

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: P158952

Luminaire Tested: **VST-E11-LED-E-U-SLL-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158952
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-SLL-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (231) 5700K 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



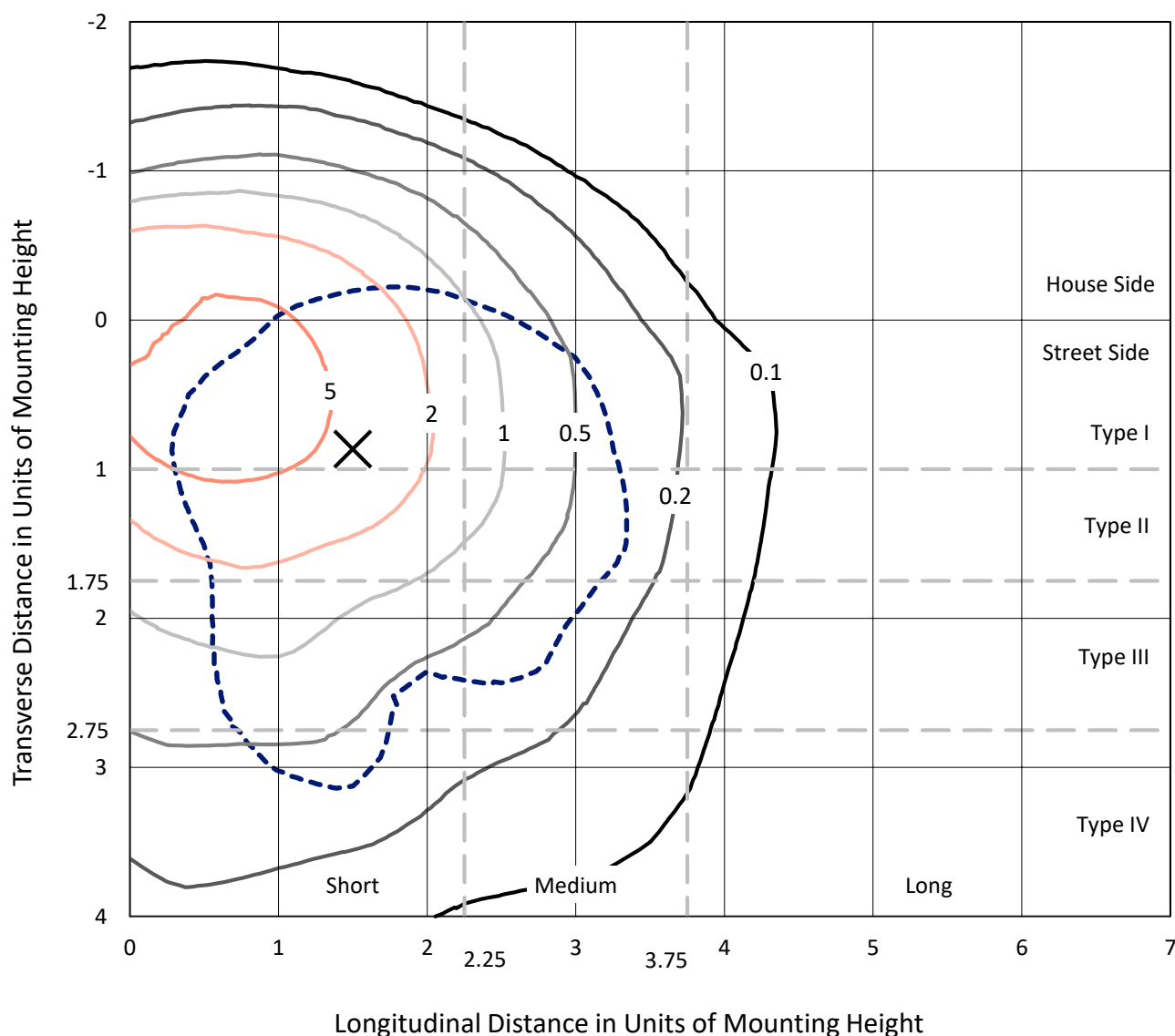
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

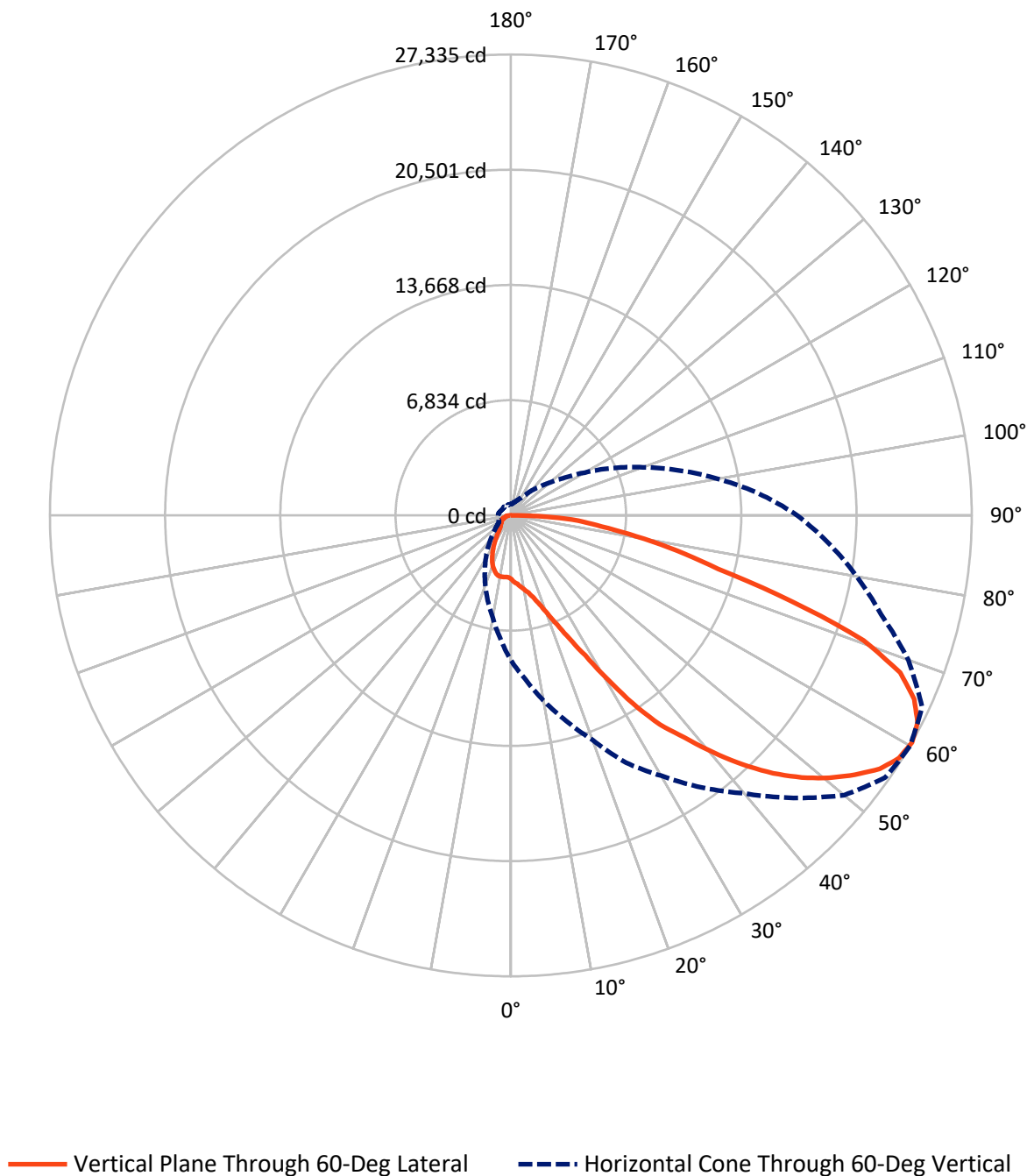


Based on 30 foot mounting height. Maximum calculated value = 9.7 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	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



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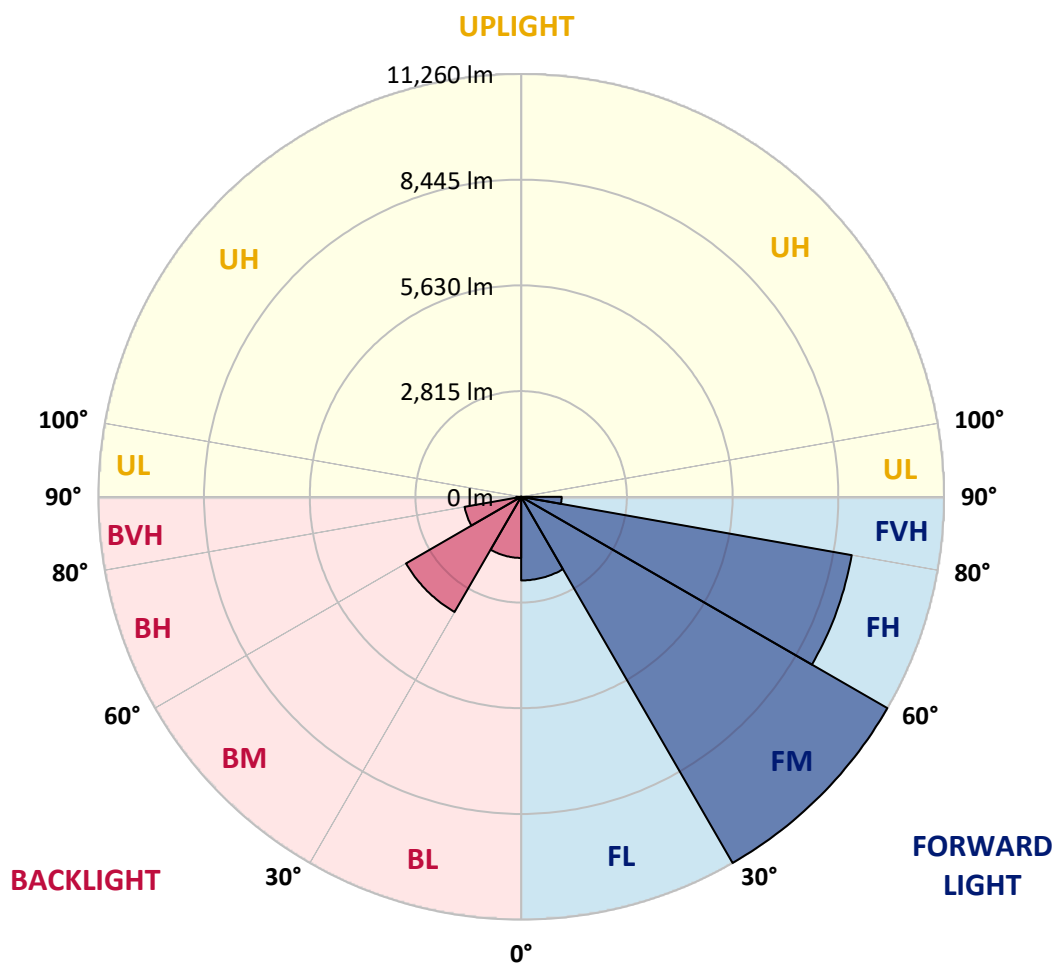
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	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





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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	3991.1	3991.1	3991.1	3988.9	3984.4	3991.1	3988.9	3977.6	3970.8	3977.6
5°	4047.6	4049.8	4056.6	4058.9	4058.9	4065.6	4083.7	4086.0	4083.7	4088.2	4099.5
7.5°	4097.2	4108.5	4115.3	4126.6	4140.1	4151.4	4183.0	4214.6	4234.9	4250.7	4255.3
10°	4178.5	4196.6	4216.9	4246.2	4277.8	4334.3	4361.4	4393.0	4413.3	4444.9	4451.7
12.5°	4386.2	4408.8	4422.3	4467.5	4508.1	4562.3	4600.6	4609.7	4657.1	4684.2	4715.8
15°	4736.1	4770.0	4817.4	4844.4	4889.6	4937.0	4970.9	5016.0	5022.8	5058.9	5083.7
17.5°	5165.0	5212.4	5309.5	5374.9	5433.6	5481.0	5548.8	5600.7	5612.0	5652.6	5600.7
20°	5765.5	5880.6	5896.4	6027.3	6079.3	6174.1	6309.5	6334.4	6399.8	6334.4	6296.0
22.5°	6578.2	6758.8	6808.4	6934.8	6998.0	7142.5	7183.1	7316.3	7361.5	7311.8	7208.0
25°	7512.7	7792.7	7937.1	8131.3	8162.9	8458.6	8490.2	8646.0	8562.4	8442.8	8445.1
27.5°	8201.3	8677.6	9050.0	9381.9	9614.4	9948.5	10208.1	10280.3	10201.3	10045.6	9991.4
30°	8594.0	9133.6	9668.6	10126.8	10668.6	11178.8	11709.3	11973.4	12018.6	12099.8	11772.5
32.5°	8846.9	9539.9	10176.5	10743.1	11298.4	11955.4	12666.5	13345.9	13917.1	14348.2	14145.1
35°	9059.1	9914.6	10729.6	11415.8	12072.7	12788.4	13506.2	14307.6	15253.5	15806.5	15921.7
37.5°	9144.9	10190.0	11187.8	12068.2	12991.5	13797.4	14510.8	15224.1	16217.4	17203.9	17508.6
40°	9129.1	10325.5	11461.0	12567.1	13698.1	14704.9	15540.2	16384.4	17547.0	18700.6	19197.2
42.5°	9023.0	10345.8	11634.8	12899.0	14188.0	15526.6	16594.4	17567.3	18682.5	20161.1	20863.2
45°	8889.8	10275.8	11670.9	13068.3	14551.4	16100.0	17449.9	18653.2	19960.2	21420.8	22269.6
47.5°	8709.2	10165.2	11625.8	13127.0	14713.9	16468.0	18054.9	19502.0	20939.9	22621.7	23698.5
50°	8512.8	10007.2	11533.2	13084.1	14754.6	16668.9	18400.3	20048.3	21727.8	23542.8	24904.0
52.5°	8375.1	9837.9	11449.7	12996.0	14713.9	16729.8	18526.7	20341.7	22210.9	24086.8	25712.2
55°	8205.8	9612.1	11226.2	12790.6	14565.0	16696.0	18513.2	20443.3	22344.1	24296.7	26152.3
57.5°	8217.1	9508.3	11036.6	12544.5	14260.2	16382.2	18258.1	20341.7	22134.1	24161.3	26168.2
60°	8573.7	9731.8	11135.9	12594.2	14169.9	16183.5	17824.7	19687.1	21517.8	23694.0	25802.4
62.5°	9309.6	10370.6	11646.1	13090.8	14677.8	16580.8	17628.3	18599.0	20224.3	22833.9	25179.4
65°	10187.8	11144.9	12251.1	13625.9	15404.7	17226.5	17517.7	17714.1	18535.8	21161.2	24010.0
67.5°	11065.9	11921.5	12790.6	13930.6	15817.8	17411.6	17066.2	16598.9	17041.4	19217.5	21712.0
70°	11382.0	12517.5	13088.6	13871.9	15504.0	16980.4	16337.0	15160.9	15314.4	17291.9	19115.9
72.5°	10907.9	12526.5	12716.1	13007.3	14106.7	15495.0	14815.5	13303.0	13271.4	14781.7	16255.8
75°	9149.4	11427.1	11424.9	11316.5	11564.8	12354.9	12002.8	11090.8	11476.8	12666.5	13151.8
77.5°	6521.7	8916.9	9029.7	8300.6	8282.5	8639.2	8851.4	9912.4	11312.0	11980.2	11826.7
80°	4097.2	6016.1	6501.4	5600.7	5408.8	5914.5	7226.0	8770.1	10492.5	11093.0	10576.1
82.5°	2467.4	3876.0	4909.9	4399.7	4354.6	5275.6	6724.9	7325.4	7842.3	8481.2	7616.6
85°	1675.0	2582.5	3359.1	3460.6	3855.7	4808.3	5438.2	5171.8	5185.3	5018.3	4571.3
87.5°	320.6	704.3	1151.3	1404.1	1557.6	2092.6	2275.5	2061.0	2176.2	1591.5	1740.5
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°	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2
2.5°	3966.3	3966.3	3966.3	3955.0	3957.3	3941.5	3934.7	3934.7	3927.9	3927.9	3925.7
5°	4090.5	4076.9	4083.7	4081.4	4081.4	4058.9	4047.6	4047.6	4018.2	4020.5	4011.5
7.5°	4275.6	4273.3	4280.1	4266.5	4248.5	4230.4	4212.4	4203.3	4162.7	4137.9	4122.1
10°	4485.5	4483.3	4490.0	4487.8	4456.2	4422.3	4372.6	4336.5	4286.9	4248.5	4210.1
12.5°	4715.8	4713.5	4709.0	4688.7	4654.8	4600.6	4537.4	4476.5	4402.0	4352.3	4295.9
15°	5074.7	5067.9	5040.8	5011.5	4975.4	4891.9	4781.2	4693.2	4593.9	4508.1	4415.5
17.5°	5605.2	5548.8	5544.3	5478.8	5381.7	5271.1	5167.3	5020.5	4878.3	4749.6	4623.2
20°	6336.6	6205.7	6169.6	6095.1	5966.4	5851.3	5625.5	5429.1	5235.0	5058.9	4898.6
22.5°	7133.5	7038.7	6950.6	6828.7	6652.7	6485.6	6198.9	5952.8	5704.5	5478.8	5300.5
25°	8246.4	8081.6	7923.6	7729.4	7485.6	7287.0	6959.7	6711.3	6386.3	6180.8	5923.5
27.5°	9684.4	9402.2	9135.8	8968.8	8539.9	8250.9	7833.3	7512.7	7119.9	6842.3	6537.5
30°	11555.8	11228.5	10833.4	10255.5	9745.3	9171.9	8655.0	8244.1	7826.5	7438.2	7086.1
32.5°	13876.4	13298.5	12673.2	11756.7	10919.2	10102.0	9413.5	8907.8	8481.2	7998.1	7501.4
35°	15838.1	15242.2	14355.0	13190.2	12156.3	11221.7	10397.7	9707.0	9149.4	8537.6	7880.7
37.5°	17386.7	16707.3	15874.3	14637.2	13544.6	12481.3	11616.7	10736.3	10004.9	9162.9	8332.2
40°	19161.1	18479.3	17562.8	16280.6	14987.1	13833.5	12820.0	11910.2	11011.8	9984.6	8916.9
42.5°	20707.4	20215.3	19287.5	17962.4	16528.9	15244.4	14136.0	13095.4	11921.5	10772.5	9508.3
45°	22319.2	21818.1	20937.7	19551.6	18027.9	16596.6	15271.5	14151.8	12765.8	11397.8	9950.8
47.5°	23743.7	23229.0	22339.5	20962.5	19343.9	17836.0	16377.7	15023.2	13413.7	11842.5	10239.7
50°	25102.6	24472.8	23657.9	22285.4	20556.2	18944.4	17361.9	15623.7	13917.1	12154.0	10436.1
52.5°	26351.0	25549.6	24777.6	23364.4	21495.3	19811.2	18045.9	16133.9	14226.3	12400.1	10569.3
55°	27059.8	26542.9	25619.6	24231.3	22163.5	20407.2	18479.3	16492.8	14533.3	12573.9	10625.7
57.5°	27278.8	27152.4	26378.1	24732.4	22556.3	20734.5	18772.8	16777.2	14738.8	12623.6	10546.7
60°	27105.0	27335.2	26910.8	25084.6	22734.6	20831.6	18917.3	16980.4	14774.9	12465.5	10307.4
62.5°	26547.4	27071.1	27016.9	25202.0	22642.0	20709.7	18901.5	16876.6	14436.3	11973.4	9770.2
65°	25630.9	26290.1	26522.6	24766.3	22120.6	20265.0	18499.7	16224.2	13494.9	11011.8	8869.5
67.5°	23906.2	24904.0	25129.7	23339.6	20757.1	19034.7	17341.6	14869.7	11752.2	9524.1	7463.1
70°	20450.1	22195.1	22499.8	20621.6	18352.9	16840.4	15404.7	12722.9	9786.0	7639.1	5727.1
72.5°	16325.7	17422.9	18045.9	16752.4	15063.8	13966.7	12878.6	9761.1	7384.1	5636.8	3941.5
75°	12763.5	12698.1	13255.6	12395.6	11402.3	10889.9	10072.7	6810.7	4946.0	3733.8	2494.5
77.5°	10912.4	10072.7	9438.3	8833.3	8244.1	8081.6	7298.3	4225.9	3056.6	2237.1	1492.2
80°	9070.4	7537.6	6379.5	5528.5	5318.5	5639.1	4776.7	2492.2	1810.5	1284.5	936.8
82.5°	6481.1	5422.4	4413.3	3873.8	3514.8	4025.0	2817.3	1383.8	982.0	769.8	620.8
85°	4201.1	4016.0	3973.1	3797.0	3361.3	3173.9	2140.0	1191.9	735.9	478.6	386.0
87.5°	1616.3	2072.3	2390.6	2562.2	2769.9	2467.4	1115.2	410.9	404.1	248.3	187.4
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°	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2
2.5°	3909.9	3900.8	3898.6	3891.8	3887.3	3887.3	3876.0	3670.6	3668.3	3668.3	3666.1
5°	3993.4	3982.1	3970.8	3968.6	3959.5	3959.5	3948.2	3742.8	3742.8	3742.8	3738.3
7.5°	4106.3	4083.7	4070.1	4063.4	4049.8	4056.6	4065.6	3858.0	3860.2	3858.0	3862.5
10°	4187.5	4174.0	4158.2	4153.7	4144.6	4151.4	4165.0	3959.5	3966.3	3968.6	3973.1
12.5°	4266.5	4244.0	4223.7	4216.9	4212.4	4230.4	4246.2	4047.6	4054.3	4061.1	4061.1
15°	4363.6	4325.2	4298.2	4282.3	4273.3	4291.4	4314.0	4117.6	4119.8	4126.6	4124.3
17.5°	4528.4	4472.0	4408.8	4397.5	4368.1	4374.9	4379.4	4160.4	4151.4	4135.6	4108.5
20°	4783.5	4697.7	4611.9	4575.8	4517.1	4492.3	4442.6	4162.7	4106.3	4058.9	4018.2
22.5°	5149.2	5022.8	4930.2	4869.3	4749.6	4666.1	4530.7	4151.4	4045.3	3964.1	3900.8
25°	5740.6	5589.4	5447.2	5293.7	5106.3	4939.3	4740.6	4250.7	4086.0	3946.0	3824.1
27.5°	6316.3	6077.0	5858.0	5627.8	5363.7	5113.1	4833.2	4282.3	4095.0	3914.4	3715.7
30°	6747.5	6399.8	6068.0	5731.6	5386.2	5061.2	4745.1	4174.0	3950.5	3747.3	3537.4
32.5°	7009.3	6557.8	6126.7	5709.0	5302.7	4937.0	4582.6	3986.6	3740.6	3501.3	3277.8
35°	7257.6	6697.8	6162.8	5670.7	5205.6	4799.3	4417.8	3767.7	3474.2	3219.1	2936.9
37.5°	7564.7	6844.5	6185.4	5600.7	5063.4	4598.4	4178.5	3492.2	3198.8	2885.0	2618.6
40°	7932.6	6995.8	6162.8	5460.7	4842.2	4334.3	3889.6	3203.3	2876.0	2571.2	2309.4
42.5°	8282.5	7129.0	6104.1	5273.4	4600.6	4058.9	3625.4	2945.9	2618.6	2307.1	2047.5
45°	8542.1	7241.8	6074.7	5142.4	4415.5	3871.5	3392.9	2738.3	2392.9	2079.1	1815.0
47.5°	8722.7	7309.6	6061.2	5070.2	4286.9	3677.4	3180.7	2530.6	2167.1	1851.1	1593.7
50°	8817.5	7307.3	6027.3	4991.2	4097.2	3444.8	2961.8	2320.6	1959.5	1650.2	1415.4
52.5°	8842.4	7266.7	5955.1	4846.7	3867.0	3212.3	2727.0	2101.7	1776.6	1480.9	1243.8
55°	8785.9	7167.3	5803.9	4605.2	3620.9	2966.3	2512.5	1930.1	1598.3	1318.3	1133.2
57.5°	8625.6	6991.3	5519.4	4273.3	3361.3	2738.3	2266.5	1722.4	1404.1	1169.3	1015.8
60°	8327.7	6618.8	5074.7	3880.5	3031.7	2390.6	1927.8	1451.5	1198.7	1022.6	898.5
62.5°	7776.9	6034.1	4449.4	3338.7	2557.7	1939.1	1539.6	1158.1	968.4	853.3	776.6
65°	6889.7	5153.7	3724.8	2629.9	1943.6	1410.9	1144.5	871.4	733.7	663.7	641.1
67.5°	5623.3	3979.9	2708.9	1826.3	1316.1	988.8	796.9	636.6	571.1	544.0	535.0
70°	4088.2	2711.2	1754.0	1153.5	869.1	690.8	602.7	512.4	476.3	469.5	469.5
72.5°	2566.7	1647.9	1074.5	790.1	659.2	559.8	514.7	451.5	437.9	433.4	426.7
75°	1505.7	1000.0	760.8	647.9	564.4	501.1	462.8	410.9	401.8	399.6	392.8
77.5°	959.4	720.1	614.0	553.1	510.2	453.7	419.9	365.7	363.4	361.2	358.9
80°	688.5	598.2	537.3	489.9	447.0	395.1	374.7	331.8	327.3	325.1	329.6
82.5°	521.5	494.4	469.5	433.4	374.7	336.4	320.6	291.2	293.5	282.2	279.9
85°	358.9	354.4	352.2	336.4	293.5	259.6	248.3	232.5	243.8	232.5	219.0
87.5°	176.1	173.8	160.3	189.6	176.1	140.0	126.4	140.0	155.8	151.2	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: P158952

CATALOG NUMBER: VST-E11-LED-E-U-SLL-7060

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°	3657.0	3648.0	3654.8	3650.3	3650.3	3648.0	3652.5	3645.8	3641.2	3645.8	3648.0
5°	3729.3	3718.0	3720.2	3704.4	3711.2	3695.4	3699.9	3688.6	3677.4	3672.8	3672.8
7.5°	3851.2	3839.9	3826.3	3824.1	3799.3	3790.2	3774.4	3765.4	3758.6	3742.8	3733.8
10°	3961.8	3943.7	3927.9	3925.7	3900.8	3878.3	3858.0	3839.9	3828.6	3806.0	3794.7
12.5°	4052.1	4034.0	4009.2	3995.7	3970.8	3943.7	3930.2	3903.1	3887.3	3862.5	3842.1
15°	4104.0	4072.4	4036.3	4011.5	3975.3	3946.0	3925.7	3905.4	3889.6	3858.0	3828.6
17.5°	4079.2	4027.3	3977.6	3932.4	3882.8	3855.7	3826.3	3801.5	3797.0	3760.9	3715.7
20°	3975.3	3914.4	3848.9	3788.0	3722.5	3684.1	3648.0	3609.6	3598.3	3555.5	3496.8
22.5°	3848.9	3778.9	3704.4	3630.0	3546.4	3492.2	3438.1	3390.7	3352.3	3289.1	3205.6
25°	3720.2	3616.4	3508.0	3413.2	3316.2	3248.4	3192.0	3140.1	3094.9	2993.4	2907.6
27.5°	3550.9	3388.4	3277.8	3169.4	3052.0	2964.0	2900.8	2828.6	2778.9	2661.5	2571.2
30°	3334.2	3171.7	3013.7	2905.3	2787.9	2693.1	2611.8	2508.0	2435.8	2350.0	2266.5
32.5°	3061.1	2898.5	2738.3	2616.4	2519.3	2401.9	2300.3	2201.0	2117.5	2033.9	1968.5
35°	2729.2	2571.2	2420.0	2298.1	2189.7	2097.2	2000.1	1914.3	1819.5	1729.2	1690.8
37.5°	2379.3	2210.0	2043.0	1936.9	1851.1	1785.6	1695.3	1625.4	1539.6	1485.4	1440.2
40°	2074.6	1894.0	1736.0	1645.7	1577.9	1503.4	1429.0	1374.8	1313.8	1259.6	1225.8
42.5°	1817.2	1647.9	1512.5	1435.7	1354.5	1273.2	1216.8	1171.6	1133.2	1092.6	1052.0
45°	1580.2	1417.7	1304.8	1210.0	1142.3	1076.8	1038.4	1018.1	995.5	970.7	943.6
47.5°	1381.5	1241.6	1131.0	1042.9	973.0	927.8	909.7	903.0	893.9	873.6	860.1
50°	1230.3	1115.2	1002.3	923.3	864.6	842.0	821.7	814.9	803.6	796.9	787.8
52.5°	1103.9	982.0	887.2	814.9	778.8	769.8	760.8	751.7	749.5	745.0	740.4
55°	1000.0	893.9	805.9	751.7	733.7	726.9	724.6	715.6	713.3	713.3	706.6
57.5°	907.5	817.2	738.2	704.3	693.0	686.3	681.7	677.2	677.2	681.7	679.5
60°	812.7	735.9	688.5	670.5	663.7	652.4	641.1	636.6	638.9	650.1	650.1
62.5°	720.1	663.7	634.3	627.6	620.8	611.8	598.2	593.7	598.2	611.8	618.5
65°	618.5	593.7	584.7	580.2	575.6	568.9	559.8	555.3	557.6	564.4	573.4
67.5°	526.0	523.7	523.7	526.0	523.7	521.5	517.0	510.2	507.9	507.9	512.4
70°	469.5	469.5	476.3	476.3	474.1	474.1	467.3	460.5	456.0	451.5	453.7
72.5°	426.7	426.7	428.9	431.2	428.9	428.9	419.9	415.4	404.1	401.8	397.3
75°	390.5	386.0	386.0	383.8	381.5	383.8	374.7	363.4	358.9	356.7	352.2
77.5°	354.4	345.4	340.9	336.4	338.6	336.4	329.6	322.8	316.0	313.8	311.5
80°	313.8	300.2	293.5	282.2	289.0	291.2	286.7	279.9	277.7	275.4	273.1
82.5°	259.6	246.1	237.0	230.3	225.7	230.3	237.0	252.8	248.3	246.1	241.5
85°	203.2	180.6	169.3	171.6	160.3	162.5	182.9	191.9	191.9	196.4	191.9
87.5°	115.1	110.6	83.5	76.8	81.3	97.1	108.4	119.6	119.6	112.9	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: P158952

CATALOG NUMBER: VST-E11-LED-E-U-SLL-7060

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°	3648.0	3652.5	3654.8	3663.8	3668.3	3670.6	3672.8	3677.4	3679.6	3677.4	3688.6
5°	3666.1	3666.1	3661.6	3668.3	3670.6	3670.6	3666.1	3670.6	3670.6	3670.6	3681.9
7.5°	3713.5	3699.9	3693.2	3684.1	3677.4	3668.3	3657.0	3657.0	3654.8	3657.0	3663.8
10°	3763.1	3742.8	3718.0	3695.4	3675.1	3659.3	3639.0	3632.2	3630.0	3627.7	3645.8
12.5°	3801.5	3765.4	3727.0	3688.6	3648.0	3620.9	3587.1	3566.7	3564.5	3564.5	3587.1
15°	3774.4	3715.7	3641.2	3573.5	3537.4	3499.0	3460.6	3435.8	3433.6	3438.1	3451.6
17.5°	3639.0	3544.2	3478.7	3413.2	3365.8	3334.2	3309.4	3304.9	3313.9	3304.9	3322.9
20°	3408.7	3307.1	3262.0	3210.1	3192.0	3169.4	3133.3	3101.7	3101.7	3061.1	3072.4
22.5°	3110.7	3054.3	2995.6	2955.0	2941.4	2903.1	2864.7	2821.8	2817.3	2767.6	2760.8
25°	2799.2	2742.8	2695.4	2686.3	2645.7	2593.8	2557.7	2508.0	2496.7	2447.1	2440.3
27.5°	2480.9	2435.8	2388.4	2361.3	2338.7	2282.3	2250.7	2192.0	2169.4	2115.2	2108.4
30°	2178.4	2146.8	2090.4	2067.8	2024.9	1959.5	1891.7	1855.6	1837.5	1781.1	1763.1
32.5°	1894.0	1844.3	1801.4	1774.3	1720.2	1645.7	1584.7	1532.8	1498.9	1431.2	1413.2
35°	1623.1	1573.4	1553.1	1483.1	1435.7	1386.1	1302.5	1270.9	1210.0	1158.1	1140.0
37.5°	1383.8	1336.4	1309.3	1250.6	1203.2	1153.5	1103.9	1063.3	1033.9	1022.6	1022.6
40°	1178.4	1153.5	1119.7	1076.8	1045.2	1009.1	982.0	968.4	966.2	970.7	982.0
42.5°	1031.6	1004.6	982.0	959.4	936.8	932.3	925.5	934.6	945.9	957.2	968.4
45°	921.0	898.5	884.9	875.9	873.6	880.4	893.9	907.5	927.8	941.3	950.4
47.5°	842.0	824.0	819.4	817.2	828.5	848.8	866.9	887.2	903.0	916.5	925.5
50°	774.3	758.5	756.2	754.0	769.8	787.8	803.6	830.7	842.0	851.1	857.8
52.5°	726.9	713.3	706.6	708.8	724.6	740.4	763.0	783.3	799.1	805.9	812.7
55°	688.5	684.0	668.2	675.0	690.8	711.1	733.7	756.2	772.0	783.3	794.6
57.5°	659.2	647.9	636.6	647.9	663.7	684.0	711.1	731.4	751.7	767.5	778.8
60°	627.6	618.5	609.5	620.8	636.6	656.9	677.2	704.3	729.2	745.0	756.2
62.5°	600.5	593.7	584.7	586.9	593.7	607.2	618.5	643.4	665.9	686.3	699.8
65°	562.1	559.8	546.3	548.6	553.1	566.6	575.6	598.2	620.8	638.9	650.1
67.5°	505.7	501.1	501.1	507.9	510.2	517.0	523.7	546.3	564.4	577.9	591.4
70°	449.2	447.0	447.0	451.5	449.2	456.0	465.0	485.3	507.9	521.5	535.0
72.5°	395.1	395.1	392.8	397.3	397.3	399.6	410.9	428.9	449.2	460.5	469.5
75°	347.6	345.4	345.4	345.4	347.6	347.6	358.9	374.7	395.1	401.8	415.4
77.5°	304.8	304.8	304.8	304.8	307.0	304.8	311.5	322.8	329.6	340.9	340.9
80°	268.6	266.4	268.6	270.9	270.9	268.6	268.6	270.9	273.1	273.1	273.1
82.5°	237.0	230.3	234.8	246.1	246.1	246.1	243.8	228.0	216.7	216.7	221.2
85°	189.6	189.6	191.9	207.7	209.9	200.9	209.9	187.4	164.8	158.0	162.5
87.5°	117.4	92.6	112.9	128.7	128.7	121.9	135.4	126.4	106.1	85.8	81.3
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: P158952
CATALOG NUMBER: VST-E11-LED-E-U-SLL-7060

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°	3697.7	3699.9	3713.5	3720.2	3720.2	3729.3	3733.8	3747.3	3745.1	3745.1	3749.6	2.5°
5°	3693.2	3699.9	3713.5	3722.5	3727.0	3738.3	3747.3	3763.1	3760.9	3765.4	3767.7	5°
7.5°	3677.4	3695.4	3709.0	3727.0	3742.8	3751.9	3763.1	3776.7	3772.2	3774.4	3772.2	7.5°
10°	3663.8	3681.9	3709.0	3733.8	3756.4	3769.9	3776.7	3792.5	3790.2	3794.7	3794.7	10°
12.5°	3609.6	3641.2	3675.1	3713.5	3747.3	3783.5	3806.0	3839.9	3855.7	3876.0	3898.6	12.5°
15°	3471.9	3508.0	3562.2	3605.1	3670.6	3720.2	3785.7	3851.2	3909.9	3966.3	4031.8	15°
17.5°	3336.5	3352.3	3395.2	3453.9	3512.6	3587.1	3666.1	3783.5	3889.6	4004.7	4131.1	17.5°
20°	3085.9	3113.0	3142.3	3212.3	3282.3	3388.4	3485.5	3639.0	3794.7	3975.3	4169.5	20°
22.5°	2776.6	2803.7	2835.3	2914.3	3000.1	3108.5	3225.9	3397.4	3605.1	3839.9	4099.5	22.5°
25°	2442.5	2458.3	2483.2	2562.2	2614.1	2756.3	2898.5	3076.9	3302.6	3605.1	3907.6	25°
27.5°	2074.6	2103.9	2124.2	2160.4	2280.0	2401.9	2550.9	2742.8	3015.9	3325.2	3690.9	27.5°
30°	1722.4	1747.3	1736.0	1812.7	1891.7	2020.4	2180.7	2392.9	2654.7	3022.7	3444.8	30°
32.5°	1377.0	1395.1	1388.3	1442.5	1521.5	1650.2	1801.4	2031.7	2309.4	2702.1	3160.4	32.5°
35°	1135.5	1140.0	1164.8	1189.7	1257.4	1361.2	1489.9	1690.8	1975.3	2336.4	2821.8	35°
37.5°	1022.6	1031.6	1047.4	1081.3	1131.0	1205.5	1311.6	1467.3	1711.1	2029.4	2462.9	37.5°
40°	988.8	995.5	1004.6	1027.1	1074.5	1140.0	1234.8	1365.7	1544.1	1812.7	2164.9	40°
42.5°	973.0	973.0	973.0	986.5	1022.6	1092.6	1201.0	1329.6	1485.4	1688.6	1973.0	42.5°
45°	950.4	950.4	948.1	954.9	979.7	1049.7	1167.1	1311.6	1478.6	1672.8	1918.8	45°
47.5°	925.5	923.3	916.5	916.5	932.3	1002.3	1124.2	1280.0	1462.8	1686.3	1950.4	47.5°
50°	857.8	857.8	857.8	864.6	878.1	941.3	1072.3	1237.1	1447.0	1695.3	2000.1	50°
52.5°	819.4	821.7	828.5	828.5	842.0	907.5	1045.2	1228.0	1456.0	1729.2	2063.3	52.5°
55°	801.4	808.2	814.9	814.9	826.2	893.9	1036.2	1234.8	1489.9	1799.2	2171.6	55°
57.5°	785.6	792.4	796.9	796.9	805.9	864.6	1011.3	1223.5	1510.2	1866.9	2304.8	57.5°
60°	756.2	760.8	763.0	763.0	765.3	814.9	954.9	1169.3	1465.1	1862.4	2377.1	60°
62.5°	702.1	711.1	713.3	715.6	715.6	763.0	882.7	1081.3	1368.0	1794.7	2356.8	62.5°
65°	661.4	665.9	672.7	677.2	686.3	717.9	812.7	975.2	1241.6	1659.2	2243.9	65°
67.5°	598.2	605.0	611.8	620.8	629.8	650.1	724.6	855.6	1070.0	1429.0	1991.1	67.5°
70°	541.8	544.0	550.8	562.1	564.4	575.6	629.8	720.1	875.9	1146.8	1602.8	70°
72.5°	471.8	476.3	485.3	498.9	498.9	507.9	539.5	586.9	686.3	875.9	1182.9	72.5°
75°	410.9	415.4	422.1	422.1	410.9	413.1	435.7	469.5	544.0	659.2	862.3	75°
77.5°	340.9	349.9	356.7	343.1	338.6	345.4	356.7	381.5	435.7	523.7	647.9	77.5°
80°	282.2	286.7	289.0	291.2	286.7	293.5	302.5	318.3	354.4	422.1	512.4	80°
82.5°	225.7	230.3	237.0	246.1	246.1	270.9	273.1	273.1	293.5	336.4	401.8	82.5°
85°	167.0	176.1	185.1	196.4	198.7	212.2	205.4	203.2	209.9	250.6	277.7	85°
87.5°	85.8	92.6	97.1	106.1	94.8	99.3	99.3	92.6	81.3	101.6	112.9	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°

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NUMBER: VST-E11-LED-E-U-SLL-7060

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
3772.2	3772.2	3772.2	3772.2	3772.2	3772.2	3772.2
3754.1	3749.6	3754.1	3754.1	3760.9	3756.4	3995.7
3772.2	3767.7	3772.2	3776.7	3783.5	3783.5	4047.6
3774.4	3774.4	3769.9	3781.2	3790.2	3799.3	4097.2
3801.5	3801.5	3806.0	3808.3	3828.6	3851.2	4178.5
3912.1	3923.4	3943.7	3950.5	3986.6	4011.5	4386.2
4081.4	4144.6	4185.3	4198.8	4230.4	4277.8	4736.1
4253.0	4359.1	4469.7	4537.4	4578.1	4634.5	5165.0
4381.7	4580.3	4770.0	4939.3	5036.3	5146.9	5765.5
4393.0	4709.0	5029.6	5343.3	5602.9	5808.4	6578.2
4284.6	4700.0	5142.4	5623.3	6070.2	6440.5	7512.7
4146.9	4657.1	5221.4	5835.5	6422.4	6968.7	8201.3
3973.1	4584.8	5235.0	5925.8	6614.3	7271.2	8594.0
3709.0	4370.4	5072.4	5835.5	6634.6	7433.7	8846.9
3370.3	4045.3	4765.4	5634.6	6539.8	7499.2	9059.1
3025.0	3690.9	4465.2	5365.9	6388.5	7487.9	9144.9
2659.3	3320.7	4113.0	5079.2	6183.1	7384.1	9129.1
2410.9	3013.7	3790.2	4788.0	5955.1	7246.4	9023.0
2266.5	2794.7	3535.1	4521.6	5747.4	7081.6	8889.8
2264.2	2729.2	3399.7	4332.0	5537.5	6898.7	8709.2
2343.2	2769.9	3383.9	4250.7	5422.4	6765.5	8512.8
2435.8	2882.7	3467.4	4280.1	5420.1	6706.8	8375.1
2582.5	3074.6	3650.3	4406.5	5478.8	6697.8	8205.8
2769.9	3334.2	3979.9	4718.0	5706.8	6876.1	8217.1
2961.8	3639.0	4411.0	5250.8	6156.0	7291.5	8573.7
3031.7	3873.8	4849.0	5876.1	6828.7	7914.6	9309.6
2970.8	3927.9	5115.3	6361.4	7483.4	8643.7	10187.8
2745.0	3709.0	5007.0	6499.1	7860.4	9160.7	11065.9
2259.7	3164.9	4514.9	6189.9	7831.0	9266.8	11382.0
1657.0	2453.8	3670.6	5259.8	6961.9	8603.1	10907.9
1196.4	1736.0	2650.2	3961.8	5503.6	6928.1	9149.4
857.8	1203.2	1720.2	2602.8	3749.6	4824.1	6521.7
616.3	817.2	1072.3	1562.1	2284.5	2961.8	4097.2
453.7	559.8	704.3	970.7	1345.4	1724.7	2467.4
309.3	329.6	424.4	573.4	882.7	1268.7	1675.0
117.4	133.2	155.8	234.8	395.1	453.7	320.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)