

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: P159791

Luminaire Tested: **VST-E07-LED-E-U-T4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159791
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
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-T4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (147) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21378.4 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Luminous Opening: Rectangular (W 1.17' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

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

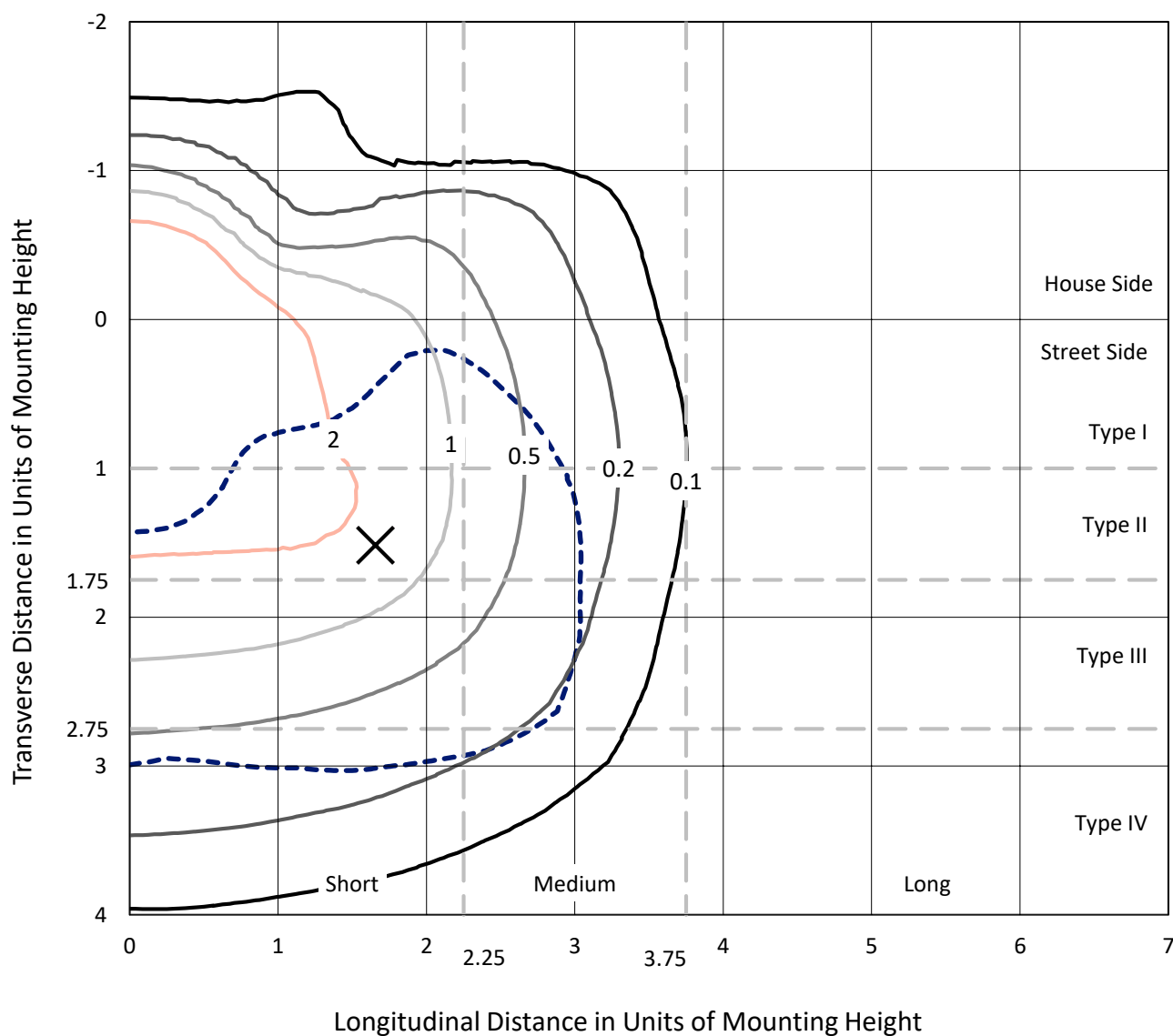


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

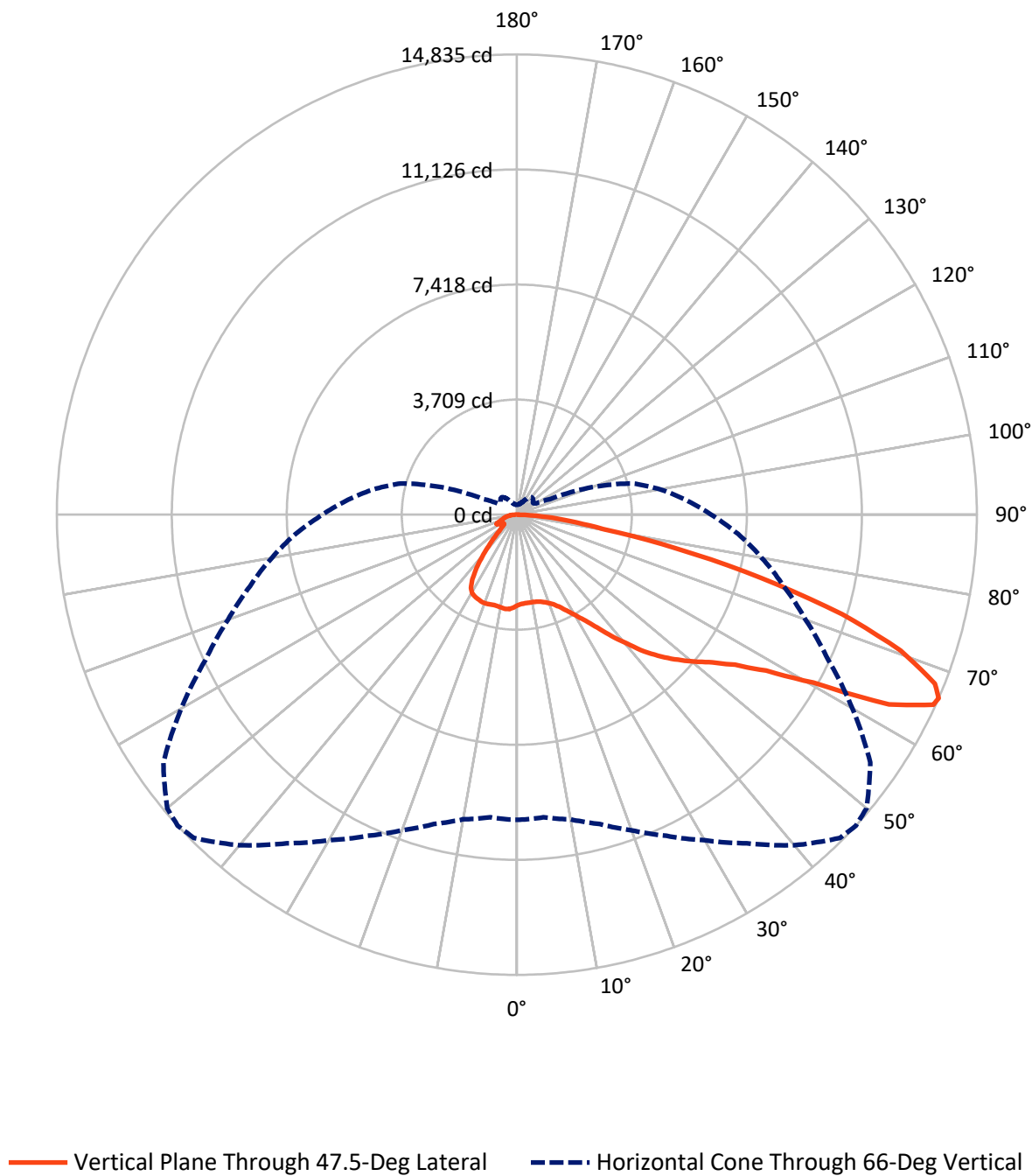


Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4426.3	0.0	4426.3
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	16952.1	0.0	16952.1
	% Fixture	79.3	0.0	79.3
Total	Lumens	21378.4	0.0	21378.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.9	1.3
10°-20°	845.4	4.0
20°-30°	1442.4	6.7
30°-40°	2177.1	10.2
40°-50°	2829.7	13.2
50°-60°	3882.1	18.2
60°-70°	5971.9	27.9
70°-80°	3452.1	16.1
80°-90°	495.9	2.3
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°	21378.4	100.0
0°-180°	21378.4	100.0

Coefficient of Utilization



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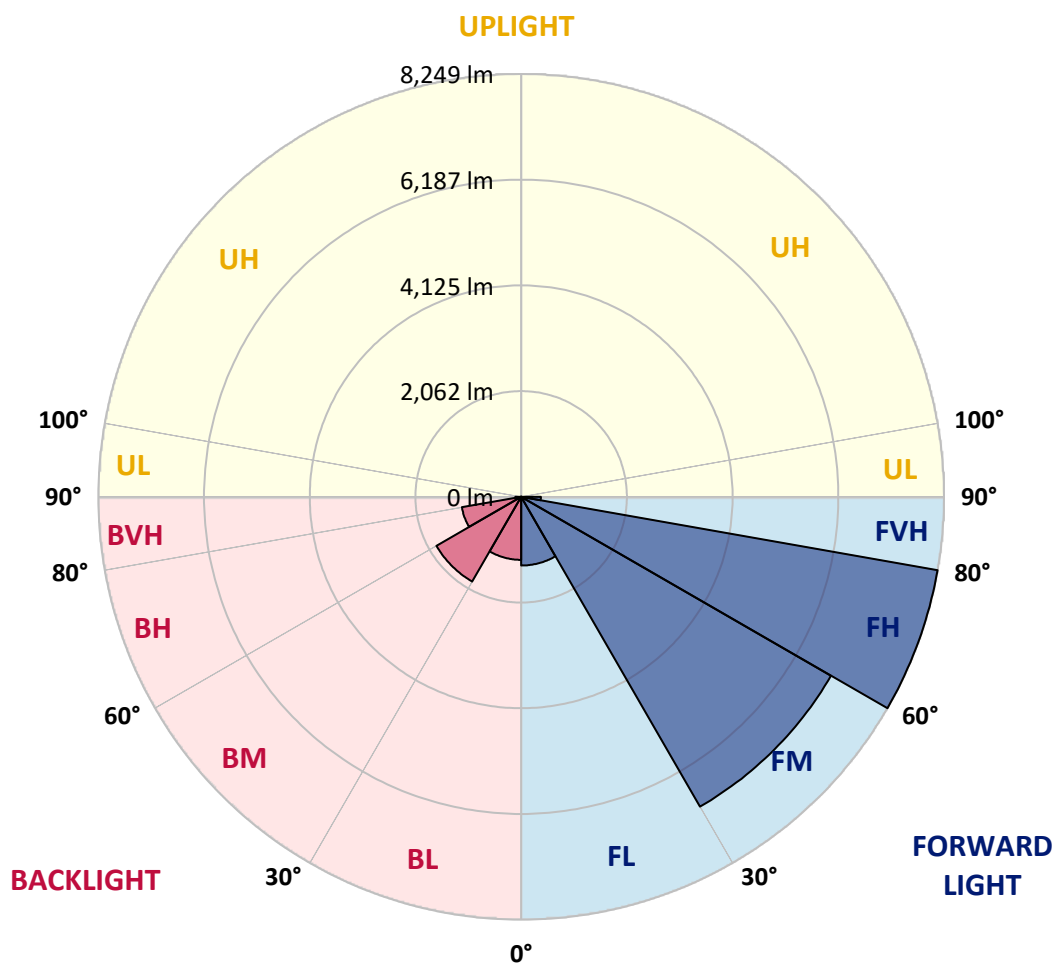
CATALOG NUMBER: VST-E07-LED-E-U-T4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1340.0	6.3			
FM	(30°-60°)	6979.1	32.6			
FH	(60°-80°)	8249.2	38.6			G4/12000
FVH	(80°-90°)	383.8	1.8			G3/500
BL	(0°-30°)	1229.7	5.8	B3/2500		
BM	(30°-60°)	1909.7	8.9	B2/2500		
BH	(60°-80°)	1174.8	5.5	B3/2500		G3/2500
BVH	(80°-90°)	112.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8
2.5°	2850.1	2851.5	2853.0	2853.0	2857.3	2857.3	2864.5	2868.8	2870.2	2878.8	2884.6
5°	2797.0	2795.5	2797.0	2799.8	2807.0	2812.8	2827.1	2837.2	2845.8	2860.2	2867.3
7.5°	2774.0	2776.8	2779.7	2781.2	2786.9	2801.3	2814.2	2824.3	2841.5	2858.7	2865.9
10°	2804.1	2808.5	2804.1	2807.0	2807.0	2819.9	2825.7	2832.9	2845.8	2861.6	2865.9
12.5°	2874.5	2883.2	2874.5	2867.3	2861.6	2873.1	2870.2	2864.5	2871.7	2876.0	2876.0
15°	2990.9	2990.9	2985.1	2975.1	2960.7	2962.2	2949.2	2936.3	2930.6	2920.5	2913.3
17.5°	3104.4	3101.5	3088.6	3075.6	3065.6	3061.3	3042.6	3025.4	3005.3	2989.5	2972.2
20°	3215.0	3226.5	3210.7	3192.0	3176.2	3166.2	3151.8	3117.3	3092.9	3067.0	3049.8
22.5°	3406.1	3396.0	3378.8	3351.5	3335.7	3318.4	3288.3	3250.9	3213.6	3182.0	3160.4
25°	3602.9	3592.8	3568.4	3548.3	3525.3	3510.9	3477.9	3431.9	3396.0	3347.2	3318.4
27.5°	3814.0	3805.4	3776.7	3760.9	3745.1	3727.8	3699.1	3651.7	3618.7	3562.6	3532.5
30°	4052.5	4051.1	4012.3	4009.4	3986.4	3967.7	3947.6	3907.4	3874.4	3818.3	3782.4
32.5°	4306.8	4301.0	4273.7	4265.1	4280.9	4268.0	4239.3	4197.6	4154.5	4121.5	4081.2
35°	4668.8	4658.7	4642.9	4650.1	4660.2	4696.1	4651.5	4615.6	4563.9	4520.8	4464.8
37.5°	4933.1	4918.7	4937.4	4977.6	5035.1	5062.4	5101.2	5102.6	5078.2	5020.7	4971.9
40°	5175.9	5170.1	5213.2	5269.3	5375.6	5453.1	5526.4	5562.3	5570.9	5533.6	5460.3
42.5°	5381.3	5398.5	5456.0	5542.2	5691.6	5809.4	5945.9	6030.6	6083.8	6063.7	6030.6
45°	5625.5	5634.1	5704.5	5813.7	5955.9	6151.3	6330.9	6474.5	6567.9	6566.5	6529.1
47.5°	5931.5	5932.9	5993.3	6121.1	6273.4	6471.6	6698.6	6889.7	7013.2	7019.0	6990.2
50°	6295.0	6292.1	6358.2	6478.8	6641.2	6832.2	7073.6	7312.0	7484.4	7484.4	7442.8
52.5°	6763.3	6757.5	6793.4	6899.7	7056.3	7257.4	7497.3	7773.2	7959.9	8000.1	7909.6
55°	7388.2	7396.8	7405.4	7498.8	7632.4	7791.8	8067.7	8321.9	8571.9	8594.9	8541.7
57.5°	8110.7	8082.0	8143.8	8296.1	8448.3	8648.0	8843.4	9143.6	9439.6	9489.8	9482.7
60°	9239.9	9202.5	9265.7	9459.7	9627.7	9942.3	10277.1	10664.9	11015.4	11118.9	10993.9
62.5°	10278.5	10324.5	10410.7	10636.2	10880.4	11299.9	11802.7	12467.8	13132.9	13494.9	13469.1
65°	10185.1	10142.0	10307.2	10614.7	11057.1	11591.5	12216.4	13018.0	13976.2	14703.1	14767.7
66°	9838.9	9794.4	9972.5	10324.5	10830.1	11424.9	12118.7	12934.7	13914.4	14736.1	14835.2
67.5°	9267.2	9222.6	9423.8	9744.1	10265.6	11014.0	11763.9	12656.0	13674.5	14461.7	14542.2
70°	8163.9	8103.6	8260.1	8622.2	9044.5	9768.5	10482.5	11427.7	12473.5	13102.8	13132.9
72.5°	6915.5	6774.8	6941.4	7220.1	7521.8	8120.8	8742.8	9389.3	10222.5	10804.3	10970.9
75°	5017.9	5091.1	5140.0	5323.8	5523.5	6019.1	6384.0	6925.6	7570.6	7991.5	8125.1
77.5°	2661.9	2772.5	2841.5	3025.4	3355.8	3733.6	4128.6	4463.4	4887.1	5122.7	5286.5
80°	1494.0	1571.6	1683.6	1828.7	1989.6	2279.8	2514.0	2686.3	2746.7	2788.3	2825.7
82.5°	821.7	1018.5	1185.2	1285.7	1380.5	1496.9	1636.2	1779.9	1825.9	1756.9	1721.0
85°	127.9	188.2	573.2	699.6	761.4	850.4	951.0	1057.3	1058.7	910.8	994.1
87.5°	35.9	40.2	81.9	123.5	120.7	97.7	120.7	219.8	129.3	64.6	74.7
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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CATALOG NUMBER: VST-E07-LED-E-U-T4-7050

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8
2.5°	2887.5	2890.3	2897.5	2904.7	2911.9	2919.1	2923.4	2930.6	2936.3	2944.9	2955.0
5°	2876.0	2883.2	2896.1	2911.9	2926.2	2939.2	2949.2	2963.6	2976.5	2988.0	3005.3
7.5°	2876.0	2890.3	2911.9	2929.1	2942.0	2957.9	2973.7	2988.0	3002.4	3013.9	3025.4
10°	2877.4	2891.8	2913.3	2933.4	2947.8	2965.0	2978.0	2990.9	3006.7	3013.9	3028.2
12.5°	2883.2	2888.9	2904.7	2924.8	2942.0	2959.3	2972.2	2985.1	3002.4	3005.3	3015.3
15°	2911.9	2903.3	2907.6	2921.9	2940.6	2955.0	2969.3	2979.4	2990.9	2988.0	2996.6
17.5°	2965.0	2943.5	2934.9	2936.3	2944.9	2955.0	2960.7	2962.2	2963.6	2950.7	2952.1
20°	3036.9	3006.7	2986.6	2976.5	2965.0	2955.0	2939.2	2920.5	2903.3	2877.4	2874.5
22.5°	3144.6	3100.1	3078.5	3051.2	3016.8	2973.7	2934.9	2888.9	2851.5	2812.8	2798.4
25°	3301.2	3255.2	3232.2	3189.1	3127.4	3065.6	3009.6	2947.8	2893.2	2847.2	2825.7
27.5°	3510.9	3465.0	3440.5	3396.0	3319.9	3258.1	3180.5	3114.4	3048.4	2980.8	2953.5
30°	3765.2	3725.0	3697.7	3661.8	3595.7	3528.2	3437.7	3335.7	3230.8	3123.1	3069.9
32.5°	4065.4	4020.9	4000.8	3959.1	3890.2	3819.8	3719.2	3588.5	3413.2	3243.7	3137.4
35°	4440.4	4390.1	4367.1	4312.5	4232.1	4128.6	4020.9	3845.6	3608.6	3373.0	3199.2
37.5°	4941.7	4829.7	4753.5	4628.6	4499.3	4354.2	4200.5	4020.9	3740.8	3449.2	3207.8
40°	5385.6	5272.1	5125.6	4946.0	4744.9	4545.2	4370.0	4166.0	3861.4	3503.7	3180.5
42.5°	5937.3	5736.1	5502.0	5259.2	4992.0	4746.4	4538.1	4298.2	3943.3	3518.1	3104.4
45°	6441.5	6201.6	5888.4	5565.2	5233.3	4924.5	4690.3	4423.1	4013.7	3518.1	3012.4
47.5°	6901.2	6613.9	6238.9	5836.7	5450.3	5112.7	4846.9	4551.0	4112.8	3562.6	2985.1
50°	7326.4	6996.0	6569.3	6102.5	5668.6	5308.0	5022.2	4714.7	4263.7	3677.6	3051.2
52.5°	7774.6	7424.1	6904.0	6408.4	5930.1	5543.6	5239.1	4917.3	4459.0	3858.6	3167.6
55°	8362.1	7951.3	7360.9	6815.0	6289.2	5862.6	5516.3	5160.1	4673.1	4062.6	3309.8
57.5°	9288.7	8692.5	8102.1	7392.5	6896.9	6335.2	5955.9	5546.5	5020.7	4328.3	3523.9
60°	10910.6	10177.9	9468.3	8652.3	8040.4	7452.8	6879.6	6345.2	5711.7	4928.8	3993.6
62.5°	13226.3	12482.2	11367.4	10369.0	9445.3	8666.7	7919.7	7240.2	6427.1	5570.9	4572.5
65°	14609.7	13757.8	12429.0	11087.3	9965.3	9000.0	8145.2	7313.5	6435.7	5601.1	4747.8
66°	14720.3	13914.4	12495.1	11077.2	9912.2	8910.9	8021.7	7161.2	6261.9	5463.2	4690.3
67.5°	14514.9	13821.0	12360.1	10881.8	9691.0	8609.2	7695.6	6793.4	5889.8	5150.0	4499.3
70°	13065.4	12564.0	11311.4	9926.5	8738.5	7784.7	6820.7	5953.1	5096.9	4474.8	3992.2
72.5°	10710.9	10075.9	9199.7	8268.8	7333.6	6487.4	5611.2	4872.8	4154.5	3702.0	3360.1
75°	7868.0	7296.2	6330.9	5750.5	5132.8	4601.3	4010.8	3311.2	2801.3	2574.3	2491.0
77.5°	4987.7	4367.1	3552.6	2911.9	2503.9	2151.9	1696.6	1348.9	1080.3	1124.8	1245.5
80°	2519.7	2170.6	1624.7	1282.8	1109.0	922.3	729.8	553.1	403.7	461.1	521.5
82.5°	1617.6	1350.4	1076.0	847.6	715.4	630.6	504.2	366.3	272.9	307.4	376.4
85°	974.0	823.1	656.5	537.3	466.9	389.3	285.9	202.6	201.1	215.5	265.8
87.5°	148.0	211.2	122.1	130.7	137.9	148.0	130.7	110.6	96.2	125.0	158.0
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8	2924.8
2.5°	2965.0	2967.9	2973.7	2980.8	2979.4	2989.5	2995.2	2989.5	3002.4	3002.4	3009.6
5°	3019.6	3023.9	3034.0	3041.2	3044.0	3052.7	3055.5	3054.1	3057.0	3058.4	3061.3
7.5°	3035.4	3046.9	3051.2	3055.5	3057.0	3059.8	3059.8	3057.0	3057.0	3055.5	3058.4
10°	3031.1	3035.4	3038.3	3036.9	3036.9	3034.0	3032.6	3031.1	3031.1	3028.2	3032.6
12.5°	3016.8	3016.8	3016.8	3013.9	3013.9	3012.4	3012.4	3012.4	3015.3	3016.8	3023.9
15°	2988.0	2988.0	2990.9	2989.5	2993.8	3000.9	3009.6	3015.3	3022.5	3023.9	3028.2
17.5°	2943.5	2944.9	2953.5	2972.2	2990.9	3012.4	3028.2	3032.6	3026.8	3012.4	3002.4
20°	2865.9	2884.6	2919.1	2963.6	3005.3	3032.6	3039.7	3022.5	2995.2	2957.9	2937.7
22.5°	2797.0	2834.3	2896.1	2969.3	3021.1	3039.7	3018.2	2978.0	2929.1	2886.0	2855.9
25°	2824.3	2867.3	2932.0	2995.2	3028.2	3018.2	2975.1	2917.6	2865.9	2815.6	2766.8
27.5°	2939.2	2982.3	3028.2	3046.9	3035.4	2998.1	2937.7	2876.0	2807.0	2735.2	2674.9
30°	3048.4	3072.8	3075.6	3057.0	3015.3	2955.0	2884.6	2812.8	2725.1	2638.9	2562.8
32.5°	3082.8	3054.1	3002.4	2949.2	2891.8	2830.0	2748.1	2653.3	2559.9	2462.2	2377.5
35°	3072.8	2956.4	2828.6	2715.1	2646.1	2575.7	2501.0	2374.6	2269.7	2186.4	2131.8
37.5°	2982.3	2769.7	2572.9	2407.7	2299.9	2216.6	2106.0	2001.1	1910.6	1873.3	1828.7
40°	2855.9	2531.2	2258.3	2027.0	1914.9	1808.6	1685.1	1604.6	1578.8	1544.3	1545.7
42.5°	2674.9	2252.5	1900.6	1634.8	1512.7	1396.3	1308.7	1261.3	1262.7	1234.0	1239.7
45°	2483.8	1972.4	1529.9	1265.6	1144.9	1045.8	997.0	982.6	984.0	985.5	976.9
47.5°	2367.4	1754.0	1226.8	959.6	853.3	797.3	771.4	764.2	765.7	767.1	757.1
50°	2350.2	1640.5	1024.3	734.1	665.1	633.5	620.6	613.4	613.4	607.7	599.0
52.5°	2399.0	1611.8	925.1	636.4	570.3	541.6	531.5	525.8	517.2	505.7	489.9
55°	2476.6	1637.7	895.0	603.4	538.7	510.0	497.0	494.2	479.8	458.3	432.4
57.5°	2620.3	1731.0	915.1	612.0	544.5	518.6	510.0	507.1	487.0	453.9	420.9
60°	3032.6	2002.5	1015.6	660.8	586.1	564.6	564.6	560.3	533.0	485.6	438.1
62.5°	3601.4	2400.5	1152.1	728.3	643.6	640.7	665.1	666.6	617.7	541.6	466.9
65°	3875.8	2587.2	1199.5	742.7	659.4	692.4	741.3	741.3	672.3	567.4	471.2
66°	3877.2	2582.9	1185.2	725.5	642.1	685.2	735.5	735.5	663.7	560.3	464.0
67.5°	3778.1	2502.5	1137.7	693.9	603.4	643.6	688.1	686.7	622.0	531.5	443.9
70°	3388.8	2213.7	1002.7	642.1	557.4	558.8	574.6	564.6	521.5	459.7	403.7
72.5°	2921.9	1851.7	869.1	609.1	521.5	494.2	481.2	472.6	445.3	408.0	373.5
75°	2241.0	1438.0	757.1	578.9	489.9	442.5	425.2	418.0	399.4	377.8	350.5
77.5°	1373.3	985.5	642.1	530.1	453.9	410.9	392.2	377.8	359.1	339.0	320.4
80°	591.9	594.7	514.3	449.6	395.1	344.8	320.4	303.1	293.1	285.9	275.8
82.5°	413.7	426.7	392.2	349.1	301.7	265.8	244.2	239.9	241.3	241.3	238.5
85°	310.3	304.5	274.4	250.0	228.4	205.4	188.2	186.8	192.5	192.5	188.2
87.5°	179.6	181.0	155.1	145.1	150.8	129.3	117.8	119.2	133.6	132.2	129.3
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):

	160°	165°	170°	175°	180°
0°	2924.8	2924.8	2924.8	2924.8	2924.8
2.5°	3009.6	3013.9	3012.4	3016.8	3012.4
5°	3065.6	3064.2	3062.7	3068.5	3061.3
7.5°	3057.0	3058.4	3058.4	3058.4	3057.0
10°	3035.4	3041.2	3044.0	3049.8	3048.4
12.5°	3028.2	3036.9	3045.5	3054.1	3055.5
15°	3029.7	3035.4	3039.7	3044.0	3045.5
17.5°	2992.3	2990.9	2986.6	2983.7	2980.8
20°	2916.2	2909.0	2901.8	2890.3	2896.1
22.5°	2821.4	2801.3	2778.3	2759.6	2758.2
25°	2710.8	2673.4	2636.1	2611.6	2603.0
27.5°	2613.1	2568.5	2529.8	2508.2	2502.5
30°	2496.7	2456.5	2422.0	2403.3	2391.9
32.5°	2324.3	2292.7	2249.6	2235.3	2233.8
35°	2084.4	2060.0	2029.8	2024.1	2016.9
37.5°	1812.9	1804.3	1789.9	1772.7	1769.8
40°	1522.7	1528.5	1524.2	1514.1	1498.3
42.5°	1242.6	1252.7	1254.1	1261.3	1268.5
45°	989.8	998.4	998.4	1005.6	1014.2
47.5°	759.9	754.2	758.5	765.7	770.0
50°	574.6	570.3	563.1	557.4	551.6
52.5°	462.6	453.9	433.8	428.1	422.3
55°	408.0	392.2	377.8	372.1	372.1
57.5°	392.2	372.1	356.3	349.1	346.2
60°	395.1	366.3	346.2	334.7	330.4
62.5°	408.0	367.8	340.5	327.5	323.2
65°	406.5	364.9	339.0	324.7	320.4
66°	399.4	360.6	336.2	323.2	320.4
67.5°	387.9	354.8	333.3	321.8	317.5
70°	364.9	343.3	327.5	317.5	313.2
72.5°	346.2	331.8	317.5	306.0	303.1
75°	329.0	314.6	301.7	295.9	291.6
77.5°	303.1	290.2	283.0	277.3	274.4
80°	268.6	260.0	251.4	245.6	241.3
82.5°	234.2	222.7	214.0	209.7	206.9
85°	191.1	183.9	170.9	162.3	160.9
87.5°	127.9	120.7	116.4	109.2	102.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)