

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: P158959

Luminaire Tested: **VST-E12-LED-E-U-SLL-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158959
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33715)
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-SLL-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (252) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29453.1 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

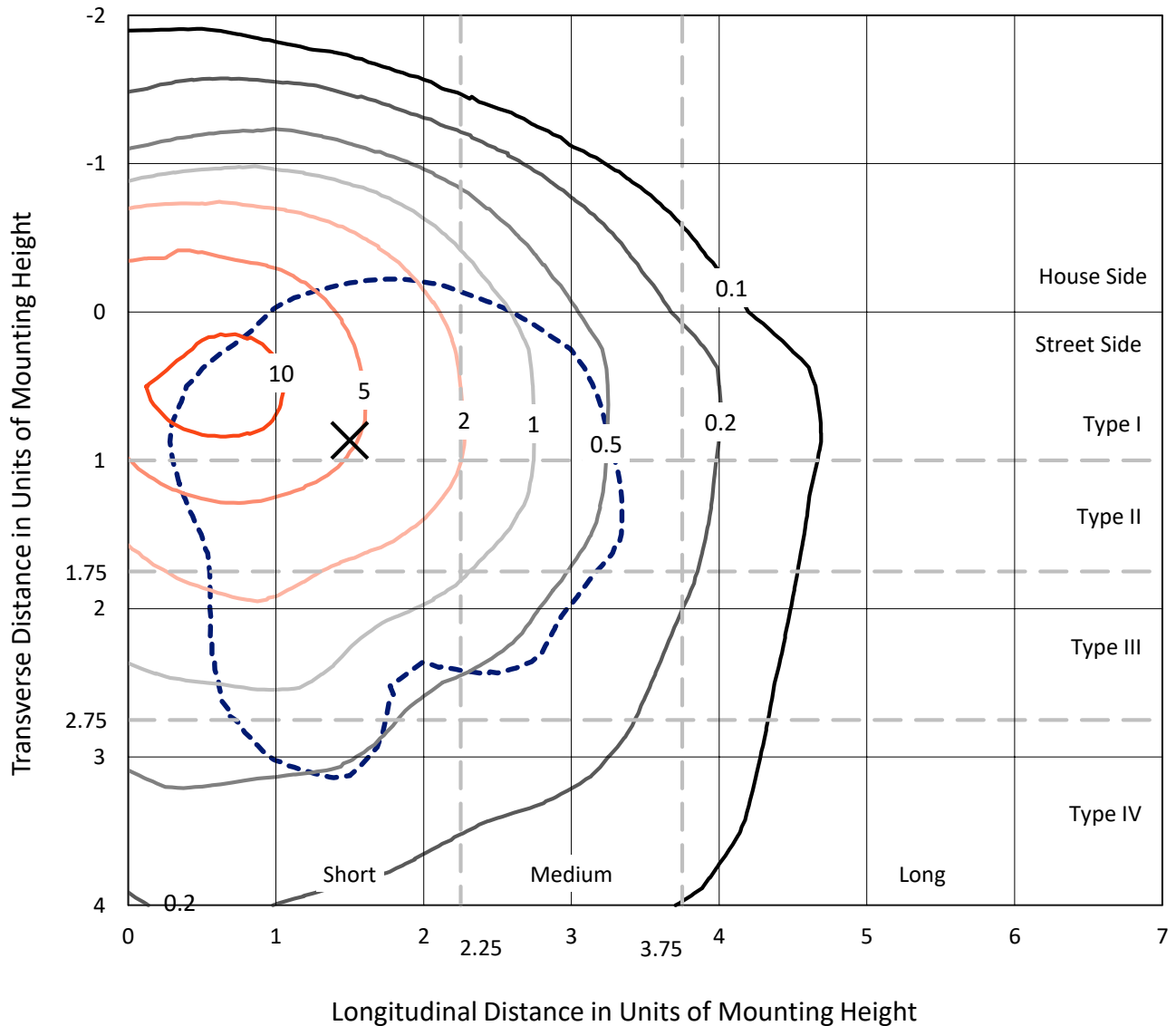
Input Watts (W): 291.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

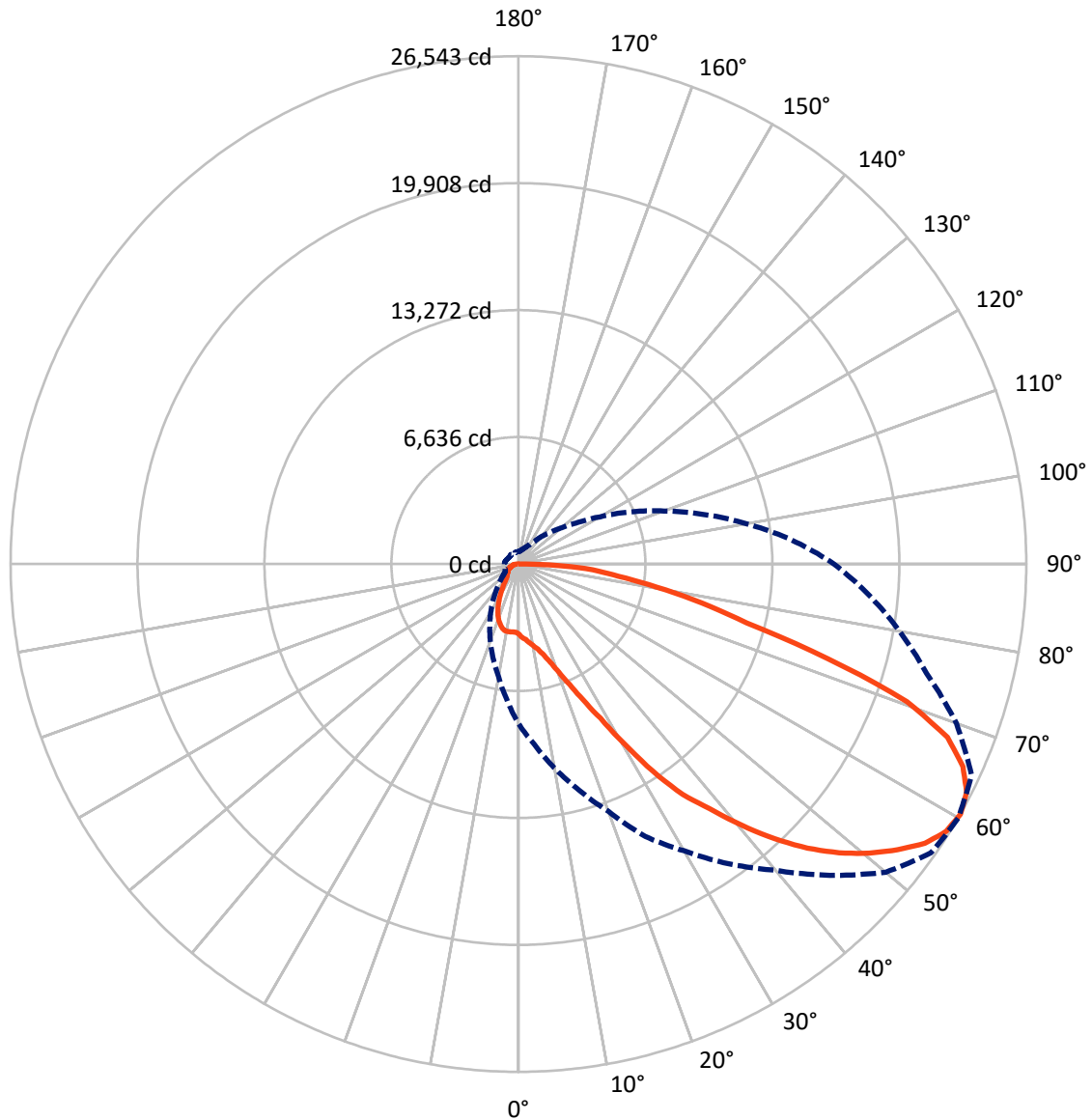
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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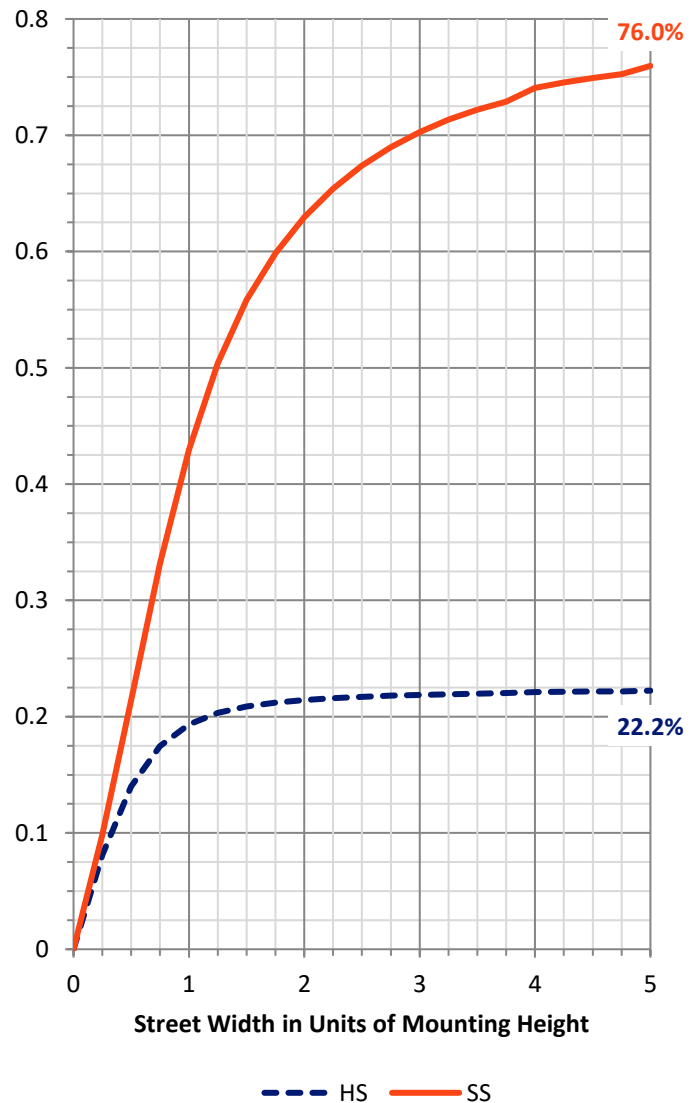
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6631.9	0.0	6631.9
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	22821.2	0.0	22821.2
	% Fixture	77.5	0.0	77.5
Total	Lumens	29453.1	0.0	29453.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.4	1.2
10°-20°	1166.8	4.0
20°-30°	2214.1	7.5
30°-40°	3486.8	11.8
40°-50°	4866.7	16.5
50°-60°	6019.0	20.4
60°-70°	6239.0	21.2
70°-80°	3925.8	13.3
80°-90°	1173.5	4.0
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°	29453.1	100.0
0°-180°	29453.1	100.0



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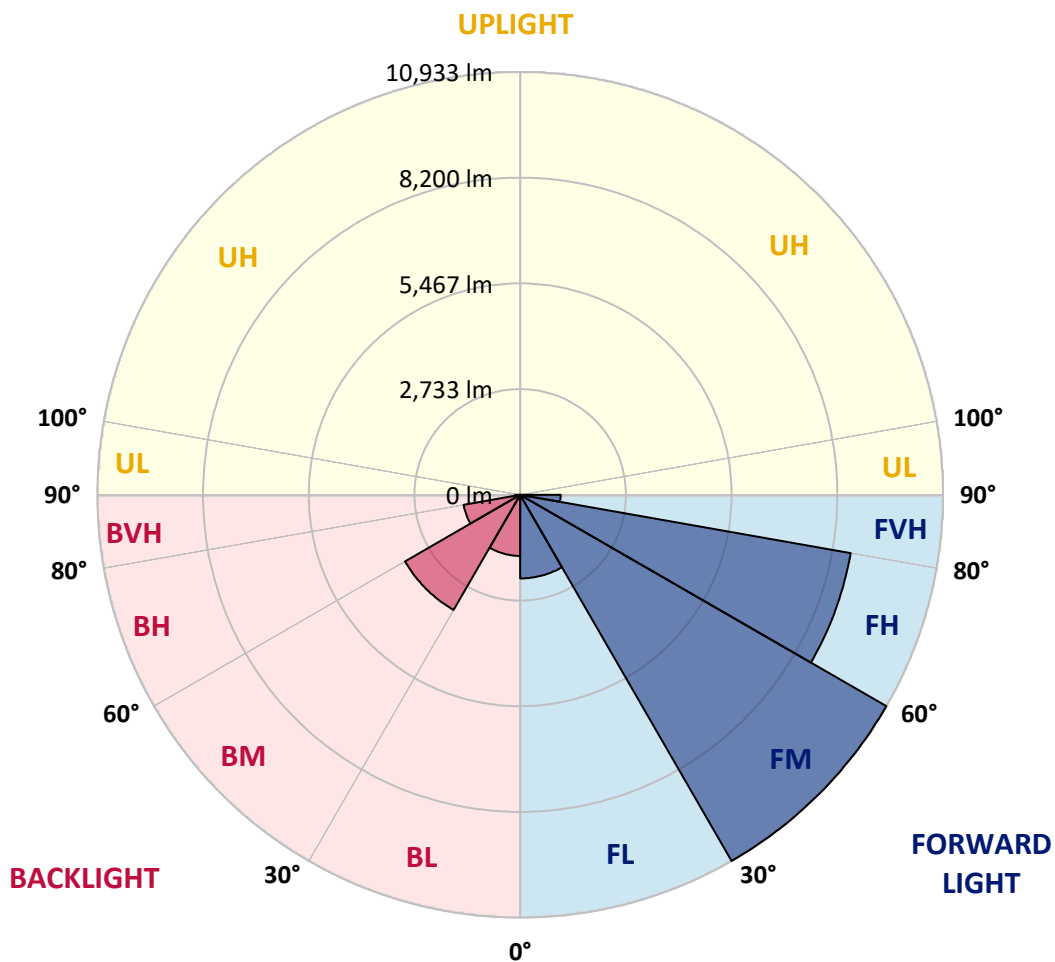
CATALOG NUMBER: VST-E12-LED-E-U-SLL-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2162.3	7.3			
FM	(30°-60°)	10933.5	37.1			
FH	(60°-80°)	8679.6	29.5			G4/12000
FVH	(80°-90°)	1045.9	3.6			G5
BL	(0°-30°)	1580.0	5.4	B3/2500		
BM	(30°-60°)	3439.0	11.7	B3/5000		
BH	(60°-80°)	1485.3	5.0	B3/2500		G3/2500
BVH	(80°-90°)	127.7	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9
2.5°	3879.9	3875.5	3875.5	3875.5	3873.3	3869.0	3875.5	3873.3	3862.4	3855.8	3862.4
5°	3930.3	3932.5	3939.1	3941.3	3941.3	3947.9	3965.4	3967.6	3965.4	3969.8	3980.7
7.5°	3978.6	3989.5	3996.1	4007.1	4020.2	4031.2	4061.9	4092.5	4112.3	4127.6	4132.0
10°	4057.5	4075.0	4094.7	4123.2	4153.9	4208.7	4235.0	4265.7	4285.4	4316.1	4322.7
12.5°	4259.1	4281.1	4294.2	4338.0	4377.5	4430.1	4467.4	4476.1	4522.2	4548.5	4579.2
15°	4598.9	4631.8	4677.8	4704.1	4748.0	4794.0	4826.9	4870.7	4877.3	4912.4	4936.5
17.5°	5015.4	5061.4	5155.7	5219.2	5276.2	5322.3	5388.0	5438.5	5449.4	5488.9	5438.5
20°	5598.5	5710.3	5725.6	5852.7	5903.2	5995.2	6126.8	6150.9	6214.4	6150.9	6113.6
22.5°	6387.6	6563.0	6611.2	6733.9	6795.3	6935.6	6975.1	7104.4	7148.2	7100.0	6999.2
25°	7295.1	7566.9	7707.2	7895.7	7926.4	8213.6	8244.3	8395.5	8314.4	8198.2	8200.4
27.5°	7963.7	8426.2	8787.9	9110.1	9335.9	9660.3	9912.4	9982.6	9905.8	9754.6	9702.0
30°	8345.1	8869.0	9388.5	9833.5	10359.6	10855.0	11370.1	11626.6	11670.4	11749.3	11431.5
32.5°	8590.6	9263.6	9881.7	10431.9	10971.2	11609.0	12299.5	12959.3	13513.9	13932.6	13735.3
35°	8796.7	9627.4	10418.8	11085.2	11723.0	12417.9	13115.0	13893.2	14811.6	15348.7	15460.5
37.5°	8880.0	9894.9	10863.8	11718.7	12615.2	13397.8	14090.4	14783.1	15747.6	16705.5	17001.5
40°	8864.6	10026.4	11129.0	12203.1	13301.3	14279.0	15090.0	15909.8	17038.7	18158.9	18641.1
42.5°	8761.6	10046.1	11297.8	12525.3	13777.0	15076.9	16113.7	17058.5	18141.3	19577.1	20258.8
45°	8632.3	9978.2	11332.9	12689.7	14129.9	15633.6	16944.5	18112.8	19382.0	20800.3	21624.5
47.5°	8456.9	9870.8	11289.0	12746.7	14287.7	15990.9	17531.9	18937.0	20333.4	21966.4	23012.0
50°	8266.2	9717.3	11199.1	12705.1	14327.2	16186.0	17867.3	19467.5	21098.4	22860.8	24182.6
52.5°	8132.5	9552.9	11118.0	12619.6	14287.7	16245.2	17990.1	19752.5	21567.5	23389.1	24967.3
55°	7968.1	9333.7	10901.0	12420.1	14143.0	16212.3	17976.9	19851.1	21696.8	23592.9	25394.8
57.5°	7979.0	9232.9	10716.9	12181.2	13847.1	15907.6	17729.2	19752.5	21493.0	23461.4	25410.1
60°	8325.4	9449.9	10813.3	12229.4	13759.4	15714.7	17308.4	19116.8	20894.5	23007.7	25055.0
62.5°	9040.0	10070.2	11308.7	12711.6	14252.6	16100.5	17117.6	18060.2	19638.5	22172.5	24450.0
65°	9892.7	10822.1	11896.2	13231.2	14958.5	16727.5	17010.2	17200.9	17998.8	20548.2	23314.5
67.5°	10745.4	11576.2	12420.1	13527.1	15359.6	16907.2	16571.8	16118.1	16547.7	18660.8	21083.0
70°	11052.3	12154.9	12709.5	13470.1	15054.9	16488.5	15863.8	14721.7	14870.8	16791.0	18562.2
72.5°	10591.9	12163.6	12347.8	12630.5	13698.1	15046.2	14386.4	12917.7	12887.0	14353.5	15784.9
75°	8884.3	11096.1	11093.9	10988.7	11229.8	11997.0	11655.1	10769.5	11144.3	12299.5	12770.8
77.5°	6332.8	8658.6	8768.2	8060.1	8042.6	8388.9	8595.0	9625.3	10984.3	11633.2	11484.1
80°	3978.6	5841.8	6313.1	5438.5	5252.1	5743.1	7016.7	8516.1	10188.6	10771.7	10269.7
82.5°	2395.9	3763.7	4767.7	4272.3	4228.4	5122.8	6530.1	7113.2	7615.1	8235.5	7395.9
85°	1626.5	2507.7	3261.8	3360.4	3744.0	4669.0	5280.6	5022.0	5035.1	4872.9	4438.9
87.5°	311.3	683.9	1117.9	1363.4	1512.5	2032.0	2209.6	2001.3	2113.1	1545.4	1690.1
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9
2.5°	3851.4	3851.4	3851.4	3840.5	3842.6	3827.3	3820.7	3820.7	3814.2	3814.2	3812.0
5°	3972.0	3958.8	3965.4	3963.2	3963.2	3941.3	3930.3	3930.3	3901.8	3904.0	3895.3
7.5°	4151.7	4149.5	4156.1	4143.0	4125.4	4107.9	4090.3	4081.6	4042.1	4018.0	4002.7
10°	4355.6	4353.4	4360.0	4357.8	4327.1	4294.2	4246.0	4210.9	4162.7	4125.4	4088.2
12.5°	4579.2	4577.0	4572.6	4552.9	4520.0	4467.4	4406.0	4346.8	4274.5	4226.3	4171.5
15°	4927.7	4921.1	4894.8	4866.3	4831.3	4750.2	4642.7	4557.3	4460.8	4377.5	4287.6
17.5°	5442.8	5388.0	5383.7	5320.1	5225.8	5118.4	5017.6	4875.1	4737.0	4612.1	4489.3
20°	6153.1	6025.9	5990.8	5918.5	5793.6	5681.8	5462.6	5271.9	5083.3	4912.4	4756.7
22.5°	6926.8	6834.8	6749.3	6630.9	6459.9	6297.7	6019.3	5780.4	5539.3	5320.1	5146.9
25°	8007.5	7847.5	7694.1	7505.5	7268.8	7075.9	6758.1	6516.9	6201.3	6001.8	5751.9
27.5°	9403.9	9129.8	8871.2	8709.0	8292.5	8011.9	7606.4	7295.1	6913.7	6644.1	6348.2
30°	11221.1	10903.2	10519.6	9958.4	9463.0	8906.3	8404.3	8005.3	7599.8	7222.8	6880.8
32.5°	13474.5	12913.3	12306.1	11416.1	10602.9	9809.4	9140.8	8649.8	8235.5	7766.4	7284.2
35°	15379.4	14800.7	13939.2	12808.1	11804.1	10896.6	10096.5	9425.8	8884.3	8290.3	7652.4
37.5°	16883.1	16223.3	15414.4	14213.2	13152.2	12119.8	11280.2	10425.3	9715.1	8897.5	8090.8
40°	18606.0	17944.0	17054.1	15809.0	14553.0	13432.8	12448.6	11565.2	10692.8	9695.4	8658.6
42.5°	20107.6	19629.7	18728.8	17442.1	16050.1	14802.9	13726.6	12716.0	11576.2	10460.4	9232.9
45°	21672.7	21186.1	20331.2	18985.3	17505.6	16115.9	14829.2	13741.9	12396.0	11067.6	9662.5
47.5°	23055.9	22556.1	21692.4	20355.3	18783.6	17319.3	15903.3	14588.0	13025.1	11499.4	9943.1
50°	24375.5	23763.9	22972.6	21639.8	19960.7	18395.6	16859.0	15171.1	13513.9	11801.9	10133.8
52.5°	25587.7	24809.5	24059.8	22687.6	20872.6	19237.4	17523.2	15666.5	13814.2	12040.9	10263.1
55°	26276.0	25774.0	24877.5	23529.4	21521.5	19816.0	17944.0	16015.1	14112.4	12209.7	10317.9
57.5°	26488.6	26365.9	25614.0	24016.0	21902.9	20133.9	18229.0	16291.2	14311.8	12257.9	10241.2
60°	26319.8	26543.4	26131.3	24358.0	22076.0	20228.2	18369.3	16488.5	14346.9	12104.4	10008.9
62.5°	25778.4	26287.0	26234.3	24471.9	21986.2	20109.8	18354.0	16387.7	14018.1	11626.6	9487.2
65°	24888.4	25528.5	25754.3	24048.9	21479.8	19678.0	17963.8	15754.2	13104.0	10692.8	8612.5
67.5°	23213.7	24182.6	24401.8	22663.5	20155.8	18483.3	16839.3	14439.0	11411.8	9248.2	7246.9
70°	19857.7	21552.1	21848.1	20024.3	17821.3	16352.6	14958.5	12354.3	9502.5	7417.9	5561.2
72.5°	15852.8	16918.2	17523.2	16267.1	14627.5	13562.2	12505.6	9478.4	7170.2	5473.5	3827.3
75°	12393.8	12330.2	12871.7	12036.5	11072.0	10574.4	9780.9	6613.4	4802.8	3625.6	2422.2
77.5°	10596.3	9780.9	9164.9	8577.5	8005.3	7847.5	7086.9	4103.5	2968.0	2172.3	1448.9
80°	8807.6	7319.2	6194.7	5368.3	5164.4	5475.7	4638.4	2420.0	1758.0	1247.3	909.7
82.5°	6293.3	5265.3	4285.4	3761.5	3413.0	3908.4	2735.7	1343.7	953.5	747.5	602.8
85°	4079.4	3899.6	3858.0	3687.0	3263.9	3082.0	2078.1	1157.4	714.6	464.7	374.8
87.5°	1569.5	2012.3	2321.4	2488.0	2689.6	2395.9	1082.9	399.0	392.4	241.1	181.9
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9
2.5°	3796.6	3787.8	3785.7	3779.1	3774.7	3774.7	3763.7	3564.3	3562.1	3562.1	3559.9
5°	3877.7	3866.8	3855.8	3853.6	3844.8	3844.8	3833.9	3634.4	3634.4	3634.4	3630.0
7.5°	3987.3	3965.4	3952.2	3945.7	3932.5	3939.1	3947.9	3746.2	3748.4	3746.2	3750.6
10°	4066.2	4053.1	4037.7	4033.4	4024.6	4031.2	4044.3	3844.8	3851.4	3853.6	3858.0
12.5°	4143.0	4121.0	4101.3	4094.7	4090.3	4107.9	4123.2	3930.3	3936.9	3943.5	3943.5
15°	4237.2	4200.0	4173.6	4158.3	4149.5	4167.1	4189.0	3998.3	4000.5	4007.1	4004.9
17.5°	4397.2	4342.4	4281.1	4270.1	4241.6	4248.2	4252.6	4039.9	4031.2	4015.8	3989.5
20°	4644.9	4561.6	4478.3	4443.3	4386.3	4362.2	4313.9	4042.1	3987.3	3941.3	3901.8
22.5°	5000.0	4877.3	4787.4	4728.2	4612.1	4530.9	4399.4	4031.2	3928.1	3849.2	3787.8
25°	5574.4	5427.5	5289.4	5140.3	4958.4	4796.2	4603.3	4127.6	3967.6	3831.7	3713.3
27.5°	6133.3	5901.0	5688.3	5464.8	5208.3	4965.0	4693.2	4158.3	3976.4	3801.0	3608.1
30°	6552.0	6214.4	5892.2	5565.6	5230.2	4914.6	4607.7	4053.1	3836.1	3638.8	3434.9
32.5°	6806.3	6367.9	5949.2	5543.7	5149.1	4794.0	4449.8	3871.1	3632.2	3399.9	3182.8
35°	7047.4	6503.8	5984.3	5506.4	5054.8	4660.3	4289.8	3658.5	3373.6	3125.9	2851.8
37.5°	7345.5	6646.3	6006.2	5438.5	4916.7	4465.2	4057.5	3391.1	3106.1	2801.4	2542.8
40°	7702.8	6793.1	5984.3	5302.5	4701.9	4208.7	3776.9	3110.5	2792.7	2496.7	2242.5
42.5°	8042.6	6922.5	5927.3	5120.6	4467.4	3941.3	3520.4	2860.6	2542.8	2240.3	1988.2
45°	8294.7	7032.1	5898.8	4993.5	4287.6	3759.4	3294.6	2658.9	2323.6	2018.9	1762.4
47.5°	8470.0	7097.8	5885.6	4923.3	4162.7	3570.8	3088.6	2457.3	2104.4	1797.5	1547.6
50°	8562.1	7095.6	5852.7	4846.6	3978.6	3345.1	2876.0	2253.4	1902.7	1602.4	1374.4
52.5°	8586.2	7056.2	5782.6	4706.3	3755.0	3119.3	2648.0	2040.8	1725.1	1438.0	1207.8
55°	8531.4	6959.7	5635.7	4471.8	3516.0	2880.3	2439.7	1874.2	1552.0	1280.2	1100.4
57.5°	8375.8	6788.8	5359.5	4149.5	3263.9	2658.9	2200.8	1672.5	1363.4	1135.5	986.4
60°	8086.4	6427.1	4927.7	3768.1	2943.9	2321.4	1872.0	1409.5	1164.0	993.0	872.4
62.5°	7551.6	5859.3	4320.5	3242.0	2483.6	1883.0	1495.0	1124.5	940.4	828.6	754.1
65°	6690.1	5004.4	3616.9	2553.7	1887.3	1370.0	1111.4	846.1	712.4	644.5	622.5
67.5°	5460.4	3864.6	2630.4	1773.4	1278.0	960.1	773.8	618.2	554.6	528.3	519.5
70°	3969.8	2632.6	1703.2	1120.1	843.9	670.8	585.3	497.6	462.5	455.9	455.9
72.5°	2492.4	1600.2	1043.4	767.2	640.1	543.6	499.8	438.4	425.3	420.9	414.3
75°	1462.1	971.1	738.7	629.1	548.0	486.6	449.4	399.0	390.2	388.0	381.4
77.5°	931.6	699.3	596.2	537.0	495.4	440.6	407.7	355.1	352.9	350.7	348.5
80°	668.6	580.9	521.7	475.7	434.0	383.6	363.9	322.2	317.8	315.7	320.0
82.5°	506.4	480.1	455.9	420.9	363.9	326.6	311.3	282.8	285.0	274.0	271.8
85°	348.5	344.2	342.0	326.6	285.0	252.1	241.1	225.8	236.7	225.8	212.6
87.5°	171.0	168.8	155.6	184.1	171.0	135.9	122.8	135.9	151.3	146.9	135.9
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: P158959

CATALOG NUMBER: VST-E12-LED-E-U-SLL-7030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9
2.5°	3551.1	3542.3	3548.9	3544.5	3544.5	3542.3	3546.7	3540.1	3535.8	3540.1	3542.3
5°	3621.3	3610.3	3612.5	3597.1	3603.7	3588.4	3592.8	3581.8	3570.8	3566.5	3566.5
7.5°	3739.6	3728.7	3715.5	3713.3	3689.2	3680.4	3665.1	3656.3	3649.7	3634.4	3625.6
10°	3847.0	3829.5	3814.2	3812.0	3787.8	3765.9	3746.2	3728.7	3717.7	3695.8	3684.8
12.5°	3934.7	3917.2	3893.1	3879.9	3855.8	3829.5	3816.3	3790.0	3774.7	3750.6	3730.9
15°	3985.1	3954.4	3919.4	3895.3	3860.2	3831.7	3812.0	3792.2	3776.9	3746.2	3717.7
17.5°	3961.0	3910.6	3862.4	3818.5	3770.3	3744.0	3715.5	3691.4	3687.0	3651.9	3608.1
20°	3860.2	3801.0	3737.4	3678.2	3614.7	3577.4	3542.3	3505.1	3494.1	3452.5	3395.5
22.5°	3737.4	3669.5	3597.1	3524.8	3443.7	3391.1	3338.5	3292.4	3255.2	3193.8	3112.7
25°	3612.5	3511.6	3406.4	3314.4	3220.1	3154.3	3099.5	3049.1	3005.3	2906.6	2823.3
27.5°	3448.1	3290.3	3182.8	3077.6	2963.6	2878.1	2816.8	2746.6	2698.4	2584.4	2496.7
30°	3237.6	3079.8	2926.4	2821.2	2707.2	2615.1	2536.2	2435.4	2365.2	2281.9	2200.8
32.5°	2972.4	2814.6	2658.9	2540.6	2446.3	2332.3	2233.7	2137.2	2056.1	1975.0	1911.5
35°	2650.2	2496.7	2349.9	2231.5	2126.3	2036.4	1942.1	1858.9	1766.8	1679.1	1641.8
37.5°	2310.4	2146.0	1983.8	1880.8	1797.5	1733.9	1646.2	1578.3	1495.0	1442.4	1398.5
40°	2014.5	1839.1	1685.7	1598.0	1532.2	1459.9	1387.6	1335.0	1275.8	1223.2	1190.3
42.5°	1764.6	1600.2	1468.7	1394.1	1315.2	1236.3	1181.5	1137.7	1100.4	1060.9	1021.5
45°	1534.4	1376.6	1267.0	1174.9	1109.2	1045.6	1008.3	988.6	966.7	942.6	916.3
47.5°	1341.5	1205.6	1098.2	1012.7	944.8	900.9	883.4	876.8	868.0	848.3	835.2
50°	1194.7	1082.9	973.3	896.5	839.6	817.6	797.9	791.3	780.4	773.8	765.0
52.5°	1071.9	953.5	861.5	791.3	756.3	747.5	738.7	729.9	727.8	723.4	719.0
55°	971.1	868.0	782.6	729.9	712.4	705.8	703.6	694.9	692.7	692.7	686.1
57.5°	881.2	793.5	716.8	683.9	673.0	666.4	662.0	657.6	657.6	662.0	659.8
60°	789.1	714.6	668.6	651.0	644.5	633.5	622.5	618.2	620.3	631.3	631.3
62.5°	699.3	644.5	616.0	609.4	602.8	594.0	580.9	576.5	580.9	594.0	600.6
65°	600.6	576.5	567.7	563.4	559.0	552.4	543.6	539.2	541.4	548.0	556.8
67.5°	510.7	508.6	508.6	510.7	508.6	506.4	502.0	495.4	493.2	493.2	497.6
70°	455.9	455.9	462.5	462.5	460.3	460.3	453.8	447.2	442.8	438.4	440.6
72.5°	414.3	414.3	416.5	418.7	416.5	416.5	407.7	403.3	392.4	390.2	385.8
75°	379.2	374.8	374.8	372.6	370.5	372.6	363.9	352.9	348.5	346.3	342.0
77.5°	344.2	335.4	331.0	326.6	328.8	326.6	320.0	313.5	306.9	304.7	302.5
80°	304.7	291.5	285.0	274.0	280.6	282.8	278.4	271.8	269.6	267.4	265.2
82.5°	252.1	238.9	230.2	223.6	219.2	223.6	230.2	245.5	241.1	238.9	234.5
85°	197.3	175.4	164.4	166.6	155.6	157.8	177.6	186.3	186.3	190.7	186.3
87.5°	111.8	107.4	81.1	74.5	78.9	94.3	105.2	116.2	116.2	109.6	122.8
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: P158959

CATALOG NUMBER: VST-E12-LED-E-U-SLL-7030

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9
2.5°	3542.3	3546.7	3548.9	3557.7	3562.1	3564.3	3566.5	3570.8	3573.0	3570.8	3581.8
5°	3559.9	3559.9	3555.5	3562.1	3564.3	3564.3	3559.9	3564.3	3564.3	3564.3	3575.2
7.5°	3605.9	3592.8	3586.2	3577.4	3570.8	3562.1	3551.1	3551.1	3548.9	3551.1	3557.7
10°	3654.1	3634.4	3610.3	3588.4	3568.6	3553.3	3533.6	3527.0	3524.8	3522.6	3540.1
12.5°	3691.4	3656.3	3619.1	3581.8	3542.3	3516.0	3483.2	3463.4	3461.2	3461.2	3483.2
15°	3665.1	3608.1	3535.8	3470.0	3434.9	3397.7	3360.4	3336.3	3334.1	3338.5	3351.6
17.5°	3533.6	3441.5	3377.9	3314.4	3268.3	3237.6	3213.5	3209.1	3217.9	3209.1	3226.7
20°	3310.0	3211.3	3167.5	3117.1	3099.5	3077.6	3042.6	3011.9	3011.9	2972.4	2983.4
22.5°	3020.6	2965.8	2908.8	2869.4	2856.2	2819.0	2781.7	2740.1	2735.7	2687.4	2680.9
25°	2718.1	2663.3	2617.3	2608.5	2569.1	2518.7	2483.6	2435.4	2424.4	2376.2	2369.6
27.5°	2409.1	2365.2	2319.2	2292.9	2271.0	2216.2	2185.5	2128.5	2106.6	2053.9	2047.4
30°	2115.3	2084.6	2029.8	2007.9	1966.3	1902.7	1836.9	1801.9	1784.3	1729.5	1712.0
32.5°	1839.1	1790.9	1749.2	1722.9	1670.3	1598.0	1538.8	1488.4	1455.5	1389.8	1372.2
35°	1576.1	1527.9	1508.1	1440.2	1394.1	1345.9	1264.8	1234.1	1174.9	1124.5	1107.0
37.5°	1343.7	1297.7	1271.4	1214.4	1168.4	1120.1	1071.9	1032.5	1004.0	993.0	993.0
40°	1144.2	1120.1	1087.3	1045.6	1014.9	979.8	953.5	940.4	938.2	942.6	953.5
42.5°	1001.8	975.5	953.5	931.6	909.7	905.3	898.7	907.5	918.5	929.4	940.4
45°	894.4	872.4	859.3	850.5	848.3	854.9	868.0	881.2	900.9	914.1	922.8
47.5°	817.6	800.1	795.7	793.5	804.5	824.2	841.7	861.5	876.8	890.0	898.7
50°	751.9	736.5	734.3	732.1	747.5	765.0	780.4	806.7	817.6	826.4	833.0
52.5°	705.8	692.7	686.1	688.3	703.6	719.0	740.9	760.6	776.0	782.6	789.1
55°	668.6	664.2	648.8	655.4	670.8	690.5	712.4	734.3	749.7	760.6	771.6
57.5°	640.1	629.1	618.2	629.1	644.5	664.2	690.5	710.2	729.9	745.3	756.3
60°	609.4	600.6	591.9	602.8	618.2	637.9	657.6	683.9	708.0	723.4	734.3
62.5°	583.1	576.5	567.7	569.9	576.5	589.7	600.6	624.7	646.7	666.4	679.5
65°	545.8	543.6	530.5	532.7	537.0	550.2	559.0	580.9	602.8	620.3	631.3
67.5°	491.0	486.6	486.6	493.2	495.4	502.0	508.6	530.5	548.0	561.2	574.3
70°	436.2	434.0	434.0	438.4	436.2	442.8	451.6	471.3	493.2	506.4	519.5
72.5°	383.6	383.6	381.4	385.8	385.8	388.0	399.0	416.5	436.2	447.2	455.9
75°	337.6	335.4	335.4	335.4	337.6	337.6	348.5	363.9	383.6	390.2	403.3
77.5°	295.9	295.9	295.9	295.9	298.1	295.9	302.5	313.5	320.0	331.0	331.0
80°	260.9	258.7	260.9	263.0	263.0	260.9	260.9	263.0	265.2	265.2	265.2
82.5°	230.2	223.6	228.0	238.9	238.9	238.9	236.7	221.4	210.4	210.4	214.8
85°	184.1	184.1	186.3	201.7	203.9	195.1	203.9	181.9	160.0	153.4	157.8
87.5°	114.0	89.9	109.6	124.9	124.9	118.4	131.5	122.8	103.0	83.3	78.9
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: P158959
 CATALOG NUMBER: VST-E12-LED-E-U-SLL-7030

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	0°
2.5°	3590.6	3592.8	3605.9	3612.5	3612.5	3621.3	3625.6	3638.8	3636.6	3636.6	3641.0	2.5°
5°	3586.2	3592.8	3605.9	3614.7	3619.1	3630.0	3638.8	3654.1	3651.9	3656.3	3658.5	5°
7.5°	3570.8	3588.4	3601.5	3619.1	3634.4	3643.2	3654.1	3667.3	3662.9	3665.1	3662.9	7.5°
10°	3557.7	3575.2	3601.5	3625.6	3647.6	3660.7	3667.3	3682.6	3680.4	3684.8	3684.8	10°
12.5°	3505.1	3535.8	3568.6	3605.9	3638.8	3673.9	3695.8	3728.7	3744.0	3763.7	3785.7	12.5°
15°	3371.4	3406.4	3459.0	3500.7	3564.3	3612.5	3676.1	3739.6	3796.6	3851.4	3915.0	15°
17.5°	3239.8	3255.2	3296.8	3353.8	3410.8	3483.2	3559.9	3673.9	3776.9	3888.7	4011.4	17.5°
20°	2996.5	3022.8	3051.3	3119.3	3187.2	3290.3	3384.5	3533.6	3684.8	3860.2	4048.7	20°
22.5°	2696.2	2722.5	2753.2	2829.9	2913.2	3018.4	3132.4	3299.0	3500.7	3728.7	3980.7	22.5°
25°	2371.8	2387.1	2411.2	2488.0	2538.4	2676.5	2814.6	2987.8	3207.0	3500.7	3794.4	25°
27.5°	2014.5	2043.0	2062.7	2097.8	2214.0	2332.3	2477.0	2663.3	2928.6	3228.9	3584.0	27.5°
30°	1672.5	1696.6	1685.7	1760.2	1836.9	1961.9	2117.5	2323.6	2577.8	2935.1	3345.1	30°
32.5°	1337.1	1354.7	1348.1	1400.7	1477.4	1602.4	1749.2	1972.8	2242.5	2623.9	3068.9	32.5°
35°	1102.6	1107.0	1131.1	1155.2	1221.0	1321.8	1446.7	1641.8	1918.0	2268.8	2740.1	35°
37.5°	993.0	1001.8	1017.1	1050.0	1098.2	1170.5	1273.6	1424.8	1661.6	1970.6	2391.5	37.5°
40°	960.1	966.7	975.5	997.4	1043.4	1107.0	1199.0	1326.2	1499.4	1760.2	2102.2	40°
42.5°	944.8	944.8	944.8	957.9	993.0	1060.9	1166.2	1291.1	1442.4	1639.6	1915.8	42.5°
45°	922.8	922.8	920.7	927.2	951.3	1019.3	1133.3	1273.6	1435.8	1624.3	1863.2	45°
47.5°	898.7	896.5	890.0	890.0	905.3	973.3	1091.6	1242.9	1420.4	1637.5	1893.9	47.5°
50°	833.0	833.0	833.0	839.6	852.7	914.1	1041.2	1201.2	1405.1	1646.2	1942.1	50°
52.5°	795.7	797.9	804.5	804.5	817.6	881.2	1014.9	1192.5	1413.9	1679.1	2003.5	52.5°
55°	778.2	784.8	791.3	791.3	802.3	868.0	1006.1	1199.0	1446.7	1747.1	2108.7	55°
57.5°	762.8	769.4	773.8	773.8	782.6	839.6	982.0	1188.1	1466.5	1812.8	2238.1	57.5°
60°	734.3	738.7	740.9	740.9	743.1	791.3	927.2	1135.5	1422.6	1808.4	2308.2	60°
62.5°	681.7	690.5	692.7	694.9	694.9	740.9	857.1	1050.0	1328.4	1742.7	2288.5	62.5°
65°	642.3	646.7	653.2	657.6	666.4	697.1	789.1	947.0	1205.6	1611.2	2178.9	65°
67.5°	580.9	587.5	594.0	602.8	611.6	631.3	703.6	830.8	1039.0	1387.6	1933.4	67.5°
70°	526.1	528.3	534.9	545.8	548.0	559.0	611.6	699.3	850.5	1113.6	1556.3	70°
72.5°	458.1	462.5	471.3	484.4	484.4	493.2	523.9	569.9	666.4	850.5	1148.6	72.5°
75°	399.0	403.3	409.9	409.9	399.0	401.1	423.1	455.9	528.3	640.1	837.4	75°
77.5°	331.0	339.8	346.3	333.2	328.8	335.4	346.3	370.5	423.1	508.6	629.1	77.5°
80°	274.0	278.4	280.6	282.8	278.4	285.0	293.7	309.1	344.2	409.9	497.6	80°
82.5°	219.2	223.6	230.2	238.9	238.9	263.0	265.2	265.2	285.0	326.6	390.2	82.5°
85°	162.2	171.0	179.7	190.7	192.9	206.1	199.5	197.3	203.9	243.3	269.6	85°
87.5°	83.3	89.9	94.3	103.0	92.1	96.4	96.4	89.9	78.9	98.6	109.6	87.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°



IUMBER: P158959

NUMBER: VST-E12-LED-E-U-SLL-7030

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
3662.9	3662.9	3662.9	3662.9	3662.9	3662.9	3662.9
3645.4	3641.0	3645.4	3645.4	3651.9	3647.6	3879.9
3662.9	3658.5	3662.9	3667.3	3673.9	3673.9	3930.3
3665.1	3665.1	3660.7	3671.7	3680.4	3689.2	3978.6
3691.4	3691.4	3695.8	3698.0	3717.7	3739.6	4057.5
3798.8	3809.8	3829.5	3836.1	3871.1	3895.3	4259.1
3963.2	4024.6	4064.0	4077.2	4107.9	4153.9	4598.9
4129.8	4232.8	4340.2	4406.0	4445.5	4500.3	5015.4
4254.8	4447.7	4631.8	4796.2	4890.4	4997.9	5598.5
4265.7	4572.6	4883.9	5188.6	5440.6	5640.1	6387.6
4160.5	4563.8	4993.5	5460.4	5894.4	6253.9	7295.1
4026.8	4522.2	5070.2	5666.4	6236.4	6766.8	7963.7
3858.0	4452.0	5083.3	5754.1	6422.7	7060.6	8345.1
3601.5	4243.8	4925.5	5666.4	6442.4	7218.4	8590.6
3272.7	3928.1	4627.4	5471.3	6350.3	7282.0	8796.7
2937.3	3584.0	4335.9	5210.5	6203.5	7271.0	8880.0
2582.2	3224.5	3993.9	4932.1	6004.0	7170.2	8864.6
2341.1	2926.4	3680.4	4649.3	5782.6	7036.5	8761.6
2200.8	2713.7	3432.7	4390.7	5580.9	6876.4	8632.3
2198.6	2650.2	3301.2	4206.5	5377.1	6698.9	8456.9
2275.3	2689.6	3285.9	4127.6	5265.3	6569.5	8266.2
2365.2	2799.2	3367.0	4156.1	5263.1	6512.6	8132.5
2507.7	2985.6	3544.5	4278.9	5320.1	6503.8	7968.1
2689.6	3237.6	3864.6	4581.4	5541.5	6677.0	7979.0
2876.0	3533.6	4283.2	5098.7	5977.7	7080.3	8325.4
2943.9	3761.5	4708.5	5705.9	6630.9	7685.3	9040.0
2884.7	3814.2	4967.2	6177.2	7266.6	8393.3	9892.7
2665.5	3601.5	4861.9	6310.9	7632.7	8895.3	10745.4
2194.2	3073.2	4384.1	6010.6	7604.2	8998.3	11052.3
1609.0	2382.7	3564.3	5107.5	6760.3	8353.9	10591.9
1161.8	1685.7	2573.5	3847.0	5344.2	6727.4	8884.3
833.0	1168.4	1670.3	2527.4	3641.0	4684.4	6332.8
598.4	793.5	1041.2	1516.9	2218.3	2876.0	3978.6
440.6	543.6	683.9	942.6	1306.5	1674.7	2395.9
300.3	320.0	412.1	556.8	857.1	1231.9	1626.5
114.0	129.3	151.3	228.0	383.6	440.6	311.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0

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