

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: P157420

Luminaire Tested: **VST-E12-LED-E-U-5MQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157420
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33708)
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-5MQ
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (252) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38386.3 lumens
Efficiency: N/A
Efficacy: 131.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

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

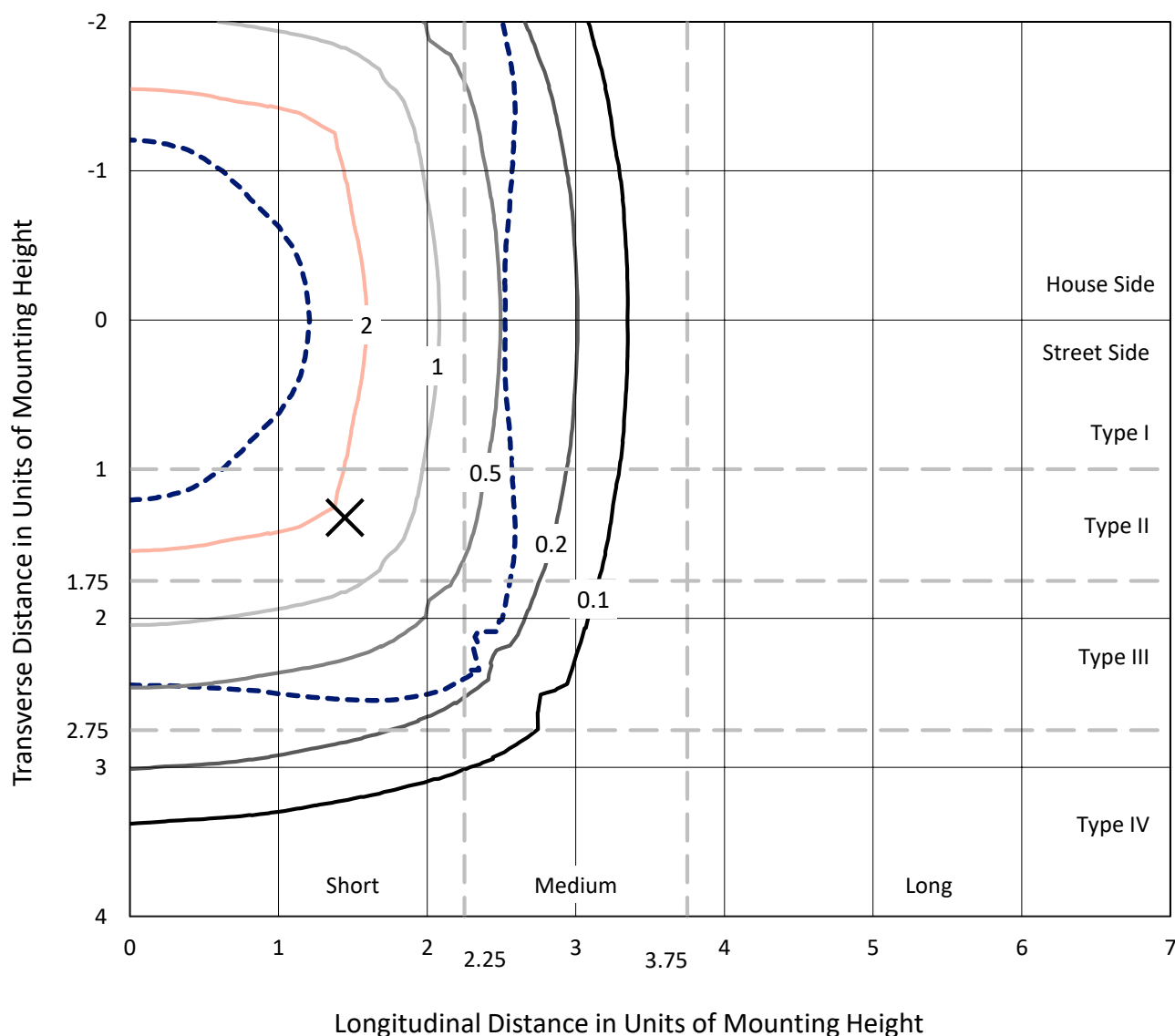


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

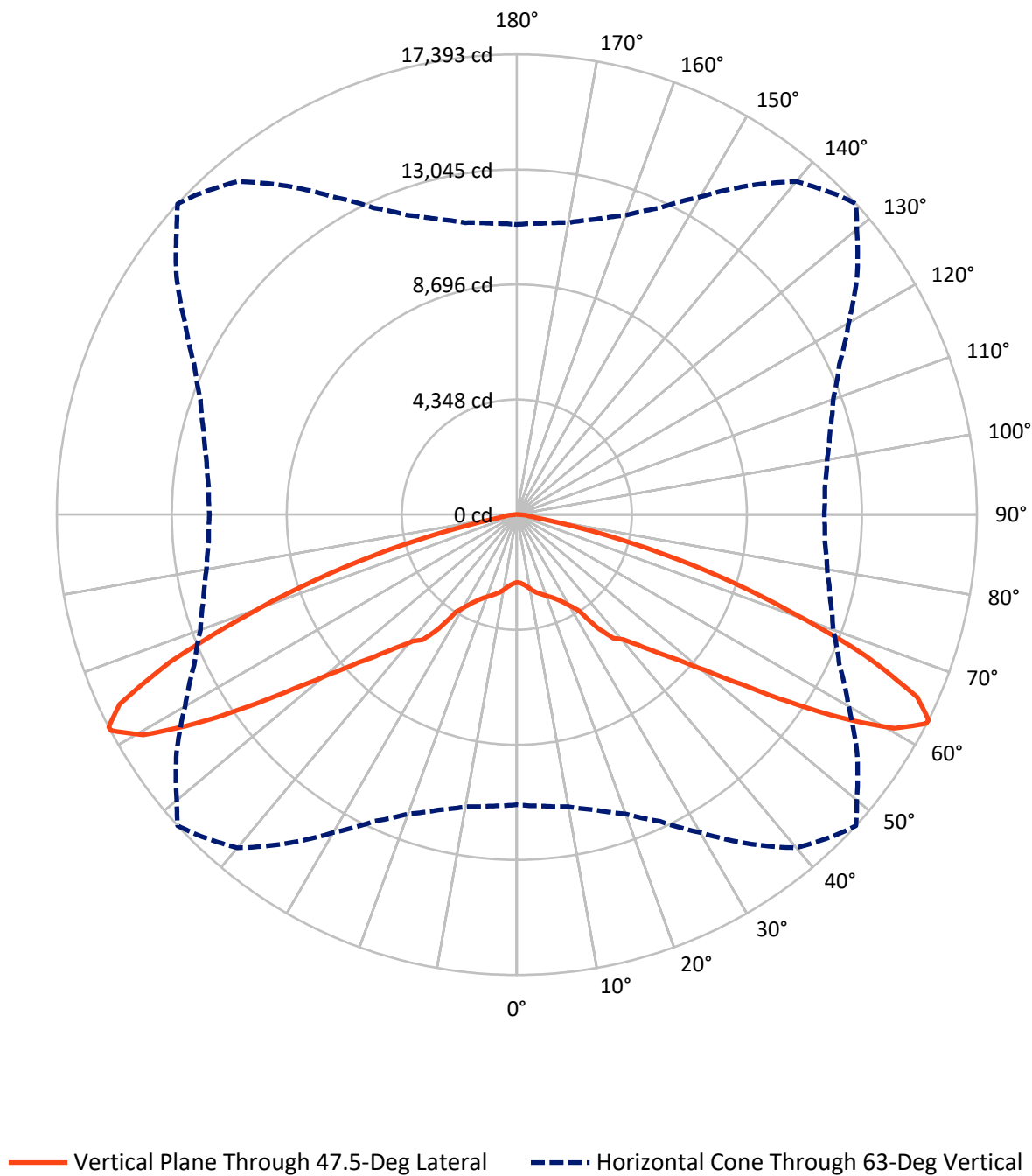


Based on 30 foot mounting height. Maximum calculated value = 3.1 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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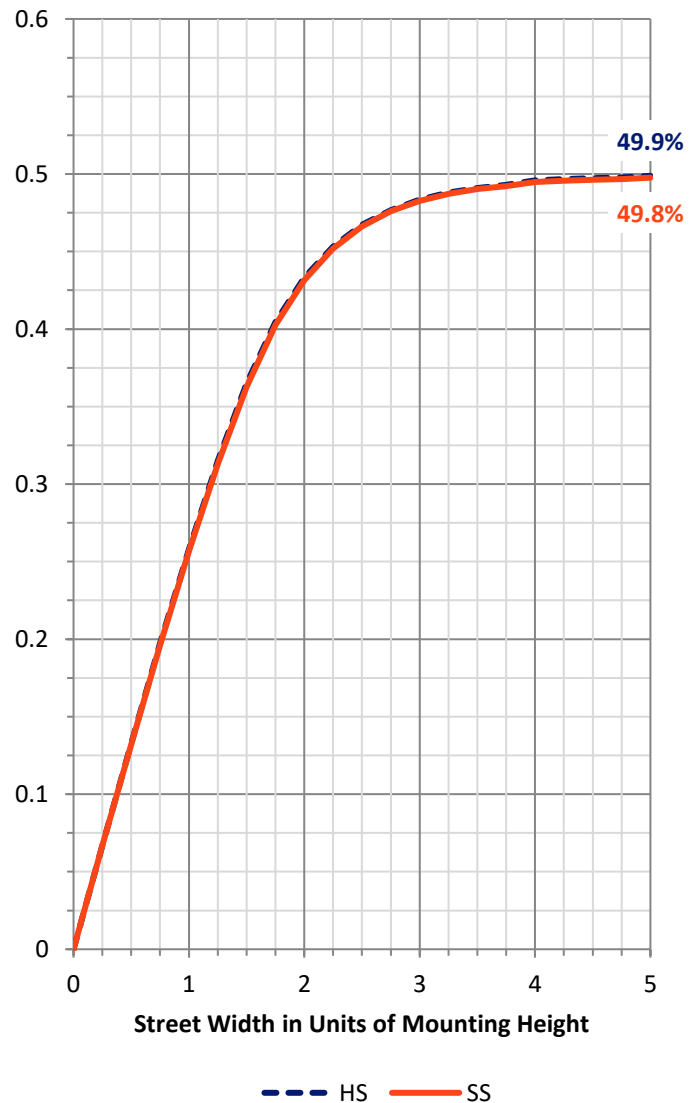
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	19193.2	0.0	19193.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	19193.2	0.0	19193.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	38386.3	0.0	38386.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.3	0.7
10°-20°	874.7	2.3
20°-30°	1673.2	4.4
30°-40°	3200.7	8.3
40°-50°	5538.3	14.4
50°-60°	9946.4	25.9
60°-70°	12095.0	31.5
70°-80°	4368.1	11.4
80°-90°	432.6	1.1
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°	38386.3	100.0
0°-180°	38386.3	100.0



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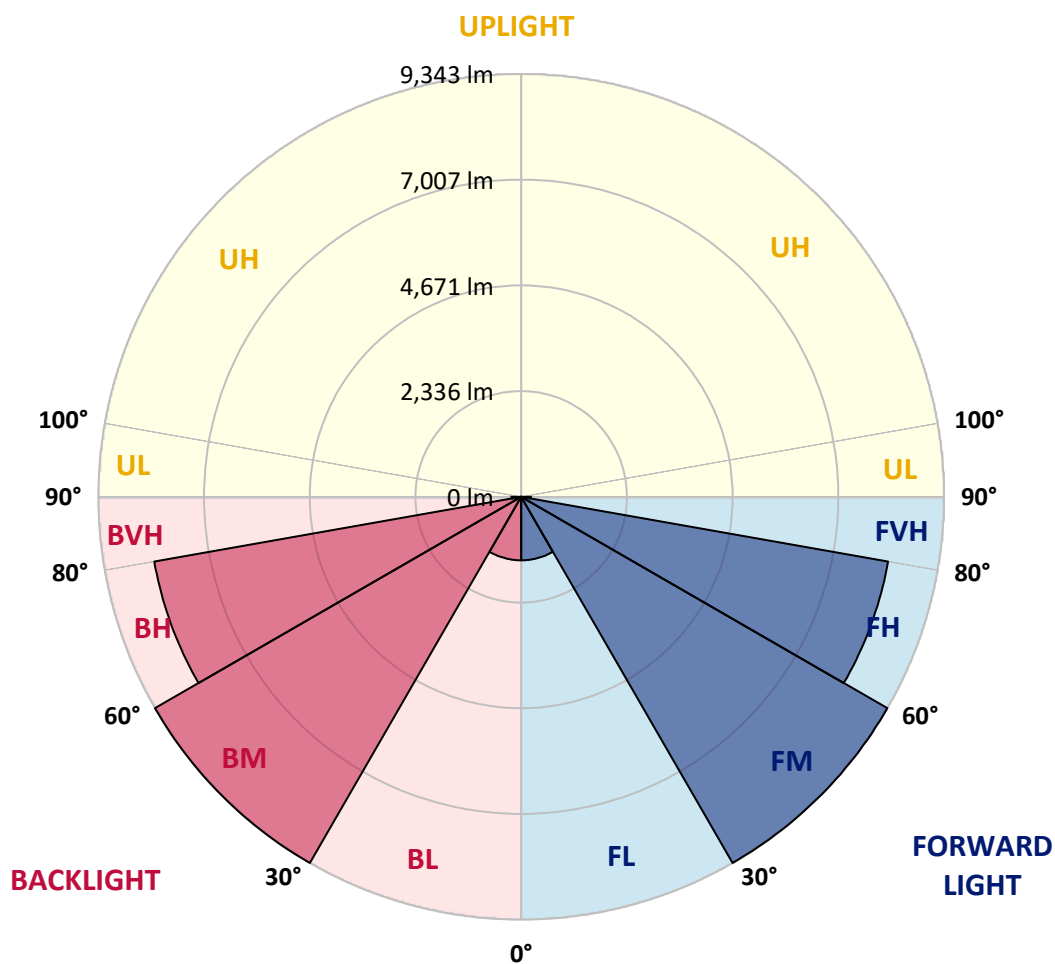
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1402.6	3.7			
FM	(30°-60°)	9342.7	24.3			
FH	(60°-80°)	8231.5	21.4			G4/12000
FVH	(80°-90°)	216.3	0.6			G2/225
BL	(0°-30°)	1402.6	3.7	B3/2500		
BM	(30°-60°)	9342.7	24.3	B5		
BH	(60°-80°)	8231.5	21.4	B5		G4/12000
BVH	(80°-90°)	216.3	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	2563.2	2563.2	2563.2	2563.2	2563.2	2563.2	2563.2	2563.2	2563.2	2563.2	2563.2
2.5°	2580.0	2575.2	2577.6	2580.0	2577.6	2575.2	2575.2	2575.2	2580.0	2575.2	2587.2
5°	2630.4	2625.6	2628.0	2628.0	2628.0	2623.2	2623.2	2623.2	2620.8	2623.2	2649.6
7.5°	2726.4	2719.2	2716.8	2721.6	2716.8	2714.4	2712.0	2712.0	2707.2	2707.2	2740.8
10°	2841.6	2832.0	2836.8	2839.2	2832.0	2827.2	2827.2	2827.2	2820.0	2817.6	2860.8
12.5°	2968.8	2964.0	2964.0	2959.2	2956.8	2952.0	2949.6	2952.0	2942.4	2942.4	2985.6
15°	3091.2	3081.6	3084.0	3076.8	3072.0	3067.2	3064.8	3062.4	3057.6	3057.6	3084.0
17.5°	3204.0	3196.8	3194.4	3187.2	3180.0	3172.8	3168.0	3165.6	3158.4	3158.4	3182.4
20°	3321.6	3314.4	3309.6	3297.6	3285.6	3278.4	3268.8	3264.0	3254.4	3256.8	3283.2
22.5°	3456.0	3444.0	3434.4	3424.8	3403.2	3388.8	3376.8	3367.2	3362.4	3362.4	3398.4
25°	3636.0	3628.8	3614.4	3583.2	3556.8	3535.2	3516.0	3506.4	3496.8	3492.0	3547.2
27.5°	3856.8	3849.6	3830.4	3799.2	3763.2	3727.2	3705.6	3688.8	3676.8	3669.6	3748.8
30°	4149.6	4137.6	4120.8	4070.4	4039.2	3984.0	3960.0	3936.0	3909.6	3916.8	4010.4
32.5°	4723.2	4706.4	4653.6	4598.4	4502.4	4428.0	4351.2	4293.6	4238.4	4231.2	4332.0
35°	5244.0	5236.8	5227.2	5188.8	5152.8	5107.2	5071.2	5011.2	4960.8	4948.8	5232.0
37.5°	5524.8	5541.6	5527.2	5522.4	5522.4	5544.0	5611.2	5678.4	5726.4	5755.2	5913.6
40°	5954.4	5954.4	5937.6	5928.0	5908.8	5937.6	5966.4	6016.8	6038.4	6040.8	6201.6
42.5°	6441.6	6444.0	6427.2	6398.4	6388.8	6415.2	6453.6	6501.6	6530.4	6537.6	6724.8
45°	6984.0	6976.8	6962.4	6952.8	6960.0	6984.0	7029.6	7123.2	7166.4	7200.0	7404.0
47.5°	7572.0	7620.0	7579.2	7586.4	7586.4	7660.8	7764.0	7840.8	7910.4	7975.2	8191.2
50°	8342.4	8349.6	8356.8	8378.4	8392.8	8491.2	8620.8	8712.0	8812.8	8896.8	9249.6
52.5°	9372.0	9357.6	9393.6	9417.6	9499.2	9552.0	9768.0	9883.2	10022.4	10130.4	10646.4
55°	10603.2	10596.0	10648.8	10668.0	10776.0	10905.6	11145.6	11397.6	11635.2	11767.2	12472.8
57.5°	11486.4	11505.6	11596.8	11724.0	11935.2	12211.2	12568.8	13125.6	13576.8	13720.8	14498.4
60°	11680.8	11743.2	11880.0	12134.4	12496.8	13010.4	13713.6	14565.6	15391.2	15667.2	16396.8
62.5°	11136.0	11208.0	11409.6	11714.4	12187.2	12948.0	13963.2	15165.6	16392.0	17006.4	17373.6
63°	10963.2	11052.0	11203.2	11556.0	12036.0	12787.2	13867.2	15163.2	16435.2	17104.8	17392.8
65°	10152.0	10168.8	10394.4	10747.2	11287.2	12067.2	13156.8	14654.4	16065.6	16838.4	16639.2
67.5°	8736.0	8805.6	8995.2	9350.4	9876.0	10687.2	11870.4	13255.2	14496.0	15112.8	14222.4
70°	7058.4	7053.6	7288.8	7574.4	8037.6	8750.4	9787.2	11037.6	12021.6	12470.4	10980.0
72.5°	5042.4	4917.6	5090.4	5407.2	5786.4	6355.2	7176.0	8148.0	9028.8	9417.6	8028.0
75°	2296.8	2263.2	2416.8	2731.2	3115.2	3621.6	4296.0	5136.0	5980.8	6436.8	5114.4
77.5°	772.8	782.4	842.4	955.2	1161.6	1416.0	1836.0	2373.6	3057.6	3508.8	2400.0
80°	518.4	532.8	552.0	568.8	592.8	631.2	722.4	861.6	1072.8	1298.4	758.4
82.5°	424.8	441.6	484.8	504.0	518.4	530.4	537.6	547.2	547.2	552.0	480.0
85°	304.8	333.6	391.2	427.2	441.6	451.2	463.2	477.6	456.0	436.8	372.0
87.5°	105.6	144.0	211.2	232.8	249.6	252.0	268.8	297.6	283.2	230.4	112.8
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	2563.2	2563.2	2563.2	2563.2	2563.2	2563.2	2563.2	2563.2	2563.2
2.5°	2575.2	2572.8	2575.2	2577.6	2577.6	2577.6	2580.0	2582.4	2582.4
5°	2623.2	2625.6	2623.2	2625.6	2625.6	2628.0	2628.0	2632.8	2632.8
7.5°	2704.8	2709.6	2707.2	2712.0	2712.0	2716.8	2714.4	2721.6	2721.6
10°	2815.2	2820.0	2824.8	2827.2	2824.8	2829.6	2834.4	2836.8	2834.4
12.5°	2940.0	2942.4	2940.0	2944.8	2944.8	2949.6	2949.6	2956.8	2956.8
15°	3055.2	3052.8	3050.4	3057.6	3062.4	3064.8	3069.6	3076.8	3069.6
17.5°	3158.4	3160.8	3156.0	3163.2	3172.8	3180.0	3184.8	3194.4	3192.0
20°	3261.6	3256.8	3261.6	3273.6	3283.2	3292.8	3302.4	3316.8	3314.4
22.5°	3362.4	3367.2	3379.2	3388.8	3405.6	3420.0	3432.0	3451.2	3458.4
25°	3504.0	3504.0	3523.2	3535.2	3559.2	3578.4	3604.8	3626.4	3638.4
27.5°	3684.0	3684.0	3705.6	3732.0	3768.0	3801.6	3830.4	3859.2	3854.4
30°	3928.8	3940.8	3960.0	3993.6	4041.6	4082.4	4120.8	4149.6	4152.0
32.5°	4250.4	4264.8	4322.4	4408.8	4509.6	4586.4	4644.0	4713.6	4723.2
35°	4980.0	5016.0	5090.4	5160.0	5200.8	5246.4	5275.2	5277.6	5282.4
37.5°	5748.0	5685.6	5628.0	5575.2	5551.2	5546.4	5546.4	5556.0	5560.8
40°	6028.8	5997.6	5971.2	5937.6	5947.2	5944.8	5961.6	5976.0	5985.6
42.5°	6508.8	6484.8	6460.8	6417.6	6441.6	6434.4	6458.4	6480.0	6492.0
45°	7178.4	7104.0	7051.2	6981.6	7005.6	6991.2	6991.2	7017.6	7022.4
47.5°	7917.6	7831.2	7723.2	7636.8	7608.0	7581.6	7605.6	7605.6	7579.2
50°	8803.2	8700.0	8572.8	8433.6	8385.6	8359.2	8368.8	8380.8	8306.4
52.5°	10005.6	9890.4	9710.4	9499.2	9453.6	9432.0	9427.2	9410.4	9391.2
55°	11635.2	11419.2	11198.4	10920.0	10836.0	10812.0	10814.4	10795.2	10840.8
57.5°	13557.6	13240.8	12732.0	12393.6	12192.0	12115.2	12045.6	12016.8	12019.2
60°	15460.8	14815.2	14054.4	13464.0	13041.6	12772.8	12561.6	12444.0	12410.4
62.5°	16687.2	15672.0	14529.6	13572.0	12878.4	12434.4	12100.8	11889.6	11822.4
63°	16783.2	15708.0	14486.4	13459.2	12729.6	12264.0	11913.6	11695.2	11623.2
65°	16574.4	15345.6	13922.4	12698.4	11899.2	11383.2	11004.0	10797.6	10742.4
67.5°	14952.0	13929.6	12480.0	11215.2	10408.8	9885.6	9451.2	9254.4	9192.0
70°	12163.2	11462.4	10274.4	9194.4	8443.2	7939.2	7500.0	7336.8	7334.4
72.5°	9016.8	8107.2	7399.2	6607.2	5952.0	5551.2	5169.6	4987.2	4896.0
75°	5964.0	4989.6	4197.6	3530.4	2877.6	2517.6	2088.0	1903.2	1795.2
77.5°	3004.8	2227.2	1596.0	1106.4	859.2	705.6	645.6	614.4	612.0
80°	1000.8	751.2	645.6	604.8	592.8	595.2	588.0	576.0	561.6
82.5°	554.4	583.2	588.0	571.2	571.2	561.6	552.0	506.4	482.4
85°	475.2	523.2	528.0	518.4	516.0	501.6	484.8	422.4	386.4
87.5°	297.6	343.2	336.0	300.0	331.2	309.6	292.8	189.6	139.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)