

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: P159556

Luminaire Tested: **VST-F05-LED-E-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159556
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F05-LED-E-U-T3-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (35) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12953.3 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 133.3
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



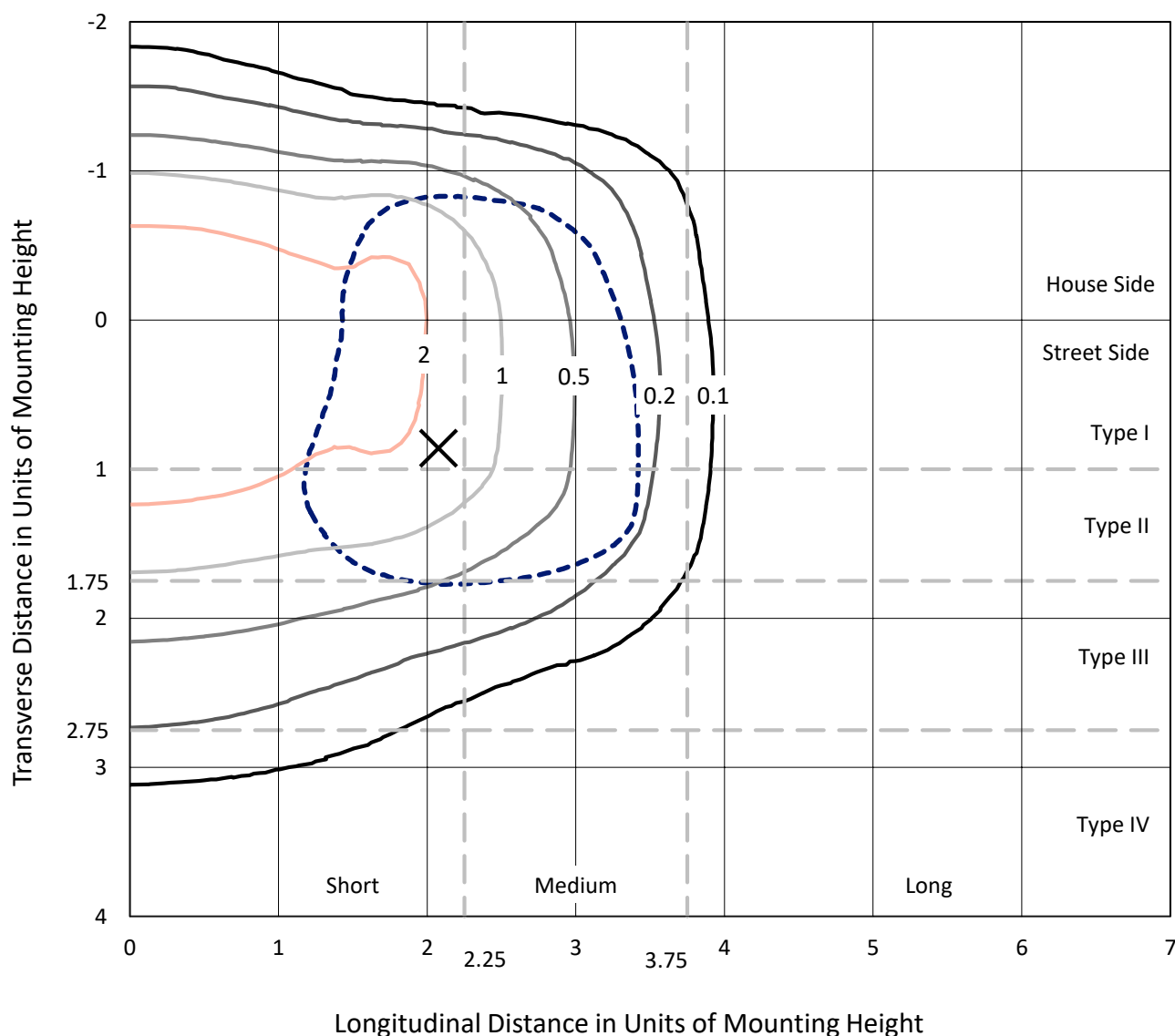
REPORT NUMBER: P159556

CATALOG NUMBER: VST-F05-LED-E-U-T3-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

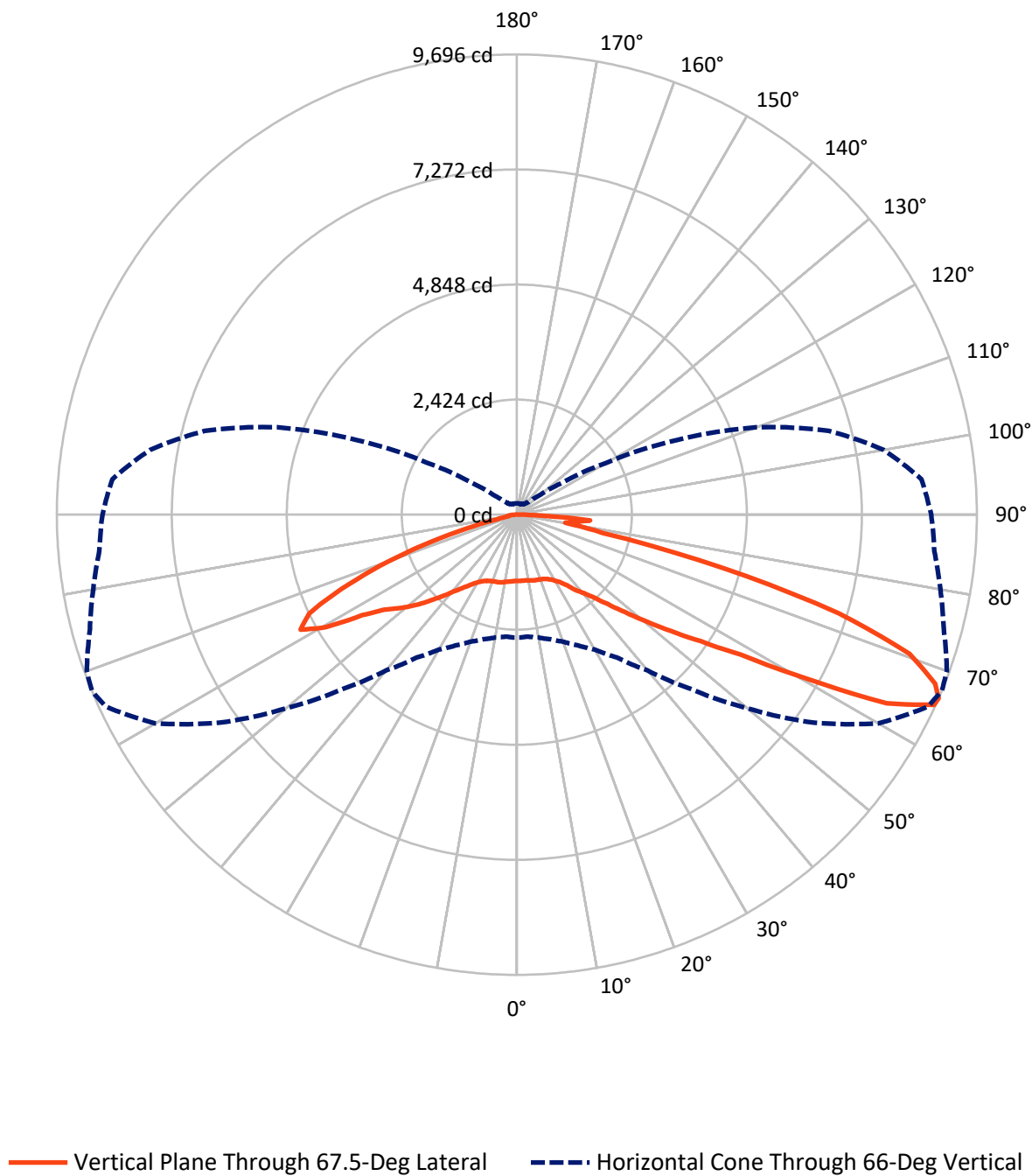


Based on 20 foot mounting height. Maximum calculated value = 3.5 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159556

CATALOG NUMBER: VST-F05-LED-E-U-T3-7050

Luminous Intensity Polar Plot



REPORT NUMBER: P159556

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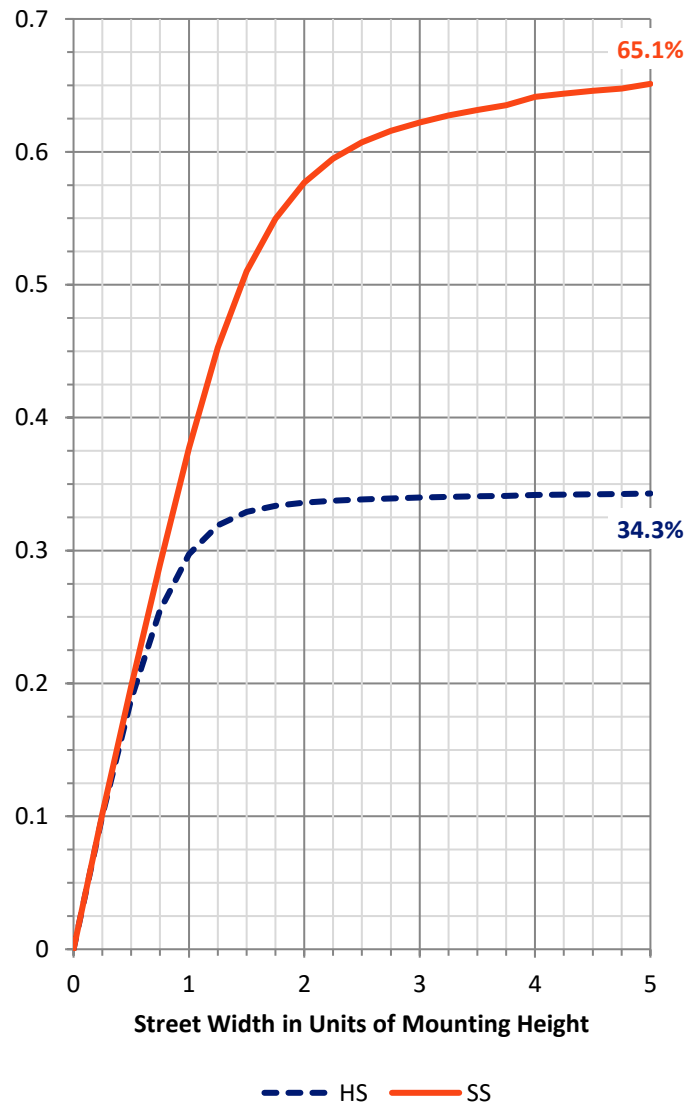
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4482.4	0.0	4482.4
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	8470.9	0.0	8470.9
	% Fixture	65.4	0.0	65.4
Total	Lumens	12953.3	0.0	12953.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.1	1.0
10°-20°	397.2	3.1
20°-30°	682.7	5.3
30°-40°	1103.4	8.5
40°-50°	1828.6	14.1
50°-60°	2869.7	22.2
60°-70°	3923.5	30.3
70°-80°	1725.4	13.3
80°-90°	288.8	2.2
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°	12953.3	100.0
0°-180°	12953.3	100.0

Coefficient of Utilization



REPORT NUMBER: P159556

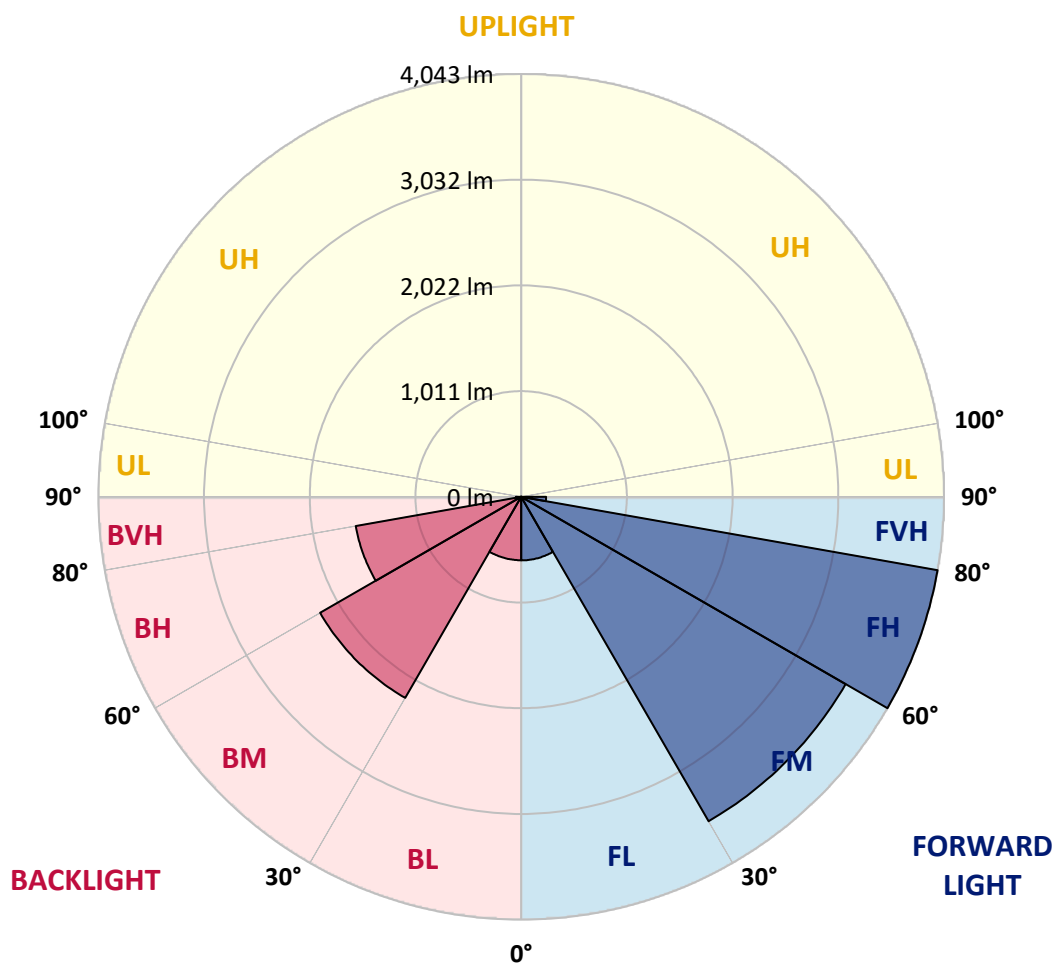
CATALOG NUMBER: VST-F05-LED-E-U-T3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	607.6	4.7			
FM	(30°-60°)	3582.0	27.7			
FH	(60°-80°)	4043.0	31.2			G2/5000
FVH	(80°-90°)	238.3	1.8			G3/500
BL	(0°-30°)	606.4	4.7	B2/1000		
BM	(30°-60°)	2219.7	17.1	B2/2500		
BH	(60°-80°)	1605.9	12.4	B3/2500		G3/2500
BVH	(80°-90°)	50.5	0.4			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: P159556

CATALOG NUMBER: VST-F05-LED-E-U-T3-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7
2.5°	1395.1	1395.1	1396.0	1395.1	1395.1	1394.3	1397.7	1397.7	1397.7	1396.8	1399.4
5°	1391.7	1391.7	1392.6	1392.6	1393.4	1392.6	1395.1	1396.0	1396.0	1396.0	1398.5
7.5°	1383.3	1385.8	1384.1	1385.0	1385.8	1388.4	1391.7	1393.4	1395.1	1397.7	1398.5
10°	1365.5	1369.7	1368.9	1371.4	1372.3	1379.9	1382.4	1385.8	1391.7	1395.1	1397.7
12.5°	1340.9	1343.5	1344.3	1347.7	1351.1	1360.4	1367.2	1373.1	1381.6	1390.1	1398.5
15°	1321.4	1323.1	1323.1	1326.5	1331.6	1340.1	1348.5	1358.7	1371.4	1385.8	1399.4
17.5°	1327.4	1331.6	1328.2	1327.4	1329.1	1334.1	1341.8	1350.2	1365.5	1381.6	1397.7
20°	1366.3	1367.2	1365.5	1361.3	1357.9	1358.7	1358.7	1360.4	1369.7	1382.4	1395.1
22.5°	1398.5	1401.9	1401.1	1401.9	1401.1	1404.5	1402.8	1399.4	1396.0	1396.8	1402.8
25°	1426.5	1429.9	1429.9	1432.4	1436.6	1443.4	1448.5	1447.7	1442.6	1435.8	1433.3
27.5°	1472.2	1472.2	1472.2	1474.8	1480.7	1489.2	1497.6	1502.7	1506.9	1500.2	1485.8
30°	1544.2	1545.1	1542.5	1543.4	1547.6	1558.6	1568.8	1576.4	1584.9	1584.0	1565.4
32.5°	1623.0	1626.4	1625.5	1628.9	1634.9	1645.0	1656.0	1667.9	1678.9	1685.7	1673.8
35°	1724.6	1728.0	1728.9	1734.0	1740.7	1756.0	1771.2	1786.5	1798.3	1803.4	1800.9
37.5°	1891.5	1892.4	1889.0	1881.4	1883.9	1895.8	1913.5	1938.1	1945.7	1950.8	1962.7
40°	2141.4	2138.9	2125.3	2118.5	2114.3	2119.4	2116.0	2135.5	2153.3	2154.1	2153.3
42.5°	2444.7	2437.0	2424.3	2422.6	2420.9	2419.2	2409.9	2410.8	2426.9	2431.1	2426.0
45°	2746.2	2736.9	2727.6	2736.1	2725.9	2752.1	2759.8	2780.1	2782.6	2791.1	2778.4
47.5°	2993.6	2994.4	2994.4	3006.3	3026.6	3076.6	3121.5	3160.4	3174.8	3195.2	3197.7
50°	3180.8	3185.9	3201.9	3240.1	3283.3	3367.1	3442.5	3512.8	3576.4	3600.1	3662.8
52.5°	3290.0	3303.6	3337.5	3401.0	3478.1	3586.5	3705.1	3824.5	3934.7	4027.8	4102.4
55°	3270.6	3280.7	3340.0	3439.1	3559.4	3705.1	3871.1	4043.9	4215.9	4373.5	4495.4
57.5°	3145.2	3152.0	3211.3	3323.1	3473.0	3668.7	3903.3	4160.0	4401.4	4655.5	4863.9
60°	2980.9	2991.0	3046.1	3134.2	3290.9	3499.3	3771.2	4119.3	4504.7	4904.6	5294.2
62.5°	2875.8	2873.3	2921.6	3000.3	3118.1	3307.0	3568.7	3981.3	4514.9	5190.9	5960.9
65°	2701.3	2693.7	2743.7	2833.5	2961.4	3144.3	3392.5	3789.0	4408.2	5299.3	6391.2
66°	2592.9	2577.7	2627.6	2718.3	2846.2	3041.0	3279.0	3670.4	4278.6	5193.4	6345.4
67.5°	2403.2	2395.5	2419.2	2490.4	2585.3	2768.2	3016.4	3410.3	3971.9	4874.9	6010.0
70°	1953.4	1936.4	1955.1	1987.2	2023.7	2068.6	2221.0	2533.6	3008.8	3883.8	4841.9
72.5°	1330.8	1322.3	1357.0	1406.1	1503.6	1549.3	1609.4	1660.3	1828.0	2448.0	3377.3
75°	1012.3	1017.3	1061.4	1142.7	1268.1	1403.6	1535.7	1584.0	1528.1	1479.8	1916.9
77.5°	567.5	597.2	650.6	753.9	886.9	1078.3	1308.7	1562.9	1689.9	1658.6	1551.0
80°	233.8	229.6	255.8	312.6	358.3	515.0	787.8	1106.3	1463.7	1689.9	1654.3
82.5°	65.2	66.9	86.4	111.0	143.2	182.1	284.6	457.4	745.4	1159.6	1518.0
85°	20.3	20.3	28.0	41.5	49.1	56.8	72.0	118.6	202.5	404.1	819.1
87.5°	4.2	4.2	5.9	11.9	12.7	12.7	16.1	22.0	19.5	17.8	79.6
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: P159556

CATALOG NUMBER: VST-F05-LED-E-U-T3-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7
2.5°	1396.8	1395.1	1396.0	1396.8	1396.0	1396.0	1395.1	1394.3	1395.1	1395.1	1397.7
5°	1396.0	1395.1	1396.0	1396.0	1396.0	1396.8	1396.8	1396.8	1399.4	1399.4	1403.6
7.5°	1397.7	1397.7	1399.4	1399.4	1399.4	1399.4	1400.2	1401.9	1406.1	1405.3	1412.9
10°	1401.1	1402.8	1407.0	1407.8	1407.8	1410.4	1412.1	1415.5	1419.7	1421.4	1428.2
12.5°	1405.3	1413.8	1421.4	1423.1	1425.6	1429.9	1432.4	1434.1	1441.7	1444.3	1452.7
15°	1410.4	1422.2	1431.6	1434.9	1438.3	1443.4	1446.8	1449.3	1456.1	1459.5	1469.7
17.5°	1411.2	1424.8	1435.8	1440.9	1445.1	1451.0	1456.1	1461.2	1468.8	1473.9	1484.1
20°	1410.4	1428.2	1445.1	1451.9	1456.1	1467.1	1474.8	1481.5	1490.9	1495.9	1506.1
22.5°	1419.7	1440.0	1462.9	1471.4	1478.1	1493.4	1503.6	1514.6	1526.4	1529.8	1537.4
25°	1441.7	1462.9	1491.7	1503.6	1515.4	1535.7	1550.1	1566.2	1578.1	1579.8	1582.3
27.5°	1479.0	1498.5	1533.2	1551.0	1570.5	1599.3	1620.5	1636.6	1653.5	1653.5	1651.8
30°	1554.4	1558.6	1595.0	1617.9	1646.7	1689.1	1720.4	1738.2	1750.9	1750.9	1736.5
32.5°	1651.8	1646.7	1679.8	1704.3	1744.1	1803.4	1845.8	1859.3	1872.9	1868.6	1844.1
35°	1792.4	1778.0	1796.6	1833.9	1878.8	1960.1	2004.2	2034.7	2043.1	2031.3	1992.3
37.5°	1969.5	1967.8	1977.1	2018.6	2068.6	2173.6	2218.5	2238.0	2231.2	2210.0	2141.4
40°	2156.7	2151.6	2145.6	2173.6	2229.5	2355.7	2435.3	2445.5	2436.2	2404.8	2318.4
42.5°	2406.5	2406.5	2378.6	2386.2	2432.8	2574.3	2668.3	2700.5	2701.3	2655.6	2540.4
45°	2750.5	2747.1	2697.9	2686.1	2721.7	2860.6	2981.7	2999.5	2999.5	2939.4	2813.1
47.5°	3163.8	3159.6	3111.3	3069.8	3076.6	3226.5	3327.3	3354.4	3330.7	3285.8	3135.9
50°	3629.7	3622.1	3573.0	3534.0	3517.1	3668.7	3754.2	3766.9	3732.2	3678.8	3516.2
52.5°	4102.4	4125.3	4096.5	4075.3	4081.2	4179.5	4267.6	4207.4	4189.6	4132.0	3968.5
55°	4594.5	4664.8	4728.4	4709.7	4731.8	4827.5	4844.4	4764.8	4732.6	4691.1	4509.0
57.5°	5090.1	5295.1	5503.5	5561.9	5616.1	5753.3	5733.9	5603.4	5628.0	5689.8	5484.8
60°	5782.1	6374.2	6902.8	7000.2	7168.8	7285.7	7312.0	7286.5	7400.9	7368.7	7187.4
62.5°	6845.2	7832.1	8567.3	8750.3	8919.7	8913.8	8824.8	8733.3	8846.0	8846.0	8372.5
65°	7604.2	8724.0	9511.0	9662.6	9655.8	9451.7	9241.6	9058.6	9042.5	8917.2	8225.1
66°	7639.8	8792.6	9563.5	9695.6	9644.8	9316.1	9064.6	8832.5	8733.3	8558.9	7849.8
67.5°	7319.6	8598.7	9392.4	9507.6	9373.7	8902.8	8556.3	8245.4	8101.4	7807.5	7140.0
70°	6004.1	7389.9	8544.5	8779.9	8628.3	8032.0	7557.6	7137.5	6862.2	6437.8	5956.6
72.5°	4382.8	5456.0	6706.3	7089.2	7065.5	6516.6	6134.5	5749.9	5388.2	5002.0	4650.4
75°	2848.7	3549.2	4246.4	4470.0	4362.4	4044.8	3771.2	3546.7	3203.6	2935.1	2869.9
77.5°	1626.4	1987.2	1879.7	1851.7	1717.0	1385.8	921.6	646.3	583.6	728.5	798.8
80°	1547.6	1402.8	1148.6	1036.0	952.1	648.9	340.5	239.7	210.1	215.2	231.3
82.5°	1745.0	1818.7	1487.5	1242.7	1081.7	789.5	431.2	200.8	146.5	173.7	194.8
85°	1307.9	1841.5	1825.4	1546.8	1268.9	909.8	509.9	153.3	88.1	122.0	159.3
87.5°	265.1	436.2	420.1	369.3	314.3	219.4	85.6	48.3	44.0	60.1	91.5
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: P159556

CATALOG NUMBER: VST-F05-LED-E-U-T3-7050

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7	1397.7
2.5°	1399.4	1399.4	1401.1	1403.6	1404.5	1404.5	1406.1	1404.5	1407.8	1408.7	1409.5
5°	1407.0	1409.5	1411.2	1415.5	1418.0	1419.7	1422.2	1420.5	1423.9	1424.8	1426.5
7.5°	1415.5	1419.7	1423.1	1424.8	1428.2	1428.2	1429.0	1427.3	1426.5	1423.9	1423.1
10°	1430.7	1433.3	1437.5	1435.8	1434.1	1428.2	1423.1	1415.5	1411.2	1403.6	1399.4
12.5°	1455.3	1457.0	1457.0	1449.3	1438.3	1424.8	1412.1	1399.4	1389.2	1380.7	1375.7
15°	1472.2	1475.6	1471.4	1460.4	1444.3	1425.6	1408.7	1391.7	1378.2	1367.2	1360.4
17.5°	1484.9	1484.1	1476.5	1461.2	1446.0	1429.9	1414.6	1396.8	1379.9	1363.8	1353.6
20°	1504.4	1495.9	1482.4	1466.3	1450.2	1436.6	1424.8	1407.8	1390.1	1368.0	1352.8
22.5°	1530.7	1515.4	1495.9	1479.0	1463.7	1451.0	1437.5	1423.1	1404.5	1379.9	1358.7
25°	1567.9	1541.7	1519.7	1502.7	1489.2	1474.8	1459.5	1440.9	1422.2	1396.8	1371.4
27.5°	1624.7	1585.7	1557.8	1542.5	1529.8	1510.3	1490.9	1468.8	1445.1	1418.9	1390.1
30°	1693.3	1646.7	1614.5	1601.0	1585.7	1563.7	1542.5	1512.0	1479.0	1447.7	1412.1
32.5°	1773.8	1726.3	1694.2	1684.0	1659.4	1634.0	1604.4	1563.7	1520.5	1473.9	1431.6
35°	1895.8	1835.6	1806.0	1782.2	1748.4	1717.9	1667.9	1614.5	1552.7	1490.9	1438.3
37.5°	2021.1	1960.1	1929.6	1896.6	1852.6	1796.6	1729.7	1653.5	1571.3	1495.1	1430.7
40°	2188.8	2122.8	2083.8	2033.0	1961.8	1874.6	1775.5	1671.3	1571.3	1476.5	1398.5
42.5°	2384.5	2323.5	2263.4	2179.5	2065.2	1938.1	1799.2	1665.4	1544.2	1434.9	1352.8
45°	2655.6	2551.4	2455.7	2321.0	2154.1	1975.4	1801.7	1637.4	1497.6	1376.5	1285.0
47.5°	2960.5	2825.8	2656.4	2445.5	2217.6	1989.8	1777.2	1584.9	1423.9	1292.6	1192.7
50°	3312.1	3105.4	2845.3	2544.6	2249.8	1970.3	1718.7	1496.8	1322.3	1171.5	1064.8
52.5°	3714.4	3399.3	3016.4	2614.9	2244.8	1911.0	1622.1	1380.7	1185.9	1025.8	920.8
55°	4160.8	3719.5	3179.9	2659.8	2199.0	1795.8	1470.5	1217.2	1016.5	858.9	766.6
57.5°	4947.8	4281.1	3491.6	2720.0	2103.3	1621.3	1278.2	1010.6	829.3	695.4	607.4
60°	6409.8	5262.9	4082.1	2861.4	1959.3	1402.8	1036.0	792.9	641.2	543.8	478.6
62.5°	7314.5	5954.1	4370.1	2841.1	1725.5	1103.7	769.1	587.9	468.4	404.1	363.4
65°	7100.2	5683.0	4018.5	2440.4	1342.6	782.7	509.1	384.6	321.9	288.9	269.4
66°	6808.8	5379.8	3721.2	2185.5	1169.8	653.9	420.1	322.7	277.0	252.4	242.3
67.5°	6198.1	4825.8	3209.6	1750.1	876.7	487.1	310.0	253.3	225.3	212.6	205.8
70°	5187.5	3888.1	2270.2	1033.4	475.2	264.3	198.2	176.2	169.4	165.2	162.6
72.5°	4010.9	2814.8	1326.5	508.2	239.7	171.1	150.8	141.5	138.9	138.9	139.8
75°	2526.8	1617.9	593.8	244.8	162.6	138.1	128.8	124.5	125.4	126.2	125.4
77.5°	839.5	558.2	247.3	173.7	141.5	125.4	117.7	116.0	117.7	118.6	118.6
80°	241.4	210.9	178.7	153.3	129.6	116.9	110.1	109.3	113.5	114.4	112.7
82.5°	185.5	173.7	161.8	148.2	124.5	110.1	107.6	108.4	111.0	109.3	101.6
85°	170.3	168.6	121.1	120.3	108.4	105.0	102.5	103.3	100.8	91.5	83.0
87.5°	95.7	88.9	68.6	69.5	80.5	83.0	68.6	72.8	67.8	59.3	54.2
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: P159556

CATALOG NUMBER: VST-F05-LED-E-U-T3-7050

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1397.7	1397.7	1397.7	1397.7	1397.7
2.5°	1411.2	1410.4	1410.4	1412.9	1409.5
5°	1427.3	1426.5	1426.5	1429.0	1426.5
7.5°	1419.7	1417.2	1415.5	1414.6	1414.6
10°	1394.3	1391.7	1386.7	1385.0	1383.3
12.5°	1368.0	1365.5	1359.6	1359.6	1357.9
15°	1351.9	1348.5	1344.3	1341.8	1340.1
17.5°	1343.5	1338.4	1333.3	1330.8	1329.1
20°	1340.1	1333.3	1327.4	1323.1	1323.1
22.5°	1340.9	1332.4	1325.7	1320.6	1318.9
25°	1349.4	1336.7	1328.2	1323.1	1321.4
27.5°	1361.3	1346.0	1335.0	1328.2	1325.7
30°	1377.3	1356.2	1340.9	1332.4	1329.1
32.5°	1388.4	1358.7	1339.2	1327.4	1323.1
35°	1387.5	1349.4	1325.7	1310.4	1305.3
37.5°	1372.3	1327.4	1296.0	1277.4	1268.9
40°	1338.4	1286.7	1253.7	1235.9	1225.7
42.5°	1289.2	1233.3	1203.7	1184.2	1173.2
45°	1212.2	1157.1	1120.7	1105.4	1091.0
47.5°	1105.4	1049.5	1018.2	996.2	986.8
50°	980.1	924.2	891.1	873.3	864.9
52.5°	842.8	789.5	765.8	748.8	737.0
55°	700.5	651.4	641.2	622.6	611.6
57.5°	566.7	537.9	528.6	509.9	500.6
60°	443.0	433.7	423.5	411.7	406.6
62.5°	343.1	334.6	332.1	324.4	323.6
65°	261.7	262.6	260.9	259.2	257.5
66°	238.0	237.2	238.0	236.3	235.5
67.5°	202.5	205.8	208.4	207.5	207.5
70°	164.3	166.9	170.3	169.4	169.4
72.5°	140.6	144.8	146.5	145.7	145.7
75°	127.1	131.3	131.3	129.6	128.8
77.5°	118.6	120.3	118.6	116.9	115.2
80°	110.1	108.4	105.9	103.3	101.6
82.5°	95.7	91.5	88.9	84.7	84.7
85°	77.1	73.7	67.8	63.5	59.3
87.5°	50.0	48.3	44.0	33.0	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)