

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: P158075

Luminaire Tested: **VST-F11-LED-E-U-RW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158075
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-F11-LED-E-U-RW
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (77) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28290.4 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type I - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

Input Watts (W): 282.7
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

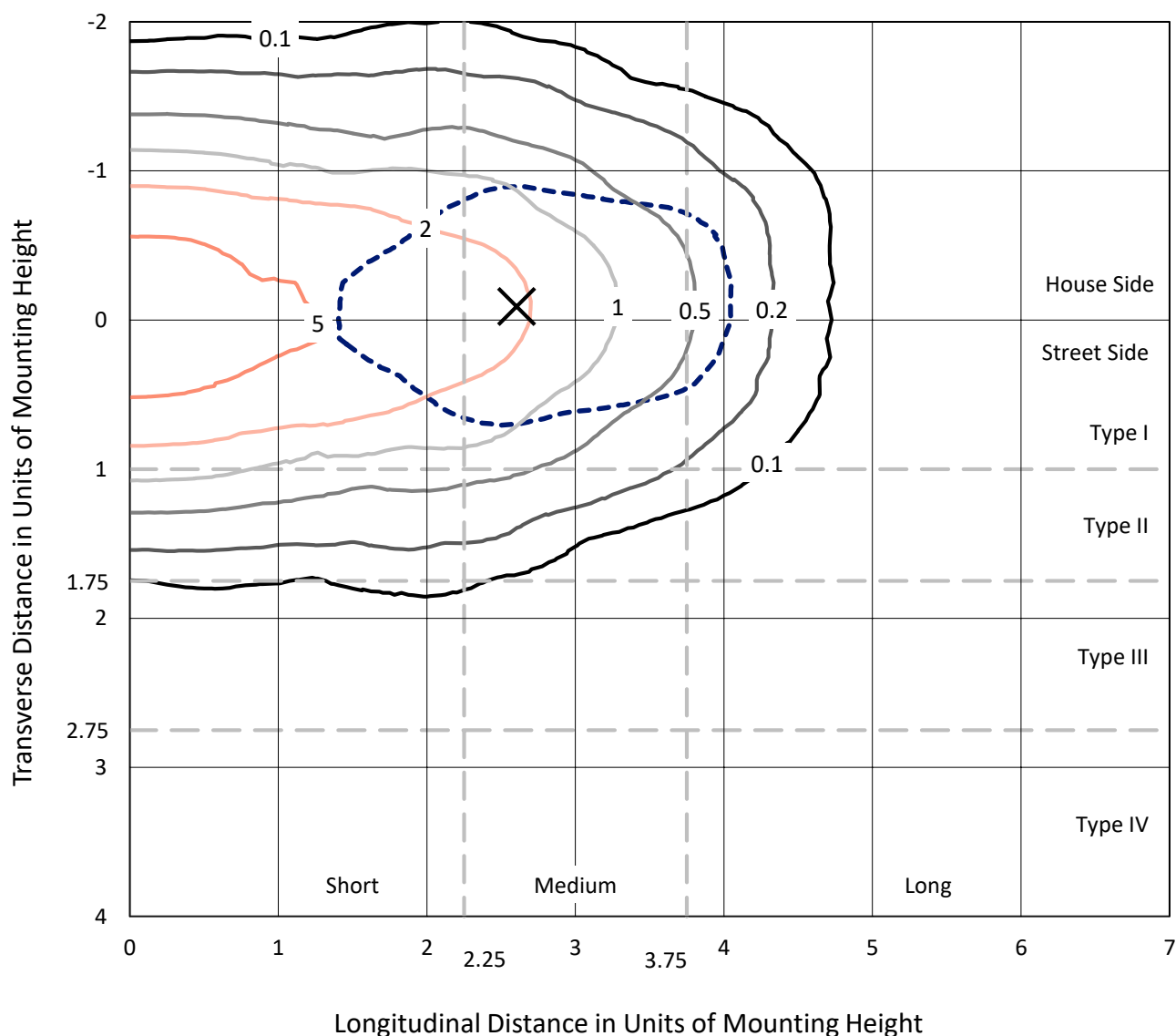


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

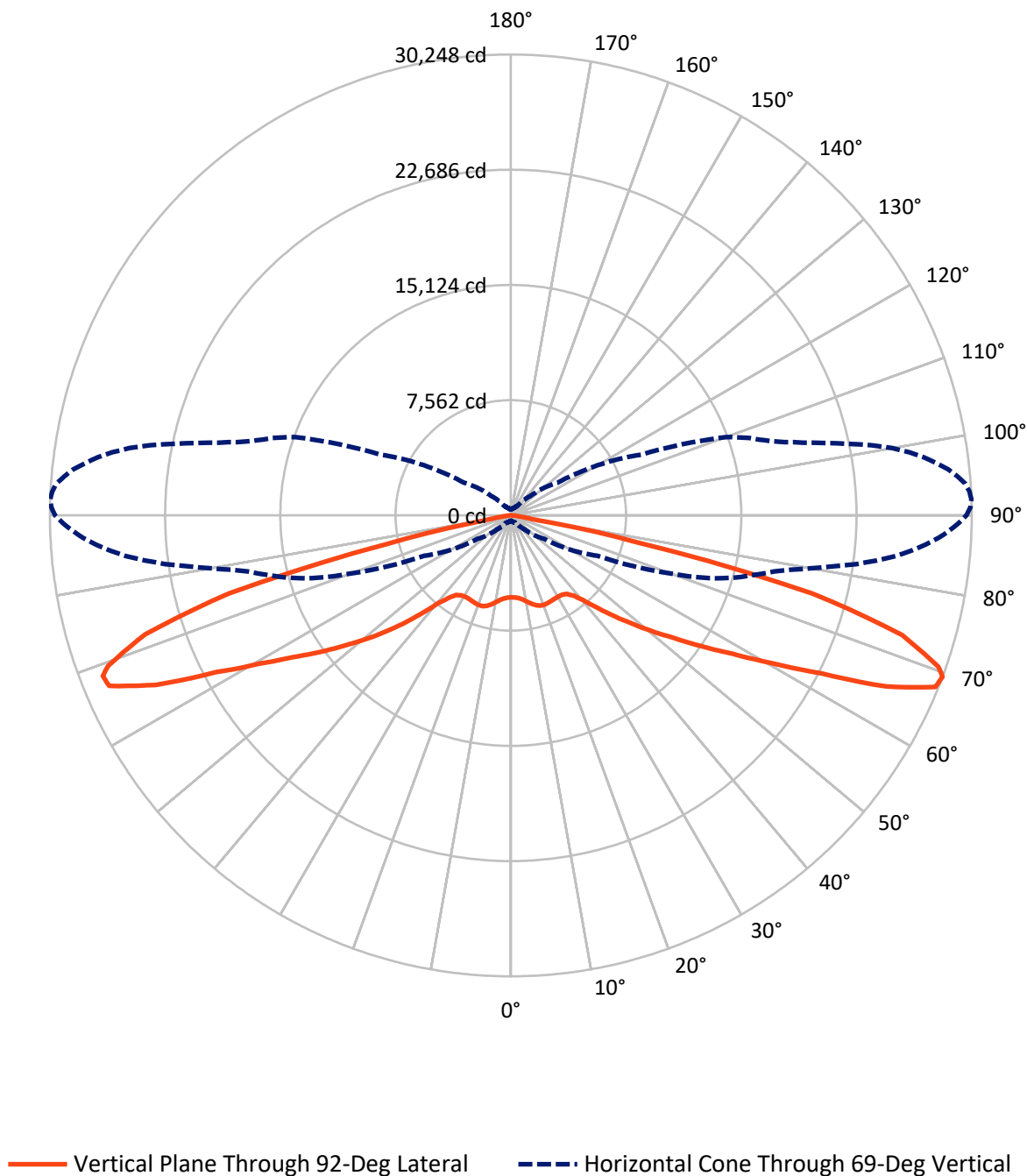


Based on 25 foot mounting height. Maximum calculated value = 8.8 fc
 Type I - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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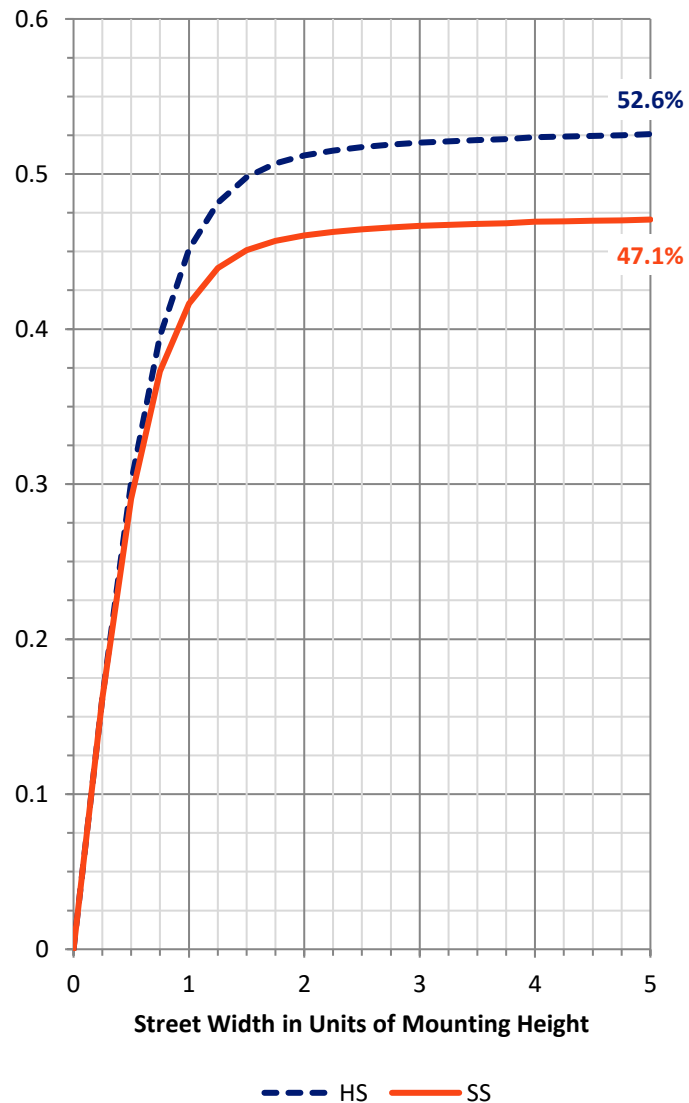
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15003.9	0.0	15003.9
	% Fixture	53.0	0.0	53.0
Street Side	Lumens	13286.5	0.0	13286.5
	% Fixture	47.0	0.0	47.0
Total	Lumens	28290.4	0.0	28290.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	525.9	1.9
10°-20°	1661.2	5.9
20°-30°	2695.1	9.5
30°-40°	3358.8	11.9
40°-50°	4182.1	14.8
50°-60°	5157.5	18.2
60°-70°	6405.3	22.6
70°-80°	3935.7	13.9
80°-90°	368.9	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°	28290.4	100.0
0°-180°	28290.4	100.0

Coefficient of Utilization



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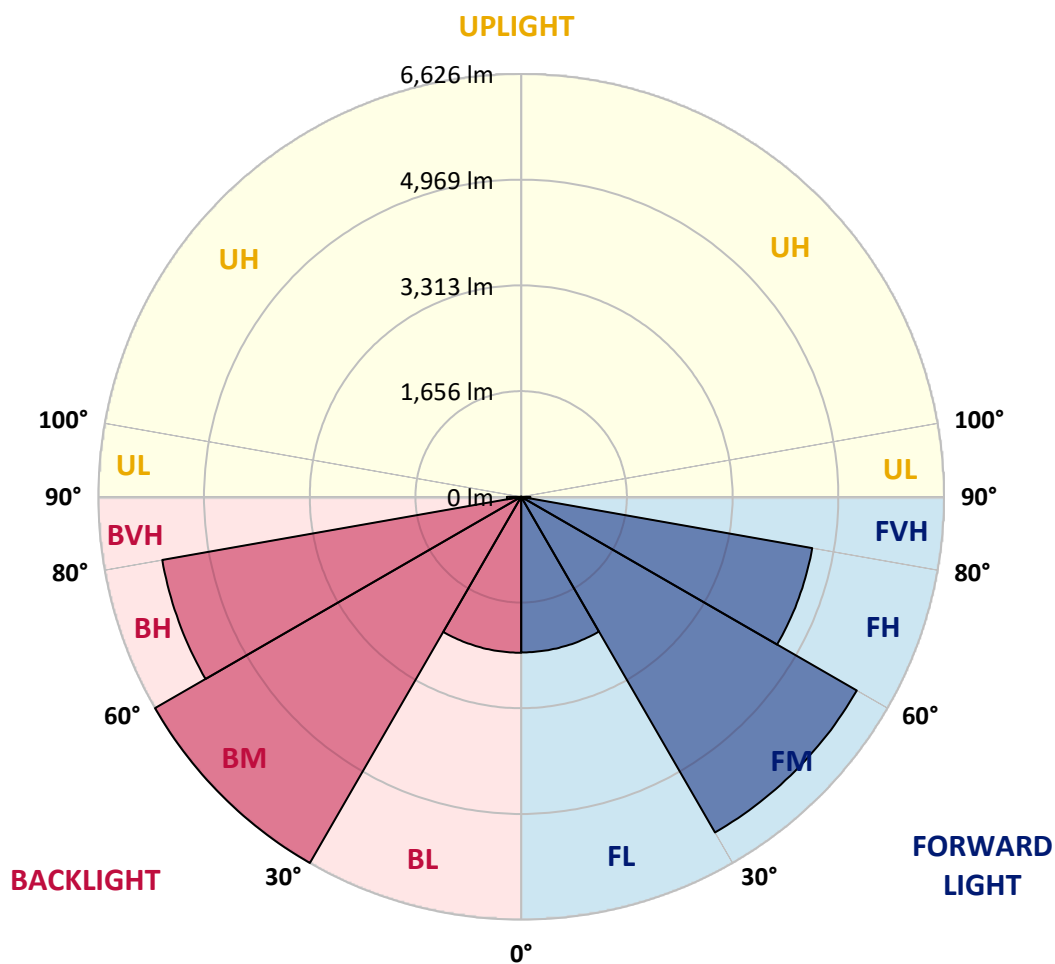
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2438.5	8.6			
FM	(30°-60°)	6072.9	21.5			
FH	(60°-80°)	4630.8	16.4			G2/5000
FVH	(80°-90°)	144.4	0.5			G2/225
BL	(0°-30°)	2443.6	8.6	B3/2500		
BM	(30°-60°)	6625.6	23.4	B4/8500		
BH	(60°-80°)	5710.2	20.2	B5		G5
BVH	(80°-90°)	224.4	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0
2.5°	5459.4	5444.8	5457.5	5459.4	5457.5	5457.5	5441.2	5437.6	5415.8	5421.2	5419.4
5°	5533.8	5528.4	5537.5	5541.1	5544.7	5537.5	5524.7	5519.3	5504.8	5499.3	5497.5
7.5°	5602.8	5593.8	5608.3	5621.0	5630.1	5631.9	5633.7	5624.6	5624.6	5617.4	5617.4
10°	5661.0	5653.7	5677.3	5693.6	5722.7	5739.0	5757.2	5769.9	5777.2	5779.0	5777.2
12.5°	5686.4	5680.9	5719.1	5768.1	5822.6	5860.7	5906.1	5938.8	5947.9	5946.1	5955.2
15°	5642.8	5646.4	5704.5	5800.8	5917.0	6013.3	6076.9	6104.1	6111.4	6115.0	6116.8
17.5°	5524.7	5532.0	5615.6	5771.7	5975.1	6149.5	6243.9	6243.9	6229.4	6229.4	6227.6
20°	5335.9	5343.1	5452.1	5677.3	5977.0	6243.9	6378.3	6351.1	6296.6	6285.7	6274.8
22.5°	5074.3	5103.4	5223.3	5484.8	5898.9	6271.2	6461.9	6421.9	6336.6	6313.0	6296.6
25°	4778.3	4774.7	4918.1	5212.4	5710.0	6205.8	6485.5	6478.2	6387.4	6362.0	6332.9
27.5°	4440.5	4451.4	4584.0	4881.8	5421.2	6016.9	6445.5	6541.8	6467.3	6441.9	6414.7
30°	4093.6	4104.5	4229.8	4576.7	5092.5	5746.3	6363.8	6603.5	6574.5	6554.5	6536.3
32.5°	3744.9	3748.5	3897.5	4269.8	4814.6	5423.0	6240.3	6659.8	6699.8	6690.7	6683.4
35°	3418.0	3421.6	3583.3	3961.0	4540.4	5147.0	6091.4	6741.6	6870.5	6881.4	6888.7
37.5°	3100.2	3105.6	3270.9	3666.8	4269.8	4938.1	5926.1	6866.9	7110.2	7150.2	7157.5
40°	2784.2	2789.6	2947.6	3367.2	3995.5	4754.7	5799.0	7043.0	7433.5	7488.0	7544.3
42.5°	2482.7	2502.7	2637.1	3038.4	3690.4	4527.7	5744.5	7257.4	7816.7	7902.1	7965.7
45°	2201.2	2203.0	2355.6	2731.5	3329.0	4220.7	5708.2	7500.7	8245.3	8374.3	8461.5
47.5°	1899.7	1921.5	2081.3	2446.4	2991.2	3841.2	5591.9	7785.9	8712.1	8862.8	9039.0
50°	1607.3	1638.2	1792.5	2154.0	2682.5	3448.9	5279.6	8120.0	9237.0	9433.1	9636.5
52.5°	1325.8	1324.0	1487.4	1863.4	2371.9	3116.5	4772.9	8470.5	9843.6	10054.2	10274.0
55°	1002.5	1002.5	1164.2	1507.4	2035.9	2820.5	4229.8	8688.5	10406.6	10660.8	10900.6
57.5°	688.3	706.5	859.0	1155.1	1685.4	2549.9	3813.9	8563.2	10837.0	11153.0	11438.1
60°	510.3	528.5	641.1	830.0	1318.5	2230.2	3501.5	7972.9	11096.7	11516.2	11886.7
62.5°	441.3	454.0	561.2	664.7	949.8	1890.6	3225.5	7222.8	11470.8	12044.7	12560.5
65°	394.1	406.8	514.0	573.9	742.8	1520.1	3071.1	6794.2	11917.6	12794.8	13543.1
67.5°	365.0	379.6	470.4	514.0	648.4	1374.8	2951.3	6694.3	11914.0	12978.2	13933.5
69°	350.5	361.4	435.9	483.1	626.6	1331.2	2691.5	6260.3	11127.6	12269.9	13228.9
70°	341.4	352.3	415.9	463.1	619.3	1253.1	2451.8	5686.4	10232.2	11381.8	12355.3
72.5°	312.4	323.3	370.5	414.1	515.8	837.2	1709.0	3639.6	7311.8	8132.7	9246.0
75°	276.1	288.8	325.1	361.4	390.5	484.9	986.2	1888.8	4180.8	4803.7	5795.4
77.5°	225.2	237.9	276.1	334.2	330.5	368.7	641.1	1160.5	1957.8	2428.2	2795.1
80°	185.2	194.3	227.0	337.8	270.6	308.7	519.4	951.7	1378.5	1523.8	1610.9
82.5°	123.5	136.2	176.2	265.2	207.0	219.8	388.7	889.9	1166.0	1278.6	1383.9
85°	58.1	63.6	107.2	141.7	125.3	118.1	221.6	628.4	868.1	920.8	960.7
87.5°	0.0	0.0	5.4	10.9	16.3	16.3	40.0	132.6	243.4	294.2	290.6
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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CATALOG NUMBER: VST-F11-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0
2.5°	5412.1	5414.0	5412.1	5412.1	5410.3	5406.7	5406.7	5403.1	5404.9	5403.1	5406.7
5°	5495.7	5495.7	5490.2	5486.6	5492.1	5486.6	5488.4	5479.3	5479.3	5473.9	5466.6
7.5°	5615.6	5615.6	5617.4	5606.5	5613.7	5615.6	5610.1	5606.5	5602.8	5593.8	5595.6
10°	5775.4	5775.4	5780.8	5766.3	5773.6	5777.2	5779.0	5779.0	5775.4	5759.0	5760.8
12.5°	5953.4	5949.7	5951.5	5944.3	5951.5	5955.2	5958.8	5955.2	5955.2	5951.5	5949.7
15°	6115.0	6113.2	6116.8	6111.4	6113.2	6116.8	6127.7	6125.9	6124.1	6113.2	6113.2
17.5°	6225.8	6220.3	6216.7	6214.9	6214.9	6213.1	6214.9	6214.9	6209.4	6207.6	6207.6
20°	6267.6	6253.0	6243.9	6238.5	6231.2	6227.6	6224.0	6225.8	6222.1	6216.7	6218.5
22.5°	6274.8	6254.8	6236.7	6220.3	6205.8	6196.7	6187.6	6184.0	6174.9	6169.5	6169.5
25°	6309.3	6278.4	6249.4	6222.1	6200.4	6180.4	6160.4	6145.9	6135.0	6122.3	6118.6
27.5°	6385.6	6352.9	6318.4	6283.9	6254.8	6214.9	6187.6	6158.6	6133.2	6113.2	6098.6
30°	6503.7	6471.0	6436.5	6396.5	6358.4	6316.6	6271.2	6236.7	6200.4	6160.4	6138.6
32.5°	6659.8	6638.0	6603.5	6565.4	6530.9	6487.3	6432.8	6380.2	6345.6	6298.4	6263.9
35°	6883.2	6857.8	6846.9	6830.6	6796.1	6768.8	6708.9	6659.8	6627.1	6561.8	6536.3
37.5°	7188.3	7186.5	7195.6	7190.2	7195.6	7161.1	7133.9	7132.0	7084.8	7021.3	6959.5
40°	7604.2	7626.0	7675.1	7709.6	7742.3	7745.9	7784.0	7744.1	7749.5	7740.5	7676.9
42.5°	8078.3	8152.7	8210.8	8312.5	8390.6	8463.3	8512.3	8579.5	8630.4	8675.8	8686.7
45°	8606.8	8717.5	8851.9	8942.7	9095.3	9217.0	9384.1	9513.0	9647.4	9780.0	9827.2
47.5°	9180.7	9318.7	9467.6	9636.5	9829.0	10019.7	10277.6	10475.6	10691.7	10871.5	11031.3
50°	9814.5	9958.0	10157.8	10352.1	10617.2	10837.0	11174.8	11434.5	11783.2	12022.9	12230.0
52.5°	10475.6	10655.4	10878.8	11093.1	11363.7	11645.2	12021.1	12404.3	12823.9	13187.1	13488.6
55°	11122.1	11343.7	11558.0	11808.6	12108.3	12435.2	12860.2	13365.1	13888.1	14304.0	14703.6
57.5°	11697.9	11953.9	12206.4	12460.6	12767.6	13147.1	13624.8	14169.6	14769.0	15322.9	15871.4
60°	12231.8	12538.7	12847.5	13165.3	13517.6	13986.2	14560.1	15230.3	16005.8	16763.1	17480.5
62.5°	13076.3	13479.5	13862.7	14273.2	14698.1	15248.4	15925.9	16804.9	17694.8	18641.0	19376.6
65°	14220.5	14787.1	15288.4	15820.5	16370.8	17106.4	17916.4	18967.9	20242.9	21212.7	22393.2
67.5°	14788.9	15535.4	16180.1	16772.2	17453.2	18196.1	19158.6	20402.7	21763.0	23168.7	24485.4
69°	14120.6	14890.7	15604.4	16267.3	16955.6	17676.6	18682.8	19959.5	21397.9	22918.1	24203.9
70°	13254.3	14024.3	14785.3	15540.8	16169.2	16872.1	17881.9	19198.6	20635.2	22215.2	23490.1
72.5°	10154.1	11080.4	11768.7	12477.0	13205.3	13801.0	14966.9	16076.6	17573.1	19176.8	20580.7
75°	6496.4	7348.2	8100.1	8703.0	9414.9	10128.7	10989.6	12222.7	13159.9	14476.6	15615.3
77.5°	3338.1	3590.5	4315.2	4531.3	5025.3	5414.0	5888.0	6196.7	6959.5	7121.1	7793.1
80°	1581.9	1425.7	1342.1	1265.9	1287.7	1278.6	1240.4	1189.6	1253.1	1225.9	1215.0
82.5°	1378.5	1229.5	980.7	833.6	721.0	612.0	526.7	483.1	488.5	503.1	508.5
85°	966.2	908.1	708.3	537.6	419.5	325.1	261.5	250.6	257.9	277.9	270.6
87.5°	279.7	292.4	257.9	179.8	125.3	90.8	70.8	79.9	76.3	74.5	78.1
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):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0
2.5°	5406.7	5404.9	5399.4	5394.0	5394.0	5390.3	5394.0	5395.8	5394.0	5394.0	5390.3
5°	5468.4	5470.3	5475.7	5464.8	5463.0	5464.8	5457.5	5455.7	5450.3	5455.7	5448.5
7.5°	5586.5	5591.9	5591.9	5584.7	5582.9	5588.3	5577.4	5573.8	5568.3	5566.5	5564.7
10°	5762.7	5768.1	5759.0	5753.6	5748.1	5755.4	5746.3	5746.3	5740.9	5735.4	5733.6
12.5°	5958.8	5955.2	5951.5	5955.2	5949.7	5949.7	5944.3	5940.6	5938.8	5937.0	5933.4
15°	6111.4	6124.1	6124.1	6127.7	6124.1	6124.1	6116.8	6118.6	6115.0	6113.2	6115.0
17.5°	6209.4	6213.1	6222.1	6227.6	6227.6	6229.4	6225.8	6229.4	6225.8	6225.8	6233.0
20°	6222.1	6225.8	6234.9	6243.9	6249.4	6253.0	6253.0	6258.5	6262.1	6265.7	6274.8
22.5°	6171.3	6176.7	6187.6	6204.0	6213.1	6216.7	6224.0	6233.0	6242.1	6249.4	6262.1
25°	6118.6	6120.4	6131.3	6147.7	6158.6	6167.7	6180.4	6191.3	6204.0	6218.5	6233.0
27.5°	6089.6	6087.8	6096.8	6113.2	6122.3	6135.0	6145.9	6162.2	6176.7	6194.9	6207.6
30°	6115.0	6100.5	6102.3	6109.5	6116.8	6125.9	6138.6	6153.1	6169.5	6185.8	6200.4
32.5°	6227.6	6194.9	6173.1	6167.7	6169.5	6171.3	6178.6	6187.6	6200.4	6213.1	6218.5
35°	6471.0	6414.7	6385.6	6362.0	6342.0	6325.7	6329.3	6327.5	6327.5	6338.4	6325.7
37.5°	6934.1	6863.2	6832.4	6790.6	6767.0	6707.1	6690.7	6687.1	6663.5	6663.5	6636.2
40°	7660.5	7618.8	7595.2	7557.0	7442.6	7457.1	7375.4	7377.2	7310.0	7317.3	7270.1
42.5°	8693.9	8699.4	8670.3	8644.9	8555.9	8516.0	8439.7	8330.7	8245.3	8243.5	8149.1
45°	9889.0	9954.3	9861.7	9894.4	9816.3	9709.2	9620.2	9480.3	9347.7	9306.0	9209.7
47.5°	11138.5	11245.6	11174.8	11187.5	11149.4	10996.8	10877.0	10704.4	10531.9	10415.6	10357.5
50°	12473.4	12544.2	12542.4	12507.9	12489.7	12340.8	12148.3	12017.5	11890.4	11734.2	11683.3
52.5°	13682.9	13848.2	13959.0	13933.5	13880.9	13791.9	13621.2	13508.6	13321.5	13299.7	13321.5
55°	14977.8	15192.1	15304.7	15440.9	15442.8	15426.4	15355.6	15313.8	15139.5	15159.4	15134.0
57.5°	16203.7	16517.9	16690.5	16981.0	17080.9	17213.5	17164.5	17219.0	17113.6	17182.6	17162.7
60°	17865.5	18301.4	18588.3	18986.1	19171.3	19503.7	19569.1	19609.0	19667.1	19808.8	19728.9
62.5°	19955.9	20595.2	21190.9	21732.1	21910.1	22409.5	22491.3	22803.6	22820.0	22916.2	22740.1
65°	23377.5	24156.7	24812.3	25460.7	25834.8	26419.6	26655.7	27262.3	27077.1	27155.1	26779.2
67.5°	25618.7	26524.9	27404.0	28017.8	28638.9	29236.5	29666.9	30059.2	30055.5	29979.3	29645.1
69°	25420.7	26430.5	27296.8	28119.5	28773.3	29387.2	29904.8	30159.1	30248.1	30137.3	29899.4
70°	24736.0	25773.1	26833.7	27511.1	28223.0	28896.8	29430.8	29708.7	29770.4	29692.3	29487.1
72.5°	21572.3	22567.5	23737.1	24352.8	25213.7	25700.4	26435.9	26795.5	26859.1	26759.2	26624.8
75°	16835.8	17015.6	18207.0	18599.2	19224.0	19785.2	20242.9	20126.6	20451.7	20388.2	20337.3
77.5°	7931.1	7451.7	8223.5	8583.1	8394.3	7891.2	8623.1	8094.6	8445.1	8901.0	8784.7
80°	1307.6	1304.0	1338.5	1414.8	1324.0	1405.7	1403.9	1363.9	1367.6	1465.6	1414.8
82.5°	503.1	514.0	519.4	533.9	533.9	535.8	544.8	555.7	546.7	564.8	561.2
85°	272.4	290.6	274.2	261.5	270.6	276.1	283.3	292.4	283.3	310.6	296.0
87.5°	70.8	74.5	65.4	65.4	63.6	58.1	58.1	61.7	67.2	79.9	87.2
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):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0
2.5°	5383.1	5384.9	5386.7	5381.3	5377.6	5377.6	5375.8	5372.2	5370.4	5370.4	5370.4
5°	5444.8	5448.5	5439.4	5437.6	5433.9	5430.3	5430.3	5426.7	5428.5	5428.5	5419.4
7.5°	5568.3	5562.9	5552.0	5544.7	5552.0	5539.3	5533.8	5537.5	5533.8	5535.6	5532.0
10°	5733.6	5733.6	5720.9	5728.2	5719.1	5704.5	5710.0	5704.5	5700.9	5688.2	5695.5
12.5°	5938.8	5933.4	5926.1	5909.8	5904.3	5902.5	5886.2	5888.0	5882.5	5878.9	5873.4
15°	6118.6	6116.8	6100.5	6091.4	6089.6	6082.3	6075.0	6071.4	6062.3	6060.5	6056.9
17.5°	6238.5	6233.0	6225.8	6216.7	6216.7	6205.8	6202.2	6193.1	6191.3	6185.8	6180.4
20°	6278.4	6280.3	6273.0	6265.7	6262.1	6254.8	6249.4	6242.1	6238.5	6231.2	6225.8
22.5°	6269.4	6269.4	6262.1	6260.3	6253.0	6242.1	6234.9	6225.8	6216.7	6207.6	6196.7
25°	6240.3	6238.5	6233.0	6224.0	6214.9	6198.5	6184.0	6169.5	6156.8	6145.9	6129.5
27.5°	6214.9	6211.2	6200.4	6187.6	6169.5	6151.3	6124.1	6104.1	6087.8	6073.2	6055.1
30°	6205.8	6193.1	6176.7	6156.8	6135.0	6107.7	6078.7	6053.2	6035.1	6020.6	6013.3
32.5°	6216.7	6200.4	6174.9	6149.5	6122.3	6089.6	6060.5	6038.7	6022.4	6018.7	6018.7
35°	6316.6	6289.3	6254.8	6218.5	6184.0	6156.8	6136.8	6135.0	6124.1	6136.8	6156.8
37.5°	6609.0	6585.4	6532.7	6485.5	6461.9	6449.2	6431.0	6434.6	6409.2	6449.2	6481.9
40°	7230.1	7201.1	7139.3	7101.2	7053.9	7008.5	7044.9	7034.0	7052.1	7044.9	7079.4
42.5°	8136.4	8107.3	8009.2	7994.7	7974.7	7956.6	7956.6	7942.0	7934.8	7960.2	7931.1
45°	9238.8	9180.7	9144.3	9187.9	9128.0	9146.2	9209.7	9124.4	9144.3	9026.3	8917.3
47.5°	10383.0	10377.5	10368.4	10421.1	10430.2	10457.4	10491.9	10404.8	10246.7	10157.8	9936.2
50°	11699.7	11756.0	11777.8	11828.6	11850.4	11870.4	11815.9	11687.0	11420.0	11183.9	10922.4
52.5°	13299.7	13201.6	13336.0	13385.1	13363.3	13283.4	13087.2	12929.2	12560.5	12220.9	11815.9
55°	15163.1	15186.7	15092.2	15054.1	14979.6	14758.1	14487.5	14131.5	13664.7	13221.6	12709.5
57.5°	17061.0	17051.9	16904.8	16697.7	16445.3	16178.3	15775.1	15264.8	14719.9	14124.2	13504.9
60°	19369.3	19360.2	19062.4	18708.2	18348.6	17918.2	17286.2	16672.3	15942.2	15159.4	14422.1
62.5°	22402.3	22011.8	21719.4	21190.9	20635.2	20072.1	19216.7	18401.3	17426.0	16438.0	15577.2
65°	26288.8	25645.9	25313.6	24547.1	23686.3	22807.3	21937.3	20865.8	19552.7	18357.7	17306.1
67.5°	29163.8	28575.4	27967.0	27202.4	26258.0	25277.2	24085.8	22736.4	21245.4	19905.1	18759.1
69°	29416.3	28866.0	28135.9	27369.5	26475.9	25409.8	24109.5	22598.4	21087.4	19730.7	18602.9
70°	29033.1	28448.2	27680.0	26882.7	25883.8	24877.7	23515.6	21941.0	20428.1	19067.8	17967.2
72.5°	26174.4	25604.2	24786.9	23833.4	22809.1	21948.2	20655.1	19013.3	17367.9	16111.1	15253.9
75°	19903.2	19777.9	19198.6	18642.8	17836.5	16875.7	15693.4	14589.2	13239.8	11910.3	11111.2
77.5°	8492.3	8781.1	9082.6	9126.2	9155.2	8859.2	8675.8	8397.9	7495.3	7084.8	6661.7
80°	1569.2	1402.1	1496.5	1507.4	1569.2	1601.8	1721.7	2041.4	2077.7	2155.8	2252.0
82.5°	557.6	566.6	581.2	586.6	592.1	613.9	695.6	833.6	958.9	1122.4	1340.3
85°	316.0	321.5	334.2	345.1	352.3	374.1	419.5	501.3	624.8	811.8	1100.6
87.5°	96.3	109.0	116.2	130.8	136.2	139.8	159.8	214.3	276.1	408.6	595.7
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-F11-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0	5374.0
2.5°	5370.4	5368.6	5364.9	5361.3	5363.1	5359.5	5348.6	5344.9	5332.2	5323.1	5315.9
5°	5419.4	5417.6	5410.3	5412.1	5410.3	5392.2	5379.5	5357.7	5344.9	5325.0	5317.7
7.5°	5521.1	5519.3	5506.6	5512.0	5508.4	5481.2	5459.4	5424.9	5406.7	5381.3	5361.3
10°	5673.7	5673.7	5659.1	5661.0	5661.0	5624.6	5586.5	5528.4	5486.6	5446.6	5412.1
12.5°	5858.9	5851.7	5849.8	5840.8	5833.5	5793.5	5735.4	5657.3	5579.2	5513.8	5466.6
15°	6046.0	6035.1	6029.6	6018.7	6009.7	5973.3	5895.2	5799.0	5693.6	5588.3	5510.2
17.5°	6167.7	6160.4	6149.5	6145.9	6133.2	6096.8	6042.3	5946.1	5815.3	5668.2	5550.2
20°	6213.1	6200.4	6193.1	6185.8	6178.6	6153.1	6153.1	6091.4	5946.1	5739.0	5559.2
22.5°	6184.0	6176.7	6165.8	6160.4	6153.1	6156.8	6227.6	6218.5	6051.4	5755.4	5493.9
25°	6116.8	6107.7	6098.6	6098.6	6096.8	6135.0	6305.7	6329.3	6082.3	5675.5	5350.4
27.5°	6047.8	6035.1	6038.7	6040.5	6049.6	6131.3	6391.0	6358.4	5998.8	5483.0	5103.4
30°	6006.0	6006.0	6015.1	6029.6	6047.8	6191.3	6458.2	6293.0	5782.6	5192.4	4776.5
32.5°	6024.2	6042.3	6062.3	6098.6	6125.9	6323.9	6481.9	6124.1	5468.4	4832.8	4435.1
35°	6185.8	6207.6	6245.8	6302.1	6334.7	6514.5	6481.9	5877.1	5103.4	4524.0	4082.7
37.5°	6538.2	6560.0	6605.4	6648.9	6681.6	6754.3	6454.6	5562.9	4798.3	4204.4	3766.7
40°	7104.8	7135.7	7168.4	7161.1	7139.3	7068.5	6400.1	5270.5	4516.8	3924.7	3456.1
42.5°	7902.1	7873.0	7869.4	7798.6	7725.9	7422.6	6360.2	5079.8	4275.2	3630.5	3147.4
45°	8822.9	8704.8	8583.1	8488.7	8377.9	7811.3	6349.3	4925.4	4008.3	3303.6	2811.4
47.5°	9749.1	9560.2	9324.1	9177.0	8997.2	8225.4	6382.0	4718.4	3665.0	2947.6	2497.2
50°	10657.2	10348.5	10056.0	9879.9	9676.5	8701.2	6434.6	4369.7	3254.5	2624.3	2210.3
52.5°	11498.1	11100.3	10800.7	10593.6	10344.8	9255.1	6387.4	3912.0	2898.6	2313.8	1937.8
55°	12297.2	11857.7	11547.1	11329.2	11036.8	9810.9	6046.0	3496.1	2559.0	2010.5	1630.9
57.5°	12996.4	12575.1	12251.8	11955.7	11708.8	10294.0	5372.2	3152.8	2232.1	1663.6	1298.6
60°	13813.7	13339.7	12956.4	12640.4	12349.9	10542.8	4616.7	2847.7	1883.4	1287.7	939.0
62.5°	14916.1	14371.2	13928.1	13566.7	13187.1	10597.3	4100.9	2542.6	1494.7	931.7	682.9
65°	16550.6	15878.6	15324.7	14827.1	14313.1	10372.1	3846.6	2210.3	1111.5	692.0	572.1
67.5°	17849.2	17151.8	16510.7	15871.4	15213.9	9954.3	3790.3	1903.3	853.6	588.4	514.0
69°	17691.2	17026.5	16438.0	15746.1	15017.8	9429.5	3734.0	1785.3	779.1	546.7	486.7
70°	17082.8	16452.5	15855.0	15292.0	14400.3	8844.7	3585.1	1719.9	750.1	526.7	466.8
72.5°	14434.8	13704.7	13125.4	12424.3	11485.4	6572.7	2718.8	1391.2	688.3	481.3	421.3
75°	10528.2	9923.5	9345.9	8570.4	7656.9	3803.0	1692.7	795.5	504.9	435.9	381.4
77.5°	6147.7	6011.5	5453.9	4943.6	4039.1	1936.0	971.6	475.8	392.3	395.9	336.0
80°	2313.8	2464.5	2520.8	2344.7	2166.7	1336.7	706.5	386.8	341.4	390.5	285.1
82.5°	1687.2	1957.8	1990.5	1907.0	1774.4	1245.9	564.8	310.6	277.9	419.5	245.2
85°	1407.5	1558.3	1581.9	1494.7	1451.1	1055.2	394.1	217.9	203.4	301.5	183.4
87.5°	711.9	750.1	770.0	697.4	701.0	492.2	158.0	92.6	110.8	128.9	101.7
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: P158075

CATALOG NUMBER: VST-F11-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	5374.0	5374.0
2.5°	5299.5	5310.4
5°	5306.8	5306.8
7.5°	5348.6	5348.6
10°	5394.0	5395.8
12.5°	5435.8	5433.9
15°	5468.4	5463.0
17.5°	5488.4	5483.0
20°	5468.4	5459.4
22.5°	5366.7	5341.3
25°	5181.5	5148.8
27.5°	4936.3	4914.5
30°	4616.7	4584.0
32.5°	4242.5	4226.2
35°	3884.8	3864.8
37.5°	3557.8	3552.4
40°	3281.8	3252.7
42.5°	2958.5	2945.8
45°	2629.8	2622.5
47.5°	2321.0	2313.8
50°	2035.9	2021.4
52.5°	1756.2	1732.6
55°	1445.7	1429.3
57.5°	1109.7	1095.1
60°	780.9	764.6
62.5°	555.7	537.6
65°	463.1	448.6
67.5°	419.5	403.2
69°	399.6	385.0
70°	386.8	375.9
72.5°	359.6	352.3
75°	328.7	323.3
77.5°	288.8	279.7
80°	241.5	232.5
82.5°	203.4	194.3
85°	136.2	123.5
87.5°	61.7	54.5
90°	0.0	0.0

(END OF REPORT)