

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: P565318

Luminaire Tested: **MSA-SA1C-830-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565318
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-830-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: 4506 lumens
Efficiency: N/A
Efficacy: 76.4 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

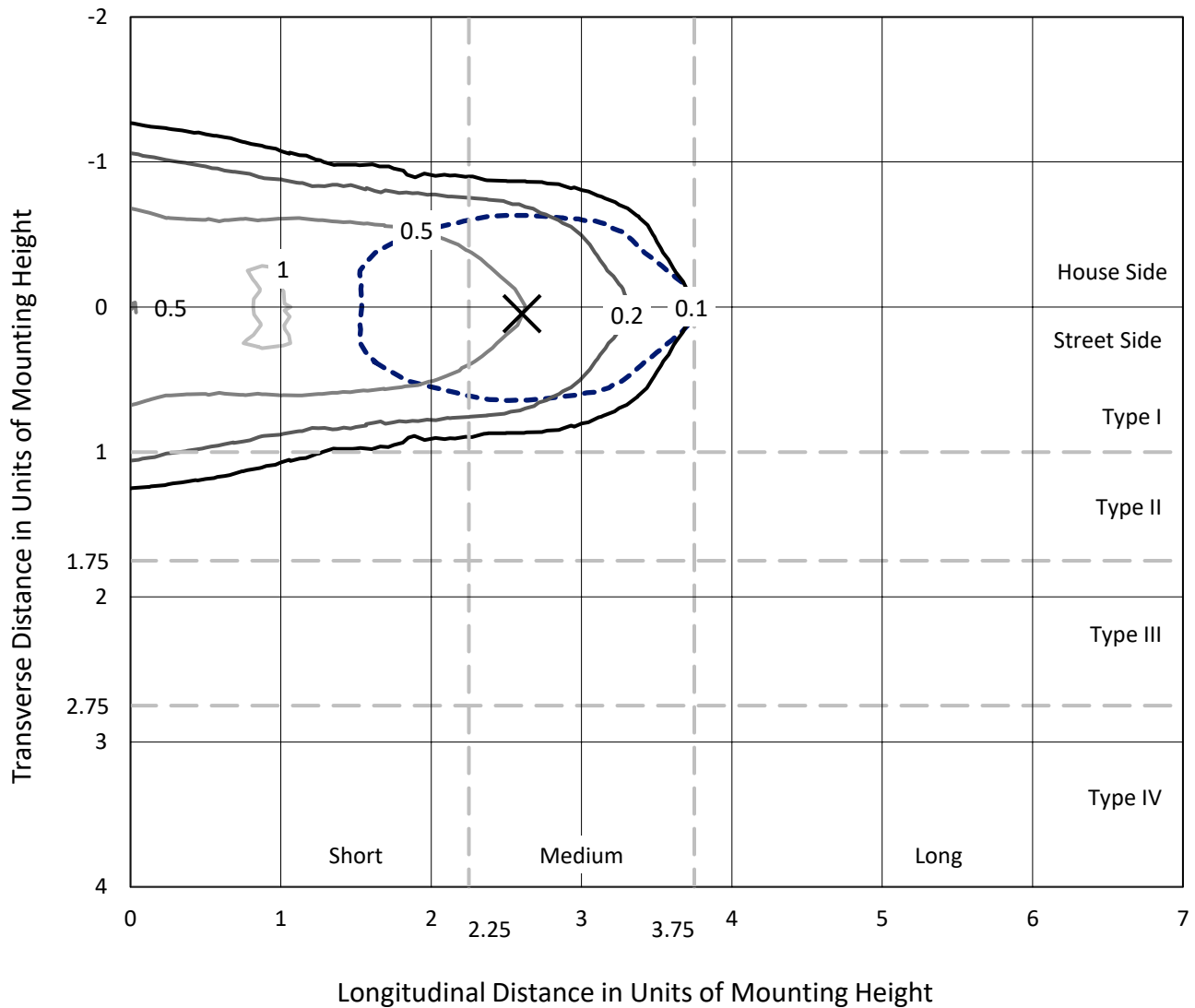


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Iso-Footcandle Lines of Horizontal Illumination

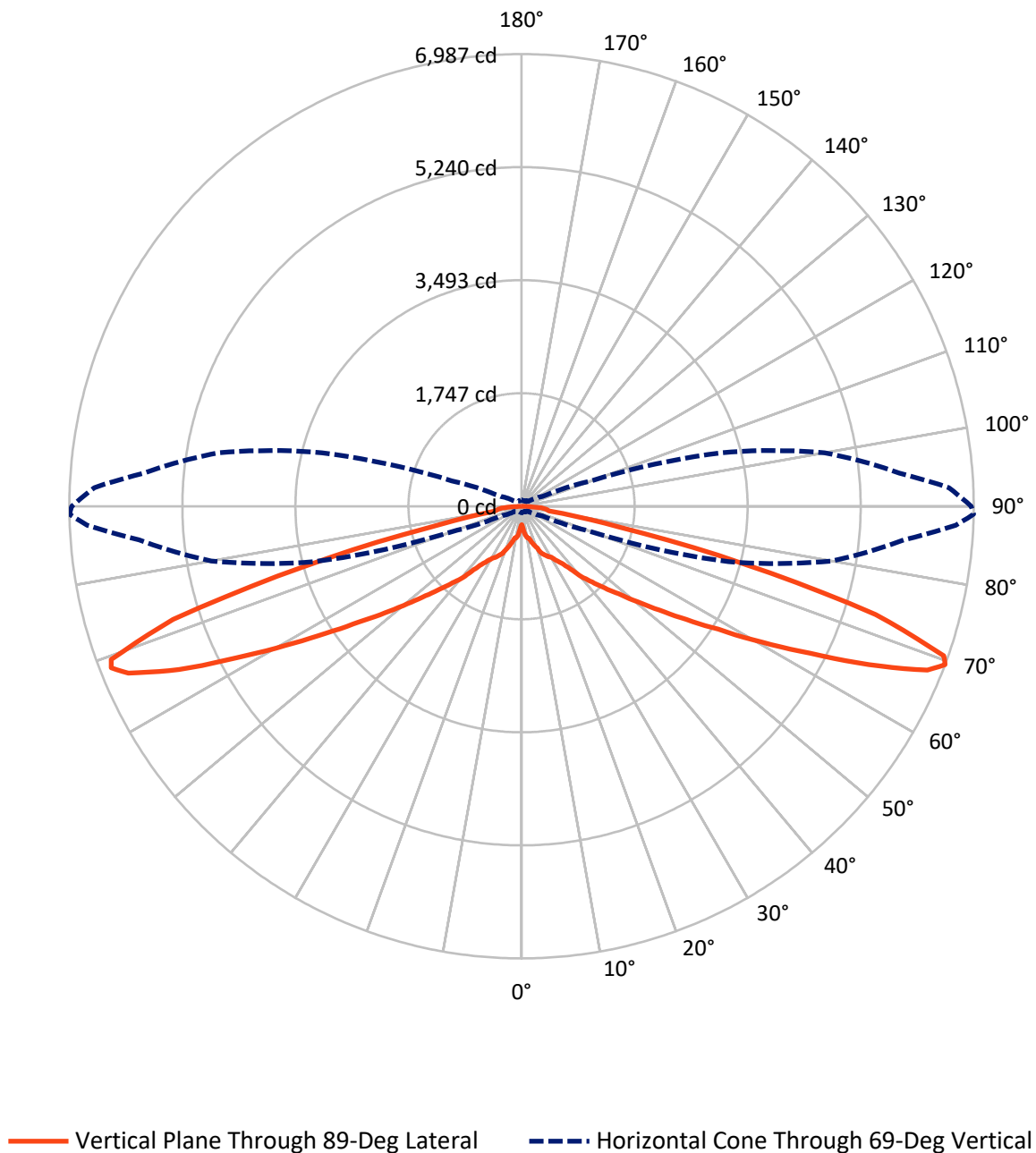
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc
 Type I - Medium - N/A

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Luminous Intensity Polar Plot



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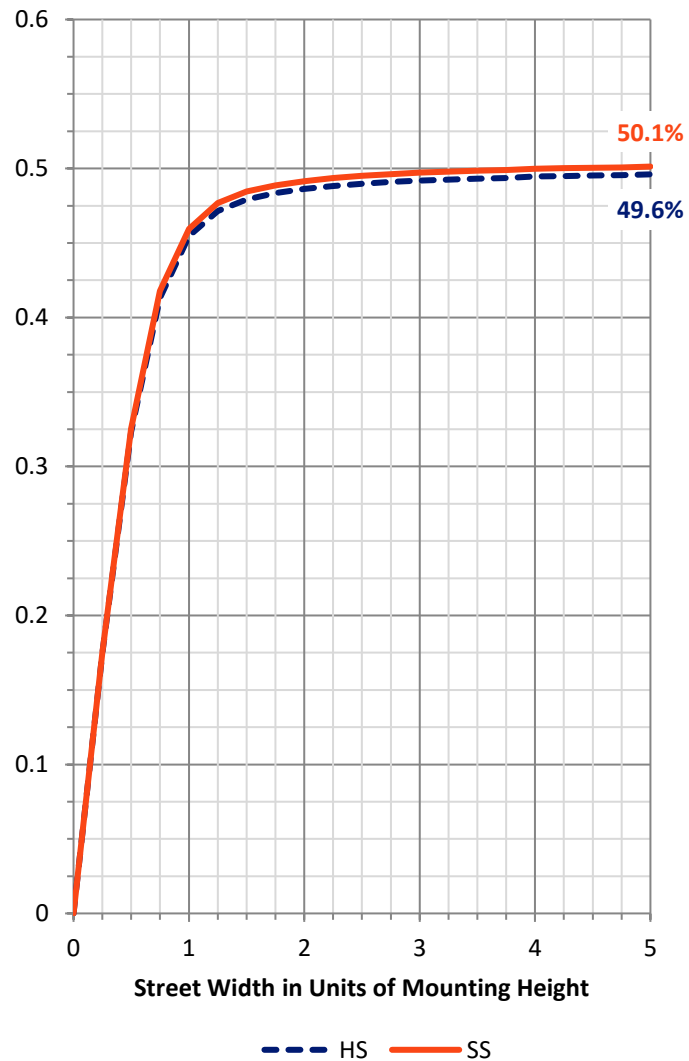
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2253.0	0.0	2253.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2253.0	0.0	2253.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	4506.0	0.0	4506.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.9	0.8
10°-20°	165.2	3.7
20°-30°	329.6	7.3
30°-40°	498.6	11.1
40°-50°	723.7	16.1
50°-60°	950.8	21.1
60°-70°	1159.9	25.7
70°-80°	586.4	13.0
80°-90°	55.9	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°	4506.0	100.0
0°-180°	4506.0	100.0

Coefficient of Utilization



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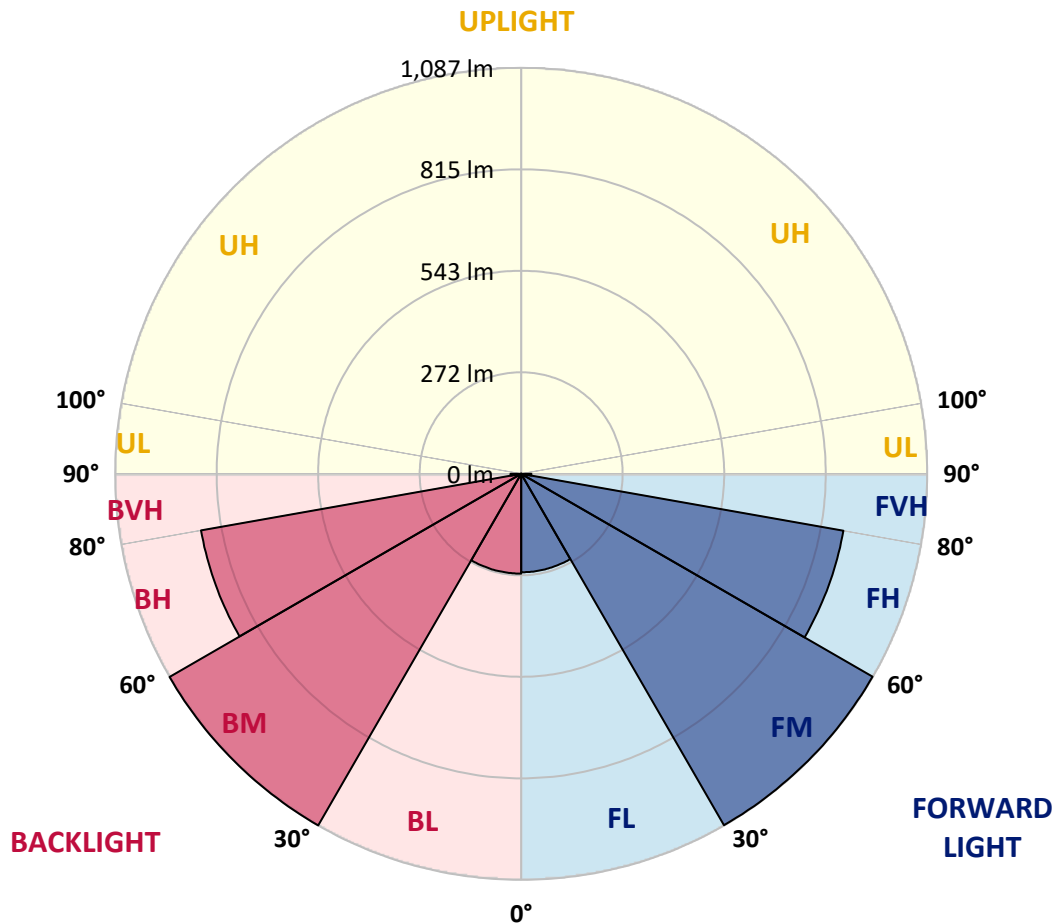
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	263.5	5.8			
FM	(30°-60°)	1086.2	24.1			
FH	(60°-80°)	875.9	19.4			G1/1800
FVH	(80°-90°)	27.4	0.6			G1/100
BL	(0°-30°)	267.2	5.9	B1/500		
BM	(30°-60°)	1086.9	24.1	B2/2500		
BH	(60°-80°)	870.3	19.3	B2/1000		G2/1000
BVH	(80°-90°)	28.5	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°	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4
2.5°	334.9	296.3	293.0	283.7	290.4	293.0	287.1	278.7	287.9	293.0	283.7
5°	422.2	365.2	345.8	329.9	298.0	284.6	298.0	332.4	336.6	357.6	351.7
7.5°	465.1	455.8	431.5	378.6	327.4	298.8	334.9	384.5	409.6	429.8	450.8
10°	496.9	491.9	449.1	411.3	390.3	392.0	392.9	408.8	430.6	464.2	476.0
12.5°	504.5	502.8	509.5	501.1	502.8	512.1	502.8	498.6	511.2	522.1	510.4
15°	553.2	552.4	554.9	556.5	590.1	604.4	590.1	577.5	568.3	559.1	578.4
17.5°	586.8	582.6	583.4	599.4	637.1	676.6	669.0	652.2	631.3	643.9	659.8
20°	605.2	597.7	602.7	609.4	673.2	716.9	721.9	699.3	686.7	702.6	716.0
22.5°	622.9	611.1	593.5	600.2	659.0	721.9	746.3	740.4	749.6	754.7	752.1
25°	601.9	609.4	590.1	609.4	669.0	727.0	775.6	810.1	810.9	808.4	826.8
27.5°	589.3	583.4	550.7	600.2	649.7	685.8	810.1	868.0	885.6	831.9	868.0
30°	567.5	576.7	532.2	573.3	636.3	696.7	849.5	932.6	906.6	899.9	908.3
32.5°	554.0	548.2	527.2	549.8	597.7	729.5	874.7	970.4	1003.1	987.2	985.5
35°	532.2	536.4	503.7	528.0	595.2	701.8	891.5	1065.3	1115.6	1103.0	1093.0
37.5°	535.6	521.3	497.8	515.4	579.2	716.9	933.5	1156.7	1236.5	1243.2	1197.0
40°	510.4	502.0	466.7	496.1	549.0	707.6	943.5	1260.8	1396.0	1426.2	1359.9
42.5°	474.3	463.4	443.2	476.0	531.4	662.3	957.8	1385.9	1558.0	1621.0	1560.5
45°	422.2	408.0	397.9	441.5	492.8	650.6	942.7	1490.0	1713.3	1799.8	1798.1
47.5°	359.3	350.0	345.0	391.2	460.9	621.2	911.6	1555.5	1821.6	2043.2	2009.6
50°	287.9	281.2	280.4	329.1	407.1	560.7	876.4	1588.2	1986.1	2266.5	2295.9
52.5°	230.8	225.8	225.0	264.4	340.8	479.3	802.5	1613.4	2143.1	2520.0	2671.1
55°	180.5	175.4	176.3	209.0	271.1	392.0	690.0	1584.9	2280.8	2779.4	3065.6
57.5°	147.7	142.7	143.5	162.0	207.3	299.7	549.8	1522.7	2342.9	3100.1	3525.7
60°	130.1	125.1	122.6	131.0	159.5	225.8	408.8	1281.0	2353.0	3366.2	4025.1
62.5°	120.9	115.8	113.3	115.8	131.8	172.9	294.6	1014.9	2295.0	3593.6	4482.6
65°	112.5	108.3	104.9	107.4	115.8	137.7	214.9	695.1	1992.0	3697.7	4815.0
67.5°	103.3	99.9	96.5	99.9	105.8	115.8	167.0	439.9	1493.4	3562.6	4953.5
69°	98.2	93.2	91.5	94.0	99.9	106.6	144.4	350.9	1135.8	3305.7	4869.6
70°	93.2	89.8	87.3	91.5	96.5	101.6	130.1	298.0	890.6	2975.8	4661.4
72.5°	82.3	79.7	78.1	82.3	86.5	89.8	106.6	212.4	516.3	2026.4	3696.9
75°	72.2	69.7	68.8	72.2	75.5	77.2	89.8	146.1	304.7	1060.2	2217.8
77.5°	60.4	57.1	57.9	62.1	64.6	65.5	75.5	104.9	179.6	480.2	1027.5
80°	44.5	44.5	47.8	51.2	51.2	51.2	60.4	76.4	109.1	220.8	426.4
82.5°	31.1	31.9	32.7	37.8	38.6	35.3	46.2	55.4	68.0	96.5	147.7
85°	17.6	18.5	19.3	22.7	23.5	21.0	30.2	35.3	39.5	47.8	77.2
87.5°	6.7	7.6	10.1	11.8	12.6	9.2	14.3	16.8	16.8	20.1	34.4
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):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4
2.5°	303.0	308.9	319.8	322.3	313.1	303.0	280.4	294.6	300.5	289.6	293.0
5°	375.2	387.8	401.3	385.3	375.2	368.5	357.6	358.4	352.6	333.3	301.4
7.5°	456.7	442.4	452.5	463.4	447.4	448.3	458.3	437.3	421.4	388.7	329.1
10°	494.4	494.4	496.9	496.9	490.2	490.2	489.4	455.8	436.5	422.2	405.4
12.5°	496.9	496.1	506.2	498.6	500.3	502.0	506.2	521.3	516.3	497.8	512.9
15°	566.6	563.3	566.6	565.8	568.3	575.9	572.5	569.1	570.0	583.4	606.1
17.5°	632.1	633.8	630.4	636.3	636.3	641.3	653.1	641.3	631.3	656.4	674.1
20°	707.6	701.8	688.3	698.4	700.9	701.8	721.1	706.8	692.5	701.8	722.8
22.5°	784.0	783.2	784.9	785.7	789.1	776.5	750.5	746.3	755.5	742.9	745.4
25°	831.0	831.9	836.1	836.9	822.7	836.1	845.3	817.6	817.6	815.1	798.3
27.5°	888.1	875.5	880.6	887.3	881.4	884.8	873.9	833.6	876.4	882.3	815.1
30°	926.7	920.9	915.0	921.7	927.6	942.7	911.6	907.4	910.8	941.9	853.7
32.5°	1008.2	1016.6	1005.7	994.7	1005.7	1002.3	988.9	983.0	1025.0	983.8	880.6
35°	1083.7	1087.1	1087.9	1086.2	1093.0	1081.2	1081.2	1103.0	1115.6	1071.1	889.0
37.5°	1265.9	1254.1	1229.8	1218.0	1239.0	1256.6	1204.6	1230.6	1225.6	1150.0	951.9
40°	1396.8	1423.7	1431.2	1427.9	1431.2	1380.9	1391.8	1411.1	1388.4	1263.4	930.1
42.5°	1588.2	1605.0	1599.1	1591.6	1594.9	1585.7	1553.0	1624.3	1542.9	1390.1	963.7
45°	1762.8	1800.6	1803.1	1777.1	1798.1	1765.3	1778.8	1804.0	1721.7	1485.0	954.4
47.5°	1971.0	2049.1	2019.7	2019.7	2040.7	1970.2	2002.1	2035.6	1817.4	1548.8	904.1
50°	2279.1	2321.1	2319.4	2311.8	2321.1	2283.3	2278.2	2274.0	1964.3	1609.2	873.0
52.5°	2627.5	2684.5	2662.7	2671.1	2683.7	2612.3	2668.6	2515.0	2148.1	1631.9	802.5
55°	3072.4	3111.8	3090.0	3047.2	3104.3	3058.9	3077.4	2777.7	2275.7	1567.2	685.0
57.5°	3602.0	3622.2	3586.1	3581.9	3619.7	3571.0	3539.9	3073.2	2342.0	1518.5	547.3
60°	4220.7	4283.7	4261.0	4224.9	4259.3	4216.5	3981.5	3324.2	2328.6	1291.1	423.9
62.5°	4962.8	5026.6	5001.4	4977.0	4998.9	4887.2	4396.2	3522.3	2268.2	1023.3	309.8
65°	5575.6	5863.5	5901.3	5902.1	5796.3	5537.8	4726.9	3599.5	1949.2	714.4	226.6
67.5°	5978.5	6577.0	6763.4	6696.2	6453.6	5863.5	4860.4	3448.4	1505.1	451.6	169.6
69°	5932.3	6717.2	6986.7	6948.9	6608.1	5858.5	4756.3	3194.1	1150.0	359.3	143.5
70°	5719.1	6602.2	6922.0	6938.8	6509.9	5633.5	4570.8	2901.9	930.1	306.4	131.8
72.5°	4564.0	5440.4	5721.6	5831.6	5406.0	4511.2	3748.1	2047.4	538.9	214.1	106.6
75°	2827.2	3299.0	3532.4	3596.2	3338.5	2809.6	2274.9	1139.1	328.2	151.1	89.8
77.5°	1267.6	1404.4	1538.7	1538.7	1438.0	1282.7	1042.6	550.7	186.4	107.4	75.5
80°	424.8	440.7	429.0	433.2	416.4	400.4	418.9	237.6	115.0	80.6	61.3
82.5°	288.8	362.6	385.3	385.3	361.8	285.4	161.2	109.1	70.5	57.9	47.0
85°	235.0	287.1	308.1	317.3	298.8	240.9	84.8	52.9	42.0	36.9	31.9
87.5°	78.9	73.9	69.7	68.0	71.4	74.7	42.0	22.7	19.3	17.6	16.8
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):

	135°	145°	155°	165°	175°	180°
0°	285.4	285.4	285.4	285.4	285.4	285.4
2.5°	298.8	288.8	293.0	297.2	327.4	350.0
5°	297.2	311.4	343.3	383.6	402.1	447.4
7.5°	305.6	357.6	417.2	459.2	476.0	490.2
10°	408.8	418.0	438.2	478.5	512.1	517.9
12.5°	528.0	525.5	511.2	529.7	512.9	524.7
15°	621.2	593.5	574.2	571.7	565.8	565.8
17.5°	672.4	648.0	621.2	614.5	596.8	611.1
20°	732.8	690.9	623.7	617.0	611.1	597.7
22.5°	721.1	679.1	609.4	601.0	632.1	630.4
25°	735.4	679.1	612.8	603.6	617.8	617.8
27.5°	700.1	653.9	606.1	550.7	594.3	604.4
30°	690.9	638.8	583.4	533.9	578.4	569.1
32.5°	739.5	601.0	546.5	531.4	564.1	557.4
35°	701.8	594.3	537.2	509.5	548.2	541.4
37.5°	717.7	585.9	521.3	497.8	528.8	538.9
40°	714.4	546.5	502.8	472.6	503.7	508.7
42.5°	658.1	516.3	471.8	441.5	457.5	474.3
45°	641.3	497.8	441.5	399.6	400.4	419.7
47.5°	610.3	455.8	386.1	347.5	347.5	363.5
50°	558.2	399.6	323.2	287.9	287.1	299.7
52.5°	481.0	345.0	272.8	234.2	231.7	244.3
55°	393.7	277.9	214.9	189.7	184.7	189.7
57.5°	306.4	216.6	169.6	149.4	148.6	152.8
60°	237.6	169.6	135.1	123.4	125.1	131.8
62.5°	179.6	135.1	115.0	110.8	113.3	120.0
65°	142.7	116.7	104.9	102.4	104.9	111.6
67.5°	115.8	105.8	97.4	94.0	95.7	102.4
69°	106.6	99.9	93.2	89.0	90.7	95.7
70°	101.6	96.5	89.8	85.6	87.3	92.3
72.5°	89.0	86.5	81.4	77.2	78.1	82.3
75°	78.1	76.4	73.0	68.0	68.0	73.0
77.5°	65.5	66.3	63.0	57.9	57.1	59.6
80°	52.0	53.7	52.0	47.0	45.3	45.3
82.5°	37.8	41.1	39.5	34.4	33.6	33.6
85°	23.5	26.0	25.2	21.8	21.8	19.3
87.5°	10.9	14.3	13.4	11.8	10.9	7.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)