

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: P159395

Luminaire Tested: **VST-F11-LED-E-U-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159395
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33705)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F11-LED-E-U-T2
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (77) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28029.8 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 282.7
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



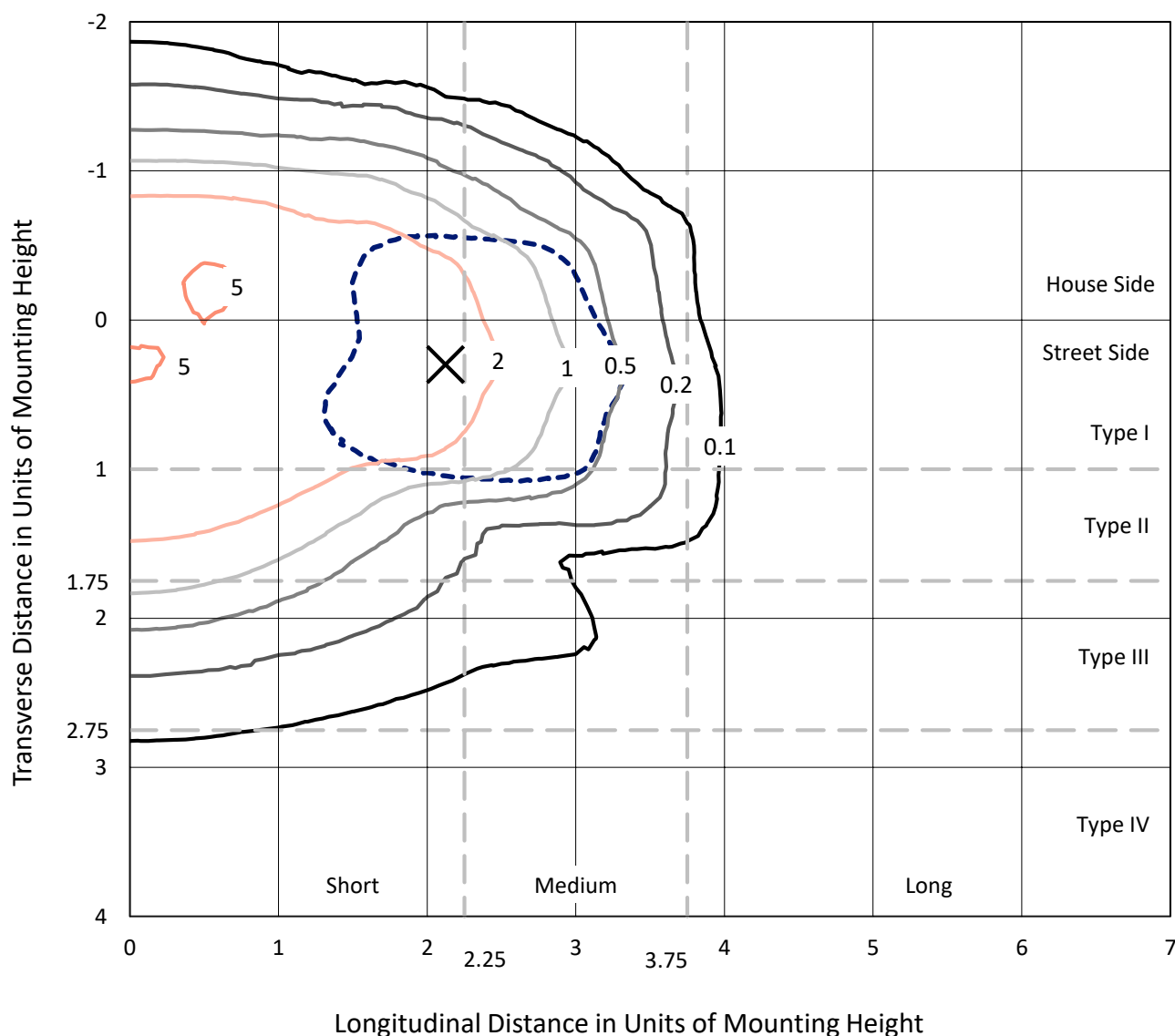
REPORT NUMBER: P159395

CATALOG NUMBER: VST-F11-LED-E-U-T2

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

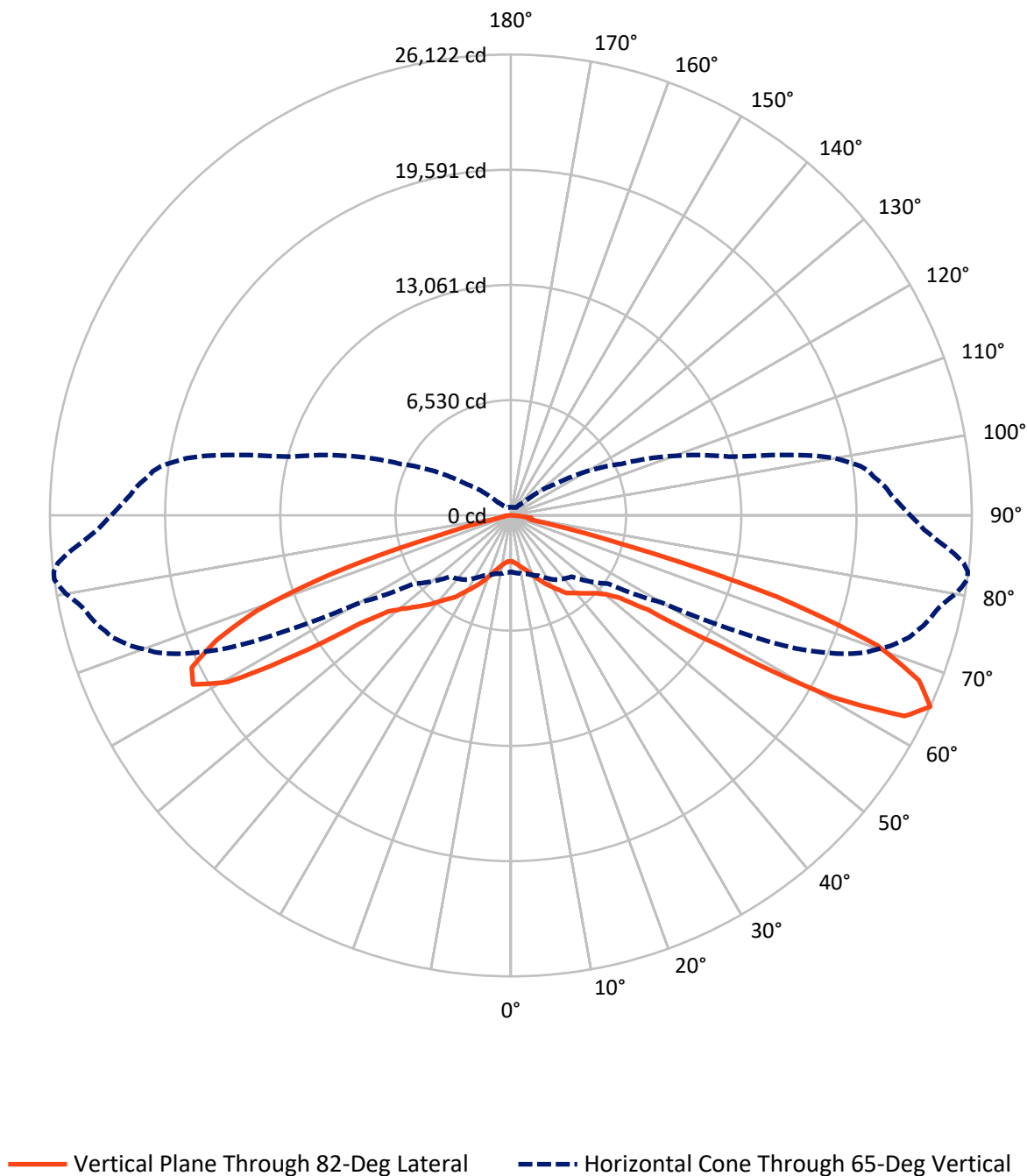


Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159395

CATALOG NUMBER: VST-F11-LED-E-U-T2

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10436.4	0.0	10436.4
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	17593.4	0.0	17593.4
	% Fixture	62.8	0.0	62.8
Total	Lumens	28029.8	0.0	28029.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.0	0.9
10°-20°	927.7	3.3
20°-30°	1838.2	6.6
30°-40°	3151.1	11.2
40°-50°	4733.8	16.9
50°-60°	6576.7	23.5
60°-70°	7503.0	26.8
70°-80°	2584.7	9.2
80°-90°	450.5	1.6
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°	28029.8	100.0
0°-180°	28029.8	100.0

Coefficient of Utilization



REPORT NUMBER: P159395

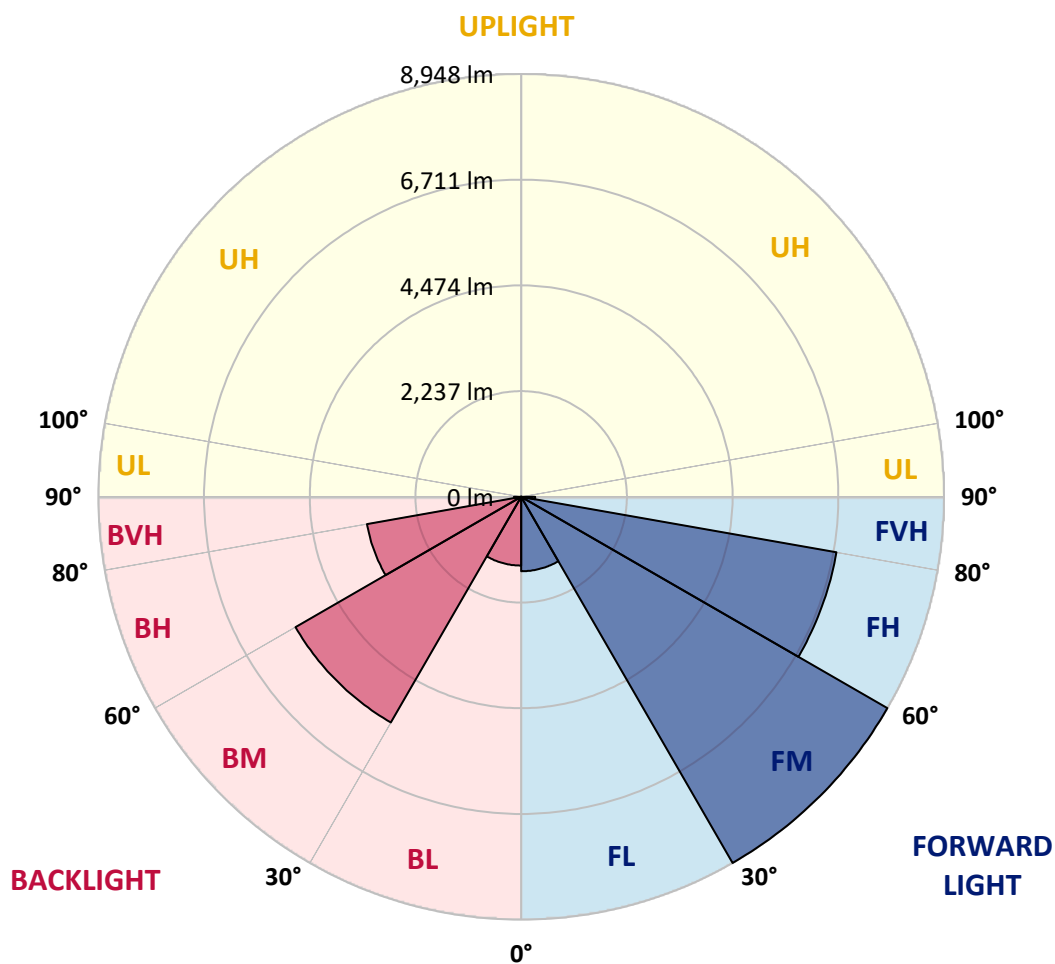
CATALOG NUMBER: VST-F11-LED-E-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1574.7	5.6			
FM	(30°-60°)	8947.7	31.9			
FH	(60°-80°)	6774.5	24.2			G3/7500
FVH	(80°-90°)	296.6	1.1			G3/500
BL	(0°-30°)	1455.3	5.2	B3/2500		
BM	(30°-60°)	5513.9	19.7	B4/8500		
BH	(60°-80°)	3313.3	11.8	B4/5000		G4/5000
BVH	(80°-90°)	153.9	0.5			G2/225
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: P159395

CATALOG NUMBER: VST-F11-LED-E-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0
2.5°	2749.7	2751.5	2749.7	2744.2	2742.4	2726.0	2707.9	2698.8	2697.0	2689.7	2691.5
5°	2920.4	2914.9	2907.7	2898.6	2889.5	2862.3	2831.4	2815.0	2809.6	2804.1	2796.9
7.5°	3072.9	3076.6	3072.9	3060.2	3036.6	3002.1	2962.1	2936.7	2934.9	2929.5	2924.0
10°	3269.1	3278.2	3256.4	3234.6	3201.9	3149.2	3103.8	3071.1	3065.7	3058.4	3054.8
12.5°	3481.6	3483.4	3476.1	3427.1	3372.6	3300.0	3234.6	3201.9	3194.6	3185.5	3181.9
15°	3708.6	3710.4	3670.4	3623.2	3539.7	3452.5	3361.7	3325.4	3316.3	3318.1	3303.6
17.5°	3888.4	3892.0	3853.9	3793.9	3694.1	3590.5	3492.5	3463.4	3458.0	3459.8	3452.5
20°	3966.5	3971.9	3948.3	3902.9	3808.5	3717.7	3646.8	3628.7	3626.9	3623.2	3637.8
22.5°	3962.8	3964.7	3955.6	3937.4	3881.1	3828.5	3819.4	3830.3	3828.5	3832.1	3844.8
25°	3930.2	3935.6	3933.8	3941.1	3932.0	3952.0	3993.7	4031.9	4037.3	4044.6	4068.2
27.5°	4013.7	4024.6	4011.9	4019.2	4033.7	4100.9	4186.2	4244.4	4255.3	4275.2	4295.2
30°	4340.6	4326.1	4309.7	4291.6	4300.7	4342.4	4438.7	4489.5	4495.0	4509.5	4536.8
32.5°	4825.5	4809.2	4794.6	4765.6	4758.3	4740.2	4772.9	4785.6	4783.8	4798.3	4805.5
35°	5372.2	5374.0	5370.4	5392.2	5410.3	5317.7	5203.3	5172.4	5185.1	5168.8	5172.4
37.5°	5838.9	5844.4	5940.6	6060.5	6095.0	6036.9	5786.3	5662.8	5621.0	5615.6	5573.8
40°	6356.5	6356.5	6501.8	6648.9	6745.2	6817.8	6520.0	6302.1	6213.1	6187.6	6084.1
42.5°	6925.0	6895.9	7028.5	7190.2	7368.1	7533.4	7379.0	7133.9	7006.7	6961.3	6779.7
45°	7391.8	7373.6	7439.0	7589.7	7878.5	8201.8	8223.5	8098.2	8022.0	7927.5	7760.4
47.5°	7678.7	7669.6	7707.8	7871.2	8232.6	8755.7	9048.1	9111.6	9066.2	8993.6	8832.0
50°	7791.3	7778.6	7805.8	7987.4	8392.5	9082.6	9729.1	10028.8	10050.6	10066.9	10016.1
52.5°	7751.3	7735.0	7791.3	7943.9	8365.2	9197.0	10261.3	10837.0	10933.3	11015.0	11182.1
55°	7368.1	7342.7	7495.3	7782.2	8247.2	9155.2	10649.9	11614.3	11817.7	12035.7	12406.2
57.5°	6781.5	6759.7	6979.5	7373.6	8038.3	9040.8	10911.5	12596.8	13054.5	13446.8	14498.4
60°	6216.7	6198.5	6327.5	6708.9	7360.9	8483.3	10588.2	12927.4	13695.6	14542.0	16461.6
62.5°	5206.9	5157.9	5330.4	5651.9	6064.1	7017.6	9177.0	12191.8	13376.0	14620.0	17222.6
65°	3200.1	3270.9	3419.8	3775.8	4451.4	4905.4	6739.8	9863.5	11425.4	12985.5	16361.7
67.5°	2032.3	2052.3	2163.0	2410.0	2933.1	3388.9	4084.5	6189.5	7393.6	8928.2	12845.7
70°	1741.7	1754.4	1848.8	2106.7	2468.2	3029.3	3091.1	3232.8	3665.0	4642.1	7551.6
72.5°	1373.0	1394.8	1469.3	1692.7	2128.5	2731.5	3815.7	2555.3	2468.2	2549.9	3685.0
75°	817.3	842.7	904.4	1026.1	1367.6	2088.6	3997.4	2973.0	2771.5	2613.4	2542.6
77.5°	432.2	414.1	455.9	526.7	702.9	1113.3	3003.9	3643.2	3501.5	3312.7	2911.3
80°	214.3	221.6	234.3	248.8	314.2	452.2	1502.0	3768.5	4177.2	4358.8	4002.8
82.5°	85.4	96.3	136.2	145.3	172.5	192.5	483.1	2088.6	2991.2	4057.3	5297.7
85°	43.6	41.8	72.6	87.2	101.7	90.8	170.7	779.1	1402.1	2184.8	3539.7
87.5°	5.4	7.3	16.3	21.8	30.9	29.1	49.0	168.9	268.8	381.4	535.8
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: P159395

CATALOG NUMBER: VST-F11-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0
2.5°	2682.5	2680.6	2680.6	2673.4	2673.4	2675.2	2669.7	2666.1	2666.1	2667.9	2660.7
5°	2791.4	2786.0	2786.0	2778.7	2769.6	2769.6	2762.4	2760.6	2756.9	2749.7	2744.2
7.5°	2918.6	2913.1	2904.0	2898.6	2895.0	2889.5	2880.4	2876.8	2869.5	2862.3	2855.0
10°	3049.3	3042.1	3038.4	3029.3	3025.7	3014.8	3009.4	3011.2	2996.7	2991.2	2993.0
12.5°	3180.1	3172.8	3160.1	3156.5	3154.7	3143.8	3138.3	3134.7	3123.8	3122.0	3116.5
15°	3296.3	3300.0	3294.5	3285.4	3278.2	3276.3	3270.9	3267.3	3260.0	3252.7	3245.5
17.5°	3447.1	3452.5	3445.2	3432.5	3432.5	3430.7	3432.5	3430.7	3418.0	3423.5	3419.8
20°	3639.6	3643.2	3625.0	3630.5	3634.1	3632.3	3637.8	3643.2	3639.6	3639.6	3645.0
22.5°	3861.1	3866.6	3855.7	3863.0	3873.9	3864.8	3881.1	3879.3	3882.9	3888.4	3890.2
25°	4088.2	4099.1	4090.0	4110.0	4102.7	4110.0	4129.9	4124.5	4133.6	4148.1	4153.5
27.5°	4315.2	4322.4	4324.3	4337.0	4349.7	4360.6	4386.0	4386.0	4393.3	4418.7	4418.7
30°	4553.1	4560.4	4567.6	4585.8	4593.1	4613.0	4638.5	4645.7	4642.1	4678.4	4689.3
32.5°	4827.3	4834.6	4847.3	4869.1	4878.2	4898.2	4898.2	4918.1	4932.7	4963.6	4965.4
35°	5192.4	5197.8	5192.4	5190.6	5203.3	5230.5	5232.3	5261.4	5274.1	5305.0	5314.1
37.5°	5557.4	5555.6	5532.0	5506.6	5508.4	5497.5	5490.2	5502.9	5508.4	5510.2	5530.2
40°	6049.6	6002.4	5966.1	5902.5	5873.4	5828.0	5800.8	5799.0	5769.9	5766.3	5771.7
42.5°	6694.3	6639.9	6554.5	6447.3	6365.6	6282.1	6220.3	6184.0	6120.4	6087.8	6060.5
45°	7595.2	7460.8	7359.1	7231.9	7073.9	6928.6	6776.1	6707.1	6585.4	6510.9	6427.4
47.5°	8695.7	8563.2	8407.0	8276.2	8069.2	7867.6	7658.7	7475.3	7262.8	7093.9	6955.9
50°	9890.8	9812.7	9700.1	9578.4	9311.4	9178.8	8915.5	8666.7	8437.9	8136.4	7873.0
52.5°	11116.7	11162.1	11136.7	11093.1	10924.2	10873.3	10646.3	10343.0	10112.4	9905.3	9447.6
55°	12627.7	12682.2	12791.2	12854.7	12834.8	12963.7	12907.4	12671.3	12578.7	12482.4	12157.3
57.5°	14939.7	15328.3	15744.2	16109.3	16194.7	16652.3	16554.3	16790.4	16957.4	16837.6	16732.2
60°	17404.2	18188.8	18895.3	19634.4	20235.6	20686.0	21281.7	21683.1	21935.5	22389.6	22425.9
62.5°	18397.6	19463.7	20360.9	21218.1	21931.9	22556.6	23094.2	23648.2	24102.2	24512.6	24808.7
65°	17852.8	18966.1	20054.0	20923.9	21610.4	22148.0	22732.8	23172.3	23619.1	23882.4	24193.0
67.5°	14841.6	16316.3	17654.8	18635.6	19574.5	20121.2	20813.1	21245.4	21719.4	21997.3	22197.0
70°	9676.5	11596.1	13425.0	14912.4	16180.1	16817.6	17653.0	18243.3	18813.5	18828.1	19160.4
72.5°	5221.4	6826.9	8357.9	9878.1	11323.7	12171.9	12996.4	13713.8	14280.4	14038.9	14369.4
75°	2907.7	3659.6	4496.8	5410.3	6291.2	6776.1	7391.8	7395.4	7687.8	7228.3	7344.5
77.5°	2796.9	2762.4	2775.1	2800.5	2844.1	2751.5	2749.7	2693.4	2606.2	2448.2	2475.4
80°	3674.1	3234.6	2918.6	2422.8	1950.6	1591.0	1491.1	1514.7	1585.5	1727.2	1907.0
82.5°	5312.3	4941.8	4411.4	3630.5	2849.5	2197.5	1805.3	1601.8	1592.8	1734.4	2006.9
85°	3868.4	4091.8	4057.3	3387.1	2793.2	2268.4	1650.9	1394.8	1155.1	1098.8	1195.0
87.5°	570.3	472.2	532.1	445.0	323.3	250.6	219.8	176.2	168.9	172.5	188.9
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: P159395

CATALOG NUMBER: VST-F11-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0
2.5°	2662.5	2655.2	2648.0	2653.4	2648.0	2646.1	2640.7	2637.1	2635.2	2635.2	2635.2
5°	2744.2	2735.1	2729.7	2727.9	2722.4	2717.0	2715.2	2706.1	2704.3	2704.3	2698.8
7.5°	2855.0	2847.7	2838.7	2833.2	2829.6	2820.5	2811.4	2809.6	2807.8	2800.5	2795.1
10°	2983.9	2973.0	2962.1	2962.1	2954.9	2953.1	2944.0	2931.3	2929.5	2918.6	2914.9
12.5°	3105.6	3102.0	3089.3	3085.6	3080.2	3074.8	3069.3	3063.9	3058.4	3049.3	3053.0
15°	3250.9	3241.8	3230.9	3232.8	3230.9	3223.7	3216.4	3211.0	3207.3	3203.7	3203.7
17.5°	3425.3	3421.6	3419.8	3410.7	3403.5	3408.9	3408.9	3408.9	3399.8	3401.7	3403.5
20°	3646.8	3650.5	3646.8	3639.6	3637.8	3643.2	3630.5	3650.5	3639.6	3632.3	3635.9
22.5°	3892.0	3904.7	3890.2	3892.0	3901.1	3904.7	3892.0	3908.4	3902.9	3892.0	3901.1
25°	4159.0	4168.1	4160.8	4159.0	4164.4	4177.2	4175.3	4173.5	4186.2	4175.3	4180.8
27.5°	4433.2	4438.7	4442.3	4447.8	4451.4	4449.6	4456.8	4456.8	4464.1	4451.4	4456.8
30°	4705.7	4705.7	4712.9	4720.2	4720.2	4720.2	4734.7	4736.5	4725.6	4729.3	4716.6
32.5°	4996.2	4998.1	5005.3	5005.3	5019.9	5021.7	5038.0	5016.2	5038.0	5019.9	5023.5
35°	5337.7	5361.3	5364.9	5383.1	5397.6	5403.1	5403.1	5404.9	5424.9	5410.3	5415.8
37.5°	5537.5	5542.9	5557.4	5566.5	5566.5	5573.8	5579.2	5573.8	5579.2	5577.4	5582.9
40°	5773.6	5768.1	5784.5	5788.1	5780.8	5789.9	5788.1	5782.6	5797.2	5786.3	5793.5
42.5°	6060.5	6029.6	6027.8	6042.3	6027.8	6035.1	6033.3	6020.6	6038.7	6044.2	6038.7
45°	6367.4	6351.1	6318.4	6318.4	6303.9	6298.4	6300.2	6298.4	6300.2	6322.0	6329.3
47.5°	6866.9	6767.0	6710.7	6658.0	6614.4	6612.6	6592.6	6603.5	6618.1	6654.4	6687.1
50°	7704.1	7473.5	7331.8	7201.1	7106.6	7073.9	7035.8	7032.2	7044.9	7086.6	7142.9
52.5°	9197.0	8877.4	8575.9	8296.2	8052.8	7865.8	7773.1	7724.1	7705.9	7747.7	7802.2
55°	11928.5	11325.5	10900.6	10617.2	10012.5	9756.4	9427.7	9276.9	9129.8	9144.3	9237.0
57.5°	16596.0	16270.9	15915.0	15419.2	15048.7	14601.9	13781.0	13323.3	13343.3	13450.4	13116.3
60°	22712.8	22384.1	22237.0	21786.6	21528.7	21348.9	20913.0	20153.9	19885.1	19834.2	19220.4
62.5°	25035.7	25113.8	25230.0	25357.2	25349.9	25428.0	25046.6	24799.6	24489.0	24085.8	23479.2
65°	24429.1	24627.1	24863.2	25204.6	25593.3	25880.2	26121.8	26092.7	25802.1	25264.5	24623.4
67.5°	22375.0	22571.2	22743.7	23201.4	23838.8	24421.8	24937.6	25288.1	25093.8	24648.9	23900.6
70°	19287.6	19429.2	19538.2	19935.9	20635.2	21347.1	22020.9	22609.3	22549.4	22010.0	21412.5
72.5°	13975.3	14318.6	14503.8	14476.6	14908.8	15706.1	15800.5	16303.6	16443.5	15862.3	14910.6
75°	6808.8	6814.2	6599.9	6529.1	6550.9	6688.9	6425.6	6441.9	6351.1	5938.8	5599.2
77.5°	2379.2	2313.8	2157.6	1972.3	1707.2	1458.4	1205.9	1097.0	1060.6	953.5	879.0
80°	2050.4	2146.7	2115.8	1963.3	1683.6	1342.1	1002.5	742.8	633.8	595.7	559.4
82.5°	2328.3	2698.8	2934.9	2922.2	2539.0	1907.0	1189.6	682.9	486.7	426.8	392.3
85°	1298.6	1396.6	1423.9	1296.7	1077.0	735.5	410.5	288.8	245.2	223.4	201.6
87.5°	207.0	188.9	185.2	161.6	152.6	139.8	123.5	116.2	107.2	101.7	101.7
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: P159395

CATALOG NUMBER: VST-F11-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0
2.5°	2633.4	2631.6	2626.2	2620.7	2617.1	2615.3	2613.4	2609.8	2608.0	2606.2	2602.5
5°	2695.2	2691.5	2682.5	2673.4	2669.7	2664.3	2658.9	2655.2	2651.6	2649.8	2642.5
7.5°	2791.4	2787.8	2776.9	2769.6	2767.8	2753.3	2751.5	2746.0	2736.9	2735.1	2724.2
10°	2907.7	2905.8	2896.8	2891.3	2887.7	2880.4	2869.5	2860.4	2851.4	2851.4	2844.1
12.5°	3042.1	3034.8	3040.2	3027.5	3023.9	3016.6	3011.2	3009.4	2998.5	2989.4	2987.6
15°	3200.1	3191.0	3191.0	3187.4	3183.7	3176.5	3174.6	3176.5	3165.6	3169.2	3158.3
17.5°	3396.2	3399.8	3398.0	3398.0	3388.9	3388.9	3374.4	3392.6	3379.9	3388.9	3385.3
20°	3641.4	3643.2	3639.6	3645.0	3648.7	3646.8	3645.0	3643.2	3648.7	3655.9	3650.5
22.5°	3902.9	3902.9	3901.1	3921.1	3899.3	3915.6	3921.1	3910.2	3939.2	3935.6	3941.1
25°	4186.2	4186.2	4200.8	4217.1	4220.7	4208.0	4215.3	4206.2	4224.4	4238.9	4242.5
27.5°	4449.6	4473.2	4484.1	4473.2	4482.3	4502.2	4500.4	4500.4	4513.1	4509.5	4544.0
30°	4720.2	4734.7	4749.2	4742.0	4745.6	4771.0	4772.9	4774.7	4791.0	4814.6	4840.1
32.5°	5028.9	5043.5	5036.2	5059.8	5058.0	5088.9	5094.3	5099.8	5150.6	5141.5	5194.2
35°	5408.5	5423.0	5415.8	5441.2	5437.6	5448.5	5468.4	5490.2	5499.3	5552.0	5593.8
37.5°	5586.5	5586.5	5602.8	5631.9	5642.8	5661.0	5691.8	5719.1	5764.5	5820.8	5886.2
40°	5800.8	5806.2	5828.0	5858.9	5878.9	5920.7	5977.0	6015.1	6084.1	6145.9	6222.1
42.5°	6060.5	6084.1	6109.5	6151.3	6194.9	6260.3	6340.2	6389.2	6480.0	6560.0	6654.4
45°	6363.8	6387.4	6447.3	6523.6	6587.2	6659.8	6725.2	6841.5	6923.2	7006.7	7088.5
47.5°	6730.7	6799.7	6848.7	6939.5	7017.6	7113.9	7195.6	7304.6	7393.6	7495.3	7564.3
50°	7201.1	7286.4	7350.0	7468.0	7544.3	7651.5	7755.0	7836.7	7927.5	8027.4	8083.7
52.5°	7876.7	7963.8	8043.7	8190.9	8285.3	8357.9	8496.0	8597.7	8681.2	8753.9	8815.6
55°	9340.5	9315.1	9536.6	9821.8	9854.5	10117.8	10166.8	10252.2	10406.6	10428.4	10600.9
57.5°	13523.1	13392.3	13713.8	14131.5	14058.9	13926.3	14480.2	14514.7	14436.6	14645.5	14409.4
60°	19311.2	19082.3	19169.5	19283.9	19118.7	19040.6	19067.8	19145.9	19069.6	18986.1	18757.2
62.5°	23176.0	22823.6	22571.2	22358.7	22089.9	21895.6	21677.6	21408.8	21336.2	21031.1	20775.0
65°	24000.5	23452.0	23052.5	22651.1	22280.6	21937.3	21608.6	21378.0	21072.8	20711.4	20444.5
67.5°	23094.2	22415.0	21830.2	21247.2	20827.7	20322.8	20075.8	19699.8	19323.9	18909.8	18664.6
70°	20460.8	19752.5	19017.0	18446.7	17876.4	17251.7	17130.0	16685.0	16468.9	15904.1	15806.0
72.5°	14122.4	13650.2	13321.5	12616.8	12269.9	11950.3	11848.6	11436.3	11479.9	10860.6	11085.8
75°	5021.7	4954.5	4858.2	4460.5	4389.6	4266.1	4233.5	4204.4	4498.6	4090.0	4386.0
77.5°	862.7	857.2	808.2	784.6	830.0	800.9	808.2	793.7	879.0	891.7	871.8
80°	535.8	521.2	504.9	494.0	495.8	484.9	486.7	490.4	495.8	494.0	499.4
82.5°	366.9	354.2	346.9	339.6	350.5	354.2	363.2	372.3	386.8	395.9	406.8
85°	199.8	183.4	183.4	181.6	196.1	207.0	221.6	239.7	265.2	287.0	310.6
87.5°	101.7	98.1	99.9	103.5	116.2	125.3	143.5	159.8	181.6	205.2	227.0
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: P159395

CATALOG NUMBER: VST-F11-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0	2608.0
2.5°	2600.7	2600.7	2598.9	2598.9	2597.1	2595.3	2593.5	2588.0	2568.0	2549.9	2537.2
5°	2640.7	2635.2	2633.4	2628.0	2626.2	2622.5	2617.1	2611.6	2575.3	2542.6	2519.0
7.5°	2722.4	2715.2	2711.5	2706.1	2700.6	2693.4	2686.1	2680.6	2637.1	2598.9	2569.9
10°	2829.6	2825.9	2824.1	2816.9	2816.9	2806.0	2804.1	2791.4	2744.2	2709.7	2684.3
12.5°	2978.5	2971.2	2969.4	2960.3	2964.0	2960.3	2956.7	2949.4	2914.9	2875.0	2840.5
15°	3163.7	3163.7	3154.7	3147.4	3149.2	3145.6	3152.8	3143.8	3122.0	3085.6	3029.3
17.5°	3387.1	3383.5	3387.1	3381.7	3385.3	3388.9	3379.9	3381.7	3370.8	3325.4	3241.8
20°	3646.8	3641.4	3663.2	3654.1	3674.1	3655.9	3659.6	3665.0	3665.0	3605.1	3492.5
22.5°	3944.7	3941.1	3941.1	3959.2	3966.5	3968.3	3975.6	3981.0	3995.5	3919.3	3739.5
25°	4242.5	4255.3	4257.1	4280.7	4291.6	4291.6	4297.0	4317.0	4360.6	4255.3	4022.8
27.5°	4545.8	4576.7	4584.0	4600.3	4616.7	4633.0	4645.7	4660.3	4731.1	4616.7	4313.4
30°	4849.1	4883.6	4909.1	4927.2	4947.2	4987.2	4994.4	5023.5	5141.5	5001.7	4589.4
32.5°	5205.1	5254.1	5286.8	5310.4	5341.3	5379.5	5401.2	5437.6	5552.0	5323.1	4791.0
35°	5630.1	5659.1	5706.4	5746.3	5764.5	5829.9	5864.4	5873.4	5960.6	5601.0	4939.9
37.5°	5924.3	5973.3	6055.1	6111.4	6144.1	6180.4	6238.5	6276.6	6360.2	5853.5	5014.4
40°	6298.4	6372.9	6438.3	6521.8	6574.5	6601.7	6659.8	6690.7	6701.6	6069.6	4990.8
42.5°	6754.3	6821.5	6908.7	6975.9	7015.8	7046.7	7093.9	7106.6	6965.0	6171.3	4863.7
45°	7182.9	7286.4	7360.9	7409.9	7439.0	7455.3	7484.4	7486.2	7182.9	6120.4	4645.7
47.5°	7644.2	7718.7	7787.7	7822.2	7818.5	7822.2	7811.3	7804.0	7291.9	5944.3	4366.0
50°	8154.5	8203.6	8232.6	8249.0	8258.1	8223.5	8174.5	8141.8	7300.9	5693.6	4082.7
52.5°	8839.2	8901.0	8895.5	8893.7	8821.1	8788.4	8657.6	8590.4	7248.3	5399.4	3763.1
55°	10573.7	10513.7	10395.7	10453.8	10157.8	10003.4	9800.0	9611.1	7317.3	5119.7	3392.6
57.5°	14503.8	14527.4	14191.4	14011.6	13512.2	12887.4	12384.4	11895.8	7938.4	4949.0	2909.5
60°	18604.7	18295.9	17869.1	17219.0	16576.0	15648.0	14752.6	13906.3	8557.7	4771.0	2337.4
62.5°	20395.4	19955.9	19311.2	18470.3	17460.5	16325.4	15210.3	14178.7	8258.1	4195.3	1699.9
65°	20032.2	19360.2	18648.3	17663.9	16436.2	15192.1	13890.0	12836.6	6908.7	3129.2	1047.9
67.5°	18132.5	17562.2	16810.3	15642.5	14329.5	13034.5	11841.3	10660.8	5132.5	1950.6	586.6
70°	15304.7	14747.2	13984.4	12789.4	11478.1	10239.5	8975.4	8012.9	3270.9	940.8	423.2
72.5°	10617.2	10165.0	9625.6	8773.8	7624.2	6498.2	5642.8	4903.6	1812.5	499.4	386.8
75°	4311.6	4313.4	4215.3	3855.7	3258.2	2809.6	2395.5	2032.3	757.3	425.0	381.4
77.5°	977.1	993.4	1086.1	1029.8	928.1	868.1	777.3	686.5	461.3	437.7	385.0
80°	494.0	495.8	490.4	492.2	486.7	488.5	481.3	475.8	432.2	450.4	385.0
82.5°	412.3	421.3	419.5	419.5	421.3	421.3	421.3	419.5	448.6	474.0	372.3
85°	326.9	345.1	359.6	374.1	390.5	401.4	406.8	412.3	435.9	466.8	337.8
87.5°	247.0	268.8	287.0	301.5	326.9	326.9	345.1	357.8	357.8	365.0	178.0
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: P159395

CATALOG NUMBER: VST-F11-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	2608.0	2608.0	2608.0	2608.0	2608.0
2.5°	2519.0	2511.7	2504.5	2500.8	2493.6
5°	2500.8	2486.3	2477.2	2477.2	2470.0
7.5°	2553.5	2548.1	2535.4	2528.1	2535.4
10°	2666.1	2657.0	2642.5	2631.6	2637.1
12.5°	2816.9	2780.5	2751.5	2738.8	2729.7
15°	2973.0	2900.4	2842.3	2809.6	2800.5
17.5°	3140.1	3013.0	2925.8	2876.8	2867.7
20°	3310.9	3152.8	3029.3	2965.8	2964.0
22.5°	3516.1	3305.4	3147.4	3063.9	3058.4
25°	3732.2	3441.6	3232.8	3125.6	3114.7
27.5°	3919.3	3550.6	3285.4	3158.3	3147.4
30°	4075.5	3632.3	3329.0	3181.9	3167.4
32.5°	4188.1	3679.5	3347.2	3189.2	3172.8
35°	4224.4	3661.4	3296.3	3123.8	3105.6
37.5°	4175.3	3543.3	3154.7	2964.0	2942.2
40°	4028.2	3336.3	2924.0	2727.9	2700.6
42.5°	3803.0	3082.0	2646.1	2459.1	2424.6
45°	3525.2	2795.1	2370.1	2161.2	2144.9
47.5°	3234.6	2493.6	2059.5	1870.6	1850.7
50°	2920.4	2144.9	1756.2	1551.0	1551.0
52.5°	2546.2	1805.3	1403.9	1249.5	1236.8
55°	2115.8	1422.0	1118.8	1000.7	984.4
57.5°	1652.7	1093.3	893.5	824.5	806.4
60°	1215.0	820.9	719.2	681.1	673.8
62.5°	824.5	624.8	579.4	563.0	561.2
65°	557.6	486.7	474.0	468.6	470.4
67.5°	428.6	405.0	399.6	397.7	397.7
70°	372.3	357.8	352.3	354.2	352.3
72.5°	350.5	330.5	332.4	336.0	334.2
75°	343.3	317.8	325.1	326.9	319.6
77.5°	337.8	303.3	321.5	326.9	306.9
80°	326.9	290.6	334.2	336.0	301.5
82.5°	299.7	257.9	334.2	308.7	272.4
85°	254.3	196.1	377.8	268.8	201.6
87.5°	161.6	116.2	256.1	183.4	121.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)