

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: P157839

Luminaire Tested: **VST-E10-LED-E-U-5XQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157839
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-E10-LED-E-U-5XQ-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (210) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28885.5 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B5 - U2 - G5

Input Watts (W): 247.7
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

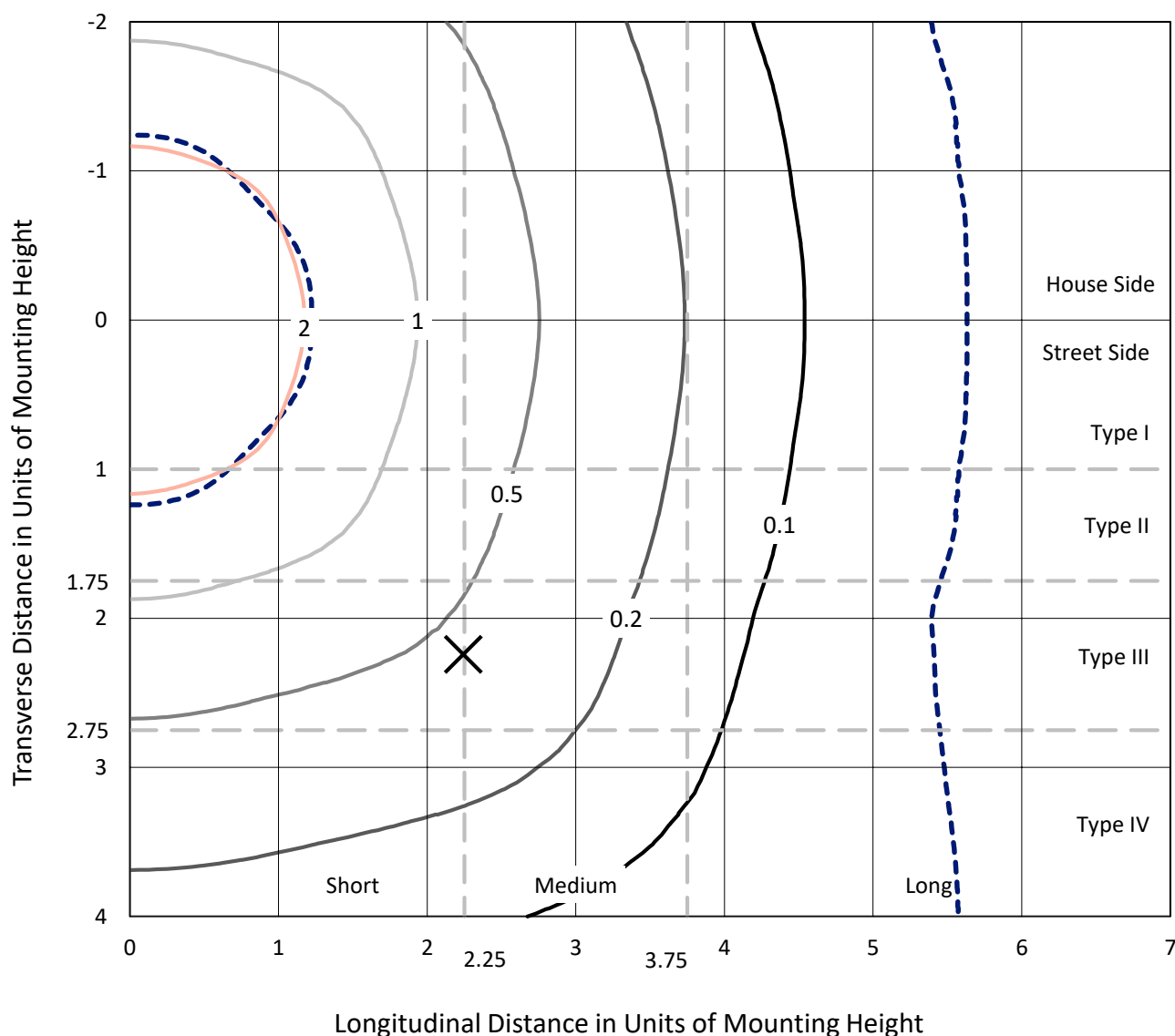


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

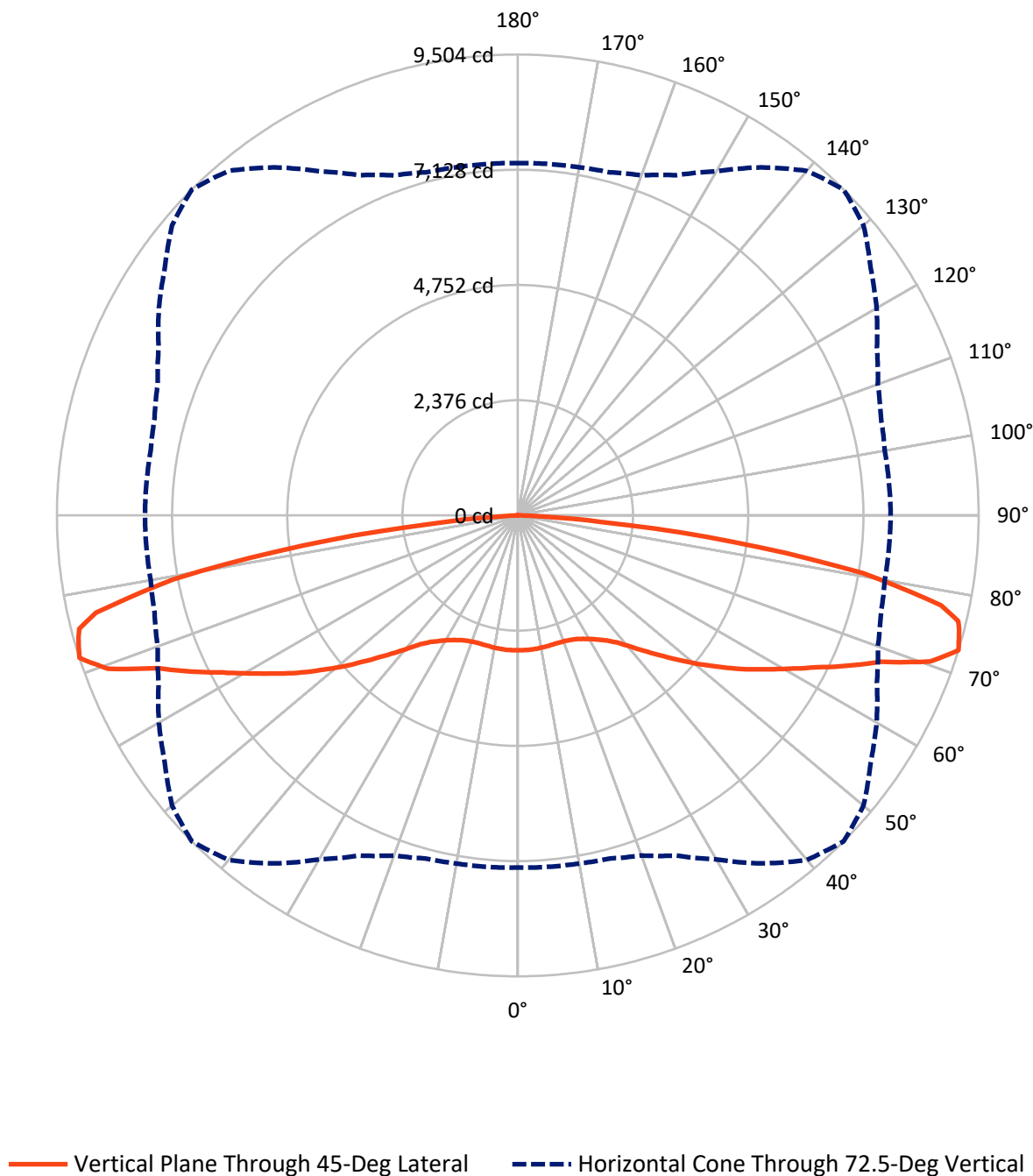


Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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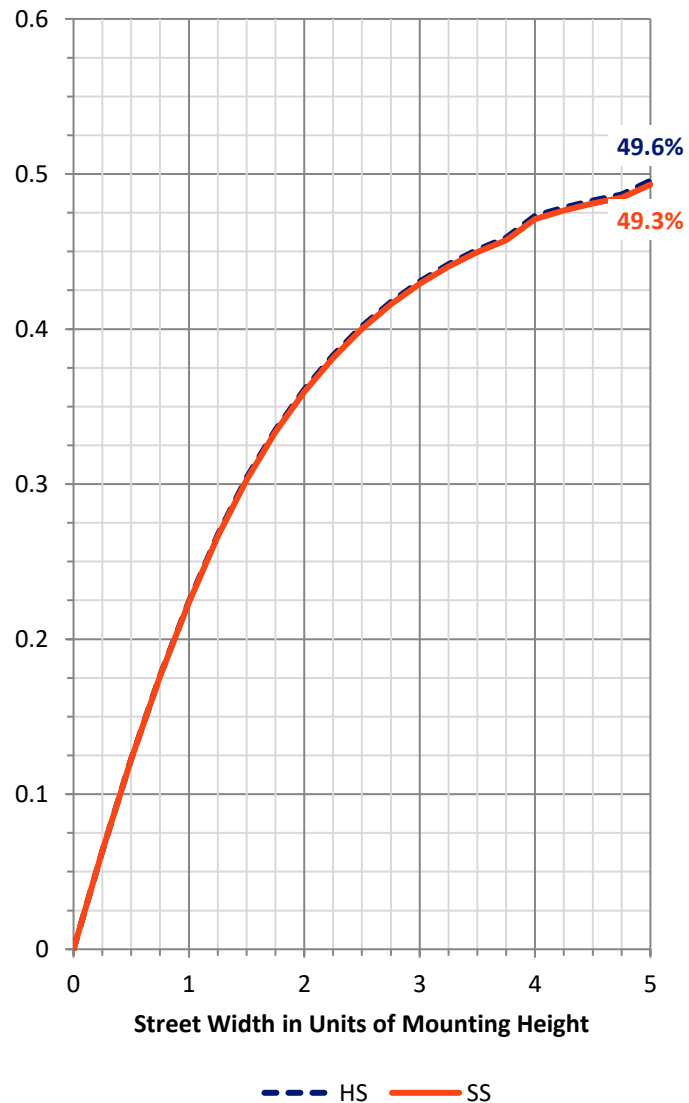
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14435.7	7.0	14442.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14435.7	7.0	14442.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	28871.4	14.1	28885.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.3	0.9
10°-20°	783.5	2.7
20°-30°	1310.1	4.5
30°-40°	1991.3	6.9
40°-50°	3153.8	10.9
50°-60°	4824.3	16.7
60°-70°	6904.3	23.9
70°-80°	7900.1	27.3
80°-90°	1738.7	6.0
90°-100°	1.4	0.0
100°-110°	3.0	0.0
110°-120°	2.0	0.0
120°-130°	2.3	0.0
130°-140°	2.1	0.0
140°-150°	1.6	0.0
150°-160°	1.1	0.0
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-90°	28871.4	100.0
0°-180°	28885.5	100.0

Coefficient of Utilization



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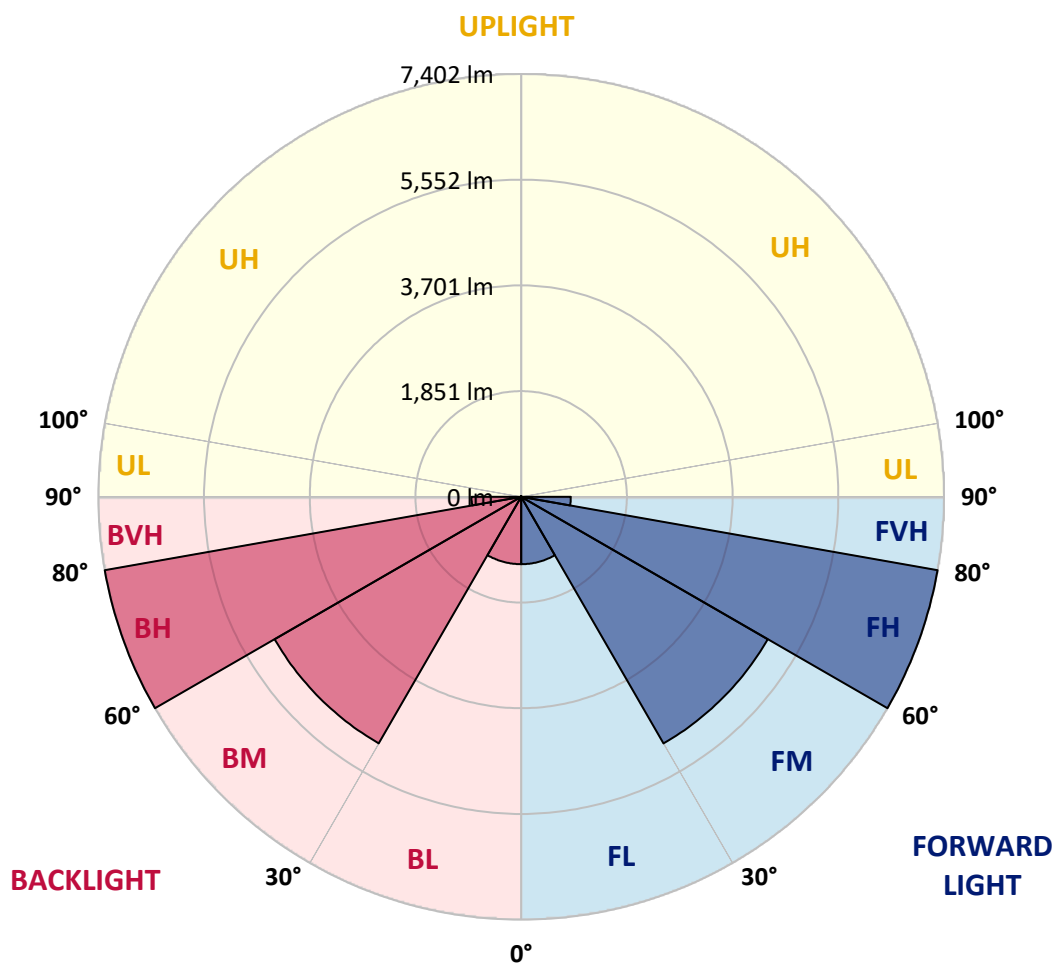
CATALOG NUMBER: VST-E10-LED-E-U-5XQ-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1179.4	4.1			
FM	(30°-60°)	4984.7	17.3			
FH	(60°-80°)	7402.2	25.6			G3/7500
FVH	(80°-90°)	869.4	3.0			G5
BL	(0°-30°)	1179.4	4.1	B3/2500		
BM	(30°-60°)	4984.7	17.3	B3/5000		
BH	(60°-80°)	7402.2	25.6	B5		G3/7500
BVH	(80°-90°)	869.4	3.0			G5
UL	(90°-100°)	1.4	0.0		U1/10	
UH	(100°-180°)	7.0	0.0		U1/10	

BUG Rating: B5-U2-G5

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2780.2	2780.2	2780.2	2780.2	2780.2	2780.2	2780.2	2780.2	2780.2	2780.2	2780.2
2.5°	2782.1	2778.4	2780.2	2783.9	2782.1	2782.1	2780.2	2780.2	2783.9	2780.2	2782.1
5°	2783.9	2780.2	2782.1	2783.9	2782.1	2783.9	2782.1	2782.1	2782.1	2780.2	2783.9
7.5°	2776.6	2776.6	2778.4	2778.4	2776.6	2778.4	2778.4	2778.4	2776.6	2776.6	2780.2
10°	2772.9	2771.1	2771.1	2772.9	2771.1	2771.1	2772.9	2772.9	2769.3	2769.3	2772.9
12.5°	2767.5	2765.6	2765.6	2765.6	2763.8	2763.8	2765.6	2765.6	2763.8	2762.0	2767.5
15°	2763.8	2762.0	2762.0	2762.0	2758.3	2760.1	2760.1	2760.1	2758.3	2756.5	2762.0
17.5°	2762.0	2760.1	2760.1	2760.1	2758.3	2758.3	2758.3	2758.3	2756.5	2756.5	2760.1
20°	2765.6	2765.6	2765.6	2765.6	2763.8	2763.8	2763.8	2765.6	2765.6	2765.6	2769.3
22.5°	2774.8	2774.8	2776.6	2778.4	2778.4	2782.1	2783.9	2785.7	2785.7	2787.5	2791.2
25°	2798.5	2798.5	2800.3	2802.2	2807.6	2811.3	2818.6	2822.3	2824.1	2824.1	2825.9
27.5°	2842.3	2844.2	2847.8	2851.5	2858.8	2864.3	2871.6	2878.9	2880.7	2882.5	2884.4
30°	2897.1	2899.0	2906.3	2909.9	2919.1	2930.0	2939.2	2946.5	2951.9	2955.6	2953.8
32.5°	2975.7	2979.3	2988.5	2994.0	3006.7	3017.7	3030.5	3041.5	3046.9	3052.4	3050.6
35°	3085.3	3094.4	3103.6	3109.0	3121.8	3131.0	3147.4	3158.4	3169.3	3165.7	3167.5
37.5°	3247.9	3255.2	3257.0	3260.7	3273.4	3280.8	3299.0	3313.6	3319.1	3322.8	3324.6
40°	3467.1	3467.1	3476.2	3468.9	3485.3	3487.2	3509.1	3529.2	3534.7	3549.3	3538.3
42.5°	3722.8	3721.0	3726.5	3721.0	3721.0	3739.3	3757.5	3794.1	3797.7	3816.0	3805.0
45°	4000.5	4000.5	3995.0	3996.8	4000.5	4020.6	4042.5	4082.7	4100.9	4111.9	4104.6
47.5°	4301.9	4294.6	4292.7	4290.9	4301.9	4323.8	4356.7	4395.0	4440.7	4444.4	4440.7
50°	4606.9	4605.1	4592.3	4603.3	4610.6	4621.6	4683.7	4734.8	4782.3	4811.5	4802.4
52.5°	4928.4	4912.0	4912.0	4912.0	4930.3	4965.0	5019.8	5089.2	5153.1	5184.2	5178.7
55°	5253.6	5248.1	5231.7	5224.4	5248.1	5297.4	5376.0	5460.0	5544.0	5591.5	5573.3
57.5°	5551.3	5542.2	5544.0	5545.9	5573.3	5639.0	5730.4	5841.8	5933.1	5984.3	5971.5
60°	5785.2	5774.2	5794.3	5799.8	5849.1	5958.7	6104.8	6245.5	6366.1	6417.2	6397.1
62.5°	6050.0	6042.7	6055.5	6053.7	6106.7	6229.0	6424.5	6649.2	6831.9	6897.6	6868.4
65°	6477.5	6455.6	6450.1	6430.0	6464.7	6559.7	6755.1	7016.4	7308.6	7476.7	7436.5
67.5°	6989.0	6983.5	6965.2	6954.2	6967.0	7085.8	7273.9	7526.0	7823.8	8055.8	8106.9
70°	7326.9	7334.2	7352.5	7379.9	7485.8	7716.0	8059.4	8441.2	8850.4	9023.9	8992.8
72.5°	7263.0	7273.9	7288.5	7323.2	7462.1	7737.9	8190.9	8760.9	9274.2	9504.3	9307.0
75°	6950.6	6959.7	6992.6	7045.6	7215.5	7549.8	8037.5	8642.1	9171.9	9402.0	9195.6
76°	6662.0	6691.2	6751.5	6813.6	7018.2	7381.7	7902.3	8547.1	9107.9	9341.7	9142.6
77.5°	6008.0	6033.6	6082.9	6190.7	6422.7	6888.5	7496.8	8130.6	8715.2	8925.3	8757.2
80°	4521.1	4543.0	4588.7	4718.4	4919.3	5207.9	5679.2	6298.5	6939.6	7215.5	7105.9
82.5°	1908.9	1934.5	2115.3	2303.5	2524.5	2836.9	3143.8	3691.8	4163.1	4477.2	4309.2
85°	210.1	259.4	319.7	434.8	533.4	710.6	884.1	1216.6	1538.1	1733.5	1532.6
87.5°	36.5	42.0	60.3	76.7	85.9	98.6	118.7	166.2	226.5	195.5	199.1
90°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	3.7	3.7	3.7	3.7
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
95°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
97.5°	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
100°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	3.7	3.7	3.7
102.5°	1.8	1.8	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7	3.7
105°	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
107.5°	1.8	1.8	1.8	1.8	3.7	3.7	1.8	1.8	1.8	3.7	1.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
112.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
115°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
117.5°	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
120°	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
122.5°	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
125°	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
127.5°	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
130°	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8
132.5°	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
135°	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8
137.5°	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8
140°	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8
142.5°	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
145°	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	0.0	1.8
147.5°	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8
150°	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8	0.0	0.0	0.0
152.5°	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	0.0	0.0
155°	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	0.0	1.8
157.5°	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	0.0	0.0	0.0
160°	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	0.0	0.0	0.0
162.5°	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	0.0	0.0	0.0
165°	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	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°	2780.2	2780.2	2780.2	2780.2	2780.2	2780.2	2780.2	2780.2
2.5°	2780.2	2780.2	2783.9	2782.1	2782.1	2783.9	2787.5	2785.7
5°	2782.1	2783.9	2780.2	2782.1	2783.9	2783.9	2785.7	2783.9
7.5°	2778.4	2778.4	2778.4	2780.2	2782.1	2780.2	2782.1	2782.1
10°	2771.1	2772.9	2771.1	2774.8	2776.6	2776.6	2778.4	2778.4
12.5°	2765.6	2765.6	2765.6	2769.3	2771.1	2771.1	2772.9	2771.1
15°	2760.1	2760.1	2758.3	2762.0	2765.6	2765.6	2767.5	2767.5
17.5°	2758.3	2758.3	2756.5	2760.1	2763.8	2763.8	2765.6	2765.6
20°	2763.8	2765.6	2762.0	2765.6	2769.3	2771.1	2771.1	2771.1
22.5°	2785.7	2783.9	2778.4	2780.2	2782.1	2782.1	2782.1	2782.1
25°	2818.6	2814.9	2809.5	2807.6	2805.8	2804.0	2804.0	2804.0
27.5°	2875.2	2869.7	2860.6	2858.8	2857.0	2853.3	2853.3	2853.3
30°	2942.8	2935.5	2924.5	2920.9	2915.4	2911.8	2909.9	2908.1
32.5°	3039.6	3025.0	3012.2	3003.1	2997.6	2986.7	2984.8	2981.2
35°	3151.1	3140.1	3121.8	3116.4	3107.2	3101.7	3099.9	3090.8
37.5°	3304.5	3291.7	3275.3	3271.6	3269.8	3264.3	3264.3	3262.5
40°	3518.2	3505.4	3490.8	3476.2	3479.9	3481.7	3481.7	3474.4
42.5°	3779.4	3759.4	3730.1	3739.3	3733.8	3726.5	3741.1	3731.9
45°	4077.2	4049.8	4027.9	4018.7	4018.7	4009.6	4024.2	4024.2
47.5°	4407.8	4364.0	4323.8	4325.6	4311.0	4314.7	4323.8	4336.6
50°	4756.7	4698.3	4659.9	4641.6	4627.0	4632.5	4649.0	4652.6
52.5°	5118.4	5047.2	4996.0	4968.6	4950.4	4957.7	4970.5	4981.4
55°	5494.7	5416.2	5339.4	5310.2	5288.3	5302.9	5304.7	5319.4
57.5°	5887.5	5779.7	5690.2	5646.3	5624.4	5639.0	5650.0	5664.6
60°	6283.9	6159.6	6053.7	6002.5	5971.5	5991.6	6017.2	6024.5
62.5°	6744.2	6572.5	6453.7	6380.7	6366.1	6386.1	6393.5	6415.4
65°	7288.5	7082.1	6917.7	6828.2	6824.6	6835.5	6852.0	6857.4
67.5°	7909.6	7679.4	7458.4	7368.9	7334.2	7367.1	7383.5	7405.4
70°	8786.4	8470.4	8150.7	7951.6	7867.6	7842.0	7849.3	7873.1
72.5°	8885.1	8545.3	8172.7	7902.3	7754.3	7686.8	7684.9	7688.6
75°	8669.5	8127.0	7863.9	7553.4	7343.3	7233.7	7219.1	7217.3
76°	8561.7	7920.6	7540.6	7294.0	7041.9	6930.5	6914.1	6904.9
77.5°	8106.9	7418.2	6846.5	6696.7	6455.6	6314.9	6344.1	6320.4
80°	6499.4	5816.2	5277.3	4855.4	4868.2	4765.9	4723.8	4711.1
82.5°	3830.6	3269.8	2674.3	2325.4	1992.9	1905.2	1640.4	1580.1
85°	1223.9	867.7	526.1	381.8	259.4	217.4	169.9	155.3
87.5°	162.6	127.9	104.1	100.5	91.3	78.5	51.1	36.5
90°	1.8	1.8	1.8	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°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0
97.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
100°	3.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
102.5°	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8
105°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
107.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	1.8	1.8	1.8	1.8	1.8	3.7	3.7	3.7
112.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	3.7
115°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	3.7
117.5°	1.8	1.8	1.8	1.8	1.8	3.7	3.7	3.7
120°	1.8	1.8	1.8	1.8	1.8	3.7	3.7	3.7
122.5°	1.8	1.8	1.8	1.8	3.7	3.7	3.7	3.7
125°	1.8	1.8	1.8	1.8	3.7	3.7	3.7	3.7
127.5°	1.8	1.8	1.8	1.8	3.7	3.7	3.7	3.7
130°	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7
132.5°	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7
135°	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7
137.5°	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7
140°	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7
142.5°	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7
145°	1.8	1.8	1.8	1.8	3.7	3.7	3.7	3.7
147.5°	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7
150°	1.8	1.8	1.8	1.8	3.7	3.7	3.7	3.7
152.5°	1.8	1.8	1.8	1.8	3.7	3.7	3.7	3.7
155°	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7
157.5°	1.8	1.8	1.8	1.8	3.7	3.7	3.7	3.7
160°	1.8	1.8	1.8	1.8	3.7	3.7	3.7	3.7
162.5°	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7
165°	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7
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)