

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: P565350

Luminaire Tested: **MSA-SA1C-740-U-T1**

Issue Date: 8/19/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565350  
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-740-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: 5671 lumens  
Efficiency: N/A  
Efficacy: 96.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type I - Medium  
BUG Rating: B3 - U0 - G3

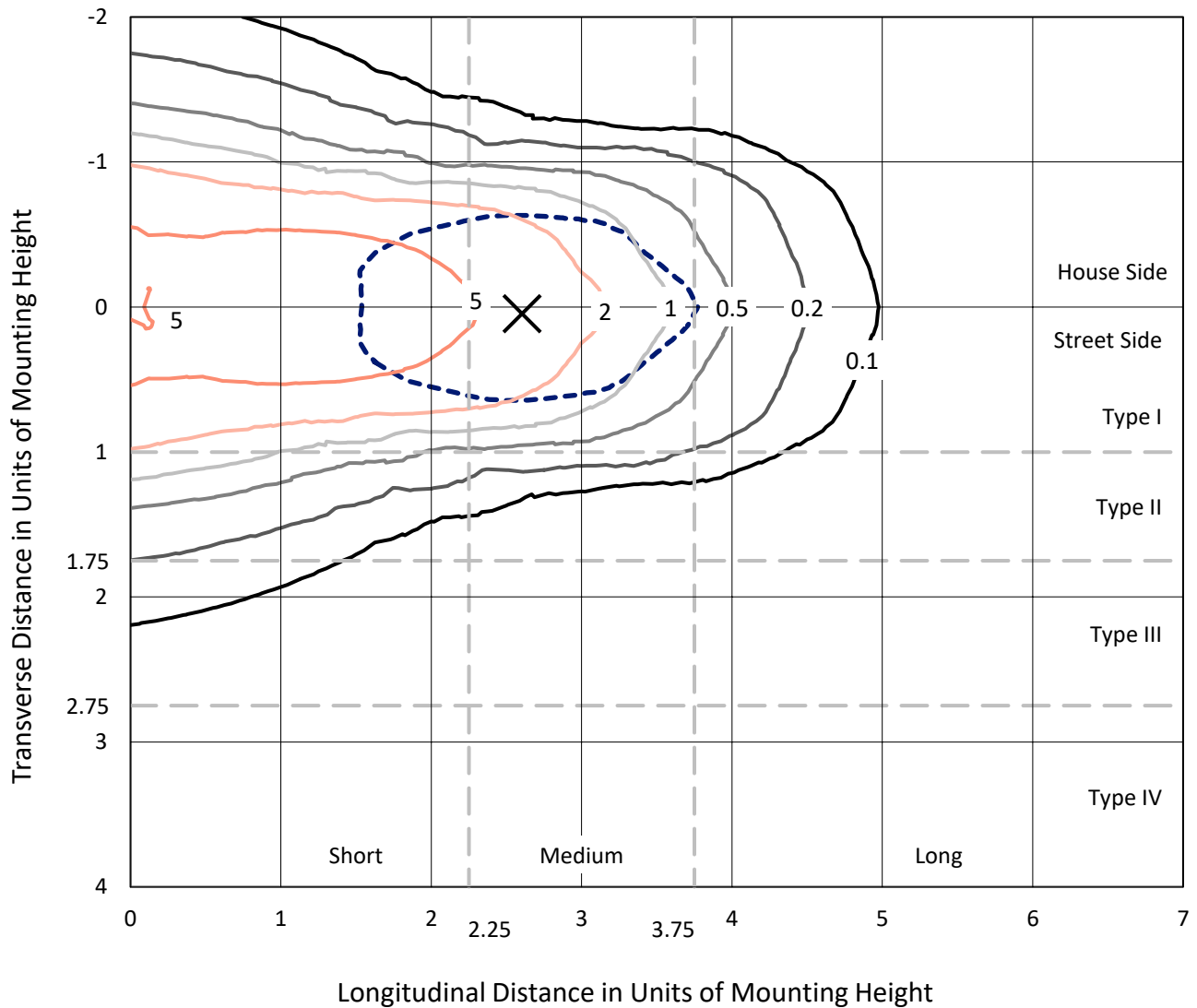
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

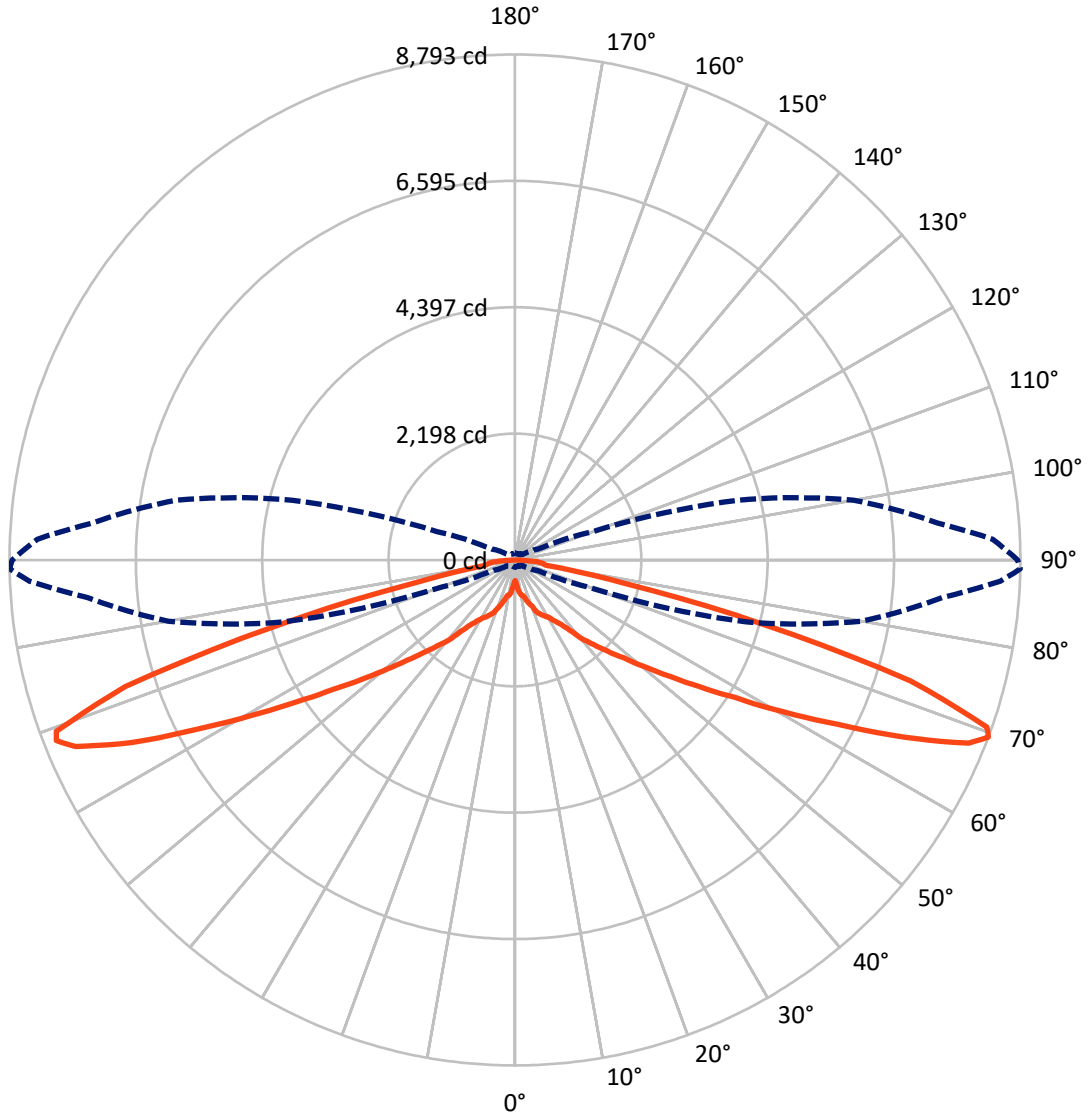
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.1 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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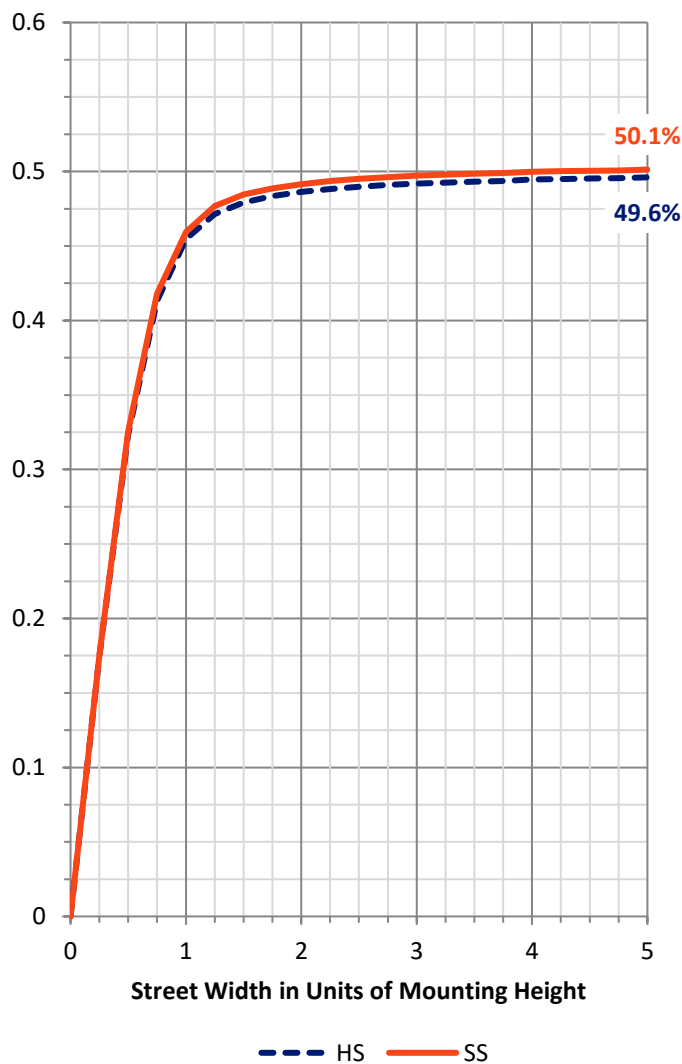
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2835.5	0.0	2835.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2835.5	0.0	2835.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	5671.0	0.0	5671.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.1	0.8
10°-20°	207.9	3.7
20°-30°	414.9	7.3
30°-40°	627.5	11.1
40°-50°	910.8	16.1
50°-60°	1196.7	21.1
60°-70°	1459.8	25.7
70°-80°	738.0	13.0
80°-90°	70.3	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°	5671.0	100.0
0°-180°	5671.0	100.0

**Coefficient of Utilization**

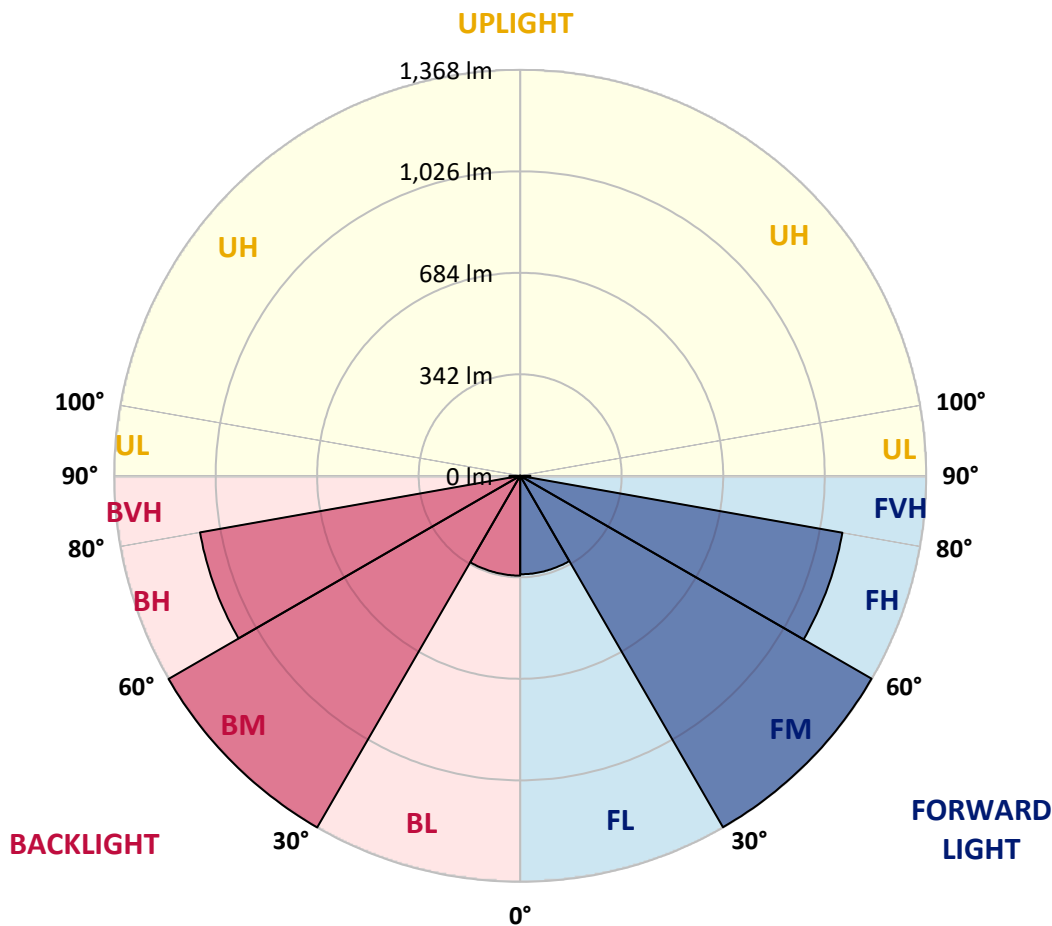


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	331.6	5.8			
FM (30°-60°)	1367.0	24.1			
FH (60°-80°)	1102.4	19.4			G1/1800
FVH (80°-90°)	34.5	0.6			G1/100
BL (0°-30°)	336.3	5.9	B1/500		
BM (30°-60°)	1367.9	24.1	B2/2500		
BH (60°-80°)	1095.4	19.3	B3/2500		G3/2500
BVH (80°-90°)	35.8	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**  
 Type I Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	359.2	359.2	359.2	359.2	359.2	359.2	359.2	359.2	359.2	359.2	359.2
2.5°	421.5	372.9	368.7	357.1	365.5	368.7	361.3	350.7	362.4	368.7	357.1
5°	531.4	459.6	435.3	415.2	375.0	358.1	375.0	418.4	423.6	450.1	442.7
7.5°	585.3	573.7	543.0	476.5	412.0	376.1	421.5	483.9	515.6	540.9	567.3
10°	625.4	619.1	565.2	517.7	491.3	493.4	494.4	514.5	542.0	584.2	599.0
12.5°	634.9	632.8	641.3	630.7	632.8	644.4	632.8	627.5	643.4	657.1	642.3
15°	696.2	695.2	698.3	700.4	742.7	760.7	742.7	726.9	715.2	703.6	727.9
17.5°	738.5	733.2	734.2	754.3	801.9	851.5	842.0	820.9	794.5	810.3	830.4
20°	761.7	752.2	758.5	767.0	847.3	902.2	908.6	880.0	864.2	884.3	901.2
22.5°	783.9	769.1	746.9	755.4	829.3	908.6	939.2	931.8	943.4	949.8	946.6
25°	757.5	767.0	742.7	767.0	842.0	914.9	976.2	1019.5	1020.6	1017.4	1040.6
27.5°	741.6	734.2	693.0	755.4	817.7	863.1	1019.5	1092.4	1114.6	1047.0	1092.4
30°	714.2	725.8	669.8	721.6	800.8	876.9	1069.2	1173.7	1141.0	1132.5	1143.1
32.5°	697.3	689.9	663.5	692.0	752.2	918.1	1100.8	1221.3	1262.5	1242.4	1240.3
35°	669.8	675.1	633.9	664.5	749.0	883.2	1122.0	1340.7	1404.1	1388.2	1375.5
37.5°	674.0	656.1	626.5	648.7	729.0	902.2	1174.8	1455.8	1556.2	1564.6	1506.5
40°	642.3	631.8	587.4	624.4	690.9	890.6	1187.5	1586.8	1756.9	1794.9	1711.5
42.5°	596.9	583.2	557.8	599.0	668.7	833.6	1205.4	1744.2	1960.8	2040.1	1964.0
45°	531.4	513.4	500.8	555.7	620.1	818.8	1186.4	1875.2	2156.3	2265.1	2263.0
47.5°	452.2	440.5	434.2	492.3	580.0	781.8	1147.3	1957.6	2292.5	2571.5	2529.2
50°	362.4	353.9	352.9	414.1	512.4	705.7	1103.0	1998.8	2499.6	2852.5	2889.5
52.5°	290.5	284.2	283.1	332.8	428.9	603.2	1010.0	2030.5	2697.2	3171.5	3361.7
55°	227.1	220.8	221.9	263.1	341.2	493.4	868.4	1994.6	2870.4	3498.0	3858.2
57.5°	185.9	179.6	180.7	203.9	260.9	377.2	692.0	1916.4	2948.6	3901.6	4437.2
60°	163.8	157.4	154.2	164.8	200.7	284.2	514.5	1612.2	2961.3	4236.5	5065.8
62.5°	152.1	145.8	142.6	145.8	165.9	217.6	370.8	1277.3	2888.4	4522.8	5641.6
65°	141.6	136.3	132.1	135.2	145.8	173.3	270.5	874.8	2507.0	4653.8	6059.9
67.5°	129.9	125.7	121.5	125.7	133.1	145.8	210.2	553.6	1879.5	4483.7	6234.3
69°	123.6	117.3	115.2	118.3	125.7	134.2	181.7	441.6	1429.4	4160.4	6128.6
70°	117.3	113.0	109.9	115.2	121.5	127.8	163.8	375.0	1120.9	3745.2	5866.6
72.5°	103.5	100.4	98.3	103.5	108.8	113.0	134.2	267.3	649.7	2550.3	4652.7
75°	90.9	87.7	86.6	90.9	95.1	97.2	113.0	183.8	383.5	1334.3	2791.2
77.5°	76.1	71.8	72.9	78.2	81.3	82.4	95.1	132.1	226.1	604.3	1293.1
80°	56.0	56.0	60.2	64.4	64.4	64.4	76.1	96.1	137.3	277.9	536.7
82.5°	39.1	40.1	41.2	47.5	48.6	44.4	58.1	69.7	85.6	121.5	185.9
85°	22.2	23.2	24.3	28.5	29.6	26.4	38.0	44.4	49.7	60.2	97.2
87.5°	8.5	9.5	12.7	14.8	15.8	11.6	18.0	21.1	21.1	25.4	43.3
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°	359.2	359.2	359.2	359.2	359.2	359.2	359.2	359.2	359.2	359.2	359.2
2.5°	381.4	388.8	402.5	405.7	394.1	381.4	352.9	370.8	378.2	364.5	368.7
5°	472.2	488.1	505.0	484.9	472.2	463.8	450.1	451.1	443.7	419.4	379.3
7.5°	574.7	556.8	569.4	583.2	563.1	564.2	576.8	550.4	530.3	489.1	414.1
10°	622.3	622.3	625.4	625.4	617.0	617.0	615.9	573.7	549.4	531.4	510.3
12.5°	625.4	624.4	637.1	627.5	629.7	631.8	637.1	656.1	649.7	626.5	645.5
15°	713.1	708.9	713.1	712.1	715.2	724.7	720.5	716.3	717.3	734.2	762.8
17.5°	795.5	797.6	793.4	800.8	800.8	807.1	821.9	807.1	794.5	826.2	848.3
20°	890.6	883.2	866.3	879.0	882.2	883.2	907.5	889.6	871.6	883.2	909.6
22.5°	986.7	985.7	987.8	988.9	993.1	977.2	944.5	939.2	950.8	935.0	938.1
25°	1045.9	1047.0	1052.2	1053.3	1035.3	1052.2	1063.9	1029.0	1029.0	1025.8	1004.7
27.5°	1117.7	1101.9	1108.2	1116.7	1109.3	1113.5	1099.8	1049.1	1103.0	1110.4	1025.8
30°	1166.3	1159.0	1151.6	1160.0	1167.4	1186.4	1147.3	1142.0	1146.3	1185.4	1074.4
32.5°	1268.8	1279.4	1265.7	1251.9	1265.7	1261.4	1244.5	1237.1	1290.0	1238.2	1108.2
35°	1363.9	1368.1	1369.2	1367.1	1375.5	1360.7	1360.7	1388.2	1404.1	1348.1	1118.8
37.5°	1593.2	1578.4	1547.7	1532.9	1559.4	1581.5	1516.0	1548.8	1542.5	1447.4	1198.0
40°	1758.0	1791.8	1801.3	1797.1	1801.3	1737.9	1751.6	1775.9	1747.4	1590.0	1170.6
42.5°	1998.8	2020.0	2012.6	2003.1	2007.3	1995.7	1954.5	2044.3	1941.8	1749.5	1212.8
45°	2218.6	2266.1	2269.3	2236.6	2263.0	2221.8	2238.7	2270.4	2166.8	1868.9	1201.2
47.5°	2480.6	2578.9	2541.9	2541.9	2568.3	2479.5	2519.7	2561.9	2287.3	1949.2	1137.8
50°	2868.3	2921.1	2919.0	2909.5	2921.1	2873.6	2867.3	2862.0	2472.1	2025.3	1098.7
52.5°	3306.8	3378.6	3351.1	3361.7	3377.5	3287.7	3358.5	3165.2	2703.5	2053.8	1010.0
55°	3866.7	3916.3	3888.9	3835.0	3906.8	3849.8	3873.0	3495.9	2864.1	1972.4	862.1
57.5°	4533.3	4558.7	4513.3	4508.0	4555.5	4494.2	4455.1	3867.7	2947.6	1911.2	688.8
60°	5311.9	5391.2	5362.7	5317.2	5360.5	5306.7	5010.9	4183.6	2930.7	1624.9	533.5
62.5°	6245.9	6326.2	6294.5	6263.8	6291.3	6150.8	5532.8	4433.0	2854.6	1287.8	389.8
65°	7017.1	7379.5	7427.0	7428.1	7294.9	6969.6	5949.0	4530.2	2453.1	899.1	285.2
67.5°	7524.2	8277.5	8512.0	8427.5	8122.2	7379.5	6117.0	4340.0	1894.3	568.4	213.4
69°	7466.1	8453.9	8793.0	8745.5	8316.6	7373.1	5986.0	4019.9	1447.4	452.2	180.7
70°	7197.8	8309.2	8711.7	8732.8	8193.0	7090.0	5752.5	3652.2	1170.6	385.6	165.9
72.5°	5744.0	6847.0	7200.9	7339.3	6803.7	5677.5	4717.2	2576.7	678.3	269.4	134.2
75°	3558.2	4151.9	4445.6	4525.9	4201.6	3536.0	2863.0	1433.6	413.1	190.2	113.0
77.5°	1595.3	1767.5	1936.5	1936.5	1809.7	1614.3	1312.1	693.0	234.5	135.2	95.1
80°	534.6	554.6	539.9	545.1	524.0	503.9	527.2	299.0	144.7	101.4	77.1
82.5°	363.4	456.4	484.9	484.9	455.3	359.2	202.8	137.3	88.7	72.9	59.2
85°	295.8	361.3	387.7	399.3	376.1	303.2	106.7	66.6	52.8	46.5	40.1
87.5°	99.3	93.0	87.7	85.6	89.8	94.0	52.8	28.5	24.3	22.2	21.1
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°	359.2	359.2	359.2	359.2	359.2	359.2
2.5°	376.1	363.4	368.7	374.0	412.0	440.5
5°	374.0	392.0	432.1	482.8	506.1	563.1
7.5°	384.6	450.1	525.1	577.9	599.0	617.0
10°	514.5	526.1	551.5	602.2	644.4	651.8
12.5°	664.5	661.4	643.4	666.6	645.5	660.3
15°	781.8	746.9	722.6	719.5	712.1	712.1
17.5°	846.2	815.6	781.8	773.3	751.2	769.1
20°	922.3	869.5	785.0	776.5	769.1	752.2
22.5°	907.5	854.7	767.0	756.4	795.5	793.4
25°	925.5	854.7	771.2	759.6	777.6	777.6
27.5°	881.1	823.0	762.8	693.0	748.0	760.7
30°	869.5	804.0	734.2	671.9	727.9	716.3
32.5°	930.8	756.4	687.8	668.7	710.0	701.5
35°	883.2	748.0	676.1	641.3	689.9	681.4
37.5°	903.3	737.4	656.1	626.5	665.6	678.3
40°	899.1	687.8	632.8	594.8	633.9	640.2
42.5°	828.3	649.7	593.7	555.7	575.8	596.9
45°	807.1	626.5	555.7	502.9	503.9	528.2
47.5°	768.1	573.7	486.0	437.4	437.4	457.5
50°	702.6	502.9	406.7	362.4	361.3	377.2
52.5°	605.4	434.2	343.4	294.8	291.6	307.4
55°	495.5	349.7	270.5	238.8	232.4	238.8
57.5°	385.6	272.6	213.4	188.1	187.0	192.3
60°	299.0	213.4	170.1	155.3	157.4	165.9
62.5°	226.1	170.1	144.7	139.5	142.6	151.1
65°	179.6	146.8	132.1	128.9	132.1	140.5
67.5°	145.8	133.1	122.6	118.3	120.4	128.9
69°	134.2	125.7	117.3	112.0	114.1	120.4
70°	127.8	121.5	113.0	107.8	109.9	116.2
72.5°	112.0	108.8	102.5	97.2	98.3	103.5
75°	98.3	96.1	91.9	85.6	85.6	91.9
77.5°	82.4	83.5	79.2	72.9	71.8	75.0
80°	65.5	67.6	65.5	59.2	57.0	57.0
82.5°	47.5	51.8	49.7	43.3	42.3	42.3
85°	29.6	32.8	31.7	27.5	27.5	24.3
87.5°	13.7	18.0	16.9	14.8	13.7	9.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)