

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: P159394

Luminaire Tested: **VST-F11-LED-E-U-T2-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159394
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-T2-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (77) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25601 lumens
Efficiency: N/A
Efficacy: 90.6 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



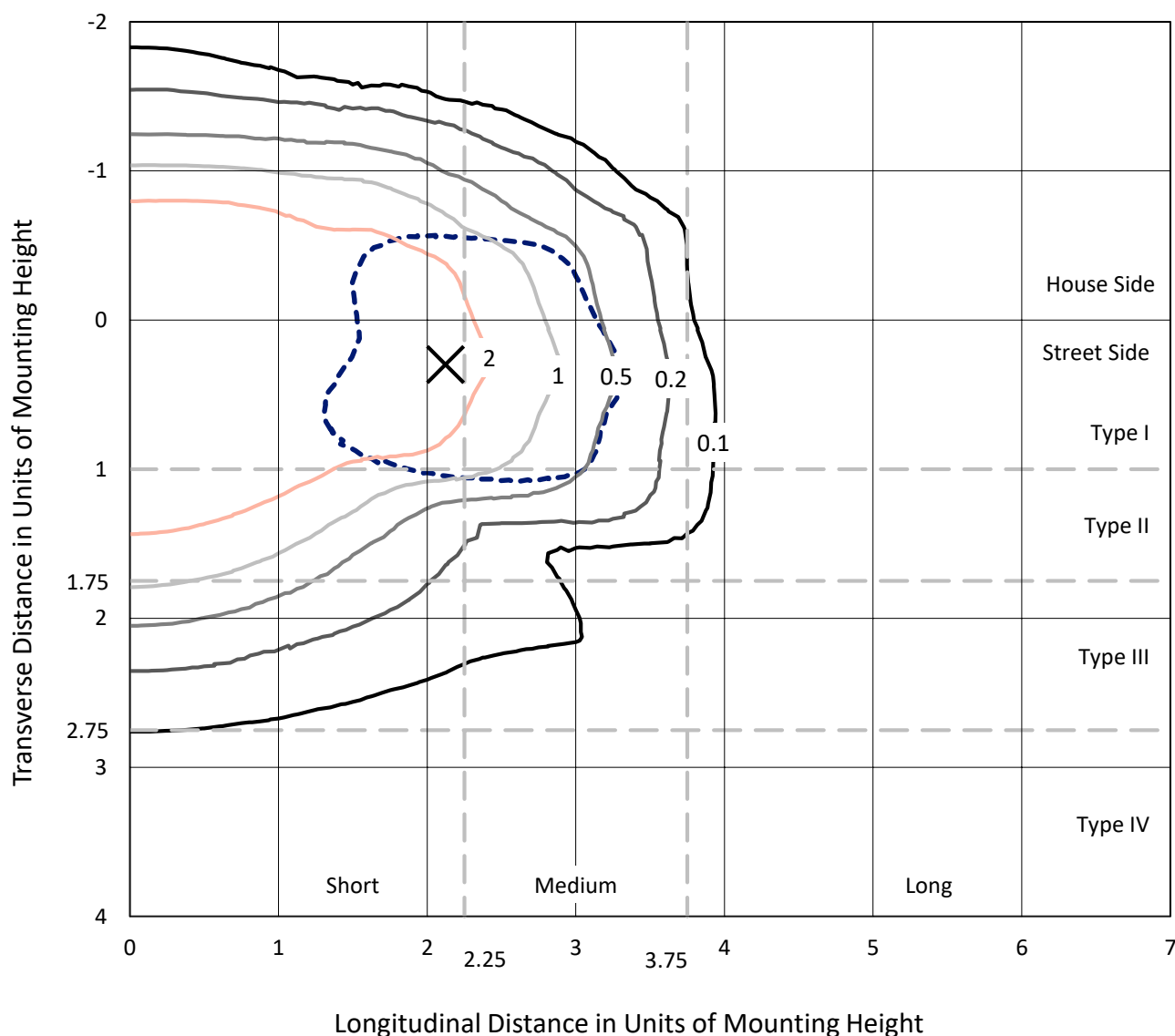
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

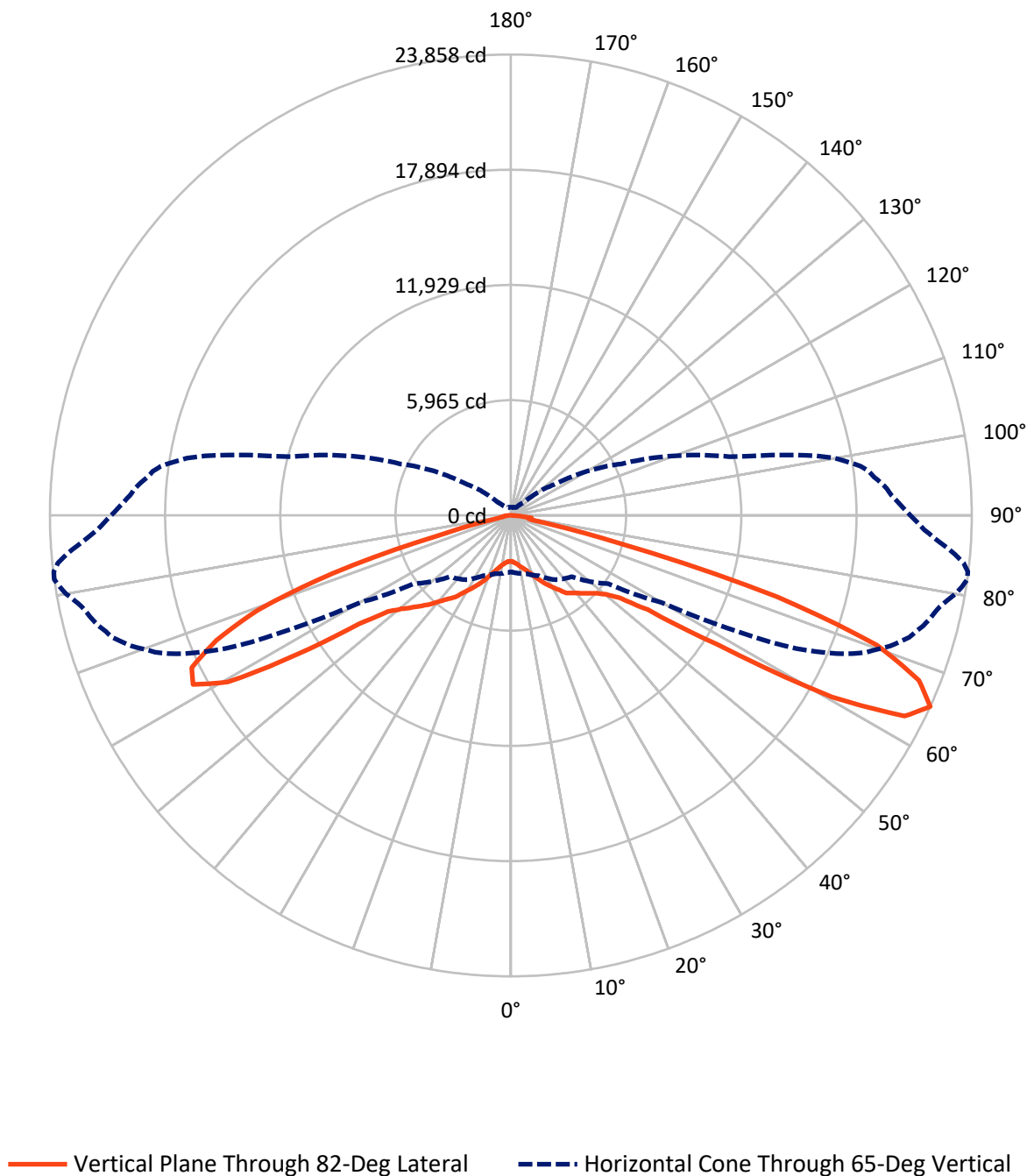


Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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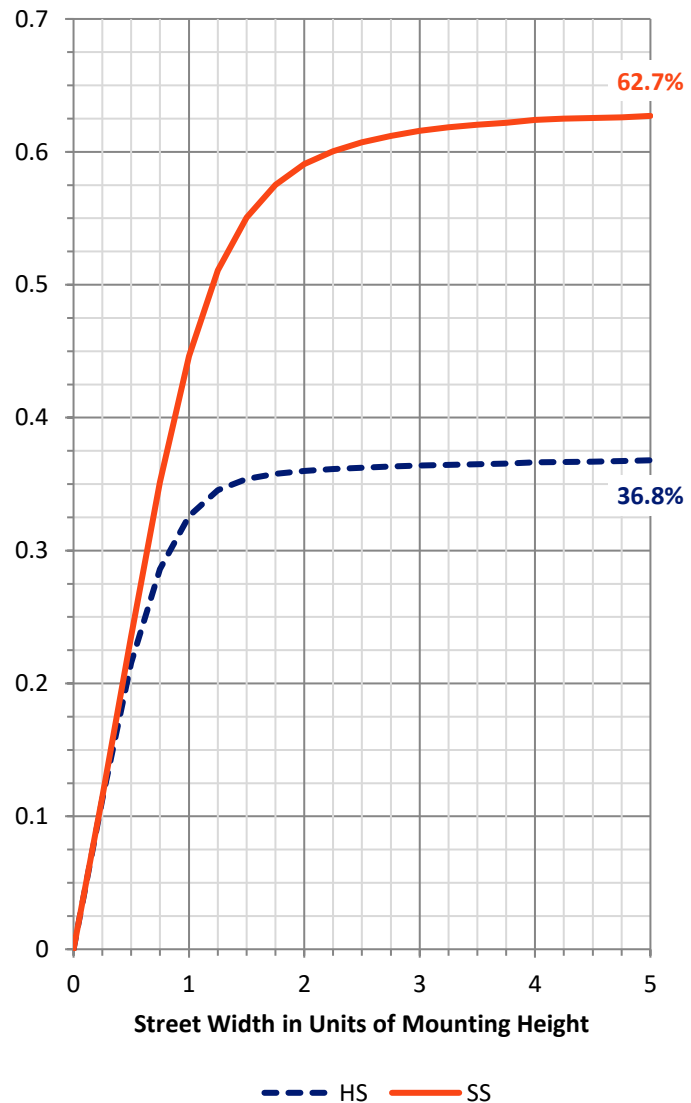
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9532.1	0.0	9532.1
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	16068.9	0.0	16068.9
	% Fixture	62.8	0.0	62.8
Total	Lumens	25601.0	0.0	25601.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.1	0.9
10°-20°	847.3	3.3
20°-30°	1678.9	6.6
30°-40°	2878.1	11.2
40°-50°	4323.6	16.9
50°-60°	6006.9	23.5
60°-70°	6852.9	26.8
70°-80°	2360.7	9.2
80°-90°	411.5	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°	25601.0	100.0
0°-180°	25601.0	100.0

Coefficient of Utilization



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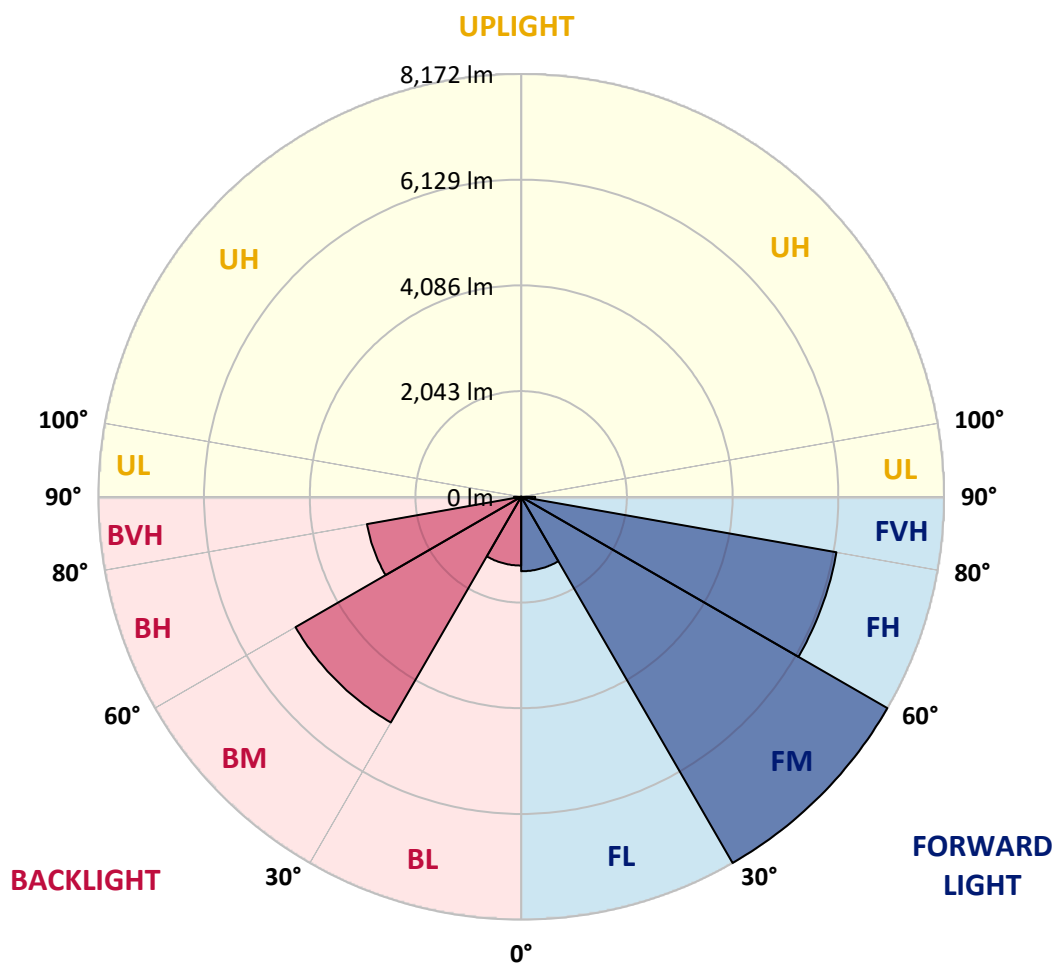
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1438.2	5.6			
FM	(30°-60°)	8172.4	31.9			
FH	(60°-80°)	6187.5	24.2			G3/7500
FVH	(80°-90°)	270.9	1.1			G3/500
BL	(0°-30°)	1329.2	5.2	B3/2500		
BM	(30°-60°)	5036.1	19.7	B4/8500		
BH	(60°-80°)	3026.2	11.8	B4/5000		G4/5000
BVH	(80°-90°)	140.6	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0
2.5°	2511.4	2513.1	2511.4	2506.4	2504.8	2489.8	2473.2	2465.0	2463.3	2456.7	2458.3
5°	2667.3	2662.4	2655.7	2647.4	2639.1	2614.2	2586.0	2571.1	2566.1	2561.2	2554.5
7.5°	2806.7	2810.0	2806.7	2795.1	2773.5	2742.0	2705.5	2682.3	2680.6	2675.6	2670.6
10°	2985.8	2994.1	2974.2	2954.3	2924.4	2876.3	2834.9	2805.0	2800.0	2793.4	2790.1
12.5°	3179.9	3181.6	3174.9	3130.1	3080.4	3014.0	2954.3	2924.4	2917.8	2909.5	2906.2
15°	3387.2	3388.9	3352.4	3309.3	3233.0	3153.4	3070.4	3037.2	3028.9	3030.6	3017.3
17.5°	3551.5	3554.8	3519.9	3465.2	3374.0	3279.4	3189.8	3163.3	3158.3	3160.0	3153.4
20°	3622.8	3627.8	3606.2	3564.7	3478.5	3395.5	3330.8	3314.3	3312.6	3309.3	3322.5
22.5°	3619.5	3621.1	3612.8	3596.2	3544.8	3496.7	3488.4	3498.4	3496.7	3500.0	3511.6
25°	3589.6	3594.6	3592.9	3599.6	3591.3	3609.5	3647.7	3682.5	3687.5	3694.1	3715.7
27.5°	3665.9	3675.9	3664.3	3670.9	3684.2	3745.5	3823.5	3876.6	3886.5	3904.8	3923.0
30°	3964.5	3951.2	3936.3	3919.7	3928.0	3966.2	4054.1	4100.5	4105.5	4118.8	4143.6
32.5°	4407.4	4392.5	4379.2	4352.7	4346.0	4329.4	4359.3	4370.9	4369.2	4382.5	4389.1
35°	4906.7	4908.3	4905.0	4924.9	4941.5	4856.9	4752.4	4724.2	4735.8	4720.9	4724.2
37.5°	5333.0	5338.0	5425.9	5535.4	5566.9	5513.8	5284.9	5172.1	5133.9	5129.0	5090.8
40°	5805.7	5805.7	5938.5	6072.8	6160.7	6227.1	5955.0	5756.0	5674.7	5651.5	5556.9
42.5°	6324.9	6298.4	6419.5	6567.1	6729.7	6880.6	6739.6	6515.7	6399.6	6358.1	6192.2
45°	6751.3	6734.7	6794.4	6932.1	7195.8	7491.1	7511.0	7396.5	7326.9	7240.6	7088.0
47.5°	7013.3	7005.1	7039.9	7189.2	7519.3	7997.0	8264.1	8322.1	8280.7	8214.3	8066.7
50°	7116.2	7104.6	7129.5	7295.3	7665.2	8295.6	8886.1	9159.8	9179.7	9194.6	9148.2
52.5°	7079.7	7064.8	7116.2	7255.5	7640.4	8400.1	9372.1	9898.0	9985.9	10060.5	10213.1
55°	6729.7	6706.5	6845.8	7107.9	7532.5	8361.9	9727.1	10607.9	10793.7	10992.8	11331.2
57.5°	6193.9	6174.0	6374.7	6734.7	7341.8	8257.4	9966.0	11505.3	11923.4	12281.6	13242.1
60°	5678.0	5661.4	5779.2	6127.6	6723.1	7748.2	9670.7	11807.2	12508.9	13281.9	15035.2
62.5°	4755.7	4711.0	4868.5	5162.1	5538.7	6409.5	8381.8	11135.4	12217.0	13353.2	15730.3
65°	2922.8	2987.5	3123.5	3448.6	4065.7	4480.4	6155.8	9008.9	10435.4	11860.3	14944.0
67.5°	1856.2	1874.4	1975.6	2201.2	2678.9	3095.3	3730.6	5653.1	6752.9	8154.6	11732.6
70°	1590.8	1602.4	1688.6	1924.2	2254.3	2766.9	2823.3	2952.6	3347.4	4239.9	6897.2
72.5°	1254.0	1273.9	1342.0	1546.0	1944.1	2494.8	3485.1	2333.9	2254.3	2328.9	3365.7
75°	746.5	769.7	826.1	937.2	1249.1	1907.6	3651.0	2715.4	2531.3	2387.0	2322.3
77.5°	394.8	378.2	416.4	481.0	642.0	1016.8	2743.6	3327.5	3198.1	3025.6	2659.0
80°	195.7	202.4	214.0	227.3	287.0	413.0	1371.8	3442.0	3815.2	3981.1	3656.0
82.5°	78.0	87.9	124.4	132.7	157.6	175.8	441.2	1907.6	2732.0	3705.7	4838.7
85°	39.8	38.2	66.4	79.6	92.9	82.9	155.9	711.6	1280.6	1995.5	3233.0
87.5°	5.0	6.6	14.9	19.9	28.2	26.5	44.8	154.3	245.5	348.3	489.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0
2.5°	2450.0	2448.4	2448.4	2441.7	2441.7	2443.4	2438.4	2435.1	2435.1	2436.8	2430.1
5°	2549.6	2544.6	2544.6	2537.9	2529.6	2529.6	2523.0	2521.4	2518.0	2511.4	2506.4
7.5°	2665.7	2660.7	2652.4	2647.4	2644.1	2639.1	2630.8	2627.5	2620.9	2614.2	2607.6
10°	2785.1	2778.5	2775.1	2766.9	2763.5	2753.6	2748.6	2750.3	2737.0	2732.0	2733.7
12.5°	2904.5	2897.9	2886.3	2883.0	2881.3	2871.4	2866.4	2863.1	2853.1	2851.5	2846.5
15°	3010.7	3014.0	3009.0	3000.7	2994.1	2992.4	2987.5	2984.2	2977.5	2970.9	2964.2
17.5°	3148.4	3153.4	3146.7	3135.1	3135.1	3133.4	3135.1	3133.4	3121.8	3126.8	3123.5
20°	3324.2	3327.5	3310.9	3315.9	3319.2	3317.6	3322.5	3327.5	3324.2	3324.2	3329.2
22.5°	3526.6	3531.6	3521.6	3528.2	3538.2	3529.9	3544.8	3543.2	3546.5	3551.5	3553.1
25°	3733.9	3743.9	3735.6	3753.8	3747.2	3753.8	3772.1	3767.1	3775.4	3788.7	3793.6
27.5°	3941.3	3947.9	3949.6	3961.2	3972.8	3982.7	4006.0	4006.0	4012.6	4035.8	4035.8
30°	4158.6	4165.2	4171.8	4188.4	4195.1	4213.3	4236.5	4243.2	4239.9	4273.0	4283.0
32.5°	4409.1	4415.7	4427.3	4447.2	4455.5	4473.7	4473.7	4492.0	4505.3	4533.5	4535.1
35°	4742.5	4747.4	4742.5	4740.8	4752.4	4777.3	4779.0	4805.5	4817.1	4845.3	4853.6
37.5°	5075.9	5074.2	5052.7	5029.4	5031.1	5021.1	5014.5	5026.1	5031.1	5032.8	5051.0
40°	5525.4	5482.3	5449.1	5391.1	5364.5	5323.0	5298.2	5296.5	5270.0	5266.6	5271.6
42.5°	6114.3	6064.5	5986.6	5888.7	5814.0	5737.7	5681.3	5648.2	5590.1	5560.2	5535.4
45°	6937.0	6814.3	6721.4	6605.3	6461.0	6328.3	6188.9	6125.9	6014.8	5946.7	5870.4
47.5°	7942.3	7821.2	7678.5	7559.1	7370.0	7185.9	6995.1	6827.6	6633.5	6479.2	6353.1
50°	9033.7	8962.4	8859.6	8748.4	8504.6	8383.5	8143.0	7915.7	7706.7	7431.4	7190.8
52.5°	10153.4	10194.9	10171.7	10131.9	9977.6	9931.1	9723.8	9446.8	9236.1	9047.0	8629.0
55°	11533.5	11583.3	11682.8	11740.9	11722.6	11840.4	11789.0	11573.3	11488.7	11400.8	11103.9
57.5°	13645.2	14000.2	14380.0	14713.4	14791.4	15209.4	15119.8	15335.5	15488.1	15378.6	15282.4
60°	15896.1	16612.7	17258.0	17933.1	18482.2	18893.6	19437.7	19804.2	20034.8	20449.5	20482.7
62.5°	16803.5	17777.2	18596.6	19379.6	20031.5	20602.1	21093.1	21599.0	22013.7	22388.6	22659.0
65°	16305.9	17322.7	18316.3	19110.9	19737.9	20228.9	20763.0	21164.4	21572.5	21813.0	22096.7
67.5°	13555.6	14902.5	16125.1	17020.8	17878.4	18377.7	19009.7	19404.5	19837.4	20091.2	20273.7
70°	8838.0	10591.3	12261.7	13620.3	14778.1	15360.4	16123.4	16662.5	17183.4	17196.6	17500.2
72.5°	4769.0	6235.4	7633.7	9022.1	10342.5	11117.2	11870.3	12525.5	13043.0	12822.4	13124.3
75°	2655.7	3342.5	4107.2	4941.5	5746.0	6188.9	6751.3	6754.6	7021.6	6602.0	6708.1
77.5°	2554.5	2523.0	2534.6	2557.8	2597.7	2513.1	2511.4	2460.0	2380.4	2236.0	2260.9
80°	3355.7	2954.3	2665.7	2212.8	1781.5	1453.1	1361.9	1383.4	1448.1	1577.5	1741.7
82.5°	4851.9	4513.6	4029.2	3315.9	2602.6	2007.1	1648.8	1463.0	1454.8	1584.1	1833.0
85°	3533.2	3737.2	3705.7	3093.6	2551.2	2071.8	1507.8	1273.9	1055.0	1003.6	1091.5
87.5°	520.9	431.3	486.0	406.4	295.3	228.9	200.7	160.9	154.3	157.6	172.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0
2.5°	2431.8	2425.1	2418.5	2423.5	2418.5	2416.9	2411.9	2408.6	2406.9	2406.9	2406.9
5°	2506.4	2498.1	2493.2	2491.5	2486.5	2481.5	2479.9	2471.6	2469.9	2469.9	2465.0
7.5°	2607.6	2601.0	2592.7	2587.7	2584.4	2576.1	2567.8	2566.1	2564.5	2557.8	2552.9
10°	2725.4	2715.4	2705.5	2705.5	2698.8	2697.2	2688.9	2677.3	2675.6	2665.7	2662.4
12.5°	2836.5	2833.2	2821.6	2818.3	2813.3	2808.3	2803.3	2798.4	2793.4	2785.1	2788.4
15°	2969.2	2960.9	2951.0	2952.6	2951.0	2944.3	2937.7	2932.7	2929.4	2926.1	2926.1
17.5°	3128.5	3125.2	3123.5	3115.2	3108.6	3113.5	3113.5	3113.5	3105.2	3106.9	3108.6
20°	3330.8	3334.2	3330.8	3324.2	3322.5	3327.5	3315.9	3334.2	3324.2	3317.6	3320.9
22.5°	3554.8	3566.4	3553.1	3554.8	3563.1	3566.4	3554.8	3569.7	3564.7	3554.8	3563.1
25°	3798.6	3806.9	3800.3	3798.6	3803.6	3815.2	3813.5	3811.9	3823.5	3813.5	3818.5
27.5°	4049.1	4054.1	4057.4	4062.4	4065.7	4064.0	4070.7	4070.7	4077.3	4065.7	4070.7
30°	4297.9	4297.9	4304.5	4311.2	4311.2	4311.2	4324.5	4326.1	4316.2	4319.5	4307.9
32.5°	4563.3	4565.0	4571.6	4571.6	4584.9	4586.5	4601.5	4581.6	4601.5	4584.9	4588.2
35°	4875.2	4896.7	4900.1	4916.6	4929.9	4934.9	4934.9	4936.5	4954.8	4941.5	4946.5
37.5°	5057.6	5062.6	5075.9	5084.2	5084.2	5090.8	5095.8	5090.8	5095.8	5094.1	5099.1
40°	5273.3	5268.3	5283.2	5286.5	5279.9	5288.2	5286.5	5281.6	5294.8	5284.9	5291.5
42.5°	5535.4	5507.2	5505.5	5518.8	5505.5	5512.1	5510.5	5498.9	5515.5	5520.4	5515.5
45°	5815.7	5800.8	5770.9	5770.9	5757.6	5752.7	5754.3	5752.7	5754.3	5774.2	5780.9
47.5°	6271.9	6180.6	6129.2	6081.1	6041.3	6039.6	6021.4	6031.3	6044.6	6077.8	6107.6
50°	7036.6	6825.9	6696.5	6577.1	6490.8	6461.0	6426.1	6422.8	6434.4	6472.6	6524.0
52.5°	8400.1	8108.1	7832.8	7577.3	7355.1	7184.2	7099.6	7054.8	7038.2	7076.4	7126.1
55°	10894.9	10344.2	9956.0	9697.3	9144.9	8911.0	8610.8	8473.1	8338.7	8352.0	8436.6
57.5°	15158.0	14861.1	14535.9	14083.1	13744.7	13336.6	12586.9	12168.9	12187.1	12285.0	11979.7
60°	20744.8	20444.5	20310.2	19898.8	19663.2	19499.0	19100.9	18407.5	18162.0	18115.6	17554.9
62.5°	22866.4	22937.7	23043.9	23160.0	23153.3	23224.7	22876.3	22650.7	22367.1	21998.8	21444.8
65°	22312.3	22493.1	22708.8	23020.6	23375.6	23637.7	23858.3	23831.8	23566.4	23075.4	22489.8
67.5°	20436.2	20615.4	20773.0	21191.0	21773.2	22305.7	22776.8	23096.9	22919.4	22513.0	21829.6
70°	17616.3	17745.7	17845.2	18208.5	18847.1	19497.4	20112.8	20650.2	20595.5	20102.8	19557.1
72.5°	12764.4	13077.9	13247.1	13222.2	13617.0	14345.2	14431.4	14890.9	15018.6	14487.8	13618.6
75°	6218.8	6223.8	6028.0	5963.3	5983.2	6109.3	5868.8	5883.7	5800.8	5424.2	5114.0
77.5°	2173.0	2113.3	1970.6	1801.4	1559.3	1332.0	1101.4	1001.9	968.7	870.9	802.9
80°	1872.8	1960.7	1932.5	1793.1	1537.7	1225.8	915.6	678.4	578.9	544.1	510.9
82.5°	2126.6	2465.0	2680.6	2669.0	2319.0	1741.7	1086.5	623.7	444.6	389.8	358.3
85°	1186.0	1275.6	1300.5	1184.4	983.7	671.8	374.9	263.7	223.9	204.0	184.1
87.5°	189.1	172.5	169.2	147.6	139.3	127.7	112.8	106.2	97.9	92.9	92.9
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: P159394

CATALOG NUMBER: VST-F11-LED-E-U-T2-7030

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0
2.5°	2405.2	2403.6	2398.6	2393.6	2390.3	2388.7	2387.0	2383.7	2382.0	2380.4	2377.0
5°	2461.6	2458.3	2450.0	2441.7	2438.4	2433.4	2428.5	2425.1	2421.8	2420.2	2413.5
7.5°	2549.6	2546.2	2536.3	2529.6	2528.0	2514.7	2513.1	2508.1	2499.8	2498.1	2488.2
10°	2655.7	2654.1	2645.8	2640.8	2637.5	2630.8	2620.9	2612.6	2604.3	2604.3	2597.7
12.5°	2778.5	2771.8	2776.8	2765.2	2761.9	2755.2	2750.3	2748.6	2738.7	2730.4	2728.7
15°	2922.8	2914.5	2914.5	2911.2	2907.9	2901.2	2899.6	2901.2	2891.3	2894.6	2884.6
17.5°	3101.9	3105.2	3103.6	3103.6	3095.3	3095.3	3082.0	3098.6	3087.0	3095.3	3092.0
20°	3325.9	3327.5	3324.2	3329.2	3332.5	3330.8	3329.2	3327.5	3332.5	3339.1	3334.2
22.5°	3564.7	3564.7	3563.1	3581.3	3561.4	3576.3	3581.3	3571.4	3597.9	3594.6	3599.6
25°	3823.5	3823.5	3836.8	3851.7	3855.0	3843.4	3850.0	3841.7	3858.3	3871.6	3874.9
27.5°	4064.0	4085.6	4095.5	4085.6	4093.9	4112.1	4110.5	4110.5	4122.1	4118.8	4150.3
30°	4311.2	4324.5	4337.7	4331.1	4334.4	4357.6	4359.3	4360.9	4375.9	4397.4	4420.7
32.5°	4593.2	4606.4	4599.8	4621.4	4619.7	4647.9	4652.9	4657.9	4704.3	4696.0	4744.1
35°	4939.9	4953.1	4946.5	4969.7	4966.4	4976.4	4994.6	5014.5	5022.8	5070.9	5109.1
37.5°	5102.4	5102.4	5117.4	5143.9	5153.8	5170.4	5198.6	5223.5	5265.0	5316.4	5376.1
40°	5298.2	5303.1	5323.0	5351.2	5369.5	5407.6	5459.1	5493.9	5556.9	5613.3	5683.0
42.5°	5535.4	5556.9	5580.2	5618.3	5658.1	5717.8	5790.8	5835.6	5918.5	5991.5	6077.8
45°	5812.4	5833.9	5888.7	5958.4	6016.4	6082.8	6142.5	6248.6	6323.3	6399.6	6474.2
47.5°	6147.5	6210.5	6255.3	6338.2	6409.5	6497.5	6572.1	6671.6	6752.9	6845.8	6908.8
50°	6577.1	6655.0	6713.1	6820.9	6890.6	6988.5	7083.0	7157.7	7240.6	7331.8	7383.3
52.5°	7194.2	7273.8	7346.8	7481.1	7567.4	7633.7	7759.8	7852.7	7929.0	7995.3	8051.7
55°	8531.1	8507.9	8710.3	8970.7	9000.6	9241.1	9285.9	9363.8	9504.8	9524.7	9682.3
57.5°	12351.3	12231.9	12525.5	12907.0	12840.7	12719.6	13225.5	13257.0	13185.7	13376.4	13160.8
60°	17637.9	17428.9	17508.5	17613.0	17462.0	17390.7	17415.6	17486.9	17417.2	17340.9	17131.9
62.5°	21167.8	20846.0	20615.4	20421.3	20175.8	19998.3	19799.3	19553.8	19487.4	19208.7	18974.8
65°	21920.9	21419.9	21055.0	20688.4	20350.0	20036.5	19736.2	19525.6	19246.9	18916.8	18672.9
67.5°	21093.1	20472.7	19938.6	19406.1	19023.0	18561.8	18336.2	17992.8	17649.5	17271.3	17047.3
70°	18687.9	18041.0	17369.1	16848.3	16327.4	15756.8	15645.7	15239.3	15041.9	14526.0	14436.4
72.5°	12898.7	12467.4	12167.2	11523.6	11206.8	10914.8	10821.9	10445.4	10485.2	9919.5	10125.2
75°	4586.5	4525.2	4437.3	4074.0	4009.3	3896.5	3866.6	3840.1	4108.8	3735.6	4006.0
77.5°	787.9	782.9	738.2	716.6	758.1	731.5	738.2	724.9	802.9	814.5	796.2
80°	489.3	476.1	461.1	451.2	452.8	442.9	444.6	447.9	452.8	451.2	456.2
82.5°	335.1	323.5	316.8	310.2	320.1	323.5	331.8	340.1	353.3	361.6	371.6
85°	182.5	167.5	167.5	165.9	179.1	189.1	202.4	219.0	242.2	262.1	283.7
87.5°	92.9	89.6	91.2	94.6	106.2	114.5	131.0	146.0	165.9	187.4	207.3
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: P159394

CATALOG NUMBER: VST-F11-LED-E-U-T2-7030

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0	2382.0
2.5°	2375.4	2375.4	2373.7	2373.7	2372.1	2370.4	2368.7	2363.8	2345.5	2328.9	2317.3
5°	2411.9	2406.9	2405.2	2400.3	2398.6	2395.3	2390.3	2385.3	2352.2	2322.3	2300.7
7.5°	2486.5	2479.9	2476.6	2471.6	2466.6	2460.0	2453.3	2448.4	2408.6	2373.7	2347.2
10°	2584.4	2581.1	2579.4	2572.8	2572.8	2562.8	2561.2	2549.6	2506.4	2474.9	2451.7
12.5°	2720.4	2713.8	2712.1	2703.8	2707.1	2703.8	2700.5	2693.9	2662.4	2625.9	2594.3
15°	2889.6	2889.6	2881.3	2874.7	2876.3	2873.0	2879.7	2871.4	2851.5	2818.3	2766.9
17.5°	3093.6	3090.3	3093.6	3088.7	3092.0	3095.3	3087.0	3088.7	3078.7	3037.2	2960.9
20°	3330.8	3325.9	3345.8	3337.5	3355.7	3339.1	3342.5	3347.4	3347.4	3292.7	3189.8
22.5°	3602.9	3599.6	3599.6	3616.2	3622.8	3624.4	3631.1	3636.1	3649.3	3579.7	3415.4
25°	3874.9	3886.5	3888.2	3909.8	3919.7	3919.7	3924.7	3942.9	3982.7	3886.5	3674.2
27.5°	4151.9	4180.1	4186.8	4201.7	4216.6	4231.6	4243.2	4256.4	4321.1	4216.6	3939.6
30°	4429.0	4460.5	4483.7	4500.3	4518.5	4555.0	4561.7	4588.2	4696.0	4568.3	4191.8
32.5°	4754.1	4798.9	4828.7	4850.3	4878.5	4913.3	4933.2	4966.4	5070.9	4861.9	4375.9
35°	5142.2	5168.8	5211.9	5248.4	5265.0	5324.7	5356.2	5364.5	5444.1	5115.7	4511.9
37.5°	5411.0	5455.7	5530.4	5581.8	5611.7	5644.8	5697.9	5732.8	5809.1	5346.3	4579.9
40°	5752.7	5820.7	5880.4	5956.7	6004.8	6029.7	6082.8	6111.0	6120.9	5543.7	4558.3
42.5°	6169.0	6230.4	6310.0	6371.4	6407.9	6436.1	6479.2	6490.8	6361.4	5636.6	4442.2
45°	6560.5	6655.0	6723.1	6767.8	6794.4	6809.3	6835.9	6837.5	6560.5	5590.1	4243.2
47.5°	6981.8	7049.8	7112.9	7144.4	7141.1	7144.4	7134.4	7127.8	6660.0	5429.2	3987.7
50°	7447.9	7492.7	7519.3	7534.2	7542.5	7511.0	7466.2	7436.3	6668.3	5200.3	3729.0
52.5°	8073.3	8129.7	8124.7	8123.1	8056.7	8026.9	7907.4	7846.1	6620.2	4931.6	3437.0
55°	9657.4	9602.7	9494.9	9548.0	9277.6	9136.6	8950.8	8778.3	6683.2	4676.1	3098.6
57.5°	13247.1	13268.6	12961.8	12797.5	12341.4	11770.7	11311.3	10865.0	7250.6	4520.2	2657.4
60°	16992.6	16710.6	16320.8	15726.9	15139.7	14292.1	13474.3	12701.3	7816.2	4357.6	2134.9
62.5°	18628.2	18226.7	17637.9	16869.8	15947.6	14910.8	13892.3	12950.1	7542.5	3831.8	1552.6
65°	18296.4	17682.7	17032.4	16133.3	15012.0	13875.7	12686.4	11724.3	6310.0	2858.1	957.1
67.5°	16561.3	16040.5	15353.7	14287.1	13087.8	11905.1	10815.3	9737.1	4687.7	1781.5	535.8
70°	13978.6	13469.3	12772.6	11681.2	10483.5	9352.2	8197.7	7318.6	2987.5	859.3	386.5
72.5°	9697.3	9284.2	8791.6	8013.6	6963.6	5935.1	5153.8	4478.7	1655.5	456.2	353.3
75°	3938.0	3939.6	3850.0	3521.6	2975.9	2566.1	2187.9	1856.2	691.7	388.2	348.3
77.5°	892.4	907.4	992.0	940.5	847.6	792.9	710.0	627.0	421.3	399.8	351.7
80°	451.2	452.8	447.9	449.5	444.6	446.2	439.6	434.6	394.8	411.4	351.7
82.5°	376.5	384.8	383.2	383.2	384.8	384.8	384.8	383.2	409.7	432.9	340.1
85°	298.6	315.2	328.4	341.7	356.6	366.6	371.6	376.5	398.1	426.3	308.5
87.5°	225.6	245.5	262.1	275.4	298.6	298.6	315.2	326.8	326.8	333.4	162.6
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: P159394

CATALOG NUMBER: VST-F11-LED-E-U-T2-7030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	2382.0	2382.0	2382.0	2382.0	2382.0
2.5°	2300.7	2294.1	2287.5	2284.1	2277.5
5°	2284.1	2270.9	2262.6	2262.6	2255.9
7.5°	2332.3	2327.3	2315.7	2309.0	2315.7
10°	2435.1	2426.8	2413.5	2403.6	2408.6
12.5°	2572.8	2539.6	2513.1	2501.4	2493.2
15°	2715.4	2649.1	2596.0	2566.1	2557.8
17.5°	2868.0	2751.9	2672.3	2627.5	2619.2
20°	3024.0	2879.7	2766.9	2708.8	2707.1
22.5°	3211.4	3019.0	2874.7	2798.4	2793.4
25°	3408.8	3143.4	2952.6	2854.8	2844.8
27.5°	3579.7	3242.9	3000.7	2884.6	2874.7
30°	3722.3	3317.6	3040.6	2906.2	2892.9
32.5°	3825.2	3360.7	3057.1	2912.8	2897.9
35°	3858.3	3344.1	3010.7	2853.1	2836.5
37.5°	3813.5	3236.3	2881.3	2707.1	2687.2
40°	3679.2	3047.2	2670.6	2491.5	2466.6
42.5°	3473.5	2815.0	2416.9	2246.0	2214.5
45°	3219.7	2552.9	2164.7	1974.0	1959.0
47.5°	2954.3	2277.5	1881.1	1708.5	1690.3
50°	2667.3	1959.0	1604.0	1416.6	1416.6
52.5°	2325.6	1648.8	1282.2	1141.2	1129.6
55°	1932.5	1298.8	1021.8	914.0	899.1
57.5°	1509.5	998.6	816.1	753.1	736.5
60°	1109.7	749.8	656.9	622.0	615.4
62.5°	753.1	570.6	529.2	514.2	512.6
65°	509.2	444.6	432.9	428.0	429.6
67.5°	391.5	369.9	364.9	363.3	363.3
70°	340.1	326.8	321.8	323.5	321.8
72.5°	320.1	301.9	303.6	306.9	305.2
75°	313.5	290.3	296.9	298.6	291.9
77.5°	308.5	277.0	293.6	298.6	280.3
80°	298.6	265.4	305.2	306.9	275.4
82.5°	273.7	235.5	305.2	282.0	248.8
85°	232.2	179.1	345.0	245.5	184.1
87.5°	147.6	106.2	233.9	167.5	111.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)