

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: P158446

Luminaire Tested: **VST-F04-LED-E-U-SL3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P158446  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33713)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-F04-LED-E-U-SL3-7050  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL  
Light Source: (28) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10222.1 lumens  
Efficiency: N/A  
Efficacy: 100.0 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 102.2  
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

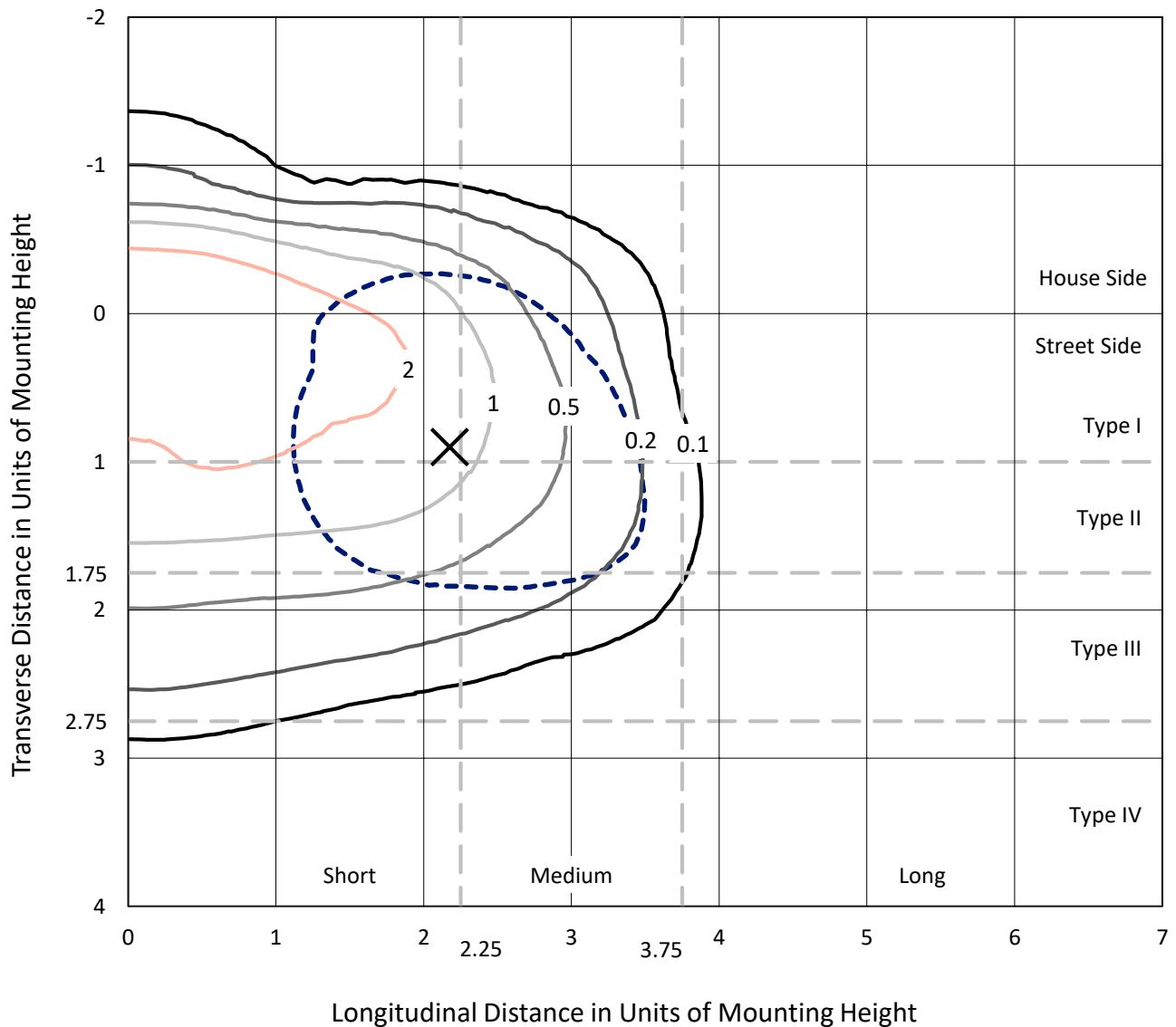


REPORT NUMBER: P158446

CATALOG NUMBER: VST-F04-LED-E-U-SL3-7050

### Iso-Footcandle Lines of Horizontal Illumination

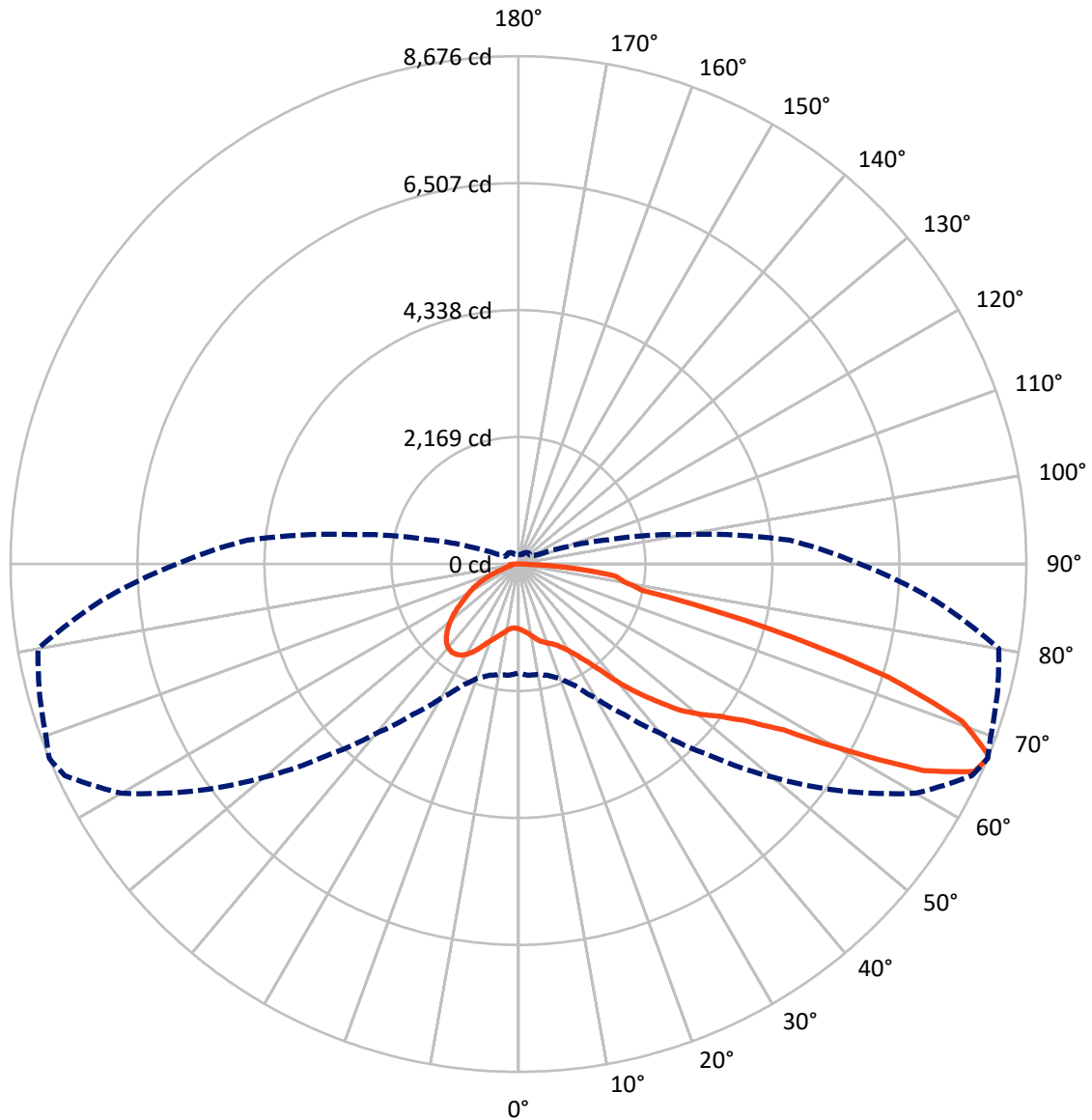
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.5 fc  
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P158446  
CATALOG NUMBER: VST-F04-LED-E-U-SL3-7050

### Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical



REPORT NUMBER: P158446

CATALOG NUMBER: VST-F04-LED-E-U-SL3-7050

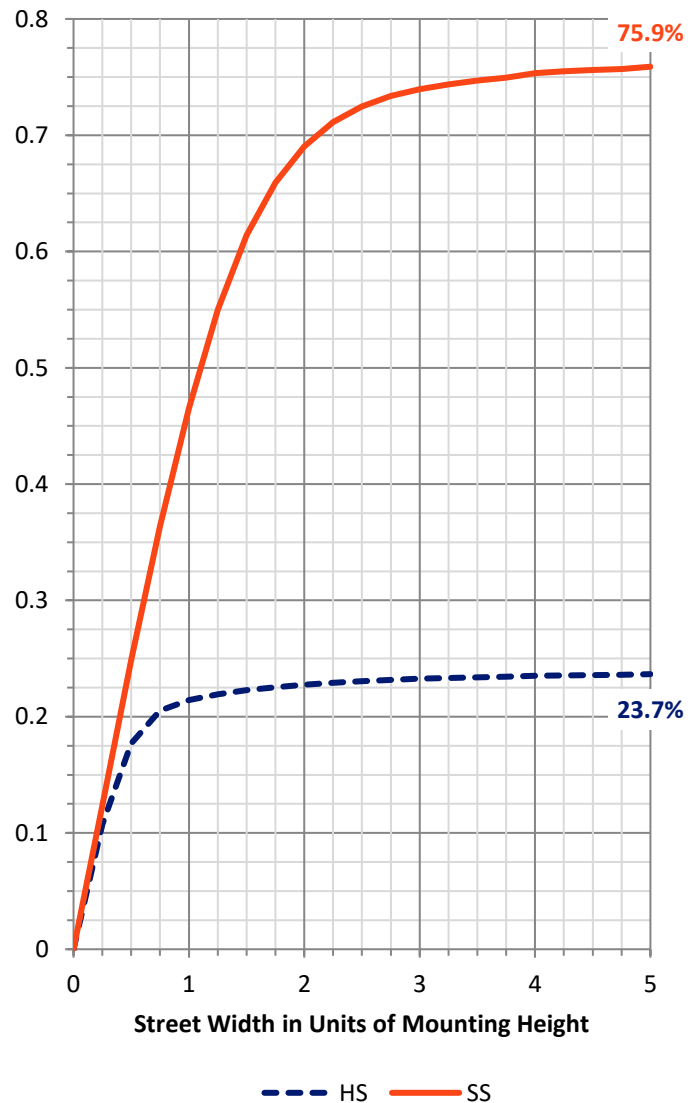
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2452.3	0.0	2452.3
	% Fixture	24.0	0.0	24.0
<b>Street Side</b>	Lumens	7769.8	0.0	7769.8
	% Fixture	76.0	0.0	76.0
<b>Total</b>	Lumens	10222.1	0.0	10222.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.1	1.1
10°-20°	375.2	3.7
20°-30°	669.8	6.6
30°-40°	981.6	9.6
40°-50°	1516.8	14.8
50°-60°	2208.7	21.6
60°-70°	2877.2	28.1
70°-80°	1287.9	12.6
80°-90°	194.7	1.9
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°	10222.1	100.0
0°-180°	10222.1	100.0



REPORT NUMBER: P158446

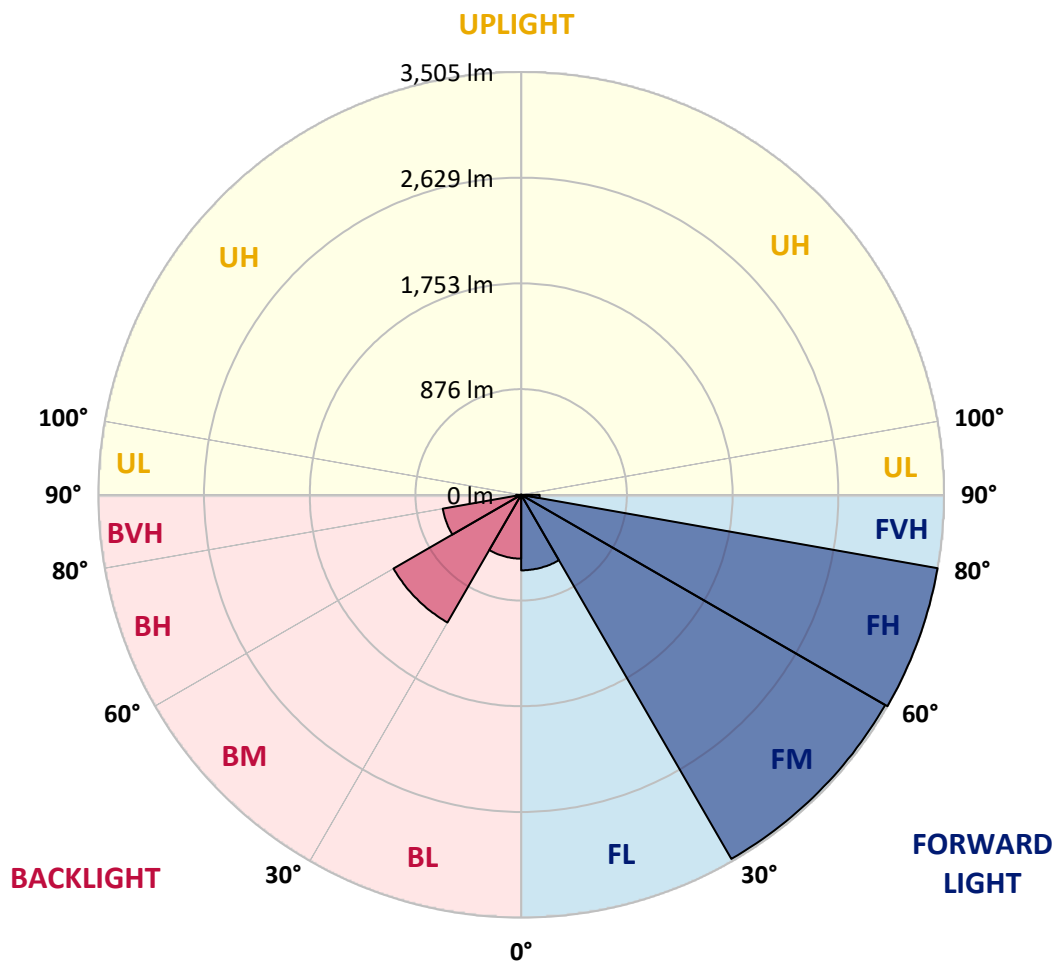
CATALOG NUMBER: VST-F04-LED-E-U-SL3-7050

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	626.3	6.1			
FM	(30°-60°)	3485.2	34.1			
FH	(60°-80°)	3505.3	34.3			G2/5000
FVH	(80°-90°)	152.9	1.5			G2/225
BL	(0°-30°)	528.8	5.2	B2/1000		
BM	(30°-60°)	1221.9	12.0	B2/2500		
BH	(60°-80°)	659.8	6.5	B2/1000		G2/1000
BVH	(80°-90°)	41.8	0.4			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 III Short





REPORT NUMBER: P158446

CATALOG NUMBER: VST-F04-LED-E-U-SL3-7050

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0
2.5°	1151.3	1154.1	1154.7	1154.1	1154.7	1152.0	1151.3	1147.3	1149.3	1143.9	1142.5
5°	1213.7	1215.7	1217.1	1211.7	1213.0	1210.3	1206.9	1202.8	1197.4	1190.0	1185.2
7.5°	1274.7	1278.1	1277.4	1275.4	1270.6	1267.9	1261.1	1255.0	1245.5	1236.7	1230.6
10°	1356.7	1356.0	1356.0	1344.5	1337.7	1331.6	1319.4	1309.9	1300.4	1287.6	1280.8
12.5°	1451.5	1446.8	1444.8	1436.6	1422.4	1411.6	1393.9	1375.7	1358.7	1345.2	1334.3
15°	1543.0	1543.0	1537.6	1524.7	1511.2	1497.0	1471.9	1445.4	1417.7	1396.0	1385.1
17.5°	1626.4	1618.9	1614.2	1597.2	1583.0	1560.0	1532.2	1503.7	1469.2	1438.7	1417.7
20°	1687.4	1681.3	1671.1	1650.1	1625.7	1598.6	1566.1	1532.9	1495.6	1462.4	1438.7
22.5°	1722.6	1715.2	1699.6	1671.8	1638.6	1600.6	1562.7	1531.5	1497.6	1472.6	1452.9
25°	1740.9	1733.5	1712.4	1675.9	1631.1	1581.0	1537.6	1507.1	1487.5	1481.4	1478.7
27.5°	1740.2	1734.1	1711.8	1669.8	1612.2	1554.6	1507.8	1482.0	1480.0	1503.7	1521.3
30°	1722.6	1718.5	1698.2	1656.2	1595.9	1535.6	1492.2	1478.7	1499.7	1549.8	1593.2
32.5°	1705.0	1703.0	1688.7	1650.8	1599.3	1548.5	1518.6	1520.0	1563.4	1640.6	1710.4
35°	1707.0	1709.7	1707.7	1687.4	1654.8	1628.4	1614.2	1644.0	1711.8	1805.3	1898.8
37.5°	1724.6	1734.8	1747.7	1749.7	1750.4	1746.3	1776.1	1839.2	1938.1	2060.1	2206.5
40°	1763.3	1774.8	1812.1	1844.6	1886.6	1936.8	1997.1	2084.5	2207.1	2357.6	2537.2
42.5°	1883.2	1899.5	1945.6	2005.9	2083.1	2161.7	2251.9	2371.1	2521.6	2680.1	2868.5
45°	2039.8	2073.6	2124.5	2191.6	2307.4	2417.9	2534.5	2667.9	2827.9	3026.4	3216.2
47.5°	2234.9	2268.8	2342.7	2414.5	2551.4	2689.0	2816.4	2956.0	3129.4	3332.7	3542.8
50°	2405.7	2444.3	2510.1	2607.0	2765.5	2934.3	3075.2	3226.3	3372.0	3586.2	3798.3
52.5°	2539.9	2567.7	2630.7	2719.5	2896.3	3081.3	3259.5	3427.6	3600.4	3814.6	4011.1
55°	2556.8	2582.6	2644.2	2745.9	2925.5	3130.8	3336.1	3535.4	3780.0	4013.8	4274.0
57.5°	2483.6	2504.6	2567.0	2657.8	2832.6	3066.4	3326.0	3581.4	3894.5	4210.3	4528.1
60°	2379.9	2401.0	2449.7	2522.3	2680.1	2932.2	3235.2	3584.8	4000.9	4457.0	4924.6
62.5°	2266.1	2284.4	2323.7	2375.2	2514.1	2746.6	3093.5	3562.5	4087.6	4702.3	5423.3
65°	2074.3	2118.4	2135.3	2188.2	2327.1	2546.6	2899.7	3411.3	4052.4	4811.4	5736.4
67°	1862.2	1906.9	1915.7	1969.3	2080.4	2291.2	2650.3	3131.5	3773.2	4623.0	5667.3
67.5°	1794.4	1832.4	1845.9	1899.5	2004.5	2203.1	2543.9	3030.5	3687.8	4520.0	5583.9
70°	1319.4	1361.4	1376.3	1398.7	1473.9	1639.3	1864.9	2287.1	2940.4	3688.5	4710.4
72.5°	706.1	740.0	754.2	787.4	826.1	916.2	1089.0	1391.9	1804.6	2468.0	3351.0
75°	477.8	491.3	501.5	524.5	564.5	636.3	712.2	818.6	1068.0	1392.6	1906.9
77.5°	272.4	278.5	279.9	283.9	315.8	384.2	508.9	689.2	883.7	1009.0	1219.8
80°	117.9	130.1	139.6	133.5	131.5	145.7	182.3	271.7	532.6	845.7	1003.6
82.5°	63.7	69.1	77.3	77.9	82.0	86.7	94.2	111.8	157.2	317.1	691.9
85°	33.2	34.6	46.1	52.9	56.2	59.0	60.3	67.1	77.3	98.3	172.1
87.5°	4.7	6.8	8.1	10.8	12.2	12.9	14.9	19.0	22.4	27.1	46.1
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: P158446

CATALOG NUMBER: VST-F04-LED-E-U-SL3-7050

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0
2.5°	1136.4	1135.1	1131.0	1128.3	1125.6	1122.9	1119.5	1116.8	1112.0	1108.7	1104.6
5°	1178.5	1170.3	1164.9	1157.4	1156.1	1147.3	1138.5	1134.4	1126.3	1119.5	1111.4
7.5°	1221.1	1211.7	1202.8	1196.7	1193.4	1181.2	1172.4	1162.2	1152.7	1143.9	1134.4
10°	1271.3	1261.8	1252.3	1248.3	1242.2	1230.6	1223.2	1210.3	1200.8	1190.0	1177.1
12.5°	1323.5	1316.7	1309.9	1304.5	1301.8	1296.4	1285.5	1274.7	1261.8	1251.0	1236.1
15°	1369.6	1364.8	1362.1	1360.7	1360.7	1357.4	1347.2	1337.0	1323.5	1311.3	1295.0
17.5°	1402.1	1400.0	1402.1	1404.1	1406.8	1404.1	1402.1	1390.6	1381.7	1366.8	1350.6
20°	1421.1	1425.1	1435.3	1442.1	1448.2	1452.9	1454.9	1445.4	1433.9	1423.1	1412.2
22.5°	1441.4	1452.9	1470.5	1480.7	1490.9	1507.8	1511.9	1505.1	1496.3	1489.5	1478.0
25°	1475.3	1492.2	1522.7	1539.0	1553.2	1578.3	1581.7	1583.0	1581.0	1575.6	1561.3
27.5°	1528.1	1561.3	1602.0	1623.0	1638.6	1671.1	1684.0	1684.0	1678.6	1684.7	1684.7
30°	1620.3	1664.3	1717.2	1729.4	1753.8	1782.2	1803.3	1806.0	1806.6	1819.5	1838.5
32.5°	1761.9	1803.9	1862.9	1876.4	1897.4	1924.6	1948.3	1945.6	1951.7	1979.4	2004.5
35°	1967.9	2010.6	2049.2	2067.5	2077.0	2101.4	2110.2	2125.1	2143.4	2178.0	2174.6
37.5°	2272.9	2310.8	2316.2	2327.8	2316.2	2321.0	2327.8	2345.4	2394.2	2425.3	2375.2
40°	2640.2	2703.2	2697.1	2683.5	2657.8	2623.2	2635.4	2662.5	2715.4	2688.3	2553.4
42.5°	2986.4	3051.5	3039.3	3023.7	2966.8	2953.9	2952.6	2974.9	3003.4	2926.1	2693.0
45°	3327.3	3393.7	3372.7	3363.9	3326.0	3298.2	3321.2	3322.6	3315.1	3149.8	2815.0
47.5°	3679.0	3740.0	3726.5	3733.9	3694.6	3676.3	3678.3	3668.9	3599.1	3339.5	2909.9
50°	3963.0	4045.0	4053.1	4036.1	4015.1	3987.4	4058.5	4032.8	3877.6	3523.8	3001.4
52.5°	4183.9	4294.3	4336.3	4325.5	4308.6	4312.0	4445.5	4474.6	4217.8	3756.3	3102.3
55°	4445.5	4619.6	4688.1	4728.7	4711.1	4778.9	5084.5	5099.4	4690.8	4059.9	3233.8
57.5°	4822.9	5072.3	5288.5	5346.1	5401.6	5621.9	6117.9	5966.8	5304.7	4519.3	3400.5
60°	5396.9	5943.1	6294.1	6478.4	6608.5	6916.2	7387.9	7005.0	6069.8	5066.2	3609.9
62.5°	6200.6	6998.9	7585.7	7770.7	7824.3	8001.1	8342.7	7610.1	6486.6	5311.5	3628.2
65°	6799.0	7756.5	8459.2	8554.1	8490.4	8493.8	8583.2	7578.3	6331.4	5097.4	3313.8
67°	6759.7	7831.7	8551.4	8676.1	8588.0	8472.1	8332.5	7146.6	5832.6	4648.8	2901.7
67.5°	6699.4	7759.2	8511.4	8642.9	8562.2	8430.1	8226.1	6979.2	5677.4	4509.2	2817.7
70°	5791.3	6843.7	7856.8	8041.8	8075.7	7955.1	7382.4	5884.8	4609.4	3668.2	2188.2
72.5°	4507.8	5445.0	6447.3	6607.9	6738.0	6390.3	5373.2	4064.6	3359.8	2643.6	1584.4
75°	2976.3	3929.8	4435.3	4459.0	4293.0	3649.2	2625.3	2035.7	1873.7	1553.9	980.6
77.5°	1592.5	2310.8	2325.1	2152.9	2074.3	1546.4	627.5	346.3	385.6	437.8	390.3
80°	1187.9	1471.9	1705.7	1833.7	1871.7	1326.2	324.6	183.6	160.6	146.4	144.3
82.5°	1071.4	1421.7	1593.9	1663.7	1646.0	1091.0	182.3	123.3	102.3	111.1	126.7
85°	420.1	759.0	998.2	966.3	811.8	406.6	99.6	66.4	66.4	96.2	124.7
87.5°	86.1	155.9	211.4	201.9	181.6	78.6	48.8	40.0	40.7	77.9	117.9
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: P158446

CATALOG NUMBER: VST-F04-LED-E-U-SL3-7050

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0	1108.0
2.5°	1100.5	1096.5	1093.7	1091.0	1088.3	1087.0	1084.9	1084.9	1080.9	1079.5	1078.2
5°	1105.3	1098.5	1093.7	1087.6	1082.9	1078.8	1073.4	1072.1	1067.3	1063.9	1062.6
7.5°	1125.6	1115.4	1105.3	1097.8	1091.0	1082.2	1076.1	1070.7	1066.0	1062.6	1058.5
10°	1164.2	1153.4	1139.1	1125.6	1116.8	1103.2	1093.7	1084.3	1078.8	1074.8	1069.3
12.5°	1221.1	1205.6	1188.6	1172.4	1157.4	1139.8	1130.3	1118.8	1112.0	1108.7	1104.6
15°	1279.4	1262.5	1241.5	1225.9	1208.9	1195.4	1186.6	1176.4	1171.0	1166.9	1164.2
17.5°	1339.1	1319.4	1304.5	1288.9	1280.8	1270.6	1259.1	1246.2	1230.6	1221.1	1208.3
20°	1400.0	1385.1	1376.3	1367.5	1358.0	1343.8	1320.8	1294.3	1265.2	1237.4	1211.0
22.5°	1471.2	1462.4	1461.0	1452.9	1433.3	1399.4	1356.7	1307.2	1257.7	1211.7	1175.7
25°	1571.5	1571.5	1564.7	1531.5	1485.4	1424.4	1352.6	1281.5	1215.7	1152.7	1105.3
27.5°	1697.5	1692.8	1659.6	1591.1	1508.5	1413.6	1317.4	1227.2	1143.2	1074.1	1013.1
30°	1836.5	1803.3	1732.1	1624.4	1500.3	1378.4	1260.4	1156.1	1057.2	972.4	900.6
32.5°	1980.8	1900.2	1772.1	1624.4	1471.9	1325.5	1189.3	1061.2	948.0	853.2	767.8
35°	2111.6	1964.5	1781.6	1597.9	1416.3	1247.6	1089.7	944.7	809.1	706.8	613.3
37.5°	2230.2	2007.2	1771.4	1546.4	1335.7	1137.8	952.8	792.9	639.7	540.8	460.8
40°	2307.4	2016.0	1729.4	1465.8	1220.5	989.4	784.7	605.8	484.5	394.4	340.9
42.5°	2355.5	1999.1	1661.6	1355.3	1065.3	803.0	588.9	434.4	344.3	294.1	273.8
45°	2382.7	1955.1	1561.3	1204.2	877.6	610.6	418.1	313.8	265.0	247.3	240.6
47.5°	2381.3	1883.9	1436.0	1029.4	670.2	425.6	296.1	244.6	231.1	225.7	224.3
50°	2367.1	1796.5	1288.9	839.6	483.8	296.8	234.5	219.6	216.2	212.8	211.4
52.5°	2347.4	1688.1	1126.3	654.6	343.6	237.2	212.8	208.7	206.0	202.6	201.3
55°	2310.8	1554.6	950.1	492.7	269.0	214.1	205.3	204.0	200.6	195.8	193.1
57.5°	2266.1	1419.0	781.3	384.9	237.9	208.7	204.0	201.9	197.2	191.8	186.4
60°	2249.8	1307.2	649.2	324.6	230.4	210.8	207.4	204.7	197.9	189.7	183.6
62.5°	2148.2	1181.2	554.3	300.9	234.5	219.6	218.2	214.1	204.0	194.5	185.0
65°	1885.3	998.9	469.6	284.6	242.6	234.5	235.8	229.7	219.6	206.7	189.7
67°	1594.5	814.5	391.0	269.0	248.7	250.1	254.8	250.1	237.2	218.9	195.8
67.5°	1517.3	767.8	371.4	264.3	250.1	254.1	259.5	256.2	243.3	222.3	198.6
70°	1127.6	540.8	277.2	239.2	250.1	266.3	278.5	281.9	267.7	238.5	204.0
72.5°	794.2	349.0	212.8	207.4	227.0	248.7	271.7	283.3	267.0	235.1	196.5
75°	477.1	218.2	172.8	176.2	191.1	213.5	231.8	236.5	216.2	195.8	170.1
77.5°	220.9	145.0	135.5	140.3	154.5	164.7	164.7	155.2	139.6	127.4	122.0
80°	130.1	118.6	117.9	126.7	136.2	128.8	117.2	104.4	96.2	92.2	90.1
82.5°	122.0	126.7	134.9	136.9	129.4	111.1	96.9	84.0	80.0	77.9	75.9
85°	143.7	153.8	140.3	129.4	114.5	93.5	75.9	65.1	63.0	61.0	58.3
87.5°	132.8	126.7	110.5	94.9	78.6	56.9	41.3	37.3	40.0	39.3	37.9
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: P158446

CATALOG NUMBER: VST-F04-LED-E-U-SL3-7050

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	1108.0	1108.0	1108.0	1108.0	1108.0
2.5°	1078.8	1078.8	1076.1	1074.8	1078.2
5°	1059.9	1060.5	1058.5	1057.8	1058.5
7.5°	1055.8	1055.1	1053.8	1052.4	1053.8
10°	1068.0	1067.3	1065.3	1066.6	1064.6
12.5°	1104.6	1108.7	1108.0	1109.3	1112.0
15°	1164.2	1163.5	1161.5	1162.9	1164.9
17.5°	1198.1	1192.7	1187.9	1185.9	1185.9
20°	1190.0	1174.4	1166.3	1161.5	1160.2
22.5°	1141.9	1119.5	1102.6	1098.5	1095.1
25°	1063.2	1035.5	1013.8	1009.0	1000.2
27.5°	971.8	934.5	908.7	903.3	898.6
30°	851.8	809.1	779.3	760.3	766.4
32.5°	705.4	664.8	630.2	599.7	595.0
35°	544.8	500.1	469.6	456.1	447.3
37.5°	406.6	369.3	349.0	336.1	336.8
40°	311.0	291.4	280.6	271.7	272.4
42.5°	259.5	250.7	248.0	244.0	241.9
45°	235.1	232.4	233.1	229.0	227.7
47.5°	221.6	219.6	220.2	217.5	216.9
50°	210.8	209.4	210.1	208.0	207.4
52.5°	199.9	200.6	199.9	198.6	198.6
55°	190.4	189.7	191.1	189.1	189.1
57.5°	183.0	182.3	182.3	181.6	181.6
60°	178.9	176.2	175.5	175.5	176.2
62.5°	176.9	172.1	171.4	171.4	172.1
65°	177.5	170.1	167.4	166.7	166.0
67°	178.2	167.4	162.0	159.3	158.6
67.5°	178.9	166.0	159.9	157.2	155.9
70°	174.8	156.5	147.7	143.0	141.6
72.5°	164.7	145.0	134.2	128.1	126.7
75°	146.4	131.5	122.0	115.2	112.5
77.5°	113.2	106.4	103.0	98.9	97.6
80°	88.1	84.7	83.4	80.6	80.0
82.5°	73.2	69.8	67.8	64.4	62.3
85°	56.9	52.9	51.5	48.8	47.4
87.5°	37.3	35.2	34.6	31.2	29.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)