

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: P159326

Luminaire Tested: **VST-F04-LED-E-U-T2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159326
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33705)
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-T2-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (28) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10458.7 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

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



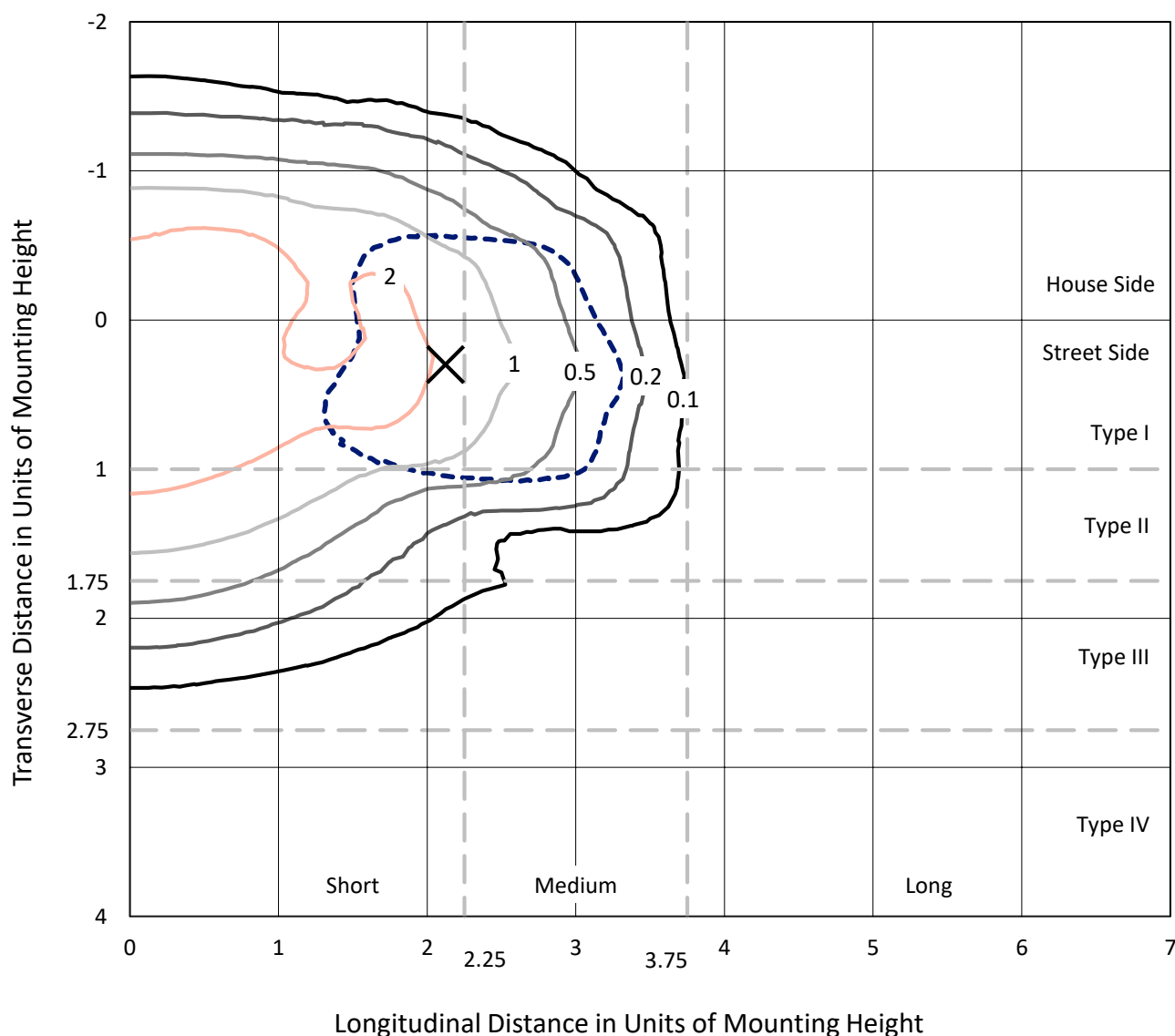
REPORT NUMBER: P159326

CATALOG NUMBER: VST-F04-LED-E-U-T2-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

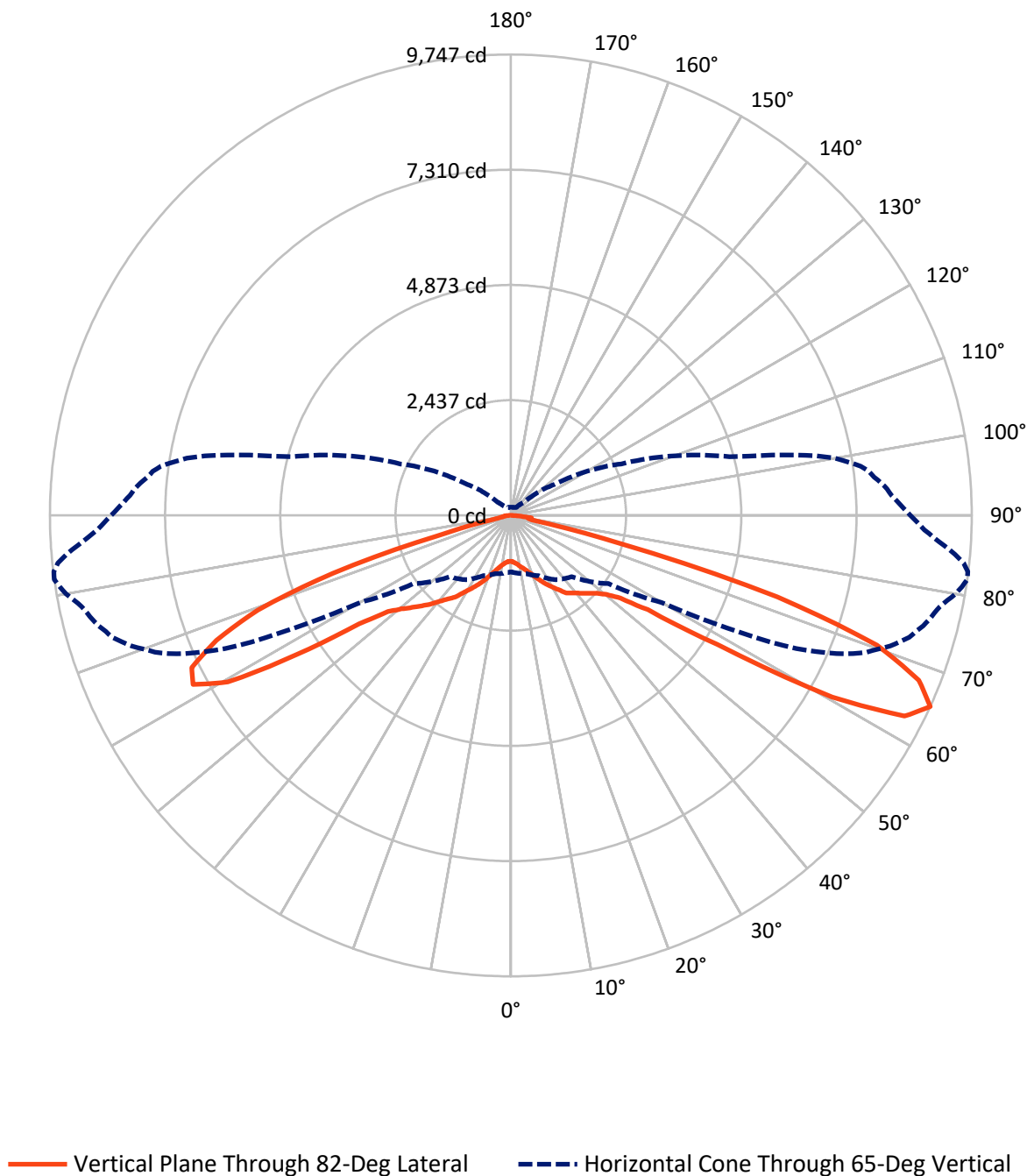


Based on 20 foot mounting height. Maximum calculated value = 3.1 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159326

CATALOG NUMBER: VST-F04-LED-E-U-T2-7050

Luminous Intensity Polar Plot



REPORT NUMBER: P159326

CATALOG NUMBER: VST-F04-LED-E-U-T2-7050

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3894.1	0.0	3894.1
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	6564.6	0.0	6564.6
	% Fixture	62.8	0.0	62.8
Total	Lumens	10458.7	0.0	10458.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.5	0.9
10°-20°	346.2	3.3
20°-30°	685.9	6.6
30°-40°	1175.8	11.2
40°-50°	1766.3	16.9
50°-60°	2454.0	23.5
60°-70°	2799.6	26.8
70°-80°	964.4	9.2
80°-90°	168.1	1.6
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°	10458.7	100.0
0°-180°	10458.7	100.0

Coefficient of Utilization



REPORT NUMBER: P159326

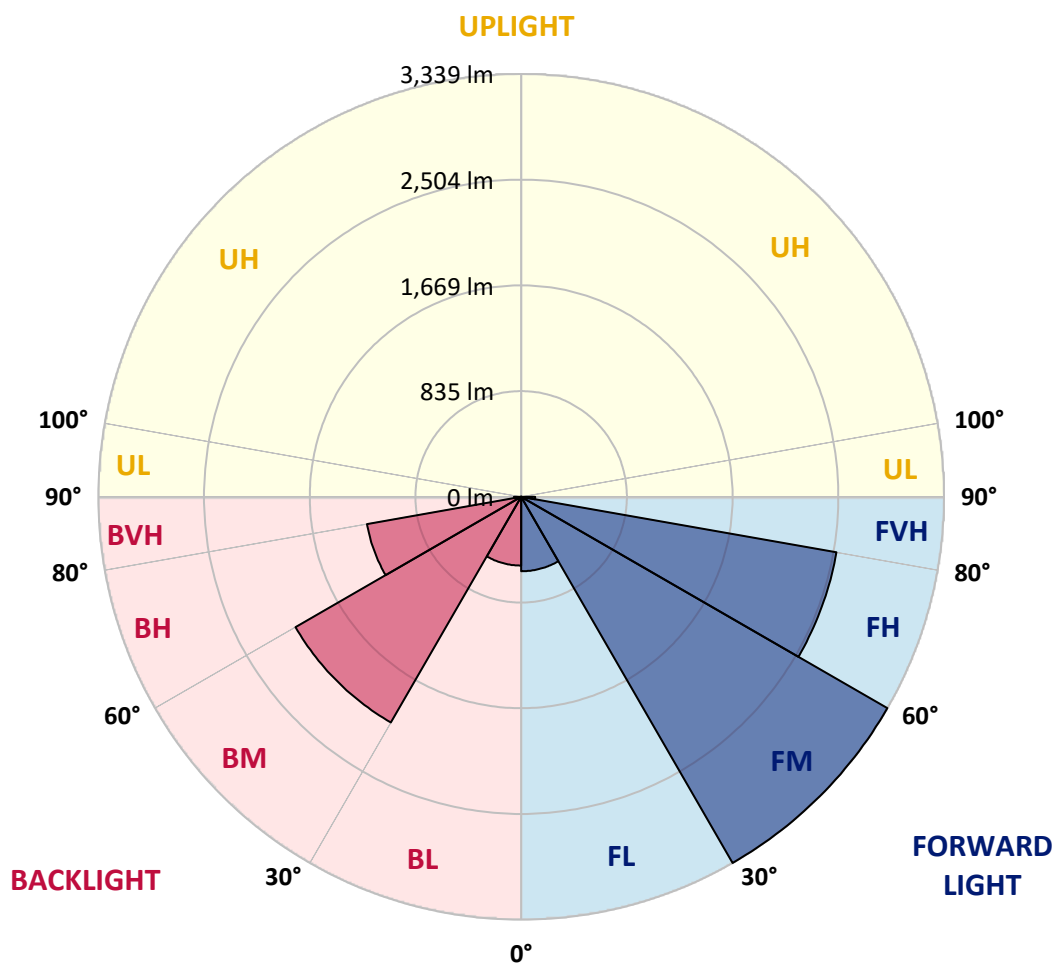
CATALOG NUMBER: VST-F04-LED-E-U-T2-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	587.6	5.6			
FM	(30°-60°)	3338.6	31.9			
FH	(60°-80°)	2527.8	24.2			G2/5000
FVH	(80°-90°)	110.6	1.1			G2/225
BL	(0°-30°)	543.0	5.2	B2/1000		
BM	(30°-60°)	2057.4	19.7	B2/2500		
BH	(60°-80°)	1236.3	11.8	B3/2500		G3/2500
BVH	(80°-90°)	57.4	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





REPORT NUMBER: P159326

CATALOG NUMBER: VST-F04-LED-E-U-T2-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1
2.5°	1026.0	1026.7	1026.0	1023.9	1023.3	1017.2	1010.4	1007.0	1006.3	1003.6	1004.3
5°	1089.7	1087.6	1084.9	1081.5	1078.2	1068.0	1056.5	1050.4	1048.3	1046.3	1043.6
7.5°	1146.6	1148.0	1146.6	1141.9	1133.0	1120.2	1105.3	1095.8	1095.1	1093.1	1091.0
10°	1219.8	1223.2	1215.0	1206.9	1194.7	1175.1	1158.1	1145.9	1143.9	1141.2	1139.8
12.5°	1299.1	1299.8	1297.0	1278.7	1258.4	1231.3	1206.9	1194.7	1192.0	1188.6	1187.3
15°	1383.8	1384.5	1369.6	1351.9	1320.8	1288.2	1254.3	1240.8	1237.4	1238.1	1232.7
17.5°	1450.9	1452.2	1438.0	1415.6	1378.4	1339.7	1303.1	1292.3	1290.3	1290.9	1288.2
20°	1480.0	1482.0	1473.2	1456.3	1421.1	1387.2	1360.7	1354.0	1353.3	1351.9	1357.4
22.5°	1478.7	1479.3	1475.9	1469.2	1448.2	1428.5	1425.1	1429.2	1428.5	1429.9	1434.6
25°	1466.5	1468.5	1467.8	1470.5	1467.1	1474.6	1490.2	1504.4	1506.4	1509.1	1518.0
27.5°	1497.6	1501.7	1497.0	1499.7	1505.1	1530.2	1562.0	1583.7	1587.8	1595.2	1602.7
30°	1619.6	1614.2	1608.1	1601.3	1604.7	1620.3	1656.2	1675.2	1677.2	1682.6	1692.8
32.5°	1800.5	1794.4	1789.0	1778.2	1775.5	1768.7	1780.9	1785.6	1785.0	1790.4	1793.1
35°	2004.5	2005.2	2003.8	2012.0	2018.8	1984.2	1941.5	1930.0	1934.7	1928.6	1930.0
37.5°	2178.7	2180.7	2216.6	2261.4	2274.2	2252.5	2159.0	2112.9	2097.4	2095.3	2079.7
40°	2371.8	2371.8	2426.0	2480.9	2516.8	2543.9	2432.8	2351.5	2318.3	2308.8	2270.2
42.5°	2583.9	2573.1	2622.5	2682.9	2749.3	2810.9	2753.3	2661.9	2614.4	2597.5	2529.7
45°	2758.1	2751.3	2775.7	2831.9	2939.7	3060.3	3068.4	3021.7	2993.2	2958.0	2895.6
47.5°	2865.1	2861.8	2876.0	2937.0	3071.8	3267.0	3376.1	3399.8	3382.9	3355.8	3295.5
50°	2907.2	2902.4	2912.6	2980.4	3131.5	3389.0	3630.2	3742.0	3750.2	3756.3	3737.3
52.5°	2892.3	2886.2	2907.2	2964.1	3121.3	3431.7	3828.8	4043.6	4079.5	4110.0	4172.4
55°	2749.3	2739.8	2796.7	2903.8	3077.3	3416.1	3973.8	4333.6	4409.5	4490.9	4629.1
57.5°	2530.4	2522.3	2604.2	2751.3	2999.3	3373.4	4071.4	4700.3	4871.0	5017.4	5409.8
60°	2319.6	2312.9	2361.0	2503.3	2746.6	3165.4	3950.8	4823.6	5110.2	5426.0	6142.3
62.5°	1942.9	1924.6	1988.9	2108.9	2262.7	2618.5	3424.2	4549.1	4991.0	5455.2	6426.3
65°	1194.0	1220.5	1276.0	1408.9	1660.9	1830.4	2514.8	3680.4	4263.2	4845.3	6105.0
67.5°	758.3	765.8	807.1	899.3	1094.4	1264.5	1524.1	2309.5	2758.8	3331.4	4793.1
70°	649.9	654.6	689.9	786.1	920.9	1130.3	1153.4	1206.2	1367.5	1732.1	2817.7
72.5°	512.3	520.4	548.2	631.6	794.2	1019.2	1423.8	953.5	920.9	951.4	1375.0
75°	304.9	314.4	337.5	382.9	510.3	779.3	1491.5	1109.3	1034.1	975.2	948.7
77.5°	161.3	154.5	170.1	196.5	262.3	415.4	1120.9	1359.4	1306.5	1236.1	1086.3
80°	80.0	82.7	87.4	92.8	117.2	168.7	560.4	1406.1	1558.6	1626.4	1493.6
82.5°	31.9	35.9	50.8	54.2	64.4	71.8	180.3	779.3	1116.1	1513.9	1976.7
85°	16.3	15.6	27.1	32.5	37.9	33.9	63.7	290.7	523.2	815.2	1320.8
87.5°	2.0	2.7	6.1	8.1	11.5	10.8	18.3	63.0	100.3	142.3	199.9
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: P159326

CATALOG NUMBER: VST-F04-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1
2.5°	1000.9	1000.2	1000.2	997.5	997.5	998.2	996.2	994.8	994.8	995.5	992.8
5°	1041.6	1039.5	1039.5	1036.8	1033.4	1033.4	1030.7	1030.0	1028.7	1026.0	1023.9
7.5°	1089.0	1087.0	1083.6	1081.5	1080.2	1078.2	1074.8	1073.4	1070.7	1068.0	1065.3
10°	1137.8	1135.1	1133.7	1130.3	1129.0	1124.9	1122.9	1123.6	1118.1	1116.1	1116.8
12.5°	1186.6	1183.9	1179.1	1177.8	1177.1	1173.0	1171.0	1169.6	1165.6	1164.9	1162.9
15°	1230.0	1231.3	1229.3	1225.9	1223.2	1222.5	1220.5	1219.1	1216.4	1213.7	1211.0
17.5°	1286.2	1288.2	1285.5	1280.8	1280.8	1280.1	1280.8	1280.1	1275.4	1277.4	1276.0
20°	1358.0	1359.4	1352.6	1354.6	1356.0	1355.3	1357.4	1359.4	1358.0	1358.0	1360.1
22.5°	1440.7	1442.7	1438.7	1441.4	1445.4	1442.1	1448.2	1447.5	1448.8	1450.9	1451.5
25°	1525.4	1529.5	1526.1	1533.5	1530.8	1533.5	1541.0	1539.0	1542.4	1547.8	1549.8
27.5°	1610.1	1612.8	1613.5	1618.3	1623.0	1627.1	1636.6	1636.6	1639.3	1648.7	1648.7
30°	1698.9	1701.6	1704.3	1711.1	1713.8	1721.3	1730.7	1733.5	1732.1	1745.7	1749.7
32.5°	1801.2	1803.9	1808.7	1816.8	1820.2	1827.7	1827.7	1835.1	1840.5	1852.0	1852.7
35°	1937.4	1939.5	1937.4	1936.8	1941.5	1951.7	1952.3	1963.2	1967.9	1979.4	1982.8
37.5°	2073.6	2073.0	2064.2	2054.7	2055.3	2051.3	2048.6	2053.3	2055.3	2056.0	2063.5
40°	2257.3	2239.7	2226.1	2202.4	2191.6	2174.6	2164.4	2163.8	2152.9	2151.6	2153.6
42.5°	2497.9	2477.5	2445.7	2405.7	2375.2	2344.0	2321.0	2307.4	2283.7	2271.5	2261.4
45°	2834.0	2783.8	2745.9	2698.4	2639.5	2585.3	2528.4	2502.6	2457.2	2429.4	2398.2
47.5°	3244.6	3195.2	3136.9	3088.1	3010.8	2935.6	2857.7	2789.3	2710.0	2646.9	2595.4
50°	3690.5	3661.4	3619.4	3574.0	3474.4	3424.9	3326.6	3233.8	3148.4	3035.9	2937.7
52.5°	4148.0	4164.9	4155.4	4139.2	4076.1	4057.2	3972.4	3859.3	3773.2	3696.0	3525.2
55°	4711.8	4732.1	4772.8	4796.5	4789.0	4837.1	4816.1	4728.0	4693.5	4657.6	4536.3
57.5°	5574.4	5719.5	5874.6	6010.8	6042.7	6213.5	6176.9	6265.0	6327.3	6282.6	6243.3
60°	6494.0	6786.8	7050.4	7326.2	7550.5	7718.6	7940.8	8090.6	8184.8	8354.2	8367.8
62.5°	6864.7	7262.5	7597.3	7917.1	8183.4	8416.5	8617.1	8823.8	8993.2	9146.4	9256.8
65°	6661.4	7076.8	7482.7	7807.3	8063.5	8264.1	8482.3	8646.3	8813.0	8911.2	9027.1
67.5°	5537.8	6088.1	6587.5	6953.5	7303.8	7507.8	7766.0	7927.3	8104.1	8207.8	8282.4
70°	3610.6	4326.9	5009.3	5564.3	6037.3	6275.1	6586.9	6807.1	7019.9	7025.3	7149.3
72.5°	1948.3	2547.3	3118.6	3685.8	4225.2	4541.7	4849.3	5117.0	5328.4	5238.3	5361.6
75°	1084.9	1365.5	1677.9	2018.8	2347.4	2528.4	2758.1	2759.4	2868.5	2697.1	2740.5
77.5°	1043.6	1030.7	1035.5	1045.0	1061.2	1026.7	1026.0	1005.0	972.4	913.5	923.7
80°	1370.9	1206.9	1089.0	904.0	727.8	593.6	556.4	565.2	591.6	644.5	711.5
82.5°	1982.2	1843.9	1646.0	1354.6	1063.2	820.0	673.6	597.7	594.3	647.2	748.8
85°	1443.4	1526.8	1513.9	1263.8	1042.2	846.4	616.0	520.4	431.0	410.0	445.9
87.5°	212.8	176.2	198.6	166.0	120.6	93.5	82.0	65.7	63.0	64.4	70.5
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: P159326

CATALOG NUMBER: VST-F04-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1
2.5°	993.5	990.7	988.0	990.1	988.0	987.4	985.3	984.0	983.3	983.3	983.3
5°	1023.9	1020.6	1018.5	1017.8	1015.8	1013.8	1013.1	1009.7	1009.0	1009.0	1007.0
7.5°	1065.3	1062.6	1059.2	1057.2	1055.8	1052.4	1049.0	1048.3	1047.7	1045.0	1042.9
10°	1113.4	1109.3	1105.3	1105.3	1102.6	1101.9	1098.5	1093.7	1093.1	1089.0	1087.6
12.5°	1158.8	1157.4	1152.7	1151.3	1149.3	1147.3	1145.2	1143.2	1141.2	1137.8	1139.1
15°	1213.0	1209.6	1205.6	1206.2	1205.6	1202.8	1200.1	1198.1	1196.7	1195.4	1195.4
17.5°	1278.1	1276.7	1276.0	1272.6	1269.9	1272.0	1272.0	1272.0	1268.6	1269.3	1269.9
20°	1360.7	1362.1	1360.7	1358.0	1357.4	1359.4	1354.6	1362.1	1358.0	1355.3	1356.7
22.5°	1452.2	1457.0	1451.5	1452.2	1455.6	1457.0	1452.2	1458.3	1456.3	1452.2	1455.6
25°	1551.8	1555.2	1552.5	1551.8	1553.9	1558.6	1557.9	1557.3	1562.0	1557.9	1560.0
27.5°	1654.2	1656.2	1657.6	1659.6	1660.9	1660.3	1663.0	1663.0	1665.7	1660.9	1663.0
30°	1755.8	1755.8	1758.5	1761.2	1761.2	1761.2	1766.7	1767.3	1763.3	1764.6	1759.9
32.5°	1864.2	1864.9	1867.6	1867.6	1873.1	1873.7	1879.8	1871.7	1879.8	1873.1	1874.4
35°	1991.6	2000.5	2001.8	2008.6	2014.0	2016.0	2016.0	2016.7	2024.2	2018.8	2020.8
37.5°	2066.2	2068.2	2073.6	2077.0	2077.0	2079.7	2081.8	2079.7	2081.8	2081.1	2083.1
40°	2154.3	2152.2	2158.3	2159.7	2157.0	2160.4	2159.7	2157.7	2163.1	2159.0	2161.7
42.5°	2261.4	2249.8	2249.2	2254.6	2249.2	2251.9	2251.2	2246.4	2253.2	2255.3	2253.2
45°	2375.9	2369.8	2357.6	2357.6	2352.2	2350.1	2350.8	2350.1	2350.8	2358.9	2361.6
47.5°	2562.2	2525.0	2504.0	2484.3	2468.0	2467.4	2459.9	2464.0	2469.4	2482.9	2495.1
50°	2874.6	2788.6	2735.7	2686.9	2651.7	2639.5	2625.3	2623.9	2628.6	2644.2	2665.2
52.5°	3431.7	3312.4	3199.9	3095.6	3004.7	2934.9	2900.4	2882.1	2875.3	2890.9	2911.2
55°	4450.9	4225.9	4067.3	3961.6	3735.9	3640.4	3517.7	3461.5	3406.6	3412.0	3446.6
57.5°	6192.5	6071.2	5938.3	5753.3	5615.1	5448.4	5142.1	4971.3	4978.8	5018.8	4894.1
60°	8474.8	8352.2	8297.3	8129.2	8033.0	7965.9	7803.3	7520.0	7419.7	7400.7	7171.7
62.5°	9341.5	9370.7	9414.1	9461.5	9458.8	9487.9	9345.6	9253.5	9137.6	8987.1	8760.8
65°	9115.2	9189.1	9277.2	9404.6	9549.6	9656.7	9746.8	9735.9	9627.5	9426.9	9187.7
67.5°	8348.8	8422.0	8486.3	8657.1	8895.0	9112.5	9305.0	9435.7	9363.2	9197.2	8918.0
70°	7196.8	7249.6	7290.3	7438.7	7699.6	7965.2	8216.6	8436.2	8413.8	8212.6	7989.6
72.5°	5214.6	5342.7	5411.8	5401.6	5562.9	5860.4	5895.6	6083.4	6135.5	5918.7	5563.6
75°	2540.5	2542.6	2462.6	2436.2	2444.3	2495.8	2397.6	2403.7	2369.8	2215.9	2089.2
77.5°	887.7	863.3	805.1	735.9	637.0	544.2	450.0	409.3	395.8	355.8	328.0
80°	765.1	801.0	789.5	732.6	628.2	500.8	374.1	277.2	236.5	222.3	208.7
82.5°	868.8	1007.0	1095.1	1090.4	947.4	711.5	443.9	254.8	181.6	159.3	146.4
85°	484.5	521.1	531.3	483.8	401.9	274.5	153.2	107.7	91.5	83.4	75.2
87.5°	77.3	70.5	69.1	60.3	56.9	52.2	46.1	43.4	40.0	37.9	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: P159326

CATALOG NUMBER: VST-F04-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1
2.5°	982.6	981.9	979.9	977.9	976.5	975.8	975.2	973.8	973.1	972.4	971.1
5°	1005.6	1004.3	1000.9	997.5	996.2	994.1	992.1	990.7	989.4	988.7	986.0
7.5°	1041.6	1040.2	1036.1	1033.4	1032.8	1027.3	1026.7	1024.6	1021.2	1020.6	1016.5
10°	1084.9	1084.3	1080.9	1078.8	1077.5	1074.8	1070.7	1067.3	1063.9	1063.9	1061.2
12.5°	1135.1	1132.4	1134.4	1129.7	1128.3	1125.6	1123.6	1122.9	1118.8	1115.4	1114.8
15°	1194.0	1190.6	1190.6	1189.3	1187.9	1185.2	1184.6	1185.2	1181.2	1182.5	1178.5
17.5°	1267.2	1268.6	1267.9	1267.9	1264.5	1264.5	1259.1	1265.9	1261.1	1264.5	1263.2
20°	1358.7	1359.4	1358.0	1360.1	1361.4	1360.7	1360.1	1359.4	1361.4	1364.1	1362.1
22.5°	1456.3	1456.3	1455.6	1463.1	1454.9	1461.0	1463.1	1459.0	1469.8	1468.5	1470.5
25°	1562.0	1562.0	1567.4	1573.5	1574.9	1570.1	1572.9	1569.5	1576.2	1581.7	1583.0
27.5°	1660.3	1669.1	1673.1	1669.1	1672.5	1679.9	1679.2	1679.2	1684.0	1682.6	1695.5
30°	1761.2	1766.7	1772.1	1769.4	1770.7	1780.2	1780.9	1781.6	1787.7	1796.5	1806.0
32.5°	1876.4	1881.9	1879.2	1888.0	1887.3	1898.8	1900.8	1902.9	1921.8	1918.5	1938.1
35°	2018.1	2023.5	2020.8	2030.3	2028.9	2033.0	2040.4	2048.6	2052.0	2071.6	2087.2
37.5°	2084.5	2084.5	2090.6	2101.4	2105.5	2112.3	2123.8	2134.0	2150.9	2171.9	2196.3
40°	2164.4	2166.5	2174.6	2186.1	2193.6	2209.2	2230.2	2244.4	2270.2	2293.2	2321.7
42.5°	2261.4	2270.2	2279.6	2295.2	2311.5	2335.9	2365.7	2384.0	2417.9	2447.7	2482.9
45°	2374.5	2383.3	2405.7	2434.2	2457.9	2485.0	2509.4	2552.7	2583.2	2614.4	2644.9
47.5°	2511.4	2537.2	2555.5	2589.3	2618.5	2654.4	2684.9	2725.6	2758.8	2796.7	2822.5
50°	2686.9	2718.8	2742.5	2786.5	2815.0	2855.0	2893.6	2924.1	2958.0	2995.3	3016.3
52.5°	2939.0	2971.5	3001.4	3056.2	3091.5	3118.6	3170.1	3208.0	3239.2	3266.3	3289.4
55°	3485.2	3475.7	3558.4	3664.8	3677.0	3775.2	3793.5	3825.4	3883.0	3891.1	3955.5
57.5°	5045.9	4997.1	5117.0	5272.9	5245.8	5196.3	5403.0	5415.9	5386.7	5464.7	5376.6
60°	7205.6	7120.2	7152.7	7195.4	7133.7	7104.6	7114.8	7143.9	7115.4	7084.3	6998.9
62.5°	8647.6	8516.2	8422.0	8342.7	8242.4	8169.9	8088.6	7988.3	7961.2	7847.3	7751.8
65°	8955.3	8750.6	8601.5	8451.8	8313.5	8185.5	8062.8	7976.7	7862.9	7728.0	7628.4
67.5°	8617.1	8363.7	8145.5	7928.0	7771.4	7583.0	7490.9	7350.6	7210.3	7055.8	6964.3
70°	7634.5	7370.2	7095.8	6883.0	6670.2	6437.1	6391.7	6225.7	6145.0	5934.3	5897.7
72.5°	5269.5	5093.3	4970.6	4707.7	4578.3	4459.0	4421.1	4267.2	4283.5	4052.4	4136.4
75°	1873.7	1848.7	1812.7	1664.3	1637.9	1591.8	1579.6	1568.8	1678.6	1526.1	1636.6
77.5°	321.9	319.9	301.6	292.7	309.7	298.8	301.6	296.1	328.0	332.7	325.3
80°	199.9	194.5	188.4	184.3	185.0	180.9	181.6	183.0	185.0	184.3	186.4
82.5°	136.9	132.1	129.4	126.7	130.8	132.1	135.5	138.9	144.3	147.7	151.8
85°	74.5	68.4	68.4	67.8	73.2	77.3	82.7	89.5	98.9	107.1	115.9
87.5°	37.9	36.6	37.3	38.6	43.4	46.8	53.5	59.6	67.8	76.6	84.7
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: P159326

CATALOG NUMBER: VST-F04-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1	973.1
2.5°	970.4	970.4	969.7	969.7	969.1	968.4	967.7	965.7	958.2	951.4	946.7
5°	985.3	983.3	982.6	980.6	979.9	978.5	976.5	974.5	960.9	948.7	939.9
7.5°	1015.8	1013.1	1011.7	1009.7	1007.7	1005.0	1002.3	1000.2	984.0	969.7	958.9
10°	1055.8	1054.4	1053.8	1051.1	1051.1	1047.0	1046.3	1041.6	1023.9	1011.1	1001.6
12.5°	1111.4	1108.7	1108.0	1104.6	1105.9	1104.6	1103.2	1100.5	1087.6	1072.7	1059.9
15°	1180.5	1180.5	1177.1	1174.4	1175.1	1173.7	1176.4	1173.0	1164.9	1151.3	1130.3
17.5°	1263.8	1262.5	1263.8	1261.8	1263.2	1264.5	1261.1	1261.8	1257.7	1240.8	1209.6
20°	1360.7	1358.7	1366.8	1363.5	1370.9	1364.1	1365.5	1367.5	1367.5	1345.2	1303.1
22.5°	1471.9	1470.5	1470.5	1477.3	1480.0	1480.7	1483.4	1485.4	1490.9	1462.4	1395.3
25°	1583.0	1587.8	1588.4	1597.2	1601.3	1601.3	1603.3	1610.8	1627.1	1587.8	1501.0
27.5°	1696.2	1707.7	1710.4	1716.5	1722.6	1728.7	1733.5	1738.9	1765.3	1722.6	1609.4
30°	1809.4	1822.2	1831.7	1838.5	1845.9	1860.9	1863.6	1874.4	1918.5	1866.3	1712.4
32.5°	1942.2	1960.5	1972.7	1981.5	1993.0	2007.2	2015.4	2028.9	2071.6	1986.2	1787.7
35°	2100.7	2111.6	2129.2	2144.1	2150.9	2175.3	2188.2	2191.6	2224.1	2089.9	1843.2
37.5°	2210.5	2228.8	2259.3	2280.3	2292.5	2306.1	2327.8	2342.0	2373.2	2184.1	1871.0
40°	2350.1	2377.9	2402.3	2433.5	2453.1	2463.3	2485.0	2496.5	2500.6	2264.7	1862.2
42.5°	2520.2	2545.3	2577.8	2602.9	2617.8	2629.3	2646.9	2651.7	2598.8	2302.7	1814.8
45°	2680.1	2718.8	2746.6	2764.9	2775.7	2781.8	2792.6	2793.3	2680.1	2283.7	1733.5
47.5°	2852.3	2880.1	2905.8	2918.7	2917.3	2918.7	2914.6	2911.9	2720.8	2218.0	1629.1
50°	3042.7	3061.0	3071.8	3077.9	3081.3	3068.4	3050.1	3038.0	2724.2	2124.5	1523.4
52.5°	3298.2	3321.2	3319.2	3318.5	3291.4	3279.2	3230.4	3205.3	2704.5	2014.7	1404.1
55°	3945.3	3923.0	3878.9	3900.6	3790.2	3732.6	3656.7	3586.2	2730.3	1910.3	1265.9
57.5°	5411.8	5420.6	5295.2	5228.2	5041.8	4808.7	4621.0	4438.7	2962.1	1846.6	1085.6
60°	6942.0	6826.8	6667.5	6424.9	6185.0	5838.7	5504.6	5188.8	3193.1	1780.2	872.1
62.5°	7610.1	7446.1	7205.6	6891.8	6515.0	6091.5	5675.4	5290.5	3081.3	1565.4	634.3
65°	7474.6	7223.9	6958.2	6590.9	6132.8	5668.6	5182.7	4789.7	2577.8	1167.6	391.0
67.5°	6765.8	6553.0	6272.4	5836.7	5346.7	4863.6	4418.3	3977.9	1915.1	727.8	218.9
70°	5710.6	5502.6	5218.0	4772.1	4282.8	3820.6	3349.0	2989.8	1220.5	351.0	157.9
72.5°	3961.6	3792.9	3591.6	3273.8	2844.8	2424.7	2105.5	1829.7	676.3	186.4	144.3
75°	1608.8	1609.4	1572.9	1438.7	1215.7	1048.3	893.8	758.3	282.6	158.6	142.3
77.5°	364.6	370.7	405.2	384.2	346.3	323.9	290.0	256.2	172.1	163.3	143.7
80°	184.3	185.0	183.0	183.6	181.6	182.3	179.6	177.5	161.3	168.1	143.7
82.5°	153.8	157.2	156.5	156.5	157.2	157.2	157.2	156.5	167.4	176.9	138.9
85°	122.0	128.8	134.2	139.6	145.7	149.8	151.8	153.8	162.6	174.2	126.0
87.5°	92.2	100.3	107.1	112.5	122.0	122.0	128.8	133.5	133.5	136.2	66.4
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: P159326

CATALOG NUMBER: VST-F04-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	973.1	973.1	973.1	973.1	973.1
2.5°	939.9	937.2	934.5	933.1	930.4
5°	933.1	927.7	924.3	924.3	921.6
7.5°	952.8	950.8	946.0	943.3	946.0
10°	994.8	991.4	986.0	981.9	984.0
12.5°	1051.1	1037.5	1026.7	1021.9	1018.5
15°	1109.3	1082.2	1060.5	1048.3	1045.0
17.5°	1171.7	1124.2	1091.7	1073.4	1070.0
20°	1235.4	1176.4	1130.3	1106.6	1105.9
22.5°	1312.0	1233.3	1174.4	1143.2	1141.2
25°	1392.6	1284.2	1206.2	1166.3	1162.2
27.5°	1462.4	1324.8	1225.9	1178.5	1174.4
30°	1520.7	1355.3	1242.2	1187.3	1181.8
32.5°	1562.7	1372.9	1248.9	1190.0	1183.9
35°	1576.2	1366.2	1230.0	1165.6	1158.8
37.5°	1557.9	1322.1	1177.1	1105.9	1097.8
40°	1503.1	1244.9	1091.0	1017.8	1007.7
42.5°	1419.0	1150.0	987.4	917.6	904.7
45°	1315.3	1042.9	884.3	806.4	800.3
47.5°	1206.9	930.4	768.5	698.0	690.5
50°	1089.7	800.3	655.3	578.7	578.7
52.5°	950.1	673.6	523.8	466.2	461.5
55°	789.5	530.6	417.4	373.4	367.3
57.5°	616.7	408.0	333.4	307.7	300.9
60°	453.4	306.3	268.4	254.1	251.4
62.5°	307.7	233.1	216.2	210.1	209.4
65°	208.0	181.6	176.9	174.8	175.5
67.5°	159.9	151.1	149.1	148.4	148.4
70°	138.9	133.5	131.5	132.1	131.5
72.5°	130.8	123.3	124.0	125.4	124.7
75°	128.1	118.6	121.3	122.0	119.3
77.5°	126.0	113.2	119.9	122.0	114.5
80°	122.0	108.4	124.7	125.4	112.5
82.5°	111.8	96.2	124.7	115.2	101.6
85°	94.9	73.2	141.0	100.3	75.2
87.5°	60.3	43.4	95.6	68.4	45.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)