

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: P165305

Luminaire Tested: **VST-E09-LED-E-U-SL3-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165305
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-E09-LED-E-U-SL3-HSS-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (189) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13012.6 lumens
Efficiency: N/A
Efficacy: 57.7 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.5' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G3

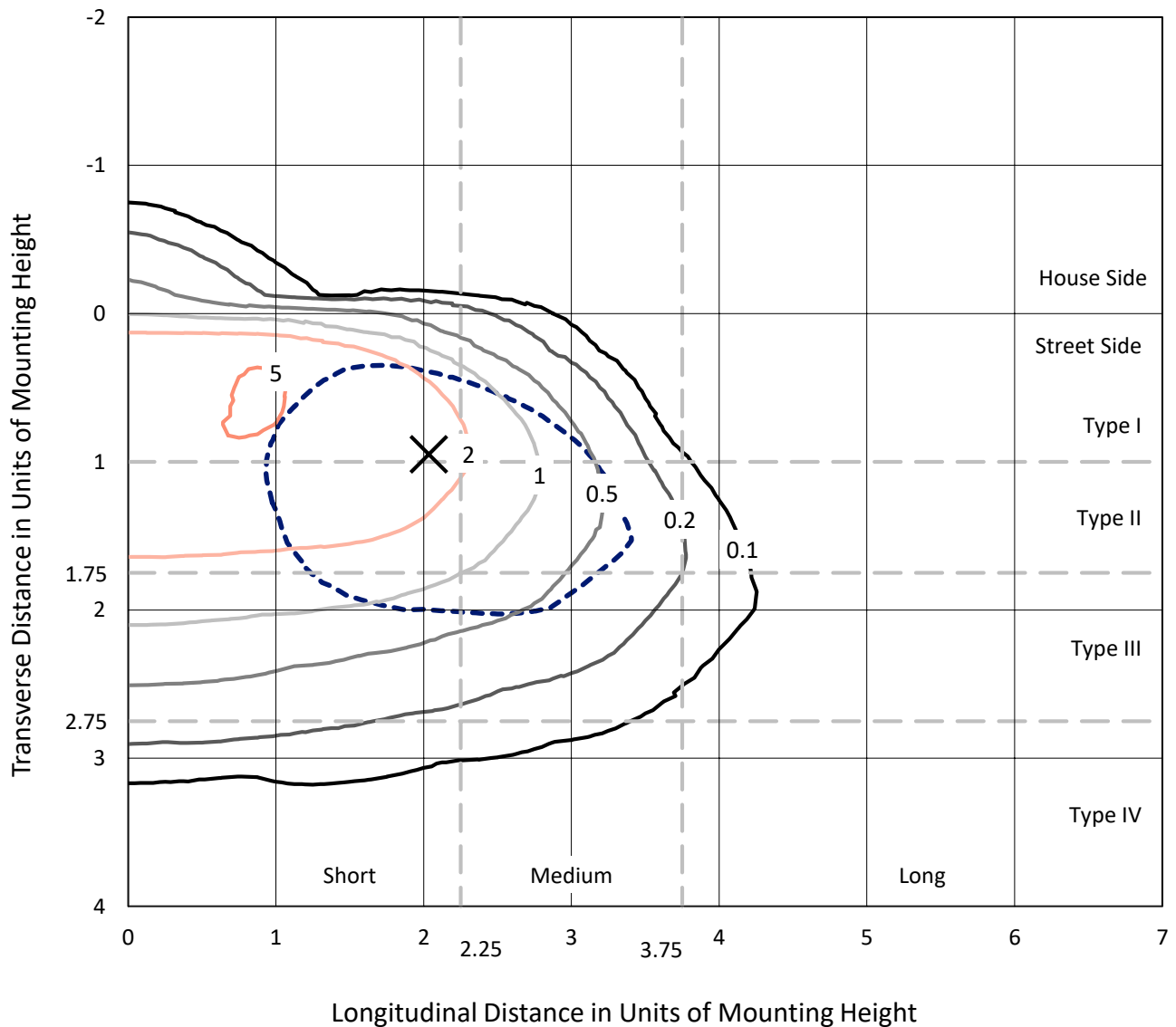
Input Watts (W): 225.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P165305
 CATALOG NUMBER: VST-E09-LED-E-U-SL3-HSS-8030

Iso-Footcandle Lines of Horizontal Illumination

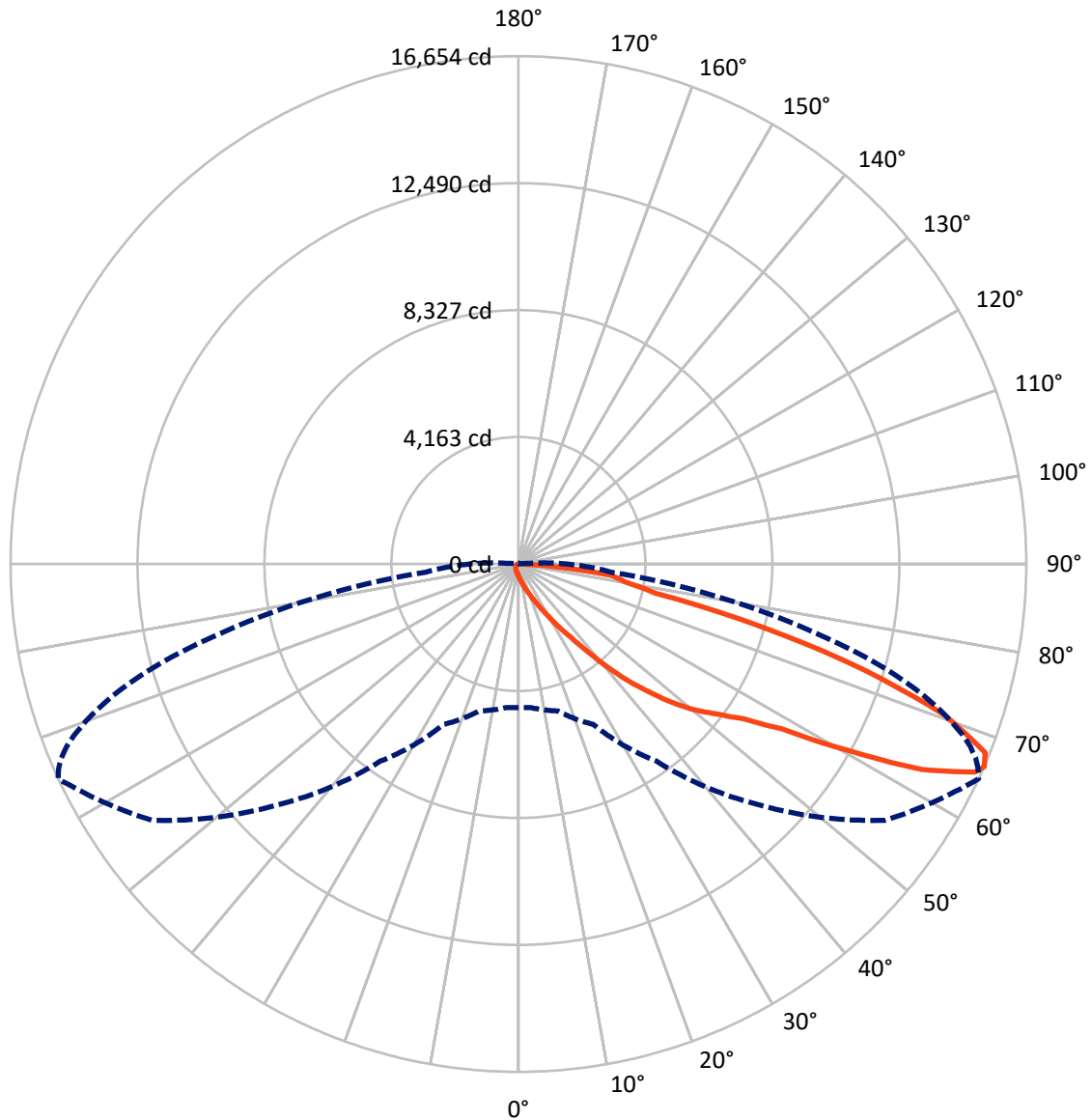
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.4 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P165305
CATALOG NUMBER: VST-E09-LED-E-U-SL3-HSS-8030

Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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 CATALOG NUMBER: VST-E09-LED-E-U-SL3-HSS-8030

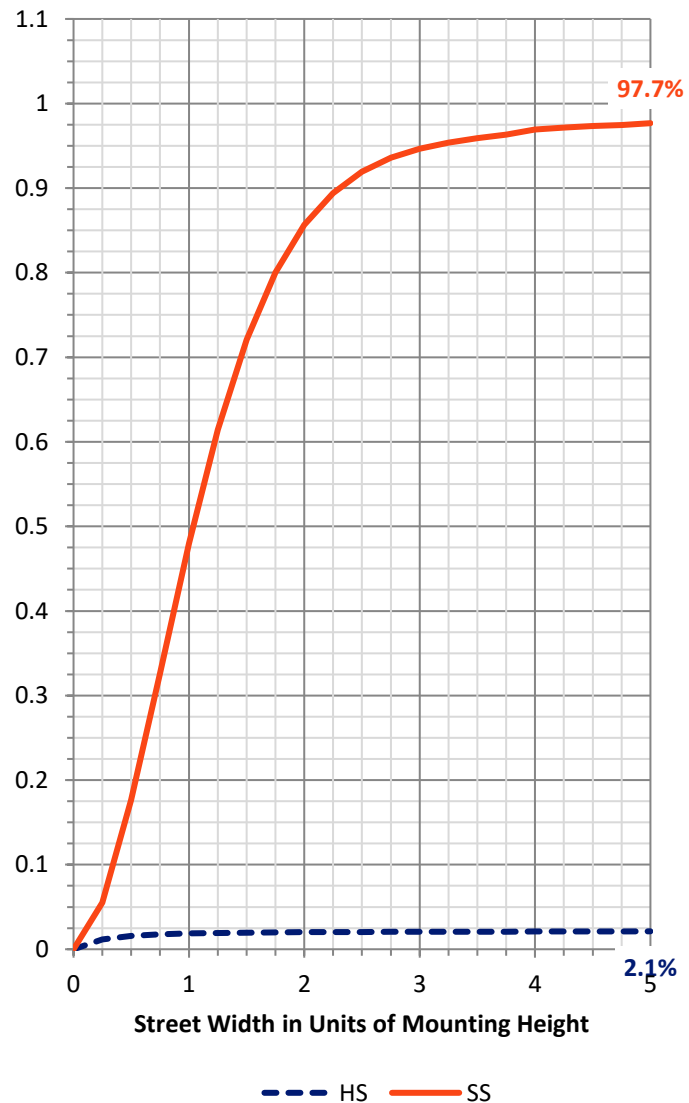
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	282.0	0.0	282.0
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	12730.6	0.0	12730.6
	% Fixture	97.8	0.0	97.8
Total	Lumens	13012.6	0.0	13012.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.0	0.3
10°-20°	186.4	1.4
20°-30°	402.1	3.1
30°-40°	858.7	6.6
40°-50°	1899.0	14.6
50°-60°	3218.3	24.7
60°-70°	4294.5	33.0
70°-80°	1891.7	14.5
80°-90°	217.9	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°	13012.6	100.0
0°-180°	13012.6	100.0



REPORT NUMBER: P165305

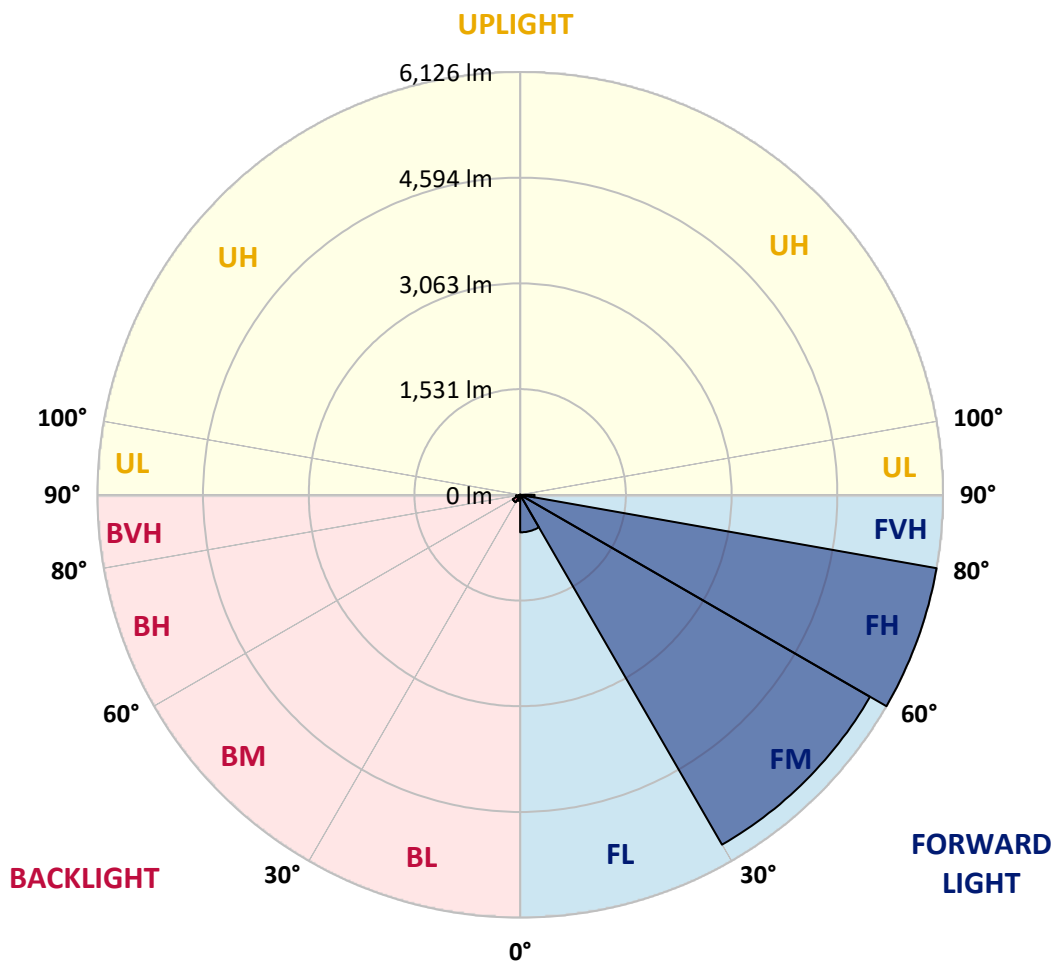
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	543.5	4.2			
FM	(30°-60°)	5852.2	45.0			
FH	(60°-80°)	6125.7	47.1			G3/7500
FVH	(80°-90°)	209.2	1.6			G2/225
BL	(0°-30°)	89.0	0.7	B0/110		
BM	(30°-60°)	123.8	1.0	B0/220		
BH	(60°-80°)	60.5	0.5	B0/110		G0/110
BVH	(80°-90°)	8.7	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G3

Type III Short





REPORT NUMBER: P165305
 CATALOG NUMBER: VST-E09-LED-E-U-SL3-HSS-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7
2.5°	495.4	492.8	482.8	482.8	467.8	457.9	445.3	432.8	432.8	430.2	427.8
5°	655.4	640.5	637.9	610.4	587.9	555.4	525.3	485.4	480.4	475.4	472.8
7.5°	833.1	830.5	808.1	775.5	730.6	670.4	610.4	545.4	535.4	530.3	520.3
10°	1063.3	1050.7	1020.7	965.6	898.1	818.1	720.5	617.9	605.4	595.4	590.4
12.5°	1283.4	1260.9	1243.3	1173.3	1088.2	970.6	853.0	705.5	695.5	683.0	663.0
15°	1488.5	1468.4	1438.5	1378.5	1283.4	1135.7	998.3	818.1	793.0	775.5	760.5
17.5°	1648.6	1636.2	1601.1	1533.6	1430.9	1300.9	1135.7	933.1	913.2	890.5	863.0
20°	1801.3	1783.7	1728.7	1636.2	1526.0	1425.9	1298.4	1083.2	1055.7	1028.2	998.3
22.5°	1946.4	1928.8	1838.8	1686.1	1568.6	1526.0	1481.1	1253.3	1210.8	1188.3	1158.2
25°	2149.0	2111.5	1971.3	1728.7	1571.1	1603.7	1681.1	1473.5	1433.5	1401.0	1353.4
27.5°	2421.7	2371.6	2151.5	1791.3	1581.0	1688.7	1911.3	1741.1	1698.6	1661.1	1608.7
30°	2729.4	2696.9	2434.2	1941.4	1653.6	1813.8	2168.9	2081.4	2031.5	1986.3	1923.9
32.5°	3039.6	2994.6	2734.4	2226.5	1848.7	2056.4	2491.8	2476.7	2411.7	2369.2	2301.6
35°	3312.3	3289.8	3097.2	2694.3	2294.1	2481.7	2922.0	2939.5	2882.0	2836.9	2761.9
37.5°	3497.5	3497.5	3459.9	3197.1	3002.1	3142.1	3554.9	3557.5	3499.9	3397.4	3359.8
40°	3592.4	3619.9	3755.1	3805.1	3795.1	3975.2	4385.6	4340.5	4292.9	4240.3	4115.3
42.5°	3787.6	3812.5	4100.3	4445.6	4670.7	4908.3	5191.1	5176.0	5118.6	5023.5	4908.3
45°	4117.9	4150.4	4493.1	5041.0	5503.7	5841.6	6021.6	5951.6	5894.0	5804.0	5743.9
47.5°	4538.1	4600.7	4988.4	5666.4	6224.2	6782.1	6969.7	6784.7	6734.7	6664.5	6567.0
50°	4986.0	5046.0	5458.7	6234.3	6864.7	7530.1	7842.9	7530.1	7457.7	7435.0	7325.0
52.5°	5373.7	5423.8	5821.5	6672.1	7355.0	8135.5	8590.8	8178.1	8125.5	8050.5	7970.4
55°	5603.8	5643.9	6016.6	6882.2	7687.8	8680.9	9314.0	8951.2	8873.6	8843.6	8728.5
57.5°	5681.4	5721.4	6056.7	6909.7	7867.9	9178.8	10192.1	10204.5	10112.0	10004.4	9969.3
60°	5681.4	5726.4	6009.1	6842.3	8043.0	9709.1	11362.7	12406.0	12205.9	12185.8	12058.2
62.5°	5446.3	5488.8	5774.0	6634.6	8278.2	10424.6	12993.9	14835.1	14777.7	14647.5	14437.4
65°	4935.8	4960.9	5241.0	6104.2	8188.1	11082.6	14407.3	16451.2	16358.7	16103.5	15833.4
66°	4705.7	4725.7	4988.4	5801.5	7892.9	11172.7	14657.5	16653.9	16501.4	16286.1	15980.9
67.5°	4373.0	4408.1	4593.1	5238.6	7185.0	10859.9	14500.0	16511.4	16378.8	16118.5	15813.3
70°	2919.6	2894.5	3547.4	4020.2	5473.8	8848.6	13008.9	14825.1	14827.7	14705.1	14582.5
72.5°	1386.0	1401.0	1591.0	2474.1	3582.4	5911.6	10354.6	11833.1	12003.2	11783.1	11630.4
75°	995.7	1018.2	1133.3	1513.6	2136.4	3547.4	6712.1	8275.6	8280.6	7890.3	7542.7
77.5°	290.2	302.8	425.2	933.1	1601.1	2394.1	3855.1	4600.7	4493.1	4212.8	3950.2
80°	120.0	120.0	125.0	297.8	642.9	1626.1	2696.9	3542.4	3530.0	3422.4	3267.3
82.5°	45.0	47.6	60.0	122.6	152.7	400.3	1798.7	3074.7	3067.1	2914.6	2804.4
85°	5.0	5.0	15.0	52.6	57.6	75.0	360.2	1355.9	1348.4	1355.9	1188.3
87.5°	0.0	0.0	2.4	5.0	7.4	10.0	15.0	52.6	57.6	55.0	50.0
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: P165305
 CATALOG NUMBER: VST-E09-LED-E-U-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7
2.5°	427.8	422.8	422.8	420.4	420.4	420.4	417.8	415.3	415.3	412.8	410.3
5°	467.8	462.7	460.3	455.3	452.9	450.3	445.3	442.8	437.8	435.2	432.8
7.5°	515.3	505.3	502.8	495.4	487.8	482.8	477.8	470.3	465.3	455.3	452.9
10°	575.5	562.9	552.8	542.8	535.4	522.9	515.3	505.3	495.4	487.8	480.4
12.5°	652.9	635.5	620.4	610.4	592.9	577.9	562.9	555.4	535.4	525.3	512.9
15°	738.0	718.0	700.5	680.4	668.0	642.9	622.9	600.4	590.4	572.9	552.8
17.5°	848.0	815.5	788.0	768.1	743.0	718.0	695.5	673.0	642.9	622.9	598.0
20°	965.6	938.1	900.6	865.6	835.6	805.6	773.0	743.0	715.5	683.0	652.9
22.5°	1115.8	1075.7	1030.8	995.7	955.7	923.2	878.1	838.1	793.0	750.5	715.5
25°	1305.9	1253.3	1210.8	1160.8	1113.3	1063.3	1008.1	958.1	900.6	860.6	800.6
27.5°	1541.1	1491.1	1433.5	1368.5	1320.9	1245.9	1173.3	1110.8	1043.2	980.6	913.2
30°	1841.3	1768.8	1708.6	1646.2	1551.1	1478.5	1393.4	1308.5	1215.8	1153.4	1050.7
32.5°	2201.4	2124.0	2033.9	1943.8	1856.3	1753.7	1648.6	1543.5	1440.9	1325.9	1220.8
35°	2641.9	2549.2	2446.6	2349.1	2214.1	2103.9	1971.3	1826.2	1711.2	1578.6	1446.0
37.5°	3224.8	3072.1	2982.0	2879.5	2696.9	2546.8	2399.1	2254.0	2051.4	1911.3	1723.7
40°	3955.2	3865.1	3717.6	3552.5	3387.3	3189.7	2989.6	2797.0	2561.8	2366.6	2149.0
42.5°	4813.2	4680.8	4530.7	4292.9	4125.3	3892.6	3665.0	3409.8	3122.1	2872.0	2616.8
45°	5618.9	5461.3	5346.2	5108.6	4933.4	4658.1	4383.0	4112.9	3780.0	3457.4	3162.2
47.5°	6489.5	6359.3	6169.3	5976.6	5799.0	5488.8	5191.1	4863.4	4513.0	4130.4	3747.5
50°	7255.0	7152.5	7022.3	6789.7	6592.0	6331.8	5981.6	5623.9	5181.0	4800.8	4365.5
52.5°	7905.4	7825.3	7642.7	7477.6	7300.0	7054.8	6742.1	6399.4	5921.6	5503.7	5008.4
55°	8673.5	8615.9	8455.8	8353.2	8195.7	7960.5	7667.8	7350.1	6844.7	6389.4	5829.0
57.5°	9931.8	9886.8	9746.6	9704.1	9549.0	9343.9	8983.7	8643.4	8053.0	7487.6	6847.3
60°	12015.7	11925.7	11720.5	11615.5	11287.7	11012.6	10544.8	10076.9	9363.9	8643.4	7872.9
62.5°	14247.2	13994.6	13604.3	13269.2	12803.8	12325.9	11700.4	10985.1	10149.5	9293.9	8408.2
65°	15450.6	15020.3	14527.5	13994.6	13391.8	12688.7	11900.7	11042.6	10144.5	9241.3	8305.7
66°	15588.2	15102.8	14580.1	13987.1	13316.7	12568.7	11768.1	10867.5	9934.2	9053.7	8118.1
67.5°	15415.6	14907.7	14354.9	13697.0	12971.4	12195.9	11355.3	10419.6	9521.5	8628.4	7717.8
70°	14207.3	13701.8	13209.0	12516.1	11743.0	10962.6	10167.0	9121.3	8270.7	7450.1	6639.6
72.5°	11345.3	11002.5	10514.7	9921.8	9168.7	8253.1	7590.1	6654.6	5916.6	5121.0	4493.1
75°	7089.9	6607.1	6004.1	5248.6	4673.2	3930.1	3542.4	2831.9	2411.7	2043.9	1688.7
77.5°	3624.9	3262.3	2839.5	2414.1	2006.4	1601.1	1238.3	875.7	590.4	410.3	305.2
80°	2994.6	2674.4	2324.0	1936.4	1576.2	1223.4	880.7	600.4	382.8	250.2	195.1
82.5°	2474.1	2204.0	1891.2	1531.0	1218.4	960.7	668.0	435.2	270.1	175.2	137.6
85°	1053.3	955.7	738.0	585.3	440.3	325.3	227.7	152.7	107.6	87.5	80.1
87.5°	45.0	50.0	47.6	37.5	27.5	27.5	25.1	20.1	20.1	20.1	20.1
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7	392.7
2.5°	410.3	407.7	405.3	405.3	402.7	400.3	385.3	372.8	357.8	347.7	337.7
5°	427.8	425.2	420.4	417.8	412.8	410.3	377.8	350.2	327.7	310.2	297.8
7.5°	445.3	442.8	435.2	427.8	425.2	420.4	367.8	332.7	302.8	282.7	270.1
10°	467.8	460.3	452.9	442.8	435.2	427.8	357.8	312.6	280.1	262.7	250.2
12.5°	500.3	487.8	475.4	462.7	452.9	440.3	352.8	295.2	262.7	242.6	230.2
15°	537.9	520.3	505.3	490.4	472.8	460.3	342.7	280.1	247.6	227.7	212.7
17.5°	572.9	552.8	530.3	507.9	490.4	472.8	332.7	265.2	232.6	212.7	197.6
20°	622.9	592.9	565.4	537.9	512.9	490.4	317.7	250.2	220.1	197.6	182.6
22.5°	678.0	642.9	608.0	570.5	537.9	507.9	305.2	237.6	207.7	185.2	167.6
25°	748.0	705.5	658.0	610.4	572.9	532.9	292.7	225.1	195.1	172.6	155.1
27.5°	845.6	785.6	733.0	673.0	615.4	570.5	282.7	215.1	182.6	160.1	142.7
30°	978.2	890.5	808.1	743.0	675.4	610.4	272.7	202.7	172.6	147.7	127.6
32.5°	1125.7	1023.2	928.1	830.5	745.5	670.4	262.7	192.6	160.1	135.1	117.6
35°	1308.5	1178.3	1050.7	938.1	835.6	735.4	252.6	182.6	150.1	122.6	105.1
37.5°	1571.1	1408.4	1240.9	1095.8	963.2	830.5	245.2	172.6	137.6	110.1	92.5
40°	1931.3	1721.2	1516.0	1318.3	1145.8	980.6	235.2	162.6	127.6	100.1	82.5
42.5°	2321.6	2066.4	1796.3	1573.6	1336.0	1128.3	225.1	152.7	117.6	90.1	72.6
45°	2807.0	2489.2	2161.5	1858.7	1568.6	1300.9	215.1	142.7	105.1	80.1	62.6
47.5°	3337.3	2932.0	2561.8	2181.5	1836.2	1516.0	202.7	135.1	95.1	70.0	55.0
50°	3882.7	3454.9	2987.0	2554.2	2144.0	1731.3	190.2	122.6	85.1	62.6	45.0
52.5°	4470.5	3965.2	3487.4	2949.5	2471.7	2013.8	177.6	112.6	77.5	55.0	37.5
55°	5218.5	4653.3	4092.8	3489.9	2914.6	2341.7	165.1	100.1	67.6	47.6	30.1
57.5°	6159.2	5488.8	4800.8	4120.3	3422.4	2771.9	155.1	87.5	57.6	40.0	25.1
60°	7047.3	6264.4	5431.2	4648.2	3860.1	3102.2	140.1	77.5	50.0	32.5	25.1
62.5°	7507.7	6614.5	5716.4	4853.3	4012.8	3219.8	125.0	65.0	42.5	27.5	22.5
65°	7395.1	6484.5	5613.8	4743.2	3920.3	3144.7	110.1	57.6	37.5	25.1	22.5
66°	7232.5	6331.8	5456.3	4628.2	3842.6	3064.6	102.5	55.0	35.1	25.1	20.1
67.5°	6877.2	6006.5	5171.0	4400.5	3629.9	2912.0	92.5	50.0	32.5	22.5	20.1
70°	5874.1	5083.5	4415.5	3730.1	3102.2	2454.2	75.0	42.5	27.5	20.1	20.1
72.5°	3887.6	3349.8	2904.5	2499.2	2088.9	1621.1	62.6	35.1	22.5	20.1	17.5
75°	1466.0	1325.9	1138.3	1023.2	893.1	783.0	50.0	22.5	17.5	17.5	17.5
77.5°	260.2	240.2	212.7	195.1	180.2	165.1	40.0	15.0	15.0	17.5	17.5
80°	175.2	162.6	147.7	135.1	125.0	112.6	27.5	12.5	15.0	15.0	17.5
82.5°	125.0	117.6	110.1	100.1	92.5	82.5	17.5	12.5	15.0	15.0	15.0
85°	75.0	70.0	65.0	60.0	52.6	50.0	12.5	12.5	12.5	15.0	15.0
87.5°	20.1	17.5	20.1	20.1	15.0	17.5	10.0	10.0	10.0	12.5	12.5
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: P165305

CATALOG NUMBER: VST-E09-LED-E-U-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	392.7	392.7	392.7	392.7	392.7
2.5°	332.7	332.7	327.7	335.3	335.3
5°	287.7	287.7	285.2	287.7	287.7
7.5°	262.7	260.2	260.2	260.2	262.7
10°	240.2	237.6	237.6	237.6	237.6
12.5°	220.1	217.7	215.1	217.7	217.7
15°	202.7	197.6	197.6	197.6	197.6
17.5°	187.6	182.6	180.2	180.2	180.2
20°	172.6	165.1	165.1	165.1	165.1
22.5°	157.5	150.1	150.1	150.1	150.1
25°	142.7	135.1	135.1	135.1	135.1
27.5°	130.0	122.6	122.6	122.6	122.6
30°	115.2	110.1	110.1	112.6	110.1
32.5°	105.1	97.5	97.5	100.1	100.1
35°	92.5	87.5	87.5	87.5	87.5
37.5°	80.1	75.0	75.0	75.0	75.0
40°	70.0	65.0	62.6	65.0	65.0
42.5°	60.0	55.0	52.6	52.6	52.6
45°	52.6	45.0	42.5	45.0	45.0
47.5°	42.5	37.5	37.5	40.0	40.0
50°	32.5	32.5	35.1	40.0	40.0
52.5°	30.1	30.1	35.1	40.0	40.0
55°	27.5	30.1	35.1	37.5	40.0
57.5°	25.1	30.1	35.1	37.5	37.5
60°	25.1	27.5	32.5	37.5	37.5
62.5°	22.5	25.1	30.1	35.1	35.1
65°	22.5	25.1	30.1	35.1	35.1
66°	22.5	25.1	30.1	35.1	35.1
67.5°	22.5	25.1	30.1	35.1	35.1
70°	22.5	25.1	30.1	32.5	32.5
72.5°	20.1	22.5	27.5	32.5	32.5
75°	20.1	22.5	27.5	32.5	32.5
77.5°	20.1	22.5	27.5	32.5	32.5
80°	20.1	22.5	27.5	30.1	32.5
82.5°	17.5	22.5	25.1	30.1	30.1
85°	17.5	20.1	25.1	27.5	30.1
87.5°	15.0	17.5	20.1	25.1	25.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)