

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: STREETWORKS

Report Number: P158953

Luminaire Tested: **VST-F11-LED-E-U-SLL-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158953
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33715)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F11-LED-E-U-SLL-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (77) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20595.6 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 282.7
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: 28.75 FT

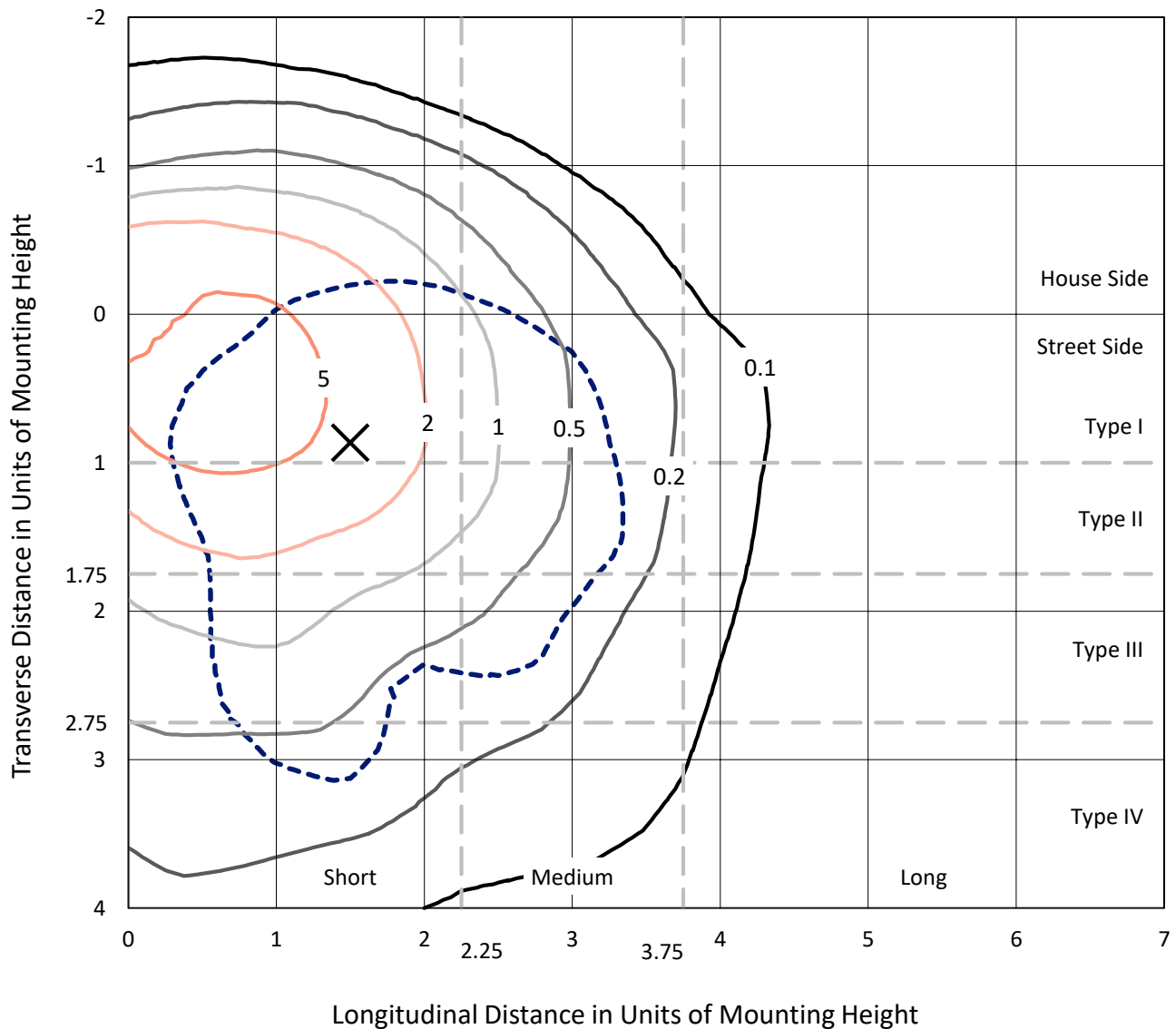


REPORT NUMBER: P158953

CATALOG NUMBER: VST-F11-LED-E-U-SLL-8030

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

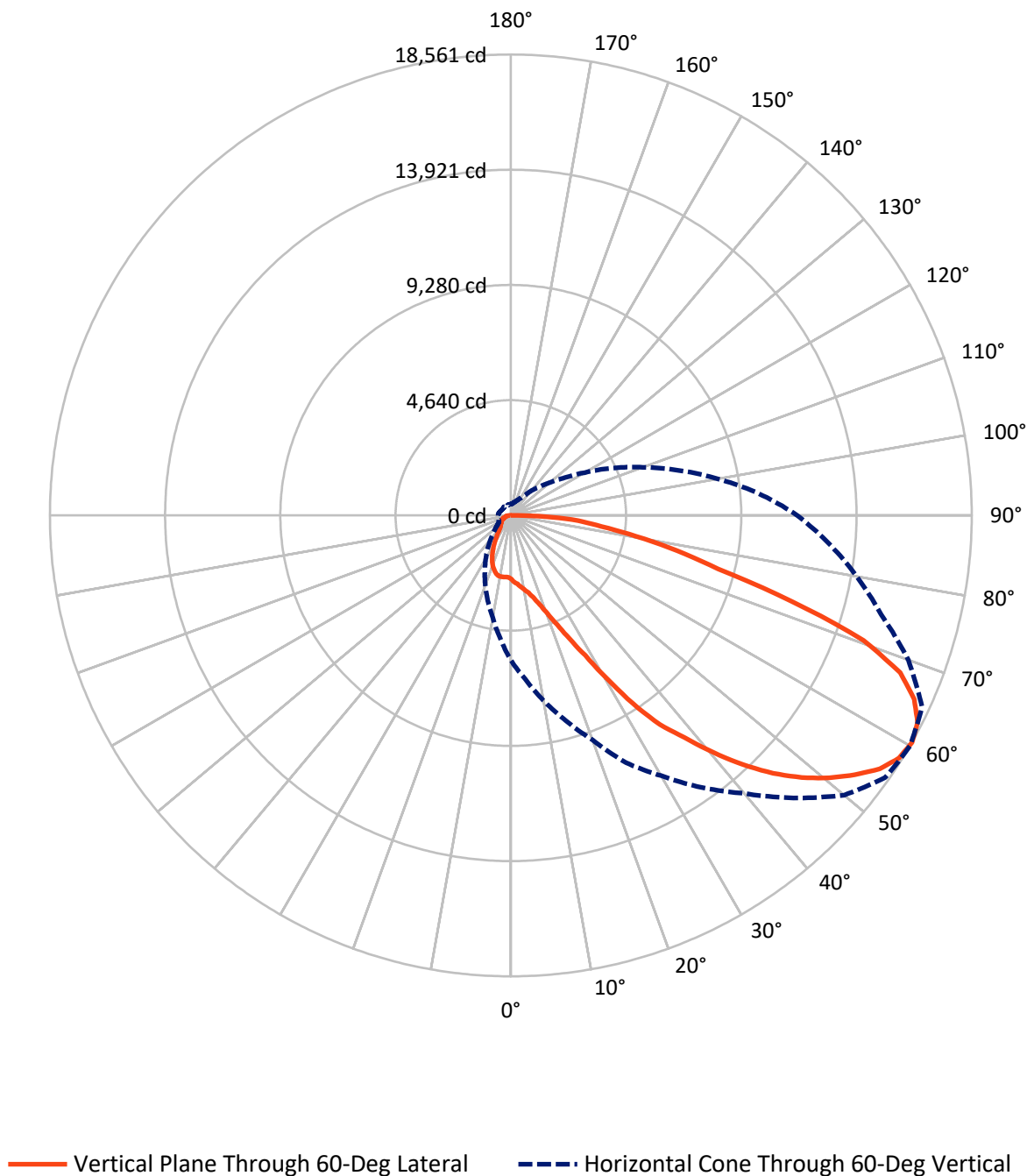


Based on 25 foot mounting height. Maximum calculated value = 9.5 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P158953

CATALOG NUMBER: VST-F11-LED-E-U-SLL-8030

Luminous Intensity Polar Plot



REPORT NUMBER: P158953

CATALOG NUMBER: VST-F11-LED-E-U-SLL-8030

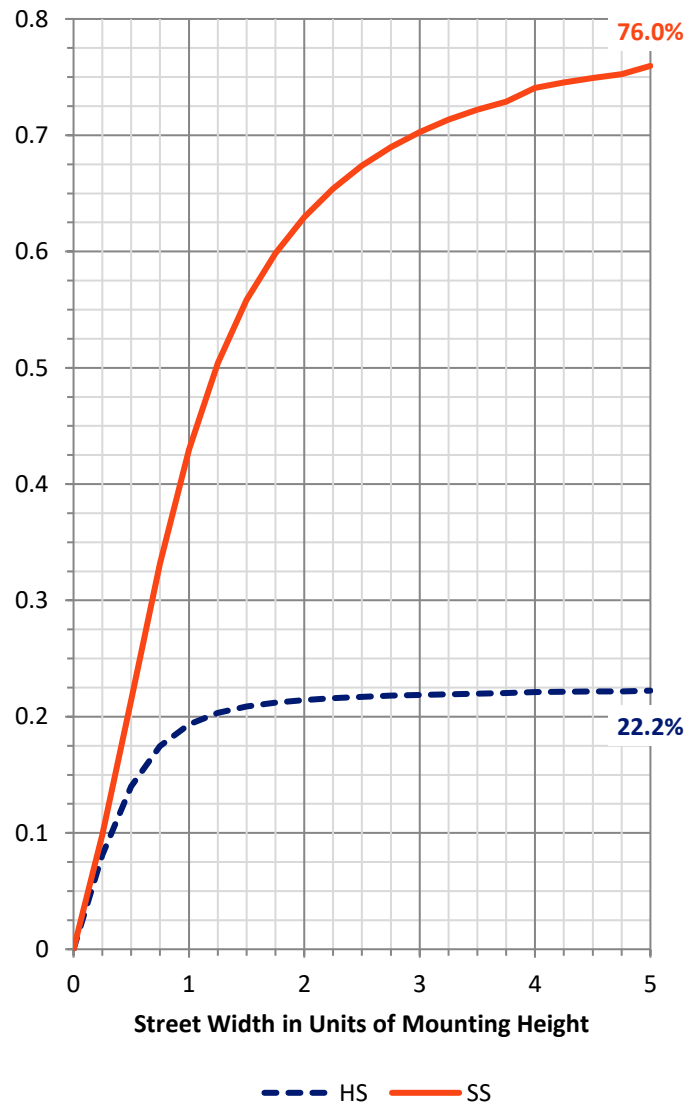
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4637.5	0.0	4637.5
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	15958.1	0.0	15958.1
	% Fixture	77.5	0.0	77.5
Total	Lumens	20595.6	0.0	20595.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.7	1.2
10°-20°	815.9	4.0
20°-30°	1548.2	7.5
30°-40°	2438.2	11.8
40°-50°	3403.1	16.5
50°-60°	4208.9	20.4
60°-70°	4362.7	21.2
70°-80°	2745.2	13.3
80°-90°	820.6	4.0
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°-90°	20595.6	100.0
0°-180°	20595.6	100.0

Coefficient of Utilization



REPORT NUMBER: P158953

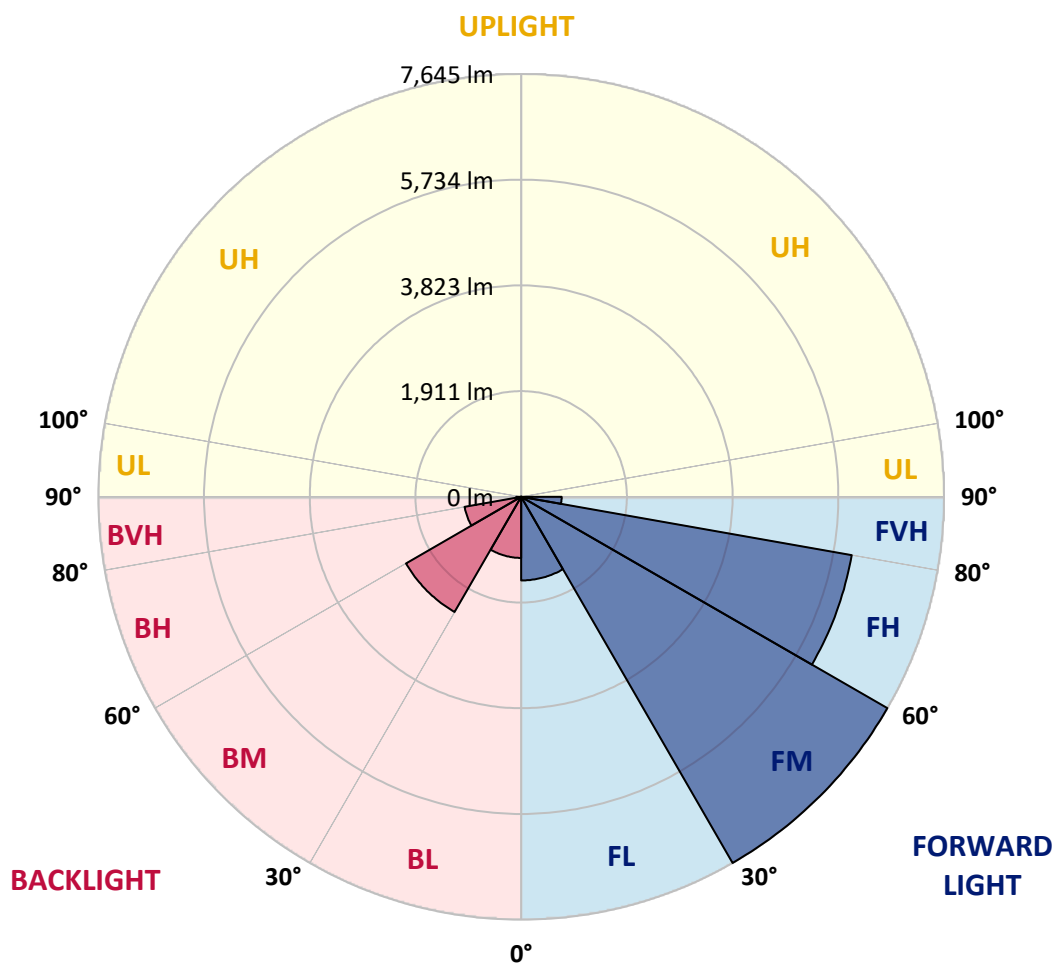
CATALOG NUMBER: VST-F11-LED-E-U-SLL-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1512.0	7.3			
FM	(30°-60°)	7645.4	37.1			
FH	(60°-80°)	6069.3	29.5			G3/7500
FVH	(80°-90°)	731.3	3.6			G4/750
BL	(0°-30°)	1104.8	5.4	B3/2500		
BM	(30°-60°)	2404.8	11.7	B2/2500		
BH	(60°-80°)	1038.6	5.0	B3/2500		G3/2500
BVH	(80°-90°)	89.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





REPORT NUMBER: P158953

CATALOG NUMBER: VST-F11-LED-E-U-SLL-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3
2.5°	2713.1	2710.0	2710.0	2710.0	2708.5	2705.4	2710.0	2708.5	2700.8	2696.2	2700.8
5°	2748.3	2749.9	2754.5	2756.0	2756.0	2760.6	2772.9	2774.4	2772.9	2775.9	2783.6
7.5°	2782.1	2789.7	2794.3	2802.0	2811.2	2818.9	2840.3	2861.8	2875.6	2886.3	2889.4
10°	2837.2	2849.5	2863.3	2883.2	2904.7	2943.0	2961.4	2982.9	2996.7	3018.1	3022.7
12.5°	2978.3	2993.6	3002.8	3033.4	3061.0	3097.8	3123.9	3130.0	3162.2	3180.6	3202.1
15°	3215.9	3238.8	3271.0	3289.4	3320.1	3352.3	3375.3	3405.9	3410.5	3435.0	3451.9
17.5°	3507.1	3539.3	3605.2	3649.6	3689.5	3721.7	3767.7	3802.9	3810.6	3838.2	3802.9
20°	3914.8	3993.0	4003.7	4092.6	4127.9	4192.3	4284.2	4301.1	4345.5	4301.1	4275.0
22.5°	4466.6	4589.3	4623.0	4708.8	4751.7	4849.8	4877.4	4967.9	4998.5	4964.8	4894.3
25°	5101.2	5291.3	5389.4	5521.2	5542.7	5743.5	5764.9	5870.7	5814.0	5732.7	5734.3
27.5°	5568.7	5892.2	6145.1	6370.4	6528.3	6755.1	6931.4	6980.5	6926.8	6821.0	6784.3
30°	5835.4	6201.8	6565.1	6876.2	7244.1	7590.5	7950.7	8130.1	8160.7	8215.9	7993.6
32.5°	6007.1	6477.7	6909.9	7294.7	7671.8	8117.8	8600.6	9062.0	9449.8	9742.6	9604.6
35°	6151.2	6732.1	7285.5	7751.5	8197.5	8683.4	9170.9	9715.0	10357.3	10732.8	10811.0
37.5°	6209.4	6919.1	7596.6	8194.4	8821.4	9368.6	9853.0	10337.3	11011.8	11681.6	11888.5
40°	6198.7	7011.1	7782.1	8533.2	9301.1	9984.8	10551.9	11125.2	11914.6	12697.9	13035.1
42.5°	6126.7	7024.9	7900.1	8758.5	9633.8	10542.7	11267.7	11928.4	12685.6	13689.6	14166.3
45°	6036.2	6977.4	7924.7	8873.5	9880.5	10932.1	11848.7	12665.7	13553.2	14544.9	15121.3
47.5°	5913.6	6902.3	7894.0	8913.3	9990.9	11181.9	12259.5	13242.0	14218.4	15360.4	16091.5
50°	5780.3	6795.0	7831.2	8884.2	10018.5	11318.3	12494.0	13613.0	14753.4	15985.8	16910.1
52.5°	5686.8	6680.0	7774.5	8824.4	9990.9	11359.7	12579.8	13812.2	15081.4	16355.2	17458.8
55°	5571.8	6526.7	7622.7	8684.9	9889.7	11336.7	12570.6	13881.2	15171.8	16497.7	17757.7
57.5°	5579.5	6456.2	7493.9	8517.9	9682.8	11123.7	12397.4	13812.2	15029.3	16405.8	17768.4
60°	5821.6	6608.0	7561.4	8551.6	9621.5	10988.8	12103.1	13367.7	14610.8	16088.5	17520.1
62.5°	6321.3	7041.8	7907.8	8888.8	9966.4	11258.5	11969.8	12628.9	13732.5	15504.5	17097.1
65°	6917.6	7567.5	8318.6	9252.1	10460.0	11696.9	11894.7	12028.0	12586.0	14368.6	16303.1
67.5°	7513.9	8094.8	8684.9	9459.0	10740.5	11822.6	11588.1	11270.8	11571.2	13048.9	14742.6
70°	7728.5	8499.5	8887.3	9419.2	10527.4	11529.9	11093.0	10294.4	10398.6	11741.4	12979.9
72.5°	7406.6	8505.6	8634.4	8832.1	9578.6	10521.3	10059.9	9032.9	9011.4	10036.9	11037.8
75°	6212.5	7759.1	7757.6	7684.0	7852.6	8389.1	8150.0	7530.7	7792.8	8600.6	8930.2
77.5°	4428.3	6054.6	6131.3	5636.2	5623.9	5866.1	6010.2	6730.6	7681.0	8134.7	8030.4
80°	2782.1	4085.0	4414.5	3802.9	3672.6	4016.0	4906.6	5955.0	7124.5	7532.3	7181.3
82.5°	1675.4	2631.8	3333.9	2987.5	2956.8	3582.2	4566.3	4974.0	5325.0	5758.8	5171.7
85°	1137.4	1753.5	2280.8	2349.8	2618.1	3264.9	3692.6	3511.7	3520.9	3407.5	3104.0
87.5°	217.7	478.2	781.7	953.4	1057.6	1420.9	1545.1	1399.5	1477.6	1080.6	1181.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P158953

CATALOG NUMBER: VST-F11-LED-E-U-SLL-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3
2.5°	2693.2	2693.2	2693.2	2685.5	2687.0	2676.3	2671.7	2671.7	2667.1	2667.1	2665.6
5°	2777.5	2768.3	2772.9	2771.3	2771.3	2756.0	2748.3	2748.3	2728.4	2729.9	2723.8
7.5°	2903.2	2901.6	2906.2	2897.0	2884.8	2872.5	2860.2	2854.1	2826.5	2809.7	2798.9
10°	3045.7	3044.2	3048.8	3047.2	3025.8	3002.8	2969.1	2944.5	2910.8	2884.8	2858.7
12.5°	3202.1	3200.5	3197.5	3183.7	3160.7	3123.9	3081.0	3039.6	2989.0	2955.3	2917.0
15°	3445.8	3441.2	3422.8	3402.9	3378.3	3321.6	3246.5	3186.7	3119.3	3061.0	2998.2
17.5°	3806.0	3767.7	3764.6	3720.1	3654.2	3579.1	3508.6	3409.0	3312.4	3225.0	3139.2
20°	4302.6	4213.7	4189.2	4138.6	4051.2	3973.1	3819.8	3686.4	3554.6	3435.0	3326.2
22.5°	4843.7	4779.3	4719.5	4636.8	4517.2	4403.8	4209.1	4042.0	3873.4	3720.1	3599.1
25°	5599.4	5487.5	5380.2	5248.4	5082.8	4947.9	4725.7	4557.1	4336.3	4196.9	4022.1
27.5°	6575.8	6384.2	6203.3	6089.9	5798.7	5602.5	5318.9	5101.2	4834.5	4646.0	4439.0
30°	7846.5	7624.2	7356.0	6963.6	6617.2	6227.8	5876.8	5597.9	5314.3	5050.6	4811.5
32.5°	9422.2	9029.8	8605.2	7982.9	7414.2	6859.4	6391.9	6048.5	5758.8	5430.8	5093.6
35°	10754.3	10349.6	9747.2	8956.3	8254.2	7619.6	7060.2	6591.1	6212.5	5797.1	5351.1
37.5°	11805.8	11344.4	10778.8	9938.8	9196.9	8475.0	7887.9	7290.1	6793.5	6221.7	5657.6
40°	13010.6	12547.6	11925.3	11054.7	10176.4	9393.1	8704.9	8087.1	7477.1	6779.7	6054.6
42.5°	14060.5	13726.4	13096.4	12196.6	11223.3	10351.1	9598.5	8891.9	8094.8	7314.6	6456.2
45°	15155.0	14814.7	14216.9	13275.7	12241.1	11269.3	10369.5	9609.2	8668.1	7739.2	6756.7
47.5°	16122.2	15772.7	15168.8	14233.7	13134.7	12110.8	11120.6	10200.9	9108.0	8041.2	6952.9
50°	17044.9	16617.3	16063.9	15132.0	13957.8	12863.4	11788.9	10608.6	9449.8	8252.7	7086.2
52.5°	17892.6	17348.4	16824.2	15864.7	14595.5	13452.0	12253.3	10955.1	9659.8	8419.8	7176.7
55°	18373.9	18022.9	17396.0	16453.3	15049.2	13856.7	12547.6	11198.8	9868.3	8537.8	7215.0
57.5°	18522.6	18436.7	17911.0	16793.6	15315.9	14078.9	12746.9	11391.9	10007.8	8571.5	7161.3
60°	18404.5	18560.9	18272.7	17032.7	15437.0	14144.8	12845.0	11529.9	10032.3	8464.2	6998.8
62.5°	18025.9	18381.6	18344.8	17112.4	15374.2	14062.1	12834.3	11459.3	9802.4	8130.1	6634.0
65°	17403.6	17851.2	18009.1	16816.5	15020.1	13760.1	12561.4	11016.4	9163.2	7477.1	6022.4
67.5°	16232.5	16910.1	17063.3	15847.8	14094.3	12924.7	11775.1	10096.7	7979.9	6467.0	5067.5
70°	13885.8	15070.7	15277.6	14002.3	12461.8	11434.8	10460.0	8639.0	6644.8	5187.1	3888.8
72.5°	11085.3	11830.3	12253.3	11375.0	10228.5	9483.5	8744.7	6627.9	5013.8	3827.4	2676.3
75°	8666.6	8622.1	9000.7	8416.7	7742.3	7394.3	6839.4	4624.5	3358.4	2535.3	1693.8
77.5°	7409.6	6839.4	6408.7	5997.9	5597.9	5487.5	4955.6	2869.4	2075.4	1519.0	1013.2
80°	6158.9	5118.1	4331.7	3753.9	3611.3	3829.0	3243.4	1692.2	1229.3	872.2	636.1
82.5°	4400.7	3681.8	2996.7	2630.3	2386.6	2733.0	1913.0	939.6	666.8	522.7	421.5
85°	2852.6	2726.9	2697.8	2578.2	2282.4	2155.1	1453.1	809.3	499.7	325.0	262.1
87.5°	1097.5	1407.1	1623.3	1739.7	1880.8	1675.4	757.2	279.0	274.4	168.6	127.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P158953

CATALOG NUMBER: VST-F11-LED-E-U-SLL-8030

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3
2.5°	2654.8	2648.7	2647.2	2642.6	2639.5	2639.5	2631.8	2492.4	2490.8	2490.8	2489.3
5°	2711.6	2703.9	2696.2	2694.7	2688.6	2688.6	2680.9	2541.4	2541.4	2541.4	2538.3
7.5°	2788.2	2772.9	2763.7	2759.1	2749.9	2754.5	2760.6	2619.6	2621.1	2619.6	2622.7
10°	2843.4	2834.2	2823.5	2820.4	2814.3	2818.9	2828.0	2688.6	2693.2	2694.7	2697.8
12.5°	2897.0	2881.7	2867.9	2863.3	2860.2	2872.5	2883.2	2748.3	2752.9	2757.5	2757.5
15°	2962.9	2936.9	2918.5	2907.8	2901.6	2913.9	2929.2	2795.9	2797.4	2802.0	2800.5
17.5°	3074.8	3036.5	2993.6	2985.9	2966.0	2970.6	2973.7	2825.0	2818.9	2808.1	2789.7
20°	3248.0	3189.8	3131.5	3107.0	3067.2	3050.3	3016.6	2826.5	2788.2	2756.0	2728.4
22.5°	3496.4	3410.5	3347.7	3306.3	3225.0	3168.3	3076.4	2818.9	2746.8	2691.6	2648.7
25°	3898.0	3795.3	3698.7	3594.5	3467.2	3353.8	3218.9	2886.3	2774.4	2679.4	2596.6
27.5°	4288.8	4126.3	3977.7	3821.3	3642.0	3471.8	3281.8	2907.8	2780.5	2657.9	2523.0
30°	4581.6	4345.5	4120.2	3891.8	3657.3	3436.6	3222.0	2834.2	2682.4	2544.5	2401.9
32.5°	4759.4	4452.8	4160.1	3876.5	3600.6	3352.3	3111.6	2707.0	2539.9	2377.4	2225.7
35°	4928.0	4547.9	4184.6	3850.4	3534.7	3258.8	2999.7	2558.3	2359.0	2185.8	1994.2
37.5°	5136.5	4647.5	4199.9	3802.9	3438.1	3122.4	2837.2	2371.3	2172.0	1958.9	1778.1
40°	5386.3	4750.2	4184.6	3707.9	3287.9	2943.0	2641.0	2175.1	1952.8	1745.9	1568.1
42.5°	5623.9	4840.6	4144.7	3580.7	3123.9	2756.0	2461.7	2000.3	1778.1	1566.5	1390.3
45°	5800.2	4917.3	4124.8	3491.8	2998.2	2628.8	2303.8	1859.3	1624.8	1411.7	1232.4
47.5°	5922.8	4963.3	4115.6	3442.7	2910.8	2497.0	2159.7	1718.3	1471.5	1256.9	1082.2
50°	5987.2	4961.7	4092.6	3389.1	2782.1	2339.1	2011.1	1575.7	1330.5	1120.5	961.1
52.5°	6004.0	4934.1	4043.6	3291.0	2625.7	2181.2	1851.6	1427.1	1206.3	1005.5	844.6
55°	5965.7	4866.7	3940.9	3126.9	2458.6	2014.1	1706.0	1310.6	1085.2	895.2	769.5
57.5°	5856.9	4747.1	3747.7	2901.6	2282.4	1859.3	1538.9	1169.5	953.4	794.0	689.8
60°	5654.6	4494.2	3445.8	2634.9	2058.6	1623.3	1309.0	985.6	813.9	694.4	610.1
62.5°	5280.6	4097.2	3021.2	2267.0	1736.7	1316.7	1045.4	786.3	657.6	579.4	527.3
65°	4678.2	3499.4	2529.2	1785.7	1319.8	958.0	777.1	591.7	498.2	450.6	435.3
67.5°	3818.3	2702.4	1839.4	1240.0	893.6	671.4	541.1	432.3	387.8	369.4	363.3
70°	2775.9	1840.9	1191.0	783.3	590.1	469.0	409.3	347.9	323.4	318.8	318.8
72.5°	1742.8	1119.0	729.6	536.5	447.6	380.1	349.5	306.6	297.4	294.3	289.7
75°	1022.4	679.0	516.6	439.9	383.2	340.3	314.2	279.0	272.8	271.3	266.7
77.5°	651.4	489.0	416.9	375.5	346.4	308.1	285.1	248.3	246.8	245.3	243.7
80°	467.5	406.2	364.8	332.6	303.5	268.2	254.4	225.3	222.3	220.7	223.8
82.5°	354.1	335.7	318.8	294.3	254.4	228.4	217.7	197.7	199.3	191.6	190.1
85°	243.7	240.7	239.1	228.4	199.3	176.3	168.6	157.9	165.5	157.9	148.7
87.5°	119.6	118.0	108.8	128.8	119.6	95.0	85.8	95.0	105.8	102.7	95.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P158953

CATALOG NUMBER: VST-F11-LED-E-U-SLL-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3
2.5°	2483.2	2477.0	2481.6	2478.6	2478.6	2477.0	2480.1	2475.5	2472.4	2475.5	2477.0
5°	2532.2	2524.6	2526.1	2515.4	2520.0	2509.2	2512.3	2504.6	2497.0	2493.9	2493.9
7.5°	2615.0	2607.3	2598.1	2596.6	2579.7	2573.6	2562.9	2556.7	2552.1	2541.4	2535.3
10°	2690.1	2677.8	2667.1	2665.6	2648.7	2633.4	2619.6	2607.3	2599.7	2584.3	2576.7
12.5°	2751.4	2739.1	2722.3	2713.1	2696.2	2677.8	2668.6	2650.2	2639.5	2622.7	2608.9
15°	2786.7	2765.2	2740.7	2723.8	2699.3	2679.4	2665.6	2651.8	2641.0	2619.6	2599.7
17.5°	2769.8	2734.5	2700.8	2670.2	2636.4	2618.1	2598.1	2581.3	2578.2	2553.7	2523.0
20°	2699.3	2657.9	2613.5	2572.1	2527.6	2501.6	2477.0	2451.0	2443.3	2414.2	2374.3
22.5°	2613.5	2565.9	2515.4	2464.8	2408.1	2371.3	2334.5	2302.3	2276.2	2233.3	2176.6
25°	2526.1	2455.6	2382.0	2317.6	2251.7	2205.7	2167.4	2132.2	2101.5	2032.5	1974.3
27.5°	2411.1	2300.8	2225.7	2152.1	2072.4	2012.6	1969.7	1920.6	1886.9	1807.2	1745.9
30°	2264.0	2153.6	2046.3	1972.7	1893.0	1828.7	1773.5	1703.0	1653.9	1595.7	1538.9
32.5°	2078.5	1968.1	1859.3	1776.5	1710.6	1630.9	1561.9	1494.5	1437.8	1381.1	1336.6
35°	1853.2	1745.9	1643.2	1560.4	1486.8	1424.0	1358.1	1299.8	1235.5	1174.1	1148.1
37.5°	1615.6	1500.6	1387.2	1315.2	1256.9	1212.5	1151.1	1103.6	1045.4	1008.6	977.9
40°	1408.7	1286.0	1178.7	1117.4	1071.4	1020.9	970.3	933.5	892.1	855.3	832.3
42.5°	1233.9	1119.0	1027.0	974.9	919.7	864.5	826.2	795.5	769.5	741.9	714.3
45°	1073.0	962.6	886.0	821.6	775.6	731.2	705.1	691.3	676.0	659.1	640.7
47.5°	938.1	843.1	767.9	708.2	660.6	630.0	617.7	613.1	607.0	593.2	584.0
50°	835.4	757.2	680.6	626.9	587.1	571.7	557.9	553.3	545.7	541.1	535.0
52.5°	749.5	666.8	602.4	553.3	528.8	522.7	516.6	510.4	508.9	505.8	502.8
55°	679.0	607.0	547.2	510.4	498.2	493.6	492.0	485.9	484.4	484.4	479.8
57.5°	616.2	554.9	501.2	478.2	470.6	466.0	462.9	459.8	459.8	462.9	461.4
60°	551.8	499.7	467.5	455.2	450.6	443.0	435.3	432.3	433.8	441.5	441.5
62.5°	489.0	450.6	430.7	426.1	421.5	415.4	406.2	403.1	406.2	415.4	420.0
65°	420.0	403.1	397.0	393.9	390.9	386.3	380.1	377.1	378.6	383.2	389.3
67.5°	357.1	355.6	355.6	357.1	355.6	354.1	351.0	346.4	344.9	344.9	347.9
70°	318.8	318.8	323.4	323.4	321.9	321.9	317.3	312.7	309.6	306.6	308.1
72.5°	289.7	289.7	291.2	292.8	291.2	291.2	285.1	282.0	274.4	272.8	269.8
75°	265.2	262.1	262.1	260.6	259.0	260.6	254.4	246.8	243.7	242.2	239.1
77.5°	240.7	234.5	231.5	228.4	229.9	228.4	223.8	219.2	214.6	213.1	211.5
80°	213.1	203.9	199.3	191.6	196.2	197.7	194.7	190.1	188.5	187.0	185.5
82.5°	176.3	167.1	160.9	156.3	153.3	156.3	160.9	171.7	168.6	167.1	164.0
85°	138.0	122.6	115.0	116.5	108.8	110.4	124.2	130.3	130.3	133.4	130.3
87.5°	78.2	75.1	56.7	52.1	55.2	65.9	73.6	81.2	81.2	76.6	85.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P158953

CATALOG NUMBER: VST-F11-LED-E-U-SLL-8030

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3
2.5°	2477.0	2480.1	2481.6	2487.8	2490.8	2492.4	2493.9	2497.0	2498.5	2497.0	2504.6
5°	2489.3	2489.3	2486.2	2490.8	2492.4	2492.4	2489.3	2492.4	2492.4	2492.4	2500.0
7.5°	2521.5	2512.3	2507.7	2501.6	2497.0	2490.8	2483.2	2483.2	2481.6	2483.2	2487.8
10°	2555.2	2541.4	2524.6	2509.2	2495.4	2484.7	2470.9	2466.3	2464.8	2463.2	2475.5
12.5°	2581.3	2556.7	2530.7	2504.6	2477.0	2458.6	2435.6	2421.9	2420.3	2420.3	2435.6
15°	2562.9	2523.0	2472.4	2426.5	2401.9	2375.9	2349.8	2332.9	2331.4	2334.5	2343.7
17.5°	2470.9	2406.5	2362.1	2317.6	2285.4	2264.0	2247.1	2244.0	2250.2	2244.0	2256.3
20°	2314.6	2245.6	2214.9	2179.7	2167.4	2152.1	2127.6	2106.1	2106.1	2078.5	2086.2
22.5°	2112.2	2073.9	2034.0	2006.5	1997.3	1971.2	1945.1	1916.0	1913.0	1879.2	1874.6
25°	1900.7	1862.4	1830.2	1824.1	1796.5	1761.2	1736.7	1703.0	1695.3	1661.6	1657.0
27.5°	1684.6	1653.9	1621.7	1603.3	1588.0	1549.7	1528.2	1488.4	1473.0	1436.3	1431.7
30°	1479.2	1457.7	1419.4	1404.1	1374.9	1330.5	1284.5	1260.0	1247.7	1209.4	1197.1
32.5°	1286.0	1252.3	1223.2	1204.8	1168.0	1117.4	1076.0	1040.8	1017.8	971.8	959.5
35°	1102.1	1068.4	1054.6	1007.1	974.9	941.2	884.4	863.0	821.6	786.3	774.1
37.5°	939.6	907.4	889.0	849.2	817.0	783.3	749.5	722.0	702.0	694.4	694.4
40°	800.1	783.3	760.3	731.2	709.7	685.2	666.8	657.6	656.0	659.1	666.8
42.5°	700.5	682.1	666.8	651.4	636.1	633.1	628.5	634.6	642.3	649.9	657.6
45°	625.4	610.1	600.9	594.7	593.2	597.8	607.0	616.2	630.0	639.2	645.3
47.5°	571.7	559.5	556.4	554.9	562.5	576.3	588.6	602.4	613.1	622.3	628.5
50°	525.8	515.0	513.5	512.0	522.7	535.0	545.7	564.1	571.7	577.9	582.5
52.5°	493.6	484.4	479.8	481.3	492.0	502.8	518.1	531.9	542.6	547.2	551.8
55°	467.5	464.4	453.7	458.3	469.0	482.8	498.2	513.5	524.2	531.9	539.6
57.5°	447.6	439.9	432.3	439.9	450.6	464.4	482.8	496.6	510.4	521.2	528.8
60°	426.1	420.0	413.9	421.5	432.3	446.1	459.8	478.2	495.1	505.8	513.5
62.5°	407.7	403.1	397.0	398.5	403.1	412.3	420.0	436.9	452.2	466.0	475.2
65°	381.7	380.1	370.9	372.5	375.5	384.7	390.9	406.2	421.5	433.8	441.5
67.5°	343.4	340.3	340.3	344.9	346.4	351.0	355.6	370.9	383.2	392.4	401.6
70°	305.0	303.5	303.5	306.6	305.0	309.6	315.8	329.6	344.9	354.1	363.3
72.5°	268.2	268.2	266.7	269.8	269.8	271.3	279.0	291.2	305.0	312.7	318.8
75°	236.1	234.5	234.5	234.5	236.1	236.1	243.7	254.4	268.2	272.8	282.0
77.5°	206.9	206.9	206.9	206.9	208.5	206.9	211.5	219.2	223.8	231.5	231.5
80°	182.4	180.9	182.4	183.9	183.9	182.4	182.4	183.9	185.5	185.5	185.5
82.5°	160.9	156.3	159.4	167.1	167.1	167.1	165.5	154.8	147.2	147.2	150.2
85°	128.8	128.8	130.3	141.0	142.6	136.4	142.6	127.2	111.9	107.3	110.4
87.5°	79.7	62.8	76.6	87.4	87.4	82.8	92.0	85.8	72.0	58.2	55.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P158953
CATALOG NUMBER: VST-F11-LED-E-U-SLL-8030

REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	0°
2.5°	2510.8	2512.3	2521.5	2526.1	2526.1	2532.2	2535.3	2544.5	2542.9	2542.9	2546.0	2.5°
5°	2507.7	2512.3	2521.5	2527.6	2530.7	2538.3	2544.5	2555.2	2553.7	2556.7	2558.3	5°
7.5°	2497.0	2509.2	2518.4	2530.7	2541.4	2547.5	2555.2	2564.4	2561.3	2562.9	2561.3	7.5°
10°	2487.8	2500.0	2518.4	2535.3	2550.6	2559.8	2564.4	2575.1	2573.6	2576.7	2576.7	10°
12.5°	2451.0	2472.4	2495.4	2521.5	2544.5	2569.0	2584.3	2607.3	2618.1	2631.8	2647.2	12.5°
15°	2357.5	2382.0	2418.8	2447.9	2492.4	2526.1	2570.5	2615.0	2654.8	2693.2	2737.6	15°
17.5°	2265.5	2276.2	2305.4	2345.2	2385.1	2435.6	2489.3	2569.0	2641.0	2719.2	2805.1	17.5°
20°	2095.4	2113.8	2133.7	2181.2	2228.7	2300.8	2366.7	2470.9	2576.7	2699.3	2831.1	20°
22.5°	1885.4	1903.8	1925.2	1978.9	2037.1	2110.7	2190.4	2306.9	2447.9	2607.3	2783.6	22.5°
25°	1658.5	1669.2	1686.1	1739.7	1775.0	1871.6	1968.1	2089.2	2242.5	2447.9	2653.3	25°
27.5°	1408.7	1428.6	1442.4	1466.9	1548.1	1630.9	1732.1	1862.4	2047.8	2257.8	2506.2	27.5°
30°	1169.5	1186.4	1178.7	1230.9	1284.5	1371.9	1480.7	1624.8	1802.6	2052.4	2339.1	30°
32.5°	935.0	947.3	942.7	979.5	1033.1	1120.5	1223.2	1379.5	1568.1	1834.8	2145.9	32.5°
35°	771.0	774.1	790.9	807.8	853.8	924.3	1011.7	1148.1	1341.2	1586.5	1916.0	35°
37.5°	694.4	700.5	711.2	734.2	767.9	818.5	890.6	996.3	1161.9	1378.0	1672.3	37.5°
40°	671.4	676.0	682.1	697.4	729.6	774.1	838.5	927.4	1048.4	1230.9	1470.0	40°
42.5°	660.6	660.6	660.6	669.8	694.4	741.9	815.5	902.8	1008.6	1146.5	1339.7	42.5°
45°	645.3	645.3	643.8	648.4	665.2	712.8	792.5	890.6	1004.0	1135.8	1302.9	45°
47.5°	628.5	626.9	622.3	622.3	633.1	680.6	763.3	869.1	993.3	1145.0	1324.4	47.5°
50°	582.5	582.5	582.5	587.1	596.3	639.2	728.1	840.0	982.5	1151.1	1358.1	50°
52.5°	556.4	557.9	562.5	562.5	571.7	616.2	709.7	833.9	988.7	1174.1	1401.0	52.5°
55°	544.2	548.7	553.3	553.3	561.0	607.0	703.6	838.5	1011.7	1221.7	1474.6	55°
57.5°	533.4	538.0	541.1	541.1	547.2	587.1	686.7	830.8	1025.5	1267.6	1565.0	57.5°
60°	513.5	516.6	518.1	518.1	519.6	553.3	648.4	794.0	994.8	1264.6	1614.1	60°
62.5°	476.7	482.8	484.4	485.9	485.9	518.1	599.3	734.2	928.9	1218.6	1600.3	62.5°
65°	449.1	452.2	456.8	459.8	466.0	487.4	551.8	662.2	843.1	1126.6	1523.6	65°
67.5°	406.2	410.8	415.4	421.5	427.7	441.5	492.0	580.9	726.6	970.3	1351.9	67.5°
70°	367.9	369.4	374.0	381.7	383.2	390.9	427.7	489.0	594.7	778.7	1088.3	70°
72.5°	320.4	323.4	329.6	338.8	338.8	344.9	366.3	398.5	466.0	594.7	803.2	72.5°
75°	279.0	282.0	286.6	286.6	279.0	280.5	295.8	318.8	369.4	447.6	585.5	75°
77.5°	231.5	237.6	242.2	233.0	229.9	234.5	242.2	259.0	295.8	355.6	439.9	77.5°
80°	191.6	194.7	196.2	197.7	194.7	199.3	205.4	216.1	240.7	286.6	347.9	80°
82.5°	153.3	156.3	160.9	167.1	167.1	183.9	185.5	185.5	199.3	228.4	272.8	82.5°
85°	113.4	119.6	125.7	133.4	134.9	144.1	139.5	138.0	142.6	170.1	188.5	85°
87.5°	58.2	62.8	65.9	72.0	64.4	67.4	67.4	62.8	55.2	69.0	76.6	87.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°



NUMBER: P158953

NUMBER: VST-F11-LED-E-U-SLL-8030

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
2561.3	2561.3	2561.3	2561.3	2561.3	2561.3	2561.3
2549.1	2546.0	2549.1	2549.1	2553.7	2550.6	2713.1
2561.3	2558.3	2561.3	2564.4	2569.0	2569.0	2748.3
2562.9	2562.9	2559.8	2567.5	2573.6	2579.7	2782.1
2581.3	2581.3	2584.3	2585.9	2599.7	2615.0	2837.2
2656.4	2664.0	2677.8	2682.4	2707.0	2723.8	2978.3
2771.3	2814.3	2841.8	2851.0	2872.5	2904.7	3215.9
2887.8	2959.9	3035.0	3081.0	3108.6	3146.9	3507.1
2975.2	3110.1	3238.8	3353.8	3419.7	3494.8	3914.8
2982.9	3197.5	3415.1	3628.2	3804.5	3943.9	4466.6
2909.3	3191.3	3491.8	3818.3	4121.7	4373.1	5101.2
2815.8	3162.2	3545.4	3962.3	4360.9	4731.8	5568.7
2697.8	3113.2	3554.6	4023.6	4491.2	4937.2	5835.4
2518.4	2967.5	3444.2	3962.3	4505.0	5047.6	6007.1
2288.5	2746.8	3235.8	3825.9	4440.6	5092.0	6151.2
2054.0	2506.2	3031.9	3643.5	4337.9	5084.4	6209.4
1805.7	2254.8	2792.8	3448.8	4198.4	5013.8	6198.7
1637.0	2046.3	2573.6	3251.1	4043.6	4920.3	6126.7
1538.9	1897.6	2400.4	3070.2	3902.6	4808.5	6036.2
1537.4	1853.2	2308.4	2941.5	3760.0	4684.3	5913.6
1591.1	1880.8	2297.7	2886.3	3681.8	4593.9	5780.3
1653.9	1957.4	2354.4	2906.2	3680.3	4554.0	5686.8
1753.5	2087.7	2478.6	2992.1	3720.1	4547.9	5571.8
1880.8	2264.0	2702.4	3203.6	3875.0	4669.0	5579.5
2011.1	2470.9	2995.1	3565.3	4180.0	4951.0	5821.6
2058.6	2630.3	3292.5	3989.9	4636.8	5374.1	6321.3
2017.2	2667.1	3473.4	4319.5	5081.3	5869.2	6917.6
1863.9	2518.4	3399.8	4413.0	5337.3	6220.2	7513.9
1534.4	2149.0	3065.6	4203.0	5317.3	6292.2	7728.5
1125.1	1666.2	2492.4	3571.5	4727.2	5841.6	7406.6
812.4	1178.7	1799.5	2690.1	3737.0	4704.2	6212.5
582.5	817.0	1168.0	1767.3	2546.0	3275.6	4428.3
418.5	554.9	728.1	1060.7	1551.2	2011.1	2782.1
308.1	380.1	478.2	659.1	913.6	1171.1	1675.4
210.0	223.8	288.2	389.3	599.3	861.4	1137.4
79.7	90.4	105.8	159.4	268.2	308.1	217.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)