

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: P159623

Luminaire Tested: **VST-F12-LED-E-U-T3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159623
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-F12-LED-E-U-T3-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25570.4 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 306.6
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



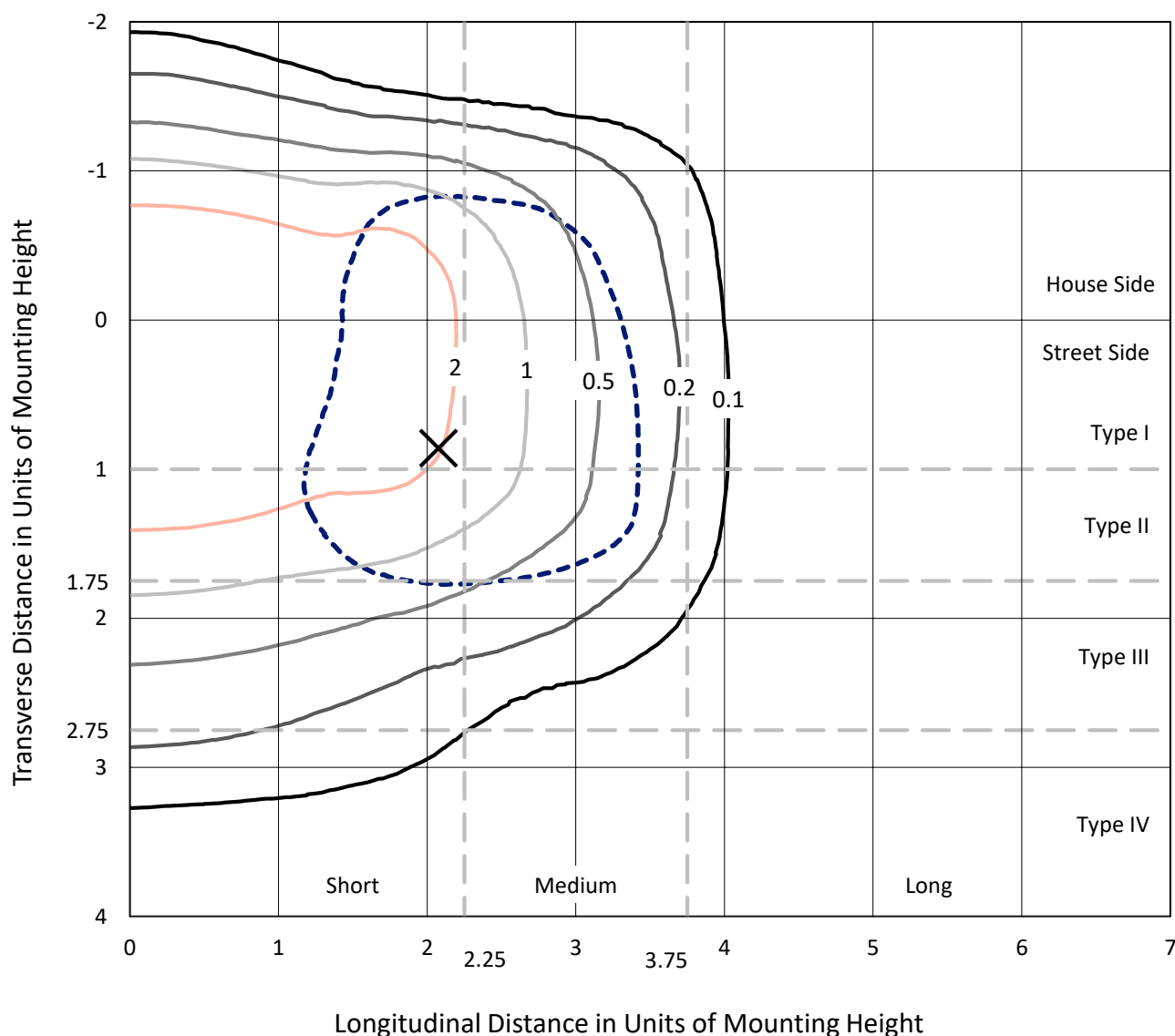
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

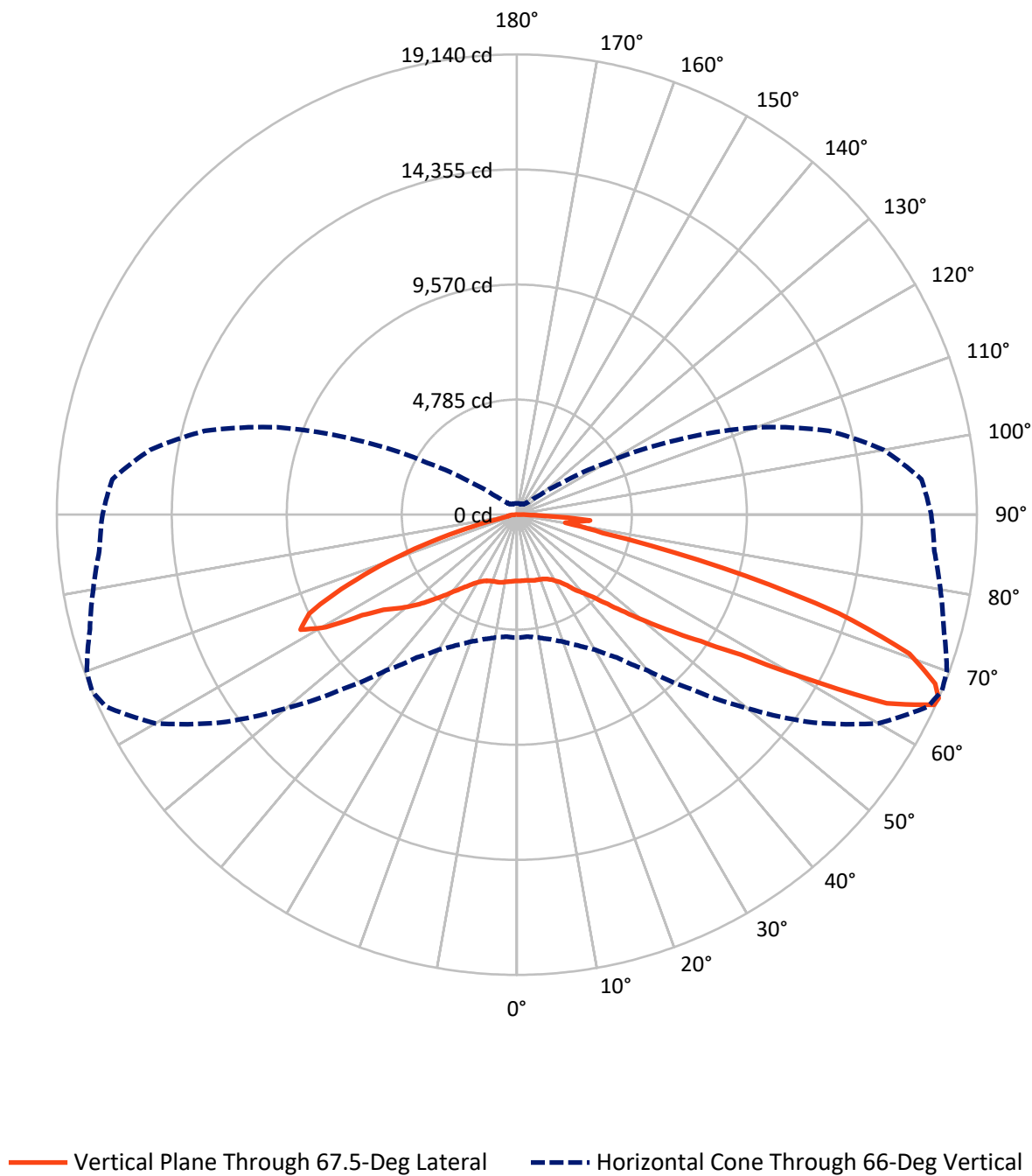


Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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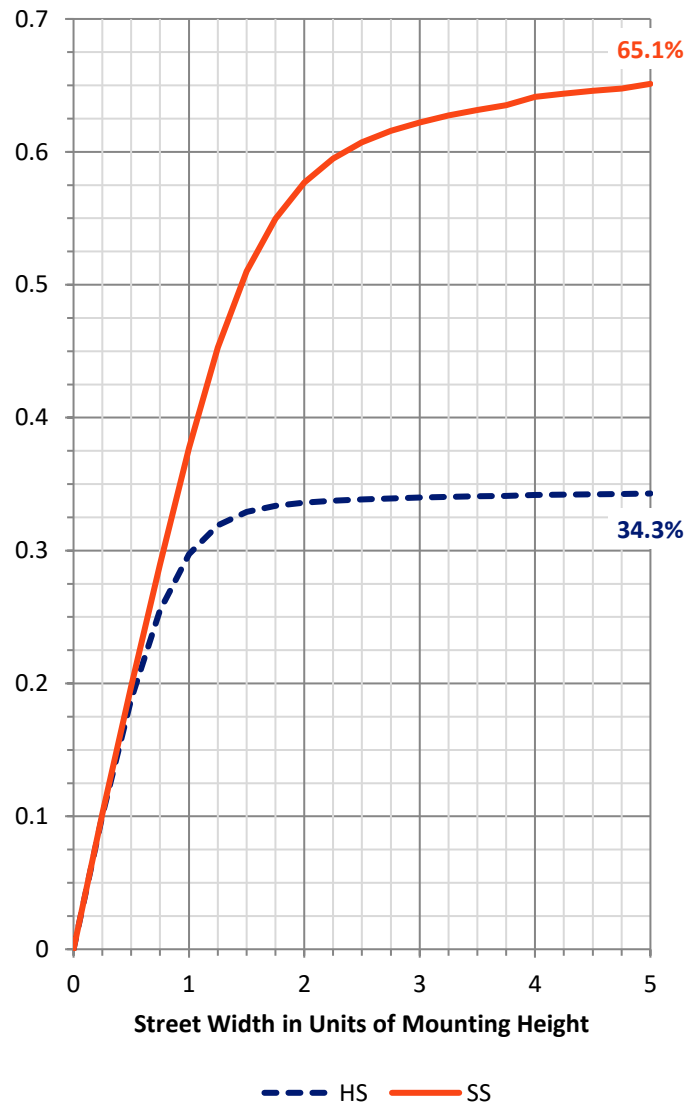
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8848.5	0.0	8848.5
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	16721.9	0.0	16721.9
	% Fixture	65.4	0.0	65.4
Total	Lumens	25570.4	0.0	25570.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.8	1.0
10°-20°	784.0	3.1
20°-30°	1347.7	5.3
30°-40°	2178.1	8.5
40°-50°	3609.6	14.1
50°-60°	5665.0	22.2
60°-70°	7745.2	30.3
70°-80°	3406.0	13.3
80°-90°	570.1	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°	25570.4	100.0
0°-180°	25570.4	100.0

Coefficient of Utilization



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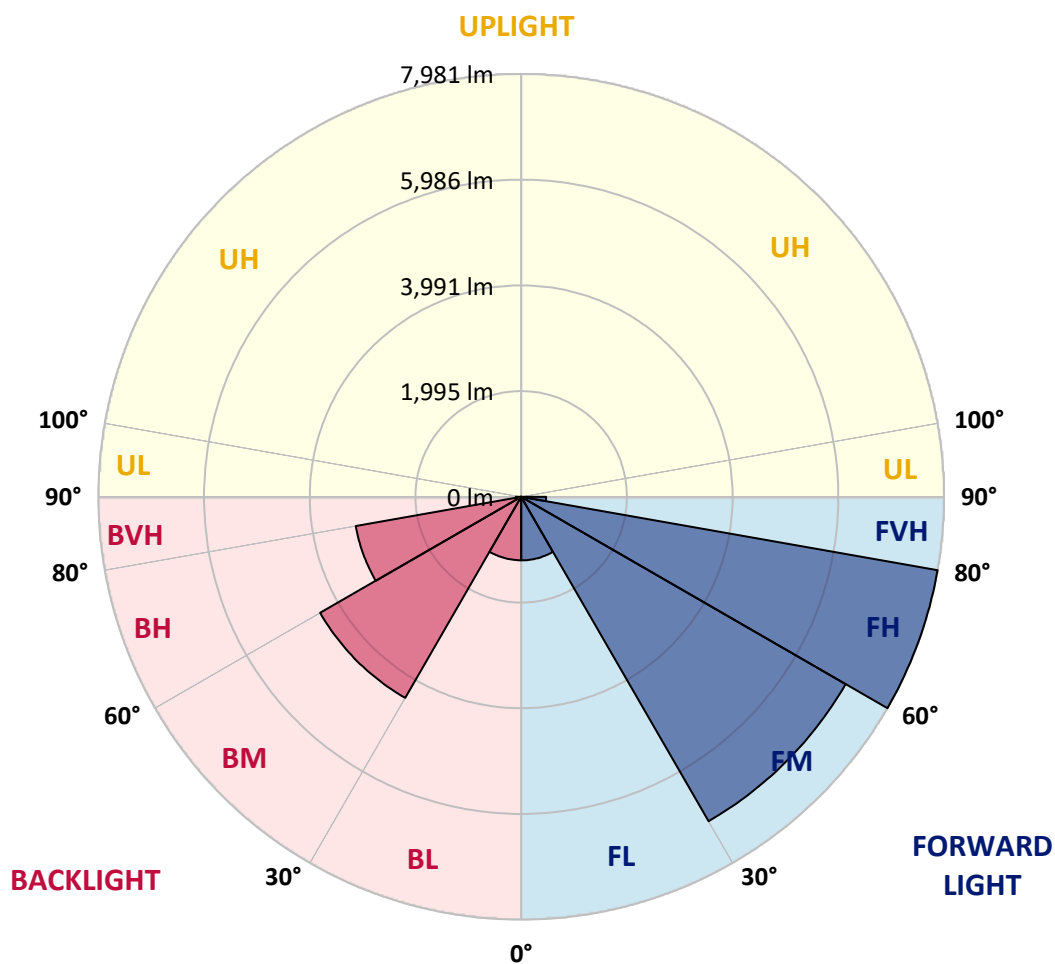
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1199.5	4.7			
FM	(30°-60°)	7071.0	27.7			
FH	(60°-80°)	7981.1	31.2			G4/12000
FVH	(80°-90°)	470.4	1.8			G3/500
BL	(0°-30°)	1197.0	4.7	B3/2500		
BM	(30°-60°)	4381.7	17.1	B3/5000		
BH	(60°-80°)	3170.0	12.4	B4/5000		G4/5000
BVH	(80°-90°)	99.7	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°	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1
2.5°	2754.1	2754.1	2755.7	2754.1	2754.1	2752.4	2759.1	2759.1	2759.1	2757.4	2762.4
5°	2747.4	2747.4	2749.0	2749.0	2750.7	2749.0	2754.1	2755.7	2755.7	2755.7	2760.7
7.5°	2730.6	2735.7	2732.3	2734.0	2735.7	2740.7	2747.4	2750.7	2754.1	2759.1	2760.7
10°	2695.5	2703.9	2702.2	2707.2	2708.9	2724.0	2729.0	2735.7	2747.4	2754.1	2759.1
12.5°	2647.0	2652.1	2653.7	2660.4	2667.1	2685.5	2698.9	2710.6	2727.3	2744.0	2760.7
15°	2608.6	2611.9	2611.9	2618.6	2628.6	2645.4	2662.1	2682.2	2707.2	2735.7	2762.4
17.5°	2620.3	2628.6	2622.0	2620.3	2623.6	2633.7	2648.7	2665.4	2695.5	2727.3	2759.1
20°	2697.2	2698.9	2695.5	2687.2	2680.5	2682.2	2682.2	2685.5	2703.9	2729.0	2754.1
22.5°	2760.7	2767.4	2765.8	2767.4	2765.8	2772.5	2769.1	2762.4	2755.7	2757.4	2769.1
25°	2815.9	2822.6	2822.6	2827.6	2836.0	2849.4	2859.4	2857.7	2847.7	2834.3	2829.3
27.5°	2906.2	2906.2	2906.2	2911.2	2922.9	2939.7	2956.4	2966.4	2974.8	2961.4	2933.0
30°	3048.4	3050.0	3045.0	3046.7	3055.0	3076.8	3096.9	3111.9	3128.6	3126.9	3090.2
32.5°	3203.9	3210.6	3208.9	3215.6	3227.3	3247.3	3269.1	3292.5	3314.2	3327.6	3304.2
35°	3404.5	3411.2	3412.9	3422.9	3436.3	3466.4	3496.5	3526.6	3550.0	3560.0	3555.0
37.5°	3733.9	3735.6	3728.9	3713.9	3718.9	3742.3	3777.4	3825.9	3841.0	3851.0	3874.4
40°	4227.2	4222.2	4195.5	4182.1	4173.7	4183.8	4177.1	4215.5	4250.6	4252.3	4250.6
42.5°	4825.9	4810.8	4785.7	4782.4	4779.0	4775.7	4757.3	4759.0	4790.8	4799.1	4789.1
45°	5421.2	5402.8	5384.4	5401.1	5381.0	5432.9	5447.9	5488.0	5493.1	5509.8	5484.7
47.5°	5909.4	5911.1	5911.1	5934.5	5974.6	6073.3	6161.9	6238.8	6267.3	6307.4	6312.4
50°	6279.0	6289.0	6320.8	6396.0	6481.3	6646.9	6795.7	6934.5	7059.9	7106.7	7230.4
52.5°	6494.7	6521.4	6588.3	6713.7	6865.9	7079.9	7314.1	7549.8	7767.2	7951.1	8098.3
55°	6456.2	6476.3	6593.3	6789.0	7026.4	7314.1	7641.8	7982.9	8322.4	8633.4	8874.2
57.5°	6208.7	6222.1	6339.2	6559.9	6855.9	7242.1	7705.3	8212.0	8688.6	9190.2	9601.6
60°	5884.3	5904.4	6013.1	6187.0	6496.4	6907.7	7444.5	8131.7	8892.6	9681.8	10451.0
62.5°	5677.0	5672.0	5767.3	5922.8	6155.2	6528.1	7044.8	7859.2	8912.6	10247.0	11767.0
65°	5332.5	5317.5	5416.1	5593.4	5845.9	6207.1	6697.0	7479.6	8701.9	10461.1	12616.5
66°	5118.5	5088.4	5187.1	5366.0	5618.5	6003.1	6473.0	7245.5	8446.1	10252.0	12526.2
67.5°	4743.9	4728.9	4775.7	4916.2	5103.4	5464.6	5954.6	6732.1	7840.8	9623.3	11864.0
70°	3856.0	3822.6	3859.4	3922.9	3994.8	4083.4	4384.4	5001.4	5939.5	7666.9	9558.1
72.5°	2627.0	2610.3	2678.8	2775.8	2968.1	3058.4	3177.1	3277.4	3608.5	4832.6	6666.9
75°	1998.2	2008.3	2095.2	2255.8	2503.2	2770.8	3031.6	3126.9	3016.6	2921.3	3784.1
77.5°	1120.4	1178.9	1284.2	1488.2	1750.8	2128.7	2583.5	3085.1	3336.0	3274.1	3061.7
80°	461.5	453.2	505.0	617.0	707.3	1016.7	1555.1	2183.8	2889.5	3336.0	3265.7
82.5°	128.8	132.1	170.6	219.1	282.6	359.5	561.8	903.0	1471.5	2289.2	2996.5
85°	40.1	40.1	55.2	81.9	97.0	112.0	142.1	234.1	399.6	797.6	1617.0
87.5°	8.4	8.4	11.7	23.4	25.1	25.1	31.8	43.5	38.5	35.1	157.2
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1
2.5°	2757.4	2754.1	2755.7	2757.4	2755.7	2755.7	2754.1	2752.4	2754.1	2754.1	2759.1
5°	2755.7	2754.1	2755.7	2755.7	2755.7	2757.4	2757.4	2757.4	2762.4	2762.4	2770.8
7.5°	2759.1	2759.1	2762.4	2762.4	2762.4	2762.4	2764.1	2767.4	2775.8	2774.1	2789.2
10°	2765.8	2769.1	2777.5	2779.1	2779.1	2784.2	2787.5	2794.2	2802.5	2805.9	2819.3
12.5°	2774.1	2790.8	2805.9	2809.2	2814.3	2822.6	2827.6	2831.0	2846.0	2851.0	2867.8
15°	2784.2	2807.6	2826.0	2832.6	2839.3	2849.4	2856.1	2861.1	2874.5	2881.1	2901.2
17.5°	2785.8	2812.6	2834.3	2844.4	2852.7	2864.4	2874.5	2884.5	2899.5	2909.6	2929.6
20°	2784.2	2819.3	2852.7	2866.1	2874.5	2896.2	2911.2	2924.6	2943.0	2953.0	2973.1
22.5°	2802.5	2842.7	2887.8	2904.6	2917.9	2948.0	2968.1	2989.8	3013.2	3019.9	3035.0
25°	2846.0	2887.8	2944.7	2968.1	2991.5	3031.6	3060.1	3091.8	3115.2	3118.6	3123.6
27.5°	2919.6	2958.1	3026.6	3061.7	3100.2	3157.0	3198.9	3230.6	3264.1	3264.1	3260.7
30°	3068.4	3076.8	3148.7	3193.8	3250.7	3334.3	3396.2	3431.3	3456.4	3456.4	3427.9
32.5°	3260.7	3250.7	3315.9	3364.4	3443.0	3560.0	3643.6	3670.4	3697.2	3688.8	3640.3
35°	3538.3	3509.9	3546.7	3620.2	3708.9	3869.4	3956.3	4016.5	4033.3	4009.9	3932.9
37.5°	3887.8	3884.4	3902.8	3984.8	4083.4	4290.8	4379.4	4417.9	4404.5	4362.7	4227.2
40°	4257.3	4247.3	4235.6	4290.8	4401.1	4650.3	4807.5	4827.5	4809.1	4747.3	4576.7
42.5°	4750.6	4750.6	4695.4	4710.5	4802.5	5081.7	5267.3	5330.9	5332.5	5242.2	5014.8
45°	5429.5	5422.8	5325.8	5302.4	5372.7	5646.9	5886.0	5921.1	5921.1	5802.4	5553.3
47.5°	6245.5	6237.2	6141.9	6059.9	6073.3	6369.3	6568.3	6621.8	6575.0	6486.3	6190.4
50°	7165.2	7150.2	7053.2	6976.3	6942.8	7242.1	7411.0	7436.1	7367.6	7262.2	6941.2
52.5°	8098.3	8143.4	8086.6	8044.8	8056.5	8250.5	8424.4	8305.6	8270.5	8156.8	7834.1
55°	9069.8	9208.6	9334.0	9297.2	9340.7	9529.7	9563.1	9405.9	9342.4	9260.5	8900.9
57.5°	10048.0	10452.7	10864.1	10979.4	11086.5	11357.3	11318.9	11061.4	11109.9	11231.9	10827.3
60°	11414.2	12583.0	13626.5	13818.8	14151.5	14382.3	14434.1	14384.0	14609.7	14546.2	14188.3
62.5°	13512.8	15460.8	16912.3	17273.5	17607.9	17596.2	17420.6	17240.0	17462.4	17462.4	16527.7
65°	15011.0	17221.6	18775.1	19074.4	19061.0	18658.0	18243.3	17882.1	17850.4	17602.9	16236.7
66°	15081.3	17357.1	18878.7	19139.6	19039.3	18390.5	17893.8	17435.7	17240.0	16895.6	15496.0
67.5°	14449.2	16974.2	18541.0	18768.4	18504.2	17574.5	16890.5	16276.9	15992.6	15412.3	14094.7
70°	11852.3	14588.0	16867.1	17332.0	17032.7	15855.5	14919.1	14089.7	13546.2	12708.5	11758.7
72.5°	8651.8	10770.4	13238.5	13994.4	13947.5	12864.0	12109.8	11350.7	10636.6	9874.1	9180.2
75°	5623.5	7006.4	8382.6	8824.0	8611.7	7984.6	7444.5	7001.4	6324.1	5794.1	5665.3
77.5°	3210.6	3922.9	3710.5	3655.4	3389.5	2735.7	1819.3	1275.9	1152.1	1438.1	1576.9
80°	3055.0	2769.1	2267.5	2045.1	1879.5	1280.9	672.2	473.2	414.7	424.7	456.5
82.5°	3444.7	3590.1	2936.3	2453.1	2135.4	1558.5	851.1	396.3	289.3	342.8	384.6
85°	2581.8	3635.3	3603.5	3053.4	2504.9	1795.9	1006.6	302.7	173.9	240.8	314.4
87.5°	523.4	861.2	829.4	729.1	620.4	433.1	168.9	95.3	87.0	118.7	180.6
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°	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1	2759.1
2.5°	2762.4	2762.4	2765.8	2770.8	2772.5	2772.5	2775.8	2772.5	2779.1	2780.8	2782.5
5°	2777.5	2782.5	2785.8	2794.2	2799.2	2802.5	2807.6	2804.2	2810.9	2812.6	2815.9
7.5°	2794.2	2802.5	2809.2	2812.6	2819.3	2819.3	2820.9	2817.6	2815.9	2810.9	2809.2
10°	2824.3	2829.3	2837.7	2834.3	2831.0	2819.3	2809.2	2794.2	2785.8	2770.8	2762.4
12.5°	2872.8	2876.1	2876.1	2861.1	2839.3	2812.6	2787.5	2762.4	2742.4	2725.6	2715.6
15°	2906.2	2912.9	2904.6	2882.8	2851.0	2814.3	2780.8	2747.4	2720.6	2698.9	2685.5
17.5°	2931.3	2929.6	2914.6	2884.5	2854.4	2822.6	2792.5	2757.4	2724.0	2692.2	2672.1
20°	2969.8	2953.0	2926.3	2894.5	2862.7	2836.0	2812.6	2779.1	2744.0	2700.5	2670.4
22.5°	3021.6	2991.5	2953.0	2919.6	2889.5	2864.4	2837.7	2809.2	2772.5	2724.0	2682.2
25°	3095.2	3043.3	2999.9	2966.4	2939.7	2911.2	2881.1	2844.4	2807.6	2757.4	2707.2
27.5°	3207.2	3130.3	3075.1	3045.0	3019.9	2981.5	2943.0	2899.5	2852.7	2800.9	2744.0
30°	3342.7	3250.7	3187.1	3160.4	3130.3	3086.8	3045.0	2984.8	2919.6	2857.7	2787.5
32.5°	3501.5	3407.9	3344.3	3324.3	3275.8	3225.6	3167.1	3086.8	3001.5	2909.6	2826.0
35°	3742.3	3623.6	3565.1	3518.2	3451.3	3391.2	3292.5	3187.1	3065.1	2943.0	2839.3
37.5°	3989.8	3869.4	3809.2	3744.0	3657.0	3546.7	3414.6	3264.1	3101.9	2951.4	2824.3
40°	4320.9	4190.4	4113.5	4013.2	3872.7	3700.5	3504.9	3299.2	3101.9	2914.6	2760.7
42.5°	4707.1	4586.7	4468.0	4302.5	4076.7	3825.9	3551.7	3287.5	3048.4	2832.6	2670.4
45°	5242.2	5036.6	4847.6	4581.7	4252.3	3899.5	3556.7	3232.3	2956.4	2717.3	2536.7
47.5°	5844.2	5578.3	5243.9	4827.5	4377.7	3927.9	3508.2	3128.6	2810.9	2551.7	2354.4
50°	6538.2	6130.2	5616.8	5023.2	4441.3	3889.5	3392.8	2954.7	2610.3	2312.6	2101.9
52.5°	7332.4	6710.4	5954.6	5162.0	4431.2	3772.4	3202.2	2725.6	2341.0	2025.0	1817.6
55°	8213.7	7342.5	6277.3	5250.6	4340.9	3545.0	2902.9	2402.9	2006.6	1695.6	1513.3
57.5°	9767.1	8451.1	6892.7	5369.3	4152.0	3200.5	2523.3	1994.9	1637.0	1372.8	1198.9
60°	12653.3	10389.2	8058.2	5648.6	3867.7	2769.1	2045.1	1565.1	1265.8	1073.5	944.8
62.5°	14439.1	11753.7	8626.7	5608.4	3406.2	2178.8	1518.3	1160.5	924.7	797.6	717.4
65°	14016.1	11218.6	7932.8	4817.5	2650.4	1545.1	1005.0	759.2	635.4	570.2	531.7
66°	13440.9	10619.9	7345.8	4314.2	2309.3	1290.9	829.4	637.1	546.8	498.3	478.2
67.5°	12235.2	9526.3	6335.8	3454.7	1730.7	961.5	612.0	500.0	444.8	419.7	406.3
70°	10240.3	7675.2	4481.4	2040.0	938.1	521.7	391.3	347.8	334.4	326.1	321.1
72.5°	7917.7	5556.6	2618.6	1003.3	473.2	337.8	297.6	279.3	274.2	274.2	275.9
75°	4988.1	3193.8	1172.2	483.3	321.1	272.6	254.2	245.8	247.5	249.2	247.5
77.5°	1657.1	1102.0	488.3	342.8	279.3	247.5	232.4	229.1	232.4	234.1	234.1
80°	476.6	416.4	352.8	302.7	255.8	230.8	217.4	215.7	224.1	225.7	222.4
82.5°	366.2	342.8	319.4	292.6	245.8	217.4	212.4	214.0	219.1	215.7	200.7
85°	336.1	332.8	239.1	237.4	214.0	207.3	202.3	204.0	199.0	180.6	163.9
87.5°	189.0	175.6	135.4	137.1	158.9	163.9	135.4	143.8	133.8	117.1	107.0
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°	2759.1	2759.1	2759.1	2759.1	2759.1
2.5°	2785.8	2784.2	2784.2	2789.2	2782.5
5°	2817.6	2815.9	2815.9	2820.9	2815.9
7.5°	2802.5	2797.5	2794.2	2792.5	2792.5
10°	2752.4	2747.4	2737.3	2734.0	2730.6
12.5°	2700.5	2695.5	2683.8	2683.8	2680.5
15°	2668.8	2662.1	2653.7	2648.7	2645.4
17.5°	2652.1	2642.0	2632.0	2627.0	2623.6
20°	2645.4	2632.0	2620.3	2611.9	2611.9
22.5°	2647.0	2630.3	2616.9	2606.9	2603.6
25°	2663.8	2638.7	2622.0	2611.9	2608.6
27.5°	2687.2	2657.1	2635.3	2622.0	2616.9
30°	2718.9	2677.1	2647.0	2630.3	2623.6
32.5°	2740.7	2682.2	2643.7	2620.3	2611.9
35°	2739.0	2663.8	2616.9	2586.8	2576.8
37.5°	2708.9	2620.3	2558.4	2521.6	2504.9
40°	2642.0	2540.0	2474.8	2439.7	2419.6
42.5°	2545.0	2434.7	2376.1	2337.7	2315.9
45°	2392.9	2284.2	2212.3	2182.2	2153.7
47.5°	2182.2	2071.8	2009.9	1966.5	1948.1
50°	1934.7	1824.3	1759.1	1724.0	1707.3
52.5°	1663.8	1558.5	1511.6	1478.2	1454.8
55°	1382.9	1285.9	1265.8	1229.0	1207.3
57.5°	1118.7	1061.8	1043.4	1006.6	988.2
60°	874.5	856.1	836.1	812.7	802.6
62.5°	677.2	660.5	655.5	640.4	638.8
65°	516.7	518.4	515.0	511.7	508.3
66°	469.9	468.2	469.9	466.5	464.9
67.5°	399.6	406.3	411.4	409.7	409.7
70°	324.4	329.4	336.1	334.4	334.4
72.5°	277.6	285.9	289.3	287.6	287.6
75°	250.8	259.2	259.2	255.8	254.2
77.5°	234.1	237.4	234.1	230.8	227.4
80°	217.4	214.0	209.0	204.0	200.7
82.5°	189.0	180.6	175.6	167.2	167.2
85°	152.2	145.5	133.8	125.4	117.1
87.5°	98.7	95.3	87.0	65.2	51.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)