

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: P158669

Luminaire Tested: **VST-E05-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P158669  
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-SL4-7030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (105) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13247.8 lumens  
Efficiency: N/A  
Efficacy: 104.1 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

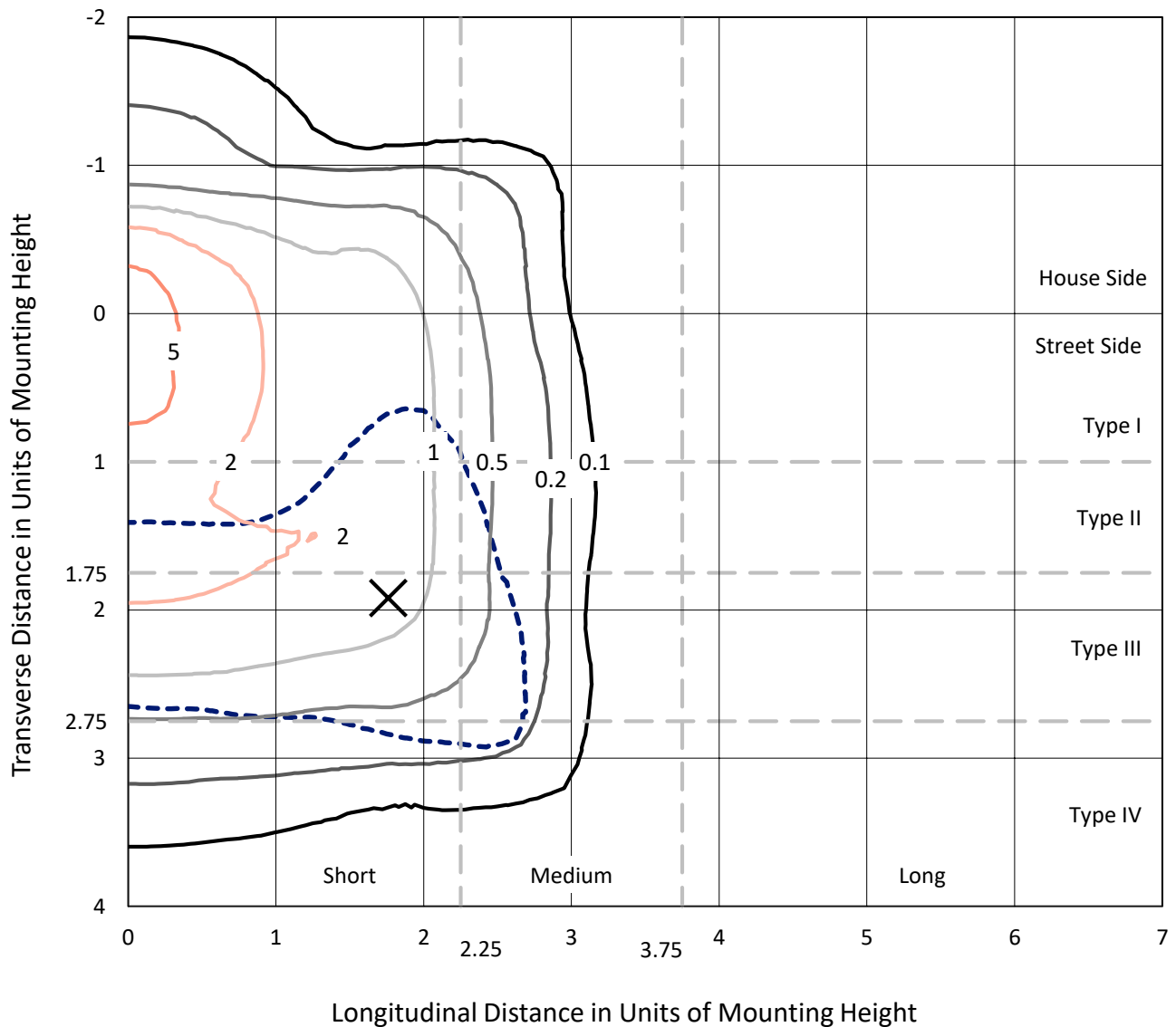
Input Watts (W): 127.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

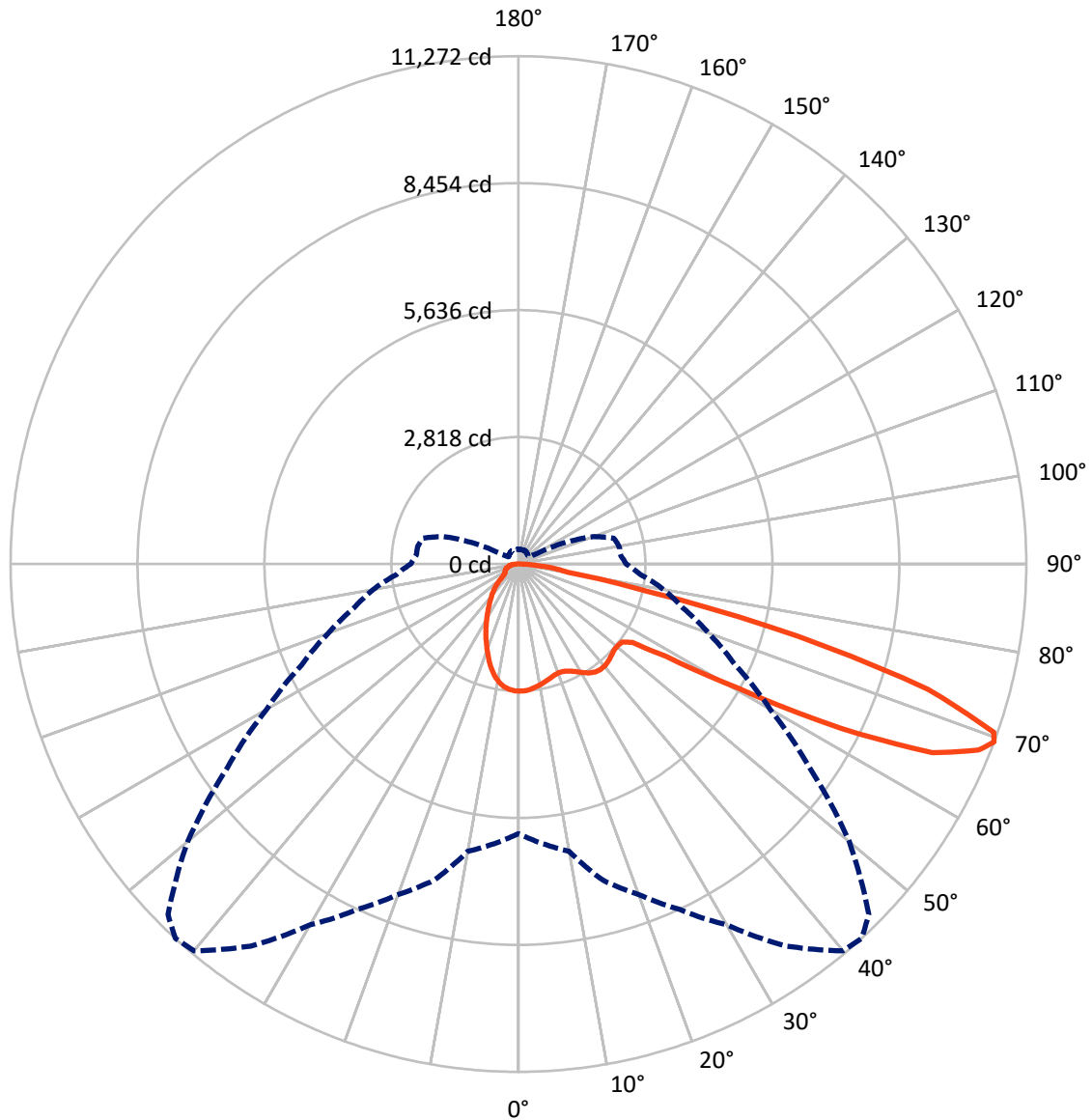
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.1 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
<b>House Side</b>	Lumens	2945.2	0.0	2945.2
	% Fixture	22.2	0.0	22.2
<b>Street Side</b>	Lumens	10302.6	0.0	10302.6
	% Fixture	77.8	0.0	77.8
<b>Total</b>	Lumens	13247.8	0.0	13247.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	262.6	2.0
10°-20°	707.8	5.3
20°-30°	1032.2	7.8
30°-40°	1315.8	9.9
40°-50°	1531.0	11.6
50°-60°	2329.4	17.6
60°-70°	4114.7	31.1
70°-80°	1698.0	12.8
80°-90°	256.4	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°	13247.8	100.0
0°-180°	13247.8	100.0



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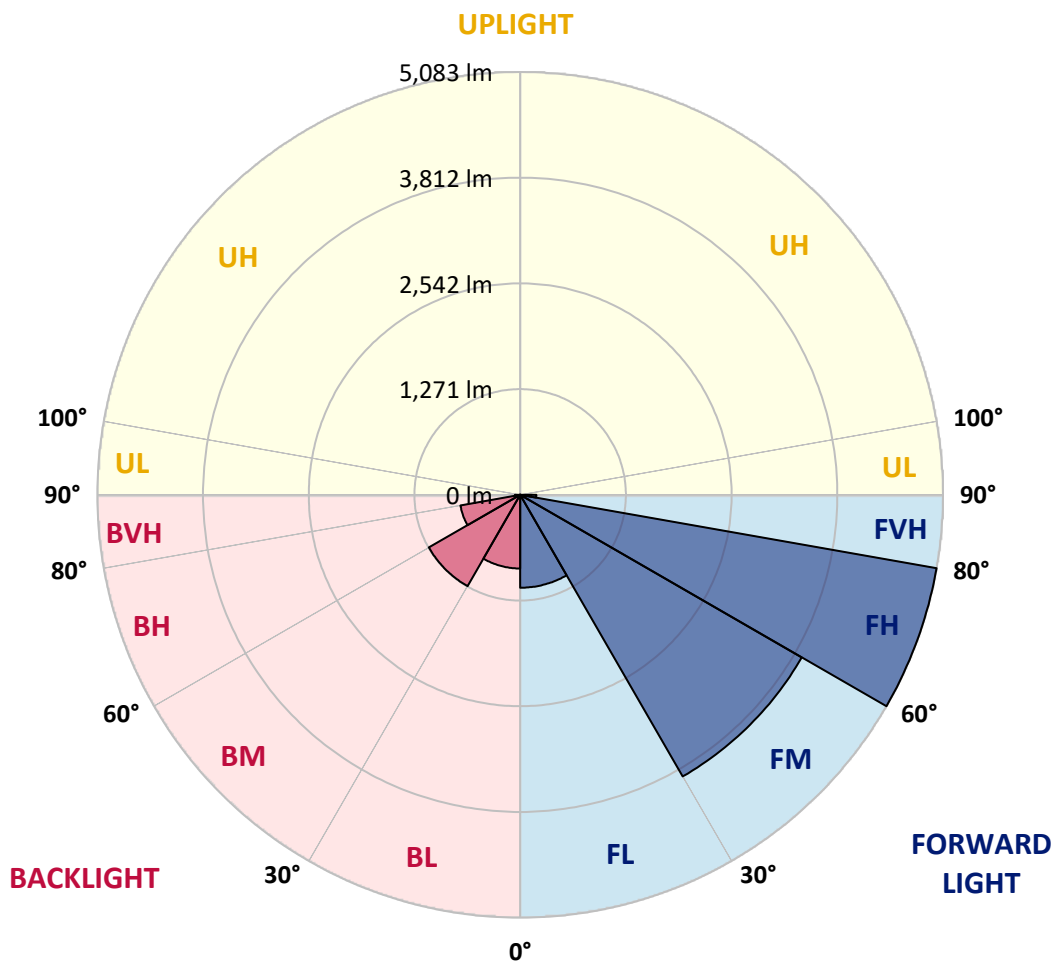
CATALOG NUMBER: VST-E05-LED-E-U-SL4-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1117.1	8.4			
FM	(30°-60°)	3908.5	29.5			
FH	(60°-80°)	5083.2	38.4			G3/7500
FVH	(80°-90°)	193.9	1.5			G2/225
BL	(0°-30°)	885.5	6.7	B2/1000		
BM	(30°-60°)	1267.7	9.6	B2/2500		
BH	(60°-80°)	729.5	5.5	B2/1000		G2/1000
BVH	(80°-90°)	62.5	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°	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3
2.5°	2812.2	2822.3	2818.6	2818.6	2821.3	2816.8	2816.8	2818.6	2814.0	2816.8	2815.9
5°	2802.2	2807.6	2805.8	2805.8	2805.8	2802.2	2800.3	2799.4	2793.0	2793.0	2790.3
7.5°	2780.2	2782.1	2784.8	2781.2	2780.2	2779.3	2772.9	2769.3	2762.0	2755.6	2757.4
10°	2751.0	2750.1	2754.7	2751.9	2748.3	2745.5	2740.1	2733.7	2725.4	2717.2	2716.3
12.5°	2718.1	2717.2	2720.9	2719.0	2716.3	2710.8	2706.3	2695.3	2682.5	2672.5	2671.5
15°	2697.1	2694.4	2698.0	2694.4	2689.8	2684.3	2676.1	2662.4	2639.6	2629.5	2621.3
17.5°	2717.2	2712.7	2714.5	2709.9	2703.5	2688.9	2669.7	2640.5	2607.6	2590.3	2577.5
20°	2787.5	2779.3	2781.2	2776.6	2762.0	2742.8	2706.3	2655.1	2599.4	2571.1	2551.0
22.5°	2888.0	2881.6	2884.4	2879.8	2865.2	2836.0	2781.2	2708.1	2628.6	2587.5	2555.6
25°	3040.5	3046.0	3047.9	3026.8	3018.6	2964.7	2888.9	2787.5	2681.6	2633.2	2589.3
27.5°	3212.3	3212.3	3220.5	3212.3	3195.8	3132.8	3025.9	2903.5	2767.5	2701.7	2648.7
30°	3379.4	3377.6	3393.1	3391.3	3364.8	3293.5	3172.1	3023.2	2867.9	2793.9	2726.4
32.5°	3556.6	3562.1	3572.1	3568.5	3533.8	3435.1	3289.0	3127.3	2963.8	2882.5	2806.7
35°	3748.4	3751.1	3754.8	3753.0	3682.6	3558.4	3374.8	3194.0	3024.1	2943.7	2865.2
37.5°	3940.2	3937.5	3932.9	3893.6	3813.2	3640.6	3426.9	3232.3	3054.2	2967.5	2886.2
40°	4111.9	4096.4	4081.8	4020.6	3897.3	3687.2	3447.0	3241.5	3051.5	2962.0	2882.5
42.5°	4206.0	4188.6	4158.5	4081.8	3932.0	3691.8	3433.3	3214.1	3023.2	2934.6	2856.0
45°	4223.3	4210.5	4181.3	4095.5	3923.8	3662.5	3391.3	3169.3	2981.2	2892.6	2818.6
47.5°	4182.2	4172.2	4143.9	4058.9	3888.1	3618.7	3342.9	3121.8	2940.1	2857.0	2785.7
50°	4119.2	4110.1	4088.2	4010.5	3847.9	3588.6	3318.2	3097.2	2926.4	2850.6	2784.8
52.5°	4221.5	4228.8	4164.9	4079.9	3890.9	3615.0	3345.6	3122.7	2951.0	2876.1	2807.6
55°	5811.6	5801.6	5417.1	5094.7	4518.3	3995.9	3605.9	3325.5	3141.9	3067.0	3003.1
57.5°	7551.6	7516.9	7358.9	7057.5	6438.2	5611.6	4859.9	4220.6	3968.5	3860.7	3868.0
60°	8119.7	8132.5	8098.7	7991.8	7769.9	7339.7	6767.9	6287.5	5814.4	5583.3	5609.8
62.5°	8434.8	8457.6	8486.9	8463.1	8390.9	8291.4	8219.2	8263.1	8197.3	8031.1	7898.7
65°	8478.6	8525.2	8622.0	8698.7	8736.2	8830.3	9051.3	9581.0	10065.1	10097.1	9864.2
67.5°	7610.9	7739.7	7949.8	8305.1	8609.2	8943.5	9476.9	10282.5	10996.7	11020.5	10803.1
69°	5984.3	6231.8	6477.5	7271.2	7805.5	8460.4	9249.5	10350.1	11205.9	11271.7	10997.7
70°	4795.1	4942.1	5154.0	5951.4	6749.7	7584.5	8728.0	10127.2	11062.5	11194.9	10892.6
72.5°	2878.9	2935.5	3008.6	3294.5	3705.5	4448.9	5965.1	8256.7	9331.7	9508.9	9124.4
75°	1861.4	1857.8	1864.1	1943.6	1967.4	2109.8	2587.5	4248.0	6087.5	6409.0	5948.7
77.5°	1402.0	1414.8	1394.7	1402.0	1395.6	1434.0	1448.6	1520.7	2403.0	2960.2	2646.9
80°	1237.6	1244.0	1244.9	1241.2	1196.5	1192.8	1216.6	1175.5	1092.4	1108.8	1062.2
82.5°	706.0	705.1	713.3	775.4	801.0	885.0	919.7	938.9	866.8	812.9	735.2
85°	457.6	461.2	470.4	489.6	470.4	477.7	469.5	485.9	445.7	413.7	369.9
87.5°	187.2	187.2	199.1	216.5	201.9	198.2	169.9	168.1	142.5	128.8	100.5
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°	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3
2.5°	2810.4	2815.9	2813.1	2816.8	2814.0	2814.0	2810.4	2809.5	2812.2	2808.6	2809.5
5°	2785.7	2786.6	2782.1	2783.9	2778.4	2776.6	2773.8	2766.5	2771.1	2766.5	2768.4
7.5°	2750.1	2747.4	2741.0	2731.8	2725.4	2722.7	2717.2	2707.2	2709.0	2700.8	2705.3
10°	2704.4	2695.3	2684.3	2670.6	2661.5	2653.3	2641.4	2629.5	2623.1	2615.8	2614.9
12.5°	2653.3	2642.3	2627.7	2606.7	2586.6	2572.9	2554.6	2533.6	2527.2	2515.4	2509.0
15°	2597.6	2580.2	2562.9	2539.1	2517.2	2496.2	2471.5	2445.0	2427.7	2409.4	2395.7
17.5°	2547.3	2527.2	2504.4	2481.6	2457.8	2432.3	2401.2	2368.3	2342.7	2308.9	2281.5
20°	2508.1	2482.5	2459.7	2435.9	2409.4	2378.4	2340.9	2298.9	2256.0	2218.5	2186.6
22.5°	2492.5	2452.3	2424.9	2401.2	2374.7	2338.2	2292.5	2243.2	2191.1	2139.1	2097.1
25°	2505.3	2446.0	2403.0	2374.7	2351.9	2314.4	2263.3	2203.0	2142.7	2080.6	2024.0
27.5°	2542.8	2467.0	2404.9	2360.1	2333.6	2296.2	2242.3	2178.3	2107.1	2037.7	1968.3
30°	2601.2	2502.6	2424.0	2361.0	2319.9	2277.0	2220.4	2146.4	2074.2	1994.8	1918.9
32.5°	2657.8	2540.0	2446.0	2364.7	2301.6	2245.9	2182.9	2109.8	2032.2	1949.1	1870.5
35°	2698.0	2564.7	2454.2	2356.4	2273.3	2203.9	2136.3	2063.3	1987.5	1902.5	1822.1
37.5°	2717.2	2578.4	2455.1	2334.5	2235.9	2159.2	2087.0	2014.9	1943.6	1863.2	1787.4
40°	2716.3	2577.5	2442.3	2306.2	2191.1	2109.8	2038.6	1968.3	1901.6	1831.3	1762.8
42.5°	2696.2	2562.9	2424.0	2278.8	2159.2	2068.7	1994.8	1927.2	1870.5	1808.4	1750.9
45°	2665.2	2538.2	2404.9	2266.0	2150.0	2059.6	1981.1	1915.3	1865.1	1808.4	1759.1
47.5°	2641.4	2524.5	2407.6	2288.9	2178.3	2084.3	2001.2	1929.0	1886.1	1840.4	1805.7
50°	2645.1	2530.9	2416.7	2302.6	2198.4	2103.4	2023.1	1957.3	1926.3	1914.4	1906.2
52.5°	2664.2	2540.9	2444.1	2375.6	2340.0	2268.8	2221.3	2180.2	2203.0	2158.2	2105.3
55°	2909.0	2868.8	2962.9	3051.5	3163.8	3205.9	3165.7	3158.4	3194.9	3043.3	2695.3
57.5°	3920.1	4024.2	4169.4	4246.2	4339.3	4314.7	4221.5	4143.9	4052.5	3875.3	3441.5
60°	5639.9	5561.4	5495.6	5310.2	5158.6	4981.4	4784.1	4615.2	4453.5	4198.7	3729.2
62.5°	7411.8	6866.6	6410.8	5970.6	5616.2	5322.1	5036.2	4782.3	4537.5	4182.2	3677.1
65°	8944.4	7796.4	6940.5	6294.8	5776.9	5330.3	4963.1	4612.4	4301.0	3884.5	3384.9
67.5°	9633.1	8194.6	6949.7	6024.5	5307.5	4701.0	4226.1	3696.3	3347.4	3080.7	2799.4
69°	9582.0	7890.4	6453.7	5314.8	4490.9	3784.0	3274.4	2721.8	2387.5	2274.2	2267.8
70°	9339.0	7375.3	5874.7	4738.5	3795.9	3093.5	2604.9	2108.9	1797.5	1719.8	1857.8
72.5°	7624.6	5211.6	3681.7	2811.3	2161.9	1708.9	1393.8	1106.1	883.2	765.4	791.0
75°	4306.4	2413.1	1560.0	1179.1	996.5	823.8	706.9	602.8	545.3	443.0	350.7
77.5°	1565.5	1035.7	823.8	712.4	505.1	348.0	291.4	254.8	231.1	231.1	220.1
80°	990.1	780.0	544.4	372.6	275.8	240.2	210.1	184.5	169.9	166.2	169.9
82.5°	618.3	477.7	305.1	233.8	196.4	176.3	153.4	134.3	122.4	119.6	125.1
85°	305.1	236.6	185.4	165.3	155.3	144.3	127.0	108.7	105.0	112.3	131.5
87.5°	91.3	81.3	66.7	69.4	73.1	71.2	56.6	49.3	46.6	61.2	95.9
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3
2.5°	2811.3	2810.4	2812.2	2809.5	2811.3	2812.2	2810.4	2818.6	2813.1	2814.0	2817.7
5°	2770.2	2768.4	2775.7	2773.8	2777.5	2781.2	2779.3	2791.2	2786.6	2790.3	2797.6
7.5°	2701.7	2705.3	2706.3	2706.3	2713.6	2725.4	2728.2	2735.5	2735.5	2745.5	2752.8
10°	2610.4	2611.3	2616.7	2615.8	2625.0	2637.8	2639.6	2652.4	2656.9	2673.4	2683.4
12.5°	2504.4	2499.8	2498.9	2498.0	2509.9	2523.6	2525.4	2547.3	2556.5	2571.1	2587.5
15°	2385.7	2373.8	2370.1	2377.5	2374.7	2382.9	2391.2	2403.0	2415.8	2445.0	2459.7
17.5°	2269.7	2245.9	2239.5	2231.3	2223.1	2223.1	2226.7	2241.4	2267.8	2283.4	2316.3
20°	2150.9	2122.6	2099.8	2077.9	2058.7	2051.4	2052.3	2070.6	2089.7	2115.3	2146.4
22.5°	2051.4	2008.5	1969.2	1940.0	1900.7	1899.8	1894.3	1899.8	1920.8	1927.2	1944.5
25°	1965.5	1908.0	1855.0	1807.5	1769.2	1749.1	1743.6	1741.8	1731.7	1729.0	1716.2
27.5°	1898.9	1829.4	1760.9	1703.4	1655.9	1628.5	1593.8	1569.1	1533.5	1524.4	1501.5
30°	1844.1	1769.2	1694.3	1619.4	1565.5	1516.2	1457.7	1414.8	1360.0	1324.4	1293.3
32.5°	1791.1	1715.3	1639.5	1565.5	1482.4	1405.6	1328.9	1262.3	1201.1	1146.3	1100.6
35°	1747.2	1675.1	1598.4	1508.9	1402.9	1292.4	1200.1	1124.3	1040.3	982.8	925.2
37.5°	1718.9	1653.2	1576.4	1453.1	1317.1	1198.3	1093.3	1001.0	915.2	828.4	763.6
40°	1706.1	1648.6	1552.7	1402.0	1242.2	1110.6	994.6	892.3	782.7	685.0	615.6
42.5°	1705.2	1646.8	1519.8	1345.4	1180.0	1036.7	907.9	785.5	664.0	563.5	495.0
45°	1721.7	1644.0	1485.1	1297.9	1125.2	975.5	822.0	673.1	537.0	462.2	425.6
47.5°	1765.5	1648.6	1456.8	1254.0	1073.2	901.5	723.4	549.8	437.5	402.8	402.8
50°	1844.1	1675.1	1449.5	1223.0	1021.1	815.6	602.8	443.9	387.3	387.3	398.2
52.5°	1964.6	1730.8	1462.3	1201.1	956.3	702.4	474.9	382.7	371.7	381.8	396.4
55°	2242.3	1829.4	1479.6	1163.6	857.6	557.1	391.8	361.7	366.3	378.1	391.8
57.5°	2751.9	2040.4	1497.9	1081.4	698.7	429.3	355.3	353.5	361.7	372.6	384.5
60°	3087.1	2308.9	1544.5	957.2	528.8	354.4	337.0	348.0	358.0	367.2	376.3
62.5°	3087.1	2384.8	1579.2	818.4	397.3	322.4	325.2	342.5	354.4	358.9	364.4
65°	2889.8	2245.9	1461.4	666.7	323.3	304.1	314.2	331.5	342.5	346.2	350.7
67.5°	2525.4	1983.8	1231.2	502.3	288.6	288.6	301.4	314.2	323.3	330.6	337.9
69°	2195.7	1780.1	1084.1	425.6	274.9	276.7	289.5	300.5	311.5	320.6	329.7
70°	1958.2	1627.6	981.9	386.3	266.7	267.6	280.4	292.3	302.3	312.4	323.3
72.5°	1048.5	1124.3	746.2	316.9	245.7	248.4	260.3	271.3	280.4	290.4	300.5
75°	357.1	483.2	474.9	259.4	221.9	229.3	236.6	246.6	258.5	264.9	270.4
77.5°	209.2	216.5	253.0	211.0	200.0	203.7	211.9	220.1	230.2	236.6	241.1
80°	175.4	174.4	175.4	171.7	174.4	182.7	188.2	199.1	208.2	210.1	209.2
82.5°	142.5	149.8	150.7	148.9	157.1	163.5	168.1	174.4	173.5	175.4	179.0
85°	127.0	126.0	132.4	133.3	133.3	128.8	129.7	129.7	129.7	132.4	133.3
87.5°	127.0	105.9	82.2	74.0	77.6	73.1	69.4	68.5	75.8	83.1	81.3
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°	2821.3	2821.3	2821.3	2821.3	2821.3
2.5°	2819.5	2822.3	2820.4	2820.4	2822.3
5°	2800.3	2804.9	2803.1	2804.9	2804.9
7.5°	2756.5	2762.9	2767.5	2772.0	2769.3
10°	2693.5	2704.4	2711.7	2717.2	2714.5
12.5°	2599.4	2609.4	2625.0	2634.1	2626.8
15°	2470.6	2498.9	2508.1	2520.8	2513.5
17.5°	2336.4	2353.7	2364.7	2376.5	2383.8
20°	2157.3	2171.0	2185.6	2191.1	2182.9
22.5°	1941.8	1949.1	1946.3	1954.6	1938.1
25°	1705.2	1709.8	1707.1	1714.4	1700.7
27.5°	1481.5	1480.5	1481.5	1472.3	1463.2
30°	1265.9	1257.7	1254.0	1240.3	1237.6
32.5°	1073.2	1044.9	1030.3	1010.2	1005.6
35°	880.5	840.3	813.8	791.0	780.9
37.5°	707.8	659.4	628.4	608.3	605.6
40°	559.9	515.1	493.2	482.2	480.4
42.5°	456.7	437.5	432.0	432.0	432.0
45°	416.5	415.6	420.1	423.8	424.7
47.5°	408.3	413.7	420.1	425.6	427.4
50°	408.3	413.7	418.3	423.8	425.6
52.5°	406.4	411.0	412.8	416.5	418.3
55°	401.0	403.7	403.7	405.5	407.4
57.5°	391.8	393.7	390.9	392.7	397.3
60°	382.7	384.5	380.0	384.5	387.3
62.5°	372.6	373.6	371.7	375.4	375.4
65°	356.2	354.4	357.1	359.9	360.8
67.5°	339.8	335.2	337.9	338.9	340.7
69°	327.0	324.2	325.2	327.0	328.8
70°	317.8	316.0	317.8	320.6	323.3
72.5°	295.0	295.9	302.3	307.8	313.3
75°	274.0	280.4	288.6	300.5	306.9
77.5°	248.4	253.0	259.4	272.2	284.1
80°	214.6	217.4	218.3	222.9	221.9
82.5°	174.4	171.7	169.9	168.1	167.1
85°	125.1	124.2	116.9	111.4	111.4
87.5°	74.9	71.2	67.6	63.0	60.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)