

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: P158961

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158961
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-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
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

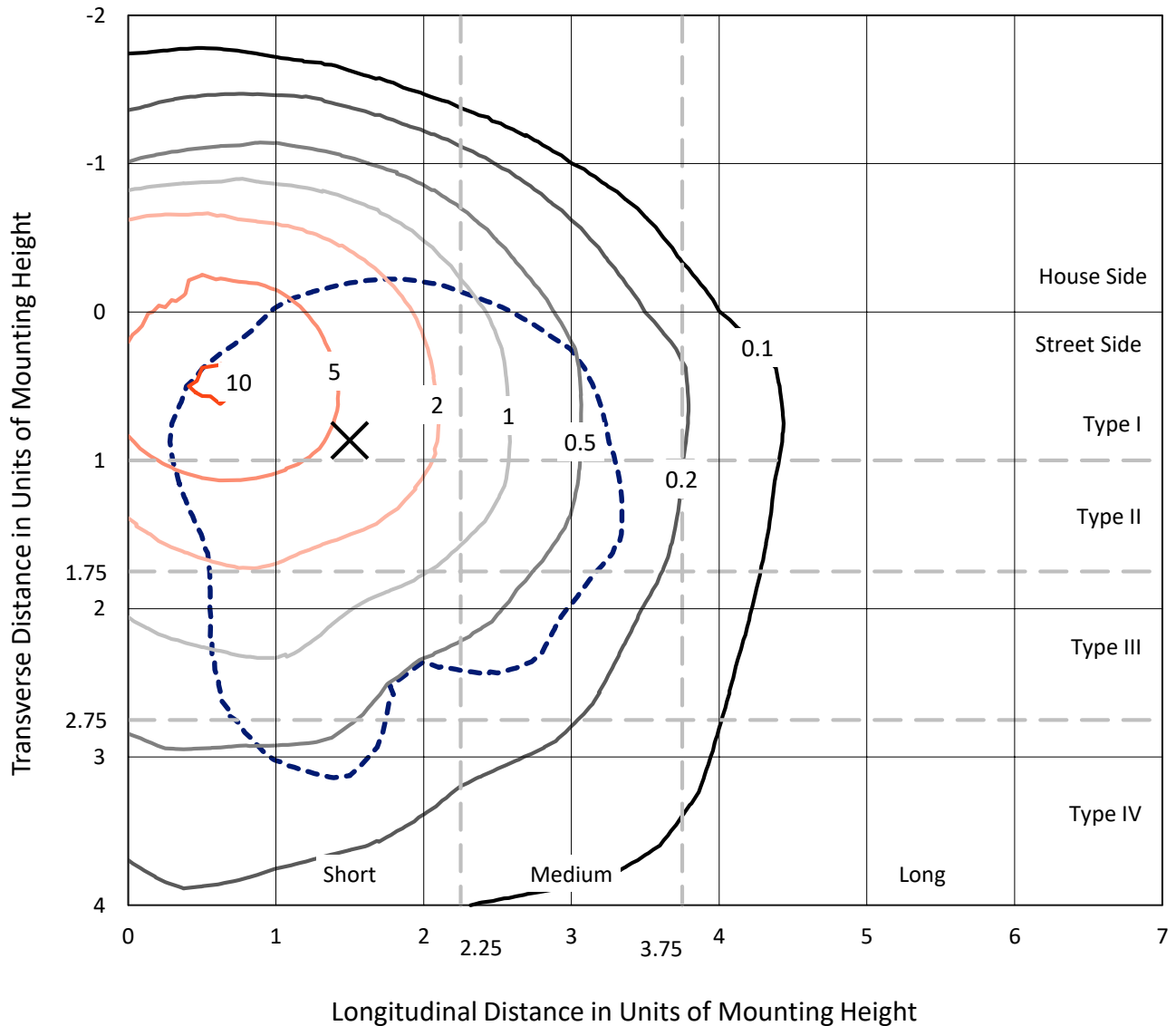
Input Watts (W): 291.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

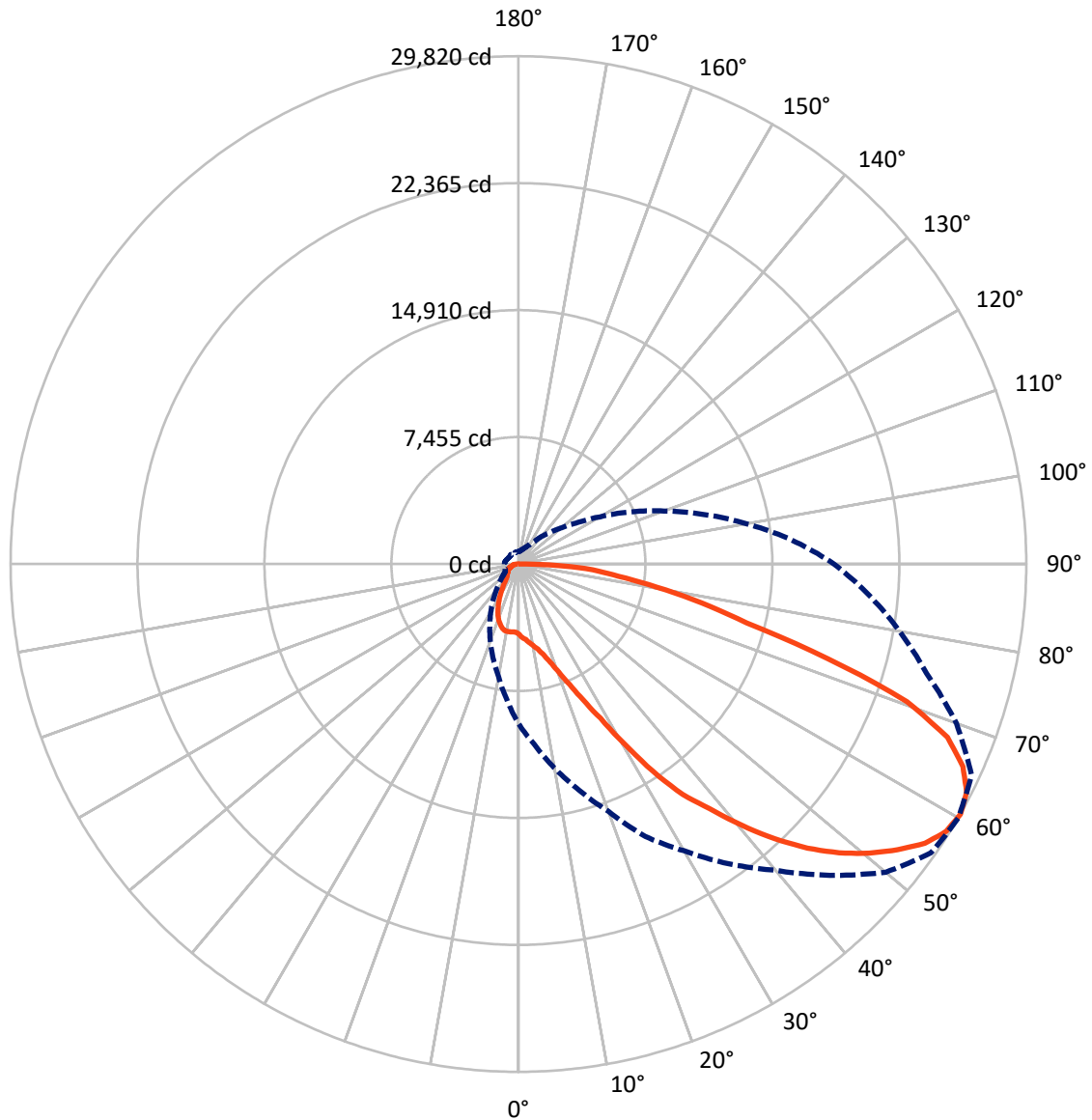
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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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

Coefficient of Utilization

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



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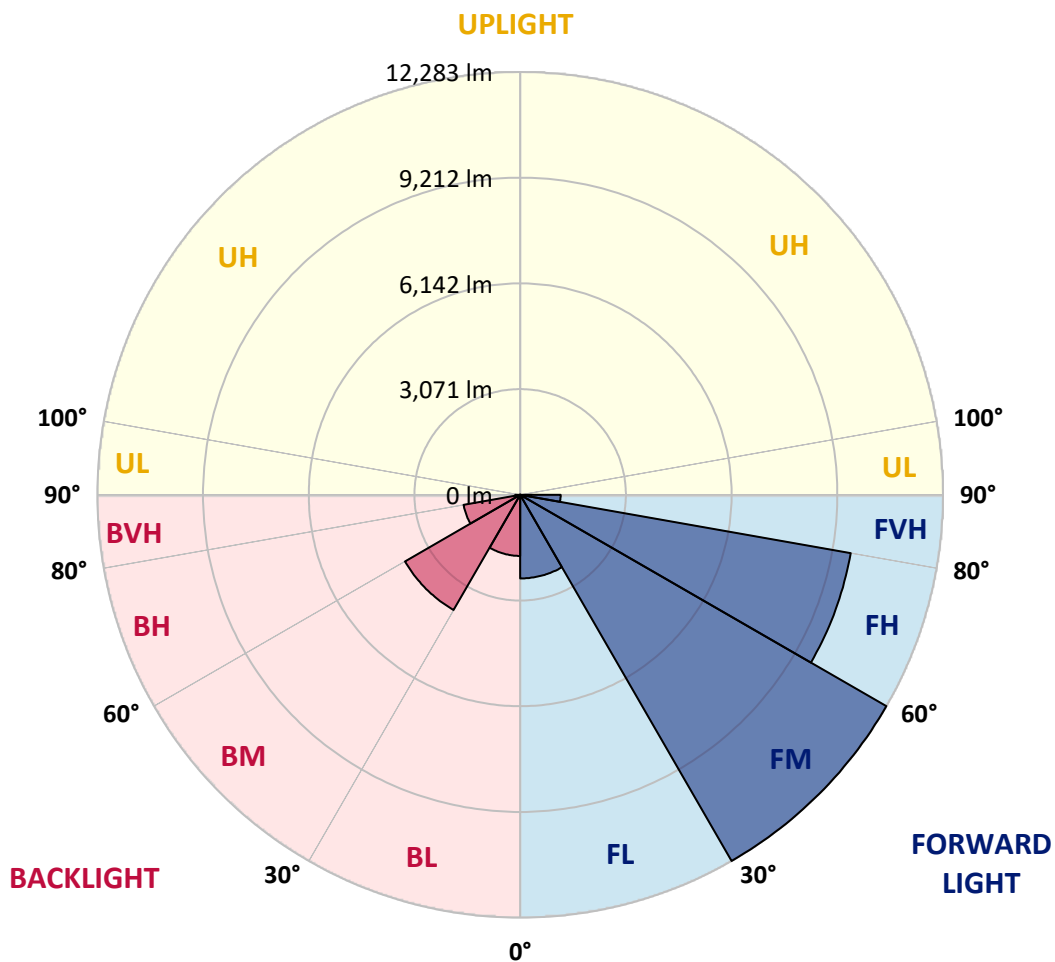
CATALOG NUMBER: VST-E12-LED-E-U-SLL-7050

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





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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	4354.0	4354.0	4354.0	4351.5	4346.6	4354.0	4351.5	4339.2	4331.8	4339.2
5°	4415.5	4418.0	4425.4	4427.9	4427.9	4435.2	4454.9	4457.4	4454.9	4459.9	4472.2
7.5°	4469.7	4482.0	4489.4	4501.7	4516.5	4528.8	4563.3	4597.8	4619.9	4637.2	4642.1
10°	4558.4	4578.1	4600.2	4632.3	4666.7	4728.3	4757.8	4792.3	4814.5	4849.0	4856.4
12.5°	4784.9	4809.6	4824.3	4873.6	4917.9	4977.0	5018.9	5028.7	5080.5	5110.0	5144.5
15°	5166.6	5203.6	5255.3	5284.9	5334.1	5385.8	5422.8	5472.0	5479.4	5518.8	5545.9
17.5°	5634.6	5686.3	5792.2	5863.6	5927.6	5979.3	6053.2	6109.8	6122.2	6166.5	6109.8
20°	6289.6	6415.2	6432.4	6575.3	6631.9	6735.4	6883.1	6910.2	6981.6	6910.2	6868.3
22.5°	7176.2	7373.2	7427.4	7565.3	7634.2	7791.8	7836.2	7981.5	8030.7	7976.5	7863.3
25°	8195.7	8501.1	8658.7	8870.5	8905.0	9227.6	9262.0	9432.0	9340.8	9210.3	9212.8
27.5°	8946.8	9466.4	9872.8	10234.8	10488.4	10852.9	11136.1	11214.9	11128.7	10958.8	10899.7
30°	9375.3	9963.9	10547.5	11047.5	11638.5	12195.1	12773.8	13061.9	13111.2	13199.8	12842.7
32.5°	9651.1	10407.2	11101.6	11719.8	12325.6	13042.2	13817.9	14559.2	15182.3	15652.6	15431.0
35°	9882.6	10816.0	11705.0	12453.6	13170.3	13950.9	14734.1	15608.3	16640.1	17243.5	17369.1
37.5°	9976.2	11116.4	12204.9	13165.3	14172.6	15051.7	15829.9	16608.1	17691.7	18767.9	19100.3
40°	9959.0	11264.2	12502.9	13709.6	14943.4	16041.7	16952.9	17873.9	19142.2	20400.6	20942.4
42.5°	9843.2	11286.3	12692.5	14071.6	15477.8	16938.1	18103.0	19164.4	20380.9	21994.0	22759.8
45°	9697.9	11210.0	12731.9	14256.3	15874.3	17563.6	19036.3	20348.9	21774.8	23368.1	24294.1
47.5°	9500.9	11089.3	12682.7	14320.3	16051.6	17965.1	19696.3	21274.9	22843.6	24678.2	25852.9
50°	9286.7	10916.9	12581.7	14273.5	16095.9	18184.2	20073.1	21870.8	23703.0	25683.0	27168.0
52.5°	9136.4	10732.2	12490.6	14177.5	16051.6	18250.7	20211.0	22191.0	24230.0	26276.5	28049.6
55°	8951.7	10486.0	12246.8	13953.4	15889.0	18213.8	20196.2	22301.8	24375.3	26505.5	28529.8
57.5°	8964.1	10372.7	12039.9	13685.0	15556.6	17871.5	19917.9	22191.0	24146.3	26357.8	28547.1
60°	9353.2	10616.5	12148.3	13739.1	15458.1	17654.8	19445.1	21476.8	23474.0	25848.0	28148.1
62.5°	10156.0	11313.4	12704.8	14280.9	16012.2	18088.2	19230.9	20289.8	22062.9	24909.7	27468.4
65°	11114.0	12158.1	13364.8	14864.6	16805.1	18792.5	19110.2	19324.4	20220.8	23084.9	26192.8
67.5°	12071.9	13005.3	13953.4	15197.0	17255.8	18994.4	18617.7	18107.9	18590.6	20964.6	23685.8
70°	12416.7	13655.4	14278.5	15133.0	16913.5	18524.1	17822.2	16539.2	16706.6	18863.9	20853.7
72.5°	11899.5	13665.3	13872.1	14189.8	15389.1	16903.7	16162.4	14512.4	14477.9	16125.5	17733.6
75°	9981.1	12465.9	12463.5	12345.3	12616.2	13478.1	13093.9	12099.0	12520.1	13817.9	14347.4
77.5°	7114.6	9727.5	9850.6	9055.2	9035.5	9424.6	9656.1	10813.5	12340.4	13069.3	12901.8
80°	4469.7	6563.0	7092.4	6109.8	5900.5	6452.2	7883.0	9567.4	11446.4	12101.5	11537.5
82.5°	2691.7	4228.4	5356.3	4799.7	4750.5	5755.2	7336.2	7991.3	8555.3	9252.2	8309.0
85°	1827.3	2817.3	3664.4	3775.2	4206.2	5245.5	5932.5	5641.9	5656.7	5474.5	4986.9
87.5°	349.7	768.3	1256.0	1531.8	1699.2	2282.9	2482.4	2248.4	2374.0	1736.2	1898.7
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-E12-LED-E-U-SLL-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°	4326.9	4326.9	4326.9	4314.6	4317.0	4299.8	4292.4	4292.4	4285.0	4285.0	4282.6
5°	4462.3	4447.6	4454.9	4452.5	4452.5	4427.9	4415.5	4415.5	4383.5	4386.0	4376.1
7.5°	4664.3	4661.8	4669.2	4654.4	4634.7	4615.0	4595.3	4585.5	4541.1	4514.0	4496.8
10°	4893.3	4890.8	4898.2	4895.8	4861.3	4824.3	4770.2	4730.8	4676.6	4634.7	4592.8
12.5°	5144.5	5142.0	5137.1	5114.9	5078.0	5018.9	4949.9	4883.4	4802.2	4748.0	4686.4
15°	5536.0	5528.7	5499.1	5467.1	5427.7	5336.6	5215.9	5119.9	5011.5	4917.9	4816.9
17.5°	6114.8	6053.2	6048.3	5976.9	5871.0	5750.3	5637.0	5476.9	5321.8	5181.4	5043.5
20°	6912.7	6769.8	6730.4	6649.2	6508.8	6383.2	6136.9	5922.7	5710.9	5518.8	5344.0
22.5°	7782.0	7678.6	7582.5	7449.5	7257.4	7075.2	6762.4	6494.0	6223.1	5976.9	5782.3
25°	8996.1	8816.3	8643.9	8432.1	8166.2	7949.4	7592.4	7321.5	6966.8	6742.7	6462.0
27.5°	10564.8	10256.9	9966.4	9784.1	9316.2	9001.0	8545.4	8195.7	7767.2	7464.3	7131.8
30°	12606.3	12249.2	11818.3	11187.8	10631.3	10005.8	9441.8	8993.6	8538.0	8114.4	7730.3
32.5°	15137.9	14507.5	13825.3	12825.5	11911.9	11020.4	10269.3	9717.6	9252.2	8725.2	8183.4
35°	17278.0	16627.8	15660.0	14389.3	13261.4	12241.8	11343.0	10589.4	9981.1	9313.8	8597.1
37.5°	18967.4	18226.1	17317.4	15967.8	14775.9	13616.0	12672.8	11712.4	10914.5	9995.9	9089.7
40°	20903.0	20159.3	19159.4	17760.7	16349.6	15091.1	13985.4	12993.0	12012.8	10892.3	9727.5
42.5°	22589.9	22053.1	21040.9	19595.3	18031.5	16630.3	15421.1	14285.9	13005.3	11751.8	10372.7
45°	24348.3	23801.5	22841.1	21329.0	19666.7	18105.4	16659.8	15438.4	13926.3	12433.9	10855.4
47.5°	25902.2	25340.7	24370.4	22868.2	21102.5	19457.4	17866.5	16389.0	14633.1	12919.1	11170.6
50°	27384.7	26697.6	25808.6	24311.3	22424.9	20666.6	18940.3	17044.0	15182.3	13258.9	11384.8
52.5°	28746.5	27872.3	27030.1	25488.5	23449.4	21612.2	19686.4	17600.6	15519.6	13527.4	11530.1
55°	29519.8	28955.9	27948.6	26434.1	24178.3	22262.4	20159.3	17992.1	15854.6	13717.0	11591.7
57.5°	29758.7	29620.8	28776.1	26980.8	24606.8	22619.5	20479.4	18302.4	16078.7	13771.2	11505.5
60°	29569.1	29820.3	29357.3	27365.0	24801.4	22725.4	20637.0	18524.1	16118.1	13598.8	11244.5
62.5°	28960.8	29532.1	29473.0	27493.1	24700.4	22592.4	20619.8	18410.8	15748.7	13061.9	10658.4
65°	27961.0	28680.1	28933.7	27017.8	24131.5	22107.2	20181.4	17699.1	14721.7	12012.8	9675.8
67.5°	26079.5	27168.0	27414.3	25461.4	22644.1	20765.1	18918.1	16221.5	12820.6	10389.9	8141.5
70°	22309.2	24212.8	24545.3	22496.3	20021.4	18371.4	16805.1	13879.5	10675.6	8333.6	6247.8
72.5°	17809.9	19006.8	19686.4	18275.3	16433.3	15236.4	14049.4	10648.5	8055.3	6149.2	4299.8
75°	13923.8	13852.4	14460.7	13522.4	12438.9	11879.8	10988.4	7429.8	5395.7	4073.2	2721.2
77.5°	11904.5	10988.4	10296.4	9636.4	8993.6	8816.3	7961.8	4610.1	3334.4	2440.5	1627.8
80°	9894.9	8222.8	6959.5	6031.0	5802.0	6151.7	5211.0	2718.8	1975.0	1401.2	1022.0
82.5°	7070.3	5915.3	4814.5	4225.9	3834.4	4390.9	3073.4	1509.6	1071.3	839.8	677.2
85°	4583.0	4381.1	4334.3	4142.2	3666.9	3462.5	2334.6	1300.3	802.8	522.1	421.1
87.5°	1763.3	2260.7	2607.9	2795.1	3021.7	2691.7	1216.6	448.2	440.8	270.9	204.4
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):

	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°	4265.3	4255.5	4253.0	4245.6	4240.7	4240.7	4228.4	4004.3	4001.8	4001.8	3999.3
5°	4356.4	4344.1	4331.8	4329.3	4319.5	4319.5	4307.2	4083.1	4083.1	4083.1	4078.2
7.5°	4479.6	4454.9	4440.2	4432.8	4418.0	4425.4	4435.2	4208.7	4211.1	4208.7	4213.6
10°	4568.2	4553.4	4536.2	4531.3	4521.4	4528.8	4543.6	4319.5	4326.9	4329.3	4334.3
12.5°	4654.4	4629.8	4607.6	4600.2	4595.3	4615.0	4632.3	4415.5	4422.9	4430.3	4430.3
15°	4760.3	4718.4	4688.9	4671.7	4661.8	4681.5	4706.1	4491.9	4494.3	4501.7	4499.3
17.5°	4940.1	4878.5	4809.6	4797.2	4765.2	4772.6	4777.5	4538.7	4528.8	4511.6	4482.0
20°	5218.4	5124.8	5031.2	4991.8	4927.8	4900.7	4846.5	4541.1	4479.6	4427.9	4383.5
22.5°	5617.3	5479.4	5378.4	5311.9	5181.4	5090.3	4942.5	4528.8	4413.1	4324.4	4255.5
25°	6262.5	6097.5	5942.4	5774.9	5570.5	5388.3	5171.6	4637.2	4457.4	4304.7	4171.7
27.5°	6890.5	6629.5	6390.6	6139.4	5851.3	5577.9	5272.5	4671.7	4467.3	4270.2	4053.5
30°	7360.9	6981.6	6619.6	6252.7	5875.9	5521.3	5176.5	4553.4	4309.6	4088.0	3859.0
32.5°	7646.5	7154.0	6683.6	6228.0	5784.8	5385.8	4999.2	4349.0	4080.6	3819.6	3575.8
35°	7917.4	7306.7	6723.0	6186.2	5678.9	5235.6	4819.4	4110.2	3790.0	3511.7	3203.9
37.5°	8252.4	7466.8	6747.7	6109.8	5523.7	5016.4	4558.4	3809.7	3489.6	3147.3	2856.7
40°	8653.8	7631.8	6723.0	5957.2	5282.4	4728.3	4243.2	3494.5	3137.4	2805.0	2519.3
42.5°	9035.5	7777.1	6659.0	5752.8	5018.9	4427.9	3955.0	3213.8	2856.7	2516.8	2233.6
45°	9318.7	7900.2	6627.0	5609.9	4816.9	4223.4	3701.4	2987.2	2610.4	2268.1	1980.0
47.5°	9515.7	7974.1	6612.2	5531.1	4676.6	4011.7	3469.9	2760.6	2364.1	2019.4	1738.6
50°	9619.1	7971.6	6575.3	5444.9	4469.7	3758.0	3231.0	2531.6	2137.6	1800.2	1544.1
52.5°	9646.2	7927.3	6496.5	5287.3	4218.5	3504.4	2974.9	2292.7	1938.1	1615.5	1356.9
55°	9584.6	7818.9	6331.5	5023.8	3950.1	3235.9	2740.9	2105.6	1743.6	1438.2	1236.3
57.5°	9409.8	7626.8	6021.2	4661.8	3666.9	2987.2	2472.5	1879.0	1531.8	1275.7	1108.2
60°	9084.7	7220.5	5536.0	4233.3	3307.3	2607.9	2103.1	1583.5	1307.7	1115.6	980.1
62.5°	8483.8	6582.7	4853.9	3642.3	2790.2	2115.4	1679.5	1263.3	1056.5	930.9	847.2
65°	7516.0	5622.2	4063.4	2869.0	2120.3	1539.2	1248.6	950.6	800.4	724.0	699.4
67.5°	6134.5	4341.7	2955.2	1992.3	1435.7	1078.6	869.3	694.5	623.1	593.5	583.6
70°	4459.9	2957.6	1913.5	1258.4	948.1	753.6	657.5	559.0	519.6	512.2	512.2
72.5°	2800.0	1797.7	1172.2	861.9	719.1	610.7	561.5	492.5	477.8	472.8	465.4
75°	1642.6	1091.0	829.9	706.8	615.7	546.7	504.8	448.2	438.4	435.9	428.5
77.5°	1046.6	785.6	669.8	603.4	556.6	495.0	458.1	398.9	396.5	394.0	391.6
80°	751.1	652.6	586.1	534.4	487.6	431.0	408.8	362.0	357.1	354.6	359.5
82.5°	568.9	539.3	512.2	472.8	408.8	366.9	349.7	317.7	320.1	307.8	305.4
85°	391.6	386.6	384.2	366.9	320.1	283.2	270.9	253.7	266.0	253.7	238.9
87.5°	192.1	189.6	174.8	206.9	192.1	152.7	137.9	152.7	169.9	165.0	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: P158961

CATALOG NUMBER: VST-E12-LED-E-U-SLL-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°	3989.5	3979.6	3987.0	3982.1	3982.1	3979.6	3984.6	3977.2	3972.3	3977.2	3979.6
5°	4068.3	4056.0	4058.5	4041.2	4048.6	4031.4	4036.3	4024.0	4011.7	4006.7	4006.7
7.5°	4201.3	4189.0	4174.2	4171.7	4144.6	4134.8	4117.6	4107.7	4100.3	4083.1	4073.2
10°	4322.0	4302.3	4285.0	4282.6	4255.5	4230.8	4208.7	4189.0	4176.7	4152.0	4139.7
12.5°	4420.5	4400.8	4373.7	4358.9	4331.8	4302.3	4287.5	4257.9	4240.7	4213.6	4191.4
15°	4477.1	4442.6	4403.2	4376.1	4336.7	4304.7	4282.6	4260.4	4243.2	4208.7	4176.7
17.5°	4450.0	4393.4	4339.2	4289.9	4235.8	4206.2	4174.2	4147.1	4142.2	4102.8	4053.5
20°	4336.7	4270.2	4198.8	4132.3	4060.9	4019.0	3979.6	3937.8	3925.5	3878.7	3814.6
22.5°	4198.8	4122.5	4041.2	3959.9	3868.8	3809.7	3750.6	3698.9	3657.0	3588.1	3497.0
25°	4058.5	3945.2	3827.0	3723.5	3617.6	3543.8	3482.2	3425.6	3376.3	3265.5	3171.9
27.5°	3873.8	3696.4	3575.8	3457.6	3329.5	3233.5	3164.5	3085.7	3031.5	2903.5	2805.0
30°	3637.3	3460.0	3287.6	3169.4	3041.4	2937.9	2849.3	2736.0	2657.2	2563.6	2472.5
32.5°	3339.4	3162.0	2987.2	2854.2	2748.3	2620.3	2509.4	2401.1	2310.0	2218.9	2147.4
35°	2977.3	2805.0	2640.0	2507.0	2388.8	2287.8	2181.9	2088.3	1984.9	1886.4	1844.5
37.5°	2595.6	2410.9	2228.7	2113.0	2019.4	1948.0	1849.5	1773.1	1679.5	1620.4	1571.2
40°	2263.2	2066.2	1893.8	1795.3	1721.4	1640.1	1558.9	1499.8	1433.3	1374.2	1337.2
42.5°	1982.4	1797.7	1650.0	1566.2	1477.6	1388.9	1327.4	1278.1	1236.3	1191.9	1147.6
45°	1723.9	1546.5	1423.4	1320.0	1246.1	1174.7	1132.8	1110.7	1086.0	1058.9	1029.4
47.5°	1507.1	1354.5	1233.8	1137.7	1061.4	1012.2	992.4	985.1	975.2	953.0	938.3
50°	1342.1	1216.6	1093.4	1007.2	943.2	918.6	896.4	889.0	876.7	869.3	859.5
52.5°	1204.2	1071.3	967.8	889.0	849.6	839.8	829.9	820.1	817.6	812.7	807.8
55°	1091.0	975.2	879.2	820.1	800.4	793.0	790.5	780.7	778.2	778.2	770.8
57.5°	990.0	891.5	805.3	768.3	756.0	748.6	743.7	738.8	738.8	743.7	741.3
60°	886.6	802.8	751.1	731.4	724.0	711.7	699.4	694.5	696.9	709.2	709.2
62.5°	785.6	724.0	692.0	684.6	677.2	667.4	652.6	647.7	652.6	667.4	674.8
65°	674.8	647.7	637.8	632.9	628.0	620.6	610.7	605.8	608.3	615.7	625.5
67.5°	573.8	571.3	571.3	573.8	571.3	568.9	563.9	556.6	554.1	554.1	559.0
70°	512.2	512.2	519.6	519.6	517.2	517.2	509.8	502.4	497.5	492.5	495.0
72.5°	465.4	465.4	467.9	470.4	467.9	467.9	458.1	453.1	440.8	438.4	433.4
75°	426.0	421.1	421.1	418.7	416.2	418.7	408.8	396.5	391.6	389.1	384.2
77.5°	386.6	376.8	371.9	366.9	369.4	366.9	359.5	352.2	344.8	342.3	339.8
80°	342.3	327.5	320.1	307.8	315.2	317.7	312.8	305.4	302.9	300.4	298.0
82.5°	283.2	268.4	258.6	251.2	246.3	251.2	258.6	275.8	270.9	268.4	263.5
85°	221.6	197.0	184.7	187.2	174.8	177.3	199.5	209.3	209.3	214.3	209.3
87.5°	125.6	120.7	91.1	83.7	88.7	105.9	118.2	130.5	130.5	123.1	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: P158961

CATALOG NUMBER: VST-E12-LED-E-U-SLL-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°	3979.6	3984.6	3987.0	3996.9	4001.8	4004.3	4006.7	4011.7	4014.1	4011.7	4024.0
5°	3999.3	3999.3	3994.4	4001.8	4004.3	4004.3	3999.3	4004.3	4004.3	4004.3	4016.6
7.5°	4051.1	4036.3	4028.9	4019.0	4011.7	4001.8	3989.5	3989.5	3987.0	3989.5	3996.9
10°	4105.2	4083.1	4056.0	4031.4	4009.2	3992.0	3969.8	3962.4	3959.9	3957.5	3977.2
12.5°	4147.1	4107.7	4065.8	4024.0	3979.6	3950.1	3913.2	3891.0	3888.5	3888.5	3913.2
15°	4117.6	4053.5	3972.3	3898.4	3859.0	3817.1	3775.2	3748.2	3745.7	3750.6	3765.4
17.5°	3969.8	3866.4	3794.9	3723.5	3671.8	3637.3	3610.2	3605.3	3615.2	3605.3	3625.0
20°	3718.6	3607.8	3558.5	3501.9	3482.2	3457.6	3418.2	3383.7	3383.7	3339.4	3351.7
22.5°	3393.5	3332.0	3267.9	3223.6	3208.8	3167.0	3125.1	3078.3	3073.4	3019.2	3011.8
25°	3053.7	2992.1	2940.4	2930.6	2886.2	2829.6	2790.2	2736.0	2723.7	2669.5	2662.1
27.5°	2706.5	2657.2	2605.5	2575.9	2551.3	2489.7	2455.3	2391.2	2366.6	2307.5	2300.1
30°	2376.5	2342.0	2280.4	2255.8	2209.0	2137.6	2063.7	2024.3	2004.6	1943.0	1923.3
32.5°	2066.2	2012.0	1965.2	1935.6	1876.5	1795.3	1728.8	1672.1	1635.2	1561.3	1541.6
35°	1770.6	1716.5	1694.3	1618.0	1566.2	1512.1	1421.0	1386.5	1320.0	1263.3	1243.6
37.5°	1509.6	1457.9	1428.3	1364.3	1312.6	1258.4	1204.2	1159.9	1127.9	1115.6	1115.6
40°	1285.5	1258.4	1221.5	1174.7	1140.2	1100.8	1071.3	1056.5	1054.0	1058.9	1071.3
42.5°	1125.4	1095.9	1071.3	1046.6	1022.0	1017.1	1009.7	1019.5	1031.9	1044.2	1056.5
45°	1004.8	980.1	965.4	955.5	953.0	960.4	975.2	990.0	1012.2	1026.9	1036.8
47.5°	918.6	898.9	893.9	891.5	903.8	926.0	945.7	967.8	985.1	999.8	1009.7
50°	844.7	827.5	825.0	822.5	839.8	859.5	876.7	906.3	918.6	928.4	935.8
52.5°	793.0	778.2	770.8	773.3	790.5	807.8	832.4	854.5	871.8	879.2	886.6
55°	751.1	746.2	728.9	736.3	753.6	775.7	800.4	825.0	842.2	854.5	866.9
57.5°	719.1	706.8	694.5	706.8	724.0	746.2	775.7	797.9	820.1	837.3	849.6
60°	684.6	674.8	664.9	677.2	694.5	716.6	738.8	768.3	795.4	812.7	825.0
62.5°	655.1	647.7	637.8	640.3	647.7	662.5	674.8	701.9	726.5	748.6	763.4
65°	613.2	610.7	596.0	598.4	603.4	618.1	628.0	652.6	677.2	696.9	709.2
67.5°	551.6	546.7	546.7	554.1	556.6	563.9	571.3	596.0	615.7	630.4	645.2
70°	490.1	487.6	487.6	492.5	490.1	497.5	507.3	529.5	554.1	568.9	583.6
72.5°	431.0	431.0	428.5	433.4	433.4	435.9	448.2	467.9	490.1	502.4	512.2
75°	379.2	376.8	376.8	376.8	379.2	379.2	391.6	408.8	431.0	438.4	453.1
77.5°	332.5	332.5	332.5	332.5	334.9	332.5	339.8	352.2	359.5	371.9	371.9
80°	293.1	290.6	293.1	295.5	295.5	293.1	293.1	295.5	298.0	298.0	298.0
82.5°	258.6	251.2	256.1	268.4	268.4	268.4	266.0	248.7	236.4	236.4	241.3
85°	206.9	206.9	209.3	226.6	229.0	219.2	229.0	204.4	179.8	172.4	177.3
87.5°	128.1	101.0	123.1	140.4	140.4	133.0	147.8	137.9	115.7	93.6	88.7
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: P158961
 CATALOG NUMBER: VST-E12-LED-E-U-SLL-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°	4033.8	4036.3	4051.1	4058.5	4058.5	4068.3	4073.2	4088.0	4085.5	4085.5	4090.5	2.5°
5°	4028.9	4036.3	4051.1	4060.9	4065.8	4078.2	4088.0	4105.2	4102.8	4107.7	4110.2	5°
7.5°	4011.7	4031.4	4046.1	4065.8	4083.1	4092.9	4105.2	4120.0	4115.1	4117.6	4115.1	7.5°
10°	3996.9	4016.6	4046.1	4073.2	4097.9	4112.6	4120.0	4137.3	4134.8	4139.7	4139.7	10°
12.5°	3937.8	3972.3	4009.2	4051.1	4088.0	4127.4	4152.0	4189.0	4206.2	4228.4	4253.0	12.5°
15°	3787.6	3827.0	3886.1	3932.9	4004.3	4058.5	4129.9	4201.3	4265.3	4326.9	4398.3	15°
17.5°	3639.8	3657.0	3703.8	3767.9	3831.9	3913.2	3999.3	4127.4	4243.2	4368.7	4506.7	17.5°
20°	3366.4	3396.0	3428.0	3504.4	3580.7	3696.4	3802.3	3969.8	4139.7	4336.7	4548.5	20°
22.5°	3029.1	3058.6	3093.1	3179.3	3272.9	3391.1	3519.1	3706.3	3932.9	4189.0	4472.2	22.5°
25°	2664.6	2681.8	2708.9	2795.1	2851.8	3006.9	3162.0	3356.6	3602.9	3932.9	4262.9	25°
27.5°	2263.2	2295.2	2317.4	2356.8	2487.3	2620.3	2782.8	2992.1	3290.1	3627.5	4026.4	27.5°
30°	1879.0	1906.1	1893.8	1977.5	2063.7	2204.1	2378.9	2610.4	2896.1	3297.5	3758.0	30°
32.5°	1502.2	1521.9	1514.5	1573.6	1659.8	1800.2	1965.2	2216.4	2519.3	2947.8	3447.7	32.5°
35°	1238.7	1243.6	1270.7	1297.8	1371.7	1485.0	1625.4	1844.5	2154.8	2548.8	3078.3	35°
37.5°	1115.6	1125.4	1142.7	1179.6	1233.8	1315.1	1430.8	1600.7	1866.7	2213.9	2686.8	37.5°
40°	1078.6	1086.0	1095.9	1120.5	1172.2	1243.6	1347.1	1489.9	1684.5	1977.5	2361.7	40°
42.5°	1061.4	1061.4	1061.4	1076.2	1115.6	1191.9	1310.1	1450.5	1620.4	1842.1	2152.4	42.5°
45°	1036.8	1036.8	1034.3	1041.7	1068.8	1145.1	1273.2	1430.8	1613.0	1824.8	2093.3	45°
47.5°	1009.7	1007.2	999.8	999.8	1017.1	1093.4	1226.4	1396.3	1595.8	1839.6	2127.7	47.5°
50°	935.8	935.8	935.8	943.2	958.0	1026.9	1169.8	1349.5	1578.6	1849.5	2181.9	50°
52.5°	893.9	896.4	903.8	903.8	918.6	990.0	1140.2	1339.7	1588.4	1886.4	2250.9	52.5°
55°	874.2	881.6	889.0	889.0	901.3	975.2	1130.4	1347.1	1625.4	1962.7	2369.1	55°
57.5°	857.0	864.4	869.3	869.3	879.2	943.2	1103.3	1334.8	1647.5	2036.6	2514.4	57.5°
60°	825.0	829.9	832.4	832.4	834.8	889.0	1041.7	1275.7	1598.3	2031.7	2593.2	60°
62.5°	765.9	775.7	778.2	780.7	780.7	832.4	962.9	1179.6	1492.4	1957.8	2571.0	62.5°
65°	721.6	726.5	733.9	738.8	748.6	783.1	886.6	1063.9	1354.5	1810.0	2447.9	65°
67.5°	652.6	660.0	667.4	677.2	687.1	709.2	790.5	933.3	1167.3	1558.9	2172.1	67.5°
70°	591.0	593.5	600.9	613.2	615.7	628.0	687.1	785.6	955.5	1251.0	1748.5	70°
72.5°	514.7	519.6	529.5	544.2	544.2	554.1	588.6	640.3	748.6	955.5	1290.4	72.5°
75°	448.2	453.1	460.5	460.5	448.2	450.7	475.3	512.2	593.5	719.1	940.7	75°
77.5°	371.9	381.7	389.1	374.3	369.4	376.8	389.1	416.2	475.3	571.3	706.8	77.5°
80°	307.8	312.8	315.2	317.7	312.8	320.1	330.0	347.2	386.6	460.5	559.0	80°
82.5°	246.3	251.2	258.6	268.4	268.4	295.5	298.0	298.0	320.1	366.9	438.4	82.5°
85°	182.2	192.1	201.9	214.3	216.7	231.5	224.1	221.6	229.0	273.4	302.9	85°
87.5°	93.6	101.0	105.9	115.7	103.4	108.4	108.4	101.0	88.7	110.8	123.1	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: P158961

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

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
4115.1	4115.1	4115.1	4115.1	4115.1	4115.1	4115.1
4095.4	4090.5	4095.4	4095.4	4102.8	4097.9	4358.9
4115.1	4110.2	4115.1	4120.0	4127.4	4127.4	4415.5
4117.6	4117.6	4112.6	4124.9	4134.8	4144.6	4469.7
4147.1	4147.1	4152.0	4154.5	4176.7	4201.3	4558.4
4267.8	4280.1	4302.3	4309.6	4349.0	4376.1	4784.9
4452.5	4521.4	4565.8	4580.5	4615.0	4666.7	5166.6
4639.6	4755.4	4876.1	4949.9	4994.3	5055.8	5634.6
4780.0	4996.7	5203.6	5388.3	5494.2	5614.8	6289.6
4792.3	5137.1	5486.8	5829.1	6112.3	6336.4	7176.2
4674.1	5127.2	5609.9	6134.5	6622.1	7025.9	8195.7
4523.9	5080.5	5696.1	6366.0	7006.2	7602.2	8946.8
4334.3	5001.6	5710.9	6464.5	7215.6	7932.2	9375.3
4046.1	4767.7	5533.6	6366.0	7237.7	8109.5	9651.1
3676.7	4413.1	5198.7	6146.8	7134.3	8180.9	9882.6
3300.0	4026.4	4871.1	5853.7	6969.3	8168.6	9976.2
2901.0	3622.6	4487.0	5541.0	6745.2	8055.3	9959.0
2630.1	3287.6	4134.8	5223.3	6496.5	7905.1	9843.2
2472.5	3048.8	3856.5	4932.7	6269.9	7725.3	9697.9
2470.0	2977.3	3708.8	4725.8	6040.9	7525.9	9500.9
2556.2	3021.7	3691.5	4637.2	5915.3	7380.6	9286.7
2657.2	3144.8	3782.6	4669.2	5912.8	7316.5	9136.4
2817.3	3354.1	3982.1	4807.1	5976.9	7306.7	8951.7
3021.7	3637.3	4341.7	5146.9	6225.6	7501.2	8964.1
3231.0	3969.8	4812.0	5728.1	6715.7	7954.4	9353.2
3307.3	4225.9	5289.8	6410.3	7449.5	8634.1	10156.0
3240.9	4285.0	5580.4	6939.8	8163.7	9429.5	11114.0
2994.6	4046.1	5462.2	7090.0	8575.0	9993.4	12071.9
2465.1	3452.6	4925.3	6752.6	8542.9	10109.2	12416.7
1807.6	2676.9	4004.3	5738.0	7594.8	9385.2	11899.5
1305.2	1893.8	2891.2	4322.0	6003.9	7557.9	9981.1
935.8	1312.6	1876.5	2839.4	4090.5	5262.7	7114.6
672.3	891.5	1169.8	1704.2	2492.2	3231.0	4469.7
495.0	610.7	768.3	1058.9	1467.7	1881.5	2691.7
337.4	359.5	463.0	625.5	962.9	1384.0	1827.3
128.1	145.3	169.9	256.1	431.0	495.0	349.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)