

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: P565338

Luminaire Tested: **MSA-SA2C-835-U-T1**

Issue Date: 8/19/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565338  
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-SA2C-835-U-T1  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9195 lumens  
Efficiency: N/A  
Efficacy: 81.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type I - Medium  
BUG Rating: B3 - U0 - G3

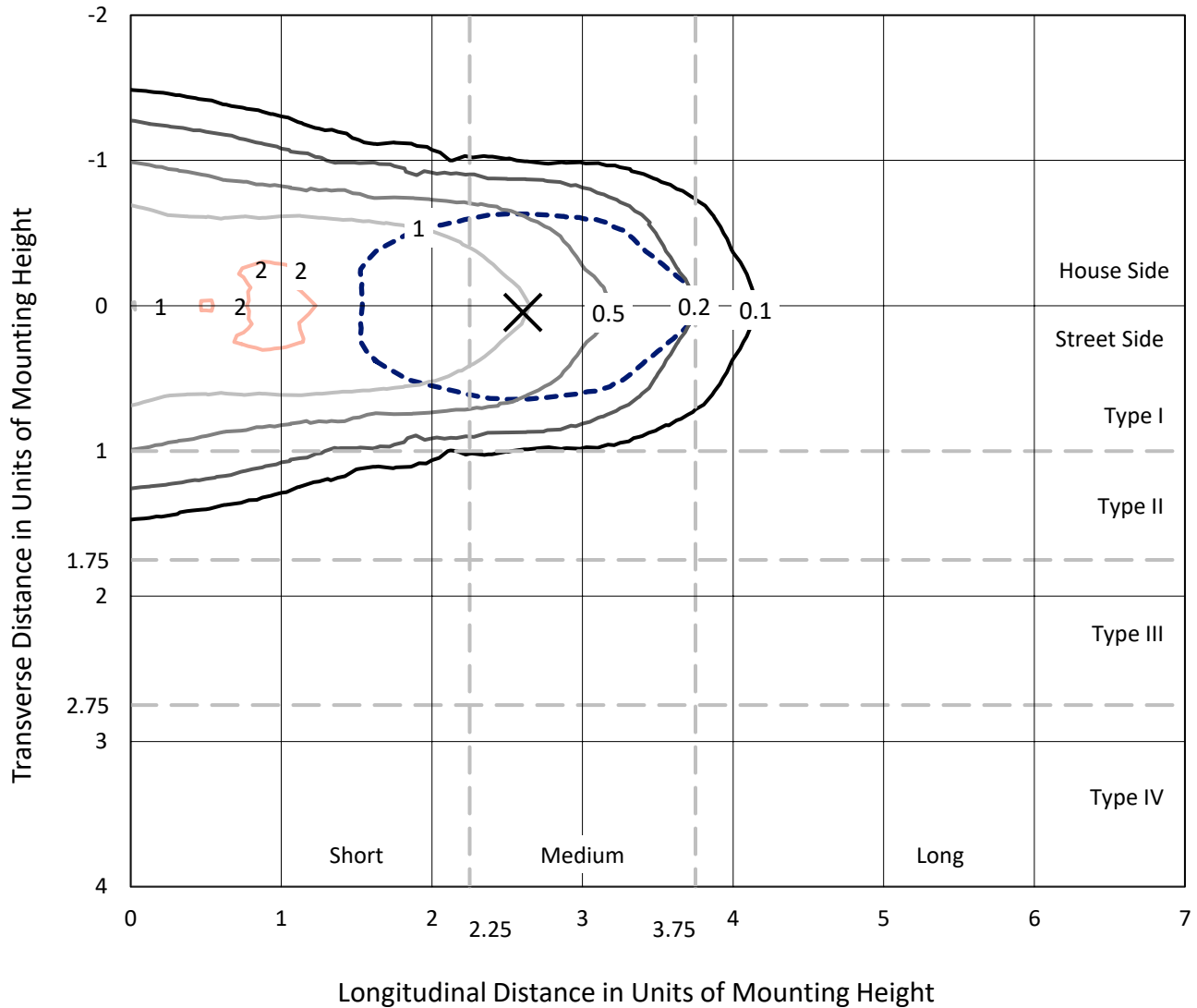
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

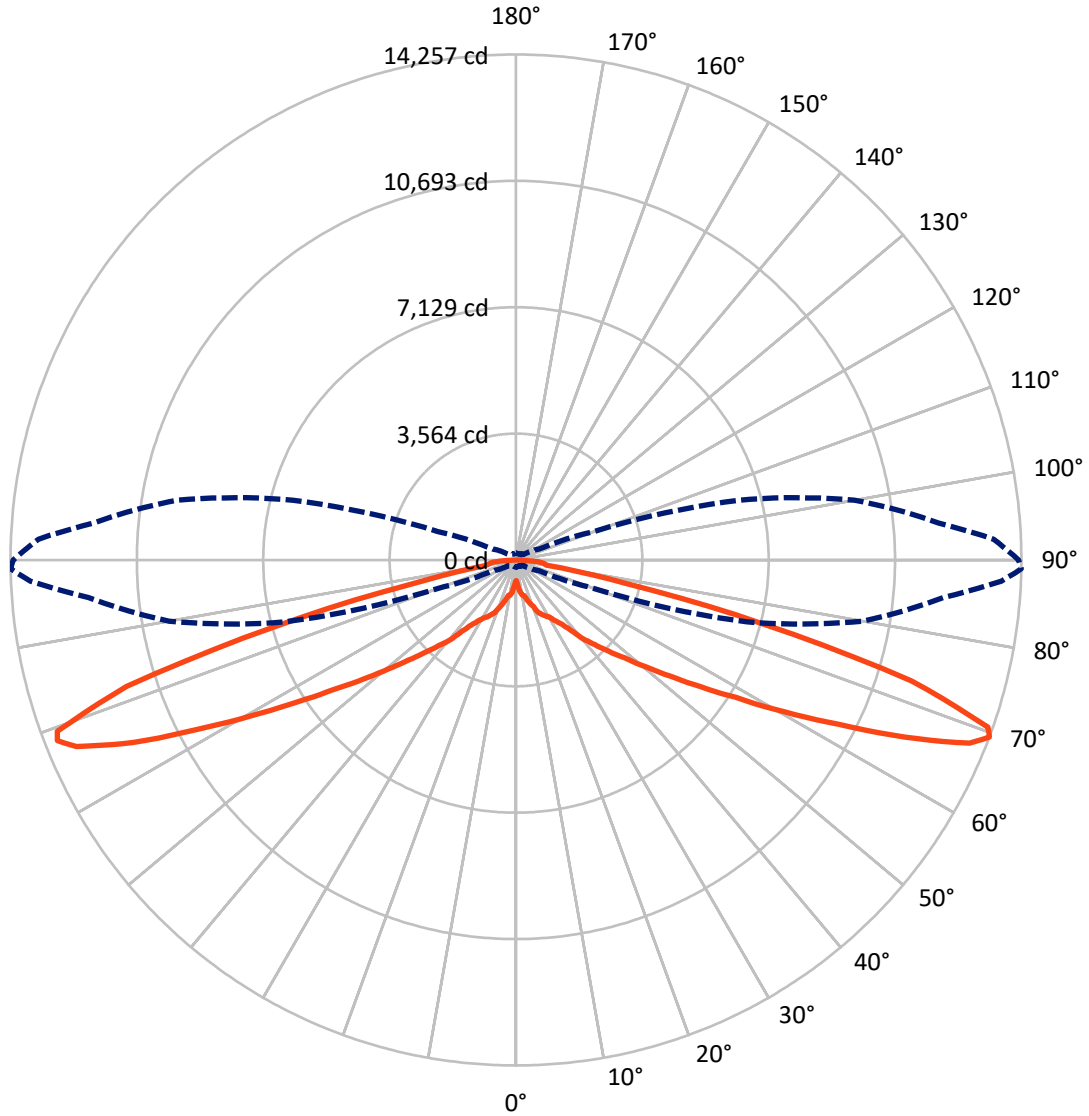
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 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	4597.4	0.0	4597.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4597.6	0.0	4597.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	9195.0	0.0	9195.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.2	0.8
10°-20°	337.2	3.7
20°-30°	672.7	7.3
30°-40°	1017.4	11.1
40°-50°	1476.8	16.1
50°-60°	1940.3	21.1
60°-70°	2366.9	25.7
70°-80°	1196.6	13.0
80°-90°	114.1	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°	9195.0	100.0
0°-180°	9195.0	100.0

**Coefficient of Utilization**



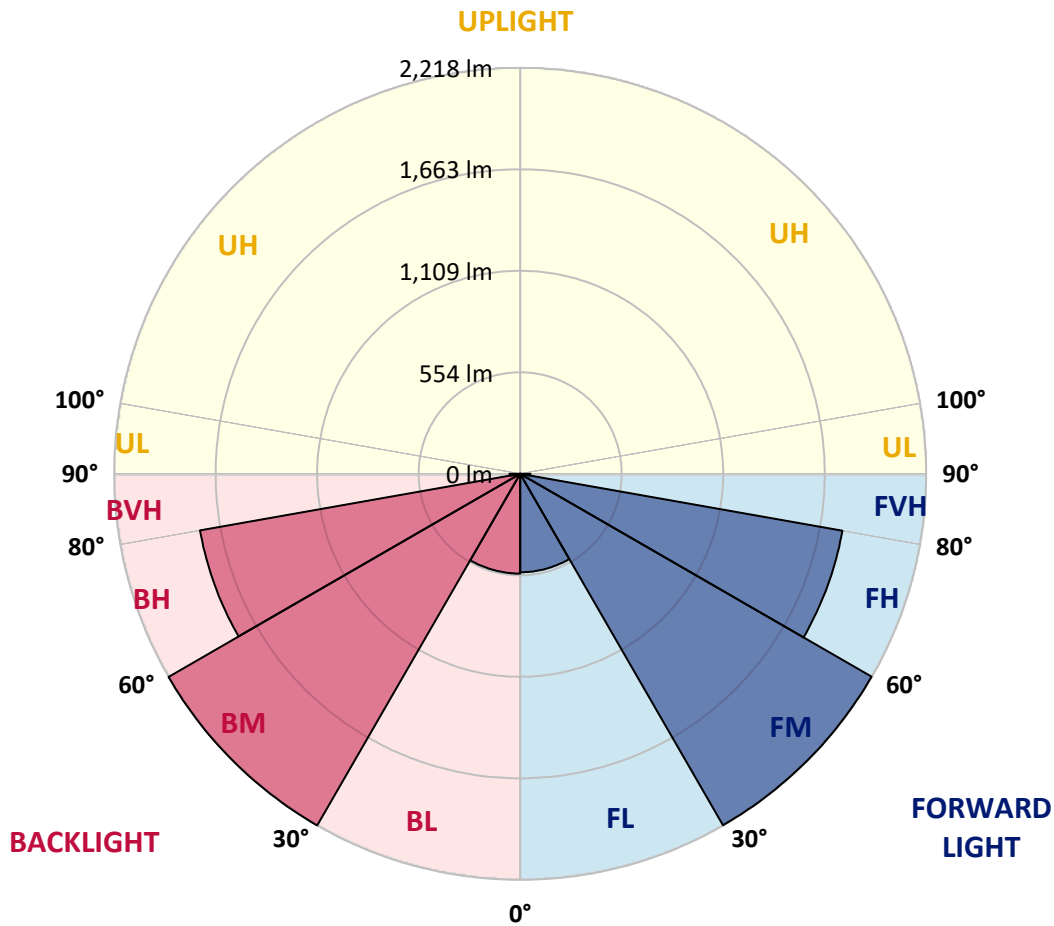
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	537.7	5.8			
FM (30°-60°)	2216.5	24.1			
FH (60°-80°)	1787.4	19.4			G1/1800
FVH (80°-90°)	55.9	0.6			G1/100
BL (0°-30°)	545.3	5.9	B2/1000		
BM (30°-60°)	2218.0	24.1	B2/2500		
BH (60°-80°)	1776.0	19.3	B3/2500		G3/2500
BVH (80°-90°)	58.1	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°	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4
2.5°	683.5	604.7	597.8	579.0	592.7	597.8	585.8	568.7	587.5	597.8	579.0
5°	861.6	745.1	705.7	673.2	608.1	580.7	608.1	678.3	686.9	729.7	717.7
7.5°	949.0	930.1	880.5	772.6	668.1	609.8	683.5	784.5	835.9	877.0	919.9
10°	1014.1	1003.8	916.4	839.4	796.5	800.0	801.7	834.2	878.8	947.3	971.3
12.5°	1029.5	1026.1	1039.8	1022.6	1026.1	1044.9	1026.1	1017.5	1043.2	1065.5	1041.5
15°	1128.8	1127.1	1132.3	1135.7	1204.2	1233.3	1204.2	1178.5	1159.7	1140.8	1180.2
17.5°	1197.4	1188.8	1190.5	1223.1	1300.1	1380.7	1365.2	1331.0	1288.2	1313.9	1346.4
20°	1235.1	1219.6	1229.9	1243.6	1373.8	1462.9	1473.2	1426.9	1401.2	1433.8	1461.2
22.5°	1271.0	1247.0	1211.1	1224.8	1344.7	1473.2	1522.8	1510.8	1529.7	1540.0	1534.8
25°	1228.2	1243.6	1204.2	1243.6	1365.2	1483.4	1582.8	1653.0	1654.7	1649.6	1687.3
27.5°	1202.5	1190.5	1123.7	1224.8	1325.8	1399.5	1653.0	1771.2	1807.2	1697.6	1771.2
30°	1158.0	1176.8	1086.0	1170.0	1298.4	1421.8	1733.5	1903.1	1850.0	1836.3	1853.4
32.5°	1130.6	1118.6	1075.7	1122.0	1219.6	1488.6	1784.9	1980.2	2047.0	2014.5	2011.0
35°	1086.0	1094.6	1027.8	1077.5	1214.5	1432.0	1819.2	2173.8	2276.5	2250.8	2230.3
37.5°	1092.9	1063.8	1015.8	1051.8	1182.0	1462.9	1904.8	2360.5	2523.2	2536.9	2442.7
40°	1041.5	1024.4	952.4	1012.4	1120.3	1444.0	1925.4	2572.9	2848.7	2910.3	2775.0
42.5°	967.8	945.6	904.5	971.3	1084.3	1351.5	1954.5	2828.1	3179.3	3307.8	3184.4
45°	861.6	832.5	811.9	901.0	1005.5	1327.6	1923.7	3040.5	3496.2	3672.6	3669.2
47.5°	733.2	714.3	704.0	798.2	940.4	1267.6	1860.3	3174.1	3717.2	4169.4	4100.9
50°	587.5	573.8	572.1	671.5	830.8	1144.3	1788.3	3240.9	4052.9	4625.0	4685.0
52.5°	471.1	460.8	459.1	539.6	695.5	978.1	1637.6	3292.3	4373.2	5142.3	5450.7
55°	368.3	358.0	359.7	426.5	553.3	800.0	1408.1	3234.1	4654.1	5671.7	6255.8
57.5°	301.5	291.2	292.9	330.6	423.1	611.5	1122.0	3107.3	4780.9	6326.0	7194.5
60°	265.5	255.2	250.1	267.2	325.5	460.8	834.2	2614.0	4801.5	6869.0	8213.7
62.5°	246.7	236.4	231.3	236.4	268.9	352.9	601.3	2071.0	4683.3	7333.2	9147.3
65°	229.5	221.0	214.1	219.3	236.4	280.9	438.5	1418.3	4064.9	7545.6	9825.6
67.5°	210.7	203.8	197.0	203.8	215.8	236.4	340.9	897.6	3047.4	7269.9	10108.3
69°	200.4	190.1	186.7	191.9	203.8	217.5	294.6	716.0	2317.7	6745.7	9937.0
70°	190.1	183.3	178.1	186.7	197.0	207.3	265.5	608.1	1817.5	6072.5	9512.1
72.5°	167.9	162.7	159.3	167.9	176.4	183.3	217.5	433.4	1053.5	4135.1	7543.9
75°	147.3	142.2	140.5	147.3	154.2	157.6	183.3	298.1	621.8	2163.5	4525.7
77.5°	123.3	116.5	118.2	126.8	131.9	133.6	154.2	214.1	366.6	979.8	2096.7
80°	90.8	90.8	97.6	104.5	104.5	104.5	123.3	155.9	222.7	450.5	870.2
82.5°	63.4	65.1	66.8	77.1	78.8	71.9	94.2	113.1	138.8	197.0	301.5
85°	36.0	37.7	39.4	46.3	48.0	42.8	61.7	71.9	80.5	97.6	157.6
87.5°	13.7	15.4	20.6	24.0	25.7	18.8	29.1	34.3	34.3	41.1	70.2
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°	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4
2.5°	618.4	630.4	652.6	657.8	638.9	618.4	572.1	601.3	613.2	591.0	597.8
5°	765.7	791.4	818.8	786.3	765.7	752.0	729.7	731.4	719.4	680.1	615.0
7.5°	931.9	902.7	923.3	945.6	913.0	914.7	935.3	892.5	859.9	793.1	671.5
10°	1008.9	1008.9	1014.1	1014.1	1000.4	1000.4	998.7	930.1	890.7	861.6	827.4
12.5°	1014.1	1012.4	1032.9	1017.5	1020.9	1024.4	1032.9	1063.8	1053.5	1015.8	1046.6
15°	1156.3	1149.4	1156.3	1154.5	1159.7	1175.1	1168.2	1161.4	1163.1	1190.5	1236.8
17.5°	1289.9	1293.3	1286.4	1298.4	1298.4	1308.7	1332.7	1308.7	1288.2	1339.5	1375.5
20°	1444.0	1432.0	1404.6	1425.2	1430.3	1432.0	1471.4	1442.3	1413.2	1432.0	1474.9
22.5°	1599.9	1598.2	1601.6	1603.3	1610.2	1584.5	1531.4	1522.8	1541.7	1516.0	1521.1
25°	1695.8	1697.6	1706.1	1707.8	1678.7	1706.1	1725.0	1668.4	1668.4	1663.3	1629.0
27.5°	1812.3	1786.6	1796.9	1810.6	1798.6	1805.5	1783.2	1701.0	1788.3	1800.3	1663.3
30°	1891.1	1879.1	1867.1	1880.8	1892.8	1923.7	1860.3	1851.7	1858.6	1922.0	1742.1
32.5°	2057.3	2074.4	2052.1	2029.9	2052.1	2045.3	2017.9	2005.9	2091.5	2007.6	1796.9
35°	2211.4	2218.3	2220.0	2216.6	2230.3	2206.3	2206.3	2250.8	2276.5	2185.8	1814.0
37.5°	2583.2	2559.2	2509.5	2485.5	2528.3	2564.3	2458.1	2511.2	2500.9	2346.8	1942.5
40°	2850.4	2905.2	2920.6	2913.8	2920.6	2817.8	2840.1	2879.5	2833.3	2578.0	1898.0
42.5°	3240.9	3275.2	3263.2	3247.8	3254.7	3235.8	3169.0	3314.6	3148.4	2836.7	1966.5
45°	3597.2	3674.3	3679.5	3626.4	3669.2	3602.4	3629.8	3681.2	3513.3	3030.3	1947.7
47.5°	4022.1	4181.4	4121.4	4121.4	4164.2	4020.3	4085.4	4154.0	3708.6	3160.4	1844.9
50°	4650.7	4736.4	4732.9	4717.5	4736.4	4659.3	4649.0	4640.4	4008.4	3283.8	1781.5
52.5°	5361.6	5478.1	5433.6	5450.7	5476.4	5330.8	5445.5	5132.1	4383.5	3330.0	1637.6
55°	6269.5	6350.0	6305.5	6218.1	6334.6	6242.1	6279.8	5668.2	4643.9	3198.1	1397.8
57.5°	7350.4	7391.5	7317.8	7309.3	7386.3	7287.0	7223.6	6271.2	4779.2	3098.8	1116.9
60°	8612.8	8741.3	8695.1	8621.4	8691.6	8604.3	8124.6	6783.4	4751.8	2634.6	865.1
62.5°	10127.1	10257.3	10205.9	10156.2	10200.8	9972.9	8970.8	7187.6	4628.5	2088.1	632.1
65°	11377.6	11965.1	12042.2	12043.9	11828.1	11300.5	9645.8	7345.2	3977.5	1457.7	462.5
67.5°	12199.8	13421.1	13801.4	13664.4	13169.3	11965.1	9918.1	7036.9	3071.4	921.6	346.0
69°	12105.6	13707.2	14257.1	14180.0	13484.5	11954.8	9705.7	6517.9	2346.8	733.2	292.9
70°	11670.5	13472.5	14125.2	14159.4	13284.1	11495.8	9327.1	5921.8	1898.0	625.2	268.9
72.5°	9313.4	11101.8	11675.6	11900.0	11031.6	9205.5	7648.4	4177.9	1099.7	436.8	217.5
75°	5769.3	6732.0	7208.2	7338.4	6812.5	5733.3	4642.2	2324.5	669.8	308.3	183.3
77.5°	2586.6	2865.8	3139.9	3139.9	2934.3	2617.4	2127.5	1123.7	380.3	219.3	154.2
80°	866.8	899.3	875.3	883.9	849.6	817.1	854.8	484.8	234.7	164.4	125.0
82.5°	589.3	740.0	786.3	786.3	738.3	582.4	328.9	222.7	143.9	118.2	95.9
85°	479.6	585.8	628.7	647.5	609.8	491.6	173.0	107.9	85.6	75.4	65.1
87.5°	161.0	150.7	142.2	138.8	145.6	152.5	85.6	46.3	39.4	36.0	34.3
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):**

	135°	145°	155°	165°	175°	180°
0°	582.4	582.4	582.4	582.4	582.4	582.4
2.5°	609.8	589.3	597.8	606.4	668.1	714.3
5°	606.4	635.5	700.6	782.8	820.5	913.0
7.5°	623.5	729.7	851.3	937.0	971.3	1000.4
10°	834.2	853.1	894.2	976.4	1044.9	1056.9
12.5°	1077.5	1072.3	1043.2	1080.9	1046.6	1070.6
15°	1267.6	1211.1	1171.7	1166.5	1154.5	1154.5
17.5°	1372.1	1322.4	1267.6	1253.9	1217.9	1247.0
20°	1495.4	1409.8	1272.7	1259.0	1247.0	1219.6
22.5°	1471.4	1385.8	1243.6	1226.5	1289.9	1286.4
25°	1500.6	1385.8	1250.5	1231.6	1260.7	1260.7
27.5°	1428.6	1334.4	1236.8	1123.7	1212.8	1233.3
30°	1409.8	1303.6	1190.5	1089.5	1180.2	1161.4
32.5°	1509.1	1226.5	1115.1	1084.3	1151.1	1137.4
35°	1432.0	1212.8	1096.3	1039.8	1118.6	1104.9
37.5°	1464.6	1195.7	1063.8	1015.8	1079.2	1099.7
40°	1457.7	1115.1	1026.1	964.4	1027.8	1038.1
42.5°	1343.0	1053.5	962.7	901.0	933.6	967.8
45°	1308.7	1015.8	901.0	815.4	817.1	856.5
47.5°	1245.3	930.1	788.0	709.2	709.2	741.7
50°	1139.1	815.4	659.5	587.5	585.8	611.5
52.5°	981.5	704.0	556.7	477.9	472.8	498.5
55°	803.4	567.0	438.5	387.1	376.9	387.1
57.5°	625.2	441.9	346.0	304.9	303.2	311.8
60°	484.8	346.0	275.8	251.8	255.2	268.9
62.5°	366.6	275.8	234.7	226.1	231.3	245.0
65°	291.2	238.1	214.1	209.0	214.1	227.8
67.5°	236.4	215.8	198.7	191.9	195.3	209.0
69°	217.5	203.8	190.1	181.6	185.0	195.3
70°	207.3	197.0	183.3	174.7	178.1	188.4
72.5°	181.6	176.4	166.2	157.6	159.3	167.9
75°	159.3	155.9	149.0	138.8	138.8	149.0
77.5°	133.6	135.3	128.5	118.2	116.5	121.6
80°	106.2	109.6	106.2	95.9	92.5	92.5
82.5°	77.1	83.9	80.5	70.2	68.5	68.5
85°	48.0	53.1	51.4	44.5	44.5	39.4
87.5°	22.3	29.1	27.4	24.0	22.3	15.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)