

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: P159594

Luminaire Tested: **VST-F09-LED-E-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159594
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-T3-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (63) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20753.9 lumens
Efficiency: N/A
Efficacy: 88.4 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



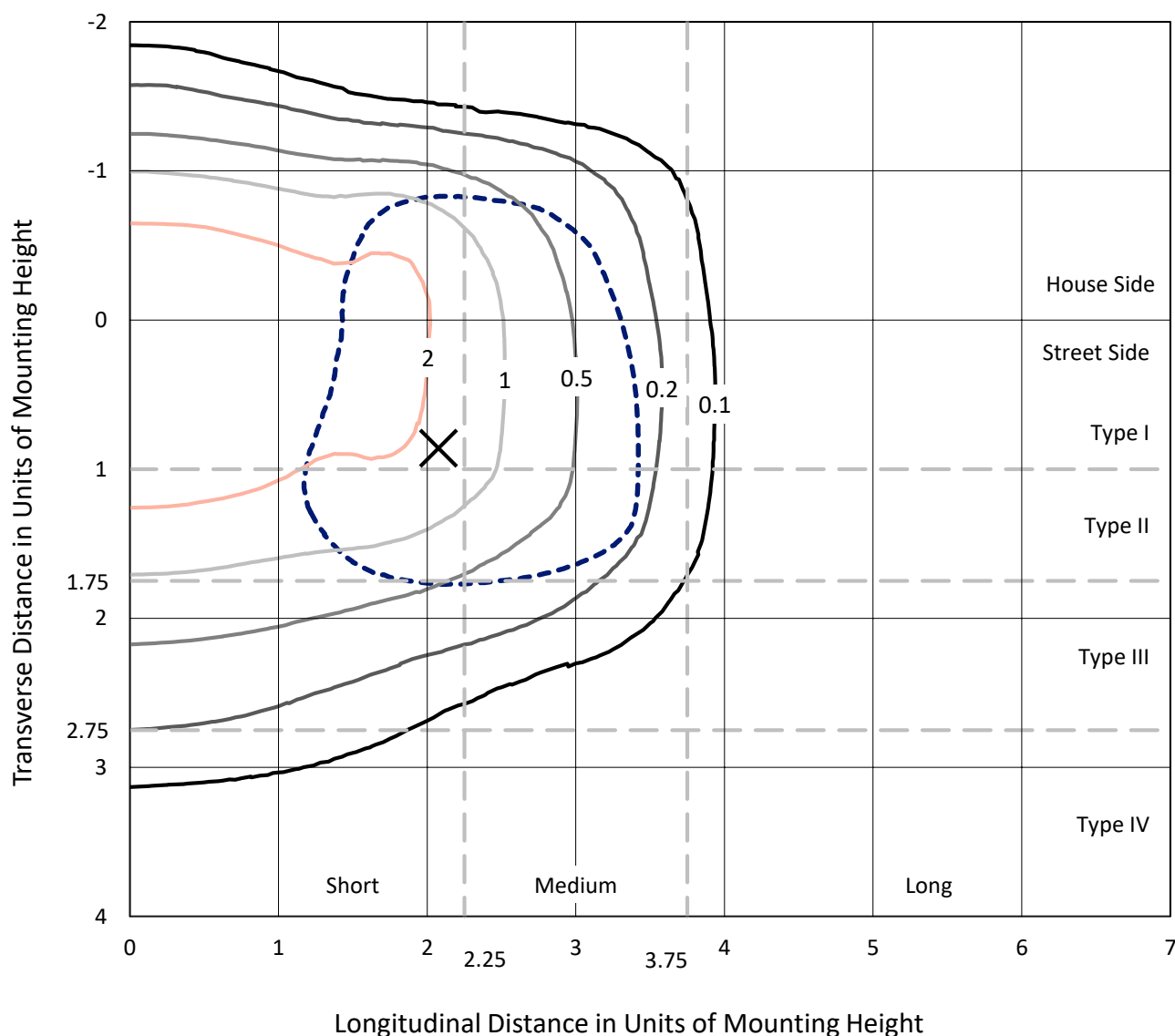
REPORT NUMBER: P159594

CATALOG NUMBER: VST-F09-LED-E-U-T3-7030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

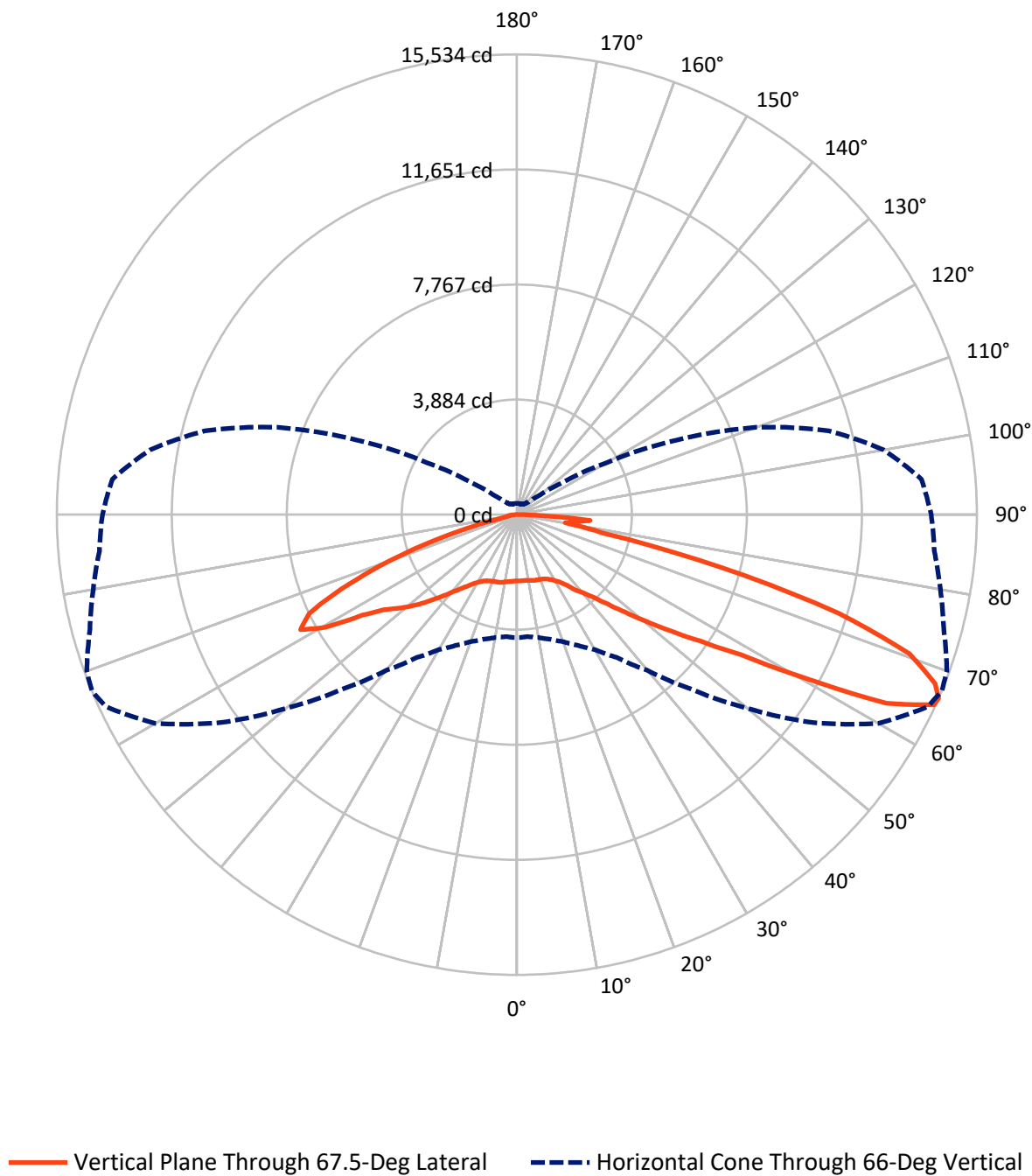


Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159594

CATALOG NUMBER: VST-F09-LED-E-U-T3-7030

Luminous Intensity Polar Plot



REPORT NUMBER: P159594

CATALOG NUMBER: VST-F09-LED-E-U-T3-7030

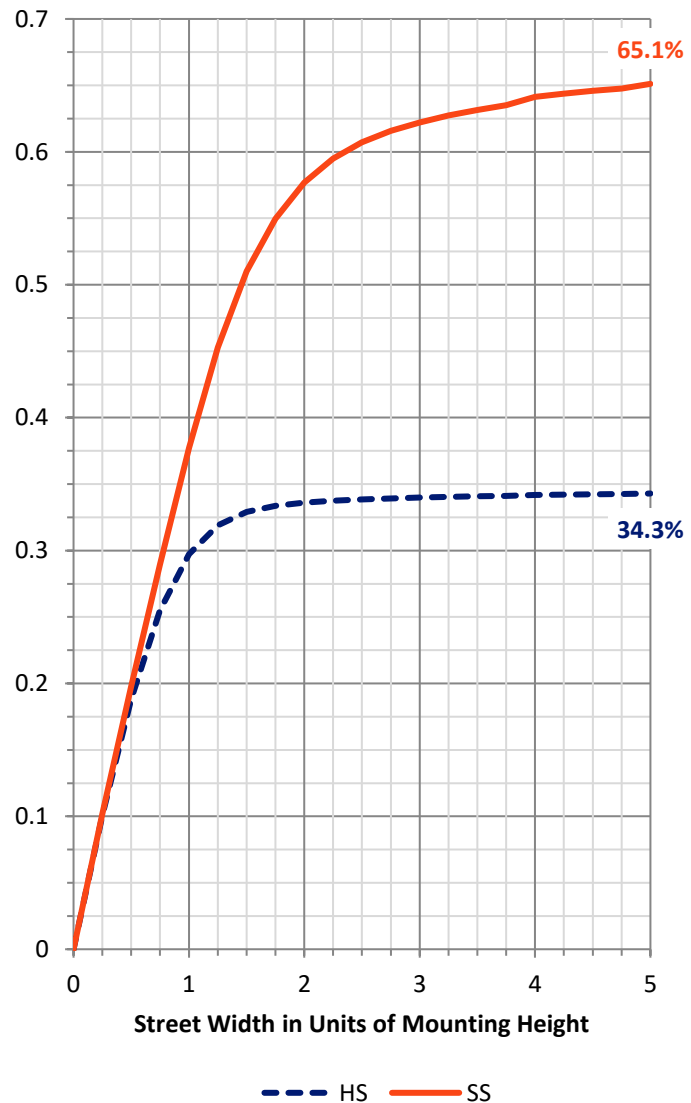
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7181.8	0.0	7181.8
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	13572.1	0.0	13572.1
	% Fixture	65.4	0.0	65.4
Total	Lumens	20753.9	0.0	20753.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.9	1.0
10°-20°	636.3	3.1
20°-30°	1093.8	5.3
30°-40°	1767.8	8.5
40°-50°	2929.7	14.1
50°-60°	4597.9	22.2
60°-70°	6286.2	30.3
70°-80°	2764.4	13.3
80°-90°	462.7	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°	20753.9	100.0
0°-180°	20753.9	100.0

Coefficient of Utilization



REPORT NUMBER: P159594

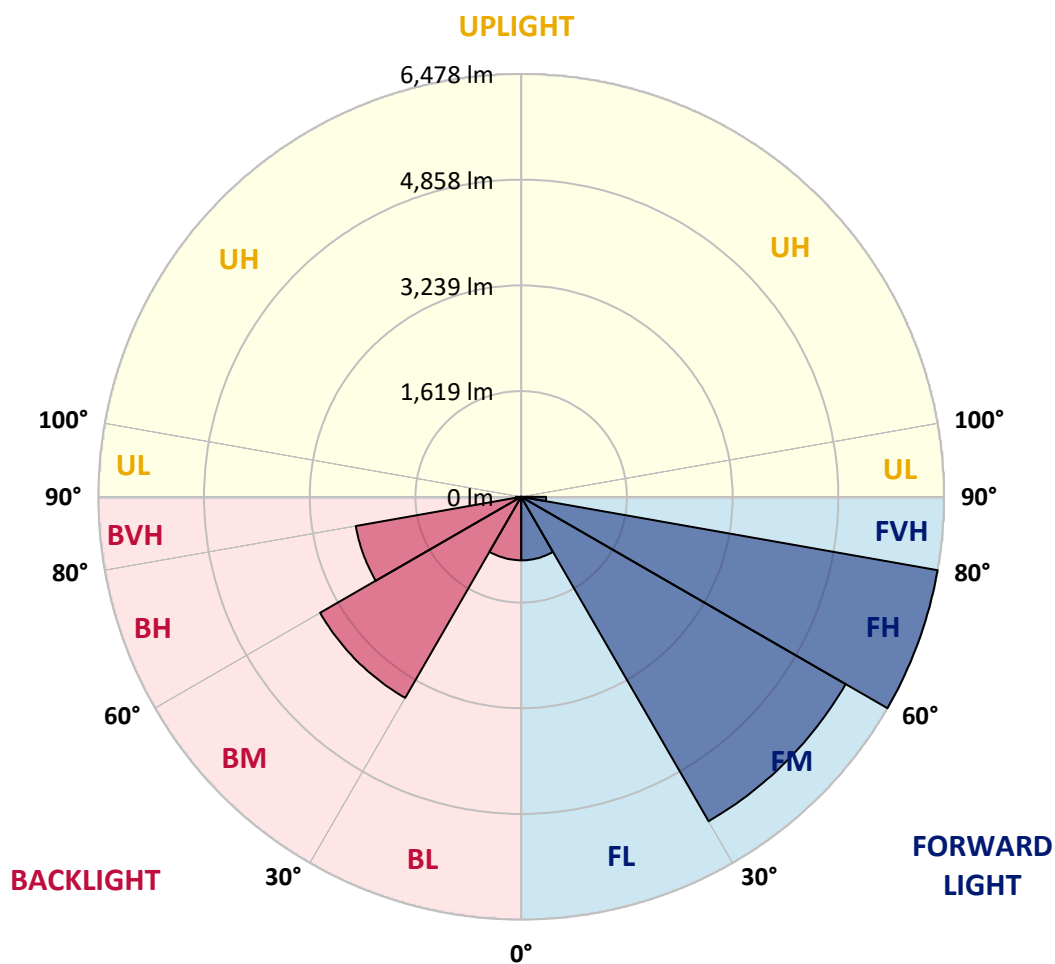
CATALOG NUMBER: VST-F09-LED-E-U-T3-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	973.5	4.7			
FM	(30°-60°)	5739.1	27.7			
FH	(60°-80°)	6477.7	31.2			G3/7500
FVH	(80°-90°)	381.8	1.8			G3/500
BL	(0°-30°)	971.5	4.7	B2/1000		
BM	(30°-60°)	3556.4	17.1	B3/5000		
BH	(60°-80°)	2572.9	12.4	B4/5000		G4/5000
BVH	(80°-90°)	81.0	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: P159594

CATALOG NUMBER: VST-F09-LED-E-U-T3-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4
2.5°	2235.3	2235.3	2236.6	2235.3	2235.3	2233.9	2239.4	2239.4	2239.4	2238.0	2242.1
5°	2229.9	2229.9	2231.2	2231.2	2232.6	2231.2	2235.3	2236.6	2236.6	2236.6	2240.7
7.5°	2216.3	2220.4	2217.6	2219.0	2220.4	2224.4	2229.9	2232.6	2235.3	2239.4	2240.7
10°	2187.8	2194.6	2193.2	2197.3	2198.6	2210.9	2214.9	2220.4	2229.9	2235.3	2239.4
12.5°	2148.4	2152.5	2153.9	2159.3	2164.7	2179.6	2190.5	2200.0	2213.6	2227.1	2240.7
15°	2117.2	2119.9	2119.9	2125.4	2133.5	2147.1	2160.6	2176.9	2197.3	2220.4	2242.1
17.5°	2126.7	2133.5	2128.1	2126.7	2129.4	2137.6	2149.8	2163.4	2187.8	2213.6	2239.4
20°	2189.1	2190.5	2187.8	2181.0	2175.6	2176.9	2176.9	2179.6	2194.6	2214.9	2235.3
22.5°	2240.7	2246.1	2244.8	2246.1	2244.8	2250.2	2247.5	2242.1	2236.6	2238.0	2247.5
25°	2285.5	2290.9	2290.9	2295.0	2301.8	2312.6	2320.8	2319.4	2311.3	2300.4	2296.4
27.5°	2358.8	2358.8	2358.8	2362.9	2372.4	2385.9	2399.5	2407.7	2414.4	2403.6	2380.5
30°	2474.2	2475.5	2471.4	2472.8	2479.6	2497.2	2513.5	2525.7	2539.3	2537.9	2508.1
32.5°	2600.4	2605.8	2604.4	2609.9	2619.4	2635.7	2653.3	2672.3	2689.9	2700.8	2681.8
35°	2763.2	2768.7	2770.0	2778.2	2789.0	2813.5	2837.9	2862.3	2881.3	2889.5	2885.4
37.5°	3030.6	3032.0	3026.5	3014.3	3018.4	3037.4	3065.9	3105.2	3117.5	3125.6	3144.6
40°	3431.0	3426.9	3405.2	3394.3	3387.5	3395.7	3390.3	3421.5	3450.0	3451.3	3450.0
42.5°	3916.8	3904.6	3884.3	3881.6	3878.8	3876.1	3861.2	3862.6	3888.3	3895.1	3887.0
45°	4400.0	4385.1	4370.1	4383.7	4367.4	4409.5	4421.7	4454.3	4458.4	4471.9	4451.6
47.5°	4796.3	4797.7	4797.7	4816.7	4849.2	4929.3	5001.2	5063.7	5086.7	5119.3	5123.4
50°	5096.2	5104.4	5130.2	5191.2	5260.5	5394.8	5515.6	5628.3	5730.0	5768.1	5868.5
52.5°	5271.3	5293.0	5347.3	5449.1	5572.6	5746.3	5936.3	6127.7	6304.1	6453.4	6572.9
55°	5240.1	5256.4	5351.4	5510.2	5702.9	5936.3	6202.4	6479.2	6754.7	7007.2	7202.6
57.5°	5039.2	5050.1	5145.1	5324.2	5564.5	5878.0	6253.9	6665.2	7052.0	7459.1	7793.0
60°	4775.9	4792.2	4880.4	5021.6	5272.7	5606.5	6042.2	6600.0	7217.5	7858.1	8482.4
62.5°	4607.7	4603.6	4680.9	4807.2	4995.8	5298.5	5717.8	6378.8	7233.8	8316.8	9550.5
65°	4328.1	4315.9	4395.9	4539.8	4744.7	5037.9	5435.5	6070.7	7062.8	8490.6	10240.0
66°	4154.4	4129.9	4210.0	4355.2	4560.2	4872.3	5253.7	5880.7	6855.2	8320.9	10166.7
67.5°	3850.3	3838.1	3876.1	3990.1	4142.1	4435.3	4832.9	5464.0	6363.9	7810.6	9629.3
70°	3129.7	3102.5	3132.4	3184.0	3242.3	3314.3	3558.5	4059.4	4820.7	6222.7	7757.7
72.5°	2132.1	2118.6	2174.2	2252.9	2409.0	2482.3	2578.7	2660.1	2928.8	3922.3	5411.1
75°	1621.8	1630.0	1700.6	1830.8	2031.7	2248.9	2460.6	2537.9	2448.4	2371.0	3071.3
77.5°	909.3	956.8	1042.3	1207.9	1421.0	1727.7	2096.9	2504.0	2707.6	2657.4	2485.0
80°	374.6	367.8	409.9	500.8	574.1	825.2	1262.2	1772.5	2345.2	2707.6	2650.6
82.5°	104.5	107.2	138.4	177.8	229.4	291.8	456.0	732.9	1194.3	1858.0	2432.1
85°	32.6	32.6	44.8	66.5	78.7	90.9	115.4	190.0	324.4	647.4	1312.4
87.5°	6.8	6.8	9.5	19.0	20.4	20.4	25.8	35.3	31.2	28.5	127.6
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: P159594

CATALOG NUMBER: VST-F09-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4
2.5°	2238.0	2235.3	2236.6	2238.0	2236.6	2236.6	2235.3	2233.9	2235.3	2235.3	2239.4
5°	2236.6	2235.3	2236.6	2236.6	2236.6	2238.0	2238.0	2238.0	2242.1	2242.1	2248.9
7.5°	2239.4	2239.4	2242.1	2242.1	2242.1	2242.1	2243.4	2246.1	2252.9	2251.6	2263.8
10°	2244.8	2247.5	2254.3	2255.6	2255.6	2259.7	2262.4	2267.9	2274.6	2277.4	2288.2
12.5°	2251.6	2265.1	2277.4	2280.1	2284.1	2290.9	2295.0	2297.7	2309.9	2314.0	2327.6
15°	2259.7	2278.7	2293.6	2299.1	2304.5	2312.6	2318.1	2322.1	2333.0	2338.4	2354.7
17.5°	2261.1	2282.8	2300.4	2308.6	2315.4	2324.9	2333.0	2341.1	2353.4	2361.5	2377.8
20°	2259.7	2288.2	2315.4	2326.2	2333.0	2350.7	2362.9	2373.7	2388.7	2396.8	2413.1
22.5°	2274.6	2307.2	2343.9	2357.4	2368.3	2392.7	2409.0	2426.7	2445.7	2451.1	2463.3
25°	2309.9	2343.9	2390.0	2409.0	2428.0	2460.6	2483.7	2509.4	2528.4	2531.2	2535.2
27.5°	2369.7	2400.9	2456.5	2485.0	2516.2	2562.4	2596.3	2622.1	2649.2	2649.2	2646.5
30°	2490.4	2497.2	2555.6	2592.2	2638.4	2706.2	2756.4	2785.0	2805.3	2805.3	2782.2
32.5°	2646.5	2638.4	2691.3	2730.7	2794.5	2889.5	2957.3	2979.0	3000.7	2994.0	2954.6
35°	2871.8	2848.7	2878.6	2938.3	3010.2	3140.5	3211.1	3260.0	3273.5	3254.5	3192.1
37.5°	3155.5	3152.7	3167.7	3234.2	3314.3	3482.5	3554.5	3585.7	3574.8	3540.9	3431.0
40°	3455.4	3447.3	3437.8	3482.5	3572.1	3774.3	3901.9	3918.2	3903.3	3853.1	3714.6
42.5°	3855.8	3855.8	3811.0	3823.2	3897.8	4124.5	4275.1	4326.7	4328.1	4254.8	4070.2
45°	4406.8	4401.4	4322.6	4303.6	4360.6	4583.2	4777.3	4805.8	4805.8	4709.4	4507.2
47.5°	5069.1	5062.3	4985.0	4918.5	4929.3	5169.5	5331.0	5374.5	5336.5	5264.5	5024.3
50°	5815.6	5803.3	5724.6	5662.2	5635.0	5878.0	6015.1	6035.4	5979.8	5894.3	5633.7
52.5°	6572.9	6609.5	6563.4	6529.4	6538.9	6696.4	6837.5	6741.2	6712.7	6620.4	6358.4
55°	7361.4	7474.0	7575.8	7546.0	7581.3	7734.6	7761.8	7634.2	7582.6	7516.1	7224.3
57.5°	8155.3	8483.8	8817.7	8911.3	8998.2	9218.0	9186.8	8977.8	9017.2	9116.2	8787.8
60°	9264.2	10212.8	11059.7	11215.8	11485.9	11673.2	11715.2	11674.5	11857.8	11806.2	11515.7
62.5°	10967.4	12548.6	13726.6	14019.8	14291.2	14281.7	14139.2	13992.6	14173.1	14173.1	13414.4
65°	12183.5	13977.7	15238.5	15481.4	15470.6	15143.5	14806.9	14513.8	14488.0	14287.1	13178.3
66°	12240.5	14087.6	15322.7	15534.4	15452.9	14926.4	14523.3	14151.4	13992.6	13713.0	12577.1
67.5°	11727.5	13776.8	15048.5	15233.1	15018.6	14264.0	13709.0	13210.9	12980.1	12509.2	11439.7
70°	9619.8	11840.1	13690.0	14067.3	13824.3	12868.9	12108.8	11435.7	10994.6	10314.6	9543.7
72.5°	7022.1	8741.6	10744.9	11358.3	11320.3	10440.8	9828.8	9212.6	8633.1	8014.2	7451.0
75°	4564.2	5686.6	6803.6	7161.9	6989.5	6480.6	6042.2	5682.5	5132.9	4702.7	4598.2
77.5°	2605.8	3184.0	3011.6	2966.8	2751.0	2220.4	1476.6	1035.5	935.1	1167.2	1279.8
80°	2479.6	2247.5	1840.3	1659.8	1525.5	1039.6	545.6	384.1	336.6	344.7	370.5
82.5°	2795.8	2913.9	2383.2	1991.0	1733.1	1264.9	690.8	321.7	234.8	278.2	312.2
85°	2095.5	2950.5	2924.7	2478.2	2033.1	1457.6	817.0	245.7	141.1	195.4	255.2
87.5°	424.8	699.0	673.2	591.7	503.5	351.5	137.1	77.4	70.6	96.4	146.6
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: P159594

CATALOG NUMBER: VST-F09-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4	2239.4
2.5°	2242.1	2242.1	2244.8	2248.9	2250.2	2250.2	2252.9	2250.2	2255.6	2257.0	2258.4
5°	2254.3	2258.4	2261.1	2267.9	2271.9	2274.6	2278.7	2276.0	2281.4	2282.8	2285.5
7.5°	2267.9	2274.6	2280.1	2282.8	2288.2	2288.2	2289.6	2286.9	2285.5	2281.4	2280.1
10°	2292.3	2296.4	2303.1	2300.4	2297.7	2288.2	2280.1	2267.9	2261.1	2248.9	2242.1
12.5°	2331.6	2334.4	2334.4	2322.1	2304.5	2282.8	2262.4	2242.1	2225.8	2212.2	2204.1
15°	2358.8	2364.2	2357.4	2339.8	2314.0	2284.1	2257.0	2229.9	2208.1	2190.5	2179.6
17.5°	2379.2	2377.8	2365.6	2341.1	2316.7	2290.9	2266.5	2238.0	2210.9	2185.1	2168.8
20°	2410.4	2396.8	2375.1	2349.3	2323.5	2301.8	2282.8	2255.6	2227.1	2191.9	2167.4
22.5°	2452.4	2428.0	2396.8	2369.7	2345.2	2324.9	2303.1	2280.1	2250.2	2210.9	2176.9
25°	2512.2	2470.1	2434.8	2407.7	2385.9	2362.9	2338.4	2308.6	2278.7	2238.0	2197.3
27.5°	2603.1	2540.7	2495.9	2471.4	2451.1	2419.9	2388.7	2353.4	2315.4	2273.3	2227.1
30°	2713.0	2638.4	2586.8	2565.1	2540.7	2505.4	2471.4	2422.6	2369.7	2319.4	2262.4
32.5°	2842.0	2765.9	2714.4	2698.1	2658.7	2618.0	2570.5	2505.4	2436.2	2361.5	2293.6
35°	3037.4	2941.0	2893.5	2855.5	2801.2	2752.4	2672.3	2586.8	2487.7	2388.7	2304.5
37.5°	3238.3	3140.5	3091.7	3038.7	2968.2	2878.6	2771.4	2649.2	2517.6	2395.4	2292.3
40°	3507.0	3401.1	3338.7	3257.3	3143.2	3003.5	2844.7	2677.7	2517.6	2365.6	2240.7
42.5°	3820.5	3722.8	3626.4	3492.0	3308.8	3105.2	2882.7	2668.2	2474.2	2299.1	2167.4
45°	4254.8	4087.9	3934.5	3718.7	3451.3	3165.0	2886.7	2623.4	2399.5	2205.4	2058.9
47.5°	4743.4	4527.6	4256.1	3918.2	3553.1	3188.0	2847.4	2539.3	2281.4	2071.1	1910.9
50°	5306.6	4975.5	4558.8	4077.0	3604.7	3156.8	2753.7	2398.2	2118.6	1877.0	1706.0
52.5°	5951.3	5446.4	4832.9	4189.6	3596.5	3061.8	2599.0	2212.2	1900.1	1643.6	1475.3
55°	6666.5	5959.4	5094.9	4261.6	3523.3	2877.2	2356.1	1950.3	1628.6	1376.2	1228.3
57.5°	7927.3	6859.2	5594.3	4357.9	3369.9	2597.7	2048.0	1619.1	1328.7	1114.3	973.1
60°	10269.8	8432.2	6540.3	4584.6	3139.2	2247.5	1659.8	1270.3	1027.4	871.3	766.8
62.5°	11719.3	9539.7	7001.7	4552.0	2764.6	1768.4	1232.3	941.9	750.5	647.4	582.2
65°	11376.0	9105.4	6438.5	3910.1	2151.1	1254.0	815.7	616.2	515.7	462.8	431.6
66°	10909.1	8619.5	5962.1	3501.5	1874.3	1047.7	673.2	517.1	443.8	404.4	388.2
67.5°	9930.5	7731.9	5142.4	2804.0	1404.7	780.4	496.7	405.8	361.0	340.7	329.8
70°	8311.4	6229.5	3637.3	1655.8	761.4	423.4	317.6	282.3	271.4	264.7	260.6
72.5°	6426.3	4509.9	2125.4	814.3	384.1	274.2	241.6	226.7	222.6	222.6	223.9
75°	4048.5	2592.2	951.4	392.2	260.6	221.2	206.3	199.5	200.9	202.2	200.9
77.5°	1345.0	894.4	396.3	278.2	226.7	200.9	188.6	185.9	188.6	190.0	190.0
80°	386.8	337.9	286.4	245.7	207.6	187.3	176.4	175.1	181.9	183.2	180.5
82.5°	297.2	278.2	259.2	237.5	199.5	176.4	172.4	173.7	177.8	175.1	162.9
85°	272.8	270.1	194.1	192.7	173.7	168.3	164.2	165.6	161.5	146.6	133.0
87.5°	153.4	142.5	109.9	111.3	128.9	133.0	109.9	116.7	108.6	95.0	86.9
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: P159594

CATALOG NUMBER: VST-F09-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	2239.4	2239.4	2239.4	2239.4	2239.4
2.5°	2261.1	2259.7	2259.7	2263.8	2258.4
5°	2286.9	2285.5	2285.5	2289.6	2285.5
7.5°	2274.6	2270.6	2267.9	2266.5	2266.5
10°	2233.9	2229.9	2221.7	2219.0	2216.3
12.5°	2191.9	2187.8	2178.3	2178.3	2175.6
15°	2166.1	2160.6	2153.9	2149.8	2147.1
17.5°	2152.5	2144.4	2136.2	2132.1	2129.4
20°	2147.1	2136.2	2126.7	2119.9	2119.9
22.5°	2148.4	2134.9	2124.0	2115.9	2113.1
25°	2162.0	2141.6	2128.1	2119.9	2117.2
27.5°	2181.0	2156.6	2138.9	2128.1	2124.0
30°	2206.8	2172.9	2148.4	2134.9	2129.4
32.5°	2224.4	2176.9	2145.7	2126.7	2119.9
35°	2223.1	2162.0	2124.0	2099.6	2091.4
37.5°	2198.6	2126.7	2076.5	2046.6	2033.1
40°	2144.4	2061.6	2008.6	1980.1	1963.9
42.5°	2065.6	1976.1	1928.6	1897.3	1879.7
45°	1942.1	1853.9	1795.6	1771.1	1748.1
47.5°	1771.1	1681.6	1631.3	1596.1	1581.1
50°	1570.3	1480.7	1427.8	1399.3	1385.7
52.5°	1350.4	1264.9	1226.9	1199.8	1180.8
55°	1122.4	1043.7	1027.4	997.5	979.9
57.5°	908.0	861.8	846.9	817.0	802.1
60°	709.8	694.9	678.6	659.6	651.5
62.5°	549.7	536.1	532.0	519.8	518.4
65°	419.4	420.7	418.0	415.3	412.6
66°	381.4	380.0	381.4	378.7	377.3
67.5°	324.4	329.8	333.9	332.5	332.5
70°	263.3	267.4	272.8	271.4	271.4
72.5°	225.3	232.1	234.8	233.4	233.4
75°	203.6	210.4	210.4	207.6	206.3
77.5°	190.0	192.7	190.0	187.3	184.6
80°	176.4	173.7	169.6	165.6	162.9
82.5°	153.4	146.6	142.5	135.7	135.7
85°	123.5	118.1	108.6	101.8	95.0
87.5°	80.1	77.4	70.6	52.9	42.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)