

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: P157837

Luminaire Tested: **VST-F09-LED-E-U-5XQ-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157837
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33710)
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-5XQ-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (63) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24110.3 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B5 - U2 - G4

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

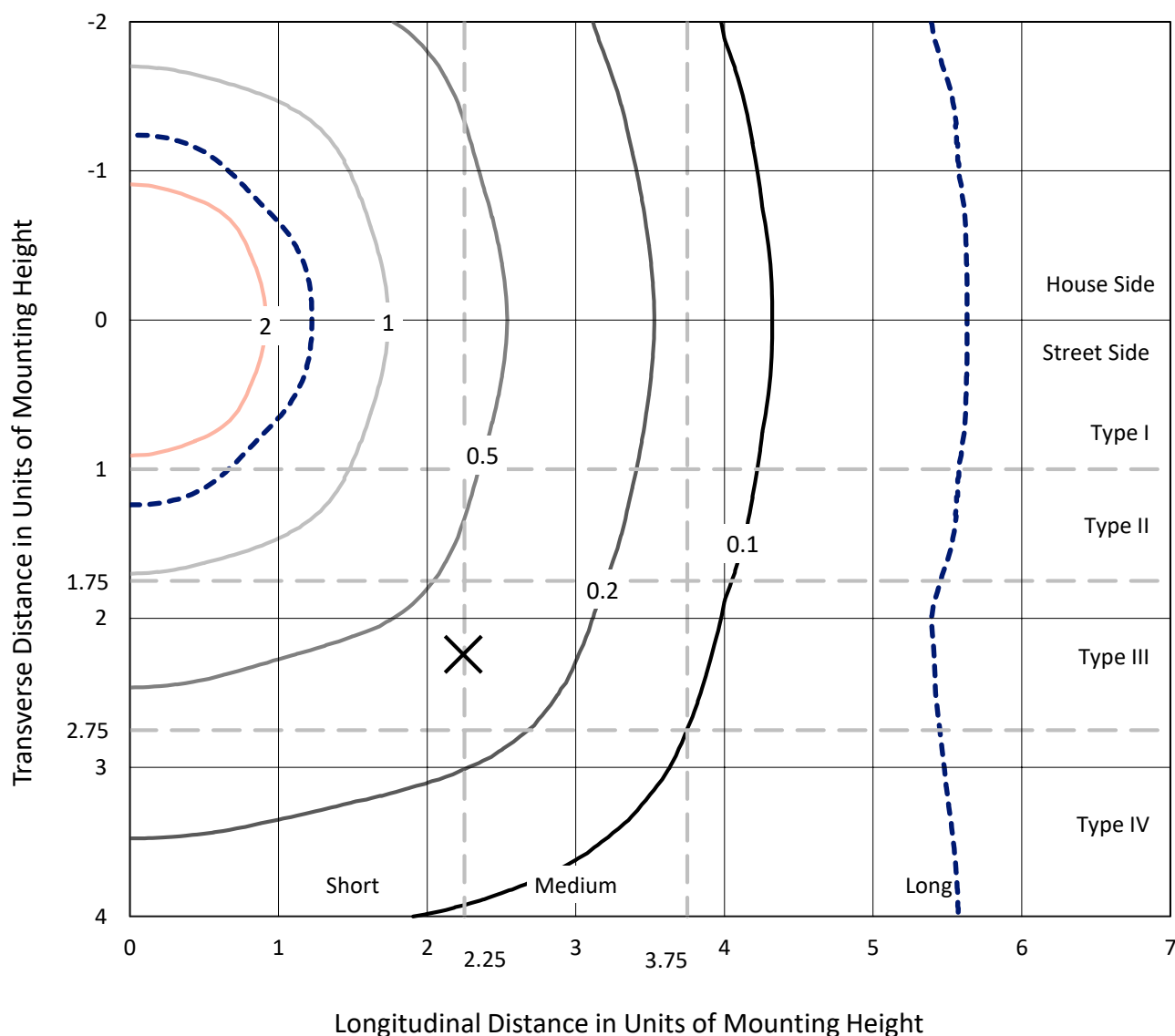


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

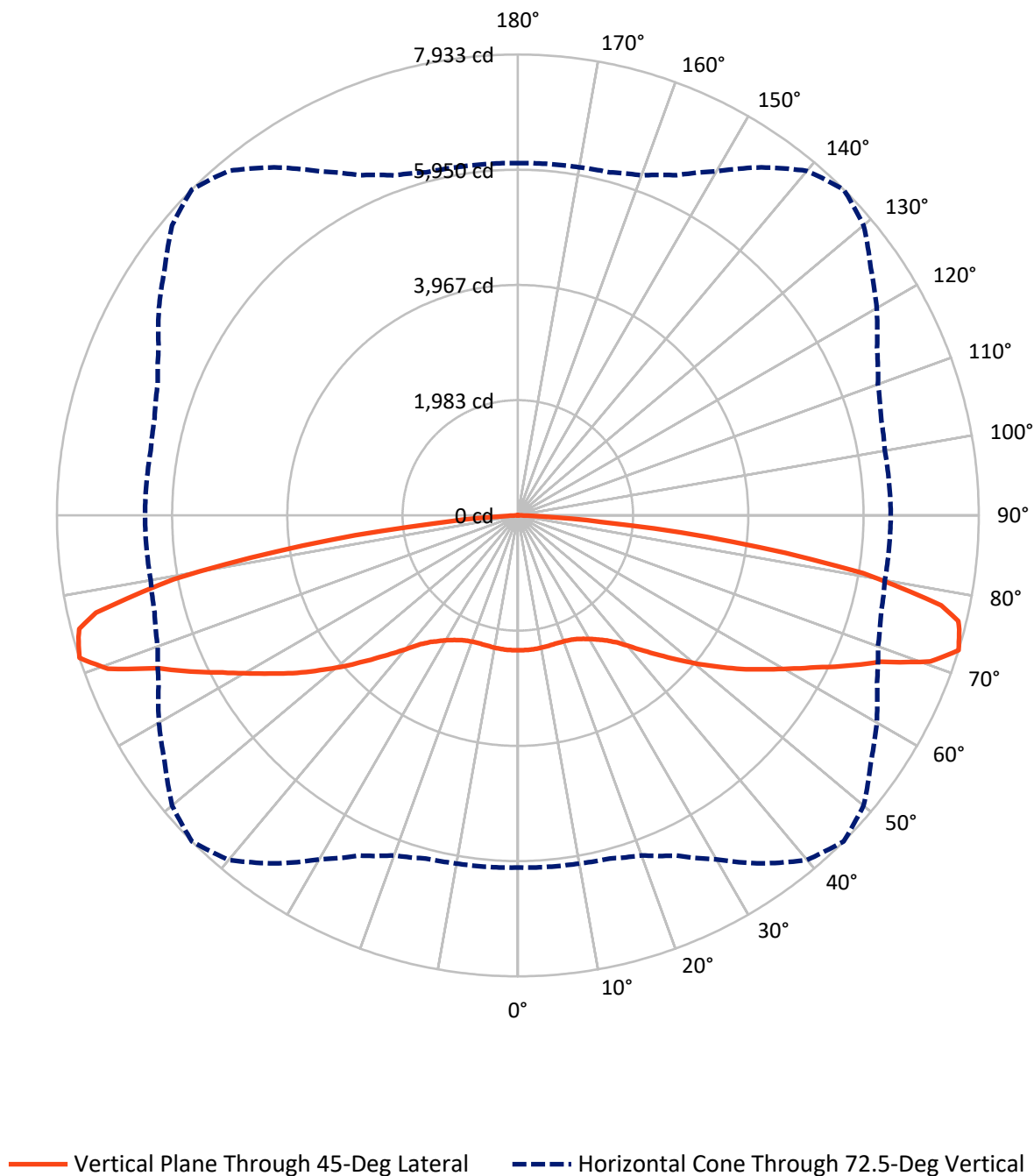


Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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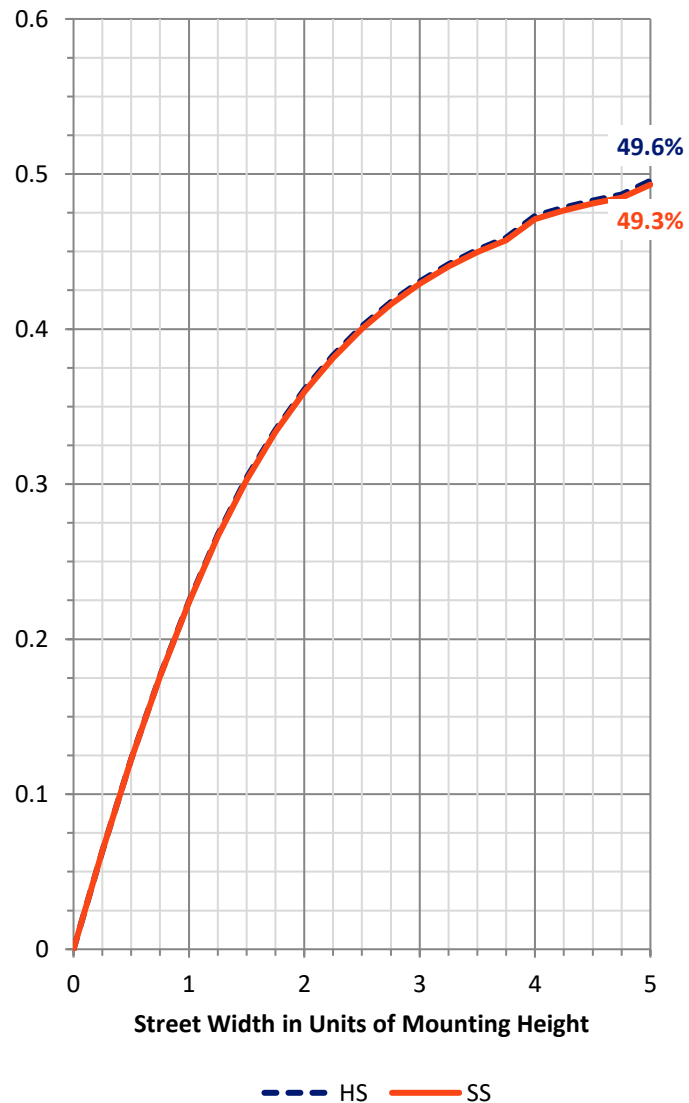
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12049.4	5.8	12055.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12049.4	5.8	12055.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	24098.8	11.6	24110.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.4	0.9
10°-20°	654.0	2.7
20°-30°	1093.5	4.5
30°-40°	1662.1	6.9
40°-50°	2632.5	10.9
50°-60°	4026.8	16.7
60°-70°	5763.0	23.9
70°-80°	6594.2	27.3
80°-90°	1451.3	6.0
90°-100°	1.2	0.0
100°-110°	2.5	0.0
110°-120°	1.7	0.0
120°-130°	1.9	0.0
130°-140°	1.7	0.0
140°-150°	1.3	0.0
150°-160°	0.9	0.0
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-90°	24098.8	100.0
0°-180°	24110.3	100.0

Coefficient of Utilization



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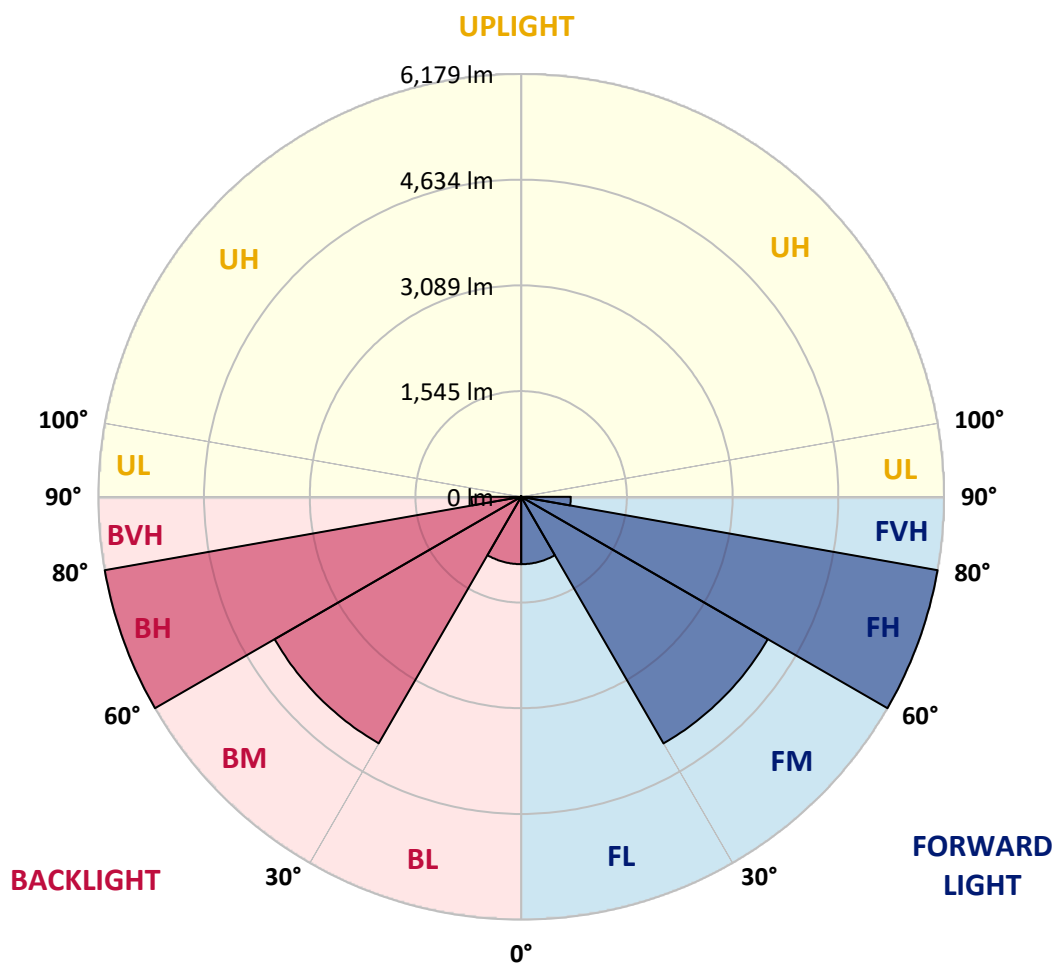
CATALOG NUMBER: VST-F09-LED-E-U-5XQ-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	984.5	4.1			
FM	(30°-60°)	4160.7	17.3			
FH	(60°-80°)	6178.6	25.6			G3/7500
FVH	(80°-90°)	725.7	3.0			G4/750
BL	(0°-30°)	984.5	4.1	B2/1000		
BM	(30°-60°)	4160.7	17.3	B3/5000		
BH	(60°-80°)	6178.6	25.6	B5		G3/7500
BVH	(80°-90°)	725.7	3.0			G4/750
UL	(90°-100°)	1.2	0.0		U1/10	
UH	(100°-180°)	5.8	0.0		U1/10	

BUG Rating: B5-U2-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2320.6	2320.6	2320.6	2320.6	2320.6	2320.6	2320.6	2320.6	2320.6	2320.6	2320.6
2.5°	2322.2	2319.1	2320.6	2323.7	2322.2	2322.2	2320.6	2320.6	2323.7	2320.6	2322.2
5°	2323.7	2320.6	2322.2	2323.7	2322.2	2323.7	2322.2	2322.2	2322.2	2320.6	2323.7
7.5°	2317.6	2317.6	2319.1	2319.1	2317.6	2319.1	2319.1	2319.1	2317.6	2317.6	2320.6
10°	2314.5	2313.0	2313.0	2314.5	2313.0	2313.0	2314.5	2314.5	2311.5	2311.5	2314.5
12.5°	2310.0	2308.5	2308.5	2308.5	2306.9	2306.9	2308.5	2308.5	2306.9	2305.4	2310.0
15°	2306.9	2305.4	2305.4	2305.4	2302.4	2303.9	2303.9	2303.9	2302.4	2300.8	2305.4
17.5°	2305.4	2303.9	2303.9	2303.9	2302.4	2302.4	2302.4	2302.4	2300.8	2300.8	2303.9
20°	2308.5	2308.5	2308.5	2308.5	2306.9	2306.9	2306.9	2308.5	2308.5	2308.5	2311.5
22.5°	2316.1	2316.1	2317.6	2319.1	2319.1	2322.2	2323.7	2325.2	2325.2	2326.7	2329.8
25°	2335.9	2335.9	2337.4	2338.9	2343.5	2346.6	2352.7	2355.7	2357.2	2357.2	2358.8
27.5°	2372.5	2374.0	2377.1	2380.1	2386.2	2390.8	2396.9	2403.0	2404.5	2406.0	2407.6
30°	2418.2	2419.8	2425.9	2428.9	2436.5	2445.7	2453.3	2459.4	2464.0	2467.0	2465.5
32.5°	2483.8	2486.8	2494.5	2499.0	2509.7	2518.9	2529.5	2538.7	2543.3	2547.8	2546.3
35°	2575.3	2582.9	2590.5	2595.1	2605.8	2613.4	2627.1	2636.3	2645.4	2642.4	2643.9
37.5°	2711.0	2717.1	2718.6	2721.7	2732.3	2738.4	2753.7	2765.9	2770.4	2773.5	2775.0
40°	2893.9	2893.9	2901.6	2895.5	2909.2	2910.7	2929.0	2945.8	2950.4	2962.6	2953.4
42.5°	3107.4	3105.9	3110.5	3105.9	3105.9	3121.1	3136.4	3166.9	3169.9	3185.2	3176.0
45°	3339.2	3339.2	3334.6	3336.1	3339.2	3355.9	3374.2	3407.8	3423.0	3432.2	3426.1
47.5°	3590.8	3584.7	3583.1	3581.6	3590.8	3609.1	3636.5	3668.5	3706.6	3709.7	3706.6
50°	3845.4	3843.9	3833.2	3842.3	3848.4	3857.6	3909.4	3952.1	3991.8	4016.2	4008.5
52.5°	4113.7	4100.0	4100.0	4100.0	4115.3	4144.2	4190.0	4247.9	4301.3	4327.2	4322.6
55°	4385.1	4380.6	4366.8	4360.7	4380.6	4421.7	4487.3	4557.4	4627.6	4667.2	4652.0
57.5°	4633.7	4626.0	4627.6	4629.1	4652.0	4706.9	4783.1	4876.1	4952.3	4995.0	4984.4
60°	4828.8	4819.7	4836.5	4841.0	4882.2	4973.7	5095.7	5213.1	5313.7	5356.4	5339.6
62.5°	5049.9	5043.8	5054.5	5053.0	5097.2	5199.4	5362.5	5550.0	5702.5	5757.4	5733.0
65°	5406.7	5388.4	5383.8	5367.1	5396.0	5475.3	5638.5	5856.5	6100.5	6240.7	6207.2
67.5°	5833.6	5829.1	5813.8	5804.7	5815.3	5914.5	6071.5	6281.9	6530.4	6724.1	6766.8
70°	6115.7	6121.8	6137.1	6159.9	6248.4	6440.5	6727.1	7045.8	7387.3	7532.2	7506.3
72.5°	6062.4	6071.5	6083.7	6112.7	6228.5	6458.8	6836.9	7312.6	7741.1	7933.2	7768.5
75°	5801.6	5809.2	5836.7	5880.9	6022.7	6301.7	6708.8	7213.5	7655.7	7847.8	7675.5
76°	5560.7	5585.1	5635.4	5687.3	5858.0	6161.5	6596.0	7134.2	7602.3	7797.5	7631.3
77.5°	5014.9	5036.2	5077.4	5167.3	5361.0	5749.8	6257.5	6786.6	7274.5	7449.9	7309.6
80°	3773.7	3792.0	3830.1	3938.4	4106.1	4347.0	4740.4	5257.3	5792.5	6022.7	5931.2
82.5°	1593.3	1614.7	1765.6	1922.7	2107.2	2367.9	2624.1	3081.5	3474.9	3737.1	3596.9
85°	175.3	216.5	266.8	362.9	445.2	593.1	738.0	1015.5	1283.8	1447.0	1279.3
87.5°	30.5	35.1	50.3	64.0	71.7	82.3	99.1	138.8	189.1	163.1	166.2
90°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	3.0	3.0	3.0	3.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
95°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
97.5°	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
100°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0	3.0	3.0
102.5°	1.5	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0
105°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
107.5°	1.5	1.5	1.5	1.5	3.0	3.0	1.5	1.5	1.5	3.0	1.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
112.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
115°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
117.5°	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
120°	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
122.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
125°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
127.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
130°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
132.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
135°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
137.5°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
140°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
142.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
145°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	1.5
147.5°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
150°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	0.0	0.0	0.0
152.5°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	0.0
155°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	1.5
157.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	0.0	0.0
160°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	0.0	0.0
162.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	0.0	0.0
165°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°	70°	75°	80°	85°	90°
0°	2320.6	2320.6	2320.6	2320.6	2320.6	2320.6	2320.6	2320.6
2.5°	2320.6	2320.6	2323.7	2322.2	2322.2	2323.7	2326.7	2325.2
5°	2322.2	2323.7	2320.6	2322.2	2323.7	2323.7	2325.2	2323.7
7.5°	2319.1	2319.1	2319.1	2320.6	2322.2	2320.6	2322.2	2322.2
10°	2313.0	2314.5	2313.0	2316.1	2317.6	2317.6	2319.1	2319.1
12.5°	2308.5	2308.5	2308.5	2311.5	2313.0	2313.0	2314.5	2313.0
15°	2303.9	2303.9	2302.4	2305.4	2308.5	2308.5	2310.0	2310.0
17.5°	2302.4	2302.4	2300.8	2303.9	2306.9	2306.9	2308.5	2308.5
20°	2306.9	2308.5	2305.4	2308.5	2311.5	2313.0	2313.0	2313.0
22.5°	2325.2	2323.7	2319.1	2320.6	2322.2	2322.2	2322.2	2322.2
25°	2352.7	2349.6	2345.0	2343.5	2342.0	2340.5	2340.5	2340.5
27.5°	2399.9	2395.4	2387.7	2386.2	2384.7	2381.6	2381.6	2381.6
30°	2456.3	2450.3	2441.1	2438.1	2433.5	2430.4	2428.9	2427.4
32.5°	2537.2	2525.0	2514.3	2506.7	2502.1	2492.9	2491.4	2488.4
35°	2630.2	2621.0	2605.8	2601.2	2593.6	2589.0	2587.5	2579.9
37.5°	2758.2	2747.6	2733.9	2730.8	2729.3	2724.7	2724.7	2723.2
40°	2936.6	2926.0	2913.8	2901.6	2904.6	2906.1	2906.1	2900.0
42.5°	3154.7	3137.9	3113.5	3121.1	3116.6	3110.5	3122.7	3115.0
45°	3403.2	3380.3	3362.0	3354.4	3354.4	3346.8	3359.0	3359.0
47.5°	3679.2	3642.6	3609.1	3610.6	3598.4	3601.4	3609.1	3619.7
50°	3970.4	3921.6	3889.6	3874.4	3862.2	3866.7	3880.5	3883.5
52.5°	4272.3	4212.8	4170.2	4147.3	4132.0	4138.1	4148.8	4158.0
55°	4586.4	4520.8	4456.8	4432.4	4414.1	4426.3	4427.8	4440.0
57.5°	4914.2	4824.3	4749.6	4713.0	4694.7	4706.9	4716.0	4728.2
60°	5245.1	5141.4	5053.0	5010.3	4984.4	5001.1	5022.5	5028.6
62.5°	5629.3	5486.0	5386.9	5325.9	5313.7	5330.5	5336.6	5354.9
65°	6083.7	5911.4	5774.2	5699.5	5696.4	5705.6	5719.3	5723.9
67.5°	6602.1	6410.0	6225.5	6150.8	6121.8	6149.3	6163.0	6181.3
70°	7334.0	7070.2	6803.4	6637.2	6567.0	6545.7	6551.8	6571.6
72.5°	7416.3	7132.7	6821.7	6596.0	6472.5	6416.1	6414.6	6417.6
75°	7236.4	6783.6	6564.0	6304.8	6129.4	6038.0	6025.8	6024.2
76°	7146.4	6611.3	6294.1	6088.3	5877.9	5784.8	5771.1	5763.5
77.5°	6766.8	6192.0	5714.7	5589.7	5388.4	5271.0	5295.4	5275.6
80°	5425.0	4854.8	4405.0	4052.7	4063.4	3978.0	3943.0	3932.3
82.5°	3197.4	2729.3	2232.2	1941.0	1663.5	1590.3	1369.2	1318.9
85°	1021.6	724.2	439.1	318.7	216.5	181.4	141.8	129.6
87.5°	135.7	106.7	86.9	83.9	76.2	65.6	42.7	30.5
90°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0
97.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
100°	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
102.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5
105°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
107.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	1.5	1.5	1.5	1.5	1.5	3.0	3.0	3.0
112.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0
115°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0
117.5°	1.5	1.5	1.5	1.5	1.5	3.0	3.0	3.0
120°	1.5	1.5	1.5	1.5	1.5	3.0	3.0	3.0
122.5°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
125°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
127.5°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
130°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
132.5°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
135°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
137.5°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
140°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
142.5°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
145°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
147.5°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
150°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
152.5°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
155°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
157.5°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
160°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
162.5°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
165°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)