

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: P158672

Luminaire Tested: **VST-E05-LED-E-U-SL4-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158672
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E05-LED-E-U-SL4-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (105) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14883.3 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B2 - U0 - G3

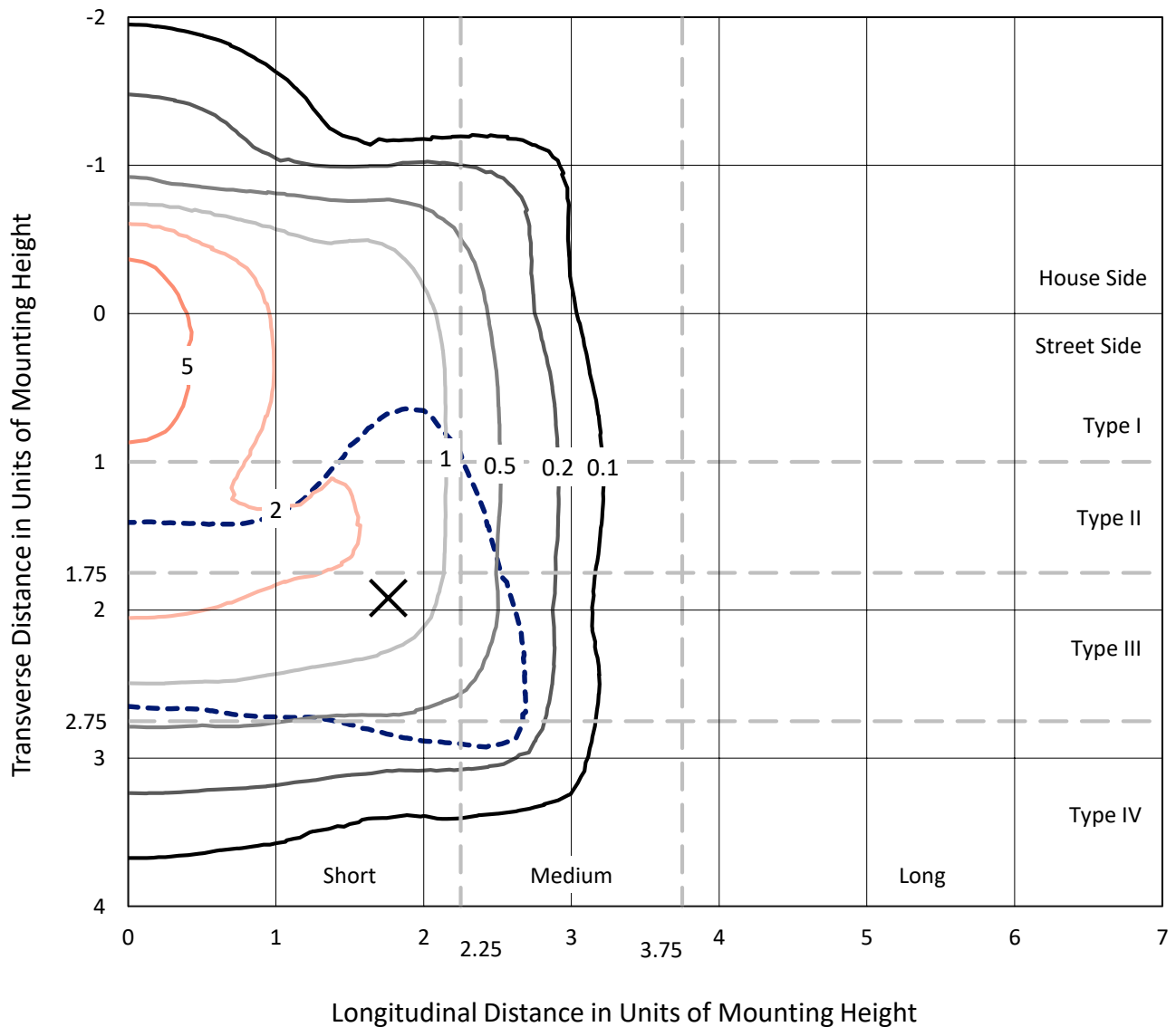
Input Watts (W): 127.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

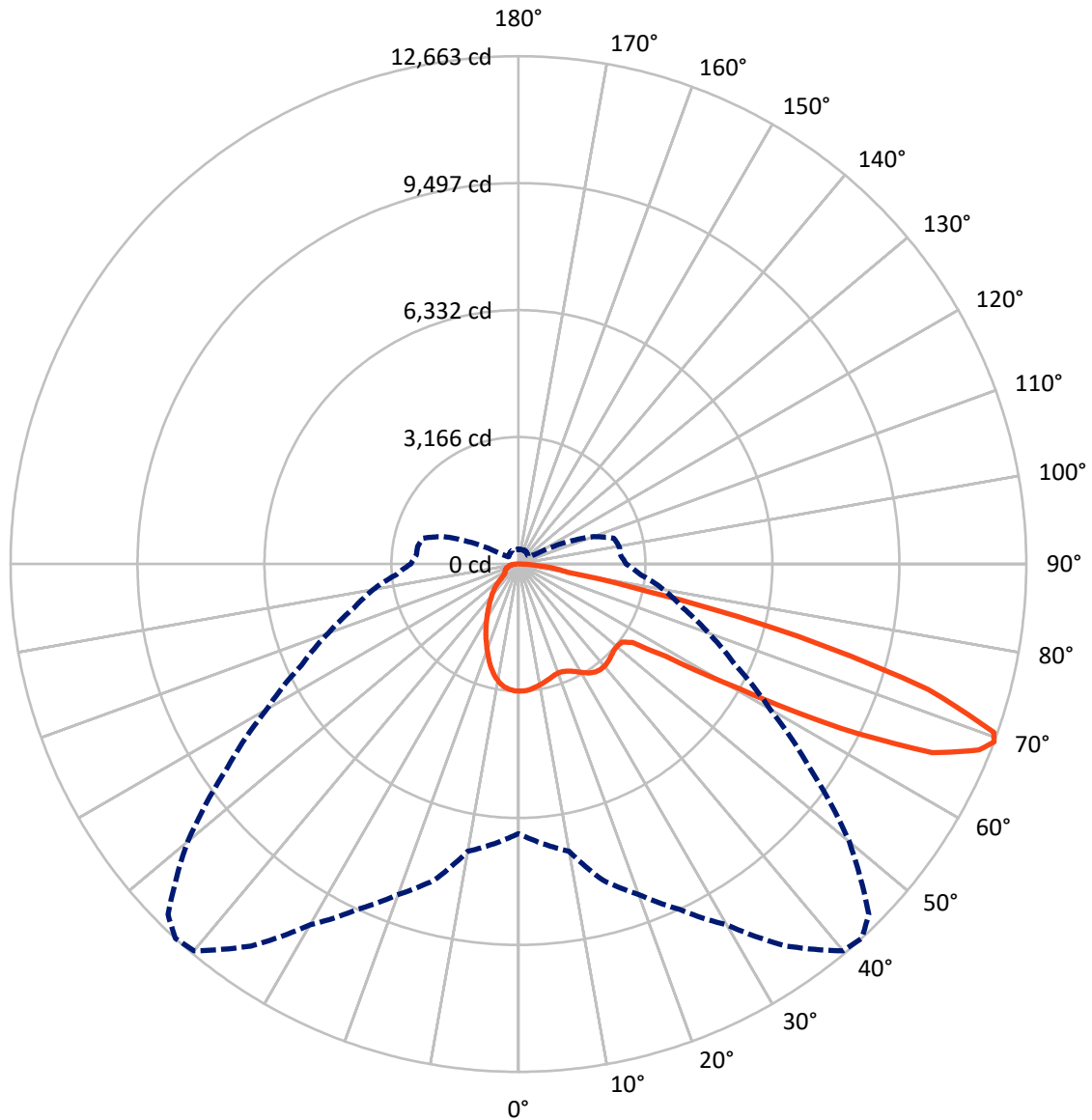
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.9 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 42.5-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3308.8	0.0	3308.8
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	11574.5	0.0	11574.5
	% Fixture	77.8	0.0	77.8
Total	Lumens	14883.3	0.0	14883.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.1	2.0
10°-20°	795.2	5.3
20°-30°	1159.6	7.8
30°-40°	1478.2	9.9
40°-50°	1720.0	11.6
50°-60°	2616.9	17.6
60°-70°	4622.7	31.1
70°-80°	1907.6	12.8
80°-90°	288.0	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°	14883.3	100.0
0°-180°	14883.3	100.0



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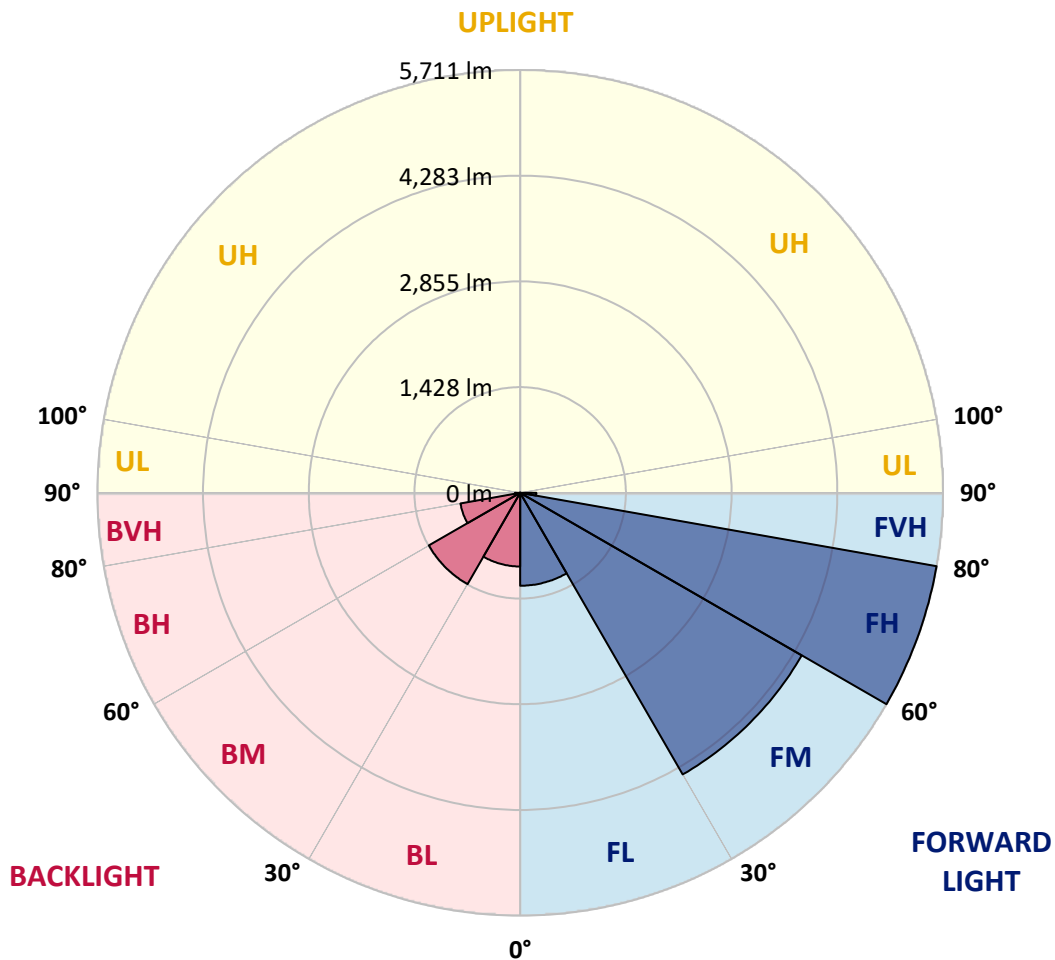
CATALOG NUMBER: VST-E05-LED-E-U-SL4-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1255.0	8.4			
FM	(30°-60°)	4391.0	29.5			
FH	(60°-80°)	5710.7	38.4			G3/7500
FVH	(80°-90°)	217.8	1.5			G2/225
BL	(0°-30°)	994.8	6.7	B2/1000		
BM	(30°-60°)	1424.2	9.6	B2/2500		
BH	(60°-80°)	819.6	5.5	B2/1000		G2/1000
BVH	(80°-90°)	70.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6
2.5°	3159.4	3170.7	3166.6	3166.6	3169.6	3164.5	3164.5	3166.6	3161.4	3164.5	3163.5
5°	3148.1	3154.2	3152.2	3152.2	3152.2	3148.1	3146.0	3145.0	3137.8	3137.8	3134.8
7.5°	3123.5	3125.5	3128.6	3124.5	3123.5	3122.4	3115.3	3111.2	3102.9	3095.8	3097.8
10°	3090.6	3089.6	3094.7	3091.7	3087.6	3084.5	3078.3	3071.1	3061.9	3052.7	3051.6
12.5°	3053.7	3052.7	3056.8	3054.7	3051.6	3045.5	3040.4	3028.0	3013.7	3002.4	3001.4
15°	3030.1	3027.0	3031.1	3027.0	3021.9	3015.7	3006.5	2991.1	2965.4	2954.2	2944.9
17.5°	3052.7	3047.5	3049.6	3044.5	3037.3	3020.9	2999.3	2966.5	2929.5	2910.0	2895.7
20°	3131.7	3122.4	3124.5	3119.4	3102.9	3081.4	3040.4	2982.9	2920.3	2888.5	2865.9
22.5°	3244.5	3237.4	3240.4	3235.3	3218.9	3186.1	3124.5	3042.4	2953.1	2907.0	2871.0
25°	3415.9	3422.1	3424.1	3400.5	3391.3	3330.7	3245.6	3131.7	3012.6	2958.3	2909.0
27.5°	3608.8	3608.8	3618.0	3608.8	3590.3	3519.5	3399.5	3262.0	3109.1	3035.2	2975.7
30°	3796.6	3794.5	3812.0	3809.9	3780.2	3700.1	3563.7	3396.4	3222.0	3138.9	3062.9
32.5°	3995.7	4001.8	4013.1	4009.0	3970.0	3859.2	3695.0	3513.4	3329.7	3238.4	3153.2
35°	4211.1	4214.2	4218.3	4216.3	4137.3	3997.7	3791.5	3588.3	3397.4	3307.1	3218.9
37.5°	4426.6	4423.5	4418.4	4374.3	4284.0	4090.1	3849.9	3631.4	3431.3	3333.8	3242.5
40°	4619.5	4602.1	4585.7	4516.9	4378.4	4142.4	3872.5	3641.6	3428.2	3327.7	3238.4
42.5°	4725.2	4705.7	4671.9	4585.7	4417.4	4147.5	3857.1	3610.9	3396.4	3296.9	3208.6
45°	4744.7	4730.3	4697.5	4601.1	4408.1	4114.7	3809.9	3560.6	3349.2	3249.7	3166.6
47.5°	4698.5	4687.2	4655.4	4560.0	4368.1	4065.4	3755.5	3507.2	3303.0	3209.7	3129.6
50°	4627.7	4617.5	4592.8	4505.6	4323.0	4031.6	3727.8	3479.5	3287.6	3202.5	3128.6
52.5°	4742.7	4750.9	4679.0	4583.6	4371.2	4061.3	3758.6	3508.3	3315.3	3231.2	3154.2
55°	6529.1	6517.8	6085.8	5723.6	5076.1	4489.2	4051.1	3736.0	3529.8	3445.7	3373.8
57.5°	8483.8	8444.8	8267.3	7928.7	7233.0	6304.4	5459.9	4741.6	4458.4	4337.3	4345.6
60°	9122.1	9136.4	9098.5	8978.4	8729.1	8245.8	7603.4	7063.7	6532.2	6272.6	6302.3
62.5°	9476.1	9501.7	9534.6	9507.9	9426.8	9315.0	9233.9	9283.2	9209.3	9022.5	8873.8
65°	9525.3	9577.7	9686.4	9772.6	9814.7	9920.4	10168.7	10763.8	11307.7	11343.6	11081.9
67.5°	8550.5	8695.2	8931.2	9330.4	9672.1	10047.6	10646.9	11551.9	12354.3	12381.0	12136.8
69°	6723.0	7001.1	7277.1	8168.8	8769.1	9504.8	10391.4	11627.8	12589.3	12663.2	12355.3
70°	5387.1	5552.3	5790.3	6686.1	7582.9	8520.8	9805.5	11377.5	12428.2	12577.0	12237.3
72.5°	3234.3	3297.9	3380.0	3701.2	4162.9	4998.2	6701.5	9276.0	10483.7	10682.8	10250.8
75°	2091.2	2087.1	2094.3	2183.6	2210.2	2370.3	2907.0	4772.4	6839.0	7200.2	6683.0
77.5°	1575.1	1589.4	1566.9	1575.1	1567.9	1611.0	1627.4	1708.5	2699.7	3325.6	2973.7
80°	1390.4	1397.6	1398.6	1394.5	1344.2	1340.1	1366.8	1320.6	1227.2	1245.7	1193.4
82.5°	793.2	792.2	801.4	871.2	899.9	994.3	1033.3	1054.8	973.8	913.2	826.0
85°	514.1	518.2	528.4	550.0	528.4	536.7	527.4	545.9	500.7	464.8	415.6
87.5°	210.4	210.4	223.7	243.2	226.8	222.7	190.9	188.8	160.1	144.7	112.9
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6
2.5°	3157.3	3163.5	3160.4	3164.5	3161.4	3161.4	3157.3	3156.3	3159.4	3155.3	3156.3
5°	3129.6	3130.6	3125.5	3127.6	3121.4	3119.4	3116.3	3108.1	3113.2	3108.1	3110.1
7.5°	3089.6	3086.5	3079.3	3069.1	3061.9	3058.8	3052.7	3041.4	3043.4	3034.2	3039.3
10°	3038.3	3028.0	3015.7	3000.3	2990.1	2980.8	2967.5	2954.2	2947.0	2938.8	2937.7
12.5°	2980.8	2968.5	2952.1	2928.5	2905.9	2890.5	2870.0	2846.4	2839.2	2825.9	2818.7
15°	2918.2	2898.7	2879.3	2852.6	2827.9	2804.3	2776.6	2746.9	2727.4	2706.9	2691.5
17.5°	2861.8	2839.2	2813.6	2787.9	2761.2	2732.5	2697.6	2660.7	2632.0	2594.0	2563.2
20°	2817.7	2789.0	2763.3	2736.6	2706.9	2672.0	2629.9	2582.7	2534.5	2492.4	2456.5
22.5°	2800.2	2755.1	2724.3	2697.6	2667.9	2626.8	2575.5	2520.1	2461.6	2403.1	2355.9
25°	2814.6	2747.9	2699.7	2667.9	2642.2	2600.2	2542.7	2475.0	2407.2	2337.5	2273.8
27.5°	2856.7	2771.5	2701.7	2651.5	2621.7	2579.6	2519.1	2447.3	2367.2	2289.2	2211.3
30°	2922.3	2811.5	2723.3	2652.5	2606.3	2558.1	2494.5	2411.3	2330.3	2241.0	2155.8
32.5°	2986.0	2853.6	2747.9	2656.6	2585.8	2523.2	2452.4	2370.3	2283.1	2189.7	2101.5
35°	3031.1	2881.3	2757.1	2647.4	2554.0	2476.0	2400.1	2318.0	2232.8	2137.4	2047.1
37.5°	3052.7	2896.7	2758.2	2622.7	2511.9	2425.7	2344.7	2263.6	2183.6	2093.3	2008.1
40°	3051.6	2895.7	2743.8	2590.9	2461.6	2370.3	2290.3	2211.3	2136.4	2057.3	1980.4
42.5°	3029.1	2879.3	2723.3	2560.1	2425.7	2324.1	2241.0	2165.1	2101.5	2031.7	1967.0
45°	2994.2	2851.5	2701.7	2545.8	2415.5	2313.9	2225.6	2151.7	2095.3	2031.7	1976.3
47.5°	2967.5	2836.2	2704.8	2571.4	2447.3	2341.6	2248.2	2167.1	2118.9	2067.6	2028.6
50°	2971.6	2843.3	2715.1	2586.8	2469.8	2363.1	2272.8	2198.9	2164.1	2150.7	2141.5
52.5°	2993.1	2854.6	2745.9	2668.9	2628.9	2548.8	2495.5	2449.3	2475.0	2424.7	2365.2
55°	3268.1	3223.0	3328.7	3428.2	3554.4	3601.6	3556.5	3548.3	3589.3	3419.0	3028.0
57.5°	4404.0	4521.0	4684.2	4770.4	4875.0	4847.3	4742.7	4655.4	4552.8	4353.8	3866.4
60°	6336.2	6248.0	6174.1	5965.8	5795.4	5596.4	5374.7	5184.9	5003.3	4717.0	4189.6
62.5°	8326.8	7714.3	7202.2	6707.7	6309.5	5979.1	5657.9	5372.7	5097.7	4698.5	4131.1
65°	10048.7	8758.8	7797.4	7071.9	6490.1	5988.4	5575.9	5181.8	4831.9	4364.0	3802.7
67.5°	10822.3	9206.2	7807.6	6768.2	5962.7	5281.4	4747.8	4152.6	3760.7	3461.1	3145.0
69°	10764.9	8864.5	7250.5	5970.9	5045.4	4251.2	3678.6	3057.8	2682.2	2555.0	2547.8
70°	10491.9	8285.8	6599.9	5323.4	4264.5	3475.4	2926.5	2369.3	2019.4	1932.2	2087.1
72.5°	8565.9	5855.0	4136.2	3158.4	2428.8	1919.8	1565.8	1242.6	992.2	859.9	888.6
75°	4838.1	2711.0	1752.6	1324.7	1119.5	925.5	794.2	677.2	612.6	497.7	394.0
77.5°	1758.7	1163.6	925.5	800.4	567.4	390.9	327.3	286.3	259.6	259.6	247.3
80°	1112.3	876.3	611.6	418.7	309.9	269.9	236.0	207.3	190.9	186.8	190.9
82.5°	694.7	536.7	342.7	262.7	220.6	198.0	172.4	150.8	137.5	134.4	140.6
85°	342.7	265.8	208.3	185.7	174.4	162.1	142.6	122.1	118.0	126.2	147.8
87.5°	102.6	91.3	74.9	78.0	82.1	80.0	63.6	55.4	52.3	68.7	107.7
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6
2.5°	3158.4	3157.3	3159.4	3156.3	3158.4	3159.4	3157.3	3166.6	3160.4	3161.4	3165.5
5°	3112.2	3110.1	3118.3	3116.3	3120.4	3124.5	3122.4	3135.8	3130.6	3134.8	3143.0
7.5°	3035.2	3039.3	3040.4	3040.4	3048.6	3061.9	3065.0	3073.2	3073.2	3084.5	3092.7
10°	2932.6	2933.6	2939.8	2938.8	2949.0	2963.4	2965.4	2979.8	2984.9	3003.4	3014.7
12.5°	2813.6	2808.5	2807.4	2806.4	2819.7	2835.1	2837.2	2861.8	2872.1	2888.5	2907.0
15°	2680.2	2666.8	2662.7	2671.0	2667.9	2677.1	2686.3	2699.7	2714.0	2746.9	2763.3
17.5°	2549.9	2523.2	2516.0	2506.8	2497.5	2497.5	2501.6	2518.1	2547.8	2565.3	2602.2
20°	2416.5	2384.7	2359.0	2334.4	2312.8	2304.6	2305.7	2326.2	2347.7	2376.5	2411.3
22.5°	2304.6	2256.4	2212.3	2179.4	2135.3	2134.3	2128.1	2134.3	2157.9	2165.1	2184.6
25°	2208.2	2143.5	2084.0	2030.7	1987.6	1965.0	1958.8	1956.8	1945.5	1942.4	1928.1
27.5°	2133.3	2055.3	1978.3	1913.7	1860.3	1829.5	1790.6	1762.8	1722.8	1712.6	1686.9
30°	2071.7	1987.6	1903.4	1819.3	1758.7	1703.3	1637.7	1589.4	1527.9	1487.9	1453.0
32.5°	2012.2	1927.0	1841.9	1758.7	1665.4	1579.2	1493.0	1418.1	1349.3	1287.8	1236.5
35°	1962.9	1881.9	1795.7	1695.1	1576.1	1451.9	1348.3	1263.1	1168.7	1104.1	1039.4
37.5°	1931.1	1857.3	1771.1	1632.5	1479.6	1346.3	1228.2	1124.6	1028.2	930.7	857.8
40°	1916.8	1852.1	1744.4	1575.1	1395.5	1247.7	1117.4	1002.5	879.4	769.6	691.6
42.5°	1915.7	1850.1	1707.4	1511.5	1325.7	1164.6	1019.9	882.5	746.0	633.1	556.1
45°	1934.2	1847.0	1668.4	1458.1	1264.2	1095.9	923.5	756.2	603.4	519.2	478.2
47.5°	1983.5	1852.1	1636.6	1408.8	1205.7	1012.8	812.7	617.7	491.5	452.5	452.5
50°	2071.7	1881.9	1628.4	1374.0	1147.2	916.3	677.2	498.7	435.1	435.1	447.4
52.5°	2207.2	1944.5	1642.8	1349.3	1074.3	789.1	533.6	429.9	417.6	428.9	445.3
55°	2519.1	2055.3	1662.3	1307.3	963.5	625.9	440.2	406.3	411.5	424.8	440.2
57.5°	3091.7	2292.3	1682.8	1214.9	785.0	482.3	399.2	397.1	406.3	418.7	432.0
60°	3468.2	2594.0	1735.1	1075.4	594.1	398.1	378.6	390.9	402.2	412.5	422.8
62.5°	3468.2	2679.2	1774.1	919.4	446.4	362.2	365.3	384.8	398.1	403.3	409.4
65°	3246.6	2523.2	1641.8	749.1	363.2	341.7	353.0	372.5	384.8	388.9	394.0
67.5°	2837.2	2228.7	1383.2	564.4	324.2	324.2	338.6	353.0	363.2	371.5	379.7
69°	2466.8	1999.9	1218.0	478.2	308.9	310.9	325.3	337.6	349.9	360.2	370.4
70°	2200.0	1828.5	1103.1	434.0	299.6	300.6	315.0	328.4	339.6	350.9	363.2
72.5°	1178.0	1263.1	838.3	356.1	276.0	279.1	292.4	304.8	315.0	326.3	337.6
75°	401.2	542.8	533.6	291.4	249.3	257.6	265.8	277.0	290.4	297.6	303.7
77.5°	235.0	243.2	284.2	237.0	224.7	228.8	238.1	247.3	258.6	265.8	270.9
80°	197.0	196.0	197.0	192.9	196.0	205.2	211.4	223.7	234.0	236.0	235.0
82.5°	160.1	168.3	169.3	167.3	176.5	183.7	188.8	196.0	195.0	197.0	201.1
85°	142.6	141.6	148.8	149.8	149.8	144.7	145.7	145.7	145.7	148.8	149.8
87.5°	142.6	119.0	92.3	83.1	87.2	82.1	78.0	77.0	85.2	93.4	91.3
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°	3169.6	3169.6	3169.6	3169.6	3169.6
2.5°	3167.6	3170.7	3168.6	3168.6	3170.7
5°	3146.0	3151.2	3149.1	3151.2	3151.2
7.5°	3096.8	3104.0	3109.1	3114.2	3111.2
10°	3026.0	3038.3	3046.5	3052.7	3049.6
12.5°	2920.3	2931.6	2949.0	2959.3	2951.1
15°	2775.6	2807.4	2817.7	2832.1	2823.8
17.5°	2624.8	2644.3	2656.6	2669.9	2678.1
20°	2423.7	2439.1	2455.5	2461.6	2452.4
22.5°	2181.5	2189.7	2186.6	2195.9	2177.4
25°	1915.7	1920.9	1917.8	1926.0	1910.6
27.5°	1664.3	1663.3	1664.3	1654.1	1643.8
30°	1422.2	1412.9	1408.8	1393.5	1390.4
32.5°	1205.7	1173.9	1157.4	1134.9	1129.7
35°	989.2	944.0	914.3	888.6	877.3
37.5°	795.2	740.8	706.0	683.4	680.3
40°	629.0	578.7	554.1	541.8	539.7
42.5°	513.1	491.5	485.3	485.3	485.3
45°	467.9	466.9	472.0	476.1	477.1
47.5°	458.7	464.8	472.0	478.2	480.2
50°	458.7	464.8	470.0	476.1	478.2
52.5°	456.6	461.7	463.8	467.9	470.0
55°	450.5	453.5	453.5	455.6	457.6
57.5°	440.2	442.3	439.2	441.2	446.4
60°	429.9	432.0	426.9	432.0	435.1
62.5°	418.7	419.7	417.6	421.7	421.7
65°	400.2	398.1	401.2	404.3	405.3
67.5°	381.7	376.6	379.7	380.7	382.7
69°	367.3	364.3	365.3	367.3	369.4
70°	357.1	355.0	357.1	360.2	363.2
72.5°	331.4	332.5	339.6	345.8	352.0
75°	307.8	315.0	324.2	337.6	344.8
77.5°	279.1	284.2	291.4	305.8	319.1
80°	241.1	244.2	245.2	250.4	249.3
82.5°	196.0	192.9	190.9	188.8	187.8
85°	140.6	139.6	131.3	125.2	125.2
87.5°	84.1	80.0	75.9	70.8	67.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)