

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: P159181

Luminaire Tested: **VST-E12-LED-E-U-SLR-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159181
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-E12-LED-E-U-SLR-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR RIGHT
Light Source: (252) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33089.2 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 291.7
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

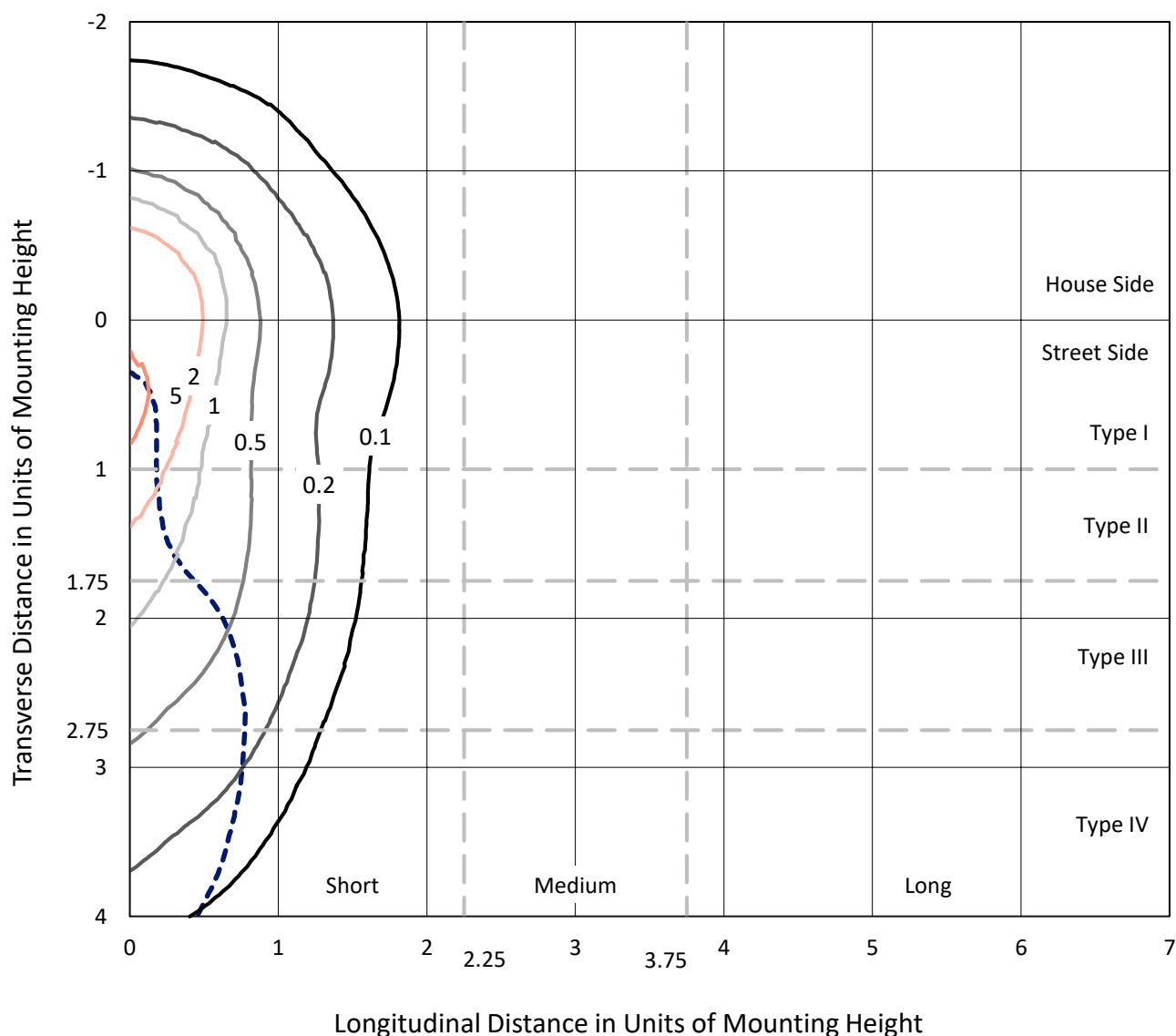


REPORT NUMBER: P159181

CATALOG NUMBER: VST-E12-LED-E-U-SLR-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

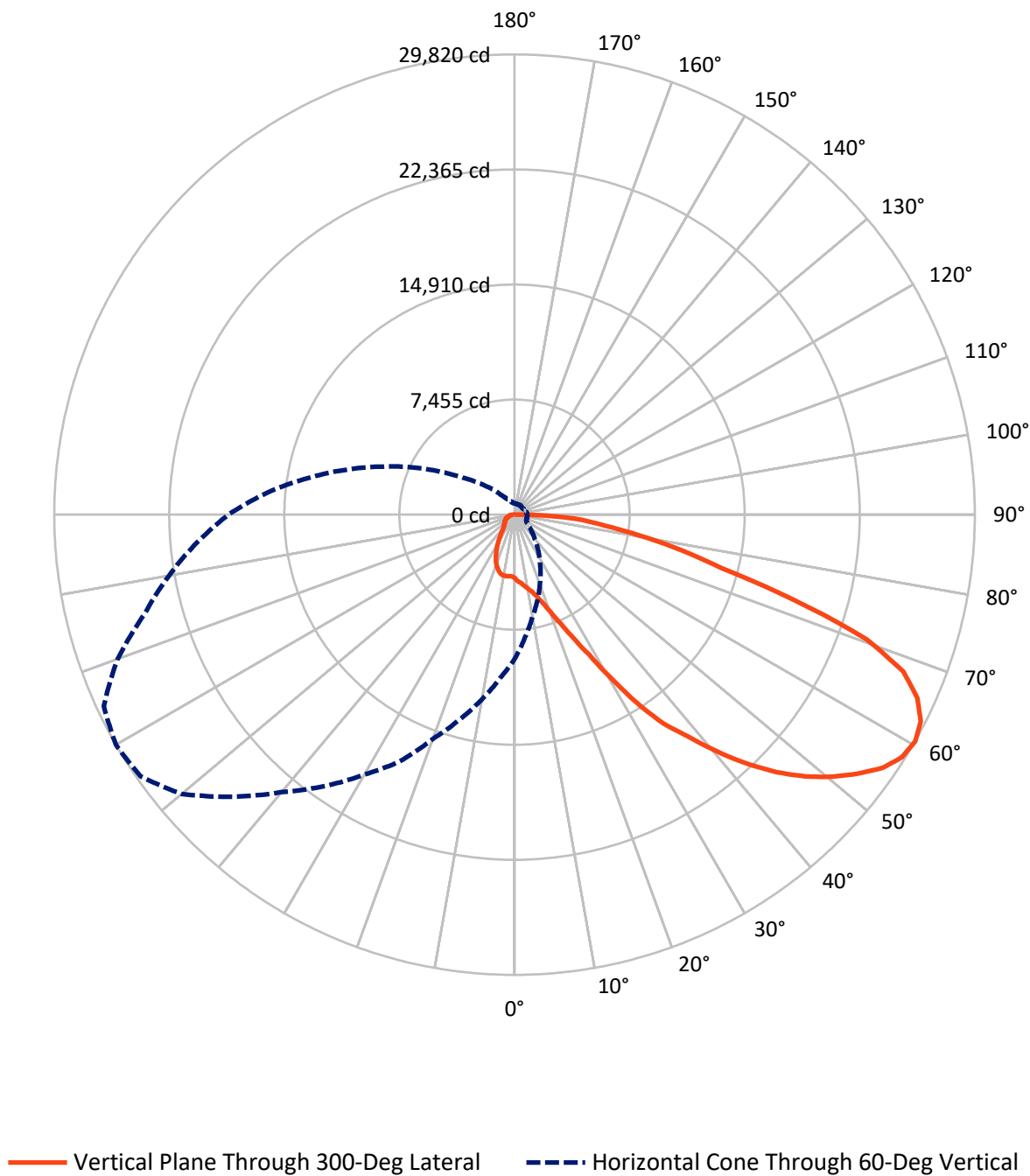


Based on 30 foot mounting height. Maximum calculated value = 6.9 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P159181

CATALOG NUMBER: VST-E12-LED-E-U-SLR-7050

Luminous Intensity Polar Plot



REPORT NUMBER: P159181

CATALOG NUMBER: VST-E12-LED-E-U-SLR-7050

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7450.7	0.0	7450.7
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	25638.6	0.0	25638.6
	% Fixture	77.5	0.0	77.5
Total	Lumens	33089.2	0.0	33089.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	406.0	1.2
10°-20°	1310.8	4.0
20°-30°	2487.4	7.5
30°-40°	3917.2	11.8
40°-50°	5467.5	16.5
50°-60°	6762.1	20.4
60°-70°	7009.2	21.2
70°-80°	4410.5	13.3
80°-90°	1318.4	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°	33089.2	100.0
0°-180°	33089.2	100.0

Coefficient of Utilization



REPORT NUMBER: P159181

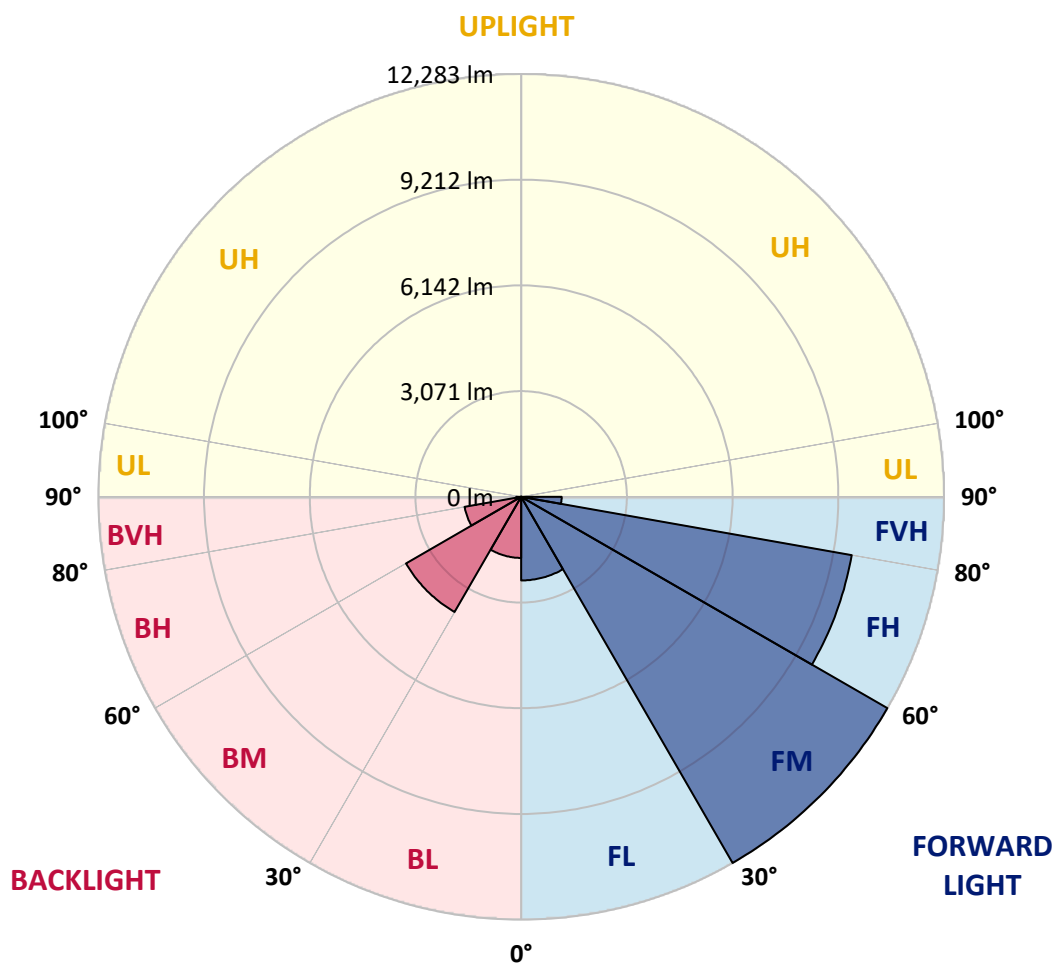
CATALOG NUMBER: VST-E12-LED-E-U-SLR-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2429.2	7.3			
FM	(30°-60°)	12283.2	37.1			
FH	(60°-80°)	9751.1	29.5			G4/12000
FVH	(80°-90°)	1175.0	3.6			G5
BL	(0°-30°)	1775.0	5.4	B3/2500		
BM	(30°-60°)	3863.6	11.7	B3/5000		
BH	(60°-80°)	1668.6	5.0	B3/2500		G3/2500
BVH	(80°-90°)	143.4	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: P159181

CATALOG NUMBER: VST-E12-LED-E-U-SLR-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1
2.5°	4358.9	4097.9	4102.8	4095.4	4095.4	4090.5	4095.4	4090.5	4085.5	4085.5	4088.0
5°	4415.5	4127.4	4127.4	4120.0	4115.1	4110.2	4115.1	4110.2	4107.7	4102.8	4105.2
7.5°	4469.7	4144.6	4134.8	4124.9	4112.6	4117.6	4117.6	4115.1	4117.6	4115.1	4120.0
10°	4558.4	4201.3	4176.7	4154.5	4152.0	4147.1	4147.1	4139.7	4139.7	4134.8	4137.3
12.5°	4784.9	4376.1	4349.0	4309.6	4302.3	4280.1	4267.8	4253.0	4228.4	4206.2	4189.0
15°	5166.6	4666.7	4615.0	4580.5	4565.8	4521.4	4452.5	4398.3	4326.9	4265.3	4201.3
17.5°	5634.6	5055.8	4994.3	4949.9	4876.1	4755.4	4639.6	4506.7	4368.7	4243.2	4127.4
20°	6289.6	5614.8	5494.2	5388.3	5203.6	4996.7	4780.0	4548.5	4336.7	4139.7	3969.8
22.5°	7176.2	6336.4	6112.3	5829.1	5486.8	5137.1	4792.3	4472.2	4189.0	3932.9	3706.3
25°	8195.7	7025.9	6622.1	6134.5	5609.9	5127.2	4674.1	4262.9	3932.9	3602.9	3356.6
27.5°	8946.8	7602.2	7006.2	6366.0	5696.1	5080.5	4523.9	4026.4	3627.5	3290.1	2992.1
30°	9375.3	7932.2	7215.6	6464.5	5710.9	5001.6	4334.3	3758.0	3297.5	2896.1	2610.4
32.5°	9651.1	8109.5	7237.7	6366.0	5533.6	4767.7	4046.1	3447.7	2947.8	2519.3	2216.4
35°	9882.6	8180.9	7134.3	6146.8	5198.7	4413.1	3676.7	3078.3	2548.8	2154.8	1844.5
37.5°	9976.2	8168.6	6969.3	5853.7	4871.1	4026.4	3300.0	2686.8	2213.9	1866.7	1600.7
40°	9959.0	8055.3	6745.2	5541.0	4487.0	3622.6	2901.0	2361.7	1977.5	1684.5	1489.9
42.5°	9843.2	7905.1	6496.5	5223.3	4134.8	3287.6	2630.1	2152.4	1842.1	1620.4	1450.5
45°	9697.9	7725.3	6269.9	4932.7	3856.5	3048.8	2472.5	2093.3	1824.8	1613.0	1430.8
47.5°	9500.9	7525.9	6040.9	4725.8	3708.8	2977.3	2470.0	2127.7	1839.6	1595.8	1396.3
50°	9286.7	7380.6	5915.3	4637.2	3691.5	3021.7	2556.2	2181.9	1849.5	1578.6	1349.5
52.5°	9136.4	7316.5	5912.8	4669.2	3782.6	3144.8	2657.2	2250.9	1886.4	1588.4	1339.7
55°	8951.7	7306.7	5976.9	4807.1	3982.1	3354.1	2817.3	2369.1	1962.7	1625.4	1347.1
57.5°	8964.1	7501.2	6225.6	5146.9	4341.7	3637.3	3021.7	2514.4	2036.6	1647.5	1334.8
60°	9353.2	7954.4	6715.7	5728.1	4812.0	3969.8	3231.0	2593.2	2031.7	1598.3	1275.7
62.5°	10156.0	8634.1	7449.5	6410.3	5289.8	4225.9	3307.3	2571.0	1957.8	1492.4	1179.6
65°	11114.0	9429.5	8163.7	6939.8	5580.4	4285.0	3240.9	2447.9	1810.0	1354.5	1063.9
67.5°	12071.9	9993.4	8575.0	7090.0	5462.2	4046.1	2994.6	2172.1	1558.9	1167.3	933.3
70°	12416.7	10109.2	8542.9	6752.6	4925.3	3452.6	2465.1	1748.5	1251.0	955.5	785.6
72.5°	11899.5	9385.2	7594.8	5738.0	4004.3	2676.9	1807.6	1290.4	955.5	748.6	640.3
75°	9981.1	7557.9	6003.9	4322.0	2891.2	1893.8	1305.2	940.7	719.1	593.5	512.2
77.5°	7114.6	5262.7	4090.5	2839.4	1876.5	1312.6	935.8	706.8	571.3	475.3	416.2
80°	4469.7	3231.0	2492.2	1704.2	1169.8	891.5	672.3	559.0	460.5	386.6	347.2
82.5°	2691.7	1881.5	1467.7	1058.9	768.3	610.7	495.0	438.4	366.9	320.1	298.0
85°	1827.3	1384.0	962.9	625.5	463.0	359.5	337.4	302.9	273.4	229.0	221.6
87.5°	349.7	495.0	431.0	256.1	169.9	145.3	128.1	123.1	110.8	88.7	101.0
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: P159181

CATALOG NUMBER: VST-E12-LED-E-U-SLR-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1
2.5°	4073.2	4068.3	4058.5	4058.5	4051.1	4036.3	4033.8	4024.0	4011.7	4014.1	4011.7
5°	4088.0	4078.2	4065.8	4060.9	4051.1	4036.3	4028.9	4016.6	4004.3	4004.3	4004.3
7.5°	4105.2	4092.9	4083.1	4065.8	4046.1	4031.4	4011.7	3996.9	3989.5	3987.0	3989.5
10°	4120.0	4112.6	4097.9	4073.2	4046.1	4016.6	3996.9	3977.2	3957.5	3959.9	3962.4
12.5°	4152.0	4127.4	4088.0	4051.1	4009.2	3972.3	3937.8	3913.2	3888.5	3888.5	3891.0
15°	4129.9	4058.5	4004.3	3932.9	3886.1	3827.0	3787.6	3765.4	3750.6	3745.7	3748.2
17.5°	3999.3	3913.2	3831.9	3767.9	3703.8	3657.0	3639.8	3625.0	3605.3	3615.2	3605.3
20°	3802.3	3696.4	3580.7	3504.4	3428.0	3396.0	3366.4	3351.7	3339.4	3383.7	3383.7
22.5°	3519.1	3391.1	3272.9	3179.3	3093.1	3058.6	3029.1	3011.8	3019.2	3073.4	3078.3
25°	3162.0	3006.9	2851.8	2795.1	2708.9	2681.8	2664.6	2662.1	2669.5	2723.7	2736.0
27.5°	2782.8	2620.3	2487.3	2356.8	2317.4	2295.2	2263.2	2300.1	2307.5	2366.6	2391.2
30°	2378.9	2204.1	2063.7	1977.5	1893.8	1906.1	1879.0	1923.3	1943.0	2004.6	2024.3
32.5°	1965.2	1800.2	1659.8	1573.6	1514.5	1521.9	1502.2	1541.6	1561.3	1635.2	1672.1
35°	1625.4	1485.0	1371.7	1297.8	1270.7	1243.6	1238.7	1243.6	1263.3	1320.0	1386.5
37.5°	1430.8	1315.1	1233.8	1179.6	1142.7	1125.4	1115.6	1115.6	1115.6	1127.9	1159.9
40°	1347.1	1243.6	1172.2	1120.5	1095.9	1086.0	1078.6	1071.3	1058.9	1054.0	1056.5
42.5°	1310.1	1191.9	1115.6	1076.2	1061.4	1061.4	1061.4	1056.5	1044.2	1031.9	1019.5
45°	1273.2	1145.1	1068.8	1041.7	1034.3	1036.8	1036.8	1036.8	1026.9	1012.2	990.0
47.5°	1226.4	1093.4	1017.1	999.8	999.8	1007.2	1009.7	1009.7	999.8	985.1	967.8
50°	1169.8	1026.9	958.0	943.2	935.8	935.8	935.8	935.8	928.4	918.6	906.3
52.5°	1140.2	990.0	918.6	903.8	903.8	896.4	893.9	886.6	879.2	871.8	854.5
55°	1130.4	975.2	901.3	889.0	889.0	881.6	874.2	866.9	854.5	842.2	825.0
57.5°	1103.3	943.2	879.2	869.3	869.3	864.4	857.0	849.6	837.3	820.1	797.9
60°	1041.7	889.0	834.8	832.4	832.4	829.9	825.0	825.0	812.7	795.4	768.3
62.5°	962.9	832.4	780.7	780.7	778.2	775.7	765.9	763.4	748.6	726.5	701.9
65°	886.6	783.1	748.6	738.8	733.9	726.5	721.6	709.2	696.9	677.2	652.6
67.5°	790.5	709.2	687.1	677.2	667.4	660.0	652.6	645.2	630.4	615.7	596.0
70°	687.1	628.0	615.7	613.2	600.9	593.5	591.0	583.6	568.9	554.1	529.5
72.5°	588.6	554.1	544.2	544.2	529.5	519.6	514.7	512.2	502.4	490.1	467.9
75°	475.3	450.7	448.2	460.5	460.5	453.1	448.2	453.1	438.4	431.0	408.8
77.5°	389.1	376.8	369.4	374.3	389.1	381.7	371.9	371.9	371.9	359.5	352.2
80°	330.0	320.1	312.8	317.7	315.2	312.8	307.8	298.0	298.0	298.0	295.5
82.5°	298.0	295.5	268.4	268.4	258.6	251.2	246.3	241.3	236.4	236.4	248.7
85°	224.1	231.5	216.7	214.3	201.9	192.1	182.2	177.3	172.4	179.8	204.4
87.5°	108.4	108.4	103.4	115.7	105.9	101.0	93.6	88.7	93.6	115.7	137.9
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: P159181

CATALOG NUMBER: VST-E12-LED-E-U-SLR-7050

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1
2.5°	4006.7	4004.3	4001.8	3996.9	3987.0	3984.6	3979.6	3979.6	3977.2	3972.3	3977.2
5°	3999.3	4004.3	4004.3	4001.8	3994.4	3999.3	3999.3	4006.7	4006.7	4011.7	4024.0
7.5°	3989.5	4001.8	4011.7	4019.0	4028.9	4036.3	4051.1	4073.2	4083.1	4100.3	4107.7
10°	3969.8	3992.0	4009.2	4031.4	4056.0	4083.1	4105.2	4139.7	4152.0	4176.7	4189.0
12.5°	3913.2	3950.1	3979.6	4024.0	4065.8	4107.7	4147.1	4191.4	4213.6	4240.7	4257.9
15°	3775.2	3817.1	3859.0	3898.4	3972.3	4053.5	4117.6	4176.7	4208.7	4243.2	4260.4
17.5°	3610.2	3637.3	3671.8	3723.5	3794.9	3866.4	3969.8	4053.5	4102.8	4142.2	4147.1
20°	3418.2	3457.6	3482.2	3501.9	3558.5	3607.8	3718.6	3814.6	3878.7	3925.5	3937.8
22.5°	3125.1	3167.0	3208.8	3223.6	3267.9	3332.0	3393.5	3497.0	3588.1	3657.0	3698.9
25°	2790.2	2829.6	2886.2	2930.6	2940.4	2992.1	3053.7	3171.9	3265.5	3376.3	3425.6
27.5°	2455.3	2489.7	2551.3	2575.9	2605.5	2657.2	2706.5	2805.0	2903.5	3031.5	3085.7
30°	2063.7	2137.6	2209.0	2255.8	2280.4	2342.0	2376.5	2472.5	2563.6	2657.2	2736.0
32.5°	1728.8	1795.3	1876.5	1935.6	1965.2	2012.0	2066.2	2147.4	2218.9	2310.0	2401.1
35°	1421.0	1512.1	1566.2	1618.0	1694.3	1716.5	1770.6	1844.5	1886.4	1984.9	2088.3
37.5°	1204.2	1258.4	1312.6	1364.3	1428.3	1457.9	1509.6	1571.2	1620.4	1679.5	1773.1
40°	1071.3	1100.8	1140.2	1174.7	1221.5	1258.4	1285.5	1337.2	1374.2	1433.3	1499.8
42.5°	1009.7	1017.1	1022.0	1046.6	1071.3	1095.9	1125.4	1147.6	1191.9	1236.3	1278.1
45°	975.2	960.4	953.0	955.5	965.4	980.1	1004.8	1029.4	1058.9	1086.0	1110.7
47.5°	945.7	926.0	903.8	891.5	893.9	898.9	918.6	938.3	953.0	975.2	985.1
50°	876.7	859.5	839.8	822.5	825.0	827.5	844.7	859.5	869.3	876.7	889.0
52.5°	832.4	807.8	790.5	773.3	770.8	778.2	793.0	807.8	812.7	817.6	820.1
55°	800.4	775.7	753.6	736.3	728.9	746.2	751.1	770.8	778.2	778.2	780.7
57.5°	775.7	746.2	724.0	706.8	694.5	706.8	719.1	741.3	743.7	738.8	738.8
60°	738.8	716.6	694.5	677.2	664.9	674.8	684.6	709.2	709.2	696.9	694.5
62.5°	674.8	662.5	647.7	640.3	637.8	647.7	655.1	674.8	667.4	652.6	647.7
65°	628.0	618.1	603.4	598.4	596.0	610.7	613.2	625.5	615.7	608.3	605.8
67.5°	571.3	563.9	556.6	554.1	546.7	546.7	551.6	559.0	554.1	554.1	556.6
70°	507.3	497.5	490.1	492.5	487.6	487.6	490.1	495.0	492.5	497.5	502.4
72.5°	448.2	435.9	433.4	433.4	428.5	431.0	431.0	433.4	438.4	440.8	453.1
75°	391.6	379.2	379.2	376.8	376.8	376.8	379.2	384.2	389.1	391.6	396.5
77.5°	339.8	332.5	334.9	332.5	332.5	332.5	332.5	339.8	342.3	344.8	352.2
80°	293.1	293.1	295.5	295.5	293.1	290.6	293.1	298.0	300.4	302.9	305.4
82.5°	266.0	268.4	268.4	268.4	256.1	251.2	258.6	263.5	268.4	270.9	275.8
85°	229.0	219.2	229.0	226.6	209.3	206.9	206.9	209.3	214.3	209.3	209.3
87.5°	147.8	133.0	140.4	140.4	123.1	101.0	128.1	137.9	123.1	130.5	130.5
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: P159181

CATALOG NUMBER: VST-E12-LED-E-U-SLR-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1
2.5°	3984.6	3979.6	3982.1	3982.1	3987.0	3979.6	3989.5	3999.3	4001.8	4001.8	4004.3
5°	4036.3	4031.4	4048.6	4041.2	4058.5	4056.0	4068.3	4078.2	4083.1	4083.1	4083.1
7.5°	4117.6	4134.8	4144.6	4171.7	4174.2	4189.0	4201.3	4213.6	4208.7	4211.1	4208.7
10°	4208.7	4230.8	4255.5	4282.6	4285.0	4302.3	4322.0	4334.3	4329.3	4326.9	4319.5
12.5°	4287.5	4302.3	4331.8	4358.9	4373.7	4400.8	4420.5	4430.3	4430.3	4422.9	4415.5
15°	4282.6	4304.7	4336.7	4376.1	4403.2	4442.6	4477.1	4499.3	4501.7	4494.3	4491.9
17.5°	4174.2	4206.2	4235.8	4289.9	4339.2	4393.4	4450.0	4482.0	4511.6	4528.8	4538.7
20°	3979.6	4019.0	4060.9	4132.3	4198.8	4270.2	4336.7	4383.5	4427.9	4479.6	4541.1
22.5°	3750.6	3809.7	3868.8	3959.9	4041.2	4122.5	4198.8	4255.5	4324.4	4413.1	4528.8
25°	3482.2	3543.8	3617.6	3723.5	3827.0	3945.2	4058.5	4171.7	4304.7	4457.4	4637.2
27.5°	3164.5	3233.5	3329.5	3457.6	3575.8	3696.4	3873.8	4053.5	4270.2	4467.3	4671.7
30°	2849.3	2937.9	3041.4	3169.4	3287.6	3460.0	3637.3	3859.0	4088.0	4309.6	4553.4
32.5°	2509.4	2620.3	2748.3	2854.2	2987.2	3162.0	3339.4	3575.8	3819.6	4080.6	4349.0
35°	2181.9	2287.8	2388.8	2507.0	2640.0	2805.0	2977.3	3203.9	3511.7	3790.0	4110.2
37.5°	1849.5	1948.0	2019.4	2113.0	2228.7	2410.9	2595.6	2856.7	3147.3	3489.6	3809.7
40°	1558.9	1640.1	1721.4	1795.3	1893.8	2066.2	2263.2	2519.3	2805.0	3137.4	3494.5
42.5°	1327.4	1388.9	1477.6	1566.2	1650.0	1797.7	1982.4	2233.6	2516.8	2856.7	3213.8
45°	1132.8	1174.7	1246.1	1320.0	1423.4	1546.5	1723.9	1980.0	2268.1	2610.4	2987.2
47.5°	992.4	1012.2	1061.4	1137.7	1233.8	1354.5	1507.1	1738.6	2019.4	2364.1	2760.6
50°	896.4	918.6	943.2	1007.2	1093.4	1216.6	1342.1	1544.1	1800.2	2137.6	2531.6
52.5°	829.9	839.8	849.6	889.0	967.8	1071.3	1204.2	1356.9	1615.5	1938.1	2292.7
55°	790.5	793.0	800.4	820.1	879.2	975.2	1091.0	1236.3	1438.2	1743.6	2105.6
57.5°	743.7	748.6	756.0	768.3	805.3	891.5	990.0	1108.2	1275.7	1531.8	1879.0
60°	699.4	711.7	724.0	731.4	751.1	802.8	886.6	980.1	1115.6	1307.7	1583.5
62.5°	652.6	667.4	677.2	684.6	692.0	724.0	785.6	847.2	930.9	1056.5	1263.3
65°	610.7	620.6	628.0	632.9	637.8	647.7	674.8	699.4	724.0	800.4	950.6
67.5°	563.9	568.9	571.3	573.8	571.3	571.3	573.8	583.6	593.5	623.1	694.5
70°	509.8	517.2	517.2	519.6	519.6	512.2	512.2	512.2	512.2	519.6	559.0
72.5°	458.1	467.9	467.9	470.4	467.9	465.4	465.4	465.4	472.8	477.8	492.5
75°	408.8	418.7	416.2	418.7	421.1	421.1	426.0	428.5	435.9	438.4	448.2
77.5°	359.5	366.9	369.4	366.9	371.9	376.8	386.6	391.6	394.0	396.5	398.9
80°	312.8	317.7	315.2	307.8	320.1	327.5	342.3	359.5	354.6	357.1	362.0
82.5°	258.6	251.2	246.3	251.2	258.6	268.4	283.2	305.4	307.8	320.1	317.7
85°	199.5	177.3	174.8	187.2	184.7	197.0	221.6	238.9	253.7	266.0	253.7
87.5°	118.2	105.9	88.7	83.7	91.1	120.7	125.6	152.7	165.0	169.9	152.7
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: P159181

CATALOG NUMBER: VST-E12-LED-E-U-SLR-7050

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1
2.5°	4228.4	4240.7	4240.7	4245.6	4253.0	4255.5	4265.3	4282.6	4285.0	4285.0	4292.4
5°	4307.2	4319.5	4319.5	4329.3	4331.8	4344.1	4356.4	4376.1	4386.0	4383.5	4415.5
7.5°	4435.2	4425.4	4418.0	4432.8	4440.2	4454.9	4479.6	4496.8	4514.0	4541.1	4585.5
10°	4543.6	4528.8	4521.4	4531.3	4536.2	4553.4	4568.2	4592.8	4634.7	4676.6	4730.8
12.5°	4632.3	4615.0	4595.3	4600.2	4607.6	4629.8	4654.4	4686.4	4748.0	4802.2	4883.4
15°	4706.1	4681.5	4661.8	4671.7	4688.9	4718.4	4760.3	4816.9	4917.9	5011.5	5119.9
17.5°	4777.5	4772.6	4765.2	4797.2	4809.6	4878.5	4940.1	5043.5	5181.4	5321.8	5476.9
20°	4846.5	4900.7	4927.8	4991.8	5031.2	5124.8	5218.4	5344.0	5518.8	5710.9	5922.7
22.5°	4942.5	5090.3	5181.4	5311.9	5378.4	5479.4	5617.3	5782.3	5976.9	6223.1	6494.0
25°	5171.6	5388.3	5570.5	5774.9	5942.4	6097.5	6262.5	6462.0	6742.7	6966.8	7321.5
27.5°	5272.5	5577.9	5851.3	6139.4	6390.6	6629.5	6890.5	7131.8	7464.3	7767.2	8195.7
30°	5176.5	5521.3	5875.9	6252.7	6619.6	6981.6	7360.9	7730.3	8114.4	8538.0	8993.6
32.5°	4999.2	5385.8	5784.8	6228.0	6683.6	7154.0	7646.5	8183.4	8725.2	9252.2	9717.6
35°	4819.4	5235.6	5678.9	6186.2	6723.0	7306.7	7917.4	8597.1	9313.8	9981.1	10589.4
37.5°	4558.4	5016.4	5523.7	6109.8	6747.7	7466.8	8252.4	9089.7	9995.9	10914.5	11712.4
40°	4243.2	4728.3	5282.4	5957.2	6723.0	7631.8	8653.8	9727.5	10892.3	12012.8	12993.0
42.5°	3955.0	4427.9	5018.9	5752.8	6659.0	7777.1	9035.5	10372.7	11751.8	13005.3	14285.9
45°	3701.4	4223.4	4816.9	5609.9	6627.0	7900.2	9318.7	10855.4	12433.9	13926.3	15438.4
47.5°	3469.9	4011.7	4676.6	5531.1	6612.2	7974.1	9515.7	11170.6	12919.1	14633.1	16389.0
50°	3231.0	3758.0	4469.7	5444.9	6575.3	7971.6	9619.1	11384.8	13258.9	15182.3	17044.0
52.5°	2974.9	3504.4	4218.5	5287.3	6496.5	7927.3	9646.2	11530.1	13527.4	15519.6	17600.6
55°	2740.9	3235.9	3950.1	5023.8	6331.5	7818.9	9584.6	11591.7	13717.0	15854.6	17992.1
57.5°	2472.5	2987.2	3666.9	4661.8	6021.2	7626.8	9409.8	11505.5	13771.2	16078.7	18302.4
60°	2103.1	2607.9	3307.3	4233.3	5536.0	7220.5	9084.7	11244.5	13598.8	16118.1	18524.1
62.5°	1679.5	2115.4	2790.2	3642.3	4853.9	6582.7	8483.8	10658.4	13061.9	15748.7	18410.8
65°	1248.6	1539.2	2120.3	2869.0	4063.4	5622.2	7516.0	9675.8	12012.8	14721.7	17699.1
67.5°	869.3	1078.6	1435.7	1992.3	2955.2	4341.7	6134.5	8141.5	10389.9	12820.6	16221.5
70°	657.5	753.6	948.1	1258.4	1913.5	2957.6	4459.9	6247.8	8333.6	10675.6	13879.5
72.5°	561.5	610.7	719.1	861.9	1172.2	1797.7	2800.0	4299.8	6149.2	8055.3	10648.5
75°	504.8	546.7	615.7	706.8	829.9	1091.0	1642.6	2721.2	4073.2	5395.7	7429.8
77.5°	458.1	495.0	556.6	603.4	669.8	785.6	1046.6	1627.8	2440.5	3334.4	4610.1
80°	408.8	431.0	487.6	534.4	586.1	652.6	751.1	1022.0	1401.2	1975.0	2718.8
82.5°	349.7	366.9	408.8	472.8	512.2	539.3	568.9	677.2	839.8	1071.3	1509.6
85°	270.9	283.2	320.1	366.9	384.2	386.6	391.6	421.1	522.1	802.8	1300.3
87.5°	137.9	152.7	192.1	206.9	174.8	189.6	192.1	204.4	270.9	440.8	448.2
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: P159181
CATALOG NUMBER: VST-E12-LED-E-U-SLR-7050

REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	0°
2.5°	4292.4	4299.8	4317.0	4314.6	4326.9	4326.9	4326.9	4339.2	4331.8	4339.2	4351.5	2.5°
5°	4415.5	4427.9	4452.5	4452.5	4454.9	4447.6	4462.3	4472.2	4459.9	4454.9	4457.4	5°
7.5°	4595.3	4615.0	4634.7	4654.4	4669.2	4661.8	4664.3	4642.1	4637.2	4619.9	4597.8	7.5°
10°	4770.2	4824.3	4861.3	4895.8	4898.2	4890.8	4893.3	4856.4	4849.0	4814.5	4792.3	10°
12.5°	4949.9	5018.9	5078.0	5114.9	5137.1	5142.0	5144.5	5144.5	5110.0	5080.5	5028.7	12.5°
15°	5215.9	5336.6	5427.7	5467.1	5499.1	5528.7	5536.0	5545.9	5518.8	5479.4	5472.0	15°
17.5°	5637.0	5750.3	5871.0	5976.9	6048.3	6053.2	6114.8	6109.8	6166.5	6122.2	6109.8	17.5°
20°	6136.9	6383.2	6508.8	6649.2	6730.4	6769.8	6912.7	6868.3	6910.2	6981.6	6910.2	20°
22.5°	6762.4	7075.2	7257.4	7449.5	7582.5	7678.6	7782.0	7863.3	7976.5	8030.7	7981.5	22.5°
25°	7592.4	7949.4	8166.2	8432.1	8643.9	8816.3	8996.1	9212.8	9210.3	9340.8	9432.0	25°
27.5°	8545.4	9001.0	9316.2	9784.1	9966.4	10256.9	10564.8	10899.7	10958.8	11128.7	11214.9	27.5°
30°	9441.8	10005.8	10631.3	11187.8	11818.3	12249.2	12606.3	12842.7	13199.8	13111.2	13061.9	30°
32.5°	10269.3	11020.4	11911.9	12825.5	13825.3	14507.5	15137.9	15431.0	15652.6	15182.3	14559.2	32.5°
35°	11343.0	12241.8	13261.4	14389.3	15660.0	16627.8	17278.0	17369.1	17243.5	16640.1	15608.3	35°
37.5°	12672.8	13616.0	14775.9	15967.8	17317.4	18226.1	18967.4	19100.3	18767.9	17691.7	16608.1	37.5°
40°	13985.4	15091.1	16349.6	17760.7	19159.4	20159.3	20903.0	20942.4	20400.6	19142.2	17873.9	40°
42.5°	15421.1	16630.3	18031.5	19595.3	21040.9	22053.1	22589.9	22759.8	21994.0	20380.9	19164.4	42.5°
45°	16659.8	18105.4	19666.7	21329.0	22841.1	23801.5	24348.3	24294.1	23368.1	21774.8	20348.9	45°
47.5°	17866.5	19457.4	21102.5	22868.2	24370.4	25340.7	25902.2	25852.9	24678.2	22843.6	21274.9	47.5°
50°	18940.3	20666.6	22424.9	24311.3	25808.6	26697.6	27384.7	27168.0	25683.0	23703.0	21870.8	50°
52.5°	19686.4	21612.2	23449.4	25488.5	27030.1	27872.3	28746.5	28049.6	26276.5	24230.0	22191.0	52.5°
55°	20159.3	22262.4	24178.3	26434.1	27948.6	28955.9	29519.8	28529.8	26505.5	24375.3	22301.8	55°
57.5°	20479.4	22619.5	24606.8	26980.8	28776.1	29620.8	29758.7	28547.1	26357.8	24146.3	22191.0	57.5°
60°	20637.0	22725.4	24801.4	27365.0	29357.3	29820.3	29569.1	28148.1	25848.0	23474.0	21476.8	60°
62.5°	20619.8	22592.4	24700.4	27493.1	29473.0	29532.1	28960.8	27468.4	24909.7	22062.9	20289.8	62.5°
65°	20181.4	22107.2	24131.5	27017.8	28933.7	28680.1	27961.0	26192.8	23084.9	20220.8	19324.4	65°
67.5°	18918.1	20765.1	22644.1	25461.4	27414.3	27168.0	26079.5	23685.8	20964.6	18590.6	18107.9	67.5°
70°	16805.1	18371.4	20021.4	22496.3	24545.3	24212.8	22309.2	20853.7	18863.9	16706.6	16539.2	70°
72.5°	14049.4	15236.4	16433.3	18275.3	19686.4	19006.8	17809.9	17733.6	16125.5	14477.9	14512.4	72.5°
75°	10988.4	11879.8	12438.9	13522.4	14460.7	13852.4	13923.8	14347.4	13817.9	12520.1	12099.0	75°
77.5°	7961.8	8816.3	8993.6	9636.4	10296.4	10988.4	11904.5	12901.8	13069.3	12340.4	10813.5	77.5°
80°	5211.0	6151.7	5802.0	6031.0	6959.5	8222.8	9894.9	11537.5	12101.5	11446.4	9567.4	80°
82.5°	3073.4	4390.9	3834.4	4225.9	4814.5	5915.3	7070.3	8309.0	9252.2	8555.3	7991.3	82.5°
85°	2334.6	3462.5	3666.9	4142.2	4334.3	4381.1	4583.0	4986.9	5474.5	5656.7	5641.9	85°
87.5°	1216.6	2691.7	3021.7	2795.1	2607.9	2260.7	1763.3	1898.7	1736.2	2374.0	2248.4	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°



NUMBER: P159181

NUMBER: VST-E12-LED-E-U-SLR-7050

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1
4354.0	4346.6	4351.5	4354.0	4354.0	4354.0	4358.9
4454.9	4435.2	4427.9	4427.9	4425.4	4418.0	4415.5
4563.3	4528.8	4516.5	4501.7	4489.4	4482.0	4469.7
4757.8	4728.3	4666.7	4632.3	4600.2	4578.1	4558.4
5018.9	4977.0	4917.9	4873.6	4824.3	4809.6	4784.9
5422.8	5385.8	5334.1	5284.9	5255.3	5203.6	5166.6
6053.2	5979.3	5927.6	5863.6	5792.2	5686.3	5634.6
6883.1	6735.4	6631.9	6575.3	6432.4	6415.2	6289.6
7836.2	7791.8	7634.2	7565.3	7427.4	7373.2	7176.2
9262.0	9227.6	8905.0	8870.5	8658.7	8501.1	8195.7
11136.1	10852.9	10488.4	10234.8	9872.8	9466.4	8946.8
12773.8	12195.1	11638.5	11047.5	10547.5	9963.9	9375.3
13817.9	13042.2	12325.6	11719.8	11101.6	10407.2	9651.1
14734.1	13950.9	13170.3	12453.6	11705.0	10816.0	9882.6
15829.9	15051.7	14172.6	13165.3	12204.9	11116.4	9976.2
16952.9	16041.7	14943.4	13709.6	12502.9	11264.2	9959.0
18103.0	16938.1	15477.8	14071.6	12692.5	11286.3	9843.2
19036.3	17563.6	15874.3	14256.3	12731.9	11210.0	9697.9
19696.3	17965.1	16051.6	14320.3	12682.7	11089.3	9500.9
20073.1	18184.2	16095.9	14273.5	12581.7	10916.9	9286.7
20211.0	18250.7	16051.6	14177.5	12490.6	10732.2	9136.4
20196.2	18213.8	15889.0	13953.4	12246.8	10486.0	8951.7
19917.9	17871.5	15556.6	13685.0	12039.9	10372.7	8964.1
19445.1	17654.8	15458.1	13739.1	12148.3	10616.5	9353.2
19230.9	18088.2	16012.2	14280.9	12704.8	11313.4	10156.0
19110.2	18792.5	16805.1	14864.6	13364.8	12158.1	11114.0
18617.7	18994.4	17255.8	15197.0	13953.4	13005.3	12071.9
17822.2	18524.1	16913.5	15133.0	14278.5	13655.4	12416.7
16162.4	16903.7	15389.1	14189.8	13872.1	13665.3	11899.5
13093.9	13478.1	12616.2	12345.3	12463.5	12465.9	9981.1
9656.1	9424.6	9035.5	9055.2	9850.6	9727.5	7114.6
7883.0	6452.2	5900.5	6109.8	7092.4	6563.0	4469.7
7336.2	5755.2	4750.5	4799.7	5356.3	4228.4	2691.7
5932.5	5245.5	4206.2	3775.2	3664.4	2817.3	1827.3
2482.4	2282.9	1699.2	1531.8	1256.0	768.3	349.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)