

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: P158928

Luminaire Tested: **VST-E09-LED-E-U-SLL-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158928
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-E09-LED-E-U-SLL-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (189) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20412.4 lumens
Efficiency: N/A
Efficacy: 90.4 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): 225.7
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



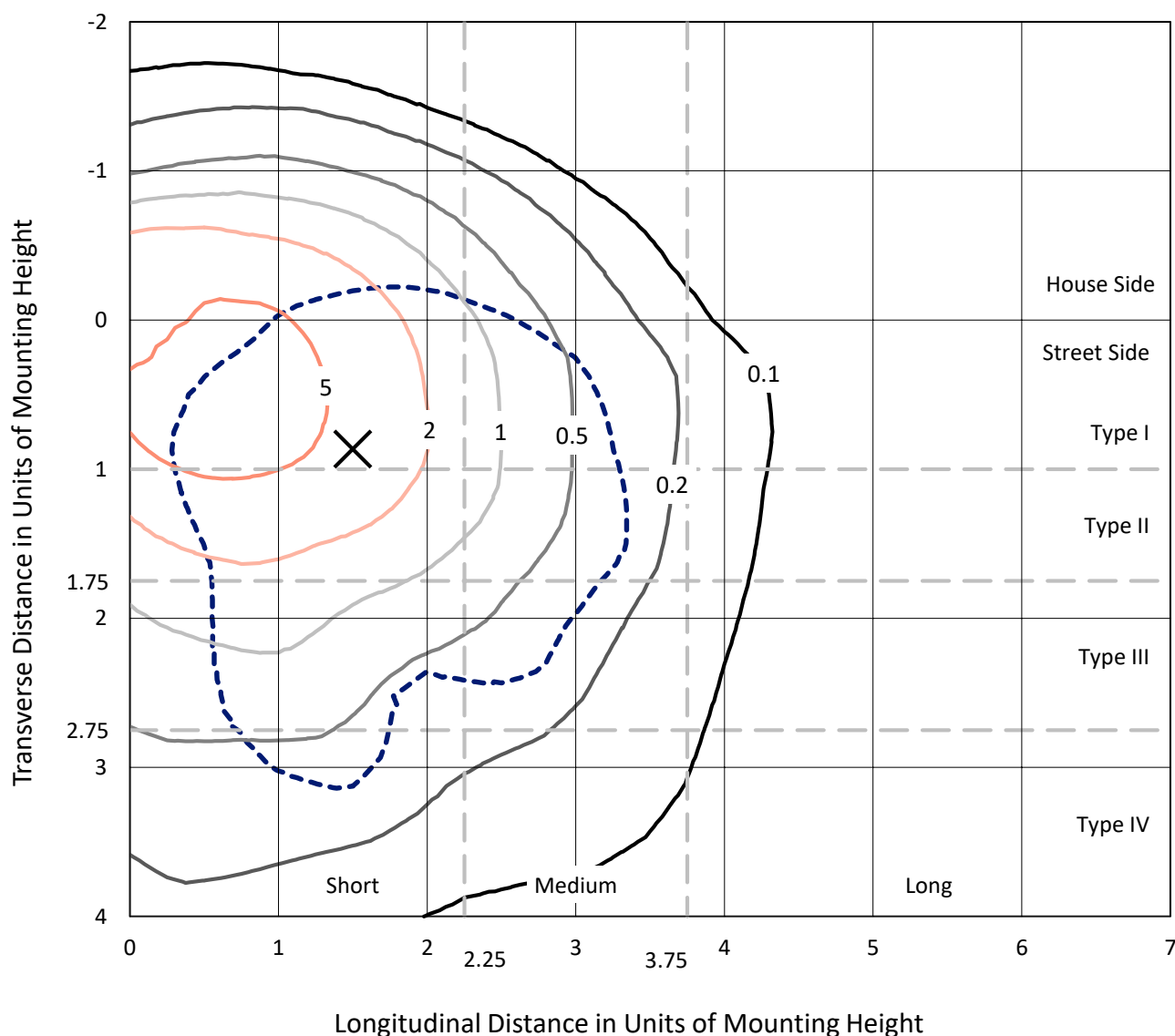
REPORT NUMBER: P158928

CATALOG NUMBER: VST-E09-LED-E-U-SLL-8030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

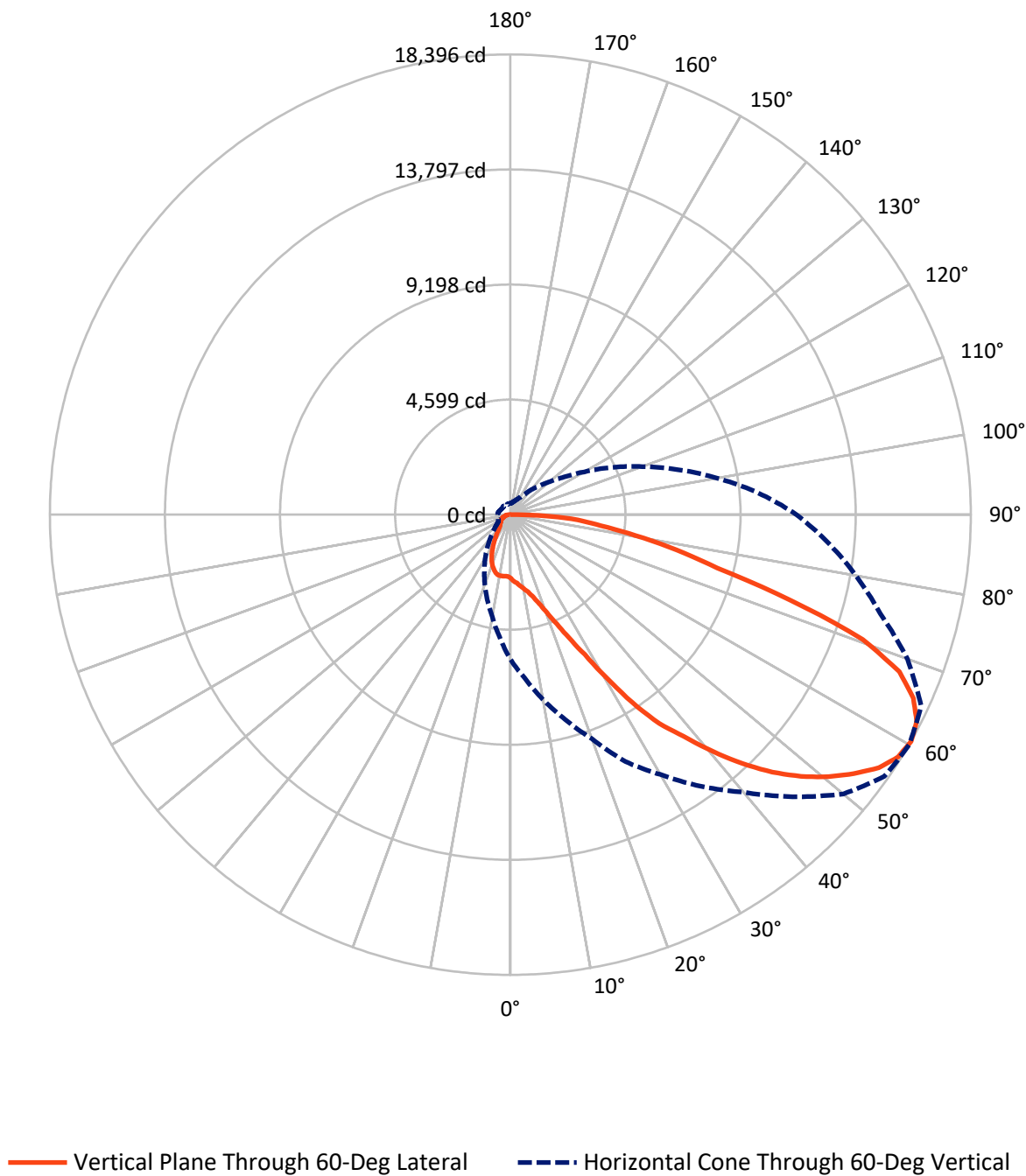


Based on 25 foot mounting height. Maximum calculated value = 9.4 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P158928

CATALOG NUMBER: VST-E09-LED-E-U-SLL-8030

Luminous Intensity Polar Plot



REPORT NUMBER: P158928

CATALOG NUMBER: VST-E09-LED-E-U-SLL-8030

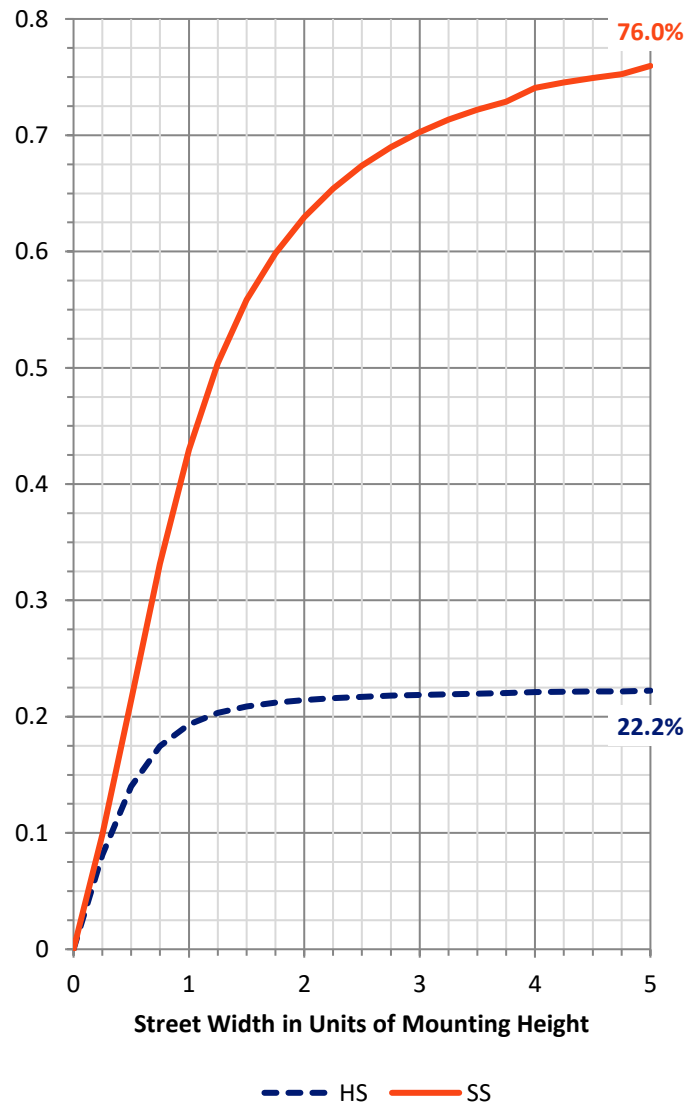
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4596.2	0.0	4596.2
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	15816.1	0.0	15816.1
	% Fixture	77.5	0.0	77.5
Total	Lumens	20412.4	0.0	20412.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.5	1.2
10°-20°	808.6	4.0
20°-30°	1534.5	7.5
30°-40°	2416.5	11.8
40°-50°	3372.9	16.5
50°-60°	4171.4	20.4
60°-70°	4323.9	21.2
70°-80°	2720.8	13.3
80°-90°	813.3	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°	20412.4	100.0
0°-180°	20412.4	100.0

Coefficient of Utilization



REPORT NUMBER: P158928

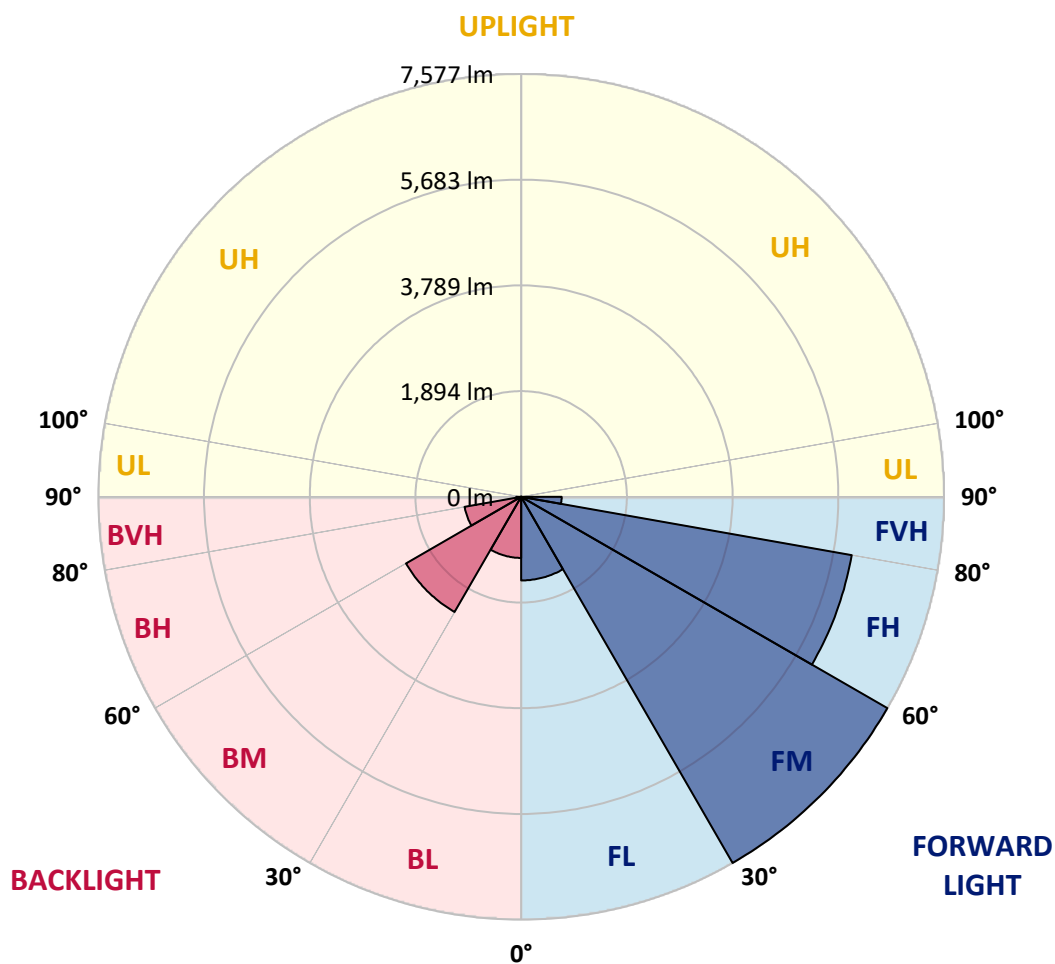
CATALOG NUMBER: VST-E09-LED-E-U-SLL-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1498.6	7.3			
FM	(30°-60°)	7577.4	37.1			
FH	(60°-80°)	6015.3	29.5			G3/7500
FVH	(80°-90°)	724.8	3.6			G4/750
BL	(0°-30°)	1095.0	5.4	B3/2500		
BM	(30°-60°)	2383.4	11.7	B2/2500		
BH	(60°-80°)	1029.3	5.0	B3/2500		G3/2500
BVH	(80°-90°)	88.5	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





REPORT NUMBER: P158928

CATALOG NUMBER: VST-E09-LED-E-U-SLL-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6
2.5°	2689.0	2685.9	2685.9	2685.9	2684.4	2681.4	2685.9	2684.4	2676.8	2672.2	2676.8
5°	2723.9	2725.4	2730.0	2731.5	2731.5	2736.0	2748.2	2749.7	2748.2	2751.2	2758.8
7.5°	2757.3	2764.9	2769.5	2777.1	2786.2	2793.8	2815.0	2836.3	2850.0	2860.6	2863.7
10°	2812.0	2824.2	2837.8	2857.6	2878.9	2916.8	2935.1	2956.3	2970.0	2991.3	2995.8
12.5°	2951.8	2967.0	2976.1	3006.5	3033.8	3070.3	3096.1	3102.2	3134.1	3152.3	3173.6
15°	3187.2	3210.0	3241.9	3260.2	3290.6	3322.5	3345.2	3375.6	3380.2	3404.5	3421.2
17.5°	3475.9	3507.8	3573.1	3617.2	3656.7	3688.6	3734.2	3769.1	3776.7	3804.0	3769.1
20°	3880.0	3957.5	3968.1	4056.2	4091.2	4155.0	4246.1	4262.8	4306.9	4262.8	4237.0
22.5°	4426.9	4548.4	4581.9	4666.9	4709.5	4806.7	4834.0	4923.7	4954.1	4920.6	4850.8
25°	5055.8	5244.2	5341.4	5472.1	5493.4	5692.4	5713.6	5818.5	5762.3	5681.7	5683.3
27.5°	5519.2	5839.7	6090.4	6313.7	6470.2	6695.0	6869.7	6918.4	6865.2	6760.4	6723.9
30°	5783.5	6146.6	6506.7	6815.1	7179.7	7523.0	7880.0	8057.8	8088.1	8142.8	7922.5
32.5°	5953.7	6420.1	6848.5	7229.8	7603.5	8045.6	8524.1	8981.4	9365.8	9655.9	9519.2
35°	6096.5	6672.3	7220.7	7682.5	8124.6	8606.2	9089.3	9628.6	10265.1	10637.3	10714.8
37.5°	6154.2	6857.6	7529.1	8121.6	8742.9	9285.3	9765.3	10245.4	10913.8	11577.7	11782.8
40°	6143.6	6948.7	7712.9	8457.3	9218.4	9896.0	10458.1	11026.2	11808.6	12584.9	12919.1
42.5°	6072.2	6962.4	7829.9	8680.6	9548.1	10448.9	11167.5	11822.3	12572.8	13567.8	14040.3
45°	5982.5	6915.3	7854.2	8794.6	9792.7	10834.8	11743.3	12553.0	13432.6	14415.5	14986.7
47.5°	5861.0	6840.9	7823.8	8834.1	9902.0	11082.4	12150.4	13124.2	14091.9	15223.7	15948.4
50°	5728.8	6734.5	7761.5	8805.2	9929.4	11217.7	12382.9	13491.9	14622.1	15843.6	16759.6
52.5°	5636.2	6620.6	7705.3	8745.9	9902.0	11258.7	12467.9	13689.4	14947.2	16209.7	17303.5
55°	5522.2	6468.7	7554.9	8607.7	9801.8	11235.9	12458.8	13757.7	15036.9	16351.0	17599.7
57.5°	5529.8	6398.8	7427.3	8442.1	9596.7	11024.7	12287.2	13689.4	14895.6	16259.8	17610.4
60°	5769.9	6549.2	7494.1	8475.5	9535.9	10891.0	11995.5	13248.8	14480.9	15945.4	17364.3
62.5°	6265.1	6979.1	7837.5	8809.7	9877.7	11158.4	11863.3	12516.6	13610.4	15366.5	16945.0
65°	6856.1	7500.2	8244.6	9169.8	10366.9	11592.9	11788.9	11921.0	12474.0	14240.8	16158.0
67.5°	7447.0	8022.8	8607.7	9374.9	10644.9	11717.5	11485.0	11170.6	11468.3	12932.8	14611.5
70°	7659.7	8423.9	8808.2	9335.4	10433.8	11427.3	10994.3	10202.8	10306.1	11636.9	12864.4
72.5°	7340.7	8430.0	8557.6	8753.5	9493.4	10427.7	9970.4	8952.5	8931.3	9947.6	10939.6
75°	6157.3	7690.1	7688.6	7615.7	7782.8	8314.5	8077.5	7463.7	7723.5	8524.1	8850.8
77.5°	4388.9	6000.8	6076.7	5586.0	5573.9	5813.9	5956.7	6670.7	7612.6	8062.3	7959.0
80°	2757.3	4048.6	4375.2	3769.1	3640.0	3980.3	4862.9	5902.0	7061.2	7465.3	7117.4
82.5°	1660.5	2608.4	3304.2	2960.9	2930.5	3550.3	4525.6	4929.8	5277.6	5707.6	5125.7
85°	1127.2	1737.9	2260.5	2328.9	2594.8	3235.9	3659.7	3480.4	3489.6	3377.1	3076.3
87.5°	215.7	474.0	774.8	944.9	1048.2	1408.3	1531.3	1387.0	1464.5	1071.0	1171.3
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: P158928

CATALOG NUMBER: VST-E09-LED-E-U-SLL-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6
2.5°	2669.2	2669.2	2669.2	2661.6	2663.1	2652.5	2647.9	2647.9	2643.4	2643.4	2641.9
5°	2752.8	2743.6	2748.2	2746.7	2746.7	2731.5	2723.9	2723.9	2704.1	2705.7	2699.6
7.5°	2877.3	2875.8	2880.4	2871.3	2859.1	2847.0	2834.8	2828.7	2801.4	2784.7	2774.0
10°	3018.6	3017.1	3021.7	3020.1	2998.9	2976.1	2942.7	2918.4	2884.9	2859.1	2833.3
12.5°	3173.6	3172.1	3169.0	3155.3	3132.6	3096.1	3053.6	3012.5	2962.4	2929.0	2891.0
15°	3415.1	3410.6	3392.3	3372.6	3348.3	3292.1	3217.6	3158.4	3091.5	3033.8	2971.5
17.5°	3772.1	3734.2	3731.1	3687.1	3621.7	3547.3	3477.4	3378.7	3283.0	3196.4	3111.3
20°	4264.3	4176.2	4151.9	4101.8	4015.2	3937.7	3785.8	3653.6	3523.0	3404.5	3296.6
22.5°	4800.6	4736.8	4677.6	4595.5	4477.0	4364.6	4171.7	4006.1	3839.0	3687.1	3567.0
25°	5549.6	5438.7	5332.3	5201.7	5037.6	4903.9	4683.6	4516.5	4297.8	4159.5	3986.3
27.5°	6517.3	6327.4	6148.1	6035.7	5747.1	5552.6	5271.6	5055.8	4791.5	4604.6	4399.6
30°	7776.7	7556.4	7290.6	6901.7	6558.3	6172.4	5824.6	5548.1	5267.0	5005.7	4768.7
32.5°	9338.4	8949.5	8528.7	7911.9	7348.3	6798.3	6335.0	5994.7	5707.6	5382.5	5048.2
35°	10658.6	10257.5	9660.5	8876.6	8180.8	7551.9	6997.4	6532.5	6157.3	5745.6	5303.5
37.5°	11700.8	11243.5	10682.9	9850.4	9115.1	8399.6	7817.7	7225.2	6733.0	6166.4	5607.3
40°	12894.8	12436.0	11819.2	10956.4	10085.9	9309.6	8627.4	8015.2	7410.6	6719.3	6000.8
42.5°	13935.5	13604.3	12979.9	12088.1	11123.5	10259.0	9513.1	8812.8	8022.8	7249.5	6398.8
45°	15020.2	14682.9	14090.4	13157.6	12132.2	11169.0	10277.3	9523.8	8591.0	7670.4	6696.6
47.5°	15978.8	15632.4	15033.8	14107.1	13017.9	12003.1	11021.7	10110.2	9027.0	7969.6	6891.0
50°	16893.3	16469.5	15921.0	14997.4	13833.7	12749.0	11684.0	10514.3	9365.8	8179.3	7023.2
52.5°	17733.4	17194.1	16674.6	15723.6	14465.7	13332.4	12144.4	10857.6	9573.9	8344.9	7112.8
55°	18210.5	17862.6	17241.2	16306.9	14915.3	13733.4	12436.0	11099.2	9780.5	8461.9	7150.8
57.5°	18357.8	18272.7	17751.7	16644.2	15179.7	13953.7	12633.5	11290.6	9918.8	8495.3	7097.6
60°	18240.8	18395.8	18110.2	16881.2	15299.7	14019.0	12730.8	11427.3	9943.1	8388.9	6936.6
62.5°	17865.6	18218.1	18181.6	16960.2	15237.4	13937.0	12720.1	11357.4	9715.2	8057.8	6575.0
65°	17248.8	17692.4	17848.9	16667.0	14886.5	13637.7	12449.7	10918.4	9081.7	7410.6	5968.9
67.5°	16088.2	16759.6	16911.6	15706.8	13968.9	12809.8	11670.4	10006.9	7908.9	6409.4	5022.4
70°	13762.3	14936.6	15141.7	13877.7	12351.0	11333.1	10366.9	8562.1	6585.7	5140.9	3854.2
72.5°	10986.7	11725.1	12144.4	11273.9	10137.5	9399.2	8666.9	6569.0	4969.2	3793.4	2652.5
75°	8589.5	8545.4	8920.6	8341.8	7673.4	7328.5	6778.6	4583.4	3328.5	2512.7	1678.7
77.5°	7343.7	6778.6	6351.7	5944.6	5548.1	5438.7	4911.5	2843.9	2057.0	1505.5	1004.2
80°	6104.1	5072.6	4293.2	3720.5	3579.2	3794.9	3214.6	1677.2	1218.4	864.4	630.5
82.5°	4361.6	3649.1	2970.0	2606.9	2365.4	2708.7	1895.9	931.3	660.8	518.0	417.8
85°	2827.2	2702.6	2673.8	2555.3	2262.1	2136.0	1440.2	802.1	495.3	322.1	259.8
87.5°	1087.7	1394.6	1608.8	1724.3	1864.0	1660.5	750.5	276.5	271.9	167.1	126.1
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: P158928

CATALOG NUMBER: VST-E09-LED-E-U-SLL-8030

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6
2.5°	2631.2	2625.1	2623.6	2619.1	2616.0	2616.0	2608.4	2470.2	2468.7	2468.7	2467.2
5°	2687.4	2679.8	2672.2	2670.7	2664.6	2664.6	2657.1	2518.8	2518.8	2518.8	2515.8
7.5°	2763.4	2748.2	2739.1	2734.5	2725.4	2730.0	2736.0	2596.3	2597.8	2596.3	2599.3
10°	2818.1	2809.0	2798.3	2795.3	2789.2	2793.8	2802.9	2664.6	2669.2	2670.7	2673.8
12.5°	2871.3	2856.1	2842.4	2837.8	2834.8	2847.0	2857.6	2723.9	2728.5	2733.0	2733.0
15°	2936.6	2910.8	2892.5	2881.9	2875.8	2888.0	2903.2	2771.0	2772.5	2777.1	2775.5
17.5°	3047.5	3009.5	2967.0	2959.4	2939.6	2944.2	2947.2	2799.9	2793.8	2783.1	2764.9
20°	3219.2	3161.4	3103.7	3079.4	3039.9	3023.2	2989.8	2801.4	2763.4	2731.5	2704.1
22.5°	3465.3	3380.2	3317.9	3276.9	3196.4	3140.2	3049.0	2793.8	2722.4	2667.7	2625.1
25°	3863.3	3761.5	3665.8	3562.5	3436.4	3324.0	3190.3	2860.6	2749.7	2655.5	2573.5
27.5°	4250.7	4089.6	3942.3	3787.3	3609.6	3441.0	3252.6	2881.9	2755.8	2634.3	2500.6
30°	4540.8	4306.9	4083.6	3857.2	3624.8	3406.0	3193.3	2809.0	2658.6	2521.8	2380.6
32.5°	4717.1	4413.2	4123.1	3842.0	3568.6	3322.5	3083.9	2682.9	2517.3	2356.3	2205.9
35°	4884.2	4507.4	4147.4	3816.2	3503.2	3229.8	2973.0	2535.5	2338.0	2166.4	1976.5
37.5°	5090.8	4606.2	4162.6	3769.1	3407.5	3094.6	2812.0	2350.2	2152.7	1941.5	1762.3
40°	5338.4	4708.0	4147.4	3674.9	3258.6	2916.8	2617.6	2155.7	1935.4	1730.4	1554.1
42.5°	5573.9	4797.6	4107.9	3548.8	3096.1	2731.5	2439.8	1982.5	1762.3	1552.6	1377.9
45°	5748.6	4873.5	4088.1	3460.7	2971.5	2605.4	2283.3	1842.8	1610.3	1399.2	1221.4
47.5°	5870.1	4919.1	4079.0	3412.1	2884.9	2474.8	2140.5	1703.0	1458.4	1245.7	1072.5
50°	5933.9	4917.6	4056.2	3358.9	2757.3	2318.3	1993.2	1561.7	1318.7	1110.5	952.5
52.5°	5950.6	4890.3	4007.6	3261.7	2602.4	2161.8	1835.2	1414.4	1195.6	996.6	837.1
55°	5912.7	4823.4	3905.8	3099.1	2436.8	1996.2	1690.9	1298.9	1075.6	887.2	762.6
57.5°	5804.8	4704.9	3714.4	2875.8	2262.1	1842.8	1525.3	1159.1	944.9	786.9	683.6
60°	5604.3	4454.2	3415.1	2611.5	2040.3	1608.8	1297.4	976.8	806.7	688.2	604.6
62.5°	5233.6	4060.8	2994.3	2246.9	1721.2	1305.0	1036.1	779.3	651.7	574.3	522.6
65°	4636.5	3468.3	2506.7	1769.8	1308.0	949.5	770.2	586.4	493.7	446.6	431.4
67.5°	3784.3	2678.3	1823.0	1229.0	885.7	665.4	536.3	428.4	384.4	366.1	360.0
70°	2751.2	1824.5	1180.4	776.3	584.9	464.9	405.6	344.9	320.5	316.0	316.0
72.5°	1727.3	1109.0	723.1	531.7	443.6	376.8	346.4	303.8	294.7	291.7	287.1
75°	1013.3	673.0	512.0	436.0	379.8	337.3	311.4	276.5	270.4	268.9	264.3
77.5°	645.7	484.6	413.2	372.2	343.3	305.4	282.6	246.1	244.6	243.1	241.6
80°	463.4	402.6	361.6	329.7	300.8	265.9	252.2	223.3	220.3	218.8	221.8
82.5°	350.9	332.7	316.0	291.7	252.2	226.4	215.7	196.0	197.5	189.9	188.4
85°	241.6	238.5	237.0	226.4	197.5	174.7	167.1	156.5	164.1	156.5	147.4
87.5°	118.5	117.0	107.9	127.6	118.5	94.2	85.1	94.2	104.8	101.8	94.2
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: P158928

CATALOG NUMBER: VST-E09-LED-E-U-SLL-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6
2.5°	2461.1	2455.0	2459.6	2456.5	2456.5	2455.0	2458.0	2453.5	2450.4	2453.5	2455.0
5°	2509.7	2502.1	2503.6	2493.0	2497.5	2486.9	2489.9	2482.3	2474.8	2471.7	2471.7
7.5°	2591.7	2584.1	2575.0	2573.5	2556.8	2550.7	2540.1	2534.0	2529.4	2518.8	2512.7
10°	2666.2	2654.0	2643.4	2641.9	2625.1	2610.0	2596.3	2584.1	2576.5	2561.3	2553.7
12.5°	2726.9	2714.8	2698.1	2689.0	2672.2	2654.0	2644.9	2626.7	2616.0	2599.3	2585.7
15°	2761.9	2740.6	2716.3	2699.6	2675.3	2655.5	2641.9	2628.2	2617.6	2596.3	2576.5
17.5°	2745.2	2710.2	2676.8	2646.4	2613.0	2594.8	2575.0	2558.3	2555.3	2531.0	2500.6
20°	2675.3	2634.3	2590.2	2549.2	2505.1	2479.3	2455.0	2429.2	2421.6	2392.7	2353.2
22.5°	2590.2	2543.1	2493.0	2442.8	2386.6	2350.2	2313.7	2281.8	2256.0	2213.5	2157.2
25°	2503.6	2433.7	2360.8	2297.0	2231.7	2186.1	2148.1	2113.2	2082.8	2014.4	1956.7
27.5°	2389.7	2280.3	2205.9	2132.9	2053.9	1994.7	1952.2	1903.5	1870.1	1791.1	1730.4
30°	2243.8	2134.5	2028.1	1955.2	1876.2	1812.4	1757.7	1687.8	1639.2	1581.5	1525.3
32.5°	2060.0	1950.6	1842.8	1760.7	1695.4	1616.4	1548.0	1481.2	1425.0	1368.8	1324.7
35°	1836.7	1730.4	1628.6	1546.5	1473.6	1411.3	1346.0	1288.3	1224.5	1163.7	1137.9
37.5°	1601.2	1487.3	1374.9	1303.5	1245.7	1201.7	1140.9	1093.8	1036.1	999.6	969.2
40°	1396.1	1274.6	1168.3	1107.5	1061.9	1011.8	961.6	925.2	884.2	847.7	824.9
42.5°	1222.9	1109.0	1017.9	966.2	911.5	856.8	818.8	788.5	762.6	735.3	707.9
45°	1063.4	954.0	878.1	814.3	768.7	724.7	698.8	685.2	670.0	653.2	635.0
47.5°	929.7	835.6	761.1	701.9	654.8	624.4	612.2	607.7	601.6	587.9	578.8
50°	828.0	750.5	674.5	621.3	581.8	566.7	553.0	548.4	540.8	536.3	530.2
52.5°	742.9	660.8	597.0	548.4	524.1	518.0	512.0	505.9	504.4	501.3	498.3
55°	673.0	601.6	542.3	505.9	493.7	489.2	487.7	481.6	480.1	480.1	475.5
57.5°	610.7	549.9	496.8	474.0	466.4	461.8	458.8	455.8	455.8	458.8	457.3
60°	546.9	495.3	463.4	451.2	446.6	439.0	431.4	428.4	429.9	437.5	437.5
62.5°	484.6	446.6	426.9	422.3	417.8	411.7	402.6	399.5	402.6	411.7	416.3
65°	416.3	399.5	393.5	390.4	387.4	382.8	376.8	373.7	375.2	379.8	385.9
67.5°	354.0	352.5	352.5	354.0	352.5	350.9	347.9	343.3	341.8	341.8	344.9
70°	316.0	316.0	320.5	320.5	319.0	319.0	314.5	309.9	306.9	303.8	305.4
72.5°	287.1	287.1	288.6	290.2	288.6	288.6	282.6	279.5	271.9	270.4	267.4
75°	262.8	259.8	259.8	258.3	256.7	258.3	252.2	244.6	241.6	240.0	237.0
77.5°	238.5	232.4	229.4	226.4	227.9	226.4	221.8	217.2	212.7	211.2	209.6
80°	211.2	202.1	197.5	189.9	194.5	196.0	192.9	188.4	186.9	185.3	183.8
82.5°	174.7	165.6	159.5	155.0	151.9	155.0	159.5	170.1	167.1	165.6	162.6
85°	136.7	121.5	113.9	115.5	107.9	109.4	123.1	129.1	129.1	132.2	129.1
87.5°	77.5	74.4	56.2	51.7	54.7	65.3	72.9	80.5	80.5	76.0	85.1
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: P158928

CATALOG NUMBER: VST-E09-LED-E-U-SLL-8030

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6
2.5°	2455.0	2458.0	2459.6	2465.6	2468.7	2470.2	2471.7	2474.8	2476.3	2474.8	2482.3
5°	2467.2	2467.2	2464.1	2468.7	2470.2	2470.2	2467.2	2470.2	2470.2	2470.2	2477.8
7.5°	2499.1	2489.9	2485.4	2479.3	2474.8	2468.7	2461.1	2461.1	2459.6	2461.1	2465.6
10°	2532.5	2518.8	2502.1	2486.9	2473.2	2462.6	2448.9	2444.4	2442.8	2441.3	2453.5
12.5°	2558.3	2534.0	2508.2	2482.3	2455.0	2436.8	2414.0	2400.3	2398.8	2398.8	2414.0
15°	2540.1	2500.6	2450.4	2404.9	2380.6	2354.7	2328.9	2312.2	2310.7	2313.7	2322.8
17.5°	2448.9	2385.1	2341.1	2297.0	2265.1	2243.8	2227.1	2224.1	2230.2	2224.1	2236.2
20°	2294.0	2225.6	2195.2	2160.3	2148.1	2132.9	2108.6	2087.4	2087.4	2060.0	2067.6
22.5°	2093.4	2055.5	2016.0	1988.6	1979.5	1953.7	1927.8	1899.0	1895.9	1862.5	1858.0
25°	1883.8	1845.8	1813.9	1807.8	1780.5	1745.5	1721.2	1687.8	1680.2	1646.8	1642.2
27.5°	1669.6	1639.2	1607.3	1589.1	1573.9	1535.9	1514.6	1475.1	1459.9	1423.5	1418.9
30°	1466.0	1444.7	1406.8	1391.6	1362.7	1318.7	1273.1	1248.8	1236.6	1198.6	1186.5
32.5°	1274.6	1241.2	1212.3	1194.1	1157.6	1107.5	1066.5	1031.5	1008.7	963.2	951.0
35°	1092.3	1058.9	1045.2	998.1	966.2	932.8	876.6	855.3	814.3	779.3	767.2
37.5°	931.3	899.4	881.1	841.6	809.7	776.3	742.9	715.5	695.8	688.2	688.2
40°	793.0	776.3	753.5	724.7	703.4	679.1	660.8	651.7	650.2	653.2	660.8
42.5°	694.3	676.0	660.8	645.7	630.5	627.4	622.9	628.9	636.5	644.1	651.7
45°	619.8	604.6	595.5	589.4	587.9	592.5	601.6	610.7	624.4	633.5	639.6
47.5°	566.7	554.5	551.5	549.9	557.5	571.2	583.4	597.0	607.7	616.8	622.9
50°	521.1	510.4	508.9	507.4	518.0	530.2	540.8	559.1	566.7	572.7	577.3
52.5°	489.2	480.1	475.5	477.0	487.7	498.3	513.5	527.2	537.8	542.3	546.9
55°	463.4	460.3	449.7	454.2	464.9	478.5	493.7	508.9	519.6	527.2	534.8
57.5°	443.6	436.0	428.4	436.0	446.6	460.3	478.5	492.2	505.9	516.5	524.1
60°	422.3	416.3	410.2	417.8	428.4	442.1	455.8	474.0	490.7	501.3	508.9
62.5°	404.1	399.5	393.5	395.0	399.5	408.7	416.3	433.0	448.2	461.8	470.9
65°	378.3	376.8	367.6	369.2	372.2	381.3	387.4	402.6	417.8	429.9	437.5
67.5°	340.3	337.3	337.3	341.8	343.3	347.9	352.5	367.6	379.8	388.9	398.0
70°	302.3	300.8	300.8	303.8	302.3	306.9	313.0	326.6	341.8	350.9	360.0
72.5°	265.9	265.9	264.3	267.4	267.4	268.9	276.5	288.6	302.3	309.9	316.0
75°	234.0	232.4	232.4	232.4	234.0	234.0	241.6	252.2	265.9	270.4	279.5
77.5°	205.1	205.1	205.1	205.1	206.6	205.1	209.6	217.2	221.8	229.4	229.4
80°	180.8	179.3	180.8	182.3	182.3	180.8	180.8	182.3	183.8	183.8	183.8
82.5°	159.5	155.0	158.0	165.6	165.6	165.6	164.1	153.4	145.8	145.8	148.9
85°	127.6	127.6	129.1	139.8	141.3	135.2	141.3	126.1	110.9	106.3	109.4
87.5°	79.0	62.3	76.0	86.6	86.6	82.0	91.2	85.1	71.4	57.7	54.7
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: P158928
CATALOG NUMBER: VST-E09-LED-E-U-SLL-8030

REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	0°
2.5°	2488.4	2489.9	2499.1	2503.6	2503.6	2509.7	2512.7	2521.8	2520.3	2520.3	2523.4	2.5°
5°	2485.4	2489.9	2499.1	2505.1	2508.2	2515.8	2521.8	2532.5	2531.0	2534.0	2535.5	5°
7.5°	2474.8	2486.9	2496.0	2508.2	2518.8	2524.9	2532.5	2541.6	2538.6	2540.1	2538.6	7.5°
10°	2465.6	2477.8	2496.0	2512.7	2527.9	2537.0	2541.6	2552.2	2550.7	2553.7	2553.7	10°
12.5°	2429.2	2450.4	2473.2	2499.1	2521.8	2546.2	2561.3	2584.1	2594.8	2608.4	2623.6	12.5°
15°	2336.5	2360.8	2397.3	2426.1	2470.2	2503.6	2547.7	2591.7	2631.2	2669.2	2713.3	15°
17.5°	2245.4	2256.0	2284.9	2324.4	2363.8	2414.0	2467.2	2546.2	2617.6	2695.0	2780.1	17.5°
20°	2076.7	2095.0	2114.7	2161.8	2208.9	2280.3	2345.6	2448.9	2553.7	2675.3	2805.9	20°
22.5°	1868.6	1886.8	1908.1	1961.3	2019.0	2091.9	2170.9	2286.4	2426.1	2584.1	2758.8	22.5°
25°	1643.8	1654.4	1671.1	1724.3	1759.2	1854.9	1950.6	2070.6	2222.6	2426.1	2629.7	25°
27.5°	1396.1	1415.9	1429.6	1453.9	1534.4	1616.4	1716.7	1845.8	2029.6	2237.8	2483.9	27.5°
30°	1159.1	1175.8	1168.3	1219.9	1273.1	1359.7	1467.5	1610.3	1786.6	2034.2	2318.3	30°
32.5°	926.7	938.9	934.3	970.8	1023.9	1110.5	1212.3	1367.3	1554.1	1818.5	2126.9	32.5°
35°	764.1	767.2	783.9	800.6	846.2	916.1	1002.7	1137.9	1329.3	1572.4	1899.0	35°
37.5°	688.2	694.3	704.9	727.7	761.1	811.2	882.6	987.5	1151.5	1365.7	1657.4	37.5°
40°	665.4	670.0	676.0	691.2	723.1	767.2	831.0	919.1	1039.1	1219.9	1456.9	40°
42.5°	654.8	654.8	654.8	663.9	688.2	735.3	808.2	894.8	999.6	1136.3	1327.8	42.5°
45°	639.6	639.6	638.1	642.6	659.3	706.4	785.4	882.6	995.1	1125.7	1291.3	45°
47.5°	622.9	621.3	616.8	616.8	627.4	674.5	756.6	861.4	984.4	1134.8	1312.6	47.5°
50°	577.3	577.3	577.3	581.8	591.0	633.5	721.6	832.5	973.8	1140.9	1346.0	50°
52.5°	551.5	553.0	557.5	557.5	566.7	610.7	703.4	826.4	979.9	1163.7	1388.5	52.5°
55°	539.3	543.9	548.4	548.4	556.0	601.6	697.3	831.0	1002.7	1210.8	1461.5	55°
57.5°	528.7	533.2	536.3	536.3	542.3	581.8	680.6	823.4	1016.3	1256.4	1551.1	57.5°
60°	508.9	512.0	513.5	513.5	515.0	548.4	642.6	786.9	986.0	1253.3	1599.7	60°
62.5°	472.5	478.5	480.1	481.6	481.6	513.5	594.0	727.7	920.6	1207.8	1586.0	62.5°
65°	445.1	448.2	452.7	455.8	461.8	483.1	546.9	656.3	835.6	1116.6	1510.1	65°
67.5°	402.6	407.1	411.7	417.8	423.9	437.5	487.7	575.8	720.1	961.6	1339.9	67.5°
70°	364.6	366.1	370.7	378.3	379.8	387.4	423.9	484.6	589.4	771.7	1078.6	70°
72.5°	317.5	320.5	326.6	335.7	335.7	341.8	363.1	395.0	461.8	589.4	796.1	72.5°
75°	276.5	279.5	284.1	284.1	276.5	278.0	293.2	316.0	366.1	443.6	580.3	75°
77.5°	229.4	235.5	240.0	230.9	227.9	232.4	240.0	256.7	293.2	352.5	436.0	77.5°
80°	189.9	192.9	194.5	196.0	192.9	197.5	203.6	214.2	238.5	284.1	344.9	80°
82.5°	151.9	155.0	159.5	165.6	165.6	182.3	183.8	183.8	197.5	226.4	270.4	82.5°
85°	112.4	118.5	124.6	132.2	133.7	142.8	138.2	136.7	141.3	168.6	186.9	85°
87.5°	57.7	62.3	65.3	71.4	63.8	66.8	66.8	62.3	54.7	68.4	76.0	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: P158928

NUMBER: VST-E09-LED-E-U-SLL-8030

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
2538.6	2538.6	2538.6	2538.6	2538.6	2538.6	2538.6
2526.4	2523.4	2526.4	2526.4	2531.0	2527.9	2689.0
2538.6	2535.5	2538.6	2541.6	2546.2	2546.2	2723.9
2540.1	2540.1	2537.0	2544.6	2550.7	2556.8	2757.3
2558.3	2558.3	2561.3	2562.9	2576.5	2591.7	2812.0
2632.7	2640.3	2654.0	2658.6	2682.9	2699.6	2951.8
2746.7	2789.2	2816.6	2825.7	2847.0	2878.9	3187.2
2862.1	2933.5	3008.0	3053.6	3080.9	3118.9	3475.9
2948.7	3082.4	3210.0	3324.0	3389.3	3463.7	3880.0
2956.3	3169.0	3384.7	3595.9	3770.6	3908.9	4426.9
2883.4	3162.9	3460.7	3784.3	4085.1	4334.2	5055.8
2790.7	3134.1	3513.9	3927.1	4322.1	4689.7	5519.2
2673.8	3085.5	3523.0	3987.9	4451.2	4893.3	5783.5
2496.0	2941.1	3413.6	3927.1	4464.9	5002.7	5953.7
2268.1	2722.4	3207.0	3791.9	4401.1	5046.7	6096.5
2035.7	2483.9	3004.9	3611.1	4299.3	5039.1	6154.2
1789.6	2234.7	2768.0	3418.2	4161.0	4969.2	6143.6
1622.5	2028.1	2550.7	3222.2	4007.6	4876.6	6072.2
1525.3	1880.7	2379.0	3042.9	3867.8	4765.7	5982.5
1523.7	1836.7	2287.9	2915.3	3726.6	4642.6	5861.0
1576.9	1864.0	2277.3	2860.6	3649.1	4553.0	5728.8
1639.2	1940.0	2333.5	2880.4	3647.6	4513.5	5636.2
1737.9	2069.1	2456.5	2965.4	3687.1	4507.4	5522.2
1864.0	2243.8	2678.3	3175.1	3840.5	4627.4	5529.8
1993.2	2448.9	2968.5	3533.6	4142.8	4907.0	5769.9
2040.3	2606.9	3263.2	3954.4	4595.5	5326.3	6265.1
1999.2	2643.4	3442.5	4281.1	5036.1	5817.0	6856.1
1847.3	2496.0	3369.5	4373.7	5289.8	6164.8	7447.0
1520.7	2129.9	3038.4	4165.6	5270.0	6236.2	7659.7
1115.1	1651.4	2470.2	3539.7	4685.2	5789.6	7340.7
805.2	1168.3	1783.5	2666.2	3703.8	4662.4	6157.3
577.3	809.7	1157.6	1751.6	2523.4	3246.5	4388.9
414.7	549.9	721.6	1051.3	1537.4	1993.2	2757.3
305.4	376.8	474.0	653.2	905.4	1160.7	1660.5
208.1	221.8	285.6	385.9	594.0	853.8	1127.2
79.0	89.6	104.8	158.0	265.9	305.4	215.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)