

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: McGRAW-EDISON

Report Number: P159045

Luminaire Tested: **VTS-F09-LED-E1-SLR**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P159045  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33715)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: VTS-F09-LED-E1-SLR  
Description: VENTUS LED SITE LUMINAIRE  
(9) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR RIGHT  
Light Source: (63) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

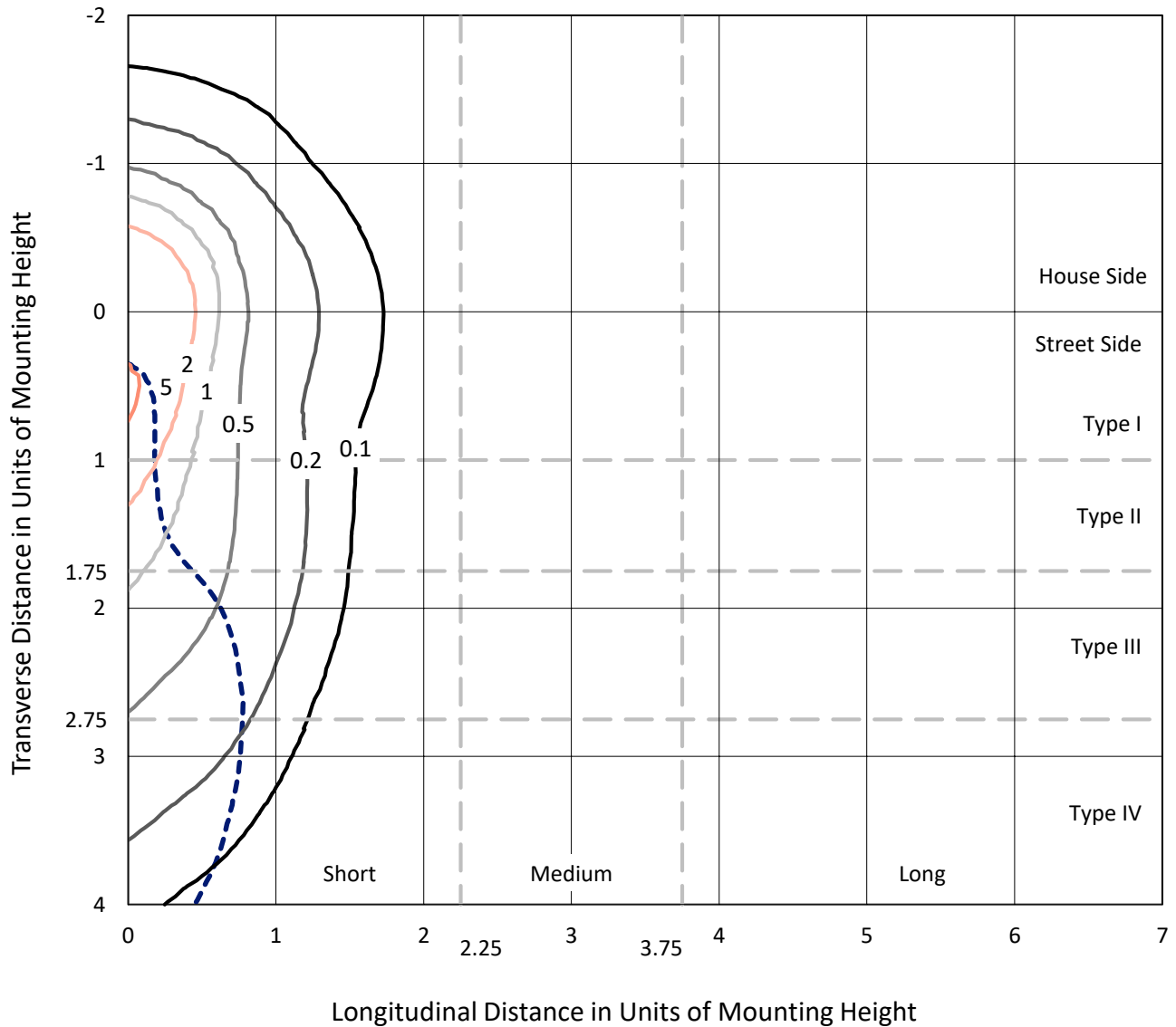
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19965.8 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 234.8  
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: 25 FT

REPORT NUMBER: P159045  
 CATALOG NUMBER: VTS-F09-LED-E1-SLR

### Iso-Footcandle Lines of Horizontal Illumination

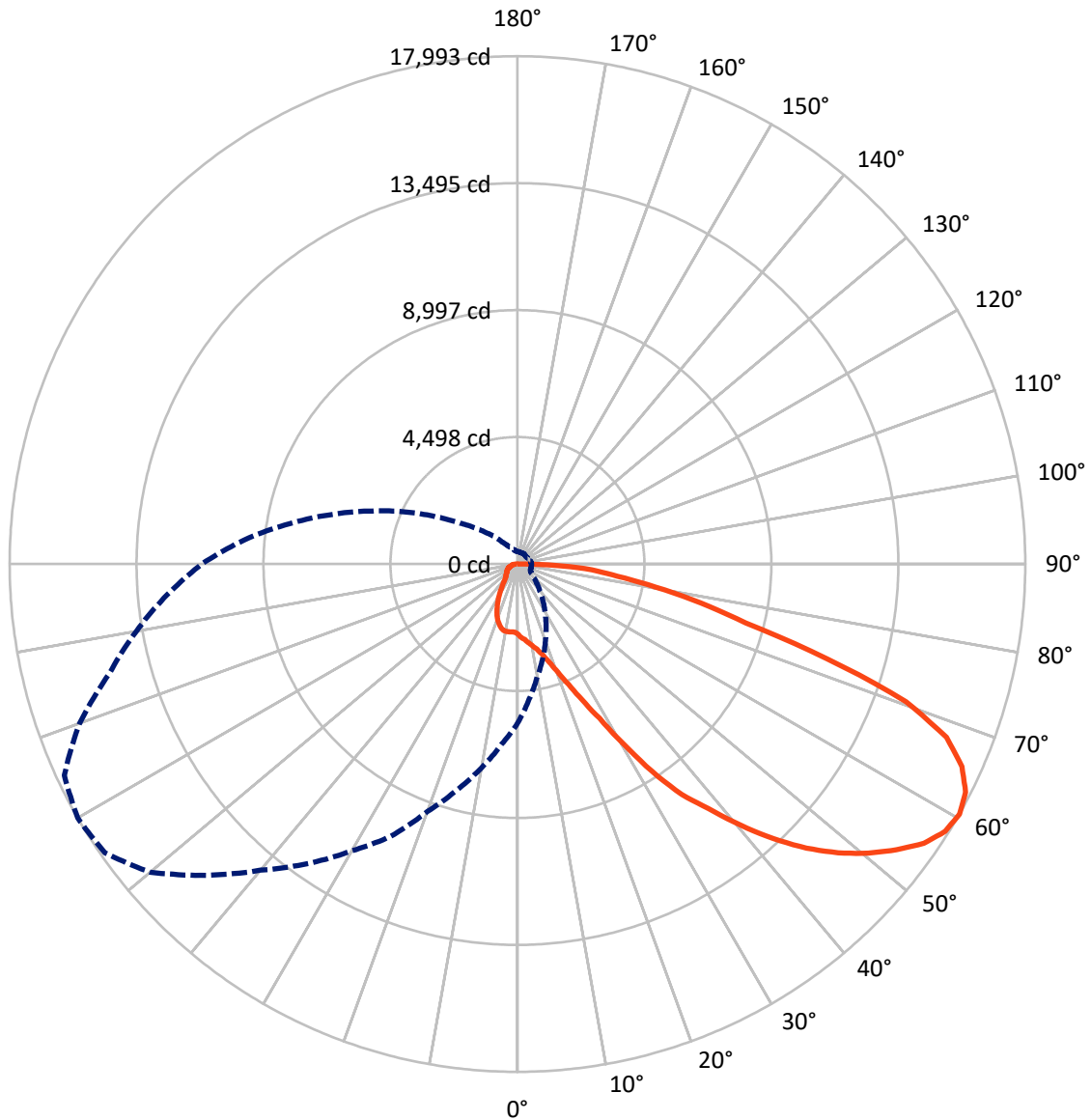
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc  
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P159045  
CATALOG NUMBER: VTS-F09-LED-E1-SLR

### Luminous Intensity Polar Plot



— Vertical Plane Through 300-Deg Lateral    - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P159045

CATALOG NUMBER: VTS-F09-LED-E1-SLR

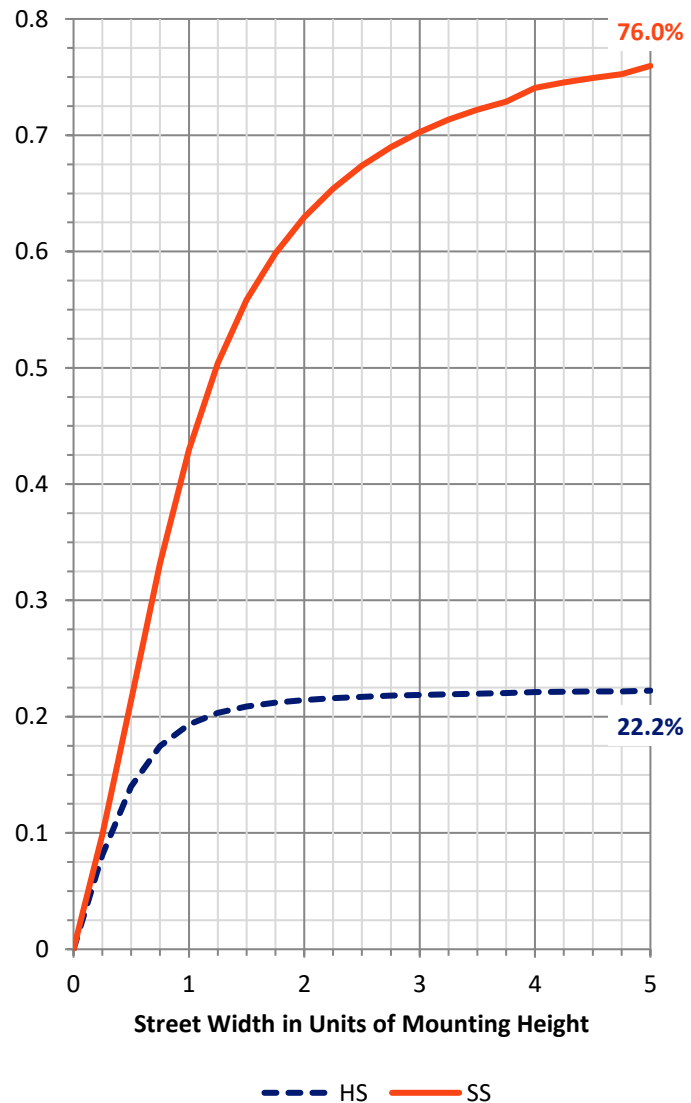
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4495.7	0.0	4495.7
	% Fixture	22.5	0.0	22.5
<b>Street Side</b>	Lumens	15470.1	0.0	15470.1
	% Fixture	77.5	0.0	77.5
<b>Total</b>	Lumens	19965.8	0.0	19965.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.0	1.2
10°-20°	790.9	4.0
20°-30°	1500.9	7.5
30°-40°	2363.6	11.8
40°-50°	3299.1	16.5
50°-60°	4080.2	20.4
60°-70°	4229.3	21.2
70°-80°	2661.2	13.3
80°-90°	795.5	4.0
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°	19965.8	100.0
0°-180°	19965.8	100.0



REPORT NUMBER: P159045

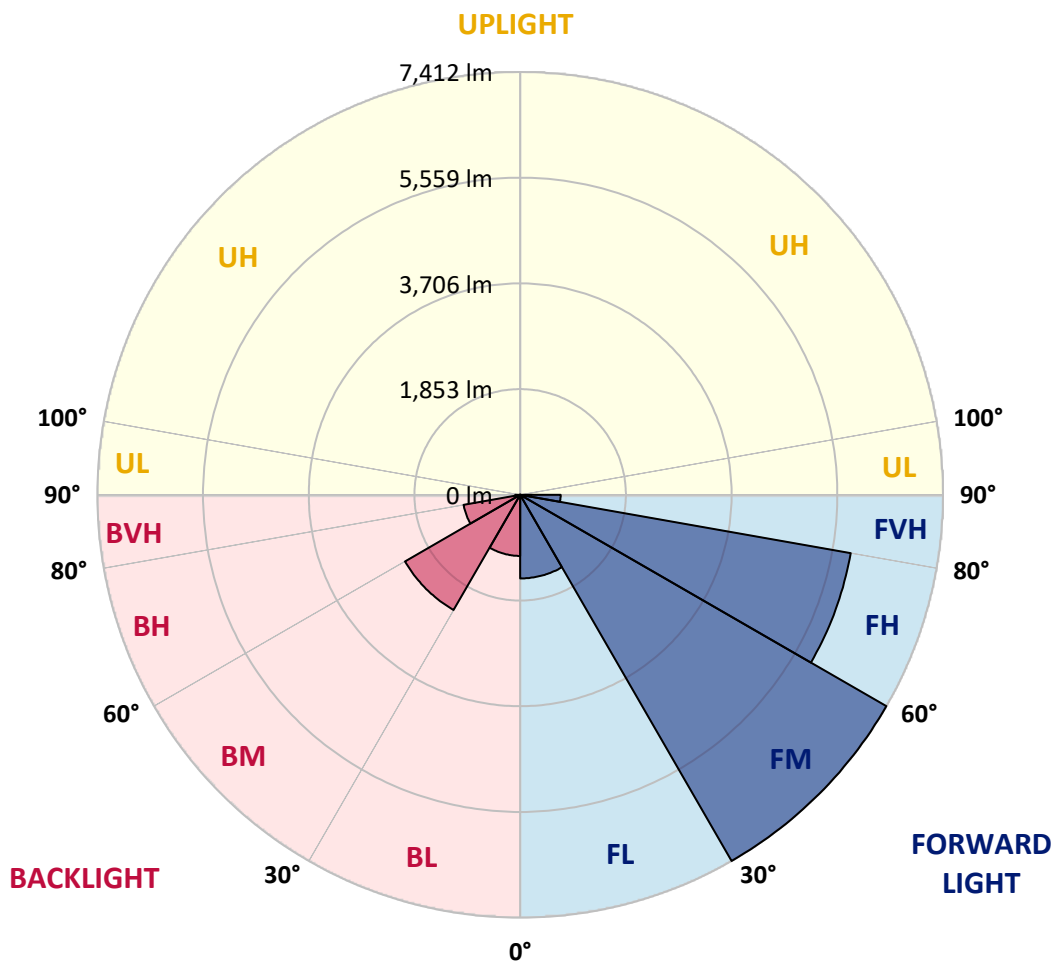
CATALOG NUMBER: VTS-F09-LED-E1-SLR

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1465.8	7.3			
FM	(30°-60°)	7411.6	37.1			
FH	(60°-80°)	5883.7	29.5			G3/7500
FVH	(80°-90°)	709.0	3.6			G4/750
BL	(0°-30°)	1071.0	5.4	B3/2500		
BM	(30°-60°)	2331.3	11.7	B2/2500		
BH	(60°-80°)	1006.8	5.0	B3/2500		G3/2500
BVH	(80°-90°)	86.5	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-G4**

Type IV Short





REPORT NUMBER: P159045  
 CATALOG NUMBER: VTS-F09-LED-E1-SLR

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2630.1	2472.6	2475.6	2471.1	2471.1	2468.2	2471.1	2468.2	2465.2	2465.2	2466.7
5°	2664.3	2490.4	2490.4	2486.0	2483.0	2480.0	2483.0	2480.0	2478.6	2475.6	2477.1
7.5°	2697.0	2500.8	2494.9	2489.0	2481.5	2484.5	2484.5	2483.0	2484.5	2483.0	2486.0
10°	2750.5	2535.0	2520.2	2506.8	2505.3	2502.3	2502.3	2497.9	2497.9	2494.9	2496.4
12.5°	2887.2	2640.5	2624.2	2600.4	2595.9	2582.6	2575.1	2566.2	2551.4	2538.0	2527.6
15°	3117.5	2815.9	2784.7	2763.9	2754.9	2728.2	2686.6	2653.9	2610.8	2573.7	2535.0
17.5°	3399.8	3050.6	3013.5	2986.7	2942.2	2869.4	2799.5	2719.3	2636.1	2560.3	2490.4
20°	3795.1	3388.0	3315.1	3251.2	3139.8	3015.0	2884.2	2744.5	2616.7	2497.9	2395.3
22.5°	4330.0	3823.3	3688.1	3517.2	3310.7	3099.7	2891.6	2698.5	2527.6	2373.1	2236.3
25°	4945.2	4239.4	3995.7	3701.5	3385.0	3093.7	2820.3	2572.2	2373.1	2173.9	2025.3
27.5°	5398.4	4587.1	4227.5	3841.2	3437.0	3065.5	2729.7	2429.5	2188.8	1985.2	1805.4
30°	5657.0	4786.2	4353.8	3900.6	3445.9	3018.0	2615.3	2267.6	1989.7	1747.5	1575.1
32.5°	5823.4	4893.2	4367.2	3841.2	3338.9	2876.8	2441.4	2080.3	1778.7	1520.1	1337.4
35°	5963.1	4936.3	4304.8	3708.9	3136.8	2662.8	2218.5	1857.4	1538.0	1300.2	1113.0
37.5°	6019.6	4928.9	4205.2	3532.1	2939.2	2429.5	1991.2	1621.2	1335.9	1126.3	965.9
40°	6009.2	4860.5	4070.0	3343.4	2707.4	2185.8	1750.4	1425.0	1193.2	1016.4	899.0
42.5°	5939.3	4769.9	3919.9	3151.7	2494.9	1983.7	1587.0	1298.7	1111.5	977.8	875.2
45°	5851.7	4661.4	3783.2	2976.3	2327.0	1839.6	1491.9	1263.1	1101.1	973.3	863.3
47.5°	5732.8	4541.0	3645.0	2851.5	2237.8	1796.5	1490.4	1283.9	1110.0	962.9	842.5
50°	5603.5	4453.4	3569.2	2798.0	2227.4	1823.3	1542.4	1316.5	1115.9	952.5	814.3
52.5°	5512.9	4414.7	3567.8	2817.4	2282.4	1897.6	1603.3	1358.2	1138.2	958.4	808.4
55°	5401.4	4408.8	3606.4	2900.6	2402.8	2023.9	1699.9	1429.5	1184.3	980.7	812.8
57.5°	5408.8	4526.2	3756.5	3105.6	2619.7	2194.7	1823.3	1517.1	1228.9	994.1	805.4
60°	5643.6	4799.6	4052.2	3456.3	2903.5	2395.3	1949.6	1564.7	1225.9	964.4	769.7
62.5°	6128.0	5209.7	4495.0	3867.9	3191.8	2549.9	1995.6	1551.3	1181.3	900.5	711.8
65°	6706.1	5689.7	4925.9	4187.4	3367.2	2585.5	1955.5	1477.0	1092.2	817.3	641.9
67.5°	7284.1	6030.0	5174.1	4278.0	3295.8	2441.4	1806.9	1310.6	940.6	704.3	563.2
70°	7492.1	6099.8	5154.7	4074.5	2971.9	2083.3	1487.4	1055.0	754.9	576.5	474.0
72.5°	7180.1	5662.9	4582.7	3462.3	2416.1	1615.2	1090.7	778.6	576.5	451.7	386.3
75°	6022.5	4560.4	3622.7	2607.8	1744.5	1142.7	787.6	567.6	433.9	358.1	309.1
77.5°	4292.9	3175.5	2468.2	1713.3	1132.3	792.0	564.7	426.5	344.7	286.8	251.1
80°	2697.0	1949.6	1503.8	1028.3	705.8	537.9	405.7	337.3	277.9	233.3	209.5
82.5°	1624.1	1135.3	885.6	639.0	463.6	368.5	298.7	264.5	221.4	193.2	179.8
85°	1102.6	835.1	581.0	377.4	279.4	216.9	203.6	182.8	164.9	138.2	133.7
87.5°	211.0	298.7	260.0	154.5	102.5	87.7	77.3	74.3	66.9	53.5	60.9
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: P159045  
 CATALOG NUMBER: VTS-F09-LED-E1-SLR

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2457.8	2454.8	2448.8	2448.8	2444.4	2435.5	2434.0	2428.0	2420.6	2422.1	2420.6
5°	2466.7	2460.7	2453.3	2450.3	2444.4	2435.5	2431.0	2423.6	2416.1	2416.1	2416.1
7.5°	2477.1	2469.6	2463.7	2453.3	2441.4	2432.5	2420.6	2411.7	2407.2	2405.7	2407.2
10°	2486.0	2481.5	2472.6	2457.8	2441.4	2423.6	2411.7	2399.8	2387.9	2389.4	2390.9
12.5°	2505.3	2490.4	2466.7	2444.4	2419.1	2396.8	2376.0	2361.2	2346.3	2346.3	2347.8
15°	2491.9	2448.8	2416.1	2373.1	2344.8	2309.2	2285.4	2272.0	2263.1	2260.1	2261.6
17.5°	2413.2	2361.2	2312.1	2273.5	2234.9	2206.6	2196.2	2187.3	2175.4	2181.4	2175.4
20°	2294.3	2230.4	2160.6	2114.5	2068.4	2049.1	2031.3	2022.4	2014.9	2041.7	2041.7
22.5°	2123.4	2046.1	1974.8	1918.4	1866.3	1845.5	1827.7	1817.3	1821.8	1854.5	1857.4
25°	1908.0	1814.3	1720.7	1686.5	1634.5	1618.2	1607.8	1606.3	1610.8	1643.5	1650.9
27.5°	1679.1	1581.0	1500.8	1422.0	1398.3	1384.9	1365.6	1387.9	1392.3	1428.0	1442.9
30°	1435.4	1329.9	1245.2	1193.2	1142.7	1150.1	1133.8	1160.5	1172.4	1209.6	1221.4
32.5°	1185.8	1086.2	1001.5	949.5	913.9	918.3	906.4	930.2	942.1	986.7	1009.0
35°	980.7	896.0	827.7	783.1	766.7	750.4	747.4	750.4	762.3	796.5	836.6
37.5°	863.3	793.5	744.5	711.8	689.5	679.1	673.1	673.1	673.1	680.6	699.9
40°	812.8	750.4	707.3	676.1	661.2	655.3	650.8	646.4	639.0	636.0	637.5
42.5°	790.5	719.2	673.1	649.4	640.4	640.4	640.4	637.5	630.0	622.6	615.2
45°	768.2	691.0	644.9	628.6	624.1	625.6	625.6	625.6	619.6	610.7	597.3
47.5°	740.0	659.8	613.7	603.3	603.3	607.8	609.2	609.2	603.3	594.4	584.0
50°	705.8	619.6	578.0	569.1	564.7	564.7	564.7	564.7	560.2	554.3	546.8
52.5°	688.0	597.3	554.3	545.3	545.3	540.9	539.4	534.9	530.5	526.0	515.6
55°	682.0	588.4	543.9	536.4	536.4	532.0	527.5	523.1	515.6	508.2	497.8
57.5°	665.7	569.1	530.5	524.5	524.5	521.6	517.1	512.7	505.2	494.8	481.4
60°	628.6	536.4	503.7	502.2	502.2	500.8	497.8	497.8	490.4	480.0	463.6
62.5°	581.0	502.2	471.0	471.0	469.6	468.1	462.1	460.6	451.7	438.4	423.5
65°	534.9	472.5	451.7	445.8	442.8	438.4	435.4	428.0	420.5	408.6	393.8
67.5°	477.0	428.0	414.6	408.6	402.7	398.2	393.8	389.3	380.4	371.5	359.6
70°	414.6	378.9	371.5	370.0	362.6	358.1	356.6	352.2	343.3	334.3	319.5
72.5°	355.1	334.3	328.4	328.4	319.5	313.5	310.6	309.1	303.1	295.7	282.3
75°	286.8	271.9	270.4	277.9	277.9	273.4	270.4	273.4	264.5	260.0	246.7
77.5°	234.8	227.3	222.9	225.9	234.8	230.3	224.4	224.4	224.4	216.9	212.5
80°	199.1	193.2	188.7	191.7	190.2	188.7	185.7	179.8	179.8	179.8	178.3
82.5°	179.8	178.3	162.0	162.0	156.0	151.6	148.6	145.6	142.7	142.7	150.1
85°	135.2	139.7	130.8	129.3	121.8	115.9	110.0	107.0	104.0	108.5	123.3
87.5°	65.4	65.4	62.4	69.8	63.9	60.9	56.5	53.5	56.5	69.8	83.2
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: P159045  
 CATALOG NUMBER: VTS-F09-LED-E1-SLR

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2417.6	2416.1	2414.7	2411.7	2405.7	2404.3	2401.3	2401.3	2399.8	2396.8	2399.8
5°	2413.2	2416.1	2416.1	2414.7	2410.2	2413.2	2413.2	2417.6	2417.6	2420.6	2428.0
7.5°	2407.2	2414.7	2420.6	2425.1	2431.0	2435.5	2444.4	2457.8	2463.7	2474.1	2478.6
10°	2395.3	2408.7	2419.1	2432.5	2447.4	2463.7	2477.1	2497.9	2505.3	2520.2	2527.6
12.5°	2361.2	2383.5	2401.3	2428.0	2453.3	2478.6	2502.3	2529.1	2542.5	2558.8	2569.2
15°	2278.0	2303.2	2328.5	2352.3	2396.8	2445.9	2484.5	2520.2	2539.5	2560.3	2570.7
17.5°	2178.4	2194.7	2215.5	2246.7	2289.8	2332.9	2395.3	2445.9	2475.6	2499.4	2502.3
20°	2062.5	2086.3	2101.1	2113.0	2147.2	2176.9	2243.8	2301.7	2340.4	2368.6	2376.0
22.5°	1885.7	1910.9	1936.2	1945.1	1971.8	2010.5	2047.6	2110.0	2165.0	2206.6	2231.9
25°	1683.6	1707.4	1741.5	1768.3	1774.2	1805.4	1842.6	1913.9	1970.4	2037.2	2066.9
27.5°	1481.5	1502.3	1539.4	1554.3	1572.1	1603.3	1633.1	1692.5	1751.9	1829.2	1861.9
30°	1245.2	1289.8	1332.9	1361.1	1376.0	1413.1	1433.9	1491.9	1546.9	1603.3	1650.9
32.5°	1043.1	1083.3	1132.3	1168.0	1185.8	1214.0	1246.7	1295.7	1338.8	1393.8	1448.8
35°	857.4	912.4	945.1	976.3	1022.3	1035.7	1068.4	1113.0	1138.2	1197.7	1260.1
37.5°	726.6	759.3	792.0	823.2	861.8	879.7	910.9	948.0	977.8	1013.4	1069.9
40°	646.4	664.2	688.0	708.8	737.0	759.3	775.7	806.9	829.2	864.8	904.9
42.5°	609.2	613.7	616.7	631.5	646.4	661.2	679.1	692.5	719.2	745.9	771.2
45°	588.4	579.5	575.1	576.5	582.5	591.4	606.3	621.1	639.0	655.3	670.2
47.5°	570.6	558.7	545.3	537.9	539.4	542.4	554.3	566.1	575.1	588.4	594.4
50°	529.0	518.6	506.7	496.3	497.8	499.3	509.7	518.6	524.5	529.0	536.4
52.5°	502.2	487.4	477.0	466.6	465.1	469.6	478.5	487.4	490.4	493.3	494.8
55°	482.9	468.1	454.7	444.3	439.8	450.2	453.2	465.1	469.6	469.6	471.0
57.5°	468.1	450.2	436.9	426.5	419.0	426.5	433.9	447.3	448.8	445.8	445.8
60°	445.8	432.4	419.0	408.6	401.2	407.1	413.1	428.0	428.0	420.5	419.0
62.5°	407.1	399.7	390.8	386.3	384.9	390.8	395.3	407.1	402.7	393.8	390.8
65°	378.9	373.0	364.1	361.1	359.6	368.5	370.0	377.4	371.5	367.0	365.5
67.5°	344.7	340.3	335.8	334.3	329.9	329.9	332.9	337.3	334.3	334.3	335.8
70°	306.1	300.2	295.7	297.2	294.2	294.2	295.7	298.7	297.2	300.2	303.1
72.5°	270.4	263.0	261.5	261.5	258.6	260.0	260.0	261.5	264.5	266.0	273.4
75°	236.3	228.8	228.8	227.3	227.3	227.3	228.8	231.8	234.8	236.3	239.2
77.5°	205.1	200.6	202.1	200.6	200.6	200.6	200.6	205.1	206.5	208.0	212.5
80°	176.8	176.8	178.3	178.3	176.8	175.3	176.8	179.8	181.3	182.8	184.3
82.5°	160.5	162.0	162.0	162.0	154.5	151.6	156.0	159.0	162.0	163.5	166.4
85°	138.2	132.2	138.2	136.7	126.3	124.8	124.8	126.3	129.3	126.3	126.3
87.5°	89.2	80.2	84.7	84.7	74.3	60.9	77.3	83.2	74.3	78.8	78.8
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: P159045

CATALOG NUMBER: VTS-F09-LED-E1-SLR

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2404.3	2401.3	2402.8	2402.8	2405.7	2401.3	2407.2	2413.2	2414.7	2414.7	2416.1
5°	2435.5	2432.5	2442.9	2438.4	2448.8	2447.4	2454.8	2460.7	2463.7	2463.7	2463.7
7.5°	2484.5	2494.9	2500.8	2517.2	2518.7	2527.6	2535.0	2542.5	2539.5	2541.0	2539.5
10°	2539.5	2552.9	2567.7	2584.1	2585.5	2595.9	2607.8	2615.3	2612.3	2610.8	2606.3
12.5°	2587.0	2595.9	2613.8	2630.1	2639.0	2655.4	2667.3	2673.2	2673.2	2668.8	2664.3
15°	2584.1	2597.4	2616.7	2640.5	2656.9	2680.6	2701.4	2714.8	2716.3	2711.8	2710.4
17.5°	2518.7	2538.0	2555.8	2588.5	2618.2	2650.9	2685.1	2704.4	2722.3	2732.7	2738.6
20°	2401.3	2425.1	2450.3	2493.4	2533.5	2576.6	2616.7	2645.0	2671.7	2702.9	2740.1
22.5°	2263.1	2298.8	2334.4	2389.4	2438.4	2487.5	2533.5	2567.7	2609.3	2662.8	2732.7
25°	2101.1	2138.3	2182.9	2246.7	2309.2	2380.5	2448.8	2517.2	2597.4	2689.6	2798.0
27.5°	1909.4	1951.0	2009.0	2086.3	2157.6	2230.4	2337.4	2445.9	2576.6	2695.5	2818.8
30°	1719.2	1772.7	1835.1	1912.4	1983.7	2087.8	2194.7	2328.5	2466.7	2600.4	2747.5
32.5°	1514.2	1581.0	1658.3	1722.2	1802.5	1908.0	2014.9	2157.6	2304.7	2462.2	2624.2
35°	1316.5	1380.4	1441.4	1512.7	1592.9	1692.5	1796.5	1933.2	2119.0	2286.9	2480.0
37.5°	1115.9	1175.4	1218.5	1274.9	1344.8	1454.7	1566.2	1723.7	1899.0	2105.6	2298.8
40°	940.6	989.6	1038.7	1083.3	1142.7	1246.7	1365.6	1520.1	1692.5	1893.1	2108.6
42.5°	800.9	838.1	891.6	945.1	995.6	1084.7	1196.2	1347.8	1518.6	1723.7	1939.2
45°	683.5	708.8	751.9	796.5	858.9	933.2	1040.2	1194.7	1368.6	1575.1	1802.5
47.5°	598.8	610.7	640.4	686.5	744.5	817.3	909.4	1049.1	1218.5	1426.5	1665.7
50°	540.9	554.3	569.1	607.8	659.8	734.1	809.8	931.7	1086.2	1289.8	1527.6
52.5°	500.8	506.7	512.7	536.4	584.0	646.4	726.6	818.8	974.8	1169.4	1383.4
55°	477.0	478.5	482.9	494.8	530.5	588.4	658.3	745.9	867.8	1052.0	1270.5
57.5°	448.8	451.7	456.2	463.6	485.9	537.9	597.3	668.7	769.7	924.3	1133.8
60°	422.0	429.4	436.9	441.3	453.2	484.4	534.9	591.4	673.1	789.0	955.5
62.5°	393.8	402.7	408.6	413.1	417.6	436.9	474.0	511.2	561.7	637.5	762.3
65°	368.5	374.5	378.9	381.9	384.9	390.8	407.1	422.0	436.9	482.9	573.6
67.5°	340.3	343.3	344.7	346.2	344.7	344.7	346.2	352.2	358.1	375.9	419.0
70°	307.6	312.0	312.0	313.5	313.5	309.1	309.1	309.1	309.1	313.5	337.3
72.5°	276.4	282.3	282.3	283.8	282.3	280.8	280.8	280.8	285.3	288.3	297.2
75°	246.7	252.6	251.1	252.6	254.1	254.1	257.1	258.6	263.0	264.5	270.4
77.5°	216.9	221.4	222.9	221.4	224.4	227.3	233.3	236.3	237.8	239.2	240.7
80°	188.7	191.7	190.2	185.7	193.2	197.6	206.5	216.9	214.0	215.5	218.4
82.5°	156.0	151.6	148.6	151.6	156.0	162.0	170.9	184.3	185.7	193.2	191.7
85°	120.4	107.0	105.5	112.9	111.4	118.9	133.7	144.1	153.1	160.5	153.1
87.5°	71.3	63.9	53.5	50.5	55.0	72.8	75.8	92.1	99.6	102.5	92.1
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: P159045  
 CATALOG NUMBER: VTS-F09-LED-E1-SLR

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2551.4	2558.8	2558.8	2561.8	2566.2	2567.7	2573.7	2584.1	2585.5	2585.5	2590.0
5°	2598.9	2606.3	2606.3	2612.3	2613.8	2621.2	2628.6	2640.5	2646.5	2645.0	2664.3
7.5°	2676.2	2670.2	2665.8	2674.7	2679.2	2688.1	2702.9	2713.3	2723.7	2740.1	2766.8
10°	2741.6	2732.7	2728.2	2734.1	2737.1	2747.5	2756.4	2771.3	2796.5	2821.8	2854.5
12.5°	2795.1	2784.7	2772.8	2775.7	2780.2	2793.6	2808.4	2827.8	2864.9	2897.6	2946.6
15°	2839.6	2824.8	2812.9	2818.8	2829.2	2847.1	2872.3	2906.5	2967.4	3023.9	3089.3
17.5°	2882.7	2879.8	2875.3	2894.6	2902.1	2943.7	2980.8	3043.2	3126.4	3211.1	3304.7
20°	2924.3	2957.0	2973.4	3012.0	3035.8	3092.3	3148.7	3224.5	3330.0	3445.9	3573.7
22.5°	2982.3	3071.4	3126.4	3205.2	3245.3	3306.2	3389.4	3489.0	3606.4	3755.0	3918.4
25°	3120.5	3251.2	3361.2	3484.5	3585.6	3679.2	3778.8	3899.1	4068.5	4203.7	4417.7
27.5°	3181.4	3365.7	3530.6	3704.5	3856.0	4000.2	4157.7	4303.3	4503.9	4686.7	4945.2
30°	3123.5	3331.5	3545.5	3772.8	3994.2	4212.7	4441.5	4664.4	4896.2	5151.8	5426.7
32.5°	3016.5	3249.8	3490.5	3758.0	4032.9	4316.7	4613.9	4937.8	5264.7	5582.7	5863.5
35°	2908.0	3159.1	3426.6	3732.7	4056.6	4408.8	4777.3	5187.4	5619.8	6022.5	6389.6
37.5°	2750.5	3026.9	3333.0	3686.6	4071.5	4505.4	4979.4	5484.6	6031.5	6585.7	7067.2
40°	2560.3	2853.0	3187.4	3594.5	4056.6	4604.9	5221.6	5869.5	6572.3	7248.4	7839.8
42.5°	2386.4	2671.7	3028.4	3471.2	4018.0	4692.6	5451.9	6258.8	7090.9	7847.3	8620.0
45°	2233.4	2548.4	2906.5	3385.0	3998.7	4766.9	5622.8	6550.0	7502.5	8403.0	9315.4
47.5°	2093.7	2420.6	2821.8	3337.4	3989.8	4811.5	5741.7	6740.2	7795.3	8829.5	9889.0
50°	1949.6	2267.6	2697.0	3285.4	3967.5	4810.0	5804.1	6869.5	8000.3	9160.9	10284.2
52.5°	1795.0	2114.5	2545.4	3190.3	3919.9	4783.3	5820.4	6957.2	8162.3	9364.4	10620.0
55°	1653.9	1952.5	2383.5	3031.3	3820.4	4717.9	5783.3	6994.3	8276.7	9566.5	10856.3
57.5°	1491.9	1802.5	2212.6	2812.9	3633.1	4602.0	5677.8	6942.3	8309.4	9701.7	11043.5
60°	1269.0	1573.6	1995.6	2554.3	3340.4	4356.8	5481.7	6784.8	8205.4	9725.5	11177.3
62.5°	1013.4	1276.4	1683.6	2197.7	2928.8	3971.9	5119.1	6431.2	7881.5	9502.6	11108.9
65°	753.4	928.7	1279.4	1731.1	2451.8	3392.4	4535.1	5838.3	7248.4	8883.0	10679.5
67.5°	524.5	650.8	866.3	1202.1	1783.1	2619.7	3701.5	4912.5	6269.2	7735.8	9787.9
70°	396.7	454.7	572.1	759.3	1154.6	1784.6	2691.0	3769.8	5028.4	6441.6	8374.8
72.5°	338.8	368.5	433.9	520.1	707.3	1084.7	1689.5	2594.5	3710.4	4860.5	6425.2
75°	304.6	329.9	371.5	426.5	500.8	658.3	991.1	1642.0	2457.8	3255.7	4483.1
77.5°	276.4	298.7	335.8	364.1	404.2	474.0	631.5	982.2	1472.6	2012.0	2781.7
80°	246.7	260.0	294.2	322.5	353.7	393.8	453.2	616.7	845.5	1191.7	1640.5
82.5°	211.0	221.4	246.7	285.3	309.1	325.4	343.3	408.6	506.7	646.4	910.9
85°	163.5	170.9	193.2	221.4	231.8	233.3	236.3	254.1	315.0	484.4	784.6
87.5°	83.2	92.1	115.9	124.8	105.5	114.4	115.9	123.3	163.5	266.0	270.4
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: P159045  
 CATALOG NUMBER: VTS-F09-LED-E1-SLR

REPORT N  
 CATALOG

**CANDELA DISTRIBUTION (continued):**

**CANDELA**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	0°
2.5°	2590.0	2594.5	2604.9	2603.4	2610.8	2610.8	2610.8	2618.2	2613.8	2618.2	2625.7	2.5°
5°	2664.3	2671.7	2686.6	2686.6	2688.1	2683.6	2692.5	2698.5	2691.0	2688.1	2689.6	5°
7.5°	2772.8	2784.7	2796.5	2808.4	2817.4	2812.9	2814.4	2801.0	2798.0	2787.6	2774.3	7.5°
10°	2878.3	2911.0	2933.3	2954.1	2955.5	2951.1	2952.6	2930.3	2925.8	2905.0	2891.6	10°
12.5°	2986.7	3028.4	3064.0	3086.3	3099.7	3102.7	3104.1	3104.1	3083.3	3065.5	3034.3	12.5°
15°	3147.2	3220.0	3275.0	3298.8	3318.1	3335.9	3340.4	3346.3	3330.0	3306.2	3301.8	15°
17.5°	3401.3	3469.7	3542.5	3606.4	3649.5	3652.5	3689.6	3686.6	3720.8	3694.1	3686.6	17.5°
20°	3703.0	3851.6	3927.4	4012.1	4061.1	4084.9	4171.0	4144.3	4169.6	4212.7	4169.6	20°
22.5°	4080.4	4269.1	4379.1	4495.0	4575.2	4633.2	4695.6	4744.6	4813.0	4845.7	4815.9	22.5°
25°	4581.2	4796.6	4927.4	5087.9	5215.7	5319.7	5428.2	5558.9	5557.4	5636.2	5691.2	25°
27.5°	5156.2	5431.1	5621.3	5903.7	6013.6	6189.0	6374.7	6576.8	6612.5	6715.0	6767.0	27.5°
30°	5697.1	6037.4	6414.8	6750.6	7131.0	7391.1	7606.6	7749.2	7964.7	7911.2	7881.5	30°
32.5°	6196.4	6649.6	7187.5	7738.8	8342.1	8753.7	9134.1	9310.9	9444.7	9160.9	8784.9	32.5°
35°	6844.3	7386.6	8001.8	8682.4	9449.1	10033.1	10425.4	10480.4	10404.6	10040.5	9417.9	35°
37.5°	7646.7	8215.8	8915.7	9634.9	10449.2	10997.5	11444.7	11525.0	11324.4	10675.0	10021.2	37.5°
40°	8438.7	9105.9	9865.2	10716.6	11560.7	12163.9	12612.7	12636.5	12309.6	11550.2	10785.0	40°
42.5°	9305.0	10034.6	10880.1	11823.7	12695.9	13306.6	13630.6	13733.1	13271.0	12297.7	11563.6	42.5°
45°	10052.4	10924.7	11866.8	12869.8	13782.1	14361.7	14691.5	14658.8	14100.1	13138.7	12278.4	45°
47.5°	10780.5	11740.5	12733.1	13798.5	14704.9	15290.4	15629.2	15599.4	14890.7	13783.6	12837.1	47.5°
50°	11428.4	12470.0	13531.0	14669.2	15572.7	16109.1	16523.7	16392.9	15496.9	14302.2	13196.7	50°
52.5°	11878.6	13040.7	14149.2	15379.5	16309.7	16817.9	17345.4	16924.9	15855.0	14620.2	13389.8	52.5°
55°	12163.9	13432.9	14589.0	15950.1	16864.0	17471.7	17812.0	17214.7	15993.2	14707.9	13456.7	55°
57.5°	12357.1	13648.4	14847.6	16280.0	17363.3	17872.9	17956.2	17225.1	15904.1	14569.7	13389.8	57.5°
60°	12452.2	13712.3	14965.0	16511.8	17713.9	17993.3	17841.7	16984.3	15596.5	14164.0	12958.9	60°
62.5°	12441.8	13632.1	14904.0	16589.1	17783.8	17819.5	17474.7	16574.2	15030.3	13312.6	12242.7	62.5°
65°	12177.3	13339.3	14560.8	16302.3	17458.4	17305.3	16871.4	15804.5	13929.2	12201.1	11660.2	65°
67.5°	11415.0	12529.5	13663.3	15363.2	16541.5	16392.9	15736.2	14291.8	12649.8	11217.4	10926.2	67.5°
70°	10140.1	11085.1	12080.7	13574.1	14810.4	14609.8	13461.2	12583.0	11382.3	10080.6	9979.6	70°
72.5°	8477.3	9193.5	9915.7	11027.2	11878.6	11468.5	10746.4	10700.3	9730.0	8735.9	8756.7	72.5°
75°	6630.3	7168.2	7505.5	8159.3	8725.5	8358.4	8401.5	8657.1	8337.6	7554.5	7300.4	75°
77.5°	4804.1	5319.7	5426.7	5814.5	6212.7	6630.3	7183.1	7784.9	7885.9	7446.1	6524.8	77.5°
80°	3144.3	3711.9	3500.9	3639.1	4199.3	4961.6	5970.5	6961.7	7301.9	6906.7	5772.9	80°
82.5°	1854.5	2649.4	2313.6	2549.9	2905.0	3569.2	4266.1	5013.6	5582.7	5162.2	4821.9	82.5°
85°	1408.7	2089.2	2212.6	2499.4	2615.3	2643.5	2765.3	3009.0	3303.3	3413.2	3404.3	85°
87.5°	734.1	1624.1	1823.3	1686.5	1573.6	1364.1	1063.9	1145.7	1047.6	1432.5	1356.7	87.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°



NUMBER: P159045

NUMBER: VTS-F09-LED-E1-SLR

**DISTRIBUTION (continued):**

330°	335°	340°	345°	350°	355°	360°
2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2627.2	2622.7	2625.7	2627.2	2627.2	2627.2	2630.1
2688.1	2676.2	2671.7	2671.7	2670.2	2665.8	2664.3
2753.5	2732.7	2725.2	2716.3	2708.9	2704.4	2697.0
2870.8	2853.0	2815.9	2795.1	2775.7	2762.4	2750.5
3028.4	3003.1	2967.4	2940.7	2911.0	2902.1	2887.2
3272.1	3249.8	3218.6	3188.8	3171.0	3139.8	3117.5
3652.5	3607.9	3576.7	3538.0	3494.9	3431.0	3399.8
4153.2	4064.1	4001.6	3967.5	3881.3	3870.9	3795.1
4728.3	4701.5	4606.4	4564.8	4481.6	4448.9	4330.0
5588.6	5567.8	5373.2	5352.4	5224.6	5129.5	4945.2
6719.4	6548.6	6328.6	6175.6	5957.2	5712.0	5398.4
7707.6	7358.4	7022.6	6665.9	6364.3	6012.1	5657.0
8337.6	7869.6	7437.2	7071.6	6698.6	6279.6	5823.4
8890.4	8417.9	7946.8	7514.4	7062.7	6526.3	5963.1
9551.7	9082.1	8551.6	7943.9	7364.3	6707.6	6019.6
10229.2	9679.4	9016.7	8272.3	7544.1	6796.7	6009.2
10923.2	10220.3	9339.2	8490.7	7658.6	6810.1	5939.3
11486.4	10597.8	9578.4	8602.1	7682.3	6764.0	5851.7
11884.6	10840.0	9685.4	8640.8	7652.6	6691.2	5732.8
12111.9	10972.2	9712.1	8612.5	7591.7	6587.2	5603.5
12195.1	11012.3	9685.4	8554.6	7536.7	6475.7	5512.9
12186.2	10990.0	9587.3	8419.4	7389.6	6327.2	5401.4
12018.3	10783.5	9386.7	8257.4	7264.8	6258.8	5408.8
11733.0	10652.7	9327.3	8290.1	7330.2	6405.9	5643.6
11603.7	10914.3	9661.6	8617.0	7666.0	6826.4	6128.0
11530.9	11339.2	10140.1	8969.2	8064.2	7336.1	6706.1
11233.7	11461.1	10412.0	9169.8	8419.4	7847.3	7284.1
10753.8	11177.3	10205.5	9131.1	8615.5	8239.6	7492.1
9752.3	10199.5	9285.7	8562.0	8370.3	8245.5	7180.1
7900.8	8132.6	7612.5	7449.0	7520.4	7521.9	6022.5
5826.4	5686.7	5451.9	5463.8	5943.8	5869.5	4292.9
4756.5	3893.2	3560.3	3686.6	4279.5	3960.0	2697.0
4426.6	3472.7	2866.4	2896.1	3231.9	2551.4	1624.1
3579.6	3165.1	2538.0	2278.0	2211.1	1699.9	1102.6
1497.8	1377.5	1025.3	924.3	757.8	463.6	211.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)