

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: P158083

Luminaire Tested: **VST-F12-LED-E-U-RW-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158083
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-F12-LED-E-U-RW-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26047.4 lumens
Efficiency: N/A
Efficacy: 85.0 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): 306.6
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

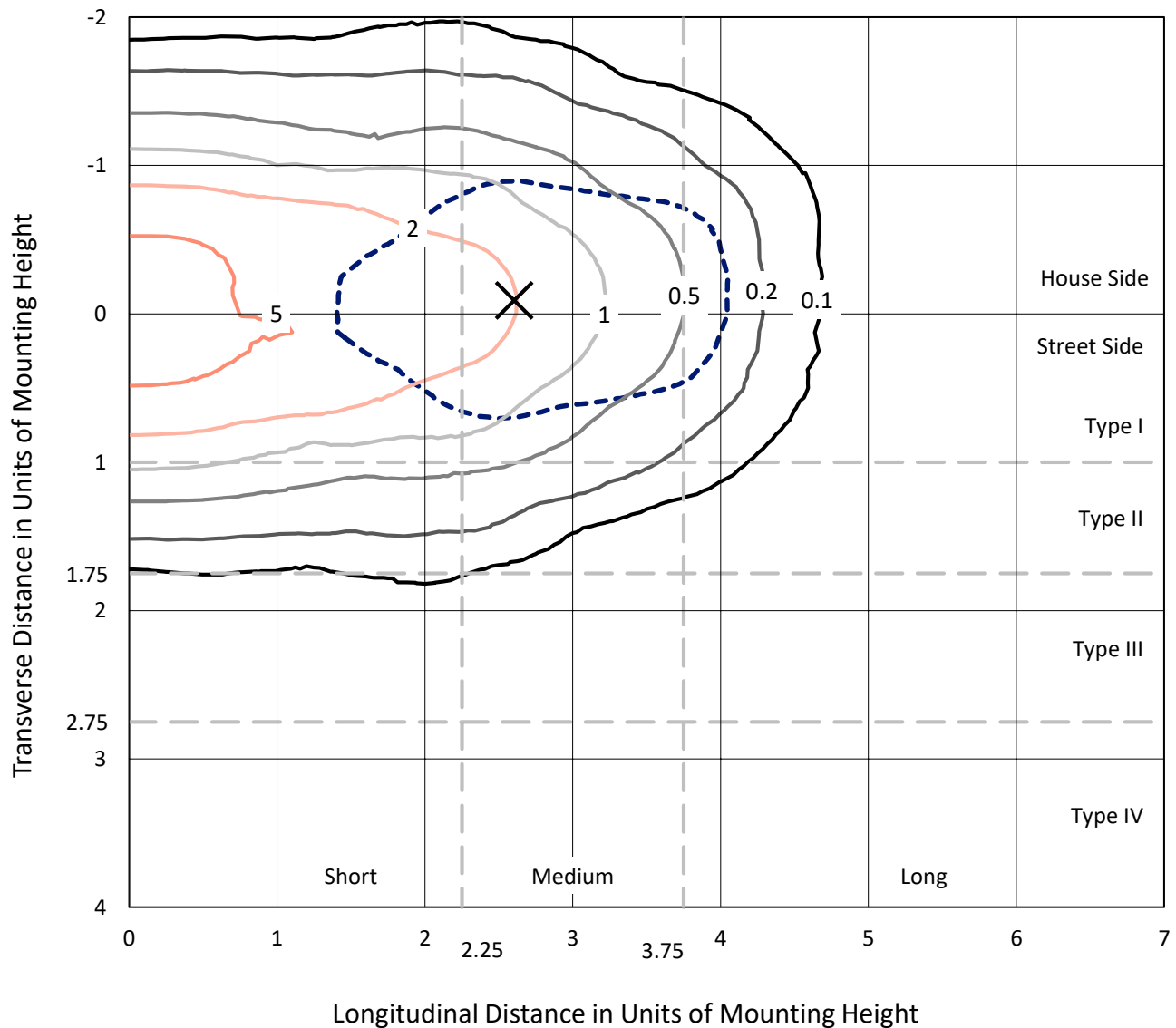


REPORT NUMBER: P158083

CATALOG NUMBER: VST-F12-LED-E-U-RW-8030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

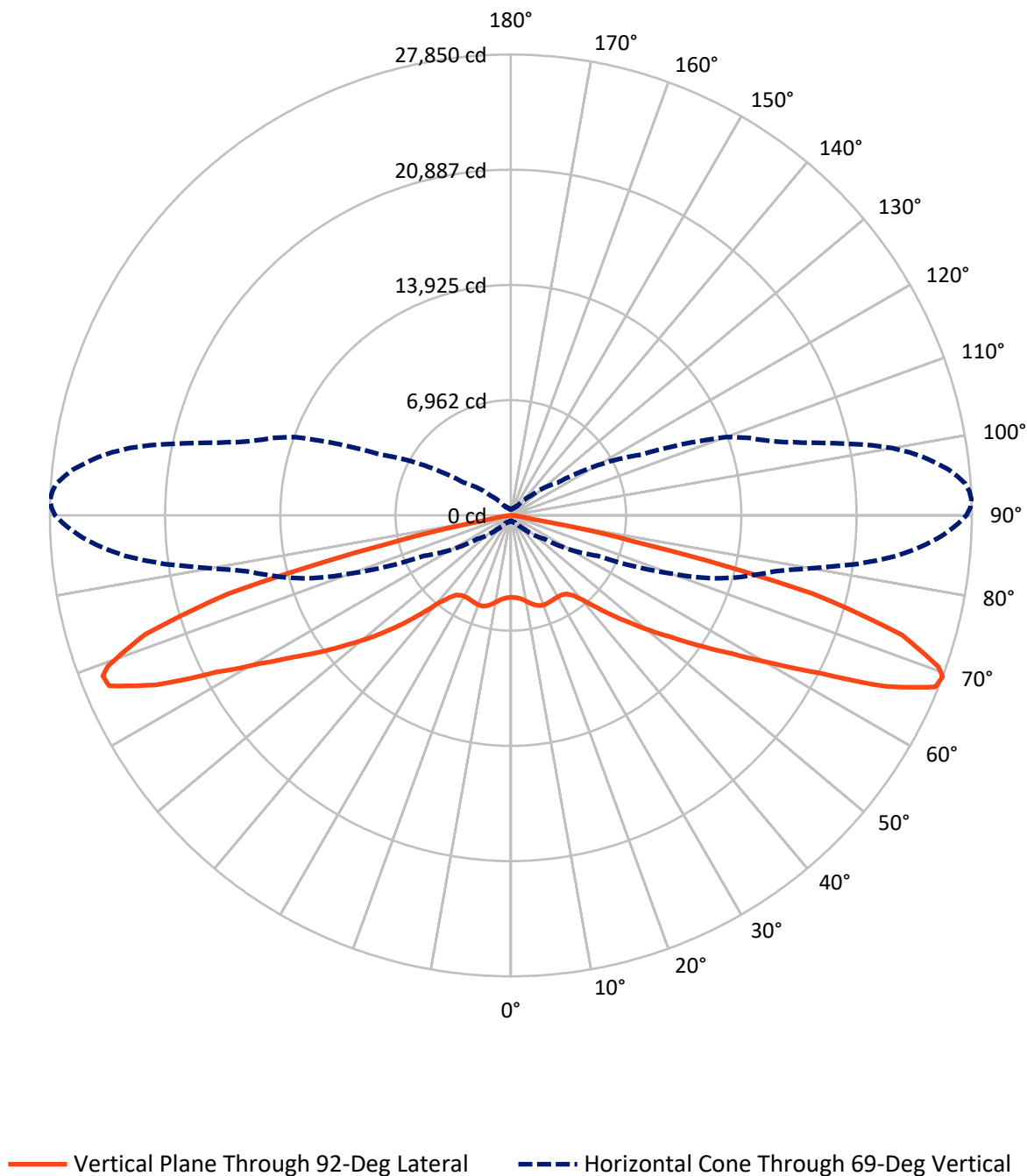


Based on 25 foot mounting height. Maximum calculated value = 8.1 fc
 Type I - Medium - Full Cutoff

REPORT NUMBER: P158083

CATALOG NUMBER: VST-F12-LED-E-U-RW-8030

Luminous Intensity Polar Plot



REPORT NUMBER: P158083

CATALOG NUMBER: VST-F12-LED-E-U-RW-8030

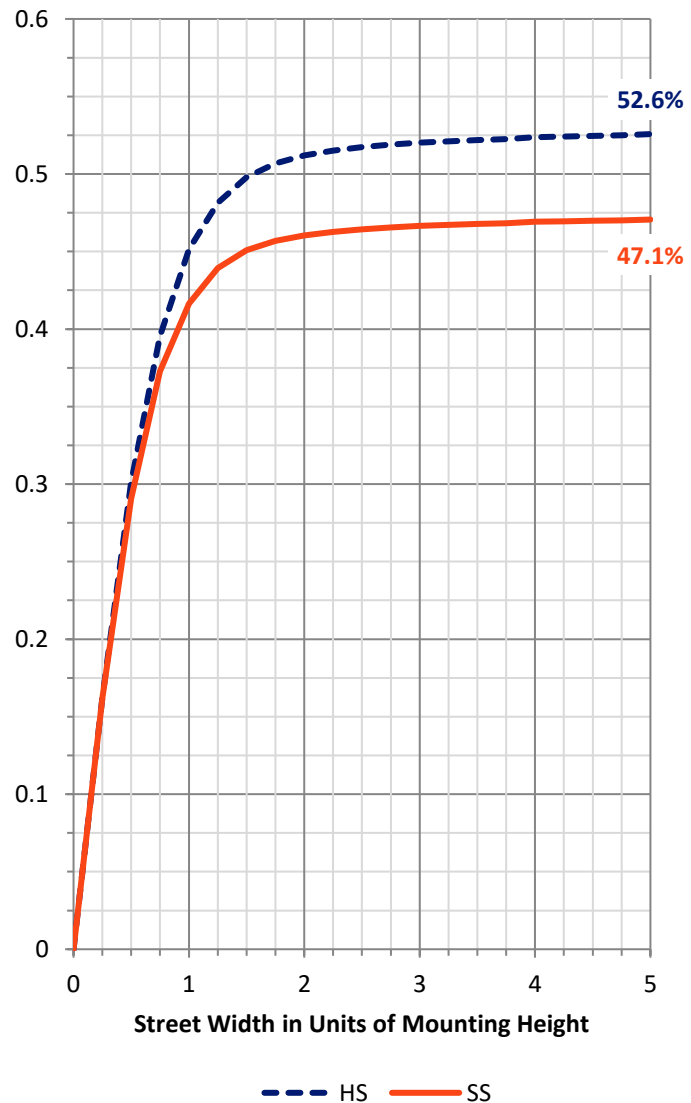
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13814.3	0.0	13814.3
	% Fixture	53.0	0.0	53.0
Street Side	Lumens	12233.1	0.0	12233.1
	% Fixture	47.0	0.0	47.0
Total	Lumens	26047.4	0.0	26047.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	484.2	1.9
10°-20°	1529.5	5.9
20°-30°	2481.4	9.5
30°-40°	3092.5	11.9
40°-50°	3850.5	14.8
50°-60°	4748.6	18.2
60°-70°	5897.5	22.6
70°-80°	3623.7	13.9
80°-90°	339.6	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°	26047.4	100.0
0°-180°	26047.4	100.0

Coefficient of Utilization



REPORT NUMBER: P158083

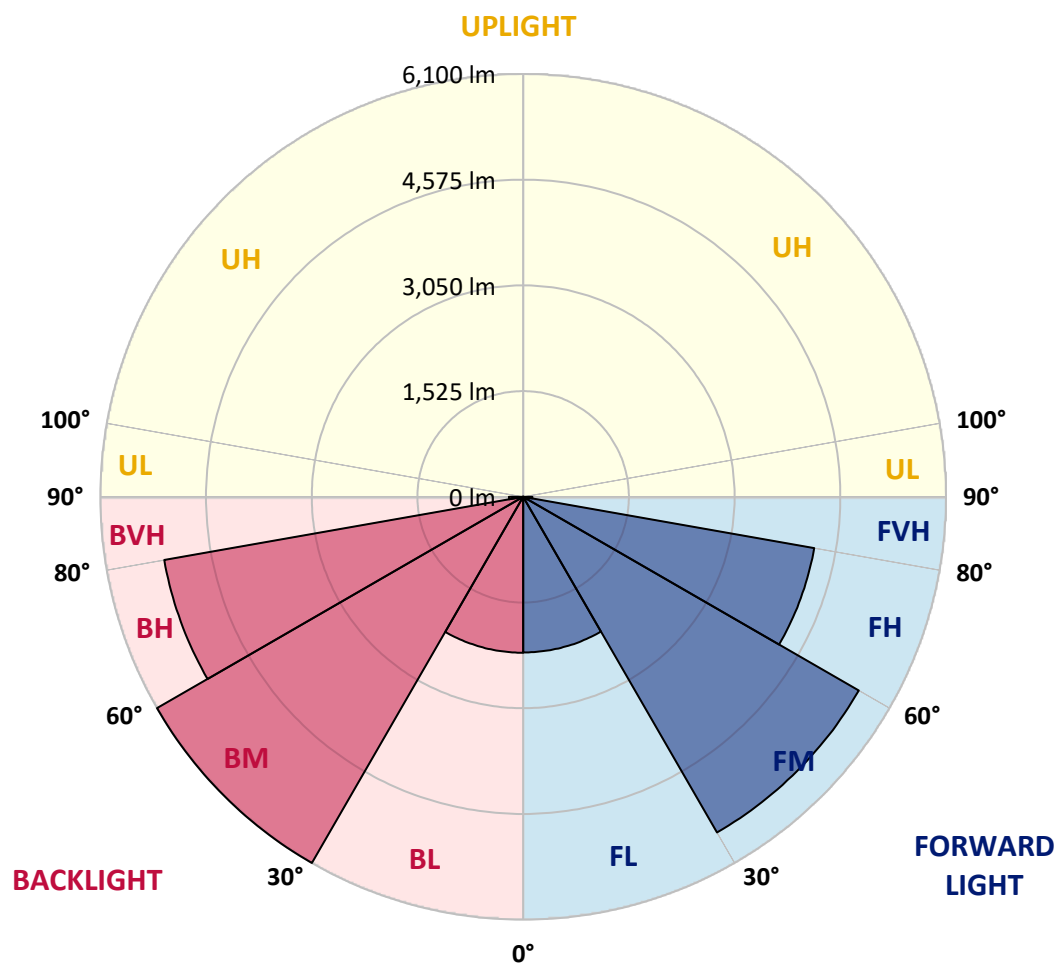
CATALOG NUMBER: VST-F12-LED-E-U-RW-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2245.1	8.6			
FM	(30°-60°)	5591.4	21.5			
FH	(60°-80°)	4263.6	16.4			G2/5000
FVH	(80°-90°)	133.0	0.5			G2/225
BL	(0°-30°)	2249.9	8.6	B3/2500		
BM	(30°-60°)	6100.3	23.4	B4/8500		
BH	(60°-80°)	5257.5	20.2	B5		G5
BVH	(80°-90°)	206.6	0.8			G2/225
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





REPORT NUMBER: P158083

CATALOG NUMBER: VST-F12-LED-E-U-RW-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9
2.5°	5026.5	5013.2	5024.9	5026.5	5024.9	5024.9	5009.8	5006.5	4986.4	4991.4	4989.7
5°	5095.1	5090.1	5098.4	5101.8	5105.1	5098.4	5086.7	5081.7	5068.3	5063.3	5061.6
7.5°	5158.6	5150.3	5163.6	5175.4	5183.7	5185.4	5187.1	5178.7	5178.7	5172.0	5172.0
10°	5212.1	5205.5	5227.2	5242.2	5269.0	5284.0	5300.8	5312.5	5319.2	5320.8	5319.2
12.5°	5235.5	5230.5	5265.6	5310.8	5361.0	5396.1	5437.9	5468.0	5476.3	5474.7	5483.0
15°	5195.4	5198.8	5252.3	5340.9	5447.9	5536.5	5595.1	5620.1	5626.8	5630.2	5631.9
17.5°	5086.7	5093.4	5170.3	5314.1	5501.4	5662.0	5748.9	5748.9	5735.5	5735.5	5733.9
20°	4912.8	4919.5	5019.8	5227.2	5503.1	5748.9	5872.6	5847.6	5797.4	5787.4	5777.3
22.5°	4672.0	4698.8	4809.1	5049.9	5431.2	5774.0	5949.6	5912.8	5834.2	5812.4	5797.4
25°	4399.5	4396.1	4528.2	4799.1	5257.3	5713.8	5971.3	5964.6	5881.0	5857.6	5830.8
27.5°	4088.4	4098.5	4220.5	4494.8	4991.4	5539.9	5934.5	6023.1	5954.6	5931.2	5906.1
30°	3769.1	3779.1	3894.5	4213.9	4688.8	5290.7	5859.3	6080.0	6053.2	6034.8	6018.1
32.5°	3448.0	3451.3	3588.5	3931.3	4432.9	4993.1	5745.6	6131.8	6168.6	6160.3	6153.6
35°	3147.0	3150.4	3299.2	3647.0	4180.4	4738.9	5608.4	6207.1	6325.8	6335.8	6342.5
37.5°	2854.4	2859.4	3011.6	3376.1	3931.3	4546.6	5456.3	6322.5	6546.5	6583.3	6590.0
40°	2563.4	2568.4	2713.9	3100.2	3678.8	4377.7	5339.2	6484.7	6844.2	6894.3	6946.2
42.5°	2285.8	2304.2	2428.0	2797.5	3397.8	4168.7	5289.1	6682.0	7197.0	7275.6	7334.1
45°	2026.7	2028.3	2168.8	2514.9	3065.1	3886.1	5255.6	6906.0	7591.6	7710.4	7790.6
47.5°	1749.1	1769.2	1916.3	2252.4	2754.1	3536.6	5148.6	7168.6	8021.4	8160.2	8322.4
50°	1479.9	1508.3	1650.4	1983.2	2469.8	3175.4	4861.0	7476.3	8504.6	8685.2	8872.5
52.5°	1220.7	1219.0	1369.5	1715.6	2183.8	2869.4	4394.5	7799.0	9063.1	9257.1	9459.4
55°	923.0	923.0	1071.9	1387.9	1874.5	2596.9	3894.5	7999.6	9581.5	9815.6	10036.3
57.5°	633.8	650.5	790.9	1063.5	1551.8	2347.7	3511.5	7884.3	9977.8	10268.8	10531.3
60°	469.9	486.6	590.3	764.2	1214.0	2053.4	3223.9	7340.8	10216.9	10603.2	10944.3
62.5°	406.3	418.0	516.7	612.0	874.5	1740.7	2969.8	6650.2	10561.4	11089.8	11564.7
65°	362.9	374.6	473.2	528.4	683.9	1399.6	2827.6	6255.6	10972.7	11780.4	12469.3
67.5°	336.1	349.5	433.1	473.2	597.0	1265.8	2717.3	6163.6	10969.4	11949.3	12828.9
69°	322.7	332.8	401.3	444.8	576.9	1225.7	2478.1	5764.0	10245.4	11297.1	12180.1
70°	314.4	324.4	382.9	426.4	570.2	1153.8	2257.4	5235.5	9421.0	10479.5	11375.7
72.5°	287.6	297.6	341.1	381.3	474.9	770.9	1573.5	3351.0	6732.1	7488.0	8513.0
75°	254.2	265.9	299.3	332.8	359.5	446.5	908.0	1739.1	3849.3	4422.9	5335.9
77.5°	207.3	219.1	254.2	307.7	304.3	339.4	590.3	1068.5	1802.6	2235.7	2573.5
80°	170.6	178.9	209.0	311.0	249.2	284.3	478.2	876.2	1269.2	1402.9	1483.2
82.5°	113.7	125.4	162.2	244.1	190.6	202.3	357.8	819.4	1073.5	1177.2	1274.2
85°	53.5	58.5	98.7	130.4	115.4	108.7	204.0	578.6	799.3	847.8	884.6
87.5°	0.0	0.0	5.0	10.0	15.0	15.0	36.8	122.1	224.1	270.9	267.5
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: P158083

CATALOG NUMBER: VST-F12-LED-E-U-RW-8030

CANDELA DISTRIBUTION (continued):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9
2.5°	4983.1	4984.7	4983.1	4983.1	4981.4	4978.0	4978.0	4974.7	4976.4	4974.7	4978.0
5°	5060.0	5060.0	5055.0	5051.6	5056.6	5051.6	5053.3	5044.9	5044.9	5039.9	5033.2
7.5°	5170.3	5170.3	5172.0	5162.0	5168.7	5170.3	5165.3	5162.0	5158.6	5150.3	5151.9
10°	5317.5	5317.5	5322.5	5309.1	5315.8	5319.2	5320.8	5320.8	5317.5	5302.4	5304.1
12.5°	5481.4	5478.0	5479.7	5473.0	5479.7	5483.0	5486.4	5483.0	5483.0	5479.7	5478.0
15°	5630.2	5628.5	5631.9	5626.8	5628.5	5631.9	5641.9	5640.2	5638.5	5628.5	5628.5
17.5°	5732.2	5727.2	5723.8	5722.1	5722.1	5720.5	5722.1	5722.1	5717.1	5715.5	5715.5
20°	5770.6	5757.3	5748.9	5743.9	5737.2	5733.9	5730.5	5732.2	5728.8	5723.8	5725.5
22.5°	5777.3	5758.9	5742.2	5727.2	5713.8	5705.4	5697.1	5693.7	5685.4	5680.3	5680.3
25°	5809.1	5780.7	5753.9	5728.8	5708.8	5690.4	5672.0	5658.6	5648.6	5636.9	5633.5
27.5°	5879.3	5849.2	5817.5	5785.7	5758.9	5722.1	5697.1	5670.3	5646.9	5628.5	5615.1
30°	5988.0	5957.9	5926.2	5889.4	5854.3	5815.8	5774.0	5742.2	5708.8	5672.0	5651.9
32.5°	6131.8	6111.8	6080.0	6044.9	6013.1	5973.0	5922.8	5874.3	5842.5	5799.1	5767.3
35°	6337.5	6314.1	6304.1	6289.0	6257.2	6232.2	6177.0	6131.8	6101.7	6041.5	6018.1
37.5°	6618.4	6616.8	6625.1	6620.1	6625.1	6593.3	6568.3	6566.6	6523.1	6464.6	6407.7
40°	7001.4	7021.4	7066.6	7098.3	7128.4	7131.8	7166.9	7130.1	7135.1	7126.8	7068.2
42.5°	7437.8	7506.4	7559.9	7653.5	7725.4	7792.3	7837.4	7899.3	7946.1	7987.9	7998.0
45°	7924.4	8026.4	8150.1	8233.7	8374.2	8486.2	8640.1	8758.8	8882.5	9004.6	9048.1
47.5°	8452.8	8579.9	8717.0	8872.5	9049.8	9225.3	9462.8	9645.0	9844.0	10009.6	10156.7
50°	9036.4	9168.5	9352.4	9531.3	9775.5	9977.8	10288.8	10528.0	10849.0	11069.7	11260.4
52.5°	9645.0	9810.6	10016.3	10213.6	10462.7	10721.9	11068.1	11420.9	11807.2	12141.6	12419.2
55°	10240.3	10444.3	10641.7	10872.4	11148.3	11449.3	11840.6	12305.5	12787.0	13170.0	13537.9
57.5°	10770.4	11006.2	11238.6	11472.7	11755.3	12104.8	12544.6	13046.2	13598.0	14108.1	14613.1
60°	11262.0	11544.6	11828.9	12121.5	12445.9	12877.3	13405.7	14022.8	14736.8	15434.1	16094.6
62.5°	12039.6	12410.8	12763.6	13141.5	13532.8	14039.5	14663.2	15472.5	16291.9	17163.1	17840.3
65°	13093.1	13614.8	14076.3	14566.2	15072.9	15750.1	16495.9	17464.1	18638.0	19530.9	20617.8
67.5°	13616.4	14303.7	14897.3	15442.4	16069.5	16753.4	17639.7	18785.1	20037.6	21331.8	22544.1
69°	13001.1	13710.1	14367.2	14977.6	15611.3	16275.2	17201.6	18377.1	19701.5	21101.1	22284.9
70°	12203.5	12912.5	13613.1	14308.7	14887.3	15534.4	16464.1	17676.5	18999.1	20453.9	21627.8
72.5°	9349.1	10201.9	10835.6	11487.8	12158.3	12706.8	13780.3	14802.0	16179.9	17656.4	18949.0
75°	5981.3	6765.6	7457.9	8013.0	8668.5	9325.7	10118.3	11253.7	12116.5	13328.8	14377.3
77.5°	3073.4	3305.9	3973.1	4172.1	4626.9	4984.7	5421.2	5705.4	6407.7	6556.6	7175.3
80°	1456.5	1312.6	1235.7	1165.5	1185.6	1177.2	1142.1	1095.3	1153.8	1128.7	1118.7
82.5°	1269.2	1132.1	903.0	767.5	663.8	563.5	484.9	444.8	449.8	463.2	468.2
85°	889.6	836.1	652.1	495.0	386.3	299.3	240.8	230.8	237.4	255.8	249.2
87.5°	257.5	269.2	237.4	165.5	115.4	83.6	65.2	73.6	70.2	68.6	71.9
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: P158083

CATALOG NUMBER: VST-F12-LED-E-U-RW-8030

CANDELA DISTRIBUTION (continued):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9
2.5°	4978.0	4976.4	4971.3	4966.3	4966.3	4963.0	4966.3	4968.0	4966.3	4966.3	4963.0
5°	5034.9	5036.6	5041.6	5031.5	5029.9	5031.5	5024.9	5023.2	5018.2	5023.2	5016.5
7.5°	5143.6	5148.6	5148.6	5141.9	5140.2	5145.3	5135.2	5131.9	5126.9	5125.2	5123.5
10°	5305.8	5310.8	5302.4	5297.4	5292.4	5299.1	5290.7	5290.7	5285.7	5280.7	5279.0
12.5°	5486.4	5483.0	5479.7	5483.0	5478.0	5478.0	5473.0	5469.7	5468.0	5466.3	5463.0
15°	5626.8	5638.5	5638.5	5641.9	5638.5	5638.5	5631.9	5633.5	5630.2	5628.5	5630.2
17.5°	5717.1	5720.5	5728.8	5733.9	5733.9	5735.5	5732.2	5735.5	5732.2	5732.2	5738.9
20°	5728.8	5732.2	5740.5	5748.9	5753.9	5757.3	5757.3	5762.3	5765.6	5769.0	5777.3
22.5°	5682.0	5687.0	5697.1	5712.1	5720.5	5723.8	5730.5	5738.9	5747.2	5753.9	5765.6
25°	5633.5	5635.2	5645.2	5660.3	5670.3	5678.7	5690.4	5700.4	5712.1	5725.5	5738.9
27.5°	5606.8	5605.1	5613.5	5628.5	5636.9	5648.6	5658.6	5673.7	5687.0	5703.8	5715.5
30°	5630.2	5616.8	5618.5	5625.2	5631.9	5640.2	5651.9	5665.3	5680.3	5695.4	5708.8
32.5°	5733.9	5703.8	5683.7	5678.7	5680.3	5682.0	5688.7	5697.1	5708.8	5720.5	5725.5
35°	5957.9	5906.1	5879.3	5857.6	5839.2	5824.2	5827.5	5825.8	5825.8	5835.9	5824.2
37.5°	6384.3	6319.1	6290.7	6252.2	6230.5	6175.3	6160.3	6156.9	6135.2	6135.2	6110.1
40°	7053.2	7014.7	6993.0	6957.9	6852.5	6865.9	6790.7	6792.3	6730.5	6737.2	6693.7
42.5°	8004.7	8009.7	7982.9	7959.5	7877.6	7840.8	7770.6	7670.2	7591.6	7590.0	7503.0
45°	9104.9	9165.1	9079.9	9110.0	9038.1	8939.4	8857.5	8728.7	8606.6	8568.2	8479.6
47.5°	10255.4	10354.0	10288.8	10300.5	10265.4	10125.0	10014.6	9855.7	9696.9	9589.9	9536.4
50°	11484.4	11549.6	11548.0	11516.2	11499.5	11362.4	11185.1	11064.7	10947.7	10803.9	10757.0
52.5°	12598.1	12750.3	12852.3	12828.9	12780.4	12698.4	12541.2	12437.6	12265.3	12245.3	12265.3
55°	13790.3	13987.7	14091.3	14216.7	14218.4	14203.4	14138.2	14099.7	13939.2	13957.6	13934.2
57.5°	14919.1	15208.3	15367.2	15634.7	15726.7	15848.8	15803.6	15853.8	15756.8	15820.4	15802.0
60°	16449.1	16850.4	17114.6	17480.8	17651.4	17957.4	18017.6	18054.4	18107.9	18238.3	18164.7
62.5°	18373.8	18962.4	19510.8	20009.1	20173.0	20632.8	20708.1	20995.7	21010.8	21099.4	20937.2
65°	21524.1	22241.5	22845.1	23442.1	23786.6	24325.0	24542.4	25100.9	24930.3	25002.2	24656.1
67.5°	23587.6	24422.0	25231.3	25796.5	26368.4	26918.5	27314.8	27676.0	27672.7	27602.4	27294.8
69°	23405.3	24335.0	25132.6	25890.1	26492.1	27057.3	27533.9	27768.0	27849.9	27747.9	27528.9
70°	22774.9	23729.7	24706.2	25330.0	25985.4	26605.8	27097.4	27353.3	27410.1	27338.2	27149.3
72.5°	19862.0	20778.3	21855.2	22422.1	23214.7	23662.8	24340.0	24671.1	24729.7	24637.7	24513.9
75°	15501.0	15666.5	16763.5	17124.6	17699.9	18216.6	18638.0	18530.9	18830.3	18771.7	18724.9
77.5°	7302.3	6860.9	7571.6	7902.7	7728.7	7265.6	7939.4	7452.8	7775.6	8195.3	8088.3
80°	1204.0	1200.6	1232.4	1302.6	1219.0	1294.3	1292.6	1255.8	1259.1	1349.4	1302.6
82.5°	463.2	473.2	478.2	491.6	491.6	493.3	501.6	511.7	503.3	520.0	516.7
85°	250.8	267.5	252.5	240.8	249.2	254.2	260.9	269.2	260.9	285.9	272.6
87.5°	65.2	68.6	60.2	60.2	58.5	53.5	53.5	56.9	61.9	73.6	80.3
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: P158083

CATALOG NUMBER: VST-F12-LED-E-U-RW-8030

CANDELA DISTRIBUTION (continued):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9
2.5°	4956.3	4958.0	4959.6	4954.6	4951.3	4951.3	4949.6	4946.3	4944.6	4944.6	4944.6
5°	5013.2	5016.5	5008.1	5006.5	5003.1	4999.8	4999.8	4996.4	4998.1	4998.1	4989.7
7.5°	5126.9	5121.8	5111.8	5105.1	5111.8	5100.1	5095.1	5098.4	5095.1	5096.8	5093.4
10°	5279.0	5279.0	5267.3	5274.0	5265.6	5252.3	5257.3	5252.3	5248.9	5237.2	5243.9
12.5°	5468.0	5463.0	5456.3	5441.2	5436.2	5434.5	5419.5	5421.2	5416.1	5412.8	5407.8
15°	5633.5	5631.9	5616.8	5608.4	5606.8	5600.1	5593.4	5590.0	5581.7	5580.0	5576.7
17.5°	5743.9	5738.9	5732.2	5723.8	5723.8	5713.8	5710.4	5702.1	5700.4	5695.4	5690.4
20°	5780.7	5782.3	5775.7	5769.0	5765.6	5758.9	5753.9	5747.2	5743.9	5737.2	5732.2
22.5°	5772.3	5772.3	5765.6	5764.0	5757.3	5747.2	5740.5	5732.2	5723.8	5715.5	5705.4
25°	5745.6	5743.9	5738.9	5730.5	5722.1	5707.1	5693.7	5680.3	5668.6	5658.6	5643.6
27.5°	5722.1	5718.8	5708.8	5697.1	5680.3	5663.6	5638.5	5620.1	5605.1	5591.7	5575.0
30°	5713.8	5702.1	5687.0	5668.6	5648.6	5623.5	5596.7	5573.3	5556.6	5543.2	5536.5
32.5°	5723.8	5708.8	5685.4	5662.0	5636.9	5606.8	5580.0	5559.9	5544.9	5541.6	5541.6
35°	5815.8	5790.7	5758.9	5725.5	5693.7	5668.6	5650.2	5648.6	5638.5	5650.2	5668.6
37.5°	6085.0	6063.3	6014.8	5971.3	5949.6	5937.9	5921.1	5924.5	5901.1	5937.9	5968.0
40°	6656.9	6630.1	6573.3	6538.2	6494.7	6452.9	6486.3	6476.3	6493.0	6486.3	6518.1
42.5°	7491.3	7464.5	7374.2	7360.9	7342.5	7325.8	7325.8	7312.4	7305.7	7329.1	7302.3
45°	8506.3	8452.8	8419.4	8459.5	8404.3	8421.0	8479.6	8401.0	8419.4	8310.7	8210.3
47.5°	9559.8	9554.8	9546.4	9594.9	9603.2	9628.3	9660.1	9579.8	9434.4	9352.4	9148.4
50°	10772.1	10823.9	10844.0	10890.8	10910.9	10929.3	10879.1	10760.4	10514.6	10297.2	10056.4
52.5°	12245.3	12155.0	12278.7	12323.9	12303.8	12230.2	12049.6	11904.1	11564.7	11252.0	10879.1
55°	13960.9	13982.6	13895.7	13860.6	13792.0	13588.0	13338.9	13011.1	12581.4	12173.4	11701.8
57.5°	15708.3	15700.0	15564.5	15373.9	15141.5	14895.6	14524.4	14054.5	13552.9	13004.4	12434.2
60°	17833.6	17825.3	17551.0	17225.0	16893.9	16497.6	15915.7	15350.5	14678.3	13957.6	13278.7
62.5°	20626.2	20266.6	19997.4	19510.8	18999.1	18480.8	17693.2	16942.4	16044.4	15134.8	14342.2
65°	24204.6	23612.6	23306.6	22601.0	21808.4	20999.1	20198.1	19211.5	18002.5	16902.2	15934.1
67.5°	26851.6	26309.8	25749.7	25045.7	24176.2	23273.2	22176.3	20933.8	19561.0	18326.9	17271.8
69°	27084.1	26577.4	25905.2	25199.5	24376.8	23395.3	22198.0	20806.8	19415.5	18166.4	17128.0
70°	26731.2	26192.8	25485.5	24751.4	23831.7	22905.3	21651.2	20201.4	18808.5	17556.1	16542.7
72.5°	24099.2	23574.2	22821.7	21943.8	21000.7	20208.1	19017.5	17505.9	15990.9	14833.8	14044.5
75°	18325.3	18209.9	17676.5	17164.8	16422.3	15537.8	14449.2	13432.5	12190.1	10966.1	10230.3
77.5°	7819.0	8084.9	8362.5	8402.6	8429.4	8156.8	7987.9	7732.1	6901.0	6523.1	6133.5
80°	1444.8	1290.9	1377.9	1387.9	1444.8	1474.8	1585.2	1879.5	1913.0	1984.9	2073.5
82.5°	513.4	521.7	535.1	540.1	545.1	565.2	640.4	767.5	882.9	1033.4	1234.1
85°	291.0	296.0	307.7	317.7	324.4	344.5	386.3	461.5	575.2	747.5	1013.3
87.5°	88.6	100.3	107.0	120.4	125.4	128.8	147.2	197.3	254.2	376.2	548.5
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: P158083

CATALOG NUMBER: VST-F12-LED-E-U-RW-8030

CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9	4947.9
2.5°	4944.6	4942.9	4939.6	4936.2	4937.9	4934.6	4924.5	4921.2	4909.5	4901.1	4894.4
5°	4989.7	4988.1	4981.4	4983.1	4981.4	4964.7	4953.0	4932.9	4921.2	4902.8	4896.1
7.5°	5083.4	5081.7	5070.0	5075.0	5071.7	5046.6	5026.5	4994.8	4978.0	4954.6	4936.2
10°	5223.8	5223.8	5210.5	5212.1	5212.1	5178.7	5143.6	5090.1	5051.6	5014.8	4983.1
12.5°	5394.4	5387.7	5386.0	5377.7	5371.0	5334.2	5280.7	5208.8	5136.9	5076.7	5033.2
15°	5566.6	5556.6	5551.6	5541.6	5533.2	5499.8	5427.8	5339.2	5242.2	5145.3	5073.3
17.5°	5678.7	5672.0	5662.0	5658.6	5646.9	5613.5	5563.3	5474.7	5354.3	5218.8	5110.1
20°	5720.5	5708.8	5702.1	5695.4	5688.7	5665.3	5665.3	5608.4	5474.7	5284.0	5118.5
22.5°	5693.7	5687.0	5677.0	5672.0	5665.3	5668.6	5733.9	5725.5	5571.7	5299.1	5058.3
25°	5631.9	5623.5	5615.1	5615.1	5613.5	5648.6	5805.8	5827.5	5600.1	5225.5	4926.2
27.5°	5568.3	5556.6	5559.9	5561.6	5570.0	5645.2	5884.3	5854.3	5523.2	5048.3	4698.8
30°	5529.9	5529.9	5538.2	5551.6	5568.3	5700.4	5946.2	5794.1	5324.2	4780.7	4397.8
32.5°	5546.6	5563.3	5581.7	5615.1	5640.2	5822.5	5968.0	5638.5	5034.9	4449.6	4083.4
35°	5695.4	5715.5	5750.6	5802.4	5832.5	5998.1	5968.0	5411.1	4698.8	4165.4	3759.0
37.5°	6019.8	6039.9	6081.7	6121.8	6151.9	6218.8	5942.9	5121.8	4417.9	3871.1	3468.1
40°	6541.5	6569.9	6600.0	6593.3	6573.3	6508.1	5892.7	4852.6	4158.7	3613.5	3182.1
42.5°	7275.6	7248.8	7245.5	7180.3	7113.4	6834.1	5855.9	4677.0	3936.3	3342.7	2897.9
45°	8123.4	8014.7	7902.7	7815.7	7713.7	7192.0	5845.9	4534.9	3690.5	3041.7	2588.5
47.5°	8976.2	8802.3	8584.9	8449.5	8283.9	7573.2	5876.0	4344.3	3374.4	2713.9	2299.2
50°	9812.3	9528.0	9258.8	9096.6	8909.3	8011.3	5924.5	4023.2	2996.5	2416.3	2035.0
52.5°	10586.5	10220.3	9944.4	9753.7	9524.7	8521.4	5881.0	3601.8	2668.8	2130.3	1784.2
55°	11322.2	10917.6	10631.6	10431.0	10161.7	9033.0	5566.6	3218.9	2356.1	1851.1	1501.6
57.5°	11966.0	11578.1	11280.4	11007.9	10780.4	9477.8	4946.3	2902.9	2055.1	1531.7	1195.6
60°	12718.5	12282.1	11929.2	11638.3	11370.7	9706.9	4250.6	2622.0	1734.0	1185.6	864.5
62.5°	13733.5	13231.8	12823.8	12491.1	12141.6	9757.1	3775.7	2341.0	1376.2	857.8	628.7
65°	15238.4	14619.7	14109.7	13651.6	13178.3	9549.7	3541.6	2035.0	1023.4	637.1	526.7
67.5°	16434.0	15791.9	15201.7	14613.1	14007.7	9165.1	3489.8	1752.4	785.9	541.8	473.2
69°	16288.6	15676.5	15134.8	14497.7	13827.1	8681.9	3438.0	1643.7	717.4	503.3	448.1
70°	15728.4	15148.1	14598.0	14079.6	13258.6	8143.4	3300.9	1583.5	690.6	484.9	429.7
72.5°	13290.4	12618.2	12084.7	11439.3	10574.8	6051.6	2503.2	1280.9	633.8	443.1	387.9
75°	9693.5	9136.7	8605.0	7890.9	7049.8	3501.5	1558.5	732.4	464.9	401.3	351.2
77.5°	5660.3	5534.9	5021.5	4551.6	3718.9	1782.5	894.6	438.1	361.2	364.5	309.4
80°	2130.3	2269.1	2321.0	2158.8	1994.9	1230.7	650.5	356.2	314.4	359.5	262.5
82.5°	1553.4	1802.6	1832.7	1755.8	1633.7	1147.1	520.0	285.9	255.8	386.3	225.7
85°	1295.9	1434.7	1456.5	1376.2	1336.1	971.5	362.9	200.7	187.3	277.6	168.9
87.5°	655.5	690.6	709.0	642.1	645.5	453.2	145.5	85.3	102.0	118.7	93.6
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: P158083

CATALOG NUMBER: VST-F12-LED-E-U-RW-8030

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	4947.9	4947.9
2.5°	4879.4	4889.4
5°	4886.1	4886.1
7.5°	4924.5	4924.5
10°	4966.3	4968.0
12.5°	5004.8	5003.1
15°	5034.9	5029.9
17.5°	5053.3	5048.3
20°	5034.9	5026.5
22.5°	4941.2	4917.8
25°	4770.7	4740.6
27.5°	4544.9	4524.9
30°	4250.6	4220.5
32.5°	3906.2	3891.1
35°	3576.8	3558.4
37.5°	3275.8	3270.8
40°	3021.6	2994.8
42.5°	2724.0	2712.3
45°	2421.3	2414.6
47.5°	2137.0	2130.3
50°	1874.5	1861.1
52.5°	1617.0	1595.2
55°	1331.0	1316.0
57.5°	1021.7	1008.3
60°	719.0	704.0
62.5°	511.7	495.0
65°	426.4	413.0
67.5°	386.3	371.2
69°	367.9	354.5
70°	356.2	346.1
72.5°	331.1	324.4
75°	302.7	297.6
77.5°	265.9	257.5
80°	222.4	214.0
82.5°	187.3	178.9
85°	125.4	113.7
87.5°	56.9	50.2
90°	0.0	0.0

(END OF REPORT)