

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: P565354

Luminaire Tested: **MSA-SA2C-740-U-T1**

Issue Date: 8/19/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565354  
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-740-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: 11153 lumens  
Efficiency: N/A  
Efficacy: 98.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type I - Medium  
BUG Rating: B3 - U0 - G3

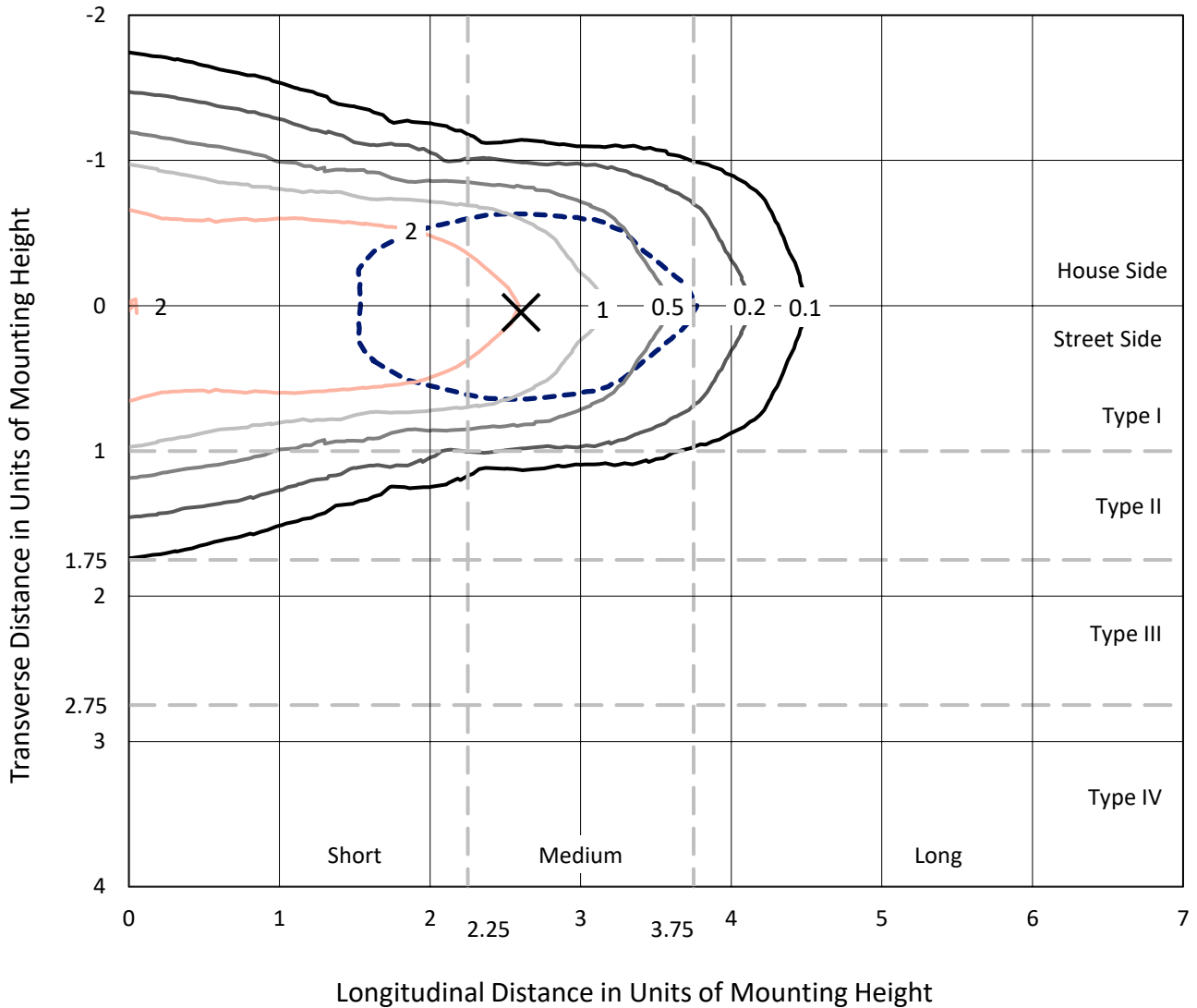
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

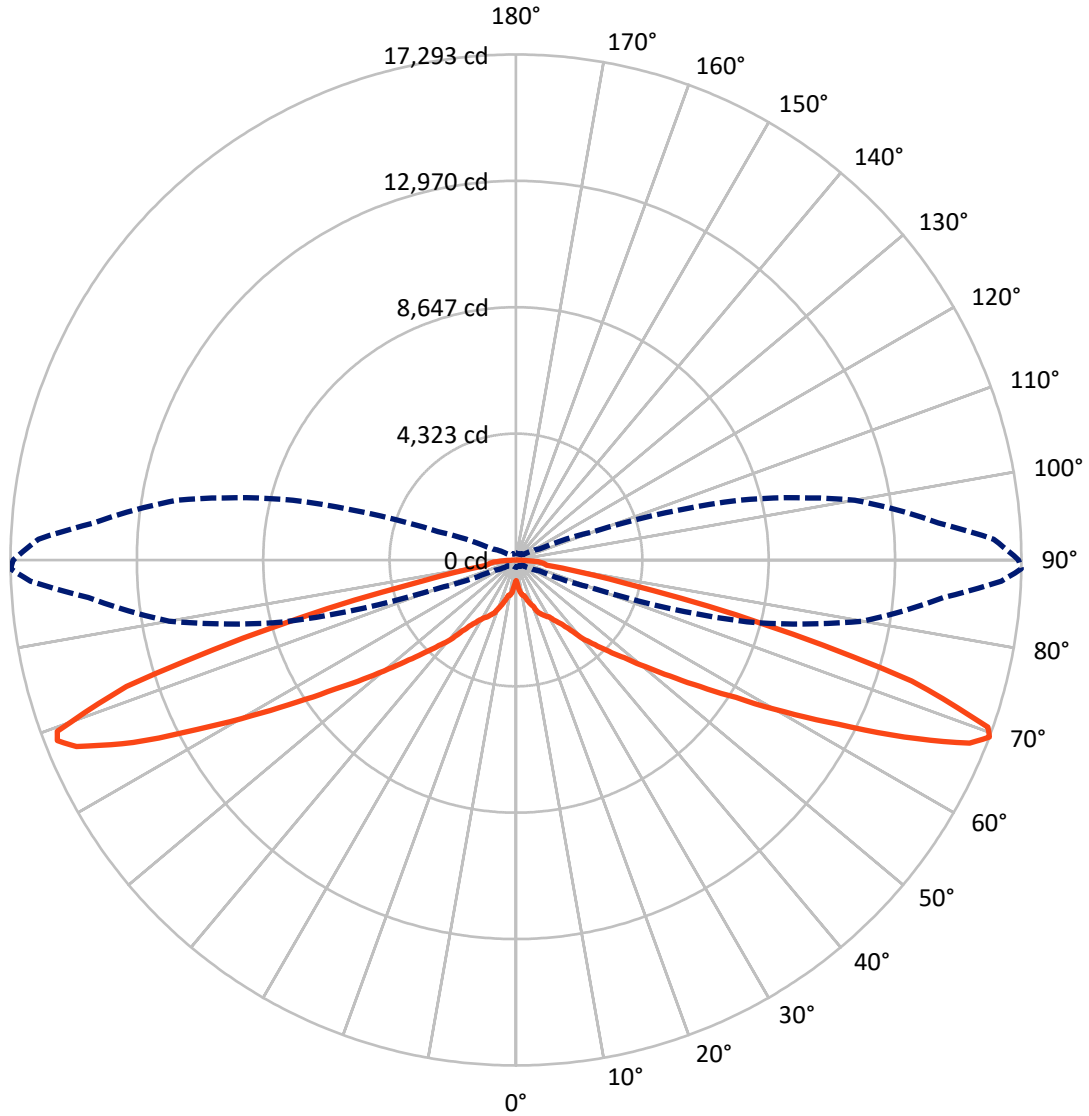
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4 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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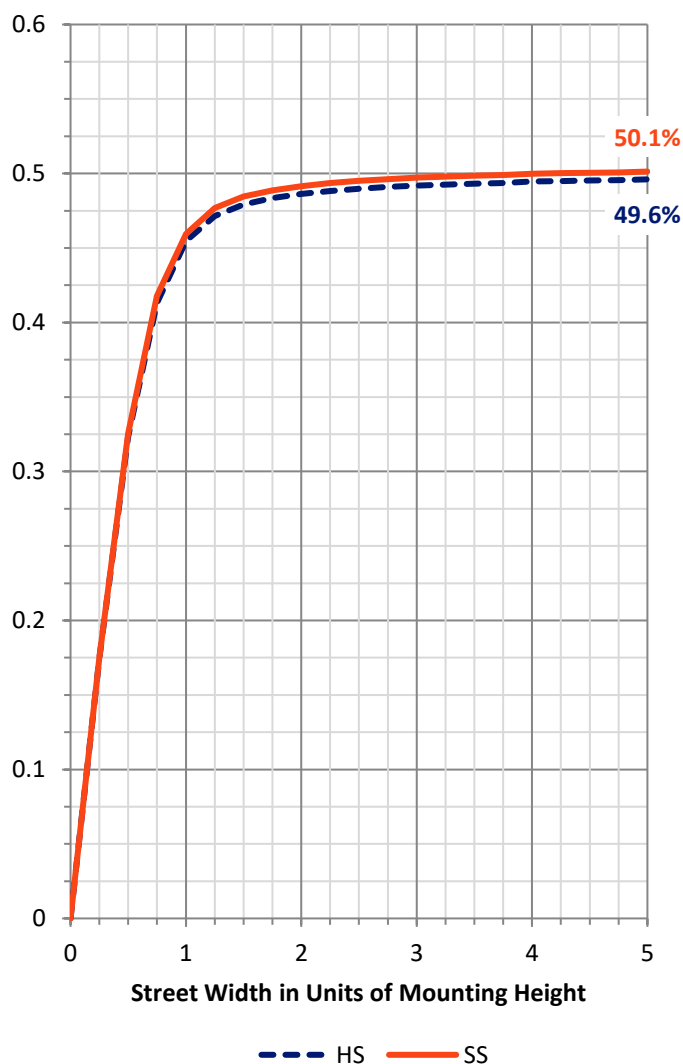
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5576.4	0.0	5576.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5576.6	0.0	5576.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	11153.0	0.0	11153.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.8	0.8
10°-20°	409.0	3.7
20°-30°	815.9	7.3
30°-40°	1234.0	11.1
40°-50°	1791.3	16.1
50°-60°	2353.4	21.1
60°-70°	2870.9	25.7
70°-80°	1451.4	13.0
80°-90°	138.3	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°	11153.0	100.0
0°-180°	11153.0	100.0

**Coefficient of Utilization**



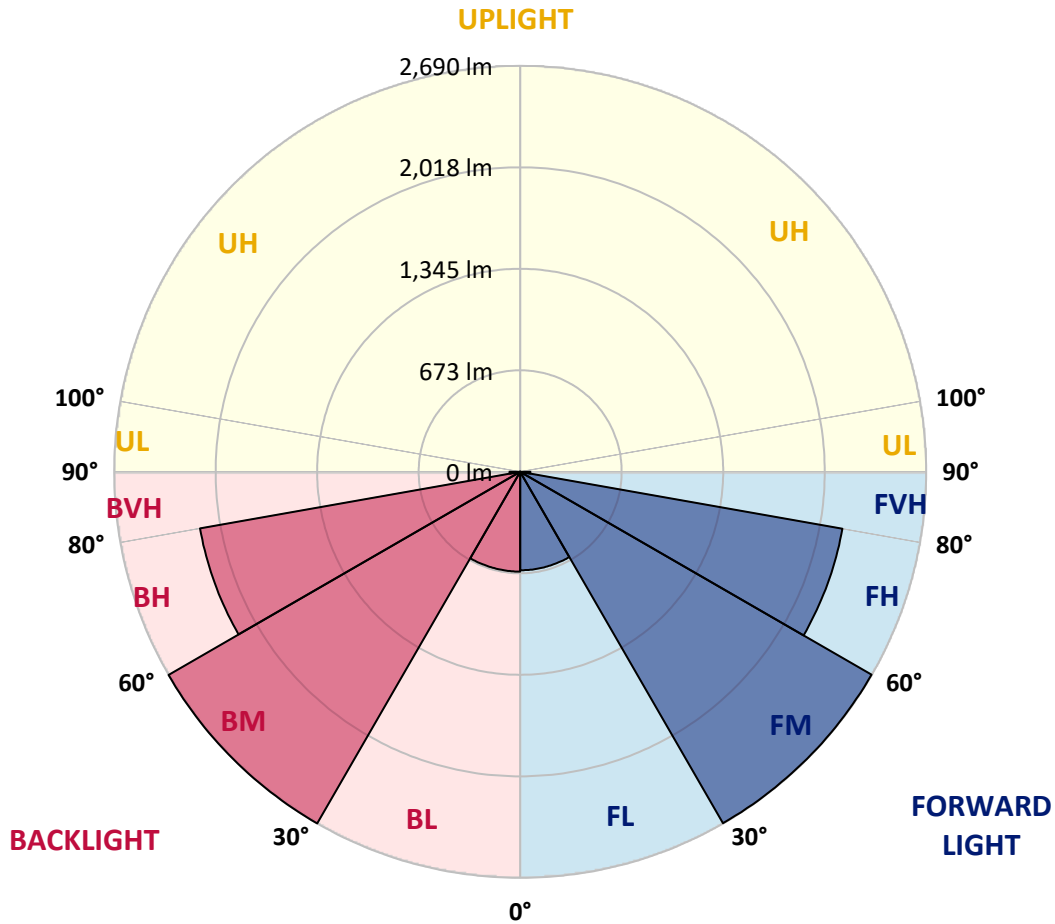
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	652.2	5.8			
FM (30°-60°)	2688.5	24.1			
FH (60°-80°)	2168.0	19.4			G2/5000
FVH (80°-90°)	67.9	0.6			G1/100
BL (0°-30°)	661.4	5.9	B2/1000		
BM (30°-60°)	2690.3	24.1	B3/5000		
BH (60°-80°)	2154.2	19.3	B3/2500		G3/2500
BVH (80°-90°)	70.5	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°	706.4	706.4	706.4	706.4	706.4	706.4	706.4	706.4	706.4	706.4	706.4
2.5°	829.0	733.4	725.1	702.3	718.9	725.1	710.6	689.8	712.7	725.1	702.3
5°	1045.1	903.8	856.0	816.6	737.6	704.4	737.6	822.8	833.2	885.1	870.6
7.5°	1151.1	1128.2	1068.0	937.1	810.3	739.7	829.0	951.6	1013.9	1063.8	1115.7
10°	1230.0	1217.6	1111.6	1018.1	966.1	970.3	972.4	1011.9	1065.9	1149.0	1178.1
12.5°	1248.7	1244.6	1261.2	1240.4	1244.6	1267.4	1244.6	1234.2	1265.3	1292.4	1263.3
15°	1369.2	1367.2	1373.4	1377.5	1460.6	1496.0	1460.6	1429.5	1406.6	1383.8	1431.6
17.5°	1452.3	1441.9	1444.0	1483.5	1577.0	1674.7	1656.0	1614.4	1562.5	1593.6	1633.1
20°	1498.0	1479.3	1491.8	1508.4	1666.3	1774.4	1786.9	1730.8	1699.6	1739.1	1772.3
22.5°	1541.7	1512.6	1469.0	1485.6	1631.0	1786.9	1847.1	1832.6	1855.4	1867.9	1861.7
25°	1489.7	1508.4	1460.6	1508.4	1656.0	1799.3	1919.8	2005.0	2007.1	2000.9	2046.6
27.5°	1458.6	1444.0	1363.0	1485.6	1608.2	1697.5	2005.0	2148.4	2192.0	2059.0	2148.4
30°	1404.6	1427.4	1317.3	1419.1	1574.9	1724.5	2102.7	2308.4	2244.0	2227.3	2248.1
32.5°	1371.3	1356.8	1304.8	1360.9	1479.3	1805.6	2165.0	2401.9	2482.9	2443.4	2439.3
35°	1317.3	1327.7	1246.6	1306.9	1473.1	1737.0	2206.6	2636.6	2761.3	2730.1	2705.2
37.5°	1325.6	1290.3	1232.1	1275.7	1433.6	1774.4	2310.4	2863.1	3060.5	3077.1	2962.9
40°	1263.3	1242.5	1155.2	1227.9	1358.8	1751.5	2335.4	3120.8	3455.3	3530.1	3365.9
42.5°	1173.9	1146.9	1097.0	1178.1	1315.2	1639.3	2370.7	3430.3	3856.3	4012.1	3862.5
45°	1045.1	1009.8	984.8	1092.9	1219.6	1610.2	2333.3	3688.0	4240.7	4454.7	4450.5
47.5°	889.3	866.4	854.0	968.2	1140.7	1537.5	2256.4	3850.0	4508.7	5057.2	4974.1
50°	712.7	696.0	694.0	814.5	1007.7	1387.9	2169.2	3931.1	4915.9	5609.9	5682.6
52.5°	571.4	558.9	556.8	654.5	843.6	1186.4	1986.3	3993.4	5304.5	6237.4	6611.4
55°	446.7	434.2	436.3	517.4	671.1	970.3	1707.9	3922.8	5645.2	6879.4	7587.9
57.5°	365.7	353.2	355.3	401.0	513.2	741.8	1360.9	3769.0	5799.0	7673.1	8726.5
60°	322.0	309.6	303.3	324.1	394.8	558.9	1011.9	3170.6	5823.9	8331.7	9962.8
62.5°	299.2	286.7	280.5	286.7	326.2	428.0	729.3	2512.0	5680.5	8894.8	11095.1
65°	278.4	268.0	259.7	266.0	286.7	340.7	531.9	1720.4	4930.5	9152.4	11917.9
67.5°	255.6	247.3	238.9	247.3	261.8	286.7	413.5	1088.7	3696.3	8817.9	12260.7
69°	243.1	230.6	226.5	232.7	247.3	263.9	357.4	868.5	2811.2	8182.1	12053.0
70°	230.6	222.3	216.1	226.5	238.9	251.4	322.0	737.6	2204.5	7365.6	11537.7
72.5°	203.6	197.4	193.2	203.6	214.0	222.3	263.9	525.7	1277.8	5015.7	9150.4
75°	178.7	172.5	170.4	178.7	187.0	191.2	222.3	361.5	754.2	2624.2	5489.4
77.5°	149.6	141.3	143.4	153.8	160.0	162.1	187.0	259.7	444.6	1188.5	2543.2
80°	110.1	110.1	118.4	126.7	126.7	126.7	149.6	189.1	270.1	546.4	1055.5
82.5°	76.9	79.0	81.0	93.5	95.6	87.3	114.3	137.1	168.3	238.9	365.7
85°	43.6	45.7	47.8	56.1	58.2	51.9	74.8	87.3	97.7	118.4	191.2
87.5°	16.6	18.7	24.9	29.1	31.2	22.9	35.3	41.6	41.6	49.9	85.2
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°	706.4	706.4	706.4	706.4	706.4	706.4	706.4	706.4	706.4	706.4	706.4
2.5°	750.1	764.6	791.6	797.9	775.0	750.1	694.0	729.3	743.8	716.8	725.1
5°	928.7	959.9	993.2	953.7	928.7	912.1	885.1	887.2	872.6	824.9	745.9
7.5°	1130.3	1095.0	1119.9	1146.9	1107.4	1109.5	1134.4	1082.5	1043.0	962.0	814.5
10°	1223.8	1223.8	1230.0	1230.0	1213.4	1213.4	1211.3	1128.2	1080.4	1045.1	1003.5
12.5°	1230.0	1227.9	1252.9	1234.2	1238.3	1242.5	1252.9	1290.3	1277.8	1232.1	1269.5
15°	1402.5	1394.2	1402.5	1400.4	1406.6	1425.3	1417.0	1408.7	1410.8	1444.0	1500.1
17.5°	1564.5	1568.7	1560.4	1574.9	1574.9	1587.4	1616.5	1587.4	1562.5	1624.8	1668.4
20°	1751.5	1737.0	1703.7	1728.7	1734.9	1737.0	1784.8	1749.5	1714.1	1737.0	1788.9
22.5°	1940.6	1938.5	1942.7	1944.8	1953.1	1921.9	1857.5	1847.1	1870.0	1838.8	1845.0
25°	2057.0	2059.0	2069.4	2071.5	2036.2	2069.4	2092.3	2023.7	2023.7	2017.5	1975.9
27.5°	2198.2	2167.1	2179.5	2196.2	2181.6	2189.9	2162.9	2063.2	2169.2	2183.7	2017.5
30°	2293.8	2279.3	2264.7	2281.4	2295.9	2333.3	2256.4	2246.0	2254.3	2331.2	2113.1
32.5°	2495.4	2516.1	2489.1	2462.1	2489.1	2480.8	2447.6	2433.0	2536.9	2435.1	2179.5
35°	2682.4	2690.7	2692.7	2688.6	2705.2	2676.1	2676.1	2730.1	2761.3	2651.2	2200.3
37.5°	3133.2	3104.1	3043.9	3014.8	3066.7	3110.4	2981.6	3046.0	3033.5	2846.5	2356.2
40°	3457.4	3523.8	3542.5	3534.2	3542.5	3417.9	3444.9	3492.7	3436.6	3127.0	2302.1
42.5°	3931.1	3972.6	3958.1	3939.4	3947.7	3924.8	3843.8	4020.4	3818.9	3440.7	2385.2
45°	4363.2	4456.7	4463.0	4398.6	4450.5	4369.5	4402.7	4465.1	4261.4	3675.5	2362.4
47.5°	4878.5	5071.8	4999.0	4999.0	5051.0	4876.4	4955.4	5038.5	4498.3	3833.4	2237.7
50°	5641.1	5744.9	5740.8	5722.1	5744.9	5651.4	5639.0	5628.6	4861.9	3983.0	2160.8
52.5°	6503.3	6644.6	6590.6	6611.4	6642.5	6465.9	6605.1	6224.9	5316.9	4039.1	1986.3
55°	7604.5	7702.2	7648.2	7542.2	7683.5	7571.3	7617.0	6875.2	5632.7	3879.1	1695.4
57.5°	8915.6	8965.4	8876.1	8865.7	8959.2	8838.7	8761.8	7606.6	5796.9	3758.6	1354.7
60°	10446.9	10602.7	10546.6	10457.3	10542.4	10436.5	9854.7	8227.8	5763.6	3195.6	1049.3
62.5°	12283.6	12441.5	12379.2	12318.9	12372.9	12096.6	10881.1	8718.2	5614.0	2532.8	766.7
65°	13800.3	14513.0	14606.5	14608.6	14346.8	13706.8	11699.7	8909.3	4824.5	1768.2	561.0
67.5°	14797.6	16279.1	16740.3	16574.1	15973.6	14513.0	12030.1	8535.3	3725.4	1117.8	419.7
69°	14683.4	16626.1	17293.0	17199.5	16355.9	14500.5	11772.5	7905.8	2846.5	889.3	355.3
70°	14155.6	16341.4	17133.0	17174.6	16112.9	13943.7	11313.3	7182.7	2302.1	758.4	326.2
72.5°	11296.7	13465.8	14161.9	14434.0	13380.6	11165.8	9277.1	5067.6	1333.9	529.8	263.9
75°	6997.8	8165.5	8743.1	8901.0	8263.2	6954.2	5630.7	2819.5	812.4	374.0	222.3
77.5°	3137.4	3476.1	3808.5	3808.5	3559.2	3174.8	2580.5	1363.0	461.3	266.0	187.0
80°	1051.3	1090.8	1061.7	1072.1	1030.6	991.1	1036.8	588.0	284.7	199.5	151.7
82.5°	714.7	897.6	953.7	953.7	895.5	706.4	398.9	270.1	174.5	143.4	116.4
85°	581.8	710.6	762.5	785.4	739.7	596.3	209.9	130.9	103.9	91.4	79.0
87.5°	195.3	182.8	172.5	168.3	176.6	184.9	103.9	56.1	47.8	43.6	41.6
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°	706.4	706.4	706.4	706.4	706.4	706.4
2.5°	739.7	714.7	725.1	735.5	810.3	866.4
5°	735.5	770.8	849.8	949.5	995.2	1107.4
7.5°	756.3	885.1	1032.6	1136.5	1178.1	1213.4
10°	1011.9	1034.7	1084.6	1184.3	1267.4	1282.0
12.5°	1306.9	1300.7	1265.3	1311.1	1269.5	1298.6
15°	1537.5	1469.0	1421.2	1414.9	1400.4	1400.4
17.5°	1664.3	1604.0	1537.5	1520.9	1477.3	1512.6
20°	1813.9	1710.0	1543.8	1527.1	1512.6	1479.3
22.5°	1784.8	1680.9	1508.4	1487.7	1564.5	1560.4
25°	1820.1	1680.9	1516.7	1493.9	1529.2	1529.2
27.5°	1732.8	1618.6	1500.1	1363.0	1471.0	1496.0
30°	1710.0	1581.2	1444.0	1321.4	1431.6	1408.7
32.5°	1830.5	1487.7	1352.6	1315.2	1396.2	1379.6
35°	1737.0	1471.0	1329.8	1261.2	1356.8	1340.1
37.5°	1776.5	1450.3	1290.3	1232.1	1309.0	1333.9
40°	1768.2	1352.6	1244.6	1169.8	1246.6	1259.1
42.5°	1628.9	1277.8	1167.7	1092.9	1132.4	1173.9
45°	1587.4	1232.1	1092.9	989.0	991.1	1038.9
47.5°	1510.5	1128.2	955.8	860.2	860.2	899.7
50°	1381.7	989.0	799.9	712.7	710.6	741.8
52.5°	1190.5	854.0	675.3	579.7	573.5	604.6
55°	974.5	687.7	531.9	469.6	457.1	469.6
57.5°	758.4	536.1	419.7	369.8	367.8	378.1
60°	588.0	419.7	334.5	305.4	309.6	326.2
62.5°	444.6	334.5	284.7	274.3	280.5	297.1
65°	353.2	288.8	259.7	253.5	259.7	276.3
67.5°	286.7	261.8	241.0	232.7	236.9	253.5
69°	263.9	247.3	230.6	220.2	224.4	236.9
70°	251.4	238.9	222.3	211.9	216.1	228.6
72.5°	220.2	214.0	201.5	191.2	193.2	203.6
75°	193.2	189.1	180.8	168.3	168.3	180.8
77.5°	162.1	164.1	155.8	143.4	141.3	147.5
80°	128.8	133.0	128.8	116.4	112.2	112.2
82.5°	93.5	101.8	97.7	85.2	83.1	83.1
85°	58.2	64.4	62.3	54.0	54.0	47.8
87.5°	27.0	35.3	33.2	29.1	27.0	18.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)