

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: P159739

Luminaire Tested: **VST-E02-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159739
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
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-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5436.9 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

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

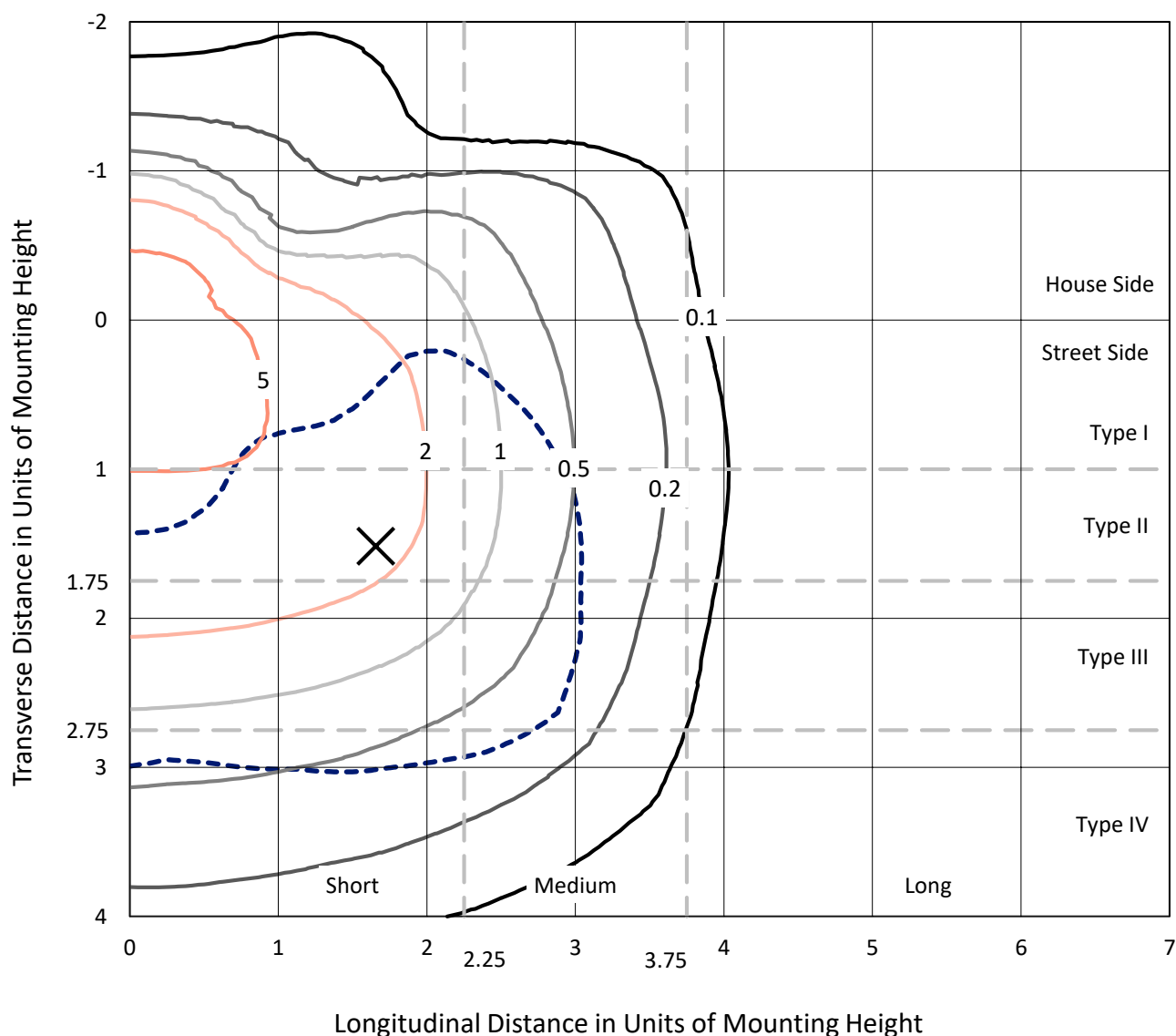


REPORT NUMBER: P159739

CATALOG NUMBER: VST-E02-LED-E-U-T4-7030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

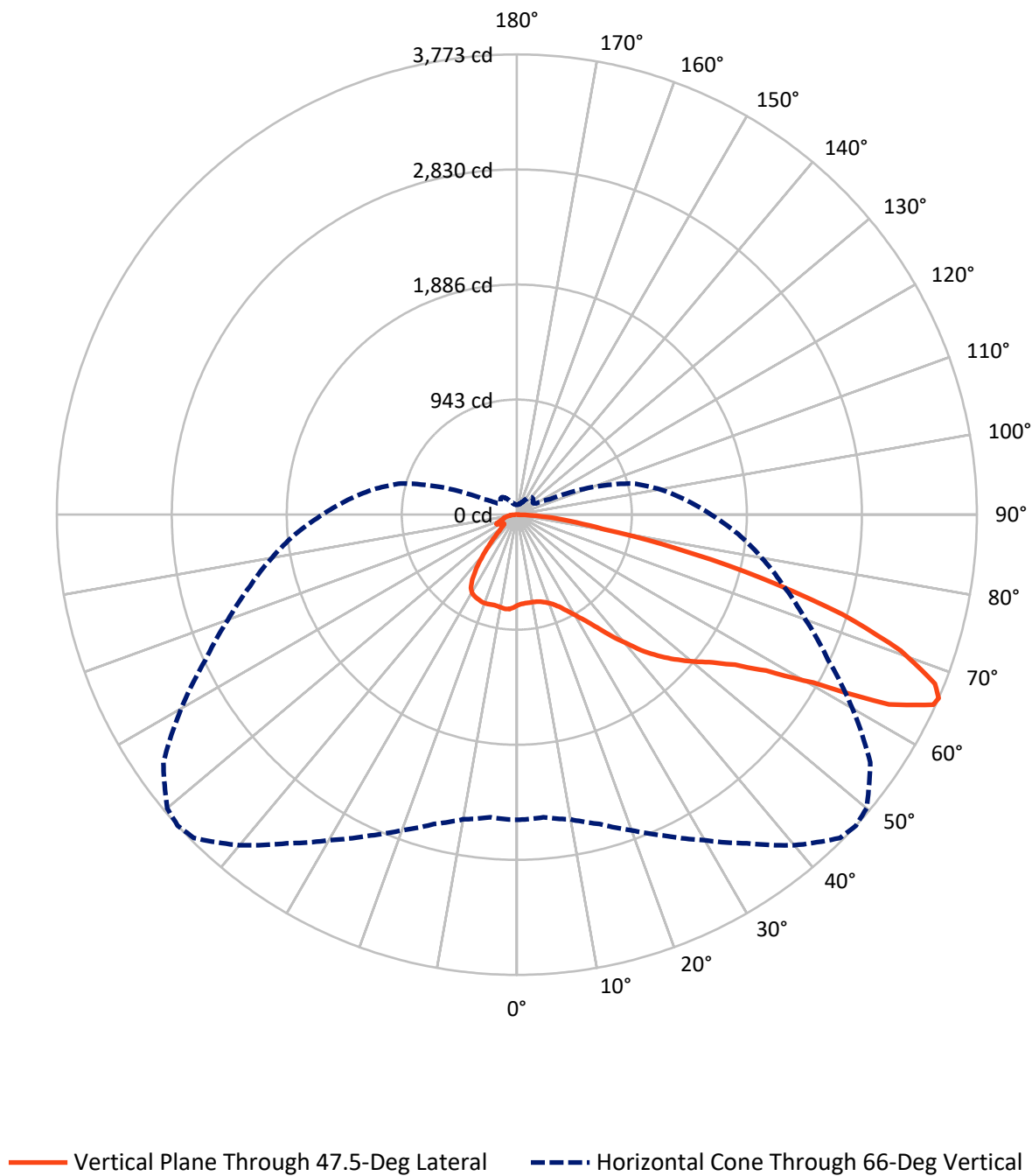


Based on 10 foot mounting height. Maximum calculated value = 7.6 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P159739

CATALOG NUMBER: VST-E02-LED-E-U-T4-7030

Luminous Intensity Polar Plot



REPORT NUMBER: P159739

CATALOG NUMBER: VST-E02-LED-E-U-T4-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1125.7	0.0	1125.7
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	4311.2	0.0	4311.2
	% Fixture	79.3	0.0	79.3
Total	Lumens	5436.9	0.0	5436.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	1.3
10°-20°	215.0	4.0
20°-30°	366.8	6.7
30°-40°	553.7	10.2
40°-50°	719.6	13.2
50°-60°	987.3	18.2
60°-70°	1518.8	27.9
70°-80°	877.9	16.1
80°-90°	126.1	2.3
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°	5436.9	100.0
0°-180°	5436.9	100.0

Coefficient of Utilization



REPORT NUMBER: P159739

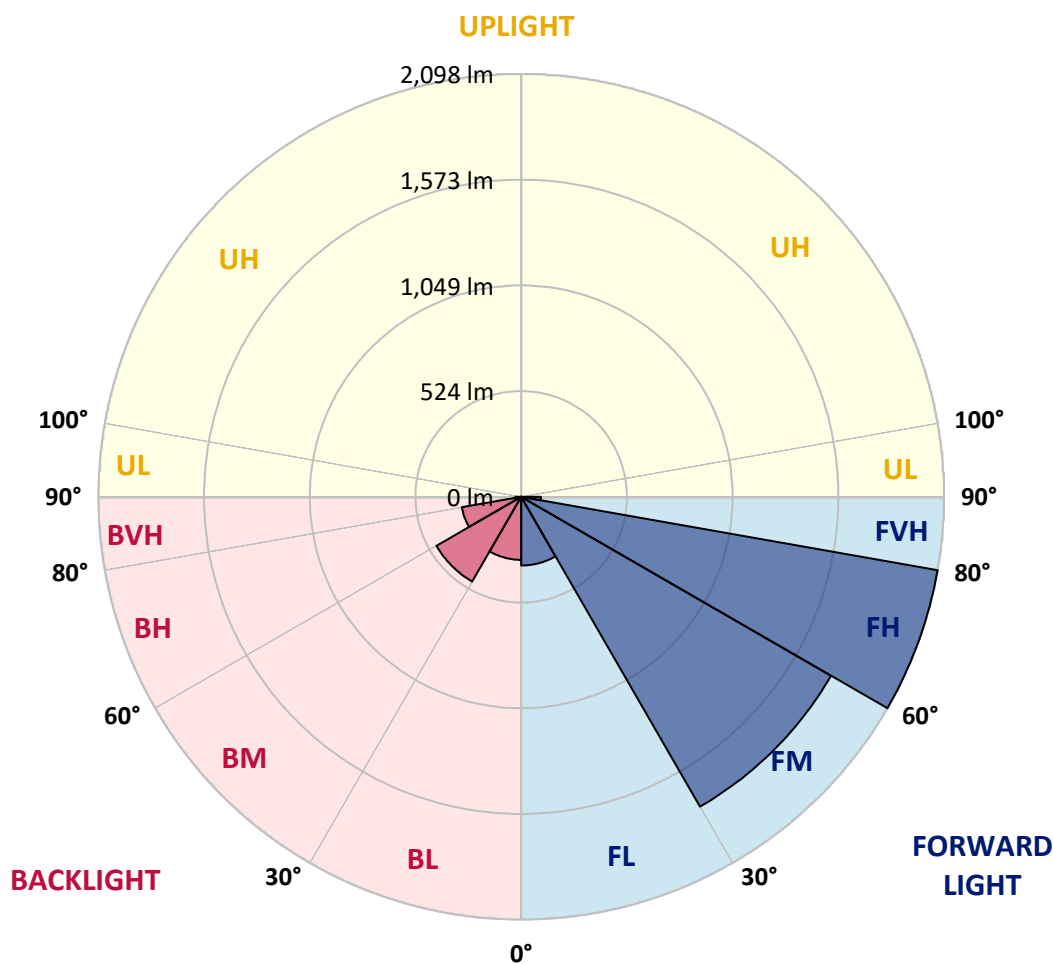
CATALOG NUMBER: VST-E02-LED-E-U-T4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	340.8	6.3			
FM	(30°-60°)	1774.9	32.6			
FH	(60°-80°)	2097.9	38.6			G2/5000
FVH	(80°-90°)	97.6	1.8			G1/100
BL	(0°-30°)	312.7	5.8	B1/500		
BM	(30°-60°)	485.7	8.9	B1/1000		
BH	(60°-80°)	298.8	5.5	B1/500		G1/500
BVH	(80°-90°)	28.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





REPORT NUMBER: P159739

CATALOG NUMBER: VST-E02-LED-E-U-T4-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8
2.5°	724.9	725.2	725.6	725.6	726.7	726.7	728.5	729.6	730.0	732.1	733.6
5°	711.3	710.9	711.3	712.0	713.9	715.3	719.0	721.6	723.7	727.4	729.2
7.5°	705.5	706.2	706.9	707.3	708.8	712.4	715.7	718.3	722.6	727.0	728.9
10°	713.2	714.2	713.2	713.9	713.9	717.2	718.6	720.5	723.7	727.7	728.9
12.5°	731.0	733.3	731.0	729.2	727.7	730.7	730.0	728.5	730.3	731.4	731.4
15°	760.6	760.6	759.2	756.6	752.9	753.4	750.1	746.8	745.3	742.7	740.9
17.5°	789.5	788.8	785.5	782.2	779.6	778.6	773.8	769.4	764.3	760.3	755.9
20°	817.6	820.6	816.5	811.8	807.8	805.2	801.5	792.8	786.6	780.0	775.6
22.5°	866.2	863.6	859.3	852.4	848.3	844.0	836.3	826.7	817.3	809.2	803.8
25°	916.3	913.7	907.5	902.4	896.5	892.9	884.5	872.8	863.6	851.2	844.0
27.5°	970.0	967.8	960.5	956.5	952.4	948.1	940.7	928.7	920.3	906.1	898.4
30°	1030.6	1030.3	1020.4	1019.6	1013.8	1009.1	1004.0	993.7	985.3	971.1	961.9
32.5°	1095.3	1093.8	1086.9	1084.7	1088.7	1085.4	1078.1	1067.5	1056.5	1048.1	1037.9
35°	1187.3	1184.8	1180.8	1182.6	1185.2	1194.3	1183.0	1173.8	1160.7	1149.7	1135.5
37.5°	1254.6	1250.9	1255.7	1265.9	1280.5	1287.5	1297.3	1297.7	1291.5	1276.9	1264.4
40°	1316.3	1314.8	1325.8	1340.0	1367.1	1386.8	1405.4	1414.6	1416.8	1407.3	1388.6
42.5°	1368.5	1372.9	1387.6	1409.5	1447.5	1477.4	1512.1	1533.7	1547.2	1542.1	1533.7
45°	1430.7	1432.9	1450.7	1478.5	1514.7	1564.4	1610.0	1646.6	1670.3	1670.0	1660.5
47.5°	1508.5	1508.9	1524.2	1556.7	1595.5	1645.9	1703.6	1752.2	1783.6	1785.1	1777.7
50°	1600.9	1600.2	1617.0	1647.7	1688.9	1737.5	1798.9	1859.6	1903.4	1903.4	1892.8
52.5°	1720.0	1718.6	1727.7	1754.7	1794.5	1845.7	1906.7	1976.9	2024.3	2034.6	2011.6
55°	1879.0	1881.1	1883.3	1907.1	1941.1	1981.6	2051.8	2116.4	2180.0	2185.9	2172.3
57.5°	2062.7	2055.4	2071.1	2109.8	2148.5	2199.4	2249.0	2325.4	2400.7	2413.4	2411.6
60°	2349.8	2340.4	2356.4	2405.8	2448.5	2528.5	2613.7	2712.3	2801.4	2827.7	2795.9
62.5°	2614.0	2625.7	2647.6	2705.0	2767.1	2873.8	3001.6	3170.8	3340.0	3432.0	3425.4
65°	2590.3	2579.3	2621.3	2699.5	2812.0	2947.9	3106.9	3310.7	3554.4	3739.3	3755.7
66°	2502.2	2490.9	2536.2	2625.7	2754.3	2905.6	3082.0	3289.5	3538.7	3747.7	3772.9
67.5°	2356.8	2345.5	2396.6	2478.1	2610.7	2801.0	2991.8	3218.6	3477.7	3677.9	3698.3
70°	2076.2	2060.9	2100.7	2192.8	2300.2	2484.3	2665.9	2906.3	3172.3	3332.3	3340.0
72.5°	1758.7	1723.0	1765.3	1836.2	1912.9	2065.3	2223.5	2387.9	2599.7	2747.7	2790.1
75°	1276.1	1294.7	1307.2	1354.0	1404.7	1530.8	1623.6	1761.3	1925.3	2032.4	2066.3
77.5°	677.0	705.1	722.6	769.4	853.4	949.5	1050.0	1135.1	1242.9	1302.8	1344.5
80°	380.0	399.7	428.2	465.1	506.0	579.8	639.4	683.2	698.5	709.1	718.6
82.5°	209.0	259.0	301.4	327.0	351.1	380.7	416.1	452.6	464.3	446.8	437.7
85°	32.5	47.9	145.8	177.9	193.6	216.3	241.9	268.9	269.3	231.6	252.8
87.5°	9.1	10.2	20.8	31.4	30.7	24.8	30.7	55.9	32.9	16.4	19.0
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: P159739

CATALOG NUMBER: VST-E02-LED-E-U-T4-7030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8
2.5°	734.3	735.1	736.9	738.7	740.5	742.4	743.5	745.3	746.8	748.9	751.5
5°	731.4	733.3	736.5	740.5	744.2	747.5	750.1	753.7	757.0	759.9	764.3
7.5°	731.4	735.1	740.5	744.9	748.2	752.2	756.2	759.9	763.6	766.5	769.4
10°	731.8	735.4	740.9	746.0	749.7	754.1	757.4	760.6	764.6	766.5	770.2
12.5°	733.3	734.7	738.7	743.8	748.2	752.6	755.9	759.2	763.6	764.3	766.9
15°	740.5	738.4	739.4	743.1	747.8	751.5	755.2	757.7	760.6	759.9	762.1
17.5°	754.1	748.6	746.4	746.8	748.9	751.5	752.9	753.4	753.7	750.4	750.8
20°	772.3	764.6	759.5	757.0	754.1	751.5	747.5	742.7	738.4	731.8	731.0
22.5°	799.7	788.4	782.9	776.0	767.2	756.2	746.4	734.7	725.2	715.3	711.7
25°	839.6	827.9	822.0	811.1	795.4	779.6	765.4	749.7	735.8	724.1	718.6
27.5°	892.9	881.2	875.0	863.6	844.3	828.6	808.9	792.1	775.3	758.1	751.1
30°	957.5	947.3	940.4	931.3	914.5	897.3	874.3	848.3	821.6	794.2	780.7
32.5°	1033.9	1022.6	1017.5	1006.9	989.3	971.5	945.8	912.6	868.0	824.9	797.9
35°	1129.3	1116.5	1110.7	1096.7	1076.3	1050.0	1022.6	978.0	917.8	857.8	813.6
37.5°	1256.8	1228.3	1208.9	1177.1	1144.3	1107.4	1068.2	1022.6	951.4	877.2	815.8
40°	1369.7	1340.8	1303.6	1257.8	1206.7	1156.0	1111.4	1059.5	982.0	891.1	808.9
42.5°	1510.0	1458.8	1399.3	1337.5	1269.5	1207.1	1154.1	1093.1	1002.8	894.7	789.5
45°	1638.2	1577.2	1497.5	1415.3	1330.9	1252.4	1192.9	1124.9	1020.8	894.7	766.1
47.5°	1755.1	1682.0	1586.7	1484.4	1386.1	1300.3	1232.6	1157.4	1046.0	906.1	759.2
50°	1863.2	1779.2	1670.7	1552.0	1441.6	1349.9	1277.2	1199.0	1084.3	935.3	776.0
52.5°	1977.2	1888.1	1755.8	1629.8	1508.1	1409.8	1332.4	1250.6	1134.0	981.3	805.6
55°	2126.6	2022.2	1872.0	1733.2	1599.5	1490.9	1402.9	1312.3	1188.5	1033.2	841.7
57.5°	2362.3	2210.7	2060.5	1880.0	1754.0	1611.1	1514.7	1410.6	1276.9	1100.8	896.2
60°	2774.8	2588.5	2408.0	2200.4	2044.8	1895.4	1749.6	1613.7	1452.6	1253.5	1015.6
62.5°	3363.7	3174.4	2890.9	2637.0	2402.1	2204.1	2014.1	1841.3	1634.5	1416.8	1162.9
65°	3715.5	3498.8	3160.9	2819.7	2534.3	2288.9	2071.5	1859.9	1636.7	1424.5	1207.4
66°	3743.6	3538.7	3177.7	2817.1	2520.8	2266.2	2040.1	1821.2	1592.5	1389.4	1192.9
67.5°	3691.4	3514.9	3143.4	2767.4	2464.6	2189.5	1957.1	1727.7	1497.9	1309.7	1144.3
70°	3322.7	3195.2	2876.7	2524.5	2222.3	1979.8	1734.7	1514.0	1296.2	1138.0	1015.3
72.5°	2724.0	2562.5	2339.6	2102.9	1865.0	1649.9	1427.0	1239.2	1056.5	941.5	854.5
75°	2000.9	1855.6	1610.0	1462.4	1305.4	1170.2	1020.0	842.1	712.4	654.7	633.5
77.5°	1268.5	1110.7	903.5	740.5	636.8	547.3	431.5	343.1	274.7	286.1	316.7
80°	640.8	552.0	413.2	326.2	282.1	234.5	185.6	140.6	102.7	117.3	132.6
82.5°	411.4	343.4	273.7	215.6	181.9	160.4	128.2	93.2	69.4	78.2	95.7
85°	247.7	209.3	167.0	136.6	118.7	99.0	72.7	51.5	51.1	54.8	67.6
87.5°	37.6	53.7	31.1	33.2	35.1	37.6	33.2	28.1	24.5	31.8	40.2
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: P159739

CATALOG NUMBER: VST-E02-LED-E-U-T4-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8
2.5°	754.1	754.8	756.2	758.1	757.7	760.3	761.8	760.3	763.6	763.6	765.4
5°	767.9	769.0	771.6	773.4	774.2	776.3	777.1	776.7	777.4	777.8	778.6
7.5°	772.0	774.9	776.0	777.1	777.4	778.2	778.2	777.4	777.4	777.1	777.8
10°	770.9	772.0	772.7	772.3	772.3	771.6	771.2	770.9	770.9	770.2	771.2
12.5°	767.2	767.2	767.2	766.5	766.5	766.1	766.1	766.1	766.9	767.2	769.0
15°	759.9	759.9	760.6	760.3	761.3	763.2	765.4	766.9	768.7	769.0	770.2
17.5°	748.6	748.9	751.1	755.9	760.6	766.1	770.2	771.2	769.8	766.1	763.6
20°	728.9	733.6	742.4	753.7	764.3	771.2	773.0	768.7	761.8	752.2	747.1
22.5°	711.3	720.8	736.5	755.2	768.3	773.0	767.6	757.4	744.9	734.0	726.3
25°	718.3	729.2	745.7	761.8	770.2	767.6	756.6	742.0	728.9	716.0	703.6
27.5°	747.5	758.5	770.2	774.9	772.0	762.5	747.1	731.4	713.9	695.6	680.3
30°	775.3	781.4	782.2	777.4	766.9	751.5	733.6	715.3	693.1	671.1	651.8
32.5°	784.0	776.7	763.6	750.1	735.4	719.7	698.9	674.8	651.1	626.2	604.6
35°	781.4	751.9	719.3	690.5	673.0	655.1	636.1	603.9	577.3	556.0	542.2
37.5°	758.5	704.4	654.3	612.3	584.9	563.7	535.6	508.9	485.9	476.4	465.1
40°	726.3	643.7	574.3	515.5	487.0	460.0	428.5	408.1	401.5	392.8	393.1
42.5°	680.3	572.9	483.4	415.7	384.7	355.1	332.8	320.8	321.1	313.8	315.3
45°	631.7	501.6	389.1	321.8	291.2	266.0	253.6	249.9	250.3	250.6	248.5
47.5°	602.1	446.1	312.0	244.0	217.0	202.7	196.2	194.3	194.7	195.1	192.5
50°	597.7	417.2	260.5	186.7	169.1	161.1	157.8	156.0	156.0	154.6	152.3
52.5°	610.1	409.9	235.3	161.8	145.0	137.8	135.2	133.7	131.5	128.6	124.6
55°	629.8	416.5	227.6	153.4	137.0	129.7	126.4	125.7	122.0	116.5	110.0
57.5°	666.4	440.2	232.7	155.6	138.5	131.9	129.7	128.9	123.8	115.4	107.0
60°	771.2	509.3	258.3	168.1	149.0	143.6	143.6	142.5	135.5	123.5	111.4
62.5°	915.9	610.5	293.0	185.2	163.7	163.0	169.1	169.5	157.1	137.8	118.7
65°	985.7	658.0	305.0	188.9	167.7	176.1	188.5	188.5	171.0	144.3	119.8
66°	986.0	656.9	301.4	184.5	163.3	174.2	187.1	187.1	168.8	142.5	118.0
67.5°	960.8	636.4	289.3	176.5	153.4	163.7	175.0	174.7	158.2	135.2	112.9
70°	861.8	563.0	255.0	163.3	141.8	142.1	146.2	143.6	132.6	116.9	102.7
72.5°	743.1	470.9	221.0	154.9	132.6	125.7	122.4	120.2	113.3	103.7	95.0
75°	569.9	365.7	192.5	147.2	124.6	112.5	108.1	106.3	101.6	96.1	89.2
77.5°	349.3	250.6	163.3	134.8	115.4	104.5	99.7	96.1	91.3	86.2	81.5
80°	150.5	151.3	130.8	114.4	100.4	87.7	81.5	77.1	74.5	72.7	70.1
82.5°	105.2	108.5	99.7	88.8	76.7	67.6	62.1	61.0	61.4	61.4	60.7
85°	78.9	77.5	69.8	63.5	58.1	52.3	47.9	47.5	49.0	49.0	47.9
87.5°	45.7	46.0	39.5	36.9	38.3	32.9	29.9	30.3	34.0	33.6	32.9
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: P159739

CATALOG NUMBER: VST-E02-LED-E-U-T4-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	743.8	743.8	743.8	743.8	743.8
2.5°	765.4	766.5	766.1	767.2	766.1
5°	779.6	779.3	778.9	780.4	778.6
7.5°	777.4	777.8	777.8	777.8	777.4
10°	772.0	773.4	774.2	775.6	775.3
12.5°	770.2	772.3	774.5	776.7	777.1
15°	770.5	772.0	773.0	774.2	774.5
17.5°	761.0	760.6	759.5	758.8	758.1
20°	741.7	739.8	738.0	735.1	736.5
22.5°	717.5	712.4	706.6	701.8	701.5
25°	689.4	679.9	670.4	664.2	662.0
27.5°	664.6	653.2	643.4	637.9	636.4
30°	635.0	624.7	616.0	611.2	608.3
32.5°	591.1	583.1	572.1	568.4	568.1
35°	530.1	523.9	516.2	514.7	512.9
37.5°	461.0	458.9	455.2	450.8	450.1
40°	387.2	388.7	387.6	385.1	381.1
42.5°	316.0	318.6	319.0	320.8	322.6
45°	251.7	253.9	253.9	255.7	257.9
47.5°	193.3	191.8	192.9	194.7	195.8
50°	146.2	145.0	143.2	141.8	140.3
52.5°	117.7	115.4	110.3	108.9	107.4
55°	103.7	99.7	96.1	94.6	94.6
57.5°	99.7	94.6	90.6	88.8	88.0
60°	100.4	93.2	88.0	85.1	84.0
62.5°	103.7	93.5	86.6	83.3	82.2
65°	103.4	92.8	86.2	82.6	81.5
66°	101.6	91.7	85.5	82.2	81.5
67.5°	98.6	90.2	84.8	81.8	80.8
70°	92.8	87.3	83.3	80.8	79.6
72.5°	88.0	84.4	80.8	77.8	77.1
75°	83.6	80.0	76.7	75.2	74.2
77.5°	77.1	73.8	72.0	70.5	69.8
80°	68.3	66.1	64.0	62.5	61.4
82.5°	59.6	56.6	54.4	53.3	52.6
85°	48.6	46.7	43.5	41.3	40.9
87.5°	32.5	30.7	29.6	27.8	25.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)