Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: INVUE

Report Number: P368267

Luminaire Tested: **MSA-SA4A-750-U-T4FT-HSS**

Issue Date: 12/2/2019

Report Generated By 670245982

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Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P368267
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)
Test Lab:	INNOVATION CENTER
Issue Date:	12/2/2019
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	INVUE
Catalog Number:	MSA-SA4A-750-U-T4FT-HSS
Description:	MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	11610 lumens
Efficiency:	N/A
Efficacy:	90.0 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U0 - G3

Input Watts (W):	129
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:	24 FT

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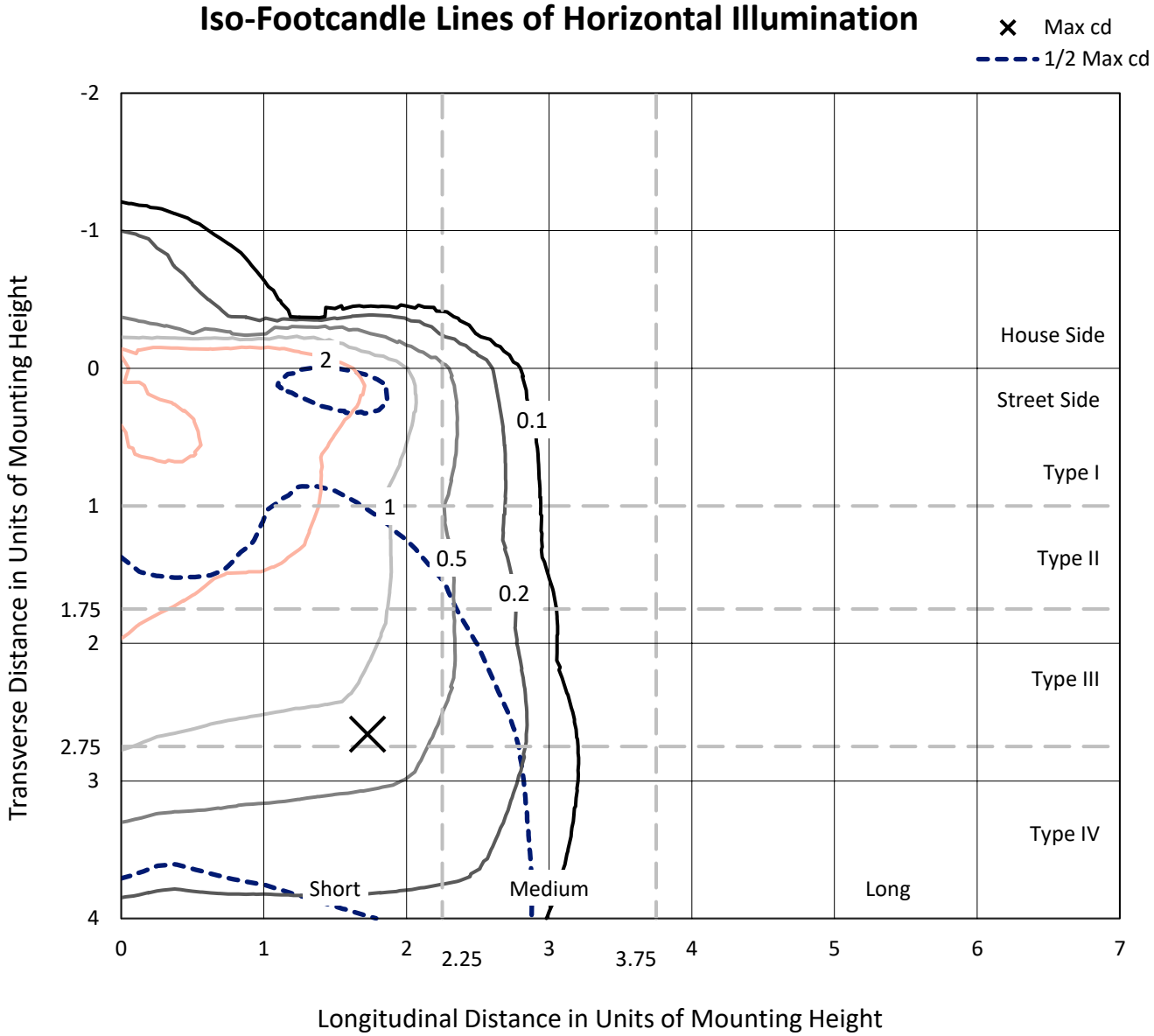
Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 4.5 fc
Type IV - Short - N/A

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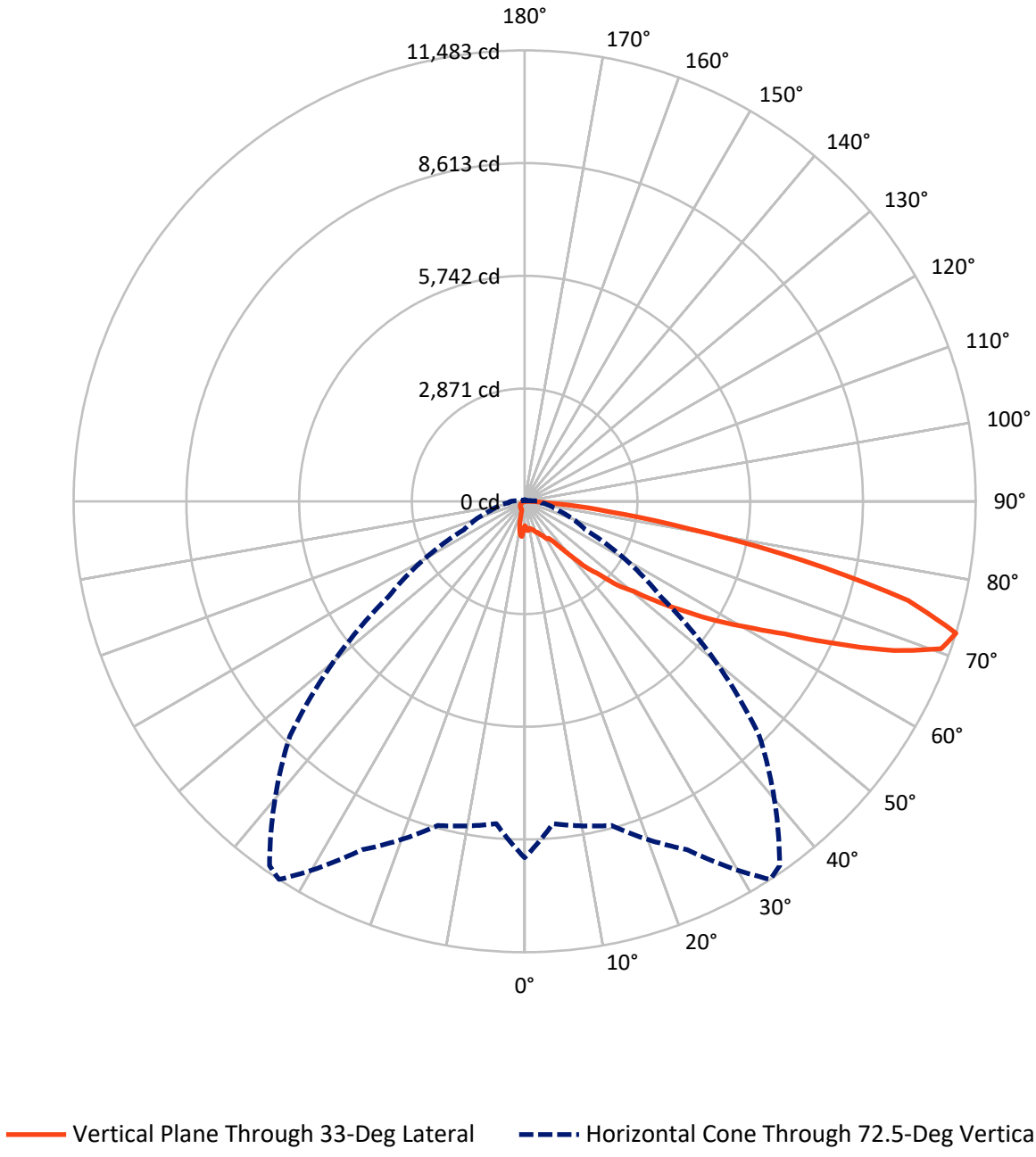
Luminous Intensity Polar Plot



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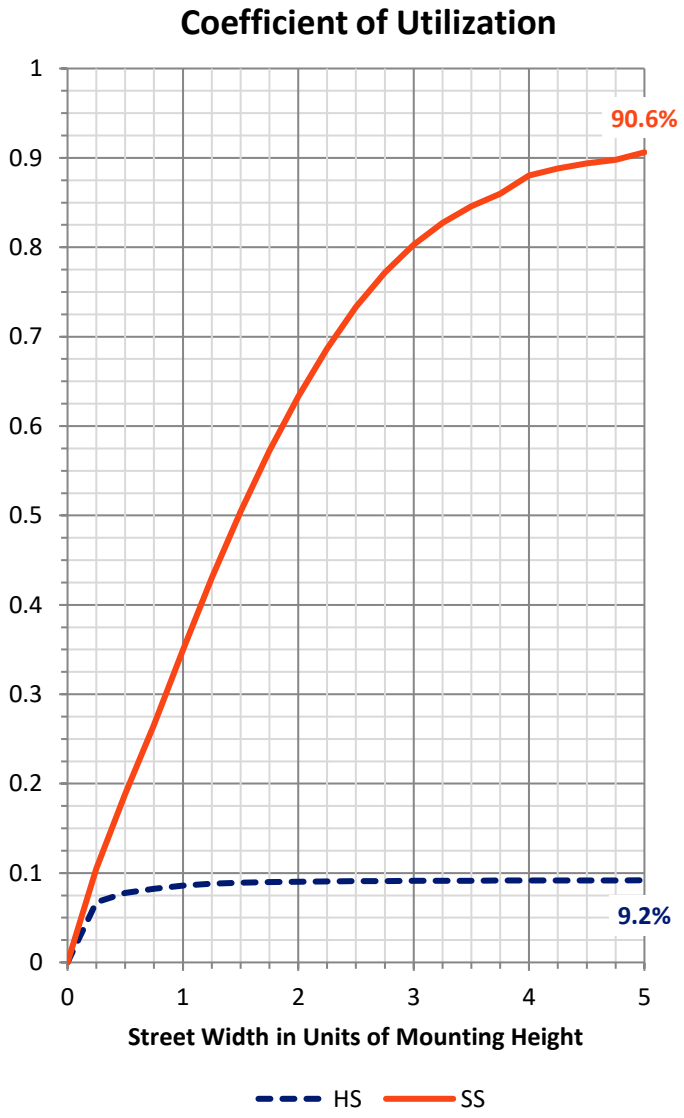
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1073.5	0.0	1073.5
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	10536.5	0.0	10536.5
	% Fixture	90.8	0.0	90.8
Total	Lumens	11610.0	0.0	11610.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.9	0.7
10°-20°	238.2	2.1
20°-30°	403.9	3.5
30°-40°	739.2	6.4
40°-50°	1560.1	13.4
50°-60°	2610.2	22.5
60°-70°	3493.9	30.1
70°-80°	2282.2	19.7
80°-90°	202.3	1.7
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°	11610.0	100.0
0°-180°	11610.0	100.0



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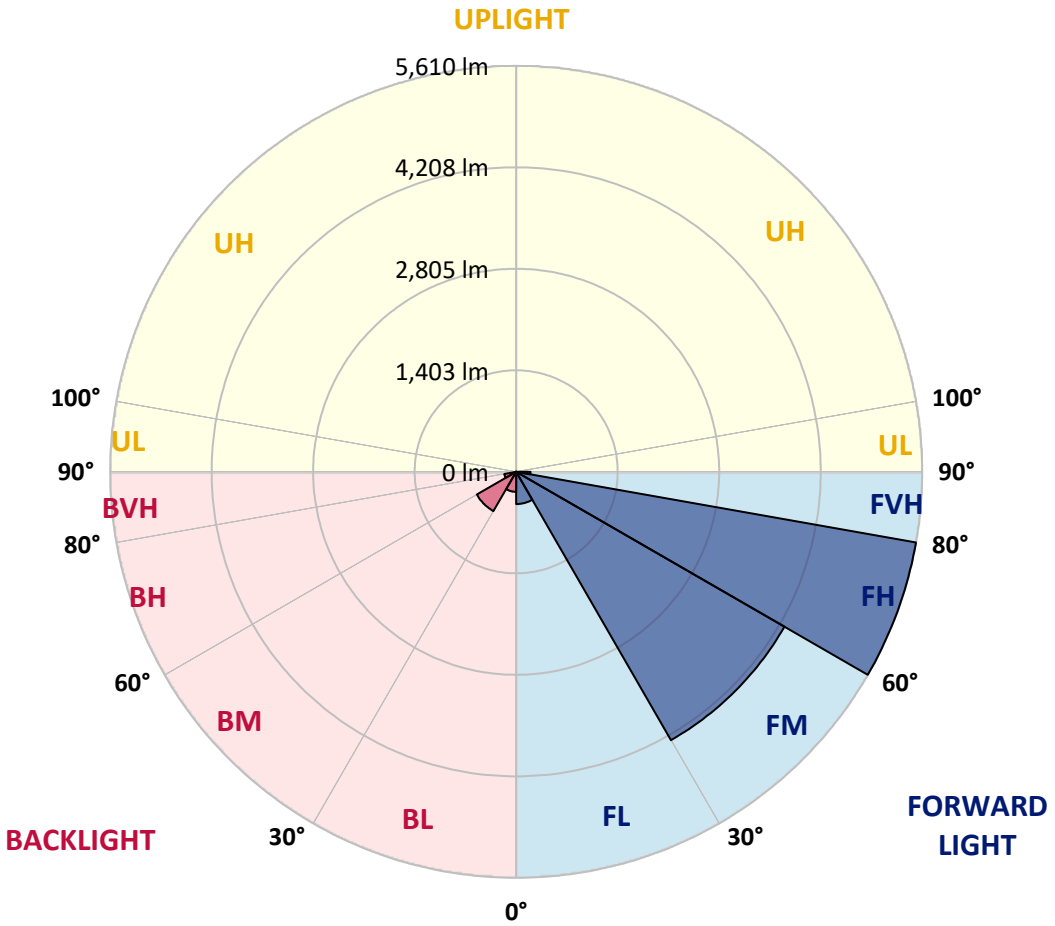
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	445.7	3.8			
FM	(30°-60°)	4281.9	36.9			
FH	(60°-80°)	5610.4	48.3			G3/7500
FVH	(80°-90°)	198.4	1.7			G2/225
BL	(0°-30°)	276.3	2.4	B1/500		
BM	(30°-60°)	627.6	5.4	B1/1000		
BH	(60°-80°)	165.7	1.4	B1/500		G1/500
BVH	(80°-90°)	3.9	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	617.5	617.5	617.5	617.5	617.5	617.5	617.5	617.5	617.5	617.5	617.5
2.5°	736.1	707.8	666.5	669.1	676.2	682.0	697.4	691.0	678.8	678.1	736.1
5°	780.0	748.4	745.8	749.7	747.7	758.0	745.1	787.0	822.5	865.0	933.4
7.5°	758.7	743.9	725.2	744.5	743.9	738.7	747.1	832.2	917.9	972.0	1084.8
10°	697.4	680.7	694.9	701.3	696.8	719.4	775.4	845.1	947.5	1061.0	1115.8
12.5°	680.0	690.4	695.5	695.5	738.7	750.3	836.0	901.8	1023.6	1113.2	1272.4
15°	747.7	767.7	732.3	724.5	738.1	744.5	839.9	919.2	1075.2	1238.9	1372.3
17.5°	855.4	854.1	799.3	769.0	790.3	805.7	858.6	951.4	1042.9	1337.5	1530.9
20°	929.5	930.8	832.2	769.0	839.3	848.3	906.9	981.1	1053.3	1387.2	1634.7
22.5°	1024.9	990.7	881.8	820.6	868.3	876.6	941.1	999.8	1106.1	1381.4	1767.5
25°	1102.9	1081.0	943.7	901.1	943.7	932.1	990.7	1079.0	1162.8	1473.5	1845.5
27.5°	1224.1	1186.7	987.5	995.2	992.7	1001.0	1014.6	1149.9	1262.8	1478.0	2025.9
30°	1336.9	1315.0	1085.5	1085.5	1110.6	1094.5	1104.2	1267.9	1359.4	1582.5	2229.0
32.5°	1453.6	1454.8	1200.9	1139.6	1119.7	1186.0	1251.1	1325.3	1476.1	1761.7	2539.7
35°	1762.3	1736.5	1422.0	1269.2	1253.1	1249.2	1353.6	1554.1	1683.0	1995.0	2958.0
37.5°	2384.3	2294.7	1897.7	1563.1	1502.5	1481.9	1600.5	1806.1	1934.4	2337.9	3649.7
40°	3022.5	2858.1	2417.2	2040.1	1843.5	1754.6	1892.5	2067.2	2295.4	2716.9	4289.7
42.5°	3582.6	3379.6	2808.5	2554.5	2298.6	2259.9	2130.4	2414.6	2811.1	3268.7	4916.9
45°	4128.6	3729.0	3156.6	2955.4	2644.8	2666.7	2622.8	2869.1	3346.7	3873.3	5473.2
47.5°	4504.4	4145.4	3583.3	3322.2	3197.8	3069.5	3417.6	3673.5	3823.7	4257.5	5954.1
50°	4909.2	4545.6	3950.0	3767.6	3603.9	3733.5	4185.3	4219.5	4207.2	4615.9	6281.5
52.5°	5432.0	5003.3	4371.0	4164.7	4257.5	4386.4	4907.9	4914.4	4548.2	4917.6	6517.4
55°	5915.4	5440.3	4931.8	4737.1	4931.1	5040.0	5618.2	5406.2	4746.8	5122.6	6633.5
57.5°	6596.7	6046.9	5677.5	5334.6	5727.8	5623.4	6242.9	5927.6	4969.8	5258.6	6590.9
60°	7457.9	6810.7	6440.7	6077.8	6499.4	6570.3	6852.6	6188.1	5056.2	5303.0	6335.0
62.5°	8333.9	7682.9	7196.2	6950.0	7428.3	7661.6	7417.3	6317.6	4952.4	5216.0	5755.5
65°	9420.7	8587.2	8018.7	7874.3	8760.6	9103.5	8085.1	6349.2	4751.9	4737.1	4627.5
67.5°	10165.2	9353.6	8832.2	9073.9	10144.6	10172.3	8684.6	6358.9	4077.0	3709.0	3037.3
70°	10341.8	9472.9	9239.6	9951.2	11248.7	10900.0	8877.9	5869.0	3023.8	2201.3	1388.4
72.5°	9078.4	8241.7	8545.3	9785.5	11483.4	11323.5	8450.6	4234.3	1702.4	880.5	426.1
75°	5568.6	5062.6	6410.4	8296.5	10080.1	9977.0	6592.9	2187.7	685.8	351.9	159.2
77.5°	2421.7	2249.0	3345.4	5504.8	7243.3	7151.1	3863.0	805.7	354.5	247.5	80.6
80°	801.2	777.4	1267.3	2606.7	4242.7	4161.5	1627.6	335.2	252.7	198.5	45.1
82.5°	190.2	188.9	442.2	1199.6	2161.3	2093.6	499.6	185.0	183.1	156.6	23.8
85°	47.7	49.0	122.5	490.5	877.9	774.2	130.2	92.2	128.9	106.4	12.2
87.5°	0.0	0.0	31.6	70.3	132.8	83.2	14.2	24.5	36.1	38.0	6.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	617.5	617.5	617.5	617.5	617.5	617.5	617.5	617.5	617.5	617.5	617.5
2.5°	749.0	741.9	683.9	698.1	720.0	718.1	732.3	721.3	711.6	759.3	754.8
5°	952.7	914.0	896.0	921.1	907.6	876.0	902.4	897.9	890.2	906.3	918.5
7.5°	1105.5	1070.0	1053.9	1001.0	924.3	863.8	873.4	850.9	829.6	854.7	880.5
10°	1155.7	1136.4	1134.5	1031.3	959.1	871.5	767.7	678.1	654.3	622.7	636.9
12.5°	1292.4	1304.0	1231.2	1110.6	971.4	803.2	618.8	491.8	440.3	406.7	408.7
15°	1404.6	1445.2	1339.5	1122.9	854.7	612.4	411.9	297.8	265.6	257.2	254.6
17.5°	1571.5	1610.8	1373.0	1035.9	689.1	415.1	264.9	232.1	234.0	239.8	238.5
20°	1695.3	1689.5	1344.0	881.8	507.9	272.0	221.7	217.2	227.5	244.3	240.4
22.5°	1814.5	1774.6	1325.9	739.3	328.7	218.5	214.0	213.4	223.0	239.1	243.7
25°	1899.6	1906.1	1295.6	578.8	239.1	203.0	206.9	212.7	222.4	239.8	237.2
27.5°	2143.3	1962.8	1169.3	420.3	201.8	194.7	204.3	215.9	219.2	241.1	241.7
30°	2301.2	2176.8	1086.8	283.0	186.3	179.8	199.2	214.6	218.5	246.9	248.8
32.5°	2576.4	2269.0	991.4	210.1	173.4	175.3	187.6	208.2	226.3	256.5	257.8
35°	2918.7	2564.8	818.6	188.9	168.9	165.7	171.5	195.3	225.0	257.8	264.3
37.5°	3570.4	2742.1	649.1	183.1	168.9	163.1	168.9	183.1	221.1	270.7	284.3
40°	4006.8	3103.1	468.0	181.8	165.7	160.5	162.4	176.6	210.1	263.0	283.0
42.5°	4544.4	3255.2	344.9	178.6	162.4	154.7	156.0	174.0	199.2	246.9	261.7
45°	4984.6	3366.0	271.4	177.3	154.7	152.1	154.7	172.1	188.9	212.1	225.6
47.5°	5319.2	3495.0	217.9	168.9	152.8	152.1	148.9	161.1	171.5	177.3	186.3
50°	5564.1	3466.0	180.5	156.0	146.3	150.2	144.4	146.3	148.9	145.7	156.0
52.5°	5714.3	3361.5	150.2	140.5	138.6	141.8	134.7	128.9	124.4	121.8	128.3
55°	5769.1	3152.0	127.6	120.5	125.1	126.3	120.5	110.2	102.5	98.6	103.8
57.5°	5665.3	2833.0	110.9	99.9	110.2	110.2	102.5	91.5	82.5	76.1	81.2
60°	5402.3	2480.4	98.6	83.2	94.1	94.8	85.7	74.1	67.0	60.6	63.8
62.5°	4912.4	2096.2	86.4	72.2	81.2	81.9	70.9	59.9	54.8	47.7	50.3
65°	3932.6	1603.1	73.5	63.8	70.3	68.3	58.7	50.9	44.5	38.0	39.3
67.5°	2552.6	989.4	63.8	58.0	59.3	57.4	49.6	44.5	37.4	32.2	32.9
70°	1142.9	426.1	56.1	52.2	51.6	48.3	41.9	41.3	36.7	32.2	32.2
72.5°	*352.6*	*160.5*	*48.3*	*47.1*	*44.5*	*40.6*	*36.7*	*39.3*	*36.1*	*30.9*	*30.3*
75°	139.2	73.5	40.0	40.0	38.7	33.5	32.9	35.5	33.5	28.4	27.1
77.5°	72.8	46.4	32.9	34.2	33.5	25.8	29.7	32.2	30.9	23.8	20.0
80°	43.2	28.4	24.5	27.7	27.1	18.0	22.6	20.6	14.8	7.1	1.9
82.5°	23.8	12.9	11.0	16.1	16.1	6.4	11.6	10.3	5.8	0.0	0.0
85°	11.6	9.0	8.4	9.0	6.4	1.9	5.8	5.8	3.2	0.0	0.0
87.5°	5.8	5.2	3.9	3.2	2.6	0.0	1.9	2.6	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)