

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: P227229

Luminaire Tested: **IST-AF-1200-LED-E1-SLL-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227229
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35948)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: IST-AF-1200-LED-E1-SLL-7030-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-90° SPILL LIGHT ELIMINATOR LEFT, WITH
UPLIGHT GLOW
Light Source: (16) 3000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6996.3 lumens
Efficiency: N/A
Efficacy: 84.6 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 - G2

Input Watts (W): 82.7
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

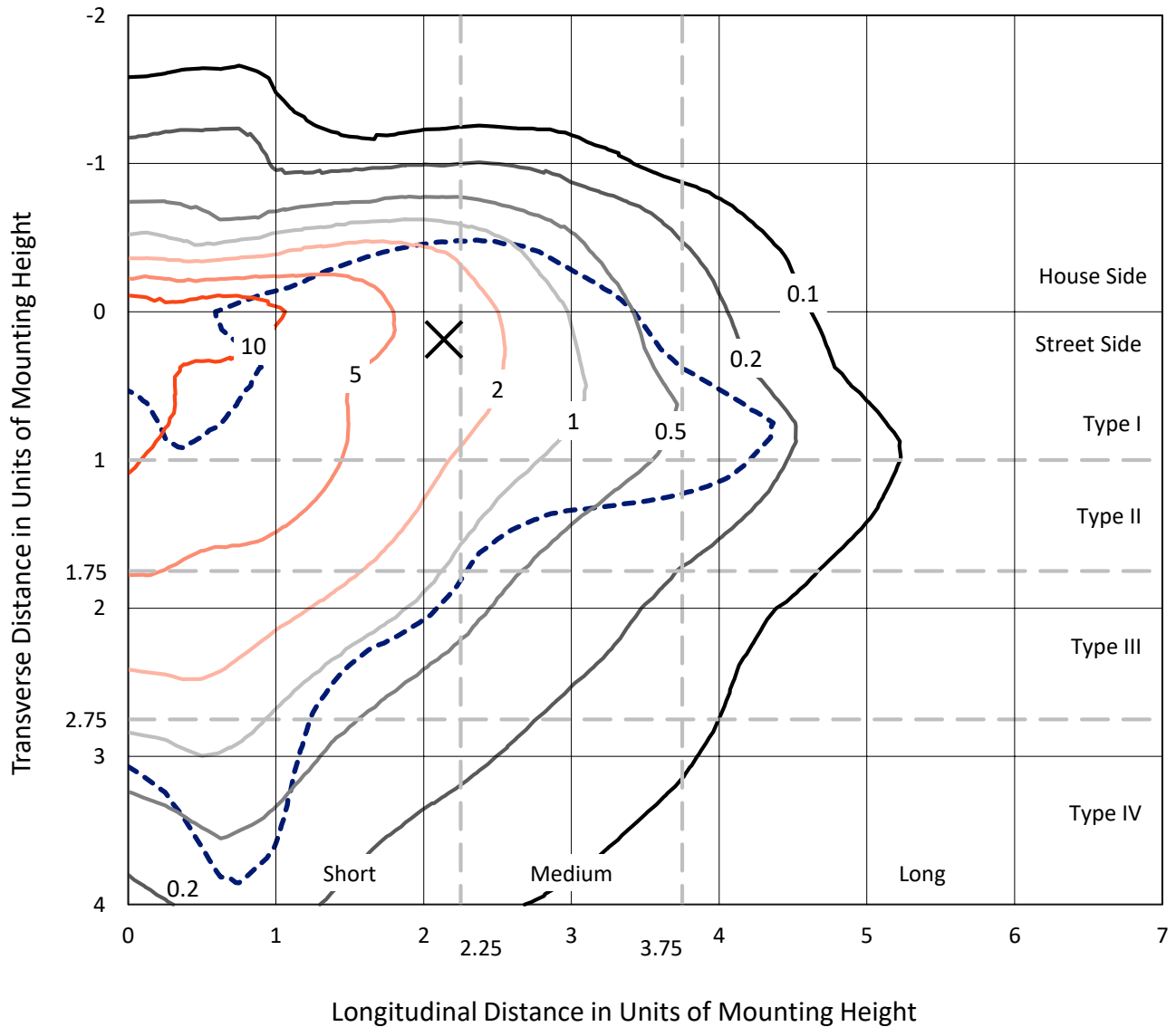


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Iso-Footcandle Lines of Horizontal Illumination

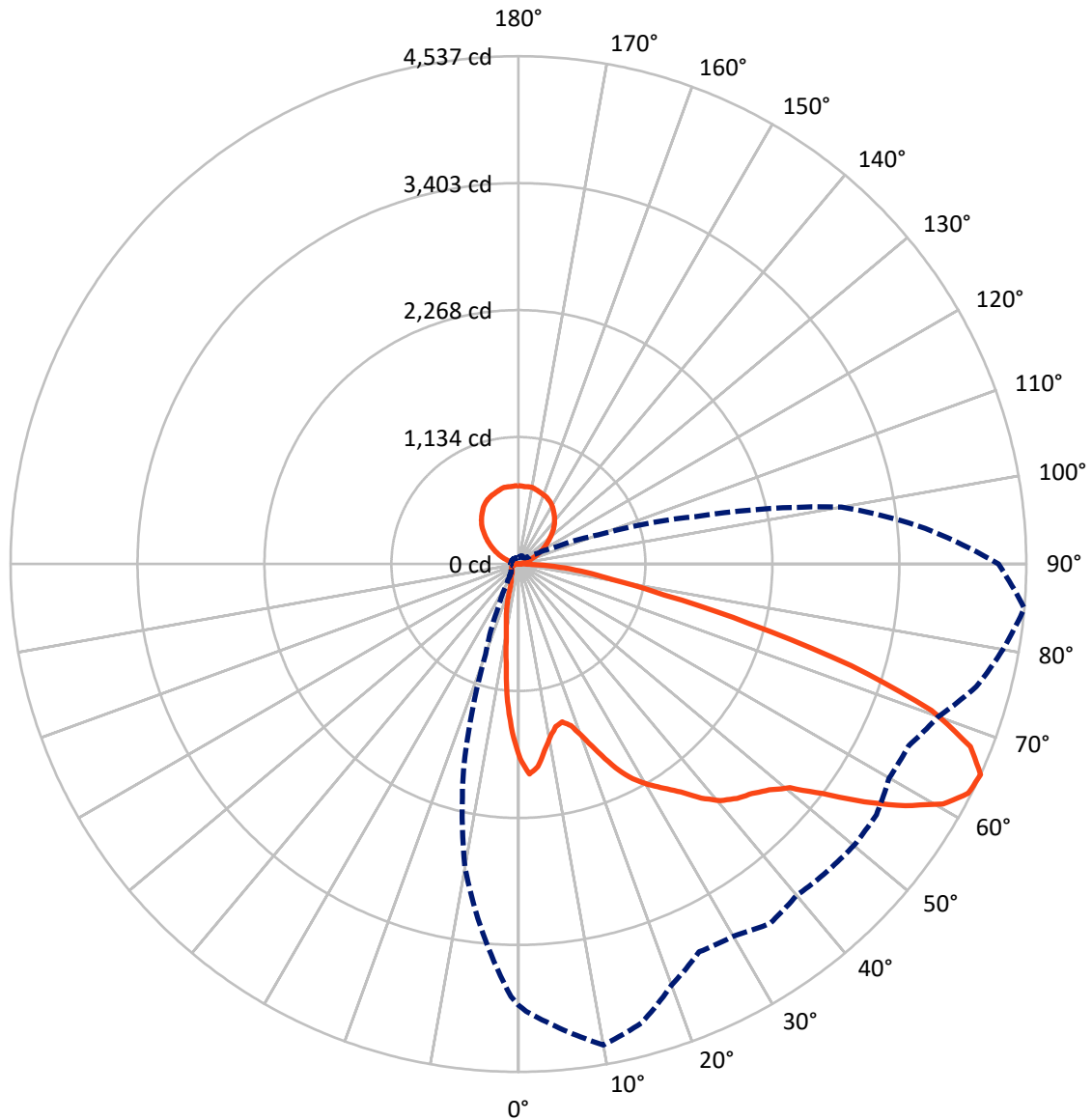
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 19 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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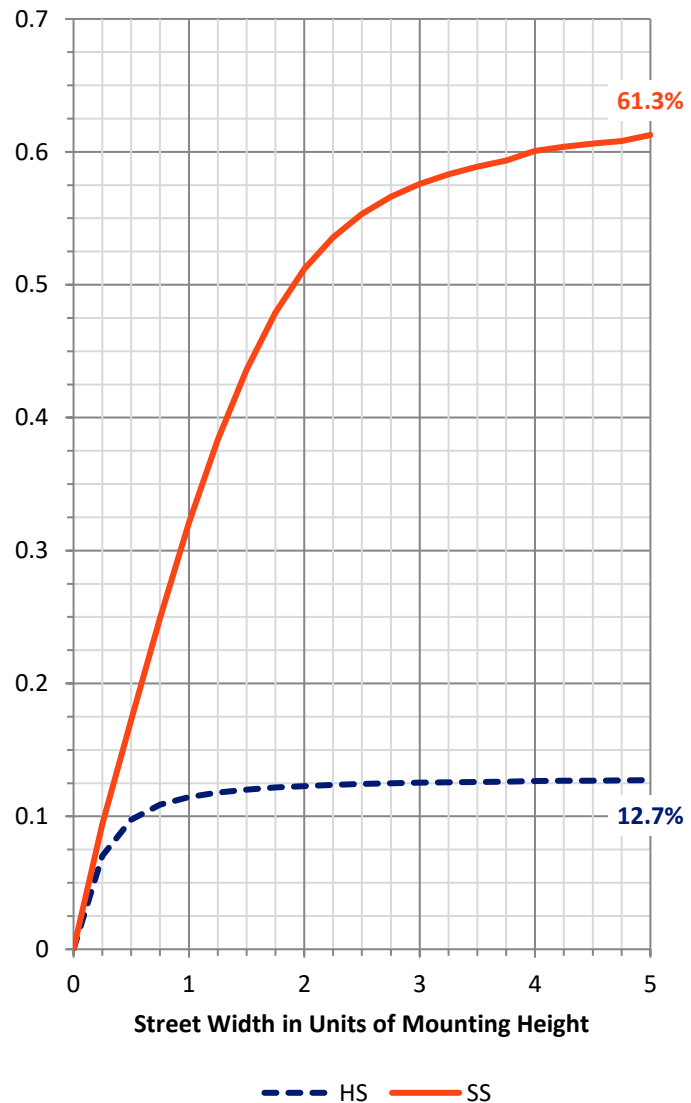
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	902.8	867.6	1770.4
	% Fixture	12.9	12.4	25.3
Street Side	Lumens	4358.1	867.8	5225.9
	% Fixture	62.3	12.4	74.7
Total	Lumens	5260.9	1735.4	6996.3
	% Fixture	75.2	24.8	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.8	1.8
10°-20°	247.7	3.5
20°-30°	353.2	5.0
30°-40°	512.4	7.3
40°-50°	733.1	10.5
50°-60°	1125.5	16.1
60°-70°	1302.8	18.6
70°-80°	664.6	9.5
80°-90°	192.8	2.8
90°-100°	9.5	0.1
100°-110°	57.4	0.8
110°-120°	166.1	2.4
120°-130°	273.2	3.9
130°-140°	336.8	4.8
140°-150°	344.6	4.9
150°-160°	290.3	4.1
160°-170°	191.2	2.7
170°-180°	66.3	0.9
0°-90°	5260.9	75.2
0°-180°	6996.3	100.0



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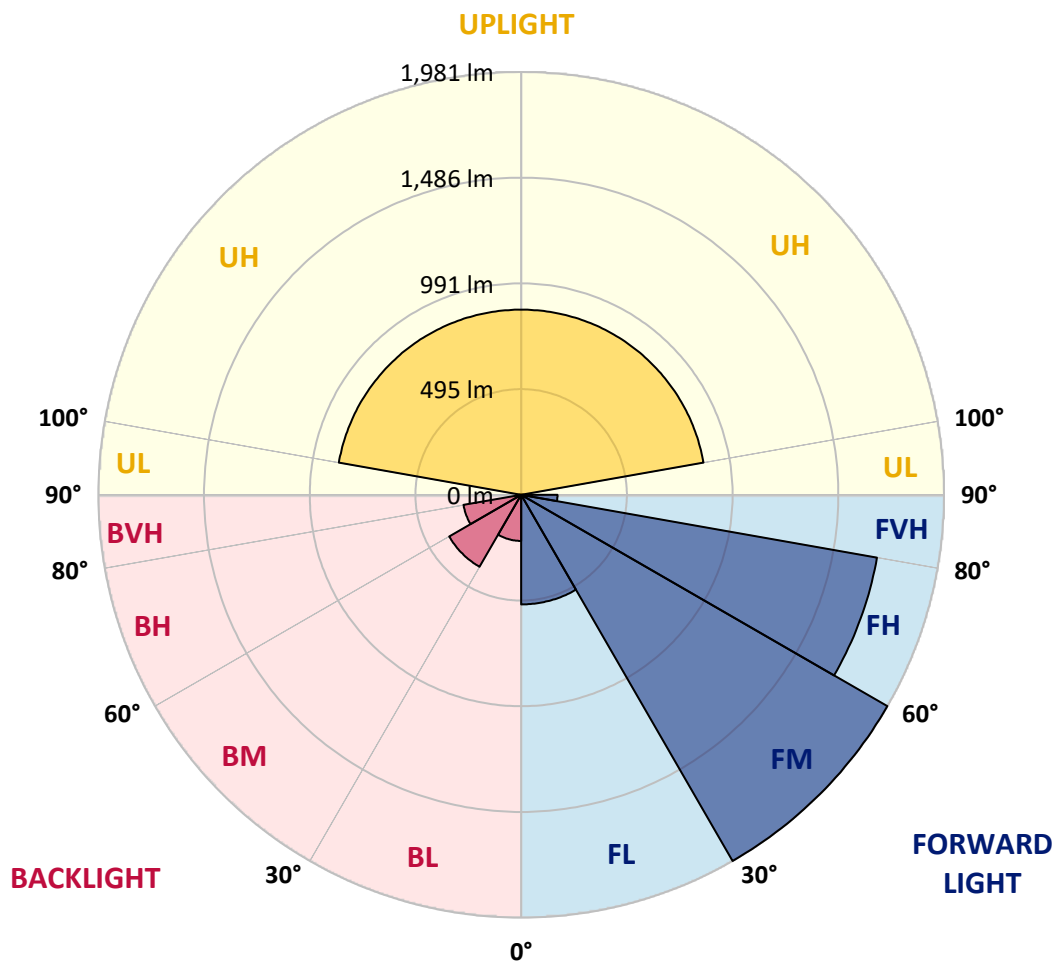
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	513.7	7.3			
FM (30°-60°)	1981.4	28.3			
FH (60°-80°)	1693.0	24.2			G1/1800
FVH (80°-90°)	170.0	2.4			G2/225
BL (0°-30°)	216.0	3.1	B1/500		
BM (30°-60°)	389.6	5.6	B1/1000		
BH (60°-80°)	274.4	3.9	B1/500		G1/500
BVH (80°-90°)	22.8	0.3			G1/100
UL (90°-100°)	9.5	0.1		U1/10	
UH (100°-180°)	867.6	12.4		U4/1000	

BUG Rating: B1-U5-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	10°	15°	20°	25°	30°	35°	40°	45°
0°	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7
2.5°	1798.8	1800.6	1825.4	1849.3	1879.4	1874.9	1899.7	1918.3	1935.1	1937.8	1950.2
5°	1689.0	1706.7	1762.5	1810.3	1870.5	1917.4	1967.9	2007.7	2036.9	2064.4	2067.9
7.5°	1535.0	1548.3	1612.9	1688.1	1774.9	1836.9	1913.0	1979.4	2026.3	2070.6	2080.3
10°	1403.1	1415.5	1487.2	1584.6	1660.7	1741.3	1820.0	1874.0	1935.1	1973.2	1991.8
12.5°	1339.4	1354.4	1422.6	1511.1	1589.0	1666.9	1726.2	1773.1	1807.7	1814.7	1820.0
15°	1364.2	1372.1	1447.4	1526.1	1588.1	1627.1	1643.0	1671.3	1668.7	1682.8	1685.5
17.5°	1464.2	1460.6	1540.3	1595.2	1625.3	1620.9	1596.1	1581.0	1554.5	1546.5	1569.5
20°	1635.9	1648.3	1699.7	1733.3	1702.3	1630.6	1562.4	1515.5	1478.3	1466.0	1463.3
22.5°	1836.9	1852.8	1908.6	1890.9	1812.1	1681.1	1557.1	1481.9	1435.9	1422.6	1417.3
25°	2047.6	2058.2	2086.5	2026.3	1915.7	1745.7	1594.3	1489.0	1427.9	1408.4	1405.8
27.5°	2217.5	2228.1	2214.9	2145.8	1985.6	1818.3	1645.7	1520.8	1441.2	1421.7	1412.8
30°	2356.5	2361.8	2317.6	2231.7	2072.3	1898.8	1712.9	1576.6	1483.7	1439.4	1433.2
32.5°	2512.3	2508.8	2422.9	2304.3	2145.8	1971.4	1790.0	1639.5	1524.4	1470.4	1460.6
35°	2683.2	2652.2	2500.8	2376.0	2196.3	2027.2	1859.9	1705.9	1589.9	1518.2	1505.8
37.5°	2835.4	2803.5	2600.8	2432.6	2246.7	2070.6	1914.8	1791.7	1689.9	1624.4	1619.1
40°	2954.0	2915.1	2677.0	2470.7	2271.5	2102.4	1979.4	1899.7	1832.4	1779.3	1779.3
42.5°	3049.6	3007.2	2751.3	2515.0	2293.7	2151.1	2087.4	2059.9	2045.8	2016.6	2027.2
45°	3141.7	3098.3	2812.4	2543.3	2343.2	2245.8	2254.7	2278.6	2321.1	2304.3	2319.3
47.5°	3229.3	3186.9	2881.4	2588.4	2438.8	2415.8	2461.8	2557.5	2640.7	2706.2	2752.2
50°	3376.3	3325.8	3005.4	2721.2	2589.3	2600.8	2733.6	2921.3	3056.7	3116.9	3113.4
52.5°	3655.1	3583.4	3271.8	2969.1	2804.4	2868.2	3024.9	3261.2	3438.3	3485.2	3503.8
55°	3996.0	3939.3	3656.9	3297.5	3178.0	3200.1	3394.9	3662.2	3798.6	3847.2	3863.2
57.5°	4196.0	4181.0	4003.9	3648.9	3533.0	3524.1	3778.2	3996.8	4114.6	4160.6	4146.5
59°	4242.9	4247.4	4146.5	3897.7	3738.4	3718.9	3977.4	4180.1	4278.4	4292.5	4285.4
60°	4238.5	4263.3	4250.9	4034.0	3868.5	3843.7	4061.5	4254.5	4336.8	4358.9	4334.1
62.5°	4147.3	4189.8	4307.6	4284.6	4163.3	4036.7	4139.4	4279.2	4332.4	4311.1	4292.5
65°	3940.2	3996.0	4159.7	4363.3	4246.5	4002.2	3822.5	3838.4	3918.9	3865.8	3891.5
67.5°	3582.6	3646.3	3733.0	4195.1	4025.2	3615.3	3306.4	3155.0	3116.9	3168.3	3249.7
70°	2914.2	2955.8	3175.3	3828.7	3534.8	2971.7	2584.0	2382.2	2314.9	2433.5	2516.7
72.5°	2055.5	2117.5	2407.0	3168.3	2908.0	2380.4	1955.5	1769.6	1702.3	1707.6	1780.2
75°	1250.8	1334.9	1682.0	2505.2	2291.9	1823.6	1489.9	1356.2	1335.8	1324.3	1311.9
77.5°	825.0	856.9	1105.7	1728.9	1545.6	1296.9	1118.1	1172.9	1234.0	1247.3	1263.2
80°	559.5	569.2	717.0	1212.8	1018.0	957.8	903.8	1033.1	1149.0	1170.3	1158.8
82.5°	344.4	373.6	500.2	818.0	811.8	783.4	714.4	815.3	892.3	905.6	929.5
85°	119.5	124.8	307.2	722.4	825.0	833.9	588.7	464.7	522.3	512.6	368.3
87.5°	51.3	57.5	95.6	483.3	558.6	462.1	269.1	239.0	184.1	103.6	100.0
90°	8.5	8.5	7.7	10.4	20.3	16.4	16.0	10.7	8.0	7.5	7.0
92.5°	4.0	4.0	4.0	4.5	5.0	5.5	6.0	6.0	6.0	6.0	6.0
95°	5.0	5.0	5.0	5.5	6.0	6.5	7.0	7.0	7.0	7.0	7.0
97.5°	7.0	7.0	7.0	7.5	8.0	8.0	8.0	8.5	9.0	9.0	9.0
100°	8.0	8.0	8.0	8.5	9.0	9.5	10.0	11.0	12.0	16.5	21.0
102.5°	11.0	11.0	11.0	12.0	13.0	15.5	18.0	22.5	27.0	33.5	40.0
105°	21.0	21.2	22.0	24.5	27.0	31.5	36.0	42.0	48.0	55.5	63.0
107.5°	41.0	41.2	42.0	45.5	49.0	53.5	58.0	65.5	73.0	80.5	88.0



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CANDELA DISTRIBUTION (continued):

	0°	1°	5°	10°	15°	20°	25°	30°	35°	40°	45°
110°	66.0	66.4	68.0	71.0	74.0	80.5	87.0	94.5	102.0	108.0	114.0
112.5°	99.0	99.0	99.0	102.5	106.0	113.5	121.0	127.5	134.0	138.5	143.0
115°	140.0	139.8	139.0	143.0	147.0	153.0	159.0	163.5	168.0	171.0	174.0
117.5°	184.0	184.0	184.0	186.5	189.0	193.0	197.0	199.5	202.0	203.5	205.0
120°	225.0	224.6	223.0	224.5	226.0	229.5	233.0	235.0	237.0	240.0	243.0
122.5°	263.0	262.4	260.0	260.5	261.0	264.0	267.0	269.0	271.0	274.0	277.0
125°	298.0	297.2	294.0	295.0	296.0	297.5	299.0	302.0	305.0	307.5	310.0
127.5°	330.0	329.8	329.0	329.0	329.0	331.0	333.0	336.0	339.0	339.5	340.0
130°	363.0	362.6	361.0	361.5	362.0	364.0	366.0	368.0	370.0	371.0	372.0
132.5°	396.0	395.6	394.0	393.5	393.0	397.0	401.0	402.5	404.0	404.5	405.0
135°	429.0	428.4	426.0	426.0	426.0	429.0	432.0	433.5	435.0	436.0	437.0
137.5°	460.0	459.4	457.0	458.0	459.0	459.5	460.0	462.0	464.0	466.0	468.0
140°	488.0	487.4	485.0	486.0	487.0	488.0	489.0	490.0	491.0	494.0	497.0
142.5°	518.0	517.4	515.0	516.0	517.0	517.5	518.0	519.5	521.0	523.0	525.0
145°	550.0	549.2	546.0	545.0	544.0	545.5	547.0	548.5	550.0	550.5	551.0
147.5°	575.0	574.4	572.0	571.5	571.0	572.5	574.0	574.0	574.0	574.5	575.0
150°	595.0	594.4	592.0	592.5	593.0	593.0	593.0	593.0	593.0	593.0	593.0
152.5°	611.0	610.4	608.0	608.0	608.0	608.5	609.0	609.5	610.0	610.0	610.0
155°	629.0	628.2	625.0	625.0	625.0	626.0	627.0	628.5	630.0	629.0	628.0
157.5°	646.0	645.4	643.0	643.0	643.0	643.5	644.0	645.0	646.0	645.5	645.0
160°	663.0	662.4	660.0	659.5	659.0	657.5	656.0	655.5	655.0	655.0	655.0
162.5°	673.0	672.2	669.0	669.0	669.0	667.0	665.0	663.0	661.0	662.0	663.0
165°	681.0	680.4	678.0	677.0	676.0	676.0	676.0	674.5	673.0	673.0	673.0
167.5°	690.0	689.4	687.0	685.5	684.0	685.0	686.0	687.0	688.0	686.5	685.0
170°	698.0	697.4	695.0	693.5	692.0	692.0	692.0	692.5	693.0	692.0	691.0
172.5°	699.0	698.6	697.0	696.0	695.0	694.0	693.0	691.5	690.0	690.0	690.0
175°	700.0	699.6	698.0	697.5	697.0	696.0	695.0	693.0	691.0	690.5	690.0
177.5°	707.0	706.6	705.0	702.5	700.0	699.5	699.0	698.0	697.0	696.0	695.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7
2.5°	1947.5	1936.0	1943.1	1933.4	1917.4	1906.8	1894.4	1878.5	1859.9	1835.1	1810.3
5°	2059.9	2051.1	2029.0	1997.1	1952.8	1915.7	1871.4	1819.2	1775.8	1720.0	1667.8
7.5°	2069.7	2055.5	2014.8	1955.5	1887.3	1818.3	1766.0	1681.1	1626.2	1537.7	1478.3
10°	1981.2	1982.0	1941.3	1885.6	1814.7	1733.3	1658.1	1565.1	1484.5	1394.2	1295.1
12.5°	1851.0	1863.4	1865.2	1815.6	1746.6	1660.7	1576.6	1488.1	1388.1	1291.6	1200.4
15°	1703.2	1738.6	1741.3	1728.9	1692.6	1620.0	1543.0	1463.3	1361.5	1256.2	1153.5
17.5°	1571.3	1604.9	1635.9	1664.2	1666.0	1631.5	1584.6	1516.4	1414.6	1290.7	1170.3
20°	1471.3	1507.6	1560.7	1612.9	1670.4	1688.1	1691.7	1648.3	1539.4	1388.1	1225.2
22.5°	1429.7	1472.2	1526.1	1624.4	1726.2	1789.1	1824.5	1824.5	1710.3	1533.2	1315.5
25°	1420.8	1455.3	1537.7	1659.8	1796.1	1905.9	1973.2	2018.3	1936.0	1720.0	1427.0
27.5°	1427.0	1473.9	1575.7	1700.5	1843.1	1983.8	2094.5	2173.3	2096.2	1847.5	1530.6
30°	1451.8	1521.7	1627.1	1756.3	1903.3	2052.0	2185.7	2285.7	2229.0	1963.5	1628.8
32.5°	1495.2	1580.1	1699.7	1816.5	1962.6	2123.7	2255.6	2387.5	2345.9	2044.0	1681.1
35°	1559.8	1659.8	1768.7	1886.4	2026.3	2187.4	2328.2	2500.8	2485.7	2144.9	1733.3
37.5°	1664.2	1766.9	1867.0	1967.9	2100.7	2257.4	2432.6	2653.1	2640.7	2294.5	1817.4
40°	1848.4	1908.6	1982.9	2047.6	2172.4	2322.0	2509.6	2778.8	2823.0	2422.9	1891.8
42.5°	2076.8	2112.2	2133.4	2151.1	2214.9	2355.6	2565.4	2862.9	2935.4	2518.5	1949.3
45°	2368.0	2357.4	2314.9	2274.2	2267.1	2375.1	2591.1	2924.8	3024.0	2611.5	2007.7
47.5°	2712.4	2689.4	2573.4	2439.7	2365.4	2410.5	2636.2	3016.0	3132.9	2733.6	2080.3
50°	3109.8	3055.8	2866.4	2640.7	2503.5	2510.5	2750.4	3142.6	3276.3	2893.0	2215.7
52.5°	3478.1	3381.6	3155.9	2857.5	2661.0	2684.9	2955.8	3404.6	3570.2	3156.8	2443.3
55°	3803.0	3679.0	3435.6	3109.0	2931.0	2972.6	3284.2	3751.6	3908.3	3471.0	2673.4
57.5°	4079.2	3947.3	3707.4	3419.7	3198.4	3232.9	3577.2	4073.9	4179.2	3753.4	2893.8
59°	4204.9	4074.7	3853.4	3587.9	3380.7	3453.3	3784.4	4234.1	4279.2	3862.3	2977.9
60°	4266.0	4135.8	3941.1	3681.7	3492.3	3587.9	3894.2	4355.4	4316.4	3878.2	3009.8
62.5°	4261.5	4170.4	4042.0	3864.9	3830.4	3989.8	4250.9	4511.2	4342.1	3832.2	3030.2
65°	3911.9	3903.9	3824.2	3844.6	3988.9	4235.0	4395.2	4536.8	4289.0	3648.9	2931.9
67.5°	3263.0	3295.7	3306.4	3431.2	3768.5	4186.3	4327.0	4354.5	4057.9	3256.8	2626.5
70°	2519.4	2446.8	2566.3	2786.7	3272.7	3810.9	4011.0	3915.4	3585.2	2727.4	2144.9
72.5°	1783.8	1805.0	1976.7	2262.7	2757.5	3315.2	3628.6	3107.2	2697.3	2041.4	1520.8
75°	1342.0	1442.1	1525.3	1775.8	2239.7	2839.8	3098.3	2136.1	1757.2	1407.5	995.0
77.5°	1286.3	1278.3	1214.5	1267.7	1614.7	1989.1	2210.4	1333.2	1100.4	920.6	601.1
80°	1188.9	1120.7	1004.7	953.4	1017.1	1277.4	1403.1	856.9	732.1	643.6	339.0
82.5°	922.4	876.4	754.2	750.7	848.1	907.4	964.9	607.3	550.6	521.4	208.0
85°	585.1	601.1	616.1	751.6	941.0	951.6	750.7	370.0	290.4	409.0	132.8
87.5°	173.5	282.4	342.6	581.6	848.1	850.7	564.8	121.3	108.9	127.5	77.0
90°	7.0	7.0	8.0	9.0	9.0	9.0	8.9	7.0	7.0	7.0	8.0
92.5°	6.5	7.0	7.0	7.0	6.5	6.0	6.0	6.0	6.0	6.0	6.0
95°	7.0	7.0	7.5	8.0	7.5	7.0	7.0	7.0	7.0	7.0	7.0
97.5°	10.5	12.0	11.0	10.0	9.5	9.0	8.5	8.0	8.0	8.0	8.5
100°	25.0	29.0	27.5	26.0	24.5	23.0	21.0	19.0	19.0	19.0	21.0
102.5°	45.0	50.0	48.5	47.0	44.5	42.0	40.5	39.0	38.0	39.0	40.5
105°	67.5	72.0	71.0	70.0	67.5	65.0	63.0	61.0	61.0	61.0	63.0
107.5°	91.5	95.0	94.5	94.0	92.0	90.0	88.5	87.0	86.0	87.0	88.5



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
110°	117.0	120.0	120.5	121.0	120.0	119.0	117.5	116.0	117.0	116.0	117.5
112.5°	145.5	148.0	149.0	150.0	149.5	149.0	148.0	147.0	147.0	147.0	148.0
115°	176.5	179.0	180.5	182.0	180.5	179.0	178.0	177.0	178.0	177.0	178.0
117.5°	208.0	211.0	213.0	215.0	212.5	210.0	209.0	208.0	209.0	208.0	209.0
120°	244.5	246.0	248.0	250.0	247.5	245.0	244.0	243.0	243.0	243.0	244.0
122.5°	278.0	279.0	281.0	283.0	280.5	278.0	277.0	276.0	277.0	276.0	277.0
125°	311.5	313.0	314.0	315.0	312.5	310.0	310.0	310.0	310.0	310.0	310.0
127.5°	342.5	345.0	345.5	346.0	346.0	346.0	345.5	345.0	347.0	345.0	345.5
130°	374.5	377.0	379.0	381.0	381.0	381.0	380.0	379.0	380.0	379.0	380.0
132.5°	408.0	411.0	413.5	416.0	415.0	414.0	414.0	414.0	415.0	414.0	414.0
135°	440.0	443.0	445.5	448.0	447.5	447.0	448.5	450.0	451.0	450.0	448.5
137.5°	470.5	473.0	474.0	475.0	475.5	476.0	478.5	481.0	482.0	481.0	478.5
140°	498.5	500.0	501.0	502.0	503.0	504.0	506.5	509.0	511.0	509.0	506.5
142.5°	526.0	527.0	530.0	533.0	533.0	533.0	533.5	534.0	536.0	534.0	533.5
145°	553.5	556.0	559.0	562.0	561.5	561.0	559.5	558.0	560.0	558.0	559.5
147.5°	577.5	580.0	582.5	585.0	585.5	586.0	584.5	583.0	585.0	583.0	584.5
150°	595.0	597.0	598.5	600.0	601.5	603.0	604.5	606.0	610.0	606.0	604.5
152.5°	610.5	611.0	612.5	614.0	616.0	618.0	620.5	623.0	628.0	623.0	620.5
155°	627.0	626.0	628.5	631.0	633.5	636.0	637.0	638.0	641.0	638.0	637.0
157.5°	644.5	644.0	646.0	648.0	649.0	650.0	650.0	650.0	655.0	650.0	650.0
160°	656.5	658.0	661.0	664.0	662.5	661.0	660.5	660.0	666.0	660.0	660.5
162.5°	665.0	667.0	669.0	671.0	670.5	670.0	669.0	668.0	674.0	668.0	669.0
165°	672.5	672.0	674.5	677.0	678.5	680.0	679.0	678.0	682.0	678.0	679.0
167.5°	681.5	678.0	681.0	684.0	686.0	688.0	688.0	688.0	694.0	688.0	688.0
170°	688.5	686.0	687.5	689.0	691.5	694.0	695.0	696.0	701.0	696.0	695.0
172.5°	689.5	689.0	690.5	692.0	693.0	694.0	695.0	696.0	701.0	696.0	695.0
175°	690.0	690.0	692.5	695.0	695.5	696.0	695.0	694.0	699.0	694.0	695.0
177.5°	694.5	694.0	696.5	699.0	700.0	701.0	699.5	698.0	702.0	698.0	699.5
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0



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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7
2.5°	1784.6	1781.1	1756.3	1714.7	1718.2	1698.8	1674.0	1634.1	1626.2	1604.1	1600.5
5°	1623.5	1581.9	1527.9	1462.4	1437.6	1404.0	1369.5	1344.7	1313.7	1285.4	1323.4
7.5°	1408.4	1347.3	1284.5	1215.4	1175.6	1120.7	1091.5	1034.8	993.2	985.3	952.5
10°	1228.7	1151.7	1080.0	1018.0	943.7	892.3	855.1	824.2	795.8	761.3	740.1
12.5°	1109.2	1022.4	946.3	869.3	833.9	791.4	768.4	739.2	698.5	669.2	640.9
15°	1055.2	961.4	878.2	810.9	759.5	719.7	679.0	643.6	599.3	566.6	533.8
17.5°	1048.1	926.0	820.6	745.4	689.6	646.2	592.2	545.3	491.3	455.0	427.6
20°	1056.1	899.4	767.5	669.2	612.6	536.5	486.0	428.5	375.3	327.5	284.2
22.5°	1088.0	885.2	715.3	607.3	523.2	436.4	382.4	308.9	263.8	217.8	200.9
25°	1131.3	876.4	670.1	539.1	432.9	347.0	273.5	212.5	192.1	180.6	174.4
27.5°	1177.4	860.5	619.7	476.3	360.3	255.8	204.5	178.8	170.9	164.7	160.2
30°	1211.9	829.5	557.7	409.0	286.8	218.7	182.4	165.5	160.2	153.1	148.7
32.5°	1226.9	781.7	501.9	345.2	241.7	187.7	159.3	149.6	144.3	138.1	135.4
35°	1224.3	727.7	473.6	320.5	221.3	166.4	139.9	133.7	126.6	120.4	114.2
37.5°	1226.9	678.1	451.5	314.3	212.5	150.5	127.5	123.0	117.7	111.5	106.2
40°	1237.6	650.6	440.8	301.0	205.4	144.3	117.7	113.3	112.4	105.3	100.9
42.5°	1242.0	653.3	435.5	282.4	187.7	142.5	117.7	108.0	108.0	102.7	97.4
45°	1236.7	672.8	439.1	271.8	174.4	133.7	123.9	108.0	105.3	100.9	95.6
47.5°	1252.6	686.9	439.1	270.0	165.5	124.8	117.7	118.6	107.1	101.8	93.8
50°	1318.1	700.2	430.2	267.3	162.9	116.0	111.5	116.9	120.4	103.6	94.7
52.5°	1434.1	717.0	420.5	262.9	159.3	108.9	103.6	109.8	123.0	108.9	94.7
55°	1552.7	747.1	414.3	255.8	154.0	104.5	93.8	105.3	112.4	108.0	93.8
57.5°	1679.3	779.9	408.1	239.0	141.6	100.0	90.3	92.1	100.9	104.5	91.2
59°	1717.4	795.8	402.8	226.6	131.0	96.5	87.6	85.0	90.3	100.0	89.4
60°	1744.8	796.7	396.6	216.0	124.8	94.7	85.9	82.3	84.1	102.7	90.3
62.5°	1747.5	795.8	377.1	193.9	112.4	91.2	83.2	78.8	77.0	85.9	92.1
65°	1637.7	758.6	341.7	182.4	113.3	87.6	78.8	75.2	71.7	73.5	79.7
67.5°	1432.3	663.0	304.5	185.0	119.5	85.0	75.2	71.7	69.0	67.3	69.9
70°	1083.5	550.6	293.9	191.2	124.8	83.2	69.9	66.4	64.6	63.7	63.7
72.5°	750.7	453.2	282.4	195.6	129.2	82.3	64.6	61.1	60.2	59.3	59.3
75°	483.3	329.3	233.7	166.4	117.7	75.2	58.4	54.9	54.0	53.1	54.0
77.5°	285.9	230.2	171.7	116.9	85.9	60.2	50.5	47.8	47.8	47.8	48.7
80°	158.5	136.3	114.2	75.2	61.1	45.1	41.6	39.0	39.0	39.8	41.6
82.5°	94.7	75.2	64.6	47.8	41.6	31.9	31.0	29.2	30.1	31.0	32.8
85°	62.0	47.8	39.0	31.9	28.3	20.4	17.7	18.6	19.5	21.2	22.1
87.5°	34.5	26.6	21.2	18.6	16.8	8.9	7.1	7.1	8.9	10.6	12.4
90°	9.0	9.0	9.0	8.0	7.0	7.0	7.0	7.5	8.0	8.0	8.0
92.5°	6.0	6.5	7.0	7.0	7.0	6.5	6.0	6.0	6.0	6.0	6.0
95°	7.0	7.5	8.0	7.5	7.0	7.0	7.0	7.0	7.0	7.0	7.0
97.5°	9.0	9.5	10.0	11.0	12.0	10.5	9.0	9.0	9.0	8.5	8.0
100°	23.0	24.5	26.0	27.5	29.0	25.0	21.0	16.5	12.0	11.0	10.0
102.5°	42.0	44.5	47.0	48.5	50.0	45.0	40.0	33.5	27.0	22.5	18.0
105°	65.0	67.5	70.0	71.0	72.0	67.5	63.0	55.5	48.0	42.0	36.0
107.5°	90.0	92.0	94.0	94.5	95.0	91.5	88.0	80.5	73.0	65.5	58.0



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REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	
110°	119.0	120.0	121.0	120.5	120.0	117.0	114.0	108.0	102.0	94.5	87.0	0°
112.5°	149.0	149.5	150.0	149.0	148.0	145.5	143.0	138.5	134.0	127.5	121.0	2.5°
115°	179.0	180.5	182.0	180.5	179.0	176.5	174.0	171.0	168.0	163.5	159.0	5°
117.5°	210.0	212.5	215.0	213.0	211.0	208.0	205.0	203.5	202.0	199.5	197.0	7.5°
120°	245.0	247.5	250.0	248.0	246.0	244.5	243.0	240.0	237.0	235.0	233.0	10°
122.5°	278.0	280.5	283.0	281.0	279.0	278.0	277.0	274.0	271.0	269.0	267.0	12.5°
125°	310.0	312.5	315.0	314.0	313.0	311.5	310.0	307.5	305.0	302.0	299.0	15°
127.5°	346.0	346.0	346.0	345.5	345.0	342.5	340.0	339.5	339.0	336.0	333.0	17.5°
130°	381.0	381.0	381.0	379.0	377.0	374.5	372.0	371.0	370.0	368.0	366.0	20°
132.5°	414.0	415.0	416.0	413.5	411.0	408.0	405.0	404.5	404.0	402.5	401.0	22.5°
135°	447.0	447.5	448.0	445.5	443.0	440.0	437.0	436.0	435.0	433.5	432.0	25°
137.5°	476.0	475.5	475.0	474.0	473.0	470.5	468.0	466.0	464.0	462.0	460.0	27.5°
140°	504.0	503.0	502.0	501.0	500.0	498.5	497.0	494.0	491.0	490.0	489.0	30°
142.5°	533.0	533.0	533.0	530.0	527.0	526.0	525.0	523.0	521.0	519.5	518.0	32.5°
145°	561.0	561.5	562.0	559.0	556.0	553.5	551.0	550.5	550.0	548.5	547.0	35°
147.5°	586.0	585.5	585.0	582.5	580.0	577.5	575.0	574.5	574.0	574.0	574.0	37.5°
150°	603.0	601.5	600.0	598.5	597.0	595.0	593.0	593.0	593.0	593.0	593.0	40°
152.5°	618.0	616.0	614.0	612.5	611.0	610.5	610.0	610.0	610.0	609.5	609.0	42.5°
155°	636.0	633.5	631.0	628.5	626.0	627.0	628.0	629.0	630.0	628.5	627.0	45°
157.5°	650.0	649.0	648.0	646.0	644.0	644.5	645.0	645.5	646.0	645.0	644.0	47.5°
160°	661.0	662.5	664.0	661.0	658.0	656.5	655.0	655.0	655.0	655.5	656.0	50°
162.5°	670.0	670.5	671.0	669.0	667.0	665.0	663.0	662.0	661.0	663.0	665.0	52.5°
165°	680.0	678.5	677.0	674.5	672.0	672.5	673.0	673.0	673.0	674.5	676.0	55°
167.5°	688.0	686.0	684.0	681.0	678.0	681.5	685.0	686.5	688.0	687.0	686.0	57.5°
170°	694.0	691.5	689.0	687.5	686.0	688.5	691.0	692.0	693.0	692.5	692.0	59°
172.5°	694.0	693.0	692.0	690.5	689.0	689.5	690.0	690.0	690.0	691.5	693.0	60°
175°	696.0	695.5	695.0	692.5	690.0	690.0	690.0	690.5	691.0	693.0	695.0	62.5°
177.5°	701.0	700.0	699.0	696.5	694.0	694.5	695.0	696.0	697.0	698.0	699.0	65°
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	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°

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REPORT NUMBER: P
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DISTRIBUTION (continued):

CANDELA DISTRIBUTION

160°	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	110°	160°
1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	110°	80.5
1612.9	1587.2	1559.8	1539.4	1548.3	1519.1	1521.7	1513.8	1510.2	1508.4	1489.9	112.5°	113.5
1277.4	1287.1	1246.4	1250.8	1263.2	1233.1	1212.8	1246.4	1242.0	1211.9	1228.7	115°	153.0
920.6	923.3	904.7	863.1	863.1	885.2	893.2	909.1	919.8	956.9	933.9	117.5°	193.0
703.8	679.0	660.4	641.8	631.2	609.0	614.4	633.8	646.2	667.5	684.3	120°	229.5
611.7	584.3	551.5	523.2	508.1	487.8	474.5	470.1	474.5	461.2	462.1	122.5°	264.0
508.1	483.3	447.0	432.0	403.7	387.7	378.9	367.4	358.5	339.9	332.0	125°	297.5
393.9	361.2	324.0	324.0	303.6	290.4	286.8	284.2	278.8	269.1	259.4	127.5°	331.0
262.0	240.8	219.5	208.9	210.7	208.9	203.6	212.5	212.5	216.0	214.2	130°	364.0
191.2	187.7	179.7	173.5	170.0	169.1	170.0	172.6	177.9	182.4	186.8	132.5°	397.0
171.7	170.0	162.9	156.7	155.8	154.0	154.0	156.7	157.6	158.5	157.6	135°	429.0
159.3	155.8	149.6	145.2	143.4	142.5	143.4	140.8	139.0	139.9	139.0	137.5°	459.5
144.3	141.6	135.4	131.9	131.0	131.0	128.4	127.5	125.7	126.6	125.7	140°	488.0
132.8	129.2	123.0	118.6	118.6	117.7	118.6	117.7	116.9	116.0	116.0	142.5°	517.5
111.5	110.7	104.5	102.7	103.6	106.2	106.2	106.2	107.1	106.2	106.2	145°	545.5
103.6	102.7	96.5	92.1	91.2	91.2	91.2	92.9	95.6	96.5	98.3	147.5°	572.5
98.3	97.4	91.2	87.6	85.9	85.0	84.1	84.1	85.0	88.5	91.2	150°	593.0
94.7	92.9	86.8	82.3	81.4	80.6	79.7	79.7	79.7	80.6	83.2	152.5°	608.5
92.9	90.3	83.2	78.8	77.0	76.1	76.1	77.0	76.1	76.1	76.1	155°	626.0
90.3	88.5	81.4	76.1	74.4	74.4	73.5	73.5	73.5	71.7	71.7	157.5°	643.5
89.4	86.8	79.7	74.4	72.6	71.7	70.8	71.7	69.9	69.0	68.2	160°	657.5
87.6	84.1	76.1	71.7	70.8	69.0	68.2	68.2	68.2	66.4	66.4	162.5°	667.0
86.8	82.3	74.4	69.9	68.2	66.4	65.5	65.5	67.3	65.5	65.5	165°	676.0
85.9	79.7	71.7	66.4	65.5	63.7	62.9	63.7	66.4	64.6	63.7	167.5°	685.0
82.3	77.9	69.9	65.5	63.7	62.0	61.1	62.0	63.7	63.7	63.7	170°	692.0
80.6	76.1	68.2	63.7	62.9	61.1	60.2	60.2	62.9	62.9	62.0	172.5°	694.0
77.9	74.4	66.4	61.1	59.3	59.3	58.4	58.4	59.3	59.3	60.2	175°	696.0
74.4	72.6	64.6	58.4	57.5	56.7	56.7	56.7	56.7	58.4	58.4	177.5°	699.5
70.8	69.9	62.0	56.7	54.9	54.9	54.9	54.9	54.9	55.8	56.7	180°	700.0
65.5	65.5	58.4	53.1	52.2	51.3	51.3	51.3	51.3	52.2	53.1		
60.2	61.1	54.0	48.7	47.8	47.8	47.8	47.8	48.7	48.7	49.6		
54.9	55.8	48.7	43.4	43.4	43.4	43.4	43.4	43.4	43.4	45.1		
49.6	49.6	41.6	36.3	37.2	38.1	39.0	38.1	38.1	39.0	41.6		
42.5	41.6	34.5	30.1	30.1	31.9	32.8	31.9	32.8	32.8	36.3		
33.6	33.6	26.6	22.1	22.1	25.7	25.7	25.7	26.6	27.4	30.1		
25.7	24.8	18.6	15.0	15.0	17.7	18.6	19.5	20.4	21.2	23.0		
15.0	15.0	9.7	6.2	7.1	8.0	10.6	10.6	10.6	12.4	15.0		
7.5	7.9	6.0	5.0	5.0	5.0	6.0	7.0	7.5	8.0	8.0		
5.5	5.0	4.5	4.0	4.0	4.0	4.5	5.0	5.5	6.0	6.0		
6.5	6.0	5.5	5.0	5.0	5.0	5.5	6.0	6.5	7.0	7.0		
8.0	8.0	7.5	7.0	7.0	7.0	7.5	8.0	8.0	8.0	8.5		
9.5	9.0	8.5	8.0	8.0	8.0	8.5	9.0	9.5	10.0	11.0		
15.5	13.0	12.0	11.0	11.0	11.0	12.0	13.0	15.5	18.0	22.5		
31.5	27.0	24.5	22.0	21.0	22.0	24.5	27.0	31.5	36.0	42.0		
53.5	49.0	45.5	42.0	41.0	42.0	45.5	49.0	53.5	58.0	65.5		

'227229
 IST-AF-1200-LED-E1-SLL-7030-ULG

REPORT NUMBER: P227229
 CATALOG NUMBER: IST-AF-12

TION (continued):

CANDELA DISTRIBUTION (con

165°	170°	175°	180°	185°	190°	195°	200°	205°	210°		215°	220°
74.0	71.0	68.0	66.0	68.0	71.0	74.0	80.5	87.0	94.5	0°	1737.7	1737.7
106.0	102.5	99.0	99.0	99.0	102.5	106.0	113.5	121.0	127.5	2.5°	1505.8	1504.9
147.0	143.0	139.0	140.0	139.0	143.0	147.0	153.0	159.0	163.5	5°	1235.8	1227.8
189.0	186.5	184.0	184.0	184.0	186.5	189.0	193.0	197.0	199.5	7.5°	957.8	987.0
226.0	224.5	223.0	225.0	223.0	224.5	226.0	229.5	233.0	235.0	10°	690.5	710.8
261.0	260.5	260.0	263.0	260.0	260.5	261.0	264.0	267.0	269.0	12.5°	480.7	491.3
296.0	295.0	294.0	298.0	294.0	295.0	296.0	297.5	299.0	302.0	15°	331.1	352.3
329.0	329.0	329.0	330.0	329.0	329.0	329.0	331.0	333.0	336.0	17.5°	257.6	260.3
362.0	361.5	361.0	363.0	361.0	361.5	362.0	364.0	366.0	368.0	20°	212.5	214.2
393.0	393.5	394.0	396.0	394.0	393.5	393.0	397.0	401.0	402.5	22.5°	188.6	192.1
426.0	426.0	426.0	429.0	426.0	426.0	426.0	429.0	432.0	433.5	25°	158.5	162.0
459.0	458.0	457.0	460.0	457.0	458.0	459.0	459.5	460.0	462.0	27.5°	139.9	143.4
487.0	486.0	485.0	488.0	485.0	486.0	487.0	488.0	489.0	490.0	30°	128.4	130.1
517.0	516.0	515.0	518.0	515.0	516.0	517.0	517.5	518.0	519.5	32.5°	116.9	116.9
544.0	545.0	546.0	550.0	546.0	545.0	544.0	545.5	547.0	548.5	35°	107.1	108.0
571.0	571.5	572.0	575.0	572.0	571.5	571.0	572.5	574.0	574.0	37.5°	100.0	101.8
593.0	592.5	592.0	595.0	592.0	592.5	593.0	593.0	593.0	593.0	40°	93.8	94.7
608.0	608.0	608.0	611.0	608.0	608.0	608.0	608.5	609.0	609.5	42.5°	85.0	86.8
625.0	625.0	625.0	629.0	625.0	625.0	625.0	626.0	627.0	628.5	45°	77.0	77.9
643.0	643.0	643.0	646.0	643.0	643.0	643.0	643.5	644.0	645.0	47.5°	71.7	71.7
659.0	659.5	660.0	663.0	660.0	659.5	659.0	657.5	656.0	655.5	50°	68.2	69.0
669.0	669.0	669.0	673.0	669.0	669.0	669.0	667.0	665.0	663.0	52.5°	66.4	67.3
676.0	677.0	678.0	681.0	678.0	677.0	676.0	676.0	676.0	674.5	55°	65.5	67.3
684.0	685.5	687.0	690.0	687.0	685.5	684.0	685.0	686.0	687.0	57.5°	65.5	66.4
692.0	693.5	695.0	698.0	695.0	693.5	692.0	692.0	692.0	692.5	59°	64.6	65.5
695.0	696.0	697.0	699.0	697.0	696.0	695.0	694.0	693.0	691.5	60°	64.6	66.4
697.0	697.5	698.0	700.0	698.0	697.5	697.0	696.0	695.0	693.0	62.5°	62.0	63.7
700.0	702.5	705.0	707.0	705.0	702.5	700.0	699.5	699.0	698.0	65°	60.2	62.0
700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	67.5°	57.5	60.2
										70°	54.9	57.5
										72.5°	51.3	54.9
										75°	47.8	50.5
										77.5°	43.4	46.0
										80°	38.1	39.0
										82.5°	31.9	31.9
										85°	23.9	21.2
										87.5°	13.3	14.2
										90°	8.0	7.5
										92.5°	6.0	6.0
										95°	7.0	7.0
										97.5°	9.0	9.0
										100°	12.0	16.5
										102.5°	27.0	33.5
										105°	48.0	55.5
										107.5°	73.0	80.5



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tinued):

CANDELA DISTRIBUTION (continued):

225°	230°	235°	240°	245°	250°	255°	260°	265°		215°	220°	225°
1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	110°	102.0	108.0	114.0
1486.3	1486.3	1512.9	1515.5	1484.5	1492.5	1507.6	1489.9	1509.3	112.5°	134.0	138.5	143.0
1247.3	1236.7	1237.6	1230.5	1242.9	1228.7	1243.8	1238.4	1234.0	115°	168.0	171.0	174.0
968.4	987.0	973.8	948.1	968.4	952.5	922.4	925.1	891.4	117.5°	202.0	203.5	205.0
727.7	714.4	707.3	694.9	662.2	668.4	634.7	640.0	651.5	120°	237.0	240.0	243.0
501.9	492.2	503.7	495.7	482.5	485.1	492.2	499.3	517.9	122.5°	271.0	274.0	277.0
352.3	347.9	345.2	350.6	365.6	373.6	385.1	406.3	416.9	125°	305.0	307.5	310.0
264.7	265.6	262.9	270.9	283.3	289.5	292.1	293.9	306.3	127.5°	339.0	339.5	340.0
218.7	222.2	221.3	224.0	220.4	216.9	219.5	214.2	209.8	130°	370.0	371.0	372.0
191.2	192.1	187.7	186.8	181.5	177.0	173.5	173.5	171.7	132.5°	404.0	404.5	405.0
162.0	162.9	158.5	158.5	157.6	160.2	158.5	154.9	154.0	135°	435.0	436.0	437.0
145.2	143.4	140.8	140.8	139.0	139.0	139.9	140.8	139.9	137.5°	464.0	466.0	468.0
130.1	128.4	127.5	128.4	127.5	128.4	129.2	128.4	129.2	140°	491.0	494.0	497.0
119.5	117.7	117.7	118.6	117.7	118.6	118.6	118.6	117.7	142.5°	521.0	523.0	525.0
110.7	108.9	108.9	108.9	108.0	106.2	104.5	101.8	99.1	145°	550.0	550.5	551.0
103.6	102.7	100.9	100.0	97.4	92.1	90.3	90.3	90.3	147.5°	574.0	574.5	575.0
97.4	95.6	94.7	91.2	87.6	85.9	85.9	85.9	85.9	150°	593.0	593.0	593.0
89.4	86.8	85.0	84.1	83.2	83.2	82.3	82.3	82.3	152.5°	610.0	610.0	610.0
79.7	78.8	78.8	79.7	79.7	79.7	79.7	78.8	79.7	155°	630.0	629.0	628.0
73.5	73.5	74.4	75.2	76.1	77.0	77.9	77.0	77.9	157.5°	646.0	645.5	645.0
70.8	70.8	70.8	72.6	73.5	74.4	76.1	76.1	76.1	160°	655.0	655.0	655.0
69.0	69.0	69.9	70.8	71.7	72.6	73.5	74.4	75.2	162.5°	661.0	662.0	663.0
68.2	69.0	68.2	69.0	69.9	71.7	72.6	72.6	73.5	165°	673.0	673.0	673.0
68.2	68.2	68.2	68.2	69.9	70.8	69.9	70.8	71.7	167.5°	688.0	686.5	685.0
68.2	68.2	67.3	68.2	69.0	69.9	69.0	69.0	70.8	170°	693.0	692.0	691.0
67.3	68.2	67.3	67.3	68.2	69.0	68.2	69.0	69.9	172.5°	690.0	690.0	690.0
65.5	66.4	65.5	66.4	66.4	67.3	67.3	67.3	68.2	175°	691.0	690.5	690.0
63.7	63.7	63.7	64.6	64.6	65.5	65.5	66.4	65.5	177.5°	697.0	696.0	695.0
62.0	62.0	62.0	62.9	62.9	63.7	64.6	63.7	63.7	180°	700.0	700.0	700.0
60.2	59.3	58.4	59.3	60.2	60.2	61.1	60.2	61.1				
57.5	56.7	55.8	55.8	56.7	56.7	57.5	56.7	56.7				
53.1	53.1	51.3	51.3	51.3	51.3	52.2	51.3	50.5				
47.8	47.8	46.0	46.0	46.0	46.0	45.1	45.1	45.1				
39.8	40.7	40.7	39.8	39.8	39.0	39.0	38.1	37.2				
30.1	31.9	32.8	32.8	32.8	32.8	32.8	31.0	29.2				
21.2	23.9	26.6	26.6	25.7	25.7	25.7	23.0	20.4				
13.3	15.9	16.8	18.6	15.9	15.0	15.0	13.3	12.4				
7.0	7.0	8.8	8.9	11.7	11.7	12.5	9.8	7.9				
6.0	6.5	7.0	7.0	7.0	6.5	6.0	6.0	6.0				
7.0	7.0	7.0	7.5	8.0	7.5	7.0	7.0	7.0				
9.0	10.5	12.0	11.0	10.0	9.5	9.0	8.5	8.0				
21.0	25.0	29.0	27.5	26.0	24.5	23.0	21.0	19.0				
40.0	45.0	50.0	48.5	47.0	44.5	42.0	40.5	39.0				
63.0	67.5	72.0	71.0	70.0	67.5	65.0	63.0	61.0				
88.0	91.5	95.0	94.5	94.0	92.0	90.0	88.5	87.0				



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-SLL-7030-ULG

CANDELA DISTRIBUTION (continued):

230°	235°	240°	245°	250°	255°	260°	265°		270°	275°	280°	285°
117.0	120.0	120.5	121.0	120.0	119.0	117.5	116.0	0°	1737.7	1737.7	1737.7	1737.7
145.5	148.0	149.0	150.0	149.5	149.0	148.0	147.0	2.5°	1492.5	1525.3	1529.7	1534.1
176.5	179.0	180.5	182.0	180.5	179.0	178.0	177.0	5°	1226.9	1259.7	1241.1	1249.1
208.0	211.0	213.0	215.0	212.5	210.0	209.0	208.0	7.5°	895.9	874.6	902.1	918.9
244.5	246.0	248.0	250.0	247.5	245.0	244.0	243.0	10°	654.2	679.0	689.6	709.1
278.0	279.0	281.0	283.0	280.5	278.0	277.0	276.0	12.5°	542.7	558.6	578.1	609.0
311.5	313.0	314.0	315.0	312.5	310.0	310.0	310.0	15°	440.0	451.5	476.3	506.4
342.5	345.0	345.5	346.0	346.0	346.0	345.5	345.0	17.5°	320.5	337.3	353.2	378.0
374.5	377.0	379.0	381.0	381.0	381.0	380.0	379.0	20°	215.1	222.2	241.7	253.2
408.0	411.0	413.5	416.0	415.0	414.0	414.0	414.0	22.5°	172.6	175.3	178.8	188.6
440.0	443.0	445.5	448.0	447.5	447.0	448.5	450.0	25°	154.9	156.7	159.3	162.9
470.5	473.0	474.0	475.0	475.5	476.0	478.5	481.0	27.5°	140.8	141.6	144.3	146.1
498.5	500.0	501.0	502.0	503.0	504.0	506.5	509.0	30°	128.4	127.5	128.4	131.0
526.0	527.0	530.0	533.0	533.0	533.0	533.5	534.0	32.5°	115.1	115.1	116.9	116.9
553.5	556.0	559.0	562.0	561.5	561.0	559.5	558.0	35°	99.1	98.3	100.0	102.7
577.5	580.0	582.5	585.0	585.5	586.0	584.5	583.0	37.5°	91.2	92.1	93.8	95.6
595.0	597.0	598.5	600.0	601.5	603.0	604.5	606.0	40°	86.8	87.6	89.4	91.2
610.5	611.0	612.5	614.0	616.0	618.0	620.5	623.0	42.5°	82.3	84.1	85.9	88.5
627.0	626.0	628.5	631.0	633.5	636.0	637.0	638.0	45°	79.7	81.4	84.1	86.8
644.5	644.0	646.0	648.0	649.0	650.0	650.0	650.0	47.5°	78.8	80.6	83.2	86.8
656.5	658.0	661.0	664.0	662.5	661.0	660.5	660.0	50°	77.0	79.7	82.3	85.9
665.0	667.0	669.0	671.0	670.5	670.0	669.0	668.0	52.5°	77.0	78.8	81.4	85.9
672.5	672.0	674.5	677.0	678.5	680.0	679.0	678.0	55°	74.4	77.0	79.7	84.1
681.5	678.0	681.0	684.0	686.0	688.0	688.0	688.0	57.5°	72.6	74.4	77.9	83.2
688.5	686.0	687.5	689.0	691.5	694.0	695.0	696.0	59°	71.7	73.5	77.0	82.3
689.5	689.0	690.5	692.0	693.0	694.0	695.0	696.0	60°	69.9	72.6	76.1	81.4
690.0	690.0	692.5	695.0	695.5	696.0	695.0	694.0	62.5°	68.2	70.8	74.4	79.7
694.5	694.0	696.5	699.0	700.0	701.0	699.5	698.0	65°	65.5	69.0	72.6	76.1
700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	67.5°	63.7	65.5	69.0	72.6
								70°	60.2	62.0	64.6	67.3
								72.5°	55.8	56.7	58.4	61.1
								75°	49.6	50.5	51.3	54.0
								77.5°	43.4	43.4	44.3	47.8
								80°	36.3	36.3	37.2	39.0
								82.5°	27.4	27.4	29.2	31.9
								85°	19.5	18.6	21.2	23.0
								87.5°	11.5	10.6	11.5	11.5
								90°	7.9	9.7	9.8	10.8
								92.5°	6.0	6.0	6.0	6.0
								95°	7.0	7.0	7.0	7.0
								97.5°	8.0	8.0	8.5	9.0
								100°	19.0	19.0	21.0	23.0
								102.5°	38.0	39.0	40.5	42.0
								105°	61.0	61.0	63.0	65.0
								107.5°	86.0	87.0	88.5	90.0



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ULG

CANDELA DISTRIBUTION (continued):

290°	295°	300°	305°	310°	315°	320°		270°	275°	280°	285°	290°
1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7	110°	117.0	116.0	117.5	119.0	120.0
1551.8	1543.0	1550.1	1577.5	1587.2	1599.6	1641.2	112.5°	147.0	147.0	148.0	149.0	149.5
1268.5	1280.1	1268.5	1324.3	1327.0	1364.2	1379.2	115°	178.0	177.0	178.0	179.0	180.5
932.2	947.2	972.0	1009.2	1019.8	1072.9	1118.1	117.5°	209.0	208.0	209.0	210.0	212.5
727.7	747.1	781.7	804.7	827.7	858.7	895.0	120°	243.0	243.0	244.0	245.0	247.5
646.2	666.6	696.7	725.9	758.6	782.6	812.6	122.5°	277.0	276.0	277.0	278.0	280.5
540.0	571.9	601.1	639.1	666.6	710.0	745.4	125°	310.0	310.0	310.0	310.0	312.5
412.5	456.8	486.0	532.0	573.6	611.7	659.5	127.5°	347.0	345.0	345.5	346.0	346.0
286.8	321.3	358.5	408.1	462.1	514.3	578.1	130°	380.0	379.0	380.0	381.0	381.0
197.4	216.0	244.3	295.7	351.4	426.7	495.7	132.5°	415.0	414.0	414.0	414.0	415.0
168.2	175.3	185.9	210.7	257.6	339.9	416.1	135°	451.0	450.0	448.5	447.0	447.5
149.6	154.9	162.0	174.4	199.2	255.8	339.9	137.5°	482.0	481.0	478.5	476.0	475.5
137.2	143.4	150.5	159.3	172.6	211.6	274.4	140°	511.0	509.0	506.5	504.0	503.0
120.4	124.8	131.0	140.8	150.5	181.5	242.6	142.5°	536.0	534.0	533.5	533.0	533.0
106.2	111.5	119.5	126.6	136.3	161.1	220.4	145°	560.0	558.0	559.5	561.0	561.5
99.1	104.5	111.5	117.7	124.8	145.2	204.5	147.5°	585.0	583.0	584.5	586.0	585.5
94.7	100.0	107.1	112.4	116.9	139.9	198.3	150°	610.0	606.0	604.5	603.0	601.5
92.1	98.3	104.5	108.0	116.9	142.5	183.2	152.5°	628.0	623.0	620.5	618.0	616.0
91.2	97.4	104.5	110.7	128.4	134.6	173.5	155°	641.0	638.0	637.0	636.0	633.5
92.1	97.4	106.2	123.9	124.8	127.5	162.9	157.5°	655.0	650.0	650.0	650.0	649.0
92.1	100.0	118.6	129.2	118.6	120.4	153.1	160°	666.0	660.0	660.5	661.0	662.5
92.9	103.6	123.0	120.4	115.1	112.4	142.5	162.5°	674.0	668.0	669.0	670.0	670.5
92.9	101.8	117.7	113.3	106.2	107.1	130.1	165°	682.0	678.0	679.0	680.0	678.5
90.3	101.8	113.3	102.7	97.4	101.8	119.5	167.5°	694.0	688.0	688.0	688.0	686.0
88.5	104.5	100.9	94.7	94.7	99.1	114.2	170°	701.0	696.0	695.0	694.0	691.5
87.6	107.1	95.6	92.1	92.1	98.3	111.5	172.5°	701.0	696.0	695.0	694.0	693.0
85.0	100.0	87.6	85.9	88.5	92.9	108.0	175°	699.0	694.0	695.0	696.0	695.5
79.7	83.2	80.6	80.6	84.1	89.4	106.2	177.5°	702.0	698.0	699.5	701.0	700.0
73.5	75.2	75.2	76.1	79.7	84.1	108.0	180°	700.0	700.0	700.0	700.0	700.0
68.2	68.2	69.9	70.8	73.5	79.7	103.6						
62.0	62.9	62.9	64.6	66.4	72.6	100.0						
54.9	54.9	56.7	56.7	59.3	65.5	89.4						
47.8	47.8	47.8	48.7	50.5	56.7	73.5						
39.8	39.8	39.8	40.7	41.6	46.9	55.8						
31.9	31.0	30.1	30.1	31.9	36.3	43.4						
22.1	22.1	21.2	21.2	21.2	23.9	29.2						
12.4	10.6	11.5	12.4	11.5	13.3	15.9						
9.9	10.8	10.7	10.5	10.5	10.5	12.8						
6.5	7.0	7.0	7.0	6.5	6.0	6.0						
7.5	8.0	7.5	7.0	7.0	7.0	7.0						
9.5	10.0	11.0	12.0	10.5	9.0	9.0						
24.5	26.0	27.5	29.0	25.0	21.0	16.5						
44.5	47.0	48.5	50.0	45.0	40.0	33.5						
67.5	70.0	71.0	72.0	67.5	63.0	55.5						
92.0	94.0	94.5	95.0	91.5	88.0	80.5						



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CANDELA DISTRIBUTION (continued):

295°	300°	305°	310°	315°	320°		325°	330°	335°	340°	345°	350°
121.0	120.5	120.0	117.0	114.0	108.0	0°	1737.7	1737.7	1737.7	1737.7	1737.7	1737.7
150.0	149.0	148.0	145.5	143.0	138.5	2.5°	1635.9	1658.9	1695.2	1702.3	1731.5	1751.9
182.0	180.5	179.0	176.5	174.0	171.0	5°	1386.3	1441.2	1460.6	1498.7	1565.1	1598.7
215.0	213.0	211.0	208.0	205.0	203.5	7.5°	1143.7	1185.3	1232.3	1293.3	1342.0	1399.6
250.0	248.0	246.0	244.5	243.0	240.0	10°	941.0	1000.3	1061.4	1111.0	1179.1	1248.2
283.0	281.0	279.0	278.0	277.0	274.0	12.5°	835.7	868.4	928.6	998.5	1083.5	1160.5
315.0	314.0	313.0	311.5	310.0	307.5	15°	780.8	819.7	884.4	958.7	1049.0	1144.6
346.0	345.5	345.0	342.5	340.0	339.5	17.5°	712.6	774.6	848.1	954.3	1071.1	1203.9
381.0	379.0	377.0	374.5	372.0	371.0	20°	645.3	720.6	817.1	956.9	1118.9	1291.6
416.0	413.5	411.0	408.0	405.0	404.5	22.5°	586.0	675.4	797.6	972.9	1180.0	1410.2
448.0	445.5	443.0	440.0	437.0	436.0	25°	516.1	635.6	782.6	1005.6	1273.9	1569.5
475.0	474.0	473.0	470.5	468.0	466.0	27.5°	460.3	597.5	760.4	1034.0	1359.7	1722.7
502.0	501.0	500.0	498.5	497.0	494.0	30°	398.4	553.3	729.4	1043.7	1464.2	1848.4
533.0	530.0	527.0	526.0	525.0	523.0	32.5°	348.8	511.7	694.0	1034.8	1511.1	1936.0
562.0	559.0	556.0	553.5	551.0	550.5	35°	324.9	481.6	663.9	1003.9	1550.1	2030.7
585.0	582.5	580.0	577.5	575.0	574.5	37.5°	308.9	448.8	634.7	952.5	1594.3	2124.6
600.0	598.5	597.0	595.0	593.0	593.0	40°	288.6	423.1	610.8	915.3	1628.8	2202.5
614.0	612.5	611.0	610.5	610.0	610.0	42.5°	270.0	400.1	592.2	882.6	1637.7	2272.4
631.0	628.5	626.0	627.0	628.0	629.0	45°	254.1	386.0	578.1	884.4	1643.9	2369.8
648.0	646.0	644.0	644.5	645.0	645.5	47.5°	241.7	372.7	572.7	914.5	1709.4	2505.2
664.0	661.0	658.0	656.5	655.0	655.0	50°	230.2	361.2	563.9	972.9	1814.7	2688.5
671.0	669.0	667.0	665.0	663.0	662.0	52.5°	216.9	345.2	552.4	1033.1	1929.8	2933.7
677.0	674.5	672.0	672.5	673.0	673.0	55°	199.2	324.0	540.0	1083.5	2086.5	3232.0
684.0	681.0	678.0	681.5	685.0	686.5	57.5°	171.7	299.2	532.0	1109.2	2183.0	3403.7
689.0	687.5	686.0	688.5	691.0	692.0	59°	157.6	275.3	527.6	1096.8	2208.7	3433.0
692.0	690.5	689.0	689.5	690.0	690.0	60°	149.6	261.1	520.5	1081.8	2215.7	3414.4
695.0	692.5	690.0	690.0	690.0	690.5	62.5°	139.0	227.5	491.3	1006.5	2116.6	3189.5
699.0	696.5	694.0	694.5	695.0	696.0	65°	141.6	215.1	424.9	856.9	1889.1	2750.4
700.0	700.0	700.0	700.0	700.0	700.0	67.5°	145.2	209.8	367.4	692.3	1505.8	2275.9
						70°	142.5	207.1	333.7	550.6	1127.8	1704.1
						72.5°	139.0	195.6	289.5	442.6	715.3	1193.3
						75°	123.0	164.7	227.5	303.6	451.5	869.3
						77.5°	96.5	126.6	161.1	188.6	229.3	613.5
						80°	70.8	92.1	105.3	113.3	127.5	418.7
						82.5°	50.5	62.0	67.3	71.7	85.0	313.4
						85°	38.1	43.4	46.9	46.9	57.5	221.3
						87.5°	21.2	22.1	22.1	23.9	28.3	60.2
						90°	14.2	14.2	13.3	13.7	11.4	9.5
						92.5°	6.0	6.0	6.0	5.5	5.0	4.5
						95°	7.0	7.0	7.0	6.5	6.0	5.5
						97.5°	9.0	8.5	8.0	8.0	8.0	7.5
						100°	12.0	11.0	10.0	9.5	9.0	8.5
						102.5°	27.0	22.5	18.0	15.5	13.0	12.0
						105°	48.0	42.0	36.0	31.5	27.0	24.5
						107.5°	73.0	65.5	58.0	53.5	49.0	45.5



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CANDELA DISTRIBUTION (continued):

355°	359°	360°		325°	330°	335°	340°	345°	350°	355°
1737.7	1737.7	1737.7	110°	102.0	94.5	87.0	80.5	74.0	71.0	68.0
1774.9	1788.2	1798.8	112.5°	134.0	127.5	121.0	113.5	106.0	102.5	99.0
1650.1	1682.8	1689.0	115°	168.0	163.5	159.0	153.0	147.0	143.0	139.0
1463.3	1516.4	1535.0	117.5°	202.0	199.5	197.0	193.0	189.0	186.5	184.0
1326.1	1383.6	1403.1	120°	237.0	235.0	233.0	229.5	226.0	224.5	223.0
1250.8	1318.1	1339.4	122.5°	271.0	269.0	267.0	264.0	261.0	260.5	260.0
1252.6	1333.2	1364.2	125°	305.0	302.0	299.0	297.5	296.0	295.0	294.0
1334.1	1426.1	1464.2	127.5°	339.0	336.0	333.0	331.0	329.0	329.0	329.0
1473.9	1607.6	1635.9	130°	370.0	368.0	366.0	364.0	362.0	361.5	361.0
1663.4	1794.4	1836.9	132.5°	404.0	402.5	401.0	397.0	393.0	393.5	394.0
1841.3	2014.8	2047.6	135°	435.0	433.5	432.0	429.0	426.0	426.0	426.0
2016.6	2188.3	2217.5	137.5°	464.0	462.0	460.0	459.5	459.0	458.0	457.0
2152.0	2331.7	2356.5	140°	491.0	490.0	489.0	488.0	487.0	486.0	485.0
2282.1	2484.9	2512.3	142.5°	521.0	519.5	518.0	517.5	517.0	516.0	515.0
2427.3	2651.3	2683.2	145°	550.0	548.5	547.0	545.5	544.0	545.0	546.0
2558.3	2815.1	2835.4	147.5°	574.0	574.0	574.0	572.5	571.0	571.5	572.0
2703.5	2948.7	2954.0	150°	593.0	593.0	593.0	593.0	593.0	592.5	592.0
2822.1	3047.9	3049.6	152.5°	610.0	609.5	609.0	608.5	608.0	608.0	608.0
2937.2	3140.8	3141.7	155°	630.0	628.5	627.0	626.0	625.0	625.0	625.0
3057.6	3242.6	3229.3	157.5°	646.0	645.0	644.0	643.5	643.0	643.0	643.0
3247.9	3363.0	3376.3	160°	655.0	655.5	656.0	657.5	659.0	659.5	660.0
3537.4	3640.1	3655.1	162.5°	661.0	663.0	665.0	667.0	669.0	669.0	669.0
3873.8	4016.3	3996.0	165°	673.0	674.5	676.0	676.0	676.0	677.0	678.0
4016.3	4179.2	4196.0	167.5°	688.0	687.0	686.0	685.0	684.0	685.5	687.0
3992.4	4214.6	4242.9	170°	693.0	692.5	692.0	692.0	692.0	693.5	695.0
3954.4	4204.0	4238.5	172.5°	690.0	691.5	693.0	694.0	695.0	696.0	697.0
3738.4	4093.3	4147.3	175°	691.0	693.0	695.0	696.0	697.0	697.5	698.0
3375.4	3864.1	3940.2	177.5°	697.0	698.0	699.0	699.5	700.0	702.5	705.0
2908.9	3521.5	3582.6	180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0
2269.7	2862.0	2914.2								
1508.4	1965.2	2055.5								
958.7	1267.7	1250.8								
707.3	824.2	825.0								
513.4	565.7	559.5								
397.5	345.2	344.4								
139.0	122.2	119.5								
60.2	50.5	51.3								
7.7	7.7	8.5								
4.0	4.0	4.0								
5.0	5.0	5.0								
7.0	7.0	7.0								
8.0	8.0	8.0								
11.0	11.0	11.0								
22.0	21.2	21.0								
42.0	41.2	41.0								



359°	360°
66.4	66.0
99.0	99.0
139.8	140.0
184.0	184.0
224.6	225.0
262.4	263.0
297.2	298.0
329.8	330.0
362.6	363.0
395.6	396.0
428.4	429.0
459.4	460.0
487.4	488.0
517.4	518.0
549.2	550.0
574.4	575.0
594.4	595.0
610.4	611.0
628.2	629.0
645.4	646.0
662.4	663.0
672.2	673.0
680.4	681.0
689.4	690.0
697.4	698.0
698.6	699.0
699.6	700.0
706.6	707.0
700.0	700.0

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