

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: P159152

Luminaire Tested: **VST-E09-LED-E-U-SLR-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159152
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-E09-LED-E-U-SLR-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR RIGHT
Light Source: (189) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24816.9 lumens
Efficiency: N/A
Efficacy: 110.0 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 - G5

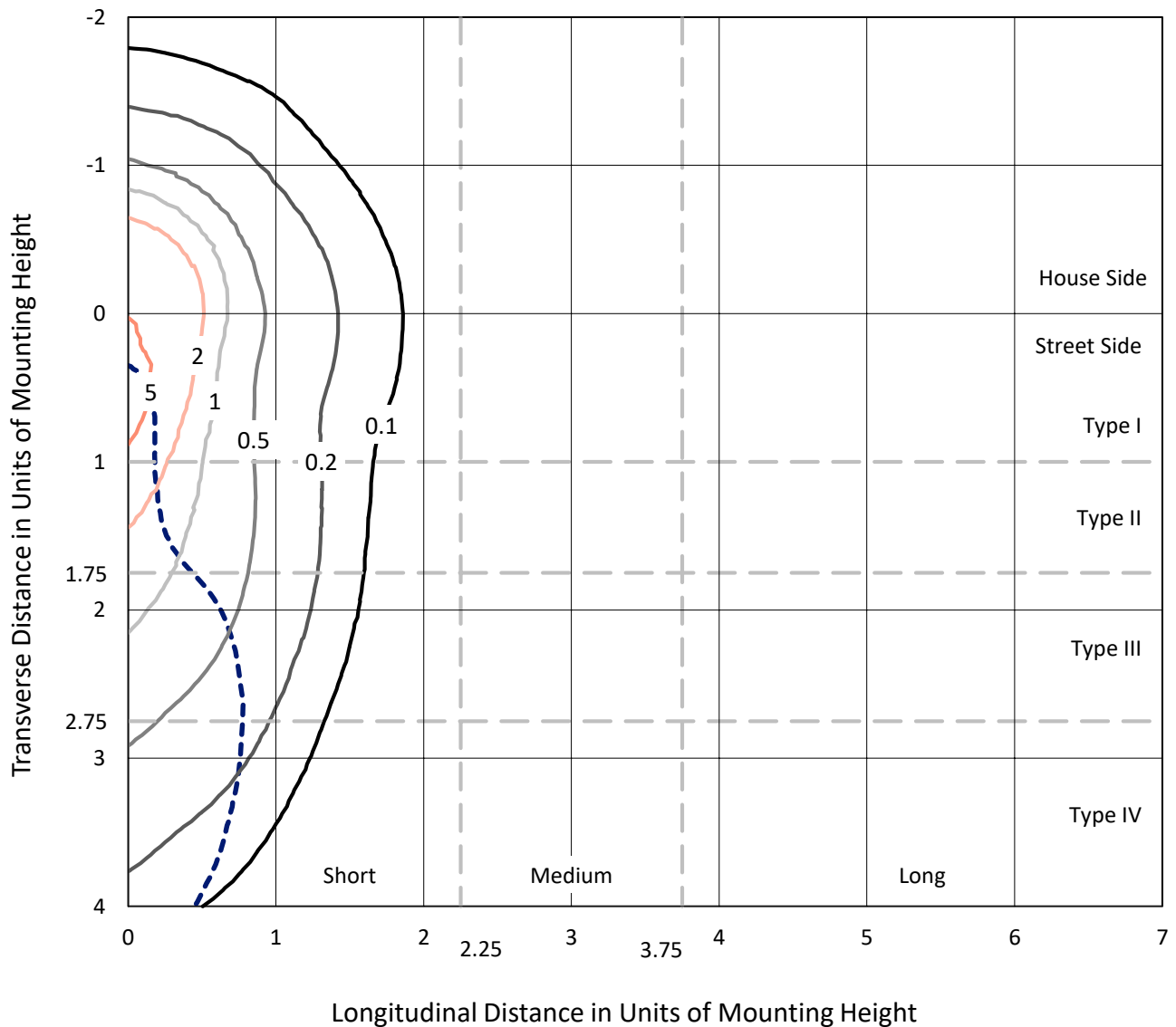
Input Watts (W): 225.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P159152
 CATALOG NUMBER: VST-E09-LED-E-U-SLR-7060

Iso-Footcandle Lines of Horizontal Illumination

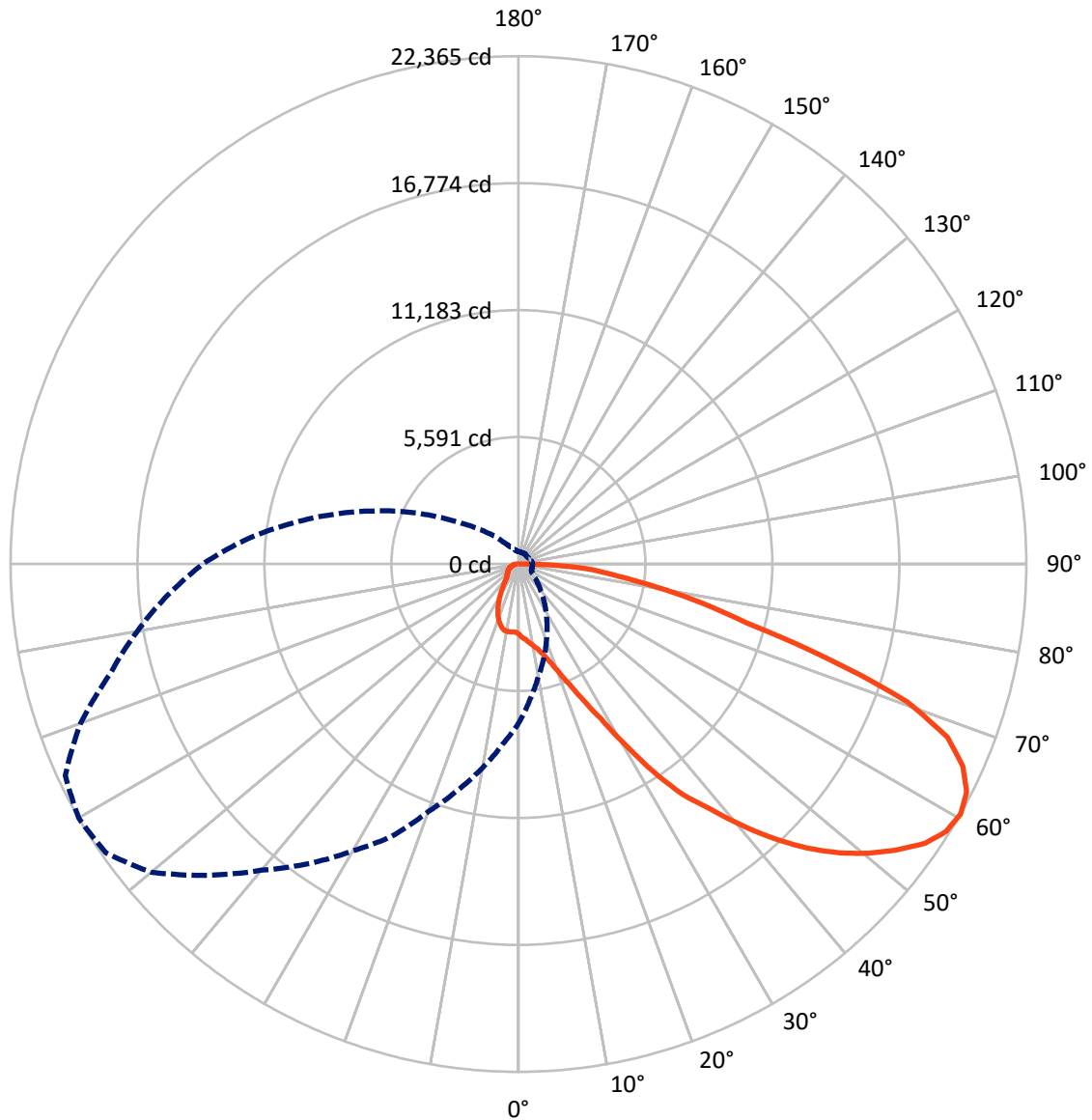
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P159152
CATALOG NUMBER: VST-E09-LED-E-U-SLR-7060

Luminous Intensity Polar Plot



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

REPORT NUMBER: P159152

CATALOG NUMBER: VST-E09-LED-E-U-SLR-7060

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5588.0	0.0	5588.0
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	19228.9	0.0	19228.9
	% Fixture	77.5	0.0	77.5
Total	Lumens	24816.9	0.0	24816.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.5	1.2
10°-20°	983.1	4.0
20°-30°	1865.6	7.5
30°-40°	2937.9	11.8
40°-50°	4100.7	16.5
50°-60°	5071.5	20.4
60°-70°	5256.9	21.2
70°-80°	3307.8	13.3
80°-90°	988.8	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°	24816.9	100.0
0°-180°	24816.9	100.0



REPORT NUMBER: P159152

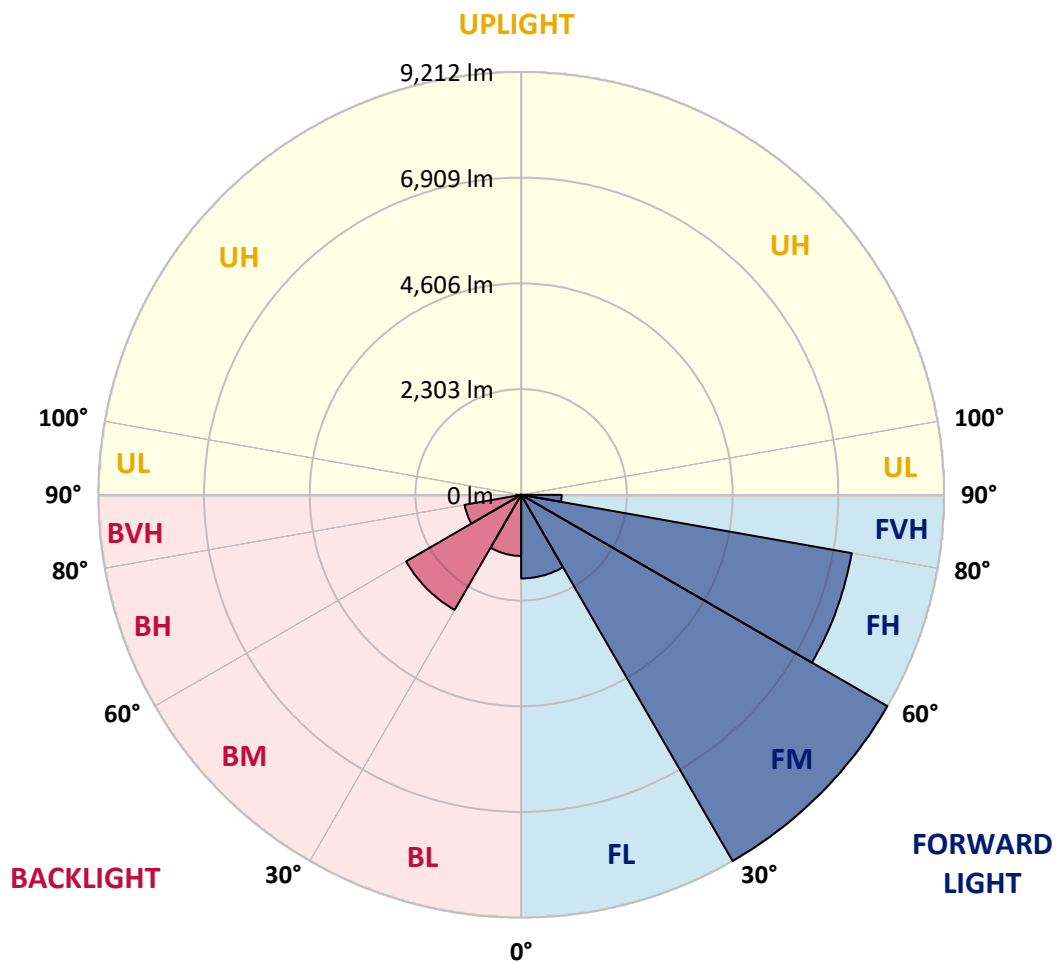
CATALOG NUMBER: VST-E09-LED-E-U-SLR-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1821.9	7.3			
FM (30°-60°)	9212.4	37.1			
FH (60°-80°)	7313.3	29.5			G3/7500
FVH (80°-90°)	881.2	3.6			G5
BL (0°-30°)	1331.3	5.4	B3/2500		
BM (30°-60°)	2897.7	11.7	B3/5000		
BH (60°-80°)	1251.5	5.0	B3/2500		G3/2500
BVH (80°-90°)	107.6	0.4			G2/225
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: P159152

CATALOG NUMBER: VST-E09-LED-E-U-SLR-7060

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3
2.5°	3269.2	3073.4	3077.1	3071.5	3071.5	3067.9	3071.5	3067.9	3064.2	3064.2	3066.0
5°	3311.7	3095.6	3095.6	3090.0	3086.3	3082.6	3086.3	3082.6	3080.8	3077.1	3078.9
7.5°	3352.3	3108.5	3101.1	3093.7	3084.5	3088.2	3088.2	3086.3	3088.2	3086.3	3090.0
10°	3418.8	3151.0	3132.5	3115.9	3114.0	3110.3	3110.3	3104.8	3104.8	3101.1	3102.9
12.5°	3588.7	3282.1	3261.8	3232.2	3226.7	3210.1	3200.8	3189.8	3171.3	3154.7	3141.7
15°	3875.0	3500.0	3461.3	3435.4	3424.3	3391.1	3339.4	3298.7	3245.2	3199.0	3151.0
17.5°	4225.9	3791.9	3745.7	3712.4	3657.0	3566.5	3479.7	3380.0	3276.6	3182.4	3095.6
20°	4717.2	4211.1	4120.6	4041.2	3902.7	3747.5	3585.0	3411.4	3252.5	3104.8	2977.3
22.5°	5382.1	4752.3	4584.2	4371.8	4115.1	3852.8	3594.2	3354.1	3141.7	2949.6	2779.7
25°	6146.8	5269.5	4966.6	4600.9	4207.4	3845.4	3505.6	3197.1	2949.6	2702.1	2517.4
27.5°	6710.1	5701.7	5254.7	4774.5	4272.1	3810.3	3392.9	3019.8	2720.6	2467.6	2244.1
30°	7031.5	5949.2	5411.7	4848.3	4283.2	3751.2	3250.7	2818.5	2473.1	2172.1	1957.8
32.5°	7238.4	6082.1	5428.3	4774.5	4150.2	3575.8	3034.6	2585.8	2210.8	1889.5	1662.3
35°	7412.0	6135.7	5350.7	4610.1	3899.0	3309.8	2757.6	2308.7	1911.6	1616.1	1383.4
37.5°	7482.2	6126.5	5227.0	4390.3	3653.3	3019.8	2475.0	2015.1	1660.4	1400.0	1200.5
40°	7469.2	6041.5	5058.9	4155.7	3365.2	2716.9	2175.8	1771.3	1483.1	1263.3	1117.4
42.5°	7382.4	5928.8	4872.4	3917.5	3101.1	2465.7	1972.6	1614.3	1381.5	1215.3	1087.9
45°	7273.4	5794.0	4702.4	3699.5	2892.4	2286.6	1854.4	1569.9	1368.6	1209.8	1073.1
47.5°	7125.7	5644.4	4530.7	3544.4	2781.6	2233.0	1852.5	1595.8	1379.7	1196.8	1047.2
50°	6965.0	5535.4	4436.5	3477.9	2768.6	2266.3	1917.2	1636.4	1387.1	1183.9	1012.2
52.5°	6852.3	5487.4	4434.6	3501.9	2837.0	2358.6	1992.9	1688.1	1414.8	1191.3	1004.8
55°	6713.8	5480.0	4482.6	3605.3	2986.6	2515.6	2113.0	1776.8	1472.1	1219.0	1010.3
57.5°	6723.0	5625.9	4669.2	3860.2	3256.2	2728.0	2266.3	1885.8	1527.5	1235.6	1001.1
60°	7014.9	5965.8	5036.7	4296.1	3609.0	2977.3	2423.3	1944.9	1523.8	1198.7	956.7
62.5°	7617.0	6475.5	5587.1	4807.7	3967.3	3169.4	2480.5	1928.3	1468.4	1119.3	884.7
65°	8335.5	7072.1	6122.8	5204.8	4185.3	3213.8	2430.6	1835.9	1357.5	1015.8	797.9
67.5°	9053.9	7495.1	6431.2	5317.5	4096.6	3034.6	2245.9	1629.0	1169.1	875.5	700.0
70°	9312.5	7581.9	6407.2	5064.4	3694.0	2589.5	1848.8	1311.4	938.3	716.6	589.2
72.5°	8924.7	7038.9	5696.1	4303.5	3003.2	2007.7	1355.7	967.8	716.6	561.5	480.2
75°	7485.8	5668.4	4503.0	3241.5	2168.4	1420.3	978.9	705.6	539.3	445.1	384.2
77.5°	5336.0	3947.0	3067.9	2129.6	1407.4	984.4	701.9	530.1	428.5	356.5	312.1
80°	3352.3	2423.3	1869.2	1278.1	877.3	668.6	504.2	419.3	345.4	290.0	260.4
82.5°	2018.8	1411.1	1100.8	794.2	576.3	458.1	371.2	328.8	275.2	240.1	223.5
85°	1370.5	1038.0	722.2	469.1	347.2	269.7	253.0	227.2	205.0	171.8	166.2
87.5°	262.3	371.2	323.2	192.1	127.4	109.0	96.0	92.3	83.1	66.5	75.7
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: P159152

CATALOG NUMBER: VST-E09-LED-E-U-SLR-7060

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3
2.5°	3054.9	3051.2	3043.8	3043.8	3038.3	3027.2	3025.4	3018.0	3008.7	3010.6	3008.7
5°	3066.0	3058.6	3049.4	3045.7	3038.3	3027.2	3021.7	3012.4	3003.2	3003.2	3003.2
7.5°	3078.9	3069.7	3062.3	3049.4	3034.6	3023.5	3008.7	2997.7	2992.1	2990.3	2992.1
10°	3090.0	3084.5	3073.4	3054.9	3034.6	3012.4	2997.7	2982.9	2968.1	2970.0	2971.8
12.5°	3114.0	3095.6	3066.0	3038.3	3006.9	2979.2	2953.3	2934.9	2916.4	2916.4	2918.2
15°	3097.4	3043.8	3003.2	2949.6	2914.5	2870.2	2840.7	2824.0	2813.0	2809.3	2811.1
17.5°	2999.5	2934.9	2873.9	2825.9	2777.9	2742.8	2729.9	2718.8	2704.0	2711.4	2704.0
20°	2851.8	2772.3	2685.5	2628.3	2571.0	2547.0	2524.8	2513.8	2504.5	2537.8	2537.8
22.5°	2639.3	2543.3	2454.6	2384.5	2319.8	2294.0	2271.8	2258.9	2264.4	2305.0	2308.7
25°	2371.5	2255.2	2138.8	2096.3	2031.7	2011.4	1998.4	1996.6	2002.1	2042.8	2052.0
27.5°	2087.1	1965.2	1865.5	1767.6	1738.0	1721.4	1697.4	1725.1	1730.6	1775.0	1793.4
30°	1784.2	1653.1	1547.8	1483.1	1420.3	1429.6	1409.3	1442.5	1457.3	1503.4	1518.2
32.5°	1473.9	1350.1	1244.9	1180.2	1135.9	1141.4	1126.7	1156.2	1171.0	1226.4	1254.1
35°	1219.0	1113.7	1028.8	973.4	953.0	932.7	929.0	932.7	947.5	990.0	1039.9
37.5°	1073.1	986.3	925.3	884.7	857.0	844.1	836.7	836.7	836.7	845.9	869.9
40°	1010.3	932.7	879.2	840.4	821.9	814.5	809.0	803.4	794.2	790.5	792.4
42.5°	982.6	893.9	836.7	807.1	796.1	796.1	796.1	792.4	783.1	773.9	764.7
45°	954.9	858.9	801.6	781.3	775.7	777.6	777.6	777.6	770.2	759.1	742.5
47.5°	919.8	820.1	762.8	749.9	749.9	755.4	757.3	757.3	749.9	738.8	725.9
50°	877.3	770.2	718.5	707.4	701.9	701.9	701.9	701.9	696.3	688.9	679.7
52.5°	855.2	742.5	688.9	677.8	677.8	672.3	670.5	664.9	659.4	653.8	640.9
55°	847.8	731.4	676.0	666.8	666.8	661.2	655.7	650.1	640.9	631.7	618.7
57.5°	827.5	707.4	659.4	652.0	652.0	648.3	642.8	637.2	628.0	615.0	598.4
60°	781.3	666.8	626.1	624.3	624.3	622.4	618.7	618.7	609.5	596.6	576.3
62.5°	722.2	624.3	585.5	585.5	583.6	581.8	574.4	572.6	561.5	544.9	526.4
65°	664.9	587.3	561.5	554.1	550.4	544.9	541.2	531.9	522.7	507.9	489.5
67.5°	592.9	531.9	515.3	507.9	500.5	495.0	489.5	483.9	472.8	461.7	447.0
70°	515.3	471.0	461.7	459.9	450.7	445.1	443.3	437.7	426.7	415.6	397.1
72.5°	441.4	415.6	408.2	408.2	397.1	389.7	386.0	384.2	376.8	367.6	350.9
75°	356.5	338.0	336.2	345.4	345.4	339.8	336.2	339.8	328.8	323.2	306.6
77.5°	291.8	282.6	277.0	280.7	291.8	286.3	278.9	278.9	278.9	269.7	264.1
80°	247.5	240.1	234.6	238.3	236.4	234.6	230.9	223.5	223.5	223.5	221.6
82.5°	223.5	221.6	201.3	201.3	193.9	188.4	184.7	181.0	177.3	177.3	186.5
85°	168.1	173.6	162.5	160.7	151.5	144.1	136.7	133.0	129.3	134.8	153.3
87.5°	81.3	81.3	77.6	86.8	79.4	75.7	70.2	66.5	70.2	86.8	103.4
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: P159152

CATALOG NUMBER: VST-E09-LED-E-U-SLR-7060

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3
2.5°	3005.1	3003.2	3001.4	2997.7	2990.3	2988.4	2984.7	2984.7	2982.9	2979.2	2982.9
5°	2999.5	3003.2	3003.2	3001.4	2995.8	2999.5	2999.5	3005.1	3005.1	3008.7	3018.0
7.5°	2992.1	3001.4	3008.7	3014.3	3021.7	3027.2	3038.3	3054.9	3062.3	3075.2	3080.8
10°	2977.3	2994.0	3006.9	3023.5	3042.0	3062.3	3078.9	3104.8	3114.0	3132.5	3141.7
12.5°	2934.9	2962.6	2984.7	3018.0	3049.4	3080.8	3110.3	3143.6	3160.2	3180.5	3193.4
15°	2831.4	2862.8	2894.2	2923.8	2979.2	3040.1	3088.2	3132.5	3156.5	3182.4	3195.3
17.5°	2707.7	2728.0	2753.9	2792.6	2846.2	2899.8	2977.3	3040.1	3077.1	3106.6	3110.3
20°	2563.6	2593.2	2611.6	2626.4	2668.9	2705.8	2789.0	2861.0	2909.0	2944.1	2953.3
22.5°	2343.8	2375.2	2406.6	2417.7	2451.0	2499.0	2545.2	2622.7	2691.1	2742.8	2774.2
25°	2092.6	2122.2	2164.7	2197.9	2205.3	2244.1	2290.3	2378.9	2449.1	2532.2	2569.2
27.5°	1841.4	1867.3	1913.5	1932.0	1954.1	1992.9	2029.8	2103.7	2177.6	2273.6	2314.3
30°	1547.8	1603.2	1656.7	1691.8	1710.3	1756.5	1782.3	1854.4	1922.7	1992.9	2052.0
32.5°	1296.6	1346.5	1407.4	1451.7	1473.9	1509.0	1549.6	1610.6	1664.1	1732.5	1800.8
35°	1065.7	1134.1	1174.7	1213.5	1270.7	1287.4	1328.0	1383.4	1414.8	1488.7	1566.2
37.5°	903.2	943.8	984.4	1023.2	1071.3	1093.4	1132.2	1178.4	1215.3	1259.6	1329.8
40°	803.4	825.6	855.2	881.0	916.1	943.8	964.1	1002.9	1030.6	1074.9	1124.8
42.5°	757.3	762.8	766.5	785.0	803.4	821.9	844.1	860.7	893.9	927.2	958.6
45°	731.4	720.3	714.8	716.6	724.0	735.1	753.6	772.0	794.2	814.5	833.0
47.5°	709.2	694.5	677.8	668.6	670.5	674.2	688.9	703.7	714.8	731.4	738.8
50°	657.5	644.6	629.8	616.9	618.7	620.6	633.5	644.6	652.0	657.5	666.8
52.5°	624.3	605.8	592.9	580.0	578.1	583.6	594.7	605.8	609.5	613.2	615.0
55°	600.3	581.8	565.2	552.2	546.7	559.6	563.3	578.1	583.6	583.6	585.5
57.5°	581.8	559.6	543.0	530.1	520.9	530.1	539.3	555.9	557.8	554.1	554.1
60°	554.1	537.5	520.9	507.9	498.7	506.1	513.5	531.9	531.9	522.7	520.9
62.5°	506.1	496.8	485.8	480.2	478.4	485.8	491.3	506.1	500.5	489.5	485.8
65°	471.0	463.6	452.5	448.8	447.0	458.1	459.9	469.1	461.7	456.2	454.4
67.5°	428.5	423.0	417.4	415.6	410.0	410.0	413.7	419.3	415.6	415.6	417.4
70°	380.5	373.1	367.6	369.4	365.7	365.7	367.6	371.2	369.4	373.1	376.8
72.5°	336.2	326.9	325.1	325.1	321.4	323.2	323.2	325.1	328.8	330.6	339.8
75°	293.7	284.4	284.4	282.6	282.6	282.6	284.4	288.1	291.8	293.7	297.4
77.5°	254.9	249.3	251.2	249.3	249.3	249.3	249.3	254.9	256.7	258.6	264.1
80°	219.8	219.8	221.6	221.6	219.8	217.9	219.8	223.5	225.3	227.2	229.0
82.5°	199.5	201.3	201.3	201.3	192.1	188.4	193.9	197.6	201.3	203.2	206.9
85°	171.8	164.4	171.8	169.9	157.0	155.1	155.1	157.0	160.7	157.0	157.0
87.5°	110.8	99.7	105.3	105.3	92.3	75.7	96.0	103.4	92.3	97.9	97.9
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: P159152

CATALOG NUMBER: VST-E09-LED-E-U-SLR-7060

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3
2.5°	2988.4	2984.7	2986.6	2986.6	2990.3	2984.7	2992.1	2999.5	3001.4	3001.4	3003.2
5°	3027.2	3023.5	3036.5	3030.9	3043.8	3042.0	3051.2	3058.6	3062.3	3062.3	3062.3
7.5°	3088.2	3101.1	3108.5	3128.8	3130.6	3141.7	3151.0	3160.2	3156.5	3158.4	3156.5
10°	3156.5	3173.1	3191.6	3211.9	3213.8	3226.7	3241.5	3250.7	3247.0	3245.2	3239.6
12.5°	3215.6	3226.7	3248.9	3269.2	3280.3	3300.6	3315.3	3322.7	3322.7	3317.2	3311.7
15°	3211.9	3228.5	3252.5	3282.1	3302.4	3332.0	3357.8	3374.5	3376.3	3370.8	3368.9
17.5°	3130.6	3154.7	3176.8	3217.5	3254.4	3295.0	3337.5	3361.5	3383.7	3396.6	3404.0
20°	2984.7	3014.3	3045.7	3099.2	3149.1	3202.7	3252.5	3287.6	3320.9	3359.7	3405.8
22.5°	2813.0	2857.3	2901.6	2970.0	3030.9	3091.9	3149.1	3191.6	3243.3	3309.8	3396.6
25°	2611.6	2657.8	2713.2	2792.6	2870.2	2958.9	3043.8	3128.8	3228.5	3343.1	3477.9
27.5°	2373.4	2425.1	2497.1	2593.2	2681.8	2772.3	2905.3	3040.1	3202.7	3350.4	3503.7
30°	2137.0	2203.5	2281.0	2377.1	2465.7	2595.0	2728.0	2894.2	3066.0	3232.2	3415.1
32.5°	1882.1	1965.2	2061.2	2140.7	2240.4	2371.5	2504.5	2681.8	2864.7	3060.5	3261.8
35°	1636.4	1715.9	1791.6	1880.2	1980.0	2103.7	2233.0	2402.9	2633.8	2842.5	3082.6
37.5°	1387.1	1461.0	1514.5	1584.7	1671.5	1808.2	1946.7	2142.5	2360.5	2617.2	2857.3
40°	1169.1	1230.1	1291.0	1346.5	1420.3	1549.6	1697.4	1889.5	2103.7	2353.1	2620.9
42.5°	995.5	1041.7	1108.2	1174.7	1237.5	1348.3	1486.8	1675.2	1887.6	2142.5	2410.3
45°	849.6	881.0	934.6	990.0	1067.6	1159.9	1292.9	1485.0	1701.1	1957.8	2240.4
47.5°	744.3	759.1	796.1	853.3	925.3	1015.8	1130.4	1304.0	1514.5	1773.1	2070.5
50°	672.3	688.9	707.4	755.4	820.1	912.4	1006.6	1158.1	1350.1	1603.2	1898.7
52.5°	622.4	629.8	637.2	666.8	725.9	803.4	903.2	1017.7	1211.6	1453.6	1719.5
55°	592.9	594.7	600.3	615.0	659.4	731.4	818.2	927.2	1078.6	1307.7	1579.2
57.5°	557.8	561.5	567.0	576.3	604.0	668.6	742.5	831.1	956.7	1148.8	1409.3
60°	524.5	533.8	543.0	548.6	563.3	602.1	664.9	735.1	836.7	980.8	1187.6
62.5°	489.5	500.5	507.9	513.5	519.0	543.0	589.2	635.4	698.2	792.4	947.5
65°	458.1	465.4	471.0	474.7	478.4	485.8	506.1	524.5	543.0	600.3	712.9
67.5°	423.0	426.7	428.5	430.3	428.5	428.5	430.3	437.7	445.1	467.3	520.9
70°	382.3	387.9	387.9	389.7	389.7	384.2	384.2	384.2	384.2	389.7	419.3
72.5°	343.5	350.9	350.9	352.8	350.9	349.1	349.1	349.1	354.6	358.3	369.4
75°	306.6	314.0	312.1	314.0	315.8	315.8	319.5	321.4	326.9	328.8	336.2
77.5°	269.7	275.2	277.0	275.2	278.9	282.6	290.0	293.7	295.5	297.4	299.2
80°	234.6	238.3	236.4	230.9	240.1	245.6	256.7	269.7	266.0	267.8	271.5
82.5°	193.9	188.4	184.7	188.4	193.9	201.3	212.4	229.0	230.9	240.1	238.3
85°	149.6	133.0	131.1	140.4	138.5	147.8	166.2	179.2	190.2	199.5	190.2
87.5°	88.7	79.4	66.5	62.8	68.3	90.5	94.2	114.5	123.7	127.4	114.5
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: P159152

CATALOG NUMBER: VST-E09-LED-E-U-SLR-7060

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3
2.5°	3171.3	3180.5	3180.5	3184.2	3189.8	3191.6	3199.0	3211.9	3213.8	3213.8	3219.3
5°	3230.4	3239.6	3239.6	3247.0	3248.9	3258.1	3267.3	3282.1	3289.5	3287.6	3311.7
7.5°	3326.4	3319.0	3313.5	3324.6	3330.1	3341.2	3359.7	3372.6	3385.5	3405.8	3439.1
10°	3407.7	3396.6	3391.1	3398.5	3402.2	3415.1	3426.2	3444.6	3476.0	3507.4	3548.1
12.5°	3474.2	3461.3	3446.5	3450.2	3455.7	3472.3	3490.8	3514.8	3561.0	3601.6	3662.6
15°	3529.6	3511.1	3496.4	3503.7	3516.7	3538.8	3570.2	3612.7	3688.4	3758.6	3839.9
17.5°	3583.2	3579.5	3573.9	3597.9	3607.2	3658.9	3705.1	3782.6	3886.1	3991.3	4107.7
20°	3634.9	3675.5	3695.8	3743.8	3773.4	3843.6	3913.8	4008.0	4139.1	4283.2	4442.0
22.5°	3706.9	3817.7	3886.1	3984.0	4033.8	4109.6	4213.0	4336.7	4482.6	4667.3	4870.5
25°	3878.7	4041.2	4177.9	4331.2	4456.8	4573.1	4696.9	4846.5	5057.1	5225.1	5491.1
27.5°	3954.4	4183.4	4388.4	4604.5	4792.9	4972.1	5167.9	5348.9	5598.2	5825.4	6146.8
30°	3882.4	4141.0	4406.9	4689.5	4964.7	5236.2	5520.7	5797.7	6085.8	6403.5	6745.2
32.5°	3749.4	4039.4	4338.6	4671.0	5012.7	5365.5	5734.9	6137.5	6543.9	6939.1	7288.2
35°	3614.6	3926.7	4259.2	4639.6	5042.3	5480.0	5938.1	6447.8	6985.3	7485.8	7942.1
37.5°	3418.8	3762.3	4142.8	4582.4	5060.8	5600.1	6189.3	6817.2	7496.9	8185.9	8784.3
40°	3182.4	3546.2	3961.8	4467.9	5042.3	5723.8	6490.3	7295.6	8169.2	9009.6	9744.7
42.5°	2966.3	3320.9	3764.2	4314.6	4994.3	5832.8	6776.6	7779.5	8813.8	9754.0	10714.4
45°	2776.0	3167.6	3612.7	4207.4	4970.2	5925.1	6989.0	8141.5	9325.5	10444.7	11578.8
47.5°	2602.4	3008.7	3507.4	4148.3	4959.2	5980.6	7136.8	8377.9	9689.3	10974.8	12291.7
50°	2423.3	2818.5	3352.3	4083.7	4931.5	5978.7	7214.3	8538.6	9944.2	11386.7	12783.0
52.5°	2231.2	2628.3	3163.9	3965.5	4872.4	5945.5	7234.7	8647.6	10145.5	11639.7	13200.4
55°	2055.7	2426.9	2962.6	3767.9	4748.6	5864.2	7188.5	8693.8	10287.7	11890.9	13494.1
57.5°	1854.4	2240.4	2750.2	3496.4	4515.9	5720.1	7057.3	8629.1	10328.4	12059.0	13726.8
60°	1577.3	1956.0	2480.5	3175.0	4152.0	5415.4	6813.5	8433.4	10199.1	12088.5	13893.1
62.5°	1259.6	1586.6	2092.6	2731.7	3640.4	4937.0	6362.9	7993.8	9796.4	11811.5	13808.1
65°	936.4	1154.4	1590.3	2151.7	3047.5	4216.7	5637.0	7256.8	9009.6	11041.3	13274.3
67.5°	652.0	809.0	1076.8	1494.2	2216.4	3256.2	4600.9	6106.1	7792.4	9615.4	12166.1
70°	493.1	565.2	711.1	943.8	1435.1	2218.2	3344.9	4685.8	6250.2	8006.7	10409.6
72.5°	421.1	458.1	539.3	646.4	879.2	1348.3	2100.0	3224.8	4611.9	6041.5	7986.4
75°	378.6	410.0	461.7	530.1	622.4	818.2	1231.9	2040.9	3054.9	4046.8	5572.4
77.5°	343.5	371.2	417.4	452.5	502.4	589.2	785.0	1220.9	1830.4	2500.8	3457.6
80°	306.6	323.2	365.7	400.8	439.6	489.5	563.3	766.5	1050.9	1481.3	2039.1
82.5°	262.3	275.2	306.6	354.6	384.2	404.5	426.7	507.9	629.8	803.4	1132.2
85°	203.2	212.4	240.1	275.2	288.1	290.0	293.7	315.8	391.6	602.1	975.2
87.5°	103.4	114.5	144.1	155.1	131.1	142.2	144.1	153.3	203.2	330.6	336.2
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: P159152
 CATALOG NUMBER: VST-E09-LED-E-U-SLR-7060

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	0°
2.5°	3219.3	3224.8	3237.8	3235.9	3245.2	3245.2	3245.2	3254.4	3248.9	3254.4	3263.6	2.5°
5°	3311.7	3320.9	3339.4	3339.4	3341.2	3335.7	3346.7	3354.1	3344.9	3341.2	3343.1	5°
7.5°	3446.5	3461.3	3476.0	3490.8	3501.9	3496.4	3498.2	3481.6	3477.9	3465.0	3448.3	7.5°
10°	3577.6	3618.3	3646.0	3671.8	3673.7	3668.1	3670.0	3642.3	3636.7	3610.9	3594.2	10°
12.5°	3712.4	3764.2	3808.5	3836.2	3852.8	3856.5	3858.4	3858.4	3832.5	3810.3	3771.6	12.5°
15°	3911.9	4002.4	4070.8	4100.3	4124.3	4146.5	4152.0	4159.4	4139.1	4109.6	4104.0	15°
17.5°	4227.8	4312.7	4403.2	4482.6	4536.2	4539.9	4586.1	4582.4	4624.9	4591.6	4582.4	17.5°
20°	4602.7	4787.4	4881.6	4986.9	5047.8	5077.4	5184.5	5151.3	5182.7	5236.2	5182.7	20°
22.5°	5071.8	5306.4	5443.1	5587.1	5686.9	5758.9	5836.5	5897.4	5982.4	6023.0	5986.1	22.5°
25°	5694.3	5962.1	6124.6	6324.1	6482.9	6612.2	6747.1	6909.6	6907.7	7005.6	7074.0	25°
27.5°	6409.1	6750.7	6987.2	7338.1	7474.8	7692.7	7923.6	8174.8	8219.1	8346.5	8411.2	27.5°
30°	7081.4	7504.3	7973.5	8390.9	8863.7	9186.9	9454.7	9632.1	9899.9	9833.4	9796.4	30°
32.5°	7701.9	8265.3	8933.9	9619.1	10369.0	10880.6	11353.4	11573.2	11739.5	11386.7	10919.4	32.5°
35°	8507.2	9181.4	9946.0	10792.0	11745.0	12470.9	12958.5	13026.8	12932.6	12480.1	11706.2	35°
37.5°	9504.6	10212.0	11081.9	11975.9	12988.0	13669.6	14225.5	14325.3	14075.9	13268.8	12456.1	37.5°
40°	10489.1	11318.4	12262.2	13320.5	14369.6	15119.5	15677.2	15706.8	15300.5	14356.7	13405.5	40°
42.5°	11565.9	12472.7	13523.7	14696.5	15780.7	16539.8	16942.4	17069.9	16495.5	15285.7	14373.3	42.5°
45°	12494.9	13579.1	14750.1	15996.8	17130.8	17851.2	18261.2	18220.6	17526.1	16331.1	15261.7	45°
47.5°	13399.9	14593.1	15826.9	17151.1	18277.8	19005.5	19426.6	19389.7	18508.7	17132.7	15956.1	47.5°
50°	14205.2	15499.9	16818.7	18233.5	19356.5	20023.2	20538.5	20376.0	19262.3	17777.3	16403.1	50°
52.5°	14764.8	16209.2	17587.0	19116.3	20272.6	20904.2	21559.9	21037.2	19707.4	18172.5	16643.2	52.5°
55°	15119.5	16696.8	18133.7	19825.6	20961.5	21716.9	22139.9	21397.4	19879.2	18281.5	16726.3	55°
57.5°	15359.6	16964.6	18455.1	20235.6	21582.1	22215.6	22319.0	21410.3	19768.3	18109.7	16643.2	57.5°
60°	15477.8	17044.0	18601.0	20523.8	22018.0	22365.2	22176.8	21111.1	19386.0	17605.5	16107.6	60°
62.5°	15464.8	16944.3	18525.3	20619.8	22104.8	22149.1	21720.6	20601.3	18682.3	16547.2	15217.3	62.5°
65°	15136.1	16580.4	18098.7	20263.3	21700.3	21510.0	20970.7	19644.6	17313.7	15165.6	14493.3	65°
67.5°	14188.6	15573.8	16983.1	19096.0	20560.7	20376.0	19559.6	17764.3	15723.4	13942.9	13580.9	67.5°
70°	12603.9	13778.5	15016.0	16872.3	18408.9	18159.6	16731.9	15640.3	14147.9	12530.0	12404.4	70°
72.5°	10537.1	11427.3	12325.0	13706.5	14764.8	14255.1	13357.4	13300.2	12094.1	10858.5	10884.3	72.5°
75°	8241.3	8909.9	9329.1	10141.8	10845.5	10389.3	10442.9	10760.6	10363.5	9390.1	9074.3	75°
77.5°	5971.3	6612.2	6745.2	7227.3	7722.3	8241.3	8928.3	9676.4	9802.0	9255.3	8110.1	77.5°
80°	3908.2	4613.8	4351.5	4523.3	5219.6	6167.1	7421.2	8653.1	9076.1	8584.8	7175.6	80°
82.5°	2305.0	3293.2	2875.8	3169.4	3610.9	4436.5	5302.7	6231.7	6939.1	6416.4	5993.5	82.5°
85°	1750.9	2596.9	2750.2	3106.6	3250.7	3285.8	3437.2	3740.2	4105.9	4242.5	4231.5	85°
87.5°	912.4	2018.8	2266.3	2096.3	1956.0	1695.5	1322.4	1424.0	1302.1	1780.5	1686.3	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: P159152

NUMBER: VST-E09-LED-E-U-SLR-7060

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
3086.3	3086.3	3086.3	3086.3	3086.3	3086.3	3086.3
3265.5	3259.9	3263.6	3265.5	3265.5	3265.5	3269.2
3341.2	3326.4	3320.9	3320.9	3319.0	3313.5	3311.7
3422.5	3396.6	3387.4	3376.3	3367.1	3361.5	3352.3
3568.4	3546.2	3500.0	3474.2	3450.2	3433.6	3418.8
3764.2	3732.8	3688.4	3655.2	3618.3	3607.2	3588.7
4067.1	4039.4	4000.6	3963.6	3941.5	3902.7	3875.0
4539.9	4484.5	4445.7	4397.7	4344.1	4264.7	4225.9
5162.3	5051.5	4973.9	4931.5	4824.3	4811.4	4717.2
5877.1	5843.9	5725.7	5674.0	5570.5	5529.9	5382.1
6946.5	6920.7	6678.7	6652.9	6494.0	6375.8	6146.8
8352.1	8139.7	7866.3	7676.1	7404.6	7099.8	6710.1
9580.3	9146.3	8728.9	8285.6	7910.7	7472.9	7031.5
10363.5	9781.7	9244.2	8789.8	8326.2	7805.4	7238.4
11050.5	10463.2	9877.7	9340.2	8778.7	8112.0	7412.0
11872.5	11288.8	10629.4	9874.0	9153.7	8337.3	7482.2
12714.7	12031.3	11207.5	10282.2	9377.2	8448.1	7469.2
13577.2	12703.6	11608.3	10553.7	9519.4	8464.8	7382.4
14277.2	13172.7	11905.7	10692.2	9548.9	8407.5	7273.4
14772.2	13473.8	12038.7	10740.2	9512.0	8317.0	7125.7
15054.8	13638.2	12071.9	10705.2	9436.3	8187.7	6965.0
15158.2	13688.0	12038.7	10633.1	9367.9	8049.2	6852.3
15147.2	13660.3	11916.8	10465.0	9185.1	7864.5	6713.8
14938.5	13403.6	11667.4	10263.7	9029.9	7779.5	6723.0
14583.8	13241.1	11593.6	10304.4	9111.2	7962.4	7014.9
14423.1	13566.1	12009.1	10710.7	9528.6	8485.1	7617.0
14332.6	14094.4	12603.9	11148.4	10023.6	9118.6	8335.5
13963.2	14245.8	12941.9	11397.8	10465.0	9754.0	9053.9
13366.7	13893.1	12685.1	11349.8	10708.8	10241.6	9312.5
12121.8	12677.7	11541.8	10642.4	10404.1	10248.9	8924.7
9820.4	10108.6	9462.1	9259.0	9347.6	9349.5	7485.8
7242.0	7068.4	6776.6	6791.4	7388.0	7295.6	5336.0
5912.2	4839.1	4425.4	4582.4	5319.3	4922.2	3352.3
5502.2	4316.4	3562.8	3599.8	4017.2	3171.3	2018.8
4449.4	3934.1	3154.7	2831.4	2748.3	2113.0	1370.5
1861.8	1712.2	1274.4	1148.8	942.0	576.3	262.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)