

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: P158493

Luminaire Tested: **VST-F09-LED-E-U-SL3-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P158493  
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-F09-LED-E-U-SL3-8030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL  
Light Source: (63) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

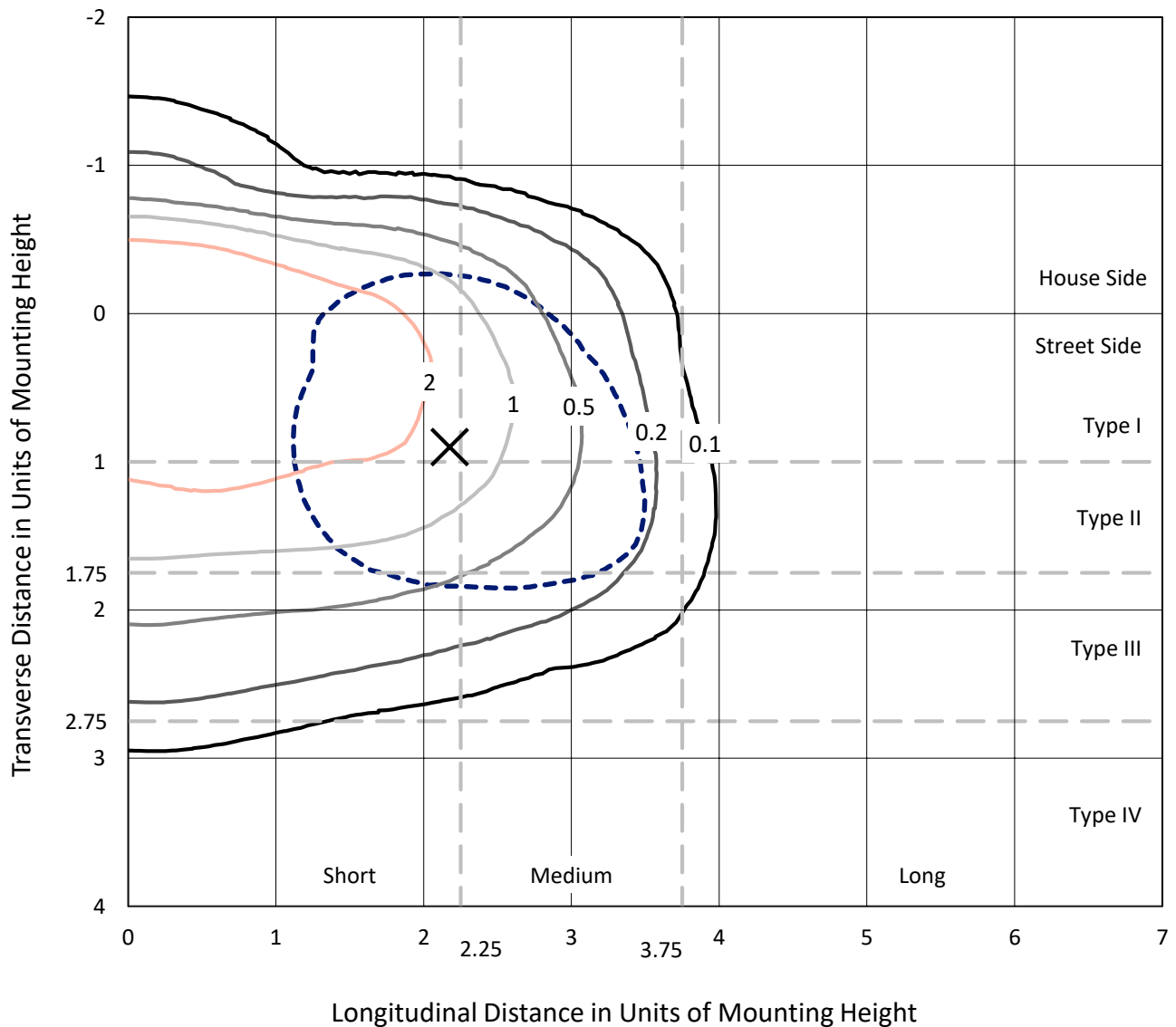
Lumens per Lamp: N/A  
Luminaire Lumens: 18917.6 lumens  
Efficiency: N/A  
Efficacy: 80.6 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 234.8  
Input Voltage (V): NR  
Input Current (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

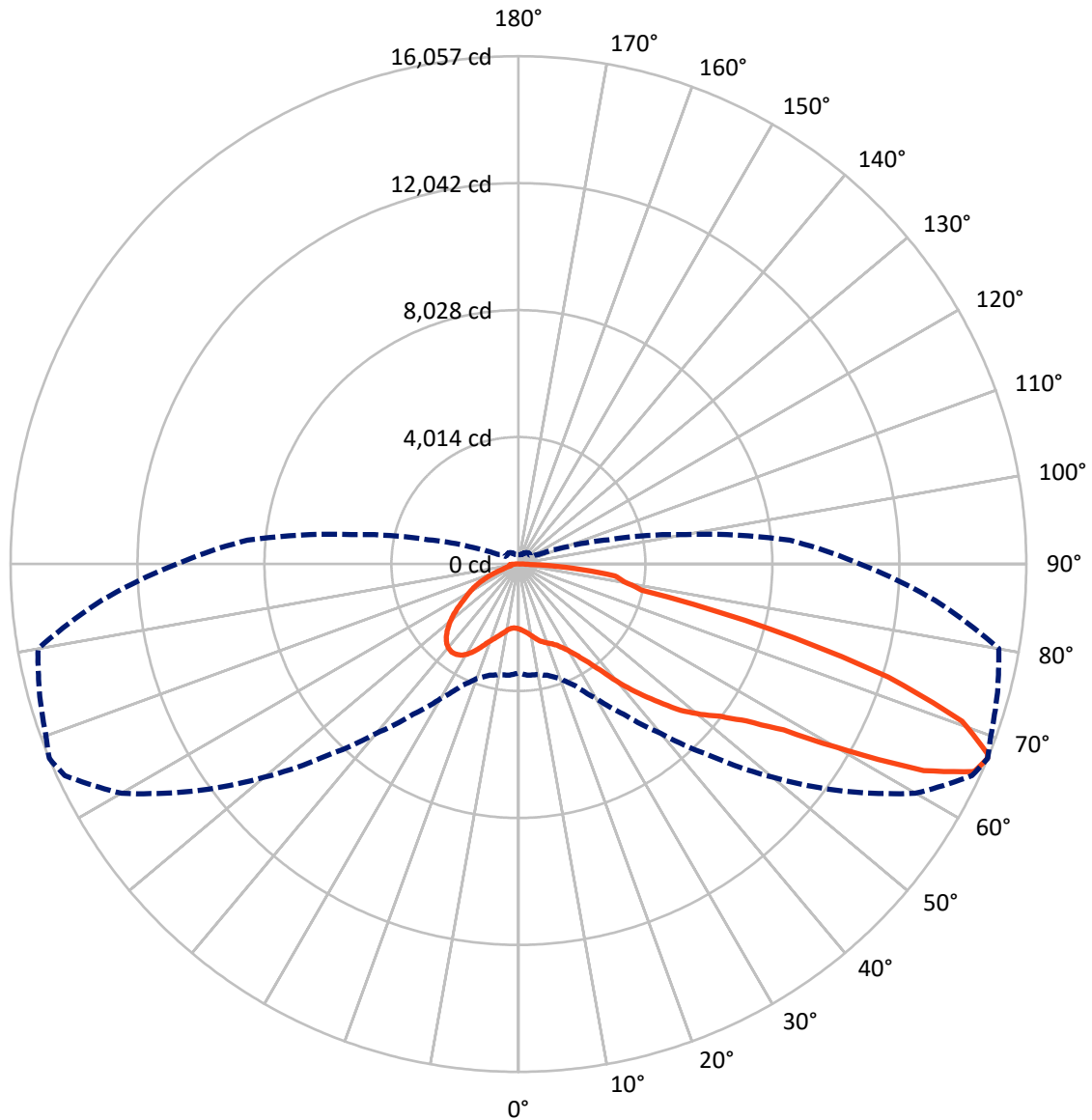
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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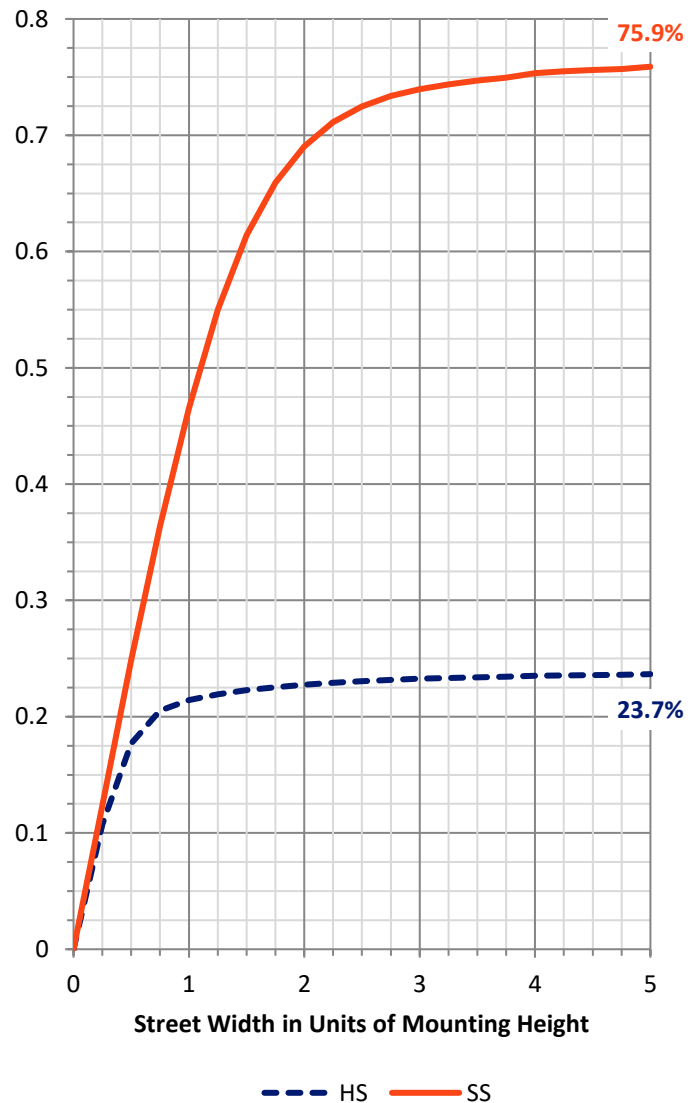
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4538.4	0.0	4538.4
	% Fixture	24.0	0.0	24.0
<b>Street Side</b>	Lumens	14379.3	0.0	14379.3
	% Fixture	76.0	0.0	76.0
<b>Total</b>	Lumens	18917.6	0.0	18917.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	203.8	1.1
10°-20°	694.3	3.7
20°-30°	1239.6	6.6
30°-40°	1816.7	9.6
40°-50°	2807.1	14.8
50°-60°	4087.6	21.6
60°-70°	5324.7	28.1
70°-80°	2383.5	12.6
80°-90°	360.4	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°	18917.6	100.0
0°-180°	18917.6	100.0



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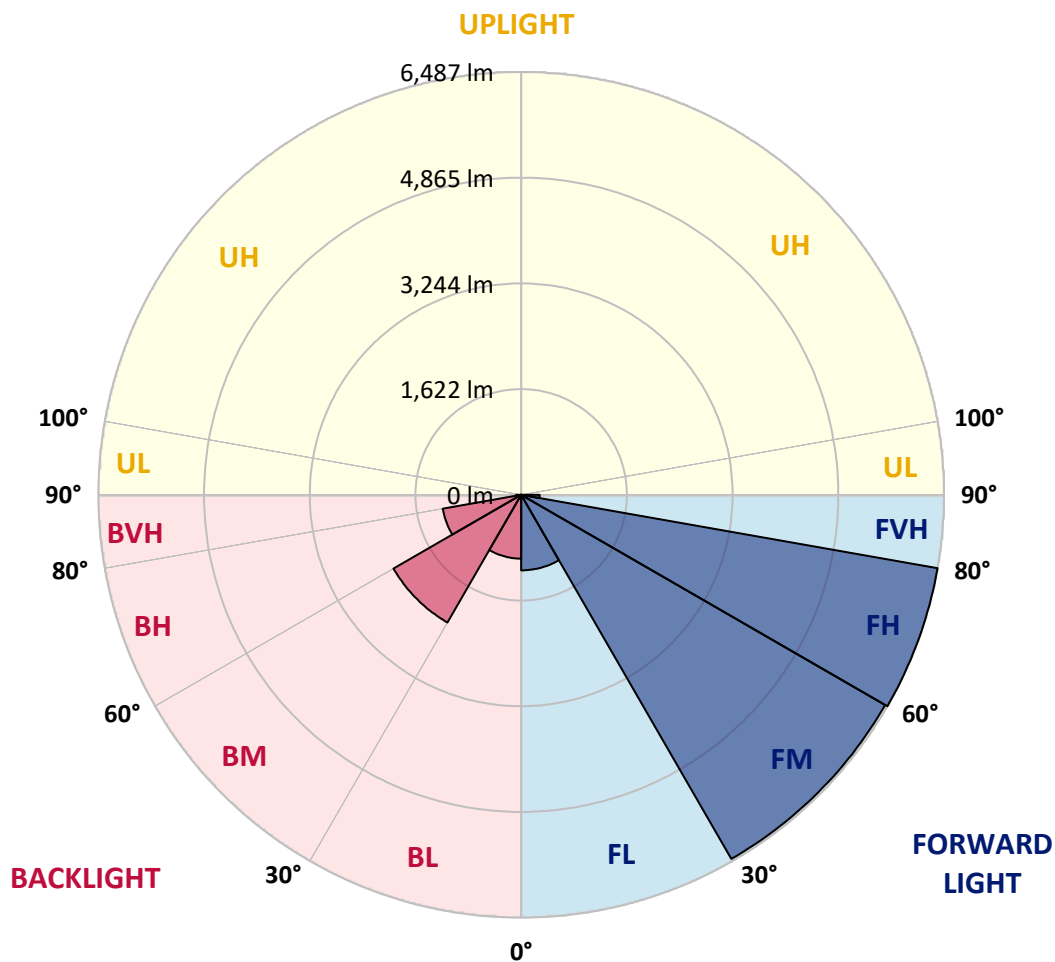
CATALOG NUMBER: VST-F09-LED-E-U-SL3-8030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1159.1	6.1			
FM	(30°-60°)	6449.9	34.1			
FH	(60°-80°)	6487.2	34.3			G3/7500
FVH	(80°-90°)	283.0	1.5			G3/500
BL	(0°-30°)	978.6	5.2	B2/1000		
BM	(30°-60°)	2261.4	12.0	B2/2500		
BH	(60°-80°)	1221.0	6.5	B3/2500		G3/2500
BVH	(80°-90°)	77.4	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°	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5
2.5°	2130.8	2135.8	2137.0	2135.8	2137.0	2132.0	2130.8	2123.2	2127.0	2117.0	2114.5
5°	2246.1	2249.9	2252.4	2242.4	2244.9	2239.9	2233.6	2226.1	2216.0	2202.2	2193.5
7.5°	2359.0	2365.3	2364.0	2360.3	2351.5	2346.5	2333.9	2322.6	2305.1	2288.8	2277.5
10°	2510.8	2509.5	2509.5	2488.2	2475.6	2464.4	2441.8	2424.2	2406.7	2382.8	2370.3
12.5°	2686.3	2677.6	2673.8	2658.7	2632.4	2612.3	2579.7	2545.9	2514.5	2489.4	2469.4
15°	2855.6	2855.6	2845.6	2821.8	2796.7	2770.4	2724.0	2675.0	2623.6	2583.5	2563.4
17.5°	3009.9	2996.1	2987.3	2956.0	2929.6	2887.0	2835.6	2782.9	2718.9	2662.5	2623.6
20°	3122.8	3111.5	3092.7	3053.8	3008.6	2958.5	2898.3	2836.8	2767.9	2706.4	2662.5
22.5°	3188.0	3174.2	3145.3	3093.9	3032.5	2962.2	2892.0	2834.3	2771.6	2725.2	2688.8
25°	3221.8	3208.0	3169.2	3101.4	3018.7	2925.9	2845.6	2789.2	2752.8	2741.5	2736.5
27.5°	3220.6	3209.3	3167.9	3090.2	2983.6	2877.0	2790.4	2742.8	2739.0	2782.9	2815.5
30°	3188.0	3180.5	3142.8	3065.1	2953.5	2841.8	2761.6	2736.5	2775.4	2868.2	2948.4
32.5°	3155.4	3151.6	3125.3	3055.0	2959.7	2865.7	2810.5	2813.0	2893.3	3036.2	3165.4
35°	3159.1	3164.2	3160.4	3122.8	3062.6	3013.7	2987.3	3042.5	3167.9	3341.0	3514.1
37.5°	3191.7	3210.6	3234.4	3238.1	3239.4	3231.9	3287.1	3403.7	3586.8	3812.5	4083.4
40°	3263.2	3284.6	3353.5	3413.7	3491.5	3584.3	3695.9	3857.7	4084.7	4363.1	4695.4
42.5°	3485.2	3515.3	3600.6	3712.2	3855.2	4000.7	4167.5	4388.2	4666.6	4960.1	5308.7
45°	3774.9	3837.6	3931.7	4055.8	4270.3	4474.7	4690.4	4937.5	5233.5	5600.9	5952.1
47.5°	4136.1	4198.8	4335.5	4468.4	4721.8	4976.4	5212.1	5470.5	5791.5	6167.8	6556.6
50°	4452.1	4523.6	4645.3	4824.6	5118.1	5430.4	5691.2	5970.9	6240.5	6636.8	7029.4
52.5°	4700.5	4751.9	4868.5	5032.8	5360.1	5702.5	6032.3	6343.4	6663.2	7059.5	7423.2
55°	4731.8	4779.5	4893.6	5081.7	5414.1	5794.1	6174.1	6542.8	6995.5	7428.2	7909.8
57.5°	4596.4	4635.2	4750.6	4918.7	5242.2	5674.9	6155.2	6628.0	7207.5	7791.9	8380.1
60°	4404.5	4443.4	4533.7	4667.8	4960.1	5426.6	5987.2	6634.3	7404.3	8248.4	9113.7
62.5°	4193.8	4227.7	4300.4	4395.7	4652.8	5083.0	5725.1	6592.9	7564.9	8702.4	10036.8
65°	3838.9	3920.4	3951.7	4049.6	4306.7	4713.0	5366.4	6313.3	7499.7	8904.3	10616.2
67°	3446.3	3529.1	3545.4	3644.5	3850.2	4240.2	4904.9	5795.3	6983.0	8555.6	10488.2
67.5°	3320.9	3391.2	3416.2	3515.3	3709.7	4077.2	4708.0	5608.4	6824.9	8365.0	10334.0
70°	2441.8	2519.5	2547.1	2588.5	2727.7	3033.7	3451.3	4232.7	5441.6	6826.2	8717.4
72.5°	1306.8	1369.5	1395.8	1457.3	1528.8	1695.6	2015.4	2576.0	3339.7	4567.5	6201.6
75°	884.2	909.2	928.1	970.7	1044.7	1177.6	1318.1	1515.0	1976.5	2577.2	3529.1
77.5°	504.2	515.4	518.0	525.5	584.4	711.1	941.8	1275.4	1635.4	1867.4	2257.4
80°	218.2	240.8	258.3	247.1	243.3	269.6	337.4	502.9	985.7	1565.1	1857.4
82.5°	117.9	127.9	143.0	144.2	151.7	160.5	174.3	206.9	291.0	586.9	1280.5
85°	61.5	64.0	85.3	97.8	104.1	109.1	111.6	124.2	143.0	181.8	318.5
87.5°	8.8	12.5	15.0	20.1	22.6	23.8	27.6	35.1	41.4	50.2	85.3
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):**

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5
2.5°	2103.2	2100.7	2093.1	2088.1	2083.1	2078.1	2071.8	2066.8	2058.0	2051.7	2044.2
5°	2180.9	2165.9	2155.8	2142.0	2139.5	2123.2	2106.9	2099.4	2084.4	2071.8	2056.8
7.5°	2259.9	2242.4	2226.1	2214.8	2208.5	2185.9	2169.6	2150.8	2133.3	2117.0	2099.4
10°	2352.7	2335.2	2317.6	2310.1	2298.8	2277.5	2263.7	2239.9	2222.3	2202.2	2178.4
12.5°	2449.3	2436.8	2424.2	2414.2	2409.2	2399.1	2379.1	2359.0	2335.2	2315.1	2287.5
15°	2534.6	2525.8	2520.8	2518.3	2518.3	2512.0	2493.2	2474.4	2449.3	2426.7	2396.6
17.5°	2594.8	2591.0	2594.8	2598.5	2603.6	2598.5	2594.8	2573.5	2557.2	2529.6	2499.5
20°	2629.9	2637.4	2656.2	2668.8	2680.1	2688.8	2692.6	2675.0	2653.7	2633.7	2613.6
22.5°	2667.5	2688.8	2721.4	2740.3	2759.1	2790.4	2798.0	2785.4	2769.1	2756.6	2735.2
25°	2730.2	2761.6	2818.0	2848.1	2874.5	2920.9	2927.1	2929.6	2925.9	2915.8	2889.5
27.5°	2828.0	2889.5	2964.7	3003.6	3032.5	3092.7	3116.5	3116.5	3106.5	3117.8	3117.8
30°	2998.6	3080.1	3178.0	3200.5	3245.7	3298.3	3337.2	3342.2	3343.5	3367.3	3402.4
32.5°	3260.7	3338.5	3447.6	3472.7	3511.5	3561.7	3605.6	3600.6	3611.9	3663.3	3709.7
35°	3642.0	3721.0	3792.5	3826.3	3843.9	3889.0	3905.3	3932.9	3966.8	4030.8	4024.5
37.5°	4206.3	4276.6	4286.6	4307.9	4286.6	4295.4	4307.9	4340.5	4430.8	4488.5	4395.7
40°	4886.1	5002.7	4991.4	4966.3	4918.7	4854.7	4877.3	4927.5	5025.3	4975.1	4725.5
42.5°	5526.9	5647.3	5624.7	5595.9	5490.6	5466.7	5464.2	5505.6	5558.3	5415.3	4983.9
45°	6157.7	6280.7	6241.8	6225.5	6155.2	6103.8	6146.5	6149.0	6135.2	5829.2	5209.6
47.5°	6808.6	6921.5	6896.4	6910.2	6837.5	6803.6	6807.4	6789.8	6660.7	6180.3	5385.2
50°	7334.1	7485.9	7500.9	7469.6	7430.7	7379.3	7510.9	7463.3	7176.1	6521.4	5554.5
52.5°	7743.0	7947.4	8025.1	8005.1	7973.7	7980.0	8227.1	8281.0	7805.7	6951.6	5741.4
55°	8227.1	8549.4	8676.0	8751.3	8718.7	8844.1	9409.7	9437.3	8681.0	7513.5	5984.7
57.5°	8925.6	9387.1	9787.2	9893.8	9996.6	10404.2	11322.2	11042.6	9817.3	8363.8	6293.2
60°	9987.8	10998.7	11648.3	11989.4	12230.2	12799.6	13672.5	12963.9	11233.2	9375.8	6680.7
62.5°	11475.2	12952.6	14038.7	14381.0	14480.1	14807.4	15439.5	14083.8	12004.5	9829.8	6714.6
65°	12582.6	14354.7	15655.2	15830.8	15712.9	15719.2	15884.7	14024.9	11717.3	9433.5	6132.7
67°	12509.9	14493.9	15825.8	16056.5	15893.5	15679.1	15420.7	13226.0	10794.2	8603.3	5370.2
67.5°	12398.3	14359.7	15751.8	15995.1	15845.9	15601.3	15223.8	12916.2	10507.1	8344.9	5214.6
70°	10717.7	12665.4	14540.3	14882.7	14945.4	14722.2	13662.4	10890.8	8530.6	6788.6	4049.6
72.5°	8342.4	10076.9	11931.7	12229.0	12469.8	11826.4	9943.9	7522.2	6217.9	4892.3	2932.1
75°	5508.1	7272.7	8208.2	8252.1	7944.9	6753.5	4858.5	3767.4	3467.7	2875.7	1814.7
77.5°	2947.2	4276.6	4302.9	3984.4	3838.9	2861.9	1161.3	640.9	713.6	810.2	722.4
80°	2198.5	2724.0	3156.6	3393.7	3463.9	2454.3	600.7	339.9	297.2	270.9	267.1
82.5°	1982.8	2631.2	2949.7	3078.9	3046.3	2019.1	337.4	228.3	189.4	205.7	234.5
85°	777.6	1404.6	1847.3	1788.4	1502.4	752.5	184.4	122.9	122.9	178.1	230.8
87.5°	159.3	288.4	391.3	373.7	336.1	145.5	90.3	74.0	75.2	144.2	218.2
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5	2050.5
2.5°	2036.7	2029.2	2024.2	2019.1	2014.1	2011.6	2007.9	2007.9	2000.3	1997.8	1995.3
5°	2045.5	2032.9	2024.2	2012.9	2004.1	1996.6	1986.5	1984.0	1975.2	1969.0	1966.5
7.5°	2083.1	2064.3	2045.5	2031.7	2019.1	2002.8	1991.5	1981.5	1972.7	1966.5	1958.9
10°	2154.6	2134.5	2108.2	2083.1	2066.8	2041.7	2024.2	2006.6	1996.6	1989.0	1979.0
12.5°	2259.9	2231.1	2199.7	2169.6	2142.0	2109.4	2091.9	2070.6	2058.0	2051.7	2044.2
15°	2367.8	2336.4	2297.6	2268.7	2237.4	2212.3	2196.0	2177.2	2167.1	2159.6	2154.6
17.5°	2478.1	2441.8	2414.2	2385.3	2370.3	2351.5	2330.2	2306.3	2277.5	2259.9	2236.1
20°	2591.0	2563.4	2547.1	2530.8	2513.3	2486.9	2444.3	2395.4	2341.4	2290.0	2241.1
22.5°	2722.7	2706.4	2703.9	2688.8	2652.5	2589.8	2510.8	2419.2	2327.7	2242.4	2175.9
25°	2908.3	2908.3	2895.8	2834.3	2749.0	2636.2	2503.2	2371.5	2249.9	2133.3	2045.5
27.5°	3141.6	3132.8	3071.3	2944.7	2791.7	2616.1	2438.0	2271.2	2115.7	1987.8	1874.9
30°	3398.7	3337.2	3205.5	3006.1	2776.6	2550.9	2332.7	2139.5	1956.4	1799.7	1666.7
32.5°	3665.8	3516.6	3279.5	3006.1	2724.0	2453.1	2201.0	1964.0	1754.5	1578.9	1420.9
35°	3907.9	3635.7	3297.1	2957.2	2621.1	2308.8	2016.6	1748.2	1497.4	1308.1	1135.0
37.5°	4127.3	3714.7	3278.3	2861.9	2471.9	2105.7	1763.3	1467.3	1183.9	1000.8	852.8
40°	4270.3	3731.0	3200.5	2712.7	2258.7	1831.0	1452.3	1121.2	896.7	729.9	630.8
42.5°	4359.3	3699.7	3075.1	2508.2	1971.5	1486.1	1089.8	803.9	637.1	544.3	506.7
45°	4409.5	3618.1	2889.5	2228.6	1624.1	1130.0	773.8	580.7	490.4	457.8	445.2
47.5°	4407.0	3486.5	2657.5	1905.0	1240.3	787.6	548.1	452.7	427.7	417.6	415.1
50°	4380.7	3324.7	2385.3	1553.9	895.4	549.3	433.9	406.3	400.1	393.8	391.3
52.5°	4344.3	3124.0	2084.4	1211.5	635.8	438.9	393.8	386.3	381.3	375.0	372.5
55°	4276.6	2877.0	1758.3	911.7	497.9	396.3	380.0	377.5	371.2	362.4	357.4
57.5°	4193.8	2626.1	1446.0	712.3	440.2	386.3	377.5	373.7	365.0	354.9	344.9
60°	4163.7	2419.2	1201.5	600.7	426.4	390.0	383.8	378.7	366.2	351.2	339.9
62.5°	3975.6	2185.9	1025.9	556.8	433.9	406.3	403.8	396.3	377.5	359.9	342.4
65°	3489.0	1848.6	869.1	526.7	449.0	433.9	436.4	425.1	406.3	382.5	351.2
67°	2951.0	1507.5	723.6	497.9	460.3	462.8	471.6	462.8	438.9	405.1	362.4
67.5°	2808.0	1420.9	687.3	489.1	462.8	470.3	480.3	474.1	450.2	411.4	367.5
70°	2086.9	1000.8	512.9	442.7	462.8	492.9	515.4	521.7	495.4	441.5	377.5
72.5°	1469.8	645.9	393.8	383.8	420.1	460.3	502.9	524.2	494.1	435.2	363.7
75°	882.9	403.8	319.8	326.1	353.7	395.0	428.9	437.7	400.1	362.4	314.8
77.5°	408.8	268.4	250.8	259.6	285.9	304.8	304.8	287.2	258.3	235.8	225.7
80°	240.8	219.5	218.2	234.5	252.1	238.3	217.0	193.1	178.1	170.6	166.8
82.5°	225.7	234.5	249.6	253.3	239.5	205.7	179.3	155.5	148.0	144.2	140.5
85°	265.9	284.7	259.6	239.5	211.9	173.1	140.5	120.4	116.6	112.9	107.9
87.5°	245.8	234.5	204.4	175.6	145.5	105.3	76.5	69.0	74.0	72.7	70.2
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):**

	160°	165°	170°	175°	180°
0°	2050.5	2050.5	2050.5	2050.5	2050.5
2.5°	1996.6	1996.6	1991.5	1989.0	1995.3
5°	1961.4	1962.7	1958.9	1957.7	1958.9
7.5°	1953.9	1952.7	1950.2	1947.7	1950.2
10°	1976.5	1975.2	1971.5	1974.0	1970.2
12.5°	2044.2	2051.7	2050.5	2053.0	2058.0
15°	2154.6	2153.3	2149.6	2152.1	2155.8
17.5°	2217.3	2207.3	2198.5	2194.7	2194.7
20°	2202.2	2173.4	2158.3	2149.6	2147.1
22.5°	2113.2	2071.8	2040.5	2032.9	2026.7
25°	1967.7	1916.3	1876.2	1867.4	1851.1
27.5°	1798.4	1729.4	1681.8	1671.7	1663.0
30°	1576.4	1497.4	1442.2	1407.1	1418.4
32.5°	1305.5	1230.3	1166.3	1109.9	1101.1
35°	1008.3	925.5	869.1	844.0	827.7
37.5°	752.5	683.5	645.9	622.0	623.3
40°	575.6	539.3	519.2	502.9	504.2
42.5°	480.3	464.0	459.0	451.5	447.7
45°	435.2	430.2	431.4	423.9	421.4
47.5°	410.1	406.3	407.6	402.6	401.3
50°	390.0	387.5	388.8	385.0	383.8
52.5°	370.0	371.2	370.0	367.5	367.5
55°	352.4	351.2	353.7	349.9	349.9
57.5°	338.6	337.4	337.4	336.1	336.1
60°	331.1	326.1	324.8	324.8	326.1
62.5°	327.3	318.5	317.3	317.3	318.5
65°	328.6	314.8	309.8	308.5	307.3
67°	329.8	309.8	299.7	294.7	293.5
67.5°	331.1	307.3	296.0	291.0	288.4
70°	323.6	289.7	273.4	264.6	262.1
72.5°	304.8	268.4	248.3	237.0	234.5
75°	270.9	243.3	225.7	213.2	208.2
77.5°	209.4	196.9	190.6	183.1	180.6
80°	163.0	156.8	154.3	149.2	148.0
82.5°	135.4	129.2	125.4	119.1	115.4
85°	105.3	97.8	95.3	90.3	87.8
87.5°	69.0	65.2	64.0	57.7	55.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)