

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: P159171

Luminaire Tested: **VST-E11-LED-E-U-SLR-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159171
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-E11-LED-E-U-SLR-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR RIGHT
Light Source: (231) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30331.8 lumens
Efficiency: N/A
Efficacy: 112.5 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): 269.7
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



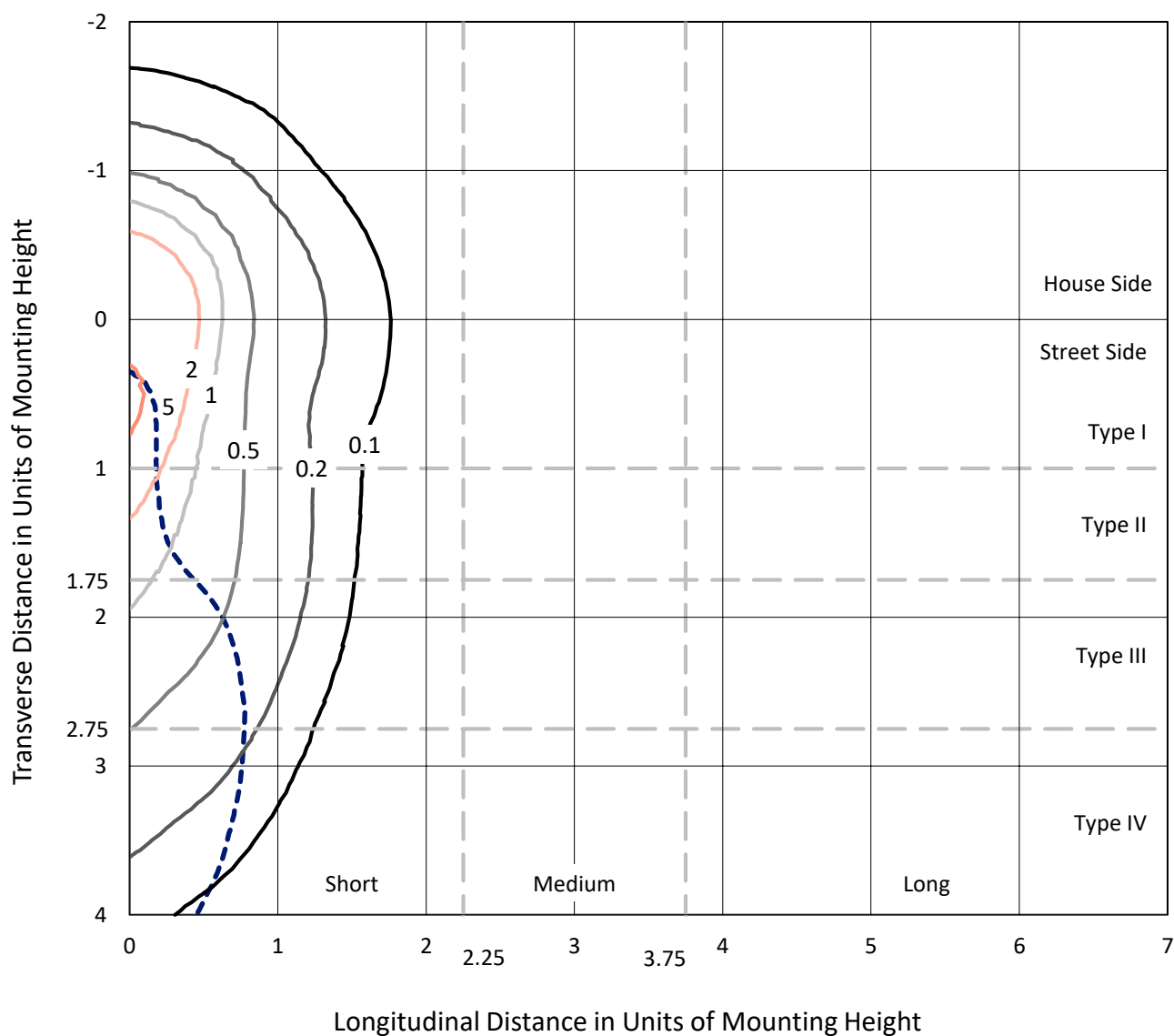
REPORT NUMBER: P159171

CATALOG NUMBER: VST-E11-LED-E-U-SLR-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

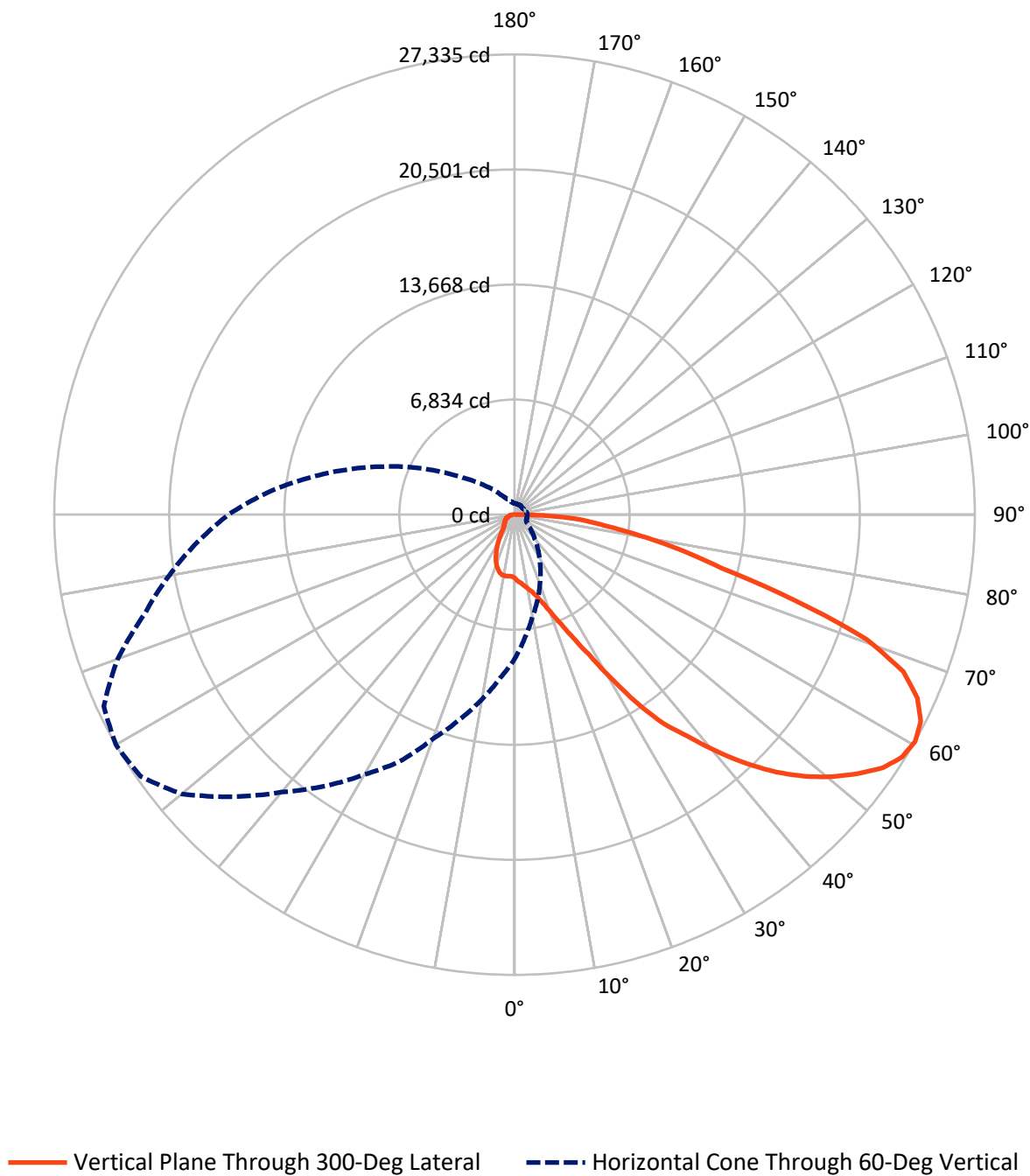


Based on 30 foot mounting height. Maximum calculated value = 6.3 fc
Type IV - Short - Non-Cutoff

REPORT NUMBER: P159171

CATALOG NUMBER: VST-E11-LED-E-U-SLR-7050

Luminous Intensity Polar Plot



REPORT NUMBER: P159171

CATALOG NUMBER: VST-E11-LED-E-U-SLR-7050

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6829.8	0.0	6829.8
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	23502.0	0.0	23502.0
	% Fixture	77.5	0.0	77.5
Total	Lumens	30331.8	0.0	30331.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	372.2	1.2
10°-20°	1201.6	4.0
20°-30°	2280.1	7.5
30°-40°	3590.8	11.8
40°-50°	5011.9	16.5
50°-60°	6198.6	20.4
60°-70°	6425.1	21.2
70°-80°	4042.9	13.3
80°-90°	1208.5	4.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	30331.8	100.0
0°-180°	30331.8	100.0

Coefficient of Utilization



REPORT NUMBER: P159171

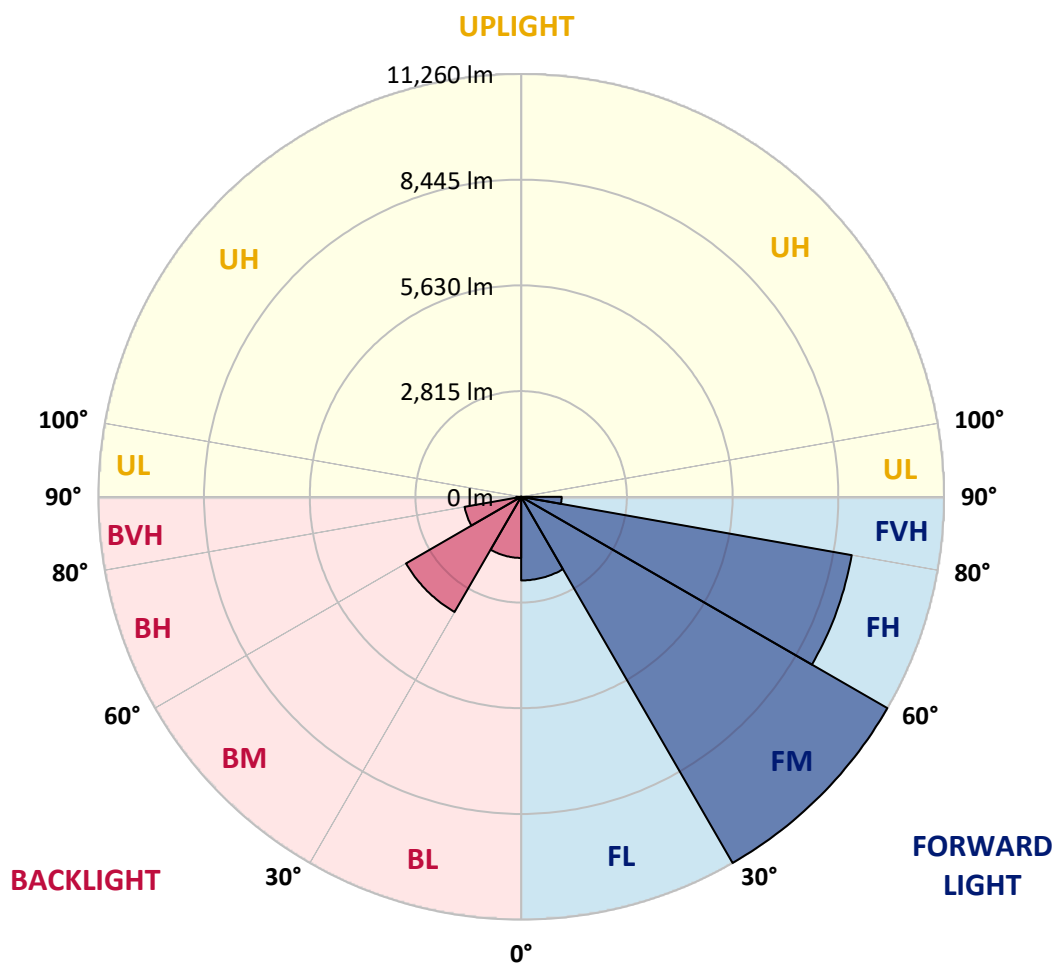
CATALOG NUMBER: VST-E11-LED-E-U-SLR-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2226.8	7.3			
FM	(30°-60°)	11259.6	37.1			
FH	(60°-80°)	8938.5	29.5			G4/12000
FVH	(80°-90°)	1077.1	3.6			G5
BL	(0°-30°)	1627.1	5.4	B3/2500		
BM	(30°-60°)	3541.6	11.7	B3/5000		
BH	(60°-80°)	1529.6	5.0	B3/2500		G3/2500
BVH	(80°-90°)	131.5	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: P159171

CATALOG NUMBER: VST-E11-LED-E-U-SLR-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2
2.5°	3995.7	3756.4	3760.9	3754.1	3754.1	3749.6	3754.1	3749.6	3745.1	3745.1	3747.3
5°	4047.6	3783.5	3783.5	3776.7	3772.2	3767.7	3772.2	3767.7	3765.4	3760.9	3763.1
7.5°	4097.2	3799.3	3790.2	3781.2	3769.9	3774.4	3774.4	3772.2	3774.4	3772.2	3776.7
10°	4178.5	3851.2	3828.6	3808.3	3806.0	3801.5	3801.5	3794.7	3794.7	3790.2	3792.5
12.5°	4386.2	4011.5	3986.6	3950.5	3943.7	3923.4	3912.1	3898.6	3876.0	3855.7	3839.9
15°	4736.1	4277.8	4230.4	4198.8	4185.3	4144.6	4081.4	4031.8	3966.3	3909.9	3851.2
17.5°	5165.0	4634.5	4578.1	4537.4	4469.7	4359.1	4253.0	4131.1	4004.7	3889.6	3783.5
20°	5765.5	5146.9	5036.3	4939.3	4770.0	4580.3	4381.7	4169.5	3975.3	3794.7	3639.0
22.5°	6578.2	5808.4	5602.9	5343.3	5029.6	4709.0	4393.0	4099.5	3839.9	3605.1	3397.4
25°	7512.7	6440.5	6070.2	5623.3	5142.4	4700.0	4284.6	3907.6	3605.1	3302.6	3076.9
27.5°	8201.3	6968.7	6422.4	5835.5	5221.4	4657.1	4146.9	3690.9	3325.2	3015.9	2742.8
30°	8594.0	7271.2	6614.3	5925.8	5235.0	4584.8	3973.1	3444.8	3022.7	2654.7	2392.9
32.5°	8846.9	7433.7	6634.6	5835.5	5072.4	4370.4	3709.0	3160.4	2702.1	2309.4	2031.7
35°	9059.1	7499.2	6539.8	5634.6	4765.4	4045.3	3370.3	2821.8	2336.4	1975.3	1690.8
37.5°	9144.9	7487.9	6388.5	5365.9	4465.2	3690.9	3025.0	2462.9	2029.4	1711.1	1467.3
40°	9129.1	7384.1	6183.1	5079.2	4113.0	3320.7	2659.3	2164.9	1812.7	1544.1	1365.7
42.5°	9023.0	7246.4	5955.1	4788.0	3790.2	3013.7	2410.9	1973.0	1688.6	1485.4	1329.6
45°	8889.8	7081.6	5747.4	4521.6	3535.1	2794.7	2266.5	1918.8	1672.8	1478.6	1311.6
47.5°	8709.2	6898.7	5537.5	4332.0	3399.7	2729.2	2264.2	1950.4	1686.3	1462.8	1280.0
50°	8512.8	6765.5	5422.4	4250.7	3383.9	2769.9	2343.2	2000.1	1695.3	1447.0	1237.1
52.5°	8375.1	6706.8	5420.1	4280.1	3467.4	2882.7	2435.8	2063.3	1729.2	1456.0	1228.0
55°	8205.8	6697.8	5478.8	4406.5	3650.3	3074.6	2582.5	2171.6	1799.2	1489.9	1234.8
57.5°	8217.1	6876.1	5706.8	4718.0	3979.9	3334.2	2769.9	2304.8	1866.9	1510.2	1223.5
60°	8573.7	7291.5	6156.0	5250.8	4411.0	3639.0	2961.8	2377.1	1862.4	1465.1	1169.3
62.5°	9309.6	7914.6	6828.7	5876.1	4849.0	3873.8	3031.7	2356.8	1794.7	1368.0	1081.3
65°	10187.8	8643.7	7483.4	6361.4	5115.3	3927.9	2970.8	2243.9	1659.2	1241.6	975.2
67.5°	11065.9	9160.7	7860.4	6499.1	5007.0	3709.0	2745.0	1991.1	1429.0	1070.0	855.6
70°	11382.0	9266.8	7831.0	6189.9	4514.9	3164.9	2259.7	1602.8	1146.8	875.9	720.1
72.5°	10907.9	8603.1	6961.9	5259.8	3670.6	2453.8	1657.0	1182.9	875.9	686.3	586.9
75°	9149.4	6928.1	5503.6	3961.8	2650.2	1736.0	1196.4	862.3	659.2	544.0	469.5
77.5°	6521.7	4824.1	3749.6	2602.8	1720.2	1203.2	857.8	647.9	523.7	435.7	381.5
80°	4097.2	2961.8	2284.5	1562.1	1072.3	817.2	616.3	512.4	422.1	354.4	318.3
82.5°	2467.4	1724.7	1345.4	970.7	704.3	559.8	453.7	401.8	336.4	293.5	273.1
85°	1675.0	1268.7	882.7	573.4	424.4	329.6	309.3	277.7	250.6	209.9	203.2
87.5°	320.6	453.7	395.1	234.8	155.8	133.2	117.4	112.9	101.6	81.3	92.6
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: P159171

CATALOG NUMBER: VST-E11-LED-E-U-SLR-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2
2.5°	3733.8	3729.3	3720.2	3720.2	3713.5	3699.9	3697.7	3688.6	3677.4	3679.6	3677.4
5°	3747.3	3738.3	3727.0	3722.5	3713.5	3699.9	3693.2	3681.9	3670.6	3670.6	3670.6
7.5°	3763.1	3751.9	3742.8	3727.0	3709.0	3695.4	3677.4	3663.8	3657.0	3654.8	3657.0
10°	3776.7	3769.9	3756.4	3733.8	3709.0	3681.9	3663.8	3645.8	3627.7	3630.0	3632.2
12.5°	3806.0	3783.5	3747.3	3713.5	3675.1	3641.2	3609.6	3587.1	3564.5	3564.5	3566.7
15°	3785.7	3720.2	3670.6	3605.1	3562.2	3508.0	3471.9	3451.6	3438.1	3433.6	3435.8
17.5°	3666.1	3587.1	3512.6	3453.9	3395.2	3352.3	3336.5	3322.9	3304.9	3313.9	3304.9
20°	3485.5	3388.4	3282.3	3212.3	3142.3	3113.0	3085.9	3072.4	3061.1	3101.7	3101.7
22.5°	3225.9	3108.5	3000.1	2914.3	2835.3	2803.7	2776.6	2760.8	2767.6	2817.3	2821.8
25°	2898.5	2756.3	2614.1	2562.2	2483.2	2458.3	2442.5	2440.3	2447.1	2496.7	2508.0
27.5°	2550.9	2401.9	2280.0	2160.4	2124.2	2103.9	2074.6	2108.4	2115.2	2169.4	2192.0
30°	2180.7	2020.4	1891.7	1812.7	1736.0	1747.3	1722.4	1763.1	1781.1	1837.5	1855.6
32.5°	1801.4	1650.2	1521.5	1442.5	1388.3	1395.1	1377.0	1413.2	1431.2	1498.9	1532.8
35°	1489.9	1361.2	1257.4	1189.7	1164.8	1140.0	1135.5	1140.0	1158.1	1210.0	1270.9
37.5°	1311.6	1205.5	1131.0	1081.3	1047.4	1031.6	1022.6	1022.6	1022.6	1033.9	1063.3
40°	1234.8	1140.0	1074.5	1027.1	1004.6	995.5	988.8	982.0	970.7	966.2	968.4
42.5°	1201.0	1092.6	1022.6	986.5	973.0	973.0	973.0	968.4	957.2	945.9	934.6
45°	1167.1	1049.7	979.7	954.9	948.1	950.4	950.4	950.4	941.3	927.8	907.5
47.5°	1124.2	1002.3	932.3	916.5	916.5	923.3	925.5	925.5	916.5	903.0	887.2
50°	1072.3	941.3	878.1	864.6	857.8	857.8	857.8	857.8	851.1	842.0	830.7
52.5°	1045.2	907.5	842.0	828.5	828.5	821.7	819.4	812.7	805.9	799.1	783.3
55°	1036.2	893.9	826.2	814.9	814.9	808.2	801.4	794.6	783.3	772.0	756.2
57.5°	1011.3	864.6	805.9	796.9	796.9	792.4	785.6	778.8	767.5	751.7	731.4
60°	954.9	814.9	765.3	763.0	763.0	760.8	756.2	756.2	745.0	729.2	704.3
62.5°	882.7	763.0	715.6	715.6	713.3	711.1	702.1	699.8	686.3	665.9	643.4
65°	812.7	717.9	686.3	677.2	672.7	665.9	661.4	650.1	638.9	620.8	598.2
67.5°	724.6	650.1	629.8	620.8	611.8	605.0	598.2	591.4	577.9	564.4	546.3
70°	629.8	575.6	564.4	562.1	550.8	544.0	541.8	535.0	521.5	507.9	485.3
72.5°	539.5	507.9	498.9	498.9	485.3	476.3	471.8	469.5	460.5	449.2	428.9
75°	435.7	413.1	410.9	422.1	422.1	415.4	410.9	415.4	401.8	395.1	374.7
77.5°	356.7	345.4	338.6	343.1	356.7	349.9	340.9	340.9	340.9	329.6	322.8
80°	302.5	293.5	286.7	291.2	289.0	286.7	282.2	273.1	273.1	273.1	270.9
82.5°	273.1	270.9	246.1	246.1	237.0	230.3	225.7	221.2	216.7	216.7	228.0
85°	205.4	212.2	198.7	196.4	185.1	176.1	167.0	162.5	158.0	164.8	187.4
87.5°	99.3	99.3	94.8	106.1	97.1	92.6	85.8	81.3	85.8	106.1	126.4
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: P159171

CATALOG NUMBER: VST-E11-LED-E-U-SLR-7050

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2
2.5°	3672.8	3670.6	3668.3	3663.8	3654.8	3652.5	3648.0	3648.0	3645.8	3641.2	3645.8
5°	3666.1	3670.6	3670.6	3668.3	3661.6	3666.1	3666.1	3672.8	3672.8	3677.4	3688.6
7.5°	3657.0	3668.3	3677.4	3684.1	3693.2	3699.9	3713.5	3733.8	3742.8	3758.6	3765.4
10°	3639.0	3659.3	3675.1	3695.4	3718.0	3742.8	3763.1	3794.7	3806.0	3828.6	3839.9
12.5°	3587.1	3620.9	3648.0	3688.6	3727.0	3765.4	3801.5	3842.1	3862.5	3887.3	3903.1
15°	3460.6	3499.0	3537.4	3573.5	3641.2	3715.7	3774.4	3828.6	3858.0	3889.6	3905.4
17.5°	3309.4	3334.2	3365.8	3413.2	3478.7	3544.2	3639.0	3715.7	3760.9	3797.0	3801.5
20°	3133.3	3169.4	3192.0	3210.1	3262.0	3307.1	3408.7	3496.8	3555.5	3598.3	3609.6
22.5°	2864.7	2903.1	2941.4	2955.0	2995.6	3054.3	3110.7	3205.6	3289.1	3352.3	3390.7
25°	2557.7	2593.8	2645.7	2686.3	2695.4	2742.8	2799.2	2907.6	2993.4	3094.9	3140.1
27.5°	2250.7	2282.3	2338.7	2361.3	2388.4	2435.8	2480.9	2571.2	2661.5	2778.9	2828.6
30°	1891.7	1959.5	2024.9	2067.8	2090.4	2146.8	2178.4	2266.5	2350.0	2435.8	2508.0
32.5°	1584.7	1645.7	1720.2	1774.3	1801.4	1844.3	1894.0	1968.5	2033.9	2117.5	2201.0
35°	1302.5	1386.1	1435.7	1483.1	1553.1	1573.4	1623.1	1690.8	1729.2	1819.5	1914.3
37.5°	1103.9	1153.5	1203.2	1250.6	1309.3	1336.4	1383.8	1440.2	1485.4	1539.6	1625.4
40°	982.0	1009.1	1045.2	1076.8	1119.7	1153.5	1178.4	1225.8	1259.6	1313.8	1374.8
42.5°	925.5	932.3	936.8	959.4	982.0	1004.6	1031.6	1052.0	1092.6	1133.2	1171.6
45°	893.9	880.4	873.6	875.9	884.9	898.5	921.0	943.6	970.7	995.5	1018.1
47.5°	866.9	848.8	828.5	817.2	819.4	824.0	842.0	860.1	873.6	893.9	903.0
50°	803.6	787.8	769.8	754.0	756.2	758.5	774.3	787.8	796.9	803.6	814.9
52.5°	763.0	740.4	724.6	708.8	706.6	713.3	726.9	740.4	745.0	749.5	751.7
55°	733.7	711.1	690.8	675.0	668.2	684.0	688.5	706.6	713.3	713.3	715.6
57.5°	711.1	684.0	663.7	647.9	636.6	647.9	659.2	679.5	681.7	677.2	677.2
60°	677.2	656.9	636.6	620.8	609.5	618.5	627.6	650.1	650.1	638.9	636.6
62.5°	618.5	607.2	593.7	586.9	584.7	593.7	600.5	618.5	611.8	598.2	593.7
65°	575.6	566.6	553.1	548.6	546.3	559.8	562.1	573.4	564.4	557.6	555.3
67.5°	523.7	517.0	510.2	507.9	501.1	501.1	505.7	512.4	507.9	507.9	510.2
70°	465.0	456.0	449.2	451.5	447.0	447.0	449.2	453.7	451.5	456.0	460.5
72.5°	410.9	399.6	397.3	397.3	392.8	395.1	395.1	397.3	401.8	404.1	415.4
75°	358.9	347.6	347.6	345.4	345.4	345.4	347.6	352.2	356.7	358.9	363.4
77.5°	311.5	304.8	307.0	304.8	304.8	304.8	304.8	311.5	313.8	316.0	322.8
80°	268.6	268.6	270.9	270.9	268.6	266.4	268.6	273.1	275.4	277.7	279.9
82.5°	243.8	246.1	246.1	246.1	234.8	230.3	237.0	241.5	246.1	248.3	252.8
85°	209.9	200.9	209.9	207.7	191.9	189.6	189.6	191.9	196.4	191.9	191.9
87.5°	135.4	121.9	128.7	128.7	112.9	92.6	117.4	126.4	112.9	119.6	119.6
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: P159171

CATALOG NUMBER: VST-E11-LED-E-U-SLR-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2
2.5°	3652.5	3648.0	3650.3	3650.3	3654.8	3648.0	3657.0	3666.1	3668.3	3668.3	3670.6
5°	3699.9	3695.4	3711.2	3704.4	3720.2	3718.0	3729.3	3738.3	3742.8	3742.8	3742.8
7.5°	3774.4	3790.2	3799.3	3824.1	3826.3	3839.9	3851.2	3862.5	3858.0	3860.2	3858.0
10°	3858.0	3878.3	3900.8	3925.7	3927.9	3943.7	3961.8	3973.1	3968.6	3966.3	3959.5
12.5°	3930.2	3943.7	3970.8	3995.7	4009.2	4034.0	4052.1	4061.1	4061.1	4054.3	4047.6
15°	3925.7	3946.0	3975.3	4011.5	4036.3	4072.4	4104.0	4124.3	4126.6	4119.8	4117.6
17.5°	3826.3	3855.7	3882.8	3932.4	3977.6	4027.3	4079.2	4108.5	4135.6	4151.4	4160.4
20°	3648.0	3684.1	3722.5	3788.0	3848.9	3914.4	3975.3	4018.2	4058.9	4106.3	4162.7
22.5°	3438.1	3492.2	3546.4	3630.0	3704.4	3778.9	3848.9	3900.8	3964.1	4045.3	4151.4
25°	3192.0	3248.4	3316.2	3413.2	3508.0	3616.4	3720.2	3824.1	3946.0	4086.0	4250.7
27.5°	2900.8	2964.0	3052.0	3169.4	3277.8	3388.4	3550.9	3715.7	3914.4	4095.0	4282.3
30°	2611.8	2693.1	2787.9	2905.3	3013.7	3171.7	3334.2	3537.4	3747.3	3950.5	4174.0
32.5°	2300.3	2401.9	2519.3	2616.4	2738.3	2898.5	3061.1	3277.8	3501.3	3740.6	3986.6
35°	2000.1	2097.2	2189.7	2298.1	2420.0	2571.2	2729.2	2936.9	3219.1	3474.2	3767.7
37.5°	1695.3	1785.6	1851.1	1936.9	2043.0	2210.0	2379.3	2618.6	2885.0	3198.8	3492.2
40°	1429.0	1503.4	1577.9	1645.7	1736.0	1894.0	2074.6	2309.4	2571.2	2876.0	3203.3
42.5°	1216.8	1273.2	1354.5	1435.7	1512.5	1647.9	1817.2	2047.5	2307.1	2618.6	2945.9
45°	1038.4	1076.8	1142.3	1210.0	1304.8	1417.7	1580.2	1815.0	2079.1	2392.9	2738.3
47.5°	909.7	927.8	973.0	1042.9	1131.0	1241.6	1381.5	1593.7	1851.1	2167.1	2530.6
50°	821.7	842.0	864.6	923.3	1002.3	1115.2	1230.3	1415.4	1650.2	1959.5	2320.6
52.5°	760.8	769.8	778.8	814.9	887.2	982.0	1103.9	1243.8	1480.9	1776.6	2101.7
55°	724.6	726.9	733.7	751.7	805.9	893.9	1000.0	1133.2	1318.3	1598.3	1930.1
57.5°	681.7	686.3	693.0	704.3	738.2	817.2	907.5	1015.8	1169.3	1404.1	1722.4
60°	641.1	652.4	663.7	670.5	688.5	735.9	812.7	898.5	1022.6	1198.7	1451.5
62.5°	598.2	611.8	620.8	627.6	634.3	663.7	720.1	776.6	853.3	968.4	1158.1
65°	559.8	568.9	575.6	580.2	584.7	593.7	618.5	641.1	663.7	733.7	871.4
67.5°	517.0	521.5	523.7	526.0	523.7	523.7	526.0	535.0	544.0	571.1	636.6
70°	467.3	474.1	474.1	476.3	476.3	469.5	469.5	469.5	469.5	476.3	512.4
72.5°	419.9	428.9	428.9	431.2	428.9	426.7	426.7	426.7	433.4	437.9	451.5
75°	374.7	383.8	381.5	383.8	386.0	386.0	390.5	392.8	399.6	401.8	410.9
77.5°	329.6	336.4	338.6	336.4	340.9	345.4	354.4	358.9	361.2	363.4	365.7
80°	286.7	291.2	289.0	282.2	293.5	300.2	313.8	329.6	325.1	327.3	331.8
82.5°	237.0	230.3	225.7	230.3	237.0	246.1	259.6	279.9	282.2	293.5	291.2
85°	182.9	162.5	160.3	171.6	169.3	180.6	203.2	219.0	232.5	243.8	232.5
87.5°	108.4	97.1	81.3	76.8	83.5	110.6	115.1	140.0	151.2	155.8	140.0
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: P159171

CATALOG NUMBER: VST-E11-LED-E-U-SLR-7050

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2
2.5°	3876.0	3887.3	3887.3	3891.8	3898.6	3900.8	3909.9	3925.7	3927.9	3927.9	3934.7
5°	3948.2	3959.5	3959.5	3968.6	3970.8	3982.1	3993.4	4011.5	4020.5	4018.2	4047.6
7.5°	4065.6	4056.6	4049.8	4063.4	4070.1	4083.7	4106.3	4122.1	4137.9	4162.7	4203.3
10°	4165.0	4151.4	4144.6	4153.7	4158.2	4174.0	4187.5	4210.1	4248.5	4286.9	4336.5
12.5°	4246.2	4230.4	4212.4	4216.9	4223.7	4244.0	4266.5	4295.9	4352.3	4402.0	4476.5
15°	4314.0	4291.4	4273.3	4282.3	4298.2	4325.2	4363.6	4415.5	4508.1	4593.9	4693.2
17.5°	4379.4	4374.9	4368.1	4397.5	4408.8	4472.0	4528.4	4623.2	4749.6	4878.3	5020.5
20°	4442.6	4492.3	4517.1	4575.8	4611.9	4697.7	4783.5	4898.6	5058.9	5235.0	5429.1
22.5°	4530.7	4666.1	4749.6	4869.3	4930.2	5022.8	5149.2	5300.5	5478.8	5704.5	5952.8
25°	4740.6	4939.3	5106.3	5293.7	5447.2	5589.4	5740.6	5923.5	6180.8	6386.3	6711.3
27.5°	4833.2	5113.1	5363.7	5627.8	5858.0	6077.0	6316.3	6537.5	6842.3	7119.9	7512.7
30°	4745.1	5061.2	5386.2	5731.6	6068.0	6399.8	6747.5	7086.1	7438.2	7826.5	8244.1
32.5°	4582.6	4937.0	5302.7	5709.0	6126.7	6557.8	7009.3	7501.4	7998.1	8481.2	8907.8
35°	4417.8	4799.3	5205.6	5670.7	6162.8	6697.8	7257.6	7880.7	8537.6	9149.4	9707.0
37.5°	4178.5	4598.4	5063.4	5600.7	6185.4	6844.5	7564.7	8332.2	9162.9	10004.9	10736.3
40°	3889.6	4334.3	4842.2	5460.7	6162.8	6995.8	7932.6	8916.9	9984.6	11011.8	11910.2
42.5°	3625.4	4058.9	4600.6	5273.4	6104.1	7129.0	8282.5	9508.3	10772.5	11921.5	13095.4
45°	3392.9	3871.5	4415.5	5142.4	6074.7	7241.8	8542.1	9950.8	11397.8	12765.8	14151.8
47.5°	3180.7	3677.4	4286.9	5070.2	6061.2	7309.6	8722.7	10239.7	11842.5	13413.7	15023.2
50°	2961.8	3444.8	4097.2	4991.2	6027.3	7307.3	8817.5	10436.1	12154.0	13917.1	15623.7
52.5°	2727.0	3212.3	3867.0	4846.7	5955.1	7266.7	8842.4	10569.3	12400.1	14226.3	16133.9
55°	2512.5	2966.3	3620.9	4605.2	5803.9	7167.3	8785.9	10625.7	12573.9	14533.3	16492.8
57.5°	2266.5	2738.3	3361.3	4273.3	5519.4	6991.3	8625.6	10546.7	12623.6	14738.8	16777.2
60°	1927.8	2390.6	3031.7	3880.5	5074.7	6618.8	8327.7	10307.4	12465.5	14774.9	16980.4
62.5°	1539.6	1939.1	2557.7	3338.7	4449.4	6034.1	7776.9	9770.2	11973.4	14436.3	16876.6
65°	1144.5	1410.9	1943.6	2629.9	3724.8	5153.7	6889.7	8869.5	11011.8	13494.9	16224.2
67.5°	796.9	988.8	1316.1	1826.3	2708.9	3979.9	5623.3	7463.1	9524.1	11752.2	14869.7
70°	602.7	690.8	869.1	1153.5	1754.0	2711.2	4088.2	5727.1	7639.1	9786.0	12722.9
72.5°	514.7	559.8	659.2	790.1	1074.5	1647.9	2566.7	3941.5	5636.8	7384.1	9761.1
75°	462.8	501.1	564.4	647.9	760.8	1000.0	1505.7	2494.5	3733.8	4946.0	6810.7
77.5°	419.9	453.7	510.2	553.1	614.0	720.1	959.4	1492.2	2237.1	3056.6	4225.9
80°	374.7	395.1	447.0	489.9	537.3	598.2	688.5	936.8	1284.5	1810.5	2492.2
82.5°	320.6	336.4	374.7	433.4	469.5	494.4	521.5	620.8	769.8	982.0	1383.8
85°	248.3	259.6	293.5	336.4	352.2	354.4	358.9	386.0	478.6	735.9	1191.9
87.5°	126.4	140.0	176.1	189.6	160.3	173.8	176.1	187.4	248.3	404.1	410.9
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: P159171
CATALOG NUMBER: VST-E11-LED-E-U-SLR-7050

REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	0°
2.5°	3934.7	3941.5	3957.3	3955.0	3966.3	3966.3	3966.3	3977.6	3970.8	3977.6	3988.9	2.5°
5°	4047.6	4058.9	4081.4	4081.4	4083.7	4076.9	4090.5	4099.5	4088.2	4083.7	4086.0	5°
7.5°	4212.4	4230.4	4248.5	4266.5	4280.1	4273.3	4275.6	4255.3	4250.7	4234.9	4214.6	7.5°
10°	4372.6	4422.3	4456.2	4487.8	4490.0	4483.3	4485.5	4451.7	4444.9	4413.3	4393.0	10°
12.5°	4537.4	4600.6	4654.8	4688.7	4709.0	4713.5	4715.8	4715.8	4684.2	4657.1	4609.7	12.5°
15°	4781.2	4891.9	4975.4	5011.5	5040.8	5067.9	5074.7	5083.7	5058.9	5022.8	5016.0	15°
17.5°	5167.3	5271.1	5381.7	5478.8	5544.3	5548.8	5605.2	5600.7	5652.6	5612.0	5600.7	17.5°
20°	5625.5	5851.3	5966.4	6095.1	6169.6	6205.7	6336.6	6296.0	6334.4	6399.8	6334.4	20°
22.5°	6198.9	6485.6	6652.7	6828.7	6950.6	7038.7	7133.5	7208.0	7311.8	7361.5	7316.3	22.5°
25°	6959.7	7287.0	7485.6	7729.4	7923.6	8081.6	8246.4	8445.1	8442.8	8562.4	8646.0	25°
27.5°	7833.3	8250.9	8539.9	8968.8	9135.8	9402.2	9684.4	9991.4	10045.6	10201.3	10280.3	27.5°
30°	8655.0	9171.9	9745.3	10255.5	10833.4	11228.5	11555.8	11772.5	12099.8	12018.6	11973.4	30°
32.5°	9413.5	10102.0	10919.2	11756.7	12673.2	13298.5	13876.4	14145.1	14348.2	13917.1	13345.9	32.5°
35°	10397.7	11221.7	12156.3	13190.2	14355.0	15242.2	15838.1	15921.7	15806.5	15253.5	14307.6	35°
37.5°	11616.7	12481.3	13544.6	14637.2	15874.3	16707.3	17386.7	17508.6	17203.9	16217.4	15224.1	37.5°
40°	12820.0	13833.5	14987.1	16280.6	17562.8	18479.3	19161.1	19197.2	18700.6	17547.0	16384.4	40°
42.5°	14136.0	15244.4	16528.9	17962.4	19287.5	20215.3	20707.4	20863.2	20161.1	18682.5	17567.3	42.5°
45°	15271.5	16596.6	18027.9	19551.6	20937.7	21818.1	22319.2	22269.6	21420.8	19960.2	18653.2	45°
47.5°	16377.7	17836.0	19343.9	20962.5	22339.5	23229.0	23743.7	23698.5	22621.7	20939.9	19502.0	47.5°
50°	17361.9	18944.4	20556.2	22285.4	23657.9	24472.8	25102.6	24904.0	23542.8	21727.8	20048.3	50°
52.5°	18045.9	19811.2	21495.3	23364.4	24777.6	25549.6	26351.0	25712.2	24086.8	22210.9	20341.7	52.5°
55°	18479.3	20407.2	22163.5	24231.3	25619.6	26542.9	27059.8	26152.3	24296.7	22344.1	20443.3	55°
57.5°	18772.8	20734.5	22556.3	24732.4	26378.1	27152.4	27278.8	26168.2	24161.3	22134.1	20341.7	57.5°
60°	18917.3	20831.6	22734.6	25084.6	26910.8	27335.2	27105.0	25802.4	23694.0	21517.8	19687.1	60°
62.5°	18901.5	20709.7	22642.0	25202.0	27016.9	27071.1	26547.4	25179.4	22833.9	20224.3	18599.0	62.5°
65°	18499.7	20265.0	22120.6	24766.3	26522.6	26290.1	25630.9	24010.0	21161.2	18535.8	17714.1	65°
67.5°	17341.6	19034.7	20757.1	23339.6	25129.7	24904.0	23906.2	21712.0	19217.5	17041.4	16598.9	67.5°
70°	15404.7	16840.4	18352.9	20621.6	22499.8	22195.1	20450.1	19115.9	17291.9	15314.4	15160.9	70°
72.5°	12878.6	13966.7	15063.8	16752.4	18045.9	17422.9	16325.7	16255.8	14781.7	13271.4	13303.0	72.5°
75°	10072.7	10889.9	11402.3	12395.6	13255.6	12698.1	12763.5	13151.8	12666.5	11476.8	11090.8	75°
77.5°	7298.3	8081.6	8244.1	8833.3	9438.3	10072.7	10912.4	11826.7	11980.2	11312.0	9912.4	77.5°
80°	4776.7	5639.1	5318.5	5528.5	6379.5	7537.6	9070.4	10576.1	11093.0	10492.5	8770.1	80°
82.5°	2817.3	4025.0	3514.8	3873.8	4413.3	5422.4	6481.1	7616.6	8481.2	7842.3	7325.4	82.5°
85°	2140.0	3173.9	3361.3	3797.0	3973.1	4016.0	4201.1	4571.3	5018.3	5185.3	5171.8	85°
87.5°	1115.2	2467.4	2769.9	2562.2	2390.6	2072.3	1616.3	1740.5	1591.5	2176.2	2061.0	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: P159171

NUMBER: VST-E11-LED-E-U-SLR-7050

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2
3991.1	3984.4	3988.9	3991.1	3991.1	3991.1	3995.7
4083.7	4065.6	4058.9	4058.9	4056.6	4049.8	4047.6
4183.0	4151.4	4140.1	4126.6	4115.3	4108.5	4097.2
4361.4	4334.3	4277.8	4246.2	4216.9	4196.6	4178.5
4600.6	4562.3	4508.1	4467.5	4422.3	4408.8	4386.2
4970.9	4937.0	4889.6	4844.4	4817.4	4770.0	4736.1
5548.8	5481.0	5433.6	5374.9	5309.5	5212.4	5165.0
6309.5	6174.1	6079.3	6027.3	5896.4	5880.6	5765.5
7183.1	7142.5	6998.0	6934.8	6808.4	6758.8	6578.2
8490.2	8458.6	8162.9	8131.3	7937.1	7792.7	7512.7
10208.1	9948.5	9614.4	9381.9	9050.0	8677.6	8201.3
11709.3	11178.8	10668.6	10126.8	9668.6	9133.6	8594.0
12666.5	11955.4	11298.4	10743.1	10176.5	9539.9	8846.9
13506.2	12788.4	12072.7	11415.8	10729.6	9914.6	9059.1
14510.8	13797.4	12991.5	12068.2	11187.8	10190.0	9144.9
15540.2	14704.9	13698.1	12567.1	11461.0	10325.5	9129.1
16594.4	15526.6	14188.0	12899.0	11634.8	10345.8	9023.0
17449.9	16100.0	14551.4	13068.3	11670.9	10275.8	8889.8
18054.9	16468.0	14713.9	13127.0	11625.8	10165.2	8709.2
18400.3	16668.9	14754.6	13084.1	11533.2	10007.2	8512.8
18526.7	16729.8	14713.9	12996.0	11449.7	9837.9	8375.1
18513.2	16696.0	14565.0	12790.6	11226.2	9612.1	8205.8
18258.1	16382.2	14260.2	12544.5	11036.6	9508.3	8217.1
17824.7	16183.5	14169.9	12594.2	11135.9	9731.8	8573.7
17628.3	16580.8	14677.8	13090.8	11646.1	10370.6	9309.6
17517.7	17226.5	15404.7	13625.9	12251.1	11144.9	10187.8
17066.2	17411.6	15817.8	13930.6	12790.6	11921.5	11065.9
16337.0	16980.4	15504.0	13871.9	13088.6	12517.5	11382.0
14815.5	15495.0	14106.7	13007.3	12716.1	12526.5	10907.9
12002.8	12354.9	11564.8	11316.5	11424.9	11427.1	9149.4
8851.4	8639.2	8282.5	8300.6	9029.7	8916.9	6521.7
7226.0	5914.5	5408.8	5600.7	6501.4	6016.1	4097.2
6724.9	5275.6	4354.6	4399.7	4909.9	3876.0	2467.4
5438.2	4808.3	3855.7	3460.6	3359.1	2582.5	1675.0
2275.5	2092.6	1557.6	1404.1	1151.3	704.3	320.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)