

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: P158934

Luminaire Tested: **VST-F09-LED-E-U-SLL-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158934
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-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (63) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18235.7 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - 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

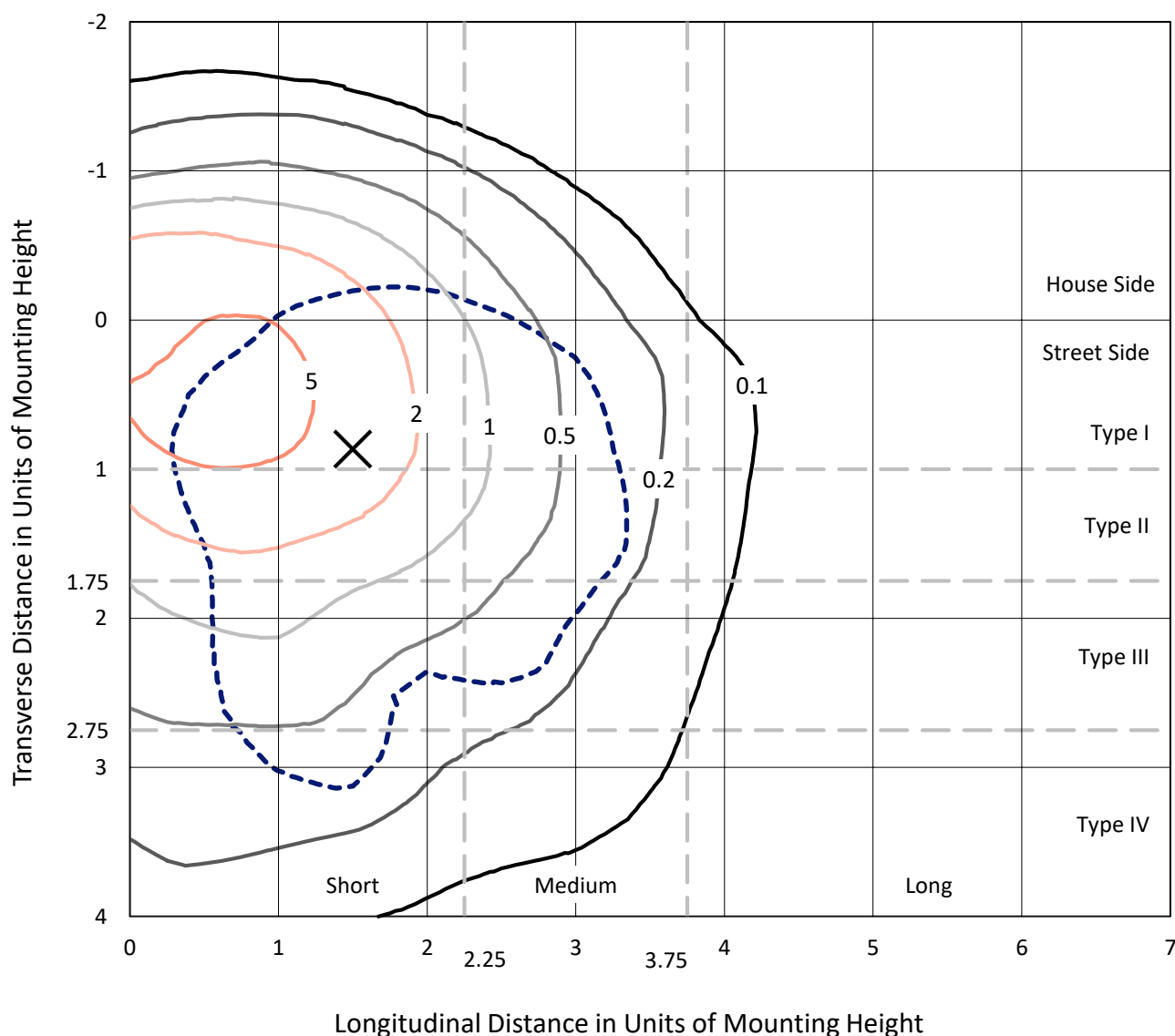


REPORT NUMBER: P158934

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

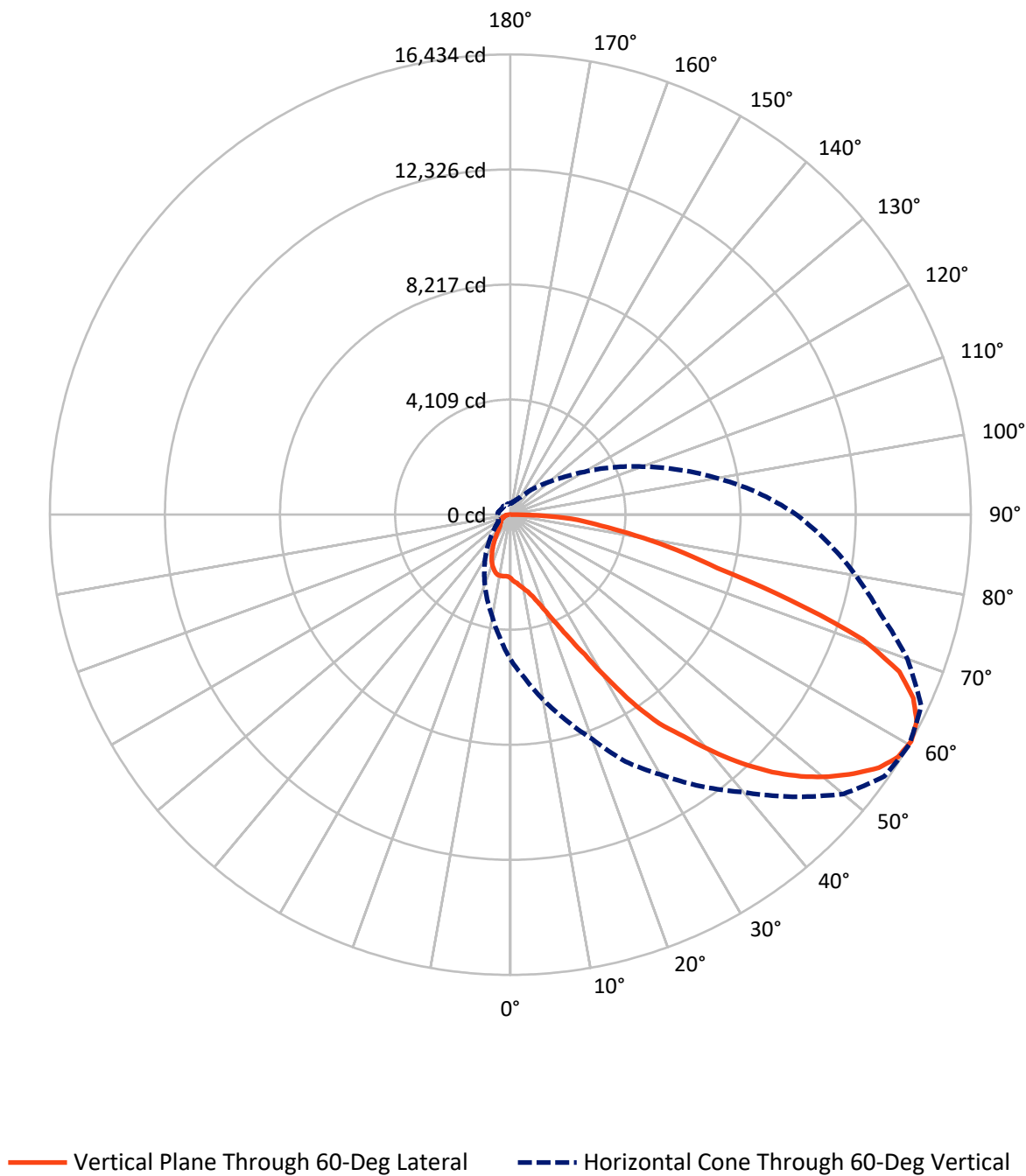


Based on 25 foot mounting height. Maximum calculated value = 8.4 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P158934

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7030

Luminous Intensity Polar Plot



REPORT NUMBER: P158934

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7030

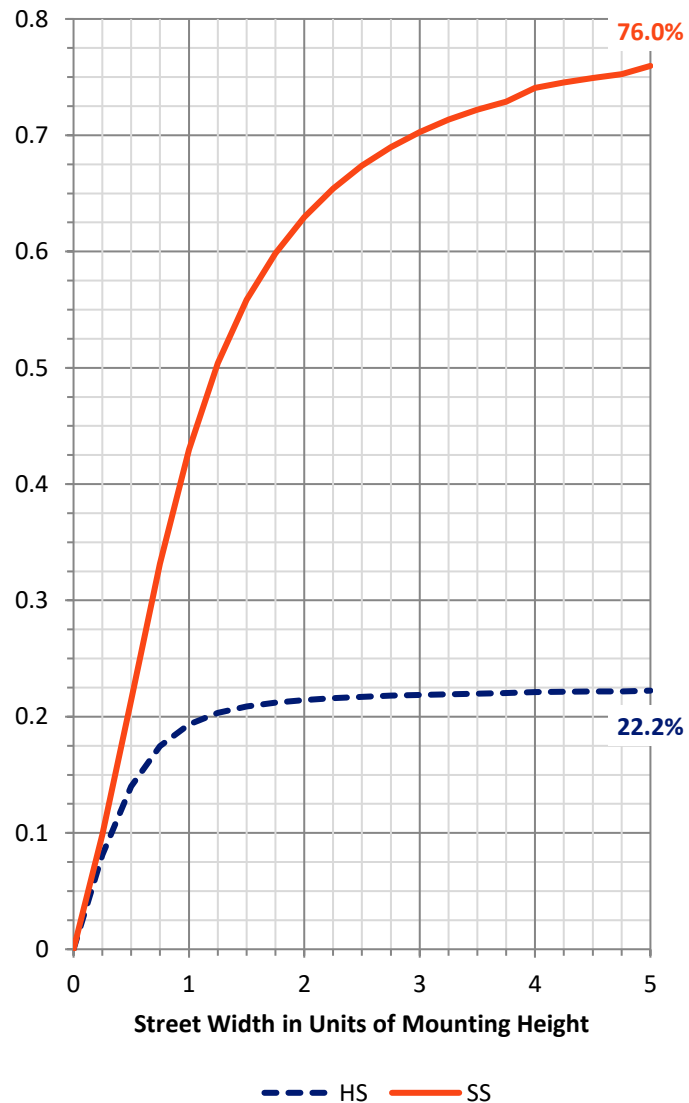
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4106.1	0.0	4106.1
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	14129.6	0.0	14129.6
	% Fixture	77.5	0.0	77.5
Total	Lumens	18235.7	0.0	18235.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.7	1.2
10°-20°	722.4	4.0
20°-30°	1370.8	7.5
30°-40°	2158.8	11.8
40°-50°	3013.2	16.5
50°-60°	3726.6	20.4
60°-70°	3862.8	21.2
70°-80°	2430.6	13.3
80°-90°	726.6	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°	18235.7	100.0
0°-180°	18235.7	100.0

Coefficient of Utilization



REPORT NUMBER: P158934

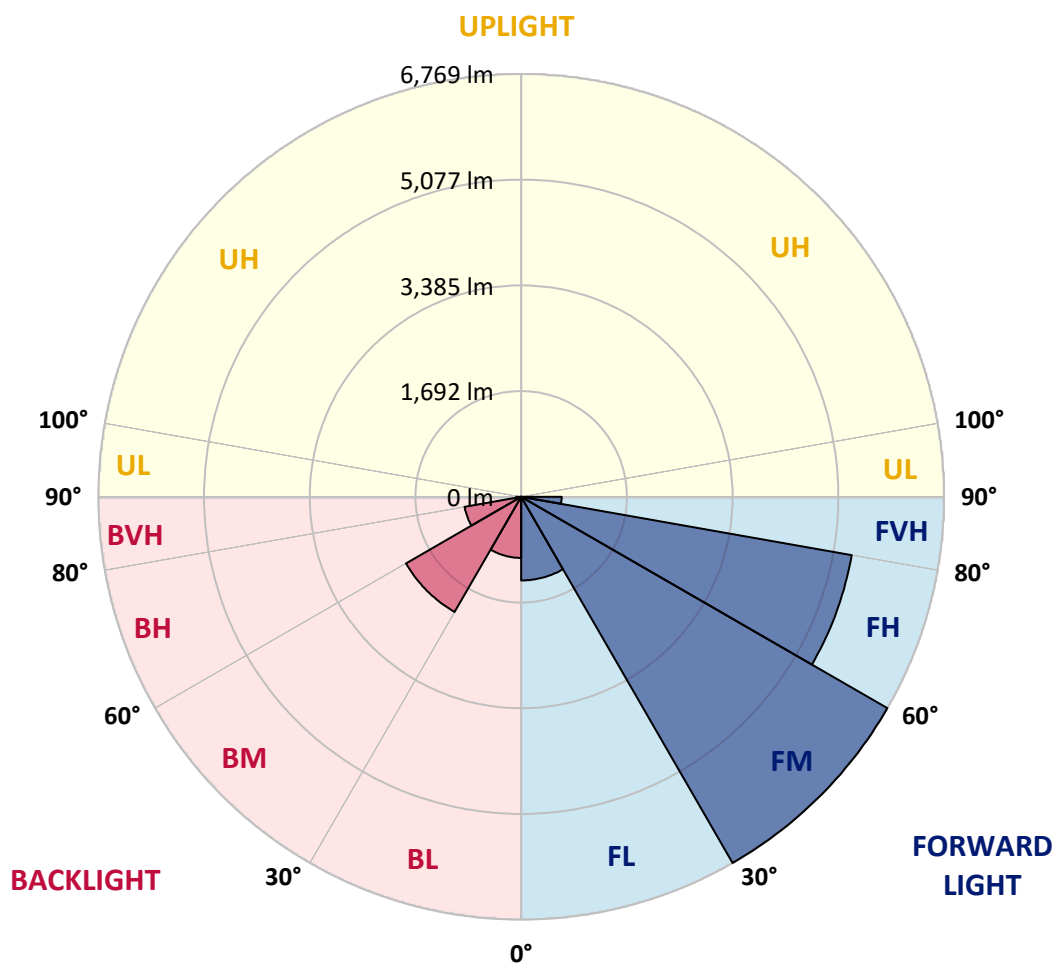
CATALOG NUMBER: VST-F09-LED-E-U-SLL-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1338.8	7.3			
FM	(30°-60°)	6769.4	37.1			
FH	(60°-80°)	5373.9	29.5			G3/7500
FVH	(80°-90°)	647.5	3.6			G4/750
BL	(0°-30°)	978.2	5.4	B2/1000		
BM	(30°-60°)	2129.3	11.7	B2/2500		
BH	(60°-80°)	919.6	5.0	B2/1000		G2/1000
BVH	(80°-90°)	79.0	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short





REPORT NUMBER: P158934

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9
2.5°	2402.2	2399.5	2399.5	2399.5	2398.2	2395.4	2399.5	2398.2	2391.4	2387.3	2391.4
5°	2433.4	2434.8	2438.9	2440.2	2440.2	2444.3	2455.2	2456.5	2455.2	2457.9	2464.7
7.5°	2463.3	2470.1	2474.2	2480.9	2489.1	2495.9	2514.9	2533.9	2546.1	2555.6	2558.3
10°	2512.2	2523.0	2535.2	2552.9	2571.9	2605.8	2622.1	2641.1	2653.3	2672.3	2676.4
12.5°	2637.0	2650.6	2658.7	2685.9	2710.3	2742.9	2765.9	2771.4	2799.9	2816.2	2835.2
15°	2847.4	2867.7	2896.2	2912.5	2939.7	2968.2	2988.5	3015.7	3019.7	3041.5	3056.4
17.5°	3105.2	3133.7	3192.1	3231.5	3266.8	3295.3	3336.0	3367.2	3374.0	3398.4	3367.2
20°	3466.3	3535.5	3545.0	3623.7	3654.9	3711.9	3793.3	3808.3	3847.6	3808.3	3785.2
22.5°	3954.8	4063.4	4093.3	4169.3	4207.3	4294.1	4318.6	4398.6	4425.8	4395.9	4333.5
25°	4516.7	4685.0	4771.9	4888.6	4907.6	5085.4	5104.4	5198.0	5147.8	5075.9	5077.2
27.5°	4930.7	5217.0	5441.0	5640.5	5780.3	5981.1	6137.2	6180.6	6133.1	6039.5	6006.9
30°	5166.8	5491.2	5812.8	6088.3	6414.1	6720.8	7039.7	7198.5	7225.7	7274.5	7077.7
32.5°	5318.8	5735.5	6118.2	6458.9	6792.7	7187.7	7615.2	8023.7	8367.1	8626.3	8504.1
35°	5446.4	5960.8	6450.7	6863.3	7258.2	7688.5	8120.1	8601.9	9170.5	9503.0	9572.2
37.5°	5498.0	6126.3	6726.2	7255.5	7810.6	8295.1	8724.0	9152.9	9750.0	10343.1	10526.4
40°	5488.5	6207.8	6890.4	7555.5	8235.4	8840.7	9342.9	9850.5	10549.4	11242.9	11541.5
42.5°	5424.7	6220.0	6994.9	7755.0	8529.9	9334.7	9976.7	10561.6	11232.1	12121.0	12543.1
45°	5344.6	6177.9	7016.7	7856.8	8748.4	9679.5	10491.1	11214.4	12000.3	12878.4	13388.7
47.5°	5236.0	6111.4	6989.5	7892.0	8846.2	9900.7	10854.8	11724.7	12589.3	13600.4	14247.8
50°	5118.0	6016.4	6933.9	7866.3	8870.6	10021.5	11062.4	12053.2	13062.9	14154.1	14972.5
52.5°	5035.2	5914.6	6883.7	7813.3	8846.2	10058.1	11138.4	12229.6	13353.4	14481.2	15458.4
55°	4933.4	5778.9	6749.3	7689.8	8756.6	10037.8	11130.3	12290.7	13433.4	14607.4	15723.0
57.5°	4940.2	5716.5	6635.3	7541.9	8573.4	9849.1	10976.9	12229.6	13307.2	14526.0	15732.5
60°	5154.6	5850.8	6695.0	7571.8	8519.1	9729.7	10716.4	11836.0	12936.7	14245.0	15512.7
62.5°	5597.0	6234.9	7001.7	7870.3	8824.4	9968.5	10598.3	11181.9	12159.0	13728.0	15138.1
65°	6125.0	6700.4	7365.5	8192.0	9261.5	10356.7	10531.8	10649.9	11143.9	12722.3	14435.1
67.5°	6652.9	7167.3	7689.8	8375.2	9509.8	10468.0	10260.3	9979.4	10245.4	11553.7	13053.4
70°	6842.9	7525.6	7869.0	8339.9	9321.2	10208.8	9822.0	9114.9	9207.2	10396.1	11492.7
72.5°	6557.9	7531.0	7645.0	7820.1	8481.1	9315.7	8907.2	7997.9	7978.9	8886.9	9773.1
75°	5500.7	6870.1	6868.7	6803.6	6952.9	7427.9	7216.2	6667.9	6899.9	7615.2	7907.0
77.5°	3920.9	5360.9	5428.8	4990.4	4979.5	5194.0	5321.5	5959.4	6800.9	7202.6	7110.3
80°	2463.3	3616.9	3908.7	3367.2	3251.8	3555.8	4344.4	5272.7	6308.2	6669.2	6358.4
82.5°	1483.4	2330.3	2951.9	2645.2	2618.0	3171.7	4043.1	4404.1	4714.9	5099.0	4579.2
85°	1007.0	1552.6	2019.5	2080.6	2318.1	2890.8	3269.5	3109.3	3117.5	3017.0	2748.3
87.5°	192.7	423.4	692.2	844.2	936.5	1258.1	1368.0	1239.1	1308.3	956.8	1046.4
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: P158934

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9
2.5°	2384.6	2384.6	2384.6	2377.8	2379.2	2369.7	2365.6	2365.6	2361.5	2361.5	2360.2
5°	2459.2	2451.1	2455.2	2453.8	2453.8	2440.2	2433.4	2433.4	2415.8	2417.2	2411.7
7.5°	2570.5	2569.2	2573.2	2565.1	2554.2	2543.4	2532.5	2527.1	2502.7	2487.7	2478.2
10°	2696.7	2695.4	2699.4	2698.1	2679.1	2658.7	2628.9	2607.2	2577.3	2554.2	2531.2
12.5°	2835.2	2833.8	2831.1	2818.9	2798.5	2765.9	2727.9	2691.3	2646.5	2616.7	2582.7
15°	3051.0	3046.9	3030.6	3013.0	2991.2	2941.0	2874.5	2821.6	2761.9	2710.3	2654.7
17.5°	3369.9	3336.0	3333.3	3293.9	3235.5	3169.0	3106.6	3018.4	2932.9	2855.5	2779.5
20°	3809.6	3730.9	3709.2	3664.4	3587.0	3517.8	3382.1	3264.0	3147.3	3041.5	2945.1
22.5°	4288.7	4231.7	4178.8	4105.5	3999.6	3899.2	3726.8	3578.9	3429.6	3293.9	3186.7
25°	4957.8	4858.7	4763.7	4647.0	4500.4	4381.0	4184.2	4034.9	3839.5	3716.0	3561.3
27.5°	5822.3	5652.7	5492.5	5392.1	5134.2	4960.5	4709.4	4516.7	4280.6	4113.6	3930.4
30°	6947.4	6750.7	6513.1	6165.7	5859.0	5514.3	5203.5	4956.5	4705.4	4471.9	4260.2
32.5°	8342.6	7995.2	7619.3	7068.2	6564.7	6073.4	5659.5	5355.5	5099.0	4808.5	4509.9
35°	9522.0	9163.7	8630.4	7930.1	7308.5	6746.6	6251.2	5835.9	5500.7	5132.9	4737.9
37.5°	10453.1	10044.6	9543.7	8800.0	8143.1	7503.9	6984.1	6454.8	6015.1	5508.8	5009.4
40°	11519.8	11109.9	10558.9	9788.0	9010.4	8316.8	7707.5	7160.5	6620.4	6002.8	5360.9
42.5°	12449.5	12153.6	11595.8	10799.1	9937.3	9165.1	8498.7	7873.0	7167.3	6476.5	5716.5
45°	13418.5	13117.2	12587.9	11754.6	10838.5	9978.0	9181.4	8508.2	7674.9	6852.4	5982.5
47.5°	14274.9	13965.5	13430.7	12602.9	11629.7	10723.1	9846.4	9032.1	8064.4	7119.8	6156.2
50°	15091.9	14713.3	14223.3	13398.2	12358.6	11389.5	10438.1	9393.1	8367.1	7307.1	6274.3
52.5°	15842.5	15360.7	14896.5	14046.9	12923.1	11910.7	10849.4	9699.8	8553.0	7455.0	6354.4
55°	16268.6	15957.8	15402.7	14568.1	13324.9	12269.0	11109.9	9915.6	8737.6	7559.5	6388.3
57.5°	16400.3	16324.3	15858.7	14869.4	13561.0	12465.8	11286.4	10086.6	8861.1	7589.4	6340.8
60°	16295.8	16434.2	16179.0	15081.1	13668.2	12524.1	11373.2	10208.8	8882.8	7494.4	6196.9
62.5°	15960.5	16275.4	16242.8	15151.6	13612.6	12450.8	11363.7	10146.3	8679.2	7198.5	5873.9
65°	15409.5	15805.8	15945.6	14889.7	13299.1	12183.5	11122.2	9754.1	8113.3	6620.4	5332.4
67.5°	14372.6	14972.5	15108.2	14032.0	12479.3	11443.8	10425.9	8939.8	7065.5	5726.0	4486.9
70°	12294.8	13343.9	13527.1	12397.9	11033.9	10124.6	9261.5	7649.1	5883.4	4592.7	3443.2
72.5°	9815.2	10474.8	10849.4	10071.7	9056.5	8396.9	7742.8	5868.5	4439.4	3388.9	2369.7
75°	7673.5	7634.2	7969.4	7452.3	6855.2	6547.1	6055.8	4094.6	2973.6	2244.8	1499.7
77.5°	6560.6	6055.8	5674.4	5310.7	4956.5	4858.7	4387.8	2540.7	1837.6	1345.0	897.1
80°	5453.2	4531.7	3835.4	3323.8	3197.5	3390.3	2871.8	1498.3	1088.5	772.2	563.2
82.5°	3896.5	3260.0	2653.3	2328.9	2113.1	2419.9	1693.8	832.0	590.4	462.8	373.2
85°	2525.7	2414.4	2388.7	2282.8	2020.9	1908.2	1286.6	716.6	442.4	287.7	232.1
87.5°	971.7	1245.9	1437.3	1540.4	1665.3	1483.4	670.5	247.0	242.9	149.3	112.6
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: P158934

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7030

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9
2.5°	2350.7	2345.2	2343.9	2339.8	2337.1	2337.1	2330.3	2206.8	2205.4	2205.4	2204.1
5°	2400.9	2394.1	2387.3	2385.9	2380.5	2380.5	2373.7	2250.2	2250.2	2250.2	2247.5
7.5°	2468.7	2455.2	2447.0	2442.9	2434.8	2438.9	2444.3	2319.4	2320.8	2319.4	2322.1
10°	2517.6	2509.4	2499.9	2497.2	2491.8	2495.9	2504.0	2380.5	2384.6	2385.9	2388.7
12.5°	2565.1	2551.5	2539.3	2535.2	2532.5	2543.4	2552.9	2433.4	2437.5	2441.6	2441.6
15°	2623.4	2600.4	2584.1	2574.6	2569.2	2580.0	2593.6	2475.5	2476.9	2480.9	2479.6
17.5°	2722.5	2688.6	2650.6	2643.8	2626.2	2630.2	2632.9	2501.3	2495.9	2486.4	2470.1
20°	2875.9	2824.3	2772.7	2751.0	2715.7	2700.8	2670.9	2502.7	2468.7	2440.2	2415.8
22.5°	3095.7	3019.7	2964.1	2927.5	2855.5	2805.3	2723.9	2495.9	2432.1	2383.2	2345.2
25°	3451.3	3360.4	3274.9	3182.6	3070.0	2969.5	2850.1	2555.6	2456.5	2372.4	2299.1
27.5°	3797.4	3653.6	3521.9	3383.5	3224.7	3074.0	2905.7	2574.6	2461.9	2353.4	2233.9
30°	4056.6	3847.6	3648.1	3445.9	3238.3	3042.8	2852.8	2509.4	2375.1	2252.9	2126.7
32.5°	4214.1	3942.6	3683.4	3432.3	3188.0	2968.2	2755.1	2396.8	2248.9	2105.0	1970.6
35°	4363.4	4026.8	3705.1	3409.3	3129.7	2885.4	2656.0	2265.1	2088.7	1935.4	1765.7
37.5°	4547.9	4115.0	3718.7	3367.2	3044.2	2764.6	2512.2	2099.6	1923.1	1734.5	1574.3
40°	4769.2	4205.9	3705.1	3283.0	2911.2	2605.8	2338.4	1925.9	1729.1	1545.8	1388.4
42.5°	4979.5	4286.0	3669.8	3170.4	2765.9	2440.2	2179.6	1771.1	1574.3	1387.0	1231.0
45°	5135.6	4353.9	3652.2	3091.7	2654.7	2327.6	2039.9	1646.3	1438.6	1250.0	1091.2
47.5°	5244.2	4394.6	3644.1	3048.2	2577.3	2210.9	1912.3	1521.4	1302.9	1112.9	958.2
50°	5301.2	4393.2	3623.7	3000.7	2463.3	2071.1	1780.6	1395.2	1178.0	992.1	851.0
52.5°	5316.1	4368.8	3580.3	2913.9	2324.9	1931.3	1639.5	1263.5	1068.1	890.3	747.8
55°	5282.2	4309.1	3489.3	2768.7	2176.9	1783.3	1510.6	1160.4	960.9	792.6	681.3
57.5°	5185.8	4203.2	3318.3	2569.2	2020.9	1646.3	1362.6	1035.5	844.2	703.0	610.7
60°	5006.7	3979.3	3051.0	2333.0	1822.7	1437.3	1159.0	872.7	720.7	614.8	540.2
62.5°	4675.5	3627.8	2675.0	2007.3	1537.7	1165.8	925.6	696.2	582.2	513.0	466.9
65°	4142.1	3098.5	2239.4	1581.1	1168.5	848.2	688.1	523.9	441.1	399.0	385.4
67.5°	3380.8	2392.7	1628.6	1098.0	791.2	594.4	479.1	382.7	343.4	327.1	321.7
70°	2457.9	1630.0	1054.5	693.5	522.5	415.3	362.4	308.1	286.4	282.3	282.3
72.5°	1543.1	990.7	646.0	475.0	396.3	336.6	309.4	271.4	263.3	260.6	256.5
75°	905.2	601.2	457.4	389.5	339.3	301.3	278.2	247.0	241.6	240.2	236.2
77.5°	576.8	432.9	369.2	332.5	306.7	272.8	252.4	219.9	218.5	217.2	215.8
80°	413.9	359.7	323.0	294.5	268.7	237.5	225.3	199.5	196.8	195.4	198.1
82.5°	313.5	297.2	282.3	260.6	225.3	202.2	192.7	175.1	176.4	169.6	168.3
85°	215.8	213.1	211.7	202.2	176.4	156.1	149.3	139.8	146.6	139.8	131.6
87.5°	105.9	104.5	96.4	114.0	105.9	84.1	76.0	84.1	93.6	90.9	84.1
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: P158934

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9
2.5°	2198.6	2193.2	2197.3	2194.6	2194.6	2193.2	2195.9	2191.9	2189.1	2191.9	2193.2
5°	2242.1	2235.3	2236.6	2227.1	2231.2	2221.7	2224.4	2217.6	2210.9	2208.1	2208.1
7.5°	2315.4	2308.6	2300.4	2299.1	2284.1	2278.7	2269.2	2263.8	2259.7	2250.2	2244.8
10°	2381.9	2371.0	2361.5	2360.2	2345.2	2331.6	2319.4	2308.6	2301.8	2288.2	2281.4
12.5°	2436.2	2425.3	2410.4	2402.2	2387.3	2371.0	2362.9	2346.6	2337.1	2322.1	2309.9
15°	2467.4	2448.4	2426.7	2411.7	2390.0	2372.4	2360.2	2347.9	2338.4	2319.4	2301.8
17.5°	2452.4	2421.2	2391.4	2364.2	2334.4	2318.1	2300.4	2285.5	2282.8	2261.1	2233.9
20°	2390.0	2353.4	2314.0	2277.4	2238.0	2214.9	2193.2	2170.1	2163.4	2137.6	2102.3
22.5°	2314.0	2271.9	2227.1	2182.4	2132.1	2099.6	2067.0	2038.5	2015.4	1977.4	1927.2
25°	2236.6	2174.2	2109.1	2052.1	1993.7	1953.0	1919.1	1887.8	1860.7	1799.6	1748.1
27.5°	2134.9	2037.1	1970.6	1905.5	1834.9	1782.0	1744.0	1700.6	1670.7	1600.1	1545.8
30°	2004.6	1906.8	1811.8	1746.7	1676.1	1619.1	1570.3	1507.8	1464.4	1412.8	1362.6
32.5°	1840.3	1742.6	1646.3	1573.0	1514.6	1444.0	1383.0	1323.3	1273.0	1222.8	1183.5
35°	1640.8	1545.8	1454.9	1381.6	1316.5	1260.8	1202.5	1150.9	1093.9	1039.6	1016.5
37.5°	1430.5	1328.7	1228.3	1164.5	1112.9	1073.5	1019.2	977.2	925.6	893.0	865.9
40°	1247.3	1138.7	1043.7	989.4	948.7	903.9	859.1	826.5	789.9	757.3	737.0
42.5°	1092.5	990.7	909.3	863.2	814.3	765.5	731.5	704.4	681.3	656.9	632.4
45°	950.0	852.3	784.5	727.5	686.7	647.4	624.3	612.1	598.5	583.6	567.3
47.5°	830.6	746.5	680.0	627.0	584.9	557.8	546.9	542.9	537.4	525.2	517.1
50°	739.7	670.5	602.6	555.1	519.8	506.2	494.0	489.9	483.2	479.1	473.7
52.5°	663.7	590.4	533.4	489.9	468.2	462.8	457.4	451.9	450.6	447.9	445.2
55°	601.2	537.4	484.5	451.9	441.1	437.0	435.7	430.2	428.9	428.9	424.8
57.5°	545.6	491.3	443.8	423.4	416.7	412.6	409.9	407.2	407.2	409.9	408.5
60°	488.6	442.4	413.9	403.1	399.0	392.2	385.4	382.7	384.1	390.9	390.9
62.5°	432.9	399.0	381.4	377.3	373.2	367.8	359.7	356.9	359.7	367.8	371.9
65°	371.9	356.9	351.5	348.8	346.1	342.0	336.6	333.9	335.2	339.3	344.7
67.5°	316.2	314.9	314.9	316.2	314.9	313.5	310.8	306.7	305.4	305.4	308.1
70°	282.3	282.3	286.4	286.4	285.0	285.0	280.9	276.9	274.2	271.4	272.8
72.5°	256.5	256.5	257.9	259.2	257.9	257.9	252.4	249.7	242.9	241.6	238.9
75°	234.8	232.1	232.1	230.7	229.4	230.7	225.3	218.5	215.8	214.4	211.7
77.5°	213.1	207.6	204.9	202.2	203.6	202.2	198.1	194.1	190.0	188.6	187.3
80°	188.6	180.5	176.4	169.6	173.7	175.1	172.4	168.3	166.9	165.6	164.2
82.5°	156.1	147.9	142.5	138.4	135.7	138.4	142.5	152.0	149.3	147.9	145.2
85°	122.1	108.6	101.8	103.1	96.4	97.7	109.9	115.4	115.4	118.1	115.4
87.5°	69.2	66.5	50.2	46.1	48.9	58.4	65.1	71.9	71.9	67.9	76.0
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: P158934

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7030

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9
2.5°	2193.2	2195.9	2197.3	2202.7	2205.4	2206.8	2208.1	2210.9	2212.2	2210.9	2217.6
5°	2204.1	2204.1	2201.4	2205.4	2206.8	2206.8	2204.1	2206.8	2206.8	2206.8	2213.6
7.5°	2232.6	2224.4	2220.4	2214.9	2210.9	2205.4	2198.6	2198.6	2197.3	2198.6	2202.7
10°	2262.4	2250.2	2235.3	2221.7	2209.5	2200.0	2187.8	2183.7	2182.4	2181.0	2191.9
12.5°	2285.5	2263.8	2240.7	2217.6	2193.2	2176.9	2156.6	2144.4	2143.0	2143.0	2156.6
15°	2269.2	2233.9	2189.1	2148.4	2126.7	2103.6	2080.6	2065.6	2064.3	2067.0	2075.1
17.5°	2187.8	2130.8	2091.4	2052.1	2023.6	2004.6	1989.6	1986.9	1992.4	1986.9	1997.8
20°	2049.4	1988.3	1961.1	1929.9	1919.1	1905.5	1883.8	1864.8	1864.8	1840.3	1847.1
22.5°	1870.2	1836.3	1801.0	1776.6	1768.4	1745.3	1722.3	1696.5	1693.8	1663.9	1659.8
25°	1682.9	1649.0	1620.5	1615.1	1590.6	1559.4	1537.7	1507.8	1501.1	1471.2	1467.1
27.5°	1491.5	1464.4	1435.9	1419.6	1406.0	1372.1	1353.1	1317.8	1304.3	1271.7	1267.6
30°	1309.7	1290.7	1256.8	1243.2	1217.4	1178.0	1137.3	1115.6	1104.8	1070.8	1060.0
32.5°	1138.7	1108.8	1083.0	1066.7	1034.2	989.4	952.7	921.5	901.2	860.5	849.6
35°	975.8	946.0	933.7	891.7	863.2	833.3	783.1	764.1	727.5	696.2	685.4
37.5°	832.0	803.5	787.2	751.9	723.4	693.5	663.7	639.2	621.6	614.8	614.8
40°	708.5	693.5	673.2	647.4	628.4	606.7	590.4	582.2	580.9	583.6	590.4
42.5°	620.2	603.9	590.4	576.8	563.2	560.5	556.4	561.9	568.7	575.4	582.2
45°	553.7	540.2	532.0	526.6	525.2	529.3	537.4	545.6	557.8	565.9	571.4
47.5°	506.2	495.4	492.7	491.3	498.1	510.3	521.2	533.4	542.9	551.0	556.4
50°	465.5	456.0	454.7	453.3	462.8	473.7	483.2	499.4	506.2	511.7	515.7
52.5°	437.0	428.9	424.8	426.2	435.7	445.2	458.7	470.9	480.4	484.5	488.6
55°	413.9	411.2	401.7	405.8	415.3	427.5	441.1	454.7	464.2	470.9	477.7
57.5°	396.3	389.5	382.7	389.5	399.0	411.2	427.5	439.7	451.9	461.4	468.2
60°	377.3	371.9	366.4	373.2	382.7	394.9	407.2	423.4	438.4	447.9	454.7
62.5°	361.0	356.9	351.5	352.9	356.9	365.1	371.9	386.8	400.4	412.6	420.7
65°	337.9	336.6	328.4	329.8	332.5	340.7	346.1	359.7	373.2	384.1	390.9
67.5°	304.0	301.3	301.3	305.4	306.7	310.8	314.9	328.4	339.3	347.4	355.6
70°	270.1	268.7	268.7	271.4	270.1	274.2	279.6	291.8	305.4	313.5	321.7
72.5°	237.5	237.5	236.2	238.9	238.9	240.2	247.0	257.9	270.1	276.9	282.3
75°	209.0	207.6	207.6	207.6	209.0	209.0	215.8	225.3	237.5	241.6	249.7
77.5°	183.2	183.2	183.2	183.2	184.6	183.2	187.3	194.1	198.1	204.9	204.9
80°	161.5	160.1	161.5	162.9	162.9	161.5	161.5	162.9	164.2	164.2	164.2
82.5°	142.5	138.4	141.1	147.9	147.9	147.9	146.6	137.1	130.3	130.3	133.0
85°	114.0	114.0	115.4	124.9	126.2	120.8	126.2	112.6	99.1	95.0	97.7
87.5°	70.6	55.6	67.9	77.4	77.4	73.3	81.4	76.0	63.8	51.6	48.9
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: P158934
CATALOG NUMBER: VST-F09-LED-E-U-SLL-7030

REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	0°
2.5°	2223.1	2224.4	2232.6	2236.6	2236.6	2242.1	2244.8	2252.9	2251.6	2251.6	2254.3	2.5°
5°	2220.4	2224.4	2232.6	2238.0	2240.7	2247.5	2252.9	2262.4	2261.1	2263.8	2265.1	5°
7.5°	2210.9	2221.7	2229.9	2240.7	2250.2	2255.6	2262.4	2270.6	2267.9	2269.2	2267.9	7.5°
10°	2202.7	2213.6	2229.9	2244.8	2258.4	2266.5	2270.6	2280.1	2278.7	2281.4	2281.4	10°
12.5°	2170.1	2189.1	2209.5	2232.6	2252.9	2274.6	2288.2	2308.6	2318.1	2330.3	2343.9	12.5°
15°	2087.4	2109.1	2141.6	2167.4	2206.8	2236.6	2276.0	2315.4	2350.7	2384.6	2423.9	15°
17.5°	2005.9	2015.4	2041.2	2076.5	2111.8	2156.6	2204.1	2274.6	2338.4	2407.7	2483.7	17.5°
20°	1855.3	1871.6	1889.2	1931.3	1973.4	2037.1	2095.5	2187.8	2281.4	2390.0	2506.7	20°
22.5°	1669.3	1685.6	1704.6	1752.1	1803.7	1868.8	1939.4	2042.6	2167.4	2308.6	2464.7	22.5°
25°	1468.5	1478.0	1492.9	1540.4	1571.6	1657.1	1742.6	1849.8	1985.6	2167.4	2349.3	25°
27.5°	1247.3	1264.9	1277.1	1298.8	1370.8	1444.0	1533.6	1649.0	1813.2	1999.1	2219.0	27.5°
30°	1035.5	1050.5	1043.7	1089.8	1137.3	1214.7	1311.0	1438.6	1596.1	1817.3	2071.1	30°
32.5°	827.9	838.7	834.7	867.2	914.7	992.1	1083.0	1221.5	1388.4	1624.6	1900.1	32.5°
35°	682.7	685.4	700.3	715.2	756.0	818.4	895.7	1016.5	1187.5	1404.7	1696.5	35°
37.5°	614.8	620.2	629.7	650.1	680.0	724.7	788.5	882.2	1028.7	1220.1	1480.7	37.5°
40°	594.4	598.5	603.9	617.5	646.0	685.4	742.4	821.1	928.3	1089.8	1301.5	40°
42.5°	584.9	584.9	584.9	593.1	614.8	656.9	722.0	799.4	893.0	1015.2	1186.2	42.5°
45°	571.4	571.4	570.0	574.1	589.0	631.1	701.7	788.5	889.0	1005.7	1153.6	45°
47.5°	556.4	555.1	551.0	551.0	560.5	602.6	675.9	769.5	879.5	1013.8	1172.6	47.5°
50°	515.7	515.7	515.7	519.8	527.9	565.9	644.7	743.7	870.0	1019.2	1202.5	50°
52.5°	492.7	494.0	498.1	498.1	506.2	545.6	628.4	738.3	875.4	1039.6	1240.5	52.5°
55°	481.8	485.9	489.9	489.9	496.7	537.4	622.9	742.4	895.7	1081.7	1305.6	55°
57.5°	472.3	476.4	479.1	479.1	484.5	519.8	608.0	735.6	908.0	1122.4	1385.7	57.5°
60°	454.7	457.4	458.7	458.7	460.1	489.9	574.1	703.0	880.8	1119.7	1429.1	60°
62.5°	422.1	427.5	428.9	430.2	430.2	458.7	530.7	650.1	822.5	1079.0	1416.9	62.5°
65°	397.7	400.4	404.4	407.2	412.6	431.6	488.6	586.3	746.5	997.5	1349.0	65°
67.5°	359.7	363.7	367.8	373.2	378.7	390.9	435.7	514.4	643.3	859.1	1197.0	67.5°
70°	325.7	327.1	331.2	337.9	339.3	346.1	378.7	432.9	526.6	689.5	963.6	70°
72.5°	283.7	286.4	291.8	299.9	299.9	305.4	324.4	352.9	412.6	526.6	711.2	72.5°
75°	247.0	249.7	253.8	253.8	247.0	248.4	261.9	282.3	327.1	396.3	518.4	75°
77.5°	204.9	210.4	214.4	206.3	203.6	207.6	214.4	229.4	261.9	314.9	389.5	77.5°
80°	169.6	172.4	173.7	175.1	172.4	176.4	181.9	191.4	213.1	253.8	308.1	80°
82.5°	135.7	138.4	142.5	147.9	147.9	162.9	164.2	164.2	176.4	202.2	241.6	82.5°
85°	100.4	105.9	111.3	118.1	119.4	127.6	123.5	122.1	126.2	150.6	166.9	85°
87.5°	51.6	55.6	58.4	63.8	57.0	59.7	59.7	55.6	48.9	61.1	67.9	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: P158934

NUMBER: VST-F09-LED-E-U-SLL-7030

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
2267.9	2267.9	2267.9	2267.9	2267.9	2267.9	2267.9
2257.0	2254.3	2257.0	2257.0	2261.1	2258.4	2402.2
2267.9	2265.1	2267.9	2270.6	2274.6	2274.6	2433.4
2269.2	2269.2	2266.5	2273.3	2278.7	2284.1	2463.3
2285.5	2285.5	2288.2	2289.6	2301.8	2315.4	2512.2
2352.0	2358.8	2371.0	2375.1	2396.8	2411.7	2637.0
2453.8	2491.8	2516.2	2524.4	2543.4	2571.9	2847.4
2556.9	2620.7	2687.2	2727.9	2752.4	2786.3	3105.2
2634.3	2753.7	2867.7	2969.5	3027.9	3094.4	3466.3
2641.1	2831.1	3023.8	3212.5	3368.5	3492.0	3954.8
2575.9	2825.7	3091.7	3380.8	3649.5	3872.1	4516.7
2493.2	2799.9	3139.2	3508.3	3861.2	4189.6	4930.7
2388.7	2756.4	3147.3	3562.6	3976.6	4371.5	5166.8
2229.9	2627.5	3049.6	3508.3	3988.8	4469.2	5318.8
2026.3	2432.1	2865.0	3387.5	3931.8	4508.6	5446.4
1818.6	2219.0	2684.5	3226.0	3840.8	4501.8	5498.0
1598.8	1996.4	2472.8	3053.7	3717.3	4439.4	5488.5
1449.5	1811.8	2278.7	2878.6	3580.3	4356.6	5424.7
1362.6	1680.2	2125.4	2718.4	3455.4	4257.5	5344.6
1361.3	1640.8	2043.9	2604.4	3329.2	4147.6	5236.0
1408.8	1665.3	2034.4	2555.6	3260.0	4067.5	5118.0
1464.4	1733.1	2084.6	2573.2	3258.6	4032.2	5035.2
1552.6	1848.5	2194.6	2649.2	3293.9	4026.8	4933.4
1665.3	2004.6	2392.7	2836.5	3431.0	4134.0	4940.2
1780.6	2187.8	2651.9	3156.8	3701.1	4383.7	5154.6
1822.7	2328.9	2915.2	3532.8	4105.5	4758.3	5597.0
1786.1	2361.5	3075.4	3824.6	4499.1	5196.7	6125.0
1650.3	2229.9	3010.2	3907.3	4725.7	5507.5	6652.9
1358.5	1902.8	2714.4	3721.4	4708.1	5571.3	6842.9
996.2	1475.3	2206.8	3162.2	4185.6	5172.2	6557.9
719.3	1043.7	1593.3	2381.9	3308.8	4165.2	5500.7
515.7	723.4	1034.2	1564.8	2254.3	2900.3	3920.9
370.5	491.3	644.7	939.2	1373.5	1780.6	2463.3
272.8	336.6	423.4	583.6	808.9	1036.9	1483.4
185.9	198.1	255.2	344.7	530.7	762.7	1007.0
70.6	80.1	93.6	141.1	237.5	272.8	192.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)