

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: P157390

Luminaire Tested: **VST-E09-LED-E-U-5MQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157390
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33708)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E09-LED-E-U-5MQ
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (189) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28789.7 lumens
Efficiency: N/A
Efficacy: 127.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 225.7
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



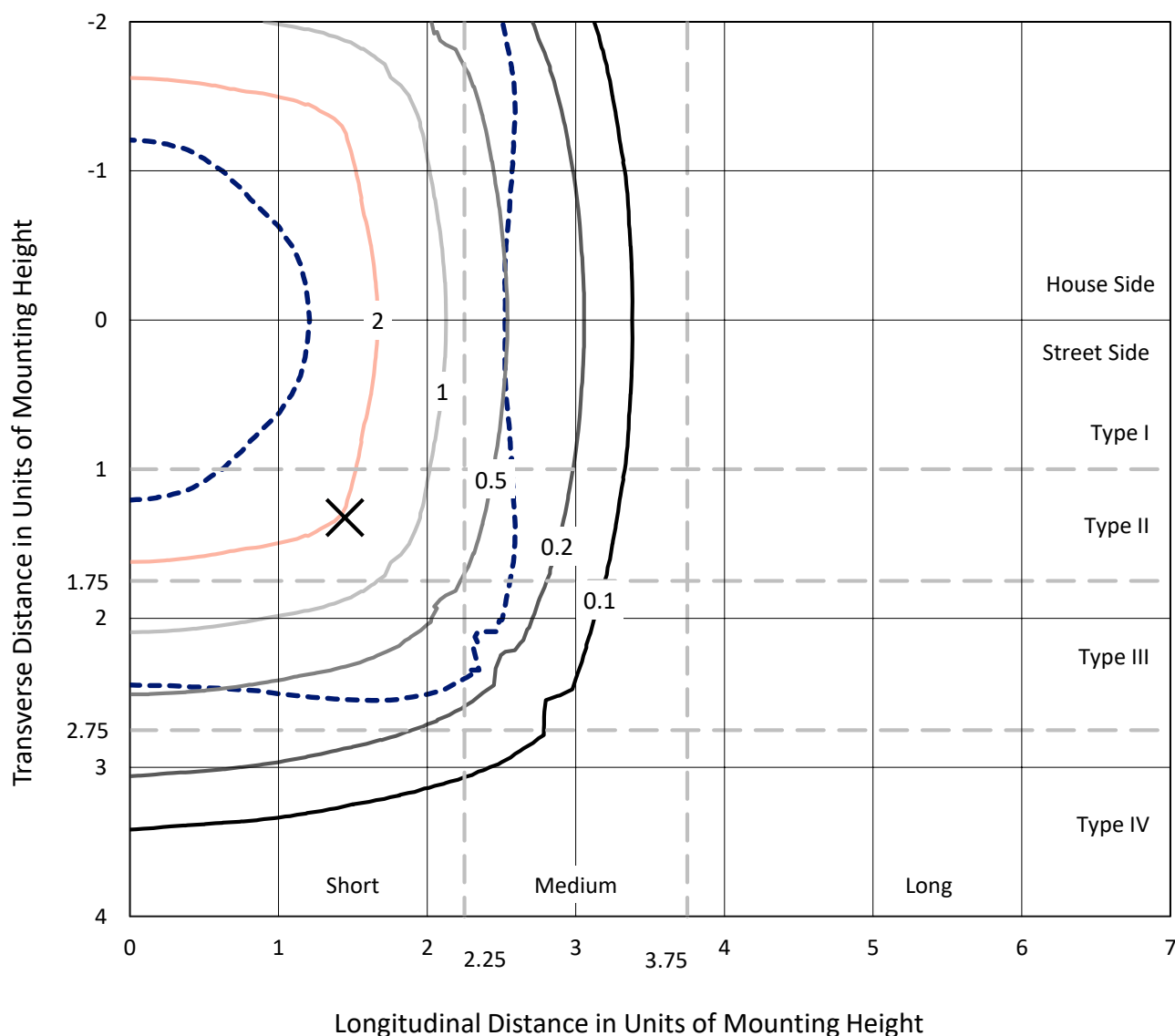
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

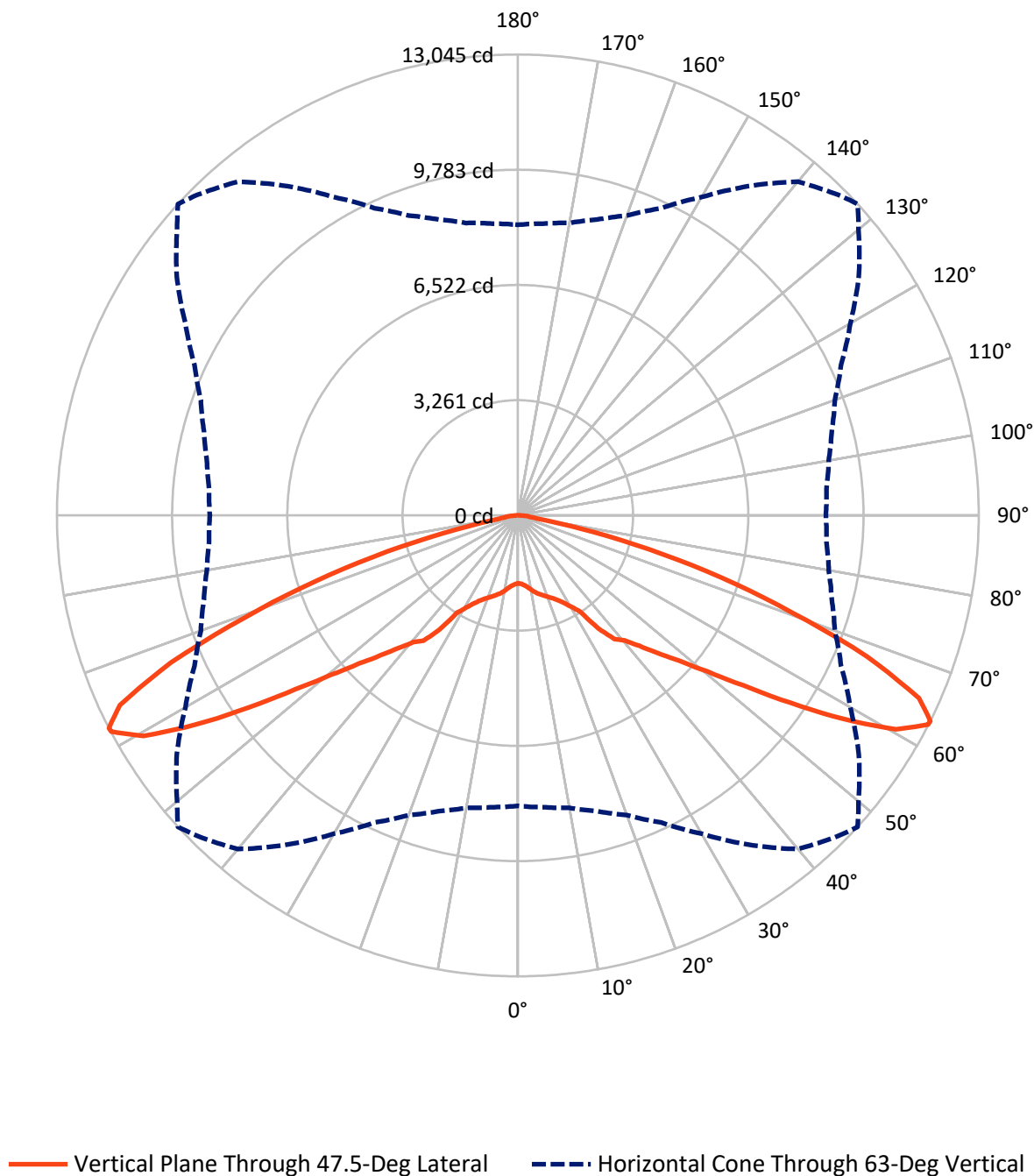


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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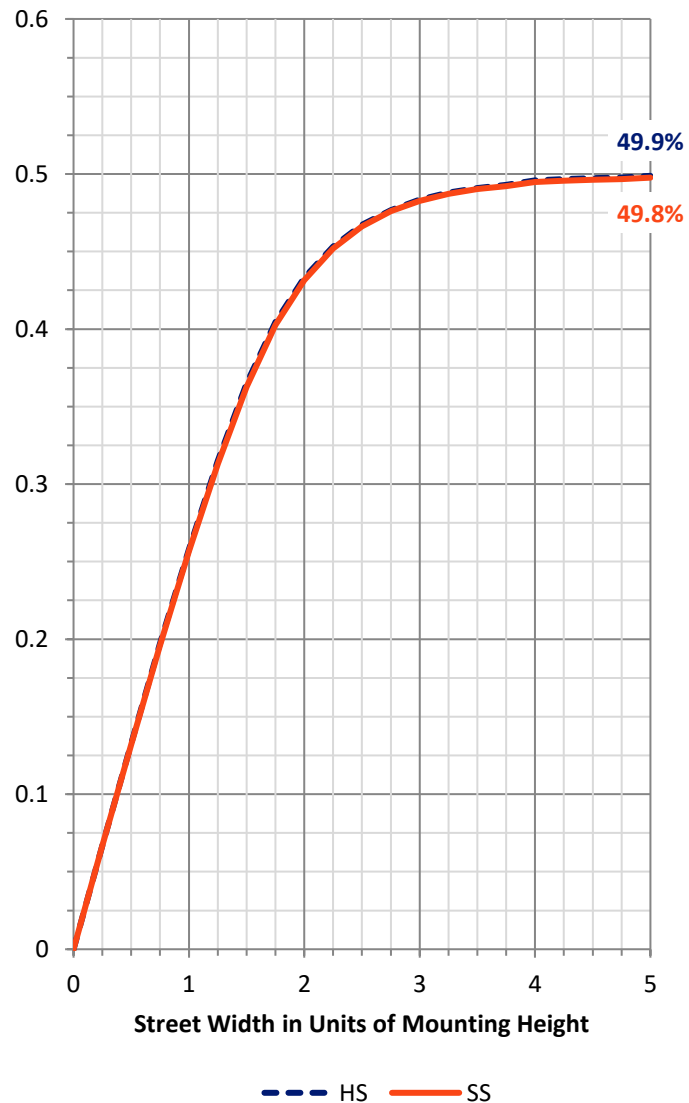
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14394.9	0.0	14394.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14394.9	0.0	14394.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	28789.7	0.0	28789.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.0	0.7
10°-20°	656.1	2.3
20°-30°	1254.9	4.4
30°-40°	2400.5	8.3
40°-50°	4153.7	14.4
50°-60°	7459.8	25.9
60°-70°	9071.2	31.5
70°-80°	3276.1	11.4
80°-90°	324.5	1.1
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°	28789.7	100.0
0°-180°	28789.7	100.0

Coefficient of Utilization



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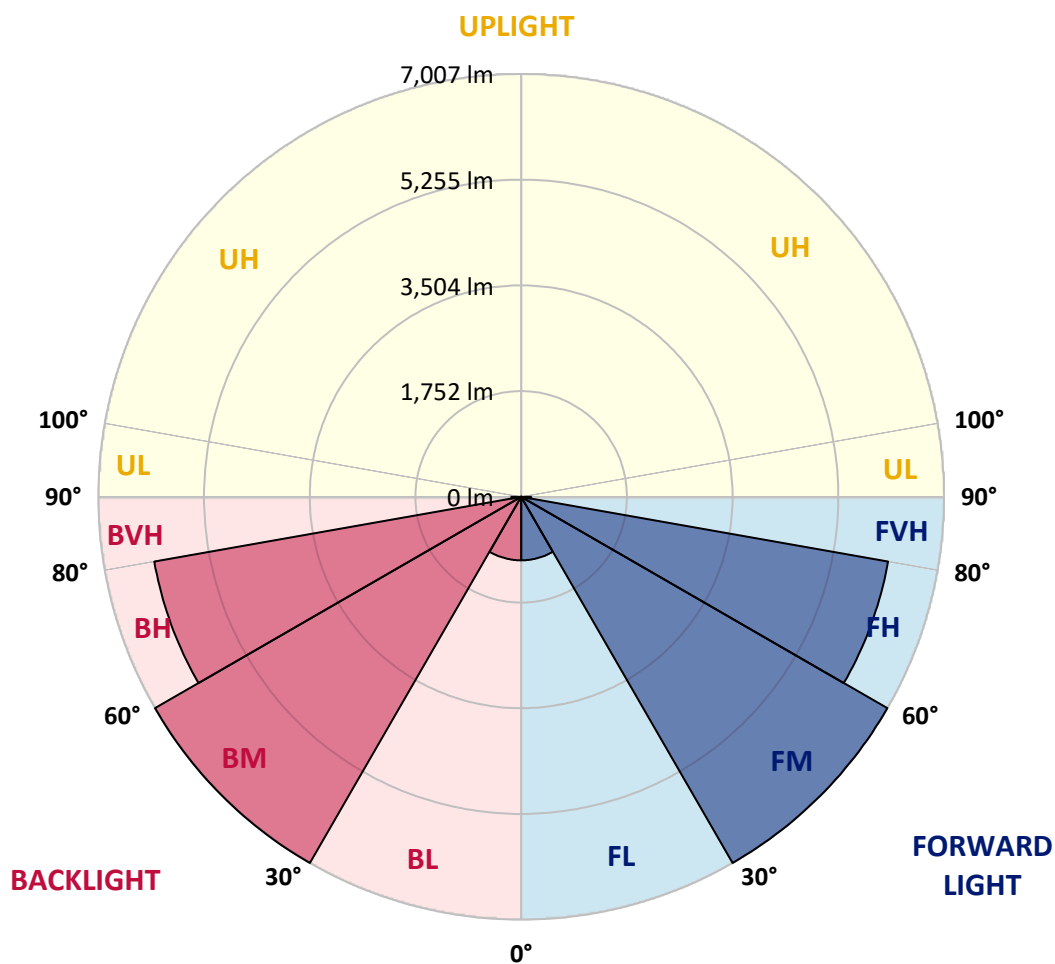
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1052.0	3.7			
FM	(30°-60°)	7007.0	24.3			
FH	(60°-80°)	6173.6	21.4			G3/7500
FVH	(80°-90°)	162.2	0.6			G2/225
BL	(0°-30°)	1052.0	3.7	B3/2500		
BM	(30°-60°)	7007.0	24.3	B4/8500		
BH	(60°-80°)	6173.6	21.4	B5		G3/7500
BVH	(80°-90°)	162.2	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1922.4	1922.4	1922.4	1922.4	1922.4	1922.4	1922.4	1922.4	1922.4	1922.4	1922.4
2.5°	1935.0	1931.4	1933.2	1935.0	1933.2	1931.4	1931.4	1931.4	1935.0	1931.4	1940.4
5°	1972.8	1969.2	1971.0	1971.0	1971.0	1967.4	1967.4	1967.4	1965.6	1967.4	1987.2
7.5°	2044.8	2039.4	2037.6	2041.2	2037.6	2035.8	2034.0	2034.0	2030.4	2030.4	2055.6
10°	2131.2	2124.0	2127.6	2129.4	2124.0	2120.4	2120.4	2120.4	2115.0	2113.2	2145.6
12.5°	2226.6	2223.0	2223.0	2219.4	2217.6	2214.0	2212.2	2214.0	2206.8	2206.8	2239.2
15°	2318.4	2311.2	2313.0	2307.6	2304.0	2300.4	2298.6	2296.8	2293.2	2293.2	2313.0
17.5°	2403.0	2397.6	2395.8	2390.4	2385.0	2379.6	2376.0	2374.2	2368.8	2368.8	2386.8
20°	2491.2	2485.8	2482.2	2473.2	2464.2	2458.8	2451.6	2448.0	2440.8	2442.6	2462.4
22.5°	2592.0	2583.0	2575.8	2568.6	2552.4	2541.6	2532.6	2525.4	2521.8	2521.8	2548.8
25°	2727.0	2721.6	2710.8	2687.4	2667.6	2651.4	2637.0	2629.8	2622.6	2619.0	2660.4
27.5°	2892.6	2887.2	2872.8	2849.4	2822.4	2795.4	2779.2	2766.6	2757.6	2752.2	2811.6
30°	3112.2	3103.2	3090.6	3052.8	3029.4	2988.0	2970.0	2952.0	2932.2	2937.6	3007.8
32.5°	3542.4	3529.8	3490.2	3448.8	3376.8	3321.0	3263.4	3220.2	3178.8	3173.4	3249.0
35°	3933.0	3927.6	3920.4	3891.6	3864.6	3830.4	3803.4	3758.4	3720.6	3711.6	3924.0
37.5°	4143.6	4156.2	4145.4	4141.8	4141.8	4158.0	4208.4	4258.8	4294.8	4316.4	4435.2
40°	4465.8	4465.8	4453.2	4446.0	4431.6	4453.2	4474.8	4512.6	4528.8	4530.6	4651.2
42.5°	4831.2	4833.0	4820.4	4798.8	4791.6	4811.4	4840.2	4876.2	4897.8	4903.2	5043.6
45°	5238.0	5232.6	5221.8	5214.6	5220.0	5238.0	5272.2	5342.4	5374.8	5400.0	5553.0
47.5°	5679.0	5715.0	5684.4	5689.8	5689.8	5745.6	5823.0	5880.6	5932.8	5981.4	6143.4
50°	6256.8	6262.2	6267.6	6283.8	6294.6	6368.4	6465.6	6534.0	6609.6	6672.6	6937.2
52.5°	7029.0	7018.2	7045.2	7063.2	7124.4	7164.0	7326.0	7412.4	7516.8	7597.8	7984.8
55°	7952.4	7947.0	7986.6	8001.0	8082.0	8179.2	8359.2	8548.2	8726.4	8825.4	9354.6
57.5°	8614.8	8629.2	8697.6	8793.0	8951.4	9158.4	9426.6	9844.2	10182.6	10290.6	10873.8
60°	8760.6	8807.4	8910.0	9100.8	9372.6	9757.8	10285.2	10924.2	11543.4	11750.4	12297.6
62.5°	8352.0	8406.0	8557.2	8785.8	9140.4	9711.0	10472.4	11374.2	12294.0	12754.8	13030.2
63°	8222.4	8289.0	8402.4	8667.0	9027.0	9590.4	10400.4	11372.4	12326.4	12828.6	13044.6
65°	7614.0	7626.6	7795.8	8060.4	8465.4	9050.4	9867.6	10990.8	12049.2	12628.8	12479.4
67.5°	6552.0	6604.2	6746.4	7012.8	7407.0	8015.4	8902.8	9941.4	10872.0	11334.6	10666.8
70°	5293.8	5290.2	5466.6	5680.8	6028.2	6562.8	7340.4	8278.2	9016.2	9352.8	8235.0
72.5°	3781.8	3688.2	3817.8	4055.4	4339.8	4766.4	5382.0	6111.0	6771.6	7063.2	6021.0
75°	1722.6	1697.4	1812.6	2048.4	2336.4	2716.2	3222.0	3852.0	4485.6	4827.6	3835.8
77.5°	579.6	586.8	631.8	716.4	871.2	1062.0	1377.0	1780.2	2293.2	2631.6	1800.0
80°	388.8	399.6	414.0	426.6	444.6	473.4	541.8	646.2	804.6	973.8	568.8
82.5°	318.6	331.2	363.6	378.0	388.8	397.8	403.2	410.4	410.4	414.0	360.0
85°	228.6	250.2	293.4	320.4	331.2	338.4	347.4	358.2	342.0	327.6	279.0
87.5°	79.2	108.0	158.4	174.6	187.2	189.0	201.6	223.2	212.4	172.8	84.6
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°
0°	1922.4	1922.4	1922.4	1922.4	1922.4	1922.4	1922.4	1922.4	1922.4
2.5°	1931.4	1929.6	1931.4	1933.2	1933.2	1933.2	1935.0	1936.8	1936.8
5°	1967.4	1969.2	1967.4	1969.2	1969.2	1971.0	1971.0	1974.6	1974.6
7.5°	2028.6	2032.2	2030.4	2034.0	2034.0	2037.6	2035.8	2041.2	2041.2
10°	2111.4	2115.0	2118.6	2120.4	2118.6	2122.2	2125.8	2127.6	2125.8
12.5°	2205.0	2206.8	2205.0	2208.6	2208.6	2212.2	2212.2	2217.6	2217.6
15°	2291.4	2289.6	2287.8	2293.2	2296.8	2298.6	2302.2	2307.6	2302.2
17.5°	2368.8	2370.6	2367.0	2372.4	2379.6	2385.0	2388.6	2395.8	2394.0
20°	2446.2	2442.6	2446.2	2455.2	2462.4	2469.6	2476.8	2487.6	2485.8
22.5°	2521.8	2525.4	2534.4	2541.6	2554.2	2565.0	2574.0	2588.4	2593.8
25°	2628.0	2628.0	2642.4	2651.4	2669.4	2683.8	2703.6	2719.8	2728.8
27.5°	2763.0	2763.0	2779.2	2799.0	2826.0	2851.2	2872.8	2894.4	2890.8
30°	2946.6	2955.6	2970.0	2995.2	3031.2	3061.8	3090.6	3112.2	3114.0
32.5°	3187.8	3198.6	3241.8	3306.6	3382.2	3439.8	3483.0	3535.2	3542.4
35°	3735.0	3762.0	3817.8	3870.0	3900.6	3934.8	3956.4	3958.2	3961.8
37.5°	4311.0	4264.2	4221.0	4181.4	4163.4	4159.8	4159.8	4167.0	4170.6
40°	4521.6	4498.2	4478.4	4453.2	4460.4	4458.6	4471.2	4482.0	4489.2
42.5°	4881.6	4863.6	4845.6	4813.2	4831.2	4825.8	4843.8	4860.0	4869.0
45°	5383.8	5328.0	5288.4	5236.2	5254.2	5243.4	5243.4	5263.2	5266.8
47.5°	5938.2	5873.4	5792.4	5727.6	5706.0	5686.2	5704.2	5704.2	5684.4
50°	6602.4	6525.0	6429.6	6325.2	6289.2	6269.4	6276.6	6285.6	6229.8
52.5°	7504.2	7417.8	7282.8	7124.4	7090.2	7074.0	7070.4	7057.8	7043.4
55°	8726.4	8564.4	8398.8	8190.0	8127.0	8109.0	8110.8	8096.4	8130.6
57.5°	10168.2	9930.6	9549.0	9295.2	9144.0	9086.4	9034.2	9012.6	9014.4
60°	11595.6	11111.4	10540.8	10098.0	9781.2	9579.6	9421.2	9333.0	9307.8
62.5°	12515.4	11754.0	10897.2	10179.0	9658.8	9325.8	9075.6	8917.2	8866.8
63°	12587.4	11781.0	10864.8	10094.4	9547.2	9198.0	8935.2	8771.4	8717.4
65°	12430.8	11509.2	10441.8	9523.8	8924.4	8537.4	8253.0	8098.2	8056.8
67.5°	11214.0	10447.2	9360.0	8411.4	7806.6	7414.2	7088.4	6940.8	6894.0
70°	9122.4	8596.8	7705.8	6895.8	6332.4	5954.4	5625.0	5502.6	5500.8
72.5°	6762.6	6080.4	5549.4	4955.4	4464.0	4163.4	3877.2	3740.4	3672.0
75°	4473.0	3742.2	3148.2	2647.8	2158.2	1888.2	1566.0	1427.4	1346.4
77.5°	2253.6	1670.4	1197.0	829.8	644.4	529.2	484.2	460.8	459.0
80°	750.6	563.4	484.2	453.6	444.6	446.4	441.0	432.0	421.2
82.5°	415.8	437.4	441.0	428.4	428.4	421.2	414.0	379.8	361.8
85°	356.4	392.4	396.0	388.8	387.0	376.2	363.6	316.8	289.8
87.5°	223.2	257.4	252.0	225.0	248.4	232.2	219.6	142.2	104.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)