

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: P227231

Luminaire Tested: **IST-AF-1000-LED-E1-SLL-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227231
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-1000-LED-E1-SLL-8030-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, 80 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5997.1 lumens
Efficiency: N/A
Efficacy: 84.1 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): 71.3
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

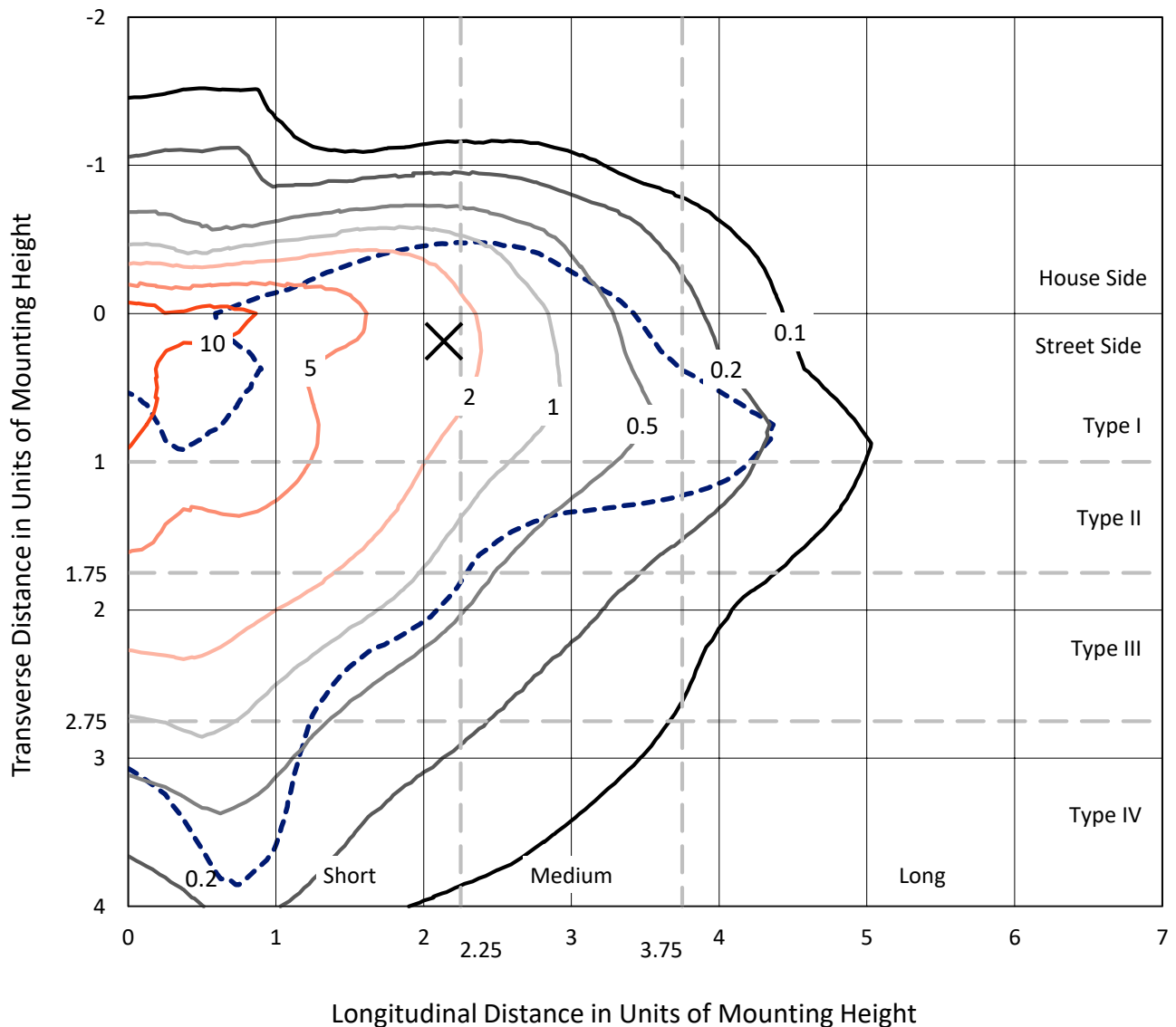


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Iso-Footcandle Lines of Horizontal Illumination

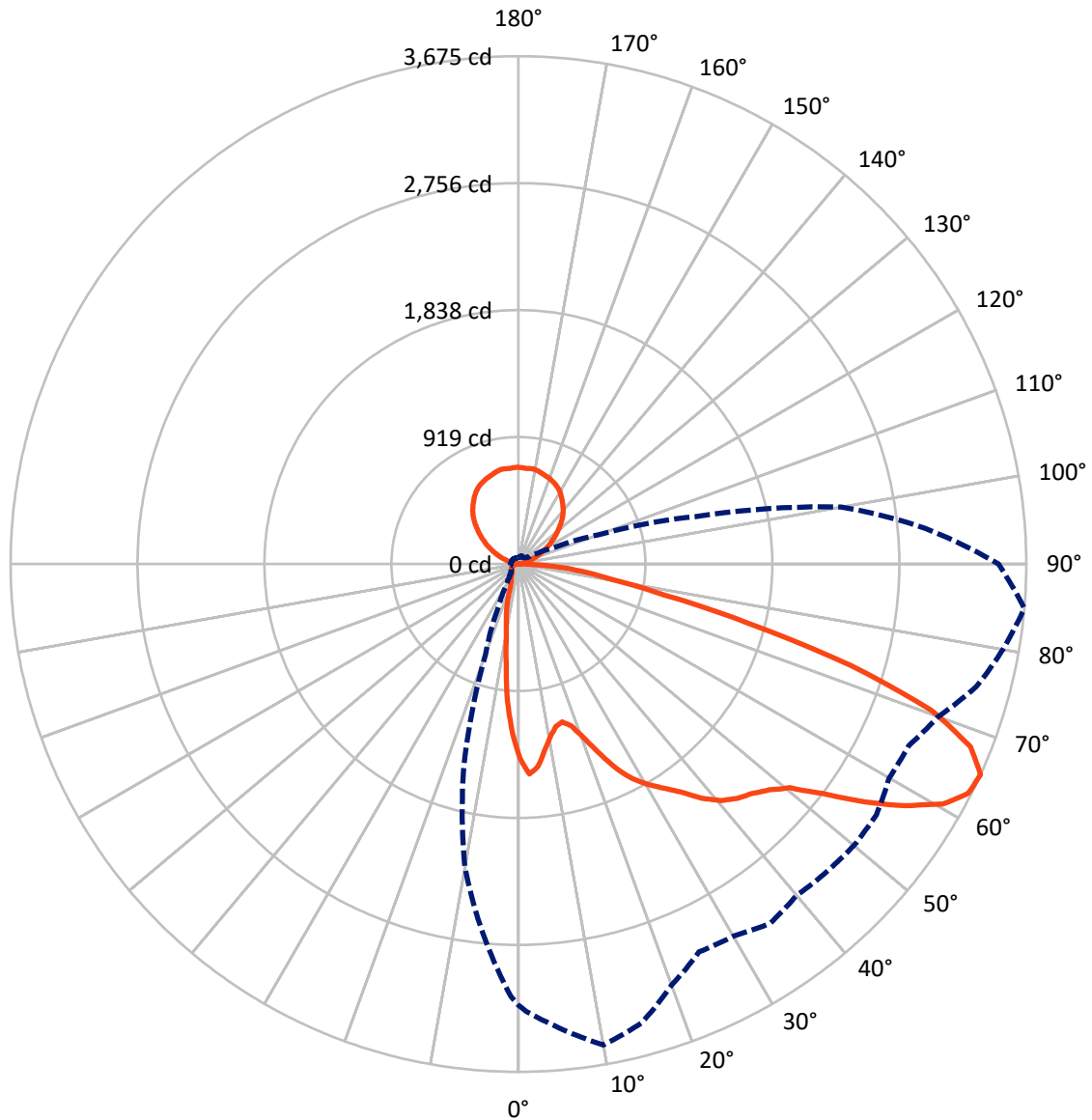
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.4 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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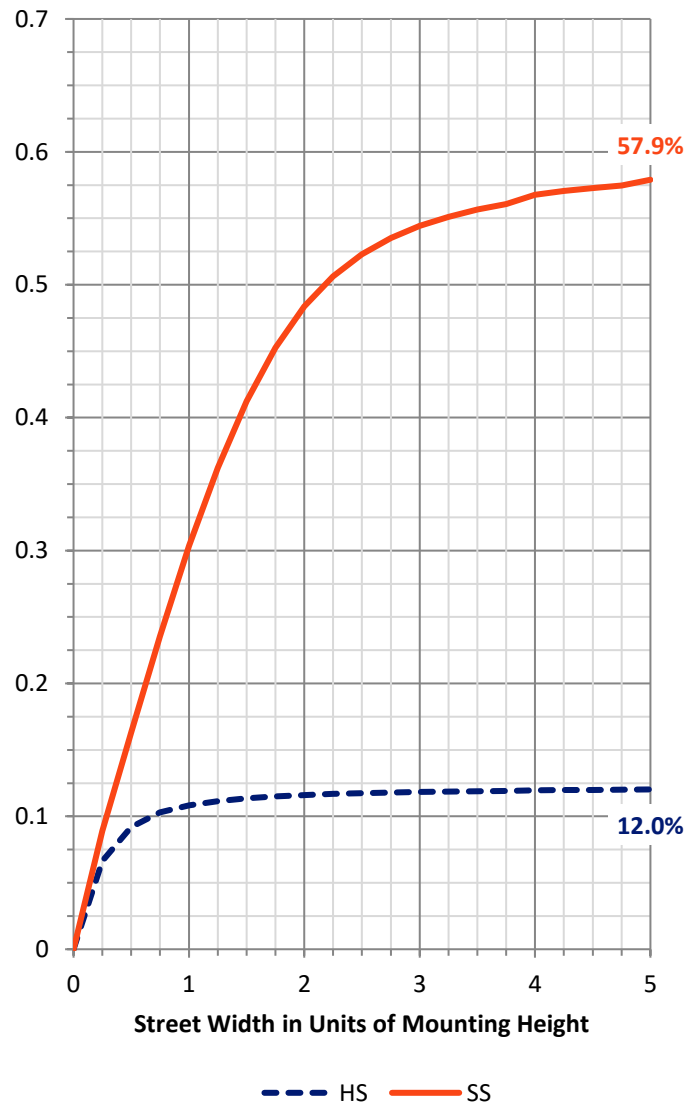
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	731.4	867.6	1599.0
	% Fixture	12.2	14.5	26.7
Street Side	Lumens	3530.4	867.7	4398.1
	% Fixture	58.9	14.5	73.3
Total	Lumens	4261.8	1735.3	5997.1
	% Fixture	71.1	28.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	1.7
10°-20°	200.7	3.3
20°-30°	286.1	4.8
30°-40°	415.1	6.9
40°-50°	593.8	9.9
50°-60°	911.7	15.2
60°-70°	1055.3	17.6
70°-80°	538.4	9.0
80°-90°	156.4	2.6
90°-100°	9.5	0.2
100°-110°	57.4	1.0
110°-120°	166.1	2.8
120°-130°	273.2	4.6
130°-140°	336.8	5.6
140°-150°	344.6	5.7
150°-160°	290.3	4.8
160°-170°	191.2	3.2
170°-180°	66.3	1.1
0°-90°	4261.8	71.1
0°-180°	5997.1	100.0



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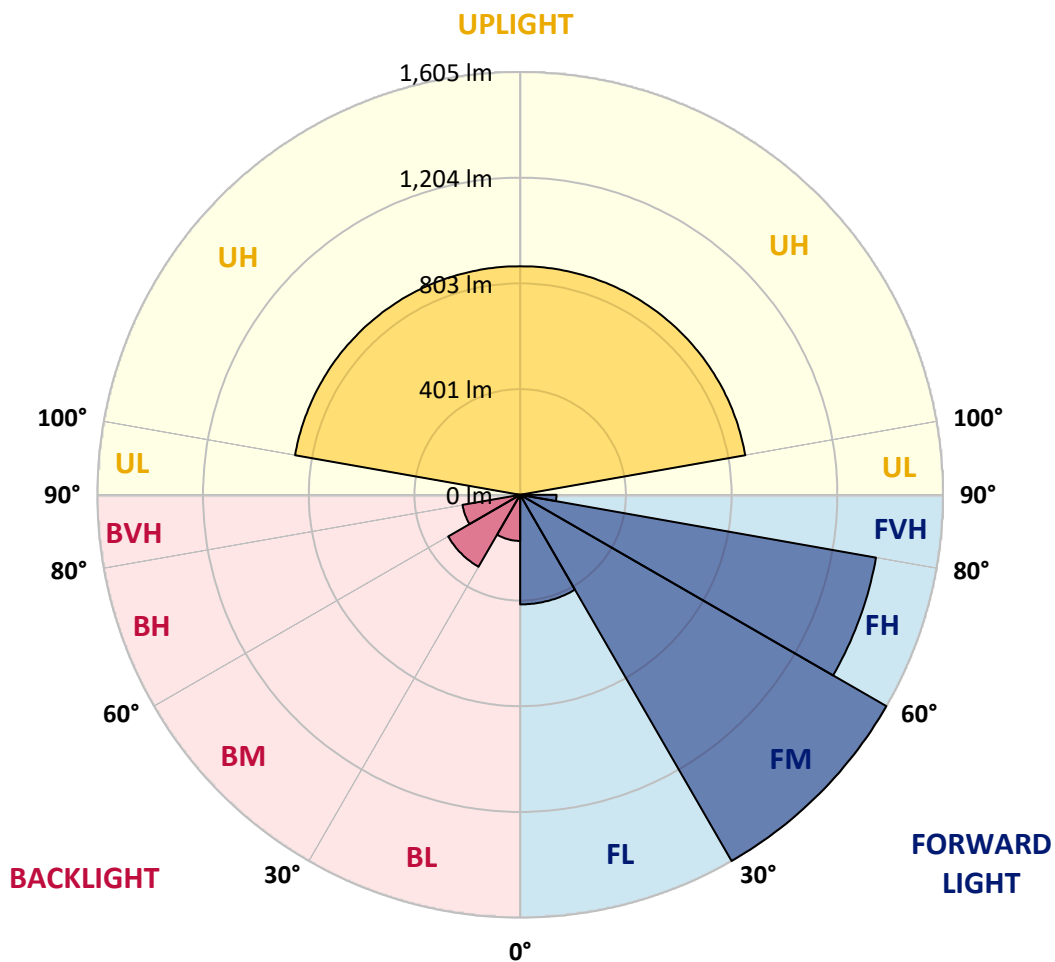
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	416.1	6.9			
FM	(30°-60°)	1605.1	26.8			
FH	(60°-80°)	1371.4	22.9			G1/1800
FVH	(80°-90°)	137.8	2.3			G2/225
BL	(0°-30°)	175.0	2.9	B1/500		
BM	(30°-60°)	315.6	5.3	B1/1000		
BH	(60°-80°)	222.3	3.7	B1/500		G1/500
BVH	(80°-90°)	18.6	0.3			G1/100
UL	(90°-100°)	9.5	0.2		U1/10	
UH	(100°-180°)	867.6	14.5		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°	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7
2.5°	1457.1	1458.6	1478.6	1498.0	1522.4	1518.8	1538.9	1553.9	1567.6	1569.7	1579.8
5°	1368.2	1382.6	1427.7	1466.5	1515.2	1553.2	1594.1	1626.4	1650.0	1672.3	1675.1
7.5°	1243.4	1254.2	1306.5	1367.5	1437.8	1488.0	1549.6	1603.4	1641.4	1677.3	1685.2
10°	1136.6	1146.6	1204.7	1283.6	1345.3	1410.5	1474.3	1518.1	1567.6	1598.4	1613.5
12.5°	1085.0	1097.2	1152.4	1224.1	1287.2	1350.3	1398.3	1436.3	1464.3	1470.0	1474.3
15°	1105.0	1111.5	1172.4	1236.3	1286.5	1318.0	1330.9	1353.9	1351.7	1363.2	1365.3
17.5°	1186.1	1183.2	1247.7	1292.2	1316.6	1313.0	1292.9	1280.7	1259.2	1252.8	1271.4
20°	1325.2	1335.2	1376.8	1404.1	1379.0	1320.9	1265.7	1227.7	1197.5	1187.5	1185.4
22.5°	1488.0	1500.9	1546.1	1531.7	1467.9	1361.8	1261.4	1200.4	1163.1	1152.4	1148.1
25°	1658.6	1667.2	1690.2	1641.4	1551.8	1414.1	1291.5	1206.1	1156.7	1140.9	1138.7
27.5°	1796.3	1804.9	1794.2	1738.2	1608.4	1472.9	1333.1	1232.0	1167.4	1151.7	1144.5
30°	1908.9	1913.2	1877.3	1807.8	1678.7	1538.2	1387.6	1277.1	1201.8	1166.0	1161.0
32.5°	2035.1	2032.2	1962.7	1866.6	1738.2	1597.0	1450.0	1328.1	1234.8	1191.1	1183.2
35°	2173.5	2148.4	2025.8	1924.7	1779.1	1642.1	1506.6	1381.8	1287.9	1229.8	1219.8
37.5°	2296.8	2271.0	2106.8	1970.6	1820.0	1677.3	1551.1	1451.4	1368.9	1315.9	1311.6
40°	2392.9	2361.4	2168.5	2001.4	1840.1	1703.1	1603.4	1538.9	1484.4	1441.4	1441.4
42.5°	2470.4	2436.0	2228.7	2037.3	1858.0	1742.5	1690.9	1668.7	1657.2	1633.5	1642.1
45°	2545.0	2509.8	2278.2	2060.2	1898.1	1819.3	1826.4	1845.8	1880.2	1866.6	1878.8
47.5°	2616.0	2581.5	2334.1	2096.8	1975.6	1956.9	1994.2	2071.7	2139.1	2192.2	2229.4
50°	2735.0	2694.1	2434.5	2204.3	2097.5	2106.8	2214.4	2366.4	2476.1	2524.9	2522.0
52.5°	2960.9	2902.8	2650.4	2405.1	2271.7	2323.4	2450.3	2641.8	2785.2	2823.2	2838.3
55°	3237.0	3191.1	2962.3	2671.2	2574.4	2592.3	2750.1	2966.6	3077.0	3116.5	3129.4
57.5°	3399.0	3386.8	3243.4	2955.9	2861.9	2854.7	3060.6	3237.7	3333.0	3370.3	3358.9
59°	3437.0	3440.6	3358.9	3157.4	3028.3	3012.5	3221.9	3386.1	3465.7	3477.2	3471.4
60°	3433.4	3453.5	3443.5	3267.8	3133.7	3113.6	3290.0	3446.3	3513.0	3531.0	3510.9
62.5°	3359.6	3394.0	3489.4	3470.7	3372.5	3269.9	3353.1	3466.4	3509.5	3492.2	3477.2
65°	3191.8	3237.0	3369.6	3534.5	3439.9	3242.0	3096.4	3109.3	3174.6	3131.5	3152.3
67.5°	2902.1	2953.7	3024.0	3398.3	3260.6	2928.6	2678.3	2555.7	2524.9	2566.5	2632.4
70°	2360.7	2394.4	2572.2	3101.4	2863.4	2407.3	2093.2	1929.7	1875.2	1971.3	2038.7
72.5°	1665.1	1715.3	1949.8	2566.5	2355.6	1928.3	1584.1	1433.5	1379.0	1383.3	1442.1
75°	1013.3	1081.4	1362.5	2029.4	1856.6	1477.2	1206.9	1098.6	1082.1	1072.8	1062.7
77.5°	668.3	694.1	895.6	1400.5	1252.0	1050.5	905.7	950.1	999.6	1010.4	1023.3
80°	453.2	461.1	580.8	982.4	824.7	775.9	732.2	836.8	930.8	948.0	938.7
82.5°	278.9	302.6	405.2	662.6	657.6	634.6	578.7	660.4	722.8	733.6	752.9
85°	96.8	101.1	248.8	585.1	668.3	675.5	476.9	376.5	423.1	415.2	298.3
87.5°	41.6	46.6	77.4	391.5	452.5	374.3	218.0	193.6	149.2	83.9	81.0
90°	7.9	7.9	7.2	9.6	17.8	14.7	14.5	10.2	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°	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7
2.5°	1577.6	1568.3	1574.0	1566.1	1553.2	1544.6	1534.6	1521.7	1506.6	1486.5	1466.5
5°	1668.7	1661.5	1643.6	1617.8	1581.9	1551.8	1515.9	1473.6	1438.5	1393.3	1351.0
7.5°	1676.6	1665.1	1632.1	1584.1	1528.8	1472.9	1430.6	1361.8	1317.3	1245.6	1197.5
10°	1604.9	1605.6	1572.6	1527.4	1470.0	1404.1	1343.1	1267.8	1202.6	1129.4	1049.1
12.5°	1499.4	1509.5	1510.9	1470.8	1414.8	1345.3	1277.1	1205.4	1124.4	1046.2	972.4
15°	1379.7	1408.4	1410.5	1400.5	1371.1	1312.3	1249.9	1185.4	1102.9	1017.6	934.4
17.5°	1272.8	1300.1	1325.2	1348.1	1349.6	1321.6	1283.6	1228.4	1145.9	1045.5	948.0
20°	1191.8	1221.2	1264.2	1306.5	1353.2	1367.5	1370.4	1335.2	1247.0	1124.4	992.5
22.5°	1158.1	1192.5	1236.3	1315.9	1398.3	1449.2	1477.9	1477.9	1385.4	1242.0	1065.6
25°	1150.9	1178.9	1245.6	1344.5	1455.0	1543.9	1598.4	1635.0	1568.3	1393.3	1156.0
27.5°	1156.0	1194.0	1276.4	1377.5	1493.0	1607.0	1696.6	1760.5	1698.1	1496.6	1239.9
30°	1176.0	1232.7	1318.0	1422.7	1541.7	1662.2	1770.5	1851.5	1805.6	1590.5	1319.5
32.5°	1211.2	1280.0	1376.8	1471.5	1589.8	1720.3	1827.2	1934.0	1900.3	1655.8	1361.8
35°	1263.5	1344.5	1432.8	1528.1	1641.4	1771.9	1886.0	2025.8	2013.6	1737.5	1404.1
37.5°	1348.1	1431.3	1512.3	1594.1	1701.7	1828.6	1970.6	2149.1	2139.1	1858.7	1472.2
40°	1497.3	1546.1	1606.3	1658.6	1759.7	1880.9	2033.0	2251.0	2286.8	1962.7	1532.4
42.5°	1682.3	1711.0	1728.2	1742.5	1794.2	1908.2	2078.1	2319.1	2377.9	2040.1	1579.0
45°	1918.2	1909.6	1875.2	1842.2	1836.5	1924.0	2098.9	2369.3	2449.6	2115.4	1626.4
47.5°	2197.2	2178.5	2084.6	1976.3	1916.1	1952.6	2135.5	2443.1	2537.8	2214.4	1685.2
50°	2519.1	2475.4	2321.9	2139.1	2027.9	2033.7	2228.0	2545.7	2654.0	2343.5	1794.9
52.5°	2817.5	2739.3	2556.4	2314.8	2155.6	2174.9	2394.4	2757.9	2892.0	2557.2	1979.2
55°	3080.6	2980.2	2783.0	2518.4	2374.3	2408.0	2660.4	3039.0	3166.0	2811.7	2165.6
57.5°	3304.4	3197.5	3003.2	2770.1	2590.9	2618.8	2897.8	3300.1	3385.4	3040.5	2344.2
59°	3406.2	3300.8	3121.5	2906.4	2738.6	2797.4	3065.6	3429.9	3466.4	3128.7	2412.3
60°	3455.7	3350.3	3192.5	2982.4	2828.9	2906.4	3154.5	3528.1	3496.5	3141.6	2438.1
62.5°	3452.1	3378.2	3274.2	3130.8	3102.9	3231.9	3443.5	3654.3	3517.3	3104.3	2454.6
65°	3168.8	3162.4	3097.8	3114.3	3231.2	3430.6	3560.4	3675.1	3474.3	2955.9	2375.0
67.5°	2643.2	2669.7	2678.3	2779.5	3052.7	3391.1	3505.1	3527.4	3287.2	2638.2	2127.6
70°	2040.8	1982.0	2078.9	2257.4	2651.1	3087.1	3249.1	3171.7	2904.2	2209.4	1737.5
72.5°	1444.9	1462.2	1601.3	1832.9	2233.7	2685.5	2939.4	2517.0	2185.0	1653.6	1232.0
75°	1087.1	1168.1	1235.6	1438.5	1814.2	2300.4	2509.8	1730.3	1423.4	1140.2	806.0
77.5°	1041.9	1035.5	983.9	1026.9	1308.0	1611.3	1790.6	1079.9	891.3	745.8	486.9
80°	963.1	907.8	813.9	772.3	823.9	1034.8	1136.6	694.1	593.0	521.3	274.6
82.5°	747.2	709.9	611.0	608.1	687.0	735.0	781.6	491.9	446.0	422.4	168.5
85°	474.0	486.9	499.1	608.8	762.3	770.9	608.1	299.7	235.2	331.3	107.6
87.5°	140.6	228.8	277.5	471.1	687.0	689.1	457.5	98.2	88.2	103.3	62.4
90°	7.0	7.0	8.0	9.0	9.0	9.0	8.7	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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CATALOG NUMBER: IST-AF-1000-LED-E1-SLL-8030-ULG

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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CATALOG NUMBER: IST-AF-1000-LED-E1-SLL-8030-ULG

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7
2.5°	1445.7	1442.8	1422.7	1389.0	1391.9	1376.1	1356.0	1323.8	1317.3	1299.4	1296.5
5°	1315.1	1281.4	1237.7	1184.6	1164.6	1137.3	1109.3	1089.3	1064.2	1041.2	1072.1
7.5°	1140.9	1091.4	1040.5	984.6	952.3	907.8	884.2	838.3	804.6	798.1	771.6
10°	995.3	932.9	874.9	824.7	764.4	722.8	692.7	667.6	644.7	616.7	599.5
12.5°	898.5	828.2	766.6	704.2	675.5	641.1	622.4	598.8	565.8	542.1	519.2
15°	854.8	778.8	711.4	656.9	615.3	583.0	550.0	521.3	485.5	458.9	432.4
17.5°	849.0	750.1	664.7	603.8	558.6	523.5	479.7	441.7	398.0	368.6	346.4
20°	855.5	728.6	621.7	542.1	496.2	434.6	393.7	347.1	304.0	265.3	230.2
22.5°	881.3	717.1	579.4	491.9	423.8	353.5	309.8	250.3	213.7	176.4	162.8
25°	916.4	709.9	542.8	436.7	350.7	281.1	221.6	172.1	155.6	146.3	141.3
27.5°	953.7	697.0	502.0	385.8	291.9	207.2	165.6	144.9	138.4	133.4	129.8
30°	981.7	671.9	451.8	331.3	232.3	177.1	147.7	134.1	129.8	124.1	120.5
32.5°	993.9	633.2	406.6	279.7	195.8	152.0	129.1	121.2	116.9	111.9	109.7
35°	991.7	589.5	383.6	259.6	179.3	134.8	113.3	108.3	102.5	97.5	92.5
37.5°	993.9	549.3	365.7	254.6	172.1	121.9	103.3	99.7	95.4	90.4	86.1
40°	1002.5	527.1	357.1	243.8	166.4	116.9	95.4	91.8	91.1	85.3	81.7
42.5°	1006.1	529.2	352.8	228.8	152.0	115.5	95.4	87.5	87.5	83.2	78.9
45°	1001.8	545.0	355.7	220.1	141.3	108.3	100.4	87.5	85.3	81.7	77.4
47.5°	1014.7	556.5	355.7	218.7	134.1	101.1	95.4	96.1	86.8	82.5	76.0
50°	1067.8	567.2	348.5	216.6	131.9	93.9	90.4	94.7	97.5	83.9	76.7
52.5°	1161.7	580.8	340.6	213.0	129.1	88.2	83.9	88.9	99.7	88.2	76.7
55°	1257.8	605.2	335.6	207.2	124.8	84.6	76.0	85.3	91.1	87.5	76.0
57.5°	1360.3	631.8	330.6	193.6	114.7	81.0	73.1	74.6	81.7	84.6	73.9
59°	1391.2	644.7	326.3	183.6	106.1	78.2	71.0	68.8	73.1	81.0	72.4
60°	1413.4	645.4	321.3	175.0	101.1	76.7	69.6	66.7	68.1	83.2	73.1
62.5°	1415.5	644.7	305.5	157.0	91.1	73.9	67.4	63.8	62.4	69.6	74.6
65°	1326.6	614.5	276.8	147.7	91.8	71.0	63.8	61.0	58.1	59.5	64.5
67.5°	1160.3	537.1	246.7	149.9	96.8	68.8	61.0	58.1	55.9	54.5	56.7
70°	877.7	446.0	238.1	154.9	101.1	67.4	56.7	53.8	52.3	51.6	51.6
72.5°	608.1	367.2	228.8	158.5	104.7	66.7	52.3	49.5	48.8	48.0	48.0
75°	391.5	266.8	189.3	134.8	95.4	61.0	47.3	44.5	43.7	43.0	43.7
77.5°	231.6	186.4	139.1	94.7	69.6	48.8	40.9	38.7	38.7	38.7	39.4
80°	128.4	110.4	92.5	61.0	49.5	36.6	33.7	31.6	31.6	32.3	33.7
82.5°	76.7	61.0	52.3	38.7	33.7	25.8	25.1	23.7	24.4	25.1	26.5
85°	50.2	38.7	31.6	25.8	22.9	16.5	14.3	15.1	15.8	17.2	17.9
87.5°	28.0	21.5	17.2	15.1	13.6	7.2	5.7	5.7	7.2	8.6	10.0
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°
1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	110°	80.5
1306.5	1285.7	1263.5	1247.0	1254.2	1230.5	1232.7	1226.2	1223.4	1221.9	1206.9	112.5°	113.5
1034.8	1042.7	1009.7	1013.3	1023.3	998.9	982.4	1009.7	1006.1	981.7	995.3	115°	153.0
745.8	747.9	732.9	699.2	699.2	717.1	723.5	736.5	745.1	775.2	756.5	117.5°	193.0
570.1	550.0	535.0	519.9	511.3	493.4	497.7	513.4	523.5	540.7	554.3	120°	229.5
495.5	473.3	446.7	423.8	411.6	395.1	384.4	380.8	384.4	373.6	374.3	122.5°	264.0
411.6	391.5	362.1	349.9	327.0	314.1	306.9	297.6	290.4	275.4	268.9	125°	297.5
319.1	292.6	262.5	262.5	246.0	235.2	232.3	230.2	225.9	218.0	210.1	127.5°	331.0
212.3	195.0	177.8	169.2	170.7	169.2	164.9	172.1	172.1	175.0	173.5	130°	364.0
154.9	152.0	145.6	140.6	137.7	137.0	137.7	139.8	144.1	147.7	151.3	132.5°	397.0
139.1	137.7	131.9	126.9	126.2	124.8	124.8	126.9	127.6	128.4	127.6	135°	429.0
129.1	126.2	121.2	117.6	116.2	115.5	116.2	114.0	112.6	113.3	112.6	137.5°	459.5
116.9	114.7	109.7	106.8	106.1	106.1	104.0	103.3	101.8	102.5	101.8	140°	488.0
107.6	104.7	99.7	96.1	96.1	95.4	96.1	95.4	94.7	93.9	93.9	142.5°	517.5
90.4	89.6	84.6	83.2	83.9	86.1	86.1	86.1	86.8	86.1	86.1	145°	545.5
83.9	83.2	78.2	74.6	73.9	73.9	73.9	75.3	77.4	78.2	79.6	147.5°	572.5
79.6	78.9	73.9	71.0	69.6	68.8	68.1	68.1	68.8	71.7	73.9	150°	593.0
76.7	75.3	70.3	66.7	66.0	65.3	64.5	64.5	64.5	65.3	67.4	152.5°	608.5
75.3	73.1	67.4	63.8	62.4	61.7	61.7	62.4	61.7	61.7	61.7	155°	626.0
73.1	71.7	66.0	61.7	60.2	60.2	59.5	59.5	59.5	58.1	58.1	157.5°	643.5
72.4	70.3	64.5	60.2	58.8	58.1	57.4	58.1	56.7	55.9	55.2	160°	657.5
71.0	68.1	61.7	58.1	57.4	55.9	55.2	55.2	55.2	53.8	53.8	162.5°	667.0
70.3	66.7	60.2	56.7	55.2	53.8	53.1	53.1	54.5	53.1	53.1	165°	676.0
69.6	64.5	58.1	53.8	53.1	51.6	50.9	51.6	53.8	52.3	51.6	167.5°	685.0
66.7	63.1	56.7	53.1	51.6	50.2	49.5	50.2	51.6	51.6	51.6	170°	692.0
65.3	61.7	55.2	51.6	50.9	49.5	48.8	48.8	50.9	50.9	50.2	172.5°	694.0
63.1	60.2	53.8	49.5	48.0	48.0	47.3	47.3	48.0	48.0	48.8	175°	696.0
60.2	58.8	52.3	47.3	46.6	45.9	45.9	45.9	45.9	47.3	47.3	177.5°	699.5
57.4	56.7	50.2	45.9	44.5	44.5	44.5	44.5	44.5	45.2	45.9	180°	700.0
53.1	53.1	47.3	43.0	42.3	41.6	41.6	41.6	41.6	42.3	43.0		
48.8	49.5	43.7	39.4	38.7	38.7	38.7	38.7	39.4	39.4	40.2		
44.5	45.2	39.4	35.1	35.1	35.1	35.1	35.1	35.1	35.1	36.6		
40.2	40.2	33.7	29.4	30.1	30.8	31.6	30.8	30.8	31.6	33.7		
34.4	33.7	28.0	24.4	24.4	25.8	26.5	25.8	26.5	26.5	29.4		
27.2	27.2	21.5	17.9	17.9	20.8	20.8	20.8	21.5	22.2	24.4		
20.8	20.1	15.1	12.2	12.2	14.3	15.1	15.8	16.5	17.2	18.6		
12.2	12.2	7.9	5.0	5.7	6.5	8.6	8.6	8.6	10.0	12.2		
7.5	7.7	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		

'227231
 IST-AF-1000-LED-E1-SLL-8030-ULG

REPORT NUMBER: P227231
 CATALOG NUMBER: IST-AF-10

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°	1407.7	1407.7
106.0	102.5	99.0	99.0	99.0	102.5	106.0	113.5	121.0	127.5	2.5°	1219.8	1219.1
147.0	143.0	139.0	140.0	139.0	143.0	147.0	153.0	159.0	163.5	5°	1001.1	994.6
189.0	186.5	184.0	184.0	184.0	186.5	189.0	193.0	197.0	199.5	7.5°	775.9	799.6
226.0	224.5	223.0	225.0	223.0	224.5	226.0	229.5	233.0	235.0	10°	559.3	575.8
261.0	260.5	260.0	263.0	260.0	260.5	261.0	264.0	267.0	269.0	12.5°	389.4	398.0
296.0	295.0	294.0	298.0	294.0	295.0	296.0	297.5	299.0	302.0	15°	268.2	285.4
329.0	329.0	329.0	330.0	329.0	329.0	329.0	331.0	333.0	336.0	17.5°	208.7	210.8
362.0	361.5	361.0	363.0	361.0	361.5	362.0	364.0	366.0	368.0	20°	172.1	173.5
393.0	393.5	394.0	396.0	394.0	393.5	393.0	397.0	401.0	402.5	22.5°	152.7	155.6
426.0	426.0	426.0	429.0	426.0	426.0	426.0	429.0	432.0	433.5	25°	128.4	131.2
459.0	458.0	457.0	460.0	457.0	458.0	459.0	459.5	460.0	462.0	27.5°	113.3	116.2
487.0	486.0	485.0	488.0	485.0	486.0	487.0	488.0	489.0	490.0	30°	104.0	105.4
517.0	516.0	515.0	518.0	515.0	516.0	517.0	517.5	518.0	519.5	32.5°	94.7	94.7
544.0	545.0	546.0	550.0	546.0	545.0	544.0	545.5	547.0	548.5	35°	86.8	87.5
571.0	571.5	572.0	575.0	572.0	571.5	571.0	572.5	574.0	574.0	37.5°	81.0	82.5
593.0	592.5	592.0	595.0	592.0	592.5	593.0	593.0	593.0	593.0	40°	76.0	76.7
608.0	608.0	608.0	611.0	608.0	608.0	608.0	608.5	609.0	609.5	42.5°	68.8	70.3
625.0	625.0	625.0	629.0	625.0	625.0	625.0	626.0	627.0	628.5	45°	62.4	63.1
643.0	643.0	643.0	646.0	643.0	643.0	643.0	643.5	644.0	645.0	47.5°	58.1	58.1
659.0	659.5	660.0	663.0	660.0	659.5	659.0	657.5	656.0	655.5	50°	55.2	55.9
669.0	669.0	669.0	673.0	669.0	669.0	669.0	667.0	665.0	663.0	52.5°	53.8	54.5
676.0	677.0	678.0	681.0	678.0	677.0	676.0	676.0	676.0	674.5	55°	53.1	54.5
684.0	685.5	687.0	690.0	687.0	685.5	684.0	685.0	686.0	687.0	57.5°	53.1	53.8
692.0	693.5	695.0	698.0	695.0	693.5	692.0	692.0	692.0	692.5	59°	52.3	53.1
695.0	696.0	697.0	699.0	697.0	696.0	695.0	694.0	693.0	691.5	60°	52.3	53.8
697.0	697.5	698.0	700.0	698.0	697.5	697.0	696.0	695.0	693.0	62.5°	50.2	51.6
700.0	702.5	705.0	707.0	705.0	702.5	700.0	699.5	699.0	698.0	65°	48.8	50.2
700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	67.5°	46.6	48.8
										70°	44.5	46.6
										72.5°	41.6	44.5
										75°	38.7	40.9
										77.5°	35.1	37.3
										80°	30.8	31.6
										82.5°	25.8	25.8
										85°	19.4	17.2
										87.5°	10.8	11.5
										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°
1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	110°	102.0	108.0	114.0
1204.0	1204.0	1225.5	1227.7	1202.6	1209.0	1221.2	1206.9	1222.6	112.5°	134.0	138.5	143.0
1010.4	1001.8	1002.5	996.8	1006.8	995.3	1007.5	1003.2	999.6	115°	168.0	171.0	174.0
784.5	799.6	788.8	768.0	784.5	771.6	747.2	749.4	722.1	117.5°	202.0	203.5	205.0
589.5	578.7	573.0	562.9	536.4	541.4	514.2	518.5	527.8	120°	237.0	240.0	243.0
406.6	398.7	408.0	401.6	390.8	393.0	398.7	404.4	419.5	122.5°	271.0	274.0	277.0
285.4	281.8	279.7	284.0	296.2	302.6	311.9	329.1	337.8	125°	305.0	307.5	310.0
214.4	215.1	213.0	219.4	229.5	234.5	236.6	238.1	248.1	127.5°	339.0	339.5	340.0
177.1	180.0	179.3	181.4	178.6	175.7	177.8	173.5	170.0	130°	370.0	371.0	372.0
154.9	155.6	152.0	151.3	147.0	143.4	140.6	140.6	139.1	132.5°	404.0	404.5	405.0
131.2	131.9	128.4	128.4	127.6	129.8	128.4	125.5	124.8	135°	435.0	436.0	437.0
117.6	116.2	114.0	114.0	112.6	112.6	113.3	114.0	113.3	137.5°	464.0	466.0	468.0
105.4	104.0	103.3	104.0	103.3	104.0	104.7	104.0	104.7	140°	491.0	494.0	497.0
96.8	95.4	95.4	96.1	95.4	96.1	96.1	96.1	95.4	142.5°	521.0	523.0	525.0
89.6	88.2	88.2	88.2	87.5	86.1	84.6	82.5	80.3	145°	550.0	550.5	551.0
83.9	83.2	81.7	81.0	78.9	74.6	73.1	73.1	73.1	147.5°	574.0	574.5	575.0
78.9	77.4	76.7	73.9	71.0	69.6	69.6	69.6	69.6	150°	593.0	593.0	593.0
72.4	70.3	68.8	68.1	67.4	67.4	66.7	66.7	66.7	152.5°	610.0	610.0	610.0
64.5	63.8	63.8	64.5	64.5	64.5	64.5	63.8	64.5	155°	630.0	629.0	628.0
59.5	59.5	60.2	61.0	61.7	62.4	63.1	62.4	63.1	157.5°	646.0	645.5	645.0
57.4	57.4	57.4	58.8	59.5	60.2	61.7	61.7	61.7	160°	655.0	655.0	655.0
55.9	55.9	56.7	57.4	58.1	58.8	59.5	60.2	61.0	162.5°	661.0	662.0	663.0
55.2	55.9	55.2	55.9	56.7	58.1	58.8	58.8	59.5	165°	673.0	673.0	673.0
55.2	55.2	55.2	55.2	56.7	57.4	56.7	57.4	58.1	167.5°	688.0	686.5	685.0
55.2	55.2	54.5	55.2	55.9	56.7	55.9	55.9	57.4	170°	693.0	692.0	691.0
54.5	55.2	54.5	54.5	55.2	55.9	55.2	55.9	56.7	172.5°	690.0	690.0	690.0
53.1	53.8	53.1	53.8	53.8	54.5	54.5	54.5	55.2	175°	691.0	690.5	690.0
51.6	51.6	51.6	52.3	52.3	53.1	53.1	53.8	53.1	177.5°	697.0	696.0	695.0
50.2	50.2	50.2	50.9	50.9	51.6	52.3	51.6	51.6	180°	700.0	700.0	700.0
48.8	48.0	47.3	48.0	48.8	48.8	49.5	48.8	49.5				
46.6	45.9	45.2	45.2	45.9	45.9	46.6	45.9	45.9				
43.0	43.0	41.6	41.6	41.6	41.6	42.3	41.6	40.9				
38.7	38.7	37.3	37.3	37.3	37.3	36.6	36.6	36.6				
32.3	33.0	33.0	32.3	32.3	31.6	31.6	30.8	30.1				
24.4	25.8	26.5	26.5	26.5	26.5	26.5	25.1	23.7				
17.2	19.4	21.5	21.5	20.8	20.8	20.8	18.6	16.5				
10.8	12.9	13.6	15.1	12.9	12.2	12.2	10.8	10.0				
7.0	7.0	8.4	8.7	11.2	11.2	11.9	9.4	7.7				
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-8030-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°	1407.7	1407.7	1407.7	1407.7
145.5	148.0	149.0	150.0	149.5	149.0	148.0	147.0	2.5°	1209.0	1235.6	1239.1	1242.7
176.5	179.0	180.5	182.0	180.5	179.0	178.0	177.0	5°	993.9	1020.4	1005.4	1011.8
208.0	211.0	213.0	215.0	212.5	210.0	209.0	208.0	7.5°	725.7	708.5	730.7	744.3
244.5	246.0	248.0	250.0	247.5	245.0	244.0	243.0	10°	529.9	550.0	558.6	574.4
278.0	279.0	281.0	283.0	280.5	278.0	277.0	276.0	12.5°	439.6	452.5	468.3	493.4
311.5	313.0	314.0	315.0	312.5	310.0	310.0	310.0	15°	356.4	365.7	385.8	410.2
342.5	345.0	345.5	346.0	346.0	346.0	345.5	345.0	17.5°	259.6	273.2	286.1	306.2
374.5	377.0	379.0	381.0	381.0	381.0	380.0	379.0	20°	174.3	180.0	195.8	205.1
408.0	411.0	413.5	416.0	415.0	414.0	414.0	414.0	22.5°	139.8	142.0	144.9	152.7
440.0	443.0	445.5	448.0	447.5	447.0	448.5	450.0	25°	125.5	126.9	129.1	131.9
470.5	473.0	474.0	475.0	475.5	476.0	478.5	481.0	27.5°	114.0	114.7	116.9	118.3
498.5	500.0	501.0	502.0	503.0	504.0	506.5	509.0	30°	104.0	103.3	104.0	106.1
526.0	527.0	530.0	533.0	533.0	533.0	533.5	534.0	32.5°	93.2	93.2	94.7	94.7
553.5	556.0	559.0	562.0	561.5	561.0	559.5	558.0	35°	80.3	79.6	81.0	83.2
577.5	580.0	582.5	585.0	585.5	586.0	584.5	583.0	37.5°	73.9	74.6	76.0	77.4
595.0	597.0	598.5	600.0	601.5	603.0	604.5	606.0	40°	70.3	71.0	72.4	73.9
610.5	611.0	612.5	614.0	616.0	618.0	620.5	623.0	42.5°	66.7	68.1	69.6	71.7
627.0	626.0	628.5	631.0	633.5	636.0	637.0	638.0	45°	64.5	66.0	68.1	70.3
644.5	644.0	646.0	648.0	649.0	650.0	650.0	650.0	47.5°	63.8	65.3	67.4	70.3
656.5	658.0	661.0	664.0	662.5	661.0	660.5	660.0	50°	62.4	64.5	66.7	69.6
665.0	667.0	669.0	671.0	670.5	670.0	669.0	668.0	52.5°	62.4	63.8	66.0	69.6
672.5	672.0	674.5	677.0	678.5	680.0	679.0	678.0	55°	60.2	62.4	64.5	68.1
681.5	678.0	681.0	684.0	686.0	688.0	688.0	688.0	57.5°	58.8	60.2	63.1	67.4
688.5	686.0	687.5	689.0	691.5	694.0	695.0	696.0	59°	58.1	59.5	62.4	66.7
689.5	689.0	690.5	692.0	693.0	694.0	695.0	696.0	60°	56.7	58.8	61.7	66.0
690.0	690.0	692.5	695.0	695.5	696.0	695.0	694.0	62.5°	55.2	57.4	60.2	64.5
694.5	694.0	696.5	699.0	700.0	701.0	699.5	698.0	65°	53.1	55.9	58.8	61.7
700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	67.5°	51.6	53.1	55.9	58.8
								70°	48.8	50.2	52.3	54.5
								72.5°	45.2	45.9	47.3	49.5
								75°	40.2	40.9	41.6	43.7
								77.5°	35.1	35.1	35.9	38.7
								80°	29.4	29.4	30.1	31.6
								82.5°	22.2	22.2	23.7	25.8
								85°	15.8	15.1	17.2	18.6
								87.5°	9.3	8.6	9.3	9.3
								90°	7.7	9.2	9.4	10.4
								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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CATALOG NUMBER: IST-AF-1000-LED-E1-SLL-8030-ULG

ULG

CANDELA DISTRIBUTION (continued):

290°	295°	300°	305°	310°	315°	320°		270°	275°	280°	285°	290°
1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7	110°	117.0	116.0	117.5	119.0	120.0
1257.1	1249.9	1255.6	1277.9	1285.7	1295.8	1329.5	112.5°	147.0	147.0	148.0	149.0	149.5
1027.6	1036.9	1027.6	1072.8	1074.9	1105.0	1117.2	115°	178.0	177.0	178.0	179.0	180.5
755.1	767.3	787.4	817.5	826.1	869.1	905.7	117.5°	209.0	208.0	209.0	210.0	212.5
589.5	605.2	633.2	651.8	670.5	695.6	725.0	120°	243.0	243.0	244.0	245.0	247.5
523.5	540.0	564.4	588.0	614.5	633.9	658.3	122.5°	277.0	276.0	277.0	278.0	280.5
437.4	463.2	486.9	517.7	540.0	575.1	603.8	125°	310.0	310.0	310.0	310.0	312.5
334.2	370.0	393.7	431.0	464.7	495.5	534.2	127.5°	347.0	345.0	345.5	346.0	346.0
232.3	260.3	290.4	330.6	374.3	416.6	468.3	130°	380.0	379.0	380.0	381.0	381.0
159.9	175.0	197.9	239.5	284.7	345.6	401.6	132.5°	415.0	414.0	414.0	414.0	415.0
136.2	142.0	150.6	170.7	208.7	275.4	337.0	135°	451.0	450.0	448.5	447.0	447.5
121.2	125.5	131.2	141.3	161.3	207.2	275.4	137.5°	482.0	481.0	478.5	476.0	475.5
111.1	116.2	121.9	129.1	139.8	171.4	222.3	140°	511.0	509.0	506.5	504.0	503.0
97.5	101.1	106.1	114.0	121.9	147.0	196.5	142.5°	536.0	534.0	533.5	533.0	533.0
86.1	90.4	96.8	102.5	110.4	130.5	178.6	145°	560.0	558.0	559.5	561.0	561.5
80.3	84.6	90.4	95.4	101.1	117.6	165.6	147.5°	585.0	583.0	584.5	586.0	585.5
76.7	81.0	86.8	91.1	94.7	113.3	160.6	150°	610.0	606.0	604.5	603.0	601.5
74.6	79.6	84.6	87.5	94.7	115.5	148.4	152.5°	628.0	623.0	620.5	618.0	616.0
73.9	78.9	84.6	89.6	104.0	109.0	140.6	155°	641.0	638.0	637.0	636.0	633.5
74.6	78.9	86.1	100.4	101.1	103.3	131.9	157.5°	655.0	650.0	650.0	650.0	649.0
74.6	81.0	96.1	104.7	96.1	97.5	124.1	160°	666.0	660.0	660.5	661.0	662.5
75.3	83.9	99.7	97.5	93.2	91.1	115.5	162.5°	674.0	668.0	669.0	670.0	670.5
75.3	82.5	95.4	91.8	86.1	86.8	105.4	165°	682.0	678.0	679.0	680.0	678.5
73.1	82.5	91.8	83.2	78.9	82.5	96.8	167.5°	694.0	688.0	688.0	688.0	686.0
71.7	84.6	81.7	76.7	76.7	80.3	92.5	170°	701.0	696.0	695.0	694.0	691.5
71.0	86.8	77.4	74.6	74.6	79.6	90.4	172.5°	701.0	696.0	695.0	694.0	693.0
68.8	81.0	71.0	69.6	71.7	75.3	87.5	175°	699.0	694.0	695.0	696.0	695.5
64.5	67.4	65.3	65.3	68.1	72.4	86.1	177.5°	702.0	698.0	699.5	701.0	700.0
59.5	61.0	61.0	61.7	64.5	68.1	87.5	180°	700.0	700.0	700.0	700.0	700.0
55.2	55.2	56.7	57.4	59.5	64.5	83.9						
50.2	50.9	50.9	52.3	53.8	58.8	81.0						
44.5	44.5	45.9	45.9	48.0	53.1	72.4						
38.7	38.7	38.7	39.4	40.9	45.9	59.5						
32.3	32.3	32.3	33.0	33.7	38.0	45.2						
25.8	25.1	24.4	24.4	25.8	29.4	35.1						
17.9	17.9	17.2	17.2	17.2	19.4	23.7						
10.0	8.6	9.3	10.0	9.3	10.8	12.9						
9.7	10.4	10.2	9.9	9.9	9.9	11.8						
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°	1407.7	1407.7	1407.7	1407.7	1407.7	1407.7
150.0	149.0	148.0	145.5	143.0	138.5	2.5°	1325.2	1343.8	1373.2	1379.0	1402.6	1419.1
182.0	180.5	179.0	176.5	174.0	171.0	5°	1123.0	1167.4	1183.2	1214.0	1267.8	1295.1
215.0	213.0	211.0	208.0	205.0	203.5	7.5°	926.5	960.2	998.2	1047.7	1087.1	1133.7
250.0	248.0	246.0	244.5	243.0	240.0	10°	762.3	810.3	859.8	900.0	955.2	1011.1
283.0	281.0	279.0	278.0	277.0	274.0	12.5°	676.9	703.5	752.2	808.9	877.7	940.1
315.0	314.0	313.0	311.5	310.0	307.5	15°	632.5	664.0	716.4	776.6	849.8	927.2
346.0	345.5	345.0	342.5	340.0	339.5	17.5°	577.3	627.5	687.0	773.0	867.7	975.2
381.0	379.0	377.0	374.5	372.0	371.0	20°	522.8	583.7	661.9	775.2	906.4	1046.2
416.0	413.5	411.0	408.0	405.0	404.5	22.5°	474.7	547.1	646.1	788.1	955.9	1142.3
448.0	445.5	443.0	440.0	437.0	436.0	25°	418.1	514.9	633.9	814.6	1031.9	1271.4
475.0	474.0	473.0	470.5	468.0	466.0	27.5°	372.9	484.0	616.0	837.6	1101.5	1395.5
502.0	501.0	500.0	498.5	497.0	494.0	30°	322.7	448.2	590.9	845.5	1186.1	1497.3
533.0	530.0	527.0	526.0	525.0	523.0	32.5°	282.5	414.5	562.2	838.3	1224.1	1568.3
562.0	559.0	556.0	553.5	551.0	550.5	35°	263.2	390.1	537.8	813.2	1255.6	1645.0
585.0	582.5	580.0	577.5	575.0	574.5	37.5°	250.3	363.6	514.2	771.6	1291.5	1721.0
600.0	598.5	597.0	595.0	593.0	593.0	40°	233.8	342.8	494.8	741.5	1319.5	1784.1
614.0	612.5	611.0	610.5	610.0	610.0	42.5°	218.7	324.1	479.7	714.9	1326.6	1840.8
631.0	628.5	626.0	627.0	628.0	629.0	45°	205.8	312.7	468.3	716.4	1331.6	1919.7
648.0	646.0	644.0	644.5	645.0	645.5	47.5°	195.8	301.9	464.0	740.8	1384.7	2029.4
664.0	661.0	658.0	656.5	655.0	655.0	50°	186.4	292.6	456.8	788.1	1470.0	2177.8
671.0	669.0	667.0	665.0	663.0	662.0	52.5°	175.7	279.7	447.5	836.8	1563.3	2376.4
677.0	674.5	672.0	672.5	673.0	673.0	55°	161.3	262.5	437.4	877.7	1690.2	2618.1
684.0	681.0	678.0	681.5	685.0	686.5	57.5°	139.1	242.4	431.0	898.5	1768.4	2757.2
689.0	687.5	686.0	688.5	691.0	692.0	59°	127.6	223.0	427.4	888.5	1789.1	2780.9
692.0	690.5	689.0	689.5	690.0	690.0	60°	121.2	211.5	421.7	876.3	1794.9	2765.8
695.0	692.5	690.0	690.0	690.0	690.5	62.5°	112.6	184.3	398.0	815.3	1714.6	2583.7
699.0	696.5	694.0	694.5	695.0	696.0	65°	114.7	174.3	344.2	694.1	1530.3	2228.0
700.0	700.0	700.0	700.0	700.0	700.0	67.5°	117.6	170.0	297.6	560.8	1219.8	1843.6
						70°	115.5	167.8	270.3	446.0	913.6	1380.4
						72.5°	112.6	158.5	234.5	358.5	579.4	966.6
						75°	99.7	133.4	184.3	246.0	365.7	704.2
						77.5°	78.2	102.5	130.5	152.7	185.7	496.9
						80°	57.4	74.6	85.3	91.8	103.3	339.2
						82.5°	40.9	50.2	54.5	58.1	68.8	253.9
						85°	30.8	35.1	38.0	38.0	46.6	179.3
						87.5°	17.2	17.9	17.9	19.4	22.9	48.8
						90°	13.0	13.0	12.3	12.5	10.6	8.9
						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°
1407.7	1407.7	1407.7	110°	102.0	94.5	87.0	80.5	74.0	71.0	68.0
1437.8	1448.5	1457.1	112.5°	134.0	127.5	121.0	113.5	106.0	102.5	99.0
1336.7	1363.2	1368.2	115°	168.0	163.5	159.0	153.0	147.0	143.0	139.0
1185.4	1228.4	1243.4	117.5°	202.0	199.5	197.0	193.0	189.0	186.5	184.0
1074.2	1120.8	1136.6	120°	237.0	235.0	233.0	229.5	226.0	224.5	223.0
1013.3	1067.8	1085.0	122.5°	271.0	269.0	267.0	264.0	261.0	260.5	260.0
1014.7	1079.9	1105.0	125°	305.0	302.0	299.0	297.5	296.0	295.0	294.0
1080.7	1155.2	1186.1	127.5°	339.0	336.0	333.0	331.0	329.0	329.0	329.0
1194.0	1302.2	1325.2	130°	370.0	368.0	366.0	364.0	362.0	361.5	361.0
1347.4	1453.5	1488.0	132.5°	404.0	402.5	401.0	397.0	393.0	393.5	394.0
1491.6	1632.1	1658.6	135°	435.0	433.5	432.0	429.0	426.0	426.0	426.0
1633.5	1772.7	1796.3	137.5°	464.0	462.0	460.0	459.5	459.0	458.0	457.0
1743.3	1888.8	1908.9	140°	491.0	490.0	489.0	488.0	487.0	486.0	485.0
1848.7	2012.9	2035.1	142.5°	521.0	519.5	518.0	517.5	517.0	516.0	515.0
1966.3	2147.7	2173.5	145°	550.0	548.5	547.0	545.5	544.0	545.0	546.0
2072.4	2280.4	2296.8	147.5°	574.0	574.0	574.0	572.5	571.0	571.5	572.0
2190.0	2388.6	2392.9	150°	593.0	593.0	593.0	593.0	593.0	592.5	592.0
2286.1	2469.0	2470.4	152.5°	610.0	609.5	609.0	608.5	608.0	608.0	608.0
2379.3	2544.2	2545.0	155°	630.0	628.5	627.0	626.0	625.0	625.0	625.0
2476.8	2626.7	2616.0	157.5°	646.0	645.0	644.0	643.5	643.0	643.0	643.0
2631.0	2724.2	2735.0	160°	655.0	655.5	656.0	657.5	659.0	659.5	660.0
2865.5	2948.7	2960.9	162.5°	661.0	663.0	665.0	667.0	669.0	669.0	669.0
3138.0	3253.4	3237.0	165°	673.0	674.5	676.0	676.0	676.0	677.0	678.0
3253.4	3385.4	3399.0	167.5°	688.0	687.0	686.0	685.0	684.0	685.5	687.0
3234.1	3414.1	3437.0	170°	693.0	692.5	692.0	692.0	692.0	693.5	695.0
3203.3	3405.5	3433.4	172.5°	690.0	691.5	693.0	694.0	695.0	696.0	697.0
3028.3	3315.8	3359.6	175°	691.0	693.0	695.0	696.0	697.0	697.5	698.0
2734.3	3130.1	3191.8	177.5°	697.0	698.0	699.0	699.5	700.0	702.5	705.0
2356.4	2852.6	2902.1	180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0
1838.6	2318.4	2360.7								
1221.9	1591.9	1665.1								
776.6	1026.9	1013.3								
573.0	667.6	668.3								
415.9	458.2	453.2								
322.0	279.7	278.9								
112.6	99.0	96.8								
48.8	40.9	41.6								
7.2	7.2	7.9								
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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