

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: P159750

Luminaire Tested: **VST-E03-LED-E-U-T4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159750
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-E03-LED-E-U-T4
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8929.1 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 75.2
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

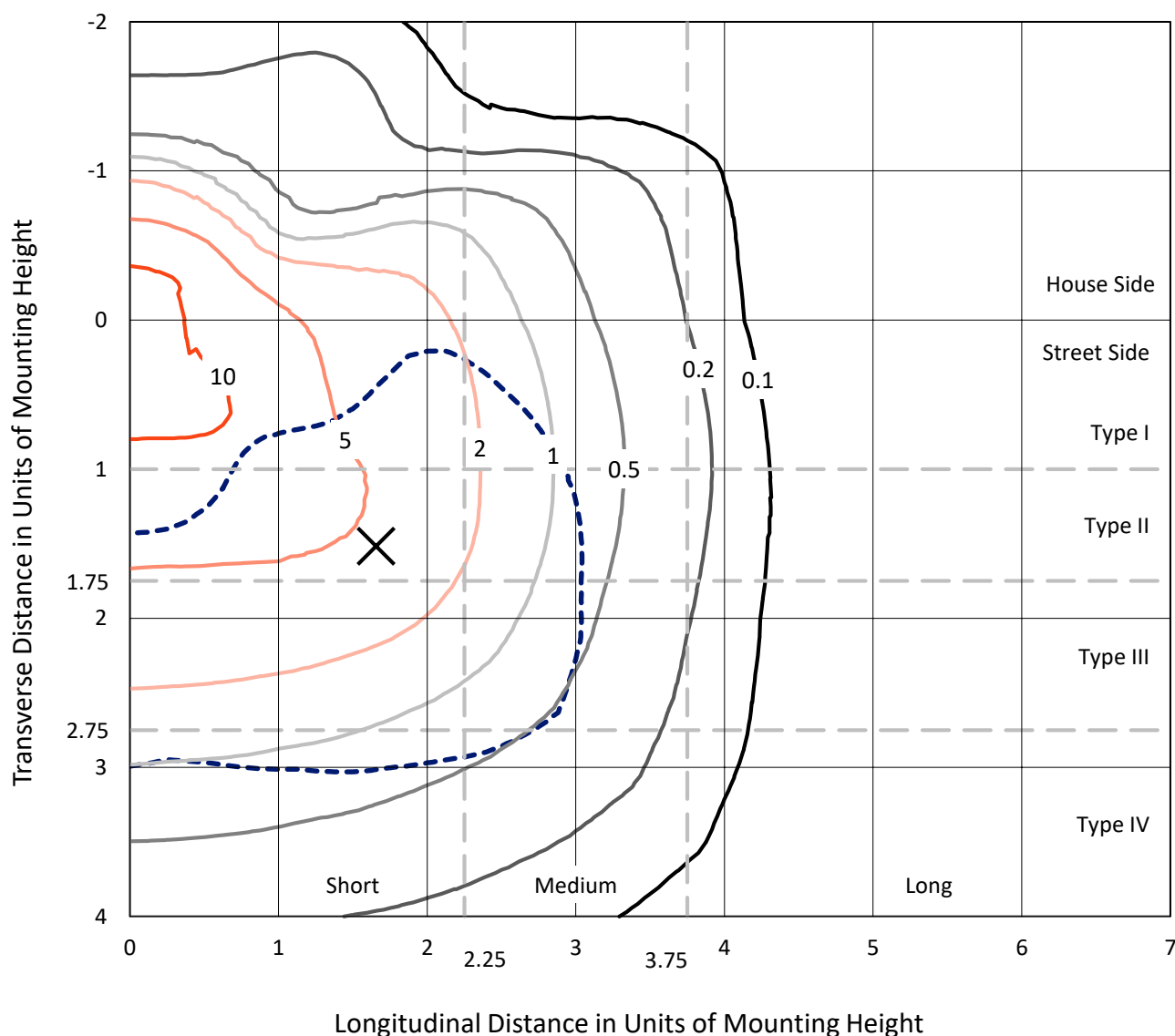


REPORT NUMBER: P159750

CATALOG NUMBER: VST-E03-LED-E-U-T4

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

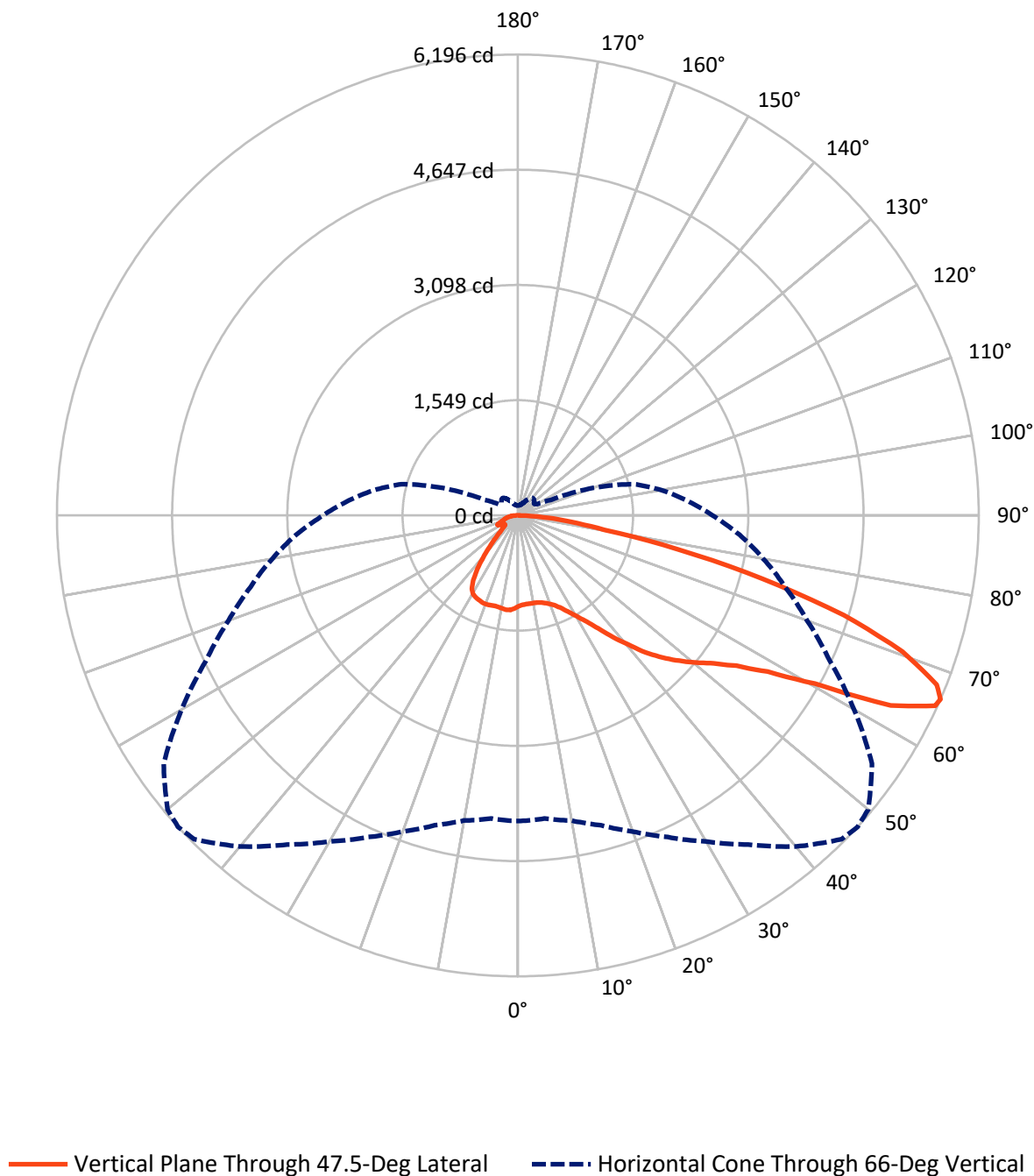


Based on 10 foot mounting height. Maximum calculated value = 12.5 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P159750

CATALOG NUMBER: VST-E03-LED-E-U-T4

Luminous Intensity Polar Plot



REPORT NUMBER: P159750

CATALOG NUMBER: VST-E03-LED-E-U-T4

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1848.7	0.0	1848.7
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	7080.4	0.0	7080.4
	% Fixture	79.3	0.0	79.3
Total	Lumens	8929.1	0.0	8929.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.7	1.3
10°-20°	353.1	4.0
20°-30°	602.4	6.7
30°-40°	909.3	10.2
40°-50°	1181.9	13.2
50°-60°	1621.4	18.2
60°-70°	2494.3	27.9
70°-80°	1441.8	16.1
80°-90°	207.1	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°	8929.1	100.0
0°-180°	8929.1	100.0

Coefficient of Utilization



REPORT NUMBER: P159750

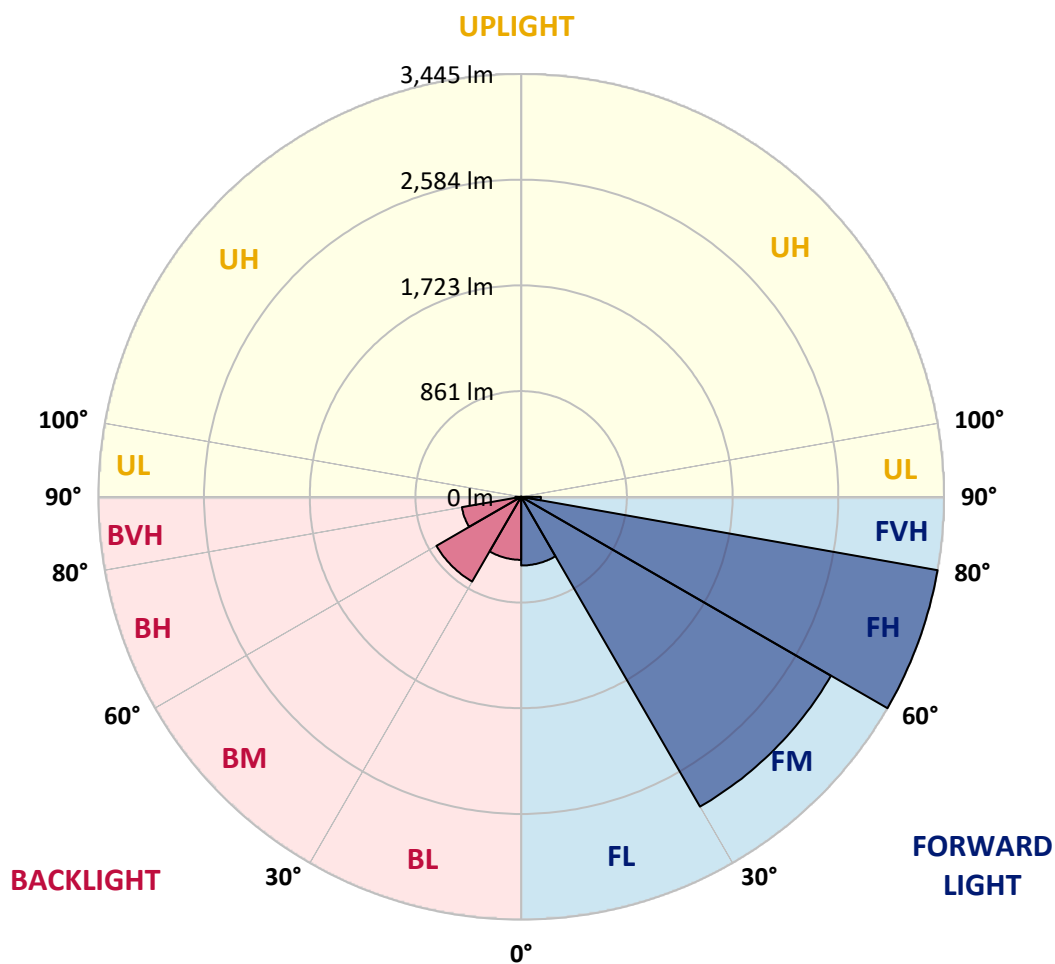
CATALOG NUMBER: VST-E03-LED-E-U-T4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	559.7	6.3			
FM	(30°-60°)	2915.0	32.6			
FH	(60°-80°)	3445.4	38.6			G2/5000
FVH	(80°-90°)	160.3	1.8			G2/225
BL	(0°-30°)	513.6	5.8	B2/1000		
BM	(30°-60°)	797.6	8.9	B1/1000		
BH	(60°-80°)	490.7	5.5	B1/500		G1/500
BVH	(80°-90°)	46.8	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





REPORT NUMBER: P159750

CATALOG NUMBER: VST-E03-LED-E-U-T4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6
2.5°	1190.4	1191.0	1191.6	1191.6	1193.4	1193.4	1196.4	1198.2	1198.8	1202.4	1204.8
5°	1168.2	1167.6	1168.2	1169.4	1172.4	1174.8	1180.8	1185.0	1188.6	1194.6	1197.6
7.5°	1158.6	1159.8	1161.0	1161.6	1164.0	1170.0	1175.4	1179.6	1186.8	1194.0	1197.0
10°	1171.2	1173.0	1171.2	1172.4	1172.4	1177.8	1180.2	1183.2	1188.6	1195.2	1197.0
12.5°	1200.6	1204.2	1200.6	1197.6	1195.2	1200.0	1198.8	1196.4	1199.4	1201.2	1201.2
15°	1249.2	1249.2	1246.8	1242.6	1236.6	1237.2	1231.8	1226.4	1224.0	1219.8	1216.8
17.5°	1296.6	1295.4	1290.0	1284.6	1280.4	1278.6	1270.8	1263.6	1255.2	1248.6	1241.4
20°	1342.8	1347.6	1341.0	1333.2	1326.6	1322.4	1316.4	1302.0	1291.8	1281.0	1273.8
22.5°	1422.6	1418.4	1411.2	1399.8	1393.2	1386.0	1373.4	1357.8	1342.2	1329.0	1320.0
25°	1504.8	1500.6	1490.4	1482.0	1472.4	1466.4	1452.6	1433.4	1418.4	1398.0	1386.0
27.5°	1593.0	1589.4	1577.4	1570.8	1564.2	1557.0	1545.0	1525.2	1511.4	1488.0	1475.4
30°	1692.6	1692.0	1675.8	1674.6	1665.0	1657.2	1648.8	1632.0	1618.2	1594.8	1579.8
32.5°	1798.8	1796.4	1785.0	1781.4	1788.0	1782.6	1770.6	1753.2	1735.2	1721.4	1704.6
35°	1950.0	1945.8	1939.2	1942.2	1946.4	1961.4	1942.8	1927.8	1906.2	1888.2	1864.8
37.5°	2060.4	2054.4	2062.2	2079.0	2103.0	2114.4	2130.6	2131.2	2121.0	2097.0	2076.6
40°	2161.8	2159.4	2177.4	2200.8	2245.2	2277.6	2308.2	2323.2	2326.8	2311.2	2280.6
42.5°	2247.6	2254.8	2278.8	2314.8	2377.2	2426.4	2483.4	2518.8	2541.0	2532.6	2518.8
45°	2349.6	2353.2	2382.6	2428.2	2487.6	2569.2	2644.2	2704.2	2743.2	2742.6	2727.0
47.5°	2477.4	2478.0	2503.2	2556.6	2620.2	2703.0	2797.8	2877.6	2929.2	2931.6	2919.6
50°	2629.2	2628.0	2655.6	2706.0	2773.8	2853.6	2954.4	3054.0	3126.0	3126.0	3108.6
52.5°	2824.8	2822.4	2837.4	2881.8	2947.2	3031.2	3131.4	3246.6	3324.6	3341.4	3303.6
55°	3085.8	3089.4	3093.0	3132.0	3187.8	3254.4	3369.6	3475.8	3580.2	3589.8	3567.6
57.5°	3387.6	3375.6	3401.4	3465.0	3528.6	3612.0	3693.6	3819.0	3942.6	3963.6	3960.6
60°	3859.2	3843.6	3870.0	3951.0	4021.2	4152.6	4292.4	4454.4	4600.8	4644.0	4591.8
62.5°	4293.0	4312.2	4348.2	4442.4	4544.4	4719.6	4929.6	5207.4	5485.2	5636.4	5625.6
65°	4254.0	4236.0	4305.0	4433.4	4618.2	4841.4	5102.4	5437.2	5837.4	6141.0	6168.0
66°	4109.4	4090.8	4165.2	4312.2	4523.4	4771.8	5061.6	5402.4	5811.6	6154.8	6196.2
67.5°	3870.6	3852.0	3936.0	4069.8	4287.6	4600.2	4913.4	5286.0	5711.4	6040.2	6073.8
70°	3409.8	3384.6	3450.0	3601.2	3777.6	4080.0	4378.2	4773.0	5209.8	5472.6	5485.2
72.5°	2888.4	2829.6	2899.2	3015.6	3141.6	3391.8	3651.6	3921.6	4269.6	4512.6	4582.2
75°	2095.8	2126.4	2146.8	2223.6	2307.0	2514.0	2666.4	2892.6	3162.0	3337.8	3393.6
77.5°	1111.8	1158.0	1186.8	1263.6	1401.6	1559.4	1724.4	1864.2	2041.2	2139.6	2208.0
80°	624.0	656.4	703.2	763.8	831.0	952.2	1050.0	1122.0	1147.2	1164.6	1180.2
82.5°	343.2	425.4	495.0	537.0	576.6	625.2	683.4	743.4	762.6	733.8	718.8
85°	53.4	78.6	239.4	292.2	318.0	355.2	397.2	441.6	442.2	380.4	415.2
87.5°	15.0	16.8	34.2	51.6	50.4	40.8	50.4	91.8	54.0	27.0	31.2
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: P159750

CATALOG NUMBER: VST-E03-LED-E-U-T4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6
2.5°	1206.0	1207.2	1210.2	1213.2	1216.2	1219.2	1221.0	1224.0	1226.4	1230.0	1234.2
5°	1201.2	1204.2	1209.6	1216.2	1222.2	1227.6	1231.8	1237.8	1243.2	1248.0	1255.2
7.5°	1201.2	1207.2	1216.2	1223.4	1228.8	1235.4	1242.0	1248.0	1254.0	1258.8	1263.6
10°	1201.8	1207.8	1216.8	1225.2	1231.2	1238.4	1243.8	1249.2	1255.8	1258.8	1264.8
12.5°	1204.2	1206.6	1213.2	1221.6	1228.8	1236.0	1241.4	1246.8	1254.0	1255.2	1259.4
15°	1216.2	1212.6	1214.4	1220.4	1228.2	1234.2	1240.2	1244.4	1249.2	1248.0	1251.6
17.5°	1238.4	1229.4	1225.8	1226.4	1230.0	1234.2	1236.6	1237.2	1237.8	1232.4	1233.0
20°	1268.4	1255.8	1247.4	1243.2	1238.4	1234.2	1227.6	1219.8	1212.6	1201.8	1200.6
22.5°	1313.4	1294.8	1285.8	1274.4	1260.0	1242.0	1225.8	1206.6	1191.0	1174.8	1168.8
25°	1378.8	1359.6	1350.0	1332.0	1306.2	1280.4	1257.0	1231.2	1208.4	1189.2	1180.2
27.5°	1466.4	1447.2	1437.0	1418.4	1386.6	1360.8	1328.4	1300.8	1273.2	1245.0	1233.6
30°	1572.6	1555.8	1544.4	1529.4	1501.8	1473.6	1435.8	1393.2	1349.4	1304.4	1282.2
32.5°	1698.0	1679.4	1671.0	1653.6	1624.8	1595.4	1553.4	1498.8	1425.6	1354.8	1310.4
35°	1854.6	1833.6	1824.0	1801.2	1767.6	1724.4	1679.4	1606.2	1507.2	1408.8	1336.2
37.5°	2064.0	2017.2	1985.4	1933.2	1879.2	1818.6	1754.4	1679.4	1562.4	1440.6	1339.8
40°	2249.4	2202.0	2140.8	2065.8	1981.8	1898.4	1825.2	1740.0	1612.8	1463.4	1328.4
42.5°	2479.8	2395.8	2298.0	2196.6	2085.0	1982.4	1895.4	1795.2	1647.0	1469.4	1296.6
45°	2690.4	2590.2	2459.4	2324.4	2185.8	2056.8	1959.0	1847.4	1676.4	1469.4	1258.2
47.5°	2882.4	2762.4	2605.8	2437.8	2276.4	2135.4	2024.4	1900.8	1717.8	1488.0	1246.8
50°	3060.0	2922.0	2743.8	2548.8	2367.6	2217.0	2097.6	1969.2	1780.8	1536.0	1274.4
52.5°	3247.2	3100.8	2883.6	2676.6	2476.8	2315.4	2188.2	2053.8	1862.4	1611.6	1323.0
55°	3492.6	3321.0	3074.4	2846.4	2626.8	2448.6	2304.0	2155.2	1951.8	1696.8	1382.4
57.5°	3879.6	3630.6	3384.0	3087.6	2880.6	2646.0	2487.6	2316.6	2097.0	1807.8	1471.8
60°	4557.0	4251.0	3954.6	3613.8	3358.2	3112.8	2873.4	2650.2	2385.6	2058.6	1668.0
62.5°	5524.2	5213.4	4747.8	4330.8	3945.0	3619.8	3307.8	3024.0	2684.4	2326.8	1909.8
65°	6102.0	5746.2	5191.2	4630.8	4162.2	3759.0	3402.0	3054.6	2688.0	2339.4	1983.0
66°	6148.2	5811.6	5218.8	4626.6	4140.0	3721.8	3350.4	2991.0	2615.4	2281.8	1959.0
67.5°	6062.4	5772.6	5162.4	4545.0	4047.6	3595.8	3214.2	2837.4	2460.0	2151.0	1879.2
70°	5457.0	5247.6	4724.4	4146.0	3649.8	3251.4	2848.8	2486.4	2128.8	1869.0	1667.4
72.5°	4473.6	4208.4	3842.4	3453.6	3063.0	2709.6	2343.6	2035.2	1735.2	1546.2	1403.4
75°	3286.2	3047.4	2644.2	2401.8	2143.8	1921.8	1675.2	1383.0	1170.0	1075.2	1040.4
77.5°	2083.2	1824.0	1483.8	1216.2	1045.8	898.8	708.6	563.4	451.2	469.8	520.2
80°	1052.4	906.6	678.6	535.8	463.2	385.2	304.8	231.0	168.6	192.6	217.8
82.5°	675.6	564.0	449.4	354.0	298.8	263.4	210.6	153.0	114.0	128.4	157.2
85°	406.8	343.8	274.2	224.4	195.0	162.6	119.4	84.6	84.0	90.0	111.0
87.5°	61.8	88.2	51.0	54.6	57.6	61.8	54.6	46.2	40.2	52.2	66.0
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: P159750

CATALOG NUMBER: VST-E03-LED-E-U-T4

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6	1221.6
2.5°	1238.4	1239.6	1242.0	1245.0	1244.4	1248.6	1251.0	1248.6	1254.0	1254.0	1257.0
5°	1261.2	1263.0	1267.2	1270.2	1271.4	1275.0	1276.2	1275.6	1276.8	1277.4	1278.6
7.5°	1267.8	1272.6	1274.4	1276.2	1276.8	1278.0	1278.0	1276.8	1276.8	1276.2	1277.4
10°	1266.0	1267.8	1269.0	1268.4	1268.4	1267.2	1266.6	1266.0	1266.0	1264.8	1266.6
12.5°	1260.0	1260.0	1260.0	1258.8	1258.8	1258.2	1258.2	1258.2	1259.4	1260.0	1263.0
15°	1248.0	1248.0	1249.2	1248.6	1250.4	1253.4	1257.0	1259.4	1262.4	1263.0	1264.8
17.5°	1229.4	1230.0	1233.6	1241.4	1249.2	1258.2	1264.8	1266.6	1264.2	1258.2	1254.0
20°	1197.0	1204.8	1219.2	1237.8	1255.2	1266.6	1269.6	1262.4	1251.0	1235.4	1227.0
22.5°	1168.2	1183.8	1209.6	1240.2	1261.8	1269.6	1260.6	1243.8	1223.4	1205.4	1192.8
25°	1179.6	1197.6	1224.6	1251.0	1264.8	1260.6	1242.6	1218.6	1197.0	1176.0	1155.6
27.5°	1227.6	1245.6	1264.8	1272.6	1267.8	1252.2	1227.0	1201.2	1172.4	1142.4	1117.2
30°	1273.2	1283.4	1284.6	1276.8	1259.4	1234.2	1204.8	1174.8	1138.2	1102.2	1070.4
32.5°	1287.6	1275.6	1254.0	1231.8	1207.8	1182.0	1147.8	1108.2	1069.2	1028.4	993.0
35°	1283.4	1234.8	1181.4	1134.0	1105.2	1075.8	1044.6	991.8	948.0	913.2	890.4
37.5°	1245.6	1156.8	1074.6	1005.6	960.6	925.8	879.6	835.8	798.0	782.4	763.8
40°	1192.8	1057.2	943.2	846.6	799.8	755.4	703.8	670.2	659.4	645.0	645.6
42.5°	1117.2	940.8	793.8	682.8	631.8	583.2	546.6	526.8	527.4	515.4	517.8
45°	1037.4	823.8	639.0	528.6	478.2	436.8	416.4	410.4	411.0	411.6	408.0
47.5°	988.8	732.6	512.4	400.8	356.4	333.0	322.2	319.2	319.8	320.4	316.2
50°	981.6	685.2	427.8	306.6	277.8	264.6	259.2	256.2	256.2	253.8	250.2
52.5°	1002.0	673.2	386.4	265.8	238.2	226.2	222.0	219.6	216.0	211.2	204.6
55°	1034.4	684.0	373.8	252.0	225.0	213.0	207.6	206.4	200.4	191.4	180.6
57.5°	1094.4	723.0	382.2	255.6	227.4	216.6	213.0	211.8	203.4	189.6	175.8
60°	1266.6	836.4	424.2	276.0	244.8	235.8	235.8	234.0	222.6	202.8	183.0
62.5°	1504.2	1002.6	481.2	304.2	268.8	267.6	277.8	278.4	258.0	226.2	195.0
65°	1618.8	1080.6	501.0	310.2	275.4	289.2	309.6	309.6	280.8	237.0	196.8
66°	1619.4	1078.8	495.0	303.0	268.2	286.2	307.2	307.2	277.2	234.0	193.8
67.5°	1578.0	1045.2	475.2	289.8	252.0	268.8	287.4	286.8	259.8	222.0	185.4
70°	1415.4	924.6	418.8	268.2	232.8	233.4	240.0	235.8	217.8	192.0	168.6
72.5°	1220.4	773.4	363.0	254.4	217.8	206.4	201.0	197.4	186.0	170.4	156.0
75°	936.0	600.6	316.2	241.8	204.6	184.8	177.6	174.6	166.8	157.8	146.4
77.5°	573.6	411.6	268.2	221.4	189.6	171.6	163.8	157.8	150.0	141.6	133.8
80°	247.2	248.4	214.8	187.8	165.0	144.0	133.8	126.6	122.4	119.4	115.2
82.5°	172.8	178.2	163.8	145.8	126.0	111.0	102.0	100.2	100.8	100.8	99.6
85°	129.6	127.2	114.6	104.4	95.4	85.8	78.6	78.0	80.4	80.4	78.6
87.5°	75.0	75.6	64.8	60.6	63.0	54.0	49.2	49.8	55.8	55.2	54.0
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: P159750

CATALOG NUMBER: VST-E03-LED-E-U-T4

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1221.6	1221.6	1221.6	1221.6	1221.6
2.5°	1257.0	1258.8	1258.2	1260.0	1258.2
5°	1280.4	1279.8	1279.2	1281.6	1278.6
7.5°	1276.8	1277.4	1277.4	1277.4	1276.8
10°	1267.8	1270.2	1271.4	1273.8	1273.2
12.5°	1264.8	1268.4	1272.0	1275.6	1276.2
15°	1265.4	1267.8	1269.6	1271.4	1272.0
17.5°	1249.8	1249.2	1247.4	1246.2	1245.0
20°	1218.0	1215.0	1212.0	1207.2	1209.6
22.5°	1178.4	1170.0	1160.4	1152.6	1152.0
25°	1132.2	1116.6	1101.0	1090.8	1087.2
27.5°	1091.4	1072.8	1056.6	1047.6	1045.2
30°	1042.8	1026.0	1011.6	1003.8	999.0
32.5°	970.8	957.6	939.6	933.6	933.0
35°	870.6	860.4	847.8	845.4	842.4
37.5°	757.2	753.6	747.6	740.4	739.2
40°	636.0	638.4	636.6	632.4	625.8
42.5°	519.0	523.2	523.8	526.8	529.8
45°	413.4	417.0	417.0	420.0	423.6
47.5°	317.4	315.0	316.8	319.8	321.6
50°	240.0	238.2	235.2	232.8	230.4
52.5°	193.2	189.6	181.2	178.8	176.4
55°	170.4	163.8	157.8	155.4	155.4
57.5°	163.8	155.4	148.8	145.8	144.6
60°	165.0	153.0	144.6	139.8	138.0
62.5°	170.4	153.6	142.2	136.8	135.0
65°	169.8	152.4	141.6	135.6	133.8
66°	166.8	150.6	140.4	135.0	133.8
67.5°	162.0	148.2	139.2	134.4	132.6
70°	152.4	143.4	136.8	132.6	130.8
72.5°	144.6	138.6	132.6	127.8	126.6
75°	137.4	131.4	126.0	123.6	121.8
77.5°	126.6	121.2	118.2	115.8	114.6
80°	112.2	108.6	105.0	102.6	100.8
82.5°	97.8	93.0	89.4	87.6	86.4
85°	79.8	76.8	71.4	67.8	67.2
87.5°	53.4	50.4	48.6	45.6	42.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)