

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: P159150

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159150
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
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR RIGHT
Light Source: (189) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24185.5 lumens
Efficiency: N/A
Efficacy: 107.2 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 (A_{in}): 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

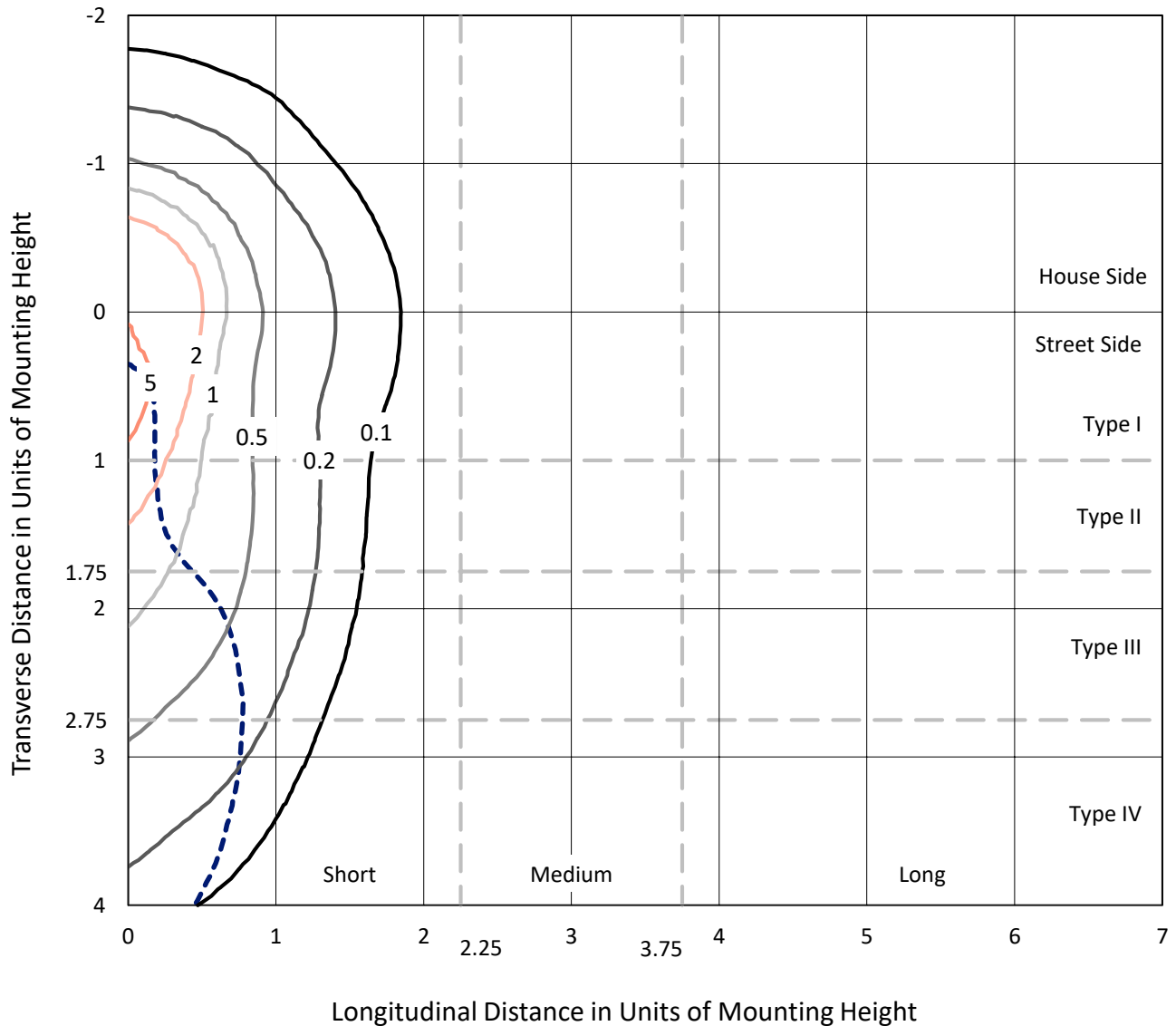




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Iso-Footcandle Lines of Horizontal Illumination

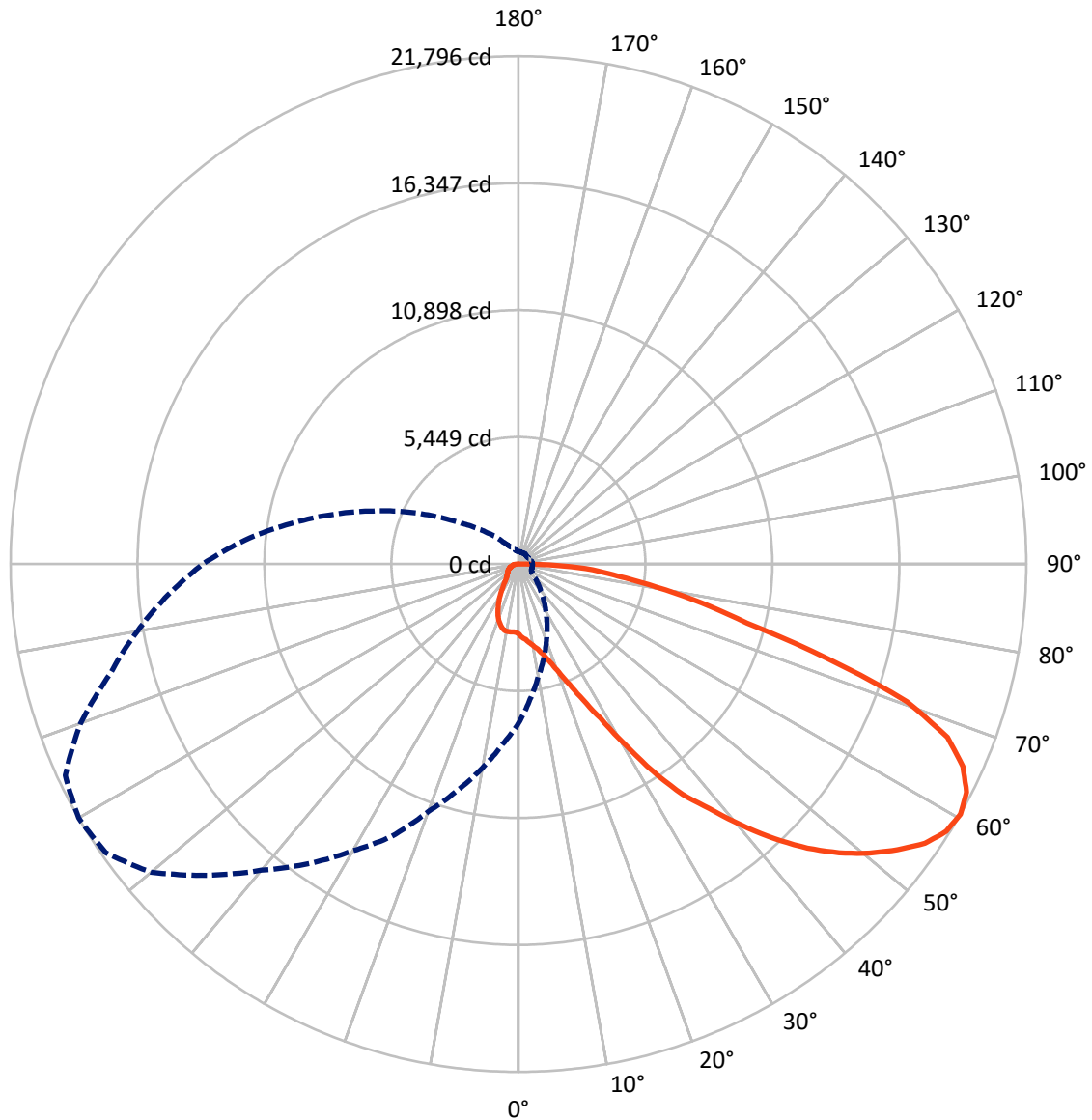
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5445.8	0.0	5445.8
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	18739.7	0.0	18739.7
	% Fixture	77.5	0.0	77.5
Total	Lumens	24185.5	0.0	24185.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.7	1.2
10°-20°	958.1	4.0
20°-30°	1818.1	7.5
30°-40°	2863.2	11.8
40°-50°	3996.3	16.5
50°-60°	4942.5	20.4
60°-70°	5123.2	21.2
70°-80°	3223.7	13.3
80°-90°	963.6	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°	24185.5	100.0
0°-180°	24185.5	100.0



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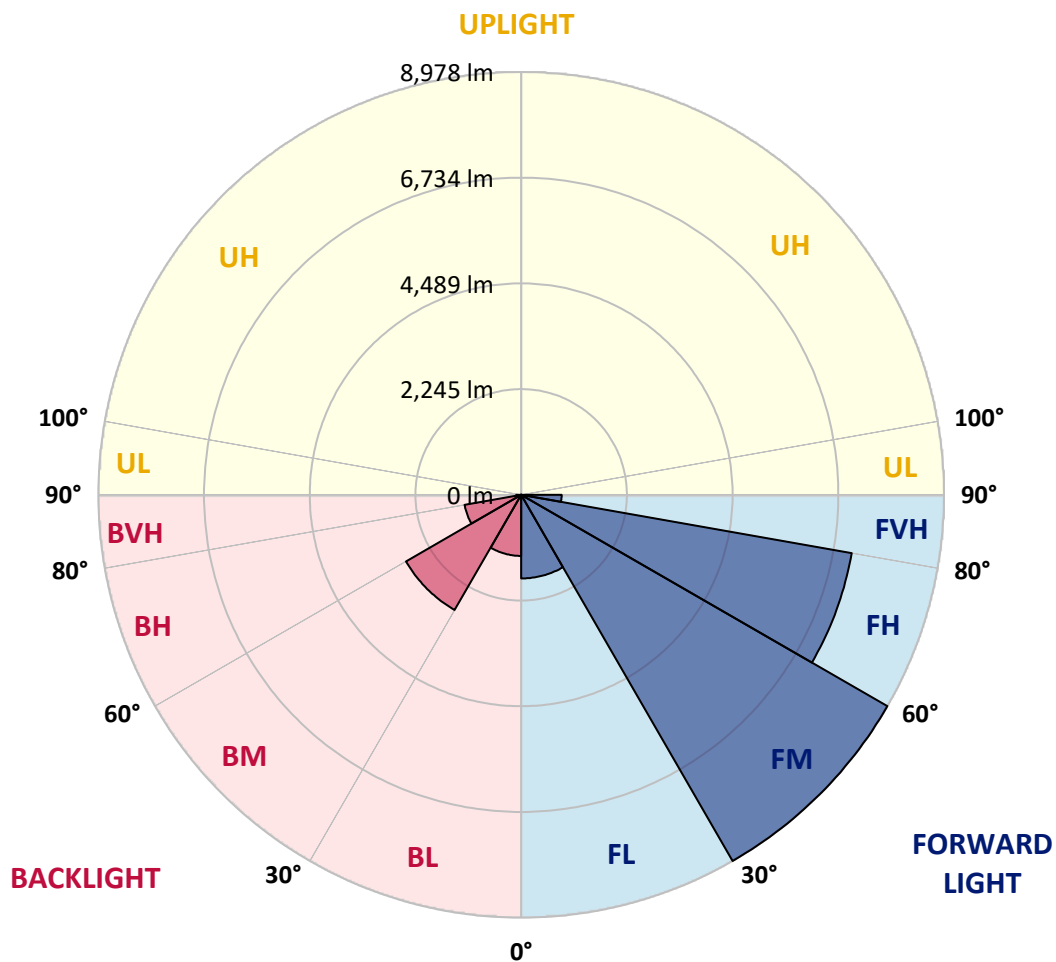
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1775.6	7.3			
FM	(30°-60°)	8978.1	37.1			
FH	(60°-80°)	7127.3	29.5			G3/7500
FVH	(80°-90°)	858.8	3.6			G5
BL	(0°-30°)	1297.4	5.4	B3/2500		
BM	(30°-60°)	2824.0	11.7	B3/5000		
BH	(60°-80°)	1219.6	5.0	B3/2500		G3/2500
BVH	(80°-90°)	104.8	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
2.5°	3186.0	2995.2	2998.8	2993.4	2993.4	2989.8	2993.4	2989.8	2986.2	2986.2	2988.0
5°	3227.4	3016.8	3016.8	3011.4	3007.8	3004.2	3007.8	3004.2	3002.4	2998.8	3000.6
7.5°	3267.0	3029.4	3022.2	3015.0	3006.0	3009.6	3009.6	3007.8	3009.6	3007.8	3011.4
10°	3331.8	3070.8	3052.8	3036.6	3034.8	3031.2	3031.2	3025.8	3025.8	3022.2	3024.0
12.5°	3497.4	3198.6	3178.8	3150.0	3144.6	3128.4	3119.4	3108.6	3090.6	3074.4	3061.8
15°	3776.4	3411.0	3373.2	3348.0	3337.2	3304.8	3254.4	3214.8	3162.6	3117.6	3070.8
17.5°	4118.4	3695.4	3650.4	3618.0	3564.0	3475.8	3391.2	3294.0	3193.2	3101.4	3016.8
20°	4597.2	4104.0	4015.8	3938.4	3803.4	3652.2	3493.8	3324.6	3169.8	3025.8	2901.6
22.5°	5245.2	4631.4	4467.6	4260.6	4010.4	3754.8	3502.8	3268.8	3061.8	2874.6	2709.0
25°	5990.4	5135.4	4840.2	4483.8	4100.4	3747.6	3416.4	3115.8	2874.6	2633.4	2453.4
27.5°	6539.4	5556.6	5121.0	4653.0	4163.4	3713.4	3306.6	2943.0	2651.4	2404.8	2187.0
30°	6852.6	5797.8	5274.0	4725.0	4174.2	3655.8	3168.0	2746.8	2410.2	2116.8	1908.0
32.5°	7054.2	5927.4	5290.2	4653.0	4044.6	3484.8	2957.4	2520.0	2154.6	1841.4	1620.0
35°	7223.4	5979.6	5214.6	4492.8	3799.8	3225.6	2687.4	2250.0	1863.0	1575.0	1348.2
37.5°	7291.8	5970.6	5094.0	4278.6	3560.4	2943.0	2412.0	1963.8	1618.2	1364.4	1170.0
40°	7279.2	5887.8	4930.2	4050.0	3279.6	2647.8	2120.4	1726.2	1445.4	1231.2	1089.0
42.5°	7194.6	5778.0	4748.4	3817.8	3022.2	2403.0	1922.4	1573.2	1346.4	1184.4	1060.2
45°	7088.4	5646.6	4582.8	3605.4	2818.8	2228.4	1807.2	1530.0	1333.8	1179.0	1045.8
47.5°	6944.4	5500.8	4415.4	3454.2	2710.8	2176.2	1805.4	1555.2	1344.6	1166.4	1020.6
50°	6787.8	5394.6	4323.6	3389.4	2698.2	2208.6	1868.4	1594.8	1351.8	1153.8	986.4
52.5°	6678.0	5347.8	4321.8	3412.8	2764.8	2298.6	1942.2	1645.2	1378.8	1161.0	979.2
55°	6543.0	5340.6	4368.6	3513.6	2910.6	2451.6	2059.2	1731.6	1434.6	1188.0	984.6
57.5°	6552.0	5482.8	4550.4	3762.0	3173.4	2658.6	2208.6	1837.8	1488.6	1204.2	975.6
60°	6836.4	5814.0	4908.6	4186.8	3517.2	2901.6	2361.6	1895.4	1485.0	1168.2	932.4
62.5°	7423.2	6310.8	5445.0	4685.4	3866.4	3088.8	2417.4	1879.2	1431.0	1090.8	862.2
65°	8123.4	6892.2	5967.0	5072.4	4078.8	3132.0	2368.8	1789.2	1323.0	990.0	777.6
67.5°	8823.6	7304.4	6267.6	5182.2	3992.4	2957.4	2188.8	1587.6	1139.4	853.2	682.2
70°	9075.6	7389.0	6244.2	4935.6	3600.0	2523.6	1801.8	1278.0	914.4	698.4	574.2
72.5°	8697.6	6859.8	5551.2	4194.0	2926.8	1956.6	1321.2	943.2	698.4	547.2	468.0
75°	7295.4	5524.2	4388.4	3159.0	2113.2	1384.2	954.0	687.6	525.6	433.8	374.4
77.5°	5200.2	3846.6	2989.8	2075.4	1371.6	959.4	684.0	516.6	417.6	347.4	304.2
80°	3267.0	2361.6	1821.6	1245.6	855.0	651.6	491.4	408.6	336.6	282.6	253.8
82.5°	1967.4	1375.2	1072.8	774.0	561.6	446.4	361.8	320.4	268.2	234.0	217.8
85°	1335.6	1011.6	703.8	457.2	338.4	262.8	246.6	221.4	199.8	167.4	162.0
87.5°	255.6	361.8	315.0	187.2	124.2	106.2	93.6	90.0	81.0	64.8	73.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
2.5°	2977.2	2973.6	2966.4	2966.4	2961.0	2950.2	2948.4	2941.2	2932.2	2934.0	2932.2
5°	2988.0	2980.8	2971.8	2968.2	2961.0	2950.2	2944.8	2935.8	2926.8	2926.8	2926.8
7.5°	3000.6	2991.6	2984.4	2971.8	2957.4	2946.6	2932.2	2921.4	2916.0	2914.2	2916.0
10°	3011.4	3006.0	2995.2	2977.2	2957.4	2935.8	2921.4	2907.0	2892.6	2894.4	2896.2
12.5°	3034.8	3016.8	2988.0	2961.0	2930.4	2903.4	2878.2	2860.2	2842.2	2842.2	2844.0
15°	3018.6	2966.4	2926.8	2874.6	2840.4	2797.2	2768.4	2752.2	2741.4	2737.8	2739.6
17.5°	2923.2	2860.2	2800.8	2754.0	2707.2	2673.0	2660.4	2649.6	2635.2	2642.4	2635.2
20°	2779.2	2701.8	2617.2	2561.4	2505.6	2482.2	2460.6	2449.8	2440.8	2473.2	2473.2
22.5°	2572.2	2478.6	2392.2	2323.8	2260.8	2235.6	2214.0	2201.4	2206.8	2246.4	2250.0
25°	2311.2	2197.8	2084.4	2043.0	1980.0	1960.2	1947.6	1945.8	1951.2	1990.8	1999.8
27.5°	2034.0	1915.2	1818.0	1722.6	1693.8	1677.6	1654.2	1681.2	1686.6	1729.8	1747.8
30°	1738.8	1611.0	1508.4	1445.4	1384.2	1393.2	1373.4	1405.8	1420.2	1465.2	1479.6
32.5°	1436.4	1315.8	1213.2	1150.2	1107.0	1112.4	1098.0	1126.8	1141.2	1195.2	1222.2
35°	1188.0	1085.4	1002.6	948.6	928.8	909.0	905.4	909.0	923.4	964.8	1013.4
37.5°	1045.8	961.2	901.8	862.2	835.2	822.6	815.4	815.4	815.4	824.4	847.8
40°	984.6	909.0	856.8	819.0	801.0	793.8	788.4	783.0	774.0	770.4	772.2
42.5°	957.6	871.2	815.4	786.6	775.8	775.8	775.8	772.2	763.2	754.2	745.2
45°	930.6	837.0	781.2	761.4	756.0	757.8	757.8	757.8	750.6	739.8	723.6
47.5°	896.4	799.2	743.4	730.8	730.8	736.2	738.0	738.0	730.8	720.0	707.4
50°	855.0	750.6	700.2	689.4	684.0	684.0	684.0	684.0	678.6	671.4	662.4
52.5°	833.4	723.6	671.4	660.6	660.6	655.2	653.4	648.0	642.6	637.2	624.6
55°	826.2	712.8	658.8	649.8	649.8	644.4	639.0	633.6	624.6	615.6	603.0
57.5°	806.4	689.4	642.6	635.4	635.4	631.8	626.4	621.0	612.0	599.4	583.2
60°	761.4	649.8	610.2	608.4	608.4	606.6	603.0	603.0	594.0	581.4	561.6
62.5°	703.8	608.4	570.6	570.6	568.8	567.0	559.8	558.0	547.2	531.0	513.0
65°	648.0	572.4	547.2	540.0	536.4	531.0	527.4	518.4	509.4	495.0	477.0
67.5°	577.8	518.4	502.2	495.0	487.8	482.4	477.0	471.6	460.8	450.0	435.6
70°	502.2	459.0	450.0	448.2	439.2	433.8	432.0	426.6	415.8	405.0	387.0
72.5°	430.2	405.0	397.8	397.8	387.0	379.8	376.2	374.4	367.2	358.2	342.0
75°	347.4	329.4	327.6	336.6	336.6	331.2	327.6	331.2	320.4	315.0	298.8
77.5°	284.4	275.4	270.0	273.6	284.4	279.0	271.8	271.8	271.8	262.8	257.4
80°	241.2	234.0	228.6	232.2	230.4	228.6	225.0	217.8	217.8	217.8	216.0
82.5°	217.8	216.0	196.2	196.2	189.0	183.6	180.0	176.4	172.8	172.8	181.8
85°	163.8	169.2	158.4	156.6	147.6	140.4	133.2	129.6	126.0	131.4	149.4
87.5°	79.2	79.2	75.6	84.6	77.4	73.8	68.4	64.8	68.4	84.6	100.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
2.5°	2928.6	2926.8	2925.0	2921.4	2914.2	2912.4	2908.8	2908.8	2907.0	2903.4	2907.0
5°	2923.2	2926.8	2926.8	2925.0	2919.6	2923.2	2923.2	2928.6	2928.6	2932.2	2941.2
7.5°	2916.0	2925.0	2932.2	2937.6	2944.8	2950.2	2961.0	2977.2	2984.4	2997.0	3002.4
10°	2901.6	2917.8	2930.4	2946.6	2964.6	2984.4	3000.6	3025.8	3034.8	3052.8	3061.8
12.5°	2860.2	2887.2	2908.8	2941.2	2971.8	3002.4	3031.2	3063.6	3079.8	3099.6	3112.2
15°	2759.4	2790.0	2820.6	2849.4	2903.4	2962.8	3009.6	3052.8	3076.2	3101.4	3114.0
17.5°	2638.8	2658.6	2683.8	2721.6	2773.8	2826.0	2901.6	2962.8	2998.8	3027.6	3031.2
20°	2498.4	2527.2	2545.2	2559.6	2601.0	2637.0	2718.0	2788.2	2835.0	2869.2	2878.2
22.5°	2284.2	2314.8	2345.4	2356.2	2388.6	2435.4	2480.4	2556.0	2622.6	2673.0	2703.6
25°	2039.4	2068.2	2109.6	2142.0	2149.2	2187.0	2232.0	2318.4	2386.8	2467.8	2503.8
27.5°	1794.6	1819.8	1864.8	1882.8	1904.4	1942.2	1978.2	2050.2	2122.2	2215.8	2255.4
30°	1508.4	1562.4	1614.6	1648.8	1666.8	1711.8	1737.0	1807.2	1873.8	1942.2	1999.8
32.5°	1263.6	1312.2	1371.6	1414.8	1436.4	1470.6	1510.2	1569.6	1621.8	1688.4	1755.0
35°	1038.6	1105.2	1144.8	1182.6	1238.4	1254.6	1294.2	1348.2	1378.8	1450.8	1526.4
37.5°	880.2	919.8	959.4	997.2	1044.0	1065.6	1103.4	1148.4	1184.4	1227.6	1296.0
40°	783.0	804.6	833.4	858.6	892.8	919.8	939.6	977.4	1004.4	1047.6	1096.2
42.5°	738.0	743.4	747.0	765.0	783.0	801.0	822.6	838.8	871.2	903.6	934.2
45°	712.8	702.0	696.6	698.4	705.6	716.4	734.4	752.4	774.0	793.8	811.8
47.5°	691.2	676.8	660.6	651.6	653.4	657.0	671.4	685.8	696.6	712.8	720.0
50°	640.8	628.2	613.8	601.2	603.0	604.8	617.4	628.2	635.4	640.8	649.8
52.5°	608.4	590.4	577.8	565.2	563.4	568.8	579.6	590.4	594.0	597.6	599.4
55°	585.0	567.0	550.8	538.2	532.8	545.4	549.0	563.4	568.8	568.8	570.6
57.5°	567.0	545.4	529.2	516.6	507.6	516.6	525.6	541.8	543.6	540.0	540.0
60°	540.0	523.8	507.6	495.0	486.0	493.2	500.4	518.4	518.4	509.4	507.6
62.5°	493.2	484.2	473.4	468.0	466.2	473.4	478.8	493.2	487.8	477.0	473.4
65°	459.0	451.8	441.0	437.4	435.6	446.4	448.2	457.2	450.0	444.6	442.8
67.5°	417.6	412.2	406.8	405.0	399.6	399.6	403.2	408.6	405.0	405.0	406.8
70°	370.8	363.6	358.2	360.0	356.4	356.4	358.2	361.8	360.0	363.6	367.2
72.5°	327.6	318.6	316.8	316.8	313.2	315.0	315.0	316.8	320.4	322.2	331.2
75°	286.2	277.2	277.2	275.4	275.4	275.4	277.2	280.8	284.4	286.2	289.8
77.5°	248.4	243.0	244.8	243.0	243.0	243.0	243.0	248.4	250.2	252.0	257.4
80°	214.2	214.2	216.0	216.0	214.2	212.4	214.2	217.8	219.6	221.4	223.2
82.5°	194.4	196.2	196.2	196.2	187.2	183.6	189.0	192.6	196.2	198.0	201.6
85°	167.4	160.2	167.4	165.6	153.0	151.2	151.2	153.0	156.6	153.0	153.0
87.5°	108.0	97.2	102.6	102.6	90.0	73.8	93.6	100.8	90.0	95.4	95.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
2.5°	2912.4	2908.8	2910.6	2910.6	2914.2	2908.8	2916.0	2923.2	2925.0	2925.0	2926.8
5°	2950.2	2946.6	2959.2	2953.8	2966.4	2964.6	2973.6	2980.8	2984.4	2984.4	2984.4
7.5°	3009.6	3022.2	3029.4	3049.2	3051.0	3061.8	3070.8	3079.8	3076.2	3078.0	3076.2
10°	3076.2	3092.4	3110.4	3130.2	3132.0	3144.6	3159.0	3168.0	3164.4	3162.6	3157.2
12.5°	3133.8	3144.6	3166.2	3186.0	3196.8	3216.6	3231.0	3238.2	3238.2	3232.8	3227.4
15°	3130.2	3146.4	3169.8	3198.6	3218.4	3247.2	3272.4	3288.6	3290.4	3285.0	3283.2
17.5°	3051.0	3074.4	3096.0	3135.6	3171.6	3211.2	3252.6	3276.0	3297.6	3310.2	3317.4
20°	2908.8	2937.6	2968.2	3020.4	3069.0	3121.2	3169.8	3204.0	3236.4	3274.2	3319.2
22.5°	2741.4	2784.6	2827.8	2894.4	2953.8	3013.2	3069.0	3110.4	3160.8	3225.6	3310.2
25°	2545.2	2590.2	2644.2	2721.6	2797.2	2883.6	2966.4	3049.2	3146.4	3258.0	3389.4
27.5°	2313.0	2363.4	2433.6	2527.2	2613.6	2701.8	2831.4	2962.8	3121.2	3265.2	3414.6
30°	2082.6	2147.4	2223.0	2316.6	2403.0	2529.0	2658.6	2820.6	2988.0	3150.0	3328.2
32.5°	1834.2	1915.2	2008.8	2086.2	2183.4	2311.2	2440.8	2613.6	2791.8	2982.6	3178.8
35°	1594.8	1672.2	1746.0	1832.4	1929.6	2050.2	2176.2	2341.8	2566.8	2770.2	3004.2
37.5°	1351.8	1423.8	1476.0	1544.4	1629.0	1762.2	1897.2	2088.0	2300.4	2550.6	2784.6
40°	1139.4	1198.8	1258.2	1312.2	1384.2	1510.2	1654.2	1841.4	2050.2	2293.2	2554.2
42.5°	970.2	1015.2	1080.0	1144.8	1206.0	1314.0	1449.0	1632.6	1839.6	2088.0	2349.0
45°	828.0	858.6	910.8	964.8	1040.4	1130.4	1260.0	1447.2	1657.8	1908.0	2183.4
47.5°	725.4	739.8	775.8	831.6	901.8	990.0	1101.6	1270.8	1476.0	1728.0	2017.8
50°	655.2	671.4	689.4	736.2	799.2	889.2	981.0	1128.6	1315.8	1562.4	1850.4
52.5°	606.6	613.8	621.0	649.8	707.4	783.0	880.2	991.8	1180.8	1416.6	1675.8
55°	577.8	579.6	585.0	599.4	642.6	712.8	797.4	903.6	1051.2	1274.4	1539.0
57.5°	543.6	547.2	552.6	561.6	588.6	651.6	723.6	810.0	932.4	1119.6	1373.4
60°	511.2	520.2	529.2	534.6	549.0	586.8	648.0	716.4	815.4	955.8	1157.4
62.5°	477.0	487.8	495.0	500.4	505.8	529.2	574.2	619.2	680.4	772.2	923.4
65°	446.4	453.6	459.0	462.6	466.2	473.4	493.2	511.2	529.2	585.0	694.8
67.5°	412.2	415.8	417.6	419.4	417.6	417.6	419.4	426.6	433.8	455.4	507.6
70°	372.6	378.0	378.0	379.8	379.8	374.4	374.4	374.4	374.4	379.8	408.6
72.5°	334.8	342.0	342.0	343.8	342.0	340.2	340.2	340.2	345.6	349.2	360.0
75°	298.8	306.0	304.2	306.0	307.8	307.8	311.4	313.2	318.6	320.4	327.6
77.5°	262.8	268.2	270.0	268.2	271.8	275.4	282.6	286.2	288.0	289.8	291.6
80°	228.6	232.2	230.4	225.0	234.0	239.4	250.2	262.8	259.2	261.0	264.6
82.5°	189.0	183.6	180.0	183.6	189.0	196.2	207.0	223.2	225.0	234.0	232.2
85°	145.8	129.6	127.8	136.8	135.0	144.0	162.0	174.6	185.4	194.4	185.4
87.5°	86.4	77.4	64.8	61.2	66.6	88.2	91.8	111.6	120.6	124.2	111.6
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: P159150

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

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
2.5°	3090.6	3099.6	3099.6	3103.2	3108.6	3110.4	3117.6	3130.2	3132.0	3132.0	3137.4
5°	3148.2	3157.2	3157.2	3164.4	3166.2	3175.2	3184.2	3198.6	3205.8	3204.0	3227.4
7.5°	3241.8	3234.6	3229.2	3240.0	3245.4	3256.2	3274.2	3286.8	3299.4	3319.2	3351.6
10°	3321.0	3310.2	3304.8	3312.0	3315.6	3328.2	3339.0	3357.0	3387.6	3418.2	3457.8
12.5°	3385.8	3373.2	3358.8	3362.4	3367.8	3384.0	3402.0	3425.4	3470.4	3510.0	3569.4
15°	3439.8	3421.8	3407.4	3414.6	3427.2	3448.8	3479.4	3520.8	3594.6	3663.0	3742.2
17.5°	3492.0	3488.4	3483.0	3506.4	3515.4	3565.8	3610.8	3686.4	3787.2	3889.8	4003.2
20°	3542.4	3582.0	3601.8	3648.6	3677.4	3745.8	3814.2	3906.0	4033.8	4174.2	4329.0
22.5°	3612.6	3720.6	3787.2	3882.6	3931.2	4005.0	4105.8	4226.4	4368.6	4548.6	4746.6
25°	3780.0	3938.4	4071.6	4221.0	4343.4	4456.8	4577.4	4723.2	4928.4	5092.2	5351.4
27.5°	3853.8	4077.0	4276.8	4487.4	4671.0	4845.6	5036.4	5212.8	5455.8	5677.2	5990.4
30°	3783.6	4035.6	4294.8	4570.2	4838.4	5103.0	5380.2	5650.2	5931.0	6240.6	6573.6
32.5°	3654.0	3936.6	4228.2	4552.2	4885.2	5229.0	5589.0	5981.4	6377.4	6762.6	7102.8
35°	3522.6	3826.8	4150.8	4521.6	4914.0	5340.6	5787.0	6283.8	6807.6	7295.4	7740.0
37.5°	3331.8	3666.6	4037.4	4465.8	4932.0	5457.6	6031.8	6643.8	7306.2	7977.6	8560.8
40°	3101.4	3456.0	3861.0	4354.2	4914.0	5578.2	6325.2	7110.0	7961.4	8780.4	9496.8
42.5°	2890.8	3236.4	3668.4	4204.8	4867.2	5684.4	6604.2	7581.6	8589.6	9505.8	10441.8
45°	2705.4	3087.0	3520.8	4100.4	4843.8	5774.4	6811.2	7934.4	9088.2	10179.0	11284.2
47.5°	2536.2	2932.2	3418.2	4042.8	4833.0	5828.4	6955.2	8164.8	9442.8	10695.6	11979.0
50°	2361.6	2746.8	3267.0	3979.8	4806.0	5826.6	7030.8	8321.4	9691.2	11097.0	12457.8
52.5°	2174.4	2561.4	3083.4	3864.6	4748.4	5794.2	7050.6	8427.6	9887.4	11343.6	12864.6
55°	2003.4	2365.2	2887.2	3672.0	4627.8	5715.0	7005.6	8472.6	10026.0	11588.4	13150.8
57.5°	1807.2	2183.4	2680.2	3407.4	4401.0	5574.6	6877.8	8409.6	10065.6	11752.2	13377.6
60°	1537.2	1906.2	2417.4	3094.2	4046.4	5277.6	6640.2	8218.8	9939.6	11781.0	13539.6
62.5°	1227.6	1546.2	2039.4	2662.2	3547.8	4811.4	6201.0	7790.4	9547.2	11511.0	13456.8
65°	912.6	1125.0	1549.8	2097.0	2970.0	4109.4	5493.6	7072.2	8780.4	10760.4	12936.6
67.5°	635.4	788.4	1049.4	1456.2	2160.0	3173.4	4483.8	5950.8	7594.2	9370.8	11856.6
70°	480.6	550.8	693.0	919.8	1398.6	2161.8	3259.8	4566.6	6091.2	7803.0	10144.8
72.5°	410.4	446.4	525.6	630.0	856.8	1314.0	2046.6	3142.8	4494.6	5887.8	7783.2
75°	369.0	399.6	450.0	516.6	606.6	797.4	1200.6	1989.0	2977.2	3943.8	5430.6
77.5°	334.8	361.8	406.8	441.0	489.6	574.2	765.0	1189.8	1783.8	2437.2	3369.6
80°	298.8	315.0	356.4	390.6	428.4	477.0	549.0	747.0	1024.2	1443.6	1987.2
82.5°	255.6	268.2	298.8	345.6	374.4	394.2	415.8	495.0	613.8	783.0	1103.4
85°	198.0	207.0	234.0	268.2	280.8	282.6	286.2	307.8	381.6	586.8	950.4
87.5°	100.8	111.6	140.4	151.2	127.8	138.6	140.4	149.4	198.0	322.2	327.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	0°
2.5°	3137.4	3142.8	3155.4	3153.6	3162.6	3162.6	3162.6	3171.6	3166.2	3171.6	3180.6	2.5°
5°	3227.4	3236.4	3254.4	3254.4	3256.2	3250.8	3261.6	3268.8	3259.8	3256.2	3258.0	5°
7.5°	3358.8	3373.2	3387.6	3402.0	3412.8	3407.4	3409.2	3393.0	3389.4	3376.8	3360.6	7.5°
10°	3486.6	3526.2	3553.2	3578.4	3580.2	3574.8	3576.6	3549.6	3544.2	3519.0	3502.8	10°
12.5°	3618.0	3668.4	3711.6	3738.6	3754.8	3758.4	3760.2	3760.2	3735.0	3713.4	3675.6	12.5°
15°	3812.4	3900.6	3967.2	3996.0	4019.4	4041.0	4046.4	4053.6	4033.8	4005.0	3999.6	15°
17.5°	4120.2	4203.0	4291.2	4368.6	4420.8	4424.4	4469.4	4465.8	4507.2	4474.8	4465.8	17.5°
20°	4485.6	4665.6	4757.4	4860.0	4919.4	4948.2	5052.6	5020.2	5050.8	5103.0	5050.8	20°
22.5°	4942.8	5171.4	5304.6	5445.0	5542.2	5612.4	5688.0	5747.4	5830.2	5869.8	5833.8	22.5°
25°	5549.4	5810.4	5968.8	6163.2	6318.0	6444.0	6575.4	6733.8	6732.0	6827.4	6894.0	25°
27.5°	6246.0	6579.0	6809.4	7151.4	7284.6	7497.0	7722.0	7966.8	8010.0	8134.2	8197.2	27.5°
30°	6901.2	7313.4	7770.6	8177.4	8638.2	8953.2	9214.2	9387.0	9648.0	9583.2	9547.2	30°
32.5°	7506.0	8055.0	8706.6	9374.4	10105.2	10603.8	11064.6	11278.8	11440.8	11097.0	10641.6	32.5°
35°	8290.8	8947.8	9693.0	10517.4	11446.2	12153.6	12628.8	12695.4	12603.6	12162.6	11408.4	35°
37.5°	9262.8	9952.2	10800.0	11671.2	12657.6	13321.8	13863.6	13960.8	13717.8	12931.2	12139.2	37.5°
40°	10222.2	11030.4	11950.2	12981.6	14004.0	14734.8	15278.4	15307.2	14911.2	13991.4	13064.4	40°
42.5°	11271.6	12155.4	13179.6	14322.6	15379.2	16119.0	16511.4	16635.6	16075.8	14896.8	14007.6	42.5°
45°	12177.0	13233.6	14374.8	15589.8	16695.0	17397.0	17796.6	17757.0	17080.2	15915.6	14873.4	45°
47.5°	13059.0	14221.8	15424.2	16714.8	17812.8	18522.0	18932.4	18896.4	18037.8	16696.8	15550.2	47.5°
50°	13843.8	15105.6	16390.8	17769.6	18864.0	19513.8	20016.0	19857.6	18772.2	17325.0	15985.8	50°
52.5°	14389.2	15796.8	17139.6	18630.0	19756.8	20372.4	21011.4	20502.0	19206.0	17710.2	16219.8	52.5°
55°	14734.8	16272.0	17672.4	19321.2	20428.2	21164.4	21576.6	20853.0	19373.4	17816.4	16300.8	55°
57.5°	14968.8	16533.0	17985.6	19720.8	21033.0	21650.4	21751.2	20865.6	19265.4	17649.0	16219.8	57.5°
60°	15084.0	16610.4	18127.8	20001.6	21457.8	21796.2	21612.6	20574.0	18892.8	17157.6	15697.8	60°
62.5°	15071.4	16513.2	18054.0	20095.2	21542.4	21585.6	21168.0	20077.2	18207.0	16126.2	14830.2	62.5°
65°	14751.0	16158.6	17638.2	19747.8	21148.2	20962.8	20437.2	19144.8	16873.2	14779.8	14124.6	65°
67.5°	13827.6	15177.6	16551.0	18610.2	20037.6	19857.6	19062.0	17312.4	15323.4	13588.2	13235.4	67.5°
70°	12283.2	13428.0	14634.0	16443.0	17940.6	17697.6	16306.2	15242.4	13788.0	12211.2	12088.8	70°
72.5°	10269.0	11136.6	12011.4	13357.8	14389.2	13892.4	13017.6	12961.8	11786.4	10582.2	10607.4	72.5°
75°	8031.6	8683.2	9091.8	9883.8	10569.6	10125.0	10177.2	10486.8	10099.8	9151.2	8843.4	75°
77.5°	5819.4	6444.0	6573.6	7043.4	7525.8	8031.6	8701.2	9430.2	9552.6	9019.8	7903.8	77.5°
80°	3808.8	4496.4	4240.8	4408.2	5086.8	6010.2	7232.4	8433.0	8845.2	8366.4	6993.0	80°
82.5°	2246.4	3209.4	2802.6	3088.8	3519.0	4323.6	5167.8	6073.2	6762.6	6253.2	5841.0	82.5°
85°	1706.4	2530.8	2680.2	3027.6	3168.0	3202.2	3349.8	3645.0	4001.4	4134.6	4123.8	85°
87.5°	889.2	1967.4	2208.6	2043.0	1906.2	1652.4	1288.8	1387.8	1269.0	1735.2	1643.4	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: P159150

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

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
3182.4	3177.0	3180.6	3182.4	3182.4	3182.4	3186.0
3256.2	3241.8	3236.4	3236.4	3234.6	3229.2	3227.4
3335.4	3310.2	3301.2	3290.4	3281.4	3276.0	3267.0
3477.6	3456.0	3411.0	3385.8	3362.4	3346.2	3331.8
3668.4	3637.8	3594.6	3562.2	3526.2	3515.4	3497.4
3963.6	3936.6	3898.8	3862.8	3841.2	3803.4	3776.4
4424.4	4370.4	4332.6	4285.8	4233.6	4156.2	4118.4
5031.0	4923.0	4847.4	4806.0	4701.6	4689.0	4597.2
5727.6	5695.2	5580.0	5529.6	5428.8	5389.2	5245.2
6769.8	6744.6	6508.8	6483.6	6328.8	6213.6	5990.4
8139.6	7932.6	7666.2	7480.8	7216.2	6919.2	6539.4
9336.6	8913.6	8506.8	8074.8	7709.4	7282.8	6852.6
10099.8	9532.8	9009.0	8566.2	8114.4	7606.8	7054.2
10769.4	10197.0	9626.4	9102.6	8555.4	7905.6	7223.4
11570.4	11001.6	10359.0	9622.8	8920.8	8125.2	7291.8
12391.2	11725.2	10922.4	10020.6	9138.6	8233.2	7279.2
13231.8	12380.4	11313.0	10285.2	9277.2	8249.4	7194.6
13914.0	12837.6	11602.8	10420.2	9306.0	8193.6	7088.4
14396.4	13131.0	11732.4	10467.0	9270.0	8105.4	6944.4
14671.8	13291.2	11764.8	10432.8	9196.2	7979.4	6787.8
14772.6	13339.8	11732.4	10362.6	9129.6	7844.4	6678.0
14761.8	13312.8	11613.6	10198.8	8951.4	7664.4	6543.0
14558.4	13062.6	11370.6	10002.6	8800.2	7581.6	6552.0
14212.8	12904.2	11298.6	10042.2	8879.4	7759.8	6836.4
14056.2	13221.0	11703.6	10438.2	9286.2	8269.2	7423.2
13968.0	13735.8	12283.2	10864.8	9768.6	8886.6	8123.4
13608.0	13883.4	12612.6	11107.8	10198.8	9505.8	8823.6
13026.6	13539.6	12362.4	11061.0	10436.4	9981.0	9075.6
11813.4	12355.2	11248.2	10371.6	10139.4	9988.2	8697.6
9570.6	9851.4	9221.4	9023.4	9109.8	9111.6	7295.4
7057.8	6888.6	6604.2	6618.6	7200.0	7110.0	5200.2
5761.8	4716.0	4312.8	4465.8	5184.0	4797.0	3267.0
5362.2	4206.6	3472.2	3508.2	3915.0	3090.6	1967.4
4336.2	3834.0	3074.4	2759.4	2678.4	2059.2	1335.6
1814.4	1668.6	1242.0	1119.6	918.0	561.6	255.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)