

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: P158960

Luminaire Tested: **VST-E12-LED-E-U-SLL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158960
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-SLL
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (252) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32247.4 lumens
Efficiency: N/A
Efficacy: 110.5 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



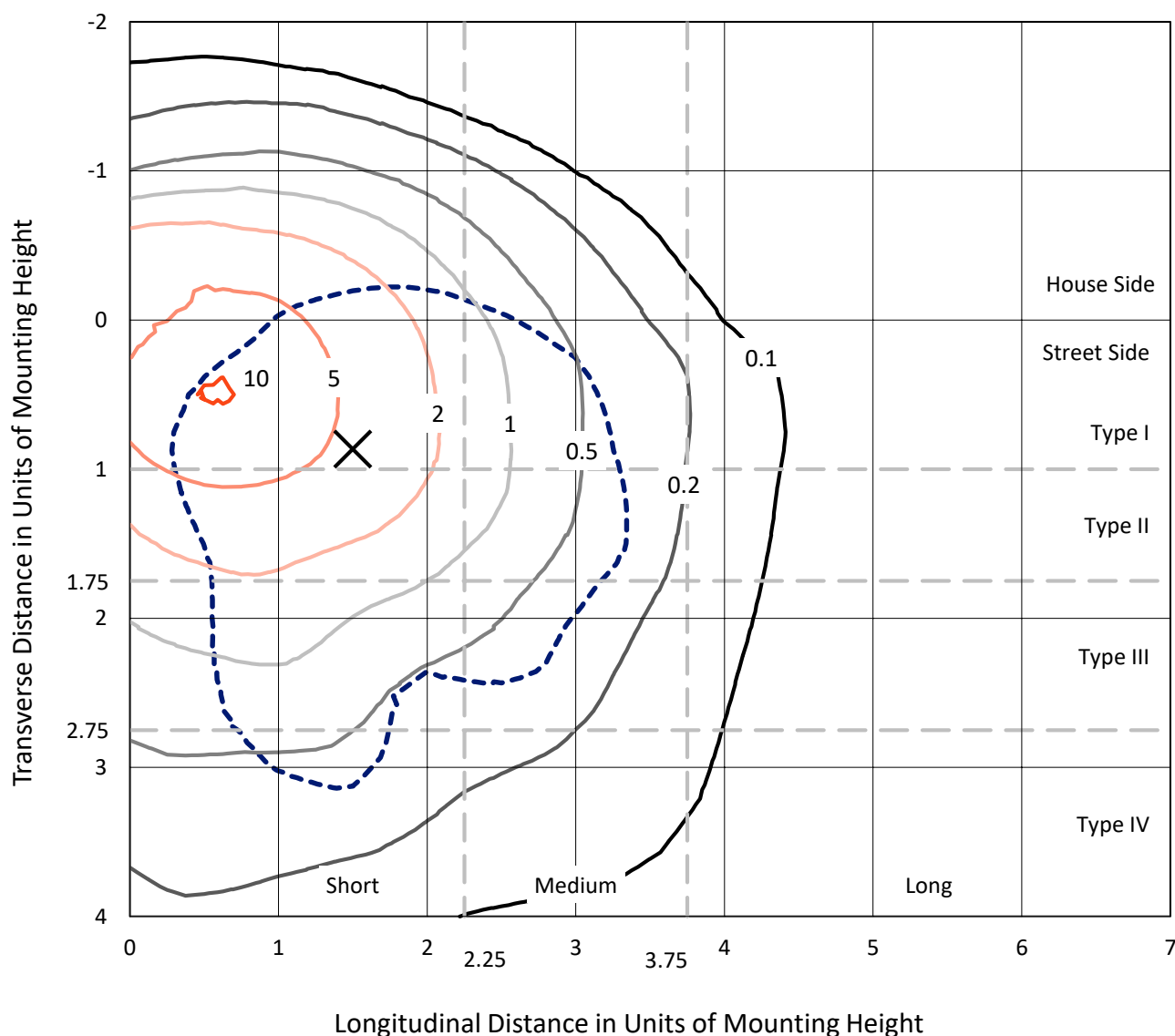
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CATALOG NUMBER: VST-E12-LED-E-U-SLL

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

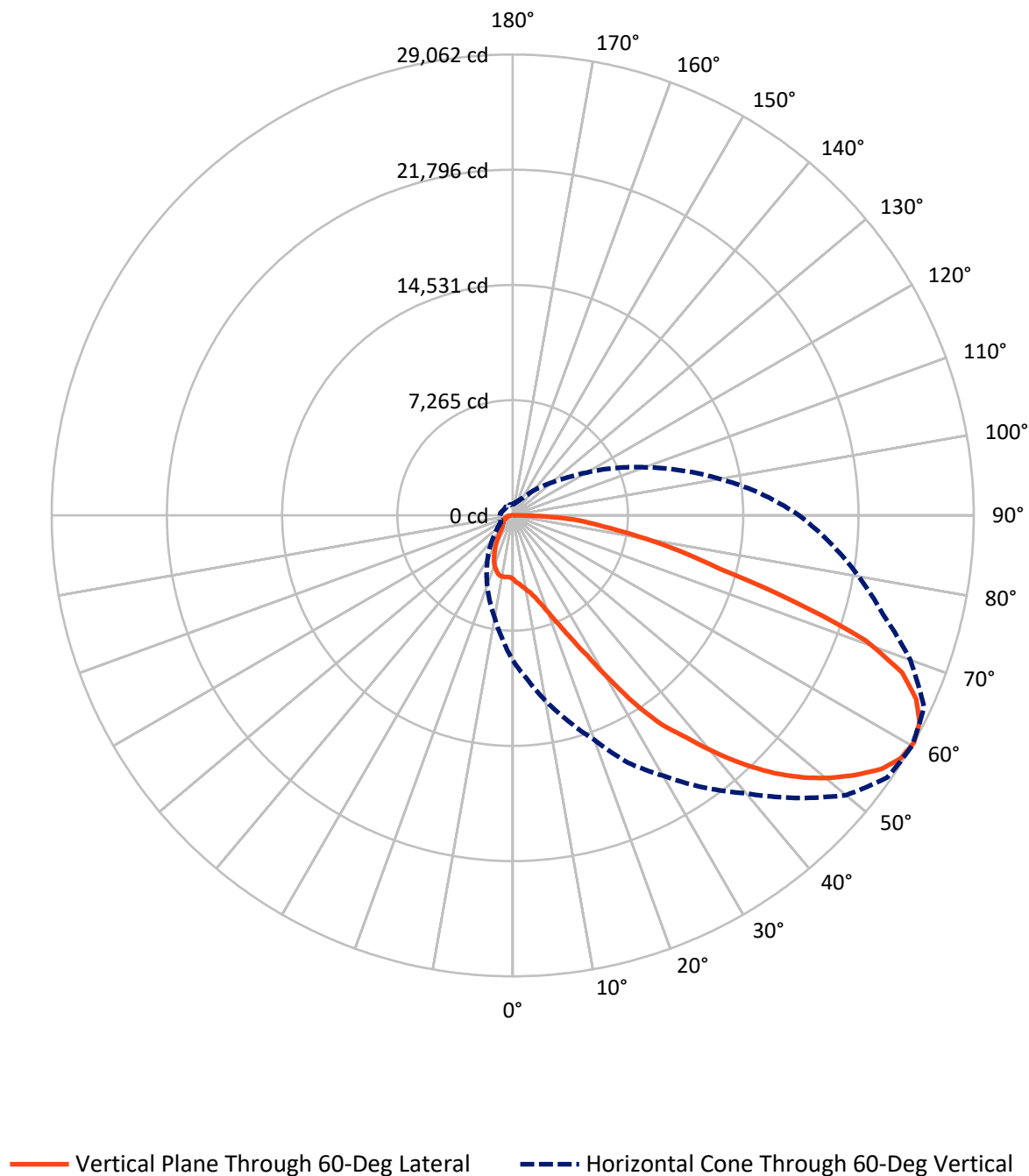


Based on 30 foot mounting height. Maximum calculated value = 10.3 fc
Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7261.1	0.0	7261.1
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	24986.3	0.0	24986.3
	% Fixture	77.5	0.0	77.5
Total	Lumens	32247.4	0.0	32247.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	395.7	1.2
10°-20°	1277.5	4.0
20°-30°	2424.1	7.5
30°-40°	3817.6	11.8
40°-50°	5328.4	16.5
50°-60°	6590.0	20.4
60°-70°	6830.9	21.2
70°-80°	4298.3	13.3
80°-90°	1284.9	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°	32247.4	100.0
0°-180°	32247.4	100.0

Coefficient of Utilization



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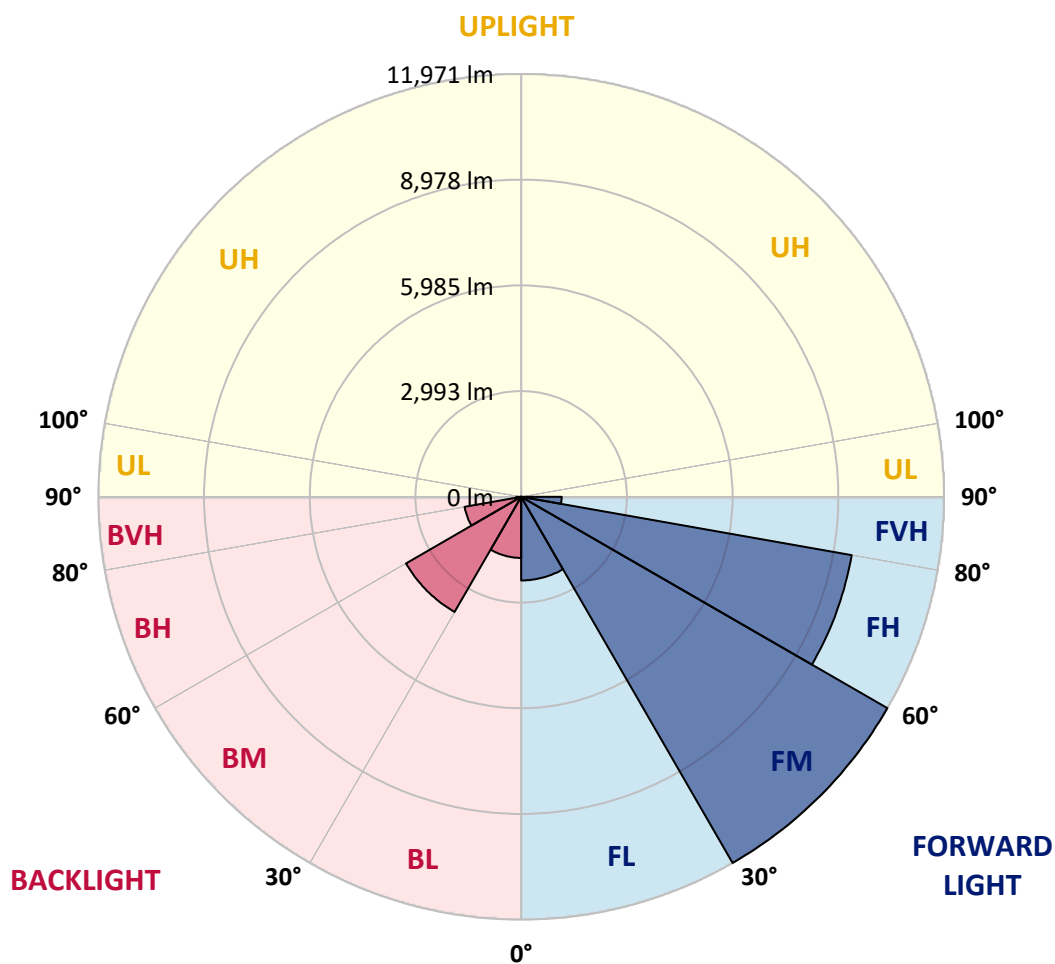
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2367.4	7.3			
FM	(30°-60°)	11970.7	37.1			
FH	(60°-80°)	9503.0	29.5			G4/12000
FVH	(80°-90°)	1145.1	3.6			G5
BL	(0°-30°)	1729.9	5.4	B3/2500		
BM	(30°-60°)	3765.3	11.7	B3/5000		
BH	(60°-80°)	1626.2	5.0	B3/2500		G3/2500
BVH	(80°-90°)	139.8	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°	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4
2.5°	4248.0	4243.2	4243.2	4243.2	4240.8	4236.0	4243.2	4240.8	4228.8	4221.6	4228.8
5°	4303.2	4305.6	4312.8	4315.2	4315.2	4322.4	4341.6	4344.0	4341.6	4346.4	4358.4
7.5°	4356.0	4368.0	4375.2	4387.2	4401.6	4413.6	4447.2	4480.8	4502.4	4519.2	4524.0
10°	4442.4	4461.6	4483.2	4514.4	4548.0	4608.0	4636.8	4670.4	4692.0	4725.6	4732.8
12.5°	4663.2	4687.2	4701.6	4749.6	4792.8	4850.4	4891.2	4900.8	4951.2	4980.0	5013.6
15°	5035.2	5071.2	5121.6	5150.4	5198.4	5248.8	5284.8	5332.8	5340.0	5378.4	5404.8
17.5°	5491.2	5541.6	5644.8	5714.4	5776.8	5827.2	5899.2	5954.4	5966.4	6009.6	5954.4
20°	6129.6	6252.0	6268.8	6408.0	6463.2	6564.0	6708.0	6734.4	6804.0	6734.4	6693.6
22.5°	6993.6	7185.6	7238.4	7372.8	7440.0	7593.6	7636.8	7778.4	7826.4	7773.6	7663.2
25°	7987.2	8284.8	8438.4	8644.8	8678.4	8992.8	9026.4	9192.0	9103.2	8976.0	8978.4
27.5°	8719.2	9225.6	9621.6	9974.4	10221.6	10576.8	10852.8	10929.6	10845.6	10680.0	10622.4
30°	9136.8	9710.4	10279.2	10766.4	11342.4	11884.8	12448.8	12729.6	12777.6	12864.0	12516.0
32.5°	9405.6	10142.4	10819.2	11421.6	12012.0	12710.4	13466.4	14188.8	14796.0	15254.4	15038.4
35°	9631.2	10540.8	11407.2	12136.8	12835.2	13596.0	14359.2	15211.2	16216.8	16804.8	16927.2
37.5°	9722.4	10833.6	11894.4	12830.4	13812.0	14668.8	15427.2	16185.6	17241.6	18290.4	18614.4
40°	9705.6	10977.6	12184.8	13360.8	14563.2	15633.6	16521.6	17419.2	18655.2	19881.6	20409.6
42.5°	9592.8	10999.2	12369.6	13713.6	15084.0	16507.2	17642.4	18676.8	19862.4	21434.4	22180.8
45°	9451.2	10924.8	12408.0	13893.6	15470.4	17116.8	18552.0	19831.2	21220.8	22773.6	23676.0
47.5°	9259.2	10807.2	12360.0	13956.0	15643.2	17508.0	19195.2	20733.6	22262.4	24050.4	25195.2
50°	9050.4	10639.2	12261.6	13910.4	15686.4	17721.6	19562.4	21314.4	23100.0	25029.6	26476.8
52.5°	8904.0	10459.2	12172.8	13816.8	15643.2	17786.4	19696.8	21626.4	23613.6	25608.0	27336.0
55°	8724.0	10219.2	11935.2	13598.4	15484.8	17750.4	19682.4	21734.4	23755.2	25831.2	27804.0
57.5°	8736.0	10108.8	11733.6	13336.8	15160.8	17416.8	19411.2	21626.4	23532.0	25687.2	27820.8
60°	9115.2	10346.4	11839.2	13389.6	15064.8	17205.6	18950.4	20930.4	22876.8	25190.4	27432.0
62.5°	9897.6	11025.6	12381.6	13917.6	15604.8	17628.0	18741.6	19773.6	21501.6	24276.0	26769.6
65°	10831.2	11848.8	13024.8	14486.4	16377.6	18314.4	18624.0	18832.8	19706.4	22497.6	25526.4
67.5°	11764.8	12674.4	13598.4	14810.4	16816.8	18511.2	18144.0	17647.2	18117.6	20431.2	23083.2
70°	12100.8	13308.0	13915.2	14748.0	16483.2	18052.8	17368.8	16118.4	16281.6	18384.0	20323.2
72.5°	11596.8	13317.6	13519.2	13828.8	14997.6	16473.6	15751.2	14143.2	14109.6	15715.2	17282.4
75°	9727.2	12148.8	12146.4	12031.2	12295.2	13135.2	12760.8	11791.2	12201.6	13466.4	13982.4
77.5°	6933.6	9480.0	9600.0	8824.8	8805.6	9184.8	9410.4	10538.4	12026.4	12736.8	12573.6
80°	4356.0	6396.0	6912.0	5954.4	5750.4	6288.0	7682.4	9324.0	11155.2	11793.6	11244.0
82.5°	2623.2	4120.8	5220.0	4677.6	4629.6	5608.8	7149.6	7788.0	8337.6	9016.8	8097.6
85°	1780.8	2745.6	3571.2	3679.2	4099.2	5112.0	5781.6	5498.4	5512.8	5335.2	4860.0
87.5°	340.8	748.8	1224.0	1492.8	1656.0	2224.8	2419.2	2191.2	2313.6	1692.0	1850.4
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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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4
2.5°	4216.8	4216.8	4216.8	4204.8	4207.2	4190.4	4183.2	4183.2	4176.0	4176.0	4173.6
5°	4348.8	4334.4	4341.6	4339.2	4339.2	4315.2	4303.2	4303.2	4272.0	4274.4	4264.8
7.5°	4545.6	4543.2	4550.4	4536.0	4516.8	4497.6	4478.4	4468.8	4425.6	4399.2	4382.4
10°	4768.8	4766.4	4773.6	4771.2	4737.6	4701.6	4648.8	4610.4	4557.6	4516.8	4476.0
12.5°	5013.6	5011.2	5006.4	4984.8	4948.8	4891.2	4824.0	4759.2	4680.0	4627.2	4567.2
15°	5395.2	5388.0	5359.2	5328.0	5289.6	5200.8	5083.2	4989.6	4884.0	4792.8	4694.4
17.5°	5959.2	5899.2	5894.4	5824.8	5721.6	5604.0	5493.6	5337.6	5186.4	5049.6	4915.2
20°	6736.8	6597.6	6559.2	6480.0	6343.2	6220.8	5980.8	5772.0	5565.6	5378.4	5208.0
22.5°	7584.0	7483.2	7389.6	7260.0	7072.8	6895.2	6590.4	6328.8	6064.8	5824.8	5635.2
25°	8767.2	8592.0	8424.0	8217.6	7958.4	7747.2	7399.2	7135.2	6789.6	6571.2	6297.6
27.5°	10296.0	9996.0	9712.8	9535.2	9079.2	8772.0	8328.0	7987.2	7569.6	7274.4	6950.4
30°	12285.6	11937.6	11517.6	10903.2	10360.8	9751.2	9201.6	8764.8	8320.8	7908.0	7533.6
32.5°	14752.8	14138.4	13473.6	12499.2	11608.8	10740.0	10008.0	9470.4	9016.8	8503.2	7975.2
35°	16838.4	16204.8	15261.6	14023.2	12924.0	11930.4	11054.4	10320.0	9727.2	9076.8	8378.4
37.5°	18484.8	17762.4	16876.8	15561.6	14400.0	13269.6	12350.4	11414.4	10636.8	9741.6	8858.4
40°	20371.2	19646.4	18672.0	17308.8	15933.6	14707.2	13629.6	12662.4	11707.2	10615.2	9480.0
42.5°	22015.2	21492.0	20505.6	19096.8	17572.8	16207.2	15028.8	13922.4	12674.4	11452.8	10108.8
45°	23728.8	23196.0	22260.0	20786.4	19166.4	17644.8	16236.0	15045.6	13572.0	12117.6	10579.2
47.5°	25243.2	24696.0	23750.4	22286.4	20565.6	18962.4	17412.0	15972.0	14260.8	12590.4	10886.4
50°	26688.0	26018.4	25152.0	23692.8	21854.4	20140.8	18458.4	16610.4	14796.0	12921.6	11095.2
52.5°	28015.2	27163.2	26342.4	24840.0	22852.8	21062.4	19185.6	17152.8	15124.8	13183.2	11236.8
55°	28768.8	28219.2	27237.6	25761.6	23563.2	21696.0	19646.4	17534.4	15451.2	13368.0	11296.8
57.5°	29001.6	28867.2	28044.0	26294.4	23980.8	22044.0	19958.4	17836.8	15669.6	13420.8	11212.8
60°	28816.8	29061.6	28610.4	26668.8	24170.4	22147.2	20112.0	18052.8	15708.0	13252.8	10958.4
62.5°	28224.0	28780.8	28723.2	26793.6	24072.0	22017.6	20095.2	17942.4	15348.0	12729.6	10387.2
65°	27249.6	27950.4	28197.6	26330.4	23517.6	21544.8	19668.0	17248.8	14347.2	11707.2	9429.6
67.5°	25416.0	26476.8	26716.8	24813.6	22068.0	20236.8	18436.8	15808.8	12494.4	10125.6	7934.4
70°	21741.6	23596.8	23920.8	21924.0	19512.0	17904.0	16377.6	13526.4	10404.0	8121.6	6088.8
72.5°	17356.8	18523.2	19185.6	17810.4	16015.2	14848.8	13692.0	10377.6	7850.4	5992.8	4190.4
75°	13569.6	13500.0	14092.8	13178.4	12122.4	11577.6	10708.8	7240.8	5258.4	3969.6	2652.0
77.5°	11601.6	10708.8	10034.4	9391.2	8764.8	8592.0	7759.2	4492.8	3249.6	2378.4	1586.4
80°	9643.2	8013.6	6782.4	5877.6	5654.4	5995.2	5078.4	2649.6	1924.8	1365.6	996.0
82.5°	6890.4	5764.8	4692.0	4118.4	3736.8	4279.2	2995.2	1471.2	1044.0	818.4	660.0
85°	4466.4	4269.6	4224.0	4036.8	3573.6	3374.4	2275.2	1267.2	782.4	508.8	410.4
87.5°	1718.4	2203.2	2541.6	2724.0	2944.8	2623.2	1185.6	436.8	429.6	264.0	199.2
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°	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4
2.5°	4156.8	4147.2	4144.8	4137.6	4132.8	4132.8	4120.8	3902.4	3900.0	3900.0	3897.6
5°	4245.6	4233.6	4221.6	4219.2	4209.6	4209.6	4197.6	3979.2	3979.2	3979.2	3974.4
7.5°	4365.6	4341.6	4327.2	4320.0	4305.6	4312.8	4322.4	4101.6	4104.0	4101.6	4106.4
10°	4452.0	4437.6	4420.8	4416.0	4406.4	4413.6	4428.0	4209.6	4216.8	4219.2	4224.0
12.5°	4536.0	4512.0	4490.4	4483.2	4478.4	4497.6	4514.4	4303.2	4310.4	4317.6	4317.6
15°	4639.2	4598.4	4569.6	4552.8	4543.2	4562.4	4586.4	4377.6	4380.0	4387.2	4384.8
17.5°	4814.4	4754.4	4687.2	4675.2	4644.0	4651.2	4656.0	4423.2	4413.6	4396.8	4368.0
20°	5085.6	4994.4	4903.2	4864.8	4802.4	4776.0	4723.2	4425.6	4365.6	4315.2	4272.0
22.5°	5474.4	5340.0	5241.6	5176.8	5049.6	4960.8	4816.8	4413.6	4300.8	4214.4	4147.2
25°	6103.2	5942.4	5791.2	5628.0	5428.8	5251.2	5040.0	4519.2	4344.0	4195.2	4065.6
27.5°	6715.2	6460.8	6228.0	5983.2	5702.4	5436.0	5138.4	4552.8	4353.6	4161.6	3950.4
30°	7173.6	6804.0	6451.2	6093.6	5726.4	5380.8	5044.8	4437.6	4200.0	3984.0	3760.8
32.5°	7452.0	6972.0	6513.6	6069.6	5637.6	5248.8	4872.0	4238.4	3976.8	3722.4	3484.8
35°	7716.0	7120.8	6552.0	6028.8	5534.4	5102.4	4696.8	4005.6	3693.6	3422.4	3122.4
37.5°	8042.4	7276.8	6576.0	5954.4	5383.2	4888.8	4442.4	3712.8	3400.8	3067.2	2784.0
40°	8433.6	7437.6	6552.0	5805.6	5148.0	4608.0	4135.2	3405.6	3057.6	2733.6	2455.2
42.5°	8805.6	7579.2	6489.6	5606.4	4891.2	4315.2	3854.4	3132.0	2784.0	2452.8	2176.8
45°	9081.6	7699.2	6458.4	5467.2	4694.4	4116.0	3607.2	2911.2	2544.0	2210.4	1929.6
47.5°	9273.6	7771.2	6444.0	5390.4	4557.6	3909.6	3381.6	2690.4	2304.0	1968.0	1694.4
50°	9374.4	7768.8	6408.0	5306.4	4356.0	3662.4	3148.8	2467.2	2083.2	1754.4	1504.8
52.5°	9400.8	7725.6	6331.2	5152.8	4111.2	3415.2	2899.2	2234.4	1888.8	1574.4	1322.4
55°	9340.8	7620.0	6170.4	4896.0	3849.6	3153.6	2671.2	2052.0	1699.2	1401.6	1204.8
57.5°	9170.4	7432.8	5868.0	4543.2	3573.6	2911.2	2409.6	1831.2	1492.8	1243.2	1080.0
60°	8853.6	7036.8	5395.2	4125.6	3223.2	2541.6	2049.6	1543.2	1274.4	1087.2	955.2
62.5°	8268.0	6415.2	4730.4	3549.6	2719.2	2061.6	1636.8	1231.2	1029.6	907.2	825.6
65°	7324.8	5479.2	3960.0	2796.0	2066.4	1500.0	1216.8	926.4	780.0	705.6	681.6
67.5°	5978.4	4231.2	2880.0	1941.6	1399.2	1051.2	847.2	676.8	607.2	578.4	568.8
70°	4346.4	2882.4	1864.8	1226.4	924.0	734.4	640.8	544.8	506.4	499.2	499.2
72.5°	2728.8	1752.0	1142.4	840.0	700.8	595.2	547.2	480.0	465.6	460.8	453.6
75°	1600.8	1063.2	808.8	688.8	600.0	532.8	492.0	436.8	427.2	424.8	417.6
77.5°	1020.0	765.6	652.8	588.0	542.4	482.4	446.4	388.8	386.4	384.0	381.6
80°	732.0	636.0	571.2	520.8	475.2	420.0	398.4	352.8	348.0	345.6	350.4
82.5°	554.4	525.6	499.2	460.8	398.4	357.6	340.8	309.6	312.0	300.0	297.6
85°	381.6	376.8	374.4	357.6	312.0	276.0	264.0	247.2	259.2	247.2	232.8
87.5°	187.2	184.8	170.4	201.6	187.2	148.8	134.4	148.8	165.6	160.8	148.8
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: P158960

CATALOG NUMBER: VST-E12-LED-E-U-SLL

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4
2.5°	3888.0	3878.4	3885.6	3880.8	3880.8	3878.4	3883.2	3876.0	3871.2	3876.0	3878.4
5°	3964.8	3952.8	3955.2	3938.4	3945.6	3928.8	3933.6	3921.6	3909.6	3904.8	3904.8
7.5°	4094.4	4082.4	4068.0	4065.6	4039.2	4029.6	4012.8	4003.2	3996.0	3979.2	3969.6
10°	4212.0	4192.8	4176.0	4173.6	4147.2	4123.2	4101.6	4082.4	4070.4	4046.4	4034.4
12.5°	4308.0	4288.8	4262.4	4248.0	4221.6	4192.8	4178.4	4149.6	4132.8	4106.4	4084.8
15°	4363.2	4329.6	4291.2	4264.8	4226.4	4195.2	4173.6	4152.0	4135.2	4101.6	4070.4
17.5°	4336.8	4281.6	4228.8	4180.8	4128.0	4099.2	4068.0	4041.6	4036.8	3998.4	3950.4
20°	4226.4	4161.6	4092.0	4027.2	3957.6	3916.8	3878.4	3837.6	3825.6	3780.0	3717.6
22.5°	4092.0	4017.6	3938.4	3859.2	3770.4	3712.8	3655.2	3604.8	3564.0	3496.8	3408.0
25°	3955.2	3844.8	3729.6	3628.8	3525.6	3453.6	3393.6	3338.4	3290.4	3182.4	3091.2
27.5°	3775.2	3602.4	3484.8	3369.6	3244.8	3151.2	3084.0	3007.2	2954.4	2829.6	2733.6
30°	3544.8	3372.0	3204.0	3088.8	2964.0	2863.2	2776.8	2666.4	2589.6	2498.4	2409.6
32.5°	3254.4	3081.6	2911.2	2781.6	2678.4	2553.6	2445.6	2340.0	2251.2	2162.4	2092.8
35°	2901.6	2733.6	2572.8	2443.2	2328.0	2229.6	2126.4	2035.2	1934.4	1838.4	1797.6
37.5°	2529.6	2349.6	2172.0	2059.2	1968.0	1898.4	1802.4	1728.0	1636.8	1579.2	1531.2
40°	2205.6	2013.6	1845.6	1749.6	1677.6	1598.4	1519.2	1461.6	1396.8	1339.2	1303.2
42.5°	1932.0	1752.0	1608.0	1526.4	1440.0	1353.6	1293.6	1245.6	1204.8	1161.6	1118.4
45°	1680.0	1507.2	1387.2	1286.4	1214.4	1144.8	1104.0	1082.4	1058.4	1032.0	1003.2
47.5°	1468.8	1320.0	1202.4	1108.8	1034.4	986.4	967.2	960.0	950.4	928.8	914.4
50°	1308.0	1185.6	1065.6	981.6	919.2	895.2	873.6	866.4	854.4	847.2	837.6
52.5°	1173.6	1044.0	943.2	866.4	828.0	818.4	808.8	799.2	796.8	792.0	787.2
55°	1063.2	950.4	856.8	799.2	780.0	772.8	770.4	760.8	758.4	758.4	751.2
57.5°	964.8	868.8	784.8	748.8	736.8	729.6	724.8	720.0	720.0	724.8	722.4
60°	864.0	782.4	732.0	712.8	705.6	693.6	681.6	676.8	679.2	691.2	691.2
62.5°	765.6	705.6	674.4	667.2	660.0	650.4	636.0	631.2	636.0	650.4	657.6
65°	657.6	631.2	621.6	616.8	612.0	604.8	595.2	590.4	592.8	600.0	609.6
67.5°	559.2	556.8	556.8	559.2	556.8	554.4	549.6	542.4	540.0	540.0	544.8
70°	499.2	499.2	506.4	506.4	504.0	504.0	496.8	489.6	484.8	480.0	482.4
72.5°	453.6	453.6	456.0	458.4	456.0	456.0	446.4	441.6	429.6	427.2	422.4
75°	415.2	410.4	410.4	408.0	405.6	408.0	398.4	386.4	381.6	379.2	374.4
77.5°	376.8	367.2	362.4	357.6	360.0	357.6	350.4	343.2	336.0	333.6	331.2
80°	333.6	319.2	312.0	300.0	307.2	309.6	304.8	297.6	295.2	292.8	290.4
82.5°	276.0	261.6	252.0	244.8	240.0	244.8	252.0	268.8	264.0	261.6	256.8
85°	216.0	192.0	180.0	182.4	170.4	172.8	194.4	204.0	204.0	208.8	204.0
87.5°	122.4	117.6	88.8	81.6	86.4	103.2	115.2	127.2	127.2	120.0	134.4
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: P158960

CATALOG NUMBER: VST-E12-LED-E-U-SLL

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4
2.5°	3878.4	3883.2	3885.6	3895.2	3900.0	3902.4	3904.8	3909.6	3912.0	3909.6	3921.6
5°	3897.6	3897.6	3892.8	3900.0	3902.4	3902.4	3897.6	3902.4	3902.4	3902.4	3914.4
7.5°	3948.0	3933.6	3926.4	3916.8	3909.6	3900.0	3888.0	3888.0	3885.6	3888.0	3895.2
10°	4000.8	3979.2	3952.8	3928.8	3907.2	3890.4	3868.8	3861.6	3859.2	3856.8	3876.0
12.5°	4041.6	4003.2	3962.4	3921.6	3878.4	3849.6	3813.6	3792.0	3789.6	3789.6	3813.6
15°	4012.8	3950.4	3871.2	3799.2	3760.8	3720.0	3679.2	3652.8	3650.4	3655.2	3669.6
17.5°	3868.8	3768.0	3698.4	3628.8	3578.4	3544.8	3518.4	3513.6	3523.2	3513.6	3532.8
20°	3624.0	3516.0	3468.0	3412.8	3393.6	3369.6	3331.2	3297.6	3297.6	3254.4	3266.4
22.5°	3307.2	3247.2	3184.8	3141.6	3127.2	3086.4	3045.6	3000.0	2995.2	2942.4	2935.2
25°	2976.0	2916.0	2865.6	2856.0	2812.8	2757.6	2719.2	2666.4	2654.4	2601.6	2594.4
27.5°	2637.6	2589.6	2539.2	2510.4	2486.4	2426.4	2392.8	2330.4	2306.4	2248.8	2241.6
30°	2316.0	2282.4	2222.4	2198.4	2152.8	2083.2	2011.2	1972.8	1953.6	1893.6	1874.4
32.5°	2013.6	1960.8	1915.2	1886.4	1828.8	1749.6	1684.8	1629.6	1593.6	1521.6	1502.4
35°	1725.6	1672.8	1651.2	1576.8	1526.4	1473.6	1384.8	1351.2	1286.4	1231.2	1212.0
37.5°	1471.2	1420.8	1392.0	1329.6	1279.2	1226.4	1173.6	1130.4	1099.2	1087.2	1087.2
40°	1252.8	1226.4	1190.4	1144.8	1111.2	1072.8	1044.0	1029.6	1027.2	1032.0	1044.0
42.5°	1096.8	1068.0	1044.0	1020.0	996.0	991.2	984.0	993.6	1005.6	1017.6	1029.6
45°	979.2	955.2	940.8	931.2	928.8	936.0	950.4	964.8	986.4	1000.8	1010.4
47.5°	895.2	876.0	871.2	868.8	880.8	902.4	921.6	943.2	960.0	974.4	984.0
50°	823.2	806.4	804.0	801.6	818.4	837.6	854.4	883.2	895.2	904.8	912.0
52.5°	772.8	758.4	751.2	753.6	770.4	787.2	811.2	832.8	849.6	856.8	864.0
55°	732.0	727.2	710.4	717.6	734.4	756.0	780.0	804.0	820.8	832.8	844.8
57.5°	700.8	688.8	676.8	688.8	705.6	727.2	756.0	777.6	799.2	816.0	828.0
60°	667.2	657.6	648.0	660.0	676.8	698.4	720.0	748.8	775.2	792.0	804.0
62.5°	638.4	631.2	621.6	624.0	631.2	645.6	657.6	684.0	708.0	729.6	744.0
65°	597.6	595.2	580.8	583.2	588.0	602.4	612.0	636.0	660.0	679.2	691.2
67.5°	537.6	532.8	532.8	540.0	542.4	549.6	556.8	580.8	600.0	614.4	628.8
70°	477.6	475.2	475.2	480.0	477.6	484.8	494.4	516.0	540.0	554.4	568.8
72.5°	420.0	420.0	417.6	422.4	422.4	424.8	436.8	456.0	477.6	489.6	499.2
75°	369.6	367.2	367.2	367.2	369.6	369.6	381.6	398.4	420.0	427.2	441.6
77.5°	324.0	324.0	324.0	324.0	326.4	324.0	331.2	343.2	350.4	362.4	362.4
80°	285.6	283.2	285.6	288.0	288.0	285.6	285.6	288.0	290.4	290.4	290.4
82.5°	252.0	244.8	249.6	261.6	261.6	261.6	259.2	242.4	230.4	230.4	235.2
85°	201.6	201.6	204.0	220.8	223.2	213.6	223.2	199.2	175.2	168.0	172.8
87.5°	124.8	98.4	120.0	136.8	136.8	129.6	144.0	134.4	112.8	91.2	86.4
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: P158960
CATALOG NUMBER: VST-E12-LED-E-U-SLL

REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	0°
2.5°	3931.2	3933.6	3948.0	3955.2	3955.2	3964.8	3969.6	3984.0	3981.6	3981.6	3986.4	2.5°
5°	3926.4	3933.6	3948.0	3957.6	3962.4	3974.4	3984.0	4000.8	3998.4	4003.2	4005.6	5°
7.5°	3909.6	3928.8	3943.2	3962.4	3979.2	3988.8	4000.8	4015.2	4010.4	4012.8	4010.4	7.5°
10°	3895.2	3914.4	3943.2	3969.6	3993.6	4008.0	4015.2	4032.0	4029.6	4034.4	4034.4	10°
12.5°	3837.6	3871.2	3907.2	3948.0	3984.0	4022.4	4046.4	4082.4	4099.2	4120.8	4144.8	12.5°
15°	3691.2	3729.6	3787.2	3832.8	3902.4	3955.2	4024.8	4094.4	4156.8	4216.8	4286.4	15°
17.5°	3547.2	3564.0	3609.6	3672.0	3734.4	3813.6	3897.6	4022.4	4135.2	4257.6	4392.0	17.5°
20°	3280.8	3309.6	3340.8	3415.2	3489.6	3602.4	3705.6	3868.8	4034.4	4226.4	4432.8	20°
22.5°	2952.0	2980.8	3014.4	3098.4	3189.6	3304.8	3429.6	3612.0	3832.8	4082.4	4358.4	22.5°
25°	2596.8	2613.6	2640.0	2724.0	2779.2	2930.4	3081.6	3271.2	3511.2	3832.8	4154.4	25°
27.5°	2205.6	2236.8	2258.4	2296.8	2424.0	2553.6	2712.0	2916.0	3206.4	3535.2	3924.0	27.5°
30°	1831.2	1857.6	1845.6	1927.2	2011.2	2148.0	2318.4	2544.0	2822.4	3213.6	3662.4	30°
32.5°	1464.0	1483.2	1476.0	1533.6	1617.6	1754.4	1915.2	2160.0	2455.2	2872.8	3360.0	32.5°
35°	1207.2	1212.0	1238.4	1264.8	1336.8	1447.2	1584.0	1797.6	2100.0	2484.0	3000.0	35°
37.5°	1087.2	1096.8	1113.6	1149.6	1202.4	1281.6	1394.4	1560.0	1819.2	2157.6	2618.4	37.5°
40°	1051.2	1058.4	1068.0	1092.0	1142.4	1212.0	1312.8	1452.0	1641.6	1927.2	2301.6	40°
42.5°	1034.4	1034.4	1034.4	1048.8	1087.2	1161.6	1276.8	1413.6	1579.2	1795.2	2097.6	42.5°
45°	1010.4	1010.4	1008.0	1015.2	1041.6	1116.0	1240.8	1394.4	1572.0	1778.4	2040.0	45°
47.5°	984.0	981.6	974.4	974.4	991.2	1065.6	1195.2	1360.8	1555.2	1792.8	2073.6	47.5°
50°	912.0	912.0	912.0	919.2	933.6	1000.8	1140.0	1315.2	1538.4	1802.4	2126.4	50°
52.5°	871.2	873.6	880.8	880.8	895.2	964.8	1111.2	1305.6	1548.0	1838.4	2193.6	52.5°
55°	852.0	859.2	866.4	866.4	878.4	950.4	1101.6	1312.8	1584.0	1912.8	2308.8	55°
57.5°	835.2	842.4	847.2	847.2	856.8	919.2	1075.2	1300.8	1605.6	1984.8	2450.4	57.5°
60°	804.0	808.8	811.2	811.2	813.6	866.4	1015.2	1243.2	1557.6	1980.0	2527.2	60°
62.5°	746.4	756.0	758.4	760.8	760.8	811.2	938.4	1149.6	1454.4	1908.0	2505.6	62.5°
65°	703.2	708.0	715.2	720.0	729.6	763.2	864.0	1036.8	1320.0	1764.0	2385.6	65°
67.5°	636.0	643.2	650.4	660.0	669.6	691.2	770.4	909.6	1137.6	1519.2	2116.8	67.5°
70°	576.0	578.4	585.6	597.6	600.0	612.0	669.6	765.6	931.2	1219.2	1704.0	70°
72.5°	501.6	506.4	516.0	530.4	530.4	540.0	573.6	624.0	729.6	931.2	1257.6	72.5°
75°	436.8	441.6	448.8	448.8	436.8	439.2	463.2	499.2	578.4	700.8	916.8	75°
77.5°	362.4	372.0	379.2	364.8	360.0	367.2	379.2	405.6	463.2	556.8	688.8	77.5°
80°	300.0	304.8	307.2	309.6	304.8	312.0	321.6	338.4	376.8	448.8	544.8	80°
82.5°	240.0	244.8	252.0	261.6	261.6	288.0	290.4	290.4	312.0	357.6	427.2	82.5°
85°	177.6	187.2	196.8	208.8	211.2	225.6	218.4	216.0	223.2	266.4	295.2	85°
87.5°	91.2	98.4	103.2	112.8	100.8	105.6	105.6	98.4	86.4	108.0	120.0	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: P158960

NUMBER: VST-E12-LED-E-U-SLL

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
4010.4	4010.4	4010.4	4010.4	4010.4	4010.4	4010.4
3991.2	3986.4	3991.2	3991.2	3998.4	3993.6	4248.0
4010.4	4005.6	4010.4	4015.2	4022.4	4022.4	4303.2
4012.8	4012.8	4008.0	4020.0	4029.6	4039.2	4356.0
4041.6	4041.6	4046.4	4048.8	4070.4	4094.4	4442.4
4159.2	4171.2	4192.8	4200.0	4238.4	4264.8	4663.2
4339.2	4406.4	4449.6	4464.0	4497.6	4548.0	5035.2
4521.6	4634.4	4752.0	4824.0	4867.2	4927.2	5491.2
4658.4	4869.6	5071.2	5251.2	5354.4	5472.0	6129.6
4670.4	5006.4	5347.2	5680.8	5956.8	6175.2	6993.6
4555.2	4996.8	5467.2	5978.4	6453.6	6847.2	7987.2
4408.8	4951.2	5551.2	6204.0	6828.0	7408.8	8719.2
4224.0	4874.4	5565.6	6300.0	7032.0	7730.4	9136.8
3943.2	4646.4	5392.8	6204.0	7053.6	7903.2	9405.6
3583.2	4300.8	5066.4	5990.4	6952.8	7972.8	9631.2
3216.0	3924.0	4747.2	5704.8	6792.0	7960.8	9722.4
2827.2	3530.4	4372.8	5400.0	6573.6	7850.4	9705.6
2563.2	3204.0	4029.6	5090.4	6331.2	7704.0	9592.8
2409.6	2971.2	3758.4	4807.2	6110.4	7528.8	9451.2
2407.2	2901.6	3614.4	4605.6	5887.2	7334.4	9259.2
2491.2	2944.8	3597.6	4519.2	5764.8	7192.8	9050.4
2589.6	3064.8	3686.4	4550.4	5762.4	7130.4	8904.0
2745.6	3268.8	3880.8	4684.8	5824.8	7120.8	8724.0
2944.8	3544.8	4231.2	5016.0	6067.2	7310.4	8736.0
3148.8	3868.8	4689.6	5582.4	6544.8	7752.0	9115.2
3223.2	4118.4	5155.2	6247.2	7260.0	8414.4	9897.6
3158.4	4176.0	5438.4	6763.2	7956.0	9189.6	10831.2
2918.4	3943.2	5323.2	6909.6	8356.8	9739.2	11764.8
2402.4	3364.8	4800.0	6580.8	8325.6	9852.0	12100.8
1761.6	2608.8	3902.4	5592.0	7401.6	9146.4	11596.8
1272.0	1845.6	2817.6	4212.0	5851.2	7365.6	9727.2
912.0	1279.2	1828.8	2767.2	3986.4	5128.8	6933.6
655.2	868.8	1140.0	1660.8	2428.8	3148.8	4356.0
482.4	595.2	748.8	1032.0	1430.4	1833.6	2623.2
328.8	350.4	451.2	609.6	938.4	1348.8	1780.8
124.8	141.6	165.6	249.6	420.0	482.4	340.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)