

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: P165015

Luminaire Tested: **VST-E02-LED-E-U-SL2-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165015
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E02-LED-E-U-SL2-HSS-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3058 lumens
Efficiency: N/A
Efficacy: 58.7 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 52.1
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

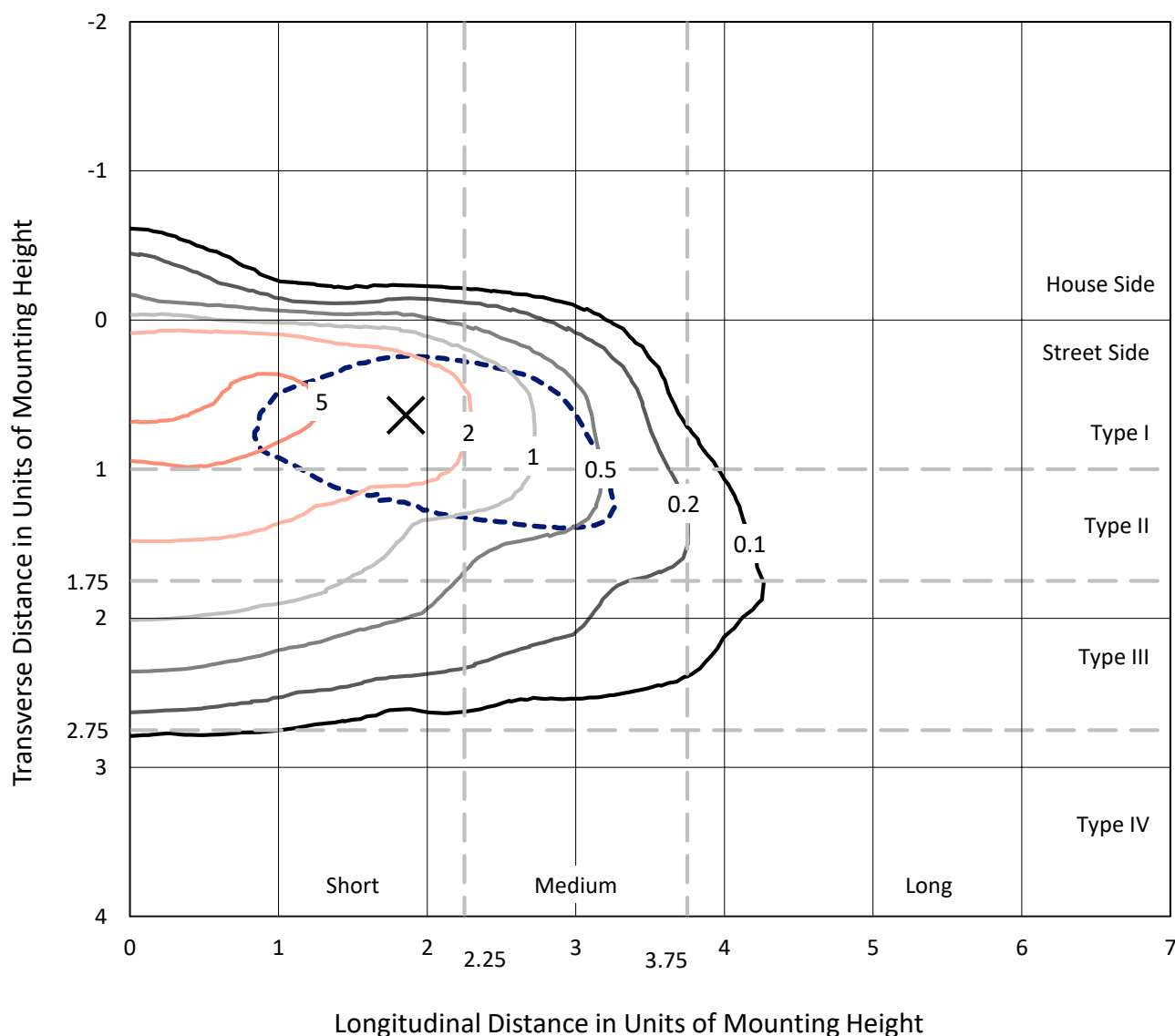


REPORT NUMBER: P165015

CATALOG NUMBER: VST-E02-LED-E-U-SL2-HSS-8030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

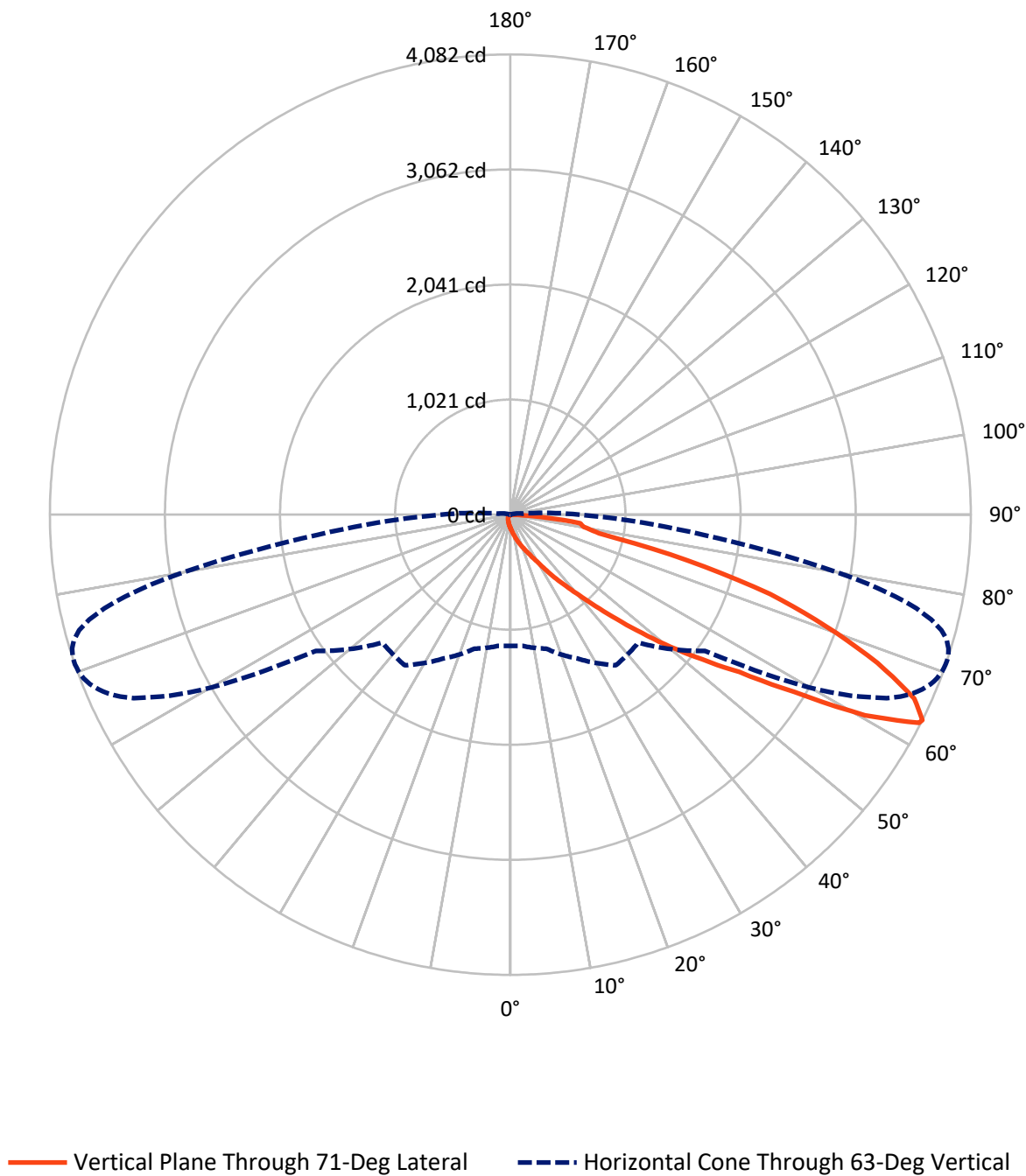


Based on 10 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Short - Non-Cutoff

REPORT NUMBER: P165015

CATALOG NUMBER: VST-E02-LED-E-U-SL2-HSS-8030

Luminous Intensity Polar Plot



REPORT NUMBER: P165015

CATALOG NUMBER: VST-E02-LED-E-U-SL2-HSS-8030

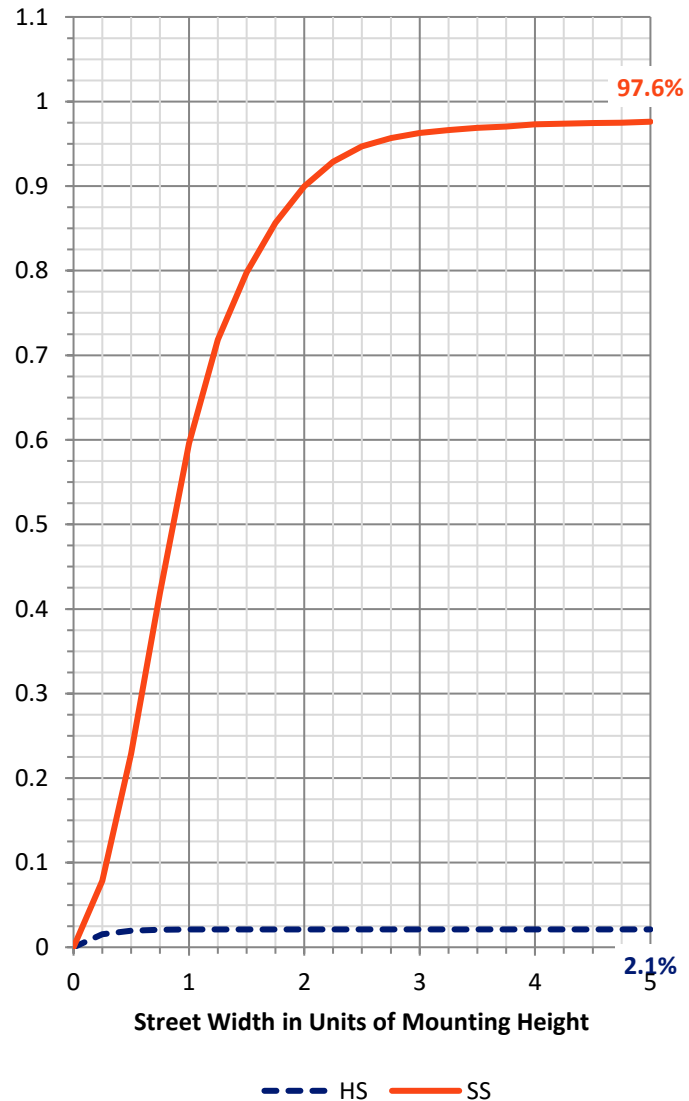
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	64.9	0.0	64.9
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	2993.1	0.0	2993.1
	% Fixture	97.9	0.0	97.9
Total	Lumens	3058.0	0.0	3058.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.0	0.4
10°-20°	50.3	1.6
20°-30°	102.1	3.3
30°-40°	249.5	8.2
40°-50°	558.0	18.2
50°-60°	784.7	25.7
60°-70°	922.7	30.2
70°-80°	333.2	10.9
80°-90°	44.6	1.5
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°	3058.0	100.0
0°-180°	3058.0	100.0

Coefficient of Utilization



REPORT NUMBER: P165015

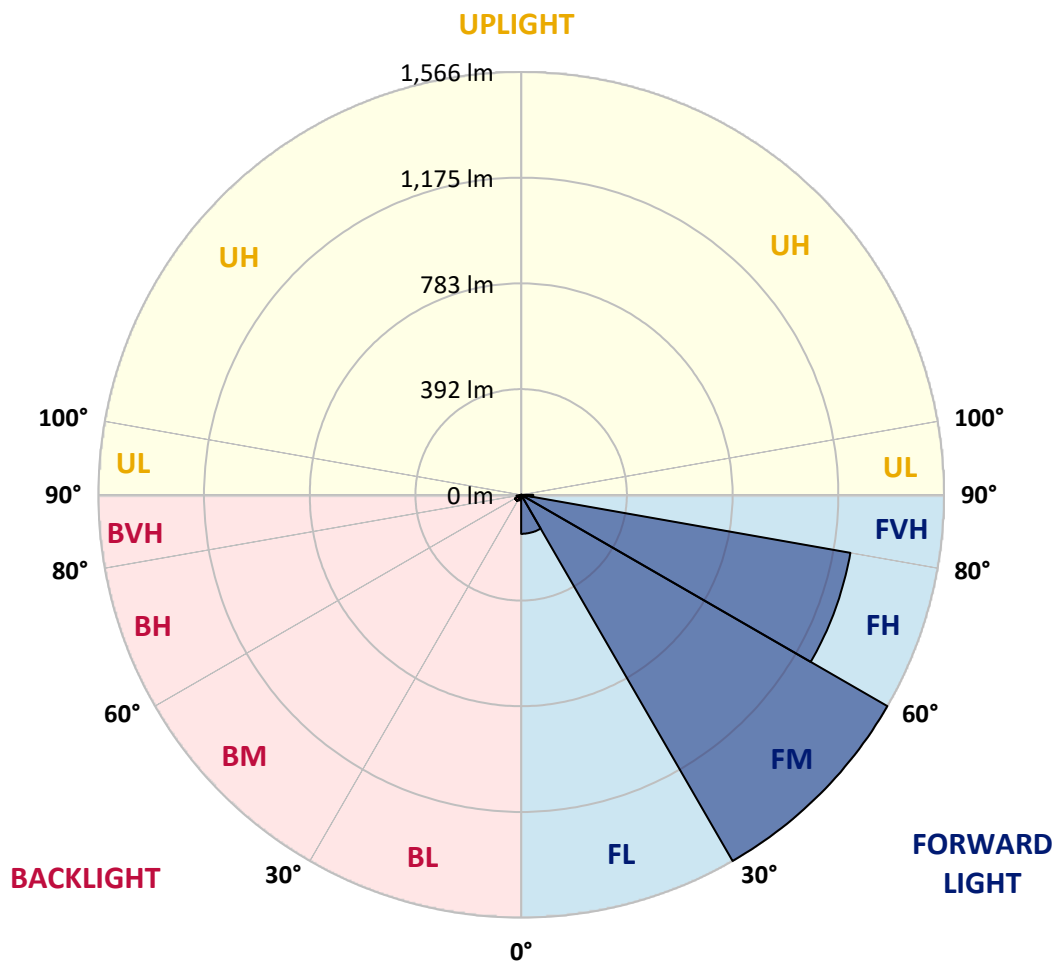
CATALOG NUMBER: VST-E02-LED-E-U-SL2-HSS-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	144.5	4.7			
FM	(30°-60°)	1566.1	51.2			
FH	(60°-80°)	1238.1	40.5			G1/1800
FVH	(80°-90°)	44.5	1.5			G1/100
BL	(0°-30°)	20.9	0.7	B0/110		
BM	(30°-60°)	26.2	0.9	B0/220		
BH	(60°-80°)	17.8	0.6	B0/110		G0/110
BVH	(80°-90°)	0.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Short





REPORT NUMBER: P165015

CATALOG NUMBER: VST-E02-LED-E-U-SL2-HSS-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3
2.5°	153.4	155.1	154.0	151.2	147.8	143.5	139.5	139.5	139.0	137.3	137.9
5°	201.2	201.8	199.6	192.9	186.8	177.4	166.8	165.7	164.5	162.9	162.4
7.5°	248.0	250.1	248.0	240.7	228.5	214.0	197.3	195.7	192.4	192.4	190.1
10°	295.7	295.7	293.5	285.2	274.1	253.5	232.4	229.6	225.7	224.6	221.3
12.5°	329.6	329.6	328.6	324.1	315.2	296.9	271.3	268.5	263.5	261.8	257.9
15°	343.0	343.0	343.6	347.5	348.0	339.7	313.0	310.7	305.8	301.3	299.6
17.5°	351.4	350.8	350.8	356.3	366.4	371.9	354.7	352.4	346.9	344.7	339.1
20°	369.7	368.6	365.2	365.2	374.7	394.1	394.1	393.6	387.5	385.8	383.0
22.5°	397.0	395.8	385.8	377.5	381.9	406.4	429.2	428.1	425.8	423.6	422.0
25°	441.4	437.5	420.3	395.8	391.9	418.1	455.9	458.6	460.3	460.3	461.4
27.5°	508.7	503.7	473.1	427.6	410.3	437.0	485.3	490.9	495.9	497.0	502.0
30°	602.0	593.2	549.2	482.6	443.1	464.8	528.7	534.8	542.0	544.3	552.1
32.5°	755.5	750.5	708.3	608.2	523.7	519.2	589.3	597.1	606.5	610.4	619.9
35°	989.0	990.1	955.7	865.6	748.9	687.7	697.7	704.3	707.7	719.4	724.4
37.5°	1147.4	1150.2	1158.0	1122.4	1039.1	976.7	898.4	905.6	888.4	890.0	890.6
40°	1234.2	1243.1	1288.7	1323.1	1316.5	1280.3	1217.5	1221.4	1189.1	1181.9	1146.9
42.5°	1292.0	1303.7	1376.5	1483.2	1537.7	1570.6	1556.1	1554.4	1529.4	1519.9	1490.5
45°	1328.2	1338.7	1430.4	1587.7	1713.4	1809.0	1848.5	1852.9	1831.8	1822.3	1797.9
47.5°	1326.4	1338.7	1437.1	1626.7	1811.8	1964.7	2075.9	2081.4	2094.2	2085.9	2087.5
50°	1253.1	1264.8	1363.7	1560.5	1782.9	2035.9	2239.3	2257.1	2277.7	2291.6	2298.2
52.5°	1164.1	1172.5	1260.3	1447.1	1659.5	2006.3	2336.0	2366.6	2397.2	2423.3	2441.6
55°	1131.3	1140.8	1209.7	1364.8	1560.5	1882.9	2381.0	2426.1	2469.5	2512.3	2547.3
57.5°	1148.6	1157.5	1207.0	1325.9	1501.6	1752.8	2393.9	2463.9	2535.1	2604.5	2673.5
60°	1211.9	1221.4	1263.7	1362.1	1486.0	1677.8	2343.8	2460.1	2578.4	2699.6	2813.6
62.5°	1186.9	1190.8	1253.1	1425.4	1597.2	1613.9	2162.0	2324.4	2505.1	2691.8	2875.9
63°	1163.0	1167.5	1230.8	1408.2	1631.2	1604.4	2105.9	2277.1	2467.8	2669.0	2869.2
65°	1054.6	1055.2	1103.5	1243.6	1593.3	1621.1	1855.7	2019.2	2238.2	2479.5	2732.5
67.5°	787.2	783.3	830.0	936.8	1250.9	1621.7	1592.8	1684.5	1836.8	2050.9	2277.7
70°	279.1	273.0	348.5	496.4	779.4	1326.4	1368.7	1374.8	1417.1	1532.7	1675.1
72.5°	90.6	92.3	111.2	181.8	359.2	892.9	1239.2	1220.3	1209.2	1208.6	1227.5
75°	36.1	36.7	44.5	80.6	161.2	430.3	1085.2	1095.7	1099.7	1105.2	1111.3
77.5°	17.2	18.9	25.0	45.1	80.0	212.9	776.6	866.2	917.3	956.8	980.7
80°	6.1	7.2	13.9	27.8	37.3	97.9	409.1	493.7	568.7	665.5	748.9
82.5°	0.0	0.0	2.8	19.4	20.6	39.5	167.9	196.8	225.1	291.8	374.7
85°	0.0	0.0	0.0	5.6	6.1	6.7	56.7	68.4	76.7	89.5	103.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.7	3.4	8.3	12.8
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: P165015

CATALOG NUMBER: VST-E02-LED-E-U-SL2-HSS-8030

CANDELA DISTRIBUTION (continued):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3
2.5°	136.7	136.2	136.2	135.1	134.5	133.4	132.9	131.2	130.6	130.6	130.6
5°	161.8	159.5	158.5	155.6	154.0	153.4	150.7	149.6	147.8	148.4	145.6
7.5°	189.5	185.7	184.0	180.1	179.0	175.1	174.0	171.2	169.6	166.3	165.1
10°	220.1	215.2	212.4	206.2	204.6	201.8	198.5	195.1	192.4	189.0	187.4
12.5°	255.2	250.7	248.5	240.2	236.3	232.4	227.9	223.5	219.1	216.2	212.4
15°	296.3	289.1	286.9	279.1	272.4	267.4	261.3	255.7	252.4	246.8	242.9
17.5°	336.9	329.6	328.0	316.3	309.1	305.8	299.1	291.8	285.7	280.2	274.1
20°	377.5	372.5	368.0	356.9	349.1	343.6	334.7	327.4	322.4	314.7	306.9
22.5°	418.1	413.0	409.7	398.0	390.8	383.0	375.3	367.5	360.2	350.8	341.9
25°	459.8	456.4	454.7	444.2	437.5	430.3	422.5	413.6	404.7	394.1	384.7
27.5°	503.1	504.2	500.9	498.7	491.5	486.4	474.2	468.1	461.4	448.6	437.0
30°	558.1	561.5	560.4	562.1	557.6	554.3	544.8	537.1	529.3	517.0	503.7
32.5°	627.7	632.1	634.3	640.4	638.2	637.1	634.3	623.2	617.6	596.5	590.9
35°	734.9	732.7	742.2	747.2	745.0	743.9	740.5	734.4	727.7	712.7	698.8
37.5°	874.5	876.7	880.0	870.1	863.3	862.8	852.8	846.7	837.2	820.6	803.9
40°	1130.2	1116.3	1100.8	1058.5	1040.2	1029.6	1000.1	991.8	975.7	952.9	935.6
42.5°	1462.7	1448.8	1402.1	1331.5	1293.7	1241.4	1217.5	1188.1	1165.3	1128.0	1108.0
45°	1792.9	1752.8	1747.3	1665.0	1618.3	1549.4	1506.6	1457.1	1405.4	1356.5	1320.9
47.5°	2071.4	2062.5	2035.3	1985.2	1941.9	1884.1	1829.0	1752.8	1699.5	1630.0	1566.1
50°	2294.3	2293.8	2283.8	2254.9	2218.7	2172.1	2123.7	2059.2	1998.6	1913.5	1845.2
52.5°	2461.1	2470.0	2473.4	2464.4	2450.6	2409.4	2385.0	2331.1	2279.9	2207.6	2133.7
55°	2583.4	2616.2	2632.9	2651.8	2647.9	2633.5	2632.4	2597.3	2574.0	2516.7	2464.4
57.5°	2734.7	2788.6	2840.3	2932.0	2935.3	2967.6	2984.3	3001.0	3005.4	2982.6	2965.4
60°	2927.0	3037.1	3134.9	3326.8	3376.8	3455.7	3506.8	3562.4	3609.7	3613.6	3612.5
62.5°	3062.6	3232.2	3390.1	3674.8	3772.0	3863.2	3931.6	3985.5	4018.3	4051.7	4067.2
63°	3066.5	3252.2	3420.1	3713.6	3815.9	3902.7	3967.7	4017.8	4052.2	4072.2	4082.2
65°	2972.6	3197.8	3397.9	3690.3	3786.5	3873.8	3907.7	3940.5	3957.2	3964.9	3935.5
67.5°	2519.5	2739.7	2973.1	3300.1	3382.3	3486.8	3514.6	3531.3	3539.1	3537.4	3512.4
70°	1884.1	2068.7	2328.2	2701.9	2810.8	2913.1	2976.5	3003.7	3012.6	3009.8	2972.6
72.5°	1315.3	1423.7	1637.8	2053.6	2202.1	2333.3	2411.6	2452.3	2460.6	2443.9	2409.4
75°	1104.7	1110.2	1158.5	1385.9	1524.9	1665.0	1753.4	1779.0	1762.3	1711.7	1623.9
77.5°	986.2	998.5	998.5	1032.4	1059.6	1098.5	1106.9	1044.6	972.4	878.9	803.3
80°	827.2	870.1	900.1	925.1	927.8	920.1	899.5	864.5	808.9	737.7	658.8
82.5°	502.6	587.1	621.5	750.5	813.9	856.7	853.4	806.6	764.4	690.5	623.2
85°	126.8	136.7	148.4	192.9	216.2	264.1	294.1	308.0	313.0	287.4	260.2
87.5°	12.2	8.3	13.9	10.6	15.0	11.1	15.0	13.9	17.2	18.4	20.0
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: P165015

CATALOG NUMBER: VST-E02-LED-E-U-SL2-HSS-8030

CANDELA DISTRIBUTION (continued):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3
2.5°	129.5	128.9	128.4	127.9	127.3	126.8	125.6	125.6	124.6	124.0	123.4
5°	144.0	142.9	142.3	141.2	139.5	138.4	136.7	134.5	132.9	132.3	131.2
7.5°	162.4	159.5	158.5	156.8	154.6	151.2	149.0	147.3	144.5	142.9	139.5
10°	182.9	180.1	176.8	173.5	170.1	166.3	163.4	161.2	156.8	154.6	150.7
12.5°	209.0	204.1	200.1	195.7	191.2	186.8	183.4	176.8	172.9	167.9	164.5
15°	235.7	231.2	226.9	221.3	214.6	207.4	204.1	197.9	192.9	185.2	180.7
17.5°	268.0	259.6	253.0	246.3	240.2	233.5	226.9	217.4	210.2	203.5	194.6
20°	299.6	289.7	282.4	273.5	264.7	254.1	246.3	239.6	229.6	220.7	211.3
22.5°	333.5	323.6	311.9	303.0	290.8	282.4	271.9	260.7	250.7	239.0	227.4
25°	374.7	364.1	350.8	339.1	325.2	313.6	300.8	287.9	275.8	262.4	247.4
27.5°	425.3	414.2	399.7	385.8	367.5	353.0	340.8	323.6	308.0	291.3	274.1
30°	489.2	477.0	459.2	439.2	420.8	404.7	387.5	364.7	347.5	327.4	305.2
32.5°	572.6	558.1	534.2	515.3	492.5	471.4	447.5	424.7	400.3	374.2	348.5
35°	677.7	664.4	636.5	608.8	583.7	558.7	528.7	502.6	468.1	436.4	403.6
37.5°	786.7	762.7	737.2	707.2	676.0	646.0	609.3	573.2	533.7	499.3	458.1
40°	911.2	882.3	861.1	828.9	785.0	742.2	708.3	663.2	613.7	567.6	519.2
42.5°	1081.9	1049.6	1011.8	962.9	931.2	881.2	837.2	783.8	718.8	667.1	608.8
45°	1279.2	1235.3	1198.6	1151.3	1113.0	1050.7	999.6	928.4	863.3	795.5	724.4
47.5°	1504.4	1449.9	1396.5	1349.8	1288.7	1227.5	1162.5	1086.8	1003.5	929.0	844.4
50°	1762.9	1685.6	1611.7	1551.6	1467.7	1397.1	1326.4	1241.4	1149.1	1063.5	967.3
52.5°	2050.3	1960.8	1862.9	1770.7	1673.3	1582.7	1497.7	1399.9	1297.0	1192.5	1085.2
55°	2397.2	2329.9	2214.8	2097.5	1967.5	1846.3	1736.8	1615.6	1490.5	1353.2	1240.3
57.5°	2940.4	2907.5	2811.4	2694.1	2524.5	2377.2	2191.5	2043.1	1861.9	1672.8	1527.2
60°	3676.4	3635.8	3581.9	3486.8	3352.3	3152.2	2947.6	2716.9	2441.1	2179.3	1930.8
62.5°	4068.9	4054.4	4010.5	3944.9	3819.3	3661.4	3455.2	3201.6	2890.3	2572.3	2255.5
63°	4080.5	4062.2	4024.4	3957.7	3847.1	3694.2	3491.8	3245.6	2940.9	2616.8	2293.2
65°	3922.7	3915.5	3877.1	3804.3	3728.7	3611.9	3455.2	3243.3	2987.6	2681.3	2359.4
67.5°	3479.0	3457.4	3398.5	3376.2	3323.4	3242.2	3122.7	2977.0	2794.1	2553.4	2275.4
70°	2942.6	2910.3	2836.4	2796.9	2732.5	2681.3	2608.5	2504.5	2391.7	2223.7	2016.4
72.5°	2373.8	2307.1	2239.3	2136.5	2046.4	1955.2	1874.6	1801.3	1677.2	1609.4	1452.1
75°	1541.6	1420.4	1304.2	1148.6	1008.5	884.5	763.9	702.7	575.4	523.7	449.8
77.5°	731.6	663.8	572.6	502.0	412.0	336.4	274.6	206.2	161.8	126.8	96.7
80°	590.4	533.2	478.1	414.2	346.3	276.3	211.8	158.5	112.3	77.8	55.0
82.5°	526.5	464.2	396.4	352.4	306.4	250.7	205.7	167.9	124.0	90.6	61.7
85°	204.6	172.3	132.9	108.4	84.5	69.5	62.8	43.3	33.9	26.7	20.6
87.5°	17.8	14.5	11.7	7.8	8.3	4.4	5.0	3.4	2.8	2.8	2.2
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: P165015

CATALOG NUMBER: VST-E02-LED-E-U-SL2-HSS-8030

CANDELA DISTRIBUTION (continued):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3
2.5°	122.9	122.3	121.7	120.6	120.6	119.5	119.0	118.4	115.6	109.5	104.5
5°	128.9	127.9	126.8	125.1	124.0	122.3	121.2	119.5	113.4	101.8	91.7
7.5°	137.9	135.7	134.0	130.6	128.9	126.8	125.1	122.3	112.3	94.5	80.6
10°	148.4	144.5	141.8	137.9	134.5	131.8	128.9	125.1	111.2	86.7	70.6
12.5°	161.2	156.8	151.2	146.8	142.3	138.4	134.5	129.5	109.5	80.0	62.8
15°	174.0	167.3	163.4	157.3	151.2	145.6	140.1	135.7	110.1	72.8	56.2
17.5°	188.5	181.8	173.5	166.8	160.1	152.9	146.2	137.3	107.3	67.3	51.1
20°	202.4	192.9	185.2	176.8	167.3	158.5	150.1	142.3	105.1	61.7	46.7
22.5°	217.4	206.2	196.3	185.7	174.0	164.0	154.0	144.0	101.2	56.7	42.8
25°	235.7	222.9	208.4	195.7	183.4	171.2	158.5	146.2	97.3	52.3	40.0
27.5°	257.9	241.3	226.9	210.7	193.5	177.9	164.0	150.7	93.4	48.9	37.3
30°	286.3	266.8	246.3	225.7	207.4	189.5	170.1	153.4	89.5	45.6	34.4
32.5°	324.1	299.6	274.6	250.7	226.3	203.5	182.9	161.2	87.2	42.8	31.7
35°	374.2	342.5	311.9	281.9	252.4	224.6	197.9	173.5	87.2	39.5	28.4
37.5°	421.4	384.7	345.8	308.5	273.5	241.3	209.6	180.1	82.9	36.7	25.6
40°	472.6	428.6	383.0	339.1	296.9	256.9	220.7	186.8	79.0	33.4	22.8
42.5°	550.9	495.4	435.9	384.7	334.1	284.6	239.6	199.6	73.9	30.0	20.0
45°	653.8	583.1	513.1	450.8	386.4	325.8	272.4	222.9	72.8	27.2	17.2
47.5°	763.9	680.5	598.2	518.7	443.1	372.5	308.5	249.1	72.8	24.5	15.0
50°	873.4	768.9	681.1	588.7	503.7	420.3	344.1	276.3	73.4	22.3	12.2
52.5°	972.4	860.6	762.2	655.4	561.5	464.8	381.9	303.0	72.3	19.4	10.0
55°	1109.6	978.5	864.5	746.6	636.5	527.6	433.6	343.0	72.8	17.2	8.3
57.5°	1362.6	1208.6	1071.3	916.7	790.0	649.3	535.4	425.3	79.5	14.5	6.1
60°	1725.6	1525.5	1332.6	1144.1	982.9	815.6	667.7	538.1	93.4	11.7	4.4
62.5°	1969.7	1707.8	1477.7	1269.8	1082.4	907.3	746.0	598.7	102.8	9.5	2.8
63°	1994.7	1724.0	1492.7	1278.1	1086.8	911.8	749.4	603.2	103.4	8.9	2.8
65°	2042.0	1751.8	1501.0	1279.7	1082.4	905.6	747.2	602.6	104.5	7.2	2.2
67.5°	1988.0	1708.9	1452.7	1232.0	1043.5	869.5	719.4	580.4	103.9	5.0	1.7
70°	1777.9	1546.6	1321.4	1115.8	944.5	787.2	654.9	529.3	95.6	3.4	1.1
72.5°	1305.4	1148.0	973.4	825.0	711.6	590.9	504.2	397.5	73.9	2.2	0.5
75°	386.9	352.4	296.3	261.3	230.7	190.7	169.6	132.3	37.8	1.1	0.0
77.5°	77.3	70.1	62.8	57.2	53.9	46.1	43.9	36.1	15.5	0.5	0.0
80°	40.6	33.4	28.4	25.0	21.7	17.8	15.0	12.2	2.8	0.0	0.0
82.5°	38.9	26.1	18.9	15.5	13.3	10.6	8.3	6.1	1.7	0.0	0.0
85°	14.5	11.1	8.3	6.7	5.6	5.0	3.9	3.4	0.0	0.0	0.0
87.5°	2.2	1.7	1.7	1.1	1.1	0.5	0.5	0.5	0.0	0.0	0.0
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: P165015

CATALOG NUMBER: VST-E02-LED-E-U-SL2-HSS-8030

CANDELA DISTRIBUTION (continued):

	125°	135°	145°	155°	165°	175°	180°
0°	117.3	117.3	117.3	117.3	117.3	117.3	117.3
2.5°	99.5	95.0	92.8	90.1	90.1	89.5	90.6
5°	82.9	76.7	72.3	68.9	69.5	67.8	68.4
7.5°	70.1	64.0	60.0	57.8	57.2	56.7	56.7
10°	60.6	55.0	51.7	50.0	49.5	49.5	49.5
12.5°	53.9	48.4	45.6	44.5	44.5	43.9	43.9
15°	48.4	43.9	41.2	40.0	40.0	39.5	40.0
17.5°	43.9	39.5	37.3	36.1	36.1	35.6	35.6
20°	40.0	36.1	33.9	32.2	32.2	31.7	32.2
22.5°	36.7	32.8	30.0	28.9	28.4	27.8	28.4
25°	33.4	29.5	26.7	25.0	24.5	24.5	23.9
27.5°	30.6	26.7	23.3	21.7	21.1	21.1	20.6
30°	27.8	23.3	20.0	18.4	17.8	17.8	17.8
32.5°	25.0	20.0	17.2	15.5	15.0	15.0	15.0
35°	22.3	17.2	14.5	12.8	12.2	12.2	12.2
37.5°	18.9	14.5	11.1	10.0	9.5	8.9	8.9
40°	16.1	11.1	8.3	7.2	6.1	6.1	6.1
42.5°	13.3	8.9	6.1	4.4	3.9	3.4	3.9
45°	11.1	6.7	3.9	2.2	1.7	1.7	1.7
47.5°	8.9	4.4	1.7	0.5	0.5	0.5	0.5
50°	6.7	2.8	0.5	0.0	0.0	0.5	0.5
52.5°	5.0	1.7	0.0	0.0	0.0	0.0	0.0
55°	2.8	0.5	0.0	0.0	0.0	0.0	0.0
57.5°	1.7	0.0	0.0	0.0	0.0	0.0	0.0
60°	1.1	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)