

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: P565341

Luminaire Tested: **MSA-SA3B-835-U-T1**

Issue Date: 8/19/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565341  
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-SA3B-835-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: 10957 lumens  
Efficiency: N/A  
Efficacy: 87.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type I - Medium  
BUG Rating: B3 - U0 - G3

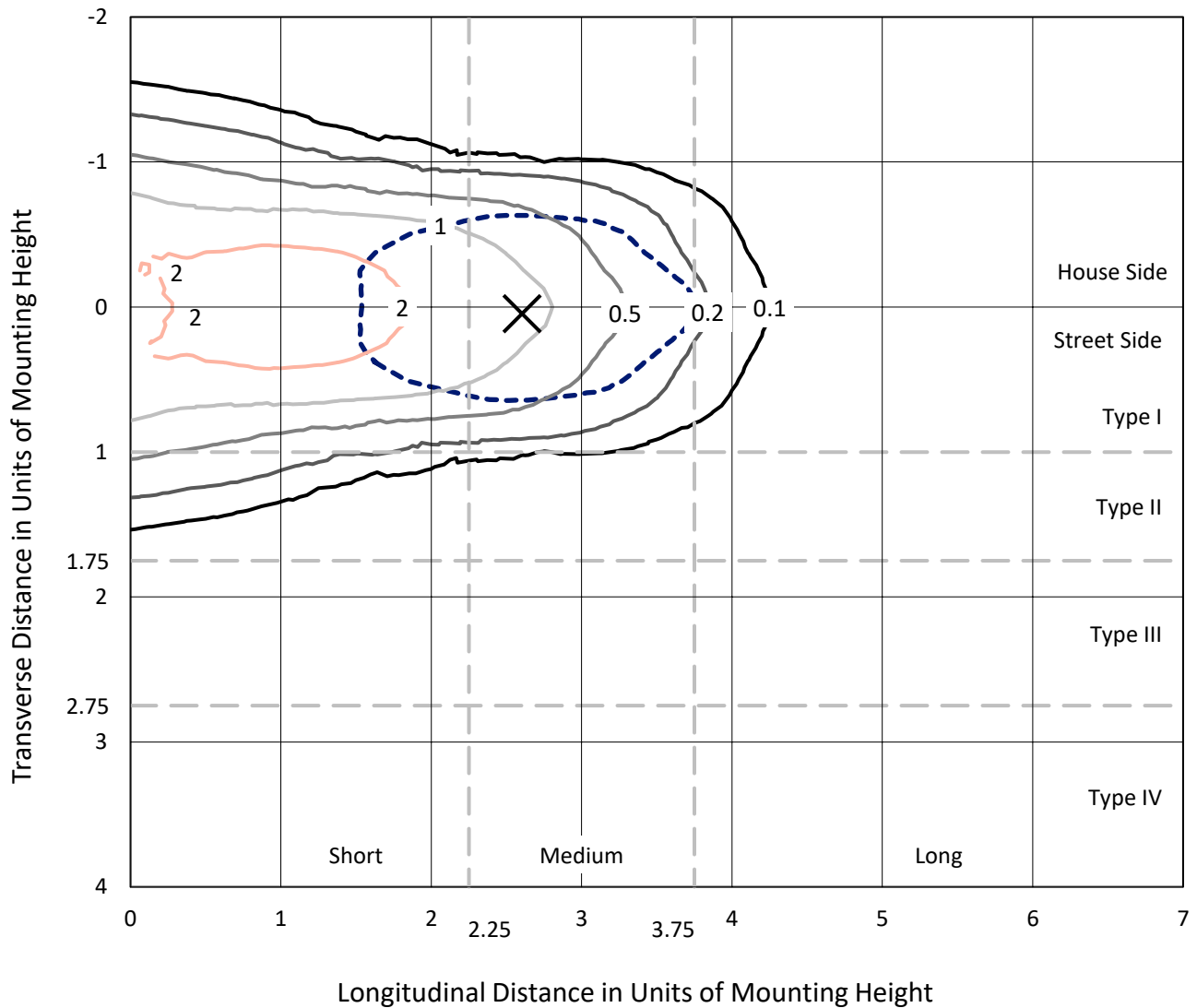
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

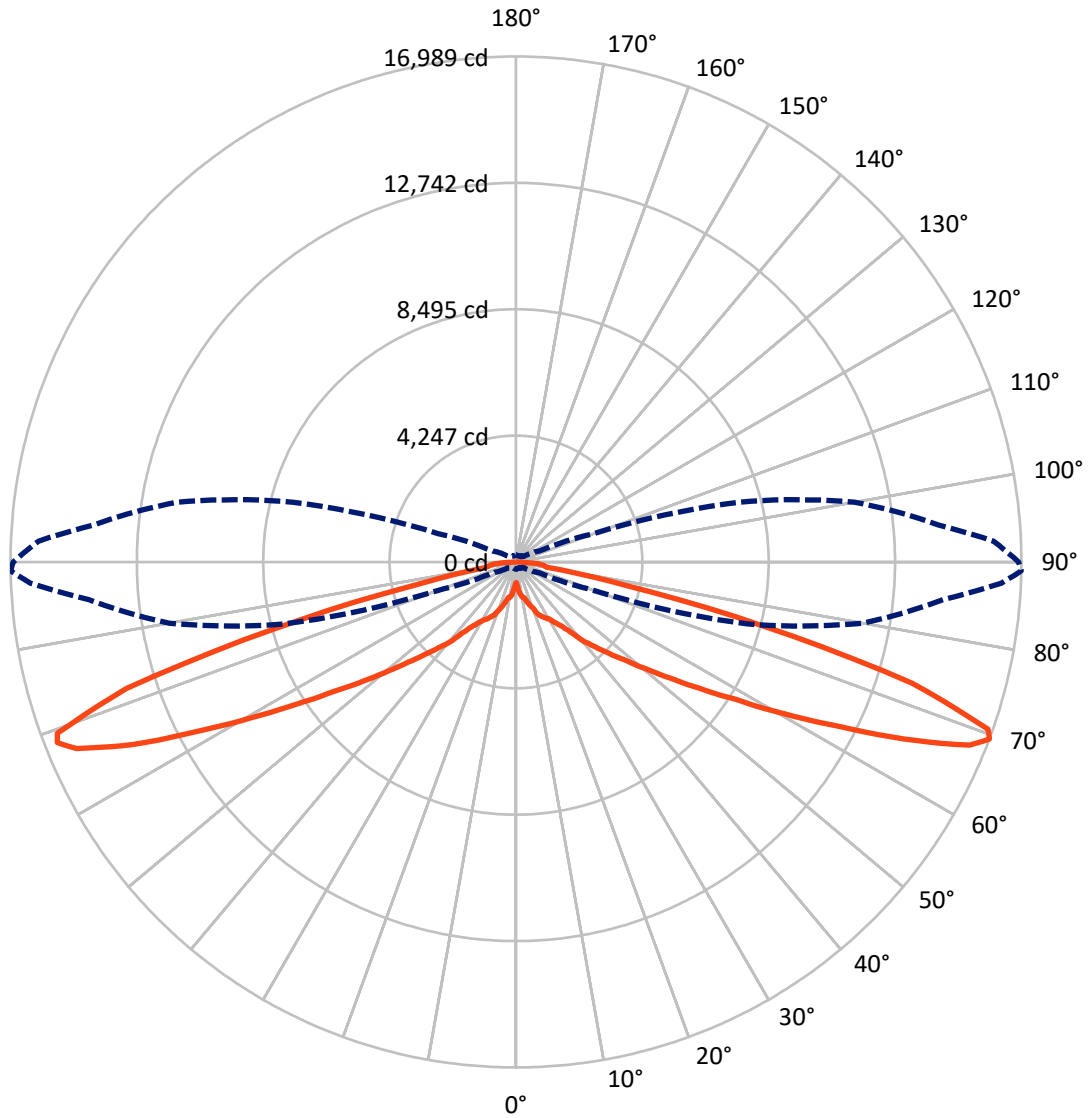
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 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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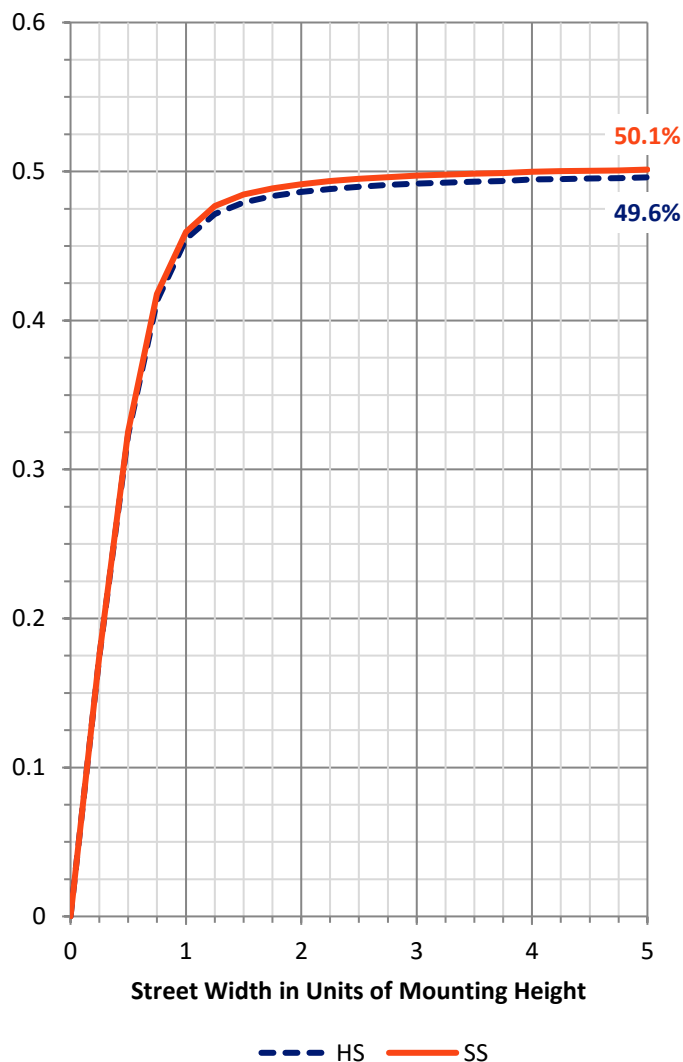
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5478.4	0.0	5478.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5478.6	0.0	5478.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10957.0	0.0	10957.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.2	0.8
10°-20°	401.8	3.7
20°-30°	801.6	7.3
30°-40°	1212.3	11.1
40°-50°	1759.8	16.1
50°-60°	2312.1	21.1
60°-70°	2820.4	25.7
70°-80°	1425.9	13.0
80°-90°	135.9	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°	10957.0	100.0
0°-180°	10957.0	100.0

**Coefficient of Utilization**

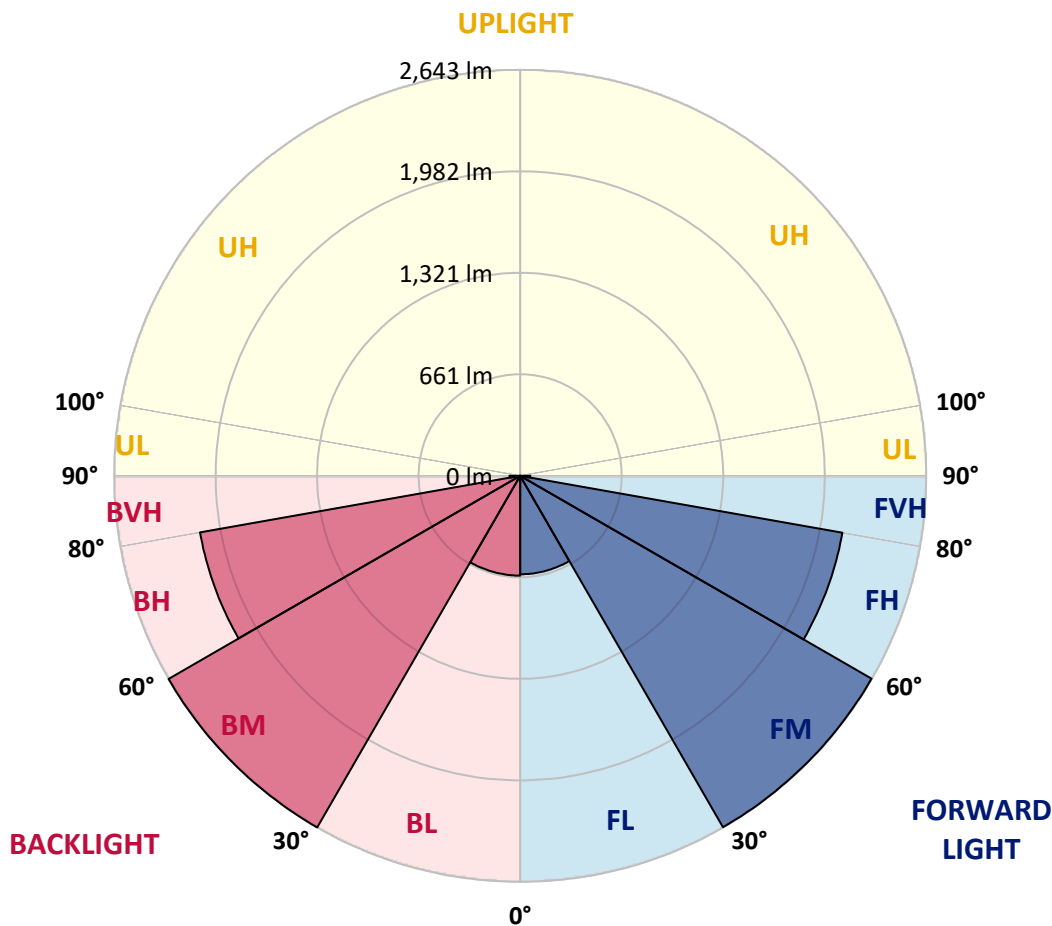


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	640.8	5.8			
FM (30°-60°)	2641.2	24.1			
FH (60°-80°)	2129.9	19.4			G2/5000
FVH (80°-90°)	66.7	0.6			G1/100
BL (0°-30°)	649.8	5.9	B2/1000		
BM (30°-60°)	2643.0	24.1	B3/5000		
BH (60°-80°)	2116.4	19.3	B3/2500		G3/2500
BVH (80°-90°)	69.3	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°	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
2.5°	814.4	720.6	712.4	689.9	706.3	712.4	698.1	677.7	700.1	712.4	689.9
5°	1026.7	887.9	841.0	802.2	724.6	692.0	724.6	808.3	818.5	869.6	855.3
7.5°	1130.8	1108.4	1049.2	920.6	796.1	726.7	814.4	934.9	996.1	1045.1	1096.1
10°	1208.4	1196.2	1092.1	1000.2	949.2	953.3	955.3	994.1	1047.1	1128.8	1157.4
12.5°	1226.8	1222.7	1239.0	1218.6	1222.7	1245.1	1222.7	1212.5	1243.1	1269.6	1241.1
15°	1345.2	1343.1	1349.2	1353.3	1435.0	1469.7	1435.0	1404.4	1381.9	1359.5	1406.4
17.5°	1426.8	1416.6	1418.7	1457.4	1549.3	1645.2	1626.9	1586.0	1535.0	1565.6	1604.4
20°	1471.7	1453.4	1465.6	1481.9	1637.1	1743.2	1755.5	1700.3	1669.7	1708.5	1741.2
22.5°	1514.6	1486.0	1443.1	1459.5	1602.4	1755.5	1814.6	1800.4	1822.8	1835.1	1828.9
25°	1463.6	1481.9	1435.0	1481.9	1626.9	1767.7	1886.1	1969.8	1971.8	1965.7	2010.6
27.5°	1432.9	1418.7	1339.0	1459.5	1579.9	1667.7	1969.8	2110.6	2153.5	2022.9	2110.6
30°	1379.9	1402.3	1294.1	1394.2	1547.2	1694.2	2065.7	2267.8	2204.5	2188.2	2208.6
32.5°	1347.2	1332.9	1281.9	1337.0	1453.4	1773.8	2127.0	2359.7	2439.3	2400.5	2396.4
35°	1294.1	1304.3	1224.7	1283.9	1447.2	1706.5	2167.8	2590.3	2712.8	2682.2	2657.7
37.5°	1302.3	1267.6	1210.4	1253.3	1408.4	1743.2	2269.8	2812.8	3006.7	3023.1	2910.8
40°	1241.1	1220.7	1134.9	1206.4	1335.0	1720.8	2294.3	3065.9	3394.6	3468.0	3306.8
42.5°	1153.3	1126.8	1077.8	1157.4	1292.1	1610.5	2329.0	3370.1	3788.5	3941.6	3794.6
45°	1026.7	992.0	967.5	1073.7	1198.2	1581.9	2292.3	3623.2	4166.1	4376.4	4372.3
47.5°	873.6	851.2	838.9	951.2	1120.6	1510.5	2216.8	3782.4	4429.5	4968.3	4886.7
50°	700.1	683.8	681.8	800.2	990.0	1363.5	2131.0	3862.0	4829.5	5511.3	5582.7
52.5°	561.3	549.1	547.0	643.0	828.7	1165.5	1951.4	3923.2	5211.2	6127.8	6495.2
55°	438.9	426.6	428.7	508.3	659.3	953.3	1677.9	3853.8	5546.0	6758.5	7454.5
57.5°	359.3	347.0	349.0	394.0	504.2	728.7	1337.0	3702.8	5697.1	7538.2	8573.1
60°	316.4	304.1	298.0	318.4	387.8	549.1	994.1	3114.9	5721.6	8185.3	9787.7
62.5°	293.9	281.7	275.6	281.7	320.5	420.5	716.5	2467.8	5580.7	8738.5	10900.1
65°	273.5	263.3	255.2	261.3	281.7	334.8	522.6	1690.1	4843.8	8991.6	11708.5
67.5°	251.1	242.9	234.7	242.9	257.2	281.7	406.2	1069.6	3631.3	8663.0	12045.3
69°	238.8	226.6	222.5	228.6	242.9	259.2	351.1	853.2	2761.8	8038.3	11841.1
70°	226.6	218.4	212.3	222.5	234.7	247.0	316.4	724.6	2165.7	7236.1	11334.9
72.5°	200.0	193.9	189.8	200.0	210.2	218.4	259.2	516.4	1255.4	4927.5	8989.5
75°	175.5	169.4	167.4	175.5	183.7	187.8	218.4	355.2	741.0	2578.1	5392.9
77.5°	147.0	138.8	140.8	151.1	157.2	159.2	183.7	255.2	436.8	1167.6	2498.5
80°	108.2	108.2	116.3	124.5	124.5	124.5	147.0	185.8	265.4	536.8	1036.9
82.5°	75.5	77.6	79.6	91.9	93.9	85.7	112.3	134.7	165.3	234.7	359.3
85°	42.9	44.9	46.9	55.1	57.2	51.0	73.5	85.7	95.9	116.3	187.8
87.5°	16.3	18.4	24.5	28.6	30.6	22.5	34.7	40.8	40.8	49.0	83.7
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°	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
2.5°	736.9	751.2	777.7	783.8	761.4	736.9	681.8	716.5	730.8	704.2	712.4
5°	912.4	943.0	975.7	936.9	912.4	896.1	869.6	871.6	857.3	810.4	732.8
7.5°	1110.4	1075.7	1100.2	1126.8	1088.0	1090.0	1114.5	1063.5	1024.7	945.1	800.2
10°	1202.3	1202.3	1208.4	1208.4	1192.1	1192.1	1190.0	1108.4	1061.4	1026.7	985.9
12.5°	1208.4	1206.4	1230.9	1212.5	1216.6	1220.7	1230.9	1267.6	1255.4	1210.4	1247.2
15°	1377.8	1369.7	1377.8	1375.8	1381.9	1400.3	1392.1	1383.9	1386.0	1418.7	1473.8
17.5°	1537.0	1541.1	1533.0	1547.2	1547.2	1559.5	1588.1	1559.5	1535.0	1596.2	1639.1
20°	1720.8	1706.5	1673.8	1698.3	1704.4	1706.5	1753.4	1718.7	1684.0	1706.5	1757.5
22.5°	1906.5	1904.5	1908.5	1910.6	1918.8	1888.1	1824.9	1814.6	1837.1	1806.5	1812.6
25°	2020.8	2022.9	2033.1	2035.1	2000.4	2033.1	2055.5	1988.2	1988.2	1982.0	1941.2
27.5°	2159.6	2129.0	2141.2	2157.6	2143.3	2151.4	2124.9	2026.9	2131.0	2145.3	1982.0
30°	2253.5	2239.2	2224.9	2241.3	2255.6	2292.3	2216.8	2206.6	2214.7	2290.3	2075.9
32.5°	2451.5	2471.9	2445.4	2418.9	2445.4	2437.2	2404.6	2390.3	2492.3	2392.3	2141.2
35°	2635.2	2643.4	2645.4	2641.3	2657.7	2629.1	2629.1	2682.2	2712.8	2604.6	2161.7
37.5°	3078.2	3049.6	2990.4	2961.8	3012.8	3055.7	2929.2	2992.4	2980.2	2796.5	2314.7
40°	3396.6	3461.9	3480.3	3472.1	3480.3	3357.8	3384.3	3431.3	3376.2	3072.0	2261.7
42.5°	3862.0	3902.8	3888.5	3870.2	3878.3	3855.9	3776.3	3949.8	3751.8	3380.3	2343.3
45°	4286.6	4378.4	4384.5	4321.3	4372.3	4292.7	4325.4	4386.6	4186.6	3610.9	2320.9
47.5°	4792.8	4982.6	4911.2	4911.2	4962.2	4790.8	4868.3	4950.0	4419.2	3766.1	2198.4
50°	5541.9	5644.0	5639.9	5621.5	5644.0	5552.1	5539.9	5529.7	4776.5	3913.0	2122.9
52.5°	6389.0	6527.8	6474.8	6495.2	6525.8	6352.3	6489.1	6115.5	5223.5	3968.1	1951.4
55°	7470.9	7566.8	7513.7	7409.6	7548.4	7438.2	7483.1	6754.4	5533.8	3811.0	1665.6
57.5°	8758.9	8807.9	8720.1	8709.9	8801.8	8683.4	8607.8	7472.9	5695.0	3692.6	1330.9
60°	10263.3	10416.4	10361.3	10273.5	10357.2	10253.1	9681.5	8083.2	5662.4	3139.4	1030.8
62.5°	12067.7	12222.8	12161.6	12102.4	12155.5	11884.0	10689.9	8565.0	5515.4	2488.3	753.2
65°	13557.8	14257.9	14349.8	14351.8	14094.7	13466.0	11494.1	8752.8	4739.7	1737.1	551.1
67.5°	14537.6	15993.0	16446.1	16282.8	15692.9	14257.9	11818.7	8385.3	3659.9	1098.2	412.3
69°	14425.3	16333.9	16989.1	16897.3	16068.5	14245.7	11565.6	7766.9	2796.5	873.6	349.0
70°	13906.9	16054.2	16831.9	16872.8	15829.7	13698.7	11114.5	7056.5	2261.7	745.0	320.5
72.5°	11098.1	13229.2	13913.0	14180.4	13145.5	10969.5	9114.1	4978.5	1310.5	520.5	259.2
75°	6874.8	8022.0	8589.5	8744.6	8117.9	6832.0	5531.7	2769.9	798.1	367.4	218.4
77.5°	3082.2	3415.0	3741.6	3741.6	3496.6	3119.0	2535.2	1339.0	453.2	261.3	183.7
80°	1032.9	1071.6	1043.1	1053.3	1012.4	973.7	1018.6	577.7	279.6	196.0	149.0
82.5°	702.2	881.8	936.9	936.9	879.8	694.0	391.9	265.4	171.5	140.8	114.3
85°	571.5	698.1	749.1	771.6	726.7	585.8	206.2	128.6	102.1	89.8	77.6
87.5°	191.9	179.6	169.4	165.3	173.5	181.7	102.1	55.1	46.9	42.9	40.8
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°	694.0	694.0	694.0	694.0	694.0	694.0
2.5°	726.7	702.2	712.4	722.6	796.1	851.2
5°	722.6	757.3	834.9	932.8	977.7	1088.0
7.5°	743.0	869.6	1014.5	1116.5	1157.4	1192.1
10°	994.1	1016.5	1065.5	1163.5	1245.1	1259.4
12.5°	1283.9	1277.8	1243.1	1288.0	1247.2	1275.8
15°	1510.5	1443.1	1396.2	1390.1	1375.8	1375.8
17.5°	1635.0	1575.8	1510.5	1494.2	1451.3	1486.0
20°	1782.0	1679.9	1516.6	1500.3	1486.0	1453.4
22.5°	1753.4	1651.4	1481.9	1461.5	1537.0	1533.0
25°	1788.1	1651.4	1490.1	1467.6	1502.3	1502.3
27.5°	1702.4	1590.1	1473.8	1339.0	1445.2	1469.7
30°	1679.9	1553.4	1418.7	1298.2	1406.4	1383.9
32.5°	1798.3	1461.5	1328.8	1292.1	1371.7	1355.4
35°	1706.5	1445.2	1306.4	1239.0	1332.9	1316.6
37.5°	1745.2	1424.8	1267.6	1210.4	1286.0	1310.5
40°	1737.1	1328.8	1222.7	1149.2	1224.7	1237.0
42.5°	1600.3	1255.4	1147.2	1073.7	1112.5	1153.3
45°	1559.5	1210.4	1073.7	971.6	973.7	1020.6
47.5°	1484.0	1108.4	939.0	845.1	845.1	883.8
50°	1357.4	971.6	785.9	700.1	698.1	728.7
52.5°	1169.6	838.9	663.4	569.5	563.4	594.0
55°	957.3	675.6	522.6	461.3	449.1	461.3
57.5°	745.0	526.6	412.3	363.3	361.3	371.5
60°	577.7	412.3	328.6	300.1	304.1	320.5
62.5°	436.8	328.6	279.6	269.4	275.6	291.9
65°	347.0	283.7	255.2	249.0	255.2	271.5
67.5°	281.7	257.2	236.8	228.6	232.7	249.0
69°	259.2	242.9	226.6	216.4	220.5	232.7
70°	247.0	234.7	218.4	208.2	212.3	224.5
72.5°	216.4	210.2	198.0	187.8	189.8	200.0
75°	189.8	185.8	177.6	165.3	165.3	177.6
77.5°	159.2	161.3	153.1	140.8	138.8	144.9
80°	126.6	130.6	126.6	114.3	110.2	110.2
82.5°	91.9	100.0	95.9	83.7	81.6	81.6
85°	57.2	63.3	61.2	53.1	53.1	46.9
87.5°	26.5	34.7	32.7	28.6	26.5	18.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)