

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: P271445

Luminaire Tested: **ISC-AF-450-LED-E1-SLL-7027-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P271445  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29764)-DOWNLIGHT AND  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISC-AF-450-LED-E1-SLL-7027-ULG  
Description: IMPACT ELITE LED CYLINDER LUMINAIRE WITH UPLIGHT  
LIGHT SQUARE WITH ACCULED OPTICS-90° SPILL LIGHT ELIMINATOR LEFT, WITH  
UPLIGHT GLOW  
Light Source: (16) 2700K CCT, 70 CRI LEDs and (1) UPLIGHT LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3570.8 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U5 - G1  
  
Input Watts (W): 42.01  
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

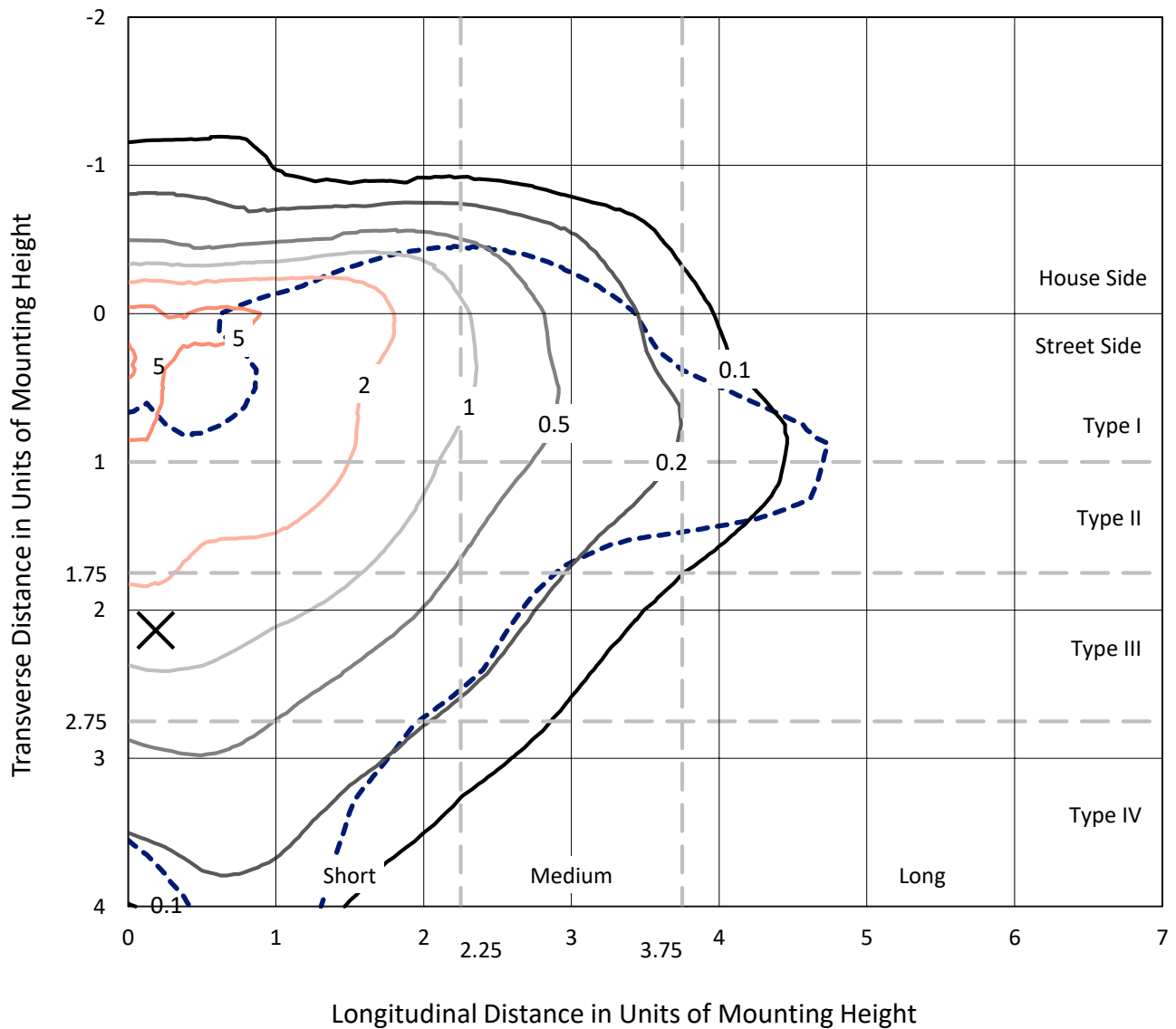


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

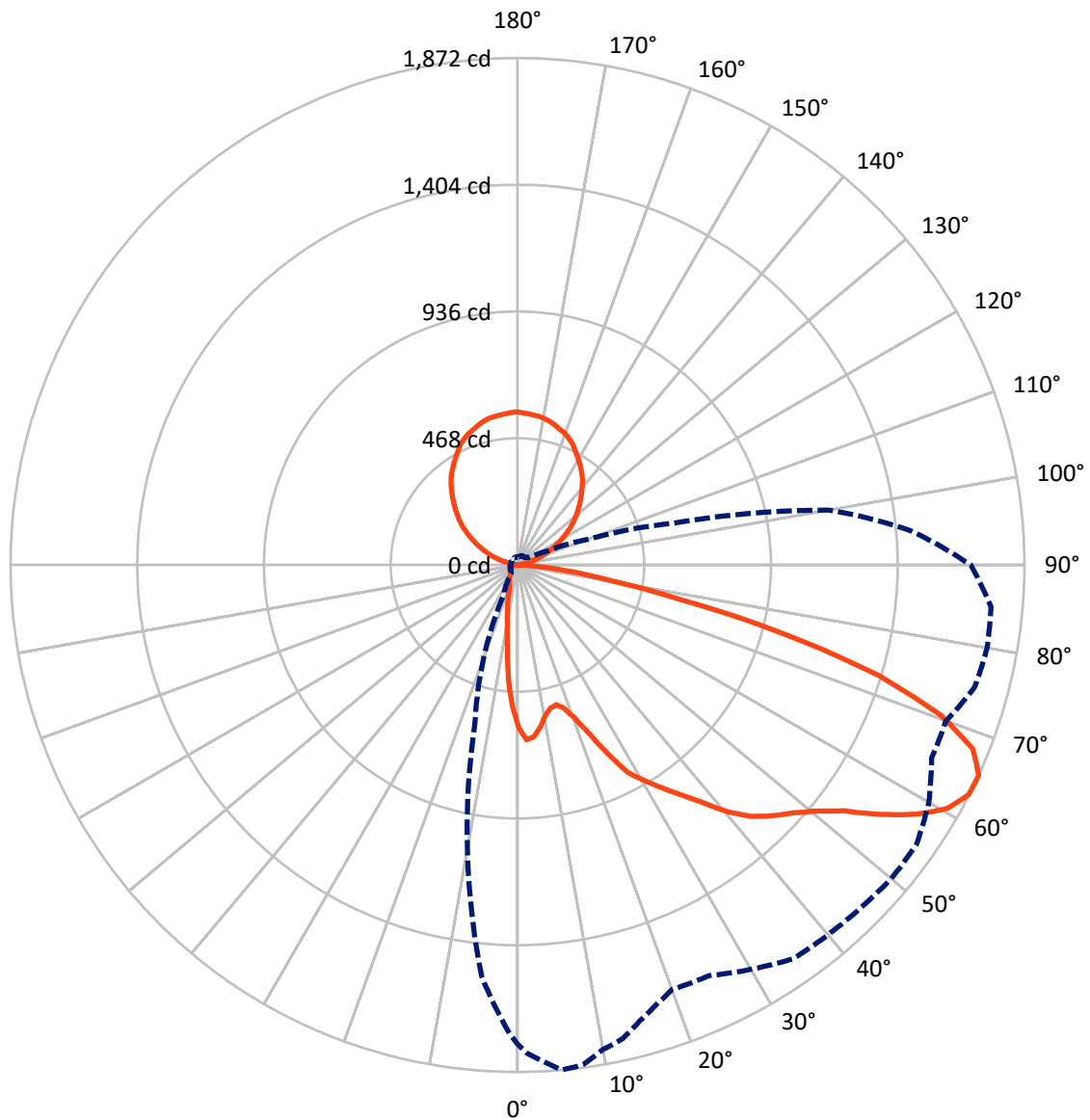


Based on 10 foot mounting height. Maximum calculated value = 8.1 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral

- - - Horizontal Cone Through 65-Deg Vertical

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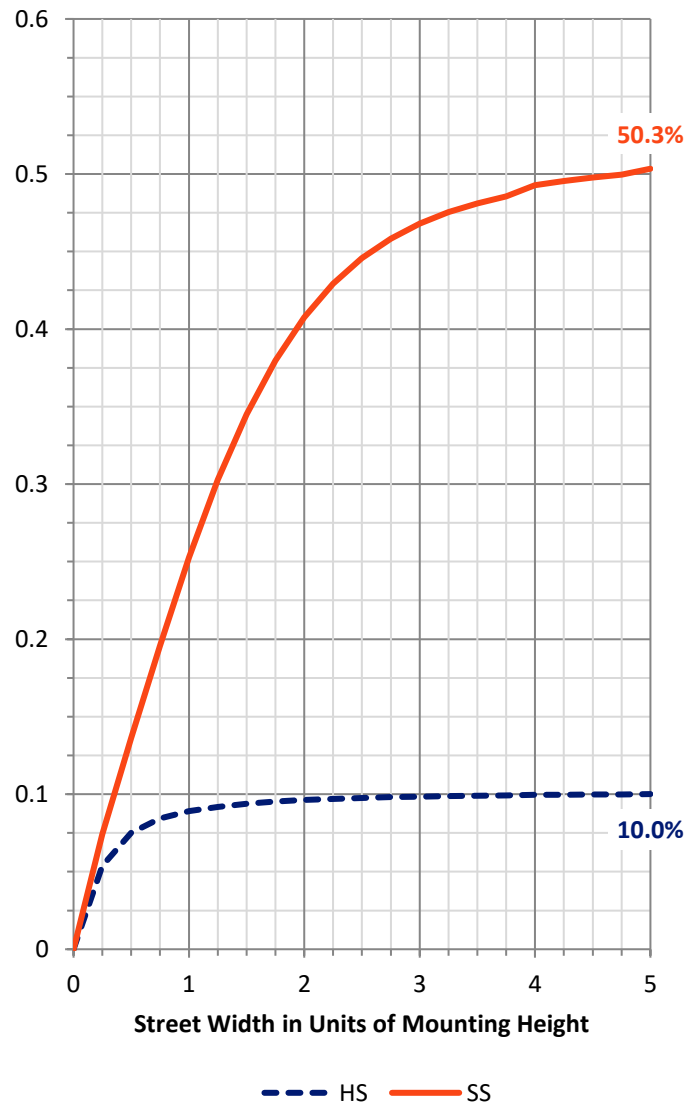
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	361.0	699.9	1060.9
	% Fixture	10.1	19.6	29.7
<b>Street Side</b>	Lumens	1810.0	699.9	2509.9
	% Fixture	50.7	19.6	70.3
<b>Total</b>	Lumens	2171.0	1399.8	3570.8
	% Fixture	60.8	39.2	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.1	1.3
10°-20°	95.1	2.7
20°-30°	138.2	3.9
30°-40°	204.4	5.7
40°-50°	297.8	8.3
50°-60°	446.4	12.5
60°-70°	556.3	15.6
70°-80°	325.9	9.1
80°-90°	60.9	1.7
90°-100°	4.7	0.1
100°-110°	67.7	1.9
110°-120°	150.2	4.2
120°-130°	219.7	6.2
130°-140°	260.7	7.3
140°-150°	264.3	7.4
150°-160°	226.8	6.4
160°-170°	152.2	4.3
170°-180°	53.3	1.5
0°-90°	2171.0	60.8
0°-180°	3570.8	100.0



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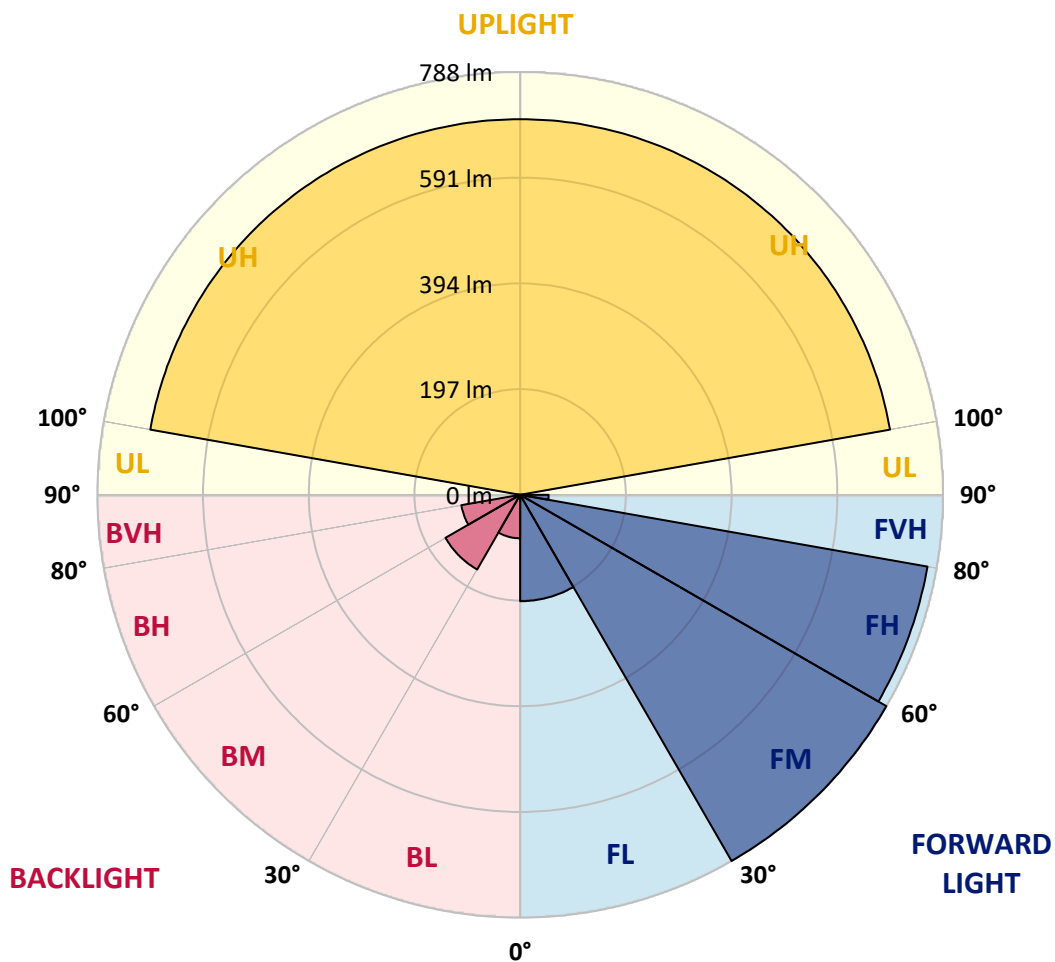
CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-7027-ULG

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	198.3	5.6			
FM	(30°-60°)	787.9	22.1			
FH	(60°-80°)	770.7	21.6			G1/1800
FVH	(80°-90°)	53.1	1.5			G1/100
BL	(0°-30°)	81.1	2.3	B0/110		
BM	(30°-60°)	160.7	4.5	B0/220		
BH	(60°-80°)	111.4	3.1	B1/500		G1/500
BVH	(80°-90°)	7.8	0.2			G0/10
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	699.9	19.6		U4/1000	

**BUG Rating: B1-U5-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	7.5°	10°	12.5°	15°	17.5°	20°	25°	35°
0°	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8
2.5°	637.8	636.1	646.4	648.0	655.0	655.0	662.7	669.6	672.1	678.2	693.6
5°	617.1	622.3	636.9	651.5	661.8	672.1	683.3	697.1	708.2	727.2	766.7
7.5°	571.6	579.4	604.3	618.8	635.2	653.2	667.0	683.3	700.5	732.3	802.7
10°	526.9	533.0	564.8	582.8	606.0	625.0	644.6	662.7	681.6	721.2	802.7
12.5°	498.5	506.3	542.4	559.6	586.2	606.0	630.0	651.5	673.9	715.9	795.1
15°	492.5	501.2	535.5	556.9	580.1	599.1	620.5	643.0	665.3	706.6	777.0
17.5°	508.8	519.2	556.1	580.1	598.2	619.7	635.2	656.8	671.3	703.9	737.5
20°	547.6	559.6	603.4	626.6	641.2	655.0	667.0	679.8	685.9	693.6	687.7
22.5°	609.4	624.1	673.9	700.5	710.8	721.2	722.0	723.8	719.5	698.8	652.3
25°	697.9	712.5	769.3	795.1	795.1	795.1	785.6	778.7	759.0	720.4	643.0
27.5°	780.4	799.3	867.2	883.7	878.5	870.6	852.6	835.4	807.0	742.6	642.1
30°	842.3	861.3	924.0	936.9	924.0	905.1	876.7	851.9	818.3	753.8	648.0
32.5°	899.0	921.4	981.6	983.4	960.1	938.5	906.7	878.5	843.1	774.4	666.1
35°	959.2	981.6	1042.7	1030.5	997.1	967.8	935.1	910.3	874.9	801.1	695.4
37.5°	1042.7	1062.3	1114.0	1085.6	1042.7	1004.8	969.5	936.9	901.7	837.2	744.3
40°	1123.4	1151.8	1199.1	1153.5	1101.1	1050.4	1011.7	977.3	938.5	886.2	807.0
42.5°	1199.1	1225.6	1269.6	1211.1	1150.1	1099.3	1058.9	1022.0	985.0	942.1	882.8
45°	1256.5	1284.1	1321.0	1259.2	1189.5	1137.2	1093.3	1060.7	1028.0	998.7	978.2
47.5°	1312.5	1340.0	1368.4	1301.4	1232.6	1179.3	1127.7	1097.5	1071.9	1056.4	1081.3
50°	1384.6	1403.6	1427.7	1355.5	1282.4	1221.3	1169.9	1146.6	1122.5	1127.7	1211.1
52.5°	1482.7	1499.0	1507.6	1437.2	1355.5	1285.8	1229.2	1197.4	1177.6	1207.6	1348.5
55°	1621.1	1644.3	1625.3	1555.8	1452.6	1373.5	1303.9	1266.1	1254.0	1294.5	1486.2
57.5°	1740.6	1750.9	1737.1	1668.3	1562.6	1474.1	1400.2	1360.7	1346.9	1400.2	1611.6
60°	1792.9	1805.9	1824.7	1765.5	1666.6	1579.0	1515.4	1476.6	1453.5	1515.4	1712.2
62.5°	1801.6	1823.1	1869.6	1839.4	1761.1	1695.9	1638.3	1585.0	1566.9	1614.3	1778.4
65°	1768.0	1800.7	1872.1	1860.9	1817.0	1792.1	1744.0	1702.7	1668.3	1673.5	1774.9
67.5°	1692.4	1730.2	1813.6	1808.5	1813.6	1813.6	1771.5	1737.1	1692.4	1628.8	1644.3
70°	1510.2	1560.1	1656.4	1681.3	1725.0	1725.0	1688.2	1635.6	1584.1	1453.5	1374.4
72.5°	1210.3	1243.7	1391.6	1512.7	1568.6	1546.3	1510.2	1422.6	1309.1	1165.6	1058.0
75°	819.2	838.8	1020.3	1242.1	1343.4	1324.6	1265.3	1156.1	1039.2	879.4	743.4
77.5°	456.4	482.2	618.0	791.7	928.3	925.7	918.0	848.4	755.6	623.2	552.6
80°	268.1	276.8	348.1	474.5	592.3	563.9	544.0	489.0	441.8	381.6	435.8
82.5°	164.2	155.6	197.6	288.9	349.8	337.9	304.3	283.7	261.2	245.0	289.6
85°	44.6	40.4	80.8	121.2	148.7	160.8	160.8	159.0	142.7	107.4	129.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	2.0	2.0	2.0	2.0	2.2	2.4	3.0	4.0
100°	7.8	7.8	7.8	8.4	8.8	9.3	9.8	10.8	11.8	13.7	21.6
102.5°	27.5	27.5	27.5	28.5	29.5	30.5	31.4	32.9	34.3	37.3	44.2
105°	53.0	53.0	53.0	53.4	54.0	54.4	55.0	56.1	57.4	59.8	64.8
107.5°	76.5	76.4	75.5	76.4	77.1	77.7	78.5	79.5	80.5	82.5	86.3
110°	99.2	99.4	100.1	100.3	100.6	100.9	101.1	101.9	102.6	104.0	108.0



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**CANDELA DISTRIBUTION (continued):**

	0°	1°	5°	7.5°	10°	12.5°	15°	17.5°	20°	25°	35°
112.5°	121.7	121.7	121.7	122.2	122.7	123.2	123.7	124.4	125.1	126.6	129.5
115°	143.3	143.5	144.3	144.8	145.3	145.7	146.2	146.7	147.2	148.2	151.2
117.5°	165.8	166.1	166.8	167.4	167.8	168.3	168.8	169.3	169.8	170.8	173.7
120°	189.5	189.8	191.4	191.6	191.9	192.1	192.3	192.9	193.3	194.3	197.3
122.5°	215.0	215.1	216.0	216.1	216.4	216.7	216.9	217.4	217.9	218.8	221.8
125°	239.5	239.8	241.5	241.6	241.9	242.3	242.5	242.6	242.9	243.4	246.3
127.5°	262.0	262.5	264.0	264.2	264.6	264.8	265.0	265.4	266.0	267.0	269.0
130°	284.7	285.0	286.6	286.8	287.1	287.4	287.5	287.7	288.1	288.5	292.5
132.5°	307.2	307.4	308.2	308.9	309.6	310.4	311.2	311.4	311.6	312.1	315.0
135°	329.8	329.9	330.8	331.3	331.7	332.2	332.7	333.2	333.7	334.7	338.6
137.5°	352.3	352.6	353.3	354.1	354.8	355.5	356.3	356.4	356.8	357.3	360.2
140°	375.0	375.1	375.9	376.4	376.9	377.4	377.8	378.1	378.4	378.8	380.8
142.5°	396.5	396.9	398.5	398.9	399.5	399.9	400.5	400.3	399.9	399.5	402.4
145°	417.2	417.4	418.1	418.6	419.1	419.6	420.0	420.0	420.0	420.0	423.0
147.5°	435.8	435.8	435.8	436.6	437.3	437.9	438.7	438.9	439.2	439.7	443.7
150°	452.5	452.7	453.5	453.9	454.5	454.9	455.4	455.6	455.9	456.4	460.3
152.5°	470.2	470.4	471.1	471.9	472.6	473.2	474.0	473.9	473.6	473.0	476.0
155°	489.8	489.9	490.7	491.2	491.7	492.2	492.7	492.5	492.2	491.7	493.7
157.5°	503.5	503.9	505.5	505.9	506.5	506.9	507.5	507.3	506.9	506.5	509.4
160°	515.3	515.6	517.2	517.7	518.2	518.7	519.2	519.2	519.2	519.2	522.2
162.5°	525.1	525.3	526.0	526.9	527.6	528.2	529.0	528.8	528.6	528.0	531.0
165°	535.9	536.1	536.8	537.4	537.8	538.4	538.8	538.6	538.4	537.8	541.8
167.5°	544.7	544.9	545.7	546.5	547.2	547.9	548.7	548.4	548.1	547.7	550.6
170°	551.6	551.8	552.5	553.4	554.1	554.7	555.5	555.3	555.1	554.5	556.5
172.5°	554.5	554.7	555.5	556.3	556.9	557.7	558.5	557.9	557.5	556.5	558.5
175°	556.5	556.9	558.5	558.7	558.9	559.3	559.5	559.3	558.9	558.5	561.4
177.5°	561.4	561.6	562.4	562.9	563.3	563.9	564.3	564.1	563.9	563.3	567.3
180°	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3





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**CANDELA DISTRIBUTION (continued):**

	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
0°	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8
2.5°	699.7	700.5	697.9	703.9	697.1	693.6	683.3	683.3	674.8	667.9	660.2
5°	781.3	786.5	782.2	783.1	769.3	755.6	734.9	722.9	701.4	678.2	654.1
7.5°	836.3	844.9	841.5	826.9	805.4	776.1	741.8	709.1	673.9	636.1	600.8
10°	851.0	860.4	852.6	825.1	789.9	748.6	707.3	663.6	620.5	580.1	542.4
12.5°	830.3	837.2	820.8	790.8	756.5	715.1	672.1	634.3	583.6	540.6	496.9
15°	777.9	773.6	771.8	750.4	726.3	692.9	652.3	613.7	566.4	522.6	476.2
17.5°	721.2	715.9	717.7	709.1	705.7	690.2	660.2	627.5	585.3	532.1	482.2
20°	671.3	666.1	668.7	673.0	685.9	686.8	681.6	660.2	629.2	573.3	512.2
22.5°	628.4	629.2	637.8	649.8	671.3	698.8	720.4	724.7	703.1	637.8	561.4
25°	615.4	611.2	620.5	640.3	676.4	729.7	777.9	802.0	789.9	724.7	630.9
27.5°	611.2	605.1	615.4	641.2	698.8	773.6	842.3	878.5	882.8	815.8	705.7
30°	611.2	608.5	618.8	652.3	713.4	788.3	864.7	918.9	936.0	880.2	770.9
32.5°	618.8	620.5	638.7	681.6	744.3	820.8	899.9	958.4	989.3	947.3	823.5
35°	636.1	639.5	665.3	715.1	783.1	860.4	932.6	991.9	1041.8	1019.4	872.4
37.5°	673.0	678.2	710.0	760.7	822.6	892.2	962.6	1026.2	1098.4	1089.0	924.0
40°	738.4	738.4	770.2	814.0	864.7	918.0	987.6	1062.3	1150.9	1163.8	987.6
42.5°	820.8	817.4	838.1	869.9	905.1	949.8	1012.5	1095.9	1199.9	1228.3	1035.7
45°	934.2	917.1	928.3	936.0	953.2	980.7	1036.6	1127.7	1239.4	1276.4	1071.9
47.5°	1067.5	1043.5	1033.9	1019.4	1013.4	1023.7	1071.9	1152.6	1277.3	1317.6	1130.2
50°	1214.5	1191.3	1166.4	1126.8	1092.5	1082.2	1111.3	1186.1	1317.6	1369.3	1194.7
52.5°	1367.5	1351.2	1318.5	1256.5	1191.3	1154.3	1168.1	1242.1	1382.1	1449.1	1271.2
55°	1507.6	1512.7	1473.2	1401.1	1307.3	1250.6	1267.0	1340.9	1499.0	1578.1	1399.3
57.5°	1658.0	1644.3	1613.4	1538.5	1436.3	1375.2	1382.1	1471.5	1629.6	1689.8	1526.5
60°	1757.7	1757.7	1724.3	1667.5	1570.3	1513.6	1524.0	1606.5	1734.5	1740.6	1583.3
62.5°	1822.2	1831.6	1805.1	1764.6	1670.1	1622.8	1658.0	1716.5	1786.1	1736.2	1554.9
65°	1791.3	1801.6	1798.9	1754.3	1687.3	1683.9	1747.5	1761.1	1755.2	1673.5	1456.9
67.5°	1651.2	1630.5	1629.6	1606.5	1592.8	1664.0	1744.9	1749.1	1647.7	1550.6	1302.3
70°	1384.6	1349.4	1335.7	1342.6	1405.3	1538.5	1653.7	1621.1	1459.5	1376.1	1108.8
72.5°	1067.5	1025.4	1016.8	1043.5	1140.6	1328.0	1485.3	1439.7	1199.9	1102.8	858.7
75°	757.2	739.1	740.0	792.5	897.4	1077.9	1261.0	1256.5	888.7	760.7	591.4
77.5°	551.0	554.4	569.9	590.5	680.7	855.3	1027.1	1015.9	632.7	522.6	413.4
80°	454.7	459.8	459.8	448.6	471.9	564.8	697.9	745.2	423.7	351.6	288.9
82.5°	326.6	352.5	367.0	349.0	340.4	372.2	437.6	468.5	263.9	221.7	202.0
85°	155.6	178.0	183.1	178.9	205.4	234.6	250.1	256.2	144.4	103.1	132.4
87.5°	0.0	0.0	0.9	6.8	19.0	32.7	32.7	49.9	7.7	2.5	6.0
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°	8.8	10.8	12.8	9.8	6.8	5.9	4.9	4.4	4.0	4.0	4.0
100°	29.5	30.5	31.4	30.5	29.5	27.9	26.5	26.1	25.5	24.5	25.5
102.5°	49.0	49.6	50.0	49.6	49.0	48.1	47.1	47.6	48.1	47.1	48.1
105°	68.7	69.2	69.7	69.7	69.7	68.7	67.7	68.7	69.7	67.7	69.7
107.5°	89.3	90.3	91.3	90.8	90.3	89.8	89.3	89.8	90.3	89.3	90.3
110°	110.0	110.9	111.9	111.9	111.9	111.4	110.9	111.4	111.9	110.9	111.9



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**CANDELA DISTRIBUTION (continued):**

	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
112.5°	131.5	132.5	133.5	133.5	133.5	132.9	132.5	133.5	134.5	132.5	134.5
115°	153.1	154.1	155.0	155.0	155.0	155.0	155.0	156.0	157.0	156.0	157.0
117.5°	175.7	176.2	176.7	177.1	177.7	177.1	176.7	177.7	178.7	176.7	178.7
120°	198.3	199.2	200.2	200.2	200.2	200.2	200.2	201.2	202.2	200.2	202.2
122.5°	222.8	223.3	223.8	223.8	223.8	224.3	224.8	226.7	228.7	227.7	228.7
125°	247.3	247.8	248.3	248.8	249.3	249.3	249.3	250.8	252.2	251.3	252.2
127.5°	270.9	271.8	272.8	272.4	271.8	272.4	272.8	274.3	275.8	272.8	275.8
130°	293.5	294.5	295.5	295.5	295.5	295.9	296.4	297.9	299.3	297.4	299.3
132.5°	316.0	317.6	319.0	319.0	319.0	319.4	320.0	321.4	322.9	321.0	322.9
135°	338.6	340.1	341.5	341.5	341.5	342.1	342.5	343.5	344.5	343.5	344.5
137.5°	360.2	361.2	362.2	362.2	362.2	362.6	363.2	365.1	367.0	365.1	367.0
140°	381.8	382.3	382.8	382.8	382.8	383.8	384.7	386.7	388.7	386.7	388.7
142.5°	402.4	403.4	404.3	404.3	404.3	404.9	405.3	406.8	408.3	407.3	408.3
145°	424.0	425.0	426.0	425.4	425.0	425.4	426.0	427.4	428.9	427.0	428.9
147.5°	444.6	445.1	445.6	444.6	443.7	444.1	444.6	446.1	447.5	444.6	447.5
150°	461.3	461.8	462.3	461.3	460.3	460.3	460.3	462.3	464.2	461.3	464.2
152.5°	477.0	477.4	478.0	477.4	477.0	477.0	477.0	478.4	480.0	477.0	480.0
155°	493.7	494.2	494.7	494.2	493.7	494.2	494.7	496.1	497.6	495.7	497.6
157.5°	509.4	509.4	509.4	508.4	507.5	507.9	508.4	510.9	513.3	510.3	513.3
160°	522.2	522.2	522.2	521.2	520.2	520.2	520.2	521.6	523.2	521.2	523.2
162.5°	531.0	531.4	532.0	531.0	530.0	529.0	528.0	529.0	530.0	527.0	530.0
165°	541.8	542.3	542.8	541.3	539.8	538.8	537.8	538.8	539.8	537.8	539.8
167.5°	549.7	549.7	549.7	548.7	547.7	548.1	548.7	550.6	552.5	550.6	552.5
170°	555.5	555.1	554.5	554.1	553.5	554.5	555.5	557.9	560.5	558.5	560.5
172.5°	557.5	557.9	558.5	557.5	556.5	556.9	557.5	558.9	560.5	557.5	560.5
175°	561.4	561.9	562.4	560.9	559.5	558.5	557.5	558.9	560.5	557.5	560.5
177.5°	566.3	566.3	566.3	564.9	563.3	563.3	563.3	564.9	566.3	563.3	566.3
180°	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	115°	120°	125°	130°	135°	145°	155°	165°
0°	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8
2.5°	649.8	638.7	630.0	619.7	611.2	602.5	596.6	583.6	573.3	550.1	544.0
5°	634.3	610.3	593.9	578.5	558.7	544.9	530.3	512.2	492.5	458.9	448.6
7.5°	573.3	543.3	520.8	498.5	472.8	449.5	428.0	404.0	369.7	333.5	319.8
10°	507.1	475.3	444.4	417.7	386.8	361.0	342.1	324.8	297.4	269.9	251.9
12.5°	452.9	416.8	381.6	355.0	338.6	325.7	312.0	298.2	269.0	238.1	216.6
15°	428.0	385.9	355.0	332.6	318.0	302.5	286.2	270.7	236.3	200.2	174.5
17.5°	431.5	383.4	343.8	313.7	293.9	272.5	253.5	233.8	196.0	153.0	129.7
20°	450.4	385.9	331.7	296.5	268.1	240.7	216.6	191.7	145.3	111.7	95.4
22.5°	474.5	394.5	324.8	279.4	244.1	209.8	178.9	149.6	107.4	87.7	79.9
25°	515.6	414.3	323.2	263.9	220.9	179.6	147.8	116.9	86.9	77.3	73.0
27.5°	567.3	436.7	324.8	252.7	201.1	155.6	120.4	97.2	78.2	73.0	69.6
30°	618.8	459.8	317.2	235.5	178.0	133.2	103.1	88.6	77.3	71.3	65.4
32.5°	664.5	477.0	304.3	217.5	157.3	113.5	87.7	75.6	67.9	61.1	59.3
35°	697.1	484.7	289.6	206.3	143.5	101.4	77.3	67.9	60.2	53.3	49.9
37.5°	728.1	485.6	274.3	196.0	138.4	96.3	71.3	62.7	55.9	49.9	46.4
40°	759.9	482.2	265.6	185.7	130.6	93.7	68.8	58.5	54.2	47.3	43.8
42.5°	783.1	476.2	262.1	179.6	123.8	86.9	67.0	57.6	51.6	46.4	42.1
45°	804.5	470.2	262.1	174.5	118.7	82.6	63.6	58.5	49.9	45.5	40.4
47.5°	830.3	472.8	263.0	170.2	114.4	78.2	60.2	56.8	50.8	44.6	39.5
50°	874.1	502.0	267.3	167.6	110.9	74.8	57.6	54.2	55.9	43.8	38.6
52.5°	949.8	548.3	274.3	165.8	107.4	72.2	54.2	52.4	56.8	43.8	37.8
55°	1048.6	595.7	281.1	161.5	102.2	67.0	52.4	49.0	52.4	43.8	37.0
57.5°	1144.9	630.9	287.1	155.6	93.7	61.9	49.9	46.4	48.1	43.0	35.2
60°	1200.8	658.4	293.0	145.3	83.4	55.9	47.3	43.8	43.0	43.0	34.3
62.5°	1216.2	648.0	289.6	132.4	74.8	51.6	44.6	41.2	38.6	43.8	34.3
65°	1167.3	593.9	276.8	121.2	68.8	49.9	42.1	39.5	37.0	37.8	32.7
67.5°	1016.8	499.4	241.6	110.9	67.9	49.0	40.4	37.8	34.3	33.6	30.9
70°	829.5	391.9	200.2	103.1	67.0	49.0	38.6	35.2	32.7	30.1	28.4
72.5°	637.8	293.0	168.4	99.7	67.9	48.1	36.1	31.8	29.3	27.5	25.8
75°	448.6	207.1	140.0	89.4	63.6	45.5	33.6	28.4	25.8	24.1	22.4
77.5°	324.8	140.9	104.0	72.2	54.2	39.5	29.3	24.1	21.5	20.6	19.0
80°	207.1	86.9	69.6	53.3	39.5	30.9	22.4	19.0	17.2	15.5	14.6
82.5°	119.5	50.8	42.1	36.1	25.8	20.6	16.3	14.6	11.2	10.3	9.4
85°	73.0	31.8	23.2	19.0	16.3	12.8	9.4	8.6	6.0	5.2	4.3
87.5°	16.3	6.8	6.0	4.3	5.2	4.3	2.5	1.8	0.0	0.0	0.0
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°	4.4	4.9	5.9	6.8	9.8	12.8	10.8	8.8	4.0	3.0	2.0
100°	26.1	26.5	27.9	29.5	30.5	31.4	30.5	29.5	21.6	13.7	9.8
102.5°	47.6	47.1	48.1	49.0	49.6	50.0	49.6	49.0	44.2	37.3	31.4
105°	68.7	67.7	68.7	69.7	69.7	69.7	69.2	68.7	64.8	59.8	55.0
107.5°	89.8	89.3	89.8	90.3	90.8	91.3	90.3	89.3	86.3	82.5	78.5
110°	111.4	110.9	111.4	111.9	111.9	111.9	110.9	110.0	108.0	104.0	101.1



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REPORT N  
 CATALOG

**CANDELA DISTRIBUTION (continued):**

**CANDELA**

	100°	105°	110°	115°	120°	125°	130°	135°	145°	155°	165°	
112.5°	133.5	132.5	132.9	133.5	133.5	133.5	132.5	131.5	129.5	126.6	123.7	0°
115°	156.0	155.0	155.0	155.0	155.0	155.0	154.1	153.1	151.2	148.2	146.2	2.5°
117.5°	177.7	176.7	177.1	177.7	177.1	176.7	176.2	175.7	173.7	170.8	168.8	5°
120°	201.2	200.2	200.2	200.2	200.2	200.2	199.2	198.3	197.3	194.3	192.3	7.5°
122.5°	226.7	224.8	224.3	223.8	223.8	223.8	223.3	222.8	221.8	218.8	216.9	10°
125°	250.8	249.3	249.3	249.3	248.8	248.3	247.8	247.3	246.3	243.4	242.5	12.5°
127.5°	274.3	272.8	272.4	271.8	272.4	272.8	271.8	270.9	269.0	267.0	265.0	15°
130°	297.9	296.4	295.9	295.5	295.5	295.5	294.5	293.5	292.5	288.5	287.5	17.5°
132.5°	321.4	320.0	319.4	319.0	319.0	319.0	317.6	316.0	315.0	312.1	311.2	20°
135°	343.5	342.5	342.1	341.5	341.5	341.5	340.1	338.6	338.6	334.7	332.7	22.5°
137.5°	365.1	363.2	362.6	362.2	362.2	362.2	361.2	360.2	360.2	357.3	356.3	25°
140°	386.7	384.7	383.8	382.8	382.8	382.8	382.3	381.8	380.8	378.8	377.8	27.5°
142.5°	406.8	405.3	404.9	404.3	404.3	404.3	403.4	402.4	402.4	399.5	400.5	30°
145°	427.4	426.0	425.4	425.0	425.4	426.0	425.0	424.0	423.0	420.0	420.0	32.5°
147.5°	446.1	444.6	444.1	443.7	444.6	445.6	445.1	444.6	443.7	439.7	438.7	35°
150°	462.3	460.3	460.3	460.3	461.3	462.3	461.8	461.3	460.3	456.4	455.4	37.5°
152.5°	478.4	477.0	477.0	477.0	477.4	478.0	477.4	477.0	476.0	473.0	474.0	40°
155°	496.1	494.7	494.2	493.7	494.2	494.7	494.2	493.7	493.7	491.7	492.7	42.5°
157.5°	510.9	508.4	507.9	507.5	508.4	509.4	509.4	509.4	509.4	506.5	507.5	45°
160°	521.6	520.2	520.2	520.2	521.2	522.2	522.2	522.2	522.2	519.2	519.2	47.5°
162.5°	529.0	528.0	529.0	530.0	531.0	532.0	531.4	531.0	531.0	528.0	529.0	50°
165°	538.8	537.8	538.8	539.8	541.3	542.8	542.3	541.8	541.8	537.8	538.8	52.5°
167.5°	550.6	548.7	548.1	547.7	548.7	549.7	549.7	549.7	550.6	547.7	548.7	55°
170°	557.9	555.5	554.5	553.5	554.1	554.5	555.1	555.5	556.5	554.5	555.5	57.5°
172.5°	558.9	557.5	556.9	556.5	557.5	558.5	557.9	557.5	558.5	556.5	558.5	60°
175°	558.9	557.5	558.5	559.5	560.9	562.4	561.9	561.4	561.4	558.5	559.5	62.5°
177.5°	564.9	563.3	563.3	563.3	564.9	566.3	566.3	566.3	567.3	563.3	564.3	65°
180°	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	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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REPORT NUMBER: P  
 CATALOG NUMBER:

**DISTRIBUTION (continued):**

**CANDELA DISTRIBUTION**

175°	180°	185°	195°	205°	215°	225°	230°	232.5°	235°	237.5°	175°	
600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	112.5°	121.7
534.6	521.7	522.6	520.0	513.1	502.0	498.5	492.5	493.3	496.9	493.3	115°	144.3
436.7	421.1	422.9	422.0	415.2	407.4	401.5	393.6	391.1	393.6	389.3	117.5°	166.8
309.5	299.1	302.5	310.3	309.5	305.2	299.9	291.4	289.6	290.5	282.8	120°	191.4
236.3	226.0	223.5	222.6	220.9	218.3	211.4	204.5	202.0	202.8	197.6	122.5°	216.0
197.6	189.1	178.9	169.3	160.8	157.3	148.7	144.4	143.5	143.5	140.9	125°	241.5
156.5	149.6	143.5	134.0	127.2	122.1	116.0	112.6	111.7	112.6	112.6	127.5°	264.0
116.9	113.5	110.9	110.0	106.6	103.1	99.7	97.9	97.2	97.2	97.9	130°	286.6
89.4	88.6	88.6	88.6	92.9	96.3	97.2	94.5	93.7	92.9	92.0	132.5°	308.2
77.3	76.4	77.3	82.6	79.9	77.3	77.3	77.3	77.3	77.3	78.2	135°	330.8
71.3	72.2	73.0	70.4	67.9	66.1	65.4	65.4	64.5	64.5	65.4	137.5°	353.3
67.9	67.0	66.1	64.5	62.7	60.2	59.3	58.5	58.5	58.5	58.5	140°	375.9
63.6	62.7	61.9	60.2	57.6	54.2	53.3	53.3	52.4	53.3	53.3	142.5°	398.5
58.5	57.6	56.8	55.0	52.4	50.8	49.9	48.1	48.1	48.1	49.0	145°	418.1
47.3	46.4	46.4	47.3	47.3	46.4	46.4	44.6	44.6	44.6	44.6	147.5°	435.8
43.8	43.0	43.0	42.1	43.0	43.8	43.0	42.1	42.1	41.2	41.2	150°	453.5
41.2	41.2	40.4	39.5	39.5	41.2	40.4	39.5	38.6	38.6	38.6	152.5°	471.1
39.5	38.6	38.6	37.8	37.8	37.8	37.0	36.1	35.2	35.2	35.2	155°	490.7
37.8	37.8	37.0	36.1	35.2	35.2	33.6	32.7	32.7	32.7	33.6	157.5°	505.5
37.0	36.1	36.1	35.2	34.3	32.7	31.8	30.9	30.9	30.9	30.9	160°	517.2
36.1	35.2	34.3	34.3	32.7	31.8	30.9	30.1	30.1	30.1	30.1	162.5°	526.0
35.2	34.3	33.6	32.7	31.8	30.9	30.1	29.3	29.3	29.3	29.3	165°	536.8
33.6	32.7	32.7	31.8	31.8	30.9	30.1	29.3	29.3	29.3	28.4	167.5°	545.7
32.7	31.8	30.9	30.9	30.9	30.1	29.3	28.4	28.4	28.4	28.4	170°	552.5
31.8	30.9	30.9	30.1	30.1	29.3	29.3	28.4	27.5	27.5	26.6	172.5°	555.5
30.9	30.1	30.1	29.3	30.1	29.3	28.4	27.5	26.6	26.6	25.8	175°	558.5
30.1	29.3	29.3	29.3	28.4	28.4	27.5	25.8	25.8	25.8	25.0	177.5°	562.4
28.4	27.5	27.5	28.4	27.5	26.6	26.6	25.0	25.0	24.1	24.1	180°	565.3
25.8	25.8	25.8	26.6	25.8	25.0	25.0	24.1	23.2	22.4	22.4		
24.1	23.2	24.1	24.1	24.1	23.2	24.1	22.4	21.5	20.6	20.6		
20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	19.8	19.0	18.1		
16.3	17.2	17.2	17.2	17.2	18.1	17.2	17.2	17.2	16.3	15.5		
12.0	12.0	12.8	13.7	12.8	13.7	12.8	13.7	12.8	12.8	12.8		
6.8	6.8	7.7	8.6	8.6	9.4	7.7	8.6	8.6	9.4	8.6		
2.5	2.5	2.5	2.5	3.4	3.4	2.5	3.4	3.4	4.3	4.3		
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	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		
2.0	2.0	2.0	2.0	3.0	4.0	8.8	10.8	11.8	12.8	11.3		
7.8	7.8	7.8	9.8	13.7	21.6	29.5	30.5	30.9	31.4	30.9		
27.5	27.5	27.5	31.4	37.3	44.2	49.0	49.6	49.9	50.0	49.9		
53.0	53.0	53.0	55.0	59.8	64.8	68.7	69.2	69.5	69.7	69.7		
75.5	76.5	75.5	78.5	82.5	86.3	89.3	90.3	90.8	91.3	91.1		
100.1	99.2	100.1	101.1	104.0	108.0	110.0	110.9	111.4	111.9	111.9		

271445  
 ISC-AF-450-LED-E1-SLL-7027-ULG

REPORT NUMBER: P271445  
 CATALOG NUMBER: ISC-AF-45

**TION (continued):**

**CANDELA DISTRIBUTION (con**

180°	185°	195°	205°	215°	225°	230°	232.5°	235°	237.5°		240°	242.5°
121.7	121.7	123.7	126.6	129.5	131.5	132.5	132.9	133.5	133.5	0°	600.8	600.8
143.3	144.3	146.2	148.2	151.2	153.1	154.1	154.6	155.0	155.0	2.5°	500.3	500.3
165.8	166.8	168.8	170.8	173.7	175.7	176.2	176.4	176.7	176.9	5°	392.8	391.9
189.5	191.4	192.3	194.3	197.3	198.3	199.2	199.7	200.2	200.2	7.5°	285.3	282.8
215.0	216.0	216.9	218.8	221.8	222.8	223.3	223.6	223.8	223.8	10°	199.4	192.6
239.5	241.5	242.5	243.4	246.3	247.3	247.8	248.1	248.3	248.5	12.5°	144.4	141.8
262.0	264.0	265.0	267.0	269.0	270.9	271.8	272.4	272.8	272.6	15°	114.4	114.4
284.7	286.6	287.5	288.5	292.5	293.5	294.5	294.9	295.5	295.5	17.5°	98.8	98.8
307.2	308.2	311.2	312.1	315.0	316.0	317.6	318.2	319.0	319.0	20°	91.1	90.3
329.8	330.8	332.7	334.7	338.6	338.6	340.1	340.7	341.5	341.5	22.5°	78.2	77.3
352.3	353.3	356.3	357.3	360.2	360.2	361.2	361.7	362.2	362.2	25°	64.5	64.5
375.0	375.9	377.8	378.8	380.8	381.8	382.3	382.6	382.8	382.8	27.5°	58.5	58.5
396.5	398.5	400.5	399.5	402.4	402.4	403.4	403.9	404.3	404.3	30°	53.3	54.2
417.2	418.1	420.0	420.0	423.0	424.0	425.0	425.4	426.0	425.8	32.5°	49.0	49.0
435.8	435.8	438.7	439.7	443.7	444.6	445.1	445.4	445.6	445.1	35°	43.8	43.8
452.5	453.5	455.4	456.4	460.3	461.3	461.8	462.1	462.3	461.8	37.5°	40.4	39.5
470.2	471.1	474.0	473.0	476.0	477.0	477.4	477.8	478.0	477.8	40°	37.0	37.0
489.8	490.7	492.7	491.7	493.7	493.7	494.2	494.4	494.7	494.4	42.5°	34.3	34.3
503.5	505.5	507.5	506.5	509.4	509.4	509.4	509.4	509.4	508.9	45°	32.7	32.7
515.3	517.2	519.2	519.2	522.2	522.2	522.2	522.2	522.2	521.6	47.5°	31.8	31.8
525.1	526.0	529.0	528.0	531.0	531.0	531.4	531.8	532.0	531.4	50°	30.1	30.1
535.9	536.8	538.8	537.8	541.8	541.8	542.3	542.6	542.8	541.9	52.5°	29.3	29.3
544.7	545.7	548.7	547.7	550.6	549.7	549.7	549.7	549.7	549.1	55°	28.4	29.3
551.6	552.5	555.5	554.5	556.5	555.5	555.1	554.7	554.5	554.3	57.5°	27.5	27.5
554.5	555.5	558.5	556.5	558.5	557.5	557.9	558.3	558.5	557.9	60°	26.6	26.6
556.5	558.5	559.5	558.5	561.4	561.4	561.9	562.2	562.4	561.6	62.5°	25.8	25.8
561.4	562.4	564.3	563.3	567.3	566.3	566.3	566.3	566.3	565.6	65°	25.0	25.0
565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	67.5°	23.2	23.2
										70°	21.5	21.5
										72.5°	19.8	19.8
										75°	18.1	17.2
										77.5°	15.5	14.6
										80°	12.8	12.0
										82.5°	9.4	8.6
										85°	4.3	4.3
										87.5°	0.0	0.0
										90°	0.0	0.0
										92.5°	0.0	0.0
										95°	1.0	1.0
										97.5°	9.8	8.4
										100°	30.5	29.9
										102.5°	49.6	49.2
										105°	69.7	69.7
										107.5°	90.8	90.5
										110°	111.9	111.9



REPORT NUMBER: P271445

CATALOG NUMBER: ISC-AF-450-LED-E1-S

0-LED-E1-SLL-7027-ULG

**tinued):**

**CANDELA DISTRIBUTION (continued):**

245°	247.5°	250°	252.5°	255°	257.5°	260°	265°	270°		240°	242.5°	245°
600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.8	112.5°	133.5	133.5	133.5
489.9	491.6	493.3	496.9	495.1	494.2	493.3	498.5	501.2	115°	155.0	155.0	155.0
379.1	378.2	380.8	381.6	379.1	374.8	372.2	373.1	375.6	117.5°	177.1	177.4	177.7
270.7	269.0	268.1	269.0	266.4	262.1	258.7	259.6	262.1	120°	200.2	200.2	200.2
190.8	191.7	193.3	195.1	195.1	195.1	196.0	201.1	207.1	122.5°	223.8	223.8	223.8
143.5	145.3	148.7	151.3	153.9	154.7	155.6	162.4	167.6	125°	248.8	249.1	249.3
116.0	116.9	118.7	120.4	122.1	122.1	122.9	125.5	129.7	127.5°	272.4	272.1	271.8
98.8	98.8	98.8	97.9	97.2	95.4	94.5	93.7	94.5	130°	295.5	295.5	295.5
88.6	87.7	86.0	84.2	83.4	80.8	79.9	77.3	76.4	132.5°	319.0	319.0	319.0
77.3	77.3	77.3	76.4	75.6	74.8	73.0	70.4	68.8	135°	341.5	341.5	341.5
64.5	65.4	65.4	66.1	67.9	67.9	67.9	67.9	65.4	137.5°	362.2	362.2	362.2
58.5	58.5	59.3	59.3	60.2	60.2	60.2	61.1	61.9	140°	382.8	382.8	382.8
54.2	55.0	55.0	55.9	55.9	56.8	56.8	57.6	57.6	142.5°	404.3	404.3	404.3
49.9	50.8	50.8	50.8	52.4	52.4	51.6	52.4	52.4	145°	425.4	425.2	425.0
43.8	43.8	43.8	43.8	43.8	43.8	42.1	41.2	42.1	147.5°	444.6	444.1	443.7
39.5	38.6	37.8	37.8	37.8	38.6	37.8	38.6	38.6	150°	461.3	460.8	460.3
36.1	36.1	36.1	36.1	36.1	36.1	36.1	37.0	37.8	152.5°	477.4	477.2	477.0
34.3	34.3	34.3	34.3	34.3	34.3	34.3	35.2	35.2	155°	494.2	493.9	493.7
32.7	32.7	33.6	33.6	33.6	33.6	33.6	33.6	34.3	157.5°	508.4	507.9	507.5
31.8	31.8	31.8	31.8	31.8	31.8	31.8	32.7	33.6	160°	521.2	520.7	520.2
30.9	30.9	30.9	30.9	30.9	30.9	30.9	31.8	32.7	162.5°	531.0	530.4	530.0
29.3	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.9	165°	541.3	540.6	539.8
29.3	29.3	29.3	29.3	28.4	28.4	28.4	28.4	29.3	167.5°	548.7	548.1	547.7
28.4	28.4	28.4	27.5	27.5	26.6	26.6	26.6	28.4	170°	554.1	553.7	553.5
26.6	26.6	26.6	25.8	25.8	25.8	25.8	26.6	26.6	172.5°	557.5	556.9	556.5
25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	175°	560.9	560.3	559.5
24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	177.5°	564.9	564.1	563.3
23.2	22.4	22.4	22.4	22.4	23.2	22.4	22.4	22.4	180°	565.3	565.3	565.3
21.5	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6				
19.8	19.8	19.0	19.0	19.0	19.0	19.0	19.0	19.0				
17.2	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3				
14.6	14.6	13.7	13.7	13.7	13.7	13.7	13.7	13.7				
12.0	11.2	11.2	11.2	11.2	11.2	11.2	10.3	10.3				
8.6	8.6	8.6	7.7	7.7	7.7	7.7	6.8	6.0				
3.4	4.3	4.3	5.2	4.3	4.3	4.3	3.4	1.8				
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	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				
6.8	6.4	5.9	5.4	4.9	4.7	4.4	4.0	4.0				
29.5	28.7	27.9	27.3	26.5	26.3	26.1	25.5	24.5				
49.0	48.6	48.1	47.6	47.1	47.3	47.6	48.1	47.1				
69.7	69.2	68.7	68.2	67.7	68.2	68.7	69.7	67.7				
90.3	90.1	89.8	89.5	89.3	89.5	89.8	90.3	89.3				
111.9	111.7	111.4	111.1	110.9	111.1	111.4	111.9	110.9				



REPORT NUMBER: P271445

CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-7027-L

SLL-7027-ULG

**CANDELA DISTRIBUTION (continued):**

247.5°	250°	252.5°	255°	257.5°	260°	265°	270°		275°	280°	282.5°	285°
133.3	132.9	132.7	132.5	132.9	133.5	134.5	132.5	0°	600.8	600.8	600.8	600.8
155.0	155.0	155.0	155.0	155.6	156.0	157.0	156.0	2.5°	499.4	508.0	508.8	503.7
177.4	177.1	176.9	176.7	177.1	177.7	178.7	176.7	5°	372.2	383.4	382.5	375.6
200.2	200.2	200.2	200.2	200.7	201.2	202.2	200.2	7.5°	263.0	272.5	271.6	270.7
223.9	224.3	224.6	224.8	225.7	226.7	228.7	227.7	10°	213.2	221.7	224.4	230.3
249.3	249.3	249.3	249.3	250.1	250.8	252.2	251.3	12.5°	172.7	183.1	185.7	192.6
272.1	272.4	272.6	272.8	273.6	274.3	275.8	272.8	15°	133.2	141.8	144.4	149.6
295.6	295.9	296.2	296.4	297.2	297.9	299.3	297.4	17.5°	97.9	103.1	104.8	108.2
319.2	319.4	319.8	320.0	320.8	321.4	322.9	321.0	20°	76.4	78.2	79.1	79.9
341.7	342.1	342.3	342.5	343.1	343.5	344.5	343.5	22.5°	68.8	69.6	69.6	70.4
362.4	362.6	362.9	363.2	364.2	365.1	367.0	365.1	25°	63.6	64.5	64.5	65.4
383.3	383.8	384.3	384.7	385.7	386.7	388.7	386.7	27.5°	61.1	61.1	61.1	61.1
404.6	404.9	405.1	405.3	406.1	406.8	408.3	407.3	30°	58.5	58.5	58.5	59.3
425.2	425.4	425.8	426.0	426.8	427.4	428.9	427.0	32.5°	54.2	52.4	54.2	53.3
443.9	444.1	444.4	444.6	445.4	446.1	447.5	444.6	35°	42.1	42.1	43.0	43.8
460.3	460.3	460.3	460.3	461.3	462.3	464.2	461.3	37.5°	39.5	40.4	40.4	41.2
477.0	477.0	477.0	477.0	477.8	478.4	480.0	477.0	40°	37.8	38.6	39.5	40.4
493.9	494.2	494.4	494.7	495.4	496.1	497.6	495.7	42.5°	36.1	37.8	37.8	38.6
507.6	507.9	508.2	508.4	509.6	510.9	513.3	510.3	45°	35.2	36.1	37.0	37.8
520.2	520.2	520.2	520.2	520.9	521.6	523.2	521.2	47.5°	34.3	35.2	36.1	37.0
529.6	529.0	528.6	528.0	528.6	529.0	530.0	527.0	50°	32.7	34.3	35.2	36.1
539.3	538.8	538.4	537.8	538.4	538.8	539.8	537.8	52.5°	31.8	33.6	33.6	35.2
547.9	548.1	548.4	548.7	549.7	550.6	552.5	550.6	55°	30.1	31.8	31.8	33.6
554.1	554.5	555.1	555.5	556.7	557.9	560.5	558.5	57.5°	28.4	30.1	30.9	31.8
556.7	556.9	557.3	557.5	558.3	558.9	560.5	557.5	60°	27.5	28.4	29.3	30.1
558.9	558.5	557.9	557.5	558.3	558.9	560.5	557.5	62.5°	25.8	27.5	28.4	29.3
563.3	563.3	563.3	563.3	564.1	564.9	566.3	563.3	65°	25.0	26.6	26.6	28.4
565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	67.5°	23.2	25.0	25.0	25.8
								70°	21.5	22.4	23.2	24.1
								72.5°	19.8	20.6	20.6	21.5
								75°	16.3	17.2	18.1	19.0
								77.5°	13.7	13.7	15.5	15.5
								80°	10.3	10.3	11.2	12.0
								82.5°	6.0	6.0	6.8	6.8
								85°	1.8	1.8	1.8	1.8
								87.5°	0.0	0.0	0.0	0.0
								90°	0.0	0.0	0.0	0.0
								92.5°	0.0	0.0	0.0	0.0
								95°	1.0	1.0	1.0	1.0
								97.5°	4.0	4.4	4.7	4.9
								100°	25.5	26.1	26.3	26.5
								102.5°	48.1	47.6	47.3	47.1
								105°	69.7	68.7	68.2	67.7
								107.5°	90.3	89.8	89.5	89.3
								110°	111.9	111.4	111.1	110.9





REPORT NUMBER: P271445

CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-7027-ULG

JLG

**CANDELA DISTRIBUTION (continued):**

287.5°	290°	292.5°	295°	297.5°	300°	302.5°		275°	280°	282.5°	285°	287.5°
600.8	600.8	600.8	600.8	600.8	600.8	600.8	112.5°	134.5	133.5	132.9	132.5	132.7
514.0	515.6	513.1	513.1	514.9	521.7	521.7	115°	157.0	156.0	155.6	155.0	155.0
389.3	393.6	391.1	391.9	395.3	403.1	407.4	117.5°	178.7	177.7	177.1	176.7	176.9
279.4	282.8	284.5	287.1	297.4	298.2	303.4	120°	202.2	201.2	200.7	200.2	200.2
232.9	238.1	241.6	245.9	254.4	258.7	264.7	122.5°	228.7	226.7	225.7	224.8	224.6
196.0	202.0	205.4	214.1	219.2	224.4	232.1	125°	252.2	250.8	250.1	249.3	249.3
153.0	159.9	163.3	168.4	178.9	184.0	194.2	127.5°	275.8	274.3	273.6	272.8	272.6
110.9	113.5	120.4	129.0	134.9	143.5	148.7	130°	299.3	297.9	297.2	296.4	296.2
81.7	83.4	86.9	92.9	96.3	103.1	108.2	132.5°	322.9	321.4	320.8	320.0	319.8
70.4	71.3	73.0	74.8	76.4	79.1	81.7	135°	344.5	343.5	343.1	342.5	342.3
65.4	66.1	67.0	67.9	69.6	70.4	71.3	137.5°	367.0	365.1	364.2	363.2	362.9
61.9	61.9	62.7	64.5	64.5	66.1	67.0	140°	388.7	386.7	385.7	384.7	384.3
60.2	61.9	63.6	66.1	67.0	68.8	69.6	142.5°	408.3	406.8	406.1	405.3	405.1
51.6	51.6	52.4	54.2	54.2	55.0	55.9	145°	428.9	427.4	426.8	426.0	425.8
43.8	44.6	45.5	46.4	47.3	49.0	49.9	147.5°	447.5	446.1	445.4	444.6	444.4
42.1	42.1	43.0	44.6	45.5	46.4	47.3	150°	464.2	462.3	461.3	460.3	460.3
40.4	41.2	42.1	43.0	43.8	45.5	46.4	152.5°	480.0	478.4	477.8	477.0	477.0
39.5	40.4	41.2	42.1	43.8	44.6	45.5	155°	497.6	496.1	495.4	494.7	494.4
38.6	39.5	40.4	42.1	43.0	44.6	45.5	157.5°	513.3	510.9	509.6	508.4	508.2
37.8	38.6	39.5	41.2	43.0	44.6	46.4	160°	523.2	521.6	520.9	520.2	520.2
37.0	37.8	39.5	41.2	43.0	45.5	49.9	162.5°	530.0	529.0	528.6	528.0	528.6
36.1	37.8	39.5	41.2	43.8	47.3	51.6	165°	539.8	538.8	538.4	537.8	538.4
35.2	37.0	37.8	40.4	43.0	46.4	47.3	167.5°	552.5	550.6	549.7	548.7	548.4
33.6	35.2	36.1	38.6	42.1	43.0	42.1	170°	560.5	557.9	556.7	555.5	555.1
31.8	32.7	35.2	40.4	43.8	40.4	36.1	172.5°	560.5	558.9	558.3	557.5	557.3
30.9	31.8	33.6	37.0	37.8	33.6	32.7	175°	560.5	558.9	558.3	557.5	557.9
29.3	29.3	30.1	30.1	30.1	30.1	30.1	177.5°	566.3	564.9	564.1	563.3	563.3
26.6	26.6	27.5	27.5	27.5	27.5	27.5	180°	565.3	565.3	565.3	565.3	565.3
24.1	24.1	25.0	25.0	25.0	25.8	25.8						
21.5	22.4	22.4	23.2	23.2	23.2	24.1						
19.0	19.8	19.8	19.8	19.8	20.6	20.6						
16.3	16.3	17.2	17.2	17.2	17.2	17.2						
12.8	12.8	12.8	12.8	12.8	12.8	12.8						
7.7	7.7	8.6	7.7	7.7	6.8	6.8						
1.8	1.8	1.8	0.9	0.9	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						
5.4	5.9	6.4	6.8	8.4	9.8	11.3						
27.3	27.9	28.7	29.5	29.9	30.5	30.9						
47.6	48.1	48.6	49.0	49.2	49.6	49.9						
68.2	68.7	69.2	69.7	69.7	69.7	69.7						
89.5	89.8	90.1	90.3	90.5	90.8	91.1						
111.1	111.4	111.7	111.9	111.9	111.9	111.9						



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**CANDELA DISTRIBUTION (continued):**

290°	292.5°	295°	297.5°	300°	302.5°		305°	307.5°	310°	312.5°	315°	317.5°
132.9	133.3	133.5	133.5	133.5	133.5	0°	600.8	600.8	600.8	600.8	600.8	600.8
155.0	155.0	155.0	155.0	155.0	155.0	2.5°	534.6	534.6	536.4	543.3	544.9	549.2
177.1	177.4	177.7	177.4	177.1	176.9	5°	422.9	426.3	431.5	440.1	445.2	454.7
200.2	200.2	200.2	200.2	200.2	200.2	7.5°	315.5	320.7	324.8	334.3	342.1	351.6
224.3	223.9	223.8	223.8	223.8	223.8	10°	273.4	277.7	283.7	289.6	297.4	301.7
249.3	249.3	249.3	249.1	248.8	248.5	12.5°	243.2	249.3	255.3	263.9	271.6	279.4
272.4	272.1	271.8	272.1	272.4	272.6	15°	206.3	213.2	220.1	229.4	240.7	248.4
295.9	295.6	295.5	295.5	295.5	295.5	17.5°	159.9	167.6	177.1	189.9	202.0	211.4
319.4	319.2	319.0	319.0	319.0	319.0	20°	117.8	124.7	133.2	144.4	153.0	169.3
342.1	341.7	341.5	341.5	341.5	341.5	22.5°	86.9	91.1	97.9	106.6	116.0	130.6
362.6	362.4	362.2	362.2	362.2	362.2	25°	73.0	74.8	77.3	82.6	88.6	98.8
383.8	383.3	382.8	382.8	382.8	382.8	27.5°	67.9	68.8	70.4	73.0	76.4	81.7
404.9	404.6	404.3	404.3	404.3	404.3	30°	71.3	71.3	71.3	72.2	73.9	76.4
425.4	425.2	425.0	425.2	425.4	425.8	32.5°	57.6	58.5	58.5	60.2	61.1	64.5
444.1	443.9	443.7	444.1	444.6	445.1	35°	51.6	52.4	53.3	54.2	55.9	56.8
460.3	460.3	460.3	460.8	461.3	461.8	37.5°	49.0	49.9	50.8	50.8	51.6	53.3
477.0	477.0	477.0	477.2	477.4	477.8	40°	48.1	48.1	48.1	48.1	49.9	51.6
494.2	493.9	493.7	493.9	494.2	494.4	42.5°	46.4	46.4	46.4	47.3	49.9	53.3
507.9	507.6	507.5	507.9	508.4	508.9	45°	46.4	46.4	47.3	50.8	51.6	51.6
520.2	520.2	520.2	520.7	521.2	521.6	47.5°	48.1	49.9	50.8	49.9	49.0	49.0
529.0	529.6	530.0	530.4	531.0	531.4	50°	52.4	51.6	48.1	47.3	47.3	45.5
538.8	539.3	539.8	540.6	541.3	541.9	52.5°	51.6	48.1	47.3	45.5	43.8	43.0
548.1	547.9	547.7	548.1	548.7	549.1	55°	46.4	45.5	43.0	41.2	40.4	41.2
554.5	554.1	553.5	553.7	554.1	554.3	57.5°	40.4	39.5	37.8	37.8	38.6	39.5
556.9	556.7	556.5	556.9	557.5	557.9	60°	35.2	35.2	35.2	36.1	37.0	37.8
558.5	558.9	559.5	560.3	560.9	561.6	62.5°	31.8	32.7	32.7	34.3	35.2	36.1
563.3	563.3	563.3	564.1	564.9	565.6	65°	30.1	30.9	31.8	31.8	32.7	33.6
565.3	565.3	565.3	565.3	565.3	565.3	67.5°	28.4	28.4	29.3	30.1	30.9	31.8
						70°	25.8	26.6	27.5	28.4	28.4	29.3
						72.5°	24.1	24.1	25.0	25.8	25.8	27.5
						75°	20.6	21.5	21.5	21.5	22.4	24.1
						77.5°	18.1	17.2	18.1	18.1	19.0	19.8
						80°	12.8	12.0	12.0	12.8	12.8	12.8
						82.5°	6.8	6.0	6.8	6.0	6.0	6.8
						85°	0.0	0.0	0.0	0.0	0.0	0.0
						87.5°	0.0	0.0	0.0	0.0	0.0	0.0
						90°	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
						95°	1.0	1.0	1.0	1.0	1.0	1.0
						97.5°	12.8	11.8	10.8	9.8	8.8	7.6
						100°	31.4	30.9	30.5	29.9	29.5	27.5
						102.5°	50.0	49.9	49.6	49.2	49.0	47.9
						105°	69.7	69.5	69.2	68.9	68.7	67.7
						107.5°	91.3	90.8	90.3	89.8	89.3	88.6
						110°	111.9	111.4	110.9	110.4	110.0	109.4

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**CANDELA DISTRIBUTION (continued):**

320°	322.5°	325°	335°	345°		305°	307.5°	310°	312.5°	315°	317.5°	320°
600.8	600.8	600.8	600.8	600.8	112.5°	133.5	132.9	132.5	132.1	131.5	131.1	130.5
548.3	556.1	559.6	580.1	601.7	115°	155.0	154.6	154.1	153.6	153.1	152.6	152.2
452.9	468.5	471.0	508.8	545.8	117.5°	176.7	176.4	176.2	175.9	175.7	175.2	174.7
354.1	372.2	377.4	427.1	478.8	120°	200.2	199.7	199.2	198.7	198.3	198.1	197.8
308.6	317.2	323.2	360.1	419.5	122.5°	223.8	223.6	223.3	223.0	222.8	222.6	222.3
286.2	294.8	302.5	332.6	379.1	125°	248.3	248.1	247.8	247.6	247.3	247.1	246.9
256.2	265.6	275.0	312.0	366.1	127.5°	272.8	272.4	271.8	271.4	270.9	270.4	269.9
219.2	232.1	244.1	288.9	360.1	130°	295.5	294.9	294.5	293.9	293.5	293.3	292.9
178.0	193.3	208.0	263.9	351.6	132.5°	319.0	318.2	317.6	316.8	316.0	315.8	315.6
140.0	153.9	170.2	240.7	351.6	135°	341.5	340.7	340.1	339.4	338.6	338.6	338.6
108.2	122.1	138.4	220.1	361.0	137.5°	362.2	361.7	361.2	360.7	360.2	360.2	360.2
88.6	99.7	116.0	203.7	374.8	140°	382.8	382.6	382.3	382.0	381.8	381.6	381.3
79.9	86.9	97.2	179.6	384.3	142.5°	404.3	403.9	403.4	402.9	402.4	402.4	402.4
67.9	73.0	82.6	165.0	390.2	145°	426.0	425.4	425.0	424.4	424.0	423.8	423.6
60.2	66.1	75.6	155.6	389.3	147.5°	445.6	445.4	445.1	444.8	444.6	444.4	444.1
55.9	61.9	73.0	152.2	389.3	150°	462.3	462.1	461.8	461.5	461.3	461.1	460.8
55.9	61.9	71.3	148.7	391.9	152.5°	478.0	477.8	477.4	477.2	477.0	476.8	476.6
55.0	58.5	66.1	147.1	396.2	155°	494.7	494.4	494.2	493.9	493.7	493.7	493.7
52.4	55.0	62.7	147.1	404.9	157.5°	509.4	509.4	509.4	509.4	509.4	509.4	509.4
49.0	52.4	60.2	149.6	421.1	160°	522.2	522.2	522.2	522.2	522.2	522.2	522.2
46.4	49.9	59.3	149.6	454.7	162.5°	532.0	531.8	531.4	531.2	531.0	531.0	531.0
43.8	49.0	58.5	147.8	502.8	165°	542.8	542.6	542.3	541.9	541.8	541.8	541.8
43.0	47.3	56.8	146.2	562.1	167.5°	549.7	549.7	549.7	549.7	549.7	549.9	550.1
42.1	45.5	52.4	141.8	609.4	170°	554.5	554.7	555.1	555.3	555.5	555.7	556.1
40.4	43.0	48.1	134.0	641.2	172.5°	558.5	558.3	557.9	557.7	557.5	557.7	557.9
37.8	40.4	43.8	125.5	648.0	175°	562.4	562.2	561.9	561.6	561.4	561.4	561.4
36.1	38.6	43.8	118.7	606.0	177.5°	566.3	566.3	566.3	566.3	566.3	566.5	566.8
33.6	37.8	44.6	112.6	514.0	180°	565.3	565.3	565.3	565.3	565.3	565.3	565.3
31.8	37.8	45.5	110.0	408.3								
30.1	37.0	46.4	105.7	307.7								
27.5	33.6	40.4	87.7	208.0								
22.4	25.8	30.1	55.9	110.0								
14.6	15.5	17.2	34.3	61.1								
6.8	8.6	8.6	16.3	27.5								
0.0	0.0	0.0	1.8	6.0								
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								
6.4	5.1	4.0	3.0	2.0								
25.5	23.5	21.6	13.7	9.8								
46.6	45.4	44.2	37.3	31.4								
66.7	65.8	64.8	59.8	55.0								
87.9	87.1	86.3	82.5	78.5								
109.0	108.4	108.0	104.0	101.1								

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**CANDELA DISTRIBUTION (continued):**

322.5°	325°	335°	345°		355°	359°	360°
130.1	129.5	126.6	123.7	0°	600.8	600.8	600.8
151.6	151.2	148.2	146.2	2.5°	622.3	632.7	637.8
174.2	173.7	170.8	168.8	5°	588.7	610.3	617.1
197.4	197.3	194.3	192.3	7.5°	538.1	562.1	571.6
222.0	221.8	218.8	216.9	10°	487.3	517.4	526.9
246.6	246.3	243.4	242.5	12.5°	457.2	493.3	498.5
269.4	269.0	267.0	265.0	15°	445.2	482.2	492.5
292.7	292.5	288.5	287.5	17.5°	457.2	498.5	508.8
315.2	315.0	312.1	311.2	20°	480.4	531.2	547.6
338.6	338.6	334.7	332.7	22.5°	520.0	588.7	609.4
360.2	360.2	357.3	356.3	25°	584.4	679.8	697.9
381.0	380.8	378.8	377.8	27.5°	653.2	752.2	780.4
402.4	402.4	399.5	400.5	30°	713.4	819.2	842.3
423.2	423.0	420.0	420.0	32.5°	756.5	872.4	899.0
443.9	443.7	439.7	438.7	35°	807.0	933.5	959.2
460.5	460.3	456.4	455.4	37.5°	865.6	1007.4	1042.7
476.2	476.0	473.0	474.0	40°	930.0	1083.9	1123.4
493.7	493.7	491.7	492.7	42.5°	988.5	1155.2	1199.1
509.4	509.4	506.5	507.5	45°	1033.9	1222.2	1256.5
522.2	522.2	519.2	519.2	47.5°	1086.4	1273.9	1312.5
531.0	531.0	528.0	529.0	50°	1158.6	1339.1	1384.6
541.8	541.8	537.8	538.8	52.5°	1264.4	1450.0	1482.7
550.4	550.6	547.7	548.7	55°	1392.5	1584.1	1621.1
556.3	556.5	554.5	555.5	57.5°	1510.2	1708.8	1740.6
558.3	558.5	556.5	558.5	60°	1585.9	1766.3	1792.9
561.4	561.4	558.5	559.5	62.5°	1586.7	1768.0	1801.6
567.1	567.3	563.3	564.3	65°	1524.0	1730.2	1768.0
565.3	565.3	565.3	565.3	67.5°	1365.0	1633.9	1692.4
				70°	1152.6	1444.8	1510.2
				72.5°	899.0	1135.5	1210.3
				75°	609.4	753.8	819.2
				77.5°	387.7	434.9	456.4
				80°	228.6	256.9	268.1
				82.5°	141.8	153.0	164.2
				85°	57.6	41.2	44.6
				87.5°	0.0	0.0	0.0
				90°	0.0	0.0	0.0
				92.5°	0.0	0.0	0.0
				95°	1.0	1.0	1.0
				97.5°	2.0	2.0	2.0
				100°	7.8	7.8	7.8
				102.5°	27.5	27.5	27.5
				105°	53.0	53.0	53.0
				107.5°	75.5	76.4	76.5
				110°	100.1	99.4	99.2

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**CANDELA DISTRIBUTION (continued):**

	355°	359°	360°
112.5°	121.7	121.7	121.7
115°	144.3	143.5	143.3
117.5°	166.8	166.1	165.8
120°	191.4	189.8	189.5
122.5°	216.0	215.1	215.0
125°	241.5	239.8	239.5
127.5°	264.0	262.5	262.0
130°	286.6	285.0	284.7
132.5°	308.2	307.4	307.2
135°	330.8	329.9	329.8
137.5°	353.3	352.6	352.3
140°	375.9	375.1	375.0
142.5°	398.5	396.9	396.5
145°	418.1	417.4	417.2
147.5°	435.8	435.8	435.8
150°	453.5	452.7	452.5
152.5°	471.1	470.4	470.2
155°	490.7	489.9	489.8
157.5°	505.5	503.9	503.5
160°	517.2	515.6	515.3
162.5°	526.0	525.3	525.1
165°	536.8	536.1	535.9
167.5°	545.7	544.9	544.7
170°	552.5	551.8	551.6
172.5°	555.5	554.7	554.5
175°	558.5	556.9	556.5
177.5°	562.4	561.6	561.4
180°	565.3	565.3	565.3

(END OF REPORT)