

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: P159614

Luminaire Tested: **VST-F11-LED-E-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159614
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-F11-LED-E-U-T3-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (77) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25365.8 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 282.7
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

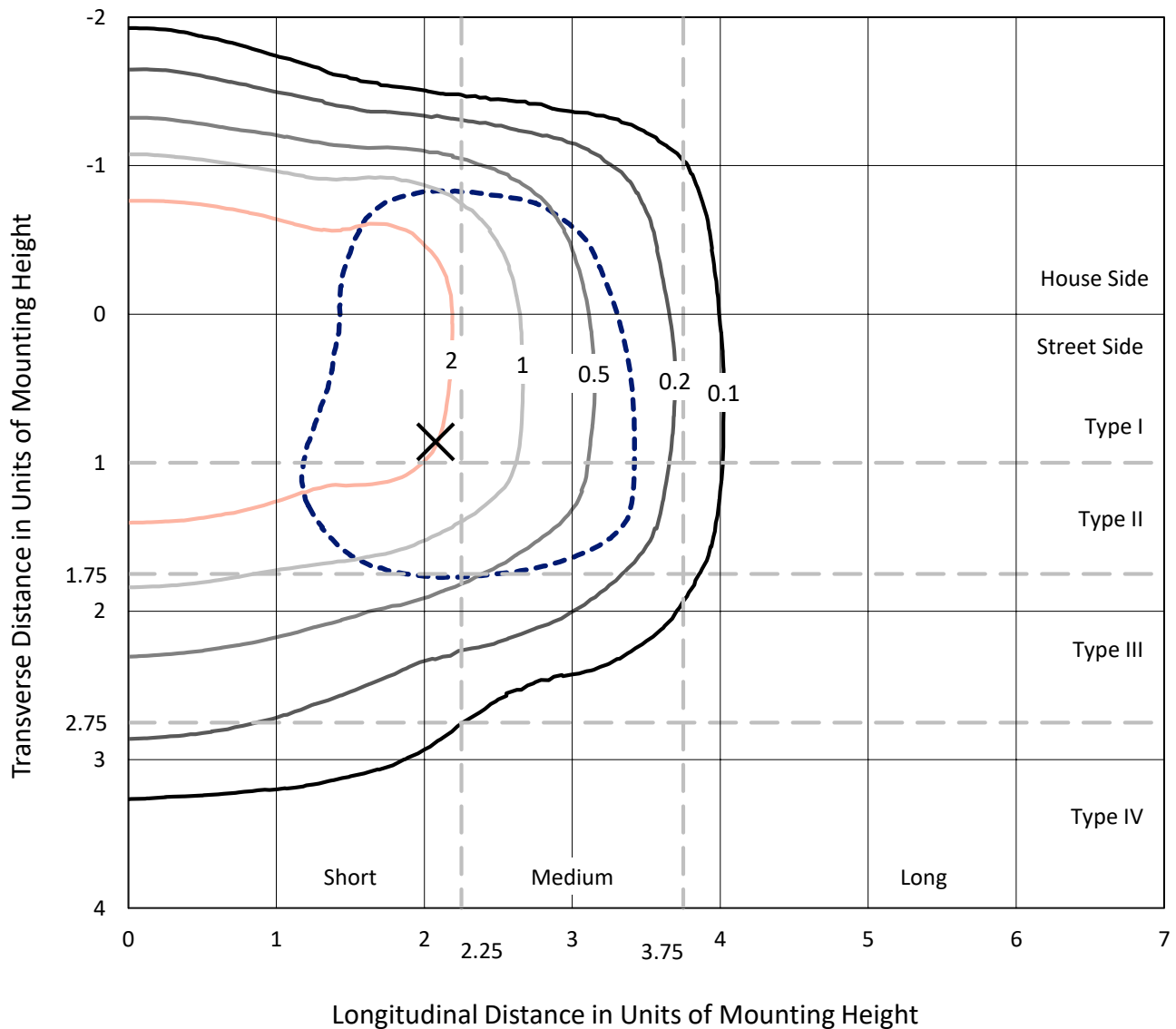


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

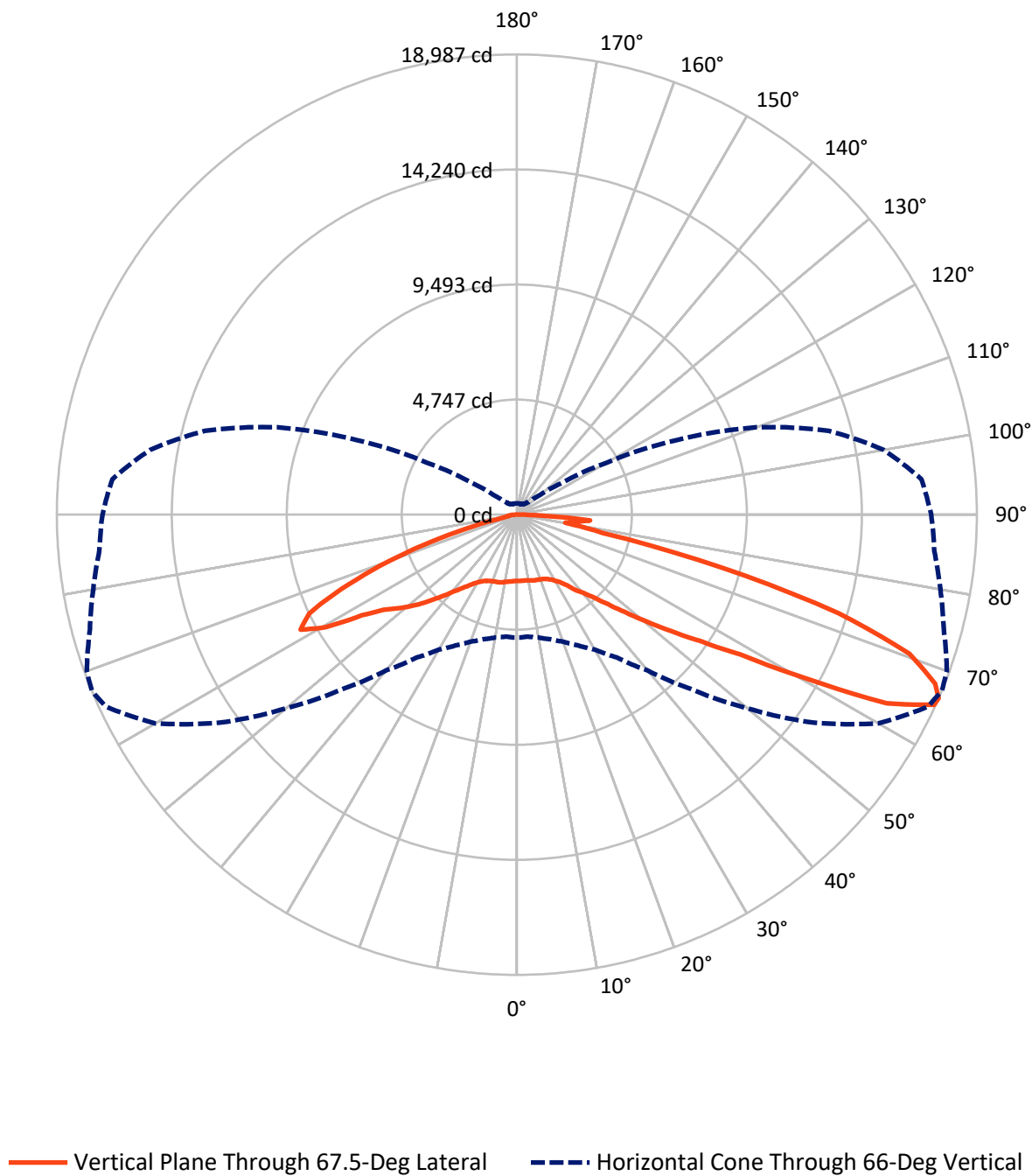


Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8777.7	0.0	8777.7
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	16588.1	0.0	16588.1
	% Fixture	65.4	0.0	65.4
Total	Lumens	25365.8	0.0	25365.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.7	1.0
10°-20°	777.7	3.1
20°-30°	1336.9	5.3
30°-40°	2160.7	8.5
40°-50°	3580.8	14.1
50°-60°	5619.7	22.2
60°-70°	7683.2	30.3
70°-80°	3378.7	13.3
80°-90°	565.5	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°	25365.8	100.0
0°-180°	25365.8	100.0

Coefficient of Utilization



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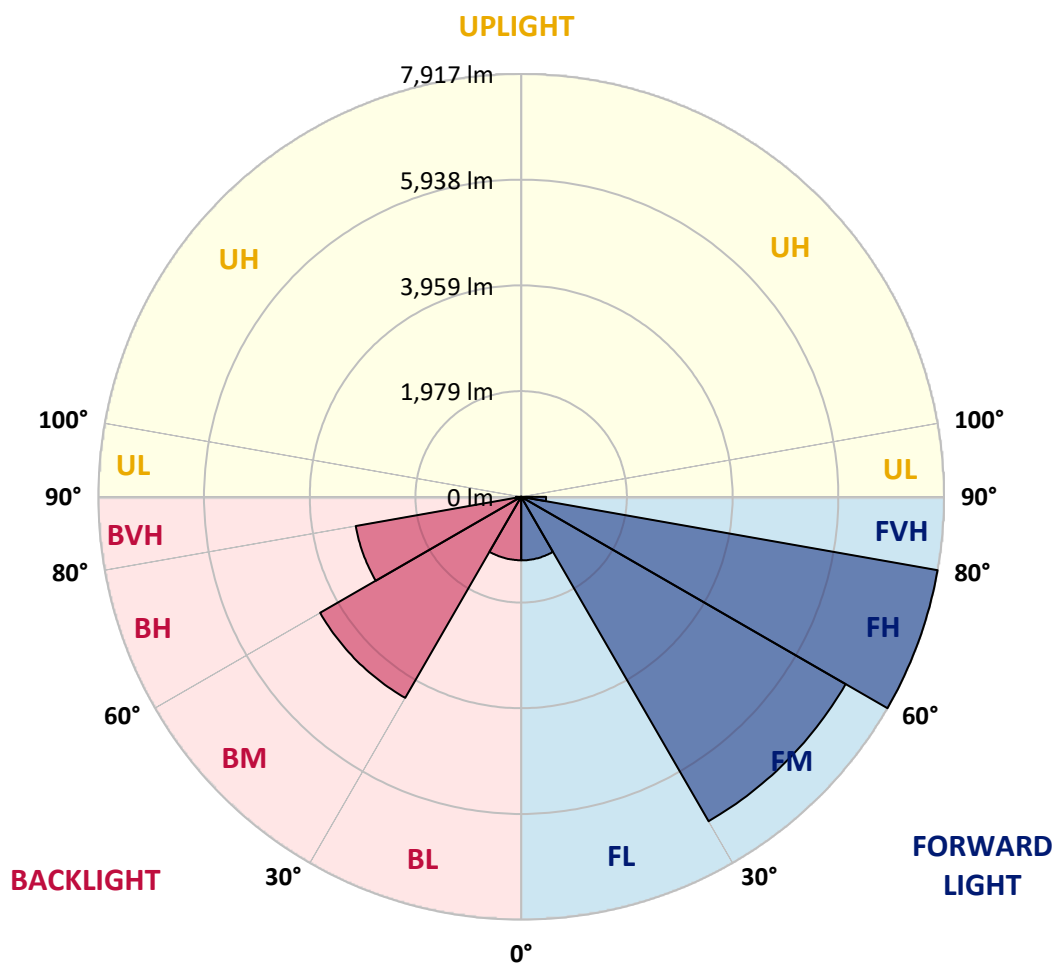
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1189.9	4.7			
FM	(30°-60°)	7014.4	27.7			
FH	(60°-80°)	7917.2	31.2			G4/12000
FVH	(80°-90°)	466.6	1.8			G3/500
BL	(0°-30°)	1187.4	4.7	B3/2500		
BM	(30°-60°)	4346.7	17.1	B3/5000		
BH	(60°-80°)	3144.7	12.4	B4/5000		G4/5000
BVH	(80°-90°)	98.9	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°	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0
2.5°	2732.0	2732.0	2733.7	2732.0	2732.0	2730.4	2737.0	2737.0	2737.0	2735.3	2740.3
5°	2725.4	2725.4	2727.0	2727.0	2728.7	2727.0	2732.0	2733.7	2733.7	2733.7	2738.7
7.5°	2708.8	2713.8	2710.5	2712.1	2713.8	2718.7	2725.4	2728.7	2732.0	2737.0	2738.7
10°	2674.0	2682.3	2680.6	2685.6	2687.2	2702.2	2707.1	2713.8	2725.4	2732.0	2737.0
12.5°	2625.9	2630.8	2632.5	2639.1	2645.8	2664.0	2677.3	2688.9	2705.5	2722.1	2738.7
15°	2587.7	2591.0	2591.0	2597.7	2607.6	2624.2	2640.8	2660.7	2685.6	2713.8	2740.3
17.5°	2599.3	2607.6	2601.0	2599.3	2602.6	2612.6	2627.5	2644.1	2674.0	2705.5	2737.0
20°	2675.6	2677.3	2674.0	2665.7	2659.0	2660.7	2660.7	2664.0	2682.3	2707.1	2732.0
22.5°	2738.7	2745.3	2743.6	2745.3	2743.6	2750.3	2746.9	2740.3	2733.7	2735.3	2746.9
25°	2793.4	2800.0	2800.0	2805.0	2813.3	2826.6	2836.5	2834.9	2824.9	2811.6	2806.7
27.5°	2883.0	2883.0	2883.0	2887.9	2899.6	2916.1	2932.7	2942.7	2951.0	2937.7	2909.5
30°	3024.0	3025.6	3020.6	3022.3	3030.6	3052.2	3072.1	3087.0	3103.6	3101.9	3065.4
32.5°	3178.2	3184.9	3183.2	3189.8	3201.5	3221.4	3242.9	3266.1	3287.7	3301.0	3277.8
35°	3377.3	3383.9	3385.6	3395.5	3408.8	3438.7	3468.5	3498.4	3521.6	3531.6	3526.6
37.5°	3704.1	3705.7	3699.1	3684.2	3689.1	3712.4	3747.2	3795.3	3810.2	3820.2	3843.4
40°	4193.4	4188.4	4161.9	4148.6	4140.3	4150.3	4143.6	4181.8	4216.6	4218.3	4216.6
42.5°	4787.3	4772.3	4747.4	4744.1	4740.8	4737.5	4719.2	4720.9	4752.4	4760.7	4750.8
45°	5377.8	5359.5	5341.3	5357.9	5338.0	5389.4	5404.3	5444.1	5449.1	5465.7	5440.8
47.5°	5862.1	5863.8	5863.8	5887.0	5926.8	6024.7	6112.6	6188.9	6217.1	6256.9	6261.9
50°	6228.7	6238.7	6270.2	6344.9	6429.5	6593.7	6741.3	6879.0	7003.4	7049.8	7172.6
52.5°	6442.7	6469.3	6535.6	6660.0	6811.0	7023.3	7255.5	7489.4	7705.1	7887.5	8033.5
55°	6404.6	6424.5	6540.6	6734.7	6970.2	7255.5	7580.7	7919.0	8255.8	8564.3	8803.2
57.5°	6159.1	6172.3	6288.5	6507.4	6801.0	7184.2	7643.7	8146.3	8619.1	9116.7	9524.7
60°	5837.3	5857.2	5965.0	6137.5	6444.4	6852.4	7384.9	8066.7	8821.4	9604.4	10367.4
62.5°	5631.6	5626.6	5721.2	5875.4	6106.0	6475.9	6988.5	7796.3	8841.3	10165.0	11672.9
65°	5289.9	5274.9	5372.8	5548.6	5799.1	6157.4	6643.4	7419.7	8632.3	10377.4	12515.5
66°	5077.5	5047.7	5145.6	5323.0	5573.5	5955.0	6421.2	7187.5	8378.5	10170.0	12426.0
67.5°	4706.0	4691.0	4737.5	4876.8	5062.6	5420.9	5906.9	6678.3	7778.0	9546.3	11769.1
70°	3825.2	3792.0	3828.5	3891.5	3962.8	4050.8	4349.3	4961.4	5892.0	7605.5	9481.6
72.5°	2606.0	2589.4	2657.4	2753.6	2944.3	3033.9	3151.7	3251.2	3579.7	4793.9	6613.6
75°	1982.2	1992.2	2078.5	2237.7	2483.2	2748.6	3007.4	3101.9	2992.4	2897.9	3753.8
77.5°	1111.4	1169.4	1273.9	1476.3	1736.7	2111.6	2562.8	3060.5	3309.3	3247.9	3037.2
80°	457.8	449.5	501.0	612.1	701.7	1008.5	1542.7	2166.4	2866.4	3309.3	3239.6
82.5°	127.7	131.0	169.2	217.3	280.3	356.6	557.4	895.7	1459.7	2270.9	2972.5
85°	39.8	39.8	54.7	81.3	96.2	111.1	141.0	232.2	396.4	791.2	1604.0
87.5°	8.3	8.3	11.6	23.2	24.9	24.9	31.5	43.1	38.2	34.8	155.9
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°	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0
2.5°	2735.3	2732.0	2733.7	2735.3	2733.7	2733.7	2732.0	2730.4	2732.0	2732.0	2737.0
5°	2733.7	2732.0	2733.7	2733.7	2733.7	2735.3	2735.3	2735.3	2740.3	2740.3	2748.6
7.5°	2737.0	2737.0	2740.3	2740.3	2740.3	2740.3	2742.0	2745.3	2753.6	2751.9	2766.9
10°	2743.6	2746.9	2755.2	2756.9	2756.9	2761.9	2765.2	2771.8	2780.1	2783.4	2796.7
12.5°	2751.9	2768.5	2783.4	2786.8	2791.7	2800.0	2805.0	2808.3	2823.3	2828.2	2844.8
15°	2761.9	2785.1	2803.3	2810.0	2816.6	2826.6	2833.2	2838.2	2851.5	2858.1	2878.0
17.5°	2763.5	2790.1	2811.6	2821.6	2829.9	2841.5	2851.5	2861.4	2876.3	2886.3	2906.2
20°	2761.9	2796.7	2829.9	2843.2	2851.5	2873.0	2887.9	2901.2	2919.5	2929.4	2949.3
22.5°	2780.1	2819.9	2864.7	2881.3	2894.6	2924.4	2944.3	2965.9	2989.1	2995.8	3010.7
25°	2823.3	2864.7	2921.1	2944.3	2967.6	3007.4	3035.6	3067.1	3090.3	3093.6	3098.6
27.5°	2896.2	2934.4	3002.4	3037.2	3075.4	3131.8	3173.3	3204.8	3237.9	3237.9	3234.6
30°	3043.9	3052.2	3123.5	3168.3	3224.7	3307.6	3369.0	3403.8	3428.7	3428.7	3400.5
32.5°	3234.6	3224.7	3289.4	3337.5	3415.4	3531.6	3614.5	3641.0	3667.6	3659.3	3611.2
35°	3510.0	3481.8	3518.3	3591.3	3679.2	3838.4	3924.7	3984.4	4001.0	3977.8	3901.5
37.5°	3856.7	3853.4	3871.6	3952.9	4050.8	4256.4	4344.4	4382.5	4369.2	4327.8	4193.4
40°	4223.3	4213.3	4201.7	4256.4	4365.9	4613.1	4769.0	4788.9	4770.7	4709.3	4540.1
42.5°	4712.6	4712.6	4657.9	4672.8	4764.0	5041.0	5225.2	5288.2	5289.9	5200.3	4974.7
45°	5386.1	5379.4	5283.2	5260.0	5329.7	5601.7	5838.9	5873.8	5873.8	5756.0	5508.8
47.5°	6195.6	6187.3	6092.7	6011.4	6024.7	6318.3	6515.7	6568.8	6522.3	6434.4	6140.8
50°	7107.9	7093.0	6996.8	6920.5	6887.3	7184.2	7351.7	7376.6	7308.6	7204.1	6885.6
52.5°	8033.5	8078.3	8021.9	7980.4	7992.0	8184.4	8357.0	8239.2	8204.4	8091.6	7771.4
55°	8997.3	9134.9	9259.3	9222.8	9266.0	9453.4	9486.6	9330.7	9267.6	9186.4	8829.7
57.5°	9967.6	10369.1	10777.1	10891.6	10997.7	11266.5	11228.3	10972.9	11021.0	11142.1	10740.6
60°	11322.9	12482.4	13517.4	13708.2	14038.3	14267.2	14318.6	14268.9	14492.8	14429.8	14074.8
62.5°	13404.6	15337.1	16777.0	17135.3	17467.0	17455.4	17281.2	17102.1	17322.7	17322.7	16395.4
65°	14890.9	17083.8	18624.8	18921.8	18908.5	18508.7	18097.4	17739.1	17707.5	17462.0	16106.8
66°	14960.6	17218.2	18727.7	18986.5	18886.9	18243.3	17750.7	17296.2	17102.1	16760.4	15372.0
67.5°	14333.6	16838.3	18392.6	18618.2	18356.1	17433.8	16755.4	16146.6	15864.6	15289.0	13981.9
70°	11757.5	14471.2	16732.2	17193.3	16896.4	15728.6	14799.7	13976.9	13437.8	12606.8	11664.6
72.5°	8582.6	10684.2	13132.6	13882.4	13835.9	12761.0	12012.9	11259.8	10551.5	9795.1	9106.7
75°	5578.5	6950.3	8315.5	8753.4	8542.7	7920.7	7384.9	6945.3	6273.5	5747.7	5620.0
77.5°	3184.9	3891.5	3680.8	3626.1	3362.4	2713.8	1804.8	1265.7	1142.9	1426.6	1564.2
80°	3030.6	2746.9	2249.3	2028.7	1864.5	1270.6	666.8	469.4	411.4	421.3	452.8
82.5°	3417.1	3561.4	2912.8	2433.4	2118.3	1546.0	844.3	393.1	287.0	340.1	381.5
85°	2561.2	3606.2	3574.7	3028.9	2484.9	1781.5	998.6	300.2	172.5	238.9	311.9
87.5°	519.2	854.3	822.8	723.2	615.4	429.6	167.5	94.6	86.3	117.8	179.1
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°	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0	2737.0
2.5°	2740.3	2740.3	2743.6	2748.6	2750.3	2750.3	2753.6	2750.3	2756.9	2758.6	2760.2
5°	2755.2	2760.2	2763.5	2771.8	2776.8	2780.1	2785.1	2781.8	2788.4	2790.1	2793.4
7.5°	2771.8	2780.1	2786.8	2790.1	2796.7	2796.7	2798.4	2795.1	2793.4	2788.4	2786.8
10°	2801.7	2806.7	2815.0	2811.6	2808.3	2796.7	2786.8	2771.8	2763.5	2748.6	2740.3
12.5°	2849.8	2853.1	2853.1	2838.2	2816.6	2790.1	2765.2	2740.3	2720.4	2703.8	2693.9
15°	2883.0	2889.6	2881.3	2859.7	2828.2	2791.7	2758.6	2725.4	2698.8	2677.3	2664.0
17.5°	2907.9	2906.2	2891.3	2861.4	2831.5	2800.0	2770.2	2735.3	2702.2	2670.6	2650.7
20°	2946.0	2929.4	2902.9	2871.4	2839.8	2813.3	2790.1	2756.9	2722.1	2678.9	2649.1
22.5°	2997.4	2967.6	2929.4	2896.2	2866.4	2841.5	2815.0	2786.8	2750.3	2702.2	2660.7
25°	3070.4	3019.0	2975.9	2942.7	2916.1	2887.9	2858.1	2821.6	2785.1	2735.3	2685.6
27.5°	3181.6	3105.2	3050.5	3020.6	2995.8	2957.6	2919.5	2876.3	2829.9	2778.5	2722.1
30°	3315.9	3224.7	3161.6	3135.1	3105.2	3062.1	3020.6	2960.9	2896.2	2834.9	2765.2
32.5°	3473.5	3380.6	3317.6	3297.7	3249.6	3199.8	3141.7	3062.1	2977.5	2886.3	2803.3
35°	3712.4	3594.6	3536.5	3490.1	3423.7	3364.0	3266.1	3161.6	3040.6	2919.5	2816.6
37.5°	3957.9	3838.4	3778.7	3714.0	3627.8	3518.3	3387.2	3237.9	3077.0	2927.8	2801.7
40°	4286.3	4156.9	4080.6	3981.1	3841.7	3670.9	3476.8	3272.8	3077.0	2891.3	2738.7
42.5°	4669.5	4550.0	4432.3	4268.1	4044.1	3795.3	3523.3	3261.2	3024.0	2810.0	2649.1
45°	5200.3	4996.3	4808.8	4545.1	4218.3	3868.3	3528.2	3206.4	2932.7	2695.5	2516.4
47.5°	5797.5	5533.7	5202.0	4788.9	4342.7	3896.5	3480.1	3103.6	2788.4	2531.3	2335.6
50°	6485.9	6081.1	5571.9	4983.0	4405.7	3858.3	3365.7	2931.1	2589.4	2294.1	2085.1
52.5°	7273.8	6656.7	5906.9	5120.7	4395.8	3742.2	3176.6	2703.8	2322.3	2008.8	1803.1
55°	8148.0	7283.7	6227.1	5208.6	4306.2	3516.6	2879.7	2383.7	1990.5	1682.0	1501.2
57.5°	9689.0	8383.5	6837.5	5326.4	4118.8	3174.9	2503.1	1978.9	1624.0	1361.9	1189.3
60°	12552.0	10306.0	7993.7	5603.4	3836.8	2746.9	2028.7	1552.6	1255.7	1064.9	937.2
62.5°	14323.6	11659.6	8557.7	5563.6	3378.9	2161.4	1506.2	1151.2	917.3	791.2	711.6
65°	13903.9	11128.8	7869.3	4779.0	2629.2	1532.7	996.9	753.1	630.3	565.6	527.5
66°	13333.3	10534.9	7287.0	4279.7	2290.8	1280.6	822.8	632.0	542.4	494.3	474.4
67.5°	12137.3	9450.1	6285.1	3427.1	1716.8	953.8	607.1	496.0	441.2	416.4	403.1
70°	10158.4	7613.8	4445.5	2023.7	930.6	517.5	388.2	345.0	331.8	323.5	318.5
72.5°	7854.3	5512.1	2597.7	995.3	469.4	335.1	295.3	277.0	272.0	272.0	273.7
75°	4948.2	3168.3	1162.8	479.4	318.5	270.4	252.1	243.8	245.5	247.2	245.5
77.5°	1643.9	1093.1	484.4	340.1	277.0	245.5	230.6	227.3	230.6	232.2	232.2
80°	472.8	413.0	350.0	300.2	253.8	228.9	215.6	214.0	222.3	223.9	220.6
82.5°	363.3	340.1	316.8	290.3	243.8	215.6	210.7	212.3	217.3	214.0	199.1
85°	333.4	330.1	237.2	235.5	212.3	205.7	200.7	202.4	197.4	179.1	162.6
87.5°	187.4	174.2	134.4	136.0	157.6	162.6	134.4	142.7	132.7	116.1	106.2
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):

	160°	165°	170°	175°	180°
0°	2737.0	2737.0	2737.0	2737.0	2737.0
2.5°	2763.5	2761.9	2761.9	2766.9	2760.2
5°	2795.1	2793.4	2793.4	2798.4	2793.4
7.5°	2780.1	2775.1	2771.8	2770.2	2770.2
10°	2730.4	2725.4	2715.4	2712.1	2708.8
12.5°	2678.9	2674.0	2662.4	2662.4	2659.0
15°	2647.4	2640.8	2632.5	2627.5	2624.2
17.5°	2630.8	2620.9	2610.9	2606.0	2602.6
20°	2624.2	2610.9	2599.3	2591.0	2591.0
22.5°	2625.9	2609.3	2596.0	2586.0	2582.7
25°	2642.4	2617.6	2601.0	2591.0	2587.7
27.5°	2665.7	2635.8	2614.2	2601.0	2596.0
30°	2697.2	2655.7	2625.9	2609.3	2602.6
32.5°	2718.7	2660.7	2622.5	2599.3	2591.0
35°	2717.1	2642.4	2596.0	2566.1	2556.2
37.5°	2687.2	2599.3	2537.9	2501.4	2484.9
40°	2620.9	2519.7	2455.0	2420.2	2400.3
42.5°	2524.7	2415.2	2357.1	2319.0	2297.4
45°	2373.7	2265.9	2194.6	2164.7	2136.5
47.5°	2164.7	2055.2	1993.9	1950.7	1932.5
50°	1919.2	1809.7	1745.0	1710.2	1693.6
52.5°	1650.5	1546.0	1499.5	1466.4	1443.1
55°	1371.8	1275.6	1255.7	1219.2	1197.6
57.5°	1109.7	1053.3	1035.1	998.6	980.3
60°	867.5	849.3	829.4	806.2	796.2
62.5°	671.8	655.2	650.2	635.3	633.7
65°	512.6	514.2	510.9	507.6	504.3
66°	466.1	464.5	466.1	462.8	461.1
67.5°	396.4	403.1	408.1	406.4	406.4
70°	321.8	326.8	333.4	331.8	331.8
72.5°	275.4	283.7	287.0	285.3	285.3
75°	248.8	257.1	257.1	253.8	252.1
77.5°	232.2	235.5	232.2	228.9	225.6
80°	215.6	212.3	207.3	202.4	199.1
82.5°	187.4	179.1	174.2	165.9	165.9
85°	150.9	144.3	132.7	124.4	116.1
87.5°	97.9	94.6	86.3	64.7	51.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)