

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: McGRAW-EDISON

Report Number: P227538

Luminaire Tested: **ISS-AF-600-LED-E1-T2-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227538
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29758)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-600-LED-E1-T2-8030-ULG
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II, WITH UPLIGHT GLOW
Light Source: (16) 3000K CCT, 80 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4549.2 lumens
Efficiency: N/A
Efficacy: 90.3 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type II - Medium - Non-Cutoff
BUG Rating: B1 - U5 - G1

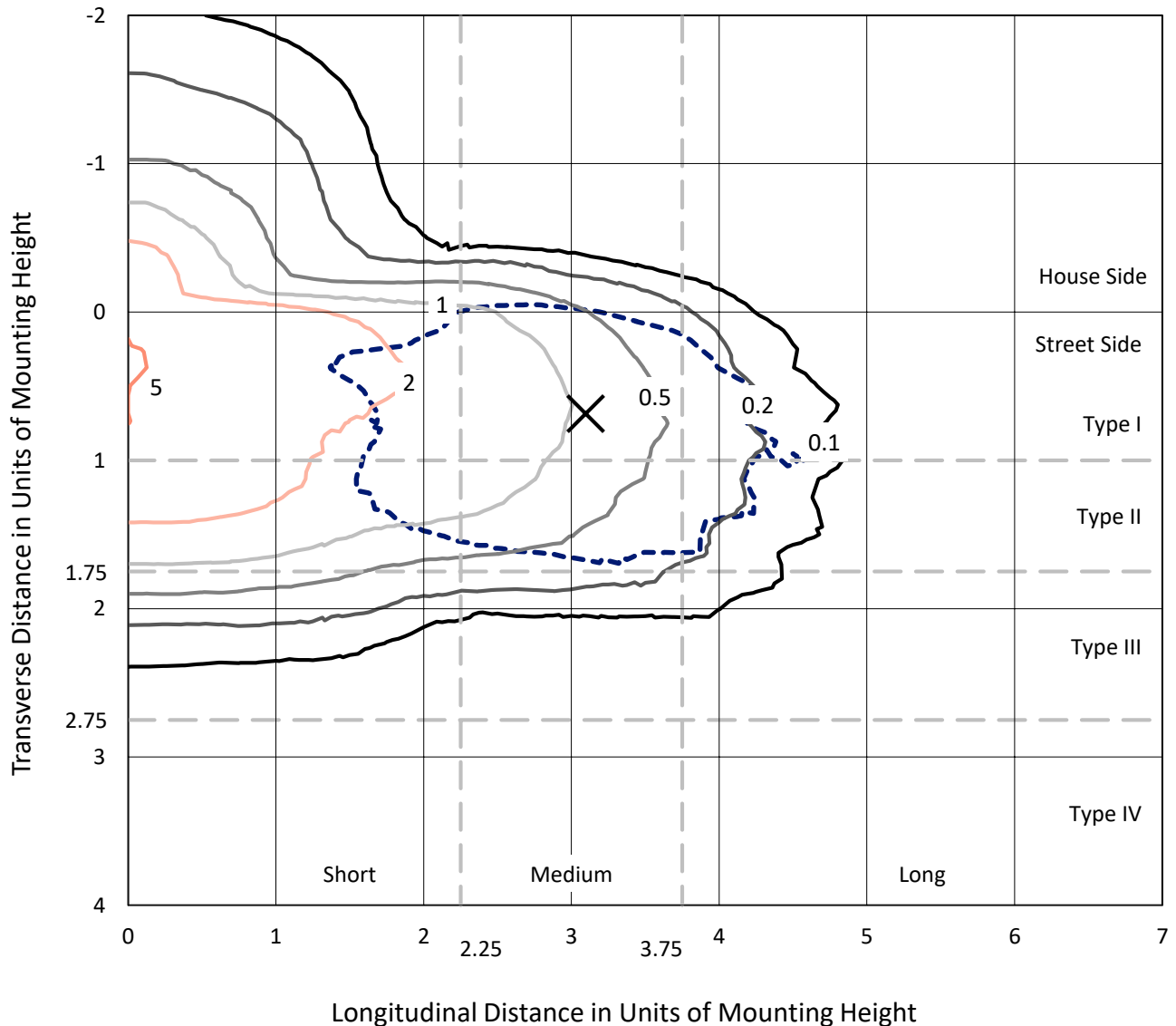
Input Watts (W): 50.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

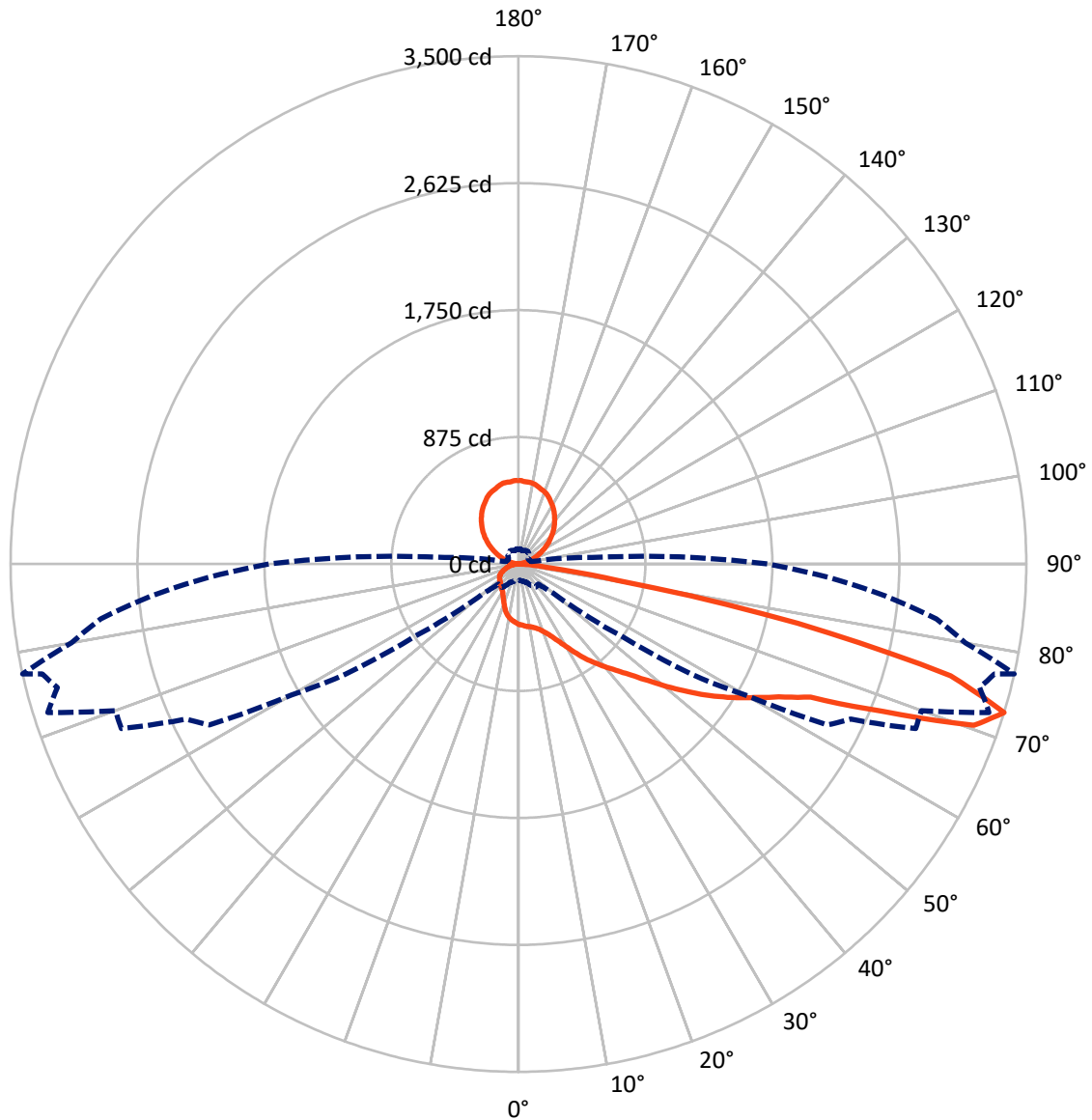
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.1 fc
 Type II - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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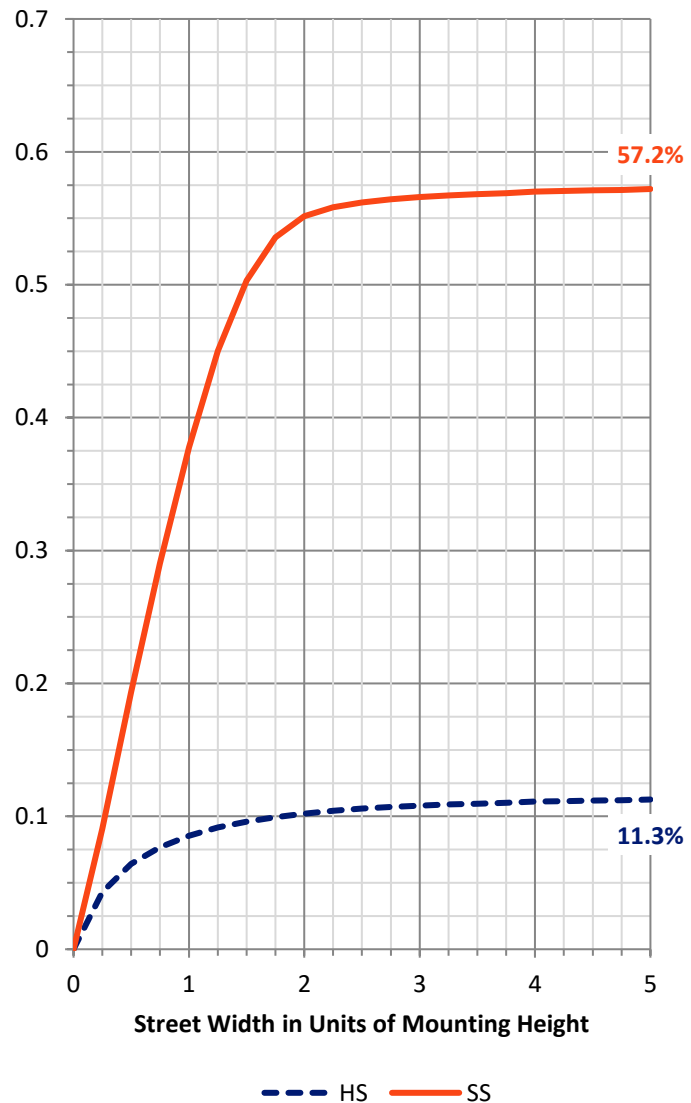
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	517.5	713.1	1230.6
	% Fixture	11.4	15.7	27.1
Street Side	Lumens	2605.5	713.1	3318.6
	% Fixture	57.3	15.7	72.9
Total	Lumens	3123.0	1426.2	4549.2
	% Fixture	68.6	31.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	0.9
10°-20°	118.8	2.6
20°-30°	210.8	4.6
30°-40°	334.0	7.3
40°-50°	501.1	11.0
50°-60°	649.3	14.3
60°-70°	737.8	16.2
70°-80°	489.6	10.8
80°-90°	42.8	0.9
90°-100°	4.7	0.1
100°-110°	69.0	1.5
110°-120°	153.0	3.4
120°-130°	223.9	4.9
130°-140°	265.6	5.8
140°-150°	269.3	5.9
150°-160°	231.1	5.1
160°-170°	155.1	3.4
170°-180°	54.3	1.2
0°-90°	3123.0	68.6
0°-180°	4549.2	100.0



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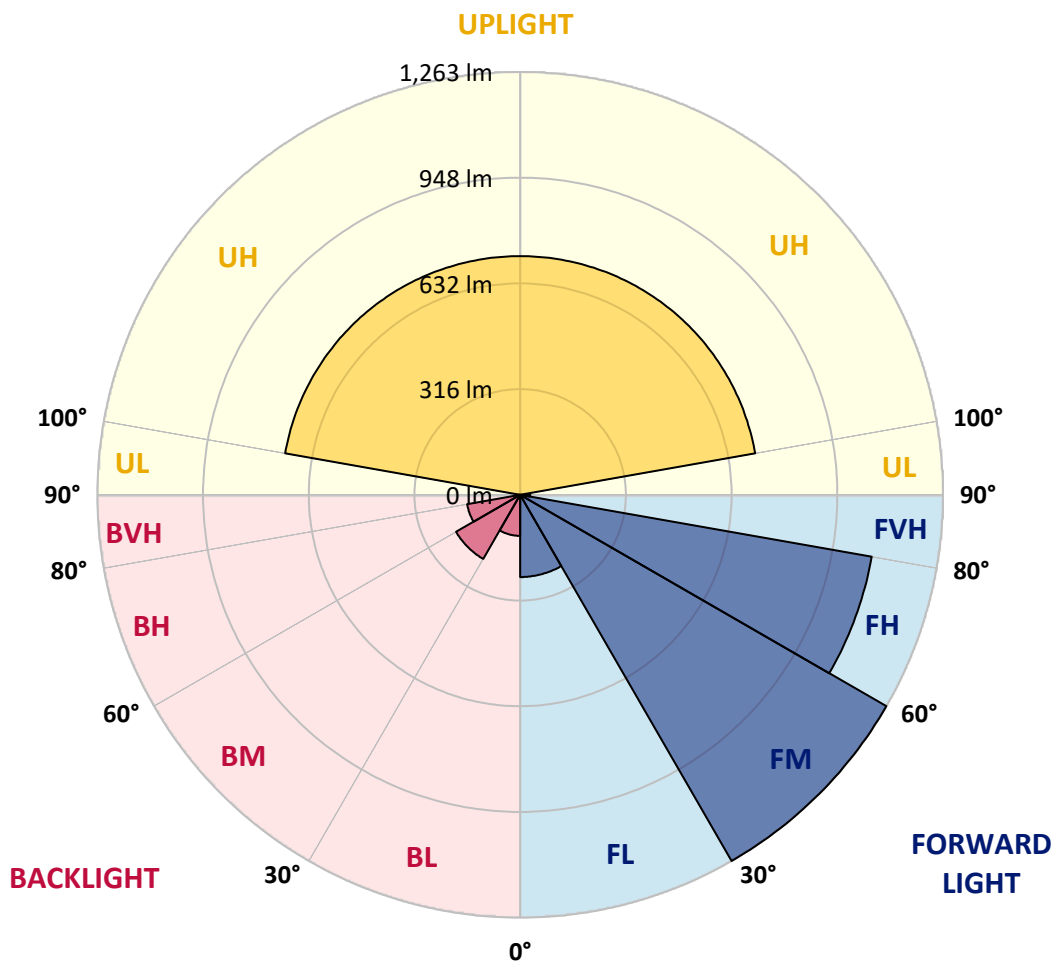
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	245.7	5.4			
FM	(30°-60°)	1263.4	27.8			
FH	(60°-80°)	1066.5	23.4			G1/1800
FVH	(80°-90°)	29.9	0.7			G1/100
BL	(0°-30°)	122.6	2.7	B1/500		
BM	(30°-60°)	221.1	4.9	B1/1000		
BH	(60°-80°)	160.9	3.5	B1/500		G1/500
BVH	(80°-90°)	12.9	0.3			G1/100
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	15.7		U4/1000	

BUG Rating: B1-U5-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0
2.5°	451.7	449.6	448.6	446.5	444.4	443.3	440.1	438.0	441.2	440.1	440.1
5°	485.4	483.3	480.2	477.0	472.8	469.6	466.5	463.3	465.4	463.3	461.2
7.5°	512.8	510.7	506.5	503.3	499.1	494.9	490.7	489.6	487.5	484.4	483.3
10°	528.6	526.5	524.4	522.3	516.0	512.8	507.5	504.4	505.4	501.2	501.2
12.5°	543.3	541.2	540.2	540.2	534.9	531.7	529.6	526.5	528.6	522.3	520.2
15°	557.0	554.9	551.8	554.9	553.9	552.8	551.8	550.7	553.9	547.5	548.6
17.5°	579.1	578.1	571.8	567.5	568.6	571.8	573.9	572.8	572.8	569.7	570.7
20°	613.9	613.9	605.5	598.1	586.5	586.5	587.6	586.5	588.6	590.7	593.9
22.5°	640.2	638.1	634.9	628.6	616.0	605.5	605.5	601.2	604.4	605.5	611.8
25°	673.9	671.8	664.4	664.4	651.8	638.1	636.0	629.7	637.0	623.4	633.9
27.5°	715.0	712.9	703.4	699.2	692.9	676.0	671.8	672.8	680.2	660.2	670.7
30°	766.6	764.5	752.9	741.3	730.8	712.9	710.8	709.7	726.5	703.4	717.1
32.5°	831.8	831.8	819.2	803.4	782.4	758.1	749.7	750.8	773.9	748.7	771.8
35°	930.8	918.2	895.0	870.8	848.7	820.3	808.7	806.6	827.6	802.4	828.7
37.5°	994.0	985.6	964.5	946.6	922.4	895.0	886.6	889.8	907.7	870.8	908.7
40°	1050.9	1049.8	1036.1	1024.5	1000.3	972.9	983.5	1025.6	1073.0	1001.4	1002.4
42.5°	1088.8	1090.9	1089.8	1090.9	1077.2	1048.8	1066.7	1125.6	1206.7	1164.6	1125.6
45°	1095.1	1102.5	1105.6	1126.7	1140.4	1123.5	1133.0	1195.1	1357.3	1422.6	1246.7
47.5°	1110.9	1118.3	1111.9	1137.2	1200.4	1199.3	1237.2	1260.4	1282.5	1293.0	1425.7
50°	1131.9	1145.6	1139.3	1160.4	1212.0	1241.4	1274.1	1303.6	1285.7	1219.3	1255.1
52.5°	1133.0	1148.8	1183.5	1204.6	1255.1	1248.8	1270.9	1255.1	1282.5	1214.1	1248.8
55°	1040.3	1043.5	1144.6	1250.9	1339.4	1321.5	1307.8	1272.0	1306.7	1221.4	1265.7
57.5°	894.0	904.5	1009.8	1188.8	1378.3	1394.1	1389.9	1386.8	1414.1	1300.4	1348.9
60°	732.9	745.5	845.5	1056.1	1297.3	1338.3	1395.2	1429.9	1500.5	1455.2	1535.2
62.5°	457.0	466.5	577.0	840.3	1144.6	1225.7	1308.8	1349.9	1452.0	1473.1	1608.9
65°	218.0	221.1	264.3	457.0	831.8	984.5	1107.7	1195.1	1320.4	1415.2	1598.4
67.5°	169.5	170.6	186.4	243.2	426.5	528.6	668.6	784.5	918.2	1177.2	1404.7
70°	135.8	135.8	148.5	179.0	264.3	278.0	313.8	352.7	409.6	618.1	802.4
72.5°	113.7	113.7	122.1	141.1	195.9	199.0	196.9	193.7	193.7	244.3	311.7
75°	95.8	94.8	100.0	112.7	145.3	149.5	147.4	140.0	131.6	131.6	148.5
77.5°	77.9	77.9	82.1	88.4	105.3	107.4	107.4	101.1	93.7	94.8	102.1
80°	61.1	61.1	64.2	68.4	73.7	72.7	72.7	66.3	61.1	60.0	64.2
82.5°	44.2	45.3	52.6	49.5	47.4	44.2	44.2	43.2	39.0	35.8	37.9
85°	13.7	14.7	25.3	29.5	24.2	20.0	19.0	15.8	16.8	13.7	15.8
87.5°	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.1	0.0	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	2.0	2.0	2.0	3.0	4.0	5.2	6.5	7.8	9.0	10.0	11.0
100°	8.0	8.0	10.0	14.0	22.0	24.0	26.0	28.0	30.0	30.5	31.0
102.5°	28.0	28.0	32.0	38.0	45.0	46.2	47.5	48.8	50.0	50.2	50.5
105°	54.0	54.0	56.0	61.0	66.0	67.0	68.0	69.0	70.0	70.2	70.5
107.5°	78.0	77.0	80.0	84.0	88.0	88.8	89.5	90.2	91.0	91.5	92.0
110°	101.0	102.0	103.0	106.0	110.0	110.5	111.0	111.5	112.0	112.5	113.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
112.5°	124.0	124.0	126.0	129.0	132.0	132.5	133.0	133.5	134.0	134.5	135.0
115°	146.0	147.0	149.0	151.0	154.0	154.5	155.0	155.5	156.0	156.5	157.0
117.5°	169.0	170.0	172.0	174.0	177.0	177.5	178.0	178.5	179.0	179.2	179.5
120°	193.0	195.0	196.0	198.0	201.0	201.2	201.5	201.8	202.0	202.5	203.0
122.5°	219.0	220.0	221.0	223.0	226.0	226.2	226.5	226.8	227.0	227.2	227.5
125°	244.0	246.0	247.0	248.0	251.0	251.2	251.5	251.8	252.0	252.2	252.5
127.5°	267.0	269.0	270.0	272.0	274.0	274.5	275.0	275.5	276.0	276.5	277.0
130°	290.0	292.0	293.0	294.0	298.0	298.2	298.5	298.8	299.0	299.5	300.0
132.5°	313.0	314.0	317.0	318.0	321.0	321.2	321.5	321.8	322.0	322.8	323.5
135°	336.0	337.0	339.0	341.0	345.0	345.0	345.0	345.0	345.0	345.8	346.5
137.5°	359.0	360.0	363.0	364.0	367.0	367.0	367.0	367.0	367.0	367.5	368.0
140°	382.0	383.0	385.0	386.0	388.0	388.2	388.5	388.8	389.0	389.2	389.5
142.5°	404.0	406.0	408.0	407.0	410.0	410.0	410.0	410.0	410.0	410.5	411.0
145°	425.0	426.0	428.0	428.0	431.0	431.2	431.5	431.8	432.0	432.5	433.0
147.5°	444.0	444.0	447.0	448.0	452.0	452.2	452.5	452.8	453.0	453.2	453.5
150°	461.0	462.0	464.0	465.0	469.0	469.2	469.5	469.8	470.0	470.2	470.5
152.5°	479.0	480.0	483.0	482.0	485.0	485.2	485.5	485.8	486.0	486.2	486.5
155°	499.0	500.0	502.0	501.0	503.0	503.0	503.0	503.0	503.0	503.2	503.5
157.5°	513.0	515.0	517.0	516.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0
160°	525.0	527.0	529.0	529.0	532.0	532.0	532.0	532.0	532.0	532.0	532.0
162.5°	535.0	536.0	539.0	538.0	541.0	541.0	541.0	541.0	541.0	541.2	541.5
165°	546.0	547.0	549.0	548.0	552.0	552.0	552.0	552.0	552.0	552.2	552.5
167.5°	555.0	556.0	559.0	558.0	561.0	560.8	560.5	560.2	560.0	560.0	560.0
170°	562.0	563.0	566.0	565.0	567.0	566.8	566.5	566.2	566.0	565.8	565.5
172.5°	565.0	566.0	569.0	567.0	569.0	568.8	568.5	568.2	568.0	568.2	568.5
175°	567.0	569.0	570.0	569.0	572.0	572.0	572.0	572.0	572.0	572.2	572.5
177.5°	572.0	573.0	575.0	574.0	578.0	577.8	577.5	577.2	577.0	577.0	577.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0



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CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77°
0°	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0
2.5°	434.9	437.0	432.8	432.8	427.5	430.7	425.4	426.5	421.2	423.3	423.3
5°	455.9	457.0	451.7	449.6	444.4	444.4	439.1	439.1	431.7	433.8	431.7
7.5°	475.9	475.9	470.7	466.5	461.2	459.1	452.8	449.6	443.3	442.2	439.1
10°	492.8	492.8	485.4	481.2	474.9	471.7	463.3	460.1	452.8	447.5	444.4
12.5°	513.8	511.7	503.3	499.1	488.6	487.5	474.9	472.8	462.3	459.1	453.8
15°	539.1	541.2	527.5	526.5	511.7	510.7	493.8	492.8	477.0	475.9	468.6
17.5°	566.5	570.7	559.1	558.1	540.2	540.2	520.2	519.1	498.1	497.0	487.5
20°	590.7	596.0	588.6	590.7	574.9	576.0	553.9	553.9	524.4	522.3	513.8
22.5°	612.8	623.4	617.0	628.6	612.8	620.2	590.7	596.0	561.2	557.0	544.4
25°	634.9	648.6	646.5	665.5	653.9	666.5	636.0	646.5	601.2	604.4	587.6
27.5°	657.1	675.0	672.8	700.2	696.0	721.3	695.0	706.5	657.1	660.2	641.3
30°	693.9	713.9	706.5	735.0	735.0	776.0	756.0	773.9	719.2	725.5	703.4
32.5°	743.4	766.6	744.4	781.3	779.2	832.9	817.1	847.6	793.9	802.4	775.0
35°	797.1	834.0	798.1	839.2	832.9	888.7	878.2	927.7	870.8	880.3	852.9
37.5°	867.6	911.9	864.5	900.3	871.9	936.1	929.8	997.2	939.2	963.5	930.8
40°	950.8	985.6	926.6	957.1	909.8	976.1	965.6	1058.2	1004.5	1043.5	1014.0
42.5°	1027.7	1051.9	974.0	1011.9	955.0	1022.4	1003.5	1115.1	1068.8	1128.8	1096.1
45°	1097.2	1124.6	1021.4	1063.5	1000.3	1074.0	1041.4	1169.8	1138.3	1228.8	1196.2
47.5°	1196.2	1156.2	1064.6	1119.3	1048.8	1129.8	1086.7	1234.1	1222.5	1351.0	1313.1
50°	1163.5	1189.9	1100.4	1157.2	1093.0	1192.0	1144.6	1310.9	1314.1	1483.6	1461.5
52.5°	1166.7	1210.9	1127.7	1206.7	1144.6	1278.3	1228.8	1403.6	1418.3	1612.1	1581.6
55°	1185.6	1250.9	1168.8	1275.1	1217.2	1374.1	1339.4	1503.6	1528.9	1733.2	1715.3
57.5°	1233.0	1323.6	1239.3	1378.3	1318.3	1483.6	1452.0	1606.8	1641.6	1854.3	1849.0
60°	1415.2	1522.6	1375.2	1528.9	1448.9	1607.9	1565.8	1715.3	1750.0	1970.1	1983.8
62.5°	1618.4	1804.8	1717.4	1877.4	1665.8	1826.9	1702.6	1849.0	1851.1	2094.4	2137.5
65°	1671.1	1957.5	2032.2	2330.2	2219.7	2385.0	2053.3	2151.2	2024.9	2320.7	2382.9
67.5°	1651.1	2001.7	2209.1	2545.0	2670.3	2958.8	2903.0	2869.3	2576.6	2789.3	2864.1
70°	1212.0	1583.7	2091.2	2432.4	2793.5	2983.1	3283.2	3313.7	3301.1	3271.6	3321.1
72.5°	551.8	865.5	1415.2	1804.8	2400.8	2528.2	2963.1	2954.6	3401.1	3290.5	3368.4
75°	216.9	333.8	673.9	1007.7	1660.5	1817.4	2310.2	2188.1	2745.1	2582.9	2749.3
77.5°	119.0	149.5	252.7	432.8	906.6	989.8	1414.1	1209.9	1702.6	1421.5	1477.3
80°	71.6	89.5	115.8	164.3	385.4	407.5	603.4	486.5	696.0	528.6	512.8
82.5°	39.0	48.4	57.9	81.1	143.2	159.0	208.5	187.4	223.2	190.6	186.4
85°	15.8	21.1	22.1	32.6	47.4	54.8	66.3	71.6	87.4	80.0	77.9
87.5°	0.0	1.1	0.0	2.1	0.0	2.1	0.0	3.2	3.2	5.3	6.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	12.0	13.0	11.5	10.0	8.5	7.0	6.5	6.0	5.5	5.0	4.8
100°	31.5	32.0	31.5	31.0	30.5	30.0	29.2	28.5	27.8	27.0	26.8
102.5°	50.8	51.0	50.8	50.5	50.2	50.0	49.5	49.0	48.5	48.0	48.2
105°	70.8	71.0	71.0	71.0	71.0	71.0	70.5	70.0	69.5	69.0	69.4
107.5°	92.5	93.0	92.8	92.5	92.2	92.0	91.8	91.5	91.2	91.0	91.2
110°	113.5	114.0	114.0	114.0	114.0	114.0	113.8	113.5	113.2	113.0	113.2



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CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77°
112.5°	135.5	136.0	136.0	136.0	136.0	136.0	135.8	135.5	135.2	135.0	135.4
115°	157.5	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.4
117.5°	179.8	180.0	180.2	180.5	180.8	181.0	180.8	180.5	180.2	180.0	180.4
120°	203.5	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.4
122.5°	227.8	228.0	228.0	228.0	228.0	228.0	228.2	228.5	228.8	229.0	229.8
125°	252.8	253.0	253.2	253.5	253.8	254.0	254.0	254.0	254.0	254.0	254.6
127.5°	277.5	278.0	277.8	277.5	277.2	277.0	277.2	277.5	277.8	278.0	278.6
130°	300.5	301.0	301.0	301.0	301.0	301.0	301.2	301.5	301.8	302.0	302.6
132.5°	324.2	325.0	325.0	325.0	325.0	325.0	325.2	325.5	325.8	326.0	326.6
135°	347.2	348.0	348.0	348.0	348.0	348.0	348.2	348.5	348.8	349.0	349.4
137.5°	368.5	369.0	369.0	369.0	369.0	369.0	369.2	369.5	369.8	370.0	370.8
140°	389.8	390.0	390.0	390.0	390.0	390.0	390.5	391.0	391.5	392.0	392.8
142.5°	411.5	412.0	412.0	412.0	412.0	412.0	412.2	412.5	412.8	413.0	413.6
145°	433.5	434.0	433.8	433.5	433.2	433.0	433.2	433.5	433.8	434.0	434.6
147.5°	453.8	454.0	453.5	453.0	452.5	452.0	452.2	452.5	452.8	453.0	453.6
150°	470.8	471.0	470.5	470.0	469.5	469.0	469.0	469.0	469.0	469.0	469.8
152.5°	486.8	487.0	486.8	486.5	486.2	486.0	486.0	486.0	486.0	486.0	486.6
155°	503.8	504.0	503.8	503.5	503.2	503.0	503.2	503.5	503.8	504.0	504.6
157.5°	519.0	519.0	518.5	518.0	517.5	517.0	517.2	517.5	517.8	518.0	519.0
160°	532.0	532.0	531.5	531.0	530.5	530.0	530.0	530.0	530.0	530.0	530.6
162.5°	541.8	542.0	541.5	541.0	540.5	540.0	539.5	539.0	538.5	538.0	538.4
165°	552.8	553.0	552.2	551.5	550.8	550.0	549.5	549.0	548.5	548.0	548.4
167.5°	560.0	560.0	559.5	559.0	558.5	558.0	558.2	558.5	558.8	559.0	559.8
170°	565.2	565.0	564.8	564.5	564.2	564.0	564.5	565.0	565.5	566.0	567.0
172.5°	568.8	569.0	568.5	568.0	567.5	567.0	567.2	567.5	567.8	568.0	568.6
175°	572.8	573.0	572.2	571.5	570.8	570.0	569.5	569.0	568.5	568.0	568.6
177.5°	577.0	577.0	576.2	575.5	574.8	574.0	574.0	574.0	574.0	574.0	574.6
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0



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CANDELA DISTRIBUTION (continued):

	77.5°	80°	82.5°	85°	87.5°	90°	95°	100°	102.5°	105°	107.5°
0°	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0
2.5°	420.1	423.3	419.1	419.1	413.8	417.0	413.8	410.7	405.4	406.4	399.1
5°	427.5	429.6	424.3	422.2	419.1	418.0	411.7	405.4	398.0	398.0	389.6
7.5°	434.9	434.9	427.5	427.5	420.1	418.0	408.6	398.0	387.5	386.4	373.8
10°	439.1	438.0	428.6	428.6	418.0	417.0	405.4	389.6	374.9	370.6	352.7
12.5°	447.5	446.5	434.9	432.8	419.1	419.1	402.2	381.2	360.1	352.7	327.5
15°	458.0	459.1	445.4	442.2	426.5	425.4	402.2	370.6	342.2	330.6	300.1
17.5°	474.9	475.9	457.0	453.8	434.9	431.7	403.3	358.0	318.0	305.4	278.0
20°	497.0	493.8	468.6	467.5	442.2	439.1	402.2	339.1	293.8	281.1	256.9
22.5°	524.4	521.2	488.6	485.4	455.9	450.7	401.2	319.0	271.7	258.0	242.2
25°	562.3	558.1	518.1	513.8	477.0	468.6	400.1	298.0	252.7	242.2	232.7
27.5°	609.7	601.2	552.8	548.6	499.1	488.6	395.9	273.8	233.8	226.4	222.2
30°	666.5	659.2	597.0	590.7	528.6	514.9	391.7	251.7	220.1	216.9	213.8
32.5°	733.9	726.5	650.7	643.4	566.5	546.5	384.3	233.8	211.6	211.6	207.4
35°	804.5	798.1	708.6	703.4	608.6	582.3	374.9	218.0	204.3	204.3	200.1
37.5°	867.6	872.9	771.8	767.6	650.7	618.1	364.3	207.4	198.0	195.9	191.6
40°	936.1	948.7	830.8	834.0	695.0	656.0	351.7	199.0	190.6	188.5	187.4
42.5°	1005.6	1029.8	892.9	904.5	739.2	695.0	342.2	193.7	187.4	183.2	182.2
45°	1091.9	1126.7	969.8	991.9	790.8	742.3	339.1	187.4	178.0	172.7	169.5
47.5°	1199.3	1245.7	1064.6	1089.8	859.2	799.2	345.4	185.3	171.6	165.3	159.0
50°	1326.7	1371.0	1177.2	1187.7	936.1	861.3	359.1	188.5	169.5	160.1	150.6
52.5°	1461.5	1495.2	1296.2	1284.6	1016.1	922.4	374.9	189.5	164.3	154.8	143.2
55°	1600.5	1619.5	1406.8	1376.2	1088.8	983.5	395.9	188.5	160.1	149.5	134.8
57.5°	1736.3	1742.7	1504.7	1475.2	1160.4	1056.1	422.2	185.3	153.7	143.2	127.4
60°	1869.0	1879.5	1613.1	1585.8	1238.3	1149.8	460.1	180.1	145.3	137.9	121.1
62.5°	2014.3	2049.1	1742.7	1746.9	1345.7	1296.2	531.7	173.7	136.9	128.5	111.6
65°	2212.3	2345.0	1956.4	2055.4	1552.1	1572.1	668.6	155.8	125.3	114.8	103.2
67.5°	2708.2	2853.5	2475.5	2515.5	2035.4	1916.4	755.0	132.7	110.6	103.2	95.8
70°	3329.5	3225.2	2956.7	2714.6	2317.6	1970.1	664.4	111.6	97.9	93.7	89.5
72.5°	3500.1	3126.3	2905.1	2541.9	2142.8	1718.4	508.6	95.8	87.4	85.3	82.1
75°	3075.7	2534.5	2547.1	2019.6	1776.4	1309.9	347.5	82.1	75.8	74.8	73.7
77.5°	1966.9	1302.5	1585.8	998.2	1025.6	606.5	169.5	68.4	65.3	65.3	63.2
80°	699.2	433.8	490.7	314.8	286.4	192.7	91.6	54.8	52.6	53.7	52.6
82.5°	209.5	166.4	163.2	127.4	99.0	81.1	50.5	42.1	40.0	41.1	39.0
85°	84.2	65.3	54.8	42.1	34.7	31.6	27.4	28.4	25.3	27.4	24.2
87.5°	5.3	4.2	3.2	4.2	0.0	2.1	5.3	4.2	1.1	4.2	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	4.8	4.5	4.2	4.0	4.0	4.0	4.0	4.5	4.8	5.0	5.5
100°	26.8	26.5	26.2	26.0	25.5	25.0	26.0	26.5	26.8	27.0	27.8
102.5°	48.2	48.5	48.8	49.0	48.5	48.0	49.0	48.5	48.2	48.0	48.5
105°	69.5	70.0	70.5	71.0	70.0	69.0	71.0	70.0	69.5	69.0	69.5
107.5°	91.2	91.5	91.8	92.0	91.5	91.0	92.0	91.5	91.2	91.0	91.2
110°	113.2	113.5	113.8	114.0	113.5	113.0	114.0	113.5	113.2	113.0	113.2



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REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	77.5°	80°	82.5°	85°	87.5°	90°	95°	100°	102.5°	105°	107.5°	
112.5°	135.5	136.0	136.5	137.0	136.0	135.0	137.0	136.0	135.5	135.0	135.2	0°
115°	158.5	159.0	159.5	160.0	159.5	159.0	160.0	159.0	158.5	158.0	158.0	2.5°
117.5°	180.5	181.0	181.5	182.0	181.0	180.0	182.0	181.0	180.5	180.0	180.2	5°
120°	204.5	205.0	205.5	206.0	205.0	204.0	206.0	205.0	204.5	204.0	204.0	7.5°
122.5°	230.0	231.0	232.0	233.0	232.5	232.0	233.0	231.0	230.0	229.0	228.8	10°
125°	254.8	255.5	256.2	257.0	256.5	256.0	257.0	255.5	254.8	254.0	254.0	12.5°
127.5°	278.8	279.5	280.2	281.0	279.5	278.0	281.0	279.5	278.8	278.0	277.8	15°
130°	302.8	303.5	304.2	305.0	304.0	303.0	305.0	303.5	302.8	302.0	301.8	17.5°
132.5°	326.8	327.5	328.2	329.0	328.0	327.0	329.0	327.5	326.8	326.0	325.8	20°
135°	349.5	350.0	350.5	351.0	350.5	350.0	351.0	350.0	349.5	349.0	348.8	22.5°
137.5°	371.0	372.0	373.0	374.0	373.0	372.0	374.0	372.0	371.0	370.0	369.8	25°
140°	393.0	394.0	395.0	396.0	395.0	394.0	396.0	394.0	393.0	392.0	391.5	27.5°
142.5°	413.8	414.5	415.2	416.0	415.5	415.0	416.0	414.5	413.8	413.0	412.8	30°
145°	434.8	435.5	436.2	437.0	436.0	435.0	437.0	435.5	434.8	434.0	433.8	32.5°
147.5°	453.8	454.5	455.2	456.0	454.5	453.0	456.0	454.5	453.8	453.0	452.8	35°
150°	470.0	471.0	472.0	473.0	471.5	470.0	473.0	471.0	470.0	469.0	469.0	37.5°
152.5°	486.8	487.5	488.2	489.0	487.5	486.0	489.0	487.5	486.8	486.0	486.0	40°
155°	504.8	505.5	506.2	507.0	506.0	505.0	507.0	505.5	504.8	504.0	503.8	42.5°
157.5°	519.2	520.5	521.8	523.0	521.5	520.0	523.0	520.5	519.2	518.0	517.8	45°
160°	530.8	531.5	532.2	533.0	532.0	531.0	533.0	531.5	530.8	530.0	530.0	47.5°
162.5°	538.5	539.0	539.5	540.0	538.5	537.0	540.0	539.0	538.5	538.0	538.5	50°
165°	548.5	549.0	549.5	550.0	549.0	548.0	550.0	549.0	548.5	548.0	548.5	52.5°
167.5°	560.0	561.0	562.0	563.0	562.0	561.0	563.0	561.0	560.0	559.0	558.8	55°
170°	567.2	568.5	569.8	571.0	570.0	569.0	571.0	568.5	567.2	566.0	565.5	57.5°
172.5°	568.8	569.5	570.2	571.0	569.5	568.0	571.0	569.5	568.8	568.0	567.8	60°
175°	568.8	569.5	570.2	571.0	569.5	568.0	571.0	569.5	568.8	568.0	568.5	62.5°
177.5°	574.8	575.5	576.2	577.0	575.5	574.0	577.0	575.5	574.8	574.0	574.0	65°
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	67.5°
												70°
												72.5°
												75°
												77.5°
												80°
												82.5°
												85°
												87.5°
												90°
												92.5°
												95°
												97.5°
												100°
												102.5°
												105°
												107.5°
												110°

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DISTRIBUTION (continued):

CANDELA DISTRIBUTION

110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	110°	
417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	112.5°	135.5
404.3	397.0	400.1	397.0	399.1	392.8	394.9	389.6	389.6	388.5	383.3	115°	158.0
390.7	383.3	382.2	374.9	375.9	367.5	366.4	357.0	357.0	348.5	332.7	117.5°	180.5
371.7	360.1	359.1	344.3	343.3	331.7	327.5	316.9	315.9	306.4	296.9	120°	204.0
347.5	329.6	326.4	307.5	308.5	295.9	294.8	287.5	287.5	283.2	283.2	122.5°	228.5
320.1	300.1	298.0	283.2	284.3	275.9	276.9	272.7	274.8	276.9	284.3	125°	254.0
294.8	279.0	276.9	267.5	268.5	266.4	269.6	269.6	272.7	278.0	290.6	127.5°	277.5
273.8	260.1	261.1	256.9	261.1	260.1	266.4	265.3	271.7	278.0	293.8	130°	301.5
254.8	247.4	250.6	249.6	254.8	254.8	260.1	261.1	266.4	274.8	292.7	132.5°	325.5
242.2	240.1	243.2	243.2	247.4	248.5	253.8	256.9	260.1	268.5	284.3	135°	348.5
234.8	233.8	236.9	238.0	241.1	242.2	247.4	247.4	252.7	258.0	266.4	137.5°	369.5
224.3	222.2	226.4	226.4	230.6	229.5	235.9	233.8	239.0	241.1	243.2	140°	391.0
216.9	213.8	216.9	215.9	219.0	215.9	219.0	215.9	219.0	219.0	215.9	142.5°	412.5
209.5	206.4	207.4	203.2	206.4	202.2	203.2	199.0	201.1	199.0	200.1	145°	433.5
202.2	198.0	198.0	192.7	192.7	187.4	189.5	185.3	189.5	192.7	191.6	147.5°	452.5
191.6	188.5	188.5	184.3	186.4	184.3	188.5	186.4	187.4	183.2	175.8	150°	469.0
185.3	187.4	186.4	189.5	187.4	184.3	181.1	174.8	173.7	171.6	167.4	152.5°	486.0
175.8	178.0	172.7	176.9	173.7	174.8	172.7	169.5	167.4	165.3	161.1	155°	503.5
162.2	162.2	157.9	164.3	161.1	167.4	165.3	165.3	163.2	160.1	156.9	157.5°	517.5
150.6	151.6	147.4	152.7	150.6	159.0	157.9	161.1	161.1	159.0	150.6	160°	530.0
143.2	141.1	137.9	143.2	142.2	149.5	150.6	156.9	155.8	156.9	149.5	162.5°	539.0
136.9	132.7	129.5	132.7	132.7	139.0	141.1	148.5	149.5	151.6	147.4	165°	549.0
129.5	124.3	122.1	124.3	124.3	130.6	133.7	139.0	142.2	148.5	146.4	167.5°	558.5
123.2	115.8	113.7	115.8	116.9	123.2	126.4	131.6	135.8	144.3	143.2	170°	565.0
115.8	109.5	107.4	110.6	111.6	117.9	121.1	126.4	129.5	139.0	139.0	172.5°	567.5
107.4	102.1	102.1	103.2	105.3	111.6	113.7	121.1	122.1	133.7	134.8	175°	569.0
100.0	96.9	96.9	97.9	100.0	105.3	106.3	113.7	114.8	126.4	129.5	177.5°	574.0
93.7	91.6	91.6	92.7	93.7	97.9	99.0	106.3	108.5	119.0	124.3	180°	576.0
87.4	85.3	84.2	84.2	87.4	90.6	92.7	100.0	101.1	110.6	116.9		
80.0	77.9	77.9	76.9	80.0	82.1	86.3	90.6	92.7	102.1	106.3		
72.7	70.5	70.5	69.5	71.6	75.8	76.9	81.1	82.1	90.6	94.8		
63.2	61.1	61.1	61.1	63.2	64.2	65.3	69.5	71.6	79.0	83.2		
52.6	50.5	51.6	50.5	53.7	49.5	52.6	56.9	59.0	63.2	61.1		
40.0	36.9	37.9	37.9	39.0	35.8	37.9	40.0	42.1	45.3	44.2		
25.3	22.1	24.2	22.1	24.2	21.1	23.2	23.2	25.3	23.2	22.1		
5.3	2.1	5.3	2.1	6.3	0.0	3.2	0.0	2.1	1.1	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
6.0	6.5	7.0	8.5	10.0	11.5	13.0	12.0	11.0	9.0	4.0		
28.5	29.2	30.0	30.5	31.0	31.5	32.0	31.5	31.0	30.0	22.0		
49.0	49.5	50.0	50.2	50.5	50.8	51.0	50.8	50.5	50.0	45.0		
70.0	70.5	71.0	71.0	71.0	71.0	71.0	70.8	70.5	70.0	66.0		
91.5	91.8	92.0	92.2	92.5	92.8	93.0	92.5	92.0	91.0	88.0		
113.5	113.8	114.0	114.0	114.0	114.0	114.0	113.5	113.0	112.0	110.0		

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REPORT NUMBER: P227538
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TION (continued):

CANDELA DISTRIBUTION (con

112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°		155°	165°
135.8	136.0	136.0	136.0	136.0	136.0	135.5	135.0	134.0	132.0	0°	417.0	417.0
158.0	158.0	158.0	158.0	158.0	158.0	157.5	157.0	156.0	154.0	2.5°	378.0	373.8
180.8	181.0	180.8	180.5	180.2	180.0	179.8	179.5	179.0	177.0	5°	324.3	316.9
204.0	204.0	204.0	204.0	204.0	204.0	203.5	203.0	202.0	201.0	7.5°	291.7	289.6
228.2	228.0	228.0	228.0	228.0	228.0	227.8	227.5	227.0	226.0	10°	285.4	288.5
254.0	254.0	253.8	253.5	253.2	253.0	252.8	252.5	252.0	251.0	12.5°	292.7	298.0
277.2	277.0	277.2	277.5	277.8	278.0	277.5	277.0	276.0	274.0	15°	302.2	311.7
301.2	301.0	301.0	301.0	301.0	301.0	300.5	300.0	299.0	298.0	17.5°	309.6	322.2
325.2	325.0	325.0	325.0	325.0	325.0	324.2	323.5	322.0	321.0	20°	310.6	323.3
348.2	348.0	348.0	348.0	348.0	348.0	347.2	346.5	345.0	345.0	22.5°	301.1	309.6
369.2	369.0	369.0	369.0	369.0	369.0	368.5	368.0	367.0	367.0	25°	276.9	281.1
390.5	390.0	390.0	390.0	390.0	390.0	389.8	389.5	389.0	388.0	27.5°	246.4	245.3
412.2	412.0	412.0	412.0	412.0	412.0	411.5	411.0	410.0	410.0	30°	214.8	212.7
433.2	433.0	433.2	433.5	433.8	434.0	433.5	433.0	432.0	431.0	32.5°	203.2	195.9
452.2	452.0	452.5	453.0	453.5	454.0	453.8	453.5	453.0	452.0	35°	185.3	183.2
469.0	469.0	469.5	470.0	470.5	471.0	470.8	470.5	470.0	469.0	37.5°	179.0	196.9
486.0	486.0	486.2	486.5	486.8	487.0	486.8	486.5	486.0	485.0	40°	171.6	193.7
503.2	503.0	503.2	503.5	503.8	504.0	503.8	503.5	503.0	503.0	42.5°	165.3	178.0
517.2	517.0	517.5	518.0	518.5	519.0	519.0	519.0	519.0	519.0	45°	153.7	159.0
530.0	530.0	530.5	531.0	531.5	532.0	532.0	532.0	532.0	532.0	47.5°	148.5	146.4
539.5	540.0	540.5	541.0	541.5	542.0	541.8	541.5	541.0	541.0	50°	144.3	144.3
549.5	550.0	550.8	551.5	552.2	553.0	552.8	552.5	552.0	552.0	52.5°	141.1	139.0
558.2	558.0	558.5	559.0	559.5	560.0	560.0	560.0	560.0	561.0	55°	136.9	134.8
564.5	564.0	564.2	564.5	564.8	565.0	565.2	565.5	566.0	567.0	57.5°	133.7	128.5
567.2	567.0	567.5	568.0	568.5	569.0	568.8	568.5	568.0	569.0	60°	130.6	125.3
569.5	570.0	570.8	571.5	572.2	573.0	572.8	572.5	572.0	572.0	62.5°	128.5	122.1
574.0	574.0	574.8	575.5	576.2	577.0	577.0	577.0	577.0	578.0	65°	125.3	119.0
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	67.5°	121.1	112.7
										70°	112.7	105.3
										72.5°	104.2	95.8
										75°	91.6	84.2
										77.5°	76.9	68.4
										80°	57.9	52.6
										82.5°	42.1	35.8
										85°	19.0	13.7
										87.5°	0.0	0.0
										90°	0.0	0.0
										92.5°	0.0	0.0
										95°	1.0	1.0
										97.5°	3.0	2.0
										100°	14.0	10.0
										102.5°	38.0	32.0
										105°	61.0	56.0
										107.5°	84.0	80.0
										110°	106.0	103.0



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tinued):

175°	180°
417.0	417.0
371.7	370.6
314.8	312.7
289.6	288.5
289.6	289.6
302.2	302.2
316.9	316.9
327.5	328.5
330.6	331.7
314.8	314.8
284.3	284.3
244.3	248.5
208.5	212.7
185.3	188.5
178.0	179.0
195.9	196.9
192.7	194.8
165.3	166.4
148.5	148.5
142.2	141.1
142.2	140.0
146.4	145.3
140.0	140.0
136.9	136.9
133.7	133.7
132.7	131.6
132.7	130.6
130.6	127.4
123.2	114.8
105.3	97.9
85.3	84.2
66.3	67.4
50.5	50.5
36.9	30.5
10.5	10.5
0.0	0.0
0.0	0.0
0.0	0.0
1.0	1.0
2.0	2.0
8.0	8.0
28.0	28.0
54.0	54.0
77.0	78.0
102.0	101.0

CANDELA DISTRIBUTION (continued):

	155°	165°	175°
112.5°	129.0	126.0	124.0
115°	151.0	149.0	147.0
117.5°	174.0	172.0	170.0
120°	198.0	196.0	195.0
122.5°	223.0	221.0	220.0
125°	248.0	247.0	246.0
127.5°	272.0	270.0	269.0
130°	294.0	293.0	292.0
132.5°	318.0	317.0	314.0
135°	341.0	339.0	337.0
137.5°	364.0	363.0	360.0
140°	386.0	385.0	383.0
142.5°	407.0	408.0	406.0
145°	428.0	428.0	426.0
147.5°	448.0	447.0	444.0
150°	465.0	464.0	462.0
152.5°	482.0	483.0	480.0
155°	501.0	502.0	500.0
157.5°	516.0	517.0	515.0
160°	529.0	529.0	527.0
162.5°	538.0	539.0	536.0
165°	548.0	549.0	547.0
167.5°	558.0	559.0	556.0
170°	565.0	566.0	563.0
172.5°	567.0	569.0	566.0
175°	569.0	570.0	569.0
177.5°	574.0	575.0	573.0
180°	576.0	576.0	576.0



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180°
124.0
146.0
169.0
193.0
219.0
244.0
267.0
290.0
313.0
336.0
359.0
382.0
404.0
425.0
444.0
461.0
479.0
499.0
513.0
525.0
535.0
546.0
555.0
562.0
565.0
567.0
572.0
576.0

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