

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: P159756

Luminaire Tested: **VST-F03-LED-E-U-T4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159756
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-F03-LED-E-U-T4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (21) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7563.6 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 78.3
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

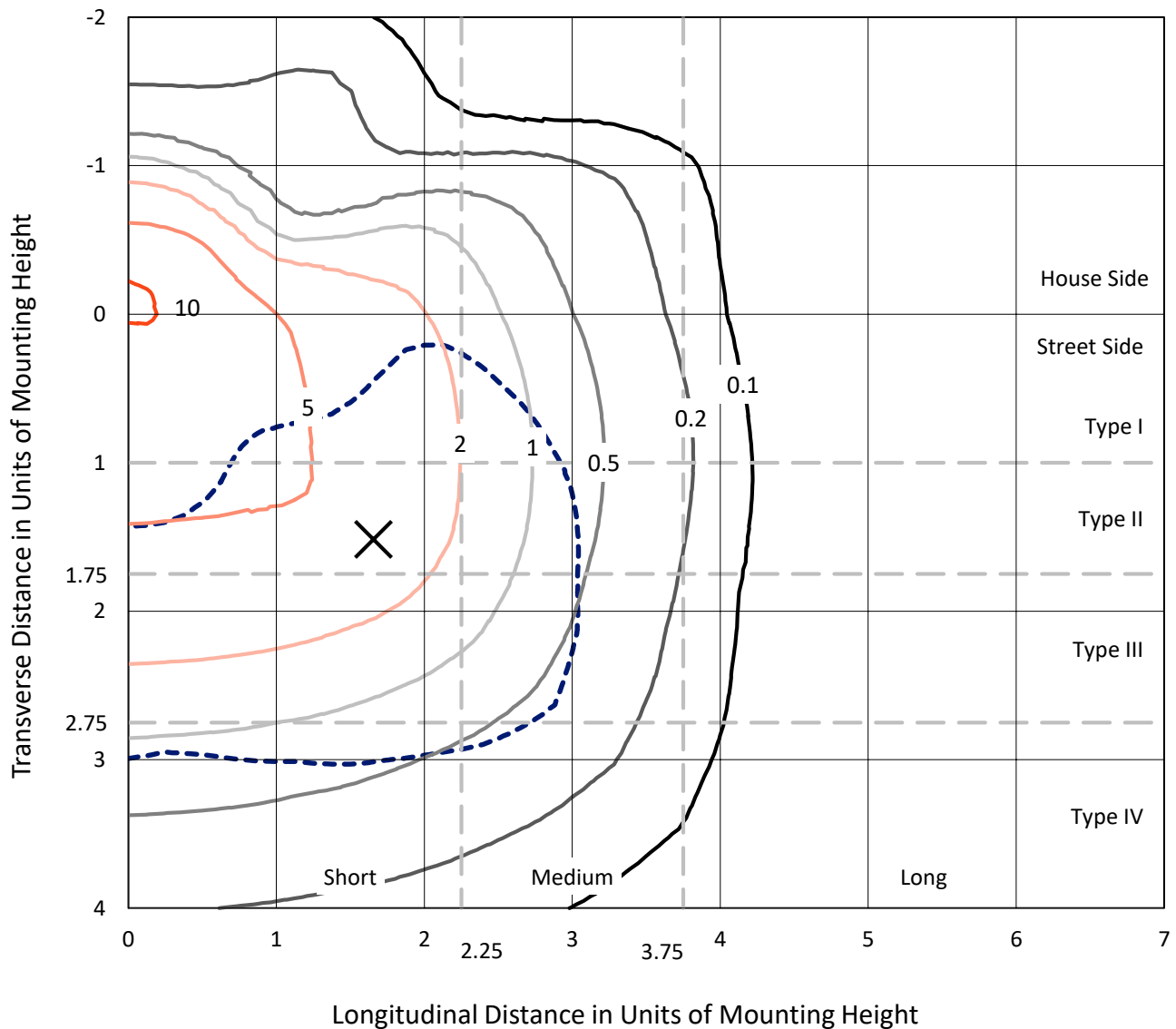


REPORT NUMBER: P159756

CATALOG NUMBER: VST-F03-LED-E-U-T4-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

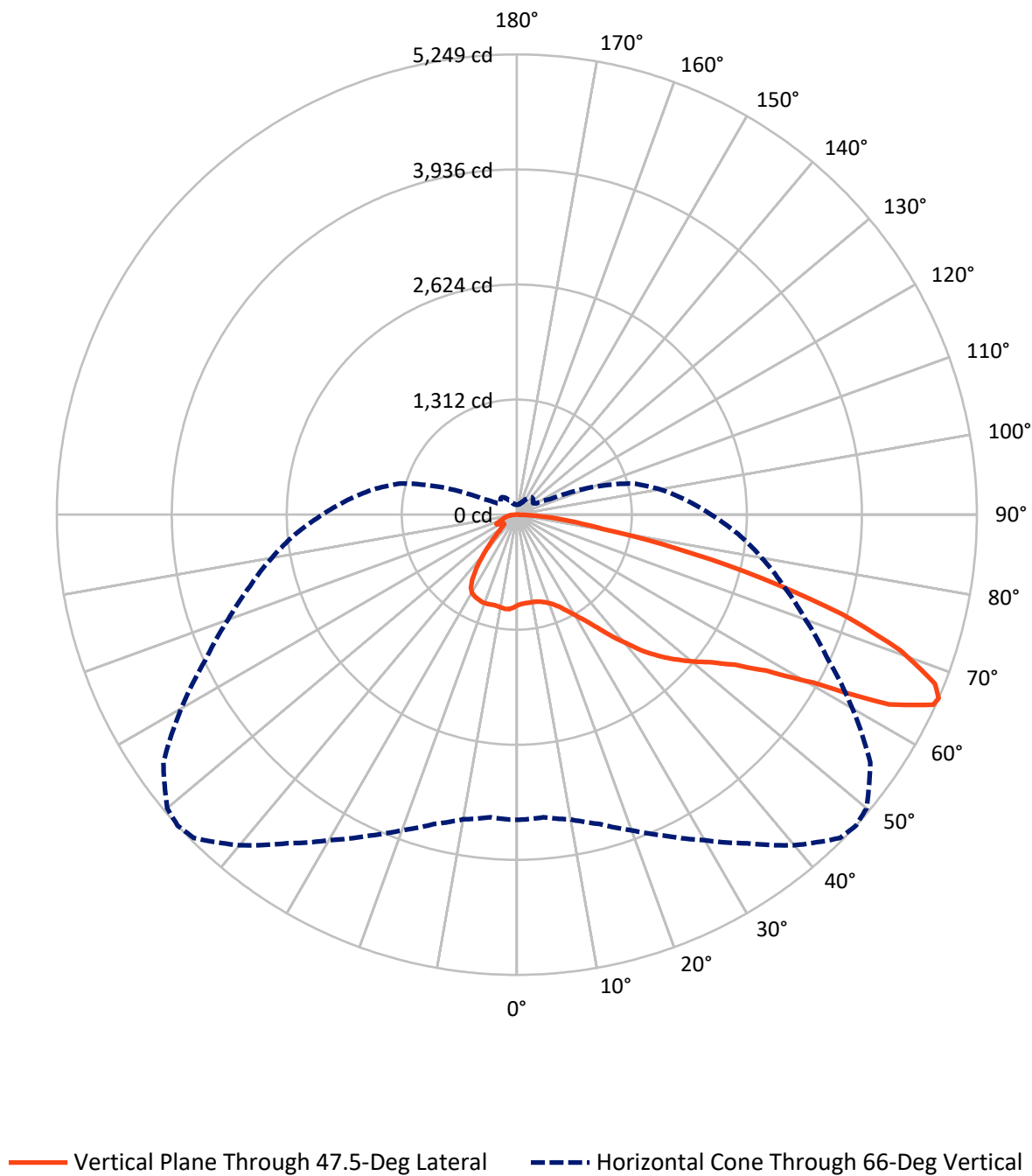


Based on 10 foot mounting height. Maximum calculated value = 10.6 fc
Type IV - Short - Semi-Cutoff

REPORT NUMBER: P159756

CATALOG NUMBER: VST-F03-LED-E-U-T4-7050

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1566.0	0.0	1566.0
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	5997.6	0.0	5997.6
	% Fixture	79.3	0.0	79.3
Total	Lumens	7563.6	0.0	7563.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.7	1.3
10°-20°	299.1	4.0
20°-30°	510.3	6.7
30°-40°	770.2	10.2
40°-50°	1001.1	13.2
50°-60°	1373.5	18.2
60°-70°	2112.8	27.9
70°-80°	1221.3	16.1
80°-90°	175.5	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°	7563.6	100.0
0°-180°	7563.6	100.0

Coefficient of Utilization



REPORT NUMBER: P159756

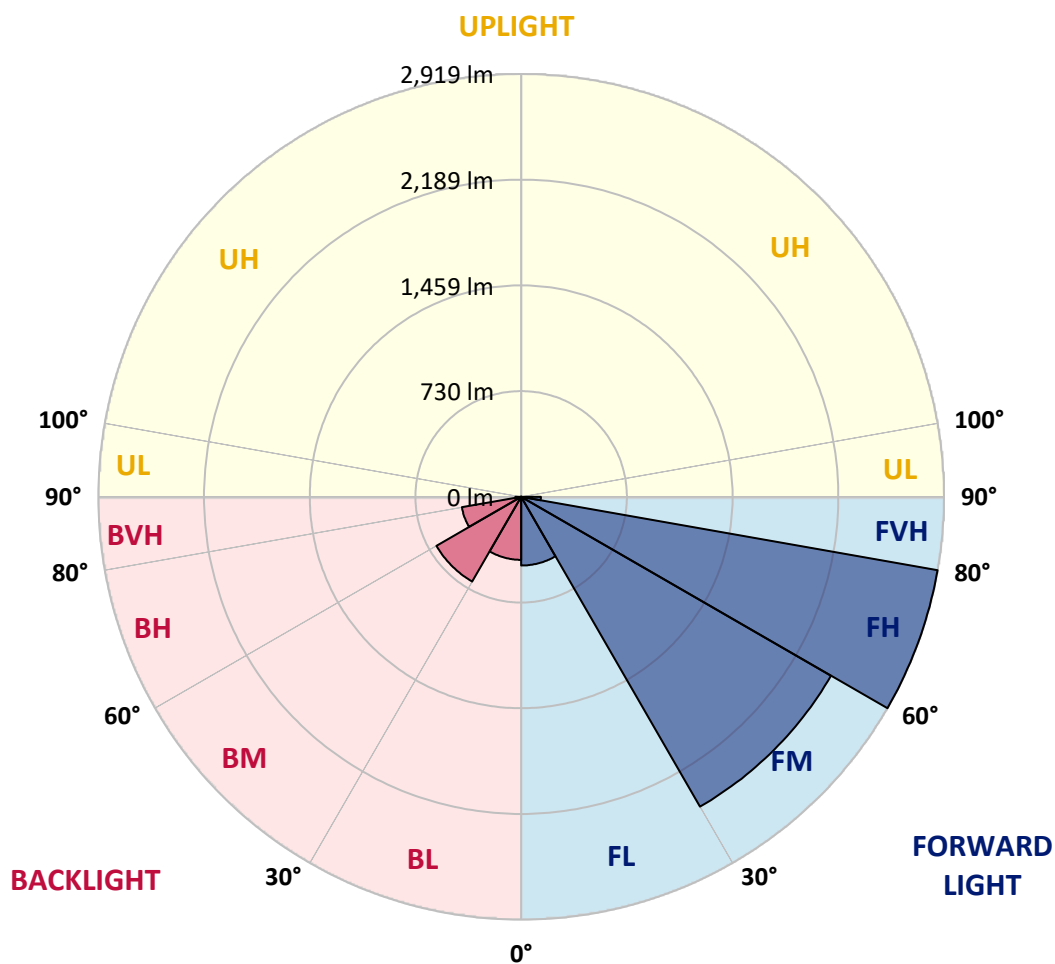
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	474.1	6.3			
FM	(30°-60°)	2469.2	32.6			
FH	(60°-80°)	2918.5	38.6			G2/5000
FVH	(80°-90°)	135.8	1.8			G2/225
BL	(0°-30°)	435.0	5.8	B1/500		
BM	(30°-60°)	675.6	8.9	B1/1000		
BH	(60°-80°)	415.6	5.5	B1/500		G1/500
BVH	(80°-90°)	39.7	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: P159756

CATALOG NUMBER: VST-F03-LED-E-U-T4-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8
2.5°	1008.4	1008.8	1009.4	1009.4	1010.9	1010.9	1013.5	1015.0	1015.5	1018.5	1020.5
5°	989.6	989.0	989.6	990.6	993.1	995.2	1000.2	1003.8	1006.9	1011.9	1014.5
7.5°	981.4	982.4	983.5	983.9	986.0	991.1	995.6	999.2	1005.3	1011.4	1013.9
10°	992.1	993.6	992.1	993.1	993.1	997.7	999.7	1002.2	1006.9	1012.4	1013.9
12.5°	1017.0	1020.1	1017.0	1014.5	1012.4	1016.5	1015.5	1013.5	1016.0	1017.5	1017.5
15°	1058.2	1058.2	1056.1	1052.6	1047.5	1048.0	1043.4	1038.8	1036.8	1033.3	1030.7
17.5°	1098.3	1097.3	1092.7	1088.2	1084.6	1083.1	1076.5	1070.3	1063.3	1057.7	1051.6
20°	1137.5	1141.5	1135.9	1129.3	1123.7	1120.2	1115.1	1102.9	1094.3	1085.1	1079.0
22.5°	1205.0	1201.5	1195.4	1185.7	1180.1	1174.0	1163.4	1150.1	1136.9	1125.8	1118.2
25°	1274.7	1271.1	1262.5	1255.4	1247.2	1242.2	1230.5	1214.2	1201.5	1184.2	1174.0
27.5°	1349.4	1346.3	1336.2	1330.6	1325.0	1318.9	1308.7	1292.0	1280.3	1260.4	1249.8
30°	1433.8	1433.3	1419.5	1418.5	1410.4	1403.8	1396.7	1382.4	1370.8	1350.9	1338.2
32.5°	1523.7	1521.7	1512.0	1509.0	1514.6	1510.0	1499.8	1485.1	1469.8	1458.2	1443.9
35°	1651.8	1648.3	1642.6	1645.2	1648.7	1661.5	1645.7	1633.0	1614.7	1599.4	1579.6
37.5°	1745.3	1740.2	1746.8	1761.1	1781.4	1791.1	1804.8	1805.3	1796.6	1776.3	1759.0
40°	1831.2	1829.2	1844.4	1864.3	1901.9	1929.3	1955.2	1967.9	1971.0	1957.7	1931.8
42.5°	1903.9	1910.0	1930.3	1960.8	2013.7	2055.4	2103.6	2133.6	2152.4	2145.3	2133.6
45°	1990.3	1993.3	2018.2	2056.9	2107.2	2176.3	2239.9	2290.7	2323.7	2323.2	2310.0
47.5°	2098.6	2099.0	2120.4	2165.6	2219.5	2289.7	2369.9	2437.6	2481.2	2483.3	2473.1
50°	2227.1	2226.1	2249.5	2292.2	2349.6	2417.2	2502.6	2587.0	2648.0	2648.0	2633.2
52.5°	2392.8	2390.8	2403.5	2441.1	2496.5	2567.6	2652.5	2750.1	2816.2	2830.4	2798.4
55°	2613.9	2617.0	2620.0	2653.0	2700.3	2756.7	2854.3	2944.3	3032.7	3040.9	3022.0
57.5°	2869.6	2859.4	2881.3	2935.1	2989.0	3059.6	3128.8	3235.0	3339.7	3357.5	3354.9
60°	3269.0	3255.8	3278.2	3346.8	3406.3	3517.6	3636.0	3773.2	3897.2	3933.8	3889.6
62.5°	3636.5	3652.7	3683.3	3763.0	3849.5	3997.9	4175.8	4411.1	4646.4	4774.4	4765.3
65°	3603.5	3588.2	3646.7	3755.4	3911.9	4101.1	4322.1	4605.7	4944.7	5201.9	5224.7
66°	3481.0	3465.2	3528.2	3652.7	3831.7	4042.1	4287.5	4576.3	4922.9	5213.6	5248.6
67.5°	3278.7	3262.9	3334.1	3447.4	3631.9	3896.7	4162.0	4477.6	4838.0	5116.5	5144.9
70°	2888.3	2867.0	2922.4	3050.5	3199.9	3456.1	3708.7	4043.1	4413.1	4635.7	4646.4
72.5°	2446.7	2396.9	2455.9	2554.4	2661.2	2873.1	3093.2	3321.9	3616.7	3822.5	3881.5
75°	1775.3	1801.2	1818.5	1883.6	1954.2	2129.5	2258.6	2450.3	2678.5	2827.4	2874.7
77.5°	941.8	980.9	1005.3	1070.3	1187.3	1320.9	1460.7	1579.1	1729.1	1812.4	1870.3
80°	528.6	556.0	595.7	647.0	703.9	806.6	889.4	950.4	971.8	986.5	999.7
82.5°	290.7	360.4	419.3	454.9	488.4	529.6	578.9	629.7	646.0	621.6	608.9
85°	45.2	66.6	202.8	247.5	269.4	300.9	336.5	374.0	374.6	322.2	351.7
87.5°	12.7	14.2	29.0	43.7	42.7	34.6	42.7	77.8	45.7	22.9	26.4
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: P159756

CATALOG NUMBER: VST-F03-LED-E-U-T4-7050

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8
2.5°	1021.6	1022.6	1025.2	1027.7	1030.2	1032.8	1034.3	1036.8	1038.8	1041.9	1045.4
5°	1017.5	1020.1	1024.6	1030.2	1035.3	1039.9	1043.4	1048.5	1053.1	1057.1	1063.3
7.5°	1017.5	1022.6	1030.2	1036.3	1040.9	1046.5	1052.0	1057.1	1062.2	1066.3	1070.3
10°	1018.0	1023.1	1030.7	1037.8	1042.9	1049.0	1053.6	1058.2	1063.7	1066.3	1071.4
12.5°	1020.1	1022.1	1027.7	1034.8	1040.9	1047.0	1051.6	1056.1	1062.2	1063.3	1066.8
15°	1030.2	1027.1	1028.7	1033.8	1040.4	1045.4	1050.5	1054.1	1058.2	1057.1	1060.2
17.5°	1049.0	1041.4	1038.4	1038.8	1041.9	1045.4	1047.5	1048.0	1048.5	1043.9	1044.4
20°	1074.4	1063.7	1056.7	1053.1	1049.0	1045.4	1039.9	1033.3	1027.1	1018.0	1017.0
22.5°	1112.5	1096.8	1089.2	1079.5	1067.3	1052.0	1038.4	1022.1	1008.8	995.2	990.1
25°	1168.0	1151.7	1143.5	1128.3	1106.5	1084.6	1064.8	1042.9	1023.6	1007.3	999.7
27.5°	1242.2	1225.9	1217.2	1201.5	1174.6	1152.7	1125.2	1101.9	1078.5	1054.6	1045.0
30°	1332.1	1317.9	1308.2	1295.5	1272.1	1248.2	1216.3	1180.1	1143.1	1104.9	1086.1
32.5°	1438.3	1422.6	1415.5	1400.7	1376.3	1351.4	1315.9	1269.6	1207.6	1147.6	1110.0
35°	1571.0	1553.2	1545.1	1525.7	1497.3	1460.7	1422.6	1360.6	1276.7	1193.3	1131.8
37.5°	1748.3	1708.7	1681.8	1637.6	1591.8	1540.5	1486.1	1422.6	1323.5	1220.3	1134.9
40°	1905.4	1865.3	1813.4	1749.9	1678.7	1608.1	1546.1	1473.9	1366.1	1239.6	1125.2
42.5°	2100.6	2029.4	1946.6	1860.7	1766.2	1679.2	1605.5	1520.7	1395.1	1244.7	1098.3
45°	2279.0	2194.1	2083.3	1969.0	1851.5	1742.3	1659.4	1564.9	1420.0	1244.7	1065.8
47.5°	2441.6	2339.9	2207.3	2065.0	1928.3	1808.8	1714.8	1610.1	1455.1	1260.4	1056.1
50°	2592.1	2475.2	2324.2	2159.0	2005.6	1877.9	1776.8	1668.1	1508.5	1301.1	1079.5
52.5°	2750.6	2626.6	2442.6	2267.3	2098.0	1961.3	1853.6	1739.7	1577.6	1365.1	1120.7
55°	2958.5	2813.2	2604.2	2411.1	2225.1	2074.1	1951.7	1825.6	1653.3	1437.3	1171.0
57.5°	3286.3	3075.4	2866.5	2615.5	2440.1	2241.4	2107.2	1962.4	1776.3	1531.3	1246.7
60°	3860.1	3600.9	3349.9	3061.1	2844.7	2636.8	2434.0	2244.9	2020.8	1743.8	1412.9
62.5°	4679.4	4416.1	4021.7	3668.5	3341.7	3066.2	2801.9	2561.6	2273.9	1971.0	1617.7
65°	5168.9	4867.4	4397.3	3922.6	3525.7	3184.1	2881.7	2587.5	2276.9	1981.6	1679.8
66°	5208.0	4922.9	4420.7	3919.1	3506.9	3152.6	2838.1	2533.6	2215.4	1932.8	1659.4
67.5°	5135.3	4889.8	4372.9	3850.0	3428.6	3045.9	2722.7	2403.5	2083.8	1822.1	1591.8
70°	4622.5	4445.1	4001.9	3512.0	3091.7	2754.2	2413.1	2106.2	1803.2	1583.2	1412.4
72.5°	3789.5	3564.8	3254.8	2925.5	2594.6	2295.2	1985.2	1724.0	1469.8	1309.7	1188.8
75°	2783.6	2581.4	2239.9	2034.5	1816.0	1627.9	1419.0	1171.5	991.1	910.8	881.3
77.5°	1764.6	1545.1	1256.9	1030.2	885.9	761.3	600.2	477.2	382.2	398.0	440.6
80°	891.5	767.9	574.8	453.8	392.3	326.3	258.2	195.7	142.8	163.1	184.5
82.5°	572.3	477.8	380.7	299.9	253.1	223.1	178.4	129.6	96.5	108.8	133.1
85°	344.6	291.2	232.3	190.1	165.2	137.8	101.2	71.6	71.2	76.3	94.0
87.5°	52.3	74.7	43.2	46.3	48.8	52.3	46.3	39.1	34.1	44.2	55.9
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: P159756

CATALOG NUMBER: VST-F03-LED-E-U-T4-7050

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8	1034.8
2.5°	1049.0	1050.1	1052.0	1054.6	1054.1	1057.7	1059.7	1057.7	1062.2	1062.2	1064.8
5°	1068.4	1069.9	1073.4	1076.0	1077.0	1080.0	1081.0	1080.5	1081.6	1082.0	1083.1
7.5°	1073.9	1078.0	1079.5	1081.0	1081.6	1082.6	1082.6	1081.6	1081.6	1081.0	1082.0
10°	1072.4	1073.9	1075.0	1074.4	1074.4	1073.4	1072.9	1072.4	1072.4	1071.4	1072.9
12.5°	1067.3	1067.3	1067.3	1066.3	1066.3	1065.8	1065.8	1065.8	1066.8	1067.3	1069.9
15°	1057.1	1057.1	1058.2	1057.7	1059.2	1061.7	1064.8	1066.8	1069.3	1069.9	1071.4
17.5°	1041.4	1041.9	1045.0	1051.6	1058.2	1065.8	1071.4	1072.9	1070.9	1065.8	1062.2
20°	1013.9	1020.5	1032.8	1048.5	1063.3	1072.9	1075.4	1069.3	1059.7	1046.5	1039.4
22.5°	989.6	1002.8	1024.6	1050.5	1068.8	1075.4	1067.8	1053.6	1036.3	1021.1	1010.4
25°	999.2	1014.5	1037.3	1059.7	1071.4	1067.8	1052.6	1032.2	1013.9	996.2	978.9
27.5°	1039.9	1055.1	1071.4	1078.0	1073.9	1060.7	1039.4	1017.5	993.1	967.7	946.4
30°	1078.5	1087.1	1088.2	1081.6	1066.8	1045.4	1020.5	995.2	964.1	933.7	906.7
32.5°	1090.7	1080.5	1062.2	1043.4	1023.1	1001.2	972.3	938.7	905.7	871.1	841.1
35°	1087.1	1046.0	1000.7	960.6	936.2	911.3	884.9	840.1	803.0	773.5	754.3
37.5°	1055.1	979.9	910.3	851.8	813.7	784.2	745.1	708.0	676.0	662.8	647.0
40°	1010.4	895.5	799.0	717.1	677.5	639.9	596.2	567.7	558.5	546.4	546.9
42.5°	946.4	796.9	672.4	578.4	535.2	494.0	463.0	446.2	446.8	436.6	438.6
45°	878.8	697.8	541.3	447.8	405.1	370.0	352.7	347.6	348.1	348.7	345.6
47.5°	837.6	620.6	434.0	339.5	301.9	282.1	272.9	270.4	270.9	271.4	267.8
50°	831.5	580.4	362.4	259.7	235.3	224.2	219.5	217.0	217.0	215.0	211.9
52.5°	848.8	570.2	327.3	225.2	201.8	191.6	188.0	186.0	182.9	178.9	173.3
55°	876.2	579.4	316.6	213.5	190.6	180.4	175.9	174.8	169.7	162.1	153.0
57.5°	927.1	612.4	323.8	216.5	192.6	183.5	180.4	179.4	172.3	160.6	148.9
60°	1072.9	708.5	359.3	233.8	207.4	199.7	199.7	198.2	188.6	171.8	155.0
62.5°	1274.2	849.3	407.6	257.7	227.7	226.7	235.3	235.8	218.5	191.6	165.2
65°	1371.2	915.4	424.4	262.7	233.3	245.0	262.3	262.3	237.8	200.8	166.7
66°	1371.8	913.8	419.3	256.7	227.2	242.5	260.2	260.2	234.8	198.2	164.2
67.5°	1336.7	885.4	402.5	245.5	213.5	227.7	243.4	242.9	220.1	188.0	157.0
70°	1199.0	783.2	354.8	227.2	197.2	197.7	203.3	199.7	184.5	162.7	142.8
72.5°	1033.8	655.1	307.5	215.5	184.5	174.8	170.3	167.2	157.6	144.4	132.1
75°	792.8	508.7	267.8	204.8	173.3	156.5	150.4	147.9	141.3	133.7	124.0
77.5°	485.9	348.7	227.2	187.6	160.6	145.4	138.8	133.7	127.1	119.9	113.3
80°	209.4	210.4	182.0	159.1	139.7	122.0	113.3	107.2	103.7	101.2	97.6
82.5°	146.4	151.0	138.8	123.5	106.7	94.0	86.4	84.9	85.4	85.4	84.4
85°	109.8	107.8	97.1	88.4	80.8	72.7	66.6	66.1	68.1	68.1	66.6
87.5°	63.5	64.0	54.9	51.4	53.3	45.7	41.7	42.2	47.3	46.7	45.7
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: P159756

CATALOG NUMBER: VST-F03-LED-E-U-T4-7050

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1034.8	1034.8	1034.8	1034.8	1034.8
2.5°	1064.8	1066.3	1065.8	1067.3	1065.8
5°	1084.6	1084.1	1083.6	1085.6	1083.1
7.5°	1081.6	1082.0	1082.0	1082.0	1081.6
10°	1073.9	1076.0	1077.0	1079.0	1078.5
12.5°	1071.4	1074.4	1077.5	1080.5	1081.0
15°	1071.9	1073.9	1075.4	1077.0	1077.5
17.5°	1058.7	1058.2	1056.7	1055.6	1054.6
20°	1031.8	1029.2	1026.7	1022.6	1024.6
22.5°	998.2	991.1	982.9	976.3	975.8
25°	959.0	945.8	932.6	924.0	920.9
27.5°	924.5	908.8	895.0	887.4	885.4
30°	883.3	869.1	856.9	850.3	846.2
32.5°	822.4	811.1	795.9	790.8	790.3
35°	737.5	728.8	718.1	716.1	713.6
37.5°	641.4	638.3	633.3	627.2	626.2
40°	538.7	540.8	539.2	535.7	530.1
42.5°	439.6	443.2	443.7	446.2	448.8
45°	350.2	353.2	353.2	355.8	358.8
47.5°	268.9	266.8	268.4	270.9	272.4
50°	203.3	201.8	199.3	197.2	195.2
52.5°	163.7	160.6	153.5	151.4	149.4
55°	144.4	138.8	133.7	131.6	131.6
57.5°	138.8	131.6	126.1	123.5	122.5
60°	139.7	129.6	122.5	118.4	116.9
62.5°	144.4	130.1	120.5	115.9	114.4
65°	143.8	129.1	119.9	114.8	113.3
66°	141.3	127.6	118.9	114.4	113.3
67.5°	137.2	125.5	117.9	113.8	112.3
70°	129.1	121.5	115.9	112.3	110.8
72.5°	122.5	117.4	112.3	108.2	107.2
75°	116.4	111.3	106.7	104.7	103.2
77.5°	107.2	102.7	100.1	98.1	97.1
80°	95.0	92.0	88.9	86.9	85.4
82.5°	82.9	78.8	75.7	74.2	73.2
85°	67.6	65.0	60.5	57.4	56.9
87.5°	45.2	42.7	41.2	38.6	36.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)