

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: P159589

Luminaire Tested: **VST-E09-LED-E-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159589
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-E09-LED-E-U-T3-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (189) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25140.2 lumens
Efficiency: N/A
Efficacy: 111.4 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): 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

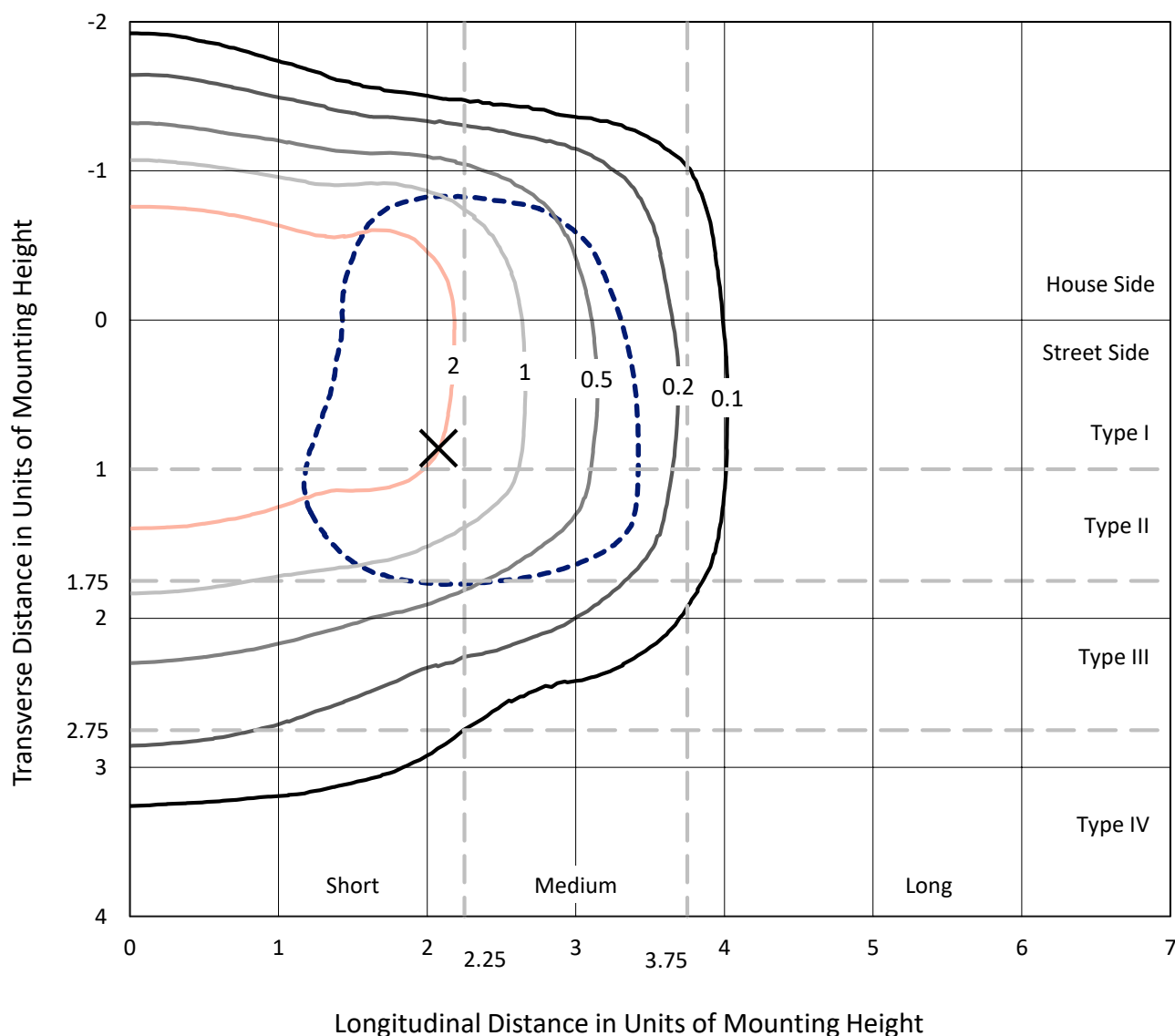


REPORT NUMBER: P159589

CATALOG NUMBER: VST-E09-LED-E-U-T3-7030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

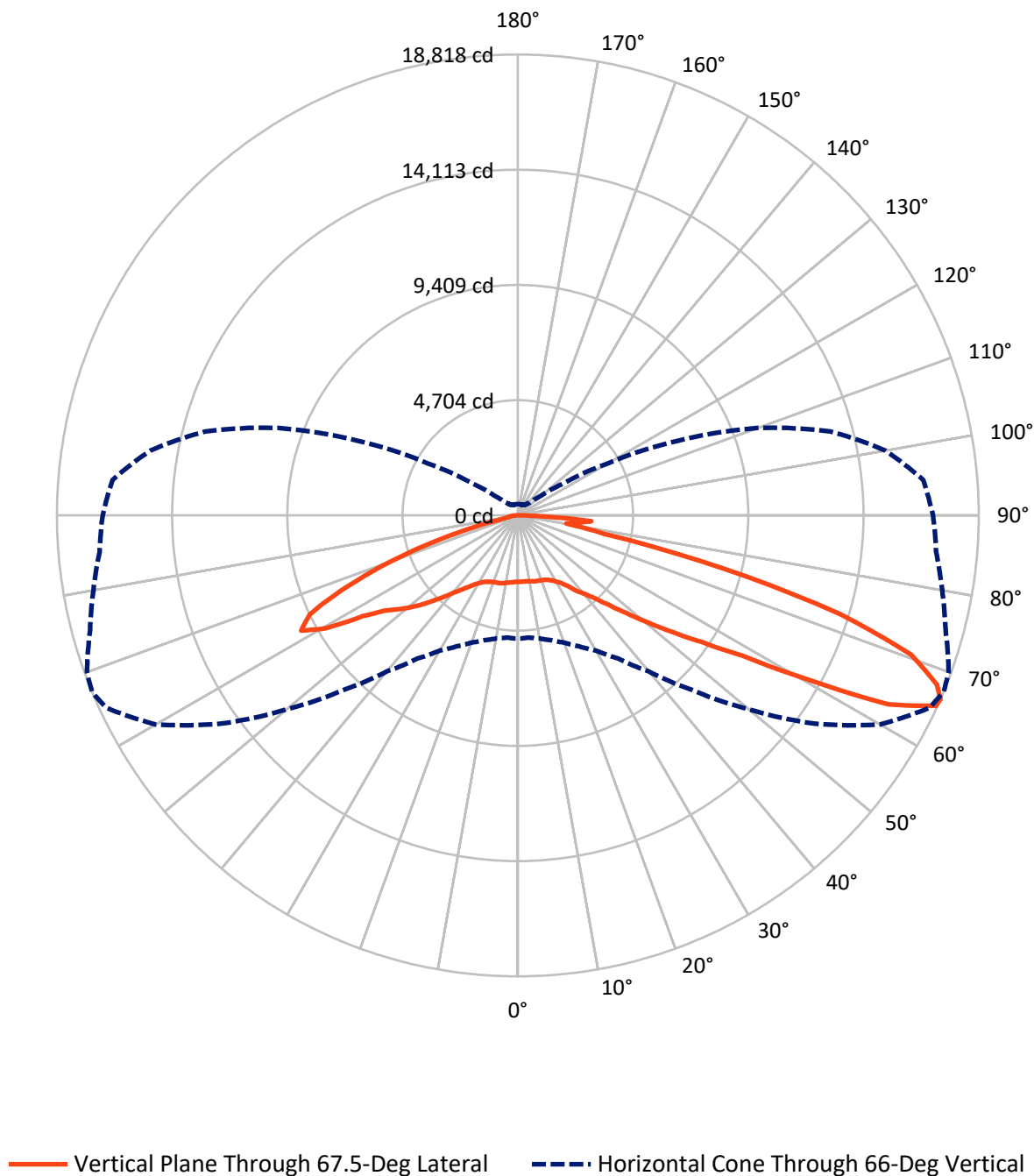


Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159589

CATALOG NUMBER: VST-E09-LED-E-U-T3-7030

Luminous Intensity Polar Plot



REPORT NUMBER: P159589

CATALOG NUMBER: VST-E09-LED-E-U-T3-7030

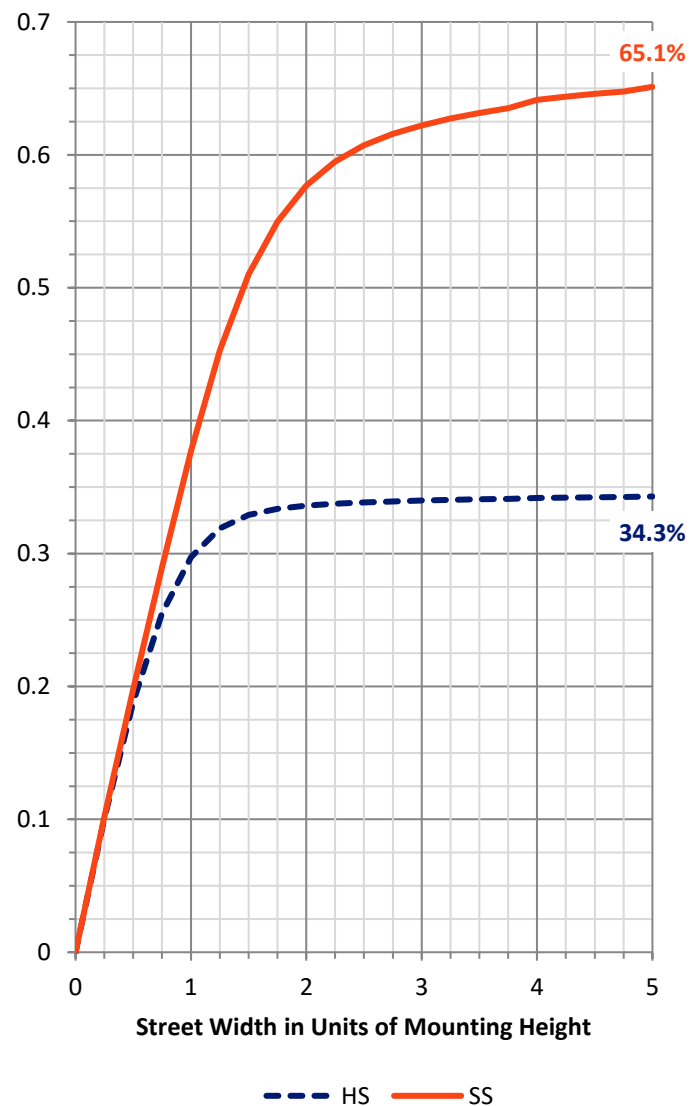
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8699.6	0.0	8699.6
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	16440.6	0.0	16440.6
	% Fixture	65.4	0.0	65.4
Total	Lumens	25140.2	0.0	25140.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.3	1.0
10°-20°	770.8	3.1
20°-30°	1325.0	5.3
30°-40°	2141.5	8.5
40°-50°	3548.9	14.1
50°-60°	5569.7	22.2
60°-70°	7614.9	30.3
70°-80°	3348.7	13.3
80°-90°	560.5	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°	25140.2	100.0
0°-180°	25140.2	100.0

Coefficient of Utilization



REPORT NUMBER: P159589

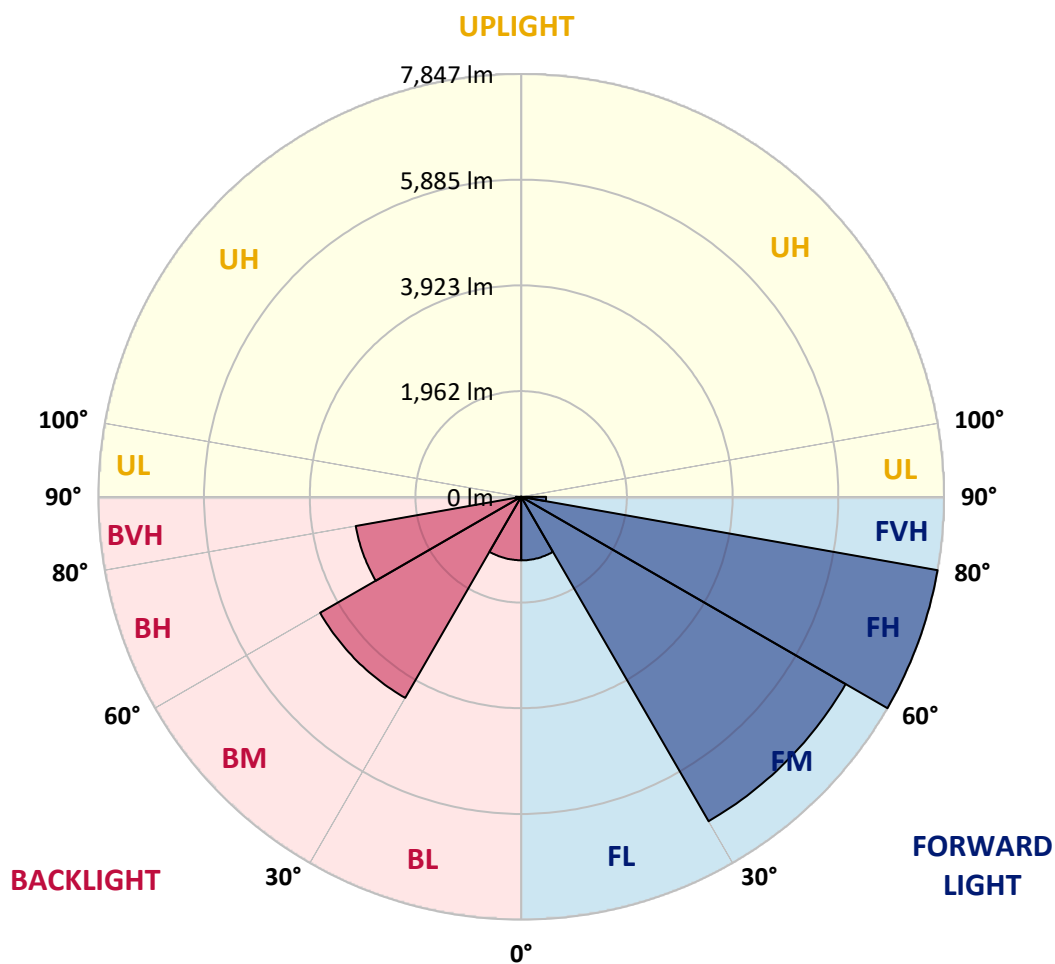
CATALOG NUMBER: VST-E09-LED-E-U-T3-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1179.3	4.7			
FM	(30°-60°)	6952.0	27.7			
FH	(60°-80°)	7846.8	31.2			G4/12000
FVH	(80°-90°)	462.4	1.8			G3/500
BL	(0°-30°)	1176.8	4.7	B3/2500		
BM	(30°-60°)	4308.0	17.1	B3/5000		
BH	(60°-80°)	3116.7	12.4	B4/5000		G4/5000
BVH	(80°-90°)	98.1	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: P159589

CATALOG NUMBER: VST-E09-LED-E-U-T3-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7
2.5°	2707.7	2707.7	2709.4	2707.7	2707.7	2706.1	2712.7	2712.7	2712.7	2711.0	2715.9
5°	2701.1	2701.1	2702.8	2702.8	2704.4	2702.8	2707.7	2709.4	2709.4	2709.4	2714.3
7.5°	2684.7	2689.6	2686.3	2688.0	2689.6	2694.6	2701.1	2704.4	2707.7	2712.7	2714.3
10°	2650.2	2658.4	2656.8	2661.7	2663.3	2678.1	2683.1	2689.6	2701.1	2707.7	2712.7
12.5°	2602.5	2607.4	2609.1	2615.7	2622.2	2640.3	2653.5	2665.0	2681.4	2697.9	2714.3
15°	2564.7	2568.0	2568.0	2574.6	2584.4	2600.9	2617.3	2637.0	2661.7	2689.6	2715.9
17.5°	2576.2	2584.4	2577.8	2576.2	2579.5	2589.3	2604.1	2620.6	2650.2	2681.4	2712.7
20°	2651.8	2653.5	2650.2	2642.0	2635.4	2637.0	2637.0	2640.3	2658.4	2683.1	2707.7
22.5°	2714.3	2720.9	2719.2	2720.9	2719.2	2725.8	2722.5	2715.9	2709.4	2711.0	2722.5
25°	2768.5	2775.1	2775.1	2780.1	2788.3	2801.4	2811.3	2809.6	2799.8	2786.6	2781.7
27.5°	2857.3	2857.3	2857.3	2862.3	2873.8	2890.2	2906.6	2916.5	2924.7	2911.6	2883.6
30°	2997.1	2998.7	2993.8	2995.4	3003.6	3025.0	3044.7	3059.5	3076.0	3074.3	3038.2
32.5°	3150.0	3156.5	3154.9	3161.5	3173.0	3192.7	3214.1	3237.1	3258.5	3271.6	3248.6
35°	3347.2	3353.8	3355.5	3365.3	3378.5	3408.1	3437.7	3467.3	3490.3	3500.1	3495.2
37.5°	3671.1	3672.8	3666.2	3651.4	3656.3	3679.3	3713.9	3761.5	3776.3	3786.2	3809.2
40°	4156.1	4151.2	4124.9	4111.7	4103.5	4113.4	4106.8	4144.6	4179.1	4180.8	4179.1
42.5°	4744.7	4729.9	4705.2	4701.9	4698.6	4695.4	4677.3	4678.9	4710.1	4718.4	4708.5
45°	5329.9	5311.9	5293.8	5310.2	5290.5	5341.5	5356.3	5395.7	5400.6	5417.1	5392.4
47.5°	5810.0	5811.6	5811.6	5834.7	5874.1	5971.1	6058.3	6133.9	6161.8	6201.3	6206.2
50°	6173.3	6183.2	6214.4	6288.4	6372.3	6535.0	6681.3	6817.8	6941.1	6987.1	7108.8
52.5°	6385.4	6411.7	6477.5	6600.8	6750.4	6960.8	7191.0	7422.8	7636.5	7817.4	7962.0
55°	6347.6	6367.3	6482.4	6674.8	6908.2	7191.0	7513.2	7848.6	8182.3	8488.1	8724.9
57.5°	6104.3	6117.4	6232.5	6449.5	6740.5	7120.3	7575.7	8073.8	8542.4	9035.6	9440.0
60°	5785.3	5805.1	5911.9	6082.9	6387.1	6791.5	7319.2	7994.9	8743.0	9518.9	10275.2
62.5°	5581.5	5576.6	5670.3	5823.2	6051.7	6418.3	6926.3	7726.9	8762.7	10074.6	11569.0
65°	5242.8	5228.0	5325.0	5499.3	5747.5	6102.6	6584.3	7353.7	8555.5	10285.1	12404.2
66°	5032.4	5002.8	5099.8	5275.7	5523.9	5902.1	6364.0	7123.6	8304.0	10079.6	12315.4
67.5°	4664.1	4649.3	4695.4	4833.4	5017.6	5372.7	5854.4	6618.9	7708.9	9461.4	11664.4
70°	3791.1	3758.3	3794.4	3856.9	3927.6	4014.7	4310.6	4917.3	5839.6	7537.9	9397.3
72.5°	2582.8	2566.3	2633.7	2729.1	2918.2	3006.9	3123.7	3222.3	3547.8	4751.2	6554.8
75°	1964.6	1974.5	2060.0	2217.8	2461.1	2724.2	2980.6	3074.3	2965.8	2872.1	3720.4
77.5°	1101.5	1159.0	1262.6	1463.2	1721.3	2092.9	2540.0	3033.2	3279.8	3219.0	3010.2
80°	453.8	445.5	496.5	606.6	695.4	999.6	1528.9	2147.1	2840.9	3279.8	3210.8
82.5°	126.6	129.9	167.7	215.4	277.8	353.5	552.4	887.8	1446.7	2250.7	2946.1
85°	39.5	39.5	54.3	80.6	95.4	110.2	139.7	230.2	392.9	784.2	1589.8
87.5°	8.2	8.2	11.5	23.0	24.7	24.7	31.2	42.7	37.8	34.5	154.5
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: P159589

CATALOG NUMBER: VST-E09-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7
2.5°	2711.0	2707.7	2709.4	2711.0	2709.4	2709.4	2707.7	2706.1	2707.7	2707.7	2712.7
5°	2709.4	2707.7	2709.4	2709.4	2709.4	2711.0	2711.0	2711.0	2715.9	2715.9	2724.2
7.5°	2712.7	2712.7	2715.9	2715.9	2715.9	2715.9	2717.6	2720.9	2729.1	2727.4	2742.2
10°	2719.2	2722.5	2730.7	2732.4	2732.4	2737.3	2740.6	2747.2	2755.4	2758.7	2771.8
12.5°	2727.4	2743.9	2758.7	2762.0	2766.9	2775.1	2780.1	2783.3	2798.1	2803.1	2819.5
15°	2737.3	2760.3	2778.4	2785.0	2791.6	2801.4	2808.0	2812.9	2826.1	2832.7	2852.4
17.5°	2739.0	2765.3	2786.6	2796.5	2804.7	2816.2	2826.1	2836.0	2850.7	2860.6	2880.3
20°	2737.3	2771.8	2804.7	2817.9	2826.1	2847.5	2862.3	2875.4	2893.5	2903.4	2923.1
22.5°	2755.4	2794.9	2839.2	2855.7	2868.8	2898.4	2918.2	2939.5	2962.5	2969.1	2983.9
25°	2798.1	2839.2	2895.1	2918.2	2941.2	2980.6	3008.6	3039.8	3062.8	3066.1	3071.0
27.5°	2870.5	2908.3	2975.7	3010.2	3048.0	3103.9	3145.0	3176.3	3209.1	3209.1	3205.9
30°	3016.8	3025.0	3095.7	3140.1	3196.0	3278.2	3339.0	3373.6	3398.2	3398.2	3370.3
32.5°	3205.9	3196.0	3260.1	3307.8	3385.1	3500.1	3582.3	3608.6	3635.0	3626.7	3579.1
35°	3478.8	3450.8	3487.0	3559.3	3646.5	3804.3	3889.8	3949.0	3965.4	3942.4	3866.8
37.5°	3822.4	3819.1	3837.2	3917.7	4014.7	4218.6	4305.7	4343.5	4330.4	4289.3	4156.1
40°	4185.7	4175.8	4164.3	4218.6	4327.1	4572.0	4726.6	4746.3	4728.2	4667.4	4499.7
42.5°	4670.7	4670.7	4616.4	4631.2	4721.7	4996.2	5178.7	5241.2	5242.8	5154.0	4930.4
45°	5338.2	5331.6	5236.2	5213.2	5282.3	5551.9	5787.0	5821.5	5821.5	5704.8	5459.8
47.5°	6140.5	6132.2	6038.5	5958.0	5971.1	6262.1	6457.8	6510.4	6464.3	6377.2	6086.2
50°	7044.7	7029.9	6934.5	6858.9	6826.0	7120.3	7286.3	7311.0	7243.6	7140.0	6824.4
52.5°	7962.0	8006.4	7950.5	7909.4	7920.9	8111.6	8282.6	8165.9	8131.4	8019.6	7702.3
55°	8917.2	9053.7	9177.0	9140.8	9183.6	9369.3	9402.2	9247.7	9185.2	9104.6	8751.2
57.5°	9879.0	10276.8	10681.3	10794.7	10899.9	11166.3	11128.4	10875.3	10922.9	11043.0	10645.1
60°	11222.2	12371.3	13397.2	13586.3	13913.4	14140.3	14191.3	14142.0	14363.9	14301.4	13949.6
62.5°	13285.4	15200.7	16627.7	16982.8	17311.6	17300.1	17127.5	16950.0	17168.6	17168.6	16249.6
65°	14758.5	16931.9	18459.2	18753.5	18740.3	18344.1	17936.4	17581.3	17550.0	17306.7	15963.5
66°	14827.5	17065.0	18561.1	18817.6	18718.9	18081.0	17592.8	17142.3	16950.0	16611.3	15235.2
67.5°	14206.1	16688.6	18229.0	18452.6	18192.8	17278.8	16606.4	16003.0	15723.5	15153.0	13857.5
70°	11652.9	14342.5	16583.3	17040.4	16746.1	15588.7	14668.0	13852.6	13318.3	12494.6	11560.8
72.5°	8506.2	10589.2	13015.8	13758.9	13712.9	12647.5	11906.1	11159.7	10457.7	9708.0	9025.7
75°	5528.9	6888.5	8241.5	8675.5	8466.8	7850.2	7319.2	6883.6	6217.7	5696.6	5570.0
77.5°	3156.5	3856.9	3648.1	3593.9	3332.5	2689.6	1788.7	1254.4	1132.7	1413.9	1550.3
80°	3003.6	2722.5	2229.3	2010.6	1847.9	1259.3	660.9	465.3	407.7	417.6	448.8
82.5°	3386.7	3529.7	2886.9	2411.8	2099.4	1532.2	836.8	389.6	284.4	337.0	378.1
85°	2538.4	3574.1	3542.9	3002.0	2462.8	1765.7	989.7	297.6	171.0	236.7	309.1
87.5°	514.6	846.7	815.4	716.8	609.9	425.8	166.0	93.7	85.5	116.7	177.6
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: P159589

CATALOG NUMBER: VST-E09-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7	2712.7
2.5°	2715.9	2715.9	2719.2	2724.2	2725.8	2725.8	2729.1	2725.8	2732.4	2734.0	2735.7
5°	2730.7	2735.7	2739.0	2747.2	2752.1	2755.4	2760.3	2757.0	2763.6	2765.3	2768.5
7.5°	2747.2	2755.4	2762.0	2765.3	2771.8	2771.8	2773.5	2770.2	2768.5	2763.6	2762.0
10°	2776.8	2781.7	2789.9	2786.6	2783.3	2771.8	2762.0	2747.2	2739.0	2724.2	2715.9
12.5°	2824.4	2827.7	2827.7	2812.9	2791.6	2765.3	2740.6	2715.9	2696.2	2679.8	2669.9
15°	2857.3	2863.9	2855.7	2834.3	2803.1	2766.9	2734.0	2701.1	2674.8	2653.5	2640.3
17.5°	2882.0	2880.3	2865.5	2836.0	2806.4	2775.1	2745.5	2711.0	2678.1	2646.9	2627.2
20°	2919.8	2903.4	2877.1	2845.8	2814.6	2788.3	2765.3	2732.4	2697.9	2655.1	2625.5
22.5°	2970.8	2941.2	2903.4	2870.5	2840.9	2816.2	2789.9	2762.0	2725.8	2678.1	2637.0
25°	3043.1	2992.1	2949.4	2916.5	2890.2	2862.3	2832.7	2796.5	2760.3	2711.0	2661.7
27.5°	3153.3	3077.6	3023.4	2993.8	2969.1	2931.3	2893.5	2850.7	2804.7	2753.8	2697.9
30°	3286.4	3196.0	3133.5	3107.2	3077.6	3034.9	2993.8	2934.6	2870.5	2809.6	2740.6
32.5°	3442.6	3350.5	3288.1	3268.3	3220.7	3171.3	3113.8	3034.9	2951.0	2860.6	2778.4
35°	3679.3	3562.6	3505.1	3459.0	3393.3	3334.1	3237.1	3133.5	3013.5	2893.5	2791.6
37.5°	3922.7	3804.3	3745.1	3681.0	3595.5	3487.0	3357.1	3209.1	3049.7	2901.7	2776.8
40°	4248.2	4119.9	4044.3	3945.7	3807.6	3638.2	3445.9	3243.7	3049.7	2865.5	2714.3
42.5°	4627.9	4509.6	4392.8	4230.1	4008.1	3761.5	3491.9	3232.2	2997.1	2785.0	2625.5
45°	5154.0	4951.8	4766.0	4504.6	4180.8	3833.9	3496.9	3177.9	2906.6	2671.5	2494.0
47.5°	5745.9	5484.5	5155.7	4746.3	4304.1	3861.8	3449.2	3076.0	2763.6	2508.8	2314.8
50°	6428.2	6027.0	5522.3	4938.7	4366.5	3824.0	3335.7	2905.0	2566.3	2273.7	2066.5
52.5°	7209.1	6597.5	5854.4	5075.1	4356.7	3708.9	3148.3	2679.8	2301.6	1990.9	1787.1
55°	8075.5	7218.9	6171.7	5162.3	4267.9	3485.3	2854.0	2362.5	1972.8	1667.0	1487.8
57.5°	9602.8	8308.9	6776.7	5279.0	4082.1	3146.7	2480.8	1961.3	1609.5	1349.7	1178.8
60°	12440.4	10214.4	7922.6	5553.5	3802.6	2722.5	2010.6	1538.8	1244.5	1055.5	928.9
62.5°	14196.2	11555.9	8481.6	5514.1	3348.9	2142.2	1492.8	1141.0	909.1	784.2	705.3
65°	13780.3	11029.8	7799.3	4736.5	2605.8	1519.1	988.1	746.4	624.7	560.6	522.8
66°	13214.7	10441.2	7222.2	4241.6	2270.4	1269.2	815.4	626.4	537.6	489.9	470.2
67.5°	12029.4	9366.0	6229.2	3396.6	1701.6	945.3	601.7	491.6	437.3	412.7	399.5
70°	10068.0	7546.1	4406.0	2005.7	922.3	512.9	384.7	342.0	328.8	320.6	315.7
72.5°	7784.5	5463.1	2574.6	986.4	465.3	332.1	292.6	274.6	269.6	269.6	271.3
75°	4904.1	3140.1	1152.5	475.1	315.7	268.0	249.9	241.7	243.3	245.0	243.3
77.5°	1629.2	1083.4	480.1	337.0	274.6	243.3	228.5	225.2	228.5	230.2	230.2
80°	468.5	409.4	346.9	297.6	251.5	226.9	213.7	212.1	220.3	221.9	218.7
82.5°	360.0	337.0	314.0	287.7	241.7	213.7	208.8	210.4	215.4	212.1	197.3
85°	330.5	327.2	235.1	233.5	210.4	203.9	198.9	200.6	195.6	177.6	161.1
87.5°	185.8	172.6	133.2	134.8	156.2	161.1	133.2	141.4	131.5	115.1	105.2
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: P159589

CATALOG NUMBER: VST-E09-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	2712.7	2712.7	2712.7	2712.7	2712.7
2.5°	2739.0	2737.3	2737.3	2742.2	2735.7
5°	2770.2	2768.5	2768.5	2773.5	2768.5
7.5°	2755.4	2750.5	2747.2	2745.5	2745.5
10°	2706.1	2701.1	2691.3	2688.0	2684.7
12.5°	2655.1	2650.2	2638.7	2638.7	2635.4
15°	2623.9	2617.3	2609.1	2604.1	2600.9
17.5°	2607.4	2597.6	2587.7	2582.8	2579.5
20°	2600.9	2587.7	2576.2	2568.0	2568.0
22.5°	2602.5	2586.1	2572.9	2563.0	2559.8
25°	2618.9	2594.3	2577.8	2568.0	2564.7
27.5°	2642.0	2612.4	2591.0	2577.8	2572.9
30°	2673.2	2632.1	2602.5	2586.1	2579.5
32.5°	2694.6	2637.0	2599.2	2576.2	2568.0
35°	2692.9	2618.9	2572.9	2543.3	2533.5
37.5°	2663.3	2576.2	2515.4	2479.2	2462.8
40°	2597.6	2497.3	2433.2	2398.6	2378.9
42.5°	2502.2	2393.7	2336.2	2298.4	2277.0
45°	2352.6	2245.7	2175.1	2145.5	2117.5
47.5°	2145.5	2037.0	1976.1	1933.4	1915.3
50°	1902.1	1793.6	1729.5	1695.0	1678.6
52.5°	1635.8	1532.2	1486.2	1453.3	1430.3
55°	1359.6	1264.3	1244.5	1208.4	1187.0
57.5°	1099.9	1044.0	1025.9	989.7	971.6
60°	859.8	841.7	822.0	799.0	789.1
62.5°	665.8	649.4	644.5	629.7	628.0
65°	508.0	509.6	506.4	503.1	499.8
66°	462.0	460.3	462.0	458.7	457.0
67.5°	392.9	399.5	404.4	402.8	402.8
70°	318.9	323.9	330.5	328.8	328.8
72.5°	272.9	281.1	284.4	282.8	282.8
75°	246.6	254.8	254.8	251.5	249.9
77.5°	230.2	233.5	230.2	226.9	223.6
80°	213.7	210.4	205.5	200.6	197.3
82.5°	185.8	177.6	172.6	164.4	164.4
85°	149.6	143.0	131.5	123.3	115.1
87.5°	97.0	93.7	85.5	64.1	51.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)