

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: P158470

Luminaire Tested: **VST-E07-LED-E-U-SL3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158470
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33713)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E07-LED-E-U-SL3
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (147) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21118.1 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Luminous Opening: Rectangular (W 1.17' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 172.5
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

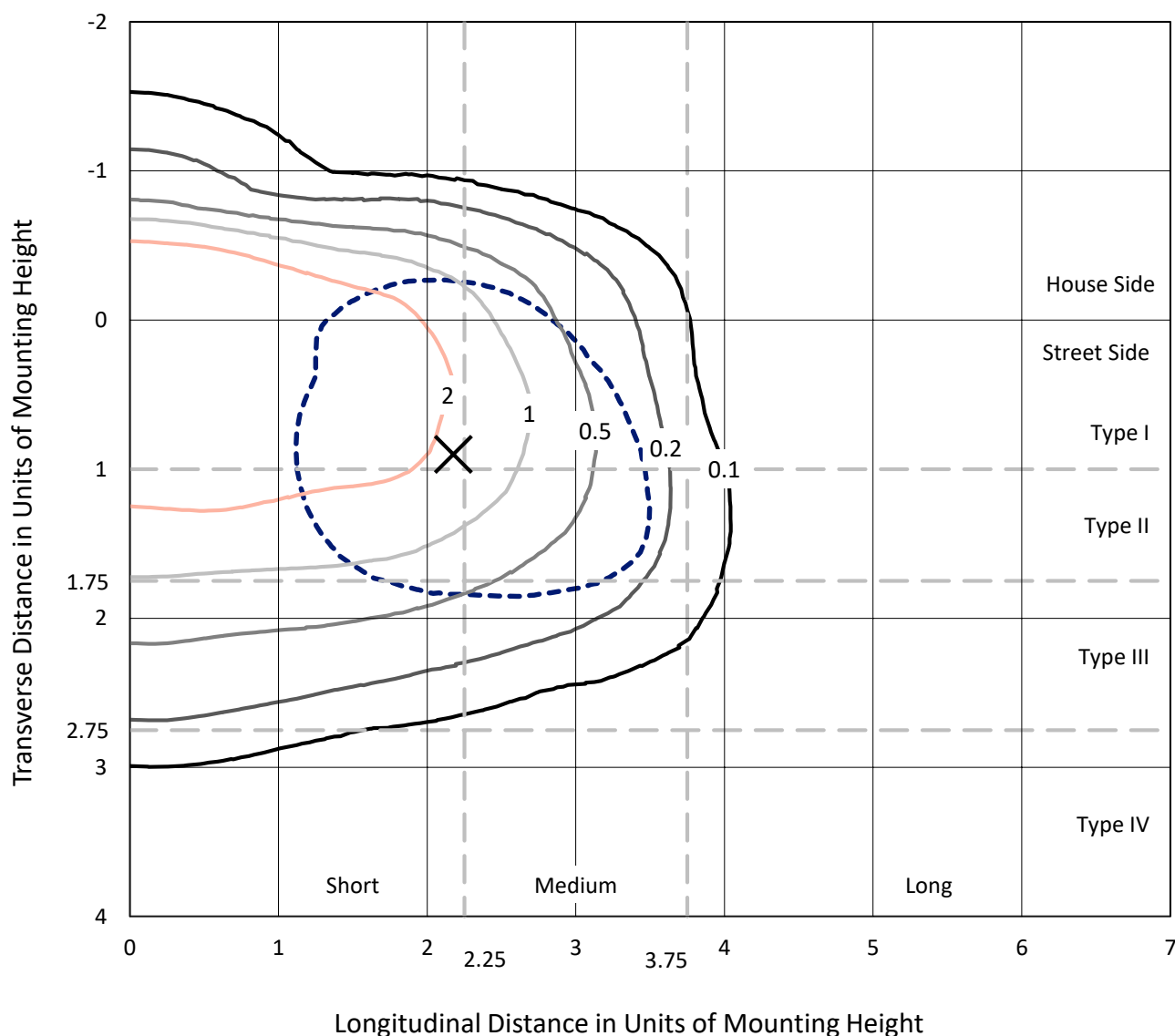


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

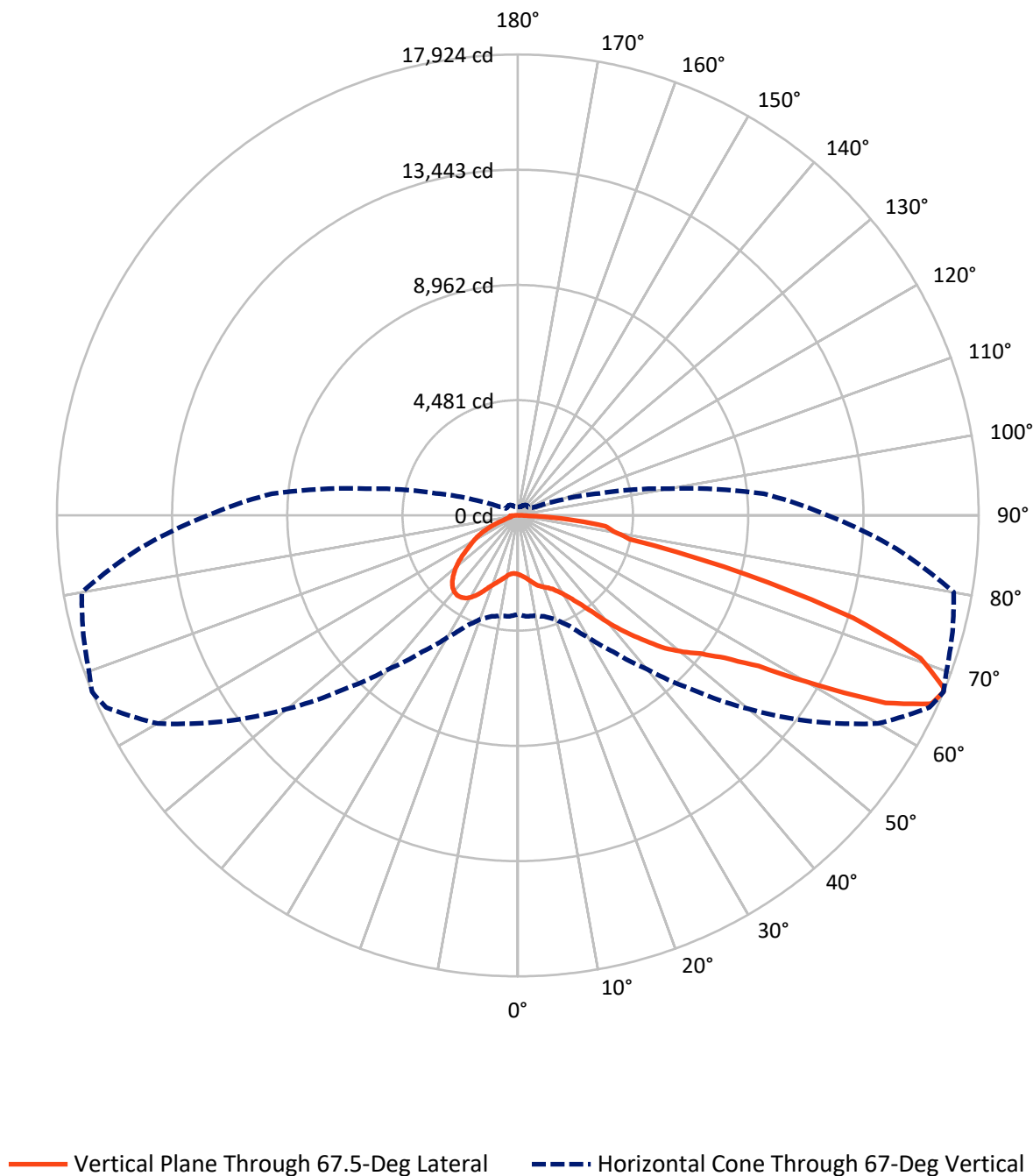


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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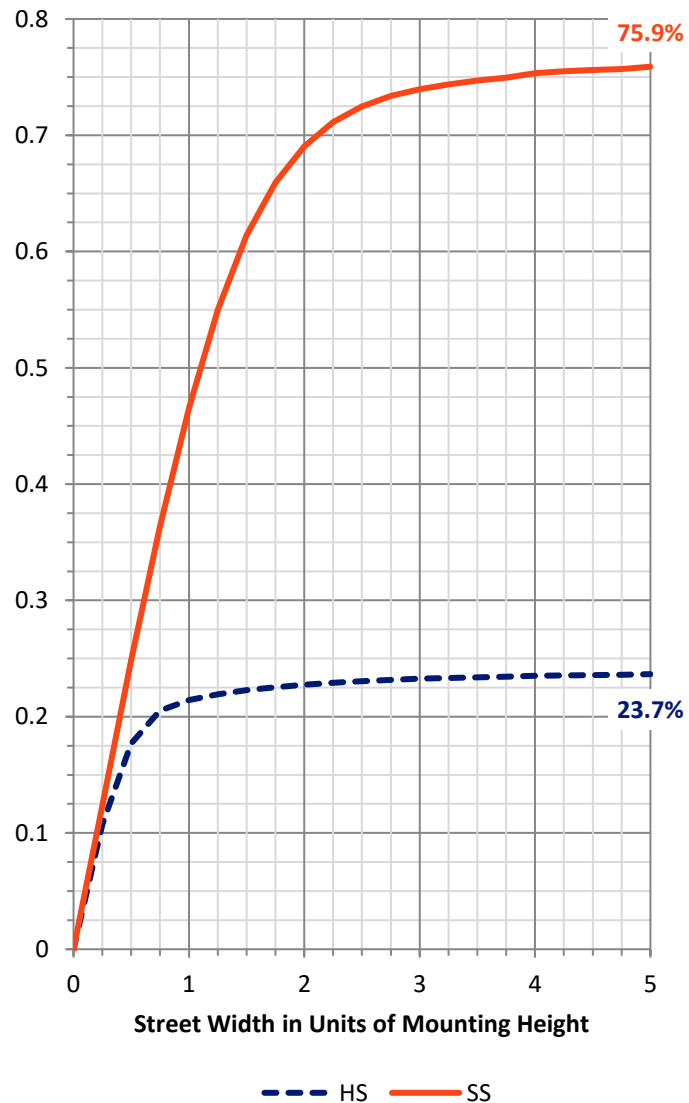
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5066.3	0.0	5066.3
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	16051.8	0.0	16051.8
	% Fixture	76.0	0.0	76.0
Total	Lumens	21118.1	0.0	21118.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.5	1.1
10°-20°	775.1	3.7
20°-30°	1383.8	6.6
30°-40°	2028.0	9.6
40°-50°	3133.6	14.8
50°-60°	4563.0	21.6
60°-70°	5944.1	28.1
70°-80°	2660.7	12.6
80°-90°	402.3	1.9
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°	21118.1	100.0
0°-180°	21118.1	100.0

Coefficient of Utilization



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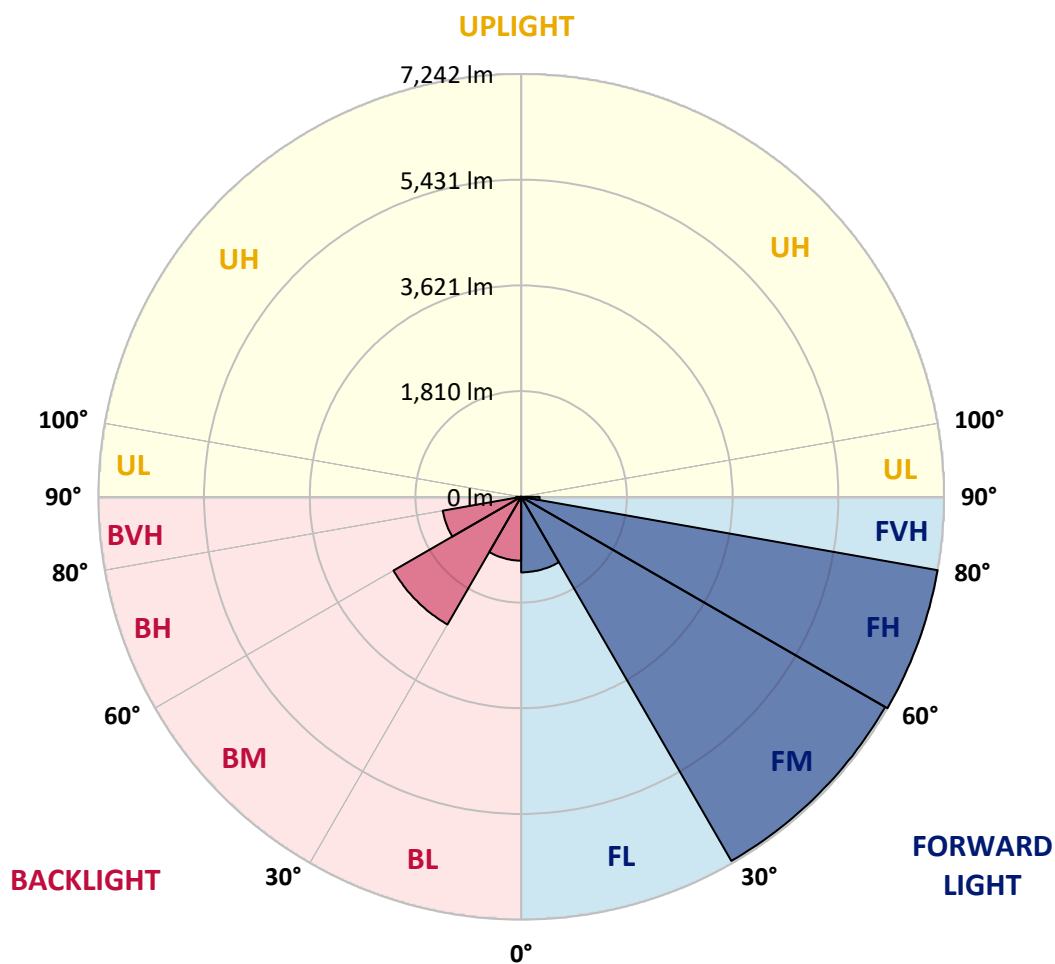
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1293.9	6.1			
FM	(30°-60°)	7200.2	34.1			
FH	(60°-80°)	7241.8	34.3			G3/7500
FVH	(80°-90°)	315.9	1.5			G3/500
BL	(0°-30°)	1092.4	5.2	B3/2500		
BM	(30°-60°)	2524.4	12.0	B3/5000		
BH	(60°-80°)	1363.0	6.5	B3/2500		G3/2500
BVH	(80°-90°)	86.4	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0
2.5°	2378.6	2384.2	2385.6	2384.2	2385.6	2380.0	2378.6	2370.2	2374.4	2363.2	2360.4
5°	2507.4	2511.6	2514.4	2503.2	2506.0	2500.4	2493.4	2485.0	2473.8	2458.4	2448.6
7.5°	2633.4	2640.4	2639.0	2634.8	2625.0	2619.4	2605.4	2592.8	2573.2	2555.0	2542.4
10°	2802.8	2801.4	2801.4	2777.6	2763.6	2751.0	2725.8	2706.2	2686.6	2660.0	2646.0
12.5°	2998.8	2989.0	2984.8	2968.0	2938.6	2916.2	2879.8	2842.0	2807.0	2779.0	2756.6
15°	3187.8	3187.8	3176.6	3150.0	3122.0	3092.6	3040.8	2986.2	2928.8	2884.0	2861.6
17.5°	3360.0	3344.6	3334.8	3299.8	3270.4	3222.8	3165.4	3106.6	3035.2	2972.2	2928.8
20°	3486.0	3473.4	3452.4	3409.0	3358.6	3302.6	3235.4	3166.8	3089.8	3021.2	2972.2
22.5°	3558.8	3543.4	3511.2	3453.8	3385.2	3306.8	3228.4	3164.0	3094.0	3042.2	3001.6
25°	3596.6	3581.2	3537.8	3462.2	3369.8	3266.2	3176.6	3113.6	3073.0	3060.4	3054.8
27.5°	3595.2	3582.6	3536.4	3449.6	3330.6	3211.6	3115.0	3061.8	3057.6	3106.6	3143.0
30°	3558.8	3550.4	3508.4	3421.6	3297.0	3172.4	3082.8	3054.8	3098.2	3201.8	3291.4
32.5°	3522.4	3518.2	3488.8	3410.4	3304.0	3199.0	3137.4	3140.2	3229.8	3389.4	3533.6
35°	3526.6	3532.2	3528.0	3486.0	3418.8	3364.2	3334.8	3396.4	3536.4	3729.6	3922.8
37.5°	3563.0	3584.0	3610.6	3614.8	3616.2	3607.8	3669.4	3799.6	4004.0	4256.0	4558.4
40°	3642.8	3666.6	3743.6	3810.8	3897.6	4001.2	4125.8	4306.4	4559.8	4870.6	5241.6
42.5°	3890.6	3924.2	4019.4	4144.0	4303.6	4466.0	4652.2	4898.6	5209.4	5537.0	5926.2
45°	4214.0	4284.0	4389.0	4527.6	4767.0	4995.2	5236.0	5511.8	5842.2	6252.4	6644.4
47.5°	4617.2	4687.2	4839.8	4988.2	5271.0	5555.2	5818.4	6106.8	6465.2	6885.2	7319.2
50°	4970.0	5049.8	5185.6	5385.8	5713.4	6062.0	6353.2	6665.4	6966.4	7408.8	7847.0
52.5°	5247.2	5304.6	5434.8	5618.2	5983.6	6365.8	6734.0	7081.2	7438.2	7880.6	8286.6
55°	5282.2	5335.4	5462.8	5672.8	6043.8	6468.0	6892.2	7303.8	7809.2	8292.2	8829.8
57.5°	5131.0	5174.4	5303.2	5490.8	5852.0	6335.0	6871.2	7399.0	8045.8	8698.2	9354.8
60°	4916.8	4960.2	5061.0	5210.8	5537.0	6057.8	6683.6	7406.0	8265.6	9207.8	10173.8
62.5°	4681.6	4719.4	4800.6	4907.0	5194.0	5674.2	6391.0	7359.8	8444.8	9714.6	11204.2
65°	4285.4	4376.4	4411.4	4520.6	4807.6	5261.2	5990.6	7047.6	8372.0	9940.0	11851.0
67°	3847.2	3939.6	3957.8	4068.4	4298.0	4733.4	5475.4	6469.4	7795.2	9550.8	11708.2
67.5°	3707.2	3785.6	3813.6	3924.2	4141.2	4551.4	5255.6	6260.8	7618.8	9338.0	11536.0
70°	2725.8	2812.6	2843.4	2889.6	3045.0	3386.6	3852.8	4725.0	6074.6	7620.2	9731.4
72.5°	1458.8	1528.8	1558.2	1626.8	1706.6	1892.8	2249.8	2875.6	3728.2	5098.8	6923.0
75°	987.0	1015.0	1036.0	1083.6	1166.2	1314.6	1471.4	1691.2	2206.4	2877.0	3939.6
77.5°	562.8	575.4	578.2	586.6	652.4	793.8	1051.4	1423.8	1825.6	2084.6	2520.0
80°	243.6	268.8	288.4	275.8	271.6	301.0	376.6	561.4	1100.4	1747.2	2073.4
82.5°	131.6	142.8	159.6	161.0	169.4	179.2	194.6	231.0	324.8	655.2	1429.4
85°	68.6	71.4	95.2	109.2	116.2	121.8	124.6	138.6	159.6	203.0	355.6
87.5°	9.8	14.0	16.8	22.4	25.2	26.6	30.8	39.2	46.2	56.0	95.2
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°	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0
2.5°	2347.8	2345.0	2336.6	2331.0	2325.4	2319.8	2312.8	2307.2	2297.4	2290.4	2282.0
5°	2434.6	2417.8	2406.6	2391.2	2388.4	2370.2	2352.0	2343.6	2326.8	2312.8	2296.0
7.5°	2522.8	2503.2	2485.0	2472.4	2465.4	2440.2	2422.0	2401.0	2381.4	2363.2	2343.6
10°	2626.4	2606.8	2587.2	2578.8	2566.2	2542.4	2527.0	2500.4	2480.8	2458.4	2431.8
12.5°	2734.2	2720.2	2706.2	2695.0	2689.4	2678.2	2655.8	2633.4	2606.8	2584.4	2553.6
15°	2829.4	2819.6	2814.0	2811.2	2811.2	2804.2	2783.2	2762.2	2734.2	2709.0	2675.4
17.5°	2896.6	2892.4	2896.6	2900.8	2906.4	2900.8	2896.6	2872.8	2854.6	2823.8	2790.2
20°	2935.8	2944.2	2965.2	2979.2	2991.8	3001.6	3005.8	2986.2	2962.4	2940.0	2917.6
22.5°	2977.8	3001.6	3038.0	3059.0	3080.0	3115.0	3123.4	3109.4	3091.2	3077.2	3053.4
25°	3047.8	3082.8	3145.8	3179.4	3208.8	3260.6	3267.6	3270.4	3266.2	3255.0	3225.6
27.5°	3157.0	3225.6	3309.6	3353.0	3385.2	3452.4	3479.0	3479.0	3467.8	3480.4	3480.4
30°	3347.4	3438.4	3547.6	3572.8	3623.2	3682.0	3725.4	3731.0	3732.4	3759.0	3798.2
32.5°	3640.0	3726.8	3848.6	3876.6	3920.0	3976.0	4025.0	4019.4	4032.0	4089.4	4141.2
35°	4065.6	4153.8	4233.6	4271.4	4291.0	4341.4	4359.6	4390.4	4428.2	4499.6	4492.6
37.5°	4695.6	4774.0	4785.2	4809.0	4785.2	4795.0	4809.0	4845.4	4946.2	5010.6	4907.0
40°	5454.4	5584.6	5572.0	5544.0	5490.8	5419.4	5444.6	5500.6	5609.8	5553.8	5275.2
42.5°	6169.8	6304.2	6279.0	6246.8	6129.2	6102.6	6099.8	6146.0	6204.8	6045.2	5563.6
45°	6874.0	7011.2	6967.8	6949.6	6871.2	6813.8	6861.4	6864.2	6848.8	6507.2	5815.6
47.5°	7600.6	7726.6	7698.6	7714.0	7632.8	7595.0	7599.2	7579.6	7435.4	6899.2	6011.6
50°	8187.2	8356.6	8373.4	8338.4	8295.0	8237.6	8384.6	8331.4	8010.8	7280.0	6200.6
52.5°	8643.6	8871.8	8958.6	8936.2	8901.2	8908.2	9184.0	9244.2	8713.6	7760.2	6409.2
55°	9184.0	9543.8	9685.2	9769.2	9732.8	9872.8	10504.2	10535.0	9690.8	8387.4	6680.8
57.5°	9963.8	10479.0	10925.6	11044.6	11159.4	11614.4	12639.2	12327.0	10959.2	9336.6	7025.2
60°	11149.6	12278.0	13003.2	13384.0	13652.8	14288.4	15262.8	14471.8	12539.8	10466.4	7457.8
62.5°	12810.0	14459.2	15671.6	16053.8	16164.4	16529.8	17235.4	15722.0	13400.8	10973.2	7495.6
65°	14046.2	16024.4	17476.2	17672.2	17540.6	17547.6	17732.4	15656.2	13080.2	10530.8	6846.0
67°	13965.0	16179.8	17666.6	17924.2	17742.2	17502.8	17214.4	14764.4	12049.8	9604.0	5994.8
67.5°	13840.4	16030.0	17584.0	17855.6	17689.0	17416.0	16994.6	14418.6	11729.2	9315.6	5821.2
70°	11964.4	14138.6	16231.6	16613.8	16683.8	16434.6	15251.6	12157.6	9522.8	7578.2	4520.6
72.5°	9312.8	11249.0	13319.6	13651.4	13920.2	13202.0	11100.6	8397.2	6941.2	5461.4	3273.2
75°	6148.8	8118.6	9163.0	9212.0	8869.0	7539.0	5423.6	4205.6	3871.0	3210.2	2025.8
77.5°	3290.0	4774.0	4803.4	4447.8	4285.4	3194.8	1296.4	715.4	796.6	904.4	806.4
80°	2454.2	3040.8	3523.8	3788.4	3866.8	2739.8	670.6	379.4	331.8	302.4	298.2
82.5°	2213.4	2937.2	3292.8	3437.0	3400.6	2254.0	376.6	254.8	211.4	229.6	261.8
85°	868.0	1568.0	2062.2	1996.4	1677.2	840.0	205.8	137.2	137.2	198.8	257.6
87.5°	177.8	322.0	436.8	417.2	375.2	162.4	100.8	82.6	84.0	161.0	243.6
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°	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0	2289.0
2.5°	2273.6	2265.2	2259.6	2254.0	2248.4	2245.6	2241.4	2241.4	2233.0	2230.2	2227.4
5°	2283.4	2269.4	2259.6	2247.0	2237.2	2228.8	2217.6	2214.8	2205.0	2198.0	2195.2
7.5°	2325.4	2304.4	2283.4	2268.0	2254.0	2235.8	2223.2	2212.0	2202.2	2195.2	2186.8
10°	2405.2	2382.8	2353.4	2325.4	2307.2	2279.2	2259.6	2240.0	2228.8	2220.4	2209.2
12.5°	2522.8	2490.6	2455.6	2422.0	2391.2	2354.8	2335.2	2311.4	2297.4	2290.4	2282.0
15°	2643.2	2608.2	2564.8	2532.6	2497.6	2469.6	2451.4	2430.4	2419.2	2410.8	2405.2
17.5°	2766.4	2725.8	2695.0	2662.8	2646.0	2625.0	2601.2	2574.6	2542.4	2522.8	2496.2
20°	2892.4	2861.6	2843.4	2825.2	2805.6	2776.2	2728.6	2674.0	2613.8	2556.4	2501.8
22.5°	3039.4	3021.2	3018.4	3001.6	2961.0	2891.0	2802.8	2700.6	2598.4	2503.2	2429.0
25°	3246.6	3246.6	3232.6	3164.0	3068.8	2942.8	2794.4	2647.4	2511.6	2381.4	2283.4
27.5°	3507.0	3497.2	3428.6	3287.2	3116.4	2920.4	2721.6	2535.4	2361.8	2219.0	2093.0
30°	3794.0	3725.4	3578.4	3355.8	3099.6	2847.6	2604.0	2388.4	2184.0	2009.0	1860.6
32.5°	4092.2	3925.6	3661.0	3355.8	3040.8	2738.4	2457.0	2192.4	1958.6	1762.6	1586.2
35°	4362.4	4058.6	3680.6	3301.2	2926.0	2577.4	2251.2	1951.6	1671.6	1460.2	1267.0
37.5°	4607.4	4146.8	3659.6	3194.8	2759.4	2350.6	1968.4	1638.0	1321.6	1117.2	952.0
40°	4767.0	4165.0	3572.8	3028.2	2521.4	2044.0	1621.2	1251.6	1001.0	814.8	704.2
42.5°	4866.4	4130.0	3432.8	2800.0	2200.8	1659.0	1216.6	897.4	711.2	607.6	565.6
45°	4922.4	4039.0	3225.6	2487.8	1813.0	1261.4	863.8	648.2	547.4	511.0	497.0
47.5°	4919.6	3892.0	2966.6	2126.6	1384.6	879.2	611.8	505.4	477.4	466.2	463.4
50°	4890.2	3711.4	2662.8	1734.6	999.6	613.2	484.4	453.6	446.6	439.6	436.8
52.5°	4849.6	3487.4	2326.8	1352.4	709.8	490.0	439.6	431.2	425.6	418.6	415.8
55°	4774.0	3211.6	1962.8	1017.8	555.8	442.4	424.2	421.4	414.4	404.6	399.0
57.5°	4681.6	2931.6	1614.2	795.2	491.4	431.2	421.4	417.2	407.4	396.2	385.0
60°	4648.0	2700.6	1341.2	670.6	476.0	435.4	428.4	422.8	408.8	392.0	379.4
62.5°	4438.0	2440.2	1145.2	621.6	484.4	453.6	450.8	442.4	421.4	401.8	382.2
65°	3894.8	2063.6	970.2	588.0	501.2	484.4	487.2	474.6	453.6	427.0	392.0
67°	3294.2	1682.8	807.8	555.8	513.8	516.6	526.4	516.6	490.0	452.2	404.6
67.5°	3134.6	1586.2	767.2	546.0	516.6	525.0	536.2	529.2	502.6	459.2	410.2
70°	2329.6	1117.2	572.6	494.2	516.6	550.2	575.4	582.4	553.0	492.8	421.4
72.5°	1640.8	721.0	439.6	428.4	469.0	513.8	561.4	585.2	551.6	485.8	406.0
75°	985.6	450.8	357.0	364.0	394.8	441.0	478.8	488.6	446.6	404.6	351.4
77.5°	456.4	299.6	280.0	289.8	319.2	340.2	340.2	320.6	288.4	263.2	252.0
80°	268.8	245.0	243.6	261.8	281.4	266.0	242.2	215.6	198.8	190.4	186.2
82.5°	252.0	261.8	278.6	282.8	267.4	229.6	200.2	173.6	165.2	161.0	156.8
85°	296.8	317.8	289.8	267.4	236.6	193.2	156.8	134.4	130.2	126.0	120.4
87.5°	274.4	261.8	228.2	196.0	162.4	117.6	85.4	77.0	82.6	81.2	78.4
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°	2289.0	2289.0	2289.0	2289.0	2289.0
2.5°	2228.8	2228.8	2223.2	2220.4	2227.4
5°	2189.6	2191.0	2186.8	2185.4	2186.8
7.5°	2181.2	2179.8	2177.0	2174.2	2177.0
10°	2206.4	2205.0	2200.8	2203.6	2199.4
12.5°	2282.0	2290.4	2289.0	2291.8	2297.4
15°	2405.2	2403.8	2399.6	2402.4	2406.6
17.5°	2475.2	2464.0	2454.2	2450.0	2450.0
20°	2458.4	2426.2	2409.4	2399.6	2396.8
22.5°	2359.0	2312.8	2277.8	2269.4	2262.4
25°	2196.6	2139.2	2094.4	2084.6	2066.4
27.5°	2007.6	1930.6	1877.4	1866.2	1856.4
30°	1759.8	1671.6	1610.0	1570.8	1583.4
32.5°	1457.4	1373.4	1302.0	1239.0	1229.2
35°	1125.6	1033.2	970.2	942.2	924.0
37.5°	840.0	763.0	721.0	694.4	695.8
40°	642.6	602.0	579.6	561.4	562.8
42.5°	536.2	518.0	512.4	504.0	499.8
45°	485.8	480.2	481.6	473.2	470.4
47.5°	457.8	453.6	455.0	449.4	448.0
50°	435.4	432.6	434.0	429.8	428.4
52.5°	413.0	414.4	413.0	410.2	410.2
55°	393.4	392.0	394.8	390.6	390.6
57.5°	378.0	376.6	376.6	375.2	375.2
60°	369.6	364.0	362.6	362.6	364.0
62.5°	365.4	355.6	354.2	354.2	355.6
65°	366.8	351.4	345.8	344.4	343.0
67°	368.2	345.8	334.6	329.0	327.6
67.5°	369.6	343.0	330.4	324.8	322.0
70°	361.2	323.4	305.2	295.4	292.6
72.5°	340.2	299.6	277.2	264.6	261.8
75°	302.4	271.6	252.0	238.0	232.4
77.5°	233.8	219.8	212.8	204.4	201.6
80°	182.0	175.0	172.2	166.6	165.2
82.5°	151.2	144.2	140.0	133.0	128.8
85°	117.6	109.2	106.4	100.8	98.0
87.5°	77.0	72.8	71.4	64.4	61.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)