

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: P158930

Luminaire Tested: **VST-E09-LED-E-U-SLL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158930
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-E09-LED-E-U-SLL
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (189) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24185.5 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 225.7
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



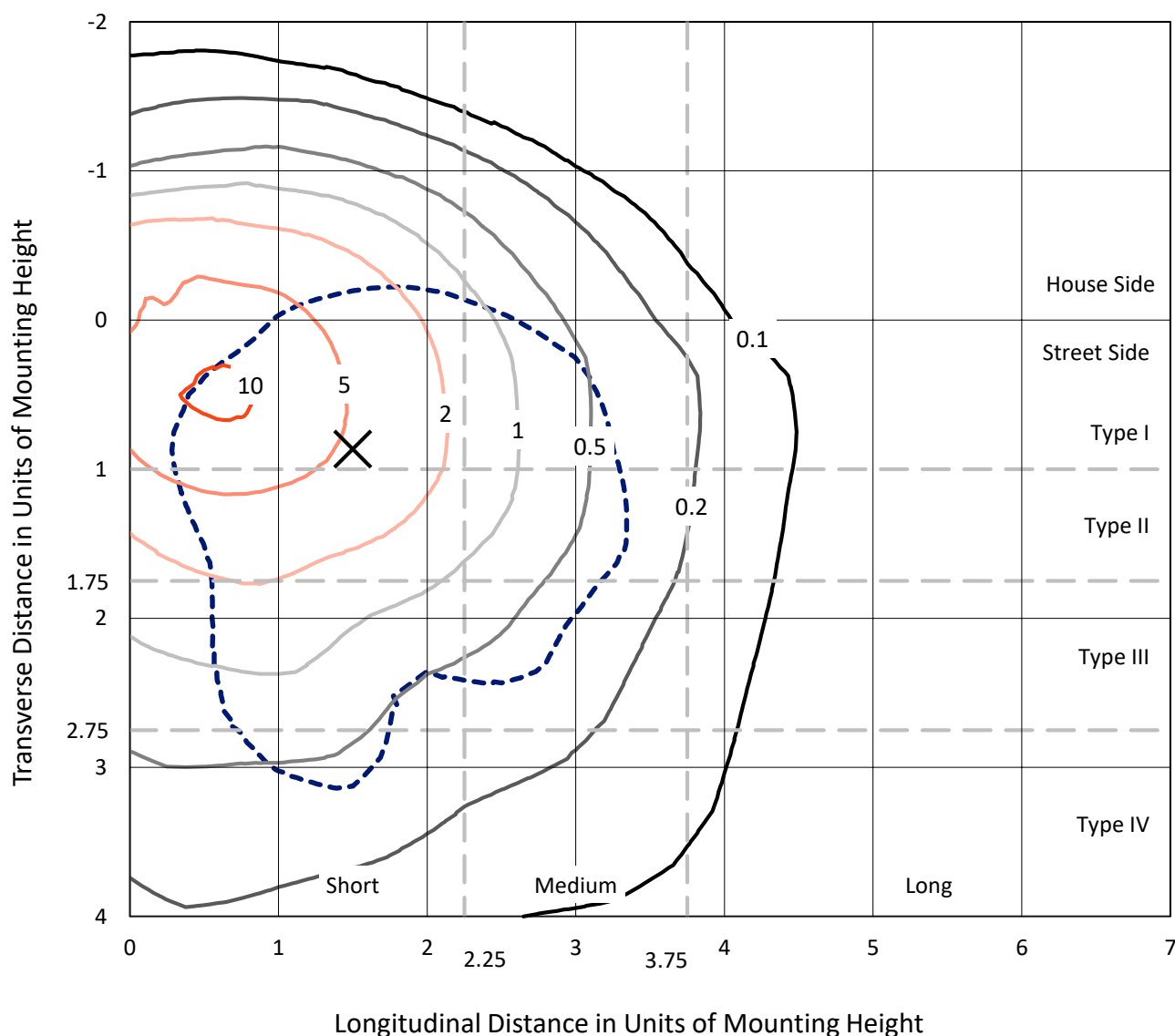
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

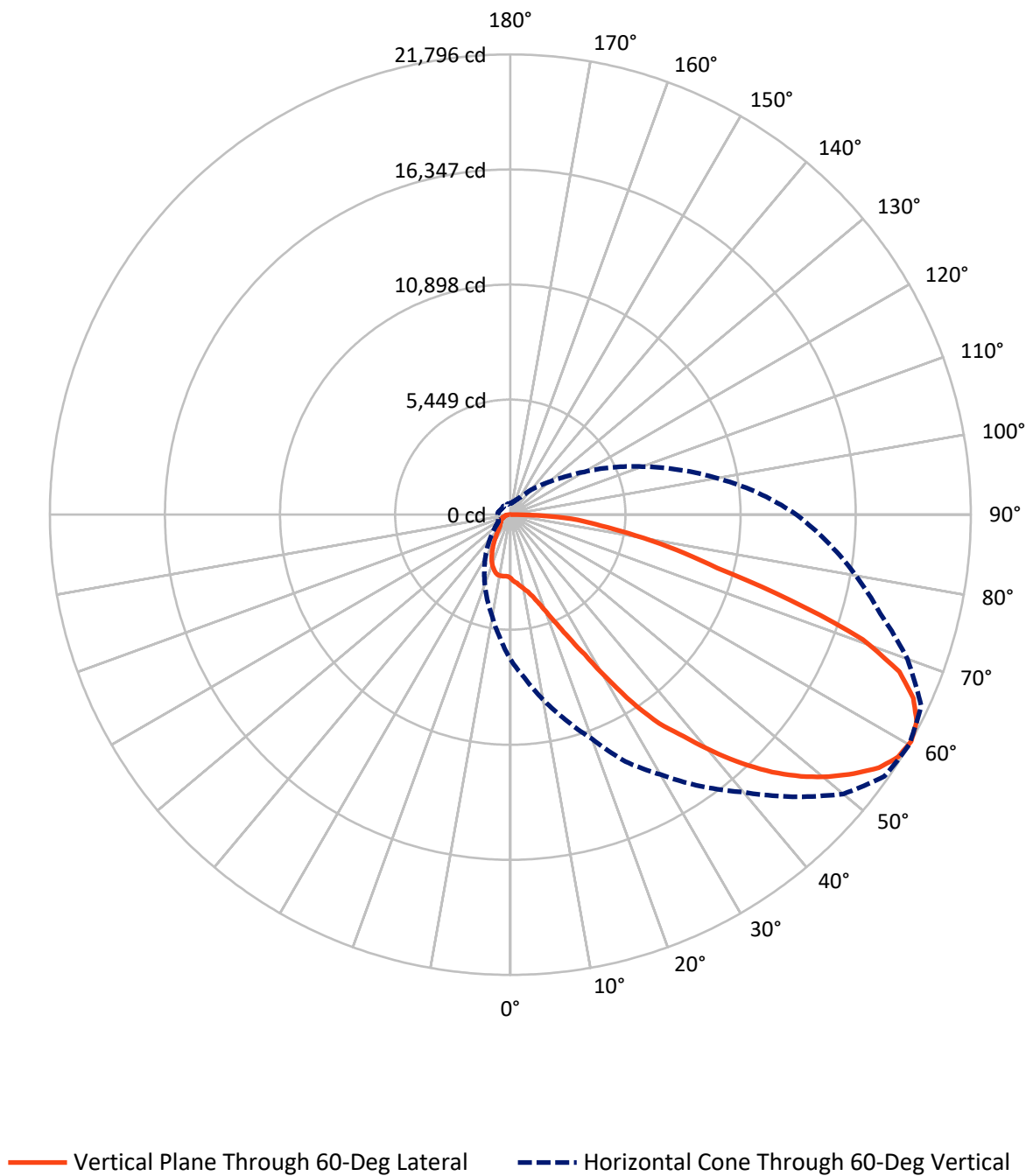


Based on 25 foot mounting height. Maximum calculated value = 11.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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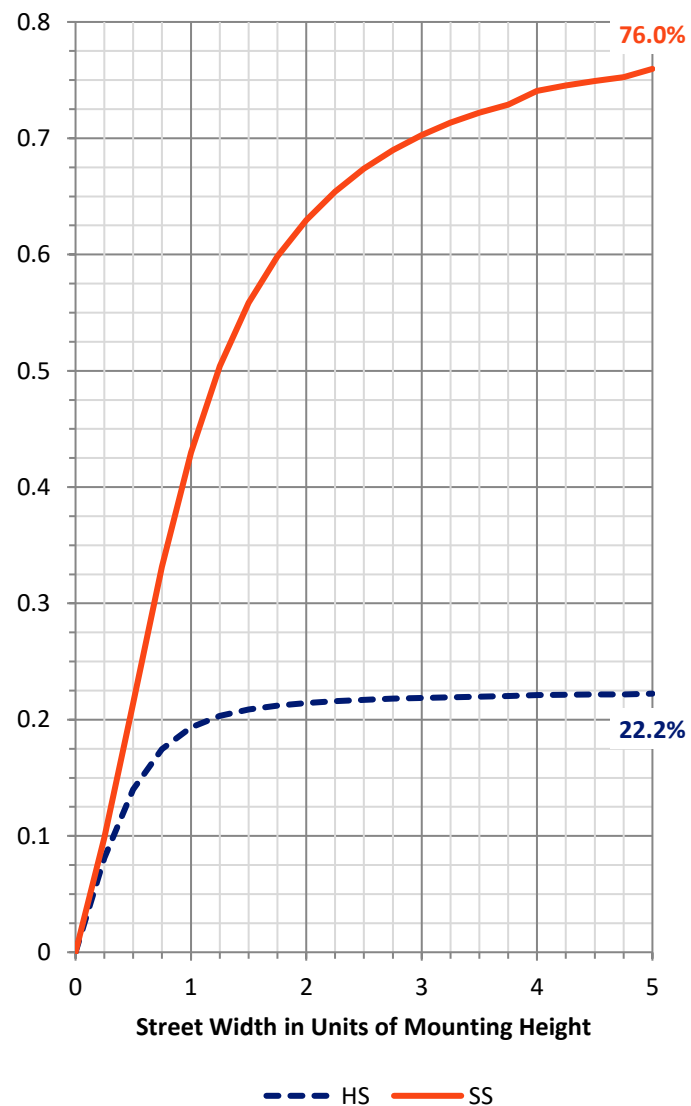
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5445.8	0.0	5445.8
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	18739.7	0.0	18739.7
	% Fixture	77.5	0.0	77.5
Total	Lumens	24185.5	0.0	24185.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.7	1.2
10°-20°	958.1	4.0
20°-30°	1818.1	7.5
30°-40°	2863.2	11.8
40°-50°	3996.3	16.5
50°-60°	4942.5	20.4
60°-70°	5123.2	21.2
70°-80°	3223.7	13.3
80°-90°	963.6	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°	24185.5	100.0
0°-180°	24185.5	100.0

Coefficient of Utilization



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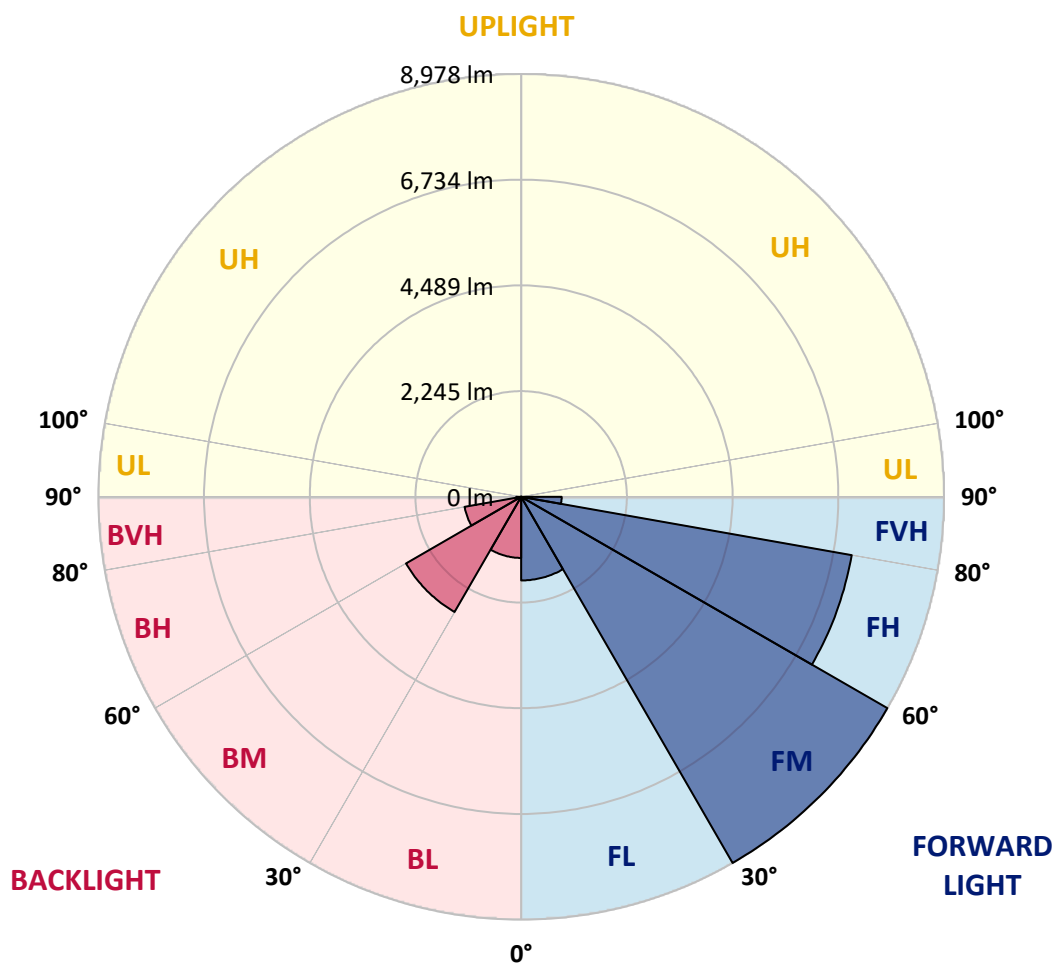
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1775.6	7.3			
FM	(30°-60°)	8978.1	37.1			
FH	(60°-80°)	7127.3	29.5			G3/7500
FVH	(80°-90°)	858.8	3.6			G5
BL	(0°-30°)	1297.4	5.4	B3/2500		
BM	(30°-60°)	2824.0	11.7	B3/5000		
BH	(60°-80°)	1219.6	5.0	B3/2500		G3/2500
BVH	(80°-90°)	104.8	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°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
2.5°	3186.0	3182.4	3182.4	3182.4	3180.6	3177.0	3182.4	3180.6	3171.6	3166.2	3171.6
5°	3227.4	3229.2	3234.6	3236.4	3236.4	3241.8	3256.2	3258.0	3256.2	3259.8	3268.8
7.5°	3267.0	3276.0	3281.4	3290.4	3301.2	3310.2	3335.4	3360.6	3376.8	3389.4	3393.0
10°	3331.8	3346.2	3362.4	3385.8	3411.0	3456.0	3477.6	3502.8	3519.0	3544.2	3549.6
12.5°	3497.4	3515.4	3526.2	3562.2	3594.6	3637.8	3668.4	3675.6	3713.4	3735.0	3760.2
15°	3776.4	3803.4	3841.2	3862.8	3898.8	3936.6	3963.6	3999.6	4005.0	4033.8	4053.6
17.5°	4118.4	4156.2	4233.6	4285.8	4332.6	4370.4	4424.4	4465.8	4474.8	4507.2	4465.8
20°	4597.2	4689.0	4701.6	4806.0	4847.4	4923.0	5031.0	5050.8	5103.0	5050.8	5020.2
22.5°	5245.2	5389.2	5428.8	5529.6	5580.0	5695.2	5727.6	5833.8	5869.8	5830.2	5747.4
25°	5990.4	6213.6	6328.8	6483.6	6508.8	6744.6	6769.8	6894.0	6827.4	6732.0	6733.8
27.5°	6539.4	6919.2	7216.2	7480.8	7666.2	7932.6	8139.6	8197.2	8134.2	8010.0	7966.8
30°	6852.6	7282.8	7709.4	8074.8	8506.8	8913.6	9336.6	9547.2	9583.2	9648.0	9387.0
32.5°	7054.2	7606.8	8114.4	8566.2	9009.0	9532.8	10099.8	10641.6	11097.0	11440.8	11278.8
35°	7223.4	7905.6	8555.4	9102.6	9626.4	10197.0	10769.4	11408.4	12162.6	12603.6	12695.4
37.5°	7291.8	8125.2	8920.8	9622.8	10359.0	11001.6	11570.4	12139.2	12931.2	13717.8	13960.8
40°	7279.2	8233.2	9138.6	10020.6	10922.4	11725.2	12391.2	13064.4	13991.4	14911.2	15307.2
42.5°	7194.6	8249.4	9277.2	10285.2	11313.0	12380.4	13231.8	14007.6	14896.8	16075.8	16635.6
45°	7088.4	8193.6	9306.0	10420.2	11602.8	12837.6	13914.0	14873.4	15915.6	17080.2	17757.0
47.5°	6944.4	8105.4	9270.0	10467.0	11732.4	13131.0	14396.4	15550.2	16696.8	18037.8	18896.4
50°	6787.8	7979.4	9196.2	10432.8	11764.8	13291.2	14671.8	15985.8	17325.0	18772.2	19857.6
52.5°	6678.0	7844.4	9129.6	10362.6	11732.4	13339.8	14772.6	16219.8	17710.2	19206.0	20502.0
55°	6543.0	7664.4	8951.4	10198.8	11613.6	13312.8	14761.8	16300.8	17816.4	19373.4	20853.0
57.5°	6552.0	7581.6	8800.2	10002.6	11370.6	13062.6	14558.4	16219.8	17649.0	19265.4	20865.6
60°	6836.4	7759.8	8879.4	10042.2	11298.6	12904.2	14212.8	15697.8	17157.6	18892.8	20574.0
62.5°	7423.2	8269.2	9286.2	10438.2	11703.6	13221.0	14056.2	14830.2	16126.2	18207.0	20077.2
65°	8123.4	8886.6	9768.6	10864.8	12283.2	13735.8	13968.0	14124.6	14779.8	16873.2	19144.8
67.5°	8823.6	9505.8	10198.8	11107.8	12612.6	13883.4	13608.0	13235.4	13588.2	15323.4	17312.4
70°	9075.6	9981.0	10436.4	11061.0	12362.4	13539.6	13026.6	12088.8	12211.2	13788.0	15242.4
72.5°	8697.6	9988.2	10139.4	10371.6	11248.2	12355.2	11813.4	10607.4	10582.2	11786.4	12961.8
75°	7295.4	9111.6	9109.8	9023.4	9221.4	9851.4	9570.6	8843.4	9151.2	10099.8	10486.8
77.5°	5200.2	7110.0	7200.0	6618.6	6604.2	6888.6	7057.8	7903.8	9019.8	9552.6	9430.2
80°	3267.0	4797.0	5184.0	4465.8	4312.8	4716.0	5761.8	6993.0	8366.4	8845.2	8433.0
82.5°	1967.4	3090.6	3915.0	3508.2	3472.2	4206.6	5362.2	5841.0	6253.2	6762.6	6073.2
85°	1335.6	2059.2	2678.4	2759.4	3074.4	3834.0	4336.2	4123.8	4134.6	4001.4	3645.0
87.5°	255.6	561.6	918.0	1119.6	1242.0	1668.6	1814.4	1643.4	1735.2	1269.0	1387.8
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°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
2.5°	3162.6	3162.6	3162.6	3153.6	3155.4	3142.8	3137.4	3137.4	3132.0	3132.0	3130.2
5°	3261.6	3250.8	3256.2	3254.4	3254.4	3236.4	3227.4	3227.4	3204.0	3205.8	3198.6
7.5°	3409.2	3407.4	3412.8	3402.0	3387.6	3373.2	3358.8	3351.6	3319.2	3299.4	3286.8
10°	3576.6	3574.8	3580.2	3578.4	3553.2	3526.2	3486.6	3457.8	3418.2	3387.6	3357.0
12.5°	3760.2	3758.4	3754.8	3738.6	3711.6	3668.4	3618.0	3569.4	3510.0	3470.4	3425.4
15°	4046.4	4041.0	4019.4	3996.0	3967.2	3900.6	3812.4	3742.2	3663.0	3594.6	3520.8
17.5°	4469.4	4424.4	4420.8	4368.6	4291.2	4203.0	4120.2	4003.2	3889.8	3787.2	3686.4
20°	5052.6	4948.2	4919.4	4860.0	4757.4	4665.6	4485.6	4329.0	4174.2	4033.8	3906.0
22.5°	5688.0	5612.4	5542.2	5445.0	5304.6	5171.4	4942.8	4746.6	4548.6	4368.6	4226.4
25°	6575.4	6444.0	6318.0	6163.2	5968.8	5810.4	5549.4	5351.4	5092.2	4928.4	4723.2
27.5°	7722.0	7497.0	7284.6	7151.4	6809.4	6579.0	6246.0	5990.4	5677.2	5455.8	5212.8
30°	9214.2	8953.2	8638.2	8177.4	7770.6	7313.4	6901.2	6573.6	6240.6	5931.0	5650.2
32.5°	11064.6	10603.8	10105.2	9374.4	8706.6	8055.0	7506.0	7102.8	6762.6	6377.4	5981.4
35°	12628.8	12153.6	11446.2	10517.4	9693.0	8947.8	8290.8	7740.0	7295.4	6807.6	6283.8
37.5°	13863.6	13321.8	12657.6	11671.2	10800.0	9952.2	9262.8	8560.8	7977.6	7306.2	6643.8
40°	15278.4	14734.8	14004.0	12981.6	11950.2	11030.4	10222.2	9496.8	8780.4	7961.4	7110.0
42.5°	16511.4	16119.0	15379.2	14322.6	13179.6	12155.4	11271.6	10441.8	9505.8	8589.6	7581.6
45°	17796.6	17397.0	16695.0	15589.8	14374.8	13233.6	12177.0	11284.2	10179.0	9088.2	7934.4
47.5°	18932.4	18522.0	17812.8	16714.8	15424.2	14221.8	13059.0	11979.0	10695.6	9442.8	8164.8
50°	20016.0	19513.8	18864.0	17769.6	16390.8	15105.6	13843.8	12457.8	11097.0	9691.2	8321.4
52.5°	21011.4	20372.4	19756.8	18630.0	17139.6	15796.8	14389.2	12864.6	11343.6	9887.4	8427.6
55°	21576.6	21164.4	20428.2	19321.2	17672.4	16272.0	14734.8	13150.8	11588.4	10026.0	8472.6
57.5°	21751.2	21650.4	21033.0	19720.8	17985.6	16533.0	14968.8	13377.6	11752.2	10065.6	8409.6
60°	21612.6	21796.2	21457.8	20001.6	18127.8	16610.4	15084.0	13539.6	11781.0	9939.6	8218.8
62.5°	21168.0	21585.6	21542.4	20095.2	18054.0	16513.2	15071.4	13456.8	11511.0	9547.2	7790.4
65°	20437.2	20962.8	21148.2	19747.8	17638.2	16158.6	14751.0	12936.6	10760.4	8780.4	7072.2
67.5°	19062.0	19857.6	20037.6	18610.2	16551.0	15177.6	13827.6	11856.6	9370.8	7594.2	5950.8
70°	16306.2	17697.6	17940.6	16443.0	14634.0	13428.0	12283.2	10144.8	7803.0	6091.2	4566.6
72.5°	13017.6	13892.4	14389.2	13357.8	12011.4	11136.6	10269.0	7783.2	5887.8	4494.6	3142.8
75°	10177.2	10125.0	10569.6	9883.8	9091.8	8683.2	8031.6	5430.6	3943.8	2977.2	1989.0
77.5°	8701.2	8031.6	7525.8	7043.4	6573.6	6444.0	5819.4	3369.6	2437.2	1783.8	1189.8
80°	7232.4	6010.2	5086.8	4408.2	4240.8	4496.4	3808.8	1987.2	1443.6	1024.2	747.0
82.5°	5167.8	4323.6	3519.0	3088.8	2802.6	3209.4	2246.4	1103.4	783.0	613.8	495.0
85°	3349.8	3202.2	3168.0	3027.6	2680.2	2530.8	1706.4	950.4	586.8	381.6	307.8
87.5°	1288.8	1652.4	1906.2	2043.0	2208.6	1967.4	889.2	327.6	322.2	198.0	149.4
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°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
2.5°	3117.6	3110.4	3108.6	3103.2	3099.6	3099.6	3090.6	2926.8	2925.0	2925.0	2923.2
5°	3184.2	3175.2	3166.2	3164.4	3157.2	3157.2	3148.2	2984.4	2984.4	2984.4	2980.8
7.5°	3274.2	3256.2	3245.4	3240.0	3229.2	3234.6	3241.8	3076.2	3078.0	3076.2	3079.8
10°	3339.0	3328.2	3315.6	3312.0	3304.8	3310.2	3321.0	3157.2	3162.6	3164.4	3168.0
12.5°	3402.0	3384.0	3367.8	3362.4	3358.8	3373.2	3385.8	3227.4	3232.8	3238.2	3238.2
15°	3479.4	3448.8	3427.2	3414.6	3407.4	3421.8	3439.8	3283.2	3285.0	3290.4	3288.6
17.5°	3610.8	3565.8	3515.4	3506.4	3483.0	3488.4	3492.0	3317.4	3310.2	3297.6	3276.0
20°	3814.2	3745.8	3677.4	3648.6	3601.8	3582.0	3542.4	3319.2	3274.2	3236.4	3204.0
22.5°	4105.8	4005.0	3931.2	3882.6	3787.2	3720.6	3612.6	3310.2	3225.6	3160.8	3110.4
25°	4577.4	4456.8	4343.4	4221.0	4071.6	3938.4	3780.0	3389.4	3258.0	3146.4	3049.2
27.5°	5036.4	4845.6	4671.0	4487.4	4276.8	4077.0	3853.8	3414.6	3265.2	3121.2	2962.8
30°	5380.2	5103.0	4838.4	4570.2	4294.8	4035.6	3783.6	3328.2	3150.0	2988.0	2820.6
32.5°	5589.0	5229.0	4885.2	4552.2	4228.2	3936.6	3654.0	3178.8	2982.6	2791.8	2613.6
35°	5787.0	5340.6	4914.0	4521.6	4150.8	3826.8	3522.6	3004.2	2770.2	2566.8	2341.8
37.5°	6031.8	5457.6	4932.0	4465.8	4037.4	3666.6	3331.8	2784.6	2550.6	2300.4	2088.0
40°	6325.2	5578.2	4914.0	4354.2	3861.0	3456.0	3101.4	2554.2	2293.2	2050.2	1841.4
42.5°	6604.2	5684.4	4867.2	4204.8	3668.4	3236.4	2890.8	2349.0	2088.0	1839.6	1632.6
45°	6811.2	5774.4	4843.8	4100.4	3520.8	3087.0	2705.4	2183.4	1908.0	1657.8	1447.2
47.5°	6955.2	5828.4	4833.0	4042.8	3418.2	2932.2	2536.2	2017.8	1728.0	1476.0	1270.8
50°	7030.8	5826.6	4806.0	3979.8	3267.0	2746.8	2361.6	1850.4	1562.4	1315.8	1128.6
52.5°	7050.6	5794.2	4748.4	3864.6	3083.4	2561.4	2174.4	1675.8	1416.6	1180.8	991.8
55°	7005.6	5715.0	4627.8	3672.0	2887.2	2365.2	2003.4	1539.0	1274.4	1051.2	903.6
57.5°	6877.8	5574.6	4401.0	3407.4	2680.2	2183.4	1807.2	1373.4	1119.6	932.4	810.0
60°	6640.2	5277.6	4046.4	3094.2	2417.4	1906.2	1537.2	1157.4	955.8	815.4	716.4
62.5°	6201.0	4811.4	3547.8	2662.2	2039.4	1546.2	1227.6	923.4	772.2	680.4	619.2
65°	5493.6	4109.4	2970.0	2097.0	1549.8	1125.0	912.6	694.8	585.0	529.2	511.2
67.5°	4483.8	3173.4	2160.0	1456.2	1049.4	788.4	635.4	507.6	455.4	433.8	426.6
70°	3259.8	2161.8	1398.6	919.8	693.0	550.8	480.6	408.6	379.8	374.4	374.4
72.5°	2046.6	1314.0	856.8	630.0	525.6	446.4	410.4	360.0	349.2	345.6	340.2
75°	1200.6	797.4	606.6	516.6	450.0	399.6	369.0	327.6	320.4	318.6	313.2
77.5°	765.0	574.2	489.6	441.0	406.8	361.8	334.8	291.6	289.8	288.0	286.2
80°	549.0	477.0	428.4	390.6	356.4	315.0	298.8	264.6	261.0	259.2	262.8
82.5°	415.8	394.2	374.4	345.6	298.8	268.2	255.6	232.2	234.0	225.0	223.2
85°	286.2	282.6	280.8	268.2	234.0	207.0	198.0	185.4	194.4	185.4	174.6
87.5°	140.4	138.6	127.8	151.2	140.4	111.6	100.8	111.6	124.2	120.6	111.6
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: P158930

CATALOG NUMBER: VST-E09-LED-E-U-SLL

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
2.5°	2916.0	2908.8	2914.2	2910.6	2910.6	2908.8	2912.4	2907.0	2903.4	2907.0	2908.8
5°	2973.6	2964.6	2966.4	2953.8	2959.2	2946.6	2950.2	2941.2	2932.2	2928.6	2928.6
7.5°	3070.8	3061.8	3051.0	3049.2	3029.4	3022.2	3009.6	3002.4	2997.0	2984.4	2977.2
10°	3159.0	3144.6	3132.0	3130.2	3110.4	3092.4	3076.2	3061.8	3052.8	3034.8	3025.8
12.5°	3231.0	3216.6	3196.8	3186.0	3166.2	3144.6	3133.8	3112.2	3099.6	3079.8	3063.6
15°	3272.4	3247.2	3218.4	3198.6	3169.8	3146.4	3130.2	3114.0	3101.4	3076.2	3052.8
17.5°	3252.6	3211.2	3171.6	3135.6	3096.0	3074.4	3051.0	3031.2	3027.6	2998.8	2962.8
20°	3169.8	3121.2	3069.0	3020.4	2968.2	2937.6	2908.8	2878.2	2869.2	2835.0	2788.2
22.5°	3069.0	3013.2	2953.8	2894.4	2827.8	2784.6	2741.4	2703.6	2673.0	2622.6	2556.0
25°	2966.4	2883.6	2797.2	2721.6	2644.2	2590.2	2545.2	2503.8	2467.8	2386.8	2318.4
27.5°	2831.4	2701.8	2613.6	2527.2	2433.6	2363.4	2313.0	2255.4	2215.8	2122.2	2050.2
30°	2658.6	2529.0	2403.0	2316.6	2223.0	2147.4	2082.6	1999.8	1942.2	1873.8	1807.2
32.5°	2440.8	2311.2	2183.4	2086.2	2008.8	1915.2	1834.2	1755.0	1688.4	1621.8	1569.6
35°	2176.2	2050.2	1929.6	1832.4	1746.0	1672.2	1594.8	1526.4	1450.8	1378.8	1348.2
37.5°	1897.2	1762.2	1629.0	1544.4	1476.0	1423.8	1351.8	1296.0	1227.6	1184.4	1148.4
40°	1654.2	1510.2	1384.2	1312.2	1258.2	1198.8	1139.4	1096.2	1047.6	1004.4	977.4
42.5°	1449.0	1314.0	1206.0	1144.8	1080.0	1015.2	970.2	934.2	903.6	871.2	838.8
45°	1260.0	1130.4	1040.4	964.8	910.8	858.6	828.0	811.8	793.8	774.0	752.4
47.5°	1101.6	990.0	901.8	831.6	775.8	739.8	725.4	720.0	712.8	696.6	685.8
50°	981.0	889.2	799.2	736.2	689.4	671.4	655.2	649.8	640.8	635.4	628.2
52.5°	880.2	783.0	707.4	649.8	621.0	613.8	606.6	599.4	597.6	594.0	590.4
55°	797.4	712.8	642.6	599.4	585.0	579.6	577.8	570.6	568.8	568.8	563.4
57.5°	723.6	651.6	588.6	561.6	552.6	547.2	543.6	540.0	540.0	543.6	541.8
60°	648.0	586.8	549.0	534.6	529.2	520.2	511.2	507.6	509.4	518.4	518.4
62.5°	574.2	529.2	505.8	500.4	495.0	487.8	477.0	473.4	477.0	487.8	493.2
65°	493.2	473.4	466.2	462.6	459.0	453.6	446.4	442.8	444.6	450.0	457.2
67.5°	419.4	417.6	417.6	419.4	417.6	415.8	412.2	406.8	405.0	405.0	408.6
70°	374.4	374.4	379.8	379.8	378.0	378.0	372.6	367.2	363.6	360.0	361.8
72.5°	340.2	340.2	342.0	343.8	342.0	342.0	334.8	331.2	322.2	320.4	316.8
75°	311.4	307.8	307.8	306.0	304.2	306.0	298.8	289.8	286.2	284.4	280.8
77.5°	282.6	275.4	271.8	268.2	270.0	268.2	262.8	257.4	252.0	250.2	248.4
80°	250.2	239.4	234.0	225.0	230.4	232.2	228.6	223.2	221.4	219.6	217.8
82.5°	207.0	196.2	189.0	183.6	180.0	183.6	189.0	201.6	198.0	196.2	192.6
85°	162.0	144.0	135.0	136.8	127.8	129.6	145.8	153.0	153.0	156.6	153.0
87.5°	91.8	88.2	66.6	61.2	64.8	77.4	86.4	95.4	95.4	90.0	100.8
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-E09-LED-E-U-SLL

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
2.5°	2908.8	2912.4	2914.2	2921.4	2925.0	2926.8	2928.6	2932.2	2934.0	2932.2	2941.2
5°	2923.2	2923.2	2919.6	2925.0	2926.8	2926.8	2923.2	2926.8	2926.8	2926.8	2935.8
7.5°	2961.0	2950.2	2944.8	2937.6	2932.2	2925.0	2916.0	2916.0	2914.2	2916.0	2921.4
10°	3000.6	2984.4	2964.6	2946.6	2930.4	2917.8	2901.6	2896.2	2894.4	2892.6	2907.0
12.5°	3031.2	3002.4	2971.8	2941.2	2908.8	2887.2	2860.2	2844.0	2842.2	2842.2	2860.2
15°	3009.6	2962.8	2903.4	2849.4	2820.6	2790.0	2759.4	2739.6	2737.8	2741.4	2752.2
17.5°	2901.6	2826.0	2773.8	2721.6	2683.8	2658.6	2638.8	2635.2	2642.4	2635.2	2649.6
20°	2718.0	2637.0	2601.0	2559.6	2545.2	2527.2	2498.4	2473.2	2473.2	2440.8	2449.8
22.5°	2480.4	2435.4	2388.6	2356.2	2345.4	2314.8	2284.2	2250.0	2246.4	2206.8	2201.4
25°	2232.0	2187.0	2149.2	2142.0	2109.6	2068.2	2039.4	1999.8	1990.8	1951.2	1945.8
27.5°	1978.2	1942.2	1904.4	1882.8	1864.8	1819.8	1794.6	1747.8	1729.8	1686.6	1681.2
30°	1737.0	1711.8	1666.8	1648.8	1614.6	1562.4	1508.4	1479.6	1465.2	1420.2	1405.8
32.5°	1510.2	1470.6	1436.4	1414.8	1371.6	1312.2	1263.6	1222.2	1195.2	1141.2	1126.8
35°	1294.2	1254.6	1238.4	1182.6	1144.8	1105.2	1038.6	1013.4	964.8	923.4	909.0
37.5°	1103.4	1065.6	1044.0	997.2	959.4	919.8	880.2	847.8	824.4	815.4	815.4
40°	939.6	919.8	892.8	858.6	833.4	804.6	783.0	772.2	770.4	774.0	783.0
42.5°	822.6	801.0	783.0	765.0	747.0	743.4	738.0	745.2	754.2	763.2	772.2
45°	734.4	716.4	705.6	698.4	696.6	702.0	712.8	723.6	739.8	750.6	757.8
47.5°	671.4	657.0	653.4	651.6	660.6	676.8	691.2	707.4	720.0	730.8	738.0
50°	617.4	604.8	603.0	601.2	613.8	628.2	640.8	662.4	671.4	678.6	684.0
52.5°	579.6	568.8	563.4	565.2	577.8	590.4	608.4	624.6	637.2	642.6	648.0
55°	549.0	545.4	532.8	538.2	550.8	567.0	585.0	603.0	615.6	624.6	633.6
57.5°	525.6	516.6	507.6	516.6	529.2	545.4	567.0	583.2	599.4	612.0	621.0
60°	500.4	493.2	486.0	495.0	507.6	523.8	540.0	561.6	581.4	594.0	603.0
62.5°	478.8	473.4	466.2	468.0	473.4	484.2	493.2	513.0	531.0	547.2	558.0
65°	448.2	446.4	435.6	437.4	441.0	451.8	459.0	477.0	495.0	509.4	518.4
67.5°	403.2	399.6	399.6	405.0	406.8	412.2	417.6	435.6	450.0	460.8	471.6
70°	358.2	356.4	356.4	360.0	358.2	363.6	370.8	387.0	405.0	415.8	426.6
72.5°	315.0	315.0	313.2	316.8	316.8	318.6	327.6	342.0	358.2	367.2	374.4
75°	277.2	275.4	275.4	275.4	277.2	277.2	286.2	298.8	315.0	320.4	331.2
77.5°	243.0	243.0	243.0	243.0	244.8	243.0	248.4	257.4	262.8	271.8	271.8
80°	214.2	212.4	214.2	216.0	216.0	214.2	214.2	216.0	217.8	217.8	217.8
82.5°	189.0	183.6	187.2	196.2	196.2	196.2	194.4	181.8	172.8	172.8	176.4
85°	151.2	151.2	153.0	165.6	167.4	160.2	167.4	149.4	131.4	126.0	129.6
87.5°	93.6	73.8	90.0	102.6	102.6	97.2	108.0	100.8	84.6	68.4	64.8
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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REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	0°
2.5°	2948.4	2950.2	2961.0	2966.4	2966.4	2973.6	2977.2	2988.0	2986.2	2986.2	2989.8	2.5°
5°	2944.8	2950.2	2961.0	2968.2	2971.8	2980.8	2988.0	3000.6	2998.8	3002.4	3004.2	5°
7.5°	2932.2	2946.6	2957.4	2971.8	2984.4	2991.6	3000.6	3011.4	3007.8	3009.6	3007.8	7.5°
10°	2921.4	2935.8	2957.4	2977.2	2995.2	3006.0	3011.4	3024.0	3022.2	3025.8	3025.8	10°
12.5°	2878.2	2903.4	2930.4	2961.0	2988.0	3016.8	3034.8	3061.8	3074.4	3090.6	3108.6	12.5°
15°	2768.4	2797.2	2840.4	2874.6	2926.8	2966.4	3018.6	3070.8	3117.6	3162.6	3214.8	15°
17.5°	2660.4	2673.0	2707.2	2754.0	2800.8	2860.2	2923.2	3016.8	3101.4	3193.2	3294.0	17.5°
20°	2460.6	2482.2	2505.6	2561.4	2617.2	2701.8	2779.2	2901.6	3025.8	3169.8	3324.6	20°
22.5°	2214.0	2235.6	2260.8	2323.8	2392.2	2478.6	2572.2	2709.0	2874.6	3061.8	3268.8	22.5°
25°	1947.6	1960.2	1980.0	2043.0	2084.4	2197.8	2311.2	2453.4	2633.4	2874.6	3115.8	25°
27.5°	1654.2	1677.6	1693.8	1722.6	1818.0	1915.2	2034.0	2187.0	2404.8	2651.4	2943.0	27.5°
30°	1373.4	1393.2	1384.2	1445.4	1508.4	1611.0	1738.8	1908.0	2116.8	2410.2	2746.8	30°
32.5°	1098.0	1112.4	1107.0	1150.2	1213.2	1315.8	1436.4	1620.0	1841.4	2154.6	2520.0	32.5°
35°	905.4	909.0	928.8	948.6	1002.6	1085.4	1188.0	1348.2	1575.0	1863.0	2250.0	35°
37.5°	815.4	822.6	835.2	862.2	901.8	961.2	1045.8	1170.0	1364.4	1618.2	1963.8	37.5°
40°	788.4	793.8	801.0	819.0	856.8	909.0	984.6	1089.0	1231.2	1445.4	1726.2	40°
42.5°	775.8	775.8	775.8	786.6	815.4	871.2	957.6	1060.2	1184.4	1346.4	1573.2	42.5°
45°	757.8	757.8	756.0	761.4	781.2	837.0	930.6	1045.8	1179.0	1333.8	1530.0	45°
47.5°	738.0	736.2	730.8	730.8	743.4	799.2	896.4	1020.6	1166.4	1344.6	1555.2	47.5°
50°	684.0	684.0	684.0	689.4	700.2	750.6	855.0	986.4	1153.8	1351.8	1594.8	50°
52.5°	653.4	655.2	660.6	660.6	671.4	723.6	833.4	979.2	1161.0	1378.8	1645.2	52.5°
55°	639.0	644.4	649.8	649.8	658.8	712.8	826.2	984.6	1188.0	1434.6	1731.6	55°
57.5°	626.4	631.8	635.4	635.4	642.6	689.4	806.4	975.6	1204.2	1488.6	1837.8	57.5°
60°	603.0	606.6	608.4	608.4	610.2	649.8	761.4	932.4	1168.2	1485.0	1895.4	60°
62.5°	559.8	567.0	568.8	570.6	570.6	608.4	703.8	862.2	1090.8	1431.0	1879.2	62.5°
65°	527.4	531.0	536.4	540.0	547.2	572.4	648.0	777.6	990.0	1323.0	1789.2	65°
67.5°	477.0	482.4	487.8	495.0	502.2	518.4	577.8	682.2	853.2	1139.4	1587.6	67.5°
70°	432.0	433.8	439.2	448.2	450.0	459.0	502.2	574.2	698.4	914.4	1278.0	70°
72.5°	376.2	379.8	387.0	397.8	397.8	405.0	430.2	468.0	547.2	698.4	943.2	72.5°
75°	327.6	331.2	336.6	336.6	327.6	329.4	347.4	374.4	433.8	525.6	687.6	75°
77.5°	271.8	279.0	284.4	273.6	270.0	275.4	284.4	304.2	347.4	417.6	516.6	77.5°
80°	225.0	228.6	230.4	232.2	228.6	234.0	241.2	253.8	282.6	336.6	408.6	80°
82.5°	180.0	183.6	189.0	196.2	196.2	216.0	217.8	217.8	234.0	268.2	320.4	82.5°
85°	133.2	140.4	147.6	156.6	158.4	169.2	163.8	162.0	167.4	199.8	221.4	85°
87.5°	68.4	73.8	77.4	84.6	75.6	79.2	79.2	73.8	64.8	81.0	90.0	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°



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DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
3007.8	3007.8	3007.8	3007.8	3007.8	3007.8	3007.8
2993.4	2989.8	2993.4	2993.4	2998.8	2995.2	3186.0
3007.8	3004.2	3007.8	3011.4	3016.8	3016.8	3227.4
3009.6	3009.6	3006.0	3015.0	3022.2	3029.4	3267.0
3031.2	3031.2	3034.8	3036.6	3052.8	3070.8	3331.8
3119.4	3128.4	3144.6	3150.0	3178.8	3198.6	3497.4
3254.4	3304.8	3337.2	3348.0	3373.2	3411.0	3776.4
3391.2	3475.8	3564.0	3618.0	3650.4	3695.4	4118.4
3493.8	3652.2	3803.4	3938.4	4015.8	4104.0	4597.2
3502.8	3754.8	4010.4	4260.6	4467.6	4631.4	5245.2
3416.4	3747.6	4100.4	4483.8	4840.2	5135.4	5990.4
3306.6	3713.4	4163.4	4653.0	5121.0	5556.6	6539.4
3168.0	3655.8	4174.2	4725.0	5274.0	5797.8	6852.6
2957.4	3484.8	4044.6	4653.0	5290.2	5927.4	7054.2
2687.4	3225.6	3799.8	4492.8	5214.6	5979.6	7223.4
2412.0	2943.0	3560.4	4278.6	5094.0	5970.6	7291.8
2120.4	2647.8	3279.6	4050.0	4930.2	5887.8	7279.2
1922.4	2403.0	3022.2	3817.8	4748.4	5778.0	7194.6
1807.2	2228.4	2818.8	3605.4	4582.8	5646.6	7088.4
1805.4	2176.2	2710.8	3454.2	4415.4	5500.8	6944.4
1868.4	2208.6	2698.2	3389.4	4323.6	5394.6	6787.8
1942.2	2298.6	2764.8	3412.8	4321.8	5347.8	6678.0
2059.2	2451.6	2910.6	3513.6	4368.6	5340.6	6543.0
2208.6	2658.6	3173.4	3762.0	4550.4	5482.8	6552.0
2361.6	2901.6	3517.2	4186.8	4908.6	5814.0	6836.4
2417.4	3088.8	3866.4	4685.4	5445.0	6310.8	7423.2
2368.8	3132.0	4078.8	5072.4	5967.0	6892.2	8123.4
2188.8	2957.4	3992.4	5182.2	6267.6	7304.4	8823.6
1801.8	2523.6	3600.0	4935.6	6244.2	7389.0	9075.6
1321.2	1956.6	2926.8	4194.0	5551.2	6859.8	8697.6
954.0	1384.2	2113.2	3159.0	4388.4	5524.2	7295.4
684.0	959.4	1371.6	2075.4	2989.8	3846.6	5200.2
491.4	651.6	855.0	1245.6	1821.6	2361.6	3267.0
361.8	446.4	561.6	774.0	1072.8	1375.2	1967.4
246.6	262.8	338.4	457.2	703.8	1011.6	1335.6
93.6	106.2	124.2	187.2	315.0	361.8	255.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)