

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: P158935

Luminaire Tested: **VST-F09-LED-E-U-SLL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158935
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-F09-LED-E-U-SLL
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19965.8 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 234.8
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

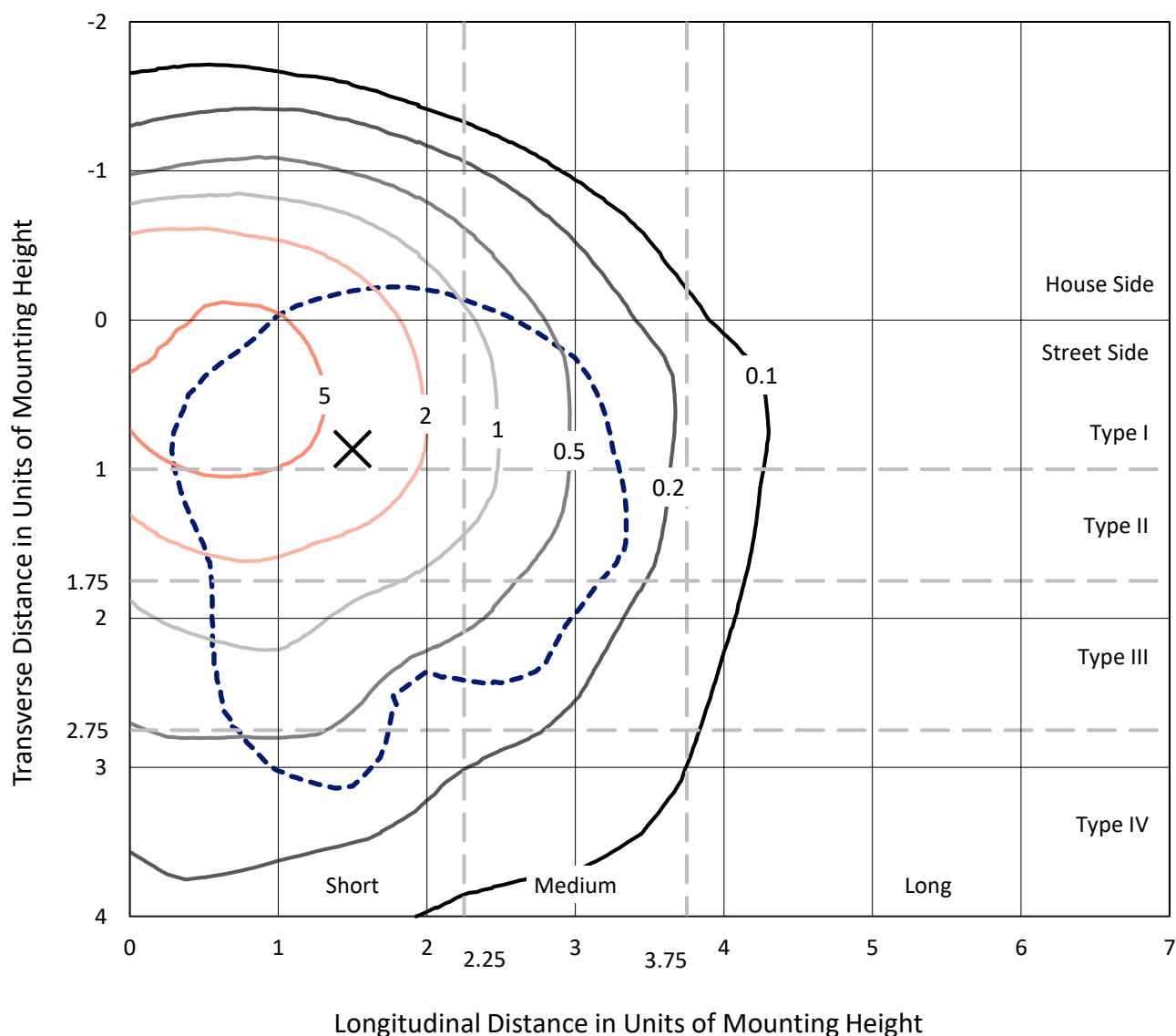


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

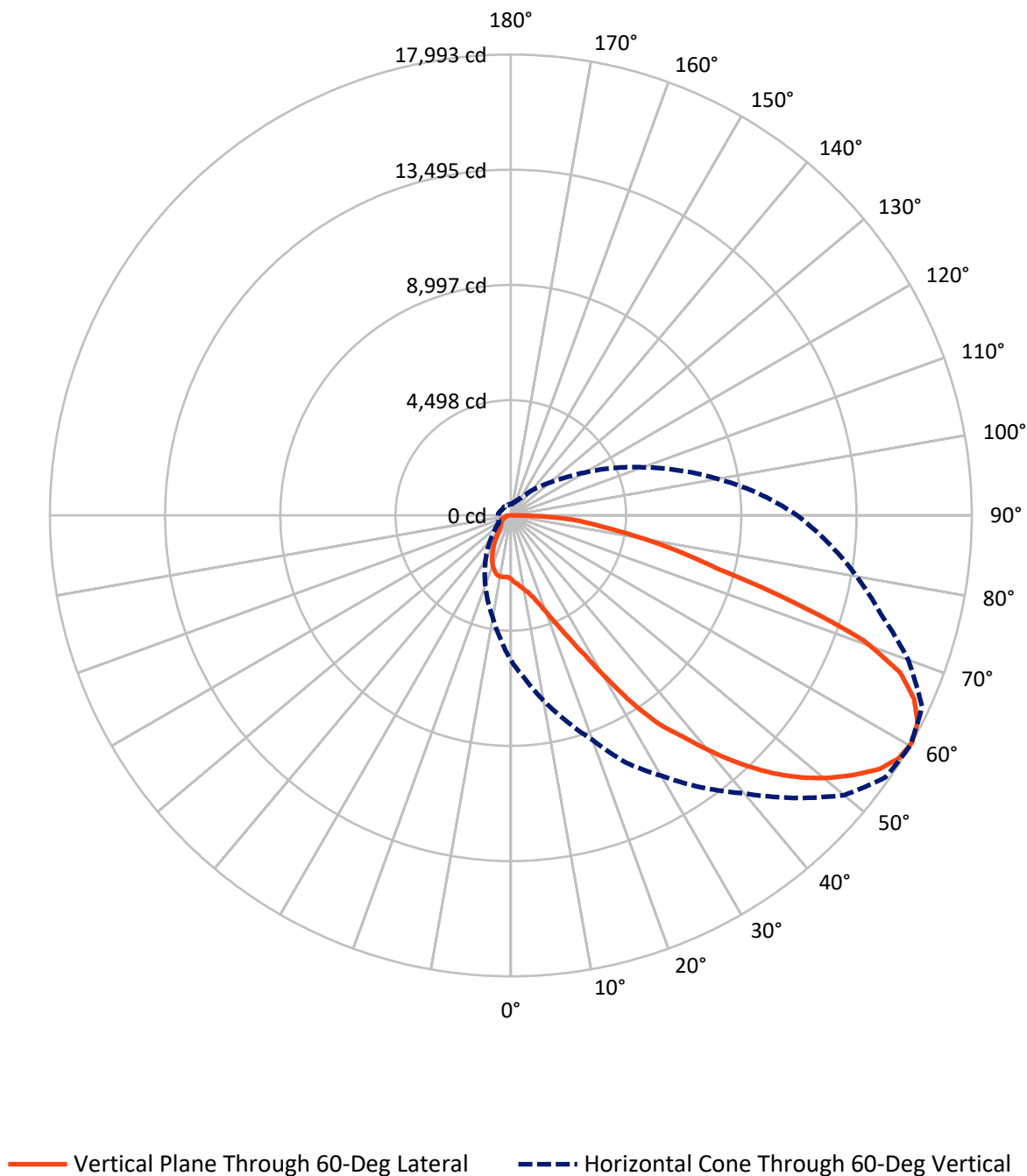


Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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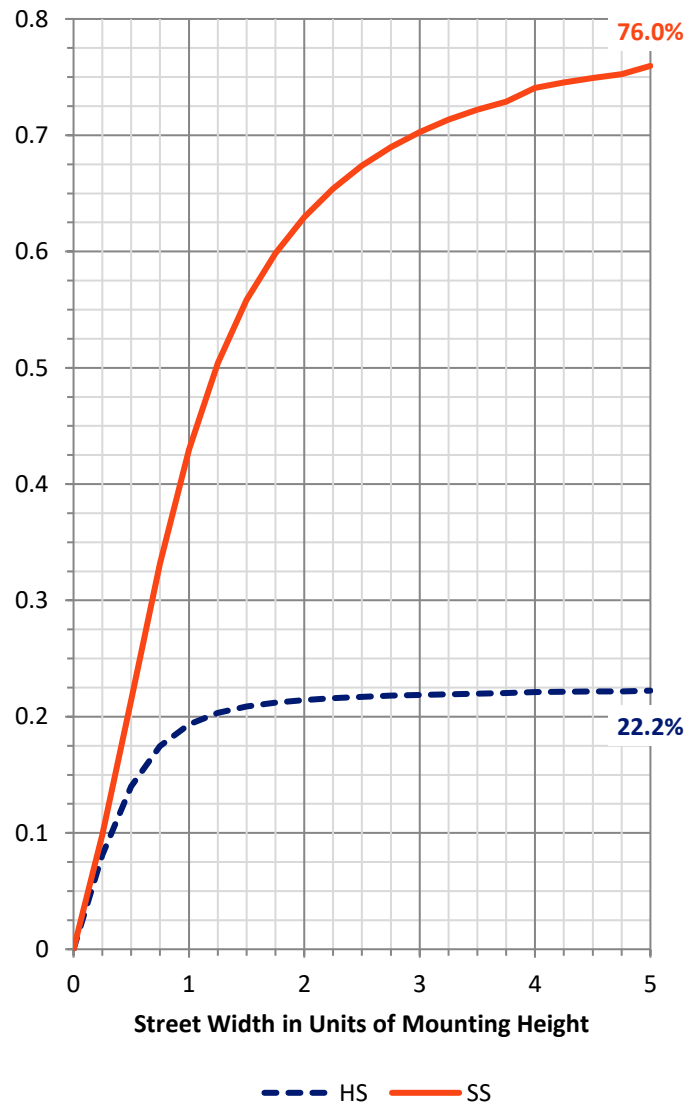
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4495.7	0.0	4495.7
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	15470.1	0.0	15470.1
	% Fixture	77.5	0.0	77.5
Total	Lumens	19965.8	0.0	19965.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.0	1.2
10°-20°	790.9	4.0
20°-30°	1500.9	7.5
30°-40°	2363.6	11.8
40°-50°	3299.1	16.5
50°-60°	4080.2	20.4
60°-70°	4229.3	21.2
70°-80°	2661.2	13.3
80°-90°	795.5	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°	19965.8	100.0
0°-180°	19965.8	100.0

Coefficient of Utilization



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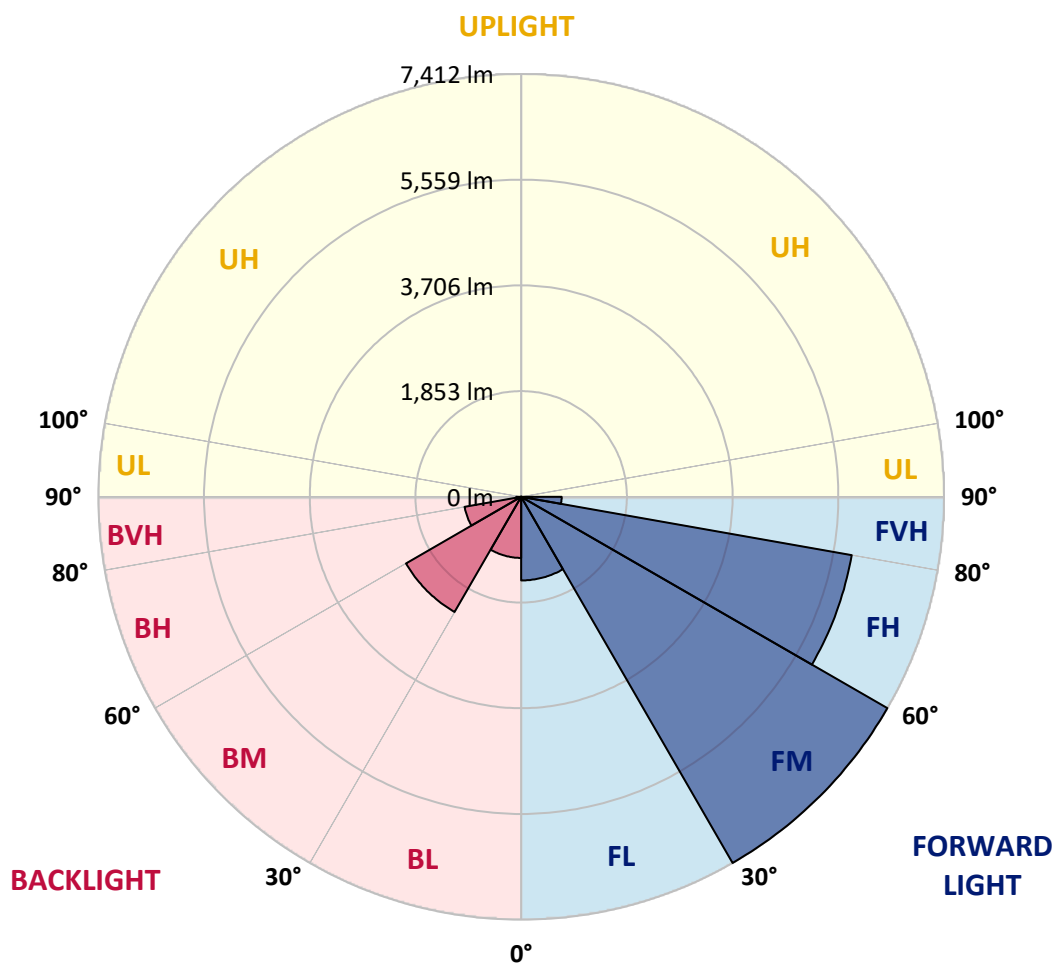
CATALOG NUMBER: VST-F09-LED-E-U-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1465.8	7.3			
FM	(30°-60°)	7411.6	37.1			
FH	(60°-80°)	5883.7	29.5			G3/7500
FVH	(80°-90°)	709.0	3.6			G4/750
BL	(0°-30°)	1071.0	5.4	B3/2500		
BM	(30°-60°)	2331.3	11.7	B2/2500		
BH	(60°-80°)	1006.8	5.0	B3/2500		G3/2500
BVH	(80°-90°)	86.5	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2630.1	2627.2	2627.2	2627.2	2625.7	2622.7	2627.2	2625.7	2618.2	2613.8	2618.2
5°	2664.3	2665.8	2670.2	2671.7	2671.7	2676.2	2688.1	2689.6	2688.1	2691.0	2698.5
7.5°	2697.0	2704.4	2708.9	2716.3	2725.2	2732.7	2753.5	2774.3	2787.6	2798.0	2801.0
10°	2750.5	2762.4	2775.7	2795.1	2815.9	2853.0	2870.8	2891.6	2905.0	2925.8	2930.3
12.5°	2887.2	2902.1	2911.0	2940.7	2967.4	3003.1	3028.4	3034.3	3065.5	3083.3	3104.1
15°	3117.5	3139.8	3171.0	3188.8	3218.6	3249.8	3272.1	3301.8	3306.2	3330.0	3346.3
17.5°	3399.8	3431.0	3494.9	3538.0	3576.7	3607.9	3652.5	3686.6	3694.1	3720.8	3686.6
20°	3795.1	3870.9	3881.3	3967.5	4001.6	4064.1	4153.2	4169.6	4212.7	4169.6	4144.3
22.5°	4330.0	4448.9	4481.6	4564.8	4606.4	4701.5	4728.3	4815.9	4845.7	4813.0	4744.6
25°	4945.2	5129.5	5224.6	5352.4	5373.2	5567.8	5588.6	5691.2	5636.2	5557.4	5558.9
27.5°	5398.4	5712.0	5957.2	6175.6	6328.6	6548.6	6719.4	6767.0	6715.0	6612.5	6576.8
30°	5657.0	6012.1	6364.3	6665.9	7022.6	7358.4	7707.6	7881.5	7911.2	7964.7	7749.2
32.5°	5823.4	6279.6	6698.6	7071.6	7437.2	7869.6	8337.6	8784.9	9160.9	9444.7	9310.9
35°	5963.1	6526.3	7062.7	7514.4	7946.8	8417.9	8890.4	9417.9	10040.5	10404.6	10480.4
37.5°	6019.6	6707.6	7364.3	7943.9	8551.6	9082.1	9551.7	10021.2	10675.0	11324.4	11525.0
40°	6009.2	6796.7	7544.1	8272.3	9016.7	9679.4	10229.2	10785.0	11550.2	12309.6	12636.5
42.5°	5939.3	6810.1	7658.6	8490.7	9339.2	10220.3	10923.2	11563.6	12297.7	13271.0	13733.1
45°	5851.7	6764.0	7682.3	8602.1	9578.4	10597.8	11486.4	12278.4	13138.7	14100.1	14658.8
47.5°	5732.8	6691.2	7652.6	8640.8	9685.4	10840.0	11884.6	12837.1	13783.6	14890.7	15599.4
50°	5603.5	6587.2	7591.7	8612.5	9712.1	10972.2	12111.9	13196.7	14302.2	15496.9	16392.9
52.5°	5512.9	6475.7	7536.7	8554.6	9685.4	11012.3	12195.1	13389.8	14620.2	15855.0	16924.9
55°	5401.4	6327.2	7389.6	8419.4	9587.3	10990.0	12186.2	13456.7	14707.9	15993.2	17214.7
57.5°	5408.8	6258.8	7264.8	8257.4	9386.7	10783.5	12018.3	13389.8	14569.7	15904.1	17225.1
60°	5643.6	6405.9	7330.2	8290.1	9327.3	10652.7	11733.0	12958.9	14164.0	15596.5	16984.3
62.5°	6128.0	6826.4	7666.0	8617.0	9661.6	10914.3	11603.7	12242.7	13312.6	15030.3	16574.2
65°	6706.1	7336.1	8064.2	8969.2	10140.1	11339.2	11530.9	11660.2	12201.1	13929.2	15804.5
67.5°	7284.1	7847.3	8419.4	9169.8	10412.0	11461.1	11233.7	10926.2	11217.4	12649.8	14291.8
70°	7492.1	8239.6	8615.5	9131.1	10205.5	11177.3	10753.8	9979.6	10080.6	11382.3	12583.0
72.5°	7180.1	8245.5	8370.3	8562.0	9285.7	10199.5	9752.3	8756.7	8735.9	9730.0	10700.3
75°	6022.5	7521.9	7520.4	7449.0	7612.5	8132.6	7900.8	7300.4	7554.5	8337.6	8657.1
77.5°	4292.9	5869.5	5943.8	5463.8	5451.9	5686.7	5826.4	6524.8	7446.1	7885.9	7784.9
80°	2697.0	3960.0	4279.5	3686.6	3560.3	3893.2	4756.5	5772.9	6906.7	7301.9	6961.7
82.5°	1624.1	2551.4	3231.9	2896.1	2866.4	3472.7	4426.6	4821.9	5162.2	5582.7	5013.6
85°	1102.6	1699.9	2211.1	2278.0	2538.0	3165.1	3579.6	3404.3	3413.2	3303.3	3009.0
87.5°	211.0	463.6	757.8	924.3	1025.3	1377.5	1497.8	1356.7	1432.5	1047.6	1145.7
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2610.8	2610.8	2610.8	2603.4	2604.9	2594.5	2590.0	2590.0	2585.5	2585.5	2584.1
5°	2692.5	2683.6	2688.1	2686.6	2686.6	2671.7	2664.3	2664.3	2645.0	2646.5	2640.5
7.5°	2814.4	2812.9	2817.4	2808.4	2796.5	2784.7	2772.8	2766.8	2740.1	2723.7	2713.3
10°	2952.6	2951.1	2955.5	2954.1	2933.3	2911.0	2878.3	2854.5	2821.8	2796.5	2771.3
12.5°	3104.1	3102.7	3099.7	3086.3	3064.0	3028.4	2986.7	2946.6	2897.6	2864.9	2827.8
15°	3340.4	3335.9	3318.1	3298.8	3275.0	3220.0	3147.2	3089.3	3023.9	2967.4	2906.5
17.5°	3689.6	3652.5	3649.5	3606.4	3542.5	3469.7	3401.3	3304.7	3211.1	3126.4	3043.2
20°	4171.0	4084.9	4061.1	4012.1	3927.4	3851.6	3703.0	3573.7	3445.9	3330.0	3224.5
22.5°	4695.6	4633.2	4575.2	4495.0	4379.1	4269.1	4080.4	3918.4	3755.0	3606.4	3489.0
25°	5428.2	5319.7	5215.7	5087.9	4927.4	4796.6	4581.2	4417.7	4203.7	4068.5	3899.1
27.5°	6374.7	6189.0	6013.6	5903.7	5621.3	5431.1	5156.2	4945.2	4686.7	4503.9	4303.3
30°	7606.6	7391.1	7131.0	6750.6	6414.8	6037.4	5697.1	5426.7	5151.8	4896.2	4664.4
32.5°	9134.1	8753.7	8342.1	7738.8	7187.5	6649.6	6196.4	5863.5	5582.7	5264.7	4937.8
35°	10425.4	10033.1	9449.1	8682.4	8001.8	7386.6	6844.3	6389.6	6022.5	5619.8	5187.4
37.5°	11444.7	10997.5	10449.2	9634.9	8915.7	8215.8	7646.7	7067.2	6585.7	6031.5	5484.6
40°	12612.7	12163.9	11560.7	10716.6	9865.2	9105.9	8438.7	7839.8	7248.4	6572.3	5869.5
42.5°	13630.6	13306.6	12695.9	11823.7	10880.1	10034.6	9305.0	8620.0	7847.3	7090.9	6258.8
45°	14691.5	14361.7	13782.1	12869.8	11866.8	10924.7	10052.4	9315.4	8403.0	7502.5	6550.0
47.5°	15629.2	15290.4	14704.9	13798.5	12733.1	11740.5	10780.5	9889.0	8829.5	7795.3	6740.2
50°	16523.7	16109.1	15572.7	14669.2	13531.0	12470.0	11428.4	10284.2	9160.9	8000.3	6869.5
52.5°	17345.4	16817.9	16309.7	15379.5	14149.2	13040.7	11878.6	10620.0	9364.4	8162.3	6957.2
55°	17812.0	17471.7	16864.0	15950.1	14589.0	13432.9	12163.9	10856.3	9566.5	8276.7	6994.3
57.5°	17956.2	17872.9	17363.3	16280.0	14847.6	13648.4	12357.1	11043.5	9701.7	8309.4	6942.3
60°	17841.7	17993.3	17713.9	16511.8	14965.0	13712.3	12452.2	11177.3	9725.5	8205.4	6784.8
62.5°	17474.7	17819.5	17783.8	16589.1	14904.0	13632.1	12441.8	11108.9	9502.6	7881.5	6431.2
65°	16871.4	17305.3	17458.4	16302.3	14560.8	13339.3	12177.3	10679.5	8883.0	7248.4	5838.3
67.5°	15736.2	16392.9	16541.5	15363.2	13663.3	12529.5	11415.0	9787.9	7735.8	6269.2	4912.5
70°	13461.2	14609.8	14810.4	13574.1	12080.7	11085.1	10140.1	8374.8	6441.6	5028.4	3769.8
72.5°	10746.4	11468.5	11878.6	11027.2	9915.7	9193.5	8477.3	6425.2	4860.5	3710.4	2594.5
75°	8401.5	8358.4	8725.5	8159.3	7505.5	7168.2	6630.3	4483.1	3255.7	2457.8	1642.0
77.5°	7183.1	6630.3	6212.7	5814.5	5426.7	5319.7	4804.1	2781.7	2012.0	1472.6	982.2
80°	5970.5	4961.6	4199.3	3639.1	3500.9	3711.9	3144.3	1640.5	1191.7	845.5	616.7
82.5°	4266.1	3569.2	2905.0	2549.9	2313.6	2649.4	1854.5	910.9	646.4	506.7	408.6
85°	2765.3	2643.5	2615.3	2499.4	2212.6	2089.2	1408.7	784.6	484.4	315.0	254.1
87.5°	1063.9	1364.1	1573.6	1686.5	1823.3	1624.1	734.1	270.4	266.0	163.5	123.3
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2573.7	2567.7	2566.2	2561.8	2558.8	2558.8	2551.4	2416.1	2414.7	2414.7	2413.2
5°	2628.6	2621.2	2613.8	2612.3	2606.3	2606.3	2598.9	2463.7	2463.7	2463.7	2460.7
7.5°	2702.9	2688.1	2679.2	2674.7	2665.8	2670.2	2676.2	2539.5	2541.0	2539.5	2542.5
10°	2756.4	2747.5	2737.1	2734.1	2728.2	2732.7	2741.6	2606.3	2610.8	2612.3	2615.3
12.5°	2808.4	2793.6	2780.2	2775.7	2772.8	2784.7	2795.1	2664.3	2668.8	2673.2	2673.2
15°	2872.3	2847.1	2829.2	2818.8	2812.9	2824.8	2839.6	2710.4	2711.8	2716.3	2714.8
17.5°	2980.8	2943.7	2902.1	2894.6	2875.3	2879.8	2882.7	2738.6	2732.7	2722.3	2704.4
20°	3148.7	3092.3	3035.8	3012.0	2973.4	2957.0	2924.3	2740.1	2702.9	2671.7	2645.0
22.5°	3389.4	3306.2	3245.3	3205.2	3126.4	3071.4	2982.3	2732.7	2662.8	2609.3	2567.7
25°	3778.8	3679.2	3585.6	3484.5	3361.2	3251.2	3120.5	2798.0	2689.6	2597.4	2517.2
27.5°	4157.7	4000.2	3856.0	3704.5	3530.6	3365.7	3181.4	2818.8	2695.5	2576.6	2445.9
30°	4441.5	4212.7	3994.2	3772.8	3545.5	3331.5	3123.5	2747.5	2600.4	2466.7	2328.5
32.5°	4613.9	4316.7	4032.9	3758.0	3490.5	3249.8	3016.5	2624.2	2462.2	2304.7	2157.6
35°	4777.3	4408.8	4056.6	3732.7	3426.6	3159.1	2908.0	2480.0	2286.9	2119.0	1933.2
37.5°	4979.4	4505.4	4071.5	3686.6	3333.0	3026.9	2750.5	2298.8	2105.6	1899.0	1723.7
40°	5221.6	4604.9	4056.6	3594.5	3187.4	2853.0	2560.3	2108.6	1893.1	1692.5	1520.1
42.5°	5451.9	4692.6	4018.0	3471.2	3028.4	2671.7	2386.4	1939.2	1723.7	1518.6	1347.8
45°	5622.8	4766.9	3998.7	3385.0	2906.5	2548.4	2233.4	1802.5	1575.1	1368.6	1194.7
47.5°	5741.7	4811.5	3989.8	3337.4	2821.8	2420.6	2093.7	1665.7	1426.5	1218.5	1049.1
50°	5804.1	4810.0	3967.5	3285.4	2697.0	2267.6	1949.6	1527.6	1289.8	1086.2	931.7
52.5°	5820.4	4783.3	3919.9	3190.3	2545.4	2114.5	1795.0	1383.4	1169.4	974.8	818.8
55°	5783.3	4717.9	3820.4	3031.3	2383.5	1952.5	1653.9	1270.5	1052.0	867.8	745.9
57.5°	5677.8	4602.0	3633.1	2812.9	2212.6	1802.5	1491.9	1133.8	924.3	769.7	668.7
60°	5481.7	4356.8	3340.4	2554.3	1995.6	1573.6	1269.0	955.5	789.0	673.1	591.4
62.5°	5119.1	3971.9	2928.8	2197.7	1683.6	1276.4	1013.4	762.3	637.5	561.7	511.2
65°	4535.1	3392.4	2451.8	1731.1	1279.4	928.7	753.4	573.6	482.9	436.9	422.0
67.5°	3701.5	2619.7	1783.1	1202.1	866.3	650.8	524.5	419.0	375.9	358.1	352.2
70°	2691.0	1784.6	1154.6	759.3	572.1	454.7	396.7	337.3	313.5	309.1	309.1
72.5°	1689.5	1084.7	707.3	520.1	433.9	368.5	338.8	297.2	288.3	285.3	280.8
75°	991.1	658.3	500.8	426.5	371.5	329.9	304.6	270.4	264.5	263.0	258.6
77.5°	631.5	474.0	404.2	364.1	335.8	298.7	276.4	240.7	239.2	237.8	236.3
80°	453.2	393.8	353.7	322.5	294.2	260.0	246.7	218.4	215.5	214.0	216.9
82.5°	343.3	325.4	309.1	285.3	246.7	221.4	211.0	191.7	193.2	185.7	184.3
85°	236.3	233.3	231.8	221.4	193.2	170.9	163.5	153.1	160.5	153.1	144.1
87.5°	115.9	114.4	105.5	124.8	115.9	92.1	83.2	92.1	102.5	99.6	92.1
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: P158935

CATALOG NUMBER: VST-F09-LED-E-U-SLL

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2407.2	2401.3	2405.7	2402.8	2402.8	2401.3	2404.3	2399.8	2396.8	2399.8	2401.3
5°	2454.8	2447.4	2448.8	2438.4	2442.9	2432.5	2435.5	2428.0	2420.6	2417.6	2417.6
7.5°	2535.0	2527.6	2518.7	2517.2	2500.8	2494.9	2484.5	2478.6	2474.1	2463.7	2457.8
10°	2607.8	2595.9	2585.5	2584.1	2567.7	2552.9	2539.5	2527.6	2520.2	2505.3	2497.9
12.5°	2667.3	2655.4	2639.0	2630.1	2613.8	2595.9	2587.0	2569.2	2558.8	2542.5	2529.1
15°	2701.4	2680.6	2656.9	2640.5	2616.7	2597.4	2584.1	2570.7	2560.3	2539.5	2520.2
17.5°	2685.1	2650.9	2618.2	2588.5	2555.8	2538.0	2518.7	2502.3	2499.4	2475.6	2445.9
20°	2616.7	2576.6	2533.5	2493.4	2450.3	2425.1	2401.3	2376.0	2368.6	2340.4	2301.7
22.5°	2533.5	2487.5	2438.4	2389.4	2334.4	2298.8	2263.1	2231.9	2206.6	2165.0	2110.0
25°	2448.8	2380.5	2309.2	2246.7	2182.9	2138.3	2101.1	2066.9	2037.2	1970.4	1913.9
27.5°	2337.4	2230.4	2157.6	2086.3	2009.0	1951.0	1909.4	1861.9	1829.2	1751.9	1692.5
30°	2194.7	2087.8	1983.7	1912.4	1835.1	1772.7	1719.2	1650.9	1603.3	1546.9	1491.9
32.5°	2014.9	1908.0	1802.5	1722.2	1658.3	1581.0	1514.2	1448.8	1393.8	1338.8	1295.7
35°	1796.5	1692.5	1592.9	1512.7	1441.4	1380.4	1316.5	1260.1	1197.7	1138.2	1113.0
37.5°	1566.2	1454.7	1344.8	1274.9	1218.5	1175.4	1115.9	1069.9	1013.4	977.8	948.0
40°	1365.6	1246.7	1142.7	1083.3	1038.7	989.6	940.6	904.9	864.8	829.2	806.9
42.5°	1196.2	1084.7	995.6	945.1	891.6	838.1	800.9	771.2	745.9	719.2	692.5
45°	1040.2	933.2	858.9	796.5	751.9	708.8	683.5	670.2	655.3	639.0	621.1
47.5°	909.4	817.3	744.5	686.5	640.4	610.7	598.8	594.4	588.4	575.1	566.1
50°	809.8	734.1	659.8	607.8	569.1	554.3	540.9	536.4	529.0	524.5	518.6
52.5°	726.6	646.4	584.0	536.4	512.7	506.7	500.8	494.8	493.3	490.4	487.4
55°	658.3	588.4	530.5	494.8	482.9	478.5	477.0	471.0	469.6	469.6	465.1
57.5°	597.3	537.9	485.9	463.6	456.2	451.7	448.8	445.8	445.8	448.8	447.3
60°	534.9	484.4	453.2	441.3	436.9	429.4	422.0	419.0	420.5	428.0	428.0
62.5°	474.0	436.9	417.6	413.1	408.6	402.7	393.8	390.8	393.8	402.7	407.1
65°	407.1	390.8	384.9	381.9	378.9	374.5	368.5	365.5	367.0	371.5	377.4
67.5°	346.2	344.7	344.7	346.2	344.7	343.3	340.3	335.8	334.3	334.3	337.3
70°	309.1	309.1	313.5	313.5	312.0	312.0	307.6	303.1	300.2	297.2	298.7
72.5°	280.8	280.8	282.3	283.8	282.3	282.3	276.4	273.4	266.0	264.5	261.5
75°	257.1	254.1	254.1	252.6	251.1	252.6	246.7	239.2	236.3	234.8	231.8
77.5°	233.3	227.3	224.4	221.4	222.9	221.4	216.9	212.5	208.0	206.5	205.1
80°	206.5	197.6	193.2	185.7	190.2	191.7	188.7	184.3	182.8	181.3	179.8
82.5°	170.9	162.0	156.0	151.6	148.6	151.6	156.0	166.4	163.5	162.0	159.0
85°	133.7	118.9	111.4	112.9	105.5	107.0	120.4	126.3	126.3	129.3	126.3
87.5°	75.8	72.8	55.0	50.5	53.5	63.9	71.3	78.8	78.8	74.3	83.2
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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CATALOG NUMBER: VST-F09-LED-E-U-SLL

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2401.3	2404.3	2405.7	2411.7	2414.7	2416.1	2417.6	2420.6	2422.1	2420.6	2428.0
5°	2413.2	2413.2	2410.2	2414.7	2416.1	2416.1	2413.2	2416.1	2416.1	2416.1	2423.6
7.5°	2444.4	2435.5	2431.0	2425.1	2420.6	2414.7	2407.2	2407.2	2405.7	2407.2	2411.7
10°	2477.1	2463.7	2447.4	2432.5	2419.1	2408.7	2395.3	2390.9	2389.4	2387.9	2399.8
12.5°	2502.3	2478.6	2453.3	2428.0	2401.3	2383.5	2361.2	2347.8	2346.3	2346.3	2361.2
15°	2484.5	2445.9	2396.8	2352.3	2328.5	2303.2	2278.0	2261.6	2260.1	2263.1	2272.0
17.5°	2395.3	2332.9	2289.8	2246.7	2215.5	2194.7	2178.4	2175.4	2181.4	2175.4	2187.3
20°	2243.8	2176.9	2147.2	2113.0	2101.1	2086.3	2062.5	2041.7	2041.7	2014.9	2022.4
22.5°	2047.6	2010.5	1971.8	1945.1	1936.2	1910.9	1885.7	1857.4	1854.5	1821.8	1817.3
25°	1842.6	1805.4	1774.2	1768.3	1741.5	1707.4	1683.6	1650.9	1643.5	1610.8	1606.3
27.5°	1633.1	1603.3	1572.1	1554.3	1539.4	1502.3	1481.5	1442.9	1428.0	1392.3	1387.9
30°	1433.9	1413.1	1376.0	1361.1	1332.9	1289.8	1245.2	1221.4	1209.6	1172.4	1160.5
32.5°	1246.7	1214.0	1185.8	1168.0	1132.3	1083.3	1043.1	1009.0	986.7	942.1	930.2
35°	1068.4	1035.7	1022.3	976.3	945.1	912.4	857.4	836.6	796.5	762.3	750.4
37.5°	910.9	879.7	861.8	823.2	792.0	759.3	726.6	699.9	680.6	673.1	673.1
40°	775.7	759.3	737.0	708.8	688.0	664.2	646.4	637.5	636.0	639.0	646.4
42.5°	679.1	661.2	646.4	631.5	616.7	613.7	609.2	615.2	622.6	630.0	637.5
45°	606.3	591.4	582.5	576.5	575.1	579.5	588.4	597.3	610.7	619.6	625.6
47.5°	554.3	542.4	539.4	537.9	545.3	558.7	570.6	584.0	594.4	603.3	609.2
50°	509.7	499.3	497.8	496.3	506.7	518.6	529.0	546.8	554.3	560.2	564.7
52.5°	478.5	469.6	465.1	466.6	477.0	487.4	502.2	515.6	526.0	530.5	534.9
55°	453.2	450.2	439.8	444.3	454.7	468.1	482.9	497.8	508.2	515.6	523.1
57.5°	433.9	426.5	419.0	426.5	436.9	450.2	468.1	481.4	494.8	505.2	512.7
60°	413.1	407.1	401.2	408.6	419.0	432.4	445.8	463.6	480.0	490.4	497.8
62.5°	395.3	390.8	384.9	386.3	390.8	399.7	407.1	423.5	438.4	451.7	460.6
65°	370.0	368.5	359.6	361.1	364.1	373.0	378.9	393.8	408.6	420.5	428.0
67.5°	332.9	329.9	329.9	334.3	335.8	340.3	344.7	359.6	371.5	380.4	389.3
70°	295.7	294.2	294.2	297.2	295.7	300.2	306.1	319.5	334.3	343.3	352.2
72.5°	260.0	260.0	258.6	261.5	261.5	263.0	270.4	282.3	295.7	303.1	309.1
75°	228.8	227.3	227.3	227.3	228.8	228.8	236.3	246.7	260.0	264.5	273.4
77.5°	200.6	200.6	200.6	200.6	202.1	200.6	205.1	212.5	216.9	224.4	224.4
80°	176.8	175.3	176.8	178.3	178.3	176.8	176.8	178.3	179.8	179.8	179.8
82.5°	156.0	151.6	154.5	162.0	162.0	162.0	160.5	150.1	142.7	142.7	145.6
85°	124.8	124.8	126.3	136.7	138.2	132.2	138.2	123.3	108.5	104.0	107.0
87.5°	77.3	60.9	74.3	84.7	84.7	80.2	89.2	83.2	69.8	56.5	53.5
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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REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	0°
2.5°	2434.0	2435.5	2444.4	2448.8	2448.8	2454.8	2457.8	2466.7	2465.2	2465.2	2468.2	2.5°
5°	2431.0	2435.5	2444.4	2450.3	2453.3	2460.7	2466.7	2477.1	2475.6	2478.6	2480.0	5°
7.5°	2420.6	2432.5	2441.4	2453.3	2463.7	2469.6	2477.1	2486.0	2483.0	2484.5	2483.0	7.5°
10°	2411.7	2423.6	2441.4	2457.8	2472.6	2481.5	2486.0	2496.4	2494.9	2497.9	2497.9	10°
12.5°	2376.0	2396.8	2419.1	2444.4	2466.7	2490.4	2505.3	2527.6	2538.0	2551.4	2566.2	12.5°
15°	2285.4	2309.2	2344.8	2373.1	2416.1	2448.8	2491.9	2535.0	2573.7	2610.8	2653.9	15°
17.5°	2196.2	2206.6	2234.9	2273.5	2312.1	2361.2	2413.2	2490.4	2560.3	2636.1	2719.3	17.5°
20°	2031.3	2049.1	2068.4	2114.5	2160.6	2230.4	2294.3	2395.3	2497.9	2616.7	2744.5	20°
22.5°	1827.7	1845.5	1866.3	1918.4	1974.8	2046.1	2123.4	2236.3	2373.1	2527.6	2698.5	22.5°
25°	1607.8	1618.2	1634.5	1686.5	1720.7	1814.3	1908.0	2025.3	2173.9	2373.1	2572.2	25°
27.5°	1365.6	1384.9	1398.3	1422.0	1500.8	1581.0	1679.1	1805.4	1985.2	2188.8	2429.5	27.5°
30°	1133.8	1150.1	1142.7	1193.2	1245.2	1329.9	1435.4	1575.1	1747.5	1989.7	2267.6	30°
32.5°	906.4	918.3	913.9	949.5	1001.5	1086.2	1185.8	1337.4	1520.1	1778.7	2080.3	32.5°
35°	747.4	750.4	766.7	783.1	827.7	896.0	980.7	1113.0	1300.2	1538.0	1857.4	35°
37.5°	673.1	679.1	689.5	711.8	744.5	793.5	863.3	965.9	1126.3	1335.9	1621.2	37.5°
40°	650.8	655.3	661.2	676.1	707.3	750.4	812.8	899.0	1016.4	1193.2	1425.0	40°
42.5°	640.4	640.4	640.4	649.4	673.1	719.2	790.5	875.2	977.8	1111.5	1298.7	42.5°
45°	625.6	625.6	624.1	628.6	644.9	691.0	768.2	863.3	973.3	1101.1	1263.1	45°
47.5°	609.2	607.8	603.3	603.3	613.7	659.8	740.0	842.5	962.9	1110.0	1283.9	47.5°
50°	564.7	564.7	564.7	569.1	578.0	619.6	705.8	814.3	952.5	1115.9	1316.5	50°
52.5°	539.4	540.9	545.3	545.3	554.3	597.3	688.0	808.4	958.4	1138.2	1358.2	52.5°
55°	527.5	532.0	536.4	536.4	543.9	588.4	682.0	812.8	980.7	1184.3	1429.5	55°
57.5°	517.1	521.6	524.5	524.5	530.5	569.1	665.7	805.4	994.1	1228.9	1517.1	57.5°
60°	497.8	500.8	502.2	502.2	503.7	536.4	628.6	769.7	964.4	1225.9	1564.7	60°
62.5°	462.1	468.1	469.6	471.0	471.0	502.2	581.0	711.8	900.5	1181.3	1551.3	62.5°
65°	435.4	438.4	442.8	445.8	451.7	472.5	534.9	641.9	817.3	1092.2	1477.0	65°
67.5°	393.8	398.2	402.7	408.6	414.6	428.0	477.0	563.2	704.3	940.6	1310.6	67.5°
70°	356.6	358.1	362.6	370.0	371.5	378.9	414.6	474.0	576.5	754.9	1055.0	70°
72.5°	310.6	313.5	319.5	328.4	328.4	334.3	355.1	386.3	451.7	576.5	778.6	72.5°
75°	270.4	273.4	277.9	277.9	270.4	271.9	286.8	309.1	358.1	433.9	567.6	75°
77.5°	224.4	230.3	234.8	225.9	222.9	227.3	234.8	251.1	286.8	344.7	426.5	77.5°
80°	185.7	188.7	190.2	191.7	188.7	193.2	199.1	209.5	233.3	277.9	337.3	80°
82.5°	148.6	151.6	156.0	162.0	162.0	178.3	179.8	179.8	193.2	221.4	264.5	82.5°
85°	110.0	115.9	121.8	129.3	130.8	139.7	135.2	133.7	138.2	164.9	182.8	85°
87.5°	56.5	60.9	63.9	69.8	62.4	65.4	65.4	60.9	53.5	66.9	74.3	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: P158935

NUMBER: VST-F09-LED-E-U-SLL

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2471.1	2468.2	2471.1	2471.1	2475.6	2472.6	2630.1
2483.0	2480.0	2483.0	2486.0	2490.4	2490.4	2664.3
2484.5	2484.5	2481.5	2489.0	2494.9	2500.8	2697.0
2502.3	2502.3	2505.3	2506.8	2520.2	2535.0	2750.5
2575.1	2582.6	2595.9	2600.4	2624.2	2640.5	2887.2
2686.6	2728.2	2754.9	2763.9	2784.7	2815.9	3117.5
2799.5	2869.4	2942.2	2986.7	3013.5	3050.6	3399.8
2884.2	3015.0	3139.8	3251.2	3315.1	3388.0	3795.1
2891.6	3099.7	3310.7	3517.2	3688.1	3823.3	4330.0
2820.3	3093.7	3385.0	3701.5	3995.7	4239.4	4945.2
2729.7	3065.5	3437.0	3841.2	4227.5	4587.1	5398.4
2615.3	3018.0	3445.9	3900.6	4353.8	4786.2	5657.0
2441.4	2876.8	3338.9	3841.2	4367.2	4893.2	5823.4
2218.5	2662.8	3136.8	3708.9	4304.8	4936.3	5963.1
1991.2	2429.5	2939.2	3532.1	4205.2	4928.9	6019.6
1750.4	2185.8	2707.4	3343.4	4070.0	4860.5	6009.2
1587.0	1983.7	2494.9	3151.7	3919.9	4769.9	5939.3
1491.9	1839.6	2327.0	2976.3	3783.2	4661.4	5851.7
1490.4	1796.5	2237.8	2851.5	3645.0	4541.0	5732.8
1542.4	1823.3	2227.4	2798.0	3569.2	4453.4	5603.5
1603.3	1897.6	2282.4	2817.4	3567.8	4414.7	5512.9
1699.9	2023.9	2402.8	2900.6	3606.4	4408.8	5401.4
1823.3	2194.7	2619.7	3105.6	3756.5	4526.2	5408.8
1949.6	2395.3	2903.5	3456.3	4052.2	4799.6	5643.6
1995.6	2549.9	3191.8	3867.9	4495.0	5209.7	6128.0
1955.5	2585.5	3367.2	4187.4	4925.9	5689.7	6706.1
1806.9	2441.4	3295.8	4278.0	5174.1	6030.0	7284.1
1487.4	2083.3	2971.9	4074.5	5154.7	6099.8	7492.1
1090.7	1615.2	2416.1	3462.3	4582.7	5662.9	7180.1
787.6	1142.7	1744.5	2607.8	3622.7	4560.4	6022.5
564.7	792.0	1132.3	1713.3	2468.2	3175.5	4292.9
405.7	537.9	705.8	1028.3	1503.8	1949.6	2697.0
298.7	368.5	463.6	639.0	885.6	1135.3	1624.1
203.6	216.9	279.4	377.4	581.0	835.1	1102.6
77.3	87.7	102.5	154.5	260.0	298.7	211.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)