

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: P157392

Luminaire Tested: **VST-E09-LED-E-U-5MQ-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157392
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-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (189) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29541.3 lumens
Efficiency: N/A
Efficacy: 130.9 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

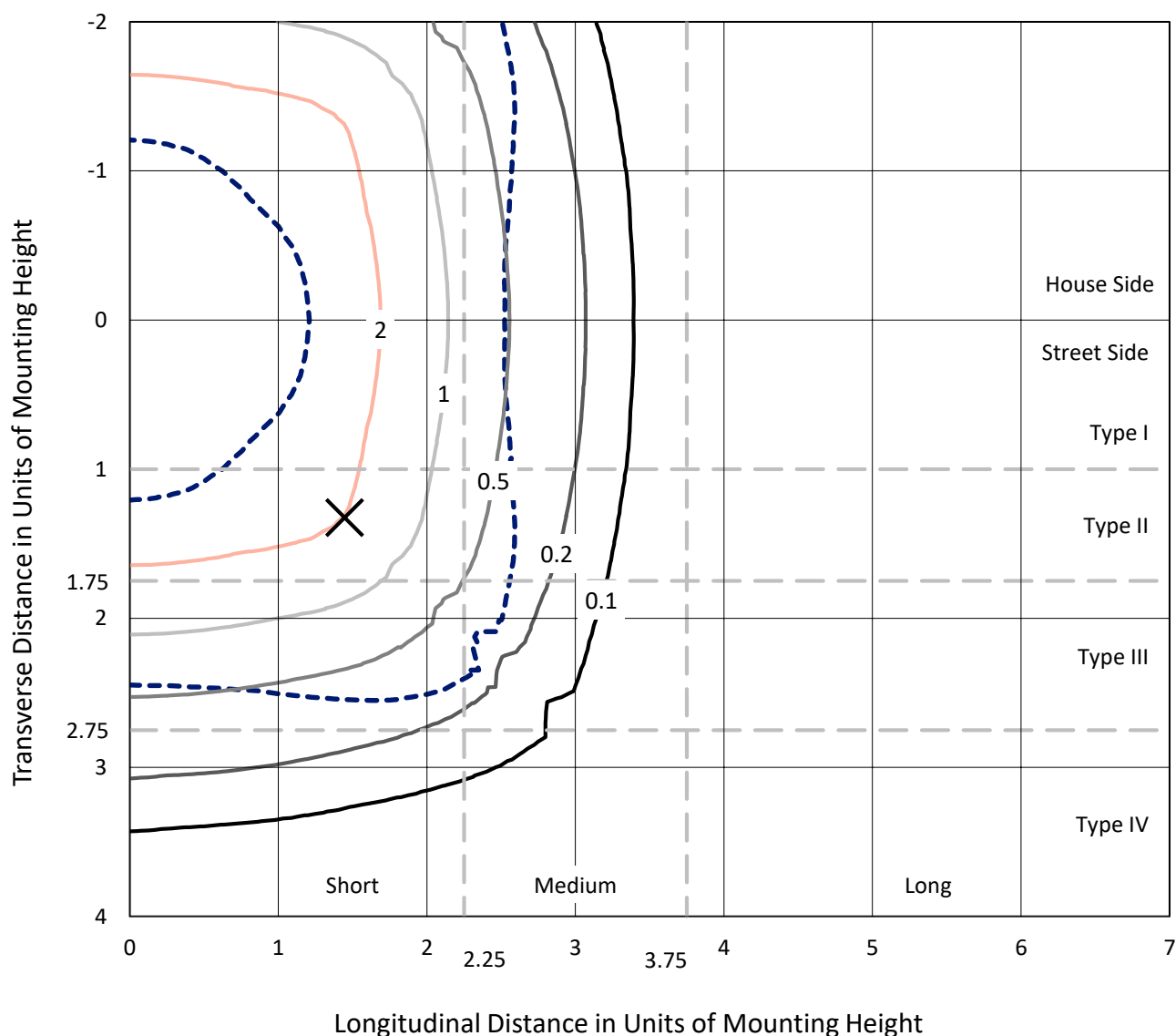


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

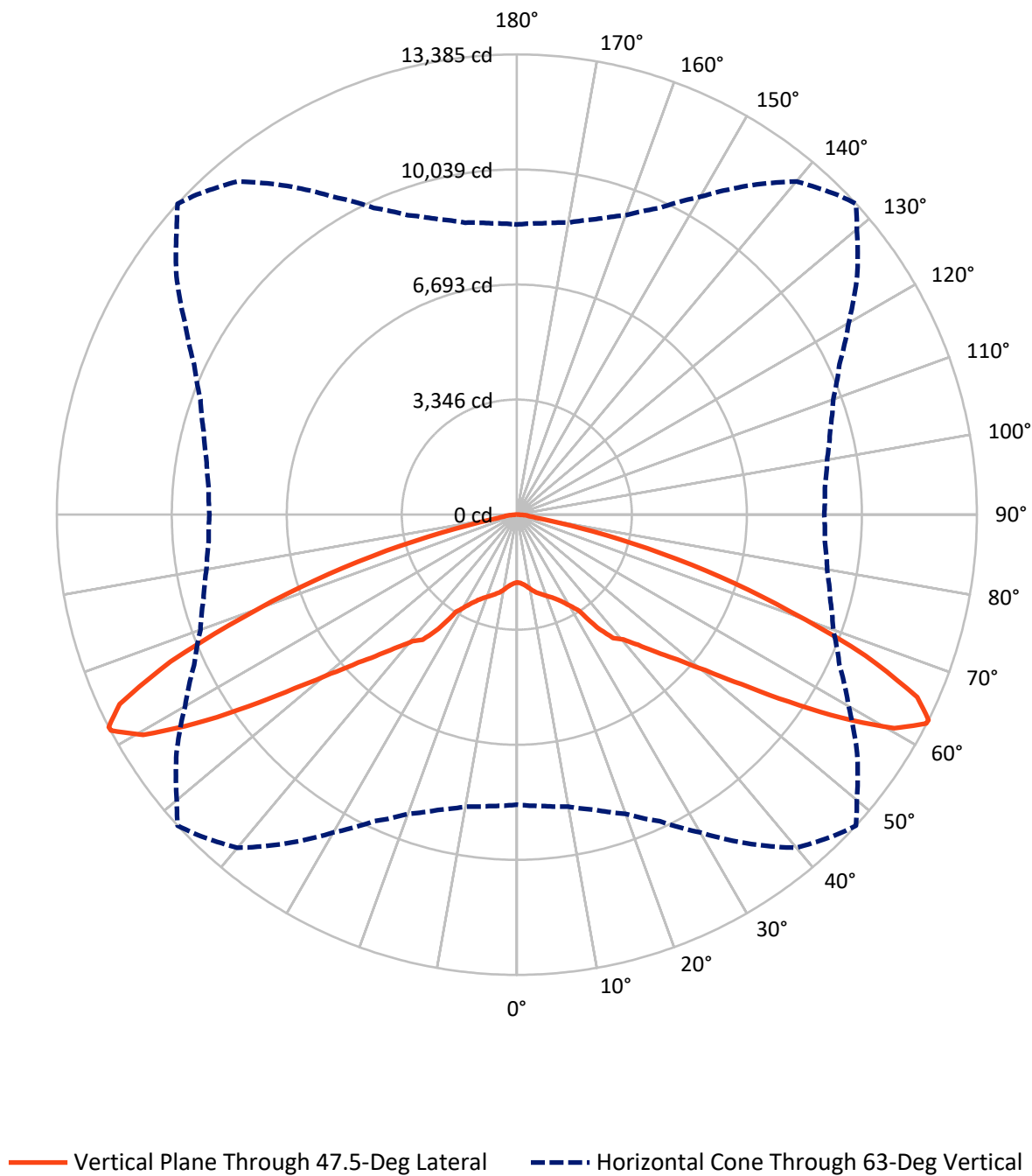


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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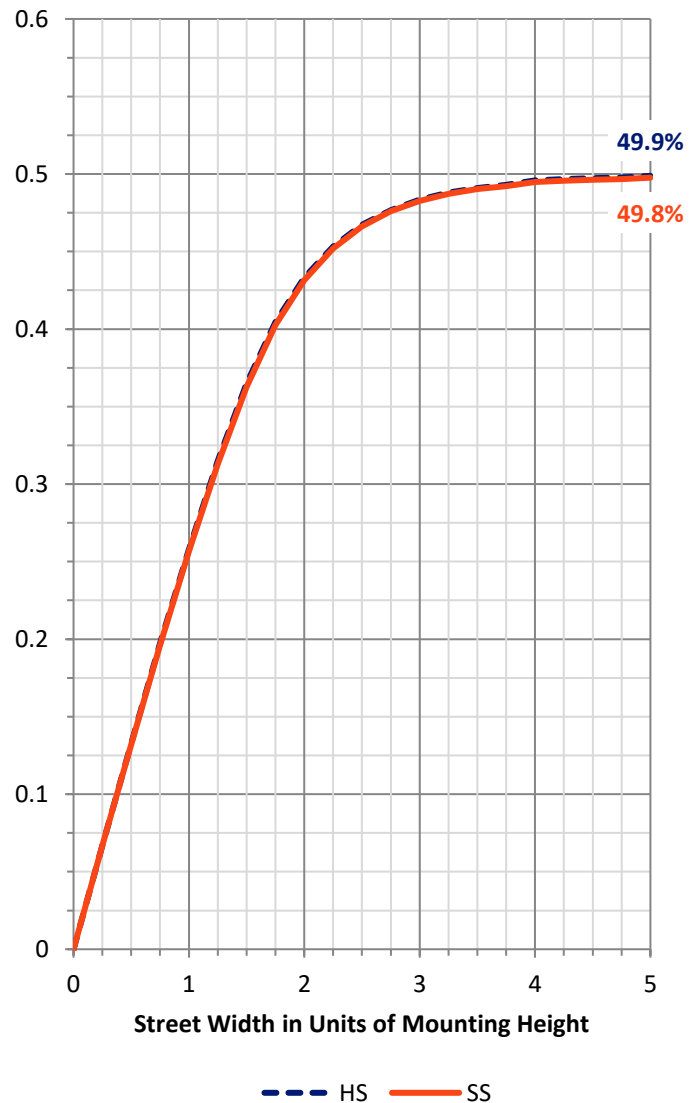
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14770.7	0.0	14770.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14770.7	0.0	14770.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	29541.3	0.0	29541.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.0	0.7
10°-20°	673.2	2.3
20°-30°	1287.7	4.4
30°-40°	2463.2	8.3
40°-50°	4262.1	14.4
50°-60°	7654.5	25.9
60°-70°	9308.0	31.5
70°-80°	3361.6	11.4
80°-90°	332.9	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°	29541.3	100.0
0°-180°	29541.3	100.0

Coefficient of Utilization



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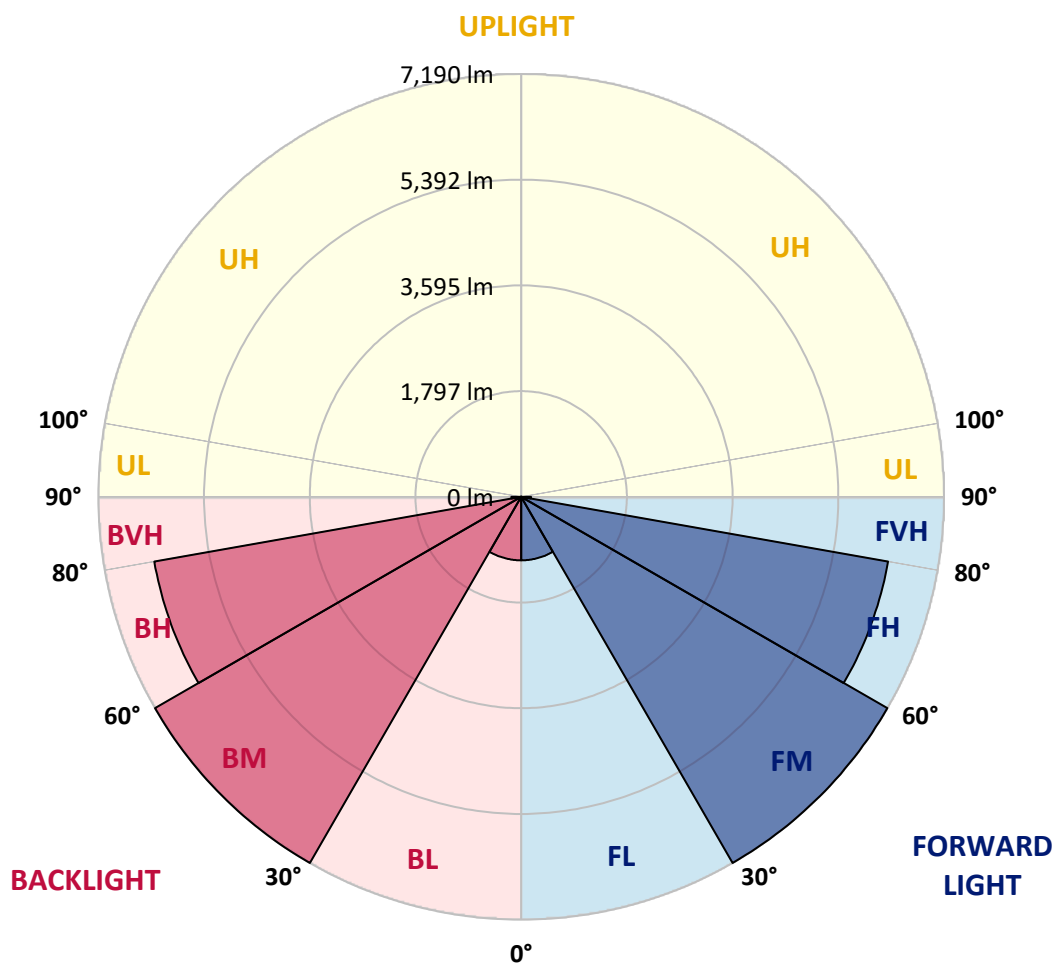
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1079.5	3.7			
FM	(30°-60°)	7189.9	24.3			
FH	(60°-80°)	6334.8	21.4			G3/7500
FVH	(80°-90°)	166.5	0.6			G2/225
BL	(0°-30°)	1079.5	3.7	B3/2500		
BM	(30°-60°)	7189.9	24.3	B4/8500		
BH	(60°-80°)	6334.8	21.4	B5		G3/7500
BVH	(80°-90°)	166.5	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°	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6
2.5°	1985.5	1981.8	1983.7	1985.5	1983.7	1981.8	1981.8	1981.8	1985.5	1981.8	1991.1
5°	2024.3	2020.6	2022.5	2022.5	2022.5	2018.8	2018.8	2018.8	2016.9	2018.8	2039.1
7.5°	2098.2	2092.6	2090.8	2094.5	2090.8	2088.9	2087.1	2087.1	2083.4	2083.4	2109.3
10°	2186.8	2179.4	2183.1	2185.0	2179.4	2175.8	2175.8	2175.8	2170.2	2168.4	2201.6
12.5°	2284.7	2281.0	2281.0	2277.3	2275.5	2271.8	2270.0	2271.8	2264.4	2264.4	2297.7
15°	2378.9	2371.5	2373.4	2367.8	2364.1	2360.5	2358.6	2356.8	2353.1	2353.1	2373.4
17.5°	2465.7	2460.2	2458.3	2452.8	2447.3	2441.7	2438.0	2436.2	2430.6	2430.6	2449.1
20°	2556.2	2550.7	2547.0	2537.8	2528.5	2523.0	2515.6	2511.9	2504.5	2506.4	2526.7
22.5°	2659.7	2650.4	2643.0	2635.7	2619.0	2607.9	2598.7	2591.3	2587.6	2587.6	2615.3
25°	2798.2	2792.6	2781.6	2757.6	2737.2	2720.6	2705.8	2698.5	2691.1	2687.4	2729.9
27.5°	2968.1	2962.6	2947.8	2923.8	2896.1	2868.4	2851.8	2838.8	2829.6	2824.0	2885.0
30°	3193.4	3184.2	3171.3	3132.5	3108.5	3066.0	3047.5	3029.1	3008.7	3014.3	3086.3
32.5°	3634.9	3621.9	3581.3	3538.8	3465.0	3407.7	3348.6	3304.3	3261.8	3256.2	3333.8
35°	4035.7	4030.1	4022.7	3993.2	3965.5	3930.4	3902.7	3856.5	3817.7	3808.5	4026.4
37.5°	4251.8	4264.7	4253.6	4249.9	4249.9	4266.5	4318.3	4370.0	4406.9	4429.1	4551.0
40°	4582.4	4582.4	4569.5	4562.1	4547.3	4569.5	4591.6	4630.4	4647.0	4648.9	4772.6
42.5°	4957.3	4959.2	4946.2	4924.1	4916.7	4937.0	4966.6	5003.5	5025.7	5031.2	5175.3
45°	5374.7	5369.2	5358.1	5350.7	5356.3	5374.7	5409.8	5481.9	5515.1	5541.0	5698.0
47.5°	5827.3	5864.2	5832.8	5838.3	5838.3	5895.6	5975.0	6034.1	6087.7	6137.5	6303.8
50°	6420.1	6425.7	6431.2	6447.8	6458.9	6534.6	6634.4	6704.6	6782.1	6846.8	7118.3
52.5°	7212.5	7201.4	7229.1	7247.6	7310.4	7351.0	7517.2	7605.9	7713.0	7796.1	8193.2
55°	8160.0	8154.5	8195.1	8209.9	8293.0	8392.7	8577.4	8771.4	8954.2	9055.8	9598.8
57.5°	8839.7	8854.5	8924.7	9022.5	9185.1	9397.5	9672.7	10101.2	10448.4	10559.2	11157.7
60°	8989.3	9037.3	9142.6	9338.4	9617.3	10012.5	10553.7	11209.4	11844.7	12057.1	12618.6
62.5°	8570.0	8625.4	8780.6	9015.2	9379.0	9964.5	10745.8	11671.1	12614.9	13087.8	13370.4
63°	8437.0	8505.4	8621.7	8893.3	9262.7	9840.8	10671.9	11669.3	12648.2	13163.5	13385.1
65°	7812.8	7825.7	7999.3	8270.8	8686.4	9286.7	10125.2	11277.7	12363.7	12958.5	12805.2
67.5°	6723.0	6776.6	6922.5	7195.9	7600.4	8224.6	9135.2	10200.9	11155.8	11630.5	10945.3
70°	5432.0	5428.3	5609.3	5829.1	6185.6	6734.1	7532.0	8494.3	9251.6	9597.0	8450.0
72.5°	3880.5	3784.5	3917.5	4161.3	4453.1	4890.8	5522.5	6270.5	6948.4	7247.6	6178.2
75°	1767.6	1741.7	1859.9	2101.9	2397.4	2787.1	3306.1	3952.6	4602.7	4953.6	3935.9
77.5°	594.7	602.1	648.3	735.1	893.9	1089.7	1412.9	1826.7	2353.1	2700.3	1847.0
80°	398.9	410.0	424.8	437.7	456.2	485.8	555.9	663.1	825.6	999.2	583.6
82.5°	326.9	339.8	373.1	387.9	398.9	408.2	413.7	421.1	421.1	424.8	369.4
85°	234.6	256.7	301.1	328.8	339.8	347.2	356.5	367.6	350.9	336.2	286.3
87.5°	81.3	110.8	162.5	179.2	192.1	193.9	206.9	229.0	217.9	177.3	86.8
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°	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6
2.5°	1981.8	1980.0	1981.8	1983.7	1983.7	1983.7	1985.5	1987.4	1987.4
5°	2018.8	2020.6	2018.8	2020.6	2020.6	2022.5	2022.5	2026.1	2026.1
7.5°	2081.6	2085.3	2083.4	2087.1	2087.1	2090.8	2088.9	2094.5	2094.5
10°	2166.5	2170.2	2173.9	2175.8	2173.9	2177.6	2181.3	2183.1	2181.3
12.5°	2262.6	2264.4	2262.6	2266.3	2266.3	2270.0	2270.0	2275.5	2275.5
15°	2351.2	2349.4	2347.5	2353.1	2356.8	2358.6	2362.3	2367.8	2362.3
17.5°	2430.6	2432.5	2428.8	2434.3	2441.7	2447.3	2451.0	2458.3	2456.5
20°	2510.1	2506.4	2510.1	2519.3	2526.7	2534.1	2541.5	2552.5	2550.7
22.5°	2587.6	2591.3	2600.6	2607.9	2620.9	2632.0	2641.2	2656.0	2661.5
25°	2696.6	2696.6	2711.4	2720.6	2739.1	2753.9	2774.2	2790.8	2800.0
27.5°	2835.1	2835.1	2851.8	2872.1	2899.8	2925.6	2947.8	2970.0	2966.3
30°	3023.5	3032.8	3047.5	3073.4	3110.3	3141.7	3171.3	3193.4	3195.3
32.5°	3271.0	3282.1	3326.4	3392.9	3470.5	3529.6	3573.9	3627.5	3634.9
35°	3832.5	3860.2	3917.5	3971.0	4002.4	4037.5	4059.7	4061.5	4065.2
37.5°	4423.5	4375.5	4331.2	4290.6	4272.1	4268.4	4268.4	4275.8	4279.5
40°	4639.6	4615.6	4595.3	4569.5	4576.8	4575.0	4587.9	4599.0	4606.4
42.5°	5009.0	4990.6	4972.1	4938.9	4957.3	4951.8	4970.2	4986.9	4996.1
45°	5524.3	5467.1	5426.5	5372.9	5391.4	5380.3	5380.3	5400.6	5404.3
47.5°	6093.2	6026.7	5943.6	5877.1	5855.0	5834.6	5853.1	5853.1	5832.8
50°	6774.8	6695.3	6597.4	6490.3	6453.4	6433.1	6440.5	6449.7	6392.4
52.5°	7700.1	7611.4	7472.9	7310.4	7275.3	7258.7	7255.0	7242.0	7227.3
55°	8954.2	8788.0	8618.1	8403.8	8339.2	8320.7	8322.5	8307.8	8342.9
57.5°	10433.6	10189.8	9798.3	9537.9	9382.7	9323.6	9270.0	9247.9	9249.7
60°	11898.3	11401.5	10816.0	10361.6	10036.5	9829.7	9667.1	9576.6	9550.8
62.5°	12842.1	12060.8	11181.7	10444.7	9910.9	9569.3	9312.5	9150.0	9098.3
63°	12916.0	12088.5	11148.4	10357.9	9796.4	9438.1	9168.5	9000.4	8945.0
65°	12755.3	11809.7	10714.4	9772.4	9157.4	8760.3	8468.4	8309.6	8267.1
67.5°	11506.7	10719.9	9604.3	8631.0	8010.4	7607.8	7273.4	7122.0	7074.0
70°	9360.5	8821.2	7907.0	7075.8	6497.7	6109.8	5771.8	5646.2	5644.4
72.5°	6939.1	6239.1	5694.3	5084.8	4580.5	4272.1	3978.4	3838.0	3767.9
75°	4589.8	3839.9	3230.4	2716.9	2214.5	1937.5	1606.9	1464.7	1381.5
77.5°	2312.4	1714.0	1228.2	851.5	661.2	543.0	496.8	472.8	471.0
80°	770.2	578.1	496.8	465.4	456.2	458.1	452.5	443.3	432.2
82.5°	426.7	448.8	452.5	439.6	439.6	432.2	424.8	389.7	371.2
85°	365.7	402.6	406.3	398.9	397.1	386.0	373.1	325.1	297.4
87.5°	229.0	264.1	258.6	230.9	254.9	238.3	225.3	145.9	107.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)