

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: P157419

Luminaire Tested: **VST-E12-LED-E-U-5MQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157419
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-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (252) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35060.2 lumens
Efficiency: N/A
Efficacy: 120.2 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

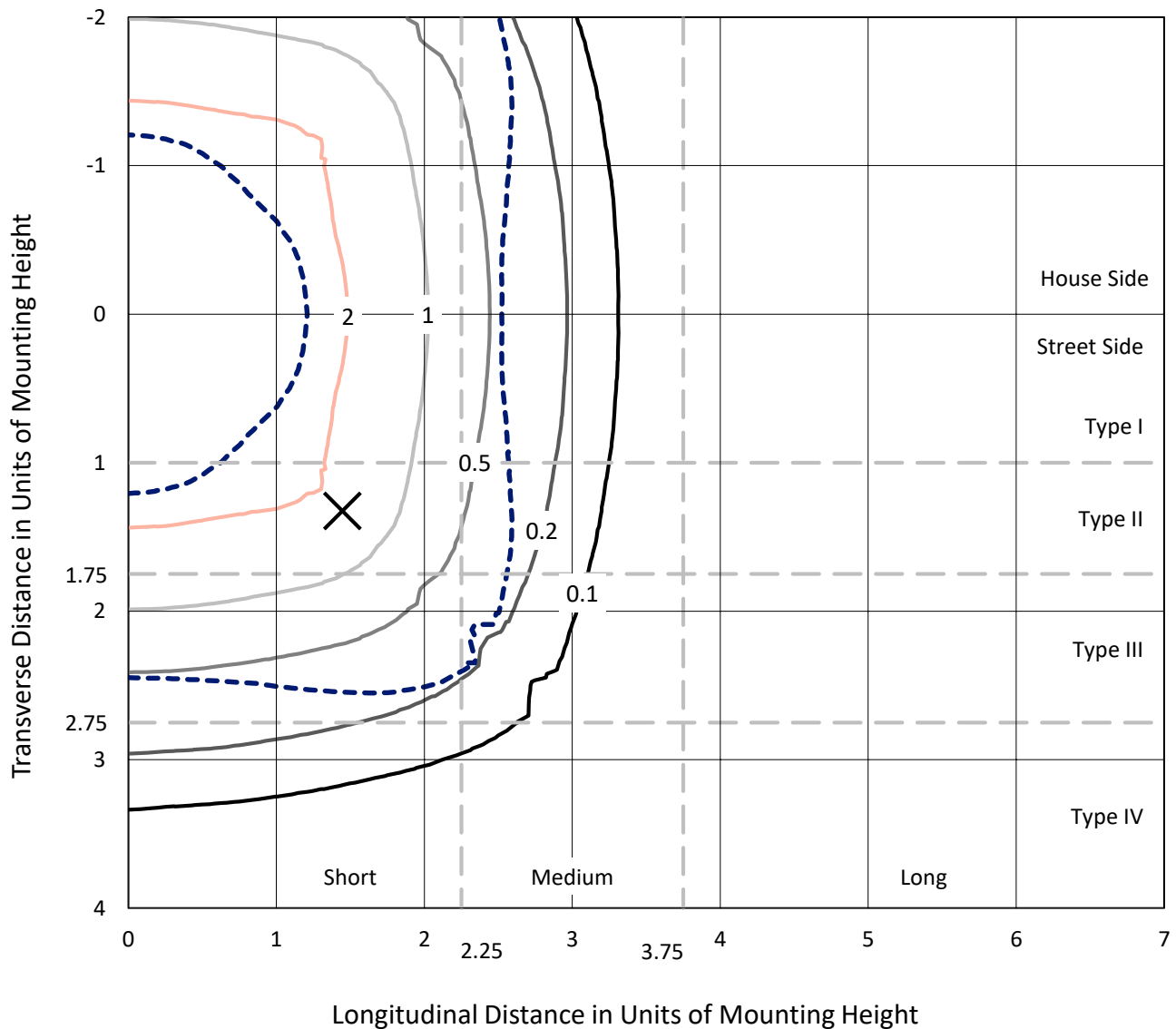


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

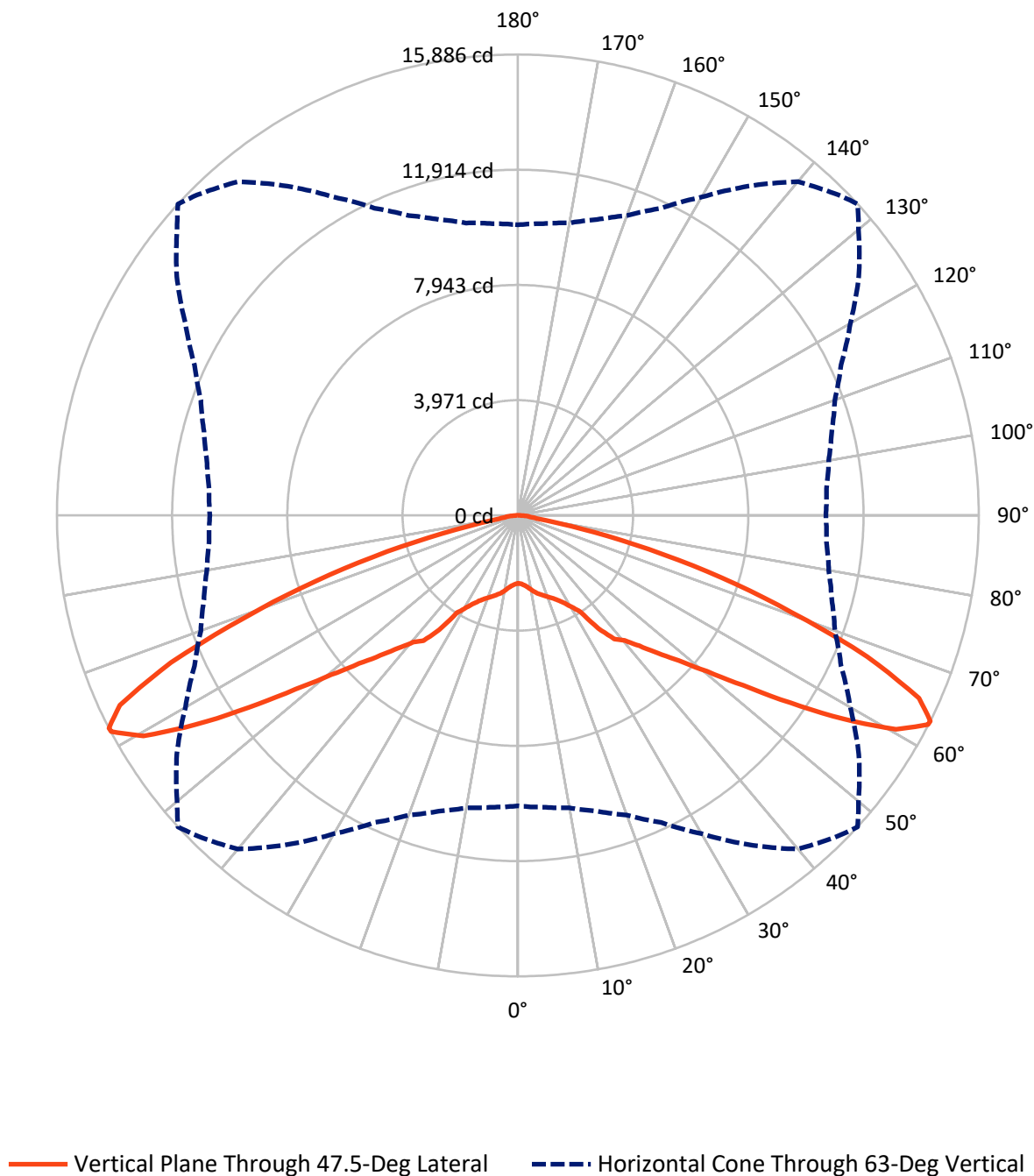


Based on 30 foot mounting height. Maximum calculated value = 2.9 fc
Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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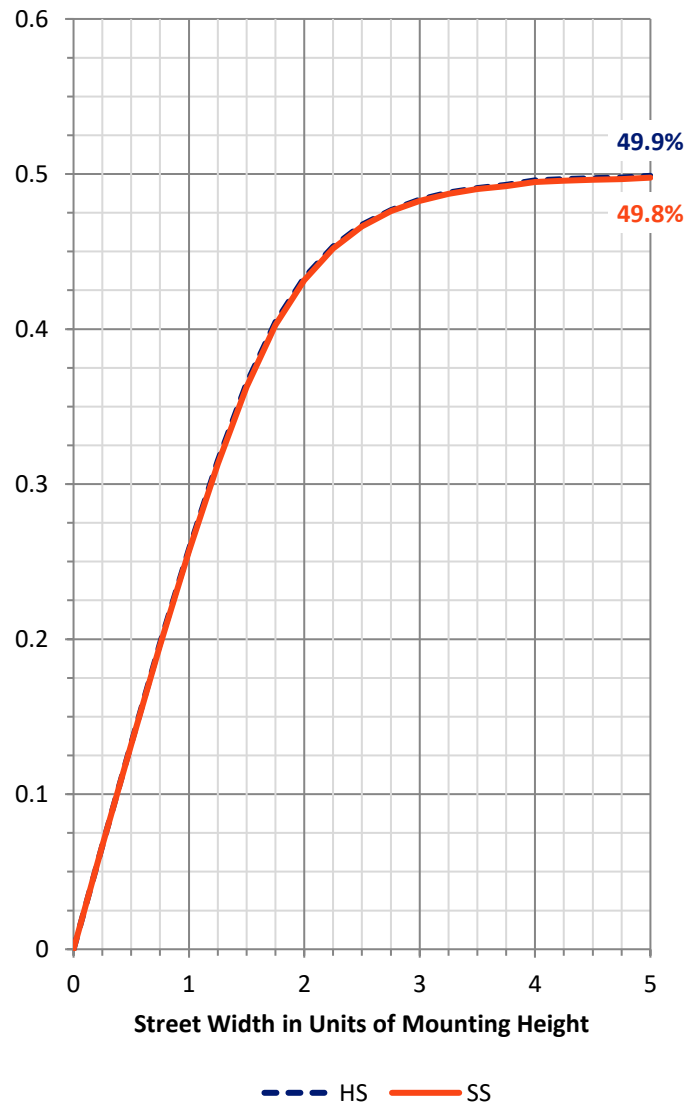
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17530.1	0.0	17530.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	17530.1	0.0	17530.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	35060.2	0.0	35060.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.0	0.7
10°-20°	798.9	2.3
20°-30°	1528.2	4.4
30°-40°	2923.3	8.3
40°-50°	5058.4	14.4
50°-60°	9084.5	25.9
60°-70°	11046.9	31.5
70°-80°	3989.6	11.4
80°-90°	395.1	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°	35060.2	100.0
0°-180°	35060.2	100.0

Coefficient of Utilization



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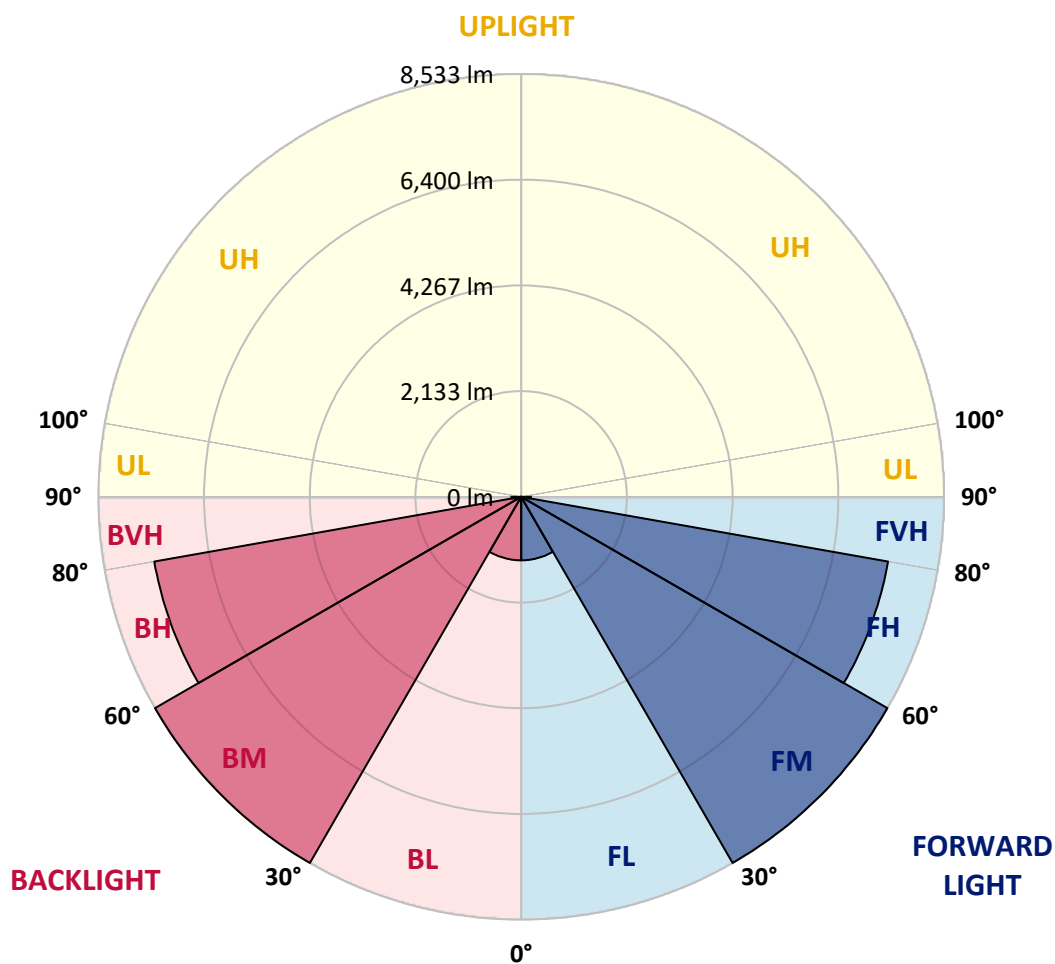
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1281.1	3.7			
FM	(30°-60°)	8533.1	24.3			
FH	(60°-80°)	7518.3	21.4			G4/12000
FVH	(80°-90°)	197.6	0.6			G2/225
BL	(0°-30°)	1281.1	3.7	B3/2500		
BM	(30°-60°)	8533.1	24.3	B5		
BH	(60°-80°)	7518.3	21.4	B5		G4/12000
BVH	(80°-90°)	197.6	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°	2341.1	2341.1	2341.1	2341.1	2341.1	2341.1	2341.1	2341.1	2341.1	2341.1	2341.1
2.5°	2356.4	2352.1	2354.3	2356.4	2354.3	2352.1	2352.1	2352.1	2356.4	2352.1	2363.0
5°	2402.5	2398.1	2400.3	2400.3	2400.3	2395.9	2395.9	2395.9	2393.7	2395.9	2420.0
7.5°	2490.2	2483.6	2481.4	2485.8	2481.4	2479.2	2477.0	2477.0	2472.6	2472.6	2503.3
10°	2595.4	2586.6	2591.0	2593.2	2586.6	2582.2	2582.2	2582.2	2575.6	2573.5	2612.9
12.5°	2711.6	2707.2	2707.2	2702.8	2700.6	2696.2	2694.0	2696.2	2687.4	2687.4	2726.9
15°	2823.3	2814.6	2816.8	2810.2	2805.8	2801.4	2799.2	2797.0	2792.7	2792.7	2816.8
17.5°	2926.4	2919.8	2917.6	2911.0	2904.5	2897.9	2893.5	2891.3	2884.7	2884.7	2906.6
20°	3033.8	3027.2	3022.8	3011.9	3000.9	2994.3	2985.6	2981.2	2972.4	2974.6	2998.7
22.5°	3156.5	3145.6	3136.8	3128.0	3108.3	3095.2	3084.2	3075.4	3071.0	3071.0	3103.9
25°	3320.9	3314.4	3301.2	3272.7	3248.6	3228.9	3211.3	3202.6	3193.8	3189.4	3239.8
27.5°	3522.6	3516.0	3498.5	3470.0	3437.1	3404.2	3384.5	3369.2	3358.2	3351.6	3424.0
30°	3790.0	3779.1	3763.7	3717.7	3689.2	3638.8	3616.9	3594.9	3570.8	3577.4	3662.9
32.5°	4313.9	4298.6	4250.4	4200.0	4112.3	4044.3	3974.2	3921.6	3871.1	3864.6	3956.6
35°	4789.6	4783.0	4774.3	4739.2	4706.3	4664.7	4631.8	4577.0	4530.9	4520.0	4778.6
37.5°	5046.1	5061.4	5048.3	5043.9	5043.9	5063.6	5125.0	5186.4	5230.2	5256.5	5401.2
40°	5438.5	5438.5	5423.1	5414.3	5396.8	5423.1	5449.4	5495.4	5515.2	5517.4	5664.2
42.5°	5883.4	5885.6	5870.3	5844.0	5835.2	5859.3	5894.4	5938.2	5964.5	5971.1	6142.1
45°	6378.8	6372.3	6359.1	6350.3	6356.9	6378.8	6420.5	6506.0	6545.4	6576.1	6762.4
47.5°	6915.9	6959.7	6922.5	6929.0	6929.0	6997.0	7091.3	7161.4	7225.0	7284.2	7481.4
50°	7619.5	7626.1	7632.7	7652.4	7665.6	7755.4	7873.8	7957.1	8049.2	8125.9	8448.1
52.5°	8559.9	8546.8	8579.6	8601.6	8676.1	8724.3	8921.6	9026.8	9154.0	9252.6	9723.9
55°	9684.4	9677.9	9726.1	9743.6	9842.3	9960.6	10179.8	10410.0	10627.0	10747.6	11392.0
57.5°	10491.1	10508.6	10591.9	10708.1	10901.0	11153.1	11479.7	11988.3	12400.4	12531.9	13242.1
60°	10668.7	10725.7	10850.6	11083.0	11414.0	11883.1	12525.3	13303.5	14057.6	14309.6	14976.0
62.5°	10171.1	10236.8	10421.0	10699.4	11131.2	11826.1	12753.3	13851.5	14971.6	15532.8	15868.2
63°	10013.2	10094.3	10232.4	10554.7	10993.1	11679.2	12665.6	13849.3	15011.1	15622.7	15885.7
65°	9272.3	9287.7	9493.7	9816.0	10309.2	11021.6	12016.8	13384.6	14673.5	15379.4	15197.4
67.5°	7979.0	8042.6	8215.8	8540.2	9020.2	9761.2	10841.8	12106.6	13239.9	13803.3	12990.0
70°	6446.8	6442.4	6657.2	6918.1	7341.1	7992.2	8939.1	10081.2	10979.9	11389.8	10028.6
72.5°	4605.5	4491.5	4649.3	4938.7	5285.0	5804.5	6554.2	7442.0	8246.5	8601.6	7332.4
75°	2097.8	2067.1	2207.4	2494.5	2845.3	3307.8	3923.8	4691.0	5462.6	5879.1	4671.2
77.5°	705.8	714.6	769.4	872.4	1060.9	1293.3	1676.9	2167.9	2792.7	3204.8	2192.0
80°	473.5	486.6	504.2	519.5	541.4	576.5	659.8	786.9	979.8	1185.9	692.7
82.5°	388.0	403.3	442.8	460.3	473.5	484.4	491.0	499.8	499.8	504.2	438.4
85°	278.4	304.7	357.3	390.2	403.3	412.1	423.1	436.2	416.5	399.0	339.8
87.5°	96.4	131.5	192.9	212.6	228.0	230.2	245.5	271.8	258.7	210.4	103.0
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°	2341.1	2341.1	2341.1	2341.1	2341.1	2341.1	2341.1	2341.1	2341.1
2.5°	2352.1	2349.9	2352.1	2354.3	2354.3	2354.3	2356.4	2358.6	2358.6
5°	2395.9	2398.1	2395.9	2398.1	2398.1	2400.3	2400.3	2404.7	2404.7
7.5°	2470.4	2474.8	2472.6	2477.0	2477.0	2481.4	2479.2	2485.8	2485.8
10°	2571.3	2575.6	2580.0	2582.2	2580.0	2584.4	2588.8	2591.0	2588.8
12.5°	2685.2	2687.4	2685.2	2689.6	2689.6	2694.0	2694.0	2700.6	2700.6
15°	2790.5	2788.3	2786.1	2792.7	2797.0	2799.2	2803.6	2810.2	2803.6
17.5°	2884.7	2886.9	2882.5	2889.1	2897.9	2904.5	2908.8	2917.6	2915.4
20°	2979.0	2974.6	2979.0	2989.9	2998.7	3007.5	3016.2	3029.4	3027.2
22.5°	3071.0	3075.4	3086.4	3095.2	3110.5	3123.7	3134.6	3152.2	3158.7
25°	3200.4	3200.4	3217.9	3228.9	3250.8	3268.3	3292.4	3312.2	3323.1
27.5°	3364.8	3364.8	3384.5	3408.6	3441.5	3472.2	3498.5	3524.8	3520.4
30°	3588.4	3599.3	3616.9	3647.6	3691.4	3728.7	3763.7	3790.0	3792.2
32.5°	3882.1	3895.3	3947.9	4026.8	4118.8	4189.0	4241.6	4305.2	4313.9
35°	4548.5	4581.4	4649.3	4712.9	4750.2	4791.8	4818.1	4820.3	4824.7
37.5°	5249.9	5192.9	5140.3	5092.1	5070.2	5065.8	5065.8	5074.6	5079.0
40°	5506.4	5477.9	5453.8	5423.1	5431.9	5429.7	5445.0	5458.2	5466.9
42.5°	5944.8	5922.9	5901.0	5861.5	5883.4	5876.9	5898.8	5918.5	5929.5
45°	6556.4	6488.4	6440.2	6376.6	6398.6	6385.4	6385.4	6409.5	6413.9
47.5°	7231.5	7152.6	7054.0	6975.1	6948.8	6924.7	6946.6	6946.6	6922.5
50°	8040.4	7946.1	7830.0	7702.8	7659.0	7634.9	7643.6	7654.6	7586.7
52.5°	9138.6	9033.4	8869.0	8676.1	8634.4	8614.7	8610.3	8595.0	8577.5
55°	10627.0	10429.7	10228.1	9973.8	9897.1	9875.1	9877.3	9859.8	9901.4
57.5°	12382.8	12093.5	11628.8	11319.7	11135.6	11065.4	11001.9	10975.5	10977.7
60°	14121.1	13531.5	12836.6	12297.3	11911.5	11666.0	11473.1	11365.7	11335.0
62.5°	15241.3	14314.0	13270.6	12396.0	11762.5	11357.0	11052.3	10859.4	10798.0
63°	15328.9	14346.9	13231.2	12293.0	11626.6	11201.3	10881.3	10681.8	10616.1
65°	15138.2	14015.9	12716.0	11598.1	10868.1	10396.8	10050.5	9862.0	9811.6
67.5°	13656.4	12722.6	11398.6	10243.4	9506.9	9029.0	8632.3	8452.5	8395.5
70°	11109.3	10469.2	9384.1	8397.7	7711.6	7251.3	6850.1	6701.1	6698.9
72.5°	8235.5	7404.7	6758.1	6034.7	5436.3	5070.2	4721.7	4555.1	4471.8
75°	5447.2	4557.3	3833.9	3224.5	2628.3	2299.5	1907.1	1738.3	1639.6
77.5°	2744.4	2034.2	1457.7	1010.5	784.8	644.5	589.7	561.2	559.0
80°	914.1	686.1	589.7	552.4	541.4	543.6	537.0	526.1	512.9
82.5°	506.4	532.7	537.0	521.7	521.7	512.9	504.2	462.5	440.6
85°	434.0	477.9	482.2	473.5	471.3	458.1	442.8	385.8	352.9
87.5°	271.8	313.5	306.9	274.0	302.5	282.8	267.4	173.2	127.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)