	3342.7	3365.8	3382.3	3390.0
30°	2516.4	2611.0	3072.0	3078.6	3154.5	3152.3	3173.2	3204.0	3233.8	3272.3	3282.2
32.5°	2225.9	2458.1	2812.3	2967.5	3046.7	3054.4	3065.4	3074.2	3101.7	3144.6	3182.0
35°	1783.6	2239.1	2409.6	2914.7	2929.0	2944.4	2951.0	2971.9	2980.7	2998.3	3031.3
37.5°	1614.1	1850.7	2311.7	2520.8	2793.6	2806.8	2842.1	2850.9	2865.2	2879.5	2904.8
40°	1516.2	1581.1	1924.4	2251.2	2684.7	2693.5	2705.6	2727.6	2728.7	2745.2	2768.3
42.5°	1438.1	1479.9	1580.0	2150.0	2607.7	2606.6	2578.0	2592.3	2598.9	2616.5	2648.4
45°	1148.7	1388.6	1452.4	1756.1	2076.3	2225.9	2513.1	2465.8	2464.7	2471.3	2505.4
47.5°	58.3	1306.0	1351.2	1449.1	1960.7	1966.2	2003.6	2318.3	2366.7	2351.3	2354.6
50°	39.6	90.2	1258.7	1303.8	1690.0	1826.5	1854.0	1868.3	2049.8	2252.3	2219.3
52.5°	30.8	51.7	771.3	1210.3	1373.2	1473.3	1650.4	1751.7	1762.7	1844.1	2120.3
55°	27.5	39.6	83.6	1116.8	1167.4	1189.4	1292.8	1470.0	1613.0	1655.9	1659.2
57.5°	24.2	36.3	57.2	505.0	1061.8	1066.2	1083.8	1145.4	1274.1	1391.9	1525.0
60°	22.0	31.9	45.1	86.9	965.0	976.0	979.3	995.8	1011.2	1091.5	1244.4
62.5°	13.2	25.3	39.6	62.7	763.6	876.9	875.8	886.8	901.1	909.9	940.7
65°	11.0	19.8	34.1	52.8	93.5	116.6	708.6	787.8	796.6	808.7	814.2
67.5°	9.9	17.6	25.3	41.8	70.4	80.3	92.4	114.4	625.0	704.2	715.2
70°	8.8	12.1	20.9	35.2	57.2	61.6	69.3	79.2	93.5	115.5	565.5
72.5°	5.5	8.8	14.3	25.3	44.0	49.5	53.9	60.5	67.1	80.3	92.4
75°	2.2	6.6	12.1	18.7	34.1	37.4	40.7	45.1	50.6	59.4	66.0
77.5°	2.2	5.5	9.9	13.2	22.0	25.3	29.7	33.0	37.4	41.8	48.4
80°	7.7	4.4	6.6	9.9	15.4	16.5	18.7	20.9	24.2	27.5	31.9
82.5°	5.5	6.6	7.7	6.6	7.7	9.9	11.0	13.2	14.3	16.5	17.6
85°	4.4	4.4	5.5	5.5	5.5	5.5	5.5	5.5	6.6	7.7	9.9
87.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.4	4.4
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3654.1	3651.9	3645.3	3645.3	3644.2	3648.6	3651.9	3655.2	3654.1	3660.7	3654.1
5°	3681.6	3676.1	3666.2	3657.4	3654.1	3656.3	3653.0	3656.3	3651.9	3657.4	3647.5
7.5°	3757.5	3738.8	3700.3	3684.9	3665.1	3664.0	3654.1	3651.9	3645.3	3645.3	3633.2
10°	3891.7	3801.5	3790.5	3744.3	3727.8	3647.5	3665.1	3635.4	3632.1	3617.8	3612.3
12.5°	4001.8	3931.3	3910.4	3869.7	3823.5	3660.7	3697.0	3633.2	3629.9	3601.3	3571.5
15°	4004.0	4044.7	3987.5	3875.2	3865.3	3753.1	3679.4	3657.4	3628.8	3542.9	3557.2
17.5°	3875.2	3968.8	3996.3	3972.1	3901.6	3825.7	3722.3	3678.3	3592.5	3553.9	3527.5
20°	3666.2	3760.8	3878.5	3886.2	3930.2	3876.3	3741.0	3669.5	3566.0	3498.9	3476.9
22.5°	3500.0	3569.3	3704.7	3767.4	3821.3	3840.0	3754.2	3648.6	3519.8	3454.9	3441.7
25°	3412.0	3427.4	3468.1	3541.8	3660.7	3746.5	3758.6	3646.4	3579.2	3437.3	3362.5
27.5°	3380.1	3366.9	3350.4	3387.8	3476.9	3581.4	3650.8	3669.5	3502.2	3366.9	3292.1
30°	3298.7	3306.4	3281.1	3267.9	3326.2	3434.0	3557.2	3588.1	3459.3	3319.6	3233.8
32.5°	3198.5	3211.8	3216.2	3193.0	3180.9	3255.8	3388.9	3462.6	3456.0	3252.5	3156.7
35°	3073.1	3110.5	3120.4	3121.5	3101.7	3089.6	3166.6	3319.6	3377.9	3221.7	3083.0
37.5°	2941.1	2952.1	3006.0	3020.3	3020.3	2984.0	3041.2	3163.3	3244.8	3152.3	2992.8
40°	2776.0	2811.2	2861.9	2887.2	2912.5	2915.8	2883.9	2969.7	3103.9	3080.8	2908.1
42.5°	2656.1	2679.2	2710.0	2744.1	2795.8	2809.0	2776.0	2791.4	2931.2	2991.7	2798.0
45°	2516.4	2547.2	2556.0	2593.4	2647.3	2685.8	2684.7	2652.8	2765.0	2839.9	2717.7
47.5°	2373.3	2403.0	2418.4	2437.1	2476.8	2526.3	2553.8	2539.5	2561.5	2707.8	2611.0
50°	2225.9	2242.4	2273.2	2294.1	2320.5	2349.1	2415.1	2428.3	2397.5	2514.2	2493.3
52.5°	2086.2	2091.7	2112.6	2133.5	2168.7	2189.6	2242.4	2282.0	2279.8	2313.9	2362.3
55°	1977.2	1953.0	1957.4	1973.9	1997.0	2028.9	2058.6	2120.3	2141.2	2147.8	2224.8
57.5°	1544.8	1793.5	1815.5	1814.4	1841.9	1856.2	1883.7	1924.4	1999.2	1982.7	2068.5
60°	1404.0	1431.5	1639.4	1663.6	1673.5	1686.7	1719.8	1757.2	1812.2	1847.4	1884.8
62.5°	1070.6	1237.8	1300.5	1484.3	1512.9	1520.6	1542.6	1560.2	1617.4	1697.7	1682.3
65°	828.5	900.0	1091.5	1166.3	1322.6	1342.4	1373.2	1391.9	1408.4	1500.8	1505.2
67.5°	716.3	727.3	779.0	923.1	1022.2	1175.1	1193.8	1210.3	1235.6	1301.6	1342.4
70°	611.8	625.0	639.3	651.4	780.1	881.3	1023.3	1028.8	1045.3	1089.3	1181.7
72.5°	115.5	522.6	531.4	539.1	553.4	620.6	755.9	865.9	872.5	893.4	978.2
75°	78.1	91.3	125.4	431.3	445.6	450.0	473.1	610.7	711.9	716.3	753.7
77.5°	56.1	62.7	75.9	90.2	230.0	345.5	351.0	376.3	480.8	556.7	563.3
80°	38.5	42.9	50.6	57.2	70.4	92.4	255.3	263.0	276.2	380.7	400.5
82.5°	22.0	25.3	29.7	36.3	41.8	52.8	68.2	88.0	179.3	191.5	254.2
85°	11.0	12.1	14.3	17.6	20.9	25.3	34.1	41.8	57.2	103.4	106.7
87.5°	5.5	5.5	5.5	5.5	8.8	9.9	12.1	15.4	19.8	29.7	38.5
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3655.2	3670.6	3683.8	3687.1	3687.1	3689.3	3692.6	3694.8	3697.0	3699.2	3697.0
5°	3648.6	3665.1	3676.1	3679.4	3679.4	3686.0	3691.5	3698.1	3701.4	3701.4	3699.2
7.5°	3632.1	3644.2	3658.5	3667.3	3668.4	3679.4	3689.3	3688.2	3692.6	3694.8	3700.3
10°	3610.1	3610.1	3634.3	3640.9	3646.4	3658.5	3661.8	3668.4	3683.8	3686.0	3700.3
12.5°	3599.1	3588.1	3616.7	3620.0	3638.7	3623.3	3643.1	3649.7	3634.3	3655.2	3627.7
15°	3549.5	3562.7	3558.3	3568.2	3601.3	3583.6	3637.6	3620.0	3659.6	3612.3	3695.9
17.5°	3508.8	3506.6	3524.2	3533.0	3539.6	3577.0	3591.4	3611.2	3626.6	3613.4	3646.4
20°	3479.1	3461.5	3474.7	3484.6	3507.7	3536.3	3545.1	3515.4	3567.1	3655.2	3676.1
22.5°	3423.0	3410.9	3426.3	3426.3	3461.5	3457.1	3490.1	3471.4	3519.8	3622.2	3728.9
25°	3347.1	3348.2	3364.7	3384.5	3391.1	3440.6	3458.2	3482.4	3542.9	3665.1	3730.0
27.5°	3270.1	3263.5	3273.4	3314.1	3348.2	3384.5	3390.0	3472.5	3555.0	3638.7	3695.9
30°	3193.0	3186.4	3193.0	3222.8	3263.5	3287.7	3348.2	3458.2	3535.2	3592.5	3646.4
32.5°	3110.5	3103.9	3119.3	3141.3	3212.9	3216.2	3336.1	3439.5	3500.0	3541.8	3531.9
35°	3022.5	3013.7	3028.0	3062.1	3128.1	3152.3	3277.8	3354.8	3423.0	3442.8	3396.6
37.5°	2916.9	2901.5	2919.1	2966.4	3035.7	3106.1	3210.7	3299.8	3336.1	3283.3	3228.3
40°	2806.8	2795.8	2826.6	2850.9	2932.3	3030.2	3150.1	3212.9	3189.7	3129.2	3068.7
42.5°	2708.9	2685.8	2713.3	2759.5	2852.0	2963.1	3059.9	3095.1	3040.1	2951.0	2880.6
45°	2589.0	2561.5	2594.5	2656.1	2755.1	2881.7	2957.6	2945.5	2852.0	2774.9	2678.1
47.5°	2463.6	2430.5	2463.6	2537.3	2648.4	2782.6	2837.7	2782.6	2664.9	2568.1	2490.0
50°	2340.3	2301.8	2333.7	2444.8	2553.8	2657.2	2656.1	2549.4	2479.0	2373.3	2305.1
52.5°	2218.2	2163.2	2195.1	2316.1	2425.0	2542.8	2455.9	2356.8	2272.1	2179.7	2157.7
55°	2067.4	2008.0	2050.9	2227.0	2310.6	2379.9	2241.3	2154.4	2070.7	2024.5	1997.0
57.5°	1924.4	1859.5	1896.9	2104.9	2166.5	2184.1	2056.4	1933.2	1883.7	1868.3	1828.7
60°	1777.0	1703.3	1738.5	1978.3	2021.2	1949.7	1824.3	1728.6	1718.7	1687.8	1657.0
62.5°	1636.1	1554.7	1576.7	1821.0	1840.8	1711.0	1595.4	1570.1	1545.9	1515.1	1498.6
65°	1474.4	1389.7	1420.5	1653.7	1635.0	1467.8	1402.9	1397.4	1365.5	1340.2	1364.4
67.5°	1325.9	1225.7	1268.6	1471.1	1386.4	1249.9	1223.5	1210.3	1185.0	1199.3	945.2
70°	1163.0	1054.1	1112.4	1274.1	1148.7	1058.5	1048.6	1028.8	1029.9	818.6	689.9
72.5°	981.5	886.8	971.6	1058.5	908.8	882.4	868.1	865.9	698.7	567.8	535.8
75°	821.9	726.2	817.5	850.5	724.0	706.4	705.3	583.2	458.8	437.9	428.0
77.5°	641.5	567.8	654.7	605.2	555.6	535.8	480.8	360.9	345.5	331.2	124.3
80°	432.4	437.9	488.5	417.0	396.1	337.8	266.3	255.3	220.1	88.0	69.3
82.5°	263.0	330.1	311.4	260.8	255.3	183.7	168.3	85.8	63.8	50.6	44.0
85°	136.4	167.2	160.6	141.9	105.6	94.6	52.8	40.7	33.0	25.3	20.9
87.5°	46.2	61.6	59.4	47.3	36.3	28.6	18.7	15.4	11.0	8.8	7.7
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3694.8	3694.8	3692.6	3694.8	3695.9	3693.7	3693.7	3695.9	3697.0	3698.1	3703.6
5°	3700.3	3702.5	3705.8	3712.4	3713.5	3726.7	3732.2	3735.5	3738.8	3739.9	3732.2
7.5°	3712.4	3720.1	3726.7	3725.6	3717.9	3697.0	3690.4	3684.9	3694.8	3720.1	3749.8
10°	3723.4	3688.2	3622.2	3712.4	3684.9	3710.2	3785.0	3801.5	3852.1	3923.6	3944.5
12.5°	3647.5	3744.3	3765.2	3664.0	3851.0	3781.7	3864.2	3936.8	3957.7	4030.4	3986.4
15°	3728.9	3776.2	3808.1	3909.3	3898.3	3957.7	3980.9	3966.6	3969.9	3988.6	4038.1
17.5°	3727.8	3822.4	3843.3	3911.5	3957.7	3958.8	3952.2	3945.6	3963.3	3977.6	3947.8
20°	3791.6	3822.4	3863.1	3890.6	3899.4	3910.4	3931.3	3914.8	3881.8	3849.9	3836.7
22.5°	3759.7	3829.0	3864.2	3868.6	3863.1	3829.0	3798.2	3752.0	3736.6	3720.1	3725.6
25°	3766.3	3798.2	3793.8	3776.2	3753.1	3689.3	3673.9	3654.1	3624.4	3552.8	3487.9
27.5°	3719.0	3702.5	3682.7	3639.8	3598.0	3563.8	3525.3	3461.5	3408.7	3331.7	3303.1
30°	3639.8	3573.7	3525.3	3500.0	3459.3	3402.1	3343.8	3265.7	3198.5	3183.1	3168.8
32.5°	3487.9	3423.0	3383.4	3321.8	3252.5	3184.2	3117.1	3086.3	3072.0	3074.2	3061.0
35°	3332.8	3275.6	3216.2	3123.7	3072.0	3003.8	2979.6	2973.0	2959.8	2945.5	2930.1
37.5°	3167.7	3100.6	3011.5	2956.5	2904.8	2877.3	2865.2	2855.3	2832.2	2806.8	2789.2
40°	3008.2	2887.2	2837.7	2783.7	2768.3	2756.2	2738.6	2714.4	2682.5	2678.1	2670.4
42.5°	2794.7	2707.8	2664.9	2653.9	2635.2	2614.3	2598.9	2572.5	2559.3	2568.1	2574.7
45°	2592.3	2548.3	2534.0	2520.8	2485.6	2455.9	2445.9	2437.1	2448.1	2496.6	2381.0
47.5°	2428.3	2410.7	2393.1	2371.1	2338.1	2316.1	2326.0	2334.8	2344.7	1989.3	1815.5
50°	2286.4	2262.2	2234.7	2210.5	2190.7	2188.5	2240.2	2085.1	1746.2	1737.4	1561.3
52.5°	2131.3	2095.0	2078.5	2064.1	2072.9	2106.0	1742.9	1617.4	1551.4	1347.9	1257.6
55°	1964.0	1932.1	1932.1	1945.3	1898.0	1538.2	1519.5	1313.7	1189.4	1154.2	1139.9
57.5°	1796.8	1793.5	1812.2	1657.0	1396.3	1339.1	1125.6	1080.5	1060.7	1056.3	1033.2
60°	1643.8	1674.6	1401.8	1289.5	1121.2	1011.2	980.4	974.9	954.0	946.3	925.3
62.5°	1521.7	1262.0	1175.1	959.5	903.3	889.0	872.5	864.8	846.1	747.1	219.0
65°	1099.2	1038.7	842.8	806.5	802.1	781.2	774.6	696.5	163.9	110.0	93.5
67.5°	829.6	736.1	710.8	704.2	683.3	641.5	190.4	108.9	93.5	81.4	71.5
70°	637.1	620.6	601.9	586.5	172.7	107.8	93.5	79.2	68.2	60.5	55.0
72.5°	521.5	510.5	297.1	113.3	92.4	78.1	69.3	60.5	52.8	48.4	44.0
75°	408.2	113.3	93.5	78.1	67.1	57.2	50.6	45.1	40.7	37.4	34.1
77.5°	92.4	74.8	63.8	53.9	48.4	42.9	38.5	33.0	29.7	26.4	22.0
80°	57.2	49.5	41.8	38.5	33.0	27.5	24.2	22.0	17.6	16.5	14.3
82.5°	37.4	29.7	26.4	22.0	17.6	16.5	14.3	11.0	9.9	8.8	7.7
85°	16.5	14.3	12.1	9.9	7.7	6.6	5.5	4.4	4.4	4.4	4.4
87.5°	5.5	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.2	2.2
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3705.8	3725.6	3744.3	3738.8	3719.0	3688.2	3679.4	3667.3	3676.1	3694.8	3702.5
5°	3732.2	3721.2	3760.8	3819.1	3913.7	3922.5	3988.6	4004.0	4056.8	4089.8	4088.7
7.5°	3769.6	3925.8	3990.8	4061.2	4093.1	4085.4	4095.3	4087.6	4075.5	4070.0	4063.4
10°	3959.9	4078.8	4103.0	4103.0	4053.5	3986.4	3957.7	3908.2	3809.2	3811.4	3794.9
12.5°	4071.1	4112.9	4055.7	4007.3	3808.1	3731.1	3647.5	3607.9	3584.7	3549.5	3562.7
15°	4012.8	3953.3	3919.2	3763.0	3640.9	3502.2	3504.4	3480.2	3454.9	3457.1	3440.6
17.5°	3926.9	3879.6	3637.6	3529.7	3470.3	3416.4	3406.5	3374.6	3358.1	3352.6	3351.5
20°	3809.2	3638.7	3458.2	3431.8	3360.3	3298.7	3288.8	3298.7	3349.3	3259.1	2953.2
22.5°	3671.7	3426.3	3373.5	3298.7	3250.3	3226.1	3286.6	3011.5	2595.6	2646.2	2592.3
25°	3438.4	3331.7	3241.5	3184.2	3178.7	3030.2	2525.2	2472.4	2205.0	2061.9	1901.3
27.5°	3267.9	3221.7	3127.0	3117.1	3045.6	2477.9	2214.9	1924.4	1817.7	1801.2	1766.0
30°	3164.4	3098.4	3041.2	2791.4	2430.5	1994.8	1777.0	1736.3	1717.6	1697.7	1666.9
32.5°	3040.1	2977.4	3004.9	2346.9	1937.6	1717.6	1673.5	1643.8	1609.7	1596.5	1485.4
35°	2913.6	2885.0	2348.0	1972.8	1665.8	1613.0	1580.0	1549.2	1232.3	298.2	101.2
37.5°	2778.2	2771.6	2110.4	1637.2	1560.2	1510.7	1417.2	292.7	69.3	47.3	35.2
40°	2672.6	2111.5	1668.0	1534.9	1472.2	1394.1	195.9	48.4	30.8	18.7	12.1
42.5°	2602.2	1899.1	1493.1	1440.3	1303.8	144.1	49.5	20.9	12.1	9.9	7.7
45°	2005.8	1499.7	1395.2	1340.2	165.0	49.5	28.6	9.9	7.7	6.6	4.4
47.5°	1850.7	1362.2	1300.5	292.7	55.0	26.4	19.8	6.6	4.4	4.4	4.4
50°	1401.8	1258.7	1035.4	71.5	35.2	18.7	14.3	4.4	4.4	4.4	3.3
52.5°	1229.0	1161.9	111.1	47.3	27.5	14.3	8.8	3.3	3.3	3.3	3.3
55°	1123.4	737.2	66.0	36.3	23.1	13.2	5.5	3.3	3.3	3.3	2.2
57.5°	1027.7	99.0	48.4	30.8	20.9	12.1	3.3	3.3	3.3	3.3	2.2
60°	871.4	71.5	39.6	27.5	19.8	11.0	3.3	3.3	3.3	3.3	3.3
62.5°	113.3	56.1	34.1	24.2	14.3	8.8	2.2	3.3	3.3	3.3	3.3
65°	82.5	44.0	30.8	16.5	8.8	3.3	2.2	3.3	3.3	3.3	3.3
67.5°	63.8	36.3	23.1	14.3	7.7	2.2	2.2	3.3	3.3	3.3	3.3
70°	50.6	30.8	18.7	12.1	6.6	2.2	2.2	3.3	3.3	3.3	3.3
72.5°	39.6	22.0	13.2	6.6	4.4	2.2	2.2	3.3	3.3	3.3	3.3
75°	29.7	17.6	9.9	5.5	2.2	2.2	2.2	3.3	3.3	3.3	3.3
77.5°	19.8	11.0	7.7	4.4	4.4	4.4	5.5	5.5	3.3	3.3	3.3
80°	13.2	7.7	5.5	5.5	5.5	4.4	5.5	5.5	3.3	5.5	3.3
82.5°	6.6	5.5	5.5	4.4	4.4	3.3	4.4	4.4	4.4	4.4	3.3
85°	4.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.4	4.4	3.3
87.5°	2.2	2.2	2.2	2.2	3.3	3.3	3.3	3.3	4.4	4.4	3.3
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3692.6	3695.9	3687.1	3734.4	3710.2	3712.4	3722.3	3697.0	3702.5	3684.9	3672.8
5°	4093.1	4099.7	4106.3	4108.5	4112.9	4118.4	4111.8	4108.5	4101.9	4079.9	4056.8
7.5°	4030.4	4022.7	4019.4	4023.8	4031.5	4034.8	4029.3	4037.0	4065.6	4077.7	4085.4
10°	3700.3	3665.1	3689.3	3686.0	3658.5	3750.9	3725.6	3739.9	3749.8	3851.0	3912.6
12.5°	3542.9	3564.9	3523.1	3502.2	3529.7	3548.4	3567.1	3527.5	3582.5	3557.2	3638.7
15°	3410.9	3397.7	3393.3	3394.4	3388.9	3415.3	3421.9	3430.7	3438.4	3472.5	3485.7
17.5°	3351.5	3373.5	3382.3	3388.9	3377.9	3365.8	3353.7	3336.1	3341.6	3332.8	3358.1
20°	2747.4	2673.7	2669.3	2712.2	2664.9	2691.3	2755.1	3182.0	3167.7	3333.9	3277.8
22.5°	2293.0	2223.7	2164.3	2112.6	2186.3	2217.1	2335.9	2470.2	2688.0	2653.9	2890.5
25°	1872.7	1847.4	1832.0	1824.3	1829.8	1827.6	1854.0	1916.7	2015.7	2249.0	2550.5
27.5°	1751.7	1739.6	1734.1	1716.5	1729.7	1725.3	1746.2	1759.4	1789.1	1812.2	1910.1
30°	1655.9	1641.6	1631.7	1613.0	1626.2	1627.3	1633.9	1668.0	1680.1	1700.0	1730.8
32.5°	605.2	356.5	334.5	318.0	347.7	453.3	795.5	1390.8	1586.6	1602.0	1637.2
35°	59.4	49.5	44.0	44.0	45.1	49.5	66.0	173.8	318.0	1229.0	1538.2
37.5°	23.1	19.8	16.5	15.4	16.5	18.7	25.3	33.0	45.1	93.5	417.0
40°	9.9	8.8	7.7	7.7	7.7	7.7	8.8	11.0	16.5	30.8	48.4
42.5°	6.6	5.5	5.5	5.5	5.5	5.5	5.5	5.5	7.7	9.9	19.8
45°	4.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.4	5.5	8.8
47.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.4
50°	3.3	3.3	3.3	3.3	2.2	3.3	2.2	3.3	3.3	3.3	3.3
52.5°	3.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3
55°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3
57.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
60°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
62.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3	2.2
65°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3	2.2
67.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
70°	3.3	3.3	2.2	3.3	2.2	2.2	3.3	3.3	3.3	2.2	2.2
72.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	6.6	6.6	4.4
75°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	5.5	6.6	5.5
77.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	5.5	5.5	5.5
80°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.4	4.4	4.4
82.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.4	4.4	4.4
85°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
87.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3651.9	3650.8	3673.9	3691.5	3684.9	3691.5	3699.2	3700.3	3702.5	3693.7	3690.4
5°	4012.8	3978.7	3912.6	3865.3	3810.3	3710.2	3660.7	3666.2	3667.3	3664.0	3668.4
7.5°	4082.1	4078.8	4055.7	4045.8	4008.4	3936.8	3822.4	3802.6	3754.2	3723.4	3698.1
10°	3908.2	3987.5	4008.4	4043.6	4065.6	4052.4	3955.5	3941.2	3910.4	3875.2	3882.9
12.5°	3720.1	3785.0	3788.3	3979.8	4022.7	4027.1	3989.7	4009.5	4013.9	3934.6	3888.4
15°	3489.0	3519.8	3584.7	3763.0	3892.8	3974.3	3998.5	4009.5	3955.5	3952.2	3933.5
17.5°	3387.8	3407.6	3437.3	3537.4	3734.4	3854.3	3956.6	3948.9	3969.9	3954.4	3907.1
20°	3260.2	3276.7	3329.5	3380.1	3476.9	3636.5	3827.9	3842.2	3869.7	3866.4	3879.6
22.5°	3258.0	3199.6	3208.5	3248.1	3349.3	3492.3	3695.9	3743.2	3760.8	3772.9	3787.2
25°	2584.6	3047.8	3132.5	3157.8	3223.9	3307.5	3547.3	3564.9	3598.0	3651.9	3691.5
27.5°	2239.1	2553.8	2892.7	3068.7	3110.5	3179.8	3322.9	3349.3	3461.5	3474.7	3536.3
30°	1767.1	2010.2	2516.4	2940.0	3009.3	3057.7	3158.9	3211.8	3260.2	3313.0	3377.9
32.5°	1662.5	1701.1	1981.6	2432.7	2971.9	2935.6	3010.4	3042.3	3095.1	3141.3	3188.6
35°	1566.8	1593.2	1652.6	1992.6	2420.6	2835.5	2886.1	2907.0	2936.7	2971.9	3006.0
37.5°	1466.7	1506.3	1547.0	1638.3	2239.1	2756.2	2755.1	2779.3	2796.9	2826.6	2855.3
40°	266.3	1383.1	1449.1	1508.5	1736.3	2198.4	2631.9	2642.9	2655.0	2673.7	2703.4
42.5°	42.9	231.1	1357.8	1415.0	1479.9	1968.4	2575.8	2530.7	2523.0	2536.2	2562.6
45°	22.0	56.1	272.9	1321.5	1379.8	1570.1	2106.0	2452.5	2444.8	2419.5	2425.0
47.5°	16.5	35.2	67.1	456.6	1291.7	1347.9	1943.1	1922.2	2068.5	2349.1	2306.2
50°	14.3	24.2	39.6	93.5	1141.0	1241.1	1496.4	1748.4	1825.4	1835.3	2172.0
52.5°	13.2	16.5	28.6	60.5	239.9	1147.6	1216.9	1304.9	1434.8	1713.2	1706.6
55°	12.1	15.4	24.2	40.7	83.6	1034.3	1105.8	1122.3	1149.8	1282.9	1459.0
57.5°	6.6	14.3	23.1	35.2	62.7	189.3	1003.5	1016.7	1038.7	1044.2	1106.9
60°	3.3	13.2	20.9	30.8	46.2	88.0	902.2	917.6	930.8	933.0	952.9
62.5°	2.2	12.1	17.6	28.6	38.5	62.7	213.5	435.7	828.5	828.5	851.6
65°	2.2	8.8	11.0	18.7	35.2	51.7	90.2	104.5	203.6	500.6	747.1
67.5°	2.2	3.3	9.9	15.4	26.4	39.6	66.0	77.0	92.4	105.6	195.9
70°	2.2	2.2	8.8	9.9	16.5	29.7	47.3	53.9	62.7	71.5	82.5
72.5°	2.2	2.2	7.7	7.7	11.0	19.8	36.3	39.6	45.1	50.6	58.3
75°	5.5	4.4	6.6	6.6	7.7	15.4	27.5	30.8	33.0	37.4	42.9
77.5°	5.5	5.5	5.5	5.5	5.5	9.9	17.6	19.8	23.1	25.3	29.7
80°	4.4	4.4	4.4	5.5	5.5	6.6	11.0	12.1	13.2	16.5	17.6
82.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	6.6	7.7	9.9
85°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.4	4.4	4.4	4.4
87.5°	3.3	3.3	3.3	2.2	2.2	3.3	3.3	3.3	3.3	3.3	3.3
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3689.3	3682.7	3677.2	3680.5	3670.6	3666.2	3669.5	3670.6	3672.8	3678.3	3679.4
5°	3679.4	3677.2	3687.1	3692.6	3690.4	3692.6	3692.6	3688.2	3681.6	3686.0	3676.1
7.5°	3672.8	3658.5	3647.5	3649.7	3638.7	3651.9	3664.0	3681.6	3687.1	3687.1	3676.1
10°	3786.1	3770.7	3709.1	3667.3	3639.8	3615.6	3672.8	3614.5	3642.0	3537.4	3657.4
12.5°	3879.6	3900.5	3873.0	3758.6	3738.8	3666.2	3708.0	3636.5	3615.6	3495.6	3534.1
15°	3917.0	3877.4	3868.6	3836.7	3793.8	3772.9	3660.7	3648.6	3614.5	3627.7	3577.0
17.5°	3884.0	3903.8	3877.4	3856.5	3812.5	3763.0	3695.9	3636.5	3589.2	3483.5	3572.6
20°	3852.1	3878.5	3799.3	3812.5	3816.9	3759.7	3724.5	3675.0	3615.6	3516.5	3439.5
22.5°	3799.3	3780.6	3787.2	3767.4	3750.9	3758.6	3710.2	3676.1	3575.9	3530.8	3426.3
25°	3713.5	3706.9	3724.5	3722.3	3682.7	3669.5	3645.3	3609.0	3569.3	3496.7	3410.9
27.5°	3573.7	3607.9	3638.7	3653.0	3632.1	3596.9	3583.6	3562.7	3535.2	3461.5	3397.7
30°	3426.3	3464.8	3500.0	3530.8	3549.5	3534.1	3522.0	3509.9	3468.1	3419.7	3348.2
32.5°	3258.0	3308.6	3357.0	3394.4	3435.1	3447.2	3438.4	3428.5	3393.3	3349.3	3292.1
35°	3063.2	3132.5	3202.9	3270.1	3287.7	3316.3	3344.9	3328.4	3309.7	3265.7	3212.9
37.5°	2898.2	2947.7	2998.3	3083.0	3144.6	3180.9	3231.6	3238.2	3206.2	3185.3	3116.0
40°	2727.6	2772.7	2846.5	2896.0	2980.7	3022.5	3076.4	3100.6	3092.9	3080.8	3020.3
42.5°	2593.4	2615.4	2663.8	2707.8	2791.4	2877.3	2924.6	2951.0	2978.5	2968.6	2937.8
45°	2450.3	2470.2	2486.7	2525.2	2606.6	2682.5	2740.8	2780.4	2829.9	2853.1	2815.6
47.5°	2308.4	2313.9	2333.7	2365.6	2414.0	2472.4	2570.3	2629.7	2675.9	2721.0	2696.8
50°	2199.5	2179.7	2183.0	2202.8	2242.4	2299.6	2370.0	2453.7	2506.5	2561.5	2567.0
52.5°	1922.2	2082.9	2044.3	2055.3	2076.3	2103.8	2177.5	2260.0	2324.9	2372.2	2419.5
55°	1613.0	1644.9	1954.1	1910.1	1923.3	1947.5	1981.6	2064.1	2126.9	2192.9	2258.9
57.5°	1251.0	1488.7	1500.8	1786.9	1780.3	1782.5	1811.1	1858.4	1921.1	2003.6	2059.7
60°	972.7	1072.8	1267.5	1366.6	1617.4	1626.2	1642.7	1670.2	1724.2	1802.3	1891.4
62.5°	858.2	871.4	940.7	1089.3	1252.1	1449.1	1484.3	1488.7	1512.9	1591.0	1694.4
65°	753.7	762.5	783.4	798.8	935.2	1125.6	1295.0	1322.6	1338.0	1384.2	1472.2
67.5°	519.3	656.9	675.6	686.6	699.8	787.8	998.0	1137.7	1155.3	1196.0	1273.0
70°	100.1	208.0	568.9	581.0	587.6	607.4	641.5	863.7	980.4	1018.9	1054.1
72.5°	68.2	80.3	96.8	228.9	484.1	495.1	502.8	531.4	728.4	840.6	859.3
75°	49.5	55.0	64.9	80.3	99.0	322.4	399.4	413.7	428.0	590.9	685.5
77.5°	35.2	39.6	44.0	51.7	60.5	78.1	112.2	309.2	323.5	331.2	467.6
80°	19.8	24.2	29.7	34.1	38.5	44.0	57.2	71.5	159.5	233.3	245.4
82.5°	11.0	13.2	15.4	18.7	20.9	26.4	31.9	38.5	50.6	74.8	158.4
85°	5.5	5.5	5.5	7.7	8.8	12.1	14.3	16.5	23.1	31.9	44.0
87.5°	3.3	3.3	4.4	4.4	4.4	5.5	5.5	5.5	6.6	9.9	14.3
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	3666.2	3666.2	3666.2	3666.2	3666.2
2.5°	3680.5	3677.2	3677.2	3690.4	3687.1
5°	3673.9	3670.6	3669.5	3683.8	3677.2
7.5°	3668.4	3656.3	3653.0	3666.2	3660.7
10°	3646.4	3637.6	3643.1	3638.7	3636.5
12.5°	3609.0	3603.5	3580.3	3582.5	3601.3
15°	3541.8	3563.8	3524.2	3559.4	3567.1
17.5°	3418.6	3468.1	3506.6	3527.5	3530.8
20°	3473.6	3490.1	3470.3	3471.4	3484.6
22.5°	3402.1	3409.8	3415.3	3408.7	3437.3
25°	3287.7	3258.0	3321.8	3335.0	3381.2
27.5°	3252.5	3228.3	3258.0	3255.8	3294.3
30°	3223.9	3145.7	3158.9	3179.8	3227.2
32.5°	3183.1	3059.9	3046.7	3092.9	3145.7
35°	3111.6	2995.0	2964.2	2993.9	3073.1
37.5°	3051.1	2904.8	2843.2	2882.8	2986.2
40°	2960.9	2834.4	2738.6	2773.8	2896.0
42.5°	2853.1	2773.8	2626.4	2650.6	2790.3
45°	2744.1	2673.7	2517.5	2529.6	2695.7
47.5°	2633.0	2568.1	2404.1	2406.3	2574.7
50°	2524.1	2438.2	2302.9	2264.4	2445.9
52.5°	2382.1	2302.9	2200.6	2137.9	2323.8
55°	2247.9	2158.8	2084.0	1987.1	2185.2
57.5°	2117.0	2017.9	1967.3	1843.0	2027.8
60°	1937.6	1890.3	1815.5	1696.6	1885.9
62.5°	1753.9	1738.5	1662.5	1539.3	1711.0
65°	1539.3	1575.6	1497.5	1391.9	1529.4
67.5°	1336.9	1401.8	1315.9	1251.0	1354.5
70°	1121.2	1196.0	1147.6	1124.5	1168.5
72.5°	908.8	981.5	985.9	969.4	983.7
75°	702.0	782.3	826.3	801.0	804.3
77.5°	532.5	571.1	619.5	639.3	634.9
80°	329.0	396.1	435.7	476.4	462.1
82.5°	166.1	222.3	270.7	314.7	293.8
85°	69.3	89.1	124.3	163.9	157.3
87.5°	20.9	35.2	37.4	52.8	49.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)