

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: P565356

Luminaire Tested: **MSA-SA3A-740-U-T1**

Issue Date: 8/19/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565356  
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-SA3A-740-U-T1  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10606 lumens  
Efficiency: N/A  
Efficacy: 110.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type I - Medium  
BUG Rating: B3 - U0 - G3

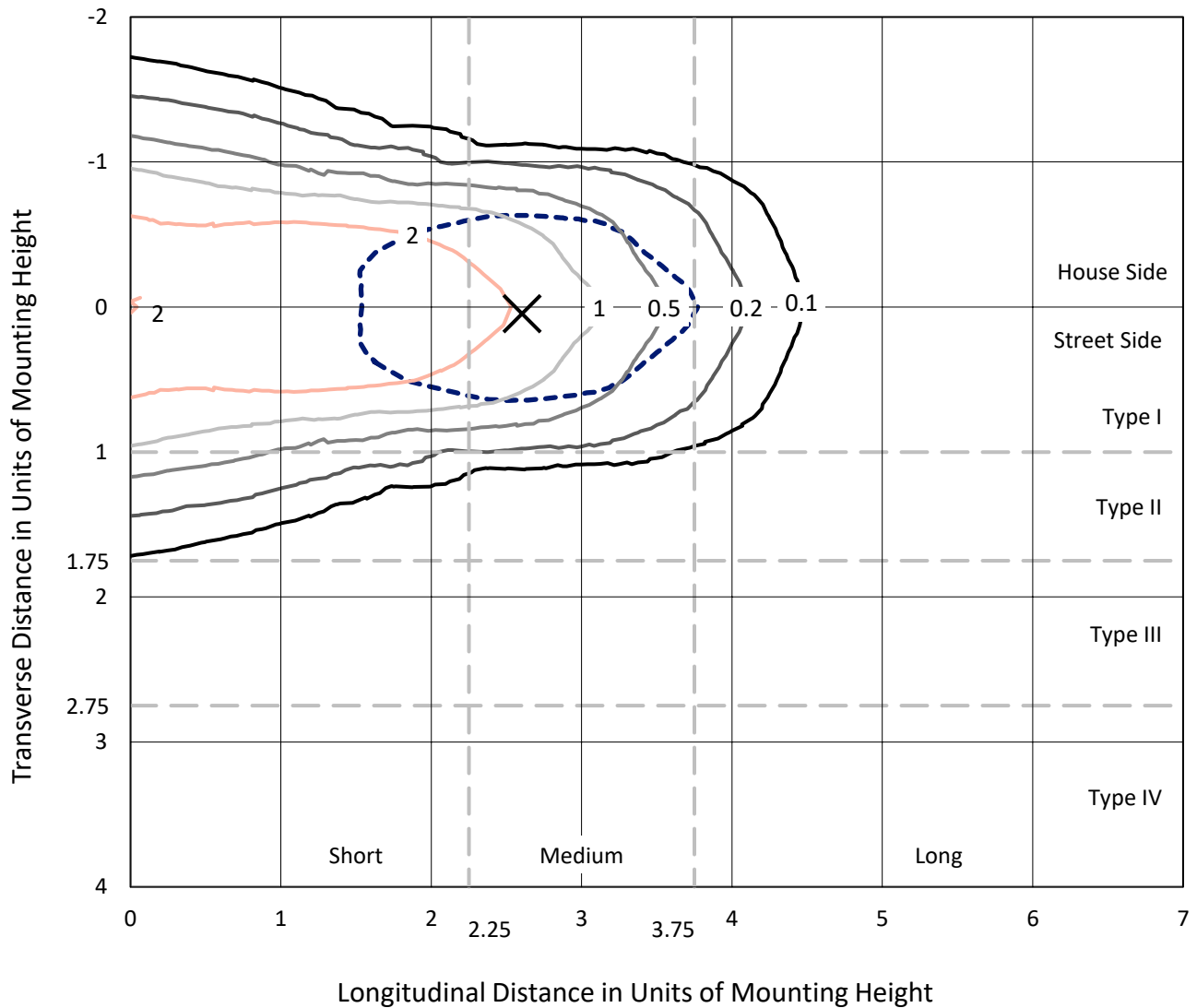
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

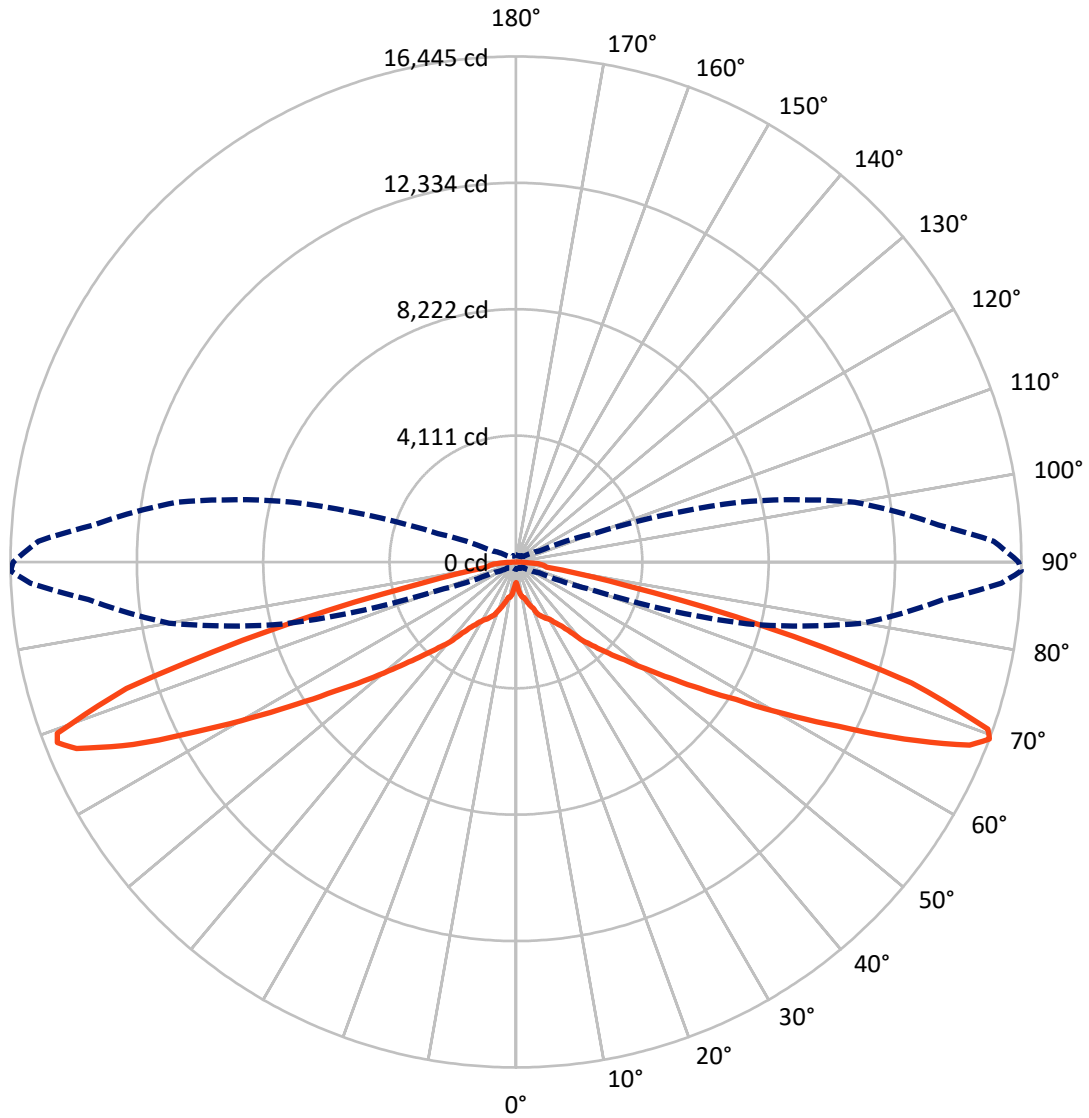
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.8 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	5302.9	0.0	5302.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5303.1	0.0	5303.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10606.0	0.0	10606.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.4	0.8
10°-20°	388.9	3.7
20°-30°	775.9	7.3
30°-40°	1173.5	11.1
40°-50°	1703.4	16.1
50°-60°	2238.0	21.1
60°-70°	2730.0	25.7
70°-80°	1380.2	13.0
80°-90°	131.6	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°	10606.0	100.0
0°-180°	10606.0	100.0

**Coefficient of Utilization**



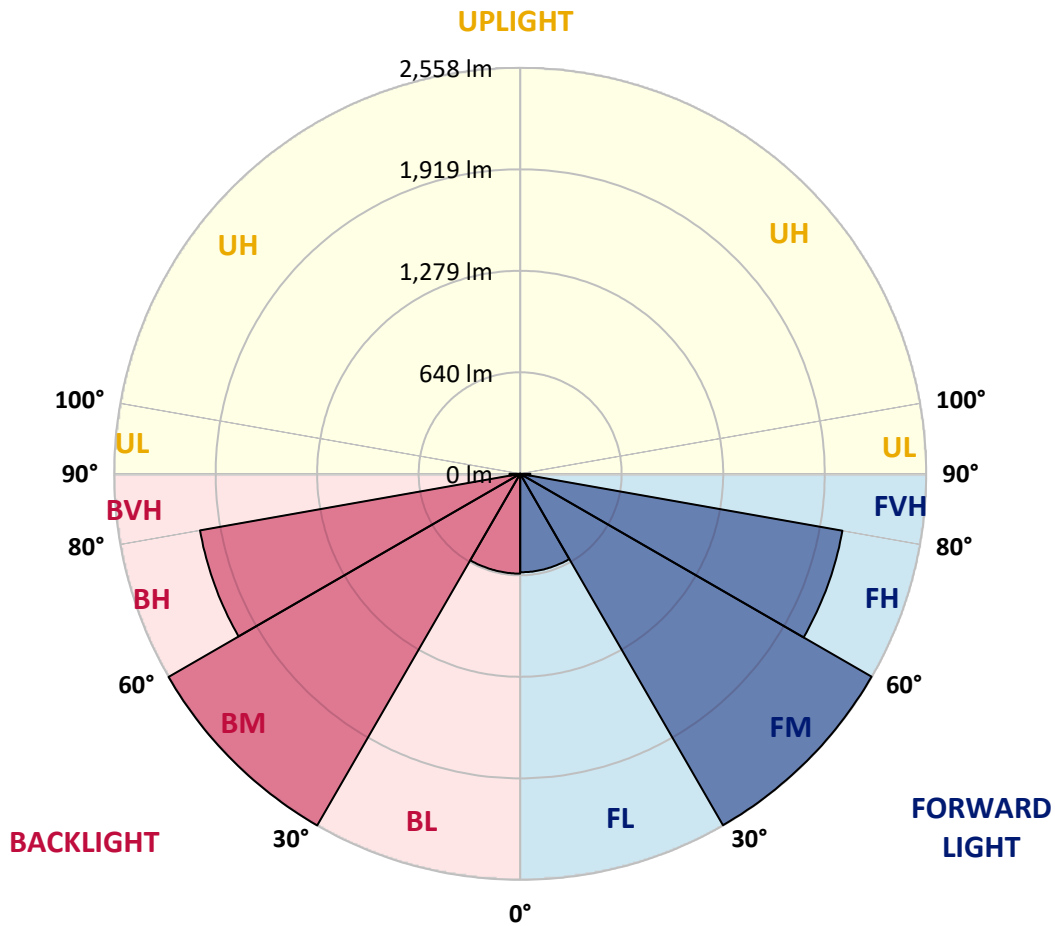
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	620.2	5.8			
FM (30°-60°)	2556.6	24.1			
FH (60°-80°)	2061.7	19.4			G2/5000
FVH (80°-90°)	64.5	0.6			G1/100
BL (0°-30°)	629.0	5.9	B2/1000		
BM (30°-60°)	2558.3	24.1	B3/5000		
BH (60°-80°)	2048.6	19.3	B3/2500		G3/2500
BVH (80°-90°)	67.0	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°	671.8	671.8	671.8	671.8	671.8	671.8	671.8	671.8	671.8	671.8	671.8
2.5°	788.4	697.5	689.6	667.8	683.6	689.6	675.7	656.0	677.7	689.6	667.8
5°	993.8	859.5	814.0	776.5	701.4	669.8	701.4	782.4	792.3	841.7	827.9
7.5°	1094.6	1072.9	1015.6	891.1	770.6	703.4	788.4	904.9	964.2	1011.6	1061.0
10°	1169.7	1157.8	1057.1	968.2	918.8	922.7	924.7	962.2	1013.6	1092.6	1120.3
12.5°	1187.5	1183.5	1199.3	1179.6	1183.5	1205.3	1183.5	1173.6	1203.3	1229.0	1201.3
15°	1302.1	1300.1	1306.0	1310.0	1389.0	1422.6	1389.0	1359.4	1337.6	1315.9	1361.4
17.5°	1381.1	1371.2	1373.2	1410.7	1499.7	1592.5	1574.7	1535.2	1485.8	1515.5	1553.0
20°	1424.6	1406.8	1418.6	1434.5	1584.6	1687.4	1699.2	1645.9	1616.2	1653.8	1685.4
22.5°	1466.1	1438.4	1396.9	1412.7	1551.0	1699.2	1756.5	1742.7	1764.4	1776.3	1770.3
25°	1416.7	1434.5	1389.0	1434.5	1574.7	1711.1	1825.7	1906.7	1908.7	1902.7	1946.2
27.5°	1387.0	1373.2	1296.1	1412.7	1529.3	1614.3	1906.7	2043.0	2084.5	1958.1	2043.0
30°	1335.7	1357.4	1252.7	1349.5	1497.7	1639.9	1999.5	2195.2	2133.9	2118.1	2137.9
32.5°	1304.1	1290.2	1240.8	1294.2	1406.8	1717.0	2058.8	2284.1	2361.1	2323.6	2319.6
35°	1252.7	1262.6	1185.5	1242.8	1400.9	1651.8	2098.3	2507.3	2625.9	2596.2	2572.5
37.5°	1260.6	1227.0	1171.7	1213.2	1363.3	1687.4	2197.1	2722.7	2910.4	2926.2	2817.5
40°	1201.3	1181.5	1098.6	1167.7	1292.2	1665.6	2220.8	2967.7	3285.8	3356.9	3200.9
42.5°	1116.3	1090.7	1043.2	1120.3	1250.7	1558.9	2254.4	3262.1	3667.1	3815.3	3673.1
45°	993.8	960.3	936.5	1039.3	1159.8	1531.3	2218.9	3507.1	4032.7	4236.2	4232.2
47.5°	845.7	823.9	812.1	920.7	1084.7	1462.1	2145.8	3661.2	4287.6	4809.2	4730.1
50°	677.7	661.9	659.9	774.5	958.3	1319.9	2062.8	3738.3	4674.8	5334.8	5403.9
52.5°	543.4	531.5	529.5	622.4	802.2	1128.2	1888.9	3797.6	5044.3	5931.5	6287.1
55°	424.8	412.9	414.9	492.0	638.2	922.7	1624.1	3730.4	5368.3	6542.0	7215.7
57.5°	347.7	335.9	337.9	381.3	488.0	705.4	1294.2	3584.2	5514.6	7296.8	8298.5
60°	306.3	294.4	288.5	308.2	375.4	531.5	962.2	3015.1	5538.3	7923.1	9474.1
62.5°	284.5	272.7	266.7	272.7	310.2	407.0	693.5	2388.8	5401.9	8458.5	10551.0
65°	264.8	254.9	247.0	252.9	272.7	324.0	505.8	1636.0	4688.7	8703.6	11333.4
67.5°	243.0	235.1	227.2	235.1	249.0	272.7	393.2	1035.3	3515.0	8385.4	11659.4
69°	231.2	219.3	215.4	221.3	235.1	250.9	339.8	825.9	2673.3	7780.8	11461.8
70°	219.3	211.4	205.5	215.4	227.2	239.1	306.3	701.4	2096.4	7004.3	10971.8
72.5°	193.6	187.7	183.8	193.6	203.5	211.4	250.9	499.9	1215.1	4769.7	8701.6
75°	169.9	164.0	162.0	169.9	177.8	181.8	211.4	343.8	717.2	2495.5	5220.2
77.5°	142.3	134.4	136.3	146.2	152.1	154.1	177.8	247.0	422.8	1130.2	2418.4
80°	104.7	104.7	112.6	120.5	120.5	120.5	142.3	179.8	256.9	519.6	1003.7
82.5°	73.1	75.1	77.1	88.9	90.9	83.0	108.7	130.4	160.0	227.2	347.7
85°	41.5	43.5	45.4	53.3	55.3	49.4	71.1	83.0	92.9	112.6	181.8
87.5°	15.8	17.8	23.7	27.7	29.6	21.7	33.6	39.5	39.5	47.4	81.0
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°	671.8	671.8	671.8	671.8	671.8	671.8	671.8	671.8	671.8	671.8	671.8
2.5°	713.3	727.1	752.8	758.7	737.0	713.3	659.9	693.5	707.3	681.7	689.6
5°	883.2	912.8	944.4	906.9	883.2	867.4	841.7	843.7	829.9	784.4	709.3
7.5°	1074.9	1041.3	1065.0	1090.7	1053.1	1055.1	1078.8	1029.4	991.9	914.8	774.5
10°	1163.8	1163.8	1169.7	1169.7	1153.9	1153.9	1151.9	1072.9	1027.4	993.8	954.3
12.5°	1169.7	1167.7	1191.4	1173.6	1177.6	1181.5	1191.4	1227.0	1215.1	1171.7	1207.2
15°	1333.7	1325.8	1333.7	1331.7	1337.6	1355.4	1347.5	1339.6	1341.6	1373.2	1426.6
17.5°	1487.8	1491.8	1483.9	1497.7	1497.7	1509.5	1537.2	1509.5	1485.8	1545.1	1586.6
20°	1665.6	1651.8	1620.2	1643.9	1649.8	1651.8	1697.2	1663.7	1630.1	1651.8	1701.2
22.5°	1845.4	1843.5	1847.4	1849.4	1857.3	1827.6	1766.4	1756.5	1778.3	1748.6	1754.5
25°	1956.1	1958.1	1967.9	1969.9	1936.3	1967.9	1989.7	1924.5	1924.5	1918.5	1879.0
27.5°	2090.4	2060.8	2072.7	2088.5	2074.6	2082.5	2056.8	1962.0	2062.8	2076.6	1918.5
30°	2181.3	2167.5	2153.7	2169.5	2183.3	2218.9	2145.8	2135.9	2143.8	2216.9	2009.4
32.5°	2373.0	2392.7	2367.0	2341.4	2367.0	2359.1	2327.5	2313.7	2412.5	2315.7	2072.7
35°	2550.8	2558.7	2560.7	2556.7	2572.5	2544.9	2544.9	2596.2	2625.9	2521.2	2092.4
37.5°	2979.6	2951.9	2894.6	2866.9	2916.3	2957.8	2835.3	2896.6	2884.7	2706.9	2240.6
40°	3287.8	3351.0	3368.8	3360.9	3368.8	3250.2	3275.9	3321.4	3268.0	2973.6	2189.2
42.5°	3738.3	3777.8	3764.0	3746.2	3754.1	3732.4	3655.3	3823.2	3631.6	3272.0	2268.3
45°	4149.3	4238.2	4244.1	4182.8	4232.2	4155.2	4186.8	4246.1	4052.4	3495.3	2246.5
47.5°	4639.3	4823.0	4753.9	4753.9	4803.3	4637.3	4712.4	4791.4	4277.7	3645.4	2128.0
50°	5364.4	5463.2	5459.2	5441.4	5463.2	5374.3	5362.4	5352.5	4623.5	3787.7	2054.9
52.5°	6184.4	6318.7	6267.3	6287.1	6316.7	6148.8	6281.2	5919.6	5056.2	3841.0	1888.9
55°	7231.6	7324.4	7273.0	7172.3	7306.6	7199.9	7243.4	6538.0	5356.5	3688.9	1612.3
57.5°	8478.3	8525.7	8440.8	8430.9	8519.8	8405.2	8332.1	7233.5	5512.6	3574.3	1288.2
60°	9934.5	10082.7	10029.3	9944.4	10025.4	9924.6	9371.4	7824.3	5481.0	3038.8	997.8
62.5°	11681.1	11831.3	11772.0	11714.7	11766.1	11503.3	10347.4	8290.6	5338.7	2408.5	729.1
65°	13123.5	13801.2	13890.1	13892.1	13643.1	13034.6	11125.9	8472.4	4587.9	1681.4	533.5
67.5°	14071.9	15480.7	15919.3	15761.2	15190.2	13801.2	11440.1	8116.7	3542.7	1063.0	399.1
69°	13963.2	15810.6	16444.9	16356.0	15553.8	13789.4	11195.1	7518.1	2706.9	845.7	337.9
70°	13461.4	15539.9	16292.7	16332.2	15322.6	13259.8	10758.4	6830.5	2189.2	721.2	310.2
72.5°	10742.6	12805.4	13467.3	13726.1	12724.4	10618.1	8822.1	4819.1	1268.5	503.8	250.9
75°	6654.6	7765.0	8314.3	8464.5	7857.9	6613.1	5354.5	2681.2	772.6	355.7	211.4
77.5°	2983.5	3305.6	3621.7	3621.7	3384.6	3019.1	2454.0	1296.1	438.6	252.9	177.8
80°	999.8	1037.3	1009.7	1019.5	980.0	942.5	985.9	559.2	270.7	189.7	144.2
82.5°	679.7	853.6	906.9	906.9	851.6	671.8	379.4	256.9	166.0	136.3	110.6
85°	553.2	675.7	725.1	746.9	703.4	567.1	199.6	124.5	98.8	86.9	75.1
87.5°	185.7	173.9	164.0	160.0	167.9	175.8	98.8	53.3	45.4	41.5	39.5
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°	671.8	671.8	671.8	671.8	671.8	671.8
2.5°	703.4	679.7	689.6	699.4	770.6	823.9
5°	699.4	733.0	808.1	903.0	946.4	1053.1
7.5°	719.2	841.7	982.0	1080.8	1120.3	1153.9
10°	962.2	984.0	1031.4	1126.2	1205.3	1219.1
12.5°	1242.8	1236.9	1203.3	1246.8	1207.2	1234.9
15°	1462.1	1396.9	1351.5	1345.5	1331.7	1331.7
17.5°	1582.6	1525.3	1462.1	1446.3	1404.8	1438.4
20°	1724.9	1626.1	1468.0	1452.2	1438.4	1406.8
22.5°	1697.2	1598.5	1434.5	1414.7	1487.8	1483.9
25°	1730.8	1598.5	1442.4	1420.6	1454.2	1454.2
27.5°	1647.8	1539.2	1426.6	1296.1	1398.9	1422.6
30°	1626.1	1503.6	1373.2	1256.6	1361.4	1339.6
32.5°	1740.7	1414.7	1286.3	1250.7	1327.8	1312.0
35°	1651.8	1398.9	1264.5	1199.3	1290.2	1274.4
37.5°	1689.3	1379.1	1227.0	1171.7	1244.8	1268.5
40°	1681.4	1286.3	1183.5	1112.4	1185.5	1197.4
42.5°	1549.1	1215.1	1110.4	1039.3	1076.8	1116.3
45°	1509.5	1171.7	1039.3	940.5	942.5	987.9
47.5°	1436.4	1072.9	908.9	818.0	818.0	855.5
50°	1313.9	940.5	760.7	677.7	675.7	705.4
52.5°	1132.2	812.1	642.1	551.3	545.3	575.0
55°	926.7	654.0	505.8	446.5	434.7	446.5
57.5°	721.2	509.8	399.1	351.7	349.7	359.6
60°	559.2	399.1	318.1	290.4	294.4	310.2
62.5°	422.8	318.1	270.7	260.8	266.7	282.5
65°	335.9	274.6	247.0	241.1	247.0	262.8
67.5°	272.7	249.0	229.2	221.3	225.2	241.1
69°	250.9	235.1	219.3	209.4	213.4	225.2
70°	239.1	227.2	211.4	201.5	205.5	217.3
72.5°	209.4	203.5	191.7	181.8	183.8	193.6
75°	183.8	179.8	171.9	160.0	160.0	171.9
77.5°	154.1	156.1	148.2	136.3	134.4	140.3
80°	122.5	126.5	122.5	110.6	106.7	106.7
82.5°	88.9	96.8	92.9	81.0	79.0	79.0
85°	55.3	61.3	59.3	51.4	51.4	45.4
87.5°	25.7	33.6	31.6	27.7	25.7	17.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)