

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: P158936

Luminaire Tested: **VST-F09-LED-E-U-SLL-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158936
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-F09-LED-E-U-SLL-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (63) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20487 lumens
Efficiency: N/A
Efficacy: 87.3 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: 28.75 FT

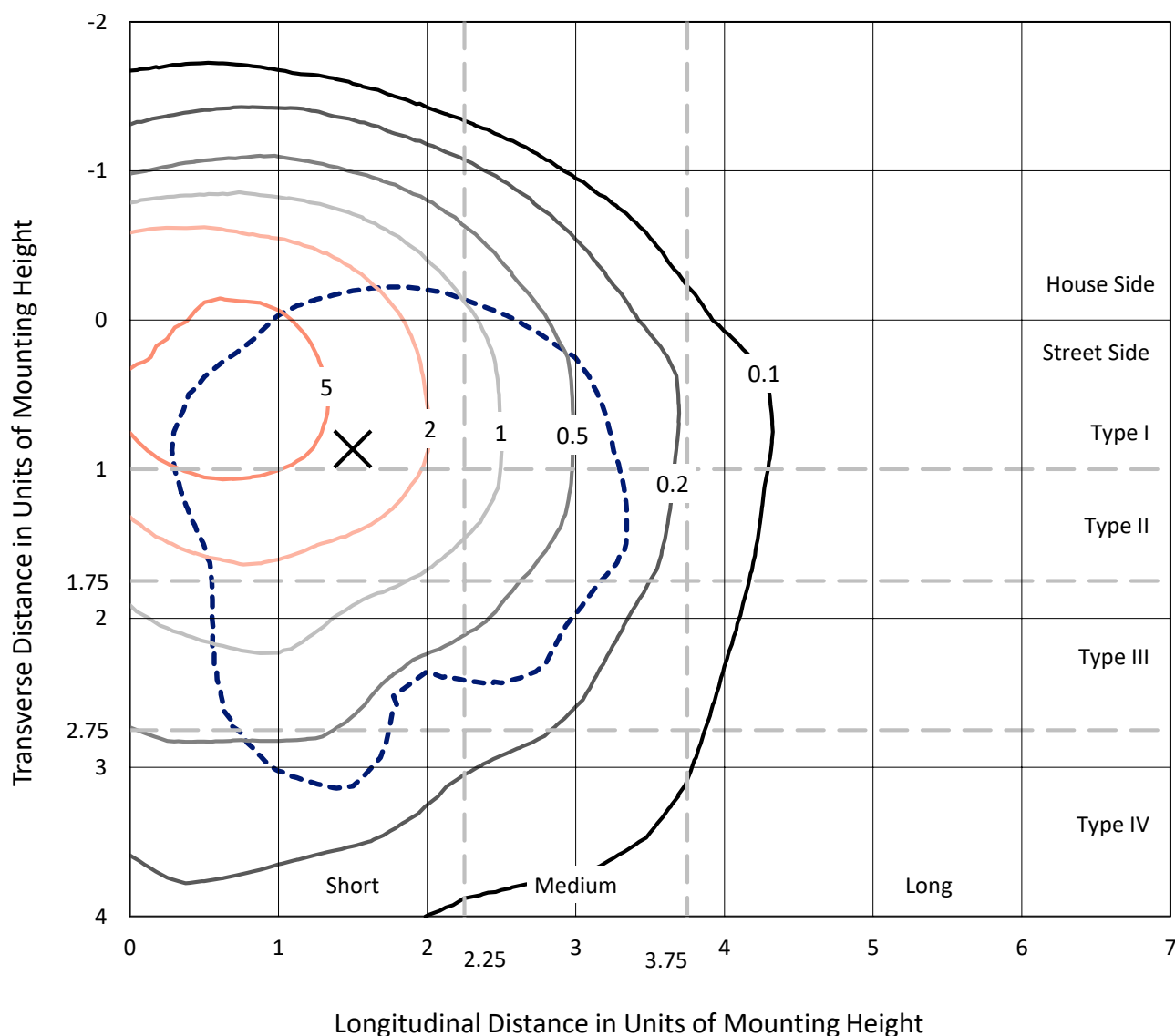


REPORT NUMBER: P158936

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

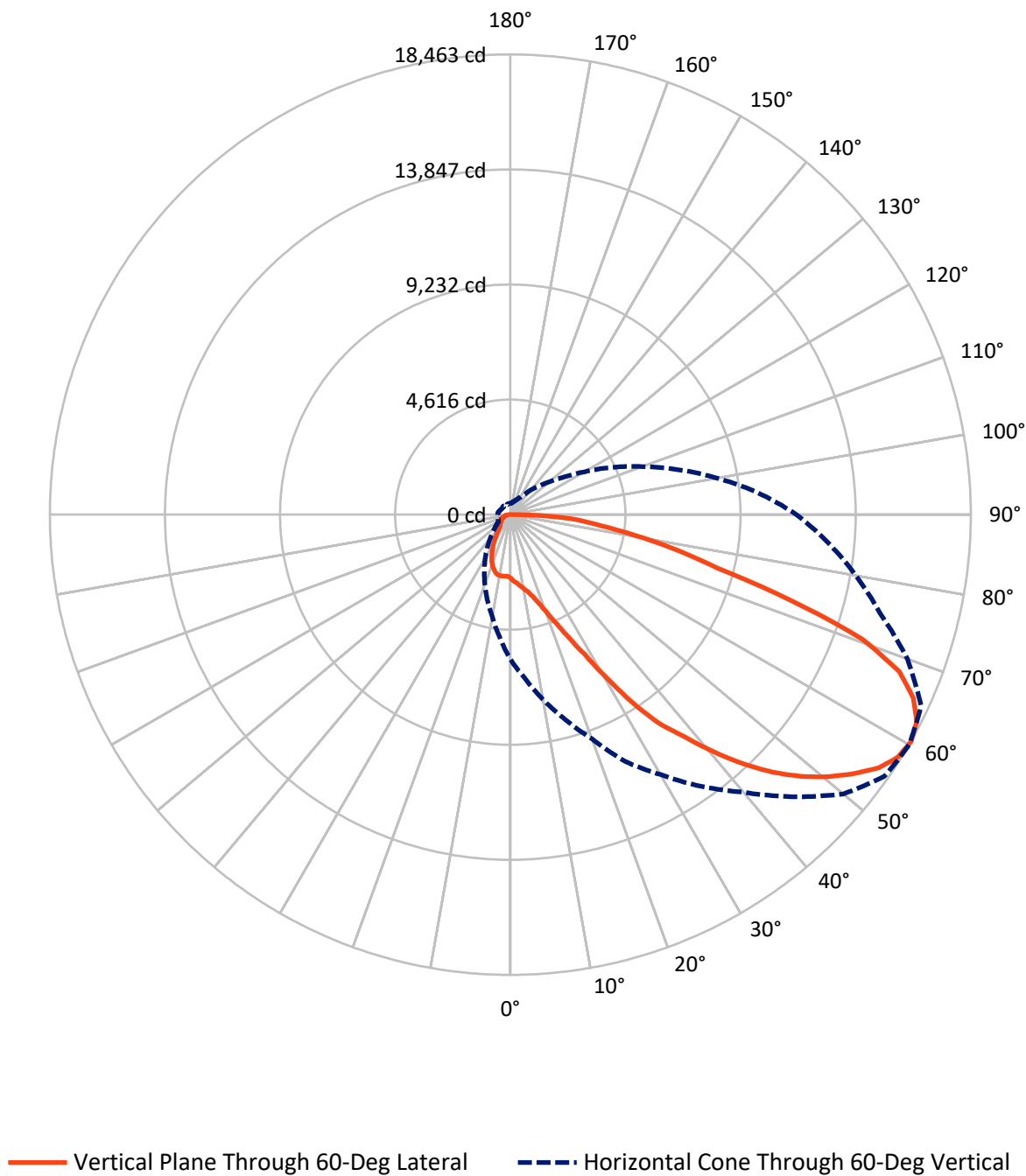


Based on 25 foot mounting height. Maximum calculated value = 9.4 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P158936

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7050

Luminous Intensity Polar Plot



REPORT NUMBER: P158936

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7050

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4613.0	0.0	4613.0
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	15873.9	0.0	15873.9
	% Fixture	77.5	0.0	77.5
Total	Lumens	20487.0	0.0	20487.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.4	1.2
10°-20°	811.6	4.0
20°-30°	1540.1	7.5
30°-40°	2425.3	11.8
40°-50°	3385.2	16.5
50°-60°	4186.7	20.4
60°-70°	4339.7	21.2
70°-80°	2730.7	13.3
80°-90°	816.3	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°	20487.0	100.0
0°-180°	20487.0	100.0

Coefficient of Utilization



REPORT NUMBER: P158936

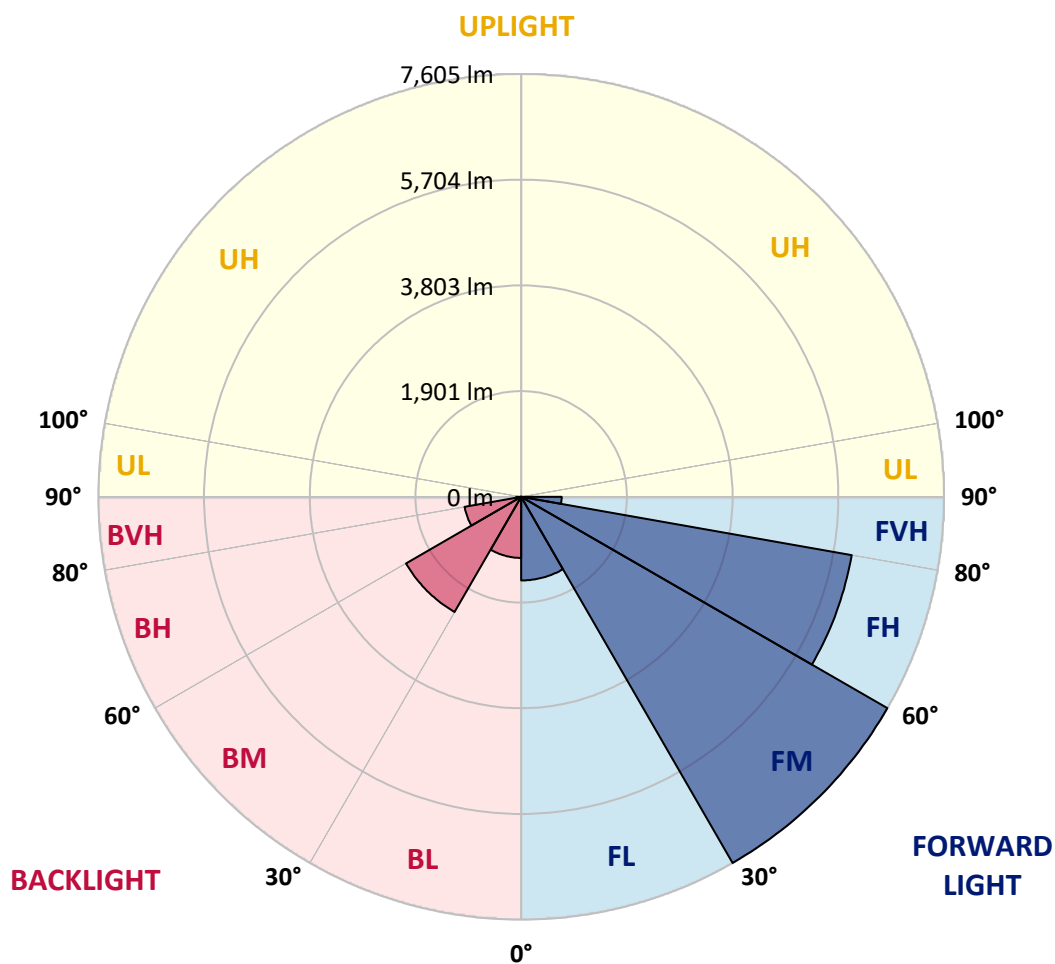
CATALOG NUMBER: VST-F09-LED-E-U-SLL-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1504.0	7.3			
FM	(30°-60°)	7605.1	37.1			
FH	(60°-80°)	6037.3	29.5			G3/7500
FVH	(80°-90°)	727.5	3.6			G4/750
BL	(0°-30°)	1099.0	5.4	B3/2500		
BM	(30°-60°)	2392.1	11.7	B2/2500		
BH	(60°-80°)	1033.1	5.0	B3/2500		G3/2500
BVH	(80°-90°)	88.8	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





REPORT NUMBER: P158936

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8
2.5°	2698.8	2695.7	2695.7	2695.7	2694.2	2691.2	2695.7	2694.2	2686.6	2682.0	2686.6
5°	2733.9	2735.4	2740.0	2741.5	2741.5	2746.0	2758.2	2759.8	2758.2	2761.3	2768.9
7.5°	2767.4	2775.0	2779.6	2787.2	2796.4	2804.0	2825.3	2846.7	2860.4	2871.1	2874.1
10°	2822.3	2834.5	2848.2	2868.0	2889.4	2927.5	2945.8	2967.1	2980.9	3002.2	3006.8
12.5°	2962.6	2977.8	2987.0	3017.5	3044.9	3081.5	3107.4	3113.5	3145.5	3163.8	3185.2
15°	3198.9	3221.8	3253.8	3272.1	3302.6	3334.6	3357.5	3388.0	3392.5	3416.9	3433.7
17.5°	3488.6	3520.6	3586.2	3630.4	3670.0	3702.1	3747.8	3782.9	3790.5	3817.9	3782.9
20°	3894.2	3971.9	3982.6	4071.0	4106.1	4170.2	4261.6	4278.4	4322.6	4278.4	4252.5
22.5°	4443.1	4565.1	4598.6	4684.0	4726.7	4824.3	4851.7	4941.7	4972.2	4938.6	4868.5
25°	5074.3	5263.4	5361.0	5492.1	5513.4	5713.2	5734.5	5839.7	5783.3	5702.5	5704.0
27.5°	5539.4	5861.1	6112.7	6336.8	6493.9	6719.5	6894.9	6943.6	6890.3	6785.1	6748.5
30°	5804.7	6169.1	6530.4	6840.0	7205.9	7550.5	7908.8	8087.2	8117.7	8172.6	7951.5
32.5°	5975.4	6443.5	6873.5	7256.2	7631.3	8075.0	8555.3	9014.2	9400.0	9691.2	9554.0
35°	6118.8	6696.6	7247.1	7710.6	8154.3	8637.6	9122.5	9663.8	10302.6	10676.2	10754.0
37.5°	6176.7	6882.7	7556.6	8151.2	8774.9	9319.2	9801.0	10282.8	10953.7	11620.0	11825.9
40°	6166.0	6974.1	7741.1	8488.2	9252.1	9932.1	10496.3	11066.5	11851.8	12630.9	12966.4
42.5°	6094.4	6987.9	7858.5	8712.3	9583.0	10487.1	11208.3	11865.5	12618.7	13617.4	14091.6
45°	6004.4	6940.6	7882.9	8826.7	9828.4	10874.4	11786.2	12598.9	13481.7	14468.2	15041.5
47.5°	5882.4	6865.9	7852.4	8866.3	9938.2	11122.9	12194.8	13172.2	14143.5	15279.4	16006.7
50°	5749.8	6759.2	7789.9	8837.4	9965.7	11258.7	12428.1	13541.2	14675.6	15901.5	16820.9
52.5°	5656.8	6644.8	7733.5	8777.9	9938.2	11299.8	12513.5	13739.4	15001.9	16268.9	17366.7
55°	5542.4	6492.3	7582.5	8639.2	9837.6	11276.9	12504.4	13808.0	15091.8	16410.7	17664.1
57.5°	5550.0	6422.2	7454.4	8473.0	9631.8	11065.0	12332.1	13739.4	14950.0	16319.3	17674.7
60°	5790.9	6573.1	7521.5	8506.5	9570.8	10930.8	12039.3	13297.2	14533.8	16003.6	17427.7
62.5°	6288.0	7004.6	7866.1	8841.9	9913.8	11199.2	11906.7	12562.3	13660.1	15422.7	17006.9
65°	6881.1	7527.6	8274.7	9203.3	10404.8	11635.3	11832.0	11964.6	12519.6	14292.9	16217.1
67.5°	7474.3	8052.1	8639.2	9409.1	10683.8	11760.3	11527.0	11211.4	11510.2	12980.1	14664.9
70°	7687.7	8454.7	8840.4	9369.5	10471.9	11469.1	11034.5	10240.1	10343.8	11679.5	12911.5
72.5°	7367.5	8460.8	8588.8	8785.5	9528.1	10465.8	10006.8	8985.3	8963.9	9984.0	10979.6
75°	6179.8	7718.2	7716.7	7643.5	7811.2	8344.9	8107.0	7491.0	7751.8	8555.3	8883.1
77.5°	4405.0	6022.7	6098.9	5606.5	5594.3	5835.2	5978.5	6695.1	7640.5	8091.8	7988.1
80°	2767.4	4063.4	4391.2	3782.9	3653.3	3994.8	4880.7	5923.6	7087.0	7492.6	7143.4
82.5°	1666.5	2618.0	3316.3	2971.7	2941.2	3563.3	4542.2	4947.8	5296.9	5728.4	5144.5
85°	1131.4	1744.3	2268.8	2337.4	2604.2	3247.7	3673.1	3493.2	3502.3	3389.5	3087.6
87.5°	216.5	475.7	777.6	948.4	1052.1	1413.4	1536.9	1392.1	1469.8	1074.9	1175.6
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: P158936

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8
2.5°	2679.0	2679.0	2679.0	2671.3	2672.9	2662.2	2657.6	2657.6	2653.0	2653.0	2651.5
5°	2762.8	2753.7	2758.2	2756.7	2756.7	2741.5	2733.9	2733.9	2714.0	2715.6	2709.5
7.5°	2887.9	2886.3	2890.9	2881.8	2869.6	2857.4	2845.2	2839.1	2811.6	2794.8	2784.2
10°	3029.7	3028.1	3032.7	3031.2	3009.8	2987.0	2953.4	2929.0	2895.5	2869.6	2843.6
12.5°	3185.2	3183.6	3180.6	3166.9	3144.0	3107.4	3064.7	3023.6	2973.2	2939.7	2901.6
15°	3427.6	3423.0	3404.7	3384.9	3360.5	3304.1	3229.4	3169.9	3102.8	3044.9	2982.4
17.5°	3785.9	3747.8	3744.8	3700.5	3635.0	3560.3	3490.1	3391.0	3295.0	3208.0	3122.7
20°	4279.9	4191.5	4167.1	4116.8	4029.9	3952.1	3799.6	3667.0	3535.9	3416.9	3308.7
22.5°	4818.2	4754.1	4694.7	4612.3	4493.4	4380.6	4186.9	4020.7	3853.0	3700.5	3580.1
25°	5569.9	5458.6	5351.8	5220.7	5056.0	4921.8	4700.8	4533.0	4313.5	4174.7	4000.9
27.5°	6541.1	6350.5	6170.6	6057.8	5768.1	5572.9	5290.8	5074.3	4809.0	4621.5	4415.6
30°	7805.1	7584.0	7317.2	6926.9	6582.3	6195.0	5845.8	5568.3	5286.3	5024.0	4786.1
32.5°	9372.6	8982.2	8559.9	7940.8	7375.1	6823.2	6358.1	6016.6	5728.4	5402.1	5066.7
35°	10697.5	10295.0	9695.8	8909.0	8210.7	7579.5	7022.9	6556.4	6179.8	5766.6	5322.9
37.5°	11743.5	11284.6	10721.9	9886.4	9148.4	8430.3	7846.3	7251.6	6757.6	6188.9	5627.8
40°	12942.0	12481.5	11862.4	10996.4	10122.7	9343.6	8659.0	8044.5	7437.7	6743.9	6022.7
42.5°	13986.4	13654.0	13027.3	12132.3	11164.1	10296.5	9547.9	8845.0	8052.1	7276.0	6422.2
45°	15075.1	14736.6	14141.9	13205.7	12176.5	11209.9	10314.8	9558.6	8622.4	7698.4	6721.0
47.5°	16037.2	15689.5	15088.8	14158.7	13065.5	12046.9	11062.0	10147.1	9060.0	7998.8	6916.2
50°	16955.1	16529.7	15979.2	15052.2	13884.2	12795.6	11726.7	10552.7	9400.0	8209.2	7048.9
52.5°	17798.2	17257.0	16735.5	15781.0	14518.5	13381.1	12188.7	10897.3	9608.9	8375.4	7138.8
55°	18277.0	17927.8	17304.2	16366.5	14969.9	13783.6	12481.5	11139.7	9816.3	8492.8	7176.9
57.5°	18424.9	18339.5	17816.5	16705.0	15235.2	14004.7	12679.7	11331.8	9955.0	8526.3	7123.6
60°	18307.5	18463.0	18176.4	16942.9	15355.6	14070.3	12777.3	11469.1	9979.4	8419.6	6961.9
62.5°	17930.9	18284.6	18248.0	17022.2	15293.1	13987.9	12766.6	11398.9	9750.7	8087.2	6599.1
65°	17311.9	17757.1	17914.1	16727.9	14940.9	13687.6	12495.2	10958.3	9114.9	7437.7	5990.7
67.5°	16147.0	16820.9	16973.4	15764.2	14019.9	12856.6	11713.0	10043.4	7937.8	6432.9	5040.8
70°	13812.6	14991.2	15197.0	13928.5	12396.1	11374.5	10404.8	8593.4	6609.7	5159.7	3868.3
72.5°	11026.9	11767.9	12188.7	11315.1	10174.6	9433.5	8698.6	6593.0	4987.4	3807.3	2662.2
75°	8620.9	8576.6	8953.3	8372.3	7701.4	7355.3	6803.4	4600.1	3340.7	2521.9	1684.8
77.5°	7370.6	6803.4	6374.9	5966.3	5568.3	5458.6	4929.5	2854.3	2064.5	1511.0	1007.9
80°	6126.4	5091.1	4308.9	3734.1	3592.3	3808.8	3226.3	1683.3	1222.8	867.6	632.8
82.5°	4377.5	3662.4	2980.9	2616.4	2374.0	2718.6	1902.9	934.7	663.3	519.9	419.3
85°	2837.5	2712.5	2683.5	2564.6	2270.3	2143.8	1445.4	805.1	497.1	323.2	260.7
87.5°	1091.7	1399.7	1614.7	1730.6	1870.9	1666.5	753.2	277.5	272.9	167.7	126.6
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: P158936

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7050

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8
2.5°	2640.8	2634.7	2633.2	2628.6	2625.6	2625.6	2618.0	2479.2	2477.7	2477.7	2476.2
5°	2697.3	2689.6	2682.0	2680.5	2674.4	2674.4	2666.8	2528.0	2528.0	2528.0	2525.0
7.5°	2773.5	2758.2	2749.1	2744.5	2735.4	2740.0	2746.0	2605.8	2607.3	2605.8	2608.8
10°	2828.4	2819.2	2808.6	2805.5	2799.4	2804.0	2813.1	2674.4	2679.0	2680.5	2683.5
12.5°	2881.8	2866.5	2852.8	2848.2	2845.2	2857.4	2868.0	2733.9	2738.4	2743.0	2743.0
15°	2947.3	2921.4	2903.1	2892.4	2886.3	2898.5	2913.8	2781.1	2782.6	2787.2	2785.7
17.5°	3058.6	3020.5	2977.8	2970.2	2950.4	2954.9	2958.0	2810.1	2804.0	2793.3	2775.0
20°	3230.9	3173.0	3115.0	3090.6	3051.0	3034.2	3000.7	2811.6	2773.5	2741.5	2714.0
22.5°	3477.9	3392.5	3330.0	3288.9	3208.0	3151.6	3060.1	2804.0	2732.3	2677.4	2634.7
25°	3877.4	3775.2	3679.2	3575.5	3449.0	3336.1	3201.9	2871.1	2759.8	2665.2	2582.9
27.5°	4266.2	4104.6	3956.7	3801.2	3622.8	3453.5	3264.5	2892.4	2765.9	2643.9	2509.7
30°	4557.4	4322.6	4098.5	3871.3	3638.0	3418.5	3205.0	2819.2	2668.3	2531.1	2389.3
32.5°	4734.3	4429.4	4138.1	3856.1	3581.6	3334.6	3095.2	2692.7	2526.5	2364.9	2213.9
35°	4902.0	4523.9	4162.5	3830.1	3516.0	3241.6	2983.9	2544.8	2346.6	2174.3	1983.7
37.5°	5109.4	4623.0	4177.8	3782.9	3420.0	3105.9	2822.3	2358.8	2160.6	1948.6	1768.7
40°	5357.9	4725.2	4162.5	3688.3	3270.6	2927.5	2627.1	2163.6	1942.5	1736.7	1559.8
42.5°	5594.3	4815.1	4122.9	3561.8	3107.4	2741.5	2448.7	1989.8	1768.7	1558.3	1382.9
45°	5769.6	4891.4	4103.1	3473.3	2982.4	2614.9	2291.7	1849.5	1616.2	1404.3	1225.9
47.5°	5891.6	4937.1	4093.9	3424.6	2895.5	2483.8	2148.4	1709.2	1463.7	1250.3	1076.5
50°	5955.6	4935.6	4071.0	3371.2	2767.4	2326.7	2000.5	1567.4	1323.5	1114.6	956.0
52.5°	5972.4	4908.1	4022.3	3273.6	2611.9	2169.7	1841.9	1419.5	1200.0	1000.2	840.1
55°	5934.3	4841.0	3920.1	3110.5	2445.7	2003.5	1697.0	1303.6	1079.5	890.4	765.4
57.5°	5826.0	4722.1	3728.0	2886.3	2270.3	1849.5	1530.8	1163.4	948.4	789.8	686.1
60°	5624.8	4470.5	3427.6	2621.0	2047.7	1614.7	1302.1	980.4	809.6	690.7	606.8
62.5°	5252.7	4075.6	3005.3	2255.1	1727.5	1309.7	1039.9	782.2	654.1	576.4	524.5
65°	4653.5	3481.0	2515.8	1776.3	1312.8	953.0	773.0	588.5	495.5	448.3	433.0
67.5°	3798.1	2688.1	1829.7	1233.5	888.9	667.8	538.2	430.0	385.8	367.5	361.4
70°	2761.3	1831.2	1184.7	779.1	587.0	466.6	407.1	346.1	321.7	317.1	317.1
72.5°	1733.6	1113.1	725.8	533.7	445.2	378.1	347.6	304.9	295.8	292.7	288.2
75°	1017.0	675.5	513.8	437.6	381.2	338.5	312.6	277.5	271.4	269.9	265.3
77.5°	648.0	486.4	414.7	373.6	344.6	306.5	283.6	247.0	245.5	244.0	242.4
80°	465.0	404.1	362.9	330.9	301.9	266.8	253.1	224.1	221.1	219.6	222.6
82.5°	352.2	333.9	317.1	292.7	253.1	227.2	216.5	196.7	198.2	190.6	189.1
85°	242.4	239.4	237.9	227.2	198.2	175.3	167.7	157.0	164.7	157.0	147.9
87.5°	118.9	117.4	108.3	128.1	118.9	94.5	85.4	94.5	105.2	102.2	94.5
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: P158936

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8
2.5°	2470.1	2464.0	2468.5	2465.5	2465.5	2464.0	2467.0	2462.4	2459.4	2462.4	2464.0
5°	2518.9	2511.2	2512.8	2502.1	2506.7	2496.0	2499.0	2491.4	2483.8	2480.7	2480.7
7.5°	2601.2	2593.6	2584.4	2582.9	2566.1	2560.0	2549.4	2543.3	2538.7	2528.0	2521.9
10°	2675.9	2663.7	2653.0	2651.5	2634.7	2619.5	2605.8	2593.6	2586.0	2570.7	2563.1
12.5°	2736.9	2724.7	2707.9	2698.8	2682.0	2663.7	2654.6	2636.3	2625.6	2608.8	2595.1
15°	2772.0	2750.6	2726.2	2709.5	2685.1	2665.2	2651.5	2637.8	2627.1	2605.8	2586.0
17.5°	2755.2	2720.1	2686.6	2656.1	2622.5	2604.2	2584.4	2567.7	2564.6	2540.2	2509.7
20°	2685.1	2643.9	2599.7	2558.5	2514.3	2488.4	2464.0	2438.1	2430.4	2401.5	2361.8
22.5°	2599.7	2552.4	2502.1	2451.8	2395.4	2358.8	2322.2	2290.2	2264.2	2221.5	2165.1
25°	2512.8	2442.6	2369.4	2305.4	2239.8	2194.1	2156.0	2120.9	2090.4	2021.8	1963.9
27.5°	2398.4	2288.6	2213.9	2140.7	2061.4	2002.0	1959.3	1910.5	1877.0	1797.7	1736.7
30°	2252.0	2142.3	2035.5	1962.3	1883.0	1819.0	1764.1	1694.0	1645.2	1587.3	1530.8
32.5°	2067.5	1957.8	1849.5	1767.2	1701.6	1622.3	1553.7	1486.6	1430.2	1373.8	1329.6
35°	1843.4	1736.7	1634.5	1552.2	1479.0	1416.5	1350.9	1293.0	1228.9	1167.9	1142.0
37.5°	1607.1	1492.7	1379.9	1308.2	1250.3	1206.1	1145.1	1097.8	1039.9	1003.3	972.8
40°	1401.2	1279.3	1172.5	1111.5	1065.8	1015.5	965.2	928.6	887.4	850.8	827.9
42.5°	1227.4	1113.1	1021.6	969.7	914.8	860.0	821.8	791.3	765.4	738.0	710.5
45°	1067.3	957.5	881.3	817.3	771.5	727.3	701.4	687.7	672.4	655.6	637.3
47.5°	933.1	838.6	763.9	704.4	657.2	626.7	614.5	609.9	603.8	590.1	580.9
50°	831.0	753.2	677.0	623.6	584.0	568.7	555.0	550.4	542.8	538.2	532.1
52.5°	745.6	663.3	599.2	550.4	526.0	519.9	513.8	507.7	506.2	503.2	500.1
55°	675.5	603.8	544.3	507.7	495.5	491.0	489.4	483.3	481.8	481.8	477.2
57.5°	612.9	552.0	498.6	475.7	468.1	463.5	460.5	457.4	457.4	460.5	458.9
60°	548.9	497.1	465.0	452.8	448.3	440.6	433.0	430.0	431.5	439.1	439.1
62.5°	486.4	448.3	428.5	423.9	419.3	413.2	404.1	401.0	404.1	413.2	417.8
65°	417.8	401.0	394.9	391.9	388.8	384.2	378.1	375.1	376.6	381.2	387.3
67.5°	355.3	353.7	353.7	355.3	353.7	352.2	349.2	344.6	343.1	343.1	346.1
70°	317.1	317.1	321.7	321.7	320.2	320.2	315.6	311.0	308.0	304.9	306.5
72.5°	288.2	288.2	289.7	291.2	289.7	289.7	283.6	280.6	272.9	271.4	268.4
75°	263.8	260.7	260.7	259.2	257.7	259.2	253.1	245.5	242.4	240.9	237.9
77.5°	239.4	233.3	230.2	227.2	228.7	227.2	222.6	218.0	213.5	211.9	210.4
80°	211.9	202.8	198.2	190.6	195.2	196.7	193.6	189.1	187.5	186.0	184.5
82.5°	175.3	166.2	160.1	155.5	152.5	155.5	160.1	170.8	167.7	166.2	163.1
85°	137.2	122.0	114.4	115.9	108.3	109.8	123.5	129.6	129.6	132.7	129.6
87.5°	77.8	74.7	56.4	51.8	54.9	65.6	73.2	80.8	80.8	76.2	85.4
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: P158936

CATALOG NUMBER: VST-F09-LED-E-U-SLL-7050

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8
2.5°	2464.0	2467.0	2468.5	2474.6	2477.7	2479.2	2480.7	2483.8	2485.3	2483.8	2491.4
5°	2476.2	2476.2	2473.1	2477.7	2479.2	2479.2	2476.2	2479.2	2479.2	2479.2	2486.8
7.5°	2508.2	2499.0	2494.5	2488.4	2483.8	2477.7	2470.1	2470.1	2468.5	2470.1	2474.6
10°	2541.7	2528.0	2511.2	2496.0	2482.3	2471.6	2457.9	2453.3	2451.8	2450.3	2462.4
12.5°	2567.7	2543.3	2517.3	2491.4	2464.0	2445.7	2422.8	2409.1	2407.6	2407.6	2422.8
15°	2549.4	2509.7	2459.4	2413.7	2389.3	2363.3	2337.4	2320.6	2319.1	2322.2	2331.3
17.5°	2457.9	2393.8	2349.6	2305.4	2273.4	2252.0	2235.3	2232.2	2238.3	2232.2	2244.4
20°	2302.4	2233.7	2203.2	2168.2	2156.0	2140.7	2116.3	2095.0	2095.0	2067.5	2075.2
22.5°	2101.1	2063.0	2023.3	1995.9	1986.7	1960.8	1934.9	1905.9	1902.9	1869.3	1864.8
25°	1890.7	1852.6	1820.5	1814.4	1787.0	1751.9	1727.5	1694.0	1686.4	1652.8	1648.2
27.5°	1675.7	1645.2	1613.2	1594.9	1579.6	1541.5	1520.2	1480.5	1465.3	1428.7	1424.1
30°	1471.4	1450.0	1411.9	1396.7	1367.7	1323.5	1277.7	1253.3	1241.1	1203.0	1190.8
32.5°	1279.3	1245.7	1216.7	1198.4	1161.8	1111.5	1070.4	1035.3	1012.4	966.7	954.5
35°	1096.3	1062.7	1049.0	1001.8	969.7	936.2	879.8	858.4	817.3	782.2	770.0
37.5°	934.7	902.6	884.3	844.7	812.7	779.1	745.6	718.2	698.3	690.7	690.7
40°	795.9	779.1	756.3	727.3	706.0	681.6	663.3	654.1	652.6	655.6	663.3
42.5°	696.8	678.5	663.3	648.0	632.8	629.7	625.1	631.2	638.9	646.5	654.1
45°	622.1	606.8	597.7	591.6	590.1	594.6	603.8	612.9	626.7	635.8	641.9
47.5°	568.7	556.5	553.5	552.0	559.6	573.3	585.5	599.2	609.9	619.0	625.1
50°	523.0	512.3	510.8	509.3	519.9	532.1	542.8	561.1	568.7	574.8	579.4
52.5°	491.0	481.8	477.2	478.8	489.4	500.1	515.4	529.1	539.8	544.3	548.9
55°	465.0	462.0	451.3	455.9	466.6	480.3	495.5	510.8	521.5	529.1	536.7
57.5°	445.2	437.6	430.0	437.6	448.3	462.0	480.3	494.0	507.7	518.4	526.0
60°	423.9	417.8	411.7	419.3	430.0	443.7	457.4	475.7	492.5	503.2	510.8
62.5°	405.6	401.0	394.9	396.4	401.0	410.2	417.8	434.5	449.8	463.5	472.7
65°	379.7	378.1	369.0	370.5	373.6	382.7	388.8	404.1	419.3	431.5	439.1
67.5°	341.5	338.5	338.5	343.1	344.6	349.2	353.7	369.0	381.2	390.3	399.5
70°	303.4	301.9	301.9	304.9	303.4	308.0	314.1	327.8	343.1	352.2	361.4
72.5°	266.8	266.8	265.3	268.4	268.4	269.9	277.5	289.7	303.4	311.0	317.1
75°	234.8	233.3	233.3	233.3	234.8	234.8	242.4	253.1	266.8	271.4	280.6
77.5°	205.8	205.8	205.8	205.8	207.4	205.8	210.4	218.0	222.6	230.2	230.2
80°	181.4	179.9	181.4	183.0	183.0	181.4	181.4	183.0	184.5	184.5	184.5
82.5°	160.1	155.5	158.6	166.2	166.2	166.2	164.7	154.0	146.4	146.4	149.4
85°	128.1	128.1	129.6	140.3	141.8	135.7	141.8	126.6	111.3	106.7	109.8
87.5°	79.3	62.5	76.2	86.9	86.9	82.3	91.5	85.4	71.7	57.9	54.9
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: P158936
CATALOG NUMBER: VST-F09-LED-E-U-SLL-7050

REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	0°
2.5°	2497.5	2499.0	2508.2	2512.8	2512.8	2518.9	2521.9	2531.1	2529.5	2529.5	2532.6	2.5°
5°	2494.5	2499.0	2508.2	2514.3	2517.3	2525.0	2531.1	2541.7	2540.2	2543.3	2544.8	5°
7.5°	2483.8	2496.0	2505.1	2517.3	2528.0	2534.1	2541.7	2550.9	2547.8	2549.4	2547.8	7.5°
10°	2474.6	2486.8	2505.1	2521.9	2537.2	2546.3	2550.9	2561.6	2560.0	2563.1	2563.1	10°
12.5°	2438.1	2459.4	2482.3	2508.2	2531.1	2555.5	2570.7	2593.6	2604.2	2618.0	2633.2	12.5°
15°	2345.0	2369.4	2406.0	2435.0	2479.2	2512.8	2557.0	2601.2	2640.8	2679.0	2723.2	15°
17.5°	2253.6	2264.2	2293.2	2332.8	2372.5	2422.8	2476.2	2555.5	2627.1	2704.9	2790.3	17.5°
20°	2084.3	2102.6	2122.4	2169.7	2217.0	2288.6	2354.2	2457.9	2563.1	2685.1	2816.2	20°
22.5°	1875.4	1893.7	1915.1	1968.4	2026.4	2099.6	2178.8	2294.7	2435.0	2593.6	2768.9	22.5°
25°	1649.8	1660.4	1677.2	1730.6	1765.6	1861.7	1957.8	2078.2	2230.7	2435.0	2639.3	25°
27.5°	1401.2	1421.1	1434.8	1459.2	1540.0	1622.3	1723.0	1852.6	2037.0	2245.9	2492.9	27.5°
30°	1163.4	1180.1	1172.5	1224.4	1277.7	1364.6	1472.9	1616.2	1793.1	2041.6	2326.7	30°
32.5°	930.1	942.3	937.7	974.3	1027.7	1114.6	1216.7	1372.3	1559.8	1825.1	2134.6	32.5°
35°	766.9	770.0	786.8	803.5	849.3	919.4	1006.3	1142.0	1334.1	1578.1	1905.9	35°
37.5°	690.7	696.8	707.5	730.3	763.9	814.2	885.9	991.1	1155.7	1370.7	1663.5	37.5°
40°	667.8	672.4	678.5	693.8	725.8	770.0	834.0	922.5	1042.9	1224.4	1462.2	40°
42.5°	657.2	657.2	657.2	666.3	690.7	738.0	811.2	898.1	1003.3	1140.5	1332.6	42.5°
45°	641.9	641.9	640.4	645.0	661.7	709.0	788.3	885.9	998.7	1129.8	1296.0	45°
47.5°	625.1	623.6	619.0	619.0	629.7	677.0	759.3	864.5	988.0	1139.0	1317.4	47.5°
50°	579.4	579.4	579.4	584.0	593.1	635.8	724.2	835.6	977.4	1145.1	1350.9	50°
52.5°	553.5	555.0	559.6	559.6	568.7	612.9	706.0	829.5	983.5	1167.9	1393.6	52.5°
55°	541.3	545.9	550.4	550.4	558.1	603.8	699.9	834.0	1006.3	1215.2	1466.8	55°
57.5°	530.6	535.2	538.2	538.2	544.3	584.0	683.1	826.4	1020.0	1261.0	1556.8	57.5°
60°	510.8	513.8	515.4	515.4	516.9	550.4	645.0	789.8	989.6	1257.9	1605.5	60°
62.5°	474.2	480.3	481.8	483.3	483.3	515.4	596.2	730.3	924.0	1212.2	1591.8	62.5°
65°	446.7	449.8	454.4	457.4	463.5	484.9	548.9	658.7	838.6	1120.7	1515.6	65°
67.5°	404.1	408.6	413.2	419.3	425.4	439.1	489.4	577.9	722.7	965.2	1344.8	67.5°
70°	365.9	367.5	372.0	379.7	381.2	388.8	425.4	486.4	591.6	774.6	1082.6	70°
72.5°	318.7	321.7	327.8	337.0	337.0	343.1	364.4	396.4	463.5	591.6	799.0	72.5°
75°	277.5	280.6	285.1	285.1	277.5	279.0	294.3	317.1	367.5	445.2	582.4	75°
77.5°	230.2	236.3	240.9	231.8	228.7	233.3	240.9	257.7	294.3	353.7	437.6	77.5°
80°	190.6	193.6	195.2	196.7	193.6	198.2	204.3	215.0	239.4	285.1	346.1	80°
82.5°	152.5	155.5	160.1	166.2	166.2	183.0	184.5	184.5	198.2	227.2	271.4	82.5°
85°	112.8	118.9	125.0	132.7	134.2	143.3	138.8	137.2	141.8	169.2	187.5	85°
87.5°	57.9	62.5	65.6	71.7	64.0	67.1	67.1	62.5	54.9	68.6	76.2	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: P158936

NUMBER: VST-F09-LED-E-U-SLL-7050

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
2547.8	2547.8	2547.8	2547.8	2547.8	2547.8	2547.8
2535.6	2532.6	2535.6	2535.6	2540.2	2537.2	2698.8
2547.8	2544.8	2547.8	2550.9	2555.5	2555.5	2733.9
2549.4	2549.4	2546.3	2553.9	2560.0	2566.1	2767.4
2567.7	2567.7	2570.7	2572.2	2586.0	2601.2	2822.3
2642.4	2650.0	2663.7	2668.3	2692.7	2709.5	2962.6
2756.7	2799.4	2826.9	2836.0	2857.4	2889.4	3198.9
2872.6	2944.3	3019.0	3064.7	3092.2	3130.3	3488.6
2959.5	3093.7	3221.8	3336.1	3401.7	3476.4	3894.2
2967.1	3180.6	3397.1	3609.1	3784.4	3923.1	4443.1
2893.9	3174.5	3473.3	3798.1	4100.0	4350.1	5074.3
2800.9	3145.5	3526.7	3941.4	4337.9	4706.9	5539.4
2683.5	3096.7	3535.9	4002.4	4467.5	4911.2	5804.7
2505.1	2951.9	3426.1	3941.4	4481.2	5021.0	5975.4
2276.4	2732.3	3218.7	3805.7	4417.2	5065.2	6118.8
2043.1	2492.9	3015.9	3624.3	4315.0	5057.5	6176.7
1796.1	2242.9	2778.1	3430.7	4176.3	4987.4	6166.0
1628.4	2035.5	2560.0	3234.0	4022.3	4894.4	6094.4
1530.8	1887.6	2387.7	3054.0	3882.0	4783.1	6004.4
1529.3	1843.4	2296.3	2926.0	3740.2	4659.6	5882.4
1582.7	1870.9	2285.6	2871.1	3662.4	4569.6	5749.8
1645.2	1947.1	2342.0	2890.9	3660.9	4530.0	5656.8
1744.3	2076.7	2465.5	2976.3	3700.5	4523.9	5542.4
1870.9	2252.0	2688.1	3186.7	3854.5	4644.3	5550.0
2000.5	2457.9	2979.3	3546.5	4158.0	4924.9	5790.9
2047.7	2616.4	3275.1	3968.9	4612.3	5345.7	6288.0
2006.6	2653.0	3455.1	4296.7	5054.5	5838.2	6881.1
1854.1	2505.1	3381.9	4389.7	5309.1	6187.4	7474.3
1526.3	2137.7	3049.5	4180.8	5289.3	6259.0	7687.7
1119.2	1657.4	2479.2	3552.6	4702.3	5810.8	7367.5
808.1	1172.5	1790.0	2675.9	3717.3	4679.4	6179.8
579.4	812.7	1161.8	1758.0	2532.6	3258.4	4405.0
416.3	552.0	724.2	1055.1	1543.0	2000.5	2767.4
306.5	378.1	475.7	655.6	908.7	1164.9	1666.5
208.9	222.6	286.7	387.3	596.2	856.9	1131.4
79.3	90.0	105.2	158.6	266.8	306.5	216.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)