

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: P159597

Luminaire Tested: **VST-F09-LED-E-U-T3-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159597
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
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-T3-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (63) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23316 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

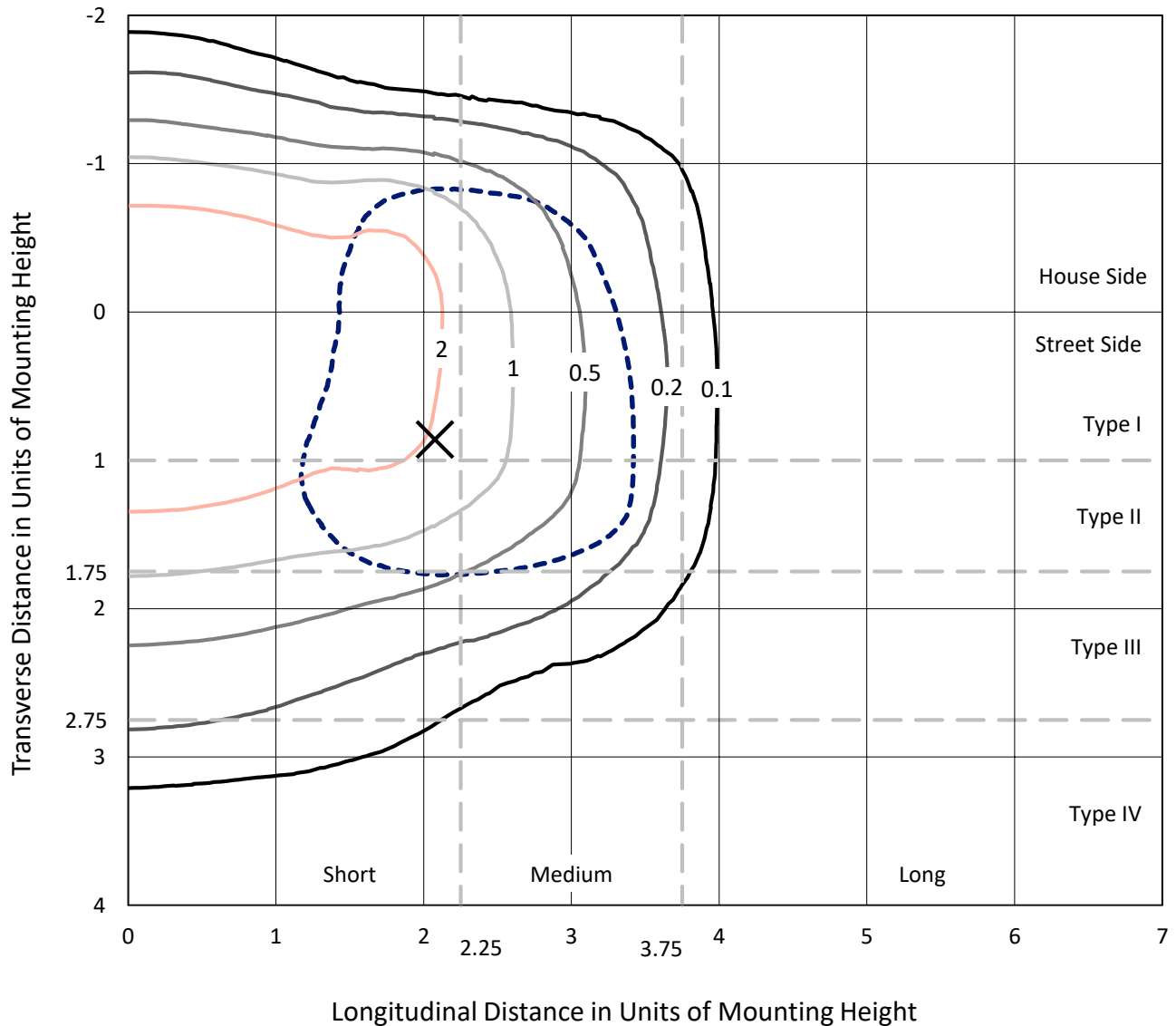
Input Watts (W): 234.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P159597
 CATALOG NUMBER: VST-F09-LED-E-U-T3-7060

Iso-Footcandle Lines of Horizontal Illumination

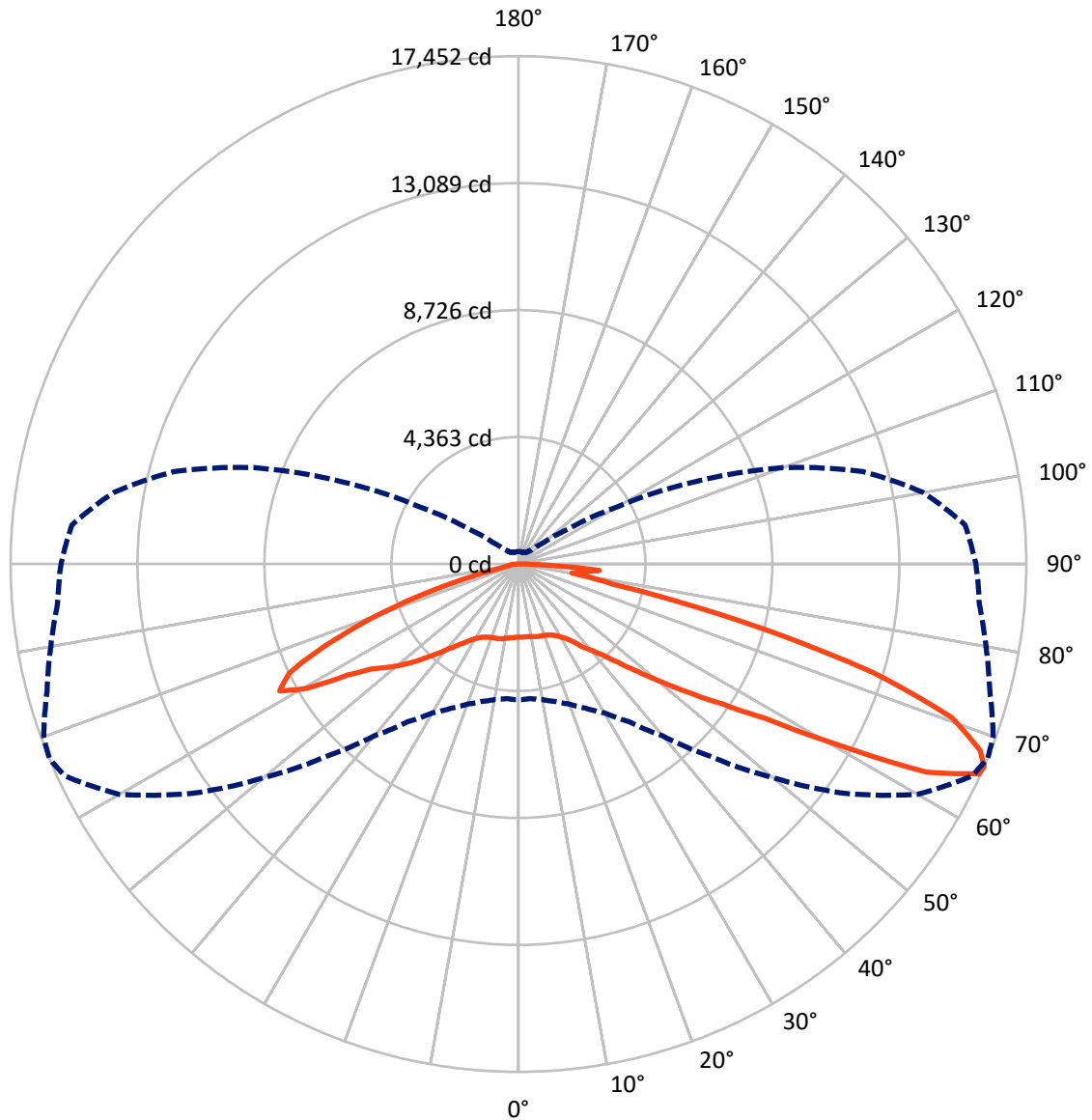
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159597
CATALOG NUMBER: VST-F09-LED-E-U-T3-7060

Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical



REPORT NUMBER: P159597

CATALOG NUMBER: VST-F09-LED-E-U-T3-7060

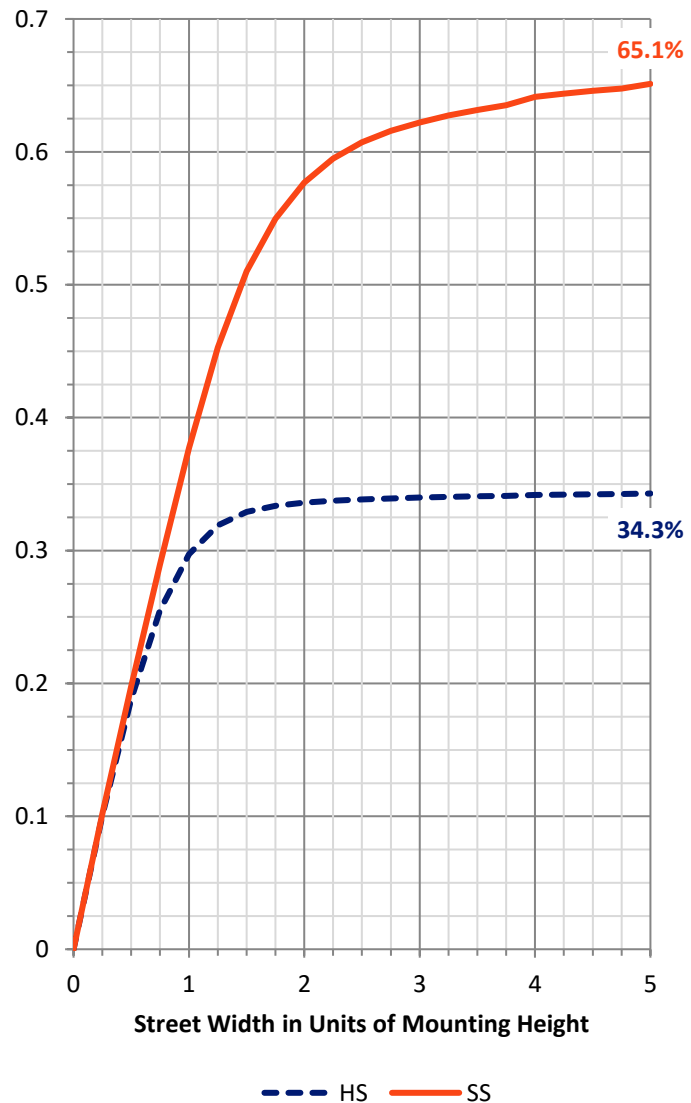
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8068.4	0.0	8068.4
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	15247.6	0.0	15247.6
	% Fixture	65.4	0.0	65.4
Total	Lumens	23316.0	0.0	23316.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.4	1.0
10°-20°	714.9	3.1
20°-30°	1228.9	5.3
30°-40°	1986.1	8.5
40°-50°	3291.4	14.1
50°-60°	5165.5	22.2
60°-70°	7062.3	30.3
70°-80°	3105.7	13.3
80°-90°	519.8	2.2
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°	23316.0	100.0
0°-180°	23316.0	100.0

Coefficient of Utilization



REPORT NUMBER: P159597

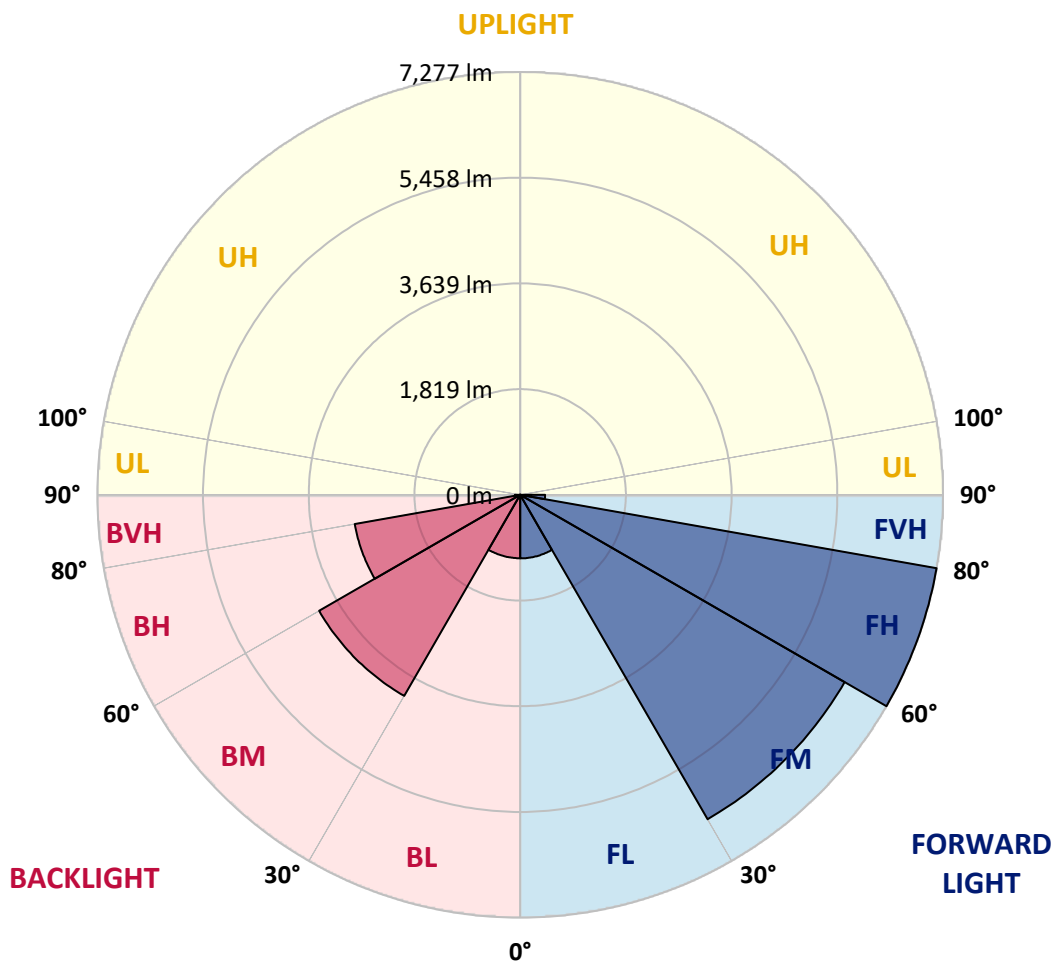
CATALOG NUMBER: VST-F09-LED-E-U-T3-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1093.7	4.7			
FM	(30°-60°)	6447.6	27.7			
FH	(60°-80°)	7277.4	31.2			G3/7500
FVH	(80°-90°)	428.9	1.8			G3/500
BL	(0°-30°)	1091.5	4.7	B3/2500		
BM	(30°-60°)	3995.4	17.1	B3/5000		
BH	(60°-80°)	2890.5	12.4	B4/5000		G4/5000
BVH	(80°-90°)	91.0	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short





REPORT NUMBER: P159597

CATALOG NUMBER: VST-F09-LED-E-U-T3-7060

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8
2.5°	2511.2	2511.2	2512.8	2511.2	2511.2	2509.7	2515.8	2515.8	2515.8	2514.3	2518.9
5°	2505.1	2505.1	2506.7	2506.7	2508.2	2506.7	2511.2	2512.8	2512.8	2512.8	2517.3
7.5°	2489.9	2494.5	2491.4	2492.9	2494.5	2499.0	2505.1	2508.2	2511.2	2515.8	2517.3
10°	2457.9	2465.5	2464.0	2468.5	2470.1	2483.8	2488.4	2494.5	2505.1	2511.2	2515.8
12.5°	2413.7	2418.2	2419.8	2425.9	2432.0	2448.7	2460.9	2471.6	2486.8	2502.1	2517.3
15°	2378.6	2381.6	2381.6	2387.7	2396.9	2412.1	2427.4	2445.7	2468.5	2494.5	2518.9
17.5°	2389.3	2396.9	2390.8	2389.3	2392.3	2401.5	2415.2	2430.4	2457.9	2486.8	2515.8
20°	2459.4	2460.9	2457.9	2450.3	2444.2	2445.7	2445.7	2448.7	2465.5	2488.4	2511.2
22.5°	2517.3	2523.4	2521.9	2523.4	2521.9	2528.0	2525.0	2518.9	2512.8	2514.3	2525.0
25°	2567.7	2573.8	2573.8	2578.3	2586.0	2598.2	2607.3	2605.8	2596.6	2584.4	2579.9
27.5°	2650.0	2650.0	2650.0	2654.6	2665.2	2680.5	2695.7	2704.9	2712.5	2700.3	2674.4
30°	2779.6	2781.1	2776.5	2778.1	2785.7	2805.5	2823.8	2837.5	2852.8	2851.3	2817.7
32.5°	2921.4	2927.5	2926.0	2932.1	2942.7	2961.0	2980.9	3002.2	3022.0	3034.2	3012.9
35°	3104.4	3110.5	3112.0	3121.1	3133.3	3160.8	3188.2	3215.7	3237.0	3246.2	3241.6
37.5°	3404.7	3406.3	3400.2	3386.4	3391.0	3412.4	3444.4	3488.6	3502.3	3511.5	3532.8
40°	3854.5	3850.0	3825.6	3813.4	3805.7	3814.9	3808.8	3843.9	3875.9	3877.4	3875.9
42.5°	4400.4	4386.7	4363.8	4360.7	4357.7	4354.6	4337.9	4339.4	4368.4	4376.0	4366.8
45°	4943.2	4926.4	4909.7	4924.9	4906.6	4953.9	4967.6	5004.2	5008.8	5024.0	5001.1
47.5°	5388.4	5389.9	5389.9	5411.3	5447.9	5537.8	5618.7	5688.8	5714.7	5751.3	5755.9
50°	5725.4	5734.5	5763.5	5832.1	5909.9	6060.8	6196.5	6323.1	6437.4	6480.1	6593.0
52.5°	5922.1	5946.5	6007.5	6121.8	6260.6	6455.7	6669.2	6884.2	7082.4	7250.1	7384.3
55°	5887.0	5905.3	6012.0	6190.4	6406.9	6669.2	6968.0	7279.1	7588.6	7872.2	8091.8
57.5°	5661.3	5673.5	5780.3	5981.5	6251.4	6603.6	7026.0	7488.0	7922.5	8379.9	8755.0
60°	5365.5	5383.8	5483.0	5641.5	5923.6	6298.7	6788.1	7414.8	8108.5	8828.2	9529.6
62.5°	5176.5	5171.9	5258.8	5400.6	5612.6	5952.6	6423.7	7166.3	8126.8	9343.6	10729.6
65°	4862.4	4848.7	4938.6	5100.2	5330.5	5659.8	6106.6	6820.1	7934.7	9538.7	11504.1
66°	4667.2	4639.8	4729.7	4892.9	5123.1	5473.8	5902.3	6606.7	7701.4	9348.2	11421.8
67.5°	4325.7	4312.0	4354.6	4482.7	4653.5	4982.8	5429.6	6138.6	7149.5	8774.9	10818.0
70°	3516.0	3485.5	3519.1	3577.0	3642.6	3723.4	3997.9	4560.5	5415.9	6990.9	8715.4
72.5°	2395.4	2380.1	2442.6	2531.1	2706.4	2788.7	2897.0	2988.5	3290.4	4406.5	6079.1
75°	1822.1	1831.2	1910.5	2056.9	2282.5	2526.5	2764.3	2851.3	2750.6	2663.7	3450.5
77.5°	1021.6	1074.9	1171.0	1357.0	1596.4	1941.0	2355.7	2813.1	3041.8	2985.4	2791.8
80°	420.8	413.2	460.5	562.6	645.0	927.0	1418.0	1991.3	2634.7	3041.8	2977.8
82.5°	117.4	120.5	155.5	199.7	257.7	327.8	512.3	823.4	1341.8	2087.4	2732.3
85°	36.6	36.6	50.3	74.7	88.4	102.2	129.6	213.5	364.4	727.3	1474.4
87.5°	7.6	7.6	10.7	21.3	22.9	22.9	29.0	39.6	35.1	32.0	143.3
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: P159597

CATALOG NUMBER: VST-F09-LED-E-U-T3-7060

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8
2.5°	2514.3	2511.2	2512.8	2514.3	2512.8	2512.8	2511.2	2509.7	2511.2	2511.2	2515.8
5°	2512.8	2511.2	2512.8	2512.8	2512.8	2514.3	2514.3	2514.3	2518.9	2518.9	2526.5
7.5°	2515.8	2515.8	2518.9	2518.9	2518.9	2518.9	2520.4	2523.4	2531.1	2529.5	2543.3
10°	2521.9	2525.0	2532.6	2534.1	2538.7	2541.7	2547.8	2555.5	2558.5	2570.7	
12.5°	2529.5	2544.8	2558.5	2561.6	2566.1	2573.8	2578.3	2581.4	2595.1	2599.7	2614.9
15°	2538.7	2560.0	2576.8	2582.9	2589.0	2598.2	2604.2	2608.8	2621.0	2627.1	2645.4
17.5°	2540.2	2564.6	2584.4	2593.6	2601.2	2611.9	2621.0	2630.2	2643.9	2653.0	2671.3
20°	2538.7	2570.7	2601.2	2613.4	2621.0	2640.8	2654.6	2666.8	2683.5	2692.7	2711.0
22.5°	2555.5	2592.1	2633.2	2648.5	2660.7	2688.1	2706.4	2726.2	2747.6	2753.7	2767.4
25°	2595.1	2633.2	2685.1	2706.4	2727.8	2764.3	2790.3	2819.2	2840.6	2843.6	2848.2
27.5°	2662.2	2697.3	2759.8	2791.8	2826.9	2878.7	2916.8	2945.8	2976.3	2976.3	2973.2
30°	2797.9	2805.5	2871.1	2912.2	2964.1	3040.3	3096.7	3128.8	3151.6	3151.6	3125.7
32.5°	2973.2	2964.1	3023.6	3067.8	3139.4	3246.2	3322.4	3346.8	3371.2	3363.6	3319.4
35°	3226.3	3200.4	3234.0	3301.1	3381.9	3528.2	3607.5	3662.4	3677.7	3656.3	3586.2
37.5°	3545.0	3542.0	3558.7	3633.4	3723.4	3912.5	3993.3	4028.4	4016.2	3978.0	3854.5
40°	3882.0	3872.8	3862.2	3912.5	4013.1	4240.3	4383.6	4401.9	4385.1	4328.7	4173.2
42.5°	4331.8	4331.8	4281.5	4295.2	4379.0	4633.7	4802.9	4860.9	4862.4	4780.0	4572.7
45°	4950.8	4944.7	4856.3	4834.9	4899.0	5149.0	5367.1	5399.1	5399.1	5290.8	5063.6
47.5°	5694.9	5687.3	5600.4	5525.6	5537.8	5807.7	5989.2	6038.0	5995.3	5914.5	5644.6
50°	6533.5	6519.8	6431.3	6361.2	6330.7	6603.6	6757.6	6780.5	6718.0	6621.9	6329.2
52.5°	7384.3	7425.5	7373.6	7335.5	7346.2	7523.0	7681.6	7573.4	7541.3	7437.7	7143.4
55°	8270.2	8396.7	8511.1	8477.5	8517.2	8689.5	8720.0	8576.6	8518.7	8444.0	8116.2
57.5°	9162.1	9531.1	9906.2	10011.4	10109.0	10356.0	10320.9	10086.1	10130.3	10241.7	9872.7
60°	10407.8	11473.6	12425.1	12600.4	12903.8	13114.3	13161.5	13115.8	13321.6	13263.7	12937.4
62.5°	12321.4	14097.7	15421.2	15750.5	16055.5	16044.8	15884.7	15720.0	15922.8	15922.8	15070.5
65°	13687.6	15703.3	17119.7	17392.7	17380.5	17013.0	16634.9	16305.5	16276.6	16050.9	14805.2
66°	13751.6	15826.8	17214.3	17452.1	17360.6	16769.0	16316.2	15898.4	15720.0	15405.9	14129.7
67.5°	13175.2	15477.6	16906.3	17113.6	16872.7	16025.0	15401.4	14841.8	14582.6	14053.5	12852.0
70°	10807.3	13301.8	15380.0	15803.9	15531.0	14457.5	13603.7	12847.4	12351.9	11588.0	10721.9
72.5°	7889.0	9820.8	12071.3	12760.5	12717.8	11729.8	11042.1	10349.9	9698.8	9003.6	8370.8
75°	5127.7	6388.6	7643.5	8046.0	7852.4	7280.6	6788.1	6384.1	5766.6	5283.2	5165.8
77.5°	2927.5	3577.0	3383.4	3333.1	3090.6	2494.5	1658.9	1163.4	1050.5	1311.3	1437.8
80°	2785.7	2525.0	2067.5	1864.8	1713.8	1167.9	612.9	431.5	378.1	387.3	416.3
82.5°	3141.0	3273.6	2677.4	2236.8	1947.1	1421.1	776.1	361.4	263.8	312.6	350.7
85°	2354.2	3314.8	3285.8	2784.2	2284.1	1637.6	917.9	276.0	158.6	219.6	286.7
87.5°	477.2	785.2	756.3	664.8	565.7	394.9	154.0	86.9	79.3	108.3	164.7
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: P159597

CATALOG NUMBER: VST-F09-LED-E-U-T3-7060

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8	2515.8
2.5°	2518.9	2518.9	2521.9	2526.5	2528.0	2528.0	2531.1	2528.0	2534.1	2535.6	2537.2
5°	2532.6	2537.2	2540.2	2547.8	2552.4	2555.5	2560.0	2557.0	2563.1	2564.6	2567.7
7.5°	2547.8	2555.5	2561.6	2564.6	2570.7	2570.7	2572.2	2569.2	2567.7	2563.1	2561.6
10°	2575.3	2579.9	2587.5	2584.4	2581.4	2570.7	2561.6	2547.8	2540.2	2526.5	2518.9
12.5°	2619.5	2622.5	2622.5	2608.8	2589.0	2564.6	2541.7	2518.9	2500.6	2485.3	2476.2
15°	2650.0	2656.1	2648.5	2628.6	2599.7	2566.1	2535.6	2505.1	2480.7	2460.9	2448.7
17.5°	2672.9	2671.3	2657.6	2630.2	2602.7	2573.8	2546.3	2514.3	2483.8	2454.8	2436.5
20°	2707.9	2692.7	2668.3	2639.3	2610.3	2586.0	2564.6	2534.1	2502.1	2462.4	2435.0
22.5°	2755.2	2727.8	2692.7	2662.2	2634.7	2611.9	2587.5	2561.6	2528.0	2483.8	2445.7
25°	2822.3	2775.0	2735.4	2704.9	2680.5	2654.6	2627.1	2593.6	2560.0	2514.3	2468.5
27.5°	2924.4	2854.3	2804.0	2776.5	2753.7	2718.6	2683.5	2643.9	2601.2	2553.9	2502.1
30°	3047.9	2964.1	2906.1	2881.8	2854.3	2814.7	2776.5	2721.7	2662.2	2605.8	2541.7
32.5°	3192.8	3107.4	3049.5	3031.2	2987.0	2941.2	2887.9	2814.7	2736.9	2653.0	2576.8
35°	3412.4	3304.1	3250.7	3208.0	3147.1	3092.2	3002.2	2906.1	2794.8	2683.5	2589.0
37.5°	3638.0	3528.2	3473.3	3413.9	3334.6	3234.0	3113.5	2976.3	2828.4	2691.2	2575.3
40°	3939.9	3821.0	3750.9	3659.4	3531.3	3374.2	3195.8	3008.3	2828.4	2657.6	2517.3
42.5°	4292.1	4182.4	4074.1	3923.1	3717.3	3488.6	3238.5	2997.6	2779.6	2582.9	2435.0
45°	4780.0	4592.5	4420.2	4177.8	3877.4	3555.7	3243.1	2947.3	2695.7	2477.7	2313.0
47.5°	5329.0	5086.5	4781.6	4401.9	3991.8	3581.6	3198.9	2852.8	2563.1	2326.7	2146.8
50°	5961.7	5589.7	5121.6	4580.3	4049.7	3546.5	3093.7	2694.2	2380.1	2108.7	1916.6
52.5°	6686.0	6118.8	5429.6	4706.9	4040.6	3439.8	2919.9	2485.3	2134.6	1846.5	1657.4
55°	7489.5	6695.1	5723.9	4787.7	3958.2	3232.4	2646.9	2191.0	1829.7	1546.1	1379.9
57.5°	8906.0	7706.0	6285.0	4895.9	3785.9	2918.3	2300.8	1819.0	1492.7	1251.8	1093.2
60°	11537.7	9473.2	7347.7	5150.6	3526.7	2525.0	1864.8	1427.2	1154.2	978.9	861.5
62.5°	13166.1	10717.4	7866.1	5114.0	3105.9	1986.7	1384.5	1058.2	843.2	727.3	654.1
65°	12780.3	10229.5	7233.3	4392.8	2416.7	1408.9	916.4	692.2	579.4	519.9	484.9
66°	12255.8	9683.6	6698.2	3933.8	2105.7	1177.1	756.3	580.9	498.6	454.4	436.1
67.5°	11156.5	8686.4	5777.2	3150.1	1578.1	876.7	558.1	455.9	405.6	382.7	370.5
70°	9337.5	6998.5	4086.3	1860.2	855.4	475.7	356.8	317.1	304.9	297.3	292.7
72.5°	7219.6	5066.7	2387.7	914.8	431.5	308.0	271.4	254.6	250.1	250.1	251.6
75°	4548.3	2912.2	1068.8	440.6	292.7	248.5	231.8	224.1	225.7	227.2	225.7
77.5°	1511.0	1004.8	445.2	312.6	254.6	225.7	211.9	208.9	211.9	213.5	213.5
80°	434.5	379.7	321.7	276.0	233.3	210.4	198.2	196.7	204.3	205.8	202.8
82.5°	333.9	312.6	291.2	266.8	224.1	198.2	193.6	195.2	199.7	196.7	183.0
85°	306.5	303.4	218.0	216.5	195.2	189.1	184.5	186.0	181.4	164.7	149.4
87.5°	172.3	160.1	123.5	125.0	144.8	149.4	123.5	131.1	122.0	106.7	97.6
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: P159597

CATALOG NUMBER: VST-F09-LED-E-U-T3-7060

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	2515.8	2515.8	2515.8	2515.8	2515.8
2.5°	2540.2	2538.7	2538.7	2543.3	2537.2
5°	2569.2	2567.7	2567.7	2572.2	2567.7
7.5°	2555.5	2550.9	2547.8	2546.3	2546.3
10°	2509.7	2505.1	2496.0	2492.9	2489.9
12.5°	2462.4	2457.9	2447.2	2447.2	2444.2
15°	2433.5	2427.4	2419.8	2415.2	2412.1
17.5°	2418.2	2409.1	2399.9	2395.4	2392.3
20°	2412.1	2399.9	2389.3	2381.6	2381.6
22.5°	2413.7	2398.4	2386.2	2377.1	2374.0
25°	2428.9	2406.0	2390.8	2381.6	2378.6
27.5°	2450.3	2422.8	2403.0	2390.8	2386.2
30°	2479.2	2441.1	2413.7	2398.4	2392.3
32.5°	2499.0	2445.7	2410.6	2389.3	2381.6
35°	2497.5	2428.9	2386.2	2358.8	2349.6
37.5°	2470.1	2389.3	2332.8	2299.3	2284.1
40°	2409.1	2316.1	2256.6	2224.6	2206.3
42.5°	2320.6	2220.0	2166.7	2131.6	2111.8
45°	2181.9	2082.8	2017.2	1989.8	1963.9
47.5°	1989.8	1889.1	1832.7	1793.1	1776.3
50°	1764.1	1663.5	1604.0	1572.0	1556.8
52.5°	1517.1	1421.1	1378.4	1347.9	1326.5
55°	1261.0	1172.5	1154.2	1120.7	1100.9
57.5°	1020.0	968.2	951.4	917.9	901.1
60°	797.4	780.7	762.4	741.0	731.9
62.5°	617.5	602.3	597.7	584.0	582.4
65°	471.1	472.7	469.6	466.6	463.5
66°	428.5	426.9	428.5	425.4	423.9
67.5°	364.4	370.5	375.1	373.6	373.6
70°	295.8	300.4	306.5	304.9	304.9
72.5°	253.1	260.7	263.8	262.3	262.3
75°	228.7	236.3	236.3	233.3	231.8
77.5°	213.5	216.5	213.5	210.4	207.4
80°	198.2	195.2	190.6	186.0	183.0
82.5°	172.3	164.7	160.1	152.5	152.5
85°	138.8	132.7	122.0	114.4	106.7
87.5°	90.0	86.9	79.3	59.5	47.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)