

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: P165309

Luminaire Tested: **VST-E09-LED-E-U-SL3-HSS-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165309
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-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (189) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15820.4 lumens
Efficiency: N/A
Efficacy: 70.1 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

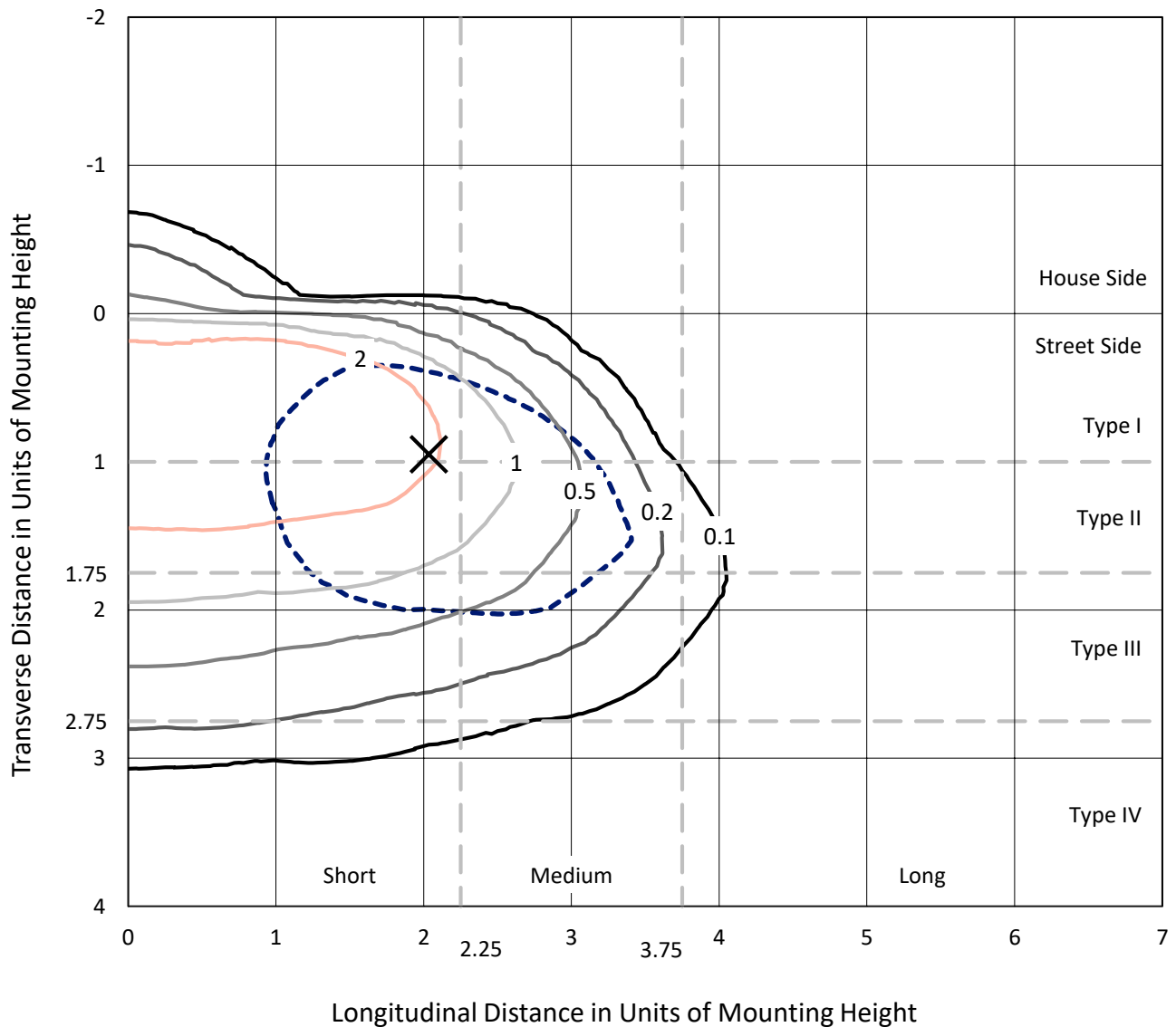
Input Watts (W): 225.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P165309
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Iso-Footcandle Lines of Horizontal Illumination

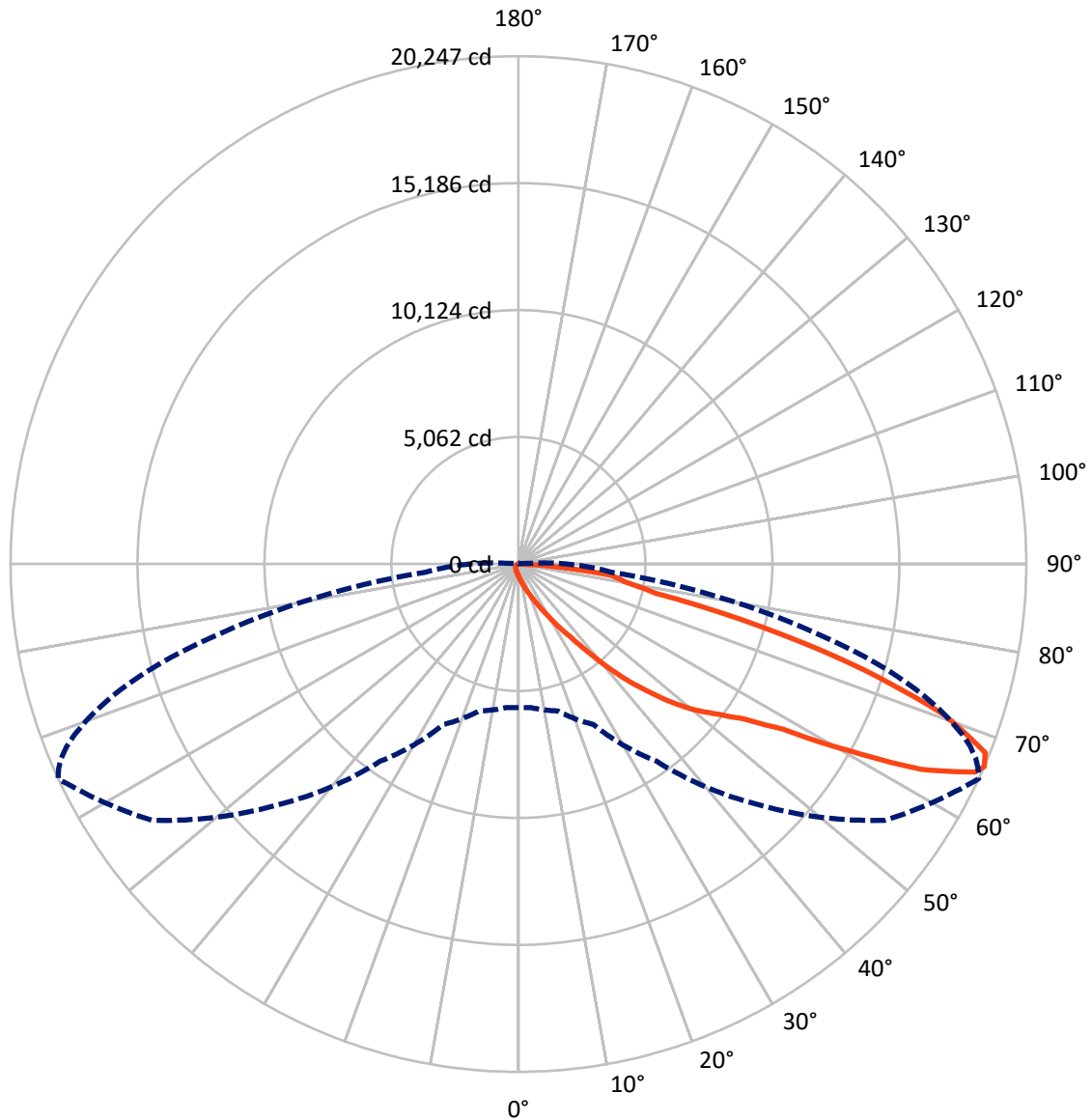
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P165309
CATALOG NUMBER: VST-E09-LED-E-U-SL3-HSS-7060

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-7060

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	342.8	0.0	342.8
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	15477.6	0.0	15477.6
	% Fixture	97.8	0.0	97.8
Total	Lumens	15820.4	0.0	15820.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.5	0.3
10°-20°	226.7	1.4
20°-30°	488.9	3.1
30°-40°	1044.0	6.6
40°-50°	2308.8	14.6
50°-60°	3912.7	24.7
60°-70°	5221.2	33.0
70°-80°	2299.8	14.5
80°-90°	264.9	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°	15820.4	100.0
0°-180°	15820.4	100.0



REPORT NUMBER: P165309

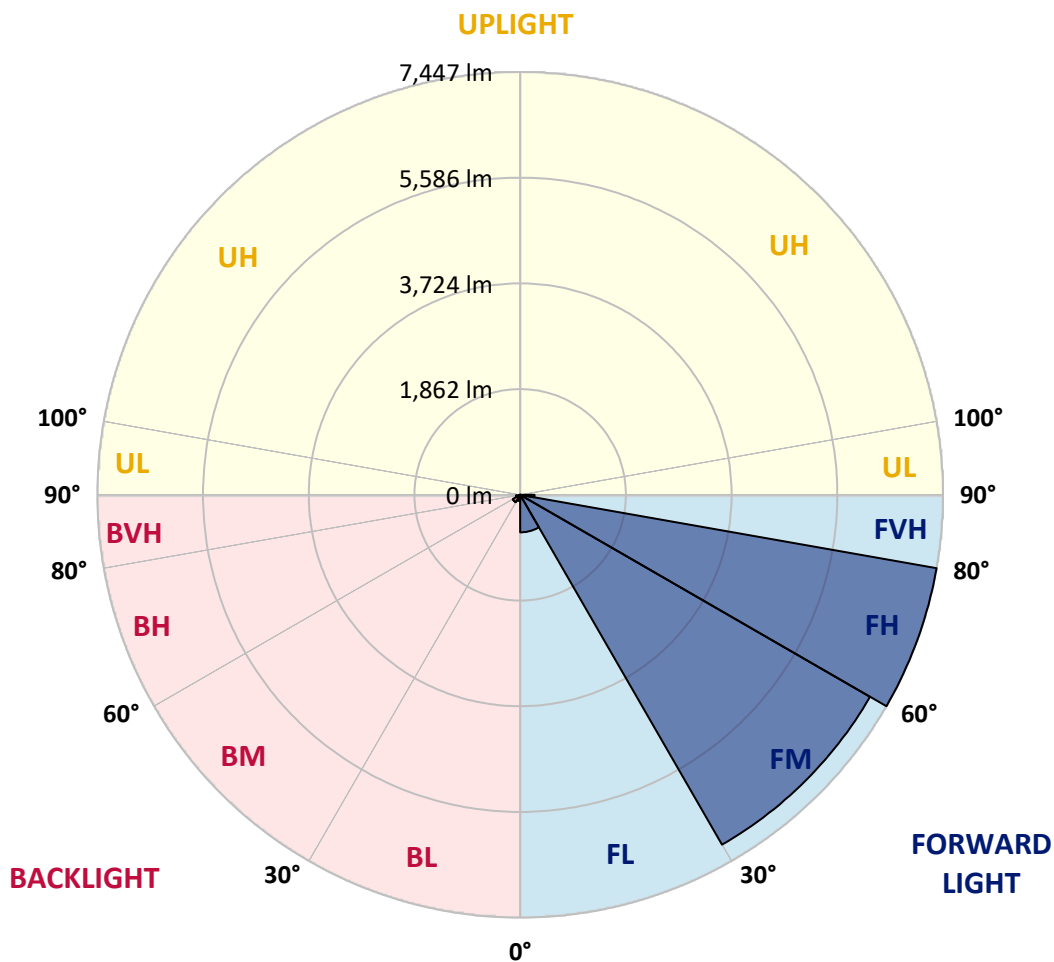
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	660.8	4.2			
FM	(30°-60°)	7114.9	45.0			
FH	(60°-80°)	7447.5	47.1			G3/7500
FVH	(80°-90°)	254.4	1.6			G3/500
BL	(0°-30°)	108.2	0.7	B0/110		
BM	(30°-60°)	150.6	1.0	B0/220		
BH	(60°-80°)	73.5	0.5	B0/110		G0/110
BVH	(80°-90°)	10.6	0.1			G1/100
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: P165309
 CATALOG NUMBER: VST-E09-LED-E-U-SL3-HSS-7060

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4
2.5°	602.3	599.2	587.0	587.0	568.7	556.7	541.4	526.2	526.2	523.1	520.1
5°	796.8	778.7	775.6	742.1	714.8	675.3	638.7	590.1	584.0	577.9	574.8
7.5°	1012.9	1009.7	982.4	942.9	888.2	815.1	742.1	663.1	650.9	644.8	632.6
10°	1292.7	1277.4	1241.0	1173.9	1091.9	994.6	876.0	751.2	736.0	723.8	717.7
12.5°	1560.3	1533.0	1511.6	1426.4	1323.0	1180.0	1037.1	857.7	845.6	830.4	806.0
15°	1809.7	1785.3	1748.9	1676.0	1560.3	1380.8	1213.7	994.6	964.1	942.9	924.6
17.5°	2004.4	1989.2	1946.5	1864.5	1739.7	1581.6	1380.8	1134.4	1110.2	1082.7	1049.3
20°	2190.0	2168.6	2101.7	1989.2	1855.3	1733.6	1578.6	1316.9	1283.5	1250.0	1213.7
22.5°	2366.4	2344.9	2235.6	2050.0	1907.0	1855.3	1800.6	1523.8	1472.1	1444.7	1408.1
25°	2612.8	2567.1	2396.7	2101.7	1910.2	1949.7	2043.9	1791.4	1742.8	1703.3	1645.5
27.5°	2944.3	2883.3	2615.7	2177.8	1922.2	2053.1	2323.7	2116.8	2065.1	2019.5	1955.8
30°	3318.3	3278.8	2959.4	2360.3	2010.4	2205.1	2636.9	2530.6	2469.8	2414.9	2339.0
32.5°	3695.5	3640.8	3324.4	2706.9	2247.6	2500.1	3029.4	3011.1	2932.1	2880.4	2798.2
35°	4027.0	3999.7	3765.5	3275.6	2789.1	3017.2	3552.5	3573.7	3503.9	3449.1	3357.8
37.5°	4252.1	4252.1	4206.5	3887.0	3649.8	3820.1	4322.0	4325.1	4255.1	4130.4	4084.8
40°	4367.6	4401.0	4565.4	4626.2	4614.0	4833.0	5331.9	5277.0	5219.2	5155.3	5003.3
42.5°	4604.9	4635.2	4985.0	5404.8	5678.6	5967.4	6311.2	6292.9	6223.1	6107.4	5967.4
45°	5006.5	5046.0	5462.7	6128.7	6691.3	7102.0	7320.9	7235.8	7165.8	7056.4	6983.3
47.5°	5517.3	5593.4	6064.8	6889.1	7567.3	8245.5	8473.6	8248.7	8187.9	8102.6	7984.0
50°	6061.8	6134.8	6636.6	7579.5	8346.0	9155.0	9535.3	9155.0	9066.9	9039.4	8905.6
52.5°	6533.2	6594.1	7077.7	8111.8	8942.0	9891.0	10444.5	9942.7	9878.8	9787.6	9690.2
55°	6813.0	6861.8	7314.8	8367.2	9346.7	10554.1	11323.7	10882.6	10788.3	10751.9	10611.9
57.5°	6907.4	6955.9	7363.6	8400.7	9565.6	11159.3	12391.3	12406.4	12293.9	12163.2	12120.5
60°	6907.4	6962.0	7305.8	8318.7	9778.5	11804.1	13814.6	15082.9	14839.6	14815.3	14660.1
62.5°	6621.5	6673.2	7019.9	8066.2	10064.4	12674.0	15797.7	18036.2	17966.4	17808.1	17552.7
65°	6000.9	6031.3	6371.9	7421.4	9954.9	13474.0	17516.1	20001.1	19888.6	19578.3	19249.9
66°	5721.1	5745.4	6064.8	7053.3	9596.0	13583.5	17820.3	20247.4	20062.0	19800.3	19429.2
67.5°	5316.6	5359.2	5584.2	6369.0	8735.3	13203.2	17628.8	20074.2	19913.0	19596.6	19225.5
70°	3549.5	3519.1	4312.9	4887.7	6654.9	10758.0	15816.0	18024.0	18027.2	17878.1	17729.1
72.5°	1685.0	1703.3	1934.4	3008.0	4355.4	7187.2	12588.9	14386.4	14593.3	14325.6	14140.0
75°	1210.5	1237.9	1377.9	1840.2	2597.4	4312.9	8160.4	10061.3	10067.4	9592.9	9170.3
77.5°	352.8	368.1	517.0	1134.4	1946.5	2910.7	4686.9	5593.4	5462.7	5121.9	4802.5
80°	145.9	145.9	152.0	362.0	781.6	1977.0	3278.8	4306.8	4291.7	4160.9	3972.3
82.5°	54.7	57.8	73.0	149.1	185.6	486.7	2186.8	3738.1	3728.9	3543.4	3409.5
85°	6.1	6.1	18.3	63.9	70.0	91.2	437.9	1648.4	1639.4	1648.4	1444.7
87.5°	0.0	0.0	3.0	6.1	9.1	12.2	18.3	63.9	70.0	66.9	60.8
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: P165309
 CATALOG NUMBER: VST-E09-LED-E-U-SL3-HSS-7060

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4
2.5°	520.1	514.0	514.0	511.1	511.1	511.1	507.9	505.0	505.0	501.8	498.9
5°	568.7	562.6	559.6	553.5	550.6	547.4	541.4	538.4	532.3	529.2	526.2
7.5°	626.5	614.3	611.4	602.3	593.1	587.0	580.9	571.8	565.7	553.5	550.6
10°	699.6	684.3	672.1	659.9	650.9	635.7	626.5	614.3	602.3	593.1	584.0
12.5°	793.8	772.6	754.3	742.1	720.9	702.6	684.3	675.3	650.9	638.7	623.5
15°	897.3	872.9	851.6	827.3	812.1	781.6	757.3	729.9	717.7	696.5	672.1
17.5°	1031.0	991.5	958.0	933.8	903.4	872.9	845.6	818.2	781.6	757.3	727.0
20°	1173.9	1140.5	1094.9	1052.4	1015.8	979.5	939.7	903.4	869.9	830.4	793.8
22.5°	1356.6	1307.9	1253.2	1210.5	1161.9	1122.4	1067.6	1019.0	964.1	912.4	869.9
25°	1587.7	1523.8	1472.1	1411.3	1353.5	1292.7	1225.7	1164.9	1094.9	1046.3	973.4
27.5°	1873.6	1812.8	1742.8	1663.8	1606.0	1514.7	1426.4	1350.5	1268.3	1192.2	1110.2
30°	2238.6	2150.5	2077.3	2001.4	1885.8	1797.5	1694.1	1590.8	1478.1	1402.2	1277.4
32.5°	2676.5	2582.3	2472.7	2363.2	2256.8	2132.2	2004.4	1876.5	1751.9	1612.1	1484.2
35°	3211.9	3099.2	2974.6	2856.0	2691.8	2557.9	2396.7	2220.3	2080.4	1919.2	1758.0
37.5°	3920.6	3735.0	3625.5	3500.8	3278.8	3096.3	2916.8	2740.4	2494.0	2323.7	2095.6
40°	4808.6	4699.1	4519.8	4319.0	4118.2	3877.9	3634.7	3400.5	3114.6	2877.2	2612.8
42.5°	5851.8	5690.8	5508.3	5219.2	5015.5	4732.5	4455.9	4145.6	3795.7	3491.7	3181.4
45°	6831.3	6639.7	6499.7	6210.9	5997.9	5663.2	5328.8	5000.4	4595.7	4203.4	3844.5
47.5°	7889.8	7731.5	7500.4	7266.2	7050.3	6673.2	6311.2	5912.8	5486.9	5021.6	4556.2
50°	8820.5	8695.8	8537.5	8254.8	8014.5	7698.1	7272.3	6837.4	6299.0	5836.7	5307.5
52.5°	9611.2	9513.8	9291.8	9091.1	8875.2	8577.1	8196.9	7780.3	7199.4	6691.3	6089.2
55°	10545.0	10475.0	10280.3	10155.7	9964.1	9678.2	9322.3	8936.1	8321.6	7768.1	7086.7
57.5°	12074.9	12020.2	11849.7	11798.0	11609.4	11360.1	10922.2	10508.4	9790.7	9103.3	8324.8
60°	14608.4	14499.1	14249.5	14121.9	13723.3	13388.8	12820.1	12251.3	11384.5	10508.4	9571.7
62.5°	17321.4	17014.3	16539.8	16132.3	15566.6	14985.6	14225.1	13355.4	12339.6	11299.3	10222.5
65°	18784.4	18261.4	17662.2	17014.3	16281.4	15426.6	14468.6	13425.4	12333.5	11235.4	10097.9
66°	18951.8	18361.7	17726.1	17005.2	16190.2	15280.7	14307.3	13212.4	12077.8	11007.3	9869.8
67.5°	18742.0	18124.5	17452.4	16652.5	15770.3	14827.4	13805.5	12667.9	11576.0	10490.2	9383.1
70°	17272.9	16658.4	16059.2	15216.8	14276.9	13328.1	12360.8	11089.5	10055.4	9057.6	8072.3
72.5°	13793.3	13376.6	12783.6	12062.7	11147.1	10034.0	9227.9	8090.6	7193.3	6226.0	5462.7
75°	8619.7	8032.7	7299.7	6381.2	5681.5	4778.2	4306.8	3443.0	2932.1	2484.9	2053.1
77.5°	4407.1	3966.2	3452.2	2935.1	2439.3	1946.5	1505.5	1064.6	717.7	498.9	371.1
80°	3640.8	3251.4	2825.5	2354.2	1916.3	1487.4	1070.7	729.9	465.4	304.2	237.2
82.5°	3008.0	2679.6	2299.3	1861.4	1481.3	1168.0	812.1	529.2	328.4	213.0	167.3
85°	1280.5	1161.9	897.3	711.6	535.3	395.4	276.9	185.6	130.8	106.4	97.3
87.5°	54.7	60.8	57.8	45.6	33.4	33.4	30.5	24.4	24.4	24.4	24.4
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: P165309

CATALOG NUMBER: VST-E09-LED-E-U-SL3-HSS-7060

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4
2.5°	498.9	495.7	492.8	492.8	489.6	486.7	468.4	453.3	435.0	422.8	410.6
5°	520.1	517.0	511.1	507.9	501.8	498.9	459.3	425.7	398.4	377.2	362.0
7.5°	541.4	538.4	529.2	520.1	517.0	511.1	447.2	404.5	368.1	343.7	328.4
10°	568.7	559.6	550.6	538.4	529.2	520.1	435.0	380.1	340.6	319.3	304.2
12.5°	608.2	593.1	577.9	562.6	550.6	535.3	428.9	358.9	319.3	295.0	279.8
15°	654.0	632.6	614.3	596.2	574.8	559.6	416.7	340.6	301.1	276.9	258.6
17.5°	696.5	672.1	644.8	617.4	596.2	574.8	404.5	322.5	282.8	258.6	240.3
20°	757.3	720.9	687.4	654.0	623.5	596.2	386.2	304.2	267.6	240.3	222.0
22.5°	824.3	781.6	739.2	693.5	654.0	617.4	371.1	288.9	252.5	225.1	203.7
25°	909.5	857.7	799.9	742.1	696.5	647.9	355.9	273.7	237.2	209.8	188.6
27.5°	1028.0	955.1	891.2	818.2	748.2	693.5	343.7	261.5	222.0	194.7	173.4
30°	1189.3	1082.7	982.4	903.4	821.2	742.1	331.5	246.4	209.8	179.5	155.1
32.5°	1368.6	1243.9	1128.3	1009.7	906.3	815.1	319.3	234.2	194.7	164.2	143.0
35°	1590.8	1432.5	1277.4	1140.5	1015.8	894.1	307.2	222.0	182.5	149.1	127.8
37.5°	1910.2	1712.3	1508.6	1332.2	1171.0	1009.7	298.1	209.8	167.3	133.9	112.5
40°	2348.1	2092.6	1843.1	1602.8	1393.0	1192.2	285.9	197.6	155.1	121.7	100.3
42.5°	2822.6	2512.3	2183.9	1913.1	1624.2	1371.8	273.7	185.6	143.0	109.5	88.3
45°	3412.7	3026.3	2627.9	2259.8	1907.0	1581.6	261.5	173.4	127.8	97.3	76.1
47.5°	4057.5	3564.7	3114.6	2652.3	2232.5	1843.1	246.4	164.2	115.6	85.1	66.9
50°	4720.5	4200.4	3631.6	3105.3	2606.7	2104.8	231.2	149.1	103.4	76.1	54.7
52.5°	5435.1	4820.8	4239.9	3585.9	3005.1	2448.4	215.9	136.9	94.2	66.9	45.6
55°	6344.6	5657.3	4976.0	4242.9	3543.4	2847.0	200.8	121.7	82.2	57.8	36.6
57.5°	7488.3	6673.2	5836.7	5009.4	4160.9	3370.0	188.6	106.4	70.0	48.6	30.5
60°	8568.0	7616.1	6603.2	5651.2	4693.0	3771.6	170.3	94.2	60.8	39.5	30.5
62.5°	9127.6	8041.8	6949.9	5900.6	4878.6	3914.5	152.0	79.1	51.7	33.4	27.3
65°	8990.8	7883.7	6825.2	5766.7	4766.2	3823.3	133.9	70.0	45.6	30.5	27.3
66°	8793.1	7698.1	6633.6	5626.9	4671.8	3725.9	124.7	66.9	42.7	30.5	24.4
67.5°	8361.1	7302.6	6286.8	5350.0	4413.2	3540.3	112.5	60.8	39.5	27.3	24.4
70°	7141.6	6180.4	5368.3	4534.9	3771.6	2983.8	91.2	51.7	33.4	24.4	24.4
72.5°	4726.4	4072.6	3531.3	3038.5	2539.6	1970.9	76.1	42.7	27.3	24.4	21.2
75°	1782.3	1612.1	1383.9	1243.9	1085.8	951.9	60.8	27.3	21.2	21.2	21.2
77.5°	316.4	292.0	258.6	237.2	219.1	200.8	48.6	18.3	18.3	21.2	21.2
80°	213.0	197.6	179.5	164.2	152.0	136.9	33.4	15.1	18.3	18.3	21.2
82.5°	152.0	143.0	133.9	121.7	112.5	100.3	21.2	15.1	18.3	18.3	18.3
85°	91.2	85.1	79.1	73.0	63.9	60.8	15.1	15.1	15.1	18.3	18.3
87.5°	24.4	21.2	24.4	24.4	18.3	21.2	12.2	12.2	12.2	15.1	15.1
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: P165309

CATALOG NUMBER: VST-E09-LED-E-U-SL3-HSS-7060

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	477.4	477.4	477.4	477.4	477.4
2.5°	404.5	404.5	398.4	407.6	407.6
5°	349.8	349.8	346.7	349.8	349.8
7.5°	319.3	316.4	316.4	316.4	319.3
10°	292.0	288.9	288.9	288.9	288.9
12.5°	267.6	264.7	261.5	264.7	264.7
15°	246.4	240.3	240.3	240.3	240.3
17.5°	228.1	222.0	219.1	219.1	219.1
20°	209.8	200.8	200.8	200.8	200.8
22.5°	191.5	182.5	182.5	182.5	182.5
25°	173.4	164.2	164.2	164.2	164.2
27.5°	158.1	149.1	149.1	149.1	149.1
30°	140.0	133.9	133.9	136.9	133.9
32.5°	127.8	118.6	118.6	121.7	121.7
35°	112.5	106.4	106.4	106.4	106.4
37.5°	97.3	91.2	91.2	91.2	91.2
40°	85.1	79.1	76.1	79.1	79.1
42.5°	73.0	66.9	63.9	63.9	63.9
45°	63.9	54.7	51.7	54.7	54.7
47.5°	51.7	45.6	45.6	48.6	48.6
50°	39.5	39.5	42.7	48.6	48.6
52.5°	36.6	36.6	42.7	48.6	48.6
55°	33.4	36.6	42.7	45.6	48.6
57.5°	30.5	36.6	42.7	45.6	45.6
60°	30.5	33.4	39.5	45.6	45.6
62.5°	27.3	30.5	36.6	42.7	42.7
65°	27.3	30.5	36.6	42.7	42.7
66°	27.3	30.5	36.6	42.7	42.7
67.5°	27.3	30.5	36.6	42.7	42.7
70°	27.3	30.5	36.6	39.5	39.5
72.5°	24.4	27.3	33.4	39.5	39.5
75°	24.4	27.3	33.4	39.5	39.5
77.5°	24.4	27.3	33.4	39.5	39.5
80°	24.4	27.3	33.4	36.6	39.5
82.5°	21.2	27.3	30.5	36.6	36.6
85°	21.2	24.4	30.5	33.4	36.6
87.5°	18.3	21.2	24.4	30.5	30.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)