

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: P159598

Luminaire Tested: **VST-E10-LED-E-U-T3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159598
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-E10-LED-E-U-T3-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (210) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25812.3 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 247.7
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



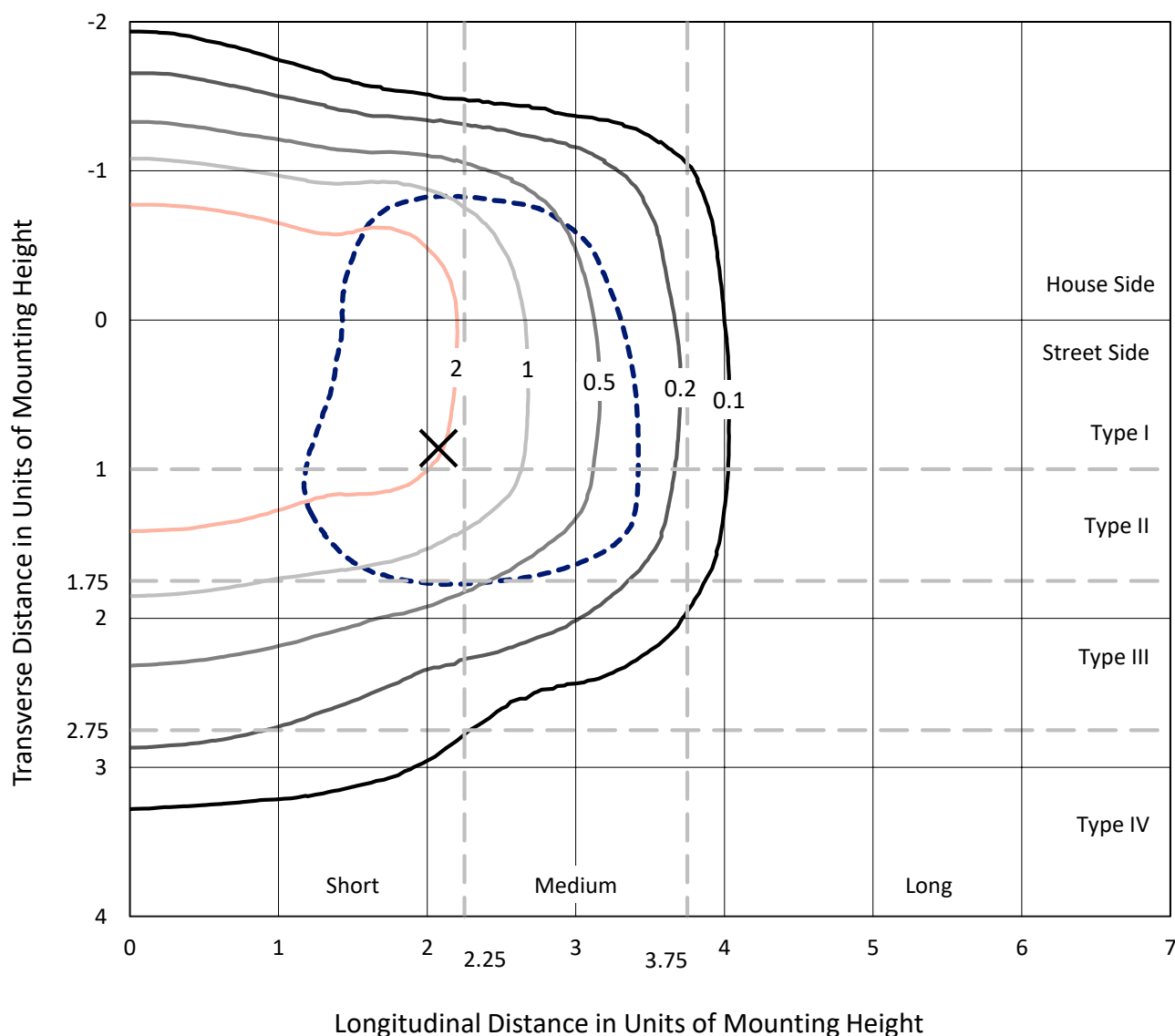
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

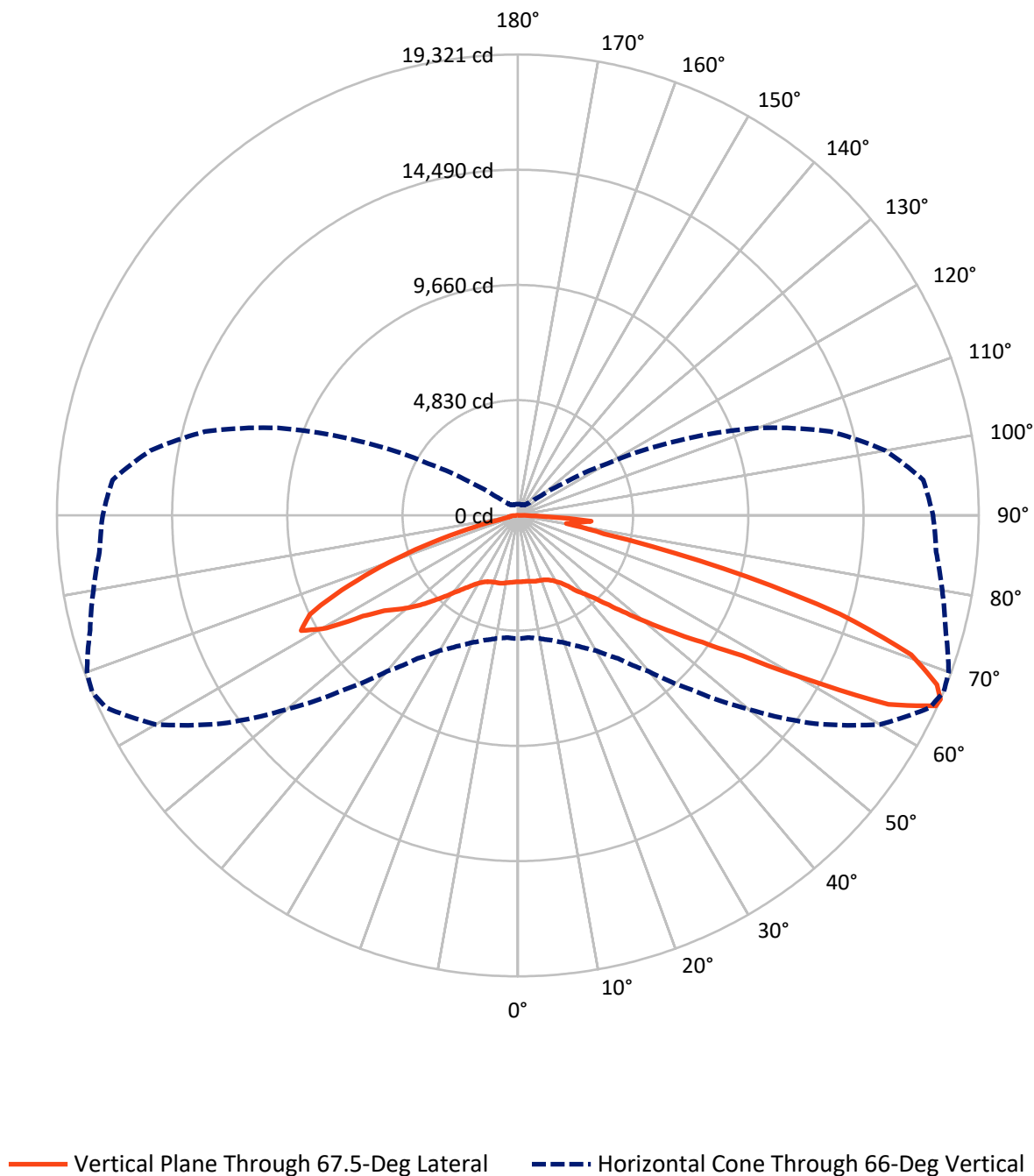


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8932.2	0.0	8932.2
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	16880.1	0.0	16880.1
	% Fixture	65.4	0.0	65.4
Total	Lumens	25812.3	0.0	25812.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.3	1.0
10°-20°	791.4	3.1
20°-30°	1360.4	5.3
30°-40°	2198.7	8.5
40°-50°	3643.8	14.1
50°-60°	5718.6	22.2
60°-70°	7818.4	30.3
70°-80°	3438.2	13.3
80°-90°	575.5	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°	25812.3	100.0
0°-180°	25812.3	100.0

Coefficient of Utilization



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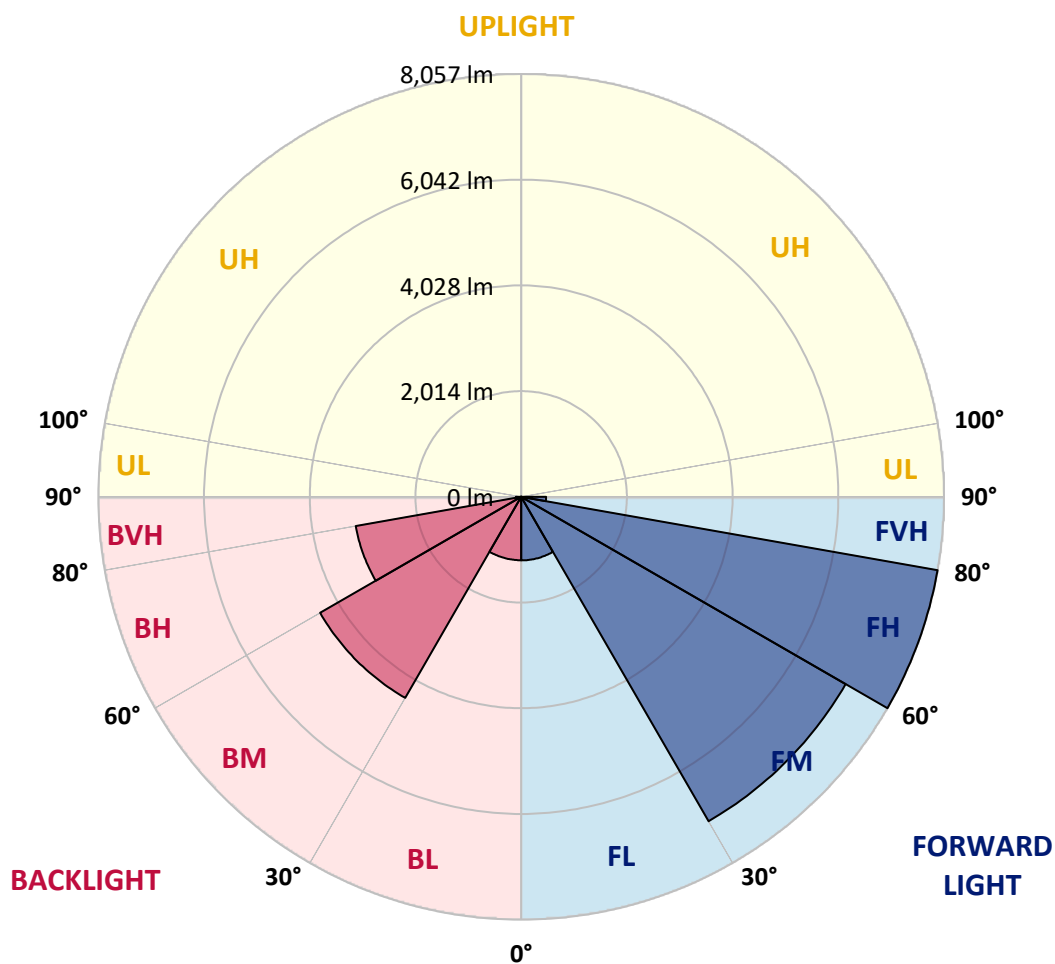
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1210.8	4.7			
FM	(30°-60°)	7137.9	27.7			
FH	(60°-80°)	8056.6	31.2			G4/12000
FVH	(80°-90°)	474.8	1.8			G3/500
BL	(0°-30°)	1208.3	4.7	B3/2500		
BM	(30°-60°)	4423.2	17.1	B3/5000		
BH	(60°-80°)	3200.0	12.4	B4/5000		G4/5000
BVH	(80°-90°)	100.7	0.4			G2/225
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°	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2
2.5°	2780.1	2780.1	2781.8	2780.1	2780.1	2778.4	2785.2	2785.2	2785.2	2783.5	2788.5
5°	2773.4	2773.4	2775.0	2775.0	2776.7	2775.0	2780.1	2781.8	2781.8	2781.8	2786.9
7.5°	2756.5	2761.5	2758.2	2759.9	2761.5	2766.6	2773.4	2776.7	2780.1	2785.2	2786.9
10°	2721.0	2729.5	2727.8	2732.8	2734.5	2749.7	2754.8	2761.5	2773.4	2780.1	2785.2
12.5°	2672.1	2677.1	2678.8	2685.6	2692.3	2710.9	2724.4	2736.2	2753.1	2770.0	2786.9
15°	2633.3	2636.6	2636.6	2643.4	2653.5	2670.4	2687.3	2707.5	2732.8	2761.5	2788.5
17.5°	2645.1	2653.5	2646.8	2645.1	2648.4	2658.6	2673.8	2690.6	2721.0	2753.1	2785.2
20°	2722.7	2724.4	2721.0	2712.6	2705.8	2707.5	2707.5	2710.9	2729.5	2754.8	2780.1
22.5°	2786.9	2793.6	2791.9	2793.6	2791.9	2798.7	2795.3	2788.5	2781.8	2783.5	2795.3
25°	2842.6	2849.3	2849.3	2854.4	2862.8	2876.3	2886.4	2884.8	2874.6	2861.1	2856.1
27.5°	2933.7	2933.7	2933.7	2938.8	2950.6	2967.5	2984.4	2994.5	3002.9	2989.4	2960.7
30°	3077.2	3078.9	3073.8	3075.5	3083.9	3105.9	3126.1	3141.3	3158.2	3156.5	3119.4
32.5°	3234.2	3240.9	3239.2	3246.0	3257.8	3278.1	3300.0	3323.6	3345.6	3359.1	3335.5
35°	3436.7	3443.5	3445.2	3455.3	3468.8	3499.2	3529.6	3560.0	3583.6	3593.7	3588.6
37.5°	3769.3	3771.0	3764.2	3749.0	3754.1	3777.7	3813.2	3862.1	3877.3	3887.4	3911.1
40°	4267.2	4262.2	4235.1	4221.6	4213.2	4223.3	4216.6	4255.4	4290.8	4292.5	4290.8
42.5°	4871.5	4856.3	4831.0	4827.6	4824.3	4820.9	4802.3	4804.0	4836.1	4844.5	4834.4
45°	5472.4	5453.9	5435.3	5452.2	5431.9	5484.3	5499.4	5540.0	5545.0	5561.9	5536.6
47.5°	5965.3	5967.0	5967.0	5990.6	6031.2	6130.8	6220.2	6297.9	6326.6	6367.1	6372.1
50°	6338.4	6348.5	6380.6	6456.5	6542.6	6709.7	6860.0	7000.1	7126.7	7173.9	7298.8
52.5°	6556.1	6583.1	6650.6	6777.2	6930.9	7146.9	7383.2	7621.2	7840.7	8026.4	8174.9
55°	6517.3	6537.6	6655.7	6853.2	7092.9	7383.2	7714.1	8058.4	8401.1	8715.1	8958.1
57.5°	6267.5	6281.0	6399.1	6622.0	6920.7	7310.6	7778.2	8289.7	8770.8	9277.1	9692.4
60°	5940.0	5960.3	6070.0	6245.5	6557.8	6973.1	7514.9	8208.7	8976.7	9773.4	10549.9
62.5°	5730.7	5725.6	5821.8	5978.8	6213.5	6589.9	7111.5	7933.5	8996.9	10344.0	11878.3
65°	5383.0	5367.8	5467.4	5646.3	5901.2	6265.8	6760.4	7550.3	8784.3	10560.0	12735.8
66°	5166.9	5136.5	5236.1	5416.7	5671.6	6059.9	6534.2	7314.0	8526.0	10349.0	12644.7
67.5°	4788.8	4773.6	4820.9	4962.7	5151.7	5516.3	6010.9	6795.8	7914.9	9714.3	11976.2
70°	3892.5	3858.7	3895.9	3960.0	4032.6	4122.1	4425.9	5048.8	5995.7	7739.4	9648.5
72.5°	2651.8	2634.9	2704.1	2802.0	2996.2	3087.3	3207.2	3308.4	3642.7	4878.3	6730.0
75°	2017.1	2027.3	2115.0	2277.1	2526.9	2797.0	3060.3	3156.5	3045.1	2948.9	3819.9
77.5°	1130.9	1190.0	1296.4	1502.3	1767.3	2148.8	2607.9	3114.3	3367.5	3305.1	3090.7
80°	465.9	457.4	509.8	622.9	714.0	1026.3	1569.8	2204.5	2916.8	3367.5	3296.6
82.5°	130.0	133.4	172.2	221.1	285.3	362.9	567.2	911.5	1485.4	2310.8	3024.9
85°	40.5	40.5	55.7	82.7	97.9	113.1	143.5	236.3	403.4	805.2	1632.3
87.5°	8.4	8.4	11.8	23.6	25.3	25.3	32.1	43.9	38.8	35.4	158.7
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°	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2
2.5°	2783.5	2780.1	2781.8	2783.5	2781.8	2781.8	2780.1	2778.4	2780.1	2780.1	2785.2
5°	2781.8	2780.1	2781.8	2781.8	2781.8	2783.5	2783.5	2783.5	2788.5	2788.5	2797.0
7.5°	2785.2	2785.2	2788.5	2788.5	2788.5	2788.5	2790.2	2793.6	2802.0	2800.4	2815.6
10°	2791.9	2795.3	2803.7	2805.4	2805.4	2810.5	2813.9	2820.6	2829.1	2832.4	2845.9
12.5°	2800.4	2817.2	2832.4	2835.8	2840.9	2849.3	2854.4	2857.8	2872.9	2878.0	2894.9
15°	2810.5	2834.1	2852.7	2859.4	2866.2	2876.3	2883.1	2888.1	2901.6	2908.4	2928.6
17.5°	2812.2	2839.2	2861.1	2871.3	2879.7	2891.5	2901.6	2911.8	2927.0	2937.1	2957.3
20°	2810.5	2845.9	2879.7	2893.2	2901.6	2923.6	2938.8	2952.3	2970.8	2981.0	3001.2
22.5°	2829.1	2869.6	2915.1	2932.0	2945.5	2975.9	2996.2	3018.1	3041.7	3048.5	3063.7
25°	2872.9	2915.1	2972.5	2996.2	3019.8	3060.3	3089.0	3121.1	3144.7	3148.1	3153.2
27.5°	2947.2	2986.0	3055.2	3090.7	3129.5	3186.9	3229.1	3261.2	3294.9	3294.9	3291.6
30°	3097.4	3105.9	3178.5	3224.0	3281.4	3365.8	3428.3	3463.7	3489.1	3489.1	3460.4
32.5°	3291.6	3281.4	3347.3	3396.2	3475.6	3593.7	3678.1	3705.1	3732.1	3723.7	3674.7
35°	3571.8	3543.1	3580.2	3654.5	3743.9	3906.0	3993.8	4054.5	4071.4	4047.8	3970.1
37.5°	3924.6	3921.2	3939.7	4022.5	4122.1	4331.4	4420.8	4459.6	4446.1	4403.9	4267.2
40°	4297.6	4287.5	4275.7	4331.4	4442.8	4694.3	4852.9	4873.2	4854.6	4792.2	4620.0
42.5°	4795.6	4795.6	4739.9	4755.0	4847.9	5129.8	5317.1	5381.3	5383.0	5291.8	5062.3
45°	5480.9	5474.1	5376.2	5352.6	5423.5	5700.3	5941.7	5977.1	5977.1	5857.3	5605.8
47.5°	6304.6	6296.2	6200.0	6117.2	6130.8	6429.5	6630.4	6684.4	6637.1	6547.7	6248.9
50°	7233.0	7217.8	7119.9	7042.3	7008.5	7310.6	7481.1	7506.5	7437.2	7330.9	7006.8
52.5°	8174.9	8220.5	8163.1	8120.9	8132.7	8328.5	8504.1	8384.2	8348.8	8234.0	7908.2
55°	9155.6	9295.7	9422.3	9385.2	9429.1	9619.8	9653.6	9494.9	9430.8	9348.0	8985.1
57.5°	10143.1	10551.6	10966.8	11083.3	11191.3	11464.8	11425.9	11166.0	11215.0	11338.2	10929.7
60°	11522.2	12702.1	13755.4	13949.5	14285.4	14518.3	14570.7	14520.0	14747.9	14683.8	14322.5
62.5°	13640.6	15607.1	17072.2	17436.9	17774.4	17762.6	17585.4	17403.1	17627.6	17627.6	16684.0
65°	15153.0	17384.5	18952.7	19254.8	19241.3	18834.5	18415.9	18051.3	18019.2	17769.4	16390.3
66°	15223.9	17521.3	19057.3	19320.6	19219.4	18564.4	18063.1	17600.6	17403.1	17055.4	15642.5
67.5°	14585.9	17134.7	18716.3	18945.9	18679.2	17740.7	17050.3	16430.8	16143.9	15558.1	14228.0
70°	11964.4	14726.0	17026.7	17495.9	17193.8	16005.4	15060.2	14222.9	13674.3	12828.7	11869.9
72.5°	8733.6	10872.3	13363.8	14126.7	14079.5	12985.6	12224.4	11458.0	10737.3	9967.5	9267.0
75°	5676.7	7072.6	8461.9	8907.5	8693.1	8060.1	7514.9	7067.6	6383.9	5848.9	5718.9
77.5°	3240.9	3960.0	3745.6	3689.9	3421.5	2761.5	1836.5	1287.9	1163.0	1451.7	1591.8
80°	3083.9	2795.3	2288.9	2064.4	1897.3	1293.0	678.6	477.7	418.6	428.7	460.8
82.5°	3477.2	3624.1	2964.1	2476.3	2155.6	1573.2	859.2	400.1	292.0	346.0	388.2
85°	2606.2	3669.7	3637.6	3082.3	2528.6	1812.9	1016.2	305.5	175.6	243.1	317.3
87.5°	528.3	869.3	837.2	736.0	626.2	437.2	170.5	96.2	87.8	119.8	182.3
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°	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2	2785.2
2.5°	2788.5	2788.5	2791.9	2797.0	2798.7	2798.7	2802.0	2798.7	2805.4	2807.1	2808.8
5°	2803.7	2808.8	2812.2	2820.6	2825.7	2829.1	2834.1	2830.7	2837.5	2839.2	2842.6
7.5°	2820.6	2829.1	2835.8	2839.2	2845.9	2845.9	2847.6	2844.2	2842.6	2837.5	2835.8
10°	2851.0	2856.1	2864.5	2861.1	2857.8	2845.9	2835.8	2820.6	2812.2	2797.0	2788.5
12.5°	2900.0	2903.3	2903.3	2888.1	2866.2	2839.2	2813.9	2788.5	2768.3	2751.4	2741.3
15°	2933.7	2940.5	2932.0	2910.1	2878.0	2840.9	2807.1	2773.4	2746.3	2724.4	2710.9
17.5°	2959.0	2957.3	2942.2	2911.8	2881.4	2849.3	2818.9	2783.5	2749.7	2717.7	2697.4
20°	2997.9	2981.0	2954.0	2921.9	2889.8	2862.8	2839.2	2805.4	2770.0	2726.1	2695.7
22.5°	3050.2	3019.8	2981.0	2947.2	2916.8	2891.5	2864.5	2835.8	2798.7	2749.7	2707.5
25°	3124.5	3072.1	3028.2	2994.5	2967.5	2938.8	2908.4	2871.3	2834.1	2783.5	2732.8
27.5°	3237.5	3159.9	3104.2	3073.8	3048.5	3009.7	2970.8	2927.0	2879.7	2827.4	2770.0
30°	3374.3	3281.4	3217.3	3190.3	3159.9	3116.0	3073.8	3013.0	2947.2	2884.8	2813.9
32.5°	3534.6	3440.1	3376.0	3355.7	3306.8	3256.1	3197.0	3116.0	3029.9	2937.1	2852.7
35°	3777.7	3657.9	3598.8	3551.5	3484.0	3423.2	3323.6	3217.3	3094.1	2970.8	2866.2
37.5°	4027.5	3906.0	3845.2	3779.4	3691.6	3580.2	3446.9	3294.9	3131.2	2979.3	2851.0
40°	4361.7	4230.1	4152.4	4051.2	3909.4	3735.5	3538.0	3330.4	3131.2	2942.2	2786.9
42.5°	4751.7	4630.1	4510.3	4343.2	4115.3	3862.1	3585.3	3318.6	3077.2	2859.4	2695.7
45°	5291.8	5084.2	4893.5	4625.1	4292.5	3936.4	3590.3	3262.9	2984.4	2743.0	2560.7
47.5°	5899.5	5631.1	5293.5	4873.2	4419.1	3965.1	3541.4	3158.2	2837.5	2575.9	2376.7
50°	6600.0	6188.1	5669.9	5070.7	4483.3	3926.2	3424.9	2982.7	2634.9	2334.5	2121.8
52.5°	7401.8	6773.9	6010.9	5210.8	4473.2	3808.1	3232.5	2751.4	2363.2	2044.1	1834.8
55°	8291.4	7411.9	6336.7	5300.3	4382.0	3578.5	2930.3	2425.6	2025.6	1711.6	1527.6
57.5°	9859.5	8531.1	6957.9	5420.1	4191.3	3230.8	2547.2	2013.8	1652.5	1385.8	1210.3
60°	12773.0	10487.4	8134.4	5702.0	3904.3	2795.3	2064.4	1580.0	1277.8	1083.7	953.7
62.5°	14575.7	11864.8	8708.3	5661.5	3438.4	2199.4	1532.7	1171.5	933.5	805.2	724.1
65°	14148.7	11324.7	8007.8	4863.1	2675.5	1559.7	1014.5	766.3	641.4	575.6	536.8
66°	13568.0	10720.4	7415.3	4355.0	2331.1	1303.1	837.2	643.1	552.0	503.0	482.8
67.5°	12351.0	9616.4	6395.8	3487.4	1747.1	970.6	617.8	504.7	449.0	423.7	410.2
70°	10337.2	7747.8	4523.8	2059.3	947.0	526.7	395.0	351.1	337.6	329.2	324.1
72.5°	7992.6	5609.2	2643.4	1012.8	477.7	341.0	300.5	281.9	276.8	276.8	278.5
75°	5035.2	3224.0	1183.3	487.8	324.1	275.1	256.6	248.1	249.8	251.5	249.8
77.5°	1672.8	1112.4	492.9	346.0	281.9	249.8	234.6	231.3	234.6	236.3	236.3
80°	481.1	420.3	356.2	305.5	258.3	232.9	219.4	217.7	226.2	227.9	224.5
82.5°	369.7	346.0	322.4	295.4	248.1	219.4	214.4	216.1	221.1	217.7	202.6
85°	339.3	335.9	241.4	239.7	216.1	209.3	204.2	205.9	200.9	182.3	165.4
87.5°	190.7	177.2	136.7	138.4	160.4	165.4	136.7	145.2	135.0	118.2	108.0
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):

	160°	165°	170°	175°	180°
0°	2785.2	2785.2	2785.2	2785.2	2785.2
2.5°	2812.2	2810.5	2810.5	2815.6	2808.8
5°	2844.2	2842.6	2842.6	2847.6	2842.6
7.5°	2829.1	2824.0	2820.6	2818.9	2818.9
10°	2778.4	2773.4	2763.2	2759.9	2756.5
12.5°	2726.1	2721.0	2709.2	2709.2	2705.8
15°	2694.0	2687.3	2678.8	2673.8	2670.4
17.5°	2677.1	2667.0	2656.9	2651.8	2648.4
20°	2670.4	2656.9	2645.1	2636.6	2636.6
22.5°	2672.1	2655.2	2641.7	2631.6	2628.2
25°	2689.0	2663.6	2646.8	2636.6	2633.3
27.5°	2712.6	2682.2	2660.3	2646.8	2641.7
30°	2744.7	2702.5	2672.1	2655.2	2648.4
32.5°	2766.6	2707.5	2668.7	2645.1	2636.6
35°	2764.9	2689.0	2641.7	2611.3	2601.2
37.5°	2734.5	2645.1	2582.6	2545.5	2528.6
40°	2667.0	2564.0	2498.2	2462.8	2442.5
42.5°	2569.1	2457.7	2398.6	2359.8	2337.9
45°	2415.5	2305.8	2233.2	2202.8	2174.1
47.5°	2202.8	2091.4	2029.0	1985.1	1966.5
50°	1953.0	1841.6	1775.8	1740.3	1723.4
52.5°	1679.5	1573.2	1525.9	1492.2	1468.5
55°	1396.0	1298.1	1277.8	1240.7	1218.7
57.5°	1129.3	1071.9	1053.3	1016.2	997.6
60°	882.8	864.2	844.0	820.4	810.2
62.5°	683.6	666.8	661.7	646.5	644.8
65°	521.6	523.3	519.9	516.5	513.1
66°	474.3	472.6	474.3	470.9	469.3
67.5°	403.4	410.2	415.2	413.6	413.6
70°	327.5	332.5	339.3	337.6	337.6
72.5°	280.2	288.6	292.0	290.3	290.3
75°	253.2	261.6	261.6	258.3	256.6
77.5°	236.3	239.7	236.3	232.9	229.6
80°	219.4	216.1	211.0	205.9	202.6
82.5°	190.7	182.3	177.2	168.8	168.8
85°	153.6	146.9	135.0	126.6	118.2
87.5°	99.6	96.2	87.8	65.8	52.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)