

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: P565271

Luminaire Tested: **MSA-SA1C-727-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565271
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2108-334-1)
Test Lab: INNOVATIONS CENTER
Issue Date: 8/19/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-727-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4743 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B2 - U0 - G2

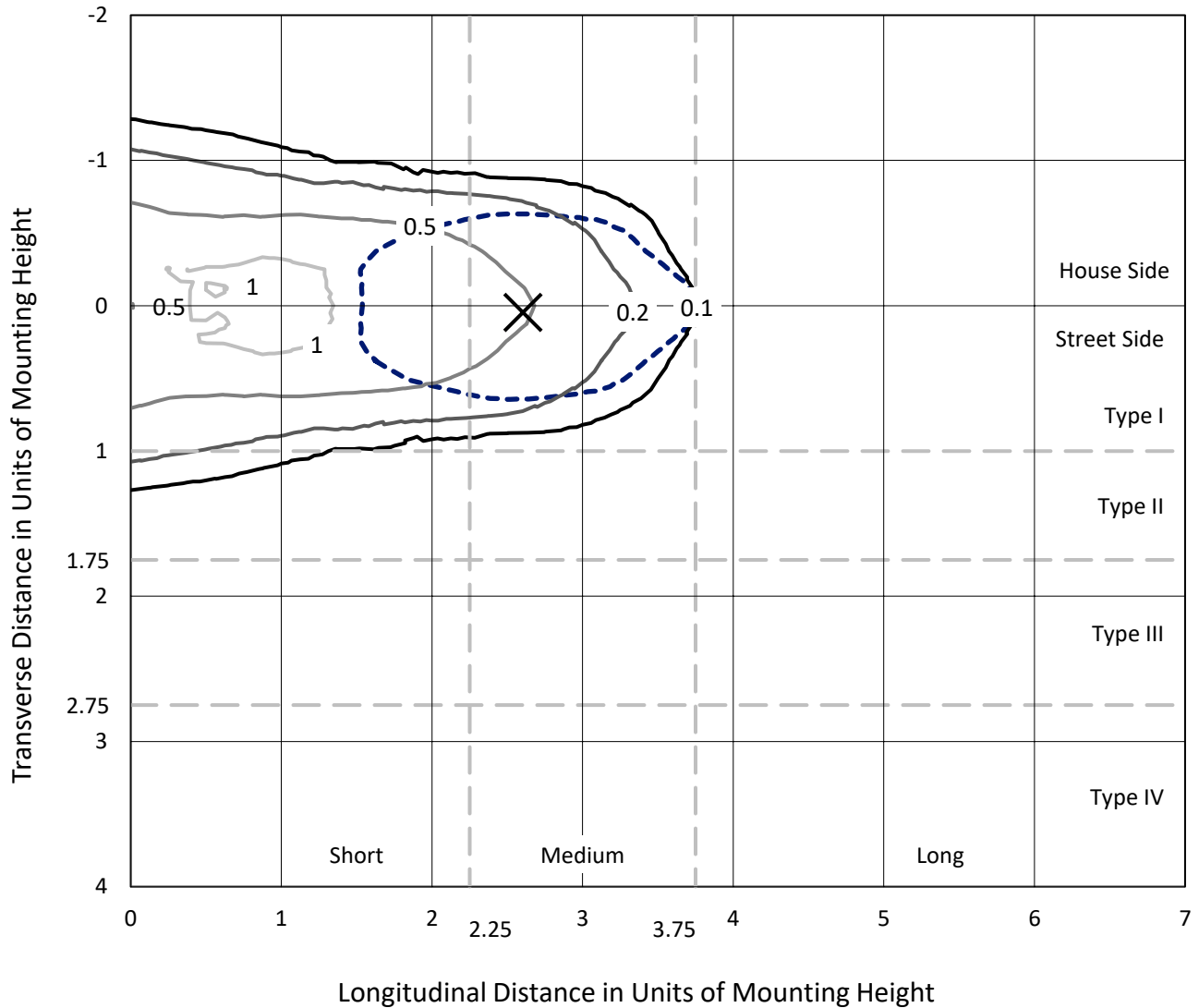
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

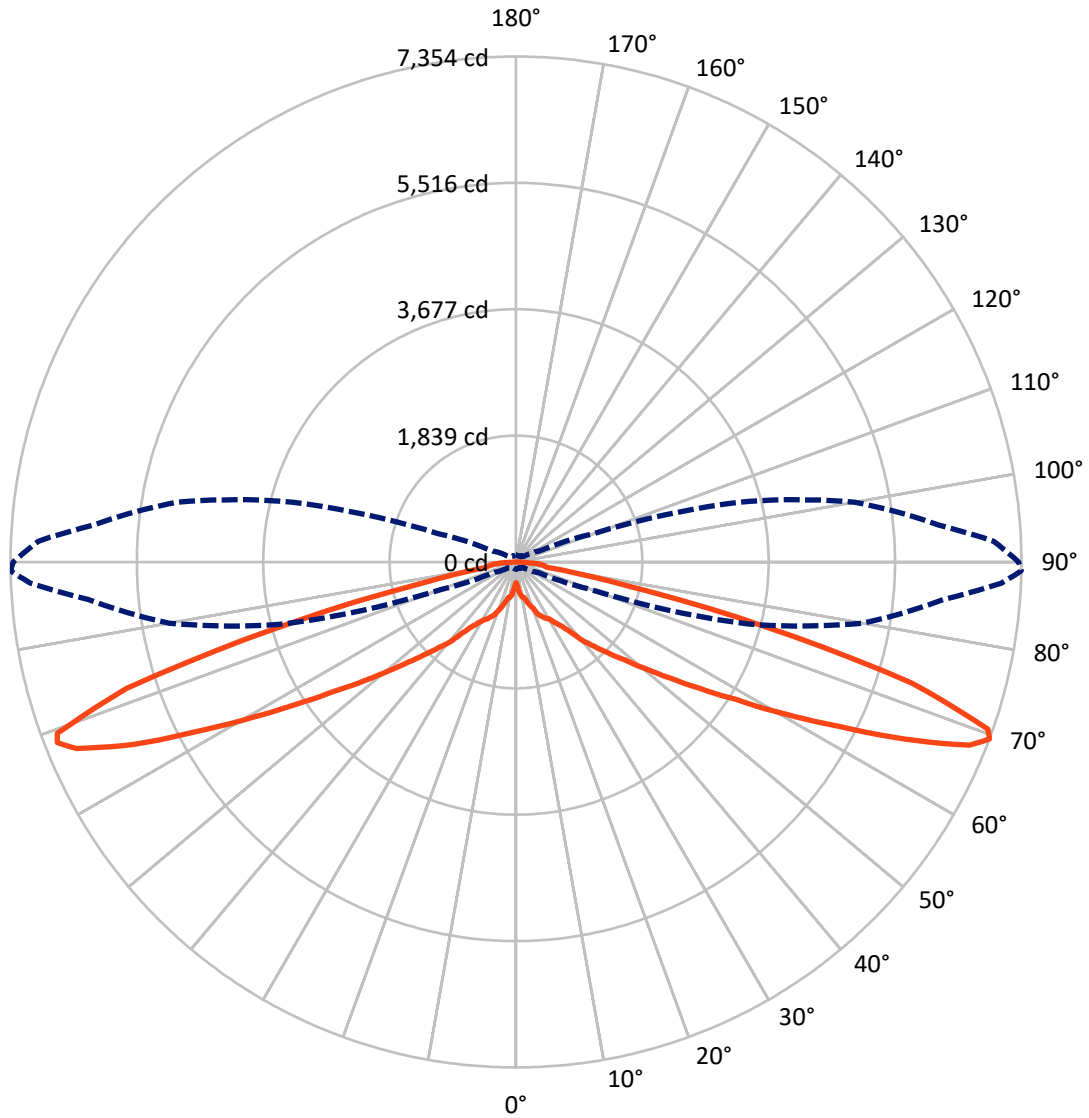
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc
 Type I - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 89-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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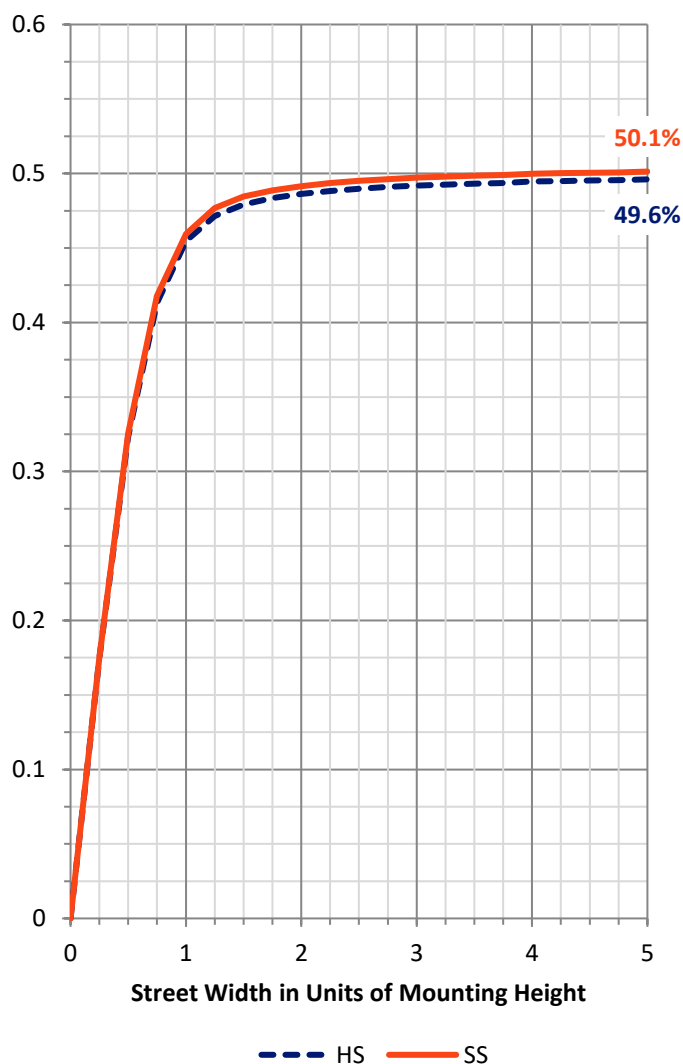
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2371.5	0.0	2371.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2371.5	0.0	2371.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	4743.0	0.0	4743.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.8	0.8
10°-20°	173.9	3.7
20°-30°	347.0	7.3
30°-40°	524.8	11.1
40°-50°	761.8	16.1
50°-60°	1000.8	21.1
60°-70°	1220.9	25.7
70°-80°	617.2	13.0
80°-90°	58.8	1.2
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°	4743.0	100.0
0°-180°	4743.0	100.0

Coefficient of Utilization



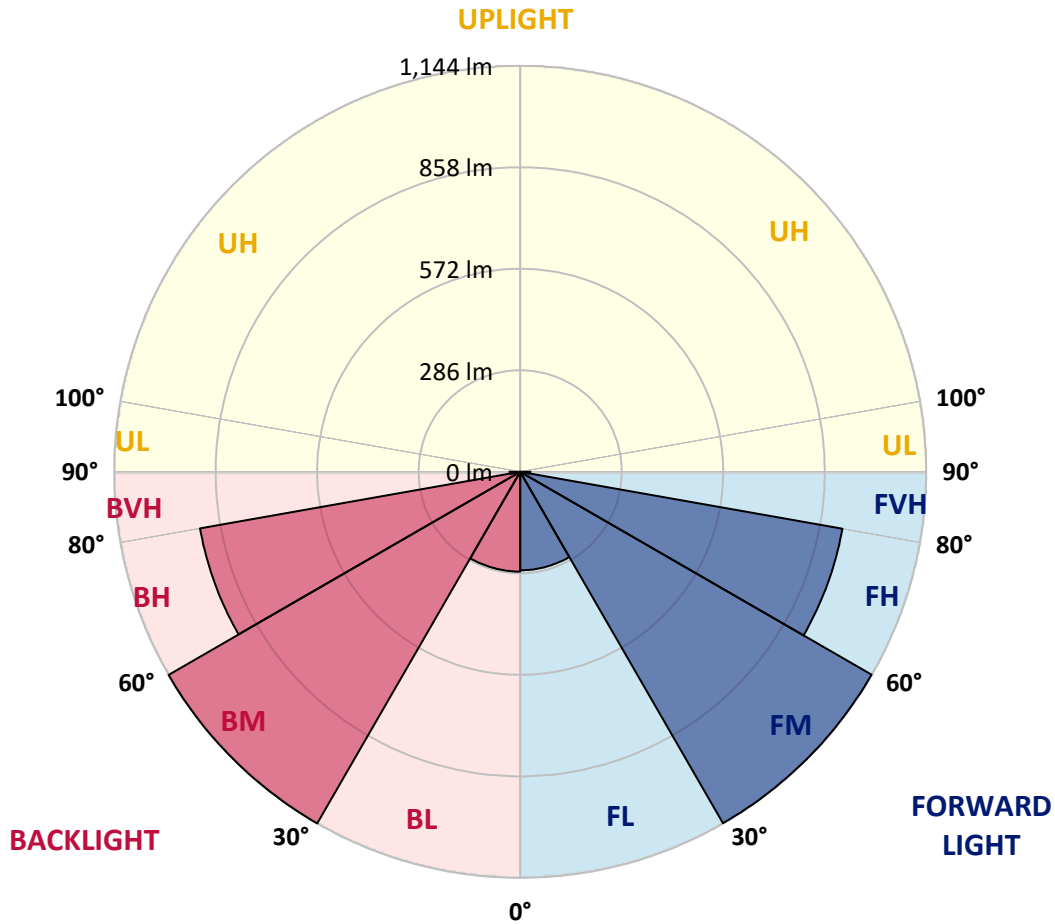
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	277.4	5.8			
FM (30°-60°)	1143.3	24.1			
FH (60°-80°)	922.0	19.4			G1/1800
FVH (80°-90°)	28.9	0.6			G1/100
BL (0°-30°)	281.3	5.9	B1/500		
BM (30°-60°)	1144.1	24.1	B2/2500		
BH (60°-80°)	916.1	19.3	B2/1000		G2/1000
BVH (80°-90°)	30.0	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4
2.5°	352.6	311.9	308.4	298.7	305.7	308.4	302.2	293.4	303.1	308.4	298.7
5°	444.4	384.4	364.0	347.3	313.7	299.5	313.7	349.9	354.3	376.4	370.2
7.5°	489.5	479.8	454.2	398.5	344.6	314.6	352.6	404.7	431.2	452.4	474.5
10°	523.1	517.8	472.7	433.0	410.9	412.6	413.5	430.3	453.3	488.6	501.0
12.5°	531.0	529.3	536.3	527.5	529.3	539.0	529.3	524.9	538.1	549.6	537.2
15°	582.3	581.4	584.1	585.8	621.2	636.2	621.2	607.9	598.2	588.5	608.8
17.5°	617.6	613.2	614.1	630.9	670.6	712.2	704.2	686.6	664.5	677.7	694.5
20°	637.1	629.1	634.4	641.5	708.6	754.6	759.9	736.0	722.8	739.6	753.7
22.5°	655.6	643.3	624.7	631.8	693.6	759.9	785.5	779.3	789.0	794.3	791.7
25°	633.5	641.5	621.2	641.5	704.2	765.2	816.4	852.7	853.6	850.9	870.3
27.5°	620.3	614.1	579.6	631.8	683.9	721.9	852.7	913.6	932.2	875.6	913.6
30°	597.3	607.0	560.2	603.5	669.8	733.4	894.2	981.7	954.3	947.2	956.0
32.5°	583.2	577.0	554.9	578.8	629.1	767.8	920.7	1021.4	1055.9	1039.1	1037.3
35°	560.2	564.6	530.2	555.8	626.5	738.7	938.4	1121.3	1174.3	1161.0	1150.4
37.5°	563.7	548.7	524.0	542.5	609.7	754.6	982.6	1217.6	1301.5	1308.6	1260.0
40°	537.2	528.4	491.3	522.2	577.9	744.9	993.2	1327.2	1469.4	1501.2	1431.4
42.5°	499.2	487.7	466.5	501.0	559.3	697.2	1008.2	1458.8	1639.9	1706.2	1642.6
45°	444.4	429.4	418.8	464.8	518.7	684.8	992.3	1568.4	1803.4	1894.4	1892.7
47.5°	378.2	368.5	363.2	411.8	485.1	653.9	959.6	1637.3	1917.4	2150.7	2115.3
50°	303.1	296.0	295.1	346.4	428.5	590.2	922.5	1671.8	2090.6	2385.7	2416.6
52.5°	243.0	237.7	236.8	278.3	358.7	504.5	844.7	1698.3	2255.8	2652.5	2811.6
55°	190.0	184.7	185.6	220.0	285.4	412.6	726.3	1668.2	2400.7	2925.6	3226.9
57.5°	155.5	150.2	151.1	170.5	218.2	315.4	578.8	1602.8	2466.1	3263.1	3711.1
60°	137.0	131.7	129.0	137.8	167.9	237.7	430.3	1348.4	2476.7	3543.2	4236.8
62.5°	127.2	121.9	119.3	121.9	138.7	182.0	310.1	1068.3	2415.7	3782.7	4718.4
65°	118.4	114.0	110.4	113.1	121.9	144.9	226.2	731.6	2096.8	3892.2	5068.3
67.5°	108.7	105.1	101.6	105.1	111.3	121.9	175.8	463.0	1571.9	3750.0	5214.1
69°	103.4	98.1	96.3	99.0	105.1	112.2	152.0	369.3	1195.5	3479.6	5125.7
70°	98.1	94.5	91.9	96.3	101.6	106.9	137.0	313.7	937.5	3132.3	4906.6
72.5°	86.6	83.9	82.2	86.6	91.0	94.5	112.2	223.5	543.4	2133.0	3891.3
75°	76.0	73.3	72.5	76.0	79.5	81.3	94.5	153.7	320.7	1116.0	2334.5
77.5°	63.6	60.1	61.0	65.4	68.0	68.9	79.5	110.4	189.1	505.4	1081.5
80°	46.8	46.8	50.4	53.9	53.9	53.9	63.6	80.4	114.9	232.4	448.9
82.5°	32.7	33.6	34.5	39.8	40.6	37.1	48.6	58.3	71.6	101.6	155.5
85°	18.6	19.4	20.3	23.9	24.7	22.1	31.8	37.1	41.5	50.4	81.3
87.5°	7.1	8.0	10.6	12.4	13.3	9.7	15.0	17.7	17.7	21.2	36.2
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):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4
2.5°	319.0	325.2	336.6	339.3	329.6	319.0	295.1	310.1	316.3	304.8	308.4
5°	395.0	408.2	422.4	405.6	395.0	387.9	376.4	377.3	371.1	350.8	317.2
7.5°	480.7	465.7	476.3	487.7	471.0	471.8	482.4	460.4	443.6	409.1	346.4
10°	520.4	520.4	523.1	523.1	516.0	516.0	515.1	479.8	459.5	444.4	426.8
12.5°	523.1	522.2	532.8	524.9	526.6	528.4	532.8	548.7	543.4	524.0	539.9
15°	596.4	592.9	596.4	595.5	598.2	606.1	602.6	599.1	600.0	614.1	638.0
17.5°	665.3	667.1	663.6	669.8	669.8	675.1	687.4	675.1	664.5	691.0	709.5
20°	744.9	738.7	724.5	735.1	737.8	738.7	759.0	744.0	729.0	738.7	760.8
22.5°	825.3	824.4	826.2	827.0	830.6	817.3	789.9	785.5	795.2	782.0	784.6
25°	874.8	875.6	880.1	880.9	865.9	880.1	889.8	860.6	860.6	858.0	840.3
27.5°	934.8	921.6	926.9	934.0	927.8	931.3	919.8	877.4	922.5	928.7	858.0
30°	975.5	969.3	963.1	970.2	976.4	992.3	959.6	955.2	958.7	991.4	898.6
32.5°	1061.2	1070.0	1058.5	1047.1	1058.5	1055.0	1040.9	1034.7	1078.9	1035.6	926.9
35°	1140.7	1144.3	1145.1	1143.4	1150.4	1138.1	1138.1	1161.0	1174.3	1127.5	935.7
37.5°	1332.5	1320.1	1294.5	1282.1	1304.2	1322.7	1268.0	1295.3	1290.0	1210.5	1002.0
40°	1470.3	1498.6	1506.5	1503.0	1506.5	1453.5	1465.0	1485.3	1461.5	1329.8	979.0
42.5°	1671.8	1689.4	1683.2	1675.3	1678.8	1669.1	1634.6	1709.8	1624.0	1463.2	1014.4
45°	1855.5	1895.3	1898.0	1870.6	1892.7	1858.2	1872.3	1898.8	1812.2	1563.1	1004.6
47.5°	2074.7	2156.8	2125.9	2125.9	2148.0	2073.8	2107.4	2142.7	1913.0	1630.2	951.6
50°	2399.0	2443.1	2441.4	2433.4	2443.1	2403.4	2398.1	2393.7	2067.6	1693.8	918.9
52.5°	2765.6	2825.7	2802.8	2811.6	2824.8	2749.7	2808.9	2647.2	2261.1	1717.7	844.7
55°	3233.9	3275.5	3252.5	3207.4	3267.5	3219.8	3239.3	2923.8	2395.4	1649.7	721.0
57.5°	3791.5	3812.7	3774.7	3770.3	3810.1	3758.8	3726.1	3234.8	2465.2	1598.4	576.1
60°	4442.7	4509.0	4485.1	4447.1	4483.3	4438.3	4190.9	3499.0	2451.1	1359.0	446.2
62.5°	5223.8	5291.0	5264.4	5238.8	5261.8	5144.3	4627.4	3707.6	2387.5	1077.1	326.0
65°	5868.8	6171.9	6211.7	6212.5	6101.2	5829.1	4975.5	3788.8	2051.7	751.9	238.6
67.5°	6292.9	6922.9	7119.1	7048.4	6793.1	6171.9	5116.0	3629.8	1584.3	475.4	178.5
69°	6244.3	7070.5	7354.1	7314.4	6955.6	6166.6	5006.4	3362.1	1210.5	378.2	151.1
70°	6019.9	6949.5	7286.1	7303.8	6852.3	5929.8	4811.2	3054.6	979.0	322.5	138.7
72.5°	4804.1	5726.6	6022.6	6138.3	5690.3	4748.4	3945.2	2155.1	567.3	225.3	112.2
75°	2975.9	3472.5	3718.2	3785.3	3514.0	2957.4	2394.5	1199.0	345.5	159.0	94.5
77.5°	1334.2	1478.3	1619.6	1619.6	1513.6	1350.1	1097.4	579.6	196.2	113.1	79.5
80°	447.1	463.9	451.5	455.9	438.3	421.5	440.9	250.1	121.1	84.8	64.5
82.5°	304.0	381.7	405.6	405.6	380.8	300.4	169.6	114.9	74.2	61.0	49.5
85°	247.4	302.2	324.3	334.0	314.6	253.6	89.2	55.7	44.2	38.9	33.6
87.5°	83.1	77.8	73.3	71.6	75.1	78.6	44.2	23.9	20.3	18.6	17.7
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):

	135°	145°	155°	165°	175°	180°
0°	300.4	300.4	300.4	300.4	300.4	300.4
2.5°	314.6	304.0	308.4	312.8	344.6	368.5
5°	312.8	327.8	361.4	403.8	423.2	471.0
7.5°	321.6	376.4	439.1	483.3	501.0	516.0
10°	430.3	440.0	461.2	503.6	539.0	545.2
12.5°	555.8	553.1	538.1	557.5	539.9	552.2
15°	653.9	624.7	604.4	601.7	595.5	595.5
17.5°	707.8	682.1	653.9	646.8	628.2	643.3
20°	771.4	727.2	656.5	649.4	643.3	629.1
22.5°	759.0	714.8	641.5	632.7	665.3	663.6
25°	774.0	714.8	645.0	635.3	650.3	650.3
27.5°	736.9	688.3	638.0	579.6	625.6	636.2
30°	727.2	672.4	614.1	562.0	608.8	599.1
32.5°	778.4	632.7	575.2	559.3	593.8	586.7
35°	738.7	625.6	565.5	536.3	577.0	569.9
37.5°	755.5	616.7	548.7	524.0	556.7	567.3
40°	751.9	575.2	529.3	497.5	530.2	535.5
42.5°	692.7	543.4	496.6	464.8	481.6	499.2
45°	675.1	524.0	464.8	420.6	421.5	441.8
47.5°	642.4	479.8	406.5	365.8	365.8	382.6
50°	587.6	420.6	340.2	303.1	302.2	315.4
52.5°	506.3	363.2	287.2	246.5	243.9	257.1
55°	414.4	292.5	226.2	199.7	194.4	199.7
57.5°	322.5	228.0	178.5	157.3	156.4	160.8
60°	250.1	178.5	142.3	129.9	131.7	138.7
62.5°	189.1	142.3	121.1	116.6	119.3	126.4
65°	150.2	122.8	110.4	107.8	110.4	117.5
67.5°	121.9	111.3	102.5	99.0	100.7	107.8
69°	112.2	105.1	98.1	93.7	95.4	100.7
70°	106.9	101.6	94.5	90.1	91.9	97.2
72.5°	93.7	91.0	85.7	81.3	82.2	86.6
75°	82.2	80.4	76.9	71.6	71.6	76.9
77.5°	68.9	69.8	66.3	61.0	60.1	62.7
80°	54.8	56.5	54.8	49.5	47.7	47.7
82.5°	39.8	43.3	41.5	36.2	35.3	35.3
85°	24.7	27.4	26.5	23.0	23.0	20.3
87.5°	11.5	15.0	14.1	12.4	11.5	8.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)