

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: P159400

Luminaire Tested: **VST-E12-LED-E-U-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159400
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-E12-LED-E-U-T2
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (252) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37040.6 lumens
Efficiency: N/A
Efficacy: 127.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 291.7
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

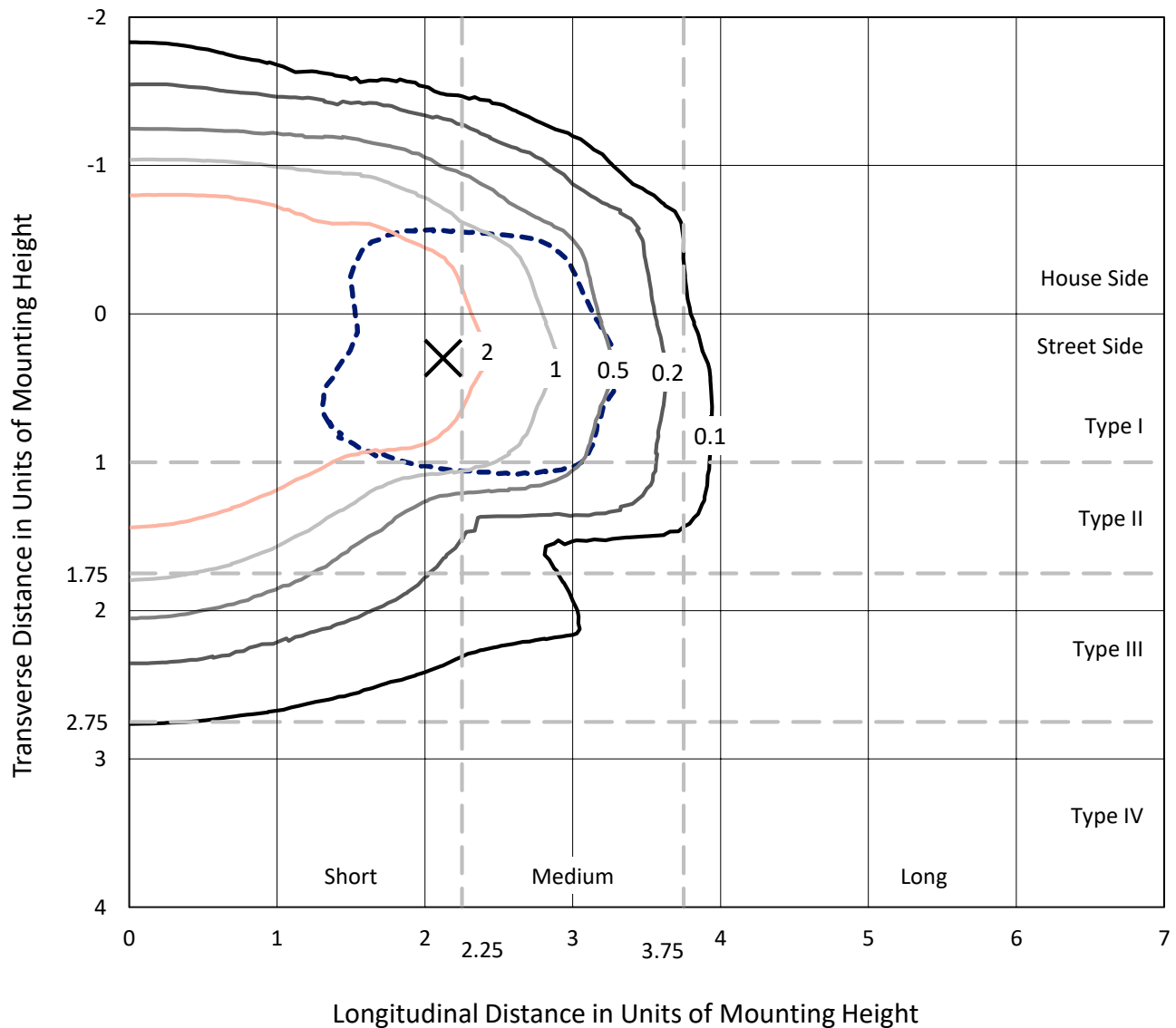


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

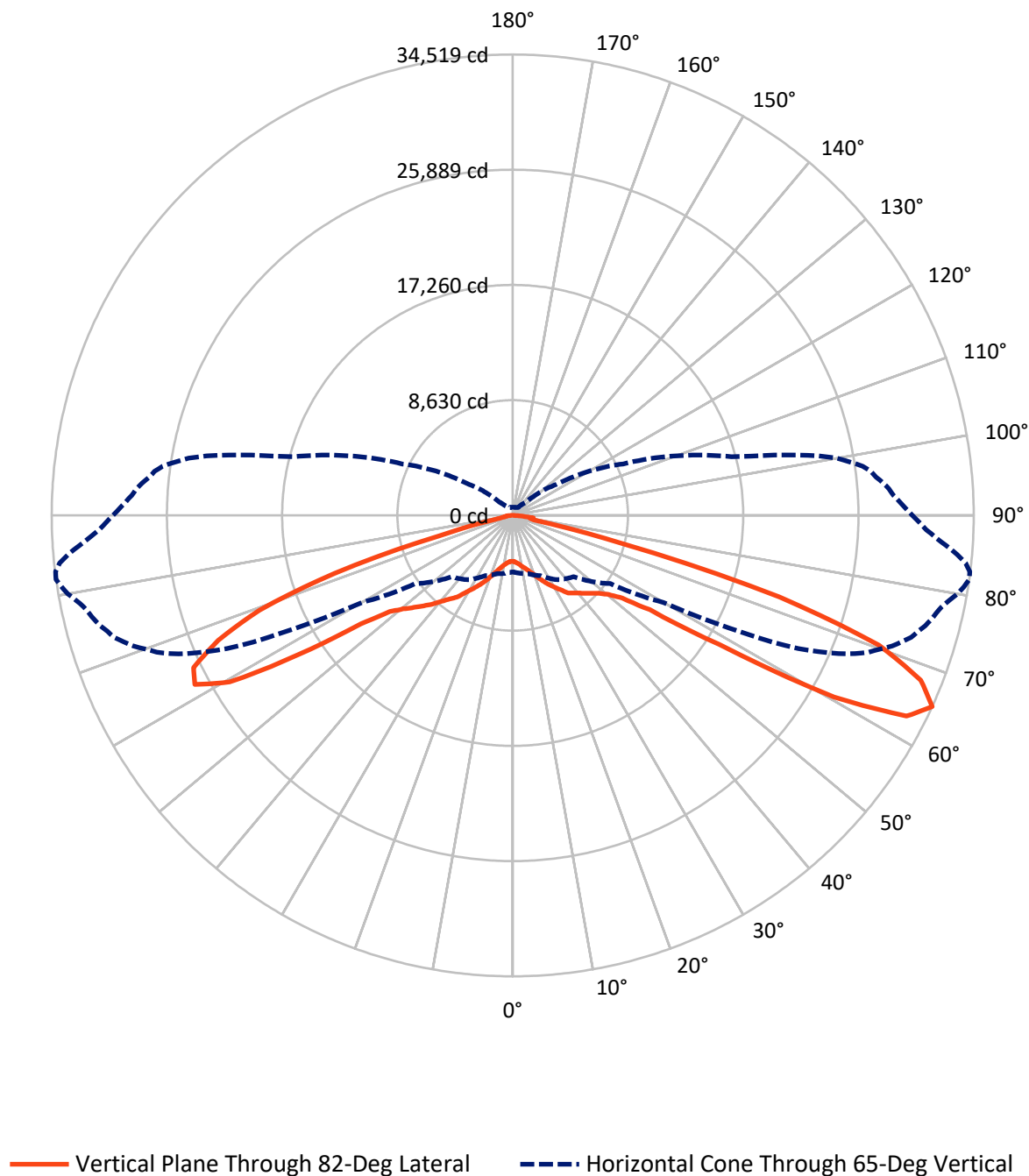


Based on 30 foot mounting height. Maximum calculated value = 4.9 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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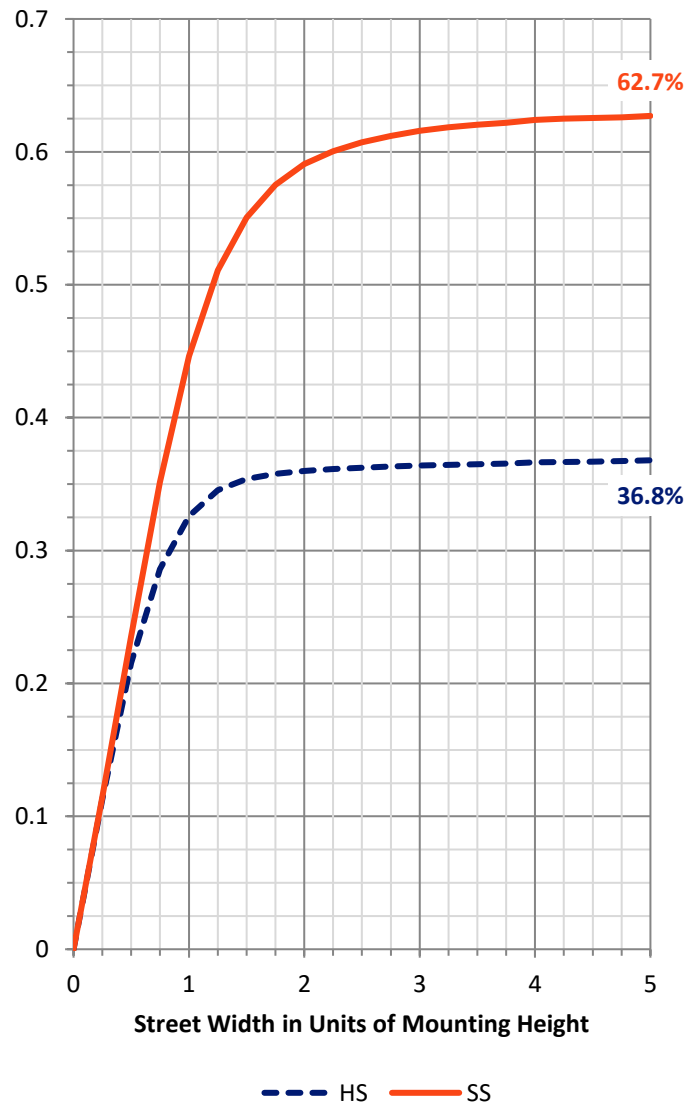
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13791.4	0.0	13791.4
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	23249.2	0.0	23249.2
	% Fixture	62.8	0.0	62.8
Total	Lumens	37040.6	0.0	37040.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.9	0.9
10°-20°	1226.0	3.3
20°-30°	2429.2	6.6
30°-40°	4164.1	11.2
40°-50°	6255.5	16.9
50°-60°	8691.0	23.5
60°-70°	9915.0	26.8
70°-80°	3415.6	9.2
80°-90°	595.3	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°	37040.6	100.0
0°-180°	37040.6	100.0

Coefficient of Utilization



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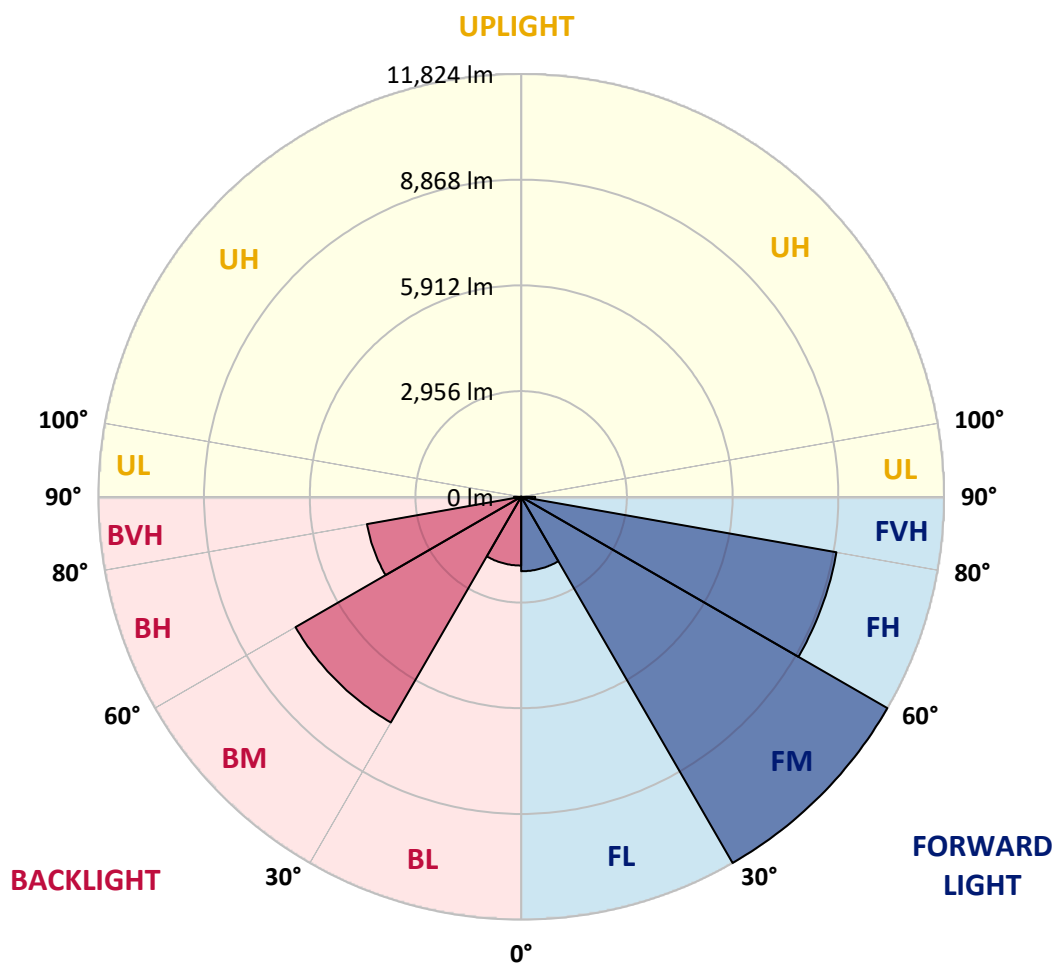
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2080.9	5.6			
FM	(30°-60°)	11824.1	31.9			
FH	(60°-80°)	8952.3	24.2			G4/12000
FVH	(80°-90°)	391.9	1.1			G3/500
BL	(0°-30°)	1923.1	5.2	B3/2500		
BM	(30°-60°)	7286.5	19.7	B4/8500		
BH	(60°-80°)	4378.4	11.8	B4/5000		G4/5000
BVH	(80°-90°)	203.4	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°	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4
2.5°	3633.6	3636.0	3633.6	3626.4	3624.0	3602.4	3578.4	3566.4	3564.0	3554.4	3556.8
5°	3859.2	3852.0	3842.4	3830.4	3818.4	3782.4	3741.6	3720.0	3712.8	3705.6	3696.0
7.5°	4060.8	4065.6	4060.8	4044.0	4012.8	3967.2	3914.4	3880.8	3878.4	3871.2	3864.0
10°	4320.0	4332.0	4303.2	4274.4	4231.2	4161.6	4101.6	4058.4	4051.2	4041.6	4036.8
12.5°	4600.8	4603.2	4593.6	4528.8	4456.8	4360.8	4274.4	4231.2	4221.6	4209.6	4204.8
15°	4900.8	4903.2	4850.4	4788.0	4677.6	4562.4	4442.4	4394.4	4382.4	4384.8	4365.6
17.5°	5138.4	5143.2	5092.8	5013.6	4881.6	4744.8	4615.2	4576.8	4569.6	4572.0	4562.4
20°	5241.6	5248.8	5217.6	5157.6	5032.8	4912.8	4819.2	4795.2	4792.8	4788.0	4807.2
22.5°	5236.8	5239.2	5227.2	5203.2	5128.8	5059.2	5047.2	5061.6	5059.2	5064.0	5080.8
25°	5193.6	5200.8	5198.4	5208.0	5196.0	5222.4	5277.6	5328.0	5335.2	5344.8	5376.0
27.5°	5304.0	5318.4	5301.6	5311.2	5330.4	5419.2	5532.0	5608.8	5623.2	5649.6	5676.0
30°	5736.0	5716.8	5695.2	5671.2	5683.2	5738.4	5865.6	5932.8	5940.0	5959.2	5995.2
32.5°	6376.8	6355.2	6336.0	6297.6	6288.0	6264.0	6307.2	6324.0	6321.6	6340.8	6350.4
35°	7099.2	7101.6	7096.8	7125.6	7149.6	7027.2	6876.0	6835.2	6852.0	6830.4	6835.2
37.5°	7716.0	7723.2	7850.4	8008.8	8054.4	7977.6	7646.4	7483.2	7428.0	7420.8	7365.6
40°	8400.0	8400.0	8592.0	8786.4	8913.6	9009.6	8616.0	8328.0	8210.4	8176.8	8040.0
42.5°	9151.2	9112.8	9288.0	9501.6	9736.8	9955.2	9751.2	9427.2	9259.2	9199.2	8959.2
45°	9768.0	9744.0	9830.4	10029.6	10411.2	10838.4	10867.2	10701.6	10600.8	10476.0	10255.2
47.5°	10147.2	10135.2	10185.6	10401.6	10879.2	11570.4	11956.8	12040.8	11980.8	11884.8	11671.2
50°	10296.0	10279.2	10315.2	10555.2	11090.4	12002.4	12856.8	13252.8	13281.6	13303.2	13236.0
52.5°	10243.2	10221.6	10296.0	10497.6	11054.4	12153.6	13560.0	14320.8	14448.0	14556.0	14776.8
55°	9736.8	9703.2	9904.8	10284.0	10898.4	12098.4	14073.6	15348.0	15616.8	15904.8	16394.4
57.5°	8961.6	8932.8	9223.2	9744.0	10622.4	11947.2	14419.2	16646.4	17251.2	17769.6	19159.2
60°	8215.2	8191.2	8361.6	8865.6	9727.2	11210.4	13992.0	17083.2	18098.4	19216.8	21753.6
62.5°	6880.8	6816.0	7044.0	7468.8	8013.6	9273.6	12127.2	16111.2	17676.0	19320.0	22759.2
65°	4228.8	4322.4	4519.2	4989.6	5882.4	6482.4	8906.4	13034.4	15098.4	17160.0	21621.6
67.5°	2685.6	2712.0	2858.4	3184.8	3876.0	4478.4	5397.6	8179.2	9770.4	11798.4	16975.2
70°	2301.6	2318.4	2443.2	2784.0	3261.6	4003.2	4084.8	4272.0	4843.2	6134.4	9979.2
72.5°	1814.4	1843.2	1941.6	2236.8	2812.8	3609.6	5042.4	3376.8	3261.6	3369.6	4869.6
75°	1080.0	1113.6	1195.2	1356.0	1807.2	2760.0	5282.4	3928.8	3662.4	3453.6	3360.0
77.5°	571.2	547.2	602.4	696.0	928.8	1471.2	3969.6	4814.4	4627.2	4377.6	3847.2
80°	283.2	292.8	309.6	328.8	415.2	597.6	1984.8	4980.0	5520.0	5760.0	5289.6
82.5°	112.8	127.2	180.0	192.0	228.0	254.4	638.4	2760.0	3952.8	5361.6	7000.8
85°	57.6	55.2	96.0	115.2	134.4	120.0	225.6	1029.6	1852.8	2887.2	4677.6
87.5°	7.2	9.6	21.6	28.8	40.8	38.4	64.8	223.2	355.2	504.0	708.0
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-E12-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4
2.5°	3544.8	3542.4	3542.4	3532.8	3532.8	3535.2	3528.0	3523.2	3523.2	3525.6	3516.0
5°	3688.8	3681.6	3681.6	3672.0	3660.0	3660.0	3650.4	3648.0	3643.2	3633.6	3626.4
7.5°	3856.8	3849.6	3837.6	3830.4	3825.6	3818.4	3806.4	3801.6	3792.0	3782.4	3772.8
10°	4029.6	4020.0	4015.2	4003.2	3998.4	3984.0	3976.8	3979.2	3960.0	3952.8	3955.2
12.5°	4202.4	4192.8	4176.0	4171.2	4168.8	4154.4	4147.2	4142.4	4128.0	4125.6	4118.4
15°	4356.0	4360.8	4353.6	4341.6	4332.0	4329.6	4322.4	4317.6	4308.0	4298.4	4288.8
17.5°	4555.2	4562.4	4552.8	4536.0	4536.0	4533.6	4536.0	4533.6	4516.8	4524.0	4519.2
20°	4809.6	4814.4	4790.4	4797.6	4802.4	4800.0	4807.2	4814.4	4809.6	4809.6	4816.8
22.5°	5102.4	5109.6	5095.2	5104.8	5119.2	5107.2	5128.8	5126.4	5131.2	5138.4	5140.8
25°	5402.4	5416.8	5404.8	5431.2	5421.6	5431.2	5457.6	5450.4	5462.4	5481.6	5488.8
27.5°	5702.4	5712.0	5714.4	5731.2	5748.0	5762.4	5796.0	5796.0	5805.6	5839.2	5839.2
30°	6016.8	6026.4	6036.0	6060.0	6069.6	6096.0	6129.6	6139.2	6134.4	6182.4	6196.8
32.5°	6379.2	6388.8	6405.6	6434.4	6446.4	6472.8	6472.8	6499.2	6518.4	6559.2	6561.6
35°	6861.6	6868.8	6861.6	6859.2	6876.0	6912.0	6914.4	6952.8	6969.6	7010.4	7022.4
37.5°	7344.0	7341.6	7310.4	7276.8	7279.2	7264.8	7255.2	7272.0	7279.2	7281.6	7308.0
40°	7994.4	7932.0	7884.0	7800.0	7761.6	7701.6	7665.6	7663.2	7624.8	7620.0	7627.2
42.5°	8846.4	8774.4	8661.6	8520.0	8412.0	8301.6	8220.0	8172.0	8088.0	8044.8	8008.8
45°	10036.8	9859.2	9724.8	9556.8	9348.0	9156.0	8954.4	8863.2	8702.4	8604.0	8493.6
47.5°	11491.2	11316.0	11109.6	10936.8	10663.2	10396.8	10120.8	9878.4	9597.6	9374.4	9192.0
50°	13070.4	12967.2	12818.4	12657.6	12304.8	12129.6	11781.6	11452.8	11150.4	10752.0	10404.0
52.5°	14690.4	14750.4	14716.8	14659.2	14436.0	14368.8	14068.8	13668.0	13363.2	13089.6	12484.8
55°	16687.2	16759.2	16903.2	16987.2	16960.8	17131.2	17056.8	16744.8	16622.4	16495.2	16065.6
57.5°	19742.4	20256.0	20805.6	21288.0	21400.8	22005.6	21876.0	22188.0	22408.8	22250.4	22111.2
60°	22999.2	24036.0	24969.6	25946.4	26740.8	27336.0	28123.2	28653.6	28987.2	29587.2	29635.2
62.5°	24312.0	25720.8	26906.4	28039.2	28982.4	29808.0	30518.4	31250.4	31850.4	32392.8	32784.0
65°	23592.0	25063.2	26500.8	27650.4	28557.6	29268.0	30040.8	30621.6	31212.0	31560.0	31970.4
67.5°	19612.8	21561.6	23330.4	24626.4	25867.2	26589.6	27504.0	28075.2	28701.6	29068.8	29332.8
70°	12787.2	15324.0	17740.8	19706.4	21381.6	22224.0	23328.0	24108.0	24861.6	24880.8	25320.0
72.5°	6900.0	9021.6	11044.8	13053.6	14964.0	16084.8	17174.4	18122.4	18871.2	18552.0	18988.8
75°	3842.4	4836.0	5942.4	7149.6	8313.6	8954.4	9768.0	9772.8	10159.2	9552.0	9705.6
77.5°	3696.0	3650.4	3667.2	3700.8	3758.4	3636.0	3633.6	3559.2	3444.0	3235.2	3271.2
80°	4855.2	4274.4	3856.8	3201.6	2577.6	2102.4	1970.4	2001.6	2095.2	2282.4	2520.0
82.5°	7020.0	6530.4	5829.6	4797.6	3765.6	2904.0	2385.6	2116.8	2104.8	2292.0	2652.0
85°	5112.0	5407.2	5361.6	4476.0	3691.2	2997.6	2181.6	1843.2	1526.4	1452.0	1579.2
87.5°	753.6	624.0	703.2	588.0	427.2	331.2	290.4	232.8	223.2	228.0	249.6
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°	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4
2.5°	3518.4	3508.8	3499.2	3506.4	3499.2	3496.8	3489.6	3484.8	3482.4	3482.4	3482.4
5°	3626.4	3614.4	3607.2	3604.8	3597.6	3590.4	3588.0	3576.0	3573.6	3573.6	3566.4
7.5°	3772.8	3763.2	3751.2	3744.0	3739.2	3727.2	3715.2	3712.8	3710.4	3700.8	3693.6
10°	3943.2	3928.8	3914.4	3914.4	3904.8	3902.4	3890.4	3873.6	3871.2	3856.8	3852.0
12.5°	4104.0	4099.2	4082.4	4077.6	4070.4	4063.2	4056.0	4048.8	4041.6	4029.6	4034.4
15°	4296.0	4284.0	4269.6	4272.0	4269.6	4260.0	4250.4	4243.2	4238.4	4233.6	4233.6
17.5°	4526.4	4521.6	4519.2	4507.2	4497.6	4504.8	4504.8	4504.8	4492.8	4495.2	4497.6
20°	4819.2	4824.0	4819.2	4809.6	4807.2	4814.4	4797.6	4824.0	4809.6	4800.0	4804.8
22.5°	5143.2	5160.0	5140.8	5143.2	5155.2	5160.0	5143.2	5164.8	5157.6	5143.2	5155.2
25°	5496.0	5508.0	5498.4	5496.0	5503.2	5520.0	5517.6	5515.2	5532.0	5517.6	5524.8
27.5°	5858.4	5865.6	5870.4	5877.6	5882.4	5880.0	5889.6	5889.6	5899.2	5882.4	5889.6
30°	6218.4	6218.4	6228.0	6237.6	6237.6	6237.6	6256.8	6259.2	6244.8	6249.6	6232.8
32.5°	6602.4	6604.8	6614.4	6614.4	6633.6	6636.0	6657.6	6628.8	6657.6	6633.6	6638.4
35°	7053.6	7084.8	7089.6	7113.6	7132.8	7140.0	7140.0	7142.4	7168.8	7149.6	7156.8
37.5°	7317.6	7324.8	7344.0	7356.0	7356.0	7365.6	7372.8	7365.6	7372.8	7370.4	7377.6
40°	7629.6	7622.4	7644.0	7648.8	7639.2	7651.2	7648.8	7641.6	7660.8	7646.4	7656.0
42.5°	8008.8	7968.0	7965.6	7984.8	7965.6	7975.2	7972.8	7956.0	7980.0	7987.2	7980.0
45°	8414.4	8392.8	8349.6	8349.6	8330.4	8323.2	8325.6	8323.2	8325.6	8354.4	8364.0
47.5°	9074.4	8942.4	8868.0	8798.4	8740.8	8738.4	8712.0	8726.4	8745.6	8793.6	8836.8
50°	10180.8	9876.0	9688.8	9516.0	9391.2	9348.0	9297.6	9292.8	9309.6	9364.8	9439.2
52.5°	12153.6	11731.2	11332.8	10963.2	10641.6	10394.4	10272.0	10207.2	10183.2	10238.4	10310.4
55°	15763.2	14966.4	14404.8	14030.4	13231.2	12892.8	12458.4	12259.2	12064.8	12084.0	12206.4
57.5°	21931.2	21501.6	21031.2	20376.0	19886.4	19296.0	18211.2	17606.4	17632.8	17774.4	17332.8
60°	30014.4	29580.0	29385.6	28790.4	28449.6	28212.0	27636.0	26632.8	26277.6	26210.4	25399.2
62.5°	33084.0	33187.2	33340.8	33508.8	33499.2	33602.4	33098.4	32772.0	32361.6	31828.8	31027.2
65°	32282.4	32544.0	32856.0	33307.2	33820.8	34200.0	34519.2	34480.8	34096.8	33386.4	32539.2
67.5°	29568.0	29827.2	30055.2	30660.0	31502.4	32272.8	32954.4	33417.6	33160.8	32572.8	31584.0
70°	25488.0	25675.2	25819.2	26344.8	27268.8	28209.6	29100.0	29877.6	29798.4	29085.6	28296.0
72.5°	18468.0	18921.6	19166.4	19130.4	19701.6	20755.2	20880.0	21544.8	21729.6	20961.6	19704.0
75°	8997.6	9004.8	8721.6	8628.0	8656.8	8839.2	8491.2	8512.8	8392.8	7848.0	7399.2
77.5°	3144.0	3057.6	2851.2	2606.4	2256.0	1927.2	1593.6	1449.6	1401.6	1260.0	1161.6
80°	2709.6	2836.8	2796.0	2594.4	2224.8	1773.6	1324.8	981.6	837.6	787.2	739.2
82.5°	3076.8	3566.4	3878.4	3861.6	3355.2	2520.0	1572.0	902.4	643.2	564.0	518.4
85°	1716.0	1845.6	1881.6	1713.6	1423.2	972.0	542.4	381.6	324.0	295.2	266.4
87.5°	273.6	249.6	244.8	213.6	201.6	184.8	163.2	153.6	141.6	134.4	134.4
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: P159400

CATALOG NUMBER: VST-E12-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4
2.5°	3480.0	3477.6	3470.4	3463.2	3458.4	3456.0	3453.6	3448.8	3446.4	3444.0	3439.2
5°	3561.6	3556.8	3544.8	3532.8	3528.0	3520.8	3513.6	3508.8	3504.0	3501.6	3492.0
7.5°	3688.8	3684.0	3669.6	3660.0	3657.6	3638.4	3636.0	3628.8	3616.8	3614.4	3600.0
10°	3842.4	3840.0	3828.0	3820.8	3816.0	3806.4	3792.0	3780.0	3768.0	3768.0	3758.4
12.5°	4020.0	4010.4	4017.6	4000.8	3996.0	3986.4	3979.2	3976.8	3962.4	3950.4	3948.0
15°	4228.8	4216.8	4216.8	4212.0	4207.2	4197.6	4195.2	4197.6	4183.2	4188.0	4173.6
17.5°	4488.0	4492.8	4490.4	4490.4	4478.4	4478.4	4459.2	4483.2	4466.4	4478.4	4473.6
20°	4812.0	4814.4	4809.6	4816.8	4821.6	4819.2	4816.8	4814.4	4821.6	4831.2	4824.0
22.5°	5157.6	5157.6	5155.2	5181.6	5152.8	5174.4	5181.6	5167.2	5205.6	5200.8	5208.0
25°	5532.0	5532.0	5551.2	5572.8	5577.6	5560.8	5570.4	5558.4	5582.4	5601.6	5606.4
27.5°	5880.0	5911.2	5925.6	5911.2	5923.2	5949.6	5947.2	5947.2	5964.0	5959.2	6004.8
30°	6237.6	6256.8	6276.0	6266.4	6271.2	6304.8	6307.2	6309.6	6331.2	6362.4	6396.0
32.5°	6645.6	6664.8	6655.2	6686.4	6684.0	6724.8	6732.0	6739.2	6806.4	6794.4	6864.0
35°	7147.2	7166.4	7156.8	7190.4	7185.6	7200.0	7226.4	7255.2	7267.2	7336.8	7392.0
37.5°	7382.4	7382.4	7404.0	7442.4	7456.8	7480.8	7521.6	7557.6	7617.6	7692.0	7778.4
40°	7665.6	7672.8	7701.6	7742.4	7768.8	7824.0	7898.4	7948.8	8040.0	8121.6	8222.4
42.5°	8008.8	8040.0	8073.6	8128.8	8186.4	8272.8	8378.4	8443.2	8563.2	8668.8	8793.6
45°	8409.6	8440.8	8520.0	8620.8	8704.8	8800.8	8887.2	9040.8	9148.8	9259.2	9367.2
47.5°	8894.4	8985.6	9050.4	9170.4	9273.6	9400.8	9508.8	9652.8	9770.4	9904.8	9996.0
50°	9516.0	9628.8	9712.8	9868.8	9969.6	10111.2	10248.0	10356.0	10476.0	10608.0	10682.4
52.5°	10408.8	10524.0	10629.6	10824.0	10948.8	11044.8	11227.2	11361.6	11472.0	11568.0	11649.6
55°	12343.2	12309.6	12602.4	12979.2	13022.4	13370.4	13435.2	13548.0	13752.0	13780.8	14008.8
57.5°	17870.4	17697.6	18122.4	18674.4	18578.4	18403.2	19135.2	19180.8	19077.6	19353.6	19041.6
60°	25519.2	25216.8	25332.0	25483.2	25264.8	25161.6	25197.6	25300.8	25200.0	25089.6	24787.2
62.5°	30626.4	30160.8	29827.2	29546.4	29191.2	28934.4	28646.4	28291.2	28195.2	27792.0	27453.6
65°	31716.0	30991.2	30463.2	29932.8	29443.2	28989.6	28555.2	28250.4	27847.2	27369.6	27016.8
67.5°	30518.4	29620.8	28848.0	28077.6	27523.2	26856.0	26529.6	26032.8	25536.0	24988.8	24664.8
70°	27038.4	26102.4	25130.4	24376.8	23623.2	22797.6	22636.8	22048.8	21763.2	21016.8	20887.2
72.5°	18662.4	18038.4	17604.0	16672.8	16214.4	15792.0	15657.6	15112.8	15170.4	14352.0	14649.6
75°	6636.0	6547.2	6420.0	5894.4	5800.8	5637.6	5594.4	5556.0	5944.8	5404.8	5796.0
77.5°	1140.0	1132.8	1068.0	1036.8	1096.8	1058.4	1068.0	1048.8	1161.6	1178.4	1152.0
80°	708.0	688.8	667.2	652.8	655.2	640.8	643.2	648.0	655.2	652.8	660.0
82.5°	484.8	468.0	458.4	448.8	463.2	468.0	480.0	492.0	511.2	523.2	537.6
85°	264.0	242.4	242.4	240.0	259.2	273.6	292.8	316.8	350.4	379.2	410.4
87.5°	134.4	129.6	132.0	136.8	153.6	165.6	189.6	211.2	240.0	271.2	300.0
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: P159400

CATALOG NUMBER: VST-E12-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4	3446.4
2.5°	3436.8	3436.8	3434.4	3434.4	3432.0	3429.6	3427.2	3420.0	3393.6	3369.6	3352.8
5°	3489.6	3482.4	3480.0	3472.8	3470.4	3465.6	3458.4	3451.2	3403.2	3360.0	3328.8
7.5°	3597.6	3588.0	3583.2	3576.0	3568.8	3559.2	3549.6	3542.4	3484.8	3434.4	3396.0
10°	3739.2	3734.4	3732.0	3722.4	3722.4	3708.0	3705.6	3688.8	3626.4	3580.8	3547.2
12.5°	3936.0	3926.4	3924.0	3912.0	3916.8	3912.0	3907.2	3897.6	3852.0	3799.2	3753.6
15°	4180.8	4180.8	4168.8	4159.2	4161.6	4156.8	4166.4	4154.4	4125.6	4077.6	4003.2
17.5°	4476.0	4471.2	4476.0	4468.8	4473.6	4478.4	4466.4	4468.8	4454.4	4394.4	4284.0
20°	4819.2	4812.0	4840.8	4828.8	4855.2	4831.2	4836.0	4843.2	4843.2	4764.0	4615.2
22.5°	5212.8	5208.0	5208.0	5232.0	5241.6	5244.0	5253.6	5260.8	5280.0	5179.2	4941.6
25°	5606.4	5623.2	5625.6	5656.8	5671.2	5671.2	5678.4	5704.8	5762.4	5623.2	5316.0
27.5°	6007.2	6048.0	6057.6	6079.2	6100.8	6122.4	6139.2	6158.4	6252.0	6100.8	5700.0
30°	6408.0	6453.6	6487.2	6511.2	6537.6	6590.4	6600.0	6638.4	6794.4	6609.6	6064.8
32.5°	6878.4	6943.2	6986.4	7017.6	7058.4	7108.8	7137.6	7185.6	7336.8	7034.4	6331.2
35°	7440.0	7478.4	7540.8	7593.6	7617.6	7704.0	7749.6	7761.6	7876.8	7401.6	6528.0
37.5°	7828.8	7893.6	8001.6	8076.0	8119.2	8167.2	8244.0	8294.4	8404.8	7735.2	6626.4
40°	8323.2	8421.6	8508.0	8618.4	8688.0	8724.0	8800.8	8841.6	8856.0	8020.8	6595.2
42.5°	8925.6	9014.4	9129.6	9218.4	9271.2	9312.0	9374.4	9391.2	9204.0	8155.2	6427.2
45°	9492.0	9628.8	9727.2	9792.0	9830.4	9852.0	9890.4	9892.8	9492.0	8088.0	6139.2
47.5°	10101.6	10200.0	10291.2	10336.8	10332.0	10336.8	10322.4	10312.8	9636.0	7855.2	5769.6
50°	10776.0	10840.8	10879.2	10900.8	10912.8	10867.2	10802.4	10759.2	9648.0	7524.0	5395.2
52.5°	11680.8	11762.4	11755.2	11752.8	11656.8	11613.6	11440.8	11352.0	9578.4	7135.2	4972.8
55°	13972.8	13893.6	13737.6	13814.4	13423.2	13219.2	12950.4	12700.8	9669.6	6765.6	4483.2
57.5°	19166.4	19197.6	18753.6	18516.0	17856.0	17030.4	16365.6	15720.0	10490.4	6540.0	3844.8
60°	24585.6	24177.6	23613.6	22754.4	21904.8	20678.4	19495.2	18376.8	11308.8	6304.8	3088.8
62.5°	26952.0	26371.2	25519.2	24408.0	23073.6	21573.6	20100.0	18736.8	10912.8	5544.0	2246.4
65°	26472.0	25584.0	24643.2	23342.4	21720.0	20076.0	18355.2	16963.2	9129.6	4135.2	1384.8
67.5°	23961.6	23208.0	22214.4	20671.2	18936.0	17224.8	15648.0	14088.0	6782.4	2577.6	775.2
70°	20224.8	19488.0	18480.0	16900.8	15168.0	13531.2	11860.8	10588.8	4322.4	1243.2	559.2
72.5°	14030.4	13432.8	12720.0	11594.4	10075.2	8587.2	7456.8	6480.0	2395.2	660.0	511.2
75°	5697.6	5700.0	5570.4	5095.2	4305.6	3712.8	3165.6	2685.6	1000.8	561.6	504.0
77.5°	1291.2	1312.8	1435.2	1360.8	1226.4	1147.2	1027.2	907.2	609.6	578.4	508.8
80°	652.8	655.2	648.0	650.4	643.2	645.6	636.0	628.8	571.2	595.2	508.8
82.5°	544.8	556.8	554.4	554.4	556.8	556.8	556.8	554.4	592.8	626.4	492.0
85°	432.0	456.0	475.2	494.4	516.0	530.4	537.6	544.8	576.0	616.8	446.4
87.5°	326.4	355.2	379.2	398.4	432.0	432.0	456.0	472.8	472.8	482.4	235.2
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: P159400

CATALOG NUMBER: VST-E12-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	3446.4	3446.4	3446.4	3446.4	3446.4
2.5°	3328.8	3319.2	3309.6	3304.8	3295.2
5°	3304.8	3285.6	3273.6	3273.6	3264.0
7.5°	3374.4	3367.2	3350.4	3340.8	3350.4
10°	3523.2	3511.2	3492.0	3477.6	3484.8
12.5°	3722.4	3674.4	3636.0	3619.2	3607.2
15°	3928.8	3832.8	3756.0	3712.8	3700.8
17.5°	4149.6	3981.6	3866.4	3801.6	3789.6
20°	4375.2	4166.4	4003.2	3919.2	3916.8
22.5°	4646.4	4368.0	4159.2	4048.8	4041.6
25°	4932.0	4548.0	4272.0	4130.4	4116.0
27.5°	5179.2	4692.0	4341.6	4173.6	4159.2
30°	5385.6	4800.0	4399.2	4204.8	4185.6
32.5°	5534.4	4862.4	4423.2	4214.4	4192.8
35°	5582.4	4838.4	4356.0	4128.0	4104.0
37.5°	5517.6	4682.4	4168.8	3916.8	3888.0
40°	5323.2	4408.8	3864.0	3604.8	3568.8
42.5°	5025.6	4072.8	3496.8	3249.6	3204.0
45°	4658.4	3693.6	3132.0	2856.0	2834.4
47.5°	4274.4	3295.2	2721.6	2472.0	2445.6
50°	3859.2	2834.4	2320.8	2049.6	2049.6
52.5°	3364.8	2385.6	1855.2	1651.2	1634.4
55°	2796.0	1879.2	1478.4	1322.4	1300.8
57.5°	2184.0	1444.8	1180.8	1089.6	1065.6
60°	1605.6	1084.8	950.4	900.0	890.4
62.5°	1089.6	825.6	765.6	744.0	741.6
65°	736.8	643.2	626.4	619.2	621.6
67.5°	566.4	535.2	528.0	525.6	525.6
70°	492.0	472.8	465.6	468.0	465.6
72.5°	463.2	436.8	439.2	444.0	441.6
75°	453.6	420.0	429.6	432.0	422.4
77.5°	446.4	400.8	424.8	432.0	405.6
80°	432.0	384.0	441.6	444.0	398.4
82.5°	396.0	340.8	441.6	408.0	360.0
85°	336.0	259.2	499.2	355.2	266.4
87.5°	213.6	153.6	338.4	242.4	160.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)