

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: McGRAW-EDISON

Report Number: P158840

Luminaire Tested: **VTS-E11-LED-E1-SLL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158840
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: MCGRAW-EDISON
Catalog Number: VTS-E11-LED-E1-SLL
Description: VENTUS LED SITE LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (231) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

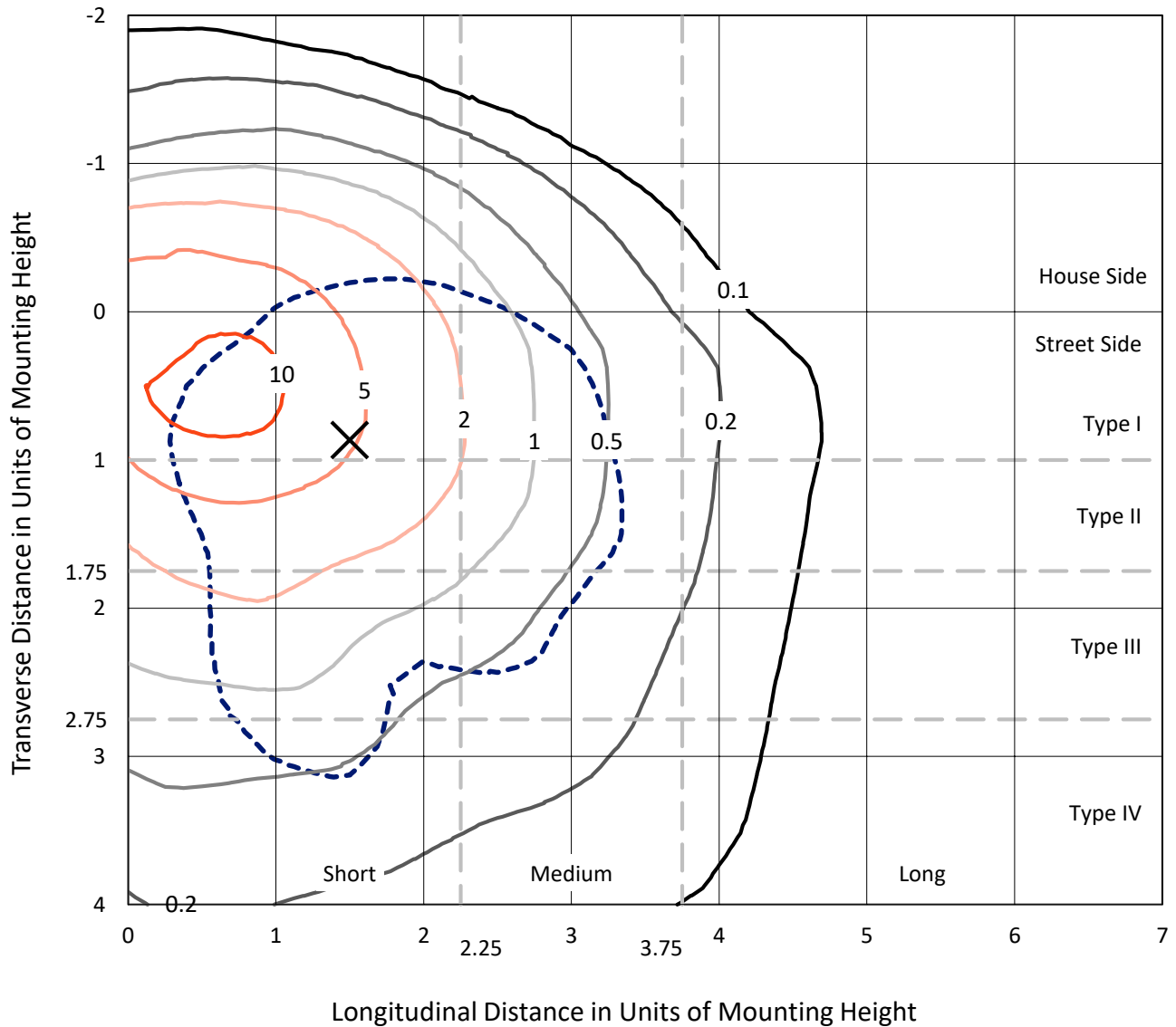
Lumens per Lamp: N/A
Luminaire Lumens: 29560.1 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 269.7
Input Voltage (V): NR
Input Current (A_{in}): 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: 25 FT

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Iso-Footcandle Lines of Horizontal Illumination

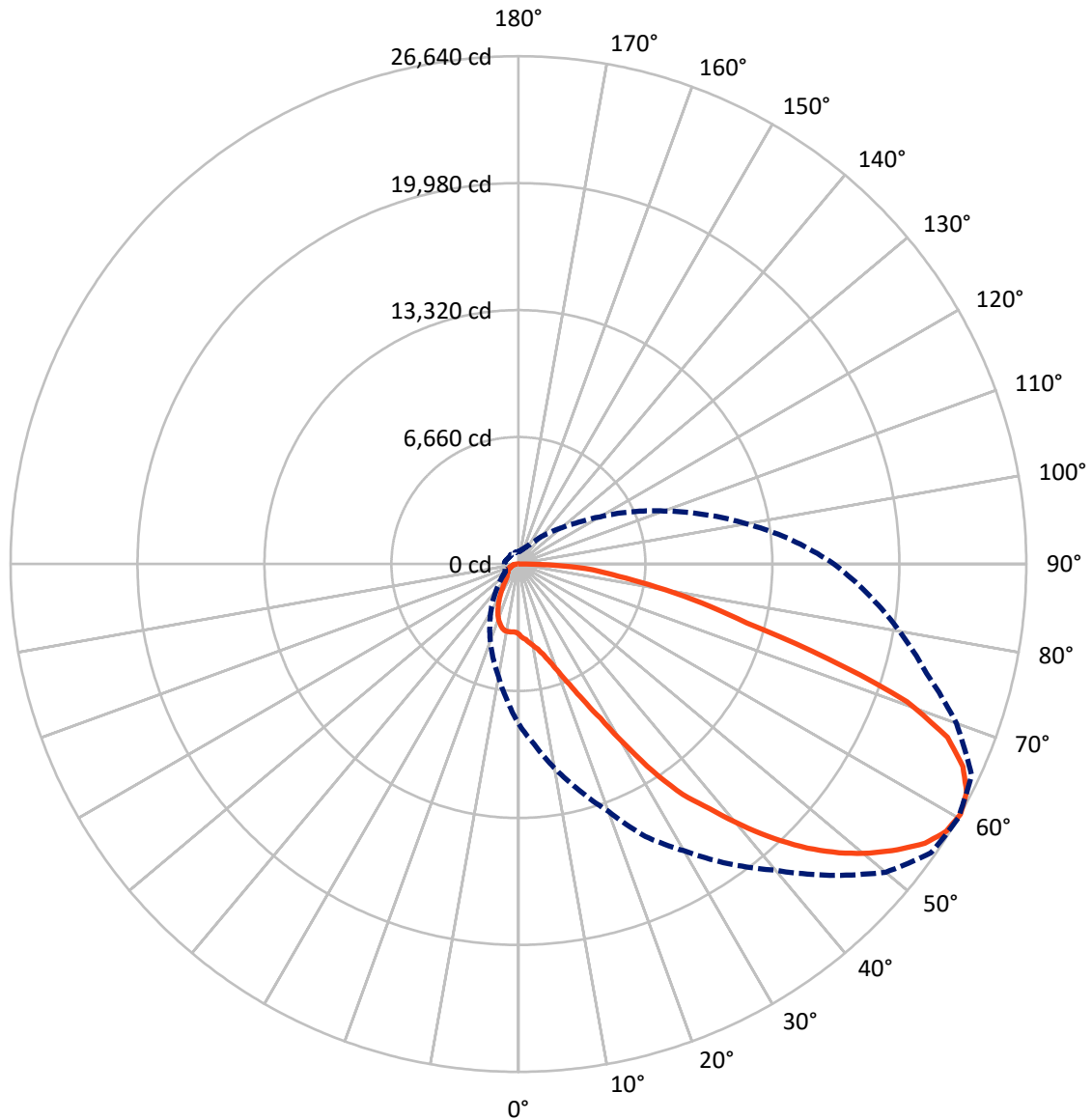
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.6 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	6656.0	0.0	6656.0
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	22904.1	0.0	22904.1
	% Fixture	77.5	0.0	77.5
Total	Lumens	29560.1	0.0	29560.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	362.7	1.2
10°-20°	1171.0	4.0
20°-30°	2222.1	7.5
30°-40°	3499.5	11.8
40°-50°	4884.4	16.5
50°-60°	6040.9	20.4
60°-70°	6261.7	21.2
70°-80°	3940.1	13.3
80°-90°	1177.8	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°	29560.1	100.0
0°-180°	29560.1	100.0



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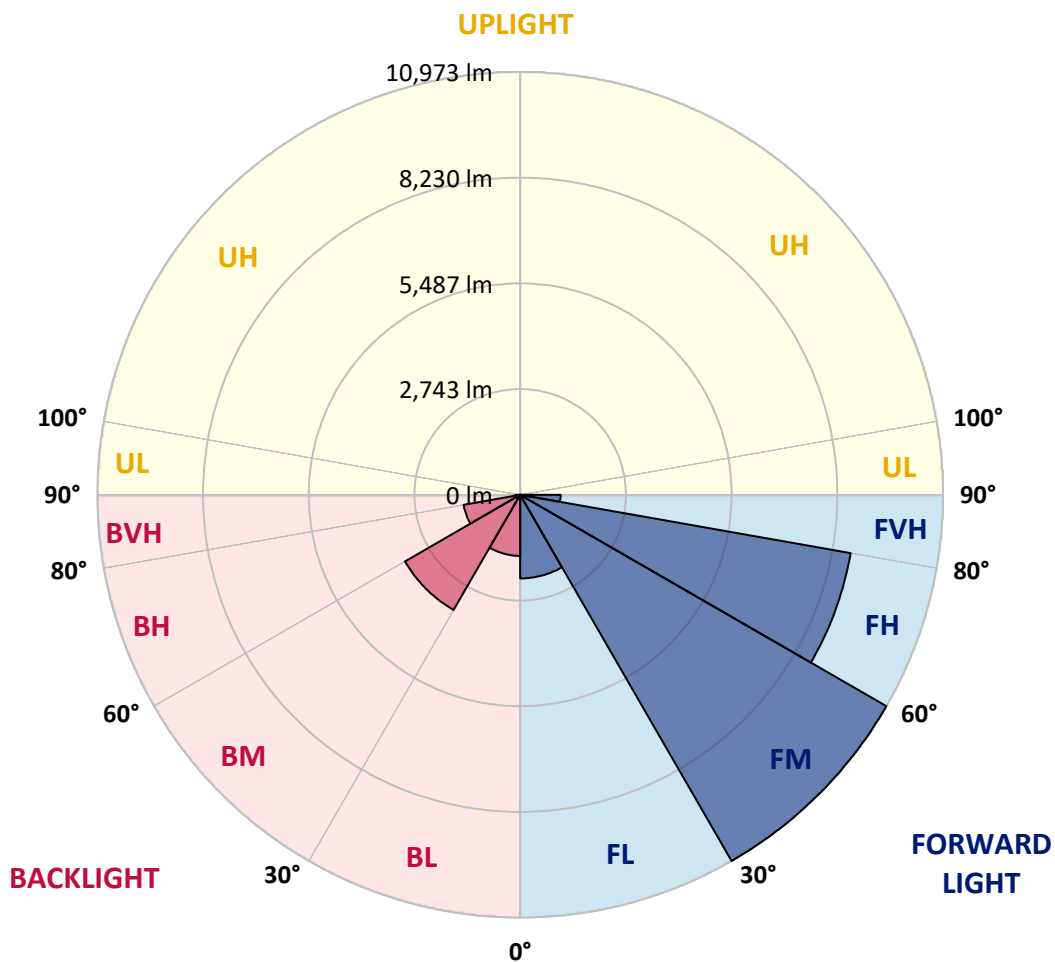
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2170.2	7.3			
FM	(30°-60°)	10973.2	37.1			
FH	(60°-80°)	8711.1	29.5			G4/12000
FVH	(80°-90°)	1049.7	3.6			G5
BL	(0°-30°)	1585.7	5.4	B3/2500		
BM	(30°-60°)	3451.5	11.7	B3/5000		
BH	(60°-80°)	1490.6	5.0	B3/2500		G3/2500
BVH	(80°-90°)	128.1	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°	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2
2.5°	3894.0	3889.6	3889.6	3889.6	3887.4	3883.0	3889.6	3887.4	3876.4	3869.8	3876.4
5°	3944.6	3946.8	3953.4	3955.6	3955.6	3962.2	3979.8	3982.0	3979.8	3984.2	3995.2
7.5°	3993.0	4004.0	4010.6	4021.6	4034.8	4045.8	4076.6	4107.4	4127.2	4142.6	4147.0
10°	4072.2	4089.8	4109.6	4138.2	4169.0	4224.0	4250.4	4281.2	4301.0	4331.8	4338.4
12.5°	4274.6	4296.6	4309.8	4353.8	4393.4	4446.2	4483.6	4492.4	4538.6	4565.0	4595.8
15°	4615.6	4648.6	4694.8	4721.2	4765.2	4811.4	4844.4	4888.4	4895.0	4930.2	4954.4
17.5°	5033.6	5079.8	5174.4	5238.2	5295.4	5341.6	5407.6	5458.2	5469.2	5508.8	5458.2
20°	5618.8	5731.0	5746.4	5874.0	5924.6	6017.0	6149.0	6173.2	6237.0	6173.2	6135.8
22.5°	6410.8	6586.8	6635.2	6758.4	6820.0	6960.8	7000.4	7130.2	7174.2	7125.8	7024.6
25°	7321.6	7594.4	7735.2	7924.4	7955.2	8243.4	8274.2	8426.0	8344.6	8228.0	8230.2
27.5°	7992.6	8456.8	8819.8	9143.2	9369.8	9695.4	9948.4	10018.8	9941.8	9790.0	9737.2
30°	8375.4	8901.2	9422.6	9869.2	10397.2	10894.4	11411.4	11668.8	11712.8	11792.0	11473.0
32.5°	8621.8	9297.2	9917.6	10469.8	11011.0	11651.2	12344.2	13006.4	13563.0	13983.2	13785.2
35°	8828.6	9662.4	10456.6	11125.4	11765.6	12463.0	13162.6	13943.6	14865.4	15404.4	15516.6
37.5°	8912.2	9930.8	10903.2	11761.2	12661.0	13446.4	14141.6	14836.8	15804.8	16766.2	17063.2
40°	8896.8	10062.8	11169.4	12247.4	13349.6	14330.8	15144.8	15967.6	17100.6	18224.8	18708.8
42.5°	8793.4	10082.6	11338.8	12570.8	13827.0	15131.6	16172.2	17120.4	18207.2	19648.2	20332.4
45°	8663.6	10014.4	11374.0	12735.8	14181.2	15690.4	17006.0	18178.6	19452.4	20875.8	21703.0
47.5°	8487.6	9906.6	11330.0	12793.0	14339.6	16049.0	17595.6	19005.8	20407.2	22046.2	23095.6
50°	8296.2	9752.6	11239.8	12751.2	14379.2	16244.8	17932.2	19538.2	21175.0	22943.8	24270.4
52.5°	8162.0	9587.6	11158.4	12665.4	14339.6	16304.2	18055.4	19824.2	21645.8	23474.0	25058.0
55°	7997.0	9367.6	10940.6	12465.2	14194.4	16271.2	18042.2	19923.2	21775.6	23678.6	25487.0
57.5°	8008.0	9266.4	10755.8	12225.4	13897.4	15965.4	17793.6	19824.2	21571.0	23546.6	25502.4
60°	8355.6	9484.2	10852.6	12273.8	13809.4	15771.8	17371.2	19186.2	20970.4	23091.2	25146.0
62.5°	9072.8	10106.8	11349.8	12757.8	14304.4	16159.0	17179.8	18125.8	19709.8	22253.0	24538.8
65°	9928.6	10861.4	11939.4	13279.2	15012.8	16788.2	17072.0	17263.4	18064.2	20622.8	23399.2
67.5°	10784.4	11618.2	12465.2	13576.2	15415.4	16968.6	16632.0	16176.6	16607.8	18728.6	21159.6
70°	11092.4	12199.0	12755.6	13519.0	15109.6	16548.4	15921.4	14775.2	14924.8	16852.0	18629.6
72.5°	10630.4	12207.8	12392.6	12676.4	13747.8	15100.8	14438.6	12964.6	12933.8	14405.6	15842.2
75°	8916.6	11136.4	11134.2	11028.6	11270.6	12040.6	11697.4	10808.6	11184.8	12344.2	12817.2
77.5°	6355.8	8690.0	8800.0	8089.4	8071.8	8419.4	8626.2	9660.2	11024.2	11675.4	11525.8
80°	3993.0	5863.0	6336.0	5458.2	5271.2	5764.0	7042.2	8547.0	10225.6	10810.8	10307.0
82.5°	2404.6	3777.4	4785.0	4287.8	4243.8	5141.4	6553.8	7139.0	7642.8	8265.4	7422.8
85°	1632.4	2516.8	3273.6	3372.6	3757.6	4686.0	5299.8	5040.2	5053.4	4890.6	4455.0
87.5°	312.4	686.4	1122.0	1368.4	1518.0	2039.4	2217.6	2008.6	2120.8	1551.0	1696.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2
2.5°	3865.4	3865.4	3865.4	3854.4	3856.6	3841.2	3834.6	3834.6	3828.0	3828.0	3825.8
5°	3986.4	3973.2	3979.8	3977.6	3977.6	3955.6	3944.6	3944.6	3916.0	3918.2	3909.4
7.5°	4166.8	4164.6	4171.2	4158.0	4140.4	4122.8	4105.2	4096.4	4056.8	4032.6	4017.2
10°	4371.4	4369.2	4375.8	4373.6	4342.8	4309.8	4261.4	4226.2	4177.8	4140.4	4103.0
12.5°	4595.8	4593.6	4589.2	4569.4	4536.4	4483.6	4422.0	4362.6	4290.0	4241.6	4186.6
15°	4945.6	4939.0	4912.6	4884.0	4848.8	4767.4	4659.6	4573.8	4477.0	4393.4	4303.2
17.5°	5462.6	5407.6	5403.2	5339.4	5244.8	5137.0	5035.8	4892.8	4754.2	4628.8	4505.6
20°	6175.4	6047.8	6012.6	5940.0	5814.6	5702.4	5482.4	5291.0	5101.8	4930.2	4774.0
22.5°	6952.0	6859.6	6773.8	6655.0	6483.4	6320.6	6041.2	5801.4	5559.4	5339.4	5165.6
25°	8036.6	7876.0	7722.0	7532.8	7295.2	7101.6	6782.6	6540.6	6223.8	6023.6	5772.8
27.5°	9438.0	9163.0	8903.4	8740.6	8322.6	8041.0	7634.0	7321.6	6938.8	6668.2	6371.2
30°	11261.8	10942.8	10557.8	9994.6	9497.4	8938.6	8434.8	8034.4	7627.4	7249.0	6905.8
32.5°	13523.4	12960.2	12350.8	11457.6	10641.4	9845.0	9174.0	8681.2	8265.4	7794.6	7310.6
35°	15435.2	14854.4	13989.8	12854.6	11847.0	10936.2	10133.2	9460.0	8916.6	8320.4	7680.2
37.5°	16944.4	16282.2	15470.4	14264.8	13200.0	12163.8	11321.2	10463.2	9750.4	8929.8	8120.2
40°	18673.6	18009.2	17116.0	15866.4	14605.8	13481.6	12493.8	11607.2	10731.6	9730.6	8690.0
42.5°	20180.6	19701.0	18796.8	17505.4	16108.4	14856.6	13776.4	12762.2	11618.2	10498.4	9266.4
45°	21751.4	21263.0	20405.0	19054.2	17569.2	16174.4	14883.0	13791.8	12441.0	11107.8	9697.6
47.5°	23139.6	22638.0	21771.2	20429.2	18851.8	17382.2	15961.0	14641.0	13072.4	11541.2	9979.2
50°	24464.0	23850.2	23056.0	21718.4	20033.2	18462.4	16920.2	15226.2	13563.0	11844.8	10170.6
52.5°	25680.6	24899.6	24147.2	22770.0	20948.4	19307.2	17586.8	15723.4	13864.4	12084.6	10300.4
55°	26371.4	25867.6	24967.8	23614.8	21599.6	19888.0	18009.2	16073.2	14163.6	12254.0	10355.4
57.5°	26584.8	26461.6	25707.0	24103.2	21982.4	20207.0	18295.2	16350.4	14363.8	12302.4	10278.4
60°	26415.4	26639.8	26226.2	24446.4	22156.2	20301.6	18436.0	16548.4	14399.0	12148.4	10045.2
62.5°	25872.0	26382.4	26329.6	24560.8	22066.0	20182.8	18420.6	16447.2	14069.0	11668.8	9521.6
65°	24978.8	25621.2	25847.8	24136.2	21557.8	19749.4	18029.0	15811.4	13151.6	10731.6	8643.8
67.5°	23298.0	24270.4	24490.4	22745.8	20229.0	18550.4	16900.4	14491.4	11453.2	9281.8	7273.2
70°	19929.8	21630.4	21927.4	20097.0	17886.0	16412.0	15012.8	12399.2	9537.0	7444.8	5581.4
72.5°	15910.4	16979.6	17586.8	16326.2	14680.6	13611.4	12551.0	9512.8	7196.2	5493.4	3841.2
75°	12438.8	12375.0	12918.4	12080.2	11112.2	10612.8	9816.4	6637.4	4820.2	3638.8	2431.0
77.5°	10634.8	9816.4	9198.2	8608.6	8034.4	7876.0	7112.6	4118.4	2978.8	2180.2	1454.2
80°	8839.6	7345.8	6217.2	5387.8	5183.2	5495.6	4655.2	2428.8	1764.4	1251.8	913.0
82.5°	6316.2	5284.4	4301.0	3775.2	3425.4	3922.6	2745.6	1348.6	957.0	750.2	605.0
85°	4094.2	3913.8	3872.0	3700.4	3275.8	3093.2	2085.6	1161.6	717.2	466.4	376.2
87.5°	1575.2	2019.6	2329.8	2497.0	2699.4	2404.6	1086.8	400.4	393.8	242.0	182.6
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°	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2
2.5°	3810.4	3801.6	3799.4	3792.8	3788.4	3788.4	3777.4	3577.2	3575.0	3575.0	3572.8
5°	3891.8	3880.8	3869.8	3867.6	3858.8	3858.8	3847.8	3647.6	3647.6	3647.6	3643.2
7.5°	4001.8	3979.8	3966.6	3960.0	3946.8	3953.4	3962.2	3759.8	3762.0	3759.8	3764.2
10°	4081.0	4067.8	4052.4	4048.0	4039.2	4045.8	4059.0	3858.8	3865.4	3867.6	3872.0
12.5°	4158.0	4136.0	4116.2	4109.6	4105.2	4122.8	4138.2	3944.6	3951.2	3957.8	3957.8
15°	4252.6	4215.2	4188.8	4173.4	4164.6	4182.2	4204.2	4012.8	4015.0	4021.6	4019.4
17.5°	4413.2	4358.2	4296.6	4285.6	4257.0	4263.6	4268.0	4054.6	4045.8	4030.4	4004.0
20°	4661.8	4578.2	4494.6	4459.4	4402.2	4378.0	4329.6	4056.8	4001.8	3955.6	3916.0
22.5°	5018.2	4895.0	4804.8	4745.4	4628.8	4547.4	4415.4	4045.8	3942.4	3863.2	3801.6
25°	5594.6	5447.2	5308.6	5159.0	4976.4	4813.6	4620.0	4142.6	3982.0	3845.6	3726.8
27.5°	6155.6	5922.4	5709.0	5484.6	5227.2	4983.0	4710.2	4173.4	3990.8	3814.8	3621.2
30°	6575.8	6237.0	5913.6	5585.8	5249.2	4932.4	4624.4	4067.8	3850.0	3652.0	3447.4
32.5°	6831.0	6391.0	5970.8	5563.8	5167.8	4811.4	4466.0	3885.2	3645.4	3412.2	3194.4
35°	7073.0	6527.4	6006.0	5526.4	5073.2	4677.2	4305.4	3671.8	3385.8	3137.2	2862.2
37.5°	7372.2	6670.4	6028.0	5458.2	4934.6	4481.4	4072.2	3403.4	3117.4	2811.6	2552.0
40°	7730.8	6817.8	6006.0	5321.8	4719.0	4224.0	3790.6	3121.8	2802.8	2505.8	2250.6
42.5°	8071.8	6947.6	5948.8	5139.2	4483.6	3955.6	3533.2	2871.0	2552.0	2248.4	1995.4
45°	8324.8	7057.6	5920.2	5011.6	4303.2	3773.0	3306.6	2668.6	2332.0	2026.2	1768.8
47.5°	8500.8	7123.6	5907.0	4941.2	4177.8	3583.8	3099.8	2466.2	2112.0	1804.0	1553.2
50°	8593.2	7121.4	5874.0	4864.2	3993.0	3357.2	2886.4	2261.6	1909.6	1608.2	1379.4
52.5°	8617.4	7081.8	5803.6	4723.4	3768.6	3130.6	2657.6	2048.2	1731.4	1443.2	1212.2
55°	8562.4	6985.0	5656.2	4488.0	3528.8	2890.8	2448.6	1881.0	1557.6	1284.8	1104.4
57.5°	8406.2	6813.4	5379.0	4164.6	3275.8	2668.6	2208.8	1678.6	1368.4	1139.6	990.0
60°	8115.8	6450.4	4945.6	3781.8	2954.6	2329.8	1878.8	1414.6	1168.2	996.6	875.6
62.5°	7579.0	5880.6	4336.2	3253.8	2492.6	1889.8	1500.4	1128.6	943.8	831.6	756.8
65°	6714.4	5022.6	3630.0	2563.0	1894.2	1375.0	1115.4	849.2	715.0	646.8	624.8
67.5°	5480.2	3878.6	2640.0	1779.8	1282.6	963.6	776.6	620.4	556.6	530.2	521.4
70°	3984.2	2642.2	1709.4	1124.2	847.0	673.2	587.4	499.4	464.2	457.6	457.6
72.5°	2501.4	1606.0	1047.2	770.0	642.4	545.6	501.6	440.0	426.8	422.4	415.8
75°	1467.4	974.6	741.4	631.4	550.0	488.4	451.0	400.4	391.6	389.4	382.8
77.5°	935.0	701.8	598.4	539.0	497.2	442.2	409.2	356.4	354.2	352.0	349.8
80°	671.0	583.0	523.6	477.4	435.6	385.0	365.2	323.4	319.0	316.8	321.2
82.5°	508.2	481.8	457.6	422.4	365.2	327.8	312.4	283.8	286.0	275.0	272.8
85°	349.8	345.4	343.2	327.8	286.0	253.0	242.0	226.6	237.6	226.6	213.4
87.5°	171.6	169.4	156.2	184.8	171.6	136.4	123.2	136.4	151.8	147.4	136.4
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: P158840

CATALOG NUMBER: VTS-E11-LED-E1-SLL

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2
2.5°	3564.0	3555.2	3561.8	3557.4	3557.4	3555.2	3559.6	3553.0	3548.6	3553.0	3555.2
5°	3634.4	3623.4	3625.6	3610.2	3616.8	3601.4	3605.8	3594.8	3583.8	3579.4	3579.4
7.5°	3753.2	3742.2	3729.0	3726.8	3702.6	3693.8	3678.4	3669.6	3663.0	3647.6	3638.8
10°	3861.0	3843.4	3828.0	3825.8	3801.6	3779.6	3759.8	3742.2	3731.2	3709.2	3698.2
12.5°	3949.0	3931.4	3907.2	3894.0	3869.8	3843.4	3830.2	3803.8	3788.4	3764.2	3744.4
15°	3999.6	3968.8	3933.6	3909.4	3874.2	3845.6	3825.8	3806.0	3790.6	3759.8	3731.2
17.5°	3975.4	3924.8	3876.4	3832.4	3784.0	3757.6	3729.0	3704.8	3700.4	3665.2	3621.2
20°	3874.2	3814.8	3751.0	3691.6	3627.8	3590.4	3555.2	3517.8	3506.8	3465.0	3407.8
22.5°	3751.0	3682.8	3610.2	3537.6	3456.2	3403.4	3350.6	3304.4	3267.0	3205.4	3124.0
25°	3625.6	3524.4	3418.8	3326.4	3231.8	3165.8	3110.8	3060.2	3016.2	2917.2	2833.6
27.5°	3460.6	3302.2	3194.4	3088.8	2974.4	2888.6	2827.0	2756.6	2708.2	2593.8	2505.8
30°	3249.4	3091.0	2937.0	2831.4	2717.0	2624.6	2545.4	2444.2	2373.8	2290.2	2208.8
32.5°	2983.2	2824.8	2668.6	2549.8	2455.2	2340.8	2241.8	2145.0	2063.6	1982.2	1918.4
35°	2659.8	2505.8	2358.4	2239.6	2134.0	2043.8	1949.2	1865.6	1773.2	1685.2	1647.8
37.5°	2318.8	2153.8	1991.0	1887.6	1804.0	1740.2	1652.2	1584.0	1500.4	1447.6	1403.6
40°	2021.8	1845.8	1691.8	1603.8	1537.8	1465.2	1392.6	1339.8	1280.4	1227.6	1194.6
42.5°	1771.0	1606.0	1474.0	1399.2	1320.0	1240.8	1185.8	1141.8	1104.4	1064.8	1025.2
45°	1540.0	1381.6	1271.6	1179.2	1113.2	1049.4	1012.0	992.2	970.2	946.0	919.6
47.5°	1346.4	1210.0	1102.2	1016.4	948.2	904.2	886.6	880.0	871.2	851.4	838.2
50°	1199.0	1086.8	976.8	899.8	842.6	820.6	800.8	794.2	783.2	776.6	767.8
52.5°	1075.8	957.0	864.6	794.2	759.0	750.2	741.4	732.6	730.4	726.0	721.6
55°	974.6	871.2	785.4	732.6	715.0	708.4	706.2	697.4	695.2	695.2	688.6
57.5°	884.4	796.4	719.4	686.4	675.4	668.8	664.4	660.0	660.0	664.4	662.2
60°	792.0	717.2	671.0	653.4	646.8	635.8	624.8	620.4	622.6	633.6	633.6
62.5°	701.8	646.8	618.2	611.6	605.0	596.2	583.0	578.6	583.0	596.2	602.8
65°	602.8	578.6	569.8	565.4	561.0	554.4	545.6	541.2	543.4	550.0	558.8
67.5°	512.6	510.4	510.4	512.6	510.4	508.2	503.8	497.2	495.0	495.0	499.4
70°	457.6	457.6	464.2	464.2	462.0	462.0	455.4	448.8	444.4	440.0	442.2
72.5°	415.8	415.8	418.0	420.2	418.0	418.0	409.2	404.8	393.8	391.6	387.2
75°	380.6	376.2	376.2	374.0	371.8	374.0	365.2	354.2	349.8	347.6	343.2
77.5°	345.4	336.6	332.2	327.8	330.0	327.8	321.2	314.6	308.0	305.8	303.6
80°	305.8	292.6	286.0	275.0	281.6	283.8	279.4	272.8	270.6	268.4	266.2
82.5°	253.0	239.8	231.0	224.4	220.0	224.4	231.0	246.4	242.0	239.8	235.4
85°	198.0	176.0	165.0	167.2	156.2	158.4	178.2	187.0	187.0	191.4	187.0
87.5°	112.2	107.8	81.4	74.8	79.2	94.6	105.6	116.6	116.6	110.0	123.2
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: P158840

CATALOG NUMBER: VTS-E11-LED-E1-SLL

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2
2.5°	3555.2	3559.6	3561.8	3570.6	3575.0	3577.2	3579.4	3583.8	3586.0	3583.8	3594.8
5°	3572.8	3572.8	3568.4	3575.0	3577.2	3577.2	3572.8	3577.2	3577.2	3577.2	3588.2
7.5°	3619.0	3605.8	3599.2	3590.4	3583.8	3575.0	3564.0	3564.0	3561.8	3564.0	3570.6
10°	3667.4	3647.6	3623.4	3601.4	3581.6	3566.2	3546.4	3539.8	3537.6	3535.4	3553.0
12.5°	3704.8	3669.6	3632.2	3594.8	3555.2	3528.8	3495.8	3476.0	3473.8	3473.8	3495.8
15°	3678.4	3621.2	3548.6	3482.6	3447.4	3410.0	3372.6	3348.4	3346.2	3350.6	3363.8
17.5°	3546.4	3454.0	3390.2	3326.4	3280.2	3249.4	3225.2	3220.8	3229.6	3220.8	3238.4
20°	3322.0	3223.0	3179.0	3128.4	3110.8	3088.8	3053.6	3022.8	3022.8	2983.2	2994.2
22.5°	3031.6	2976.6	2919.4	2879.8	2866.6	2829.2	2791.8	2750.0	2745.6	2697.2	2690.6
25°	2728.0	2673.0	2626.8	2618.0	2578.4	2527.8	2492.6	2444.2	2433.2	2384.8	2378.2
27.5°	2417.8	2373.8	2327.6	2301.2	2279.2	2224.2	2193.4	2136.2	2114.2	2061.4	2054.8
30°	2123.0	2092.2	2037.2	2015.2	1973.4	1909.6	1843.6	1808.4	1790.8	1735.8	1718.2
32.5°	1845.8	1797.4	1755.6	1729.2	1676.4	1603.8	1544.4	1493.8	1460.8	1394.8	1377.2
35°	1581.8	1533.4	1513.6	1445.4	1399.2	1350.8	1269.4	1238.6	1179.2	1128.6	1111.0
37.5°	1348.6	1302.4	1276.0	1218.8	1172.6	1124.2	1075.8	1036.2	1007.6	996.6	996.6
40°	1148.4	1124.2	1091.2	1049.4	1018.6	983.4	957.0	943.8	941.6	946.0	957.0
42.5°	1005.4	979.0	957.0	935.0	913.0	908.6	902.0	910.8	921.8	932.8	943.8
45°	897.6	875.6	862.4	853.6	851.4	858.0	871.2	884.4	904.2	917.4	926.2
47.5°	820.6	803.0	798.6	796.4	807.4	827.2	844.8	864.6	880.0	893.2	902.0
50°	754.6	739.2	737.0	734.8	750.2	767.8	783.2	809.6	820.6	829.4	836.0
52.5°	708.4	695.2	688.6	690.8	706.2	721.6	743.6	763.4	778.8	785.4	792.0
55°	671.0	666.6	651.2	657.8	673.2	693.0	715.0	737.0	752.4	763.4	774.4
57.5°	642.4	631.4	620.4	631.4	646.8	666.6	693.0	712.8	732.6	748.0	759.0
60°	611.6	602.8	594.0	605.0	620.4	640.2	660.0	686.4	710.6	726.0	737.0
62.5°	585.2	578.6	569.8	572.0	578.6	591.8	602.8	627.0	649.0	668.8	682.0
65°	547.8	545.6	532.4	534.6	539.0	552.2	561.0	583.0	605.0	622.6	633.6
67.5°	492.8	488.4	488.4	495.0	497.2	503.8	510.4	532.4	550.0	563.2	576.4
70°	437.8	435.6	435.6	440.0	437.8	444.4	453.2	473.0	495.0	508.2	521.4
72.5°	385.0	385.0	382.8	387.2	387.2	389.4	400.4	418.0	437.8	448.8	457.6
75°	338.8	336.6	336.6	336.6	338.8	338.8	349.8	365.2	385.0	391.6	404.8
77.5°	297.0	297.0	297.0	297.0	299.2	297.0	303.6	314.6	321.2	332.2	332.2
80°	261.8	259.6	261.8	264.0	264.0	261.8	261.8	264.0	266.2	266.2	266.2
82.5°	231.0	224.4	228.8	239.8	239.8	239.8	237.6	222.2	211.2	211.2	215.6
85°	184.8	184.8	187.0	202.4	204.6	195.8	204.6	182.6	160.6	154.0	158.4
87.5°	114.4	90.2	110.0	125.4	125.4	118.8	132.0	123.2	103.4	83.6	79.2
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: P158840
 CATALOG NUMBER: VTS-E11-LED-E1-SLL

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	0°
2.5°	3603.6	3605.8	3619.0	3625.6	3625.6	3634.4	3638.8	3652.0	3649.8	3649.8	3654.2	2.5°
5°	3599.2	3605.8	3619.0	3627.8	3632.2	3643.2	3652.0	3667.4	3665.2	3669.6	3671.8	5°
7.5°	3583.8	3601.4	3614.6	3632.2	3647.6	3656.4	3667.4	3680.6	3676.2	3678.4	3676.2	7.5°
10°	3570.6	3588.2	3614.6	3638.8	3660.8	3674.0	3680.6	3696.0	3693.8	3698.2	3698.2	10°
12.5°	3517.8	3548.6	3581.6	3619.0	3652.0	3687.2	3709.2	3742.2	3757.6	3777.4	3799.4	12.5°
15°	3383.6	3418.8	3471.6	3513.4	3577.2	3625.6	3689.4	3753.2	3810.4	3865.4	3929.2	15°
17.5°	3251.6	3267.0	3308.8	3366.0	3423.2	3495.8	3572.8	3687.2	3790.6	3902.8	4026.0	17.5°
20°	3007.4	3033.8	3062.4	3130.6	3198.8	3302.2	3396.8	3546.4	3698.2	3874.2	4063.4	20°
22.5°	2706.0	2732.4	2763.2	2840.2	2923.8	3029.4	3143.8	3311.0	3513.4	3742.2	3995.2	22.5°
25°	2380.4	2395.8	2420.0	2497.0	2547.6	2686.2	2824.8	2998.6	3218.6	3513.4	3808.2	25°
27.5°	2021.8	2050.4	2070.2	2105.4	2222.0	2340.8	2486.0	2673.0	2939.2	3240.6	3597.0	27.5°
30°	1678.6	1702.8	1691.8	1766.6	1843.6	1969.0	2125.2	2332.0	2587.2	2945.8	3357.2	30°
32.5°	1342.0	1359.6	1353.0	1405.8	1482.8	1608.2	1755.6	1980.0	2250.6	2633.4	3080.0	32.5°
35°	1106.6	1111.0	1135.2	1159.4	1225.4	1326.6	1452.0	1647.8	1925.0	2277.0	2750.0	35°
37.5°	996.6	1005.4	1020.8	1053.8	1102.2	1174.8	1278.2	1430.0	1667.6	1977.8	2400.2	37.5°
40°	963.6	970.2	979.0	1001.0	1047.2	1111.0	1203.4	1331.0	1504.8	1766.6	2109.8	40°
42.5°	948.2	948.2	948.2	961.4	996.6	1064.8	1170.4	1295.8	1447.6	1645.6	1922.8	42.5°
45°	926.2	926.2	924.0	930.6	954.8	1023.0	1137.4	1278.2	1441.0	1630.2	1870.0	45°
47.5°	902.0	899.8	893.2	893.2	908.6	976.8	1095.6	1247.4	1425.6	1643.4	1900.8	47.5°
50°	836.0	836.0	836.0	842.6	855.8	917.4	1045.0	1205.6	1410.2	1652.2	1949.2	50°
52.5°	798.6	800.8	807.4	807.4	820.6	884.4	1018.6	1196.8	1419.0	1685.2	2010.8	52.5°
55°	781.0	787.6	794.2	794.2	805.2	871.2	1009.8	1203.4	1452.0	1753.4	2116.4	55°
57.5°	765.6	772.2	776.6	776.6	785.4	842.6	985.6	1192.4	1471.8	1819.4	2246.2	57.5°
60°	737.0	741.4	743.6	743.6	745.8	794.2	930.6	1139.6	1427.8	1815.0	2316.6	60°
62.5°	684.2	693.0	695.2	697.4	697.4	743.6	860.2	1053.8	1333.2	1749.0	2296.8	62.5°
65°	644.6	649.0	655.6	660.0	668.8	699.6	792.0	950.4	1210.0	1617.0	2186.8	65°
67.5°	583.0	589.6	596.2	605.0	613.8	633.6	706.2	833.8	1042.8	1392.6	1940.4	67.5°
70°	528.0	530.2	536.8	547.8	550.0	561.0	613.8	701.8	853.6	1117.6	1562.0	70°
72.5°	459.8	464.2	473.0	486.2	486.2	495.0	525.8	572.0	668.8	853.6	1152.8	72.5°
75°	400.4	404.8	411.4	411.4	400.4	402.6	424.6	457.6	530.2	642.4	840.4	75°
77.5°	332.2	341.0	347.6	334.4	330.0	336.6	347.6	371.8	424.6	510.4	631.4	77.5°
80°	275.0	279.4	281.6	283.8	279.4	286.0	294.8	310.2	345.4	411.4	499.4	80°
82.5°	220.0	224.4	231.0	239.8	239.8	264.0	266.2	266.2	286.0	327.8	391.6	82.5°
85°	162.8	171.6	180.4	191.4	193.6	206.8	200.2	198.0	204.6	244.2	270.6	85°
87.5°	83.6	90.2	94.6	103.4	92.4	96.8	96.8	90.2	79.2	99.0	110.0	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: P158840

NUMBER: VTS-E11-LED-E1-SLL

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
3676.2	3676.2	3676.2	3676.2	3676.2	3676.2	3676.2
3658.6	3654.2	3658.6	3658.6	3665.2	3660.8	3894.0
3676.2	3671.8	3676.2	3680.6	3687.2	3687.2	3944.6
3678.4	3678.4	3674.0	3685.0	3693.8	3702.6	3993.0
3704.8	3704.8	3709.2	3711.4	3731.2	3753.2	4072.2
3812.6	3823.6	3843.4	3850.0	3885.2	3909.4	4274.6
3977.6	4039.2	4078.8	4092.0	4122.8	4169.0	4615.6
4144.8	4248.2	4356.0	4422.0	4461.6	4516.6	5033.6
4270.2	4463.8	4648.6	4813.6	4908.2	5016.0	5618.8
4281.2	4589.2	4901.6	5207.4	5460.4	5660.6	6410.8
4175.6	4580.4	5011.6	5480.2	5915.8	6276.6	7321.6
4041.4	4538.6	5088.6	5687.0	6259.0	6791.4	7992.6
3872.0	4468.2	5101.8	5775.0	6446.0	7086.2	8375.4
3614.6	4259.2	4943.4	5687.0	6465.8	7244.6	8621.8
3284.6	3942.4	4644.2	5491.2	6373.4	7308.4	8828.6
2948.0	3597.0	4351.6	5229.4	6226.0	7297.4	8912.2
2591.6	3236.2	4008.4	4950.0	6025.8	7196.2	8896.8
2349.6	2937.0	3693.8	4666.2	5803.6	7062.0	8793.4
2208.8	2723.6	3445.2	4406.6	5601.2	6901.4	8663.6
2206.6	2659.8	3313.2	4221.8	5396.6	6723.2	8487.6
2283.6	2699.4	3297.8	4142.6	5284.4	6593.4	8296.2
2373.8	2809.4	3379.2	4171.2	5282.2	6536.2	8162.0
2516.8	2996.4	3557.4	4294.4	5339.4	6527.4	7997.0
2699.4	3249.4	3878.6	4598.0	5561.6	6701.2	8008.0
2886.4	3546.4	4298.8	5117.2	5999.4	7106.0	8355.6
2954.6	3775.2	4725.6	5726.6	6655.0	7713.2	9072.8
2895.2	3828.0	4985.2	6199.6	7293.0	8423.8	9928.6
2675.2	3614.6	4879.6	6333.8	7660.4	8927.6	10784.4
2202.2	3084.4	4400.0	6032.4	7631.8	9031.0	11092.4
1614.8	2391.4	3577.2	5126.0	6784.8	8384.2	10630.4
1166.0	1691.8	2582.8	3861.0	5363.6	6751.8	8916.6
836.0	1172.6	1676.4	2536.6	3654.2	4701.4	6355.8
600.6	796.4	1045.0	1522.4	2226.4	2886.4	3993.0
442.2	545.6	686.4	946.0	1311.2	1680.8	2404.6
301.4	321.2	413.6	558.8	860.2	1236.4	1632.4
114.4	129.8	151.8	228.8	385.0	442.2	312.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)