

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: P159390

Luminaire Tested: **VST-E11-LED-E-U-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159390
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-E11-LED-E-U-T2
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (231) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33953.9 lumens
Efficiency: N/A
Efficacy: 125.9 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): 269.7
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



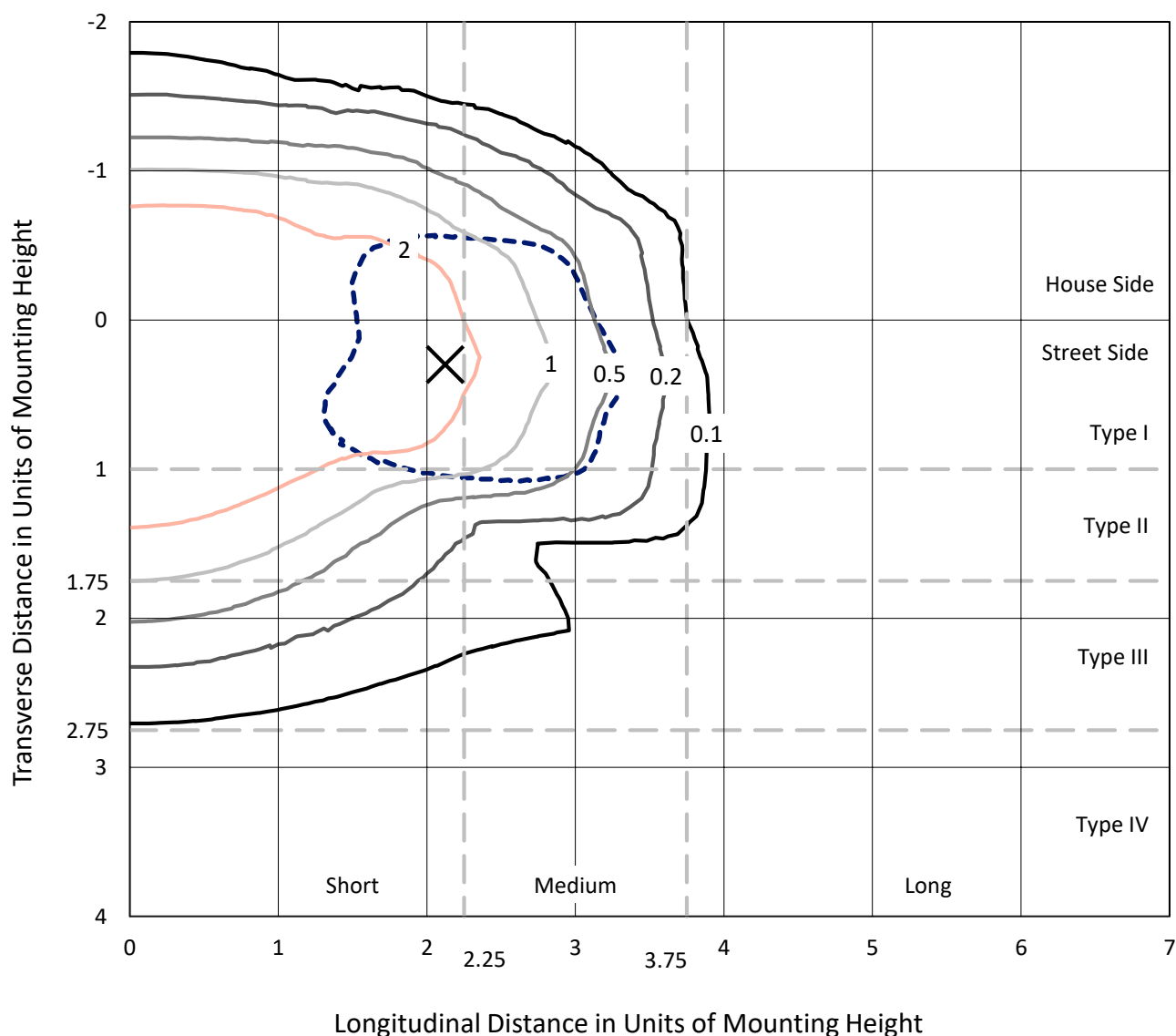
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

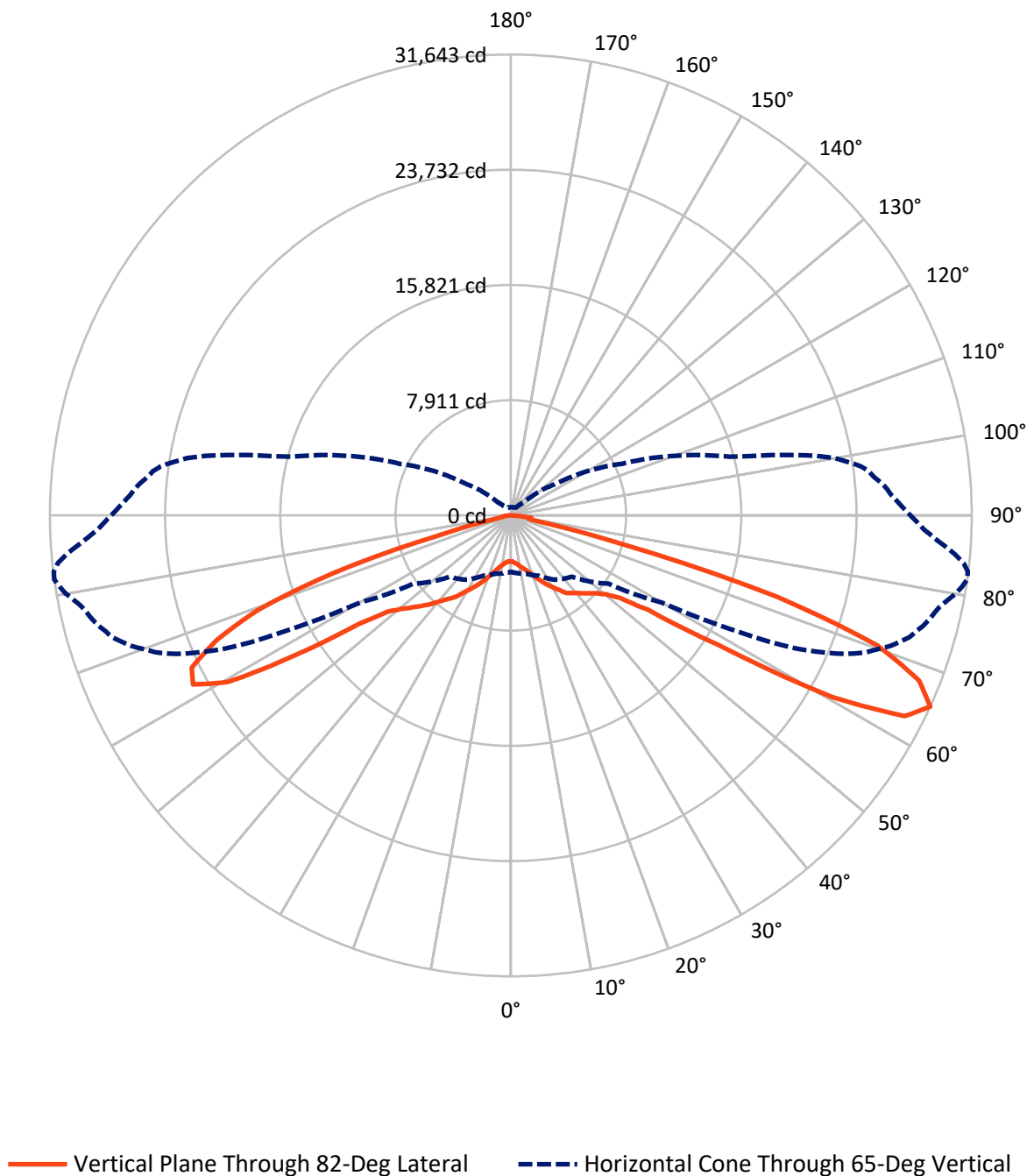


Based on 30 foot mounting height. Maximum calculated value = 4.5 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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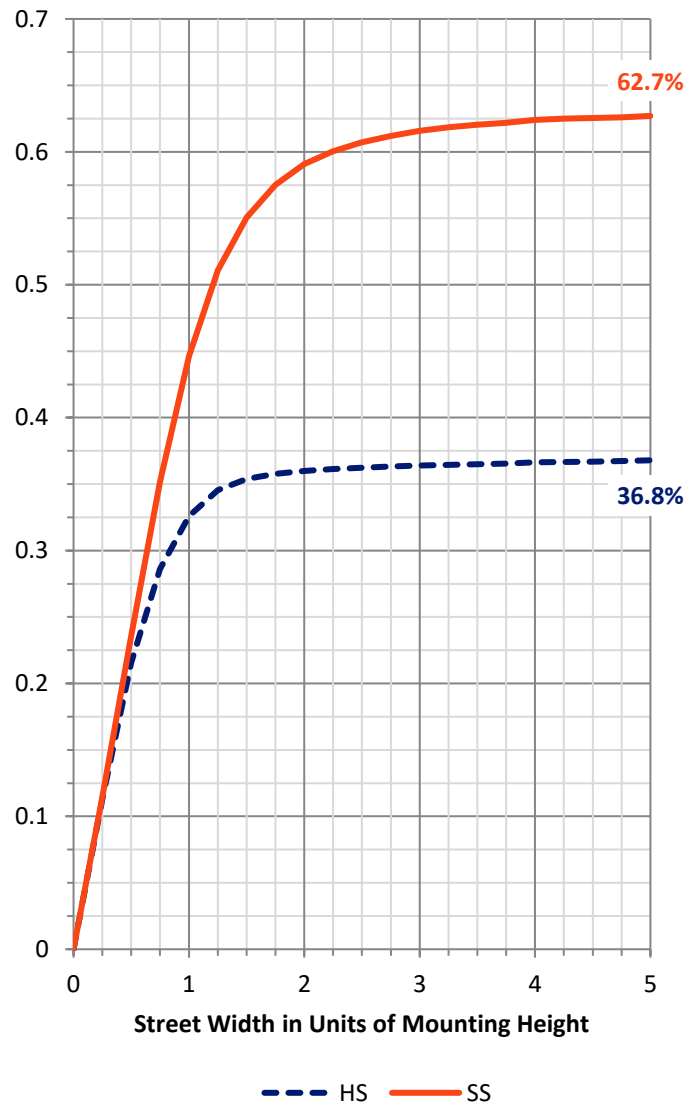
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12642.1	0.0	12642.1
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	21311.7	0.0	21311.7
	% Fixture	62.8	0.0	62.8
Total	Lumens	33953.9	0.0	33953.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.8	0.9
10°-20°	1123.8	3.3
20°-30°	2226.7	6.6
30°-40°	3817.1	11.2
40°-50°	5734.2	16.9
50°-60°	7966.7	23.5
60°-70°	9088.8	26.8
70°-80°	3131.0	9.2
80°-90°	545.7	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°	33953.9	100.0
0°-180°	33953.9	100.0

Coefficient of Utilization



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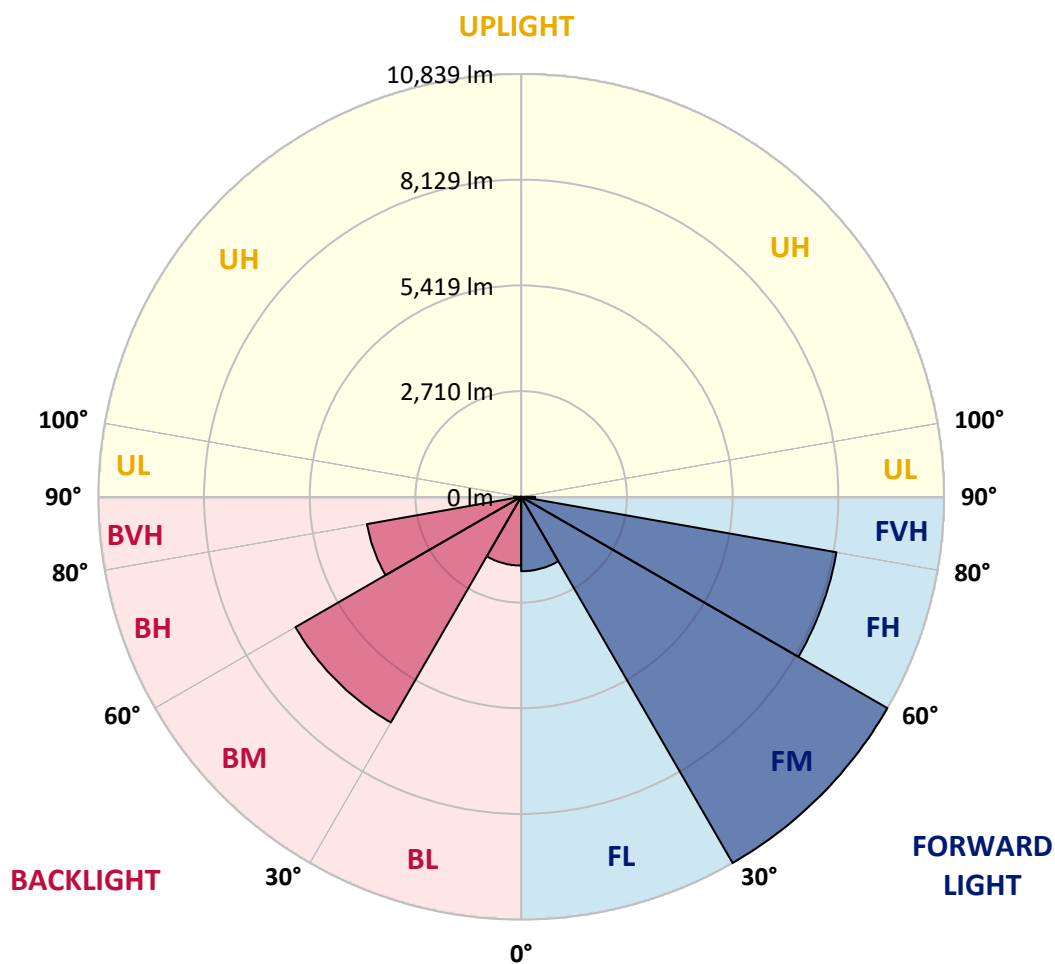
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1907.5	5.6			
FM	(30°-60°)	10838.8	31.9			
FH	(60°-80°)	8206.3	24.2			G4/12000
FVH	(80°-90°)	359.2	1.1			G3/500
BL	(0°-30°)	1762.9	5.2	B3/2500		
BM	(30°-60°)	6679.3	19.7	B4/8500		
BH	(60°-80°)	4013.5	11.8	B4/5000		G4/5000
BVH	(80°-90°)	186.5	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°	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2
2.5°	3330.8	3333.0	3330.8	3324.2	3322.0	3302.2	3280.2	3269.2	3267.0	3258.2	3260.4
5°	3537.6	3531.0	3522.2	3511.2	3500.2	3467.2	3429.8	3410.0	3403.4	3396.8	3388.0
7.5°	3722.4	3726.8	3722.4	3707.0	3678.4	3636.6	3588.2	3557.4	3555.2	3548.6	3542.0
10°	3960.0	3971.0	3944.6	3918.2	3878.6	3814.8	3759.8	3720.2	3713.6	3704.8	3700.4
12.5°	4217.4	4219.6	4210.8	4151.4	4085.4	3997.4	3918.2	3878.6	3869.8	3858.8	3854.4
15°	4492.4	4494.6	4446.2	4389.0	4287.8	4182.2	4072.2	4028.2	4017.2	4019.4	4001.8
17.5°	4710.2	4714.6	4668.4	4595.8	4474.8	4349.4	4230.6	4195.4	4188.8	4191.0	4182.2
20°	4804.8	4811.4	4782.8	4727.8	4613.4	4503.4	4417.6	4395.6	4393.4	4389.0	4406.6
22.5°	4800.4	4802.6	4791.6	4769.6	4701.4	4637.6	4626.6	4639.8	4637.6	4642.0	4657.4
25°	4760.8	4767.4	4765.2	4774.0	4763.0	4787.2	4837.8	4884.0	4890.6	4899.4	4928.0
27.5°	4862.0	4875.2	4859.8	4868.6	4886.2	4967.6	5071.0	5141.4	5154.6	5178.8	5203.0
30°	5258.0	5240.4	5220.6	5198.6	5209.6	5260.2	5376.8	5438.4	5445.0	5462.6	5495.6
32.5°	5845.4	5825.6	5808.0	5772.8	5764.0	5742.0	5781.6	5797.0	5794.8	5812.4	5821.2
35°	6507.6	6509.8	6505.4	6531.8	6553.8	6441.6	6303.0	6265.6	6281.0	6261.2	6265.6
37.5°	7073.0	7079.6	7196.2	7341.4	7383.2	7312.8	7009.2	6859.6	6809.0	6802.4	6751.8
40°	7700.0	7700.0	7876.0	8054.2	8170.8	8258.8	7898.0	7634.0	7526.2	7495.4	7370.0
42.5°	8388.6	8353.4	8514.0	8709.8	8925.4	9125.6	8938.6	8641.6	8487.6	8432.6	8212.6
45°	8954.0	8932.0	9011.2	9193.8	9543.6	9935.2	9961.6	9809.8	9717.4	9603.0	9400.6
47.5°	9301.6	9290.6	9336.8	9534.8	9972.6	10606.2	10960.4	11037.4	10982.4	10894.4	10698.6
50°	9438.0	9422.6	9455.6	9675.6	10166.2	11002.2	11785.4	12148.4	12174.8	12194.6	12133.0
52.5°	9389.6	9369.8	9438.0	9622.8	10133.2	11140.8	12430.0	13127.4	13244.0	13343.0	13545.4
55°	8925.4	8894.6	9079.4	9427.0	9990.2	11090.2	12900.8	14069.0	14315.4	14579.4	15028.2
57.5°	8214.8	8188.4	8454.6	8932.0	9737.2	10951.6	13217.6	15259.2	15813.6	16288.8	17562.6
60°	7530.6	7508.6	7664.8	8126.8	8916.6	10276.2	12826.0	15659.6	16590.2	17615.4	19940.8
62.5°	6307.4	6248.0	6457.0	6846.4	7345.8	8500.8	11116.6	14768.6	16203.0	17710.0	20862.6
65°	3876.4	3962.2	4142.6	4573.8	5392.2	5942.2	8164.2	11948.2	13840.2	15730.0	19819.8
67.5°	2461.8	2486.0	2620.2	2919.4	3553.0	4105.2	4947.8	7497.6	8956.2	10815.2	15560.6
70°	2109.8	2125.2	2239.6	2552.0	2989.8	3669.6	3744.4	3916.0	4439.6	5623.2	9147.6
72.5°	1663.2	1689.6	1779.8	2050.4	2578.4	3308.8	4622.2	3095.4	2989.8	3088.8	4463.8
75°	990.0	1020.8	1095.6	1243.0	1656.6	2530.0	4842.2	3601.4	3357.2	3165.8	3080.0
77.5°	523.6	501.6	552.2	638.0	851.4	1348.6	3638.8	4413.2	4241.6	4012.8	3526.6
80°	259.6	268.4	283.8	301.4	380.6	547.8	1819.4	4565.0	5060.0	5280.0	4848.8
82.5°	103.4	116.6	165.0	176.0	209.0	233.2	585.2	2530.0	3623.4	4914.8	6417.4
85°	52.8	50.6	88.0	105.6	123.2	110.0	206.8	943.8	1698.4	2646.6	4287.8
87.5°	6.6	8.8	19.8	26.4	37.4	35.2	59.4	204.6	325.6	462.0	649.0
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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CATALOG NUMBER: VST-E11-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2
2.5°	3249.4	3247.2	3247.2	3238.4	3238.4	3240.6	3234.0	3229.6	3229.6	3231.8	3223.0
5°	3381.4	3374.8	3374.8	3366.0	3355.0	3355.0	3346.2	3344.0	3339.6	3330.8	3324.2
7.5°	3535.4	3528.8	3517.8	3511.2	3506.8	3500.2	3489.2	3484.8	3476.0	3467.2	3458.4
10°	3693.8	3685.0	3680.6	3669.6	3665.2	3652.0	3645.4	3647.6	3630.0	3623.4	3625.6
12.5°	3852.2	3843.4	3828.0	3823.6	3821.4	3808.2	3801.6	3797.2	3784.0	3781.8	3775.2
15°	3993.0	3997.4	3990.8	3979.8	3971.0	3968.8	3962.2	3957.8	3949.0	3940.2	3931.4
17.5°	4175.6	4182.2	4173.4	4158.0	4158.0	4155.8	4158.0	4155.8	4140.4	4147.0	4142.6
20°	4408.8	4413.2	4391.2	4397.8	4402.2	4400.0	4406.6	4413.2	4408.8	4408.8	4415.4
22.5°	4677.2	4683.8	4670.6	4679.4	4692.6	4681.6	4701.4	4699.2	4703.6	4710.2	4712.4
25°	4952.2	4965.4	4954.4	4978.6	4969.8	4978.6	5002.8	4996.2	5007.2	5024.8	5031.4
27.5°	5227.2	5236.0	5238.2	5253.6	5269.0	5282.2	5313.0	5313.0	5321.8	5352.6	5352.6
30°	5515.4	5524.2	5533.0	5555.0	5563.8	5588.0	5618.8	5627.6	5623.2	5667.2	5680.4
32.5°	5847.6	5856.4	5871.8	5898.2	5909.2	5933.4	5933.4	5957.6	5975.2	6012.6	6014.8
35°	6289.8	6296.4	6289.8	6287.6	6303.0	6336.0	6338.2	6373.4	6388.8	6426.2	6437.2
37.5°	6732.0	6729.8	6701.2	6670.4	6672.6	6659.4	6650.6	6666.0	6672.6	6674.8	6699.0
40°	7328.2	7271.0	7227.0	7150.0	7114.8	7059.8	7026.8	7024.6	6989.4	6985.0	6991.6
42.5°	8109.2	8043.2	7939.8	7810.0	7711.0	7609.8	7535.0	7491.0	7414.0	7374.4	7341.4
45°	9200.4	9037.6	8914.4	8760.4	8569.0	8393.0	8208.2	8124.6	7977.2	7887.0	7785.8
47.5°	10533.6	10373.0	10183.8	10025.4	9774.6	9530.4	9277.4	9055.2	8797.8	8593.2	8426.0
50°	11981.2	11886.6	11750.2	11602.8	11279.4	11118.8	10799.8	10498.4	10221.2	9856.0	9537.0
52.5°	13466.2	13521.2	13490.4	13437.6	13233.0	13171.4	12896.4	12529.0	12249.6	11998.8	11444.4
55°	15296.6	15362.6	15494.6	15571.6	15547.4	15703.6	15635.4	15349.4	15237.2	15120.6	14726.8
57.5°	18097.2	18568.0	19071.8	19514.0	19617.4	20171.8	20053.0	20339.0	20541.4	20396.2	20268.6
60°	21082.6	22033.0	22888.8	23784.2	24512.4	25058.0	25779.6	26265.8	26571.6	27121.6	27165.6
62.5°	22286.0	23577.4	24664.2	25702.6	26567.2	27324.0	27975.2	28646.2	29196.2	29693.4	30052.0
65°	21626.0	22974.6	24292.4	25346.2	26177.8	26829.0	27537.4	28069.8	28611.0	28930.0	29306.2
67.5°	17978.4	19764.8	21386.2	22574.2	23711.6	24373.8	25212.0	25735.6	26309.8	26646.4	26888.4
70°	11721.6	14047.0	16262.4	18064.2	19599.8	20372.0	21384.0	22099.0	22789.8	22807.4	23210.0
72.5°	6325.0	8269.8	10124.4	11965.8	13717.0	14744.4	15743.2	16612.2	17298.6	17006.0	17406.4
75°	3522.2	4433.0	5447.2	6553.8	7620.8	8208.2	8954.0	8958.4	9312.6	8756.0	8896.8
77.5°	3388.0	3346.2	3361.6	3392.4	3445.2	3333.0	3330.8	3262.6	3157.0	2965.6	2998.6
80°	4450.6	3918.2	3535.4	2934.8	2362.8	1927.2	1806.2	1834.8	1920.6	2092.2	2310.0
82.5°	6435.0	5986.2	5343.8	4397.8	3451.8	2662.0	2186.8	1940.4	1929.4	2101.0	2431.0
85°	4686.0	4956.6	4914.8	4103.0	3383.6	2747.8	1999.8	1689.6	1399.2	1331.0	1447.6
87.5°	690.8	572.0	644.6	539.0	391.6	303.6	266.2	213.4	204.6	209.0	228.8
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°	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2
2.5°	3225.2	3216.4	3207.6	3214.2	3207.6	3205.4	3198.8	3194.4	3192.2	3192.2	3192.2
5°	3324.2	3313.2	3306.6	3304.4	3297.8	3291.2	3289.0	3278.0	3275.8	3275.8	3269.2
7.5°	3458.4	3449.6	3438.6	3432.0	3427.6	3416.6	3405.6	3403.4	3401.2	3392.4	3385.8
10°	3614.6	3601.4	3588.2	3588.2	3579.4	3577.2	3566.2	3550.8	3548.6	3535.4	3531.0
12.5°	3762.0	3757.6	3742.2	3737.8	3731.2	3724.6	3718.0	3711.4	3704.8	3693.8	3698.2
15°	3938.0	3927.0	3913.8	3916.0	3913.8	3905.0	3896.2	3889.6	3885.2	3880.8	3880.8
17.5°	4149.2	4144.8	4142.6	4131.6	4122.8	4129.4	4129.4	4129.4	4118.4	4120.6	4122.8
20°	4417.6	4422.0	4417.6	4408.8	4406.6	4413.2	4397.8	4422.0	4408.8	4400.0	4404.4
22.5°	4714.6	4730.0	4712.4	4714.6	4725.6	4730.0	4714.6	4734.4	4727.8	4714.6	4725.6
25°	5038.0	5049.0	5040.2	5038.0	5044.6	5060.0	5057.8	5055.6	5071.0	5057.8	5064.4
27.5°	5370.2	5376.8	5381.2	5387.8	5392.2	5390.0	5398.8	5398.8	5407.6	5392.2	5398.8
30°	5700.2	5700.2	5709.0	5717.8	5717.8	5717.8	5735.4	5737.6	5724.4	5728.8	5713.4
32.5°	6052.2	6054.4	6063.2	6063.2	6080.8	6083.0	6102.8	6076.4	6102.8	6080.8	6085.2
35°	6465.8	6494.4	6498.8	6520.8	6538.4	6545.0	6545.0	6547.2	6571.4	6553.8	6560.4
37.5°	6707.8	6714.4	6732.0	6743.0	6743.0	6751.8	6758.4	6751.8	6758.4	6756.2	6762.8
40°	6993.8	6987.2	7007.0	7011.4	7002.6	7013.6	7011.4	7004.8	7022.4	7009.2	7018.0
42.5°	7341.4	7304.0	7301.8	7319.4	7301.8	7310.6	7308.4	7293.0	7315.0	7321.6	7315.0
45°	7713.2	7693.4	7653.8	7653.8	7636.2	7629.6	7631.8	7629.6	7631.8	7658.2	7667.0
47.5°	8318.2	8197.2	8129.0	8065.2	8012.4	8010.2	7986.0	7999.2	8016.8	8060.8	8100.4
50°	9332.4	9053.0	8881.4	8723.0	8608.6	8569.0	8522.8	8518.4	8533.8	8584.4	8652.6
52.5°	11140.8	10753.6	10388.4	10049.6	9754.8	9528.2	9416.0	9356.6	9334.6	9385.2	9451.2
55°	14449.6	13719.2	13204.4	12861.2	12128.6	11818.4	11420.2	11237.6	11059.4	11077.0	11189.2
57.5°	20103.6	19709.8	19278.6	18678.0	18229.2	17688.0	16693.6	16139.2	16163.4	16293.2	15888.4
60°	27513.2	27115.0	26936.8	26391.2	26078.8	25861.0	25333.0	24413.4	24087.8	24026.2	23282.6
62.5°	30327.0	30421.6	30562.4	30716.4	30707.6	30802.2	30340.2	30041.0	29664.8	29176.4	28441.6
65°	29592.2	29832.0	30118.0	30531.6	31002.4	31350.0	31642.6	31607.4	31255.4	30604.2	29827.6
67.5°	27104.0	27341.6	27550.6	28105.0	28877.2	29583.4	30208.2	30632.8	30397.4	29858.4	28952.0
70°	23364.0	23535.6	23667.6	24149.4	24996.4	25858.8	26675.0	27387.8	27315.2	26661.8	25938.0
72.5°	16929.0	17344.8	17569.2	17536.2	18059.8	19025.6	19140.0	19749.4	19918.8	19214.8	18062.0
75°	8247.8	8254.4	7994.8	7909.0	7935.4	8102.6	7783.6	7803.4	7693.4	7194.0	6782.6
77.5°	2882.0	2802.8	2613.6	2389.2	2068.0	1766.6	1460.8	1328.8	1284.8	1155.0	1064.8
80°	2483.8	2600.4	2563.0	2378.2	2039.4	1625.8	1214.4	899.8	767.8	721.6	677.6
82.5°	2820.4	3269.2	3555.2	3539.8	3075.6	2310.0	1441.0	827.2	589.6	517.0	475.2
85°	1573.0	1691.8	1724.8	1570.8	1304.6	891.0	497.2	349.8	297.0	270.6	244.2
87.5°	250.8	228.8	224.4	195.8	184.8	169.4	149.6	140.8	129.8	123.2	123.2
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: P159390

CATALOG NUMBER: VST-E11-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2
2.5°	3190.0	3187.8	3181.2	3174.6	3170.2	3168.0	3165.8	3161.4	3159.2	3157.0	3152.6
5°	3264.8	3260.4	3249.4	3238.4	3234.0	3227.4	3220.8	3216.4	3212.0	3209.8	3201.0
7.5°	3381.4	3377.0	3363.8	3355.0	3352.8	3335.2	3333.0	3326.4	3315.4	3313.2	3300.0
10°	3522.2	3520.0	3509.0	3502.4	3498.0	3489.2	3476.0	3465.0	3454.0	3454.0	3445.2
12.5°	3685.0	3676.2	3682.8	3667.4	3663.0	3654.2	3647.6	3645.4	3632.2	3621.2	3619.0
15°	3876.4	3865.4	3865.4	3861.0	3856.6	3847.8	3845.6	3847.8	3834.6	3839.0	3825.8
17.5°	4114.0	4118.4	4116.2	4116.2	4105.2	4105.2	4087.6	4109.6	4094.2	4105.2	4100.8
20°	4411.0	4413.2	4408.8	4415.4	4419.8	4417.6	4415.4	4413.2	4419.8	4428.6	4422.0
22.5°	4727.8	4727.8	4725.6	4749.8	4723.4	4743.2	4749.8	4736.6	4771.8	4767.4	4774.0
25°	5071.0	5071.0	5088.6	5108.4	5112.8	5097.4	5106.2	5095.2	5117.2	5134.8	5139.2
27.5°	5390.0	5418.6	5431.8	5418.6	5429.6	5453.8	5451.6	5451.6	5467.0	5462.6	5504.4
30°	5717.8	5735.4	5753.0	5744.2	5748.6	5779.4	5781.6	5783.8	5803.6	5832.2	5863.0
32.5°	6091.8	6109.4	6100.6	6129.2	6127.0	6164.4	6171.0	6177.6	6239.2	6228.2	6292.0
35°	6551.6	6569.2	6560.4	6591.2	6586.8	6600.0	6624.2	6650.6	6661.6	6725.4	6776.0
37.5°	6767.2	6767.2	6787.0	6822.2	6835.4	6857.4	6894.8	6927.8	6982.8	7051.0	7130.2
40°	7026.8	7033.4	7059.8	7097.2	7121.4	7172.0	7240.2	7286.4	7370.0	7444.8	7537.2
42.5°	7341.4	7370.0	7400.8	7451.4	7504.2	7583.4	7680.2	7739.6	7849.6	7946.4	8060.8
45°	7708.8	7737.4	7810.0	7902.4	7979.4	8067.4	8146.6	8287.4	8386.4	8487.6	8586.6
47.5°	8153.2	8236.8	8296.2	8406.2	8500.8	8617.4	8716.4	8848.4	8956.2	9079.4	9163.0
50°	8723.0	8826.4	8903.4	9046.4	9138.8	9268.6	9394.0	9493.0	9603.0	9724.0	9792.2
52.5°	9541.4	9647.0	9743.8	9922.0	10036.4	10124.4	10291.6	10414.8	10516.0	10604.0	10678.8
55°	11314.6	11283.8	11552.2	11897.6	11937.2	12256.2	12315.6	12419.0	12606.0	12632.4	12841.4
57.5°	16381.2	16222.8	16612.2	17118.2	17030.2	16869.6	17540.6	17582.4	17487.8	17740.8	17454.8
60°	23392.6	23115.4	23221.0	23359.6	23159.4	23064.8	23097.8	23192.4	23100.0	22998.8	22721.6
62.5°	28074.2	27647.4	27341.6	27084.2	26758.6	26523.2	26259.2	25933.6	25845.6	25476.0	25165.8
65°	29073.0	28408.6	27924.6	27438.4	26989.6	26573.8	26175.6	25896.2	25526.6	25088.8	24765.4
67.5°	27975.2	27152.4	26444.0	25737.8	25229.6	24618.0	24318.8	23863.4	23408.0	22906.4	22609.4
70°	24785.2	23927.2	23036.2	22345.4	21654.6	20897.8	20750.4	20211.4	19949.6	19265.4	19146.6
72.5°	17107.2	16535.2	16137.0	15283.4	14863.2	14476.0	14352.8	13853.4	13906.2	13156.0	13428.8
75°	6083.0	6001.6	5885.0	5403.2	5317.4	5167.8	5128.2	5093.0	5449.4	4954.4	5313.0
77.5°	1045.0	1038.4	979.0	950.4	1005.4	970.2	979.0	961.4	1064.8	1080.2	1056.0
80°	649.0	631.4	611.6	598.4	600.6	587.4	589.6	594.0	600.6	598.4	605.0
82.5°	444.4	429.0	420.2	411.4	424.6	429.0	440.0	451.0	468.6	479.6	492.8
85°	242.0	222.2	222.2	220.0	237.6	250.8	268.4	290.4	321.2	347.6	376.2
87.5°	123.2	118.8	121.0	125.4	140.8	151.8	173.8	193.6	220.0	248.6	275.0
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: P159390

CATALOG NUMBER: VST-E11-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2
2.5°	3150.4	3150.4	3148.2	3148.2	3146.0	3143.8	3141.6	3135.0	3110.8	3088.8	3073.4
5°	3198.8	3192.2	3190.0	3183.4	3181.2	3176.8	3170.2	3163.6	3119.6	3080.0	3051.4
7.5°	3297.8	3289.0	3284.6	3278.0	3271.4	3262.6	3253.8	3247.2	3194.4	3148.2	3113.0
10°	3427.6	3423.2	3421.0	3412.2	3412.2	3399.0	3396.8	3381.4	3324.2	3282.4	3251.6
12.5°	3608.0	3599.2	3597.0	3586.0	3590.4	3586.0	3581.6	3572.8	3531.0	3482.6	3440.8
15°	3832.4	3832.4	3821.4	3812.6	3814.8	3810.4	3819.2	3808.2	3781.8	3737.8	3669.6
17.5°	4103.0	4098.6	4103.0	4096.4	4100.8	4105.2	4094.2	4096.4	4083.2	4028.2	3927.0
20°	4417.6	4411.0	4437.4	4426.4	4450.6	4428.6	4433.0	4439.6	4439.6	4367.0	4230.6
22.5°	4778.4	4774.0	4774.0	4796.0	4804.8	4807.0	4815.8	4822.4	4840.0	4747.6	4529.8
25°	5139.2	5154.6	5156.8	5185.4	5198.6	5198.6	5205.2	5229.4	5282.2	5154.6	4873.0
27.5°	5506.6	5544.0	5552.8	5572.6	5592.4	5612.2	5627.6	5645.2	5731.0	5592.4	5225.0
30°	5874.0	5915.8	5946.6	5968.6	5992.8	6041.2	6050.0	6085.2	6228.2	6058.8	5559.4
32.5°	6305.2	6364.6	6404.2	6432.8	6470.2	6516.4	6542.8	6586.8	6725.4	6448.2	5803.6
35°	6820.0	6855.2	6912.4	6960.8	6982.8	7062.0	7103.8	7114.8	7220.4	6784.8	5984.0
37.5°	7176.4	7235.8	7334.8	7403.0	7442.6	7486.6	7557.0	7603.2	7704.4	7090.6	6074.2
40°	7629.6	7719.8	7799.0	7900.2	7964.0	7997.0	8067.4	8104.8	8118.0	7352.4	6045.6
42.5°	8181.8	8263.2	8368.8	8450.2	8498.6	8536.0	8593.2	8608.6	8437.0	7475.6	5891.6
45°	8701.0	8826.4	8916.6	8976.0	9011.2	9031.0	9066.2	9068.4	8701.0	7414.0	5627.6
47.5°	9259.8	9350.0	9433.6	9475.4	9471.0	9475.4	9462.2	9453.4	8833.0	7200.6	5288.8
50°	9878.0	9937.4	9972.6	9992.4	10003.4	9961.6	9902.2	9862.6	8844.0	6897.0	4945.6
52.5°	10707.4	10782.2	10775.6	10773.4	10685.4	10645.8	10487.4	10406.0	8780.2	6540.6	4558.4
55°	12808.4	12735.8	12592.8	12663.2	12304.6	12117.6	11871.2	11642.4	8863.8	6201.8	4109.6
57.5°	17569.2	17597.8	17190.8	16973.0	16368.0	15611.2	15001.8	14410.0	9616.2	5995.0	3524.4
60°	22536.8	22162.8	21645.8	20858.2	20079.4	18955.2	17870.6	16845.4	10366.4	5779.4	2831.4
62.5°	24706.0	24173.6	23392.6	22374.0	21150.8	19775.8	18425.0	17175.4	10003.4	5082.0	2059.2
65°	24266.0	23452.0	22589.6	21397.2	19910.0	18403.0	16825.6	15549.6	8368.8	3790.6	1269.4
67.5°	21964.8	21274.0	20363.2	18948.6	17358.0	15789.4	14344.0	12914.0	6217.2	2362.8	710.6
70°	18539.4	17864.0	16940.0	15492.4	13904.0	12403.6	10872.4	9706.4	3962.2	1139.6	512.6
72.5°	12861.2	12313.4	11660.0	10628.2	9235.6	7871.6	6835.4	5940.0	2195.6	605.0	468.6
75°	5222.8	5225.0	5106.2	4670.6	3946.8	3403.4	2901.8	2461.8	917.4	514.8	462.0
77.5°	1183.6	1203.4	1315.6	1247.4	1124.2	1051.6	941.6	831.6	558.8	530.2	466.4
80°	598.4	600.6	594.0	596.2	589.6	591.8	583.0	576.4	523.6	545.6	466.4
82.5°	499.4	510.4	508.2	508.2	510.4	510.4	510.4	508.2	543.4	574.2	451.0
85°	396.0	418.0	435.6	453.2	473.0	486.2	492.8	499.4	528.0	565.4	409.2
87.5°	299.2	325.6	347.6	365.2	396.0	396.0	418.0	433.4	433.4	442.2	215.6
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: P159390

CATALOG NUMBER: VST-E11-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	3159.2	3159.2	3159.2	3159.2	3159.2
2.5°	3051.4	3042.6	3033.8	3029.4	3020.6
5°	3029.4	3011.8	3000.8	3000.8	2992.0
7.5°	3093.2	3086.6	3071.2	3062.4	3071.2
10°	3229.6	3218.6	3201.0	3187.8	3194.4
12.5°	3412.2	3368.2	3333.0	3317.6	3306.6
15°	3601.4	3513.4	3443.0	3403.4	3392.4
17.5°	3803.8	3649.8	3544.2	3484.8	3473.8
20°	4010.6	3819.2	3669.6	3592.6	3590.4
22.5°	4259.2	4004.0	3812.6	3711.4	3704.8
25°	4521.0	4169.0	3916.0	3786.2	3773.0
27.5°	4747.6	4301.0	3979.8	3825.8	3812.6
30°	4936.8	4400.0	4032.6	3854.4	3836.8
32.5°	5073.2	4457.2	4054.6	3863.2	3843.4
35°	5117.2	4435.2	3993.0	3784.0	3762.0
37.5°	5057.8	4292.2	3821.4	3590.4	3564.0
40°	4879.6	4041.4	3542.0	3304.4	3271.4
42.5°	4606.8	3733.4	3205.4	2978.8	2937.0
45°	4270.2	3385.8	2871.0	2618.0	2598.2
47.5°	3918.2	3020.6	2494.8	2266.0	2241.8
50°	3537.6	2598.2	2127.4	1878.8	1878.8
52.5°	3084.4	2186.8	1700.6	1513.6	1498.2
55°	2563.0	1722.6	1355.2	1212.2	1192.4
57.5°	2002.0	1324.4	1082.4	998.8	976.8
60°	1471.8	994.4	871.2	825.0	816.2
62.5°	998.8	756.8	701.8	682.0	679.8
65°	675.4	589.6	574.2	567.6	569.8
67.5°	519.2	490.6	484.0	481.8	481.8
70°	451.0	433.4	426.8	429.0	426.8
72.5°	424.6	400.4	402.6	407.0	404.8
75°	415.8	385.0	393.8	396.0	387.2
77.5°	409.2	367.4	389.4	396.0	371.8
80°	396.0	352.0	404.8	407.0	365.2
82.5°	363.0	312.4	404.8	374.0	330.0
85°	308.0	237.6	457.6	325.6	244.2
87.5°	195.8	140.8	310.2	222.2	147.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)