

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: P159580

Luminaire Tested: **VST-E08-LED-E-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159580
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E08-LED-E-U-T3
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(8) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (168) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24466.9 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Luminous Opening: Rectangular (W 1.33' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 194.5
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



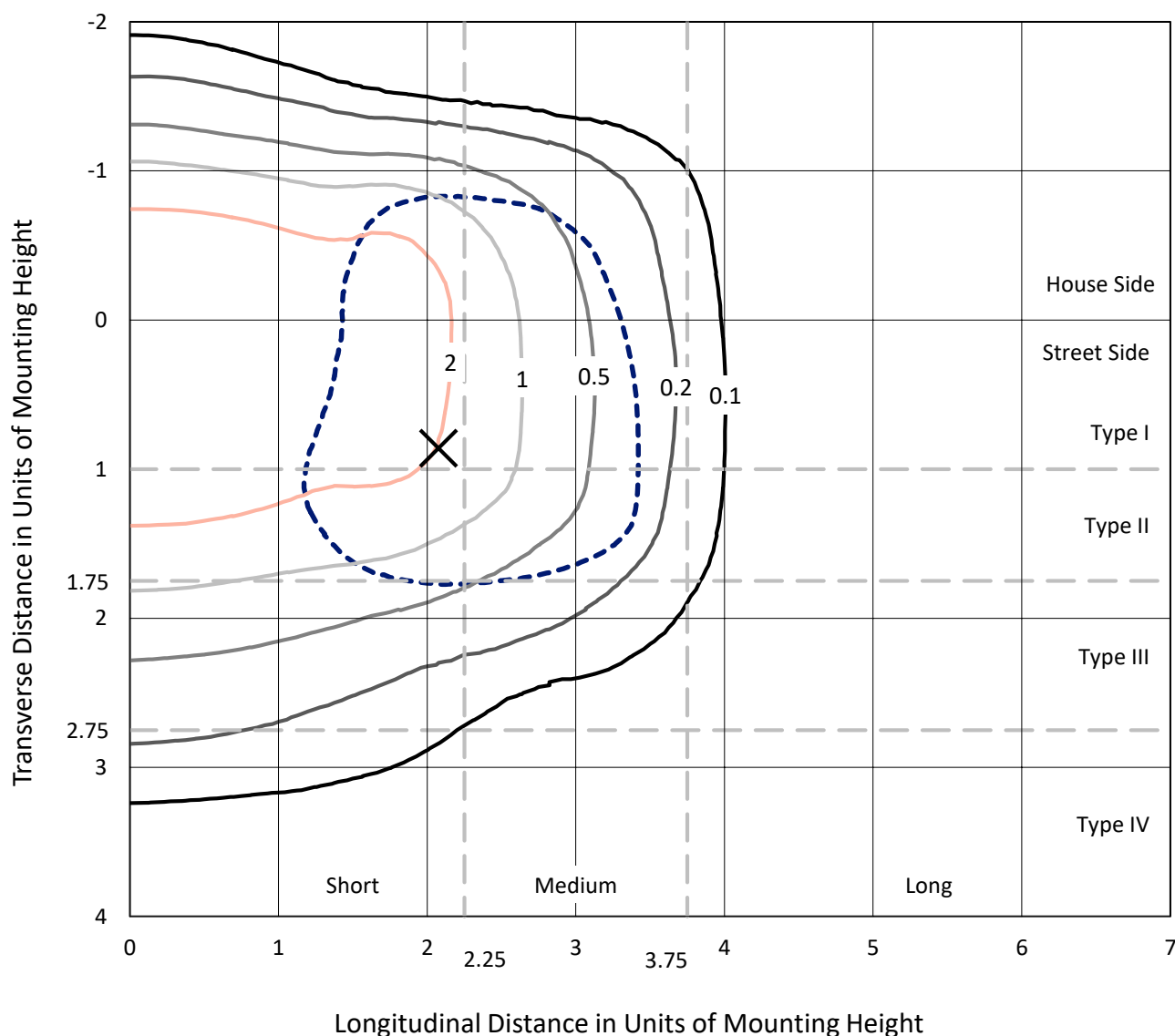
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

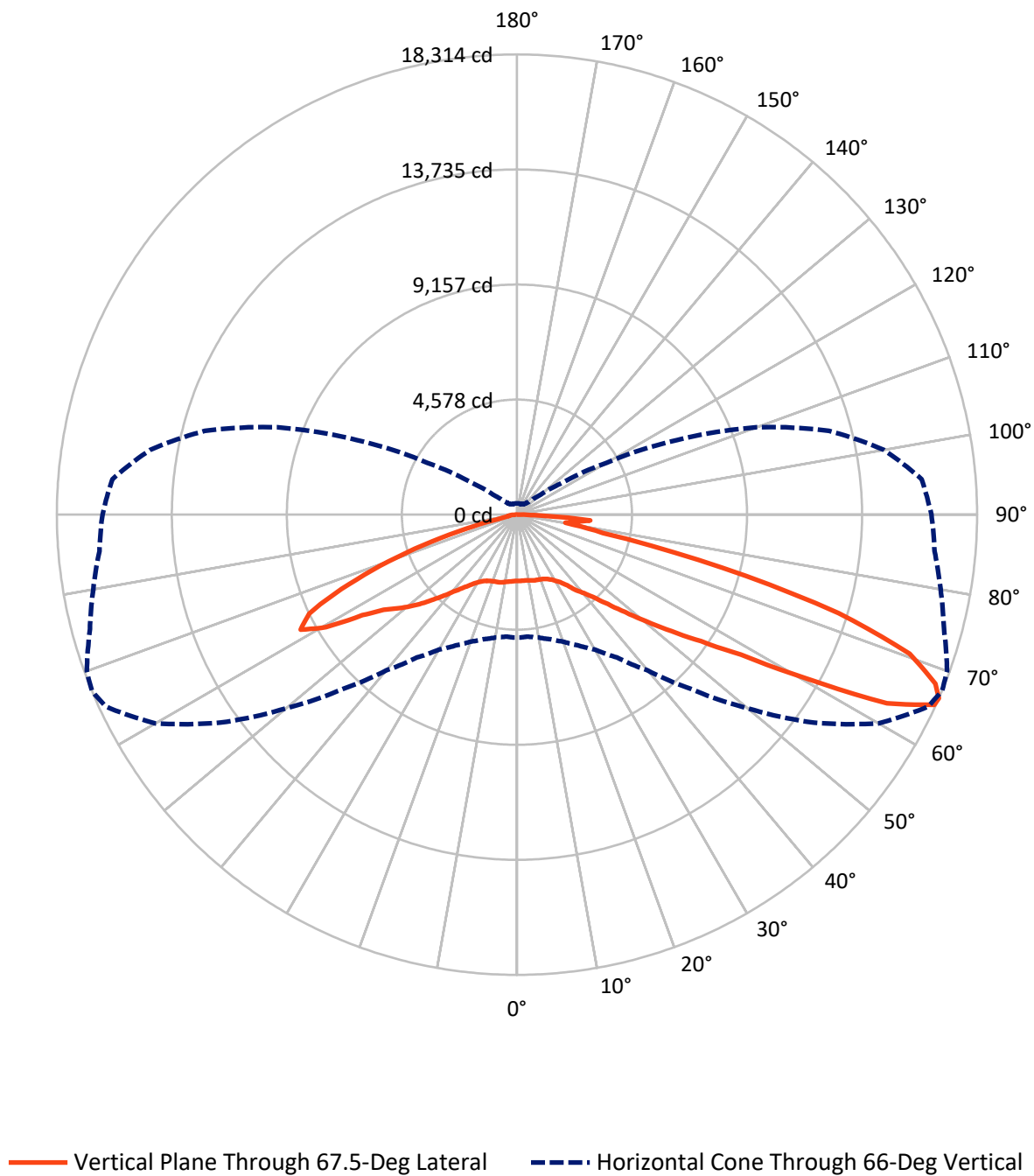


Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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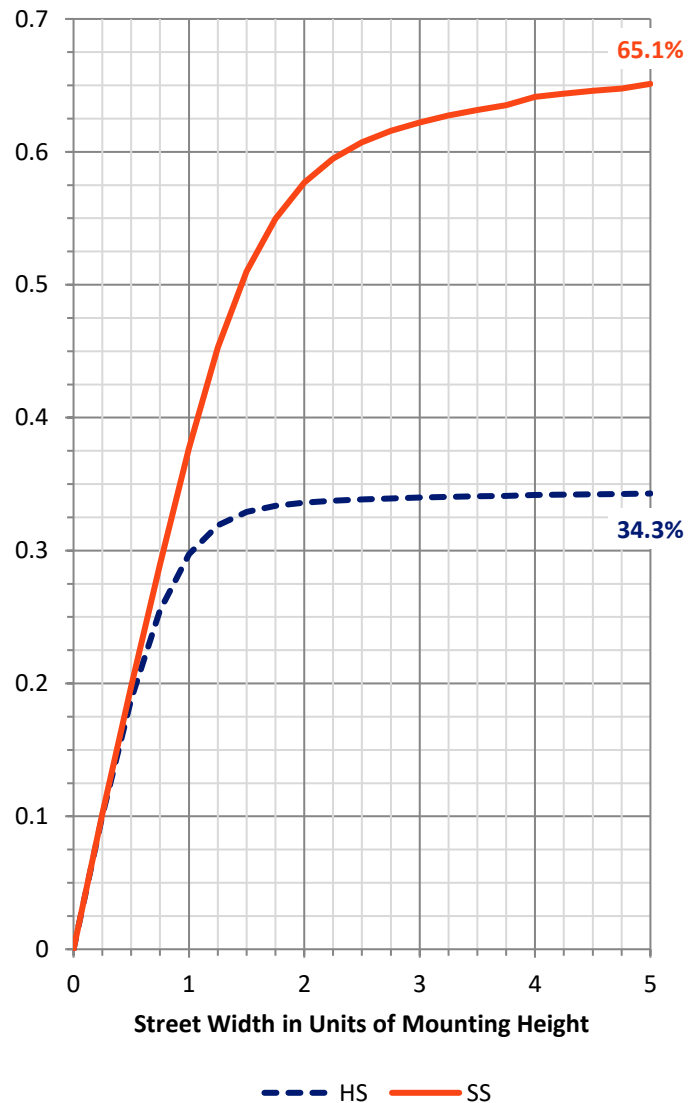
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8466.6	0.0	8466.6
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	16000.3	0.0	16000.3
	% Fixture	65.4	0.0	65.4
Total	Lumens	24466.9	0.0	24466.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.3	1.0
10°-20°	750.2	3.1
20°-30°	1289.5	5.3
30°-40°	2084.1	8.5
40°-50°	3453.9	14.1
50°-60°	5420.5	22.2
60°-70°	7410.9	30.3
70°-80°	3259.0	13.3
80°-90°	545.5	2.2
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°	24466.9	100.0
0°-180°	24466.9	100.0

Coefficient of Utilization



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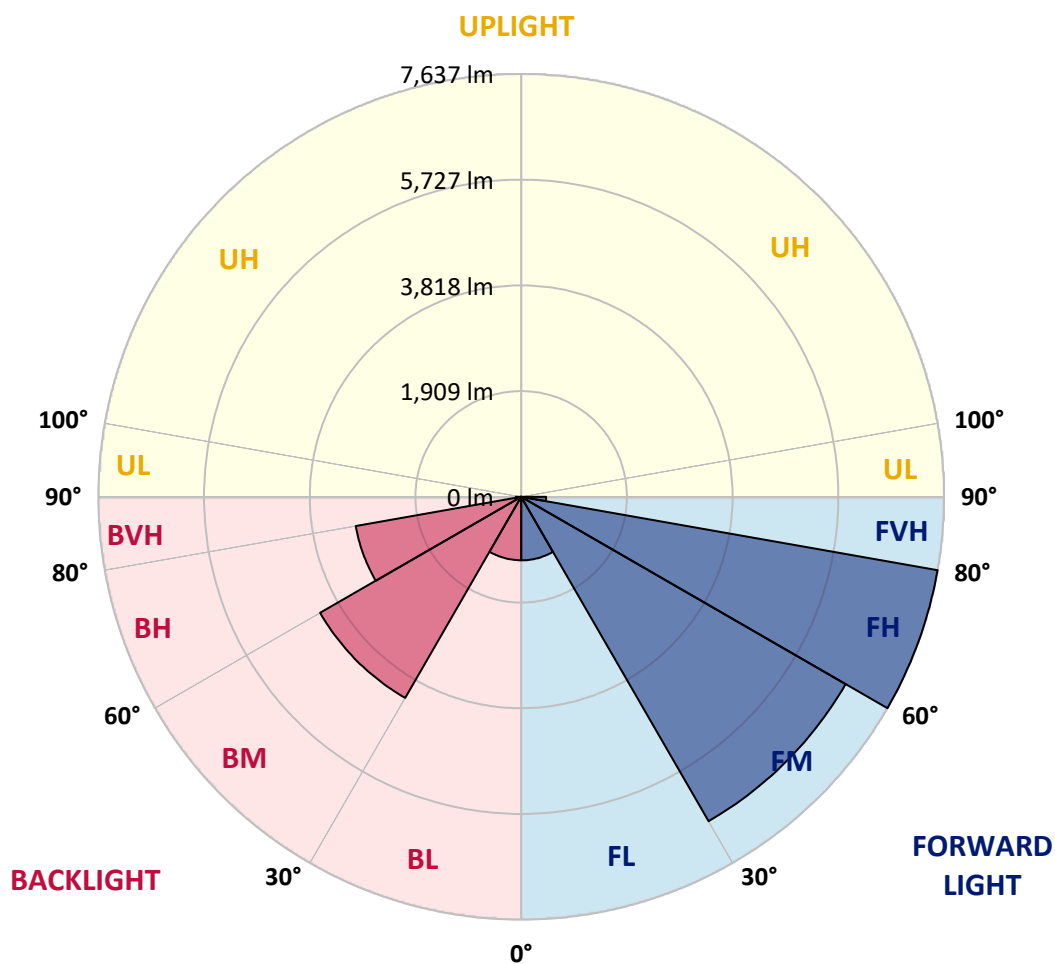
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1147.7	4.7			
FM	(30°-60°)	6765.8	27.7			
FH	(60°-80°)	7636.7	31.2			G4/12000
FVH	(80°-90°)	450.1	1.8			G3/500
BL	(0°-30°)	1145.3	4.7	B3/2500		
BM	(30°-60°)	4192.6	17.1	B3/5000		
BH	(60°-80°)	3033.2	12.4	B4/5000		G4/5000
BVH	(80°-90°)	95.4	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0
2.5°	2635.2	2635.2	2636.8	2635.2	2635.2	2633.6	2640.0	2640.0	2640.0	2638.4	2643.2
5°	2628.8	2628.8	2630.4	2630.4	2632.0	2630.4	2635.2	2636.8	2636.8	2636.8	2641.6
7.5°	2612.8	2617.6	2614.4	2616.0	2617.6	2622.4	2628.8	2632.0	2635.2	2640.0	2641.6
10°	2579.2	2587.2	2585.6	2590.4	2592.0	2606.4	2611.2	2617.6	2628.8	2635.2	2640.0
12.5°	2532.8	2537.6	2539.2	2545.6	2552.0	2569.6	2582.4	2593.6	2609.6	2625.6	2641.6
15°	2496.0	2499.2	2499.2	2505.6	2515.2	2531.2	2547.2	2566.4	2590.4	2617.6	2643.2
17.5°	2507.2	2515.2	2508.8	2507.2	2510.4	2520.0	2534.4	2550.4	2579.2	2609.6	2640.0
20°	2580.8	2582.4	2579.2	2571.2	2564.8	2566.4	2566.4	2569.6	2587.2	2611.2	2635.2
22.5°	2641.6	2648.0	2646.4	2648.0	2646.4	2652.8	2649.6	2643.2	2636.8	2638.4	2649.6
25°	2694.4	2700.8	2700.8	2705.6	2713.6	2726.4	2736.0	2734.4	2724.8	2712.0	2707.2
27.5°	2780.8	2780.8	2780.8	2785.6	2796.8	2812.8	2828.8	2838.4	2846.4	2833.6	2806.4
30°	2916.8	2918.4	2913.6	2915.2	2923.2	2944.0	2963.2	2977.6	2993.6	2992.0	2956.8
32.5°	3065.6	3072.0	3070.4	3076.8	3088.0	3107.2	3128.0	3150.4	3171.2	3184.0	3161.6
35°	3257.6	3264.0	3265.6	3275.2	3288.0	3316.8	3345.6	3374.4	3396.8	3406.4	3401.6
37.5°	3572.8	3574.4	3568.0	3553.6	3558.4	3580.8	3614.4	3660.8	3675.2	3684.8	3707.2
40°	4044.8	4040.0	4014.4	4001.6	3993.6	4003.2	3996.8	4033.6	4067.2	4068.8	4067.2
42.5°	4617.6	4603.2	4579.2	4576.0	4572.8	4569.6	4552.0	4553.6	4584.0	4592.0	4582.4
45°	5187.2	5169.6	5152.0	5168.0	5148.8	5198.4	5212.8	5251.2	5256.0	5272.0	5248.0
47.5°	5654.4	5656.0	5656.0	5678.4	5716.8	5811.2	5896.0	5969.6	5996.8	6035.2	6040.0
50°	6008.0	6017.6	6048.0	6120.0	6201.6	6360.0	6502.4	6635.2	6755.2	6800.0	6918.4
52.5°	6214.4	6240.0	6304.0	6424.0	6569.6	6774.4	6998.4	7224.0	7432.0	7608.0	7748.8
55°	6177.6	6196.8	6308.8	6496.0	6723.2	6998.4	7312.0	7638.4	7963.2	8260.8	8491.2
57.5°	5940.8	5953.6	6065.6	6276.8	6560.0	6929.6	7372.8	7857.6	8313.6	8793.6	9187.2
60°	5630.4	5649.6	5753.6	5920.0	6216.0	6609.6	7123.2	7780.8	8508.8	9264.0	10000.0
62.5°	5432.0	5427.2	5518.4	5667.2	5889.6	6246.4	6740.8	7520.0	8528.0	9804.8	11259.2
65°	5102.4	5088.0	5182.4	5352.0	5593.6	5939.2	6408.0	7156.8	8326.4	10009.6	12072.0
66°	4897.6	4868.8	4963.2	5134.4	5376.0	5744.0	6193.6	6932.8	8081.6	9809.6	11985.6
67.5°	4539.2	4524.8	4569.6	4704.0	4883.2	5228.8	5697.6	6441.6	7502.4	9208.0	11352.0
70°	3689.6	3657.6	3692.8	3753.6	3822.4	3907.2	4195.2	4785.6	5683.2	7336.0	9145.6
72.5°	2513.6	2497.6	2563.2	2656.0	2840.0	2926.4	3040.0	3136.0	3452.8	4624.0	6379.2
75°	1912.0	1921.6	2004.8	2158.4	2395.2	2651.2	2900.8	2992.0	2886.4	2795.2	3620.8
77.5°	1072.0	1128.0	1228.8	1424.0	1675.2	2036.8	2472.0	2952.0	3192.0	3132.8	2929.6
80°	441.6	433.6	483.2	590.4	676.8	972.8	1488.0	2089.6	2764.8	3192.0	3124.8
82.5°	123.2	126.4	163.2	209.6	270.4	344.0	537.6	864.0	1408.0	2190.4	2867.2
85°	38.4	38.4	52.8	78.4	92.8	107.2	136.0	224.0	382.4	763.2	1547.2
87.5°	8.0	8.0	11.2	22.4	24.0	24.0	30.4	41.6	36.8	33.6	150.4
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0
2.5°	2638.4	2635.2	2636.8	2638.4	2636.8	2636.8	2635.2	2633.6	2635.2	2635.2	2640.0
5°	2636.8	2635.2	2636.8	2636.8	2636.8	2638.4	2638.4	2638.4	2643.2	2643.2	2651.2
7.5°	2640.0	2640.0	2643.2	2643.2	2643.2	2643.2	2644.8	2648.0	2656.0	2654.4	2668.8
10°	2646.4	2649.6	2657.6	2659.2	2659.2	2664.0	2667.2	2673.6	2681.6	2684.8	2697.6
12.5°	2654.4	2670.4	2684.8	2688.0	2692.8	2700.8	2705.6	2708.8	2723.2	2728.0	2744.0
15°	2664.0	2686.4	2704.0	2710.4	2716.8	2726.4	2732.8	2737.6	2750.4	2756.8	2776.0
17.5°	2665.6	2691.2	2712.0	2721.6	2729.6	2740.8	2750.4	2760.0	2774.4	2784.0	2803.2
20°	2664.0	2697.6	2729.6	2742.4	2750.4	2771.2	2785.6	2798.4	2816.0	2825.6	2844.8
22.5°	2681.6	2720.0	2763.2	2779.2	2792.0	2820.8	2840.0	2860.8	2883.2	2889.6	2904.0
25°	2723.2	2763.2	2817.6	2840.0	2862.4	2900.8	2928.0	2958.4	2980.8	2984.0	2988.8
27.5°	2793.6	2830.4	2896.0	2929.6	2966.4	3020.8	3060.8	3091.2	3123.2	3123.2	3120.0
30°	2936.0	2944.0	3012.8	3056.0	3110.4	3190.4	3249.6	3283.2	3307.2	3307.2	3280.0
32.5°	3120.0	3110.4	3172.8	3219.2	3294.4	3406.4	3486.4	3512.0	3537.6	3529.6	3483.2
35°	3385.6	3358.4	3393.6	3464.0	3548.8	3702.4	3785.6	3843.2	3859.2	3836.8	3763.2
37.5°	3720.0	3716.8	3734.4	3812.8	3907.2	4105.6	4190.4	4227.2	4214.4	4174.4	4044.8
40°	4073.6	4064.0	4052.8	4105.6	4211.2	4449.6	4600.0	4619.2	4601.6	4542.4	4379.2
42.5°	4545.6	4545.6	4492.8	4507.2	4595.2	4862.4	5040.0	5100.8	5102.4	5016.0	4798.4
45°	5195.2	5188.8	5096.0	5073.6	5140.8	5403.2	5632.0	5665.6	5665.6	5552.0	5313.6
47.5°	5976.0	5968.0	5876.8	5798.4	5811.2	6094.4	6284.8	6336.0	6291.2	6206.4	5923.2
50°	6856.0	6841.6	6748.8	6675.2	6643.2	6929.6	7091.2	7115.2	7049.6	6948.8	6641.6
52.5°	7748.8	7792.0	7737.6	7697.6	7708.8	7894.4	8060.8	7947.2	7913.6	7804.8	7496.0
55°	8678.4	8811.2	8931.2	8896.0	8937.6	9118.4	9150.4	9000.0	8939.2	8860.8	8516.8
57.5°	9614.4	10001.6	10395.2	10505.6	10608.0	10867.2	10830.4	10584.0	10630.4	10747.2	10360.0
60°	10921.6	12040.0	13038.4	13222.4	13540.8	13761.6	13811.2	13763.2	13979.2	13918.4	13576.0
62.5°	12929.6	14793.6	16182.4	16528.0	16848.0	16836.8	16668.8	16496.0	16708.8	16708.8	15814.4
65°	14363.2	16478.4	17964.8	18251.2	18238.4	17852.8	17456.0	17110.4	17080.0	16843.2	15536.0
66°	14430.4	16608.0	18064.0	18313.6	18217.6	17596.8	17121.6	16683.2	16496.0	16166.4	14827.2
67.5°	13825.6	16241.6	17740.8	17958.4	17705.6	16816.0	16161.6	15574.4	15302.4	14747.2	13486.4
70°	11340.8	13958.4	16139.2	16584.0	16297.6	15171.2	14275.2	13481.6	12961.6	12160.0	11251.2
72.5°	8278.4	10305.6	12667.2	13390.4	13345.6	12308.8	11587.2	10860.8	10177.6	9448.0	8784.0
75°	5380.8	6704.0	8020.8	8443.2	8240.0	7640.0	7123.2	6699.2	6051.2	5544.0	5420.8
77.5°	3072.0	3753.6	3550.4	3497.6	3243.2	2617.6	1740.8	1220.8	1102.4	1376.0	1508.8
80°	2923.2	2649.6	2169.6	1956.8	1798.4	1225.6	643.2	452.8	396.8	406.4	436.8
82.5°	3296.0	3435.2	2809.6	2347.2	2043.2	1491.2	814.4	379.2	276.8	328.0	368.0
85°	2470.4	3478.4	3448.0	2921.6	2396.8	1718.4	963.2	289.6	166.4	230.4	300.8
87.5°	500.8	824.0	793.6	697.6	593.6	414.4	161.6	91.2	83.2	113.6	172.8
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0	2640.0
2.5°	2643.2	2643.2	2646.4	2651.2	2652.8	2652.8	2656.0	2652.8	2659.2	2660.8	2662.4
5°	2657.6	2662.4	2665.6	2673.6	2678.4	2681.6	2686.4	2683.2	2689.6	2691.2	2694.4
7.5°	2673.6	2681.6	2688.0	2691.2	2697.6	2697.6	2699.2	2696.0	2694.4	2689.6	2688.0
10°	2702.4	2707.2	2715.2	2712.0	2708.8	2697.6	2688.0	2673.6	2665.6	2651.2	2643.2
12.5°	2748.8	2752.0	2752.0	2737.6	2716.8	2691.2	2667.2	2643.2	2624.0	2608.0	2598.4
15°	2780.8	2787.2	2779.2	2758.4	2728.0	2692.8	2660.8	2628.8	2603.2	2582.4	2569.6
17.5°	2804.8	2803.2	2788.8	2760.0	2731.2	2700.8	2672.0	2638.4	2606.4	2576.0	2556.8
20°	2841.6	2825.6	2800.0	2769.6	2739.2	2713.6	2691.2	2659.2	2625.6	2584.0	2555.2
22.5°	2891.2	2862.4	2825.6	2793.6	2764.8	2740.8	2715.2	2688.0	2652.8	2606.4	2566.4
25°	2961.6	2912.0	2870.4	2838.4	2812.8	2785.6	2756.8	2721.6	2686.4	2638.4	2590.4
27.5°	3068.8	2995.2	2942.4	2913.6	2889.6	2852.8	2816.0	2774.4	2729.6	2680.0	2625.6
30°	3198.4	3110.4	3049.6	3024.0	2995.2	2953.6	2913.6	2856.0	2793.6	2734.4	2667.2
32.5°	3350.4	3260.8	3200.0	3180.8	3134.4	3086.4	3030.4	2953.6	2872.0	2784.0	2704.0
35°	3580.8	3467.2	3411.2	3366.4	3302.4	3244.8	3150.4	3049.6	2932.8	2816.0	2716.8
37.5°	3817.6	3702.4	3644.8	3582.4	3499.2	3393.6	3267.2	3123.2	2968.0	2824.0	2702.4
40°	4134.4	4009.6	3936.0	3840.0	3705.6	3540.8	3353.6	3156.8	2968.0	2788.8	2641.6
42.5°	4504.0	4388.8	4275.2	4116.8	3900.8	3660.8	3398.4	3145.6	2916.8	2710.4	2555.2
45°	5016.0	4819.2	4638.4	4384.0	4068.8	3731.2	3403.2	3092.8	2828.8	2600.0	2427.2
47.5°	5592.0	5337.6	5017.6	4619.2	4188.8	3758.4	3356.8	2993.6	2689.6	2441.6	2252.8
50°	6256.0	5865.6	5374.4	4806.4	4249.6	3721.6	3246.4	2827.2	2497.6	2212.8	2011.2
52.5°	7016.0	6420.8	5697.6	4939.2	4240.0	3609.6	3064.0	2608.0	2240.0	1937.6	1739.2
55°	7859.2	7025.6	6006.4	5024.0	4153.6	3392.0	2777.6	2299.2	1920.0	1622.4	1448.0
57.5°	9345.6	8086.4	6595.2	5137.6	3972.8	3062.4	2414.4	1908.8	1566.4	1313.6	1147.2
60°	12107.2	9940.8	7710.4	5404.8	3700.8	2649.6	1956.8	1497.6	1211.2	1027.2	904.0
62.5°	13816.0	11246.4	8254.4	5366.4	3259.2	2084.8	1452.8	1110.4	884.8	763.2	686.4
65°	13411.2	10734.4	7590.4	4609.6	2536.0	1478.4	961.6	726.4	608.0	545.6	508.8
66°	12860.8	10161.6	7028.8	4128.0	2209.6	1235.2	793.6	609.6	523.2	476.8	457.6
67.5°	11707.2	9115.2	6062.4	3305.6	1656.0	920.0	585.6	478.4	425.6	401.6	388.8
70°	9798.4	7344.0	4288.0	1952.0	897.6	499.2	374.4	332.8	320.0	312.0	307.2
72.5°	7576.0	5316.8	2505.6	960.0	452.8	323.2	284.8	267.2	262.4	262.4	264.0
75°	4772.8	3056.0	1121.6	462.4	307.2	260.8	243.2	235.2	236.8	238.4	236.8
77.5°	1585.6	1054.4	467.2	328.0	267.2	236.8	222.4	219.2	222.4	224.0	224.0
80°	456.0	398.4	337.6	289.6	244.8	220.8	208.0	206.4	214.4	216.0	212.8
82.5°	350.4	328.0	305.6	280.0	235.2	208.0	203.2	204.8	209.6	206.4	192.0
85°	321.6	318.4	228.8	227.2	204.8	198.4	193.6	195.2	190.4	172.8	156.8
87.5°	180.8	168.0	129.6	131.2	152.0	156.8	129.6	137.6	128.0	112.0	102.4
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):

	160°	165°	170°	175°	180°
0°	2640.0	2640.0	2640.0	2640.0	2640.0
2.5°	2665.6	2664.0	2664.0	2668.8	2662.4
5°	2696.0	2694.4	2694.4	2699.2	2694.4
7.5°	2681.6	2676.8	2673.6	2672.0	2672.0
10°	2633.6	2628.8	2619.2	2616.0	2612.8
12.5°	2584.0	2579.2	2568.0	2568.0	2564.8
15°	2553.6	2547.2	2539.2	2534.4	2531.2
17.5°	2537.6	2528.0	2518.4	2513.6	2510.4
20°	2531.2	2518.4	2507.2	2499.2	2499.2
22.5°	2532.8	2516.8	2504.0	2494.4	2491.2
25°	2548.8	2524.8	2508.8	2499.2	2496.0
27.5°	2571.2	2542.4	2521.6	2508.8	2504.0
30°	2601.6	2561.6	2532.8	2516.8	2510.4
32.5°	2622.4	2566.4	2529.6	2507.2	2499.2
35°	2620.8	2548.8	2504.0	2475.2	2465.6
37.5°	2592.0	2507.2	2448.0	2412.8	2396.8
40°	2528.0	2430.4	2368.0	2334.4	2315.2
42.5°	2435.2	2329.6	2273.6	2236.8	2216.0
45°	2289.6	2185.6	2116.8	2088.0	2060.8
47.5°	2088.0	1982.4	1923.2	1881.6	1864.0
50°	1851.2	1745.6	1683.2	1649.6	1633.6
52.5°	1592.0	1491.2	1446.4	1414.4	1392.0
55°	1323.2	1230.4	1211.2	1176.0	1155.2
57.5°	1070.4	1016.0	998.4	963.2	945.6
60°	836.8	819.2	800.0	777.6	768.0
62.5°	648.0	632.0	627.2	612.8	611.2
65°	494.4	496.0	492.8	489.6	486.4
66°	449.6	448.0	449.6	446.4	444.8
67.5°	382.4	388.8	393.6	392.0	392.0
70°	310.4	315.2	321.6	320.0	320.0
72.5°	265.6	273.6	276.8	275.2	275.2
75°	240.0	248.0	248.0	244.8	243.2
77.5°	224.0	227.2	224.0	220.8	217.6
80°	208.0	204.8	200.0	195.2	192.0
82.5°	180.8	172.8	168.0	160.0	160.0
85°	145.6	139.2	128.0	120.0	112.0
87.5°	94.4	91.2	83.2	62.4	49.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)