

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: P565334

Luminaire Tested: **MSA-SA1C-835-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565334
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-835-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: 4675 lumens
Efficiency: N/A
Efficacy: 79.2 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

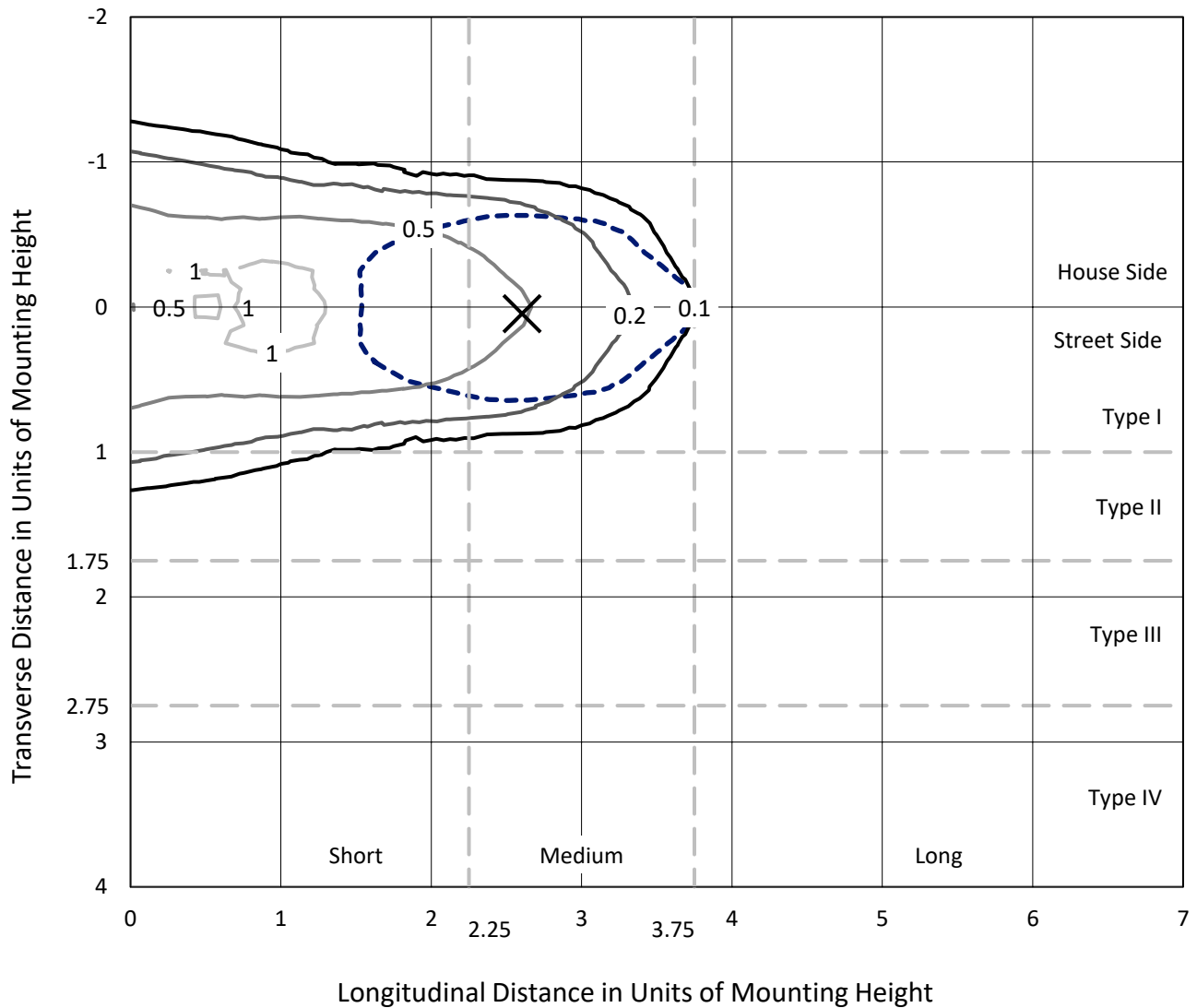
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

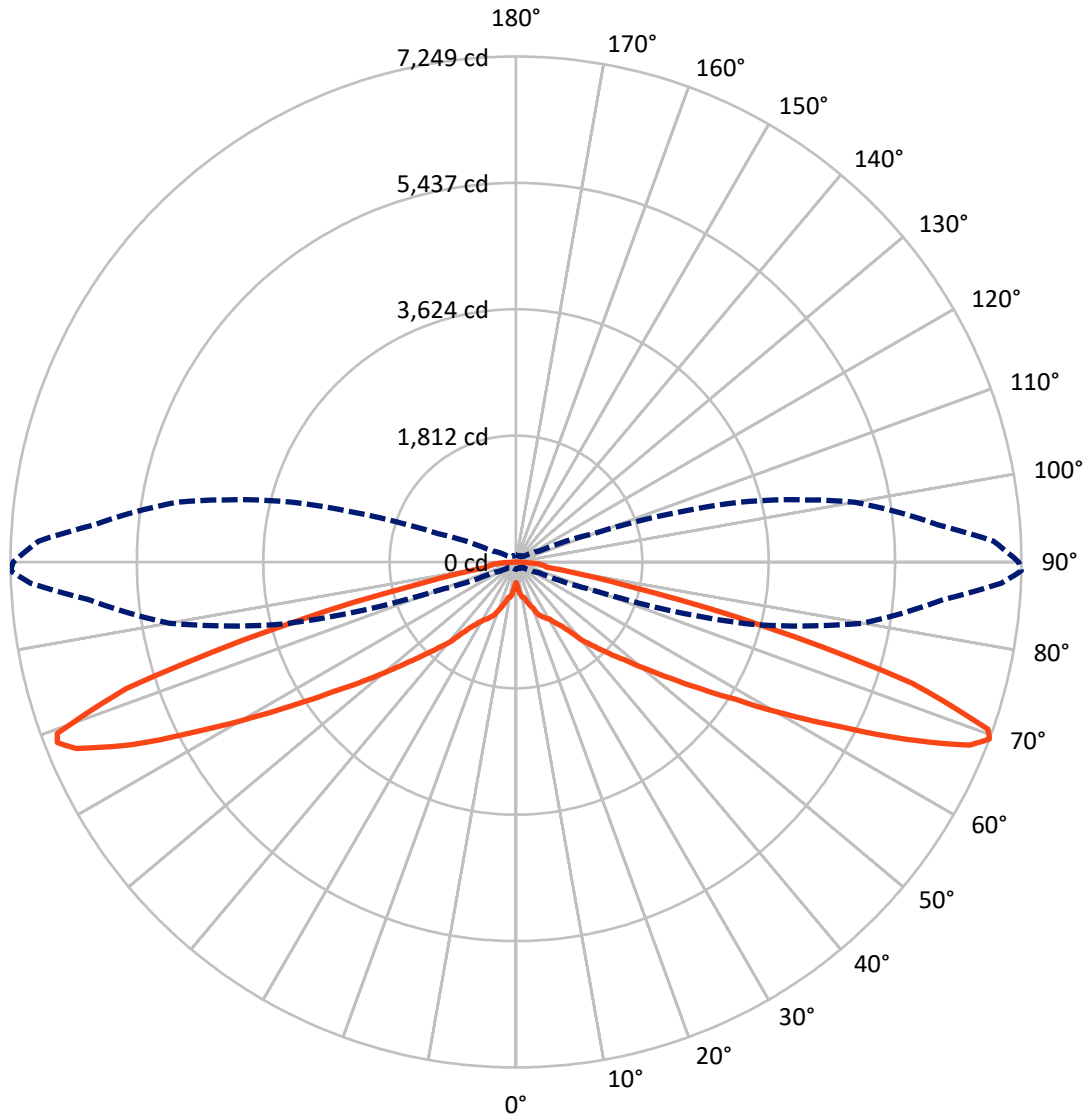
✕ Max cd
 - - - 1/2 Max cd



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	2337.5	0.0	2337.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2337.5	0.0	2337.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	4675.0	0.0	4675.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.2	0.8
10°-20°	171.4	3.7
20°-30°	342.0	7.3
30°-40°	517.3	11.1
40°-50°	750.9	16.1
50°-60°	986.5	21.1
60°-70°	1203.4	25.7
70°-80°	608.4	13.0
80°-90°	58.0	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°	4675.0	100.0
0°-180°	4675.0	100.0

Coefficient of Utilization

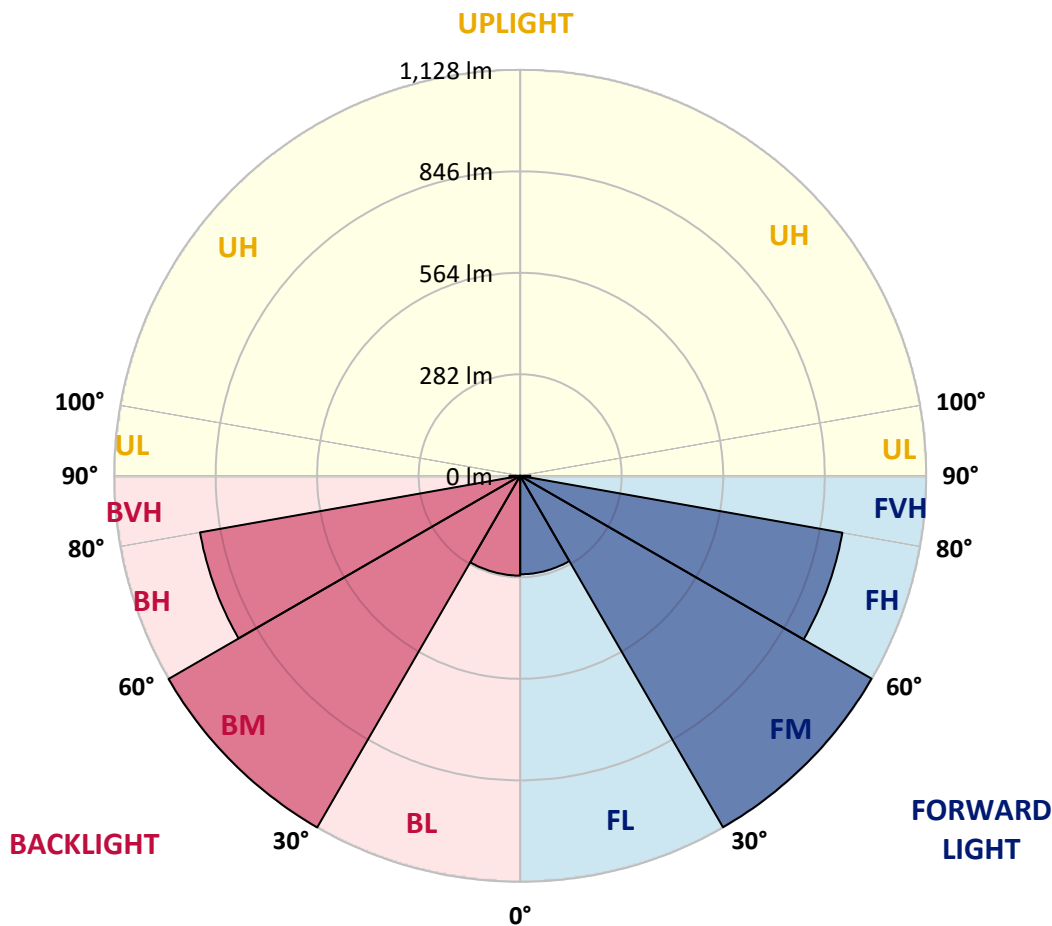


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	273.4	5.8			
FM (30°-60°)	1126.9	24.1			
FH (60°-80°)	908.8	19.4			G1/1800
FVH (80°-90°)	28.4	0.6			G1/100
BL (0°-30°)	277.2	5.9	B1/500		
BM (30°-60°)	1127.7	24.1	B2/2500		
BH (60°-80°)	903.0	19.3	B2/1000		G2/1000
BVH (80°-90°)	29.5	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°	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1
2.5°	347.5	307.4	304.0	294.4	301.3	304.0	297.9	289.1	298.7	304.0	294.4
5°	438.1	378.9	358.8	342.3	309.2	295.2	309.2	344.9	349.2	371.0	364.9
7.5°	482.5	472.9	447.7	392.8	339.7	310.0	347.5	398.9	425.0	445.9	467.7
10°	515.6	510.4	465.9	426.8	405.0	406.7	407.6	424.1	446.8	481.6	493.8
12.5°	523.4	521.7	528.7	519.9	521.7	531.3	521.7	517.3	530.4	541.7	529.5
15°	573.9	573.1	575.7	577.4	612.3	627.1	612.3	599.2	589.6	580.0	600.1
17.5°	608.8	604.4	605.3	621.8	661.0	702.0	694.1	676.7	654.9	668.0	684.5
20°	627.9	620.1	625.3	632.3	698.5	743.8	749.0	725.5	712.4	729.0	742.9
22.5°	646.2	634.0	615.7	622.7	683.7	749.0	774.3	768.2	777.7	783.0	780.3
25°	624.5	632.3	612.3	632.3	694.1	754.2	804.7	840.4	841.3	838.7	857.9
27.5°	611.4	605.3	571.3	622.7	674.1	711.5	840.4	900.5	918.8	863.1	900.5
30°	588.7	598.3	552.2	594.8	660.2	722.9	881.4	967.6	940.6	933.6	942.3
32.5°	574.8	568.7	546.9	570.5	620.1	756.8	907.5	1006.8	1040.8	1024.2	1022.5
35°	552.2	556.5	522.6	547.8	617.5	728.1	924.9	1105.2	1157.5	1144.4	1133.9
37.5°	555.6	540.8	516.5	534.7	600.9	743.8	968.5	1200.1	1282.9	1289.8	1241.9
40°	529.5	520.8	484.2	514.7	569.6	734.2	978.9	1308.1	1448.3	1479.7	1410.9
42.5°	492.1	480.8	459.8	493.8	551.3	687.2	993.7	1437.9	1616.4	1681.8	1619.0
45°	438.1	423.3	412.8	458.1	511.2	675.0	978.0	1545.9	1777.6	1867.3	1865.5
47.5°	372.8	363.2	358.0	405.9	478.1	644.5	945.8	1613.8	1889.9	2119.8	2085.0
50°	298.7	291.8	290.9	341.4	422.4	581.8	909.2	1647.8	2060.6	2351.5	2382.0
52.5°	239.5	234.3	233.4	274.3	353.6	497.3	832.6	1673.9	2223.5	2614.5	2771.3
55°	187.2	182.0	182.9	216.9	281.3	406.7	715.9	1644.3	2366.3	2883.6	3180.6
57.5°	153.3	148.1	148.9	168.1	215.1	310.9	570.5	1579.9	2430.8	3216.3	3657.9
60°	135.0	129.8	127.2	135.9	165.5	234.3	424.1	1329.0	2441.2	3492.4	4176.1
62.5°	125.4	120.2	117.6	120.2	136.7	179.4	305.7	1052.9	2381.1	3728.4	4650.7
65°	116.7	112.3	108.9	111.5	120.2	142.8	223.0	721.1	2066.7	3836.4	4995.6
67.5°	107.1	103.6	100.2	103.6	109.7	120.2	173.3	456.4	1549.4	3696.2	5139.3
69°	101.9	96.7	94.9	97.5	103.6	110.6	149.8	364.0	1178.4	3429.7	5052.2
70°	96.7	93.2	90.6	94.9	100.2	105.4	135.0	309.2	924.1	3087.4	4836.2
72.5°	85.4	82.7	81.0	85.4	89.7	93.2	110.6	220.3	535.6	2102.4	3835.6
75°	74.9	72.3	71.4	74.9	78.4	80.1	93.2	151.5	316.1	1100.0	2301.0
77.5°	62.7	59.2	60.1	64.4	67.1	67.9	78.4	108.9	186.4	498.2	1066.0
80°	46.2	46.2	49.6	53.1	53.1	53.1	62.7	79.3	113.2	229.1	442.4
82.5°	32.2	33.1	34.0	39.2	40.1	36.6	47.9	57.5	70.5	100.2	153.3
85°	18.3	19.2	20.0	23.5	24.4	21.8	31.4	36.6	40.9	49.6	80.1
87.5°	7.0	7.8	10.5	12.2	13.1	9.6	14.8	17.4	17.4	20.9	35.7
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):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1
2.5°	314.4	320.5	331.8	334.4	324.9	314.4	290.9	305.7	311.8	300.5	304.0
5°	389.3	402.4	416.3	399.8	389.3	382.3	371.0	371.9	365.8	345.8	312.7
7.5°	473.8	459.0	469.4	480.8	464.2	465.1	475.5	453.8	437.2	403.2	341.4
10°	513.0	513.0	515.6	515.6	508.6	508.6	507.7	472.9	452.9	438.1	420.7
12.5°	515.6	514.7	525.2	517.3	519.1	520.8	525.2	540.8	535.6	516.5	532.1
15°	587.9	584.4	587.9	587.0	589.6	597.5	594.0	590.5	591.4	605.3	628.8
17.5°	655.8	657.5	654.1	660.2	660.2	665.4	677.6	665.4	654.9	681.1	699.4
20°	734.2	728.1	714.2	724.6	727.2	728.1	748.1	733.3	718.5	728.1	749.9
22.5°	813.4	812.6	814.3	815.2	818.7	805.6	778.6	774.3	783.8	770.8	773.4
25°	862.2	863.1	867.4	868.3	853.5	867.4	877.0	848.3	848.3	845.7	828.2
27.5°	921.4	908.4	913.6	920.6	914.5	918.0	906.6	864.8	909.2	915.3	845.7
30°	961.5	955.4	949.3	956.3	962.4	978.0	945.8	941.5	945.0	977.2	885.7
32.5°	1046.0	1054.7	1043.4	1032.0	1043.4	1039.9	1025.9	1019.9	1063.4	1020.7	913.6
35°	1124.4	1127.8	1128.7	1127.0	1133.9	1121.8	1121.8	1144.4	1157.5	1111.3	922.3
37.5°	1313.4	1301.2	1275.9	1263.7	1285.5	1303.8	1249.8	1276.8	1271.6	1193.2	987.6
40°	1449.2	1477.1	1484.9	1481.4	1484.9	1432.7	1444.0	1464.0	1440.5	1310.7	965.0
42.5°	1647.8	1665.2	1659.1	1651.3	1654.8	1645.2	1611.2	1685.2	1600.8	1442.3	999.8
45°	1828.9	1868.1	1870.7	1843.7	1865.5	1831.6	1845.5	1871.6	1786.3	1540.7	990.2
47.5°	2044.9	2125.9	2095.4	2095.4	2117.2	2044.1	2077.2	2112.0	1885.6	1606.9	938.0
50°	2364.6	2408.1	2406.4	2398.5	2408.1	2368.9	2363.7	2359.3	2038.0	1669.6	905.8
52.5°	2726.0	2785.2	2762.6	2771.3	2784.3	2710.3	2768.7	2609.3	2228.7	1693.1	832.6
55°	3187.6	3228.5	3205.9	3161.5	3220.7	3173.6	3192.8	2881.9	2361.1	1626.0	710.7
57.5°	3737.1	3758.0	3720.6	3716.2	3755.4	3704.9	3672.7	3188.5	2429.9	1575.5	567.8
60°	4379.0	4444.3	4420.8	4383.4	4419.1	4374.7	4130.8	3448.9	2415.9	1339.5	439.8
62.5°	5148.9	5215.1	5189.0	5163.7	5186.4	5070.5	4561.0	3654.4	2353.2	1061.7	321.4
65°	5784.7	6083.4	6122.6	6123.5	6013.7	5745.5	4904.2	3734.5	2022.3	741.2	235.1
67.5°	6202.7	6823.7	7017.0	6947.4	6695.7	6083.4	5042.7	3577.8	1561.6	468.6	175.9
69°	6154.8	6969.1	7248.7	7209.5	6855.9	6078.2	4934.7	3313.9	1193.2	372.8	148.9
70°	5933.6	6849.8	7181.6	7199.1	6754.0	5844.8	4742.2	3010.8	965.0	317.9	136.7
72.5°	4735.2	5644.5	5936.2	6050.3	5608.8	4680.3	3888.7	2124.2	559.1	222.1	110.6
75°	2933.3	3422.7	3664.9	3731.0	3463.7	2915.0	2360.2	1181.8	340.5	156.8	93.2
77.5°	1315.1	1457.1	1596.4	1596.4	1491.9	1330.8	1081.7	571.3	193.3	111.5	78.4
80°	440.7	457.2	445.0	449.4	432.0	415.4	434.6	246.5	119.3	83.6	63.6
82.5°	299.6	376.2	399.8	399.8	375.4	296.1	167.2	113.2	73.2	60.1	48.8
85°	243.9	297.9	319.6	329.2	310.0	250.0	88.0	54.9	43.5	38.3	33.1
87.5°	81.9	76.6	72.3	70.5	74.0	77.5	43.5	23.5	20.0	18.3	17.4
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):

	135°	145°	155°	165°	175°	180°
0°	296.1	296.1	296.1	296.1	296.1	296.1
2.5°	310.0	299.6	304.0	308.3	339.7	363.2
5°	308.3	323.1	356.2	398.0	417.2	464.2
7.5°	317.0	371.0	432.8	476.4	493.8	508.6
10°	424.1	433.7	454.6	496.4	531.3	537.4
12.5°	547.8	545.2	530.4	549.6	532.1	544.3
15°	644.5	615.7	595.7	593.1	587.0	587.0
17.5°	697.6	672.4	644.5	637.5	619.2	634.0
20°	760.3	716.8	647.1	640.1	634.0	620.1
22.5°	748.1	704.6	632.3	623.6	655.8	654.1
25°	762.9	704.6	635.8	626.2	641.0	641.0
27.5°	726.4	678.5	628.8	571.3	616.6	627.1
30°	716.8	662.8	605.3	553.9	600.1	590.5
32.5°	767.3	623.6	567.0	551.3	585.3	578.3
35°	728.1	616.6	557.4	528.7	568.7	561.7
37.5°	744.6	607.9	540.8	516.5	548.7	559.1
40°	741.2	567.0	521.7	490.3	522.6	527.8
42.5°	682.8	535.6	489.5	458.1	474.7	492.1
45°	665.4	516.5	458.1	414.6	415.4	435.5
47.5°	633.2	472.9	400.6	360.6	360.6	377.1
50°	579.2	414.6	335.3	298.7	297.9	310.9
52.5°	499.0	358.0	283.1	243.0	240.4	253.4
55°	408.5	288.3	223.0	196.8	191.6	196.8
57.5°	317.9	224.7	175.9	155.0	154.2	158.5
60°	246.5	175.9	140.2	128.0	129.8	136.7
62.5°	186.4	140.2	119.3	115.0	117.6	124.5
65°	148.1	121.1	108.9	106.3	108.9	115.8
67.5°	120.2	109.7	101.0	97.5	99.3	106.3
69°	110.6	103.6	96.7	92.3	94.1	99.3
70°	105.4	100.2	93.2	88.8	90.6	95.8
72.5°	92.3	89.7	84.5	80.1	81.0	85.4
75°	81.0	79.3	75.8	70.5	70.5	75.8
77.5°	67.9	68.8	65.3	60.1	59.2	61.8
80°	54.0	55.7	54.0	48.8	47.0	47.0
82.5°	39.2	42.7	40.9	35.7	34.8	34.8
85°	24.4	27.0	26.1	22.6	22.6	20.0
87.5°	11.3	14.8	13.9	12.2	11.3	7.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)