

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: P565381

Luminaire Tested: **MSA-SA1B-760-U-T1**

Issue Date: 8/19/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565381  
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-SA1B-760-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: 4579 lumens  
Efficiency: N/A  
Efficacy: 104.1 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

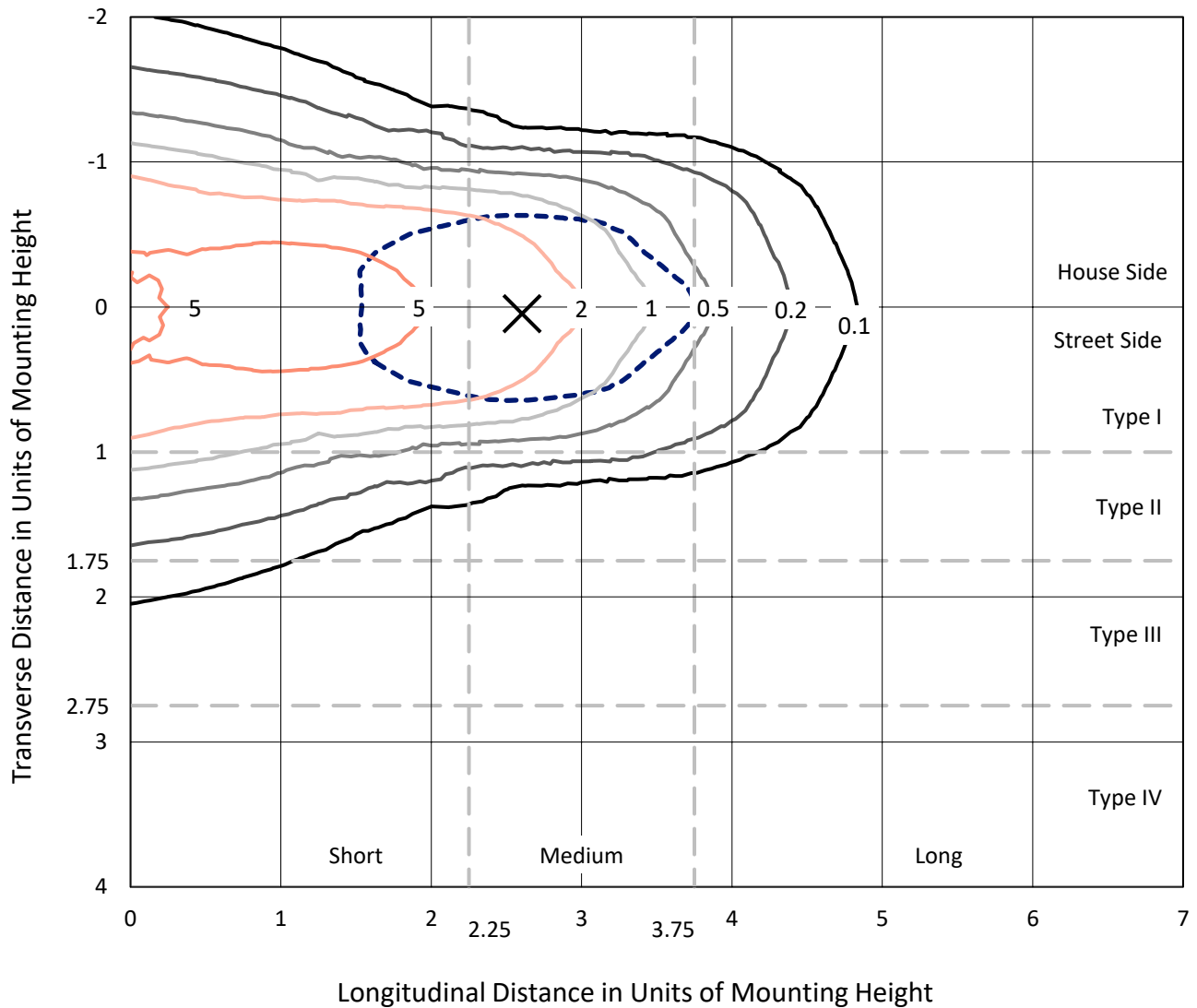
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

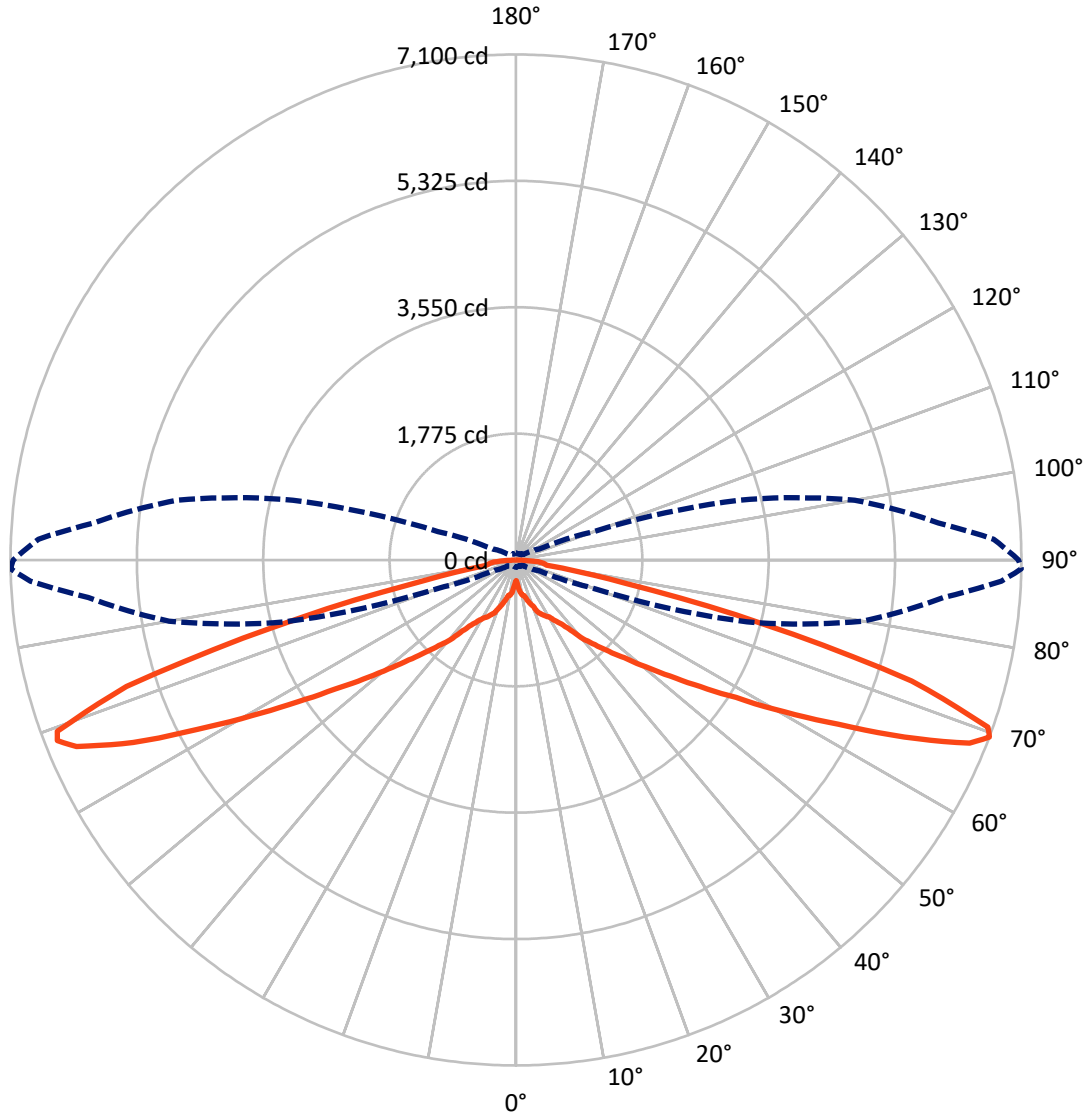
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.6 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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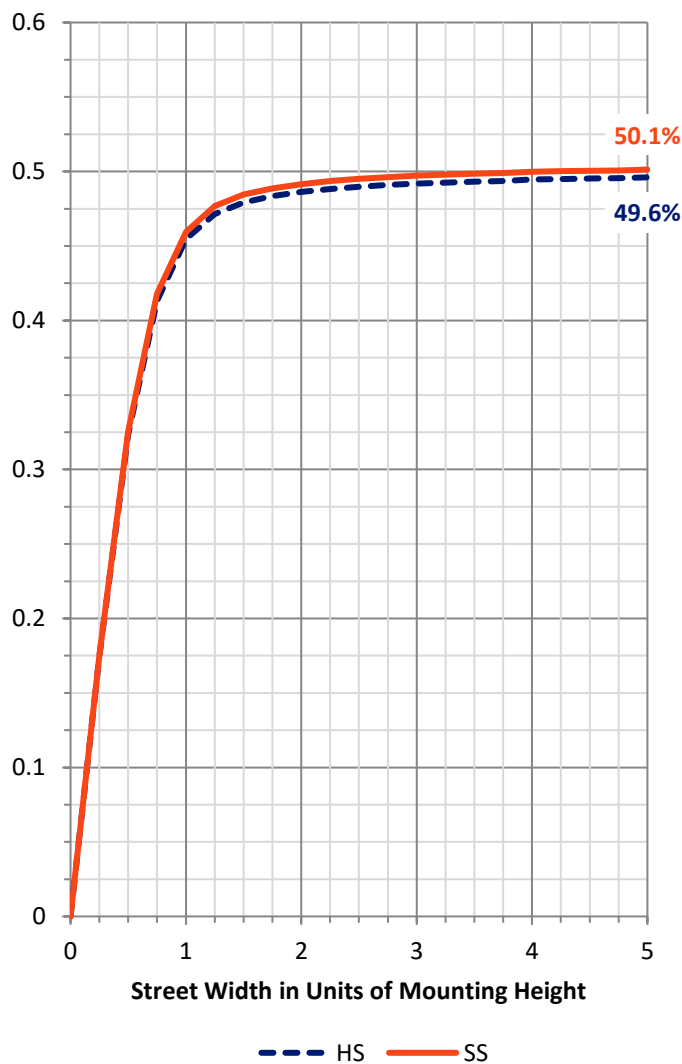
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2289.5	0.0	2289.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2289.5	0.0	2289.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	4579.0	0.0	4579.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.4	0.8
10°-20°	167.9	3.7
20°-30°	335.0	7.3
30°-40°	506.6	11.1
40°-50°	735.4	16.1
50°-60°	966.2	21.1
60°-70°	1178.7	25.7
70°-80°	595.9	13.0
80°-90°	56.8	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°	4579.0	100.0
0°-180°	4579.0	100.0

**Coefficient of Utilization**

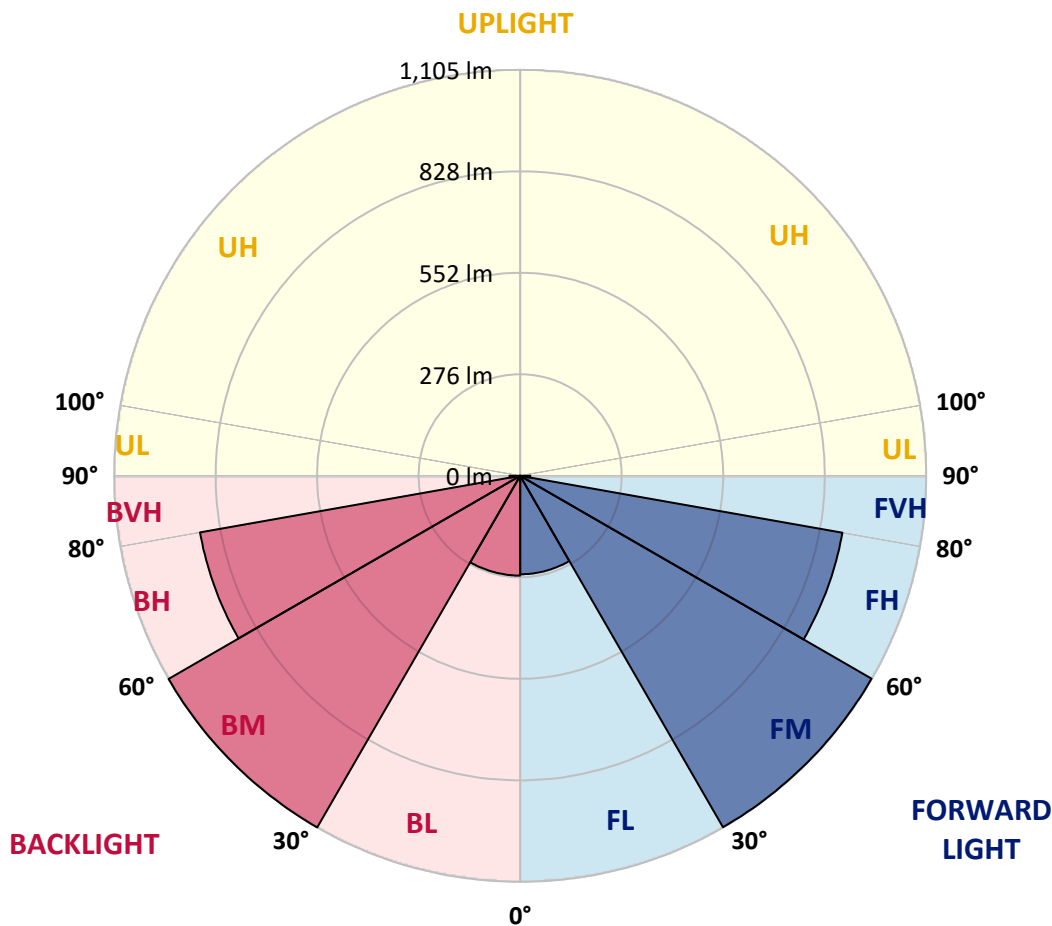


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	267.8	5.8			
FM (30°-60°)	1103.8	24.1			
FH (60°-80°)	890.1	19.4			G1/1800
FVH (80°-90°)	27.9	0.6			G1/100
BL (0°-30°)	271.5	5.9	B1/500		
BM (30°-60°)	1104.5	24.1	B2/2500		
BH (60°-80°)	884.4	19.3	B2/1000		G2/1000
BVH (80°-90°)	28.9	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°	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0
2.5°	340.4	301.1	297.7	288.3	295.2	297.7	291.7	283.2	292.6	297.7	288.3
5°	429.1	371.1	351.5	335.2	302.8	289.2	302.8	337.8	342.1	363.4	357.4
7.5°	472.6	463.2	438.5	384.7	332.7	303.7	340.4	390.7	416.3	436.8	458.1
10°	505.0	499.9	456.4	418.0	396.7	398.4	399.2	415.4	437.6	471.7	483.7
12.5°	512.7	511.0	517.8	509.3	511.0	520.4	511.0	506.7	519.5	530.6	518.6
15°	562.2	561.3	563.9	565.6	599.7	614.2	599.7	586.9	577.5	568.1	587.7
17.5°	596.3	592.0	592.9	609.1	647.5	687.6	679.9	662.8	641.5	654.3	670.5
20°	615.0	607.4	612.5	619.3	684.1	728.5	733.6	710.6	697.8	714.0	727.6
22.5°	633.0	621.0	603.1	609.9	669.6	733.6	758.4	752.4	761.8	766.9	764.3
25°	611.6	619.3	599.7	619.3	679.9	738.7	788.2	823.2	824.0	821.5	840.2
27.5°	598.8	592.9	559.6	609.9	660.3	696.9	823.2	882.0	900.0	845.4	882.0
30°	576.7	586.0	540.8	582.6	646.6	708.0	863.3	947.7	921.3	914.5	923.0
32.5°	563.0	557.0	535.7	558.7	607.4	741.3	888.9	986.1	1019.4	1003.2	1001.5
35°	540.8	545.1	511.8	536.6	604.8	713.1	905.9	1082.5	1133.7	1120.9	1110.7
37.5°	544.2	529.7	505.9	523.8	588.6	728.5	948.6	1175.5	1256.5	1263.4	1216.4
40°	518.6	510.1	474.3	504.1	557.9	719.1	958.8	1281.3	1418.6	1449.3	1381.9
42.5°	482.0	470.9	450.4	483.7	540.0	673.0	973.3	1408.4	1583.2	1647.2	1585.8
45°	429.1	414.6	404.3	448.7	500.7	661.1	958.0	1514.1	1741.1	1828.9	1827.2
47.5°	365.1	355.7	350.6	397.5	468.3	631.2	926.4	1580.7	1851.1	2076.3	2042.2
50°	292.6	285.8	284.9	334.4	413.7	569.8	890.6	1614.0	2018.3	2303.2	2333.1
52.5°	234.6	229.5	228.6	268.7	346.3	487.1	815.5	1639.5	2177.8	2560.8	2714.4
55°	183.4	178.3	179.1	212.4	275.5	398.4	701.2	1610.5	2317.7	2824.4	3115.3
57.5°	150.1	145.0	145.9	164.6	210.7	304.5	558.7	1547.4	2380.8	3150.3	3582.8
60°	132.2	127.1	124.5	133.1	162.1	229.5	415.4	1301.7	2391.1	3420.7	4090.3
62.5°	122.8	117.7	115.2	117.7	133.9	175.7	299.4	1031.3	2332.2	3651.9	4555.2
65°	114.3	110.0	106.6	109.2	117.7	139.9	218.4	706.3	2024.3	3757.6	4893.0
67.5°	104.9	101.5	98.1	101.5	107.5	117.7	169.8	447.0	1517.6	3620.3	5033.8
69°	99.8	94.7	93.0	95.5	101.5	108.3	146.7	356.6	1154.2	3359.3	4948.5
70°	94.7	91.3	88.7	93.0	98.1	103.2	132.2	302.8	905.1	3024.0	4736.9
72.5°	83.6	81.0	79.3	83.6	87.9	91.3	108.3	215.8	524.6	2059.2	3756.8
75°	73.4	70.8	69.9	73.4	76.8	78.5	91.3	148.4	309.7	1077.4	2253.7
77.5°	61.4	58.0	58.9	63.1	65.7	66.5	76.8	106.6	182.6	487.9	1044.1
80°	45.2	45.2	48.6	52.0	52.0	52.0	61.4	77.6	110.9	224.3	433.3
82.5°	31.6	32.4	33.3	38.4	39.2	35.8	46.9	56.3	69.1	98.1	150.1
85°	17.9	18.8	19.6	23.0	23.9	21.3	30.7	35.8	40.1	48.6	78.5
87.5°	6.8	7.7	10.2	11.9	12.8	9.4	14.5	17.1	17.1	20.5	35.0
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°	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0
2.5°	307.9	313.9	325.0	327.6	318.2	307.9	284.9	299.4	305.4	294.3	297.7
5°	381.3	394.1	407.8	391.5	381.3	374.5	363.4	364.2	358.3	338.7	306.2
7.5°	464.1	449.6	459.8	470.9	454.7	455.5	465.8	444.4	428.2	395.0	334.4
10°	502.4	502.4	505.0	505.0	498.2	498.2	497.3	463.2	443.6	429.1	412.0
12.5°	505.0	504.1	514.4	506.7	508.4	510.1	514.4	529.7	524.6	505.9	521.2
15°	575.8	572.4	575.8	574.9	577.5	585.2	581.8	578.4	579.2	592.9	615.9
17.5°	642.3	644.0	640.6	646.6	646.6	651.7	663.7	651.7	641.5	667.1	685.0
20°	719.1	713.1	699.5	709.7	712.3	713.1	732.8	718.3	703.8	713.1	734.5
22.5°	796.7	795.9	797.6	798.4	801.9	789.1	762.6	758.4	767.7	754.9	757.5
25°	844.5	845.4	849.6	850.5	836.0	849.6	859.0	830.9	830.9	828.3	811.2
27.5°	902.5	889.7	894.8	901.7	895.7	899.1	888.0	847.1	890.6	896.5	828.3
30°	941.8	935.8	929.8	936.6	942.6	958.0	926.4	922.1	925.5	957.1	867.5
32.5°	1024.5	1033.0	1021.9	1010.9	1021.9	1018.5	1004.9	998.9	1041.6	999.8	894.8
35°	1101.3	1104.7	1105.5	1103.8	1110.7	1098.7	1098.7	1120.9	1133.7	1088.5	903.4
37.5°	1286.4	1274.4	1249.7	1237.8	1259.1	1277.0	1224.1	1250.6	1245.4	1168.7	967.3
40°	1419.5	1446.8	1454.4	1451.0	1454.4	1403.3	1414.3	1434.0	1410.9	1283.8	945.2
42.5°	1614.0	1631.0	1625.0	1617.4	1620.8	1611.4	1578.1	1650.6	1567.9	1412.6	979.3
45°	1791.4	1829.8	1832.3	1805.9	1827.2	1793.9	1807.6	1833.2	1749.6	1509.0	969.9
47.5°	2002.9	2082.3	2052.4	2052.4	2073.7	2002.1	2034.5	2068.6	1846.8	1573.9	918.7
50°	2316.0	2358.7	2357.0	2349.3	2358.7	2320.3	2315.2	2310.9	1996.1	1635.3	887.2
52.5°	2670.0	2728.0	2705.8	2714.4	2727.2	2654.7	2711.8	2555.7	2182.9	1658.3	815.5
55°	3122.1	3162.2	3140.0	3096.5	3154.5	3108.5	3127.2	2822.7	2312.6	1592.6	696.1
57.5°	3660.4	3680.9	3644.2	3639.9	3678.3	3628.8	3597.3	3123.0	2380.0	1543.2	556.2
60°	4289.1	4353.1	4330.0	4293.4	4328.3	4284.8	4046.0	3378.0	2366.3	1312.0	430.8
62.5°	5043.2	5108.0	5082.4	5057.7	5079.9	4966.4	4467.4	3579.4	2304.9	1039.9	314.8
65°	5665.9	5958.5	5996.9	5997.7	5890.2	5627.5	4803.5	3657.8	1980.8	725.9	230.3
67.5°	6075.4	6683.6	6872.9	6804.7	6558.2	5958.5	4939.1	3504.3	1529.5	458.9	172.3
69°	6028.4	6826.0	7099.9	7061.5	6715.1	5953.4	4833.3	3245.8	1168.7	365.1	145.9
70°	5811.8	6709.2	7034.2	7051.2	6615.3	5724.8	4644.8	2949.0	945.2	311.4	133.9
72.5°	4638.0	5528.6	5814.3	5926.1	5493.6	4584.2	3808.8	2080.6	547.7	217.5	108.3
75°	2873.0	3352.4	3589.6	3654.4	3392.5	2855.1	2311.7	1157.6	333.5	153.5	91.3
77.5°	1288.1	1427.1	1563.6	1563.6	1461.3	1303.4	1059.5	559.6	189.4	109.2	76.8
80°	431.6	447.8	435.9	440.2	423.1	406.9	425.7	241.4	116.9	81.9	62.3
82.5°	293.4	368.5	391.5	391.5	367.7	290.0	163.8	110.9	71.7	58.9	47.8
85°	238.9	291.7	313.1	322.4	303.7	244.8	86.2	53.7	42.7	37.5	32.4
87.5°	80.2	75.1	70.8	69.1	72.5	75.9	42.7	23.0	19.6	17.9	17.1
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°	290.0	290.0	290.0	290.0	290.0	290.0
2.5°	303.7	293.4	297.7	302.0	332.7	355.7
5°	302.0	316.5	348.9	389.8	408.6	454.7
7.5°	310.5	363.4	424.0	466.6	483.7	498.2
10°	415.4	424.8	445.3	486.2	520.4	526.3
12.5°	536.6	534.0	519.5	538.3	521.2	533.2
15°	631.2	603.1	583.5	580.9	574.9	574.9
17.5°	683.3	658.5	631.2	624.4	606.5	621.0
20°	744.7	702.1	633.8	627.0	621.0	607.4
22.5°	732.8	690.1	619.3	610.8	642.3	640.6
25°	747.3	690.1	622.7	613.3	627.8	627.8
27.5°	711.4	664.5	615.9	559.6	604.0	614.2
30°	702.1	649.2	592.9	542.5	587.7	578.4
32.5°	751.5	610.8	555.3	540.0	573.2	566.4
35°	713.1	604.0	545.9	517.8	557.0	550.2
37.5°	729.3	595.4	529.7	505.9	537.4	547.7
40°	725.9	555.3	511.0	480.3	511.8	516.9
42.5°	668.8	524.6	479.4	448.7	464.9	482.0
45°	651.7	505.9	448.7	406.0	406.9	426.5
47.5°	620.2	463.2	392.4	353.2	353.2	369.4
50°	567.3	406.0	328.4	292.6	291.7	304.5
52.5°	488.8	350.6	277.2	238.0	235.4	248.2
55°	400.1	282.4	218.4	192.8	187.7	192.8
57.5°	311.4	220.1	172.3	151.8	151.0	155.3
60°	241.4	172.3	137.3	125.4	127.1	133.9
62.5°	182.6	137.3	116.9	112.6	115.2	122.0
65°	145.0	118.6	106.6	104.1	106.6	113.5
67.5°	117.7	107.5	99.0	95.5	97.2	104.1
69°	108.3	101.5	94.7	90.4	92.1	97.2
70°	103.2	98.1	91.3	87.0	88.7	93.8
72.5°	90.4	87.9	82.7	78.5	79.3	83.6
75°	79.3	77.6	74.2	69.1	69.1	74.2
77.5°	66.5	67.4	64.0	58.9	58.0	60.6
80°	52.9	54.6	52.9	47.8	46.1	46.1
82.5°	38.4	41.8	40.1	35.0	34.1	34.1
85°	23.9	26.4	25.6	22.2	22.2	19.6
87.5°	11.1	14.5	13.6	11.9	11.1	7.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)