

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: P159174

Luminaire Tested: **VST-F11-LED-E-U-SLR-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159174
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: STREETWORKS
Catalog Number: VST-F11-LED-E-U-SLR-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR RIGHT
Light Source: (77) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22288.1 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

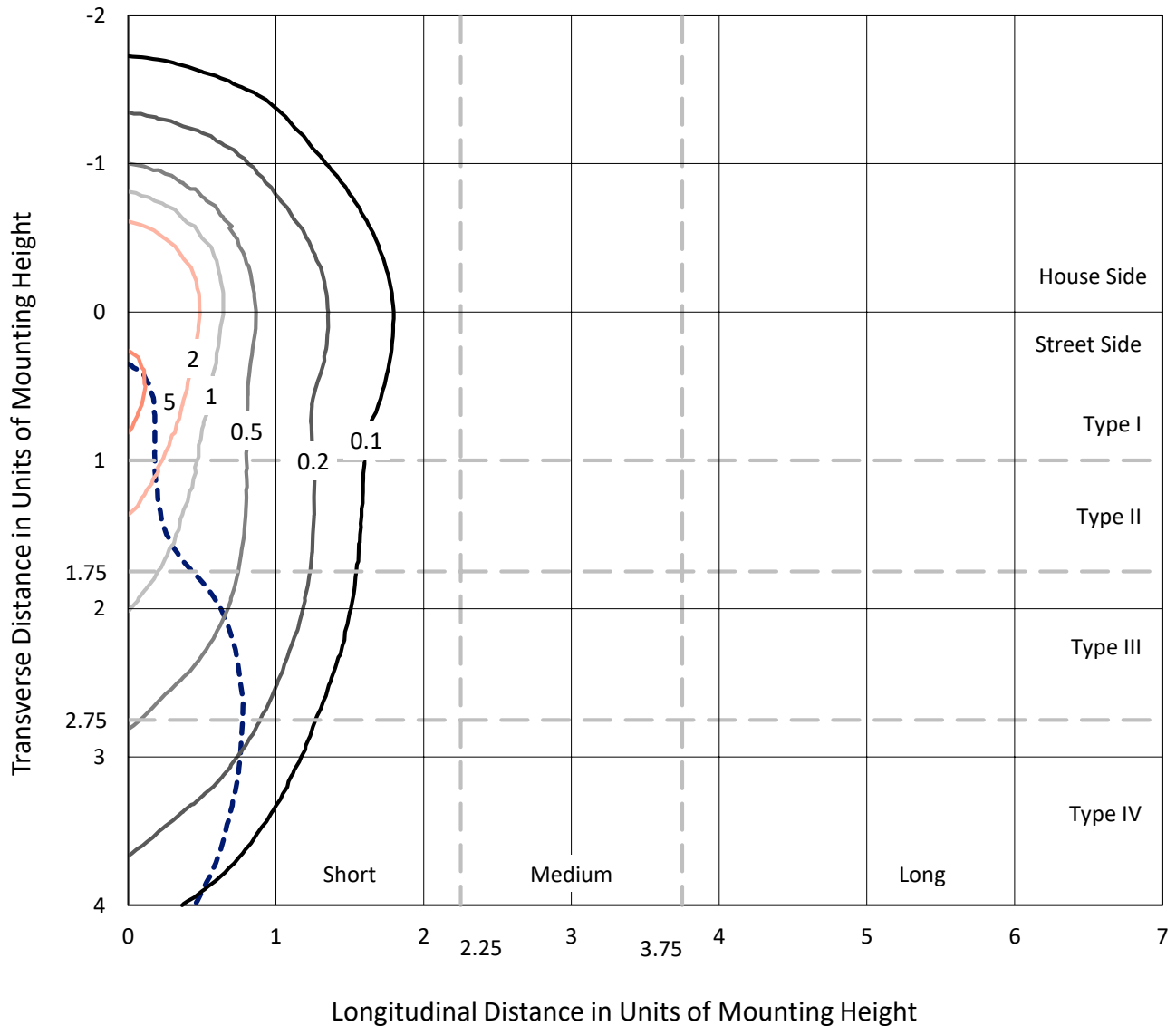
Input Watts (W): 282.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P159174
 CATALOG NUMBER: VST-F11-LED-E-U-SLR-7030

Iso-Footcandle Lines of Horizontal Illumination

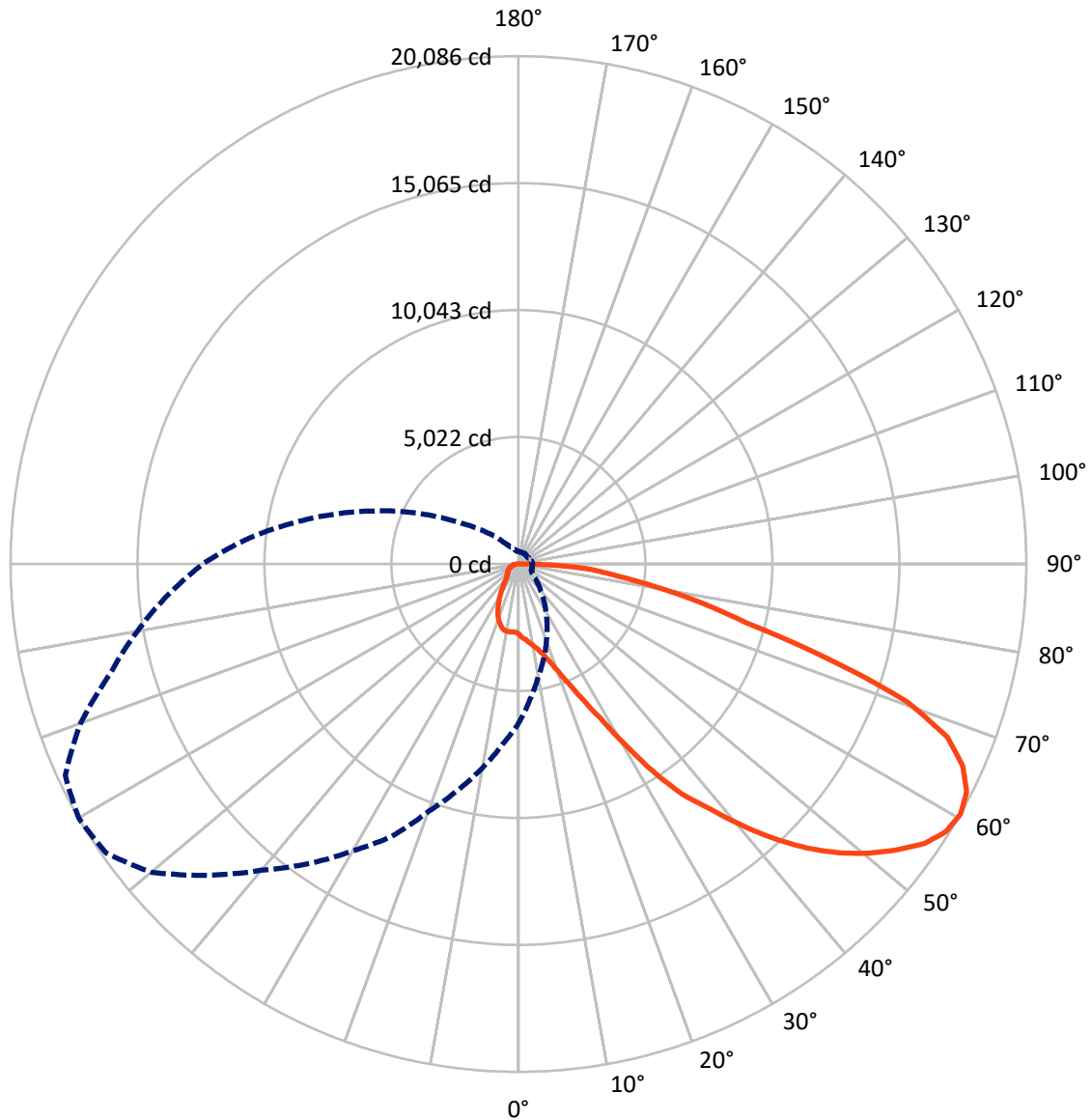
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P159174
CATALOG NUMBER: VST-F11-LED-E-U-SLR-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P159174

CATALOG NUMBER: VST-F11-LED-E-U-SLR-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5018.6	0.0	5018.6
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	17269.5	0.0	17269.5
	% Fixture	77.5	0.0	77.5
Total	Lumens	22288.1	0.0	22288.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.5	1.2
10°-20°	882.9	4.0
20°-30°	1675.5	7.5
30°-40°	2638.6	11.8
40°-50°	3682.8	16.5
50°-60°	4554.8	20.4
60°-70°	4721.3	21.2
70°-80°	2970.8	13.3
80°-90°	888.0	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°	22288.1	100.0
0°-180°	22288.1	100.0



REPORT NUMBER: P159174

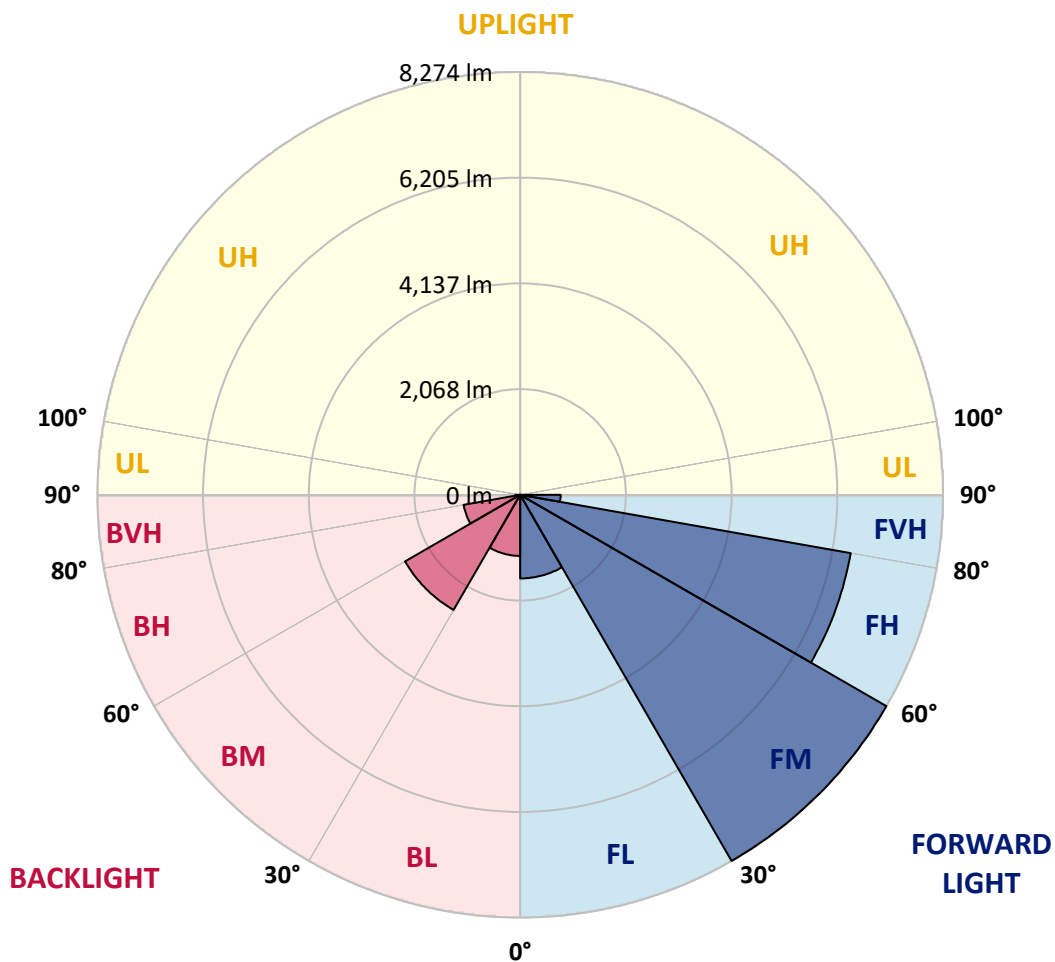
CATALOG NUMBER: VST-F11-LED-E-U-SLR-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1636.3	7.3			
FM (30°-60°)	8273.7	37.1			
FH (60°-80°)	6568.1	29.5			G3/7500
FVH (80°-90°)	791.4	3.6			G5
BL (0°-30°)	1195.6	5.4	B3/2500		
BM (30°-60°)	2602.4	11.7	B3/5000		
BH (60°-80°)	1123.9	5.0	B3/2500		G3/2500
BVH (80°-90°)	96.6	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-G5

Type IV Short





REPORT NUMBER: P159174

CATALOG NUMBER: VST-F11-LED-E-U-SLR-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8
2.5°	2936.1	2760.2	2763.5	2758.6	2758.6	2755.2	2758.6	2755.2	2751.9	2751.9	2753.6
5°	2974.2	2780.1	2780.1	2775.1	2771.8	2768.5	2771.8	2768.5	2766.9	2763.5	2765.2
7.5°	3010.7	2791.7	2785.1	2778.5	2770.2	2773.5	2773.5	2771.8	2773.5	2771.8	2775.1
10°	3070.4	2829.9	2813.3	2798.4	2796.7	2793.4	2793.4	2788.4	2788.4	2785.1	2786.8
12.5°	3223.0	2947.7	2929.4	2902.9	2897.9	2883.0	2874.7	2864.7	2848.1	2833.2	2821.6
15°	3480.1	3143.4	3108.6	3085.3	3075.4	3045.5	2999.1	2962.6	2914.5	2873.0	2829.9
17.5°	3795.3	3405.5	3364.0	3334.2	3284.4	3203.1	3125.2	3035.6	2942.7	2858.1	2780.1
20°	4236.5	3782.0	3700.8	3629.4	3505.0	3365.7	3219.7	3063.8	2921.1	2788.4	2674.0
22.5°	4833.7	4268.1	4117.1	3926.3	3695.8	3460.2	3228.0	3012.4	2821.6	2649.1	2496.5
25°	5520.4	4732.5	4460.5	4132.0	3778.7	3453.6	3148.4	2871.4	2649.1	2426.8	2260.9
27.5°	6026.4	5120.7	4719.2	4288.0	3836.8	3422.1	3047.2	2712.1	2443.4	2216.1	2015.4
30°	6315.0	5342.9	4860.2	4354.3	3846.7	3369.0	2919.5	2531.3	2221.1	1950.7	1758.3
32.5°	6500.8	5462.4	4875.2	4288.0	3727.3	3211.4	2725.4	2322.3	1985.6	1696.9	1492.9
35°	6656.7	5510.5	4805.5	4140.3	3501.7	2972.5	2476.6	2073.5	1716.8	1451.4	1242.4
37.5°	6719.7	5502.2	4694.4	3942.9	3281.1	2712.1	2222.8	1809.7	1491.2	1257.4	1078.2
40°	6708.1	5425.9	4543.4	3732.3	3022.3	2440.1	1954.0	1590.8	1332.0	1134.6	1003.6
42.5°	6630.2	5324.7	4375.9	3518.3	2785.1	2214.5	1771.6	1449.8	1240.8	1091.5	977.0
45°	6532.3	5203.6	4223.3	3322.5	2597.7	2053.6	1665.4	1410.0	1229.2	1086.5	963.8
47.5°	6399.6	5069.2	4069.0	3183.2	2498.1	2005.5	1663.8	1433.2	1239.1	1074.9	940.5
50°	6255.3	4971.4	3984.4	3123.5	2486.5	2035.3	1721.8	1469.7	1245.7	1063.3	909.0
52.5°	6154.1	4928.3	3982.7	3145.1	2547.9	2118.3	1789.8	1516.1	1270.6	1069.9	902.4
55°	6029.7	4921.6	4025.9	3237.9	2682.3	2259.3	1897.7	1595.8	1322.1	1094.8	907.4
57.5°	6038.0	5052.7	4193.4	3466.9	2924.4	2450.0	2035.3	1693.6	1371.8	1109.7	899.1
60°	6300.1	5357.9	4523.5	3858.3	3241.3	2674.0	2176.3	1746.7	1368.5	1076.6	859.3
62.5°	6840.8	5815.7	5017.8	4317.8	3563.1	2846.5	2227.7	1731.8	1318.7	1005.2	794.6
65°	7486.1	6351.5	5498.9	4674.5	3758.8	2886.3	2183.0	1648.8	1219.2	912.3	716.6
67.5°	8131.4	6731.4	5775.9	4775.6	3679.2	2725.4	2017.1	1463.0	1050.0	786.3	628.7
70°	8363.6	6809.3	5754.3	4548.4	3317.6	2325.6	1660.4	1177.7	842.7	643.6	529.2
72.5°	8015.3	6321.6	5115.7	3865.0	2697.2	1803.1	1217.5	869.2	643.6	504.3	431.3
75°	6723.1	5090.8	4044.1	2911.2	1947.4	1275.6	879.2	633.7	484.4	399.8	345.0
77.5°	4792.2	3544.8	2755.2	1912.6	1264.0	884.1	630.3	476.1	384.8	320.1	280.3
80°	3010.7	2176.3	1678.7	1147.9	787.9	600.5	452.8	376.5	310.2	260.4	233.9
82.5°	1813.1	1267.3	988.6	713.3	517.5	411.4	333.4	295.3	247.2	215.6	200.7
85°	1230.8	932.2	648.6	421.3	311.9	242.2	227.3	204.0	184.1	154.3	149.3
87.5°	235.5	333.4	290.3	172.5	114.5	97.9	86.3	82.9	74.6	59.7	68.0
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: P159174

CATALOG NUMBER: VST-F11-LED-E-U-SLR-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8
2.5°	2743.6	2740.3	2733.7	2733.7	2728.7	2718.7	2717.1	2710.5	2702.2	2703.8	2702.2
5°	2753.6	2746.9	2738.7	2735.3	2728.7	2718.7	2713.8	2705.5	2697.2	2697.2	2697.2
7.5°	2765.2	2756.9	2750.3	2738.7	2725.4	2715.4	2702.2	2692.2	2687.2	2685.6	2687.2
10°	2775.1	2770.2	2760.2	2743.6	2725.4	2705.5	2692.2	2678.9	2665.7	2667.3	2669.0
12.5°	2796.7	2780.1	2753.6	2728.7	2700.5	2675.6	2652.4	2635.8	2619.2	2619.2	2620.9
15°	2781.8	2733.7	2697.2	2649.1	2617.6	2577.8	2551.2	2536.3	2526.3	2523.0	2524.7
17.5°	2693.9	2635.8	2581.1	2537.9	2494.8	2463.3	2451.7	2441.7	2428.5	2435.1	2428.5
20°	2561.2	2489.8	2411.9	2360.5	2309.0	2287.5	2267.6	2257.6	2249.3	2279.2	2279.2
22.5°	2370.4	2284.1	2204.5	2141.5	2083.4	2060.2	2040.3	2028.7	2033.7	2070.2	2073.5
25°	2129.9	2025.4	1920.9	1882.7	1824.7	1806.4	1794.8	1793.1	1798.1	1834.6	1842.9
27.5°	1874.4	1764.9	1675.4	1587.5	1560.9	1546.0	1524.4	1549.3	1554.3	1594.1	1610.7
30°	1602.4	1484.6	1390.1	1332.0	1275.6	1283.9	1265.7	1295.5	1308.8	1350.3	1363.5
32.5°	1323.7	1212.6	1118.0	1060.0	1020.2	1025.1	1011.9	1038.4	1051.7	1101.4	1126.3
35°	1094.8	1000.2	923.9	874.2	855.9	837.7	834.4	837.7	851.0	889.1	933.9
37.5°	963.8	885.8	831.1	794.6	769.7	758.1	751.4	751.4	751.4	759.7	781.3
40°	907.4	837.7	789.6	754.7	738.2	731.5	726.5	721.6	713.3	710.0	711.6
42.5°	882.5	802.9	751.4	724.9	714.9	714.9	714.9	711.6	703.3	695.0	686.7
45°	857.6	771.3	719.9	701.7	696.7	698.3	698.3	698.3	691.7	681.8	666.8
47.5°	826.1	736.5	685.1	673.5	673.5	678.4	680.1	680.1	673.5	663.5	651.9
50°	787.9	691.7	645.3	635.3	630.3	630.3	630.3	630.3	625.4	618.7	610.4
52.5°	768.0	666.8	618.7	608.8	608.8	603.8	602.1	597.2	592.2	587.2	575.6
55°	761.4	656.9	607.1	598.8	598.8	593.8	588.9	583.9	575.6	567.3	555.7
57.5°	743.1	635.3	592.2	585.6	585.6	582.2	577.3	572.3	564.0	552.4	537.4
60°	701.7	598.8	562.3	560.7	560.7	559.0	555.7	555.7	547.4	535.8	517.5
62.5°	648.6	560.7	525.8	525.8	524.2	522.5	515.9	514.2	504.3	489.3	472.8
65°	597.2	527.5	504.3	497.6	494.3	489.3	486.0	477.7	469.4	456.2	439.6
67.5°	532.5	477.7	462.8	456.2	449.5	444.6	439.6	434.6	424.6	414.7	401.4
70°	462.8	423.0	414.7	413.0	404.7	399.8	398.1	393.1	383.2	373.2	356.6
72.5°	396.4	373.2	366.6	366.6	356.6	350.0	346.7	345.0	338.4	330.1	315.2
75°	320.1	303.6	301.9	310.2	310.2	305.2	301.9	305.2	295.3	290.3	275.4
77.5°	262.1	253.8	248.8	252.1	262.1	257.1	250.5	250.5	250.5	242.2	237.2
80°	222.3	215.6	210.7	214.0	212.3	210.7	207.3	200.7	200.7	200.7	199.1
82.5°	200.7	199.1	180.8	180.8	174.2	169.2	165.9	162.6	159.2	159.2	167.5
85°	150.9	155.9	146.0	144.3	136.0	129.4	122.8	119.4	116.1	121.1	137.7
87.5°	73.0	73.0	69.7	78.0	71.3	68.0	63.0	59.7	63.0	78.0	92.9
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: P159174

CATALOG NUMBER: VST-F11-LED-E-U-SLR-7030

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8
2.5°	2698.8	2697.2	2695.5	2692.2	2685.6	2683.9	2680.6	2680.6	2678.9	2675.6	2678.9
5°	2693.9	2697.2	2697.2	2695.5	2690.6	2693.9	2693.9	2698.8	2698.8	2702.2	2710.5
7.5°	2687.2	2695.5	2702.2	2707.1	2713.8	2718.7	2728.7	2743.6	2750.3	2761.9	2766.9
10°	2674.0	2688.9	2700.5	2715.4	2732.0	2750.3	2765.2	2788.4	2796.7	2813.3	2821.6
12.5°	2635.8	2660.7	2680.6	2710.5	2738.7	2766.9	2793.4	2823.3	2838.2	2856.4	2868.0
15°	2542.9	2571.1	2599.3	2625.9	2675.6	2730.4	2773.5	2813.3	2834.9	2858.1	2869.7
17.5°	2431.8	2450.0	2473.2	2508.1	2556.2	2604.3	2674.0	2730.4	2763.5	2790.1	2793.4
20°	2302.4	2328.9	2345.5	2358.8	2396.9	2430.1	2504.8	2569.5	2612.6	2644.1	2652.4
22.5°	2105.0	2133.2	2161.4	2171.4	2201.2	2244.3	2285.8	2355.5	2416.9	2463.3	2491.5
25°	1879.4	1905.9	1944.1	1974.0	1980.6	2015.4	2056.9	2136.5	2199.5	2274.2	2307.4
27.5°	1653.8	1677.0	1718.5	1735.1	1755.0	1789.8	1823.0	1889.4	1955.7	2042.0	2078.5
30°	1390.1	1439.8	1487.9	1519.4	1536.0	1577.5	1600.7	1665.4	1726.8	1789.8	1842.9
32.5°	1164.5	1209.3	1264.0	1303.8	1323.7	1355.2	1391.7	1446.5	1494.6	1555.9	1617.3
35°	957.1	1018.5	1055.0	1089.8	1141.2	1156.2	1192.7	1242.4	1270.6	1337.0	1406.7
37.5°	811.1	847.6	884.1	919.0	962.1	982.0	1016.8	1058.3	1091.5	1131.3	1194.3
40°	721.6	741.5	768.0	791.2	822.8	847.6	865.9	900.7	925.6	965.4	1010.2
42.5°	680.1	685.1	688.4	705.0	721.6	738.2	758.1	773.0	802.9	832.7	860.9
45°	656.9	646.9	642.0	643.6	650.2	660.2	676.8	693.4	713.3	731.5	748.1
47.5°	637.0	623.7	608.8	600.5	602.1	605.5	618.7	632.0	642.0	656.9	663.5
50°	590.5	578.9	565.6	554.0	555.7	557.4	569.0	578.9	585.6	590.5	598.8
52.5°	560.7	544.1	532.5	520.9	519.2	524.2	534.1	544.1	547.4	550.7	552.4
55°	539.1	522.5	507.6	496.0	491.0	502.6	505.9	519.2	524.2	524.2	525.8
57.5°	522.5	502.6	487.7	476.1	467.8	476.1	484.4	499.3	501.0	497.6	497.6
60°	497.6	482.7	467.8	456.2	447.9	454.5	461.1	477.7	477.7	469.4	467.8
62.5°	454.5	446.2	436.3	431.3	429.6	436.3	441.2	454.5	449.5	439.6	436.3
65°	423.0	416.4	406.4	403.1	401.4	411.4	413.0	421.3	414.7	409.7	408.1
67.5°	384.8	379.9	374.9	373.2	368.3	368.3	371.6	376.5	373.2	373.2	374.9
70°	341.7	335.1	330.1	331.8	328.4	328.4	330.1	333.4	331.8	335.1	338.4
72.5°	301.9	293.6	291.9	291.9	288.6	290.3	290.3	291.9	295.3	296.9	305.2
75°	263.7	255.5	255.5	253.8	253.8	253.8	255.5	258.8	262.1	263.7	267.1
77.5°	228.9	223.9	225.6	223.9	223.9	223.9	223.9	228.9	230.6	232.2	237.2
80°	197.4	197.4	199.1	199.1	197.4	195.7	197.4	200.7	202.4	204.0	205.7
82.5°	179.1	180.8	180.8	180.8	172.5	169.2	174.2	177.5	180.8	182.5	185.8
85°	154.3	147.6	154.3	152.6	141.0	139.3	139.3	141.0	144.3	141.0	141.0
87.5°	99.5	89.6	94.6	94.6	82.9	68.0	86.3	92.9	82.9	87.9	87.9
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: P159174

CATALOG NUMBER: VST-F11-LED-E-U-SLR-7030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8
2.5°	2683.9	2680.6	2682.3	2682.3	2685.6	2680.6	2687.2	2693.9	2695.5	2695.5	2697.2
5°	2718.7	2715.4	2727.0	2722.1	2733.7	2732.0	2740.3	2746.9	2750.3	2750.3	2750.3
7.5°	2773.5	2785.1	2791.7	2810.0	2811.6	2821.6	2829.9	2838.2	2834.9	2836.5	2834.9
10°	2834.9	2849.8	2866.4	2884.6	2886.3	2897.9	2911.2	2919.5	2916.1	2914.5	2909.5
12.5°	2887.9	2897.9	2917.8	2936.1	2946.0	2964.2	2977.5	2984.2	2984.2	2979.2	2974.2
15°	2884.6	2899.6	2921.1	2947.7	2965.9	2992.4	3015.7	3030.6	3032.3	3027.3	3025.6
17.5°	2811.6	2833.2	2853.1	2889.6	2922.8	2959.3	2997.4	3019.0	3038.9	3050.5	3057.1
20°	2680.6	2707.1	2735.3	2783.4	2828.2	2876.3	2921.1	2952.6	2982.5	3017.3	3058.8
22.5°	2526.3	2566.1	2606.0	2667.3	2722.1	2776.8	2828.2	2866.4	2912.8	2972.5	3050.5
25°	2345.5	2387.0	2436.8	2508.1	2577.8	2657.4	2733.7	2810.0	2899.6	3002.4	3123.5
27.5°	2131.5	2178.0	2242.7	2328.9	2408.6	2489.8	2609.3	2730.4	2876.3	3009.0	3146.7
30°	1919.2	1978.9	2048.6	2134.9	2214.5	2330.6	2450.0	2599.3	2753.6	2902.9	3067.1
32.5°	1690.3	1764.9	1851.2	1922.5	2012.1	2129.9	2249.3	2408.6	2572.8	2748.6	2929.4
35°	1469.7	1541.0	1609.0	1688.6	1778.2	1889.4	2005.5	2158.1	2365.4	2552.9	2768.5
37.5°	1245.7	1312.1	1360.2	1423.2	1501.2	1624.0	1748.4	1924.2	2119.9	2350.5	2566.1
40°	1050.0	1104.8	1159.5	1209.3	1275.6	1391.7	1524.4	1696.9	1889.4	2113.3	2353.8
42.5°	894.1	935.6	995.3	1055.0	1111.4	1210.9	1335.3	1504.5	1695.3	1924.2	2164.7
45°	763.0	791.2	839.3	889.1	958.8	1041.7	1161.1	1333.7	1527.7	1758.3	2012.1
47.5°	668.5	681.8	714.9	766.4	831.1	912.3	1015.2	1171.1	1360.2	1592.4	1859.5
50°	603.8	618.7	635.3	678.4	736.5	819.4	904.0	1040.1	1212.6	1439.8	1705.2
52.5°	559.0	565.6	572.3	598.8	651.9	721.6	811.1	914.0	1088.2	1305.5	1544.3
55°	532.5	534.1	539.1	552.4	592.2	656.9	734.8	832.7	968.7	1174.4	1418.3
57.5°	501.0	504.3	509.2	517.5	542.4	600.5	666.8	746.5	859.3	1031.8	1265.7
60°	471.1	479.4	487.7	492.7	505.9	540.8	597.2	660.2	751.4	880.8	1066.6
62.5°	439.6	449.5	456.2	461.1	466.1	487.7	529.2	570.6	627.0	711.6	851.0
65°	411.4	418.0	423.0	426.3	429.6	436.3	454.5	471.1	487.7	539.1	640.3
67.5°	379.9	383.2	384.8	386.5	384.8	384.8	386.5	393.1	399.8	419.7	467.8
70°	343.4	348.3	348.3	350.0	350.0	345.0	345.0	345.0	345.0	350.0	376.5
72.5°	308.5	315.2	315.2	316.8	315.2	313.5	313.5	313.5	318.5	321.8	331.8
75°	275.4	282.0	280.3	282.0	283.7	283.7	287.0	288.6	293.6	295.3	301.9
77.5°	242.2	247.2	248.8	247.2	250.5	253.8	260.4	263.7	265.4	267.1	268.7
80°	210.7	214.0	212.3	207.3	215.6	220.6	230.6	242.2	238.9	240.5	243.8
82.5°	174.2	169.2	165.9	169.2	174.2	180.8	190.8	205.7	207.3	215.6	214.0
85°	134.4	119.4	117.8	126.1	124.4	132.7	149.3	160.9	170.9	179.1	170.9
87.5°	79.6	71.3	59.7	56.4	61.4	81.3	84.6	102.8	111.1	114.5	102.8
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: P159174

CATALOG NUMBER: VST-F11-LED-E-U-SLR-7030

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8
2.5°	2848.1	2856.4	2856.4	2859.7	2864.7	2866.4	2873.0	2884.6	2886.3	2886.3	2891.3
5°	2901.2	2909.5	2909.5	2916.1	2917.8	2926.1	2934.4	2947.7	2954.3	2952.6	2974.2
7.5°	2987.5	2980.8	2975.9	2985.8	2990.8	3000.7	3017.3	3028.9	3040.6	3058.8	3088.7
10°	3060.5	3050.5	3045.5	3052.2	3055.5	3067.1	3077.0	3093.6	3121.8	3150.0	3186.5
12.5°	3120.2	3108.6	3095.3	3098.6	3103.6	3118.5	3135.1	3156.7	3198.1	3234.6	3289.4
15°	3169.9	3153.4	3140.1	3146.7	3158.3	3178.2	3206.4	3244.6	3312.6	3375.6	3448.6
17.5°	3218.0	3214.7	3209.8	3231.3	3239.6	3286.1	3327.5	3397.2	3490.1	3584.6	3689.1
20°	3264.5	3301.0	3319.2	3362.4	3388.9	3451.9	3515.0	3599.6	3717.3	3846.7	3989.4
22.5°	3329.2	3428.7	3490.1	3578.0	3622.8	3690.8	3783.7	3894.8	4025.9	4191.8	4374.2
25°	3483.4	3629.4	3752.2	3889.9	4002.6	4107.2	4218.3	4352.7	4541.8	4692.7	4931.6
27.5°	3551.5	3757.1	3941.3	4135.4	4304.5	4465.5	4641.3	4803.8	5027.8	5231.8	5520.4
30°	3486.8	3719.0	3957.9	4211.7	4458.8	4702.7	4958.1	5206.9	5465.7	5751.0	6057.9
32.5°	3367.3	3627.8	3896.5	4195.1	4501.9	4818.8	5150.5	5512.1	5877.1	6232.1	6545.6
35°	3246.2	3526.6	3825.2	4166.9	4528.5	4921.6	5333.0	5790.8	6273.5	6723.1	7132.8
37.5°	3070.4	3378.9	3720.7	4115.4	4545.1	5029.4	5558.6	6122.6	6733.0	7351.7	7889.2
40°	2858.1	3184.9	3558.1	4012.6	4528.5	5140.6	5829.0	6552.2	7336.8	8091.6	8751.8
42.5°	2664.0	2982.5	3380.6	3874.9	4485.4	5238.4	6086.1	6986.8	7915.7	8760.0	9622.6
45°	2493.2	2844.8	3244.6	3778.7	4463.8	5321.4	6276.8	7311.9	8375.2	9380.4	10398.9
47.5°	2337.2	2702.2	3150.0	3725.6	4453.8	5371.1	6409.5	7524.3	8702.0	9856.5	11039.2
50°	2176.3	2531.3	3010.7	3667.6	4429.0	5369.5	6479.2	7668.6	8930.9	10226.4	11480.5
52.5°	2003.8	2360.5	2841.5	3561.4	4375.9	5339.6	6497.5	7766.4	9111.7	10453.7	11855.3
55°	1846.2	2179.6	2660.7	3383.9	4264.7	5266.6	6456.0	7807.9	9239.4	10679.3	12119.1
57.5°	1665.4	2012.1	2469.9	3140.1	4055.7	5137.3	6338.2	7749.8	9275.9	10830.2	12328.1
60°	1416.6	1756.7	2227.7	2851.5	3729.0	4863.6	6119.3	7574.0	9159.8	10856.8	12477.4
62.5°	1131.3	1424.9	1879.4	2453.3	3269.5	4433.9	5714.5	7179.2	8798.2	10607.9	12401.1
65°	841.0	1036.7	1428.2	1932.5	2737.0	3787.0	5062.6	6517.4	8091.6	9916.2	11921.7
67.5°	585.6	726.5	967.1	1342.0	1990.5	2924.4	4132.0	5483.9	6998.4	8635.6	10926.4
70°	442.9	507.6	638.6	847.6	1288.9	1992.2	3004.1	4208.3	5613.3	7190.8	9348.9
72.5°	378.2	411.4	484.4	580.6	789.6	1210.9	1886.0	2896.2	4142.0	5425.9	7172.6
75°	340.1	368.3	414.7	476.1	559.0	734.8	1106.4	1833.0	2743.6	3634.4	5004.6
77.5°	308.5	333.4	374.9	406.4	451.2	529.2	705.0	1096.5	1643.9	2246.0	3105.2
80°	275.4	290.3	328.4	360.0	394.8	439.6	505.9	688.4	943.8	1330.3	1831.3
82.5°	235.5	247.2	275.4	318.5	345.0	363.3	383.2	456.2	565.6	721.6	1016.8
85°	182.5	190.8	215.6	247.2	258.8	260.4	263.7	283.7	351.7	540.8	875.8
87.5°	92.9	102.8	129.4	139.3	117.8	127.7	129.4	137.7	182.5	296.9	301.9
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: P159174
 CATALOG NUMBER: VST-F11-LED-E-U-SLR-7030

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	0°
2.5°	2891.3	2896.2	2907.9	2906.2	2914.5	2914.5	2914.5	2922.8	2917.8	2922.8	2931.1	2.5°
5°	2974.2	2982.5	2999.1	2999.1	3000.7	2995.8	3005.7	3012.4	3004.1	3000.7	3002.4	5°
7.5°	3095.3	3108.6	3121.8	3135.1	3145.1	3140.1	3141.7	3126.8	3123.5	3111.9	3097.0	7.5°
10°	3213.1	3249.6	3274.4	3297.7	3299.3	3294.3	3296.0	3271.1	3266.1	3242.9	3228.0	10°
12.5°	3334.2	3380.6	3420.4	3445.3	3460.2	3463.5	3465.2	3465.2	3442.0	3422.1	3387.2	12.5°
15°	3513.3	3594.6	3656.0	3682.5	3704.1	3724.0	3729.0	3735.6	3717.3	3690.8	3685.8	15°
17.5°	3797.0	3873.3	3954.5	4025.9	4074.0	4077.3	4118.8	4115.4	4153.6	4123.7	4115.4	17.5°
20°	4133.7	4299.6	4384.2	4478.7	4533.5	4560.0	4656.2	4626.4	4654.6	4702.7	4654.6	20°
22.5°	4555.0	4765.7	4888.4	5017.8	5107.4	5172.1	5241.8	5296.5	5372.8	5409.3	5376.1	22.5°
25°	5114.0	5354.6	5500.5	5679.7	5822.3	5938.5	6059.5	6205.5	6203.9	6291.8	6353.1	25°
27.5°	5756.0	6062.9	6275.2	6590.4	6713.1	6908.8	7116.2	7341.8	7381.6	7496.1	7554.1	27.5°
30°	6359.8	6739.6	7161.0	7535.9	7960.5	8250.8	8491.3	8650.6	8891.1	8831.4	8798.2	30°
32.5°	6917.1	7423.1	8023.5	8639.0	9312.4	9771.9	10196.6	10394.0	10543.2	10226.4	9806.7	32.5°
35°	7640.4	8245.8	8932.6	9692.3	10548.2	11200.1	11638.0	11699.4	11614.8	11208.4	10513.4	35°
37.5°	8536.1	9171.4	9952.7	10755.6	11664.6	12276.7	12776.0	12865.5	12641.6	11916.7	11186.9	37.5°
40°	9420.2	10165.0	11012.7	11963.2	12905.4	13578.8	14079.8	14106.3	13741.4	12893.7	12039.5	40°
42.5°	10387.3	11201.8	12145.6	13199.0	14172.7	14854.4	15216.0	15330.5	14814.6	13728.1	12908.7	42.5°
45°	11221.7	12195.4	13247.1	14366.7	15385.2	16032.2	16400.4	16363.9	15740.2	14667.0	13706.5	45°
47.5°	12034.5	13106.1	14214.1	15403.5	16415.3	17068.9	17447.1	17413.9	16622.7	15386.9	14330.2	47.5°
50°	12757.7	13920.5	15104.9	16375.5	17384.1	17982.9	18445.7	18299.7	17299.5	15965.8	14731.7	50°
52.5°	13260.3	14557.5	15795.0	17168.4	18206.8	18774.1	19363.0	18893.6	17699.2	16320.8	14947.3	52.5°
55°	13578.8	14995.4	16286.0	17805.4	18825.6	19504.0	19883.9	19217.0	17853.5	16418.7	15022.0	55°
57.5°	13794.5	15235.9	16574.6	18173.7	19382.9	19951.9	20044.8	19228.6	17754.0	16264.4	14947.3	57.5°
60°	13900.6	15307.3	16705.6	18432.4	19774.4	20086.2	19917.0	18959.9	17410.6	15811.5	14466.3	60°
62.5°	13889.0	15217.7	16637.6	18518.7	19852.3	19892.2	19507.3	18502.1	16778.6	14861.1	13666.7	62.5°
65°	13593.7	14890.9	16254.4	18198.5	19489.1	19318.2	18833.9	17642.8	15549.5	13620.3	13016.5	65°
67.5°	12742.8	13986.9	15252.5	17150.2	18465.6	18299.7	17566.5	15954.2	14121.2	12522.2	12197.1	67.5°
70°	11319.6	12374.5	13485.9	15153.0	16533.1	16309.2	15026.9	14046.6	12706.3	11253.2	11140.4	70°
72.5°	9463.4	10262.9	11069.1	12309.8	13260.3	12802.5	11996.3	11944.9	10861.7	9752.0	9775.2	72.5°
75°	7401.5	8002.0	8378.5	9108.4	9740.4	9330.7	9378.8	9664.1	9307.4	8433.3	8149.6	75°
77.5°	5362.9	5938.5	6057.9	6490.8	6935.4	7401.5	8018.6	8690.4	8803.2	8312.2	7283.7	77.5°
80°	3510.0	4143.6	3908.1	4062.4	4687.7	5538.7	6665.0	7771.4	8151.3	7710.0	6444.4	80°
82.5°	2070.2	2957.6	2582.7	2846.5	3242.9	3984.4	4762.4	5596.7	6232.1	5762.6	5382.8	82.5°
85°	1572.5	2332.3	2469.9	2790.1	2919.5	2951.0	3087.0	3359.0	3687.5	3810.2	3800.3	85°
87.5°	819.4	1813.1	2035.3	1882.7	1756.7	1522.8	1187.7	1278.9	1169.4	1599.1	1514.5	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°



IUMBER: P159174

NUMBER: VST-F11-LED-E-U-SLR-7030

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
2771.8	2771.8	2771.8	2771.8	2771.8	2771.8	2771.8
2932.7	2927.8	2931.1	2932.7	2932.7	2932.7	2936.1
3000.7	2987.5	2982.5	2982.5	2980.8	2975.9	2974.2
3073.7	3050.5	3042.2	3032.3	3024.0	3019.0	3010.7
3204.8	3184.9	3143.4	3120.2	3098.6	3083.7	3070.4
3380.6	3352.4	3312.6	3282.7	3249.6	3239.6	3223.0
3652.6	3627.8	3592.9	3559.8	3539.8	3505.0	3480.1
4077.3	4027.5	3992.7	3949.6	3901.5	3830.1	3795.3
4636.3	4536.8	4467.1	4429.0	4332.7	4321.1	4236.5
5278.3	5248.4	5142.2	5095.8	5002.9	4966.4	4833.7
6238.7	6215.5	5998.2	5974.9	5832.3	5726.1	5520.4
7501.0	7310.3	7064.8	6893.9	6650.1	6376.4	6026.4
8604.1	8214.3	7839.4	7441.3	7104.6	6711.4	6315.0
9307.4	8784.9	8302.2	7894.2	7477.8	7010.0	6500.8
9924.5	9397.0	8871.2	8388.5	7884.2	7285.4	6656.7
10662.7	10138.5	9546.3	8867.9	8220.9	7487.8	6719.7
11419.1	10805.3	10065.5	9234.5	8421.7	7587.3	6708.1
12193.7	11409.1	10425.5	9478.3	8549.4	7602.2	6630.2
12822.4	11830.5	10692.5	9602.7	8575.9	7550.8	6532.3
13267.0	12100.8	10812.0	9645.8	8542.7	7469.5	6399.6
13520.8	12248.5	10841.8	9614.3	8474.7	7353.4	6255.3
13613.7	12293.3	10812.0	9549.6	8413.4	7229.0	6154.1
13603.7	12268.4	10702.5	9398.7	8249.1	7063.1	6029.7
13416.3	12037.8	10478.5	9217.9	8109.8	6986.8	6038.0
13097.8	11891.8	10412.2	9254.4	8182.8	7151.0	6300.1
12953.5	12183.8	10785.4	9619.3	8557.7	7620.5	6840.8
12872.2	12658.2	11319.6	10012.4	9002.2	8189.4	7486.1
12540.4	12794.2	11623.1	10236.4	9398.7	8760.0	8131.4
12004.6	12477.4	11392.5	10193.2	9617.6	9198.0	8363.6
10886.6	11385.9	10365.8	9557.9	9343.9	9204.6	8015.3
8819.8	9078.5	8498.0	8315.5	8395.1	8396.8	6723.1
6504.1	6348.2	6086.1	6099.4	6635.1	6552.2	4792.2
5309.8	4346.0	3974.5	4115.4	4777.3	4420.7	3010.7
4941.5	3876.6	3199.8	3233.0	3607.9	2848.1	1813.1
3996.0	3533.2	2833.2	2542.9	2468.3	1897.7	1230.8
1672.1	1537.7	1144.6	1031.8	846.0	517.5	235.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)