

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: P158085

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158085
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
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30862.2 lumens
Efficiency: N/A
Efficacy: 100.7 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

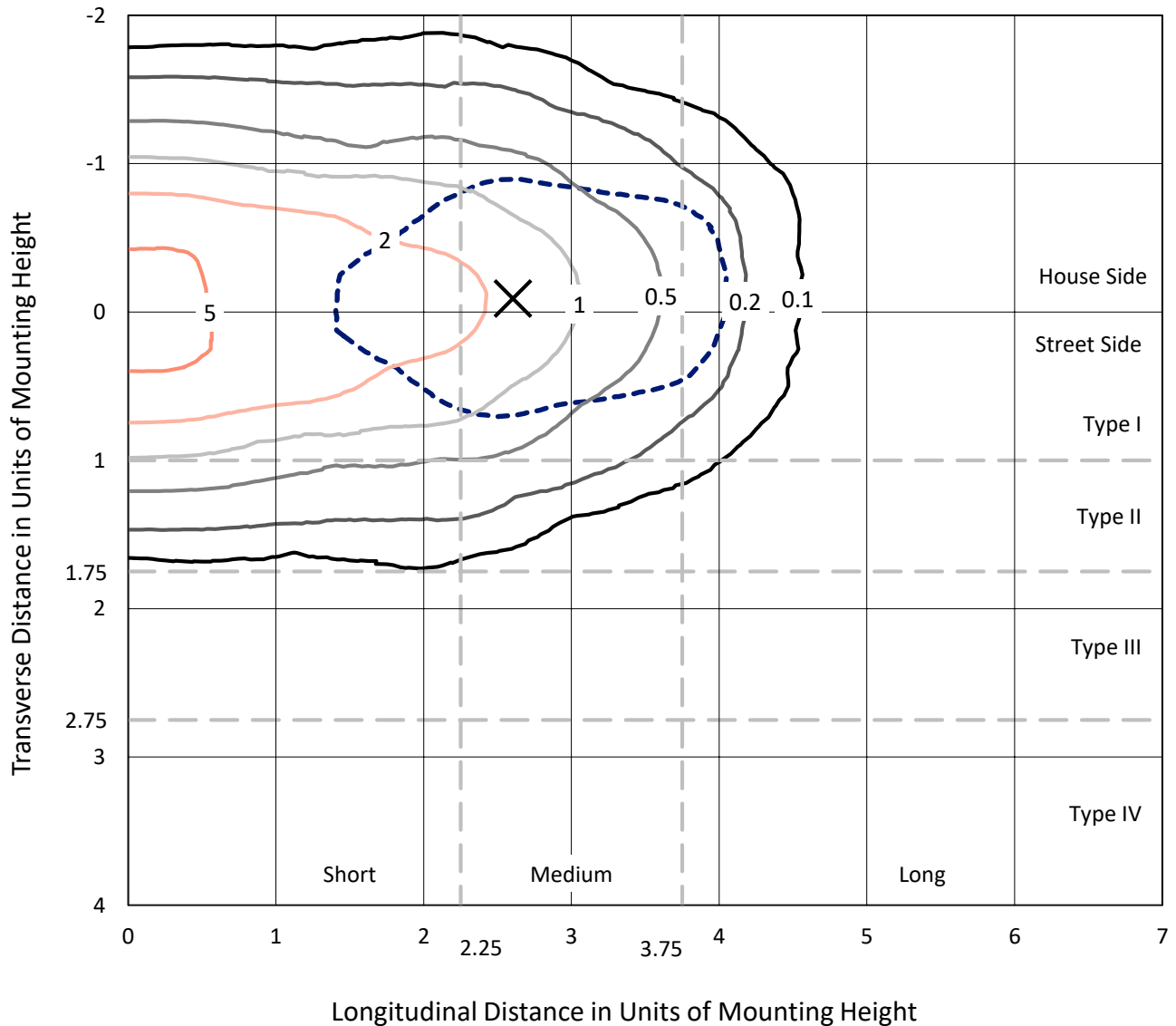
Input Watts (W): 306.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

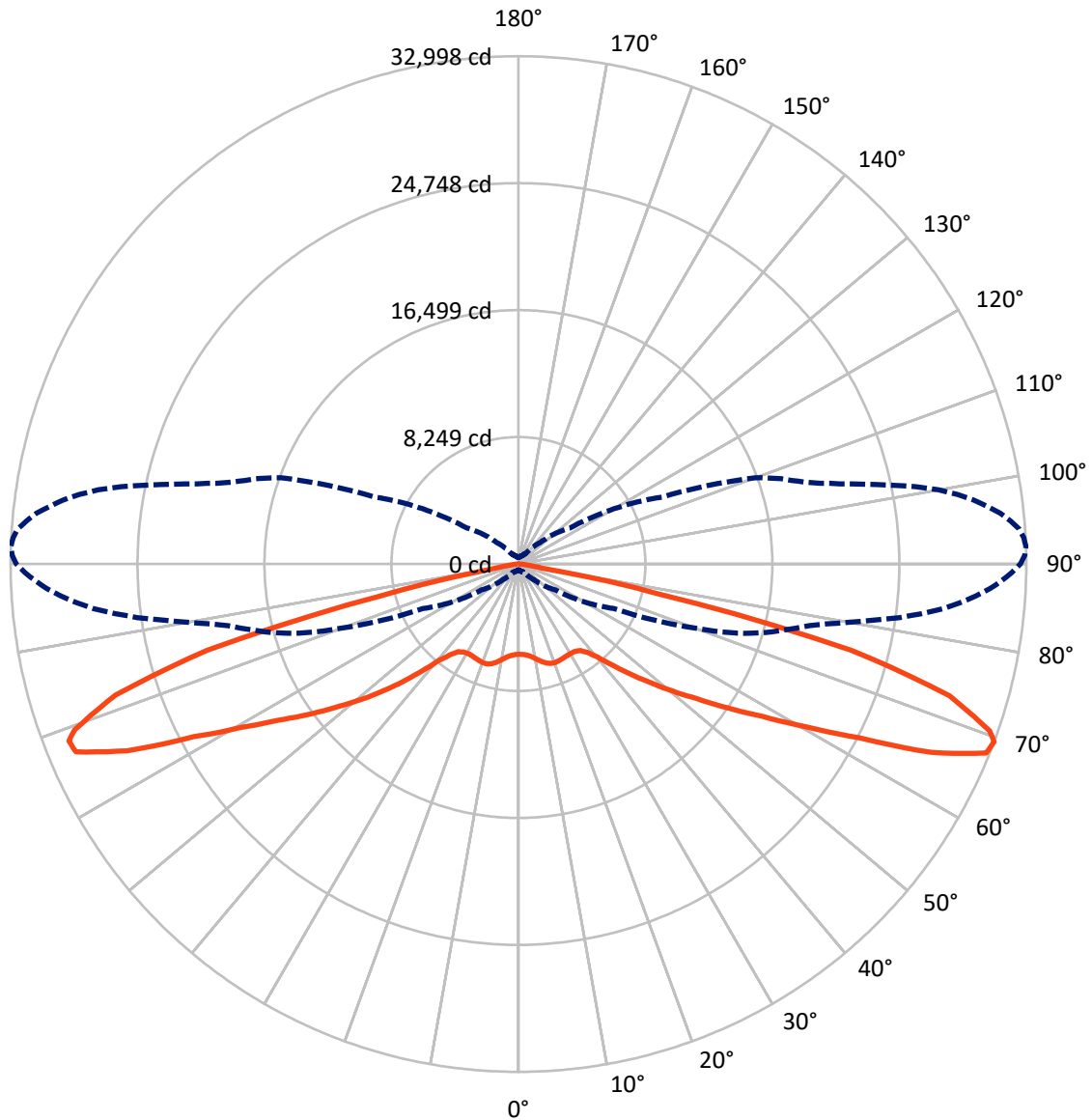


Based on 30 foot mounting height. Maximum calculated value = 6.7 fc
 Type I - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 92-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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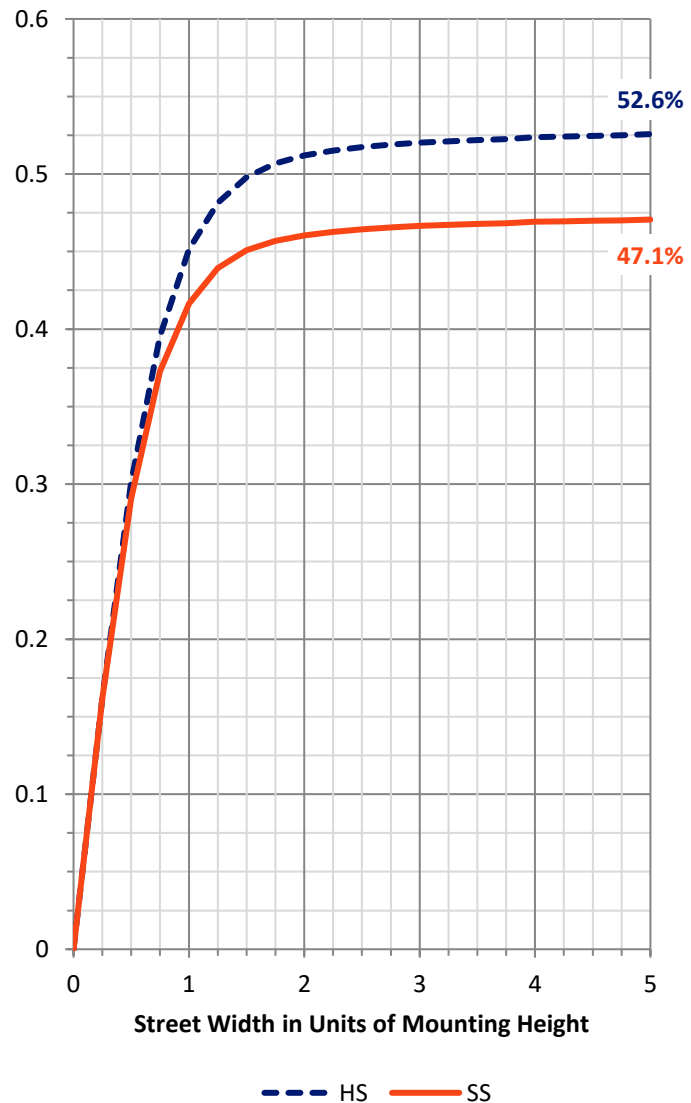
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	16367.9	0.0	16367.9
	% Fixture	53.0	0.0	53.0
Street Side	Lumens	14494.4	0.0	14494.4
	% Fixture	47.0	0.0	47.0
Total	Lumens	30862.2	0.0	30862.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	573.7	1.9
10°-20°	1812.2	5.9
20°-30°	2940.1	9.5
30°-40°	3664.2	11.9
40°-50°	4562.2	14.8
50°-60°	5626.4	18.2
60°-70°	6987.6	22.6
70°-80°	4293.5	13.9
80°-90°	402.4	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°	30862.2	100.0
0°-180°	30862.2	100.0



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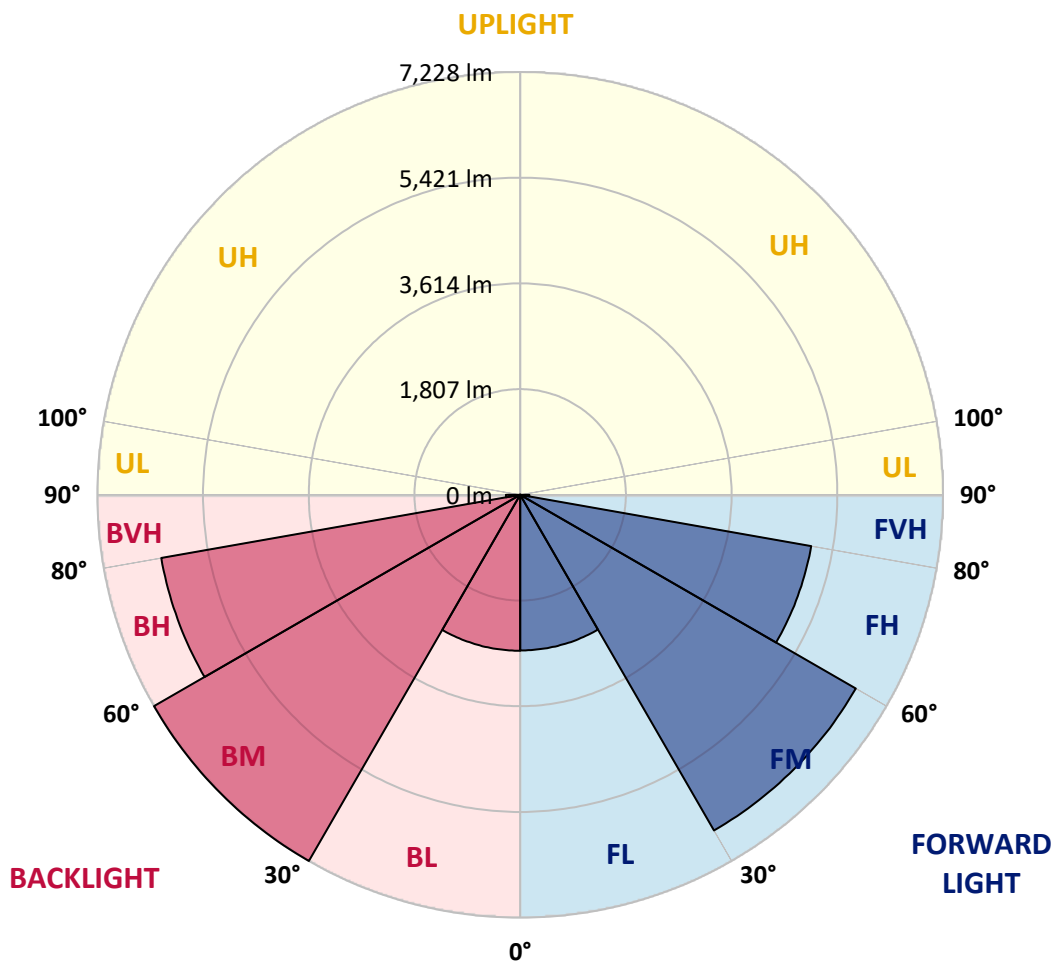
CATALOG NUMBER: VST-F12-LED-E-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2660.1	8.6			
FM	(30°-60°)	6624.9	21.5			
FH	(60°-80°)	5051.7	16.4			G3/7500
FVH	(80°-90°)	157.6	0.5			G2/225
BL	(0°-30°)	2665.8	8.6	B4/5000		
BM	(30°-60°)	7227.9	23.4	B4/8500		
BH	(60°-80°)	6229.4	20.2	B5		G5
BVH	(80°-90°)	244.8	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°	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5
2.5°	5955.7	5939.8	5953.7	5955.7	5953.7	5953.7	5935.9	5931.9	5908.1	5914.1	5912.1
5°	6036.9	6031.0	6040.9	6044.8	6048.8	6040.9	6027.0	6021.0	6005.2	5999.3	5997.3
7.5°	6112.2	6102.3	6118.1	6132.0	6141.9	6143.9	6145.9	6136.0	6136.0	6128.0	6128.0
10°	6175.6	6167.7	6193.4	6211.2	6242.9	6260.8	6280.6	6294.5	6302.4	6304.4	6302.4
12.5°	6203.3	6197.4	6239.0	6292.5	6351.9	6393.5	6443.1	6478.7	6488.6	6486.6	6496.6
15°	6155.8	6159.7	6223.1	6328.1	6454.9	6560.0	6629.3	6659.0	6666.9	6670.9	6672.9
17.5°	6027.0	6034.9	6126.1	6296.4	6518.3	6708.5	6811.6	6811.6	6795.7	6795.7	6793.7
20°	5820.9	5828.9	5947.7	6193.4	6520.3	6811.6	6958.2	6928.5	6869.0	6857.1	6845.3
22.5°	5535.6	5567.3	5698.1	5983.4	6435.1	6841.3	7049.3	7005.7	6912.6	6886.9	6869.0
25°	5212.7	5208.7	5365.3	5686.2	6229.1	6770.0	7075.1	7067.2	6968.1	6940.4	6908.7
27.5°	4844.2	4856.1	5000.7	5325.6	5914.1	6563.9	7031.5	7136.5	7055.3	7027.5	6997.8
30°	4465.8	4477.6	4614.4	4992.8	5555.5	6268.7	6942.3	7203.9	7172.2	7150.4	7130.6
32.5°	4085.4	4089.3	4251.8	4657.9	5252.3	5916.0	6807.6	7265.3	7308.9	7299.0	7291.0
35°	3728.7	3732.7	3909.0	4321.1	4953.1	5614.9	6645.1	7354.4	7495.1	7507.0	7514.9
37.5°	3382.0	3388.0	3568.2	4000.2	4657.9	5387.0	6464.9	7491.1	7756.6	7800.2	7808.1
40°	3037.3	3043.2	3215.6	3673.3	4358.8	5186.9	6326.2	7683.3	8109.3	8168.7	8230.2
42.5°	2708.4	2730.2	2876.8	3314.6	4025.9	4939.3	6266.7	7917.1	8527.3	8620.5	8689.8
45°	2401.3	2403.3	2569.7	2979.8	3631.6	4604.4	6227.1	8182.6	8994.9	9135.6	9230.7
47.5°	2072.4	2096.2	2270.5	2668.8	3263.1	4190.4	6100.3	8493.7	9504.1	9668.5	9860.7
50°	1753.4	1787.1	1955.5	2349.8	2926.3	3762.4	5759.5	8858.2	10076.7	10290.7	10512.6
52.5°	1446.3	1444.3	1622.7	2032.8	2587.5	3399.8	5206.8	9240.6	10738.4	10968.3	11208.0
55°	1093.7	1093.7	1270.0	1644.4	2221.0	3076.9	4614.4	9478.3	11352.6	11630.0	11891.5
57.5°	750.9	770.7	937.1	1260.1	1838.6	2781.7	4160.6	9341.6	11822.2	12166.9	12478.0
60°	556.7	576.5	699.4	905.4	1438.4	2433.0	3819.9	8697.7	12105.5	12563.2	12967.3
62.5°	481.4	495.3	612.2	725.1	1036.2	2062.5	3518.7	7879.5	12513.6	13139.7	13702.4
65°	429.9	443.8	560.7	626.1	810.3	1658.3	3350.3	7411.9	13001.0	13958.0	14774.3
67.5°	398.2	414.1	513.1	560.7	707.3	1499.8	3219.5	7302.9	12997.1	14158.1	15200.2
69°	382.4	394.3	475.5	527.0	683.5	1452.3	2936.2	6829.4	12139.2	13385.4	14431.5
70°	372.5	384.4	453.7	505.2	675.6	1367.1	2674.7	6203.3	11162.4	12416.6	13478.5
72.5°	340.8	352.7	404.2	451.7	562.7	913.4	1864.4	3970.4	7976.6	8872.1	10086.6
75°	301.2	315.0	354.6	394.3	426.0	529.0	1075.8	2060.5	4560.9	5240.4	6322.2
77.5°	245.7	259.5	301.2	364.6	360.6	402.2	699.4	1266.0	2135.8	2648.9	3049.2
80°	202.1	212.0	247.7	368.5	295.2	336.8	566.6	1038.2	1503.8	1662.3	1757.4
82.5°	134.7	148.6	192.2	289.3	225.9	239.7	424.0	970.8	1272.0	1394.8	1509.7
85°	63.4	69.3	116.9	154.5	136.7	128.8	241.7	685.5	947.0	1004.5	1048.1
87.5°	0.0	0.0	5.9	11.9	17.8	17.8	43.6	144.6	265.5	321.0	317.0
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-F12-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5
2.5°	5904.2	5906.1	5904.2	5904.2	5902.2	5898.2	5898.2	5894.2	5896.2	5894.2	5898.2
5°	5995.3	5995.3	5989.3	5985.4	5991.3	5985.4	5987.4	5977.5	5977.5	5971.5	5963.6
7.5°	6126.1	6126.1	6128.0	6116.1	6124.1	6126.1	6120.1	6116.1	6112.2	6102.3	6104.3
10°	6300.4	6300.4	6306.4	6290.5	6298.4	6302.4	6304.4	6304.4	6300.4	6282.6	6284.6
12.5°	6494.6	6490.6	6492.6	6484.7	6492.6	6496.6	6500.5	6496.6	6496.6	6492.6	6490.6
15°	6670.9	6668.9	6672.9	6666.9	6668.9	6672.9	6684.8	6682.8	6680.8	6668.9	6668.9
17.5°	6791.8	6785.8	6781.9	6779.9	6779.9	6777.9	6779.9	6779.9	6773.9	6771.9	6771.9
20°	6837.3	6821.5	6811.6	6805.6	6797.7	6793.7	6789.8	6791.8	6787.8	6781.9	6783.8
22.5°	6845.3	6823.5	6803.6	6785.8	6770.0	6760.1	6750.2	6746.2	6736.3	6730.3	6730.3
25°	6882.9	6849.2	6817.5	6787.8	6764.0	6742.2	6720.4	6704.6	6692.7	6678.8	6674.9
27.5°	6966.1	6930.4	6892.8	6855.2	6823.5	6779.9	6750.2	6718.5	6690.7	6668.9	6653.1
30°	7094.9	7059.2	7021.6	6978.0	6936.4	6890.8	6841.3	6803.6	6764.0	6720.4	6696.7
32.5°	7265.3	7241.5	7203.9	7162.3	7124.6	7077.1	7017.6	6960.2	6922.5	6871.0	6833.4
35°	7509.0	7481.2	7469.3	7451.5	7413.9	7384.2	7318.8	7265.3	7229.6	7158.3	7130.6
37.5°	7841.8	7839.8	7849.8	7843.8	7849.8	7812.1	7782.4	7780.4	7728.9	7659.6	7592.2
40°	8295.5	8319.3	8372.8	8410.4	8446.1	8450.1	8491.7	8448.1	8454.0	8444.1	8374.8
42.5°	8812.6	8893.9	8957.3	9068.2	9153.4	9232.7	9286.2	9359.5	9414.9	9464.5	9476.4
45°	9389.2	9510.0	9656.7	9755.7	9922.1	10054.9	10237.2	10377.8	10524.5	10669.1	10720.6
47.5°	10015.3	10165.8	10328.3	10512.6	10722.6	10930.6	11211.9	11427.9	11663.7	11859.8	12034.2
50°	10706.7	10863.2	11081.2	11293.2	11582.4	11822.2	12190.7	12474.0	12854.4	13115.9	13341.8
52.5°	11427.9	11624.1	11867.7	12101.5	12396.7	12703.8	13114.0	13532.0	13989.7	14385.9	14714.8
55°	12133.2	12374.9	12608.7	12882.2	13209.1	13565.7	14029.3	14580.1	15150.7	15604.4	16040.3
57.5°	12761.3	13040.7	13316.0	13593.4	13928.3	14342.3	14863.4	15457.8	16111.6	16715.9	17314.2
60°	13343.8	13678.6	14015.4	14362.2	14746.5	15257.7	15883.8	16614.8	17460.8	18287.0	19069.6
62.5°	14265.1	14704.9	15123.0	15570.7	16034.3	16634.7	17373.7	18332.6	19303.4	20335.7	21138.1
65°	15513.3	16131.4	16678.2	17258.8	17859.1	18661.5	19545.1	20692.3	22083.1	23141.1	24428.9
67.5°	16133.4	16947.7	17651.0	18296.9	19039.9	19850.2	20900.3	22257.5	23741.4	25274.9	26711.3
69°	15404.3	16244.3	17023.0	17746.1	18497.0	19283.6	20381.2	21774.0	23343.2	25001.5	26404.2
70°	14459.2	15299.3	16129.4	16953.6	17639.2	18405.9	19507.5	20943.9	22511.1	24234.8	25625.6
72.5°	11077.2	12087.7	12838.6	13611.3	14405.7	15055.6	16327.6	17538.1	19170.7	20920.1	22451.6
75°	7087.0	8016.2	8836.4	9494.2	10270.9	11049.5	11988.6	13333.9	14356.2	15792.6	17034.9
77.5°	3641.6	3917.0	4707.5	4943.2	5482.1	5906.1	6423.2	6760.1	7592.2	7768.5	8501.6
80°	1725.7	1555.3	1464.2	1380.9	1404.7	1394.8	1353.2	1297.7	1367.1	1337.4	1325.5
82.5°	1503.8	1341.3	1069.9	909.4	786.6	667.7	574.6	527.0	533.0	548.8	554.8
85°	1054.0	990.6	772.7	586.5	457.7	354.6	285.3	273.4	281.3	303.1	295.2
87.5°	305.1	319.0	281.3	196.1	136.7	99.1	77.3	87.2	83.2	81.2	85.2
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°	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5
2.5°	5898.2	5896.2	5890.3	5884.3	5884.3	5880.4	5884.3	5886.3	5884.3	5884.3	5880.4
5°	5965.6	5967.6	5973.5	5961.6	5959.6	5961.6	5953.7	5951.7	5945.8	5951.7	5943.8
7.5°	6094.4	6100.3	6100.3	6092.4	6090.4	6096.3	6084.4	6080.5	6074.5	6072.6	6070.6
10°	6286.5	6292.5	6282.6	6276.6	6270.7	6278.6	6268.7	6268.7	6262.8	6256.8	6254.8
12.5°	6500.5	6496.6	6492.6	6496.6	6490.6	6490.6	6484.7	6480.7	6478.7	6476.7	6472.8
15°	6666.9	6680.8	6680.8	6684.8	6680.8	6680.8	6672.9	6674.9	6670.9	6668.9	6670.9
17.5°	6773.9	6777.9	6787.8	6793.7	6793.7	6795.7	6791.8	6795.7	6791.8	6791.8	6799.7
20°	6787.8	6791.8	6801.7	6811.6	6817.5	6821.5	6821.5	6827.4	6831.4	6835.3	6845.3
22.5°	6732.3	6738.3	6750.2	6768.0	6777.9	6781.9	6789.8	6799.7	6809.6	6817.5	6831.4
25°	6674.9	6676.8	6688.7	6706.6	6718.5	6728.4	6742.2	6754.1	6768.0	6783.8	6799.7
27.5°	6643.2	6641.2	6651.1	6668.9	6678.8	6692.7	6704.6	6722.4	6738.3	6758.1	6771.9
30°	6670.9	6655.1	6657.0	6665.0	6672.9	6682.8	6696.7	6712.5	6730.3	6748.2	6764.0
32.5°	6793.7	6758.1	6734.3	6728.4	6730.3	6732.3	6740.2	6750.2	6764.0	6777.9	6783.8
35°	7059.2	6997.8	6966.1	6940.4	6918.6	6900.7	6904.7	6902.7	6902.7	6914.6	6900.7
37.5°	7564.4	7487.2	7453.5	7407.9	7382.2	7316.8	7299.0	7295.0	7269.2	7269.2	7239.5
40°	8357.0	8311.4	8285.6	8244.0	8119.2	8135.1	8045.9	8047.9	7974.6	7982.5	7931.0
42.5°	9484.3	9490.2	9458.5	9430.8	9333.7	9290.1	9206.9	9088.0	8994.9	8992.9	8889.9
45°	10788.0	10859.3	10758.2	10793.9	10708.7	10591.8	10494.7	10342.2	10197.5	10152.0	10047.0
47.5°	12151.1	12268.0	12190.7	12204.6	12163.0	11996.5	11865.8	11677.5	11489.3	11362.5	11299.1
50°	13607.3	13684.6	13682.6	13644.9	13625.1	13462.7	13252.6	13110.0	12971.3	12800.9	12745.4
52.5°	14926.8	15107.1	15228.0	15200.2	15142.8	15045.7	14859.4	14736.6	14532.5	14508.8	14532.5
55°	16339.4	16573.2	16696.1	16844.7	16846.7	16828.8	16751.6	16706.0	16515.8	16537.6	16509.8
57.5°	17676.8	18019.6	18207.8	18524.8	18633.7	18778.4	18724.9	18784.3	18669.4	18744.7	18722.9
60°	19489.7	19965.2	20278.2	20712.1	20914.2	21276.7	21348.1	21391.7	21455.1	21609.6	21522.4
62.5°	21770.1	22467.5	23117.3	23707.8	23901.9	24446.8	24535.9	24876.7	24894.5	24999.5	24807.4
65°	25502.8	26352.7	27068.0	27775.3	28183.4	28821.4	29079.0	29740.7	29538.6	29623.8	29213.7
67.5°	27947.7	28936.3	29895.2	30564.9	31242.5	31894.3	32363.9	32791.8	32787.9	32704.7	32340.1
69°	27731.7	28833.3	29778.3	30675.8	31389.1	32058.8	32623.4	32900.8	32997.9	32877.0	32617.5
70°	26984.8	28116.1	29273.1	30012.1	30788.8	31523.8	32106.3	32409.4	32476.8	32391.6	32167.7
72.5°	23533.4	24619.1	25895.1	26566.7	27505.8	28036.8	28839.2	29231.5	29300.9	29191.9	29045.3
75°	18366.3	18562.4	19862.1	20290.1	20971.6	21583.8	22083.1	21956.3	22311.0	22241.6	22186.1
77.5°	8652.2	8129.1	8971.1	9363.4	9157.4	8608.6	9407.0	8830.5	9212.9	9710.2	9583.4
80°	1426.5	1422.5	1460.2	1543.4	1444.3	1533.5	1531.5	1487.9	1491.9	1598.9	1543.4
82.5°	548.8	560.7	566.6	582.5	582.5	584.5	594.4	606.3	596.4	616.2	612.2
85°	297.2	317.0	299.2	285.3	295.2	301.2	309.1	319.0	309.1	338.8	322.9
87.5°	77.3	81.2	71.3	71.3	69.3	63.4	63.4	67.4	73.3	87.2	95.1
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: P158085

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

CANDELA DISTRIBUTION (continued):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5
2.5°	5872.5	5874.4	5876.4	5870.5	5866.5	5866.5	5864.5	5860.6	5858.6	5858.6	5858.6
5°	5939.8	5943.8	5933.9	5931.9	5927.9	5924.0	5924.0	5920.0	5922.0	5922.0	5912.1
7.5°	6074.5	6068.6	6056.7	6048.8	6056.7	6042.8	6036.9	6040.9	6036.9	6038.9	6034.9
10°	6254.8	6254.8	6241.0	6248.9	6239.0	6223.1	6229.1	6223.1	6219.2	6205.3	6213.2
12.5°	6478.7	6472.8	6464.9	6447.0	6441.1	6439.1	6421.3	6423.2	6417.3	6413.3	6407.4
15°	6674.9	6672.9	6655.1	6645.1	6643.2	6635.2	6627.3	6623.4	6613.4	6611.5	6607.5
17.5°	6805.6	6799.7	6791.8	6781.9	6781.9	6770.0	6766.0	6756.1	6754.1	6748.2	6742.2
20°	6849.2	6851.2	6843.3	6835.3	6831.4	6823.5	6817.5	6809.6	6805.6	6797.7	6791.8
22.5°	6839.3	6839.3	6831.4	6829.4	6821.5	6809.6	6801.7	6791.8	6781.9	6771.9	6760.1
25°	6807.6	6805.6	6799.7	6789.8	6779.9	6762.0	6746.2	6730.3	6716.5	6704.6	6686.8
27.5°	6779.9	6775.9	6764.0	6750.2	6730.3	6710.5	6680.8	6659.0	6641.2	6625.3	6605.5
30°	6770.0	6756.1	6738.3	6716.5	6692.7	6663.0	6631.3	6603.5	6583.7	6567.9	6560.0
32.5°	6781.9	6764.0	6736.3	6708.5	6678.8	6643.2	6611.5	6587.7	6569.9	6565.9	6565.9
35°	6890.8	6861.1	6823.5	6783.8	6746.2	6716.5	6694.7	6692.7	6680.8	6694.7	6716.5
37.5°	7209.8	7184.0	7126.6	7075.1	7049.3	7035.5	7015.6	7019.6	6991.9	7035.5	7071.1
40°	7887.4	7855.7	7788.3	7746.7	7695.2	7645.7	7685.3	7673.4	7693.2	7685.3	7723.0
42.5°	8876.0	8844.3	8737.4	8721.5	8699.7	8679.9	8679.9	8664.0	8656.1	8683.9	8652.2
45°	10078.7	10015.3	9975.6	10023.2	9957.8	9977.6	10047.0	9953.8	9975.6	9846.9	9728.0
47.5°	11326.9	11320.9	11311.0	11368.5	11378.4	11408.1	11445.7	11350.6	11178.3	11081.2	10839.5
50°	12763.3	12824.7	12848.5	12903.9	12927.7	12949.5	12890.1	12749.4	12458.2	12200.6	11915.3
52.5°	14508.8	14401.8	14548.4	14601.9	14578.1	14490.9	14277.0	14104.6	13702.4	13331.9	12890.1
55°	16541.5	16567.3	16464.3	16422.7	16341.4	16099.7	15804.5	15416.2	14907.0	14423.6	13864.9
57.5°	18612.0	18602.0	18441.6	18215.7	17940.3	17649.1	17209.2	16652.5	16058.1	15408.3	14732.6
60°	21130.1	21120.2	20795.3	20409.0	20016.7	19547.1	18857.6	18188.0	17391.5	16537.6	15733.2
62.5°	24438.8	24012.9	23693.9	23117.3	22511.1	21896.9	20963.7	20074.1	19010.2	17932.4	16993.3
65°	28678.7	27977.4	27614.8	26778.7	25839.6	24880.7	23931.6	22762.7	21330.2	20026.6	18879.4
67.5°	31815.1	31173.1	30509.4	29675.3	28645.1	27575.2	26275.5	24803.4	23176.8	21714.6	20464.4
69°	32090.5	31490.1	30693.7	29857.6	28882.8	27719.8	26301.2	24652.8	23004.4	21524.4	20294.0
70°	31672.4	31034.5	30196.4	29326.6	28236.9	27139.3	25653.4	23935.6	22285.2	20801.2	19600.6
72.5°	28553.9	27931.8	27040.2	26000.1	24882.6	23943.5	22532.9	20741.8	18946.8	17575.8	16640.6
75°	21712.6	21575.9	20943.9	20337.6	19458.0	18409.9	17120.1	15915.5	14443.4	12993.1	12121.3
77.5°	9264.4	9579.4	9908.3	9955.8	9987.5	9664.6	9464.5	9161.3	8176.7	7728.9	7267.3
80°	1711.8	1529.5	1632.6	1644.4	1711.8	1747.5	1878.2	2226.9	2266.6	2351.8	2456.8
82.5°	608.2	618.2	634.0	639.9	645.9	669.7	758.8	909.4	1046.1	1224.4	1462.2
85°	344.7	350.7	364.6	376.4	384.4	408.1	457.7	546.8	681.6	885.6	1200.6
87.5°	105.0	118.9	126.8	142.7	148.6	152.6	174.4	233.8	301.2	445.8	649.9
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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CATALOG NUMBER: VST-F12-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5	5862.5
2.5°	5858.6	5856.6	5852.6	5848.7	5850.7	5846.7	5834.8	5830.8	5817.0	5807.1	5799.1
5°	5912.1	5910.1	5902.2	5904.2	5902.2	5882.4	5868.5	5844.7	5830.8	5809.1	5801.1
7.5°	6023.0	6021.0	6007.2	6013.1	6009.2	5979.4	5955.7	5918.0	5898.2	5870.5	5848.7
10°	6189.5	6189.5	6173.6	6175.6	6175.6	6136.0	6094.4	6031.0	5985.4	5941.8	5904.2
12.5°	6391.5	6383.6	6381.6	6371.7	6363.8	6320.2	6256.8	6171.6	6086.4	6015.1	5963.6
15°	6595.6	6583.7	6577.8	6565.9	6556.0	6516.4	6431.2	6326.2	6211.2	6096.3	6011.1
17.5°	6728.4	6720.4	6708.5	6704.6	6690.7	6651.1	6591.7	6486.6	6344.0	6183.5	6054.7
20°	6777.9	6764.0	6756.1	6748.2	6740.2	6712.5	6712.5	6645.1	6486.6	6260.8	6064.6
22.5°	6746.2	6738.3	6726.4	6720.4	6712.5	6716.5	6793.7	6783.8	6601.6	6278.6	5993.3
25°	6672.9	6663.0	6653.1	6653.1	6651.1	6692.7	6878.9	6904.7	6635.2	6191.4	5836.8
27.5°	6597.6	6583.7	6587.7	6589.7	6599.6	6688.7	6972.1	6936.4	6544.1	5981.4	5567.3
30°	6552.0	6552.0	6561.9	6577.8	6597.6	6754.1	7045.4	6865.1	6308.3	5664.4	5210.7
32.5°	6571.8	6591.7	6613.4	6653.1	6682.8	6898.7	7071.1	6680.8	5965.6	5272.1	4838.2
35°	6748.2	6771.9	6813.6	6875.0	6910.6	7106.8	7071.1	6411.4	5567.3	4935.3	4453.9
37.5°	7132.5	7156.3	7205.8	7253.4	7289.1	7368.3	7041.4	6068.6	5234.5	4586.6	4109.1
40°	7750.7	7784.4	7820.0	7812.1	7788.3	7711.1	6982.0	5749.6	4927.4	4281.5	3770.3
42.5°	8620.5	8588.8	8584.8	8507.5	8428.3	8097.4	6938.4	5541.6	4663.9	3960.5	3433.5
45°	9625.0	9496.2	9363.4	9260.4	9139.6	8521.4	6926.5	5373.2	4372.6	3603.9	3067.0
47.5°	10635.4	10429.4	10171.8	10011.3	9815.2	8973.1	6962.1	5147.3	3998.2	3215.6	2724.2
50°	11626.0	11289.2	10970.2	10778.1	10556.2	9492.2	7019.6	4766.9	3550.4	2862.9	2411.2
52.5°	12543.4	12109.5	11782.6	11556.7	11285.3	10096.5	6968.1	4267.6	3162.1	2524.1	2114.0
55°	13415.1	12935.6	12596.8	12359.1	12040.1	10702.8	6595.6	3813.9	2791.6	2193.3	1779.2
57.5°	14177.9	13718.2	13365.6	13042.6	12773.2	11229.8	5860.6	3439.5	2435.0	1814.8	1416.6
60°	15069.5	14552.4	14134.3	13789.6	13472.6	11501.2	5036.4	3106.6	2054.6	1404.7	1024.3
62.5°	16272.1	15677.7	15194.3	14800.0	14385.9	11560.7	4473.7	2773.8	1630.6	1016.4	745.0
65°	18055.2	17322.2	16717.9	16175.0	15614.3	11315.0	4196.3	2411.2	1212.5	754.9	624.1
67.5°	19471.8	18711.0	18011.6	17314.2	16597.0	10859.3	4134.9	2076.4	931.2	641.9	560.7
69°	19299.5	18574.3	17932.4	17177.5	16383.0	10286.7	4073.5	1947.6	850.0	596.4	531.0
70°	18635.7	17948.2	17296.4	16682.2	15709.4	9648.7	3911.0	1876.3	818.3	574.6	509.2
72.5°	15747.1	14950.6	14318.6	13553.8	12529.5	7170.2	2965.9	1517.6	750.9	525.0	459.7
75°	11485.4	10825.6	10195.6	9349.6	8353.0	4148.8	1846.5	867.8	550.8	475.5	416.1
77.5°	6706.6	6558.0	5949.7	5393.0	4406.3	2112.0	1060.0	519.1	428.0	431.9	366.5
80°	2524.1	2688.6	2750.0	2557.8	2363.6	1458.2	770.7	422.0	372.5	426.0	311.1
82.5°	1840.6	2135.8	2171.5	2080.3	1935.7	1359.1	616.2	338.8	303.1	457.7	267.5
85°	1535.5	1699.9	1725.7	1630.6	1583.0	1151.1	429.9	237.8	221.9	328.9	200.1
87.5°	776.7	818.3	840.1	760.8	764.8	536.9	172.4	101.0	120.9	140.7	111.0
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: P158085

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

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	5862.5	5862.5
2.5°	5781.3	5793.2
5°	5789.2	5789.2
7.5°	5834.8	5834.8
10°	5884.3	5886.3
12.5°	5929.9	5927.9
15°	5965.6	5959.6
17.5°	5987.4	5981.4
20°	5965.6	5955.7
22.5°	5854.6	5826.9
25°	5652.5	5616.9
27.5°	5385.1	5361.3
30°	5036.4	5000.7
32.5°	4628.2	4610.4
35°	4237.9	4216.1
37.5°	3881.3	3875.3
40°	3580.1	3548.4
42.5°	3227.5	3213.6
45°	2868.9	2860.9
47.5°	2532.1	2524.1
50°	2221.0	2205.1
52.5°	1915.9	1890.1
55°	1577.1	1559.3
57.5°	1210.5	1194.7
60°	851.9	834.1
62.5°	606.3	586.5
65°	505.2	489.4
67.5°	457.7	439.8
69°	435.9	420.0
70°	422.0	410.1
72.5°	392.3	384.4
75°	358.6	352.7
77.5°	315.0	305.1
80°	263.5	253.6
82.5°	221.9	212.0
85°	148.6	134.7
87.5°	67.4	59.4
90°	0.0	0.0

(END OF REPORT)