

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: P165342

Luminaire Tested: **VST-F12-LED-E-U-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165342
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
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-SL3-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16970.5 lumens
Efficiency: N/A
Efficacy: 55.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G4

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



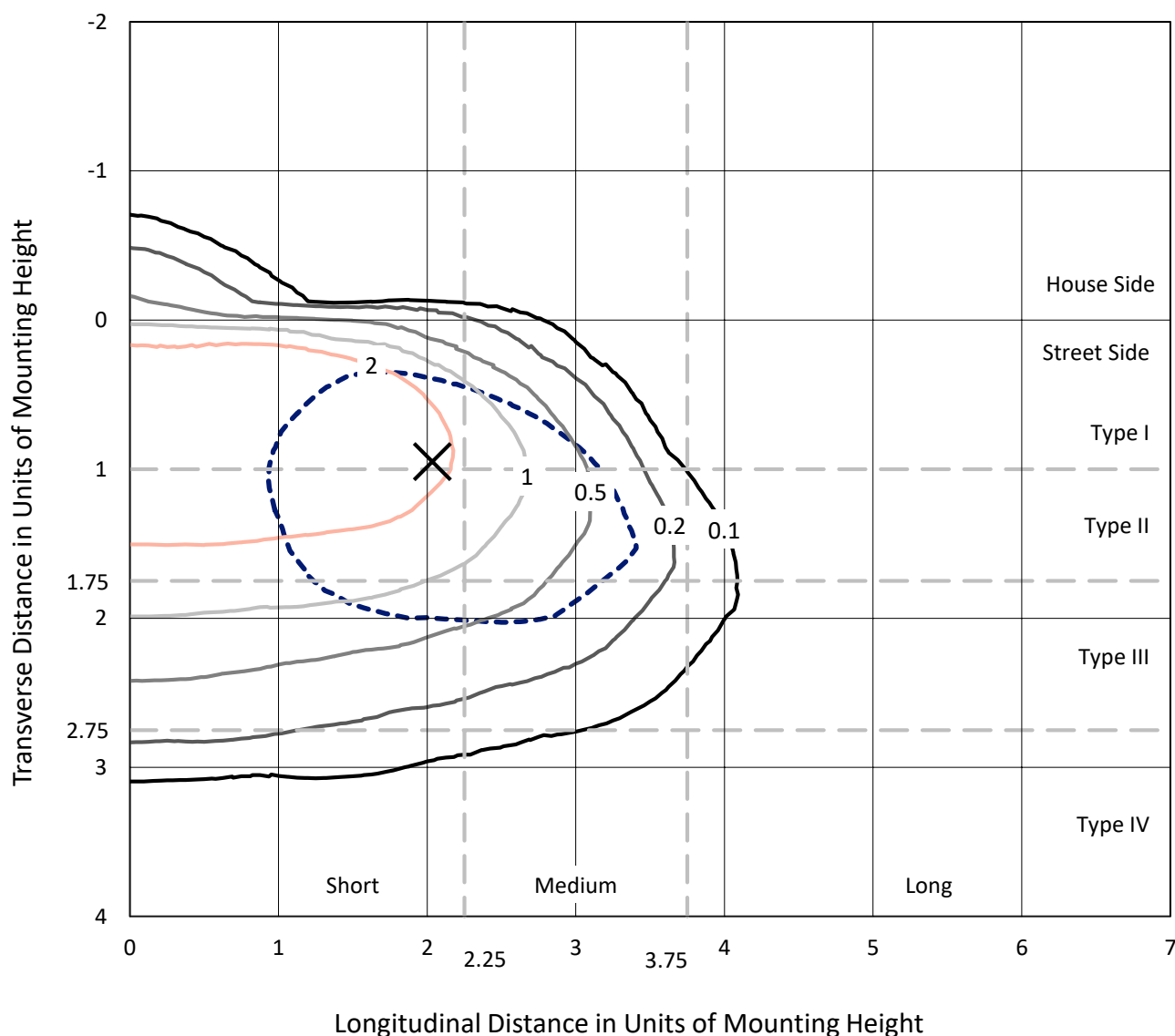
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

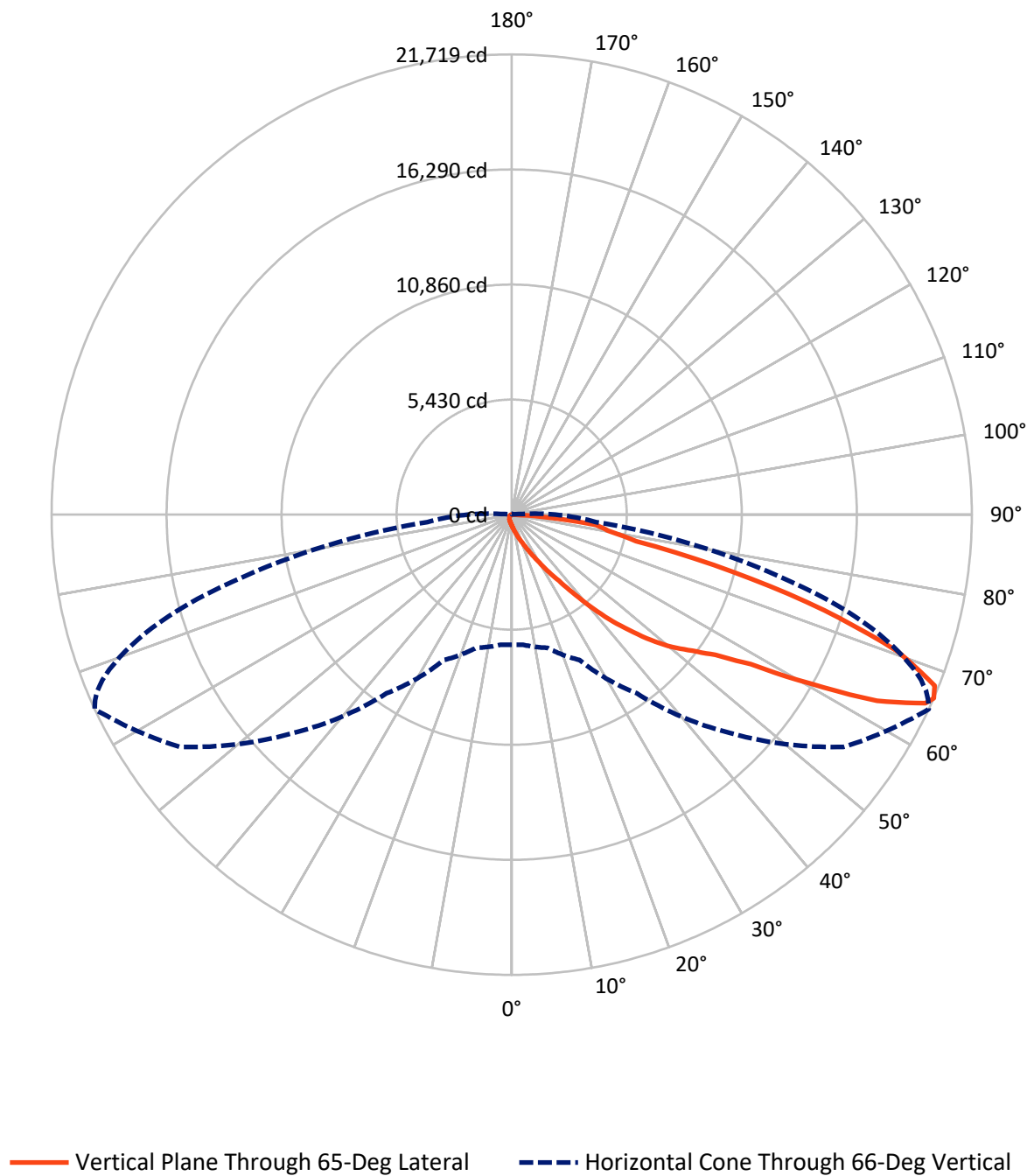


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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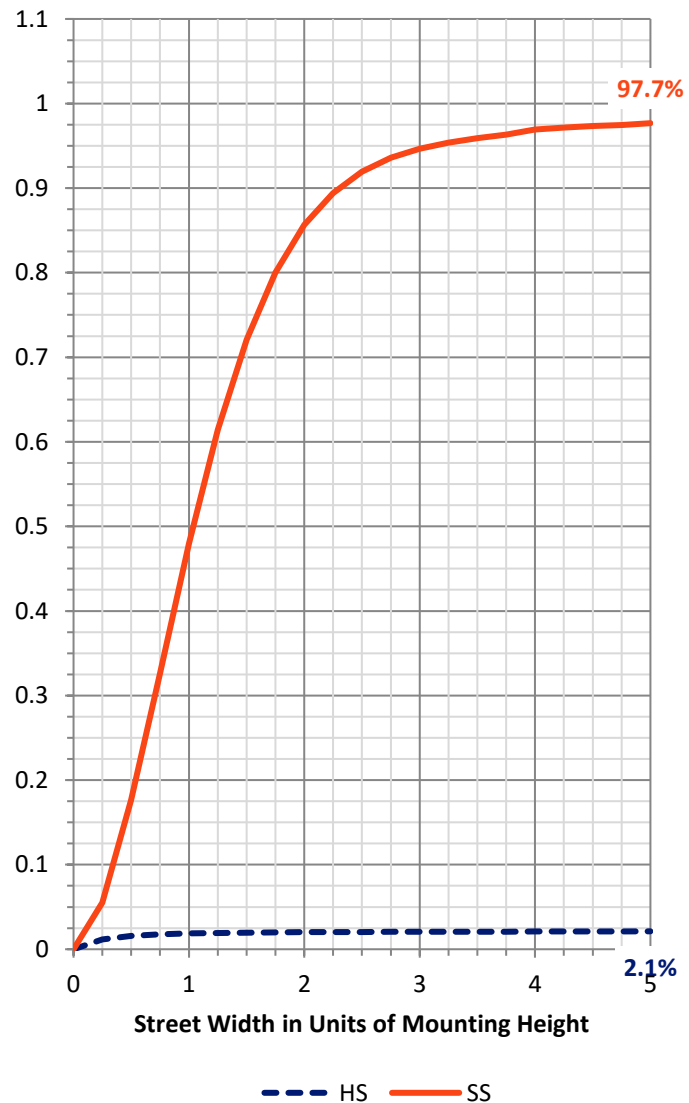
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	367.8	0.0	367.8
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	16602.7	0.0	16602.7
	% Fixture	97.8	0.0	97.8
Total	Lumens	16970.5	0.0	16970.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.3	0.3
10°-20°	243.1	1.4
20°-30°	524.4	3.1
30°-40°	1119.9	6.6
40°-50°	2476.7	14.6
50°-60°	4197.1	24.7
60°-70°	5600.7	33.0
70°-80°	2467.0	14.5
80°-90°	284.2	1.7
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°	16970.5	100.0
0°-180°	16970.5	100.0

Coefficient of Utilization



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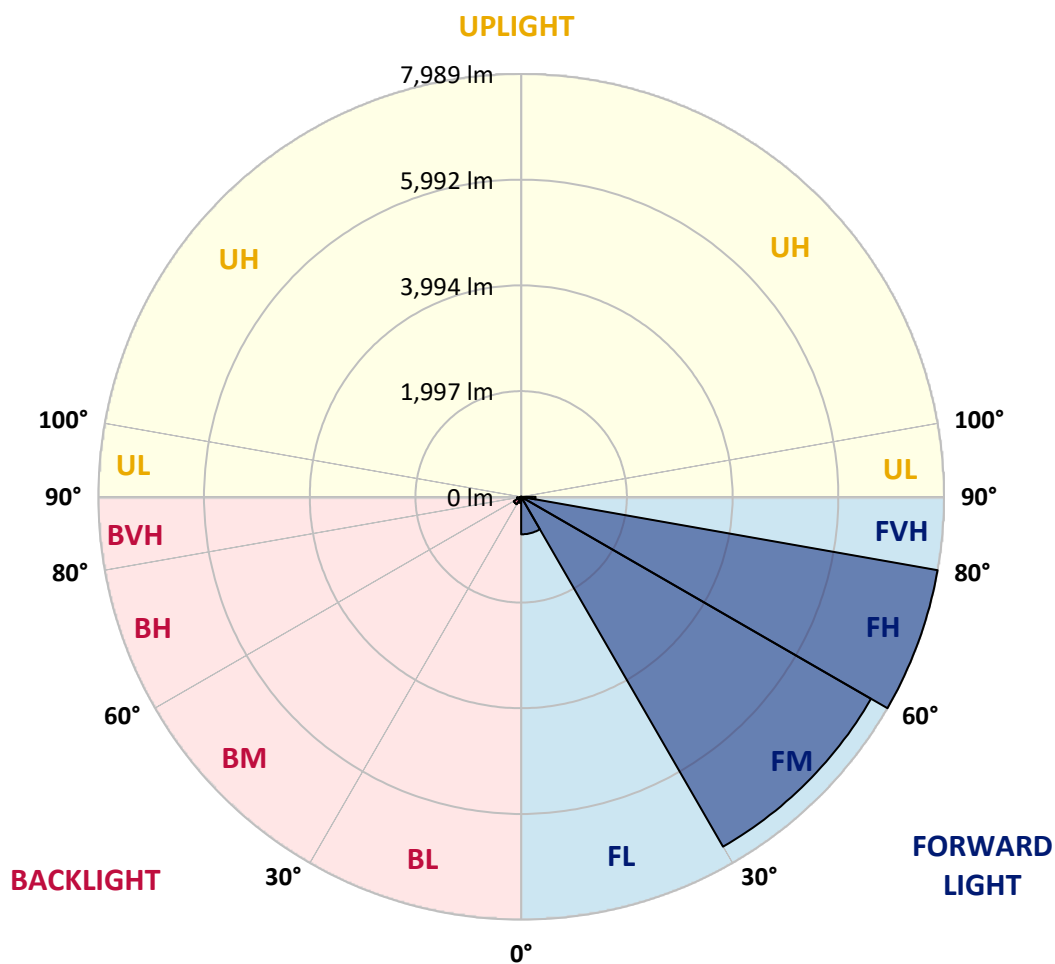
CATALOG NUMBER: VST-F12-LED-E-U-SL3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	708.9	4.2			
FM	(30°-60°)	7632.2	45.0			
FH	(60°-80°)	7988.9	47.1			G4/12000
FVH	(80°-90°)	272.8	1.6			G3/500
BL	(0°-30°)	116.0	0.7	B1/500		
BM	(30°-60°)	161.5	1.0	B0/220		
BH	(60°-80°)	78.9	0.5	B0/110		G0/110
BVH	(80°-90°)	11.3	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2
2.5°	646.1	642.7	629.6	629.6	610.0	597.2	580.7	564.5	564.5	561.1	557.9
5°	854.7	835.3	831.9	796.1	766.7	724.3	685.1	633.0	626.5	619.9	616.6
7.5°	1086.5	1083.2	1053.8	1011.4	952.8	874.3	796.1	711.3	698.2	691.7	678.6
10°	1386.7	1370.2	1331.2	1259.3	1171.3	1066.9	939.7	805.8	789.5	776.5	769.9
12.5°	1673.8	1644.4	1621.5	1530.1	1419.2	1265.8	1112.5	920.1	907.0	890.8	864.6
15°	1941.2	1915.1	1876.1	1797.8	1673.8	1481.2	1301.9	1066.9	1034.2	1011.4	991.8
17.5°	2150.1	2133.8	2088.0	2000.1	1866.1	1696.6	1481.2	1216.9	1190.9	1161.4	1125.6
20°	2349.2	2326.2	2254.5	2133.8	1990.2	1859.6	1693.4	1412.6	1376.8	1340.9	1301.9
22.5°	2538.4	2515.4	2398.1	2199.0	2045.7	1990.2	1931.5	1634.5	1579.1	1549.7	1510.5
25°	2802.7	2753.8	2570.9	2254.5	2049.0	2091.4	2192.5	1921.6	1869.5	1827.1	1765.1
27.5°	3158.3	3092.9	2805.9	2336.1	2061.9	2202.4	2492.6	2270.7	2215.2	2166.3	2098.0
30°	3559.5	3517.1	3174.6	2531.9	2156.6	2365.4	2828.6	2714.5	2649.3	2590.5	2509.1
32.5°	3964.1	3905.5	3566.1	2903.7	2411.0	2681.8	3249.7	3230.0	3145.2	3089.8	3001.6
35°	4319.7	4290.4	4039.2	3513.8	2991.9	3236.6	3810.8	3833.5	3758.6	3699.8	3601.9
37.5°	4561.3	4561.3	4512.3	4169.6	3915.2	4097.8	4636.1	4639.5	4564.4	4430.7	4381.8
40°	4685.1	4720.9	4897.3	4962.5	4949.4	5184.4	5719.5	5660.7	5598.6	5530.1	5367.0
42.5°	4939.7	4972.2	5347.4	5797.8	6091.4	6401.3	6770.0	6750.4	6675.5	6551.4	6401.3
45°	5370.4	5412.8	5859.8	6574.2	7177.7	7618.3	7853.1	7761.8	7686.7	7569.4	7490.9
47.5°	5918.4	6000.0	6505.7	7389.9	8117.4	8844.9	9089.6	8848.3	8783.1	8691.6	8564.4
50°	6502.5	6580.8	7119.1	8130.5	8952.7	9820.5	10228.5	9820.5	9726.0	9696.5	9553.0
52.5°	7008.1	7073.5	7592.2	8701.5	9592.1	10610.0	11203.8	10665.5	10597.0	10499.1	10394.7
55°	7308.3	7360.6	7846.6	8975.5	10026.2	11321.3	12146.9	11673.8	11572.5	11533.5	11383.3
57.5°	7409.5	7461.6	7898.9	9011.4	10260.9	11970.6	13292.1	13308.3	13187.7	13047.4	13001.6
60°	7409.5	7468.2	7836.9	8923.4	10489.4	12662.2	14818.8	16179.4	15918.4	15892.3	15725.9
62.5°	7102.8	7158.3	7530.2	8652.6	10796.1	13595.4	16946.1	19347.4	19272.5	19102.7	18828.7
65°	6437.1	6469.8	6835.1	7960.9	10678.6	14453.5	18789.5	21455.1	21334.4	21001.6	20649.3
66°	6137.0	6163.1	6505.7	7566.0	10293.6	14571.0	19115.8	21719.4	21520.4	21239.7	20841.7
67.5°	5703.1	5748.8	5990.1	6832.0	9370.4	14163.0	18910.3	21533.5	21360.6	21021.2	20623.1
70°	3807.6	3774.9	4626.4	5243.0	7138.7	11540.0	16965.7	19334.3	19337.7	19177.8	19017.9
72.5°	1807.5	1827.1	2075.0	3226.7	4672.0	7709.7	13504.1	15432.2	15654.1	15367.0	15167.9
75°	1298.5	1327.8	1478.0	1973.9	2786.2	4626.4	8753.6	10792.7	10799.3	10290.3	9837.0
77.5°	378.4	394.9	554.6	1216.9	2088.0	3122.3	5027.6	6000.0	5859.8	5494.2	5151.7
80°	156.5	156.5	163.1	388.3	838.5	2120.7	3517.1	4619.9	4603.7	4463.4	4261.1
82.5°	58.6	62.0	78.3	159.9	199.1	522.1	2345.8	4009.9	4000.0	3801.0	3657.4
85°	6.5	6.5	19.6	68.6	75.1	97.9	469.8	1768.3	1758.6	1768.3	1549.7
87.5°	0.0	0.0	3.2	6.5	9.7	13.1	19.6	68.6	75.1	71.7	65.2
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2
2.5°	557.9	551.4	551.4	548.2	548.2	548.2	544.8	541.7	541.7	538.3	535.1
5°	610.0	603.5	600.3	593.8	590.6	587.2	580.7	577.5	571.0	567.6	564.5
7.5°	672.0	659.0	655.8	646.1	636.2	629.6	623.1	613.4	606.9	593.8	590.6
10°	750.5	734.1	721.0	707.9	698.2	681.9	672.0	659.0	646.1	636.2	626.5
12.5°	851.5	828.8	809.1	796.1	773.3	753.7	734.1	724.3	698.2	685.1	668.9
15°	962.5	936.3	913.6	887.4	871.2	838.5	812.3	783.0	769.9	747.1	721.0
17.5°	1105.9	1063.5	1027.7	1001.7	969.0	936.3	907.0	877.7	838.5	812.3	779.8
20°	1259.3	1223.4	1174.5	1128.9	1089.7	1050.7	1008.1	969.0	933.2	890.8	851.5
22.5°	1455.2	1402.9	1344.3	1298.5	1246.4	1204.0	1145.2	1093.1	1034.2	978.7	933.2
25°	1703.1	1634.5	1579.1	1513.9	1451.9	1386.7	1314.8	1249.6	1174.5	1122.4	1044.1
27.5°	2009.8	1944.6	1869.5	1784.7	1722.7	1624.8	1530.1	1448.7	1360.5	1278.9	1190.9
30°	2401.3	2306.8	2228.3	2146.9	2022.9	1928.2	1817.2	1706.5	1585.6	1504.2	1370.2
32.5°	2871.0	2770.0	2652.5	2535.0	2420.9	2287.2	2150.1	2013.0	1879.2	1729.2	1592.1
35°	3445.4	3324.6	3190.8	3063.6	2887.5	2743.8	2570.9	2381.7	2231.7	2058.7	1885.8
37.5°	4205.6	4006.5	3889.0	3755.3	3517.1	3321.4	3128.8	2939.6	2675.3	2492.6	2247.9
40°	5158.2	5040.7	4848.3	4633.0	4417.6	4159.9	3898.9	3647.7	3341.0	3086.4	2802.7
42.5°	6277.2	6104.5	5908.7	5598.6	5380.1	5076.6	4779.8	4446.9	4071.7	3745.6	3412.7
45°	7327.9	7122.4	6972.3	6662.4	6433.9	6074.9	5716.1	5363.9	4929.8	4509.0	4124.0
47.5°	8463.3	8293.6	8045.7	7794.5	7562.9	7158.3	6770.0	6342.6	5885.7	5386.6	4887.4
50°	9461.7	9328.0	9158.2	8854.8	8597.1	8257.7	7801.0	7334.4	6756.9	6261.0	5693.3
52.5°	10309.9	10205.5	9967.3	9752.0	9520.3	9200.6	8792.8	8345.9	7722.8	7177.7	6531.8
55°	11311.6	11236.5	11027.7	10894.0	10688.5	10381.8	10000.0	9585.7	8926.6	8332.8	7601.9
57.5°	12952.7	12894.0	12711.2	12655.7	12453.4	12185.9	11716.2	11272.4	10502.5	9765.0	8929.9
60°	15670.4	15553.1	15285.4	15148.5	14721.0	14362.2	13752.1	13141.9	12212.1	11272.4	10267.5
62.5°	18580.7	18251.2	17742.2	17305.1	16698.3	16075.0	15259.3	14326.3	13236.6	12120.8	10965.7
65°	20150.0	19588.9	18946.2	18251.2	17465.0	16548.1	15520.4	14401.4	13230.1	12052.2	10831.9
66°	20329.5	19696.5	19014.7	18241.5	17367.1	16391.6	15347.4	14172.9	12955.9	11807.5	10587.3
67.5°	20104.4	19442.1	18721.1	17863.0	16916.8	15905.4	14809.1	13588.9	12417.5	11252.8	10065.2
70°	18528.5	17869.4	17226.7	16323.0	15314.7	14297.0	13259.4	11895.7	10786.4	9716.1	8659.1
72.5°	14796.0	14349.1	13712.9	12939.6	11957.5	10763.4	9898.8	8678.7	7716.2	6678.6	5859.8
75°	9246.3	8616.7	7830.3	6845.1	6094.6	5125.5	4619.9	3693.3	3145.2	2665.6	2202.4
77.5°	4727.5	4254.6	3703.2	3148.4	2616.6	2088.0	1614.9	1142.0	769.9	535.1	398.0
80°	3905.5	3487.8	3030.9	2525.3	2055.6	1595.5	1148.5	783.0	499.3	326.3	254.4
82.5°	3226.7	2874.4	2466.5	1996.7	1589.0	1252.9	871.2	567.6	352.3	228.4	179.5
85°	1373.6	1246.4	962.5	763.4	574.2	424.2	297.0	199.1	140.3	114.1	104.4
87.5°	58.6	65.2	62.0	48.9	35.9	35.9	32.7	26.2	26.2	26.2	26.2
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2	512.2
2.5°	535.1	531.8	528.6	528.6	525.2	522.1	502.4	486.2	466.6	453.5	440.4
5°	557.9	554.6	548.2	544.8	538.3	535.1	492.7	456.7	427.4	404.6	388.3
7.5°	580.7	577.5	567.6	557.9	554.6	548.2	479.7	433.9	394.9	368.7	352.3
10°	610.0	600.3	590.6	577.5	567.6	557.9	466.6	407.7	365.3	342.6	326.3
12.5°	652.4	636.2	619.9	603.5	590.6	574.2	460.0	385.0	342.6	316.4	300.2
15°	701.6	678.6	659.0	639.6	616.6	600.3	447.0	365.3	322.9	297.0	277.4
17.5°	747.1	721.0	691.7	662.3	639.6	616.6	433.9	345.9	303.3	277.4	257.8
20°	812.3	773.3	737.4	701.6	668.9	639.6	414.3	326.3	287.1	257.8	238.1
22.5°	884.2	838.5	792.9	744.0	701.6	662.3	398.0	309.9	270.8	241.5	218.5
25°	975.6	920.1	858.1	796.1	747.1	695.0	381.8	293.6	254.4	225.1	202.3
27.5°	1102.8	1024.5	956.0	877.7	802.6	744.0	368.7	280.5	238.1	208.8	186.0
30°	1275.7	1161.4	1053.8	969.0	880.9	796.1	355.6	264.3	225.1	192.6	166.4
32.5°	1468.1	1334.4	1210.4	1083.2	972.2	874.3	342.6	251.2	208.8	176.1	153.3
35°	1706.5	1536.7	1370.2	1223.4	1089.7	959.1	329.5	238.1	195.7	159.9	137.1
37.5°	2049.0	1836.8	1618.3	1429.1	1256.1	1083.2	319.8	225.1	179.5	143.6	120.7
40°	2518.8	2244.8	1977.1	1719.3	1494.3	1278.9	306.7	212.0	166.4	130.6	107.6
42.5°	3027.8	2694.9	2342.6	2052.2	1742.3	1471.5	293.6	199.1	153.3	117.5	94.7
45°	3660.8	3246.3	2818.9	2424.1	2045.7	1696.6	280.5	186.0	137.1	104.4	81.6
47.5°	4352.4	3823.8	3341.0	2845.1	2394.7	1977.1	264.3	176.1	124.0	91.3	71.7
50°	5063.7	4505.8	3895.6	3331.1	2796.2	2257.8	248.1	159.9	111.0	81.6	58.6
52.5°	5830.3	5171.3	4548.2	3846.6	3223.5	2626.4	231.6	146.8	101.0	71.7	48.9
55°	6805.8	6068.6	5337.7	4551.4	3801.0	3053.9	215.4	130.6	88.2	62.0	39.2
57.5°	8032.6	7158.3	6261.0	5373.6	4463.4	3615.0	202.3	114.1	75.1	52.1	32.7
60°	9190.9	8169.7	7083.2	6062.1	5034.2	4045.7	182.7	101.0	65.2	42.4	32.7
62.5°	9791.2	8626.4	7455.1	6329.5	5233.3	4199.1	163.1	84.8	55.5	35.9	29.3
65°	9644.4	8456.8	7321.3	6185.9	5112.6	4101.2	143.6	75.1	48.9	32.7	29.3
66°	9432.4	8257.7	7115.9	6035.9	5011.4	3996.8	133.7	71.7	45.8	32.7	26.2
67.5°	8969.0	7833.5	6743.8	5738.9	4734.0	3797.7	120.7	65.2	42.4	29.3	26.2
70°	7660.7	6629.7	5758.5	4864.6	4045.7	3200.7	97.9	55.5	35.9	26.2	26.2
72.5°	5070.0	4368.7	3788.0	3259.4	2724.2	2114.2	81.6	45.8	29.3	26.2	22.8
75°	1911.9	1729.2	1484.6	1334.4	1164.8	1021.1	65.2	29.3	22.8	22.8	22.8
77.5°	339.4	313.2	277.4	254.4	235.0	215.4	52.1	19.6	19.6	22.8	22.8
80°	228.4	212.0	192.6	176.1	163.1	146.8	35.9	16.2	19.6	19.6	22.8
82.5°	163.1	153.3	143.6	130.6	120.7	107.6	22.8	16.2	19.6	19.6	19.6
85°	97.9	91.3	84.8	78.3	68.6	65.2	16.2	16.2	16.2	19.6	19.6
87.5°	26.2	22.8	26.2	26.2	19.6	22.8	13.1	13.1	13.1	16.2	16.2
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: P165342

CATALOG NUMBER: VST-F12-LED-E-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	512.2	512.2	512.2	512.2	512.2
2.5°	433.9	433.9	427.4	437.3	437.3
5°	375.3	375.3	371.9	375.3	375.3
7.5°	342.6	339.4	339.4	339.4	342.6
10°	313.2	309.9	309.9	309.9	309.9
12.5°	287.1	283.9	280.5	283.9	283.9
15°	264.3	257.8	257.8	257.8	257.8
17.5°	244.7	238.1	235.0	235.0	235.0
20°	225.1	215.4	215.4	215.4	215.4
22.5°	205.5	195.7	195.7	195.7	195.7
25°	186.0	176.1	176.1	176.1	176.1
27.5°	169.6	159.9	159.9	159.9	159.9
30°	150.2	143.6	143.6	146.8	143.6
32.5°	137.1	127.2	127.2	130.6	130.6
35°	120.7	114.1	114.1	114.1	114.1
37.5°	104.4	97.9	97.9	97.9	97.9
40°	91.3	84.8	81.6	84.8	84.8
42.5°	78.3	71.7	68.6	68.6	68.6
45°	68.6	58.6	55.5	58.6	58.6
47.5°	55.5	48.9	48.9	52.1	52.1
50°	42.4	42.4	45.8	52.1	52.1
52.5°	39.2	39.2	45.8	52.1	52.1
55°	35.9	39.2	45.8	48.9	52.1
57.5°	32.7	39.2	45.8	48.9	48.9
60°	32.7	35.9	42.4	48.9	48.9
62.5°	29.3	32.7	39.2	45.8	45.8
65°	29.3	32.7	39.2	45.8	45.8
66°	29.3	32.7	39.2	45.8	45.8
67.5°	29.3	32.7	39.2	45.8	45.8
70°	29.3	32.7	39.2	42.4	42.4
72.5°	26.2	29.3	35.9	42.4	42.4
75°	26.2	29.3	35.9	42.4	42.4
77.5°	26.2	29.3	35.9	42.4	42.4
80°	26.2	29.3	35.9	39.2	42.4
82.5°	22.8	29.3	32.7	39.2	39.2
85°	22.8	26.2	32.7	35.9	39.2
87.5°	19.6	22.8	26.2	32.7	32.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)