

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: P159603

Luminaire Tested: **VST-F10-LED-E-U-T3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159603
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F10-LED-E-U-T3-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (70) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21308.7 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 258.7
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

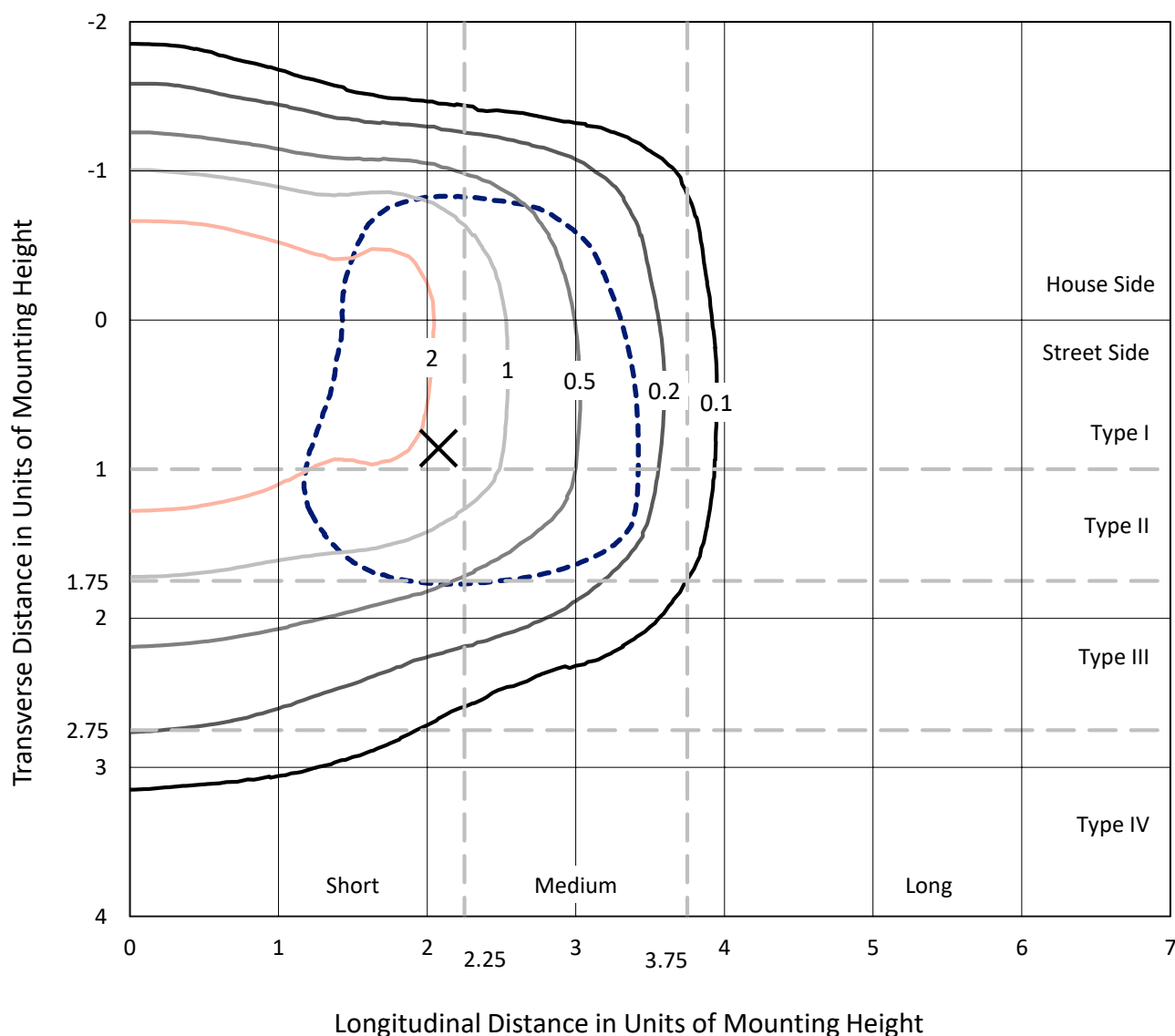


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

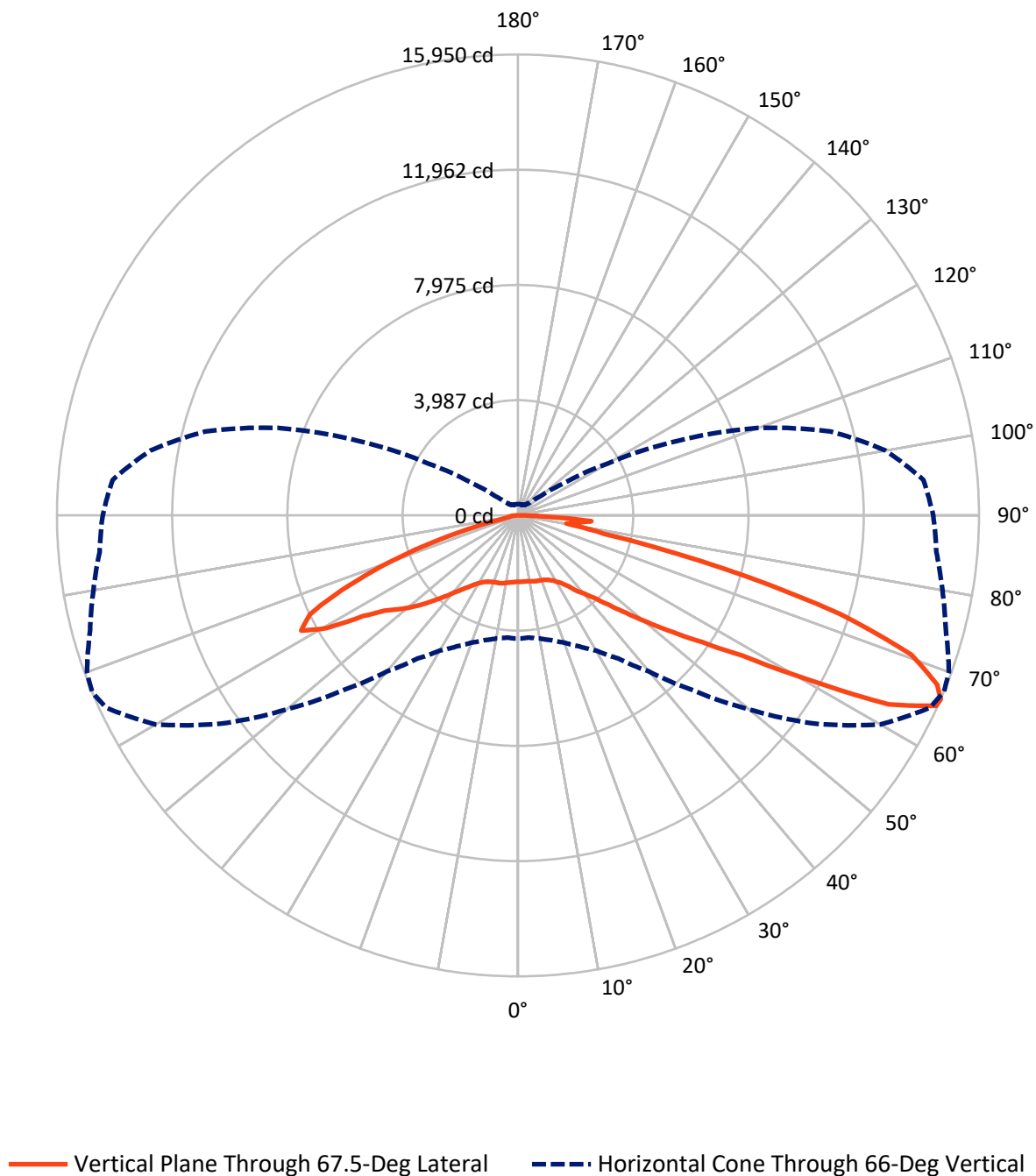


Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7373.8	0.0	7373.8
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	13934.9	0.0	13934.9
	% Fixture	65.4	0.0	65.4
Total	Lumens	21308.7	0.0	21308.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.6	1.0
10°-20°	653.3	3.1
20°-30°	1123.1	5.3
30°-40°	1815.1	8.5
40°-50°	3008.0	14.1
50°-60°	4720.8	22.2
60°-70°	6454.3	30.3
70°-80°	2838.3	13.3
80°-90°	475.1	2.2
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°	21308.7	100.0
0°-180°	21308.7	100.0

Coefficient of Utilization



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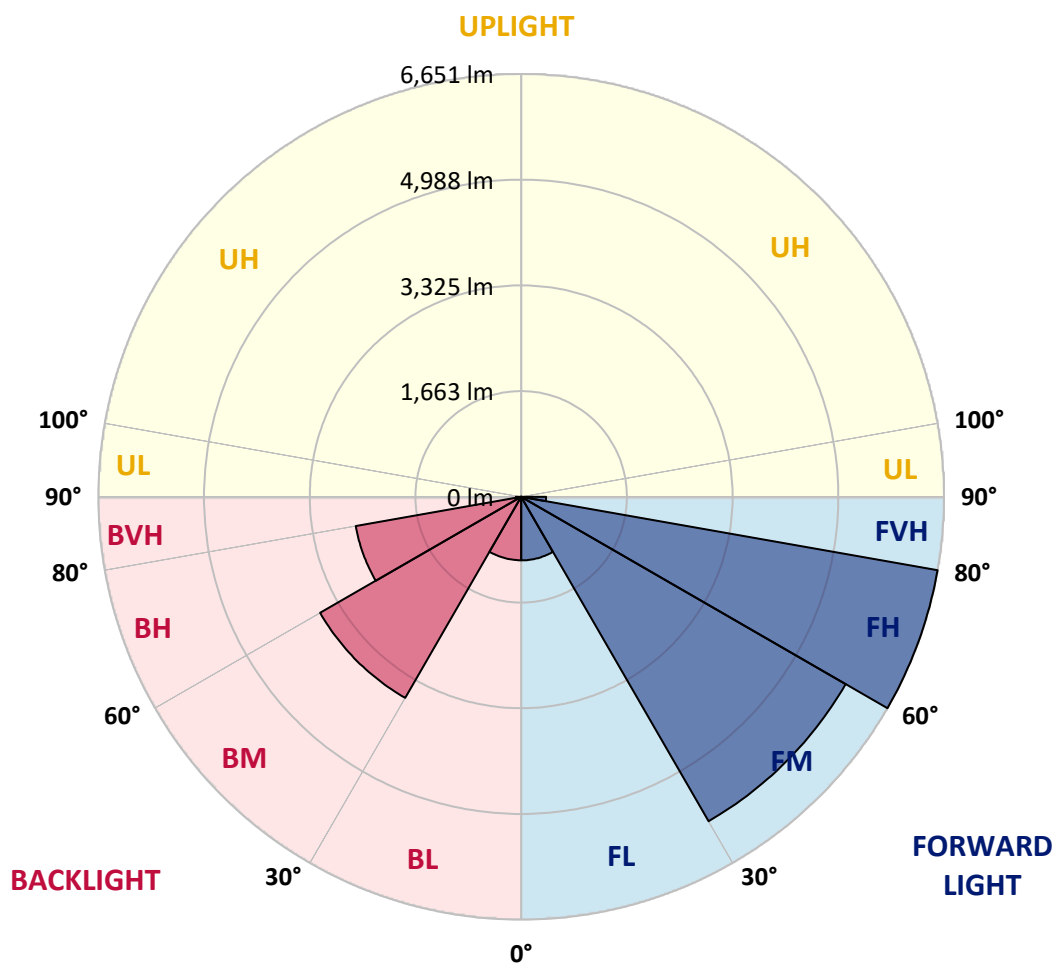
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	999.6	4.7			
FM	(30°-60°)	5892.5	27.7			
FH	(60°-80°)	6650.9	31.2			G3/7500
FVH	(80°-90°)	392.0	1.8			G3/500
BL	(0°-30°)	997.5	4.7	B2/1000		
BM	(30°-60°)	3651.5	17.1	B3/5000		
BH	(60°-80°)	2641.7	12.4	B4/5000		G4/5000
BVH	(80°-90°)	83.1	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2
2.5°	2295.0	2295.0	2296.4	2295.0	2295.0	2293.7	2299.2	2299.2	2299.2	2297.8	2302.0
5°	2289.5	2289.5	2290.9	2290.9	2292.3	2290.9	2295.0	2296.4	2296.4	2296.4	2300.6
7.5°	2275.5	2279.7	2276.9	2278.3	2279.7	2283.9	2289.5	2292.3	2295.0	2299.2	2300.6
10°	2246.3	2253.2	2251.8	2256.0	2257.4	2270.0	2274.1	2279.7	2289.5	2295.0	2299.2
12.5°	2205.9	2210.0	2211.4	2217.0	2222.6	2237.9	2249.1	2258.8	2272.8	2286.7	2300.6
15°	2173.8	2176.6	2176.6	2182.2	2190.5	2204.5	2218.4	2235.1	2256.0	2279.7	2302.0
17.5°	2183.6	2190.5	2185.0	2183.6	2186.4	2194.7	2207.3	2221.2	2246.3	2272.8	2299.2
20°	2247.7	2249.1	2246.3	2239.3	2233.7	2235.1	2235.1	2237.9	2253.2	2274.1	2295.0
22.5°	2300.6	2306.2	2304.8	2306.2	2304.8	2310.4	2307.6	2302.0	2296.4	2297.8	2307.6
25°	2346.6	2352.2	2352.2	2356.4	2363.3	2374.5	2382.8	2381.4	2373.1	2361.9	2357.8
27.5°	2421.9	2421.9	2421.9	2426.0	2435.8	2449.7	2463.7	2472.0	2479.0	2467.8	2444.1
30°	2540.3	2541.7	2537.5	2538.9	2545.9	2564.0	2580.7	2593.2	2607.2	2605.8	2575.1
32.5°	2669.9	2675.5	2674.1	2679.6	2689.4	2706.1	2724.2	2743.7	2761.9	2773.0	2753.5
35°	2837.1	2842.7	2844.1	2852.4	2863.6	2888.7	2913.7	2938.8	2958.3	2966.7	2962.5
37.5°	3111.6	3113.0	3107.4	3094.9	3099.1	3118.6	3147.9	3188.3	3200.8	3209.2	3228.7
40°	3522.7	3518.5	3496.2	3485.1	3478.1	3486.5	3480.9	3512.9	3542.2	3543.6	3542.2
42.5°	4021.6	4009.0	3988.1	3985.3	3982.5	3979.8	3964.4	3965.8	3992.3	3999.3	3990.9
45°	4517.6	4502.3	4487.0	4500.9	4484.2	4527.4	4539.9	4573.4	4577.6	4591.5	4570.6
47.5°	4924.5	4925.9	4925.9	4945.4	4978.9	5061.1	5134.9	5199.0	5222.7	5256.2	5260.4
50°	5232.5	5240.8	5267.3	5330.0	5401.1	5539.0	5663.1	5778.7	5883.2	5922.3	6025.4
52.5°	5412.2	5434.5	5490.3	5594.8	5721.6	5900.0	6095.0	6291.5	6472.7	6626.0	6748.6
55°	5380.2	5396.9	5494.5	5657.5	5855.4	6095.0	6368.2	6652.4	6935.3	7194.5	7395.2
57.5°	5174.0	5185.1	5282.6	5466.6	5713.2	6035.1	6421.1	6843.3	7240.5	7658.5	8001.3
60°	4903.6	4920.3	5010.9	5155.8	5413.6	5756.4	6203.7	6776.4	7410.5	8068.2	8709.2
62.5°	4730.8	4726.7	4806.1	4935.7	5129.4	5440.1	5870.7	6549.3	7427.2	8539.2	9805.9
65°	4443.8	4431.2	4513.5	4661.2	4871.6	5172.6	5580.9	6233.0	7251.6	8717.6	10513.7
66°	4265.4	4240.3	4322.5	4471.6	4682.1	5002.6	5394.1	6037.9	7038.4	8543.4	10438.5
67.5°	3953.3	3940.7	3979.8	4096.8	4252.9	4553.9	4962.2	5610.1	6534.0	8019.4	9886.7
70°	3213.3	3185.5	3216.1	3269.1	3329.0	3402.9	3653.7	4167.9	4949.6	6389.1	7965.1
72.5°	2189.1	2175.2	2232.3	2313.2	2473.4	2548.7	2647.6	2731.2	3007.1	4027.1	5555.8
75°	1665.2	1673.6	1746.0	1879.8	2086.0	2309.0	2526.4	2605.8	2513.8	2434.4	3153.4
77.5°	933.6	982.4	1070.2	1240.2	1459.0	1773.9	2152.9	2571.0	2780.0	2728.4	2551.4
80°	384.6	377.6	420.8	514.2	589.4	847.2	1295.9	1819.9	2407.9	2780.0	2721.4
82.5°	107.3	110.1	142.1	182.5	235.5	299.6	468.2	752.5	1226.3	1907.7	2497.1
85°	33.4	33.4	46.0	68.3	80.8	93.4	118.4	195.1	333.0	664.7	1347.5
87.5°	7.0	7.0	9.8	19.5	20.9	20.9	26.5	36.2	32.0	29.3	131.0
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2
2.5°	2297.8	2295.0	2296.4	2297.8	2296.4	2296.4	2295.0	2293.7	2295.0	2295.0	2299.2
5°	2296.4	2295.0	2296.4	2296.4	2296.4	2297.8	2297.8	2297.8	2302.0	2302.0	2309.0
7.5°	2299.2	2299.2	2302.0	2302.0	2302.0	2302.0	2303.4	2306.2	2313.2	2311.8	2324.3
10°	2304.8	2307.6	2314.6	2315.9	2315.9	2320.1	2322.9	2328.5	2335.5	2338.2	2349.4
12.5°	2311.8	2325.7	2338.2	2341.0	2345.2	2352.2	2356.4	2359.1	2371.7	2375.9	2389.8
15°	2320.1	2339.6	2355.0	2360.5	2366.1	2374.5	2380.0	2384.2	2395.4	2401.0	2417.7
17.5°	2321.5	2343.8	2361.9	2370.3	2377.3	2387.0	2395.4	2403.7	2416.3	2424.6	2441.4
20°	2320.1	2349.4	2377.3	2388.4	2395.4	2413.5	2426.0	2437.2	2452.5	2460.9	2477.6
22.5°	2335.5	2368.9	2406.5	2420.5	2431.6	2456.7	2473.4	2491.5	2511.0	2516.6	2529.2
25°	2371.7	2406.5	2453.9	2473.4	2492.9	2526.4	2550.1	2576.5	2596.0	2598.8	2603.0
27.5°	2433.0	2465.1	2522.2	2551.4	2583.5	2630.9	2665.7	2692.2	2720.1	2720.1	2717.3
30°	2557.0	2564.0	2623.9	2661.5	2708.9	2778.6	2830.1	2859.4	2880.3	2880.3	2856.6
32.5°	2717.3	2708.9	2763.3	2803.7	2869.2	2966.7	3036.4	3058.7	3081.0	3074.0	3033.6
35°	2948.6	2924.9	2955.6	3016.9	3090.7	3224.5	3297.0	3347.1	3361.1	3341.5	3277.4
37.5°	3239.8	3237.0	3252.4	3320.6	3402.9	3575.6	3649.5	3681.6	3670.4	3635.6	3522.7
40°	3547.8	3539.4	3529.7	3575.6	3667.6	3875.2	4006.2	4023.0	4007.6	3956.1	3813.9
42.5°	3958.9	3958.9	3912.9	3925.4	4002.0	4234.8	4389.4	4442.4	4443.8	4368.5	4179.0
45°	4524.6	4519.0	4438.2	4418.7	4477.2	4705.8	4905.0	4934.3	4934.3	4835.3	4627.7
47.5°	5204.6	5197.6	5118.2	5049.9	5061.1	5307.7	5473.6	5518.1	5479.1	5405.3	5158.6
50°	5971.0	5958.5	5877.7	5813.6	5785.7	6035.1	6175.9	6196.8	6139.6	6051.8	5784.3
52.5°	6748.6	6786.2	6738.8	6704.0	6713.7	6875.4	7020.3	6921.4	6892.1	6797.4	6528.4
55°	7558.2	7673.8	7778.4	7747.7	7783.9	7941.4	7969.3	7838.3	7785.3	7717.0	7417.4
57.5°	8373.4	8710.6	9053.4	9149.5	9238.7	9464.5	9432.4	9217.8	9258.2	9359.9	9022.7
60°	9511.8	10485.9	11355.4	11515.6	11792.9	11985.2	12028.4	11986.6	12174.8	12121.8	11823.6
62.5°	11260.6	12884.0	14093.6	14394.6	14673.3	14663.5	14517.2	14366.7	14552.0	14552.0	13773.1
65°	12509.2	14351.4	15645.9	15895.3	15884.2	15548.4	15202.8	14901.8	14875.3	14669.1	13530.6
66°	12567.7	14464.2	15732.3	15949.7	15866.1	15325.4	14911.5	14529.7	14366.7	14079.6	12913.3
67.5°	12041.0	14145.1	15450.8	15640.3	15420.2	14645.4	14075.5	13564.0	13327.2	12843.6	11745.6
70°	9876.9	12156.6	14055.9	14443.3	14193.9	13212.9	12432.5	11741.4	11288.5	10590.4	9798.9
72.5°	7209.8	8975.3	11032.1	11662.0	11622.9	10720.0	10091.5	9458.9	8863.9	8228.4	7650.2
75°	4686.2	5838.6	6985.5	7353.3	7176.4	6653.8	6203.7	5834.5	5270.1	4828.4	4721.1
77.5°	2675.5	3269.1	3092.1	3046.1	2824.6	2279.7	1516.1	1063.2	960.1	1198.4	1314.0
80°	2545.9	2307.6	1889.5	1704.2	1566.3	1067.4	560.2	394.4	345.6	353.9	380.4
82.5°	2870.6	2991.8	2446.9	2044.2	1779.5	1298.7	709.3	330.3	241.1	285.7	320.5
85°	2151.5	3029.4	3002.9	2544.5	2087.4	1496.6	838.9	252.2	144.9	200.7	262.0
87.5°	436.2	717.6	691.2	607.6	517.0	360.9	140.7	79.4	72.5	98.9	150.5
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2	2299.2
2.5°	2302.0	2302.0	2304.8	2309.0	2310.4	2310.4	2313.2	2310.4	2315.9	2317.3	2318.7
5°	2314.6	2318.7	2321.5	2328.5	2332.7	2335.5	2339.6	2336.9	2342.4	2343.8	2346.6
7.5°	2328.5	2335.5	2341.0	2343.8	2349.4	2349.4	2350.8	2348.0	2346.6	2342.4	2341.0
10°	2353.6	2357.8	2364.7	2361.9	2359.1	2349.4	2341.0	2328.5	2321.5	2309.0	2302.0
12.5°	2394.0	2396.8	2396.8	2384.2	2366.1	2343.8	2322.9	2302.0	2285.3	2271.4	2263.0
15°	2421.9	2427.4	2420.5	2402.3	2375.9	2345.2	2317.3	2289.5	2267.2	2249.1	2237.9
17.5°	2442.8	2441.4	2428.8	2403.7	2378.7	2352.2	2327.1	2297.8	2270.0	2243.5	2226.8
20°	2474.8	2460.9	2438.6	2412.1	2385.6	2363.3	2343.8	2315.9	2286.7	2250.5	2225.4
22.5°	2518.0	2492.9	2460.9	2433.0	2407.9	2387.0	2364.7	2341.0	2310.4	2270.0	2235.1
25°	2579.3	2536.1	2499.9	2472.0	2449.7	2426.0	2401.0	2370.3	2339.6	2297.8	2256.0
27.5°	2672.7	2608.6	2562.6	2537.5	2516.6	2484.6	2452.5	2416.3	2377.3	2334.1	2286.7
30°	2785.5	2708.9	2656.0	2633.7	2608.6	2572.3	2537.5	2487.3	2433.0	2381.4	2322.9
32.5°	2917.9	2839.9	2786.9	2770.2	2729.8	2688.0	2639.2	2572.3	2501.3	2424.6	2355.0
35°	3118.6	3019.7	2970.9	2931.9	2876.1	2826.0	2743.7	2656.0	2554.2	2452.5	2366.1
37.5°	3324.8	3224.5	3174.3	3120.0	3047.5	2955.6	2845.5	2720.1	2584.9	2459.5	2353.6
40°	3600.7	3492.0	3427.9	3344.3	3227.3	3083.8	2920.7	2749.3	2584.9	2428.8	2300.6
42.5°	3922.6	3822.3	3723.4	3585.4	3397.3	3188.3	2959.7	2739.6	2540.3	2360.5	2225.4
45°	4368.5	4197.1	4039.7	3818.1	3543.6	3249.6	2963.9	2693.6	2463.7	2264.4	2113.9
47.5°	4870.2	4648.6	4369.9	4023.0	3648.1	3273.3	2923.5	2607.2	2342.4	2126.4	1962.0
50°	5448.5	5108.5	4680.7	4186.0	3701.1	3241.2	2827.4	2462.3	2175.2	1927.2	1751.6
52.5°	6110.4	5592.0	4962.2	4301.6	3692.7	3143.7	2668.5	2271.4	1950.9	1687.5	1514.7
55°	6844.7	6118.7	5231.1	4375.5	3617.5	2954.2	2419.1	2002.4	1672.2	1413.0	1261.1
57.5°	8139.3	7042.6	5743.9	4474.4	3460.0	2667.1	2102.7	1662.4	1364.2	1144.0	999.1
60°	10544.4	8657.6	6715.1	4707.1	3223.1	2307.6	1704.2	1304.3	1054.9	894.6	787.3
62.5°	12032.6	9794.7	7188.9	4673.7	2838.5	1815.7	1265.3	967.1	770.6	664.7	597.8
65°	11680.1	9348.8	6610.6	4014.6	2208.7	1287.6	837.5	632.6	529.5	475.2	443.1
66°	11200.7	8849.9	6121.5	3595.2	1924.4	1075.8	691.2	530.9	455.7	415.3	398.5
67.5°	10196.0	7938.6	5279.9	2878.9	1442.2	801.2	510.0	416.6	370.7	349.8	338.6
70°	8533.6	6396.0	3734.5	1700.0	781.7	434.8	326.1	289.8	278.7	271.7	267.5
72.5°	6598.1	4630.5	2182.2	836.1	394.4	281.5	248.0	232.7	228.5	228.5	229.9
75°	4156.7	2661.5	976.8	402.7	267.5	227.1	211.8	204.8	206.2	207.6	206.2
77.5°	1380.9	918.3	406.9	285.7	232.7	206.2	193.7	190.9	193.7	195.1	195.1
80°	397.1	347.0	294.0	252.2	213.2	192.3	181.2	179.8	186.7	188.1	185.3
82.5°	305.2	285.7	266.2	243.9	204.8	181.2	177.0	178.4	182.5	179.8	167.2
85°	280.1	277.3	199.3	197.9	178.4	172.8	168.6	170.0	165.8	150.5	136.6
87.5°	157.5	146.3	112.9	114.3	132.4	136.6	112.9	119.8	111.5	97.5	89.2
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°	2299.2	2299.2	2299.2	2299.2	2299.2
2.5°	2321.5	2320.1	2320.1	2324.3	2318.7
5°	2348.0	2346.6	2346.6	2350.8	2346.6
7.5°	2335.5	2331.3	2328.5	2327.1	2327.1
10°	2293.7	2289.5	2281.1	2278.3	2275.5
12.5°	2250.5	2246.3	2236.5	2236.5	2233.7
15°	2224.0	2218.4	2211.4	2207.3	2204.5
17.5°	2210.0	2201.7	2193.3	2189.1	2186.4
20°	2204.5	2193.3	2183.6	2176.6	2176.6
22.5°	2205.9	2191.9	2180.8	2172.4	2169.6
25°	2219.8	2198.9	2185.0	2176.6	2173.8
27.5°	2239.3	2214.2	2196.1	2185.0	2180.8
30°	2265.8	2230.9	2205.9	2191.9	2186.4
32.5°	2283.9	2235.1	2203.1	2183.6	2176.6
35°	2282.5	2219.8	2180.8	2155.7	2147.3
37.5°	2257.4	2183.6	2132.0	2101.4	2087.4
40°	2201.7	2116.7	2062.3	2033.1	2016.4
42.5°	2120.9	2028.9	1980.1	1948.1	1930.0
45°	1994.1	1903.5	1843.6	1818.5	1794.8
47.5°	1818.5	1726.5	1675.0	1638.7	1623.4
50°	1612.2	1520.3	1465.9	1436.7	1422.7
52.5°	1386.5	1298.7	1259.7	1231.8	1212.3
55°	1152.4	1071.6	1054.9	1024.2	1006.1
57.5°	932.2	884.9	869.5	838.9	823.5
60°	728.8	713.5	696.7	677.2	668.9
62.5°	564.4	550.4	546.2	533.7	532.3
65°	430.6	432.0	429.2	426.4	423.6
66°	391.6	390.2	391.6	388.8	387.4
67.5°	333.0	338.6	342.8	341.4	341.4
70°	270.3	274.5	280.1	278.7	278.7
72.5°	231.3	238.3	241.1	239.7	239.7
75°	209.0	216.0	216.0	213.2	211.8
77.5°	195.1	197.9	195.1	192.3	189.5
80°	181.2	178.4	174.2	170.0	167.2
82.5°	157.5	150.5	146.3	139.3	139.3
85°	126.8	121.2	111.5	104.5	97.5
87.5°	82.2	79.4	72.5	54.3	43.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)