

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: P158080

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158080
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33711)
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-RW
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (252) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37385 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type I - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

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

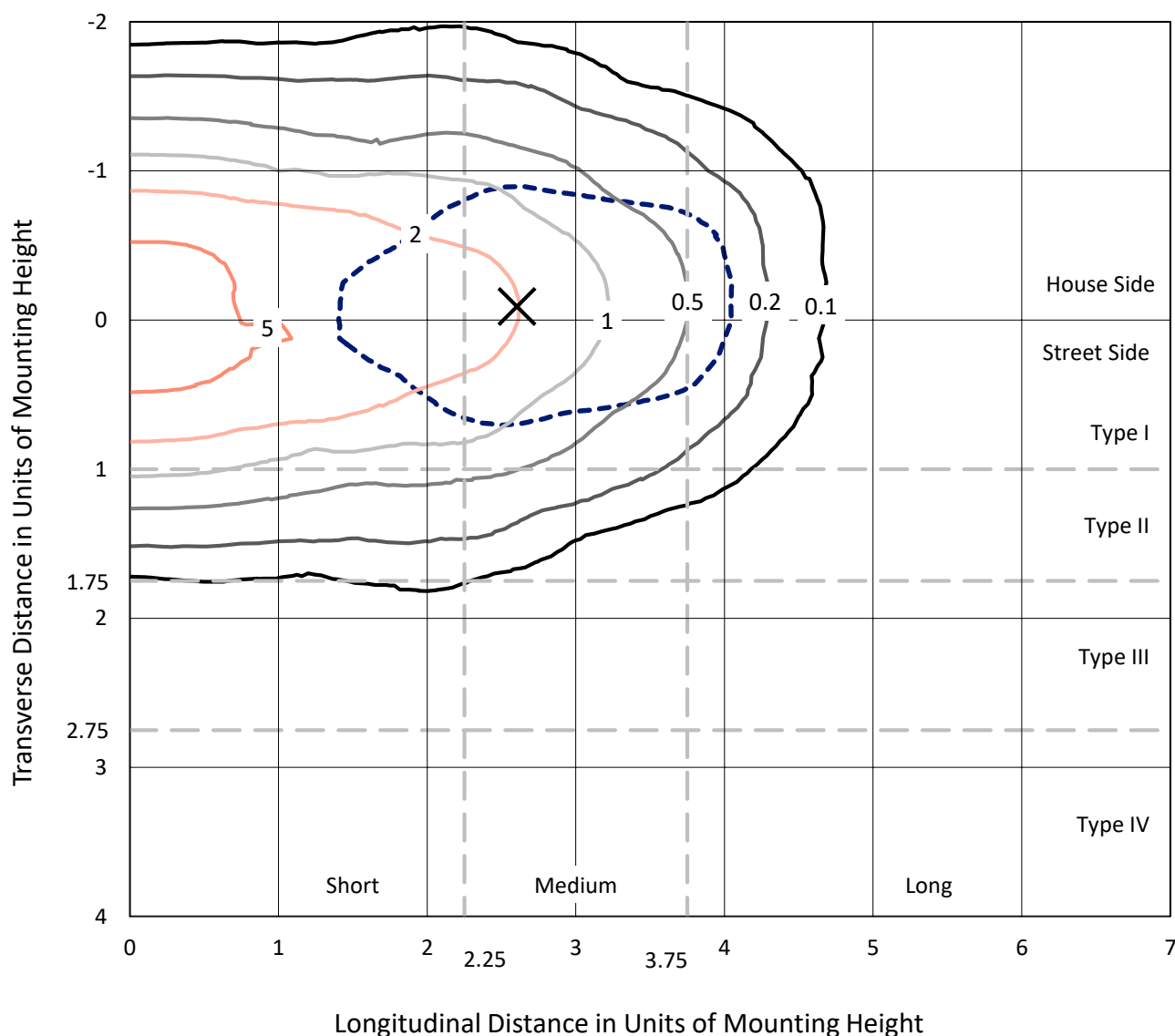


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

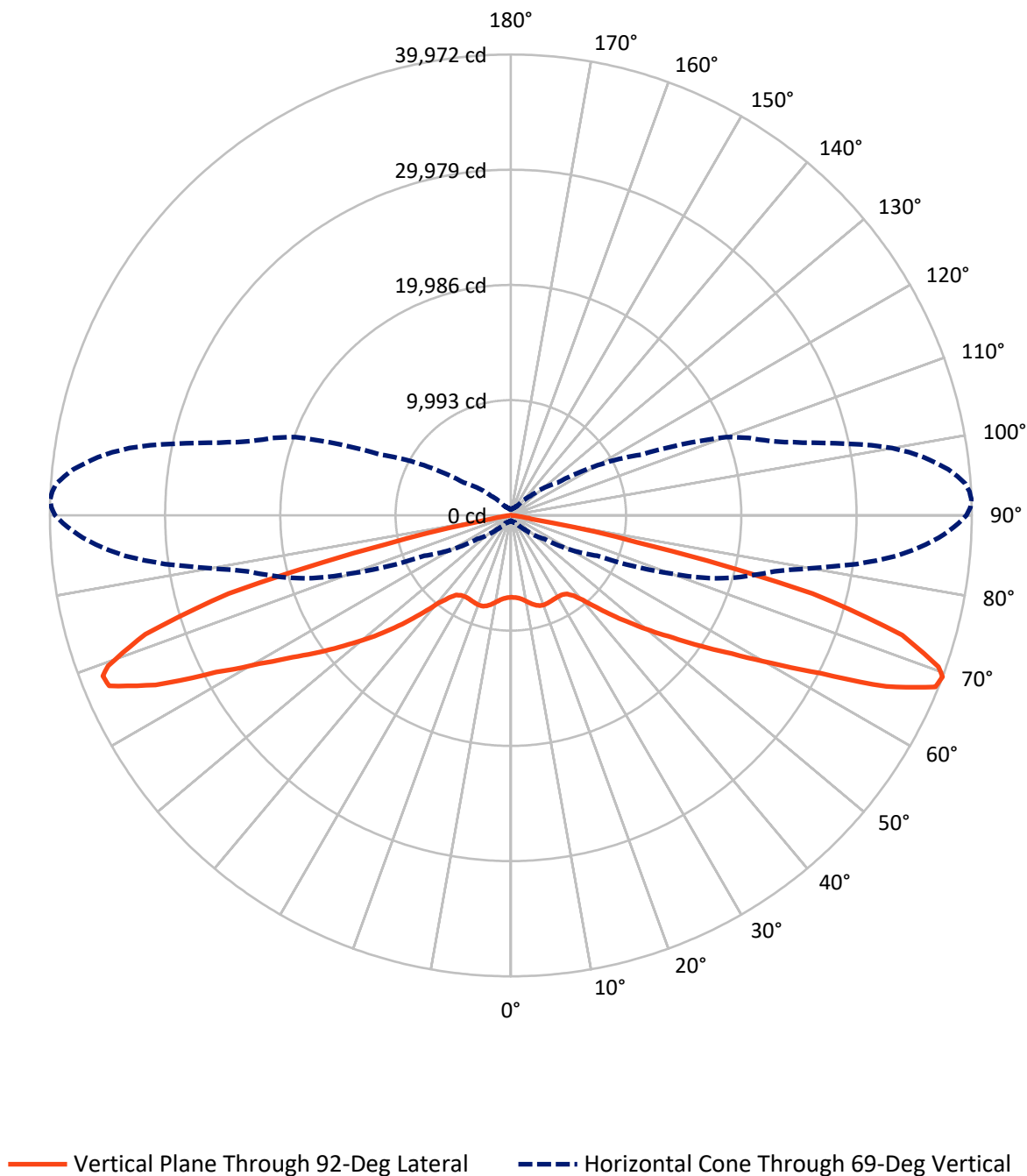


Based on 30 foot mounting height. Maximum calculated value = 8.1 fc
 Type I - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	19827.2	0.0	19827.2
	% Fixture	53.0	0.0	53.0
Street Side	Lumens	17557.8	0.0	17557.8
	% Fixture	47.0	0.0	47.0
Total	Lumens	37385.0	0.0	37385.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	694.9	1.9
10°-20°	2195.2	5.9
20°-30°	3561.5	9.5
30°-40°	4438.6	11.9
40°-50°	5526.5	14.8
50°-60°	6815.5	18.2
60°-70°	8464.4	22.6
70°-80°	5200.9	13.9
80°-90°	487.5	1.3
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°	37385.0	100.0
0°-180°	37385.0	100.0

Coefficient of Utilization



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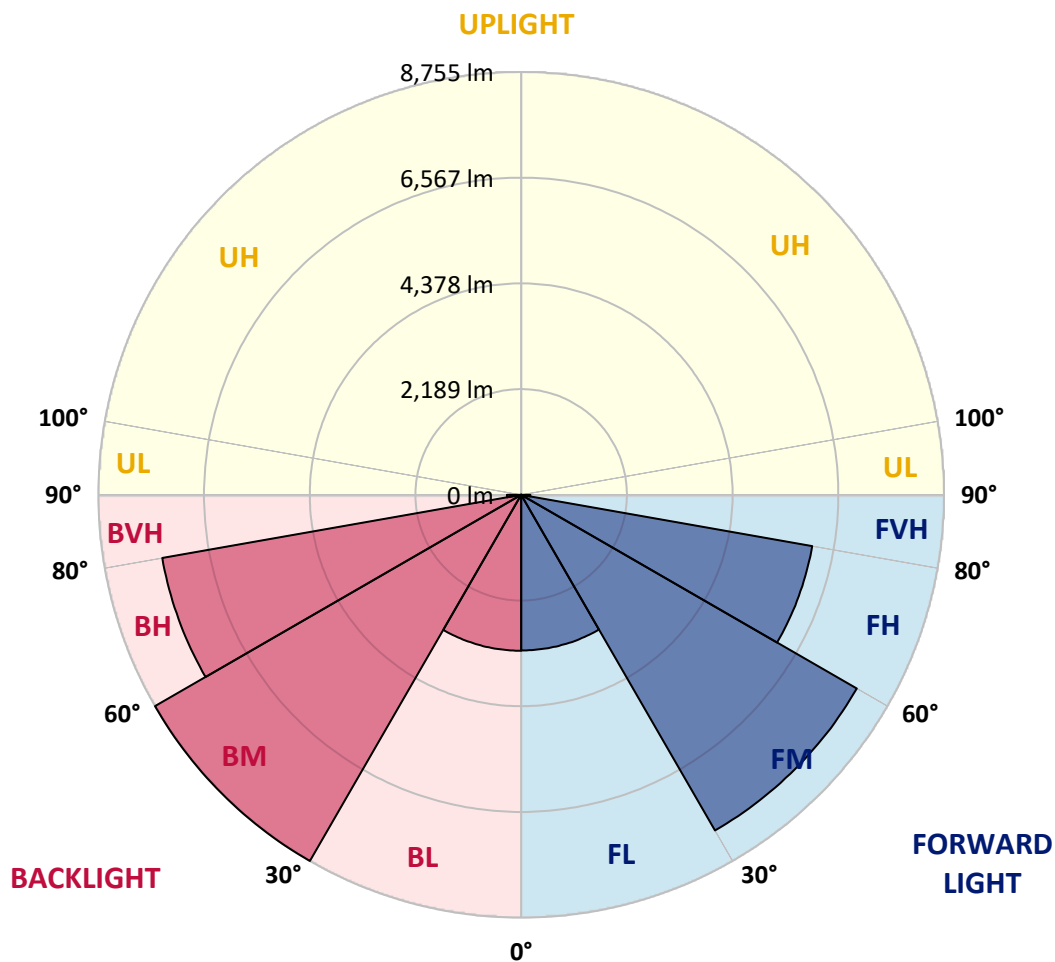
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3222.4	8.6			
FM	(30°-60°)	8025.1	21.5			
FH	(60°-80°)	6119.4	16.4			G3/7500
FVH	(80°-90°)	190.9	0.5			G2/225
BL	(0°-30°)	3229.2	8.6	B4/5000		
BM	(30°-60°)	8755.5	23.4	B5		
BH	(60°-80°)	7545.9	20.2	B5		G5
BVH	(80°-90°)	296.6	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6
2.5°	7214.4	7195.2	7212.0	7214.4	7212.0	7212.0	7190.4	7185.6	7156.8	7164.0	7161.6
5°	7312.8	7305.6	7317.6	7322.4	7327.2	7317.6	7300.8	7293.6	7274.4	7267.2	7264.8
7.5°	7404.0	7392.0	7411.2	7428.0	7440.0	7442.4	7444.8	7432.8	7432.8	7423.2	7423.2
10°	7480.8	7471.2	7502.4	7524.0	7562.4	7584.0	7608.0	7624.8	7634.4	7636.8	7634.4
12.5°	7514.4	7507.2	7557.6	7622.4	7694.4	7744.8	7804.8	7848.0	7860.0	7857.6	7869.6
15°	7456.8	7461.6	7538.4	7665.6	7819.2	7946.4	8030.4	8066.4	8076.0	8080.8	8083.2
17.5°	7300.8	7310.4	7420.8	7627.2	7896.0	8126.4	8251.2	8251.2	8232.0	8232.0	8229.6
20°	7051.2	7060.8	7204.8	7502.4	7898.4	8251.2	8428.8	8392.8	8320.8	8306.4	8292.0
22.5°	6705.6	6744.0	6902.4	7248.0	7795.2	8287.2	8539.2	8486.4	8373.6	8342.4	8320.8
25°	6314.4	6309.6	6499.2	6888.0	7545.6	8200.8	8570.4	8560.8	8440.8	8407.2	8368.8
27.5°	5868.0	5882.4	6057.6	6451.2	7164.0	7951.2	8517.6	8644.8	8546.4	8512.8	8476.8
30°	5409.6	5424.0	5589.6	6048.0	6729.6	7593.6	8409.6	8726.4	8688.0	8661.6	8637.6
32.5°	4948.8	4953.6	5150.4	5642.4	6362.4	7166.4	8246.4	8800.8	8853.6	8841.6	8832.0
35°	4516.8	4521.6	4735.2	5234.4	6000.0	6801.6	8049.6	8908.8	9079.2	9093.6	9103.2
37.5°	4096.8	4104.0	4322.4	4845.6	5642.4	6525.6	7831.2	9074.4	9396.0	9448.8	9458.4
40°	3679.2	3686.4	3895.2	4449.6	5280.0	6283.2	7663.2	9307.2	9823.2	9895.2	9969.6
42.5°	3280.8	3307.2	3484.8	4015.2	4876.8	5983.2	7591.2	9590.4	10329.6	10442.4	10526.4
45°	2908.8	2911.2	3112.8	3609.6	4399.2	5577.6	7543.2	9912.0	10896.0	11066.4	11181.6
47.5°	2510.4	2539.2	2750.4	3232.8	3952.8	5076.0	7389.6	10288.8	11512.8	11712.0	11944.8
50°	2124.0	2164.8	2368.8	2846.4	3544.8	4557.6	6976.8	10730.4	12206.4	12465.6	12734.4
52.5°	1752.0	1749.6	1965.6	2462.4	3134.4	4118.4	6307.2	11193.6	13008.0	13286.4	13576.8
55°	1324.8	1324.8	1538.4	1992.0	2690.4	3727.2	5589.6	11481.6	13752.0	14088.0	14404.8
57.5°	909.6	933.6	1135.2	1526.4	2227.2	3369.6	5040.0	11316.0	14320.8	14738.4	15115.2
60°	674.4	698.4	847.2	1096.8	1742.4	2947.2	4627.2	10536.0	14664.0	15218.4	15708.0
62.5°	583.2	600.0	741.6	878.4	1255.2	2498.4	4262.4	9544.8	15158.4	15916.8	16598.4
65°	520.8	537.6	679.2	758.4	981.6	2008.8	4058.4	8978.4	15748.8	16908.0	17896.8
67.5°	482.4	501.6	621.6	679.2	856.8	1816.8	3900.0	8846.4	15744.0	17150.4	18412.8
69°	463.2	477.6	576.0	638.4	828.0	1759.2	3556.8	8272.8	14704.8	16214.4	17481.6
70°	451.2	465.6	549.6	612.0	818.4	1656.0	3240.0	7514.4	13521.6	15040.8	16327.2
72.5°	412.8	427.2	489.6	547.2	681.6	1106.4	2258.4	4809.6	9662.4	10747.2	12218.4
75°	364.8	381.6	429.6	477.6	516.0	640.8	1303.2	2496.0	5524.8	6348.0	7658.4
77.5°	297.6	314.4	364.8	441.6	436.8	487.2	847.2	1533.6	2587.2	3208.8	3693.6
80°	244.8	256.8	300.0	446.4	357.6	408.0	686.4	1257.6	1821.6	2013.6	2128.8
82.5°	163.2	180.0	232.8	350.4	273.6	290.4	513.6	1176.0	1540.8	1689.6	1828.8
85°	76.8	84.0	141.6	187.2	165.6	156.0	292.8	830.4	1147.2	1216.8	1269.6
87.5°	0.0	0.0	7.2	14.4	21.6	21.6	52.8	175.2	321.6	388.8	384.0
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-RW

CANDELA DISTRIBUTION (continued):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6
2.5°	7152.0	7154.4	7152.0	7152.0	7149.6	7144.8	7144.8	7140.0	7142.4	7140.0	7144.8
5°	7262.4	7262.4	7255.2	7250.4	7257.6	7250.4	7252.8	7240.8	7240.8	7233.6	7224.0
7.5°	7420.8	7420.8	7423.2	7408.8	7418.4	7420.8	7413.6	7408.8	7404.0	7392.0	7394.4
10°	7632.0	7632.0	7639.2	7620.0	7629.6	7634.4	7636.8	7636.8	7632.0	7610.4	7612.8
12.5°	7867.2	7862.4	7864.8	7855.2	7864.8	7869.6	7874.4	7869.6	7869.6	7864.8	7862.4
15°	8080.8	8078.4	8083.2	8076.0	8078.4	8083.2	8097.6	8095.2	8092.8	8078.4	8078.4
17.5°	8227.2	8220.0	8215.2	8212.8	8212.8	8210.4	8212.8	8212.8	8205.6	8203.2	8203.2
20°	8282.4	8263.2	8251.2	8244.0	8234.4	8229.6	8224.8	8227.2	8222.4	8215.2	8217.6
22.5°	8292.0	8265.6	8241.6	8220.0	8200.8	8188.8	8176.8	8172.0	8160.0	8152.8	8152.8
25°	8337.6	8296.8	8258.4	8222.4	8193.6	8167.2	8140.8	8121.6	8107.2	8090.4	8085.6
27.5°	8438.4	8395.2	8349.6	8304.0	8265.6	8212.8	8176.8	8138.4	8104.8	8078.4	8059.2
30°	8594.4	8551.2	8505.6	8452.8	8402.4	8347.2	8287.2	8241.6	8193.6	8140.8	8112.0
32.5°	8800.8	8772.0	8726.4	8676.0	8630.4	8572.8	8500.8	8431.2	8385.6	8323.2	8277.6
35°	9096.0	9062.4	9048.0	9026.4	8980.8	8944.8	8865.6	8800.8	8757.6	8671.2	8637.6
37.5°	9499.2	9496.8	9508.8	9501.6	9508.8	9463.2	9427.2	9424.8	9362.4	9278.4	9196.8
40°	10048.8	10077.6	10142.4	10188.0	10231.2	10236.0	10286.4	10233.6	10240.8	10228.8	10144.8
42.5°	10675.2	10773.6	10850.4	10984.8	11088.0	11184.0	11248.8	11337.6	11404.8	11464.8	11479.2
45°	11373.6	11520.0	11697.6	11817.6	12019.2	12180.0	12400.8	12571.2	12748.8	12924.0	12986.4
47.5°	12132.0	12314.4	12511.2	12734.4	12988.8	13240.8	13581.6	13843.2	14128.8	14366.4	14577.6
50°	12969.6	13159.2	13423.2	13680.0	14030.4	14320.8	14767.2	15110.4	15571.2	15888.0	16161.6
52.5°	13843.2	14080.8	14376.0	14659.2	15016.8	15388.8	15885.6	16392.0	16946.4	17426.4	17824.8
55°	14697.6	14990.4	15273.6	15604.8	16000.8	16432.8	16994.4	17661.6	18352.8	18902.4	19430.4
57.5°	15458.4	15796.8	16130.4	16466.4	16872.0	17373.6	18004.8	18724.8	19516.8	20248.8	20973.6
60°	16164.0	16569.6	16977.6	17397.6	17863.2	18482.4	19240.8	20126.4	21151.2	22152.0	23100.0
62.5°	17280.0	17812.8	18319.2	18861.6	19423.2	20150.4	21045.6	22207.2	23383.2	24633.6	25605.6
65°	18792.0	19540.8	20203.2	20906.4	21633.6	22605.6	23676.0	25065.6	26750.4	28032.0	29592.0
67.5°	19543.2	20529.6	21381.6	22164.0	23064.0	24045.6	25317.6	26961.6	28759.2	30616.8	32356.8
69°	18660.0	19677.6	20620.8	21496.8	22406.4	23359.2	24688.8	26376.0	28276.8	30285.6	31984.8
70°	17515.2	18532.8	19538.4	20536.8	21367.2	22296.0	23630.4	25370.4	27268.8	29356.8	31041.6
72.5°	13418.4	14642.4	15552.0	16488.0	17450.4	18237.6	19778.4	21244.8	23222.4	25341.6	27196.8
75°	8584.8	9710.4	10704.0	11500.8	12441.6	13384.8	14522.4	16152.0	17390.4	19130.4	20635.2
77.5°	4411.2	4744.8	5702.4	5988.0	6640.8	7154.4	7780.8	8188.8	9196.8	9410.4	10298.4
80°	2090.4	1884.0	1773.6	1672.8	1701.6	1689.6	1639.2	1572.0	1656.0	1620.0	1605.6
82.5°	1821.6	1624.8	1296.0	1101.6	952.8	808.8	696.0	638.4	645.6	664.8	672.0
85°	1276.8	1200.0	936.0	710.4	554.4	429.6	345.6	331.2	340.8	367.2	357.6
87.5°	369.6	386.4	340.8	237.6	165.6	120.0	93.6	105.6	100.8	98.4	103.2
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):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6
2.5°	7144.8	7142.4	7135.2	7128.0	7128.0	7123.2	7128.0	7130.4	7128.0	7128.0	7123.2
5°	7226.4	7228.8	7236.0	7221.6	7219.2	7221.6	7212.0	7209.6	7202.4	7209.6	7200.0
7.5°	7382.4	7389.6	7389.6	7380.0	7377.6	7384.8	7370.4	7365.6	7358.4	7356.0	7353.6
10°	7615.2	7622.4	7610.4	7603.2	7596.0	7605.6	7593.6	7593.6	7586.4	7579.2	7576.8
12.5°	7874.4	7869.6	7864.8	7869.6	7862.4	7862.4	7855.2	7850.4	7848.0	7845.6	7840.8
15°	8076.0	8092.8	8092.8	8097.6	8092.8	8092.8	8083.2	8085.6	8080.8	8078.4	8080.8
17.5°	8205.6	8210.4	8222.4	8229.6	8229.6	8232.0	8227.2	8232.0	8227.2	8227.2	8236.8
20°	8222.4	8227.2	8239.2	8251.2	8258.4	8263.2	8263.2	8270.4	8275.2	8280.0	8292.0
22.5°	8155.2	8162.4	8176.8	8198.4	8210.4	8215.2	8224.8	8236.8	8248.8	8258.4	8275.2
25°	8085.6	8088.0	8102.4	8124.0	8138.4	8150.4	8167.2	8181.6	8198.4	8217.6	8236.8
27.5°	8047.2	8044.8	8056.8	8078.4	8090.4	8107.2	8121.6	8143.2	8162.4	8186.4	8203.2
30°	8080.8	8061.6	8064.0	8073.6	8083.2	8095.2	8112.0	8131.2	8152.8	8174.4	8193.6
32.5°	8229.6	8186.4	8157.6	8150.4	8152.8	8155.2	8164.8	8176.8	8193.6	8210.4	8217.6
35°	8551.2	8476.8	8438.4	8407.2	8380.8	8359.2	8364.0	8361.6	8361.6	8376.0	8359.2
37.5°	9163.2	9069.6	9028.8	8973.6	8942.4	8863.2	8841.6	8836.8	8805.6	8805.6	8769.6
40°	10123.2	10068.0	10036.8	9986.4	9835.2	9854.4	9746.4	9748.8	9660.0	9669.6	9607.2
42.5°	11488.8	11496.0	11457.6	11424.0	11306.4	11253.6	11152.8	11008.8	10896.0	10893.6	10768.8
45°	13068.0	13154.4	13032.0	13075.2	12972.0	12830.4	12712.8	12528.0	12352.8	12297.6	12170.4
47.5°	14719.2	14860.8	14767.2	14784.0	14733.6	14532.0	14373.6	14145.6	13917.6	13764.0	13687.2
50°	16483.2	16576.8	16574.4	16528.8	16504.8	16308.0	16053.6	15880.8	15712.8	15506.4	15439.2
52.5°	18081.6	18300.0	18446.4	18412.8	18343.2	18225.6	18000.0	17851.2	17604.0	17575.2	17604.0
55°	19792.8	20076.0	20224.8	20404.8	20407.2	20385.6	20292.0	20236.8	20006.4	20032.8	19999.2
57.5°	21412.8	21828.0	22056.0	22440.0	22572.0	22747.2	22682.4	22754.4	22615.2	22706.4	22680.0
60°	23608.8	24184.8	24564.0	25089.6	25334.4	25773.6	25860.0	25912.8	25989.6	26176.8	26071.2
62.5°	26371.2	27216.0	28003.2	28718.4	28953.6	29613.6	29721.6	30134.4	30156.0	30283.2	30050.4
65°	30892.8	31922.4	32788.8	33645.6	34140.0	34912.8	35224.8	36026.4	35781.6	35884.8	35388.0
67.5°	33854.4	35052.0	36213.6	37024.8	37845.6	38635.2	39204.0	39722.4	39717.6	39616.8	39175.2
69°	33592.8	34927.2	36072.0	37159.2	38023.2	38834.4	39518.4	39854.4	39972.0	39825.6	39511.2
70°	32688.0	34058.4	35460.0	36355.2	37296.0	38186.4	38892.0	39259.2	39340.8	39237.6	38966.4
72.5°	28507.2	29822.4	31368.0	32181.6	33319.2	33962.4	34934.4	35409.6	35493.6	35361.6	35184.0
75°	22248.0	22485.6	24060.0	24578.4	25404.0	26145.6	26750.4	26596.8	27026.4	26942.4	26875.2
77.5°	10480.8	9847.2	10867.2	11342.4	11092.8	10428.0	11395.2	10696.8	11160.0	11762.4	11608.8
80°	1728.0	1723.2	1768.8	1869.6	1749.6	1857.6	1855.2	1802.4	1807.2	1936.8	1869.6
82.5°	664.8	679.2	686.4	705.6	705.6	708.0	720.0	734.4	722.4	746.4	741.6
85°	360.0	384.0	362.4	345.6	357.6	364.8	374.4	386.4	374.4	410.4	391.2
87.5°	93.6	98.4	86.4	86.4	84.0	76.8	76.8	81.6	88.8	105.6	115.2
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-RW

CANDELA DISTRIBUTION (continued):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6
2.5°	7113.6	7116.0	7118.4	7111.2	7106.4	7106.4	7104.0	7099.2	7096.8	7096.8	7096.8
5°	7195.2	7200.0	7188.0	7185.6	7180.8	7176.0	7176.0	7171.2	7173.6	7173.6	7161.6
7.5°	7358.4	7351.2	7336.8	7327.2	7336.8	7320.0	7312.8	7317.6	7312.8	7315.2	7310.4
10°	7576.8	7576.8	7560.0	7569.6	7557.6	7538.4	7545.6	7538.4	7533.6	7516.8	7526.4
12.5°	7848.0	7840.8	7831.2	7809.6	7802.4	7800.0	7778.4	7780.8	7773.6	7768.8	7761.6
15°	8085.6	8083.2	8061.6	8049.6	8047.2	8037.6	8028.0	8023.2	8011.2	8008.8	8004.0
17.5°	8244.0	8236.8	8227.2	8215.2	8215.2	8200.8	8196.0	8184.0	8181.6	8174.4	8167.2
20°	8296.8	8299.2	8289.6	8280.0	8275.2	8265.6	8258.4	8248.8	8244.0	8234.4	8227.2
22.5°	8284.8	8284.8	8275.2	8272.8	8263.2	8248.8	8239.2	8227.2	8215.2	8203.2	8188.8
25°	8246.4	8244.0	8236.8	8224.8	8212.8	8191.2	8172.0	8152.8	8136.0	8121.6	8100.0
27.5°	8212.8	8208.0	8193.6	8176.8	8152.8	8128.8	8092.8	8066.4	8044.8	8025.6	8001.6
30°	8200.8	8184.0	8162.4	8136.0	8107.2	8071.2	8032.8	7999.2	7975.2	7956.0	7946.4
32.5°	8215.2	8193.6	8160.0	8126.4	8090.4	8047.2	8008.8	7980.0	7958.4	7953.6	7953.6
35°	8347.2	8311.2	8265.6	8217.6	8172.0	8136.0	8109.6	8107.2	8092.8	8109.6	8136.0
37.5°	8733.6	8702.4	8632.8	8570.4	8539.2	8522.4	8498.4	8503.2	8469.6	8522.4	8565.6
40°	9554.4	9516.0	9434.4	9384.0	9321.6	9261.6	9309.6	9295.2	9319.2	9309.6	9355.2
42.5°	10752.0	10713.6	10584.0	10564.8	10538.4	10514.4	10514.4	10495.2	10485.6	10519.2	10480.8
45°	12208.8	12132.0	12084.0	12141.6	12062.4	12086.4	12170.4	12057.6	12084.0	11928.0	11784.0
47.5°	13720.8	13713.6	13701.6	13771.2	13783.2	13819.2	13864.8	13749.6	13540.8	13423.2	13130.4
50°	15460.8	15535.2	15564.0	15631.2	15660.0	15686.4	15614.4	15444.0	15091.2	14779.2	14433.6
52.5°	17575.2	17445.6	17623.2	17688.0	17659.2	17553.6	17294.4	17085.6	16598.4	16149.6	15614.4
55°	20037.6	20068.8	19944.0	19893.6	19795.2	19502.4	19144.8	18674.4	18057.6	17472.0	16795.2
57.5°	22545.6	22533.6	22339.2	22065.6	21732.0	21379.2	20846.4	20172.0	19452.0	18664.8	17846.4
60°	25596.0	25584.0	25190.4	24722.4	24247.2	23678.4	22843.2	22032.0	21067.2	20032.8	19058.4
62.5°	29604.0	29088.0	28701.6	28003.2	27268.8	26524.8	25394.4	24316.8	23028.0	21722.4	20584.8
65°	34740.0	33890.4	33451.2	32438.4	31300.8	30139.2	28989.6	27573.6	25838.4	24259.2	22869.6
67.5°	38539.2	37761.6	36957.6	35947.2	34699.2	33403.2	31828.8	30045.6	28075.2	26304.0	24789.6
69°	38872.8	38145.6	37180.8	36168.0	34987.2	33578.4	31860.0	29863.2	27866.4	26073.6	24583.2
70°	38366.4	37593.6	36578.4	35524.8	34204.8	32875.2	31075.2	28994.4	26995.2	25197.6	23743.2
72.5°	34588.8	33835.2	32755.2	31495.2	30141.6	29004.0	27295.2	25125.6	22951.2	21290.4	20157.6
75°	26301.6	26136.0	25370.4	24636.0	23570.4	22300.8	20738.4	19279.2	17496.0	15739.2	14683.2
77.5°	11222.4	11604.0	12002.4	12060.0	12098.4	11707.2	11464.8	11097.6	9904.8	9362.4	8803.2
80°	2073.6	1852.8	1977.6	1992.0	2073.6	2116.8	2275.2	2697.6	2745.6	2848.8	2976.0
82.5°	736.8	748.8	768.0	775.2	782.4	811.2	919.2	1101.6	1267.2	1483.2	1771.2
85°	417.6	424.8	441.6	456.0	465.6	494.4	554.4	662.4	825.6	1072.8	1454.4
87.5°	127.2	144.0	153.6	172.8	180.0	184.8	211.2	283.2	364.8	540.0	787.2
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-RW

CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6	7101.6
2.5°	7096.8	7094.4	7089.6	7084.8	7087.2	7082.4	7068.0	7063.2	7046.4	7034.4	7024.8
5°	7161.6	7159.2	7149.6	7152.0	7149.6	7125.6	7108.8	7080.0	7063.2	7036.8	7027.2
7.5°	7296.0	7293.6	7276.8	7284.0	7279.2	7243.2	7214.4	7168.8	7144.8	7111.2	7084.8
10°	7497.6	7497.6	7478.4	7480.8	7480.8	7432.8	7382.4	7305.6	7250.4	7197.6	7152.0
12.5°	7742.4	7732.8	7730.4	7718.4	7708.8	7656.0	7579.2	7476.0	7372.8	7286.4	7224.0
15°	7989.6	7975.2	7968.0	7953.6	7941.6	7893.6	7790.4	7663.2	7524.0	7384.8	7281.6
17.5°	8150.4	8140.8	8126.4	8121.6	8104.8	8056.8	7984.8	7857.6	7684.8	7490.4	7334.4
20°	8210.4	8193.6	8184.0	8174.4	8164.8	8131.2	8131.2	8049.6	7857.6	7584.0	7346.4
22.5°	8172.0	8162.4	8148.0	8140.8	8131.2	8136.0	8229.6	8217.6	7996.8	7605.6	7260.0
25°	8083.2	8071.2	8059.2	8059.2	8056.8	8107.2	8332.8	8364.0	8037.6	7500.0	7070.4
27.5°	7992.0	7975.2	7980.0	7982.4	7994.4	8102.4	8445.6	8402.4	7927.2	7245.6	6744.0
30°	7936.8	7936.8	7948.8	7968.0	7992.0	8181.6	8534.4	8316.0	7641.6	6861.6	6312.0
32.5°	7960.8	7984.8	8011.2	8059.2	8095.2	8356.8	8565.6	8092.8	7226.4	6386.4	5860.8
35°	8174.4	8203.2	8253.6	8328.0	8371.2	8608.8	8565.6	7766.4	6744.0	5978.4	5395.2
37.5°	8640.0	8668.8	8728.8	8786.4	8829.6	8925.6	8529.6	7351.2	6340.8	5556.0	4977.6
40°	9388.8	9429.6	9472.8	9463.2	9434.4	9340.8	8457.6	6964.8	5968.8	5186.4	4567.2
42.5°	10442.4	10404.0	10399.2	10305.6	10209.6	9808.8	8404.8	6712.8	5649.6	4797.6	4159.2
45°	11659.2	11503.2	11342.4	11217.6	11071.2	10322.4	8390.4	6508.8	5296.8	4365.6	3715.2
47.5°	12883.2	12633.6	12321.6	12127.2	11889.6	10869.6	8433.6	6235.2	4843.2	3895.2	3300.0
50°	14083.2	13675.2	13288.8	13056.0	12787.2	11498.4	8503.2	5774.4	4300.8	3468.0	2920.8
52.5°	15194.4	14668.8	14272.8	13999.2	13670.4	12230.4	8440.8	5169.6	3830.4	3057.6	2560.8
55°	16250.4	15669.6	15259.2	14971.2	14584.8	12964.8	7989.6	4620.0	3381.6	2656.8	2155.2
57.5°	17174.4	16617.6	16190.4	15799.2	15472.8	13603.2	7099.2	4166.4	2949.6	2198.4	1716.0
60°	18254.4	17628.0	17121.6	16704.0	16320.0	13932.0	6100.8	3763.2	2488.8	1701.6	1240.8
62.5°	19711.2	18991.2	18405.6	17928.0	17426.4	14004.0	5419.2	3360.0	1975.2	1231.2	902.4
65°	21871.2	20983.2	20251.2	19593.6	18914.4	13706.4	5083.2	2920.8	1468.8	914.4	756.0
67.5°	23587.2	22665.6	21818.4	20973.6	20104.8	13154.4	5008.8	2515.2	1128.0	777.6	679.2
69°	23378.4	22500.0	21722.4	20808.0	19845.6	12460.8	4934.4	2359.2	1029.6	722.4	643.2
70°	22574.4	21741.6	20952.0	20208.0	19029.6	11688.0	4737.6	2272.8	991.2	696.0	616.8
72.5°	19075.2	18110.4	17344.8	16418.4	15177.6	8685.6	3592.8	1838.4	909.6	636.0	556.8
75°	13912.8	13113.6	12350.4	11325.6	10118.4	5025.6	2236.8	1051.2	667.2	576.0	504.0
77.5°	8124.0	7944.0	7207.2	6532.8	5337.6	2558.4	1284.0	628.8	518.4	523.2	444.0
80°	3057.6	3256.8	3331.2	3098.4	2863.2	1766.4	933.6	511.2	451.2	516.0	376.8
82.5°	2229.6	2587.2	2630.4	2520.0	2344.8	1646.4	746.4	410.4	367.2	554.4	324.0
85°	1860.0	2059.2	2090.4	1975.2	1917.6	1394.4	520.8	288.0	268.8	398.4	242.4
87.5°	940.8	991.2	1017.6	921.6	926.4	650.4	208.8	122.4	146.4	170.4	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: P158080

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

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	7101.6	7101.6
2.5°	7003.2	7017.6
5°	7012.8	7012.8
7.5°	7068.0	7068.0
10°	7128.0	7130.4
12.5°	7183.2	7180.8
15°	7226.4	7219.2
17.5°	7252.8	7245.6
20°	7226.4	7214.4
22.5°	7092.0	7058.4
25°	6847.2	6804.0
27.5°	6523.2	6494.4
30°	6100.8	6057.6
32.5°	5606.4	5584.8
35°	5133.6	5107.2
37.5°	4701.6	4694.4
40°	4336.8	4298.4
42.5°	3909.6	3892.8
45°	3475.2	3465.6
47.5°	3067.2	3057.6
50°	2690.4	2671.2
52.5°	2320.8	2289.6
55°	1910.4	1888.8
57.5°	1466.4	1447.2
60°	1032.0	1010.4
62.5°	734.4	710.4
65°	612.0	592.8
67.5°	554.4	532.8
69°	528.0	508.8
70°	511.2	496.8
72.5°	475.2	465.6
75°	434.4	427.2
77.5°	381.6	369.6
80°	319.2	307.2
82.5°	268.8	256.8
85°	180.0	163.2
87.5°	81.6	72.0
90°	0.0	0.0

(END OF REPORT)