

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: P227228

Luminaire Tested: **IST-AF-1200-LED-E1-SLL-7050-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227228
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-7050-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) 5000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7678.4 lumens
Efficiency: N/A
Efficacy: 92.8 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

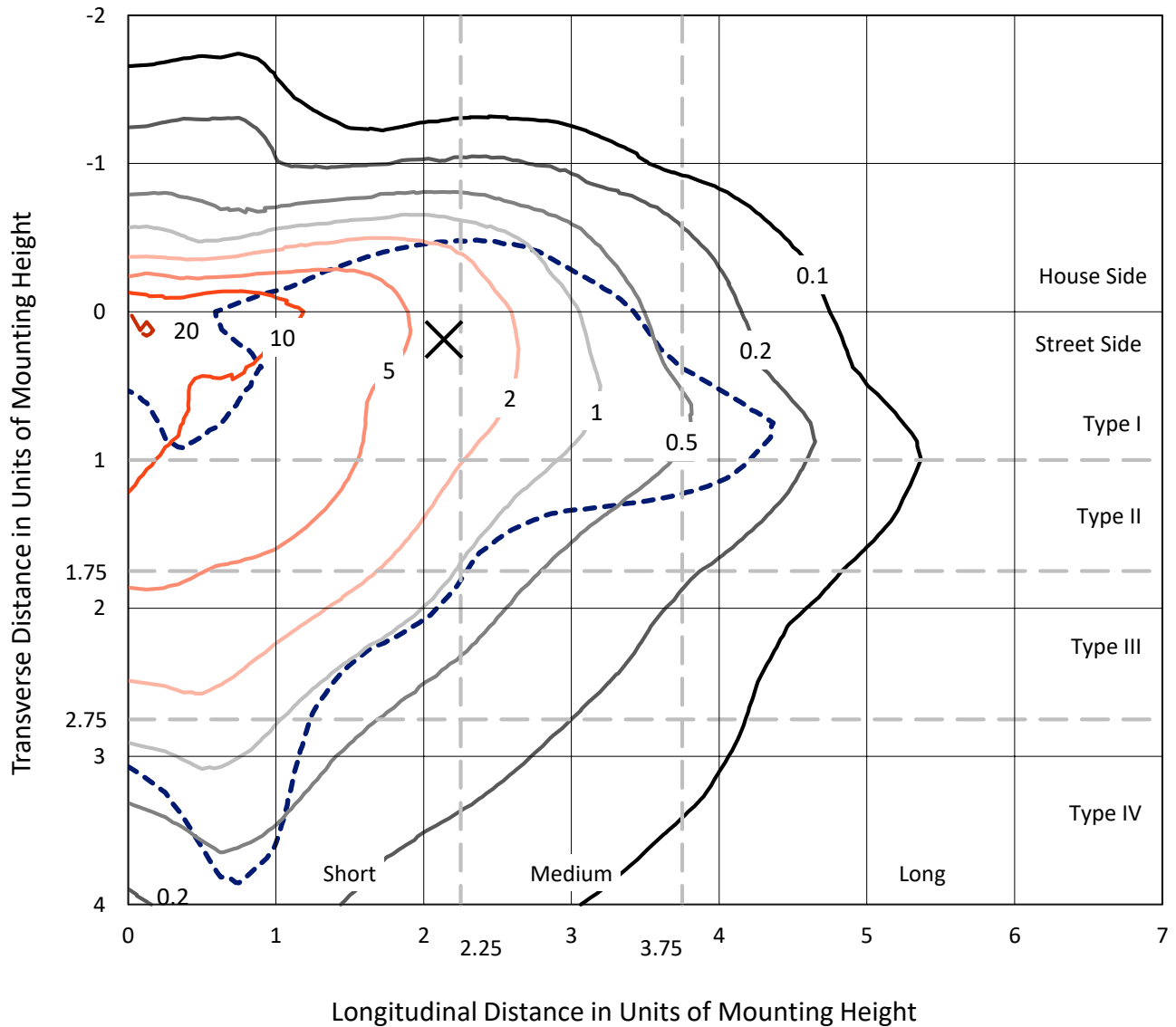


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Iso-Footcandle Lines of Horizontal Illumination

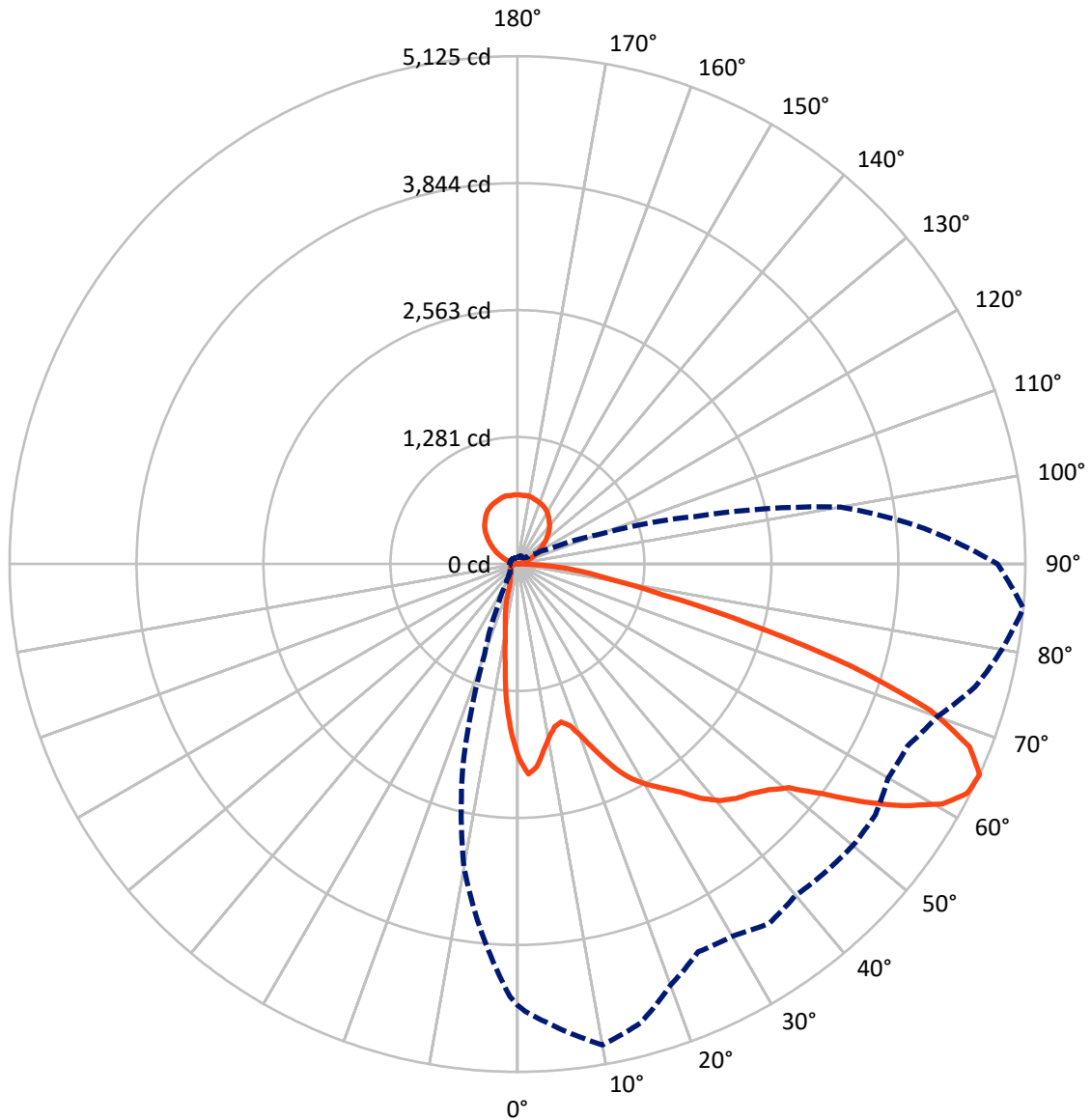
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.5 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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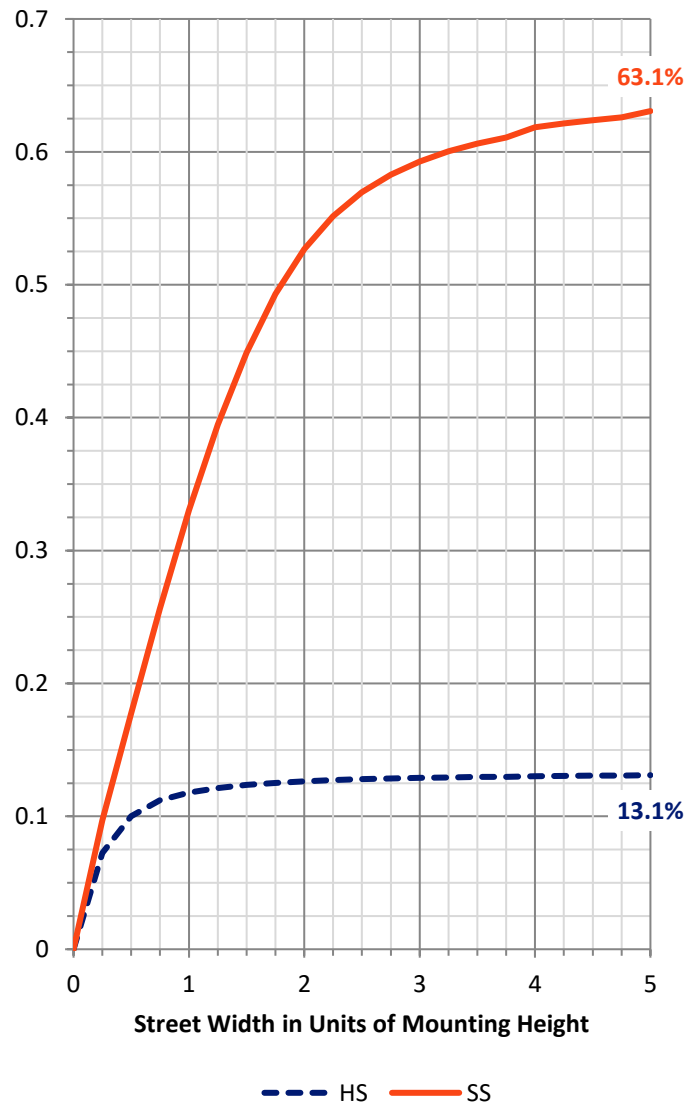
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1019.8	867.6	1887.4
	% Fixture	13.3	11.3	24.6
Street Side	Lumens	4923.2	867.8	5791.0
	% Fixture	64.1	11.3	75.4
Total	Lumens	5943.0	1735.4	7678.4
	% Fixture	77.4	22.6	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.4	1.9
10°-20°	279.8	3.6
20°-30°	399.0	5.2
30°-40°	578.9	7.5
40°-50°	828.1	10.8
50°-60°	1271.5	16.6
60°-70°	1471.7	19.2
70°-80°	750.8	9.8
80°-90°	217.7	2.8
90°-100°	9.5	0.1
100°-110°	57.4	0.7
110°-120°	166.1	2.2
120°-130°	273.2	3.6
130°-140°	336.8	4.4
140°-150°	344.6	4.5
150°-160°	290.3	3.8
160°-170°	191.2	2.5
170°-180°	66.3	0.9
0°-90°	5943.0	77.4
0°-180°	7678.4	100.0



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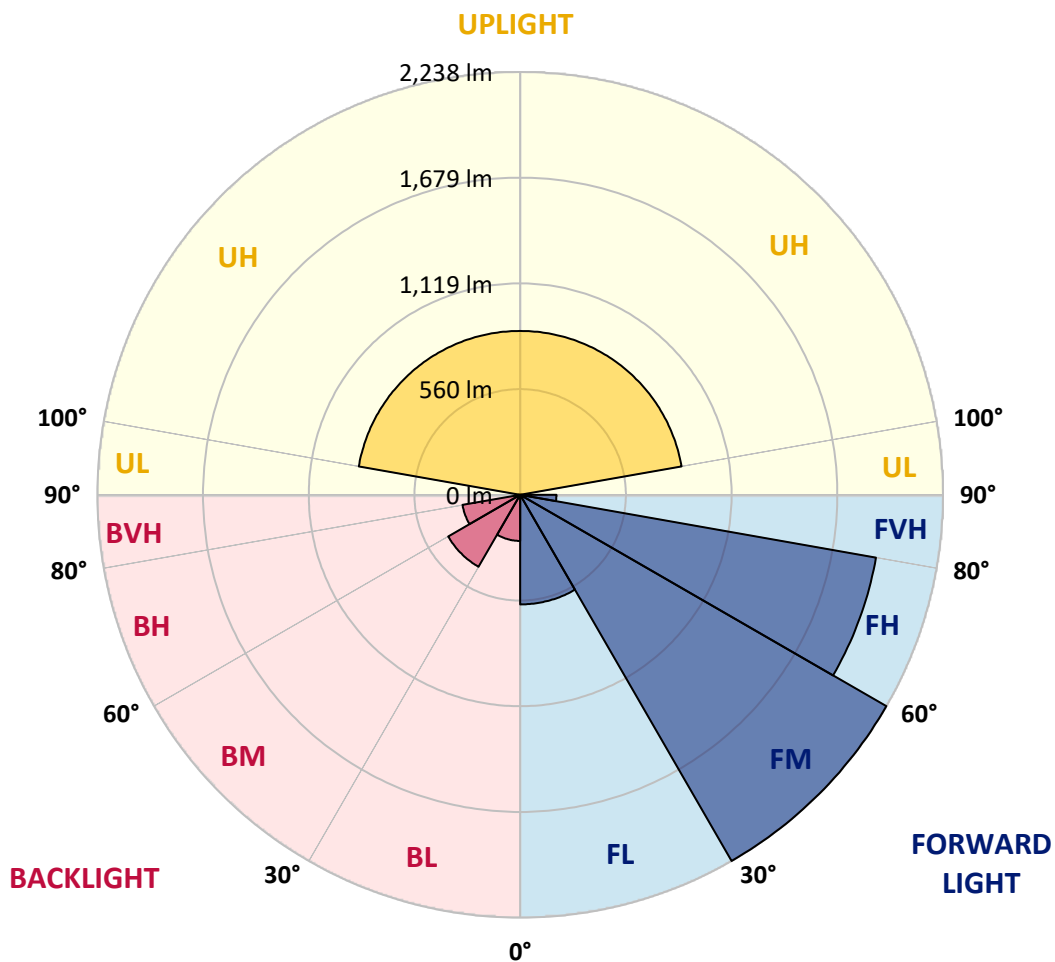
CATALOG NUMBER: IST-AF-1200-LED-E1-SLL-7050-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	580.3	7.6			
FM (30°-60°)	2238.4	29.2			
FH (60°-80°)	1912.5	24.9			G2/5000
FVH (80°-90°)	192.0	2.5			G2/225
BL (0°-30°)	244.0	3.2	B1/500		
BM (30°-60°)	440.1	5.7	B1/1000		
BH (60°-80°)	310.0	4.0	B1/500		G1/500
BVH (80°-90°)	25.7	0.3			G1/100
UL (90°-100°)	9.5	0.1		U1/10	
UH (100°-180°)	867.6	11.3		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°	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1
2.5°	2032.1	2034.1	2062.1	2089.1	2123.1	2118.1	2146.1	2167.1	2186.1	2189.1	2203.1
5°	1908.1	1928.1	1991.1	2045.1	2113.1	2166.1	2223.1	2268.1	2301.1	2332.1	2336.1
7.5°	1734.1	1749.1	1822.1	1907.1	2005.1	2075.1	2161.1	2236.1	2289.1	2339.1	2350.1
10°	1585.1	1599.1	1680.1	1790.1	1876.1	1967.1	2056.1	2117.1	2186.1	2229.1	2250.1
12.5°	1513.1	1530.1	1607.1	1707.1	1795.1	1883.1	1950.1	2003.1	2042.1	2050.1	2056.1
15°	1541.1	1550.1	1635.1	1724.1	1794.1	1838.1	1856.1	1888.1	1885.1	1901.1	1904.1
17.5°	1654.1	1650.1	1740.1	1802.1	1836.1	1831.1	1803.1	1786.1	1756.1	1747.1	1773.1
20°	1848.1	1862.1	1920.1	1958.1	1923.1	1842.1	1765.1	1712.1	1670.1	1656.1	1653.1
22.5°	2075.1	2093.1	2156.1	2136.1	2047.1	1899.1	1759.1	1674.1	1622.1	1607.1	1601.1
25°	2313.1	2325.1	2357.1	2289.1	2164.1	1972.1	1801.1	1682.1	1613.1	1591.1	1588.1
27.5°	2505.1	2517.1	2502.1	2424.1	2243.1	2054.1	1859.1	1718.1	1628.1	1606.1	1596.1
30°	2662.1	2668.1	2618.1	2521.1	2341.1	2145.1	1935.1	1781.1	1676.1	1626.1	1619.1
32.5°	2838.1	2834.1	2737.1	2603.1	2424.1	2227.1	2022.1	1852.1	1722.1	1661.1	1650.1
35°	3031.1	2996.1	2825.1	2684.1	2481.1	2290.1	2101.1	1927.1	1796.1	1715.1	1701.1
37.5°	3203.1	3167.1	2938.1	2748.1	2538.1	2339.1	2163.1	2024.1	1909.1	1835.1	1829.1
40°	3337.1	3293.1	3024.1	2791.1	2566.1	2375.1	2236.1	2146.1	2070.1	2010.1	2010.1
42.5°	3445.1	3397.1	3108.1	2841.1	2591.1	2430.1	2358.1	2327.1	2311.1	2278.1	2290.1
45°	3549.2	3500.1	3177.1	2873.1	2647.1	2537.1	2547.1	2574.1	2622.1	2603.1	2620.1
47.5°	3648.2	3600.2	3255.1	2924.1	2755.1	2729.1	2781.1	2889.1	2983.1	3057.1	3109.1
50°	3814.2	3757.2	3395.1	3074.1	2925.1	2938.1	3088.1	3300.1	3453.1	3521.1	3517.1
52.5°	4129.2	4048.2	3696.2	3354.1	3168.1	3240.1	3417.1	3684.2	3884.2	3937.2	3958.2
55°	4514.2	4450.2	4131.2	3725.2	3590.2	3615.2	3835.2	4137.2	4291.2	4346.2	4364.2
57.5°	4740.2	4723.2	4523.2	4122.2	3991.2	3981.2	4268.2	4515.2	4648.2	4700.2	4684.2
59°	4793.2	4798.2	4684.2	4403.2	4223.2	4201.2	4493.2	4722.2	4833.2	4849.2	4841.2
60°	4788.2	4816.2	4802.2	4557.2	4370.2	4342.2	4588.2	4806.2	4899.2	4924.2	4896.2
62.5°	4685.2	4733.2	4866.2	4840.2	4703.2	4560.2	4676.2	4834.2	4894.2	4870.2	4849.2
65°	4451.2	4514.2	4699.2	4929.2	4797.2	4521.2	4318.2	4336.2	4427.2	4367.2	4396.2
67.5°	4047.2	4119.2	4217.2	4739.2	4547.2	4084.2	3735.2	3564.2	3521.1	3579.2	3671.2
70°	3292.1	3339.1	3587.2	4325.2	3993.2	3357.1	2919.1	2691.1	2615.1	2749.1	2843.1
72.5°	2322.1	2392.1	2719.1	3579.2	3285.1	2689.1	2209.1	1999.1	1923.1	1929.1	2011.1
75°	1413.1	1508.1	1900.1	2830.1	2589.1	2060.1	1683.1	1532.1	1509.1	1496.1	1482.1
77.5°	932.0	968.0	1249.1	1953.1	1746.1	1465.1	1263.1	1325.1	1394.1	1409.1	1427.1
80°	632.0	643.0	810.0	1370.1	1150.0	1082.0	1021.0	1167.0	1298.1	1322.1	1309.1
82.5°	389.0	422.0	565.0	924.0	917.0	885.0	807.0	921.0	1008.0	1023.0	1050.0
85°	135.0	141.0	347.0	816.0	932.0	942.0	665.0	525.0	590.0	579.0	416.0
87.5°	58.0	65.0	108.0	546.0	631.0	522.0	304.0	270.0	208.0	117.0	113.0
90°	9.0	9.0	8.0	11.0	22.0	17.5	17.0	11.0	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°	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1
2.5°	2200.1	2187.1	2195.1	2184.1	2166.1	2154.1	2140.1	2122.1	2101.1	2073.1	2045.1
5°	2327.1	2317.1	2292.1	2256.1	2206.1	2164.1	2114.1	2055.1	2006.1	1943.1	1884.1
7.5°	2338.1	2322.1	2276.1	2209.1	2132.1	2054.1	1995.1	1899.1	1837.1	1737.1	1670.1
10°	2238.1	2239.1	2193.1	2130.1	2050.1	1958.1	1873.1	1768.1	1677.1	1575.1	1463.1
12.5°	2091.1	2105.1	2107.1	2051.1	1973.1	1876.1	1781.1	1681.1	1568.1	1459.1	1356.1
15°	1924.1	1964.1	1967.1	1953.1	1912.1	1830.1	1743.1	1653.1	1538.1	1419.1	1303.1
17.5°	1775.1	1813.1	1848.1	1880.1	1882.1	1843.1	1790.1	1713.1	1598.1	1458.1	1322.1
20°	1662.1	1703.1	1763.1	1822.1	1887.1	1907.1	1911.1	1862.1	1739.1	1568.1	1384.1
22.5°	1615.1	1663.1	1724.1	1835.1	1950.1	2021.1	2061.1	2061.1	1932.1	1732.1	1486.1
25°	1605.1	1644.1	1737.1	1875.1	2029.1	2153.1	2229.1	2280.1	2187.1	1943.1	1612.1
27.5°	1612.1	1665.1	1780.1	1921.1	2082.1	2241.1	2366.1	2455.1	2368.1	2087.1	1729.1
30°	1640.1	1719.1	1838.1	1984.1	2150.1	2318.1	2469.1	2582.1	2518.1	2218.1	1840.1
32.5°	1689.1	1785.1	1920.1	2052.1	2217.1	2399.1	2548.1	2697.1	2650.1	2309.1	1899.1
35°	1762.1	1875.1	1998.1	2131.1	2289.1	2471.1	2630.1	2825.1	2808.1	2423.1	1958.1
37.5°	1880.1	1996.1	2109.1	2223.1	2373.1	2550.1	2748.1	2997.1	2983.1	2592.1	2053.1
40°	2088.1	2156.1	2240.1	2313.1	2454.1	2623.1	2835.1	3139.1	3189.1	2737.1	2137.1
42.5°	2346.1	2386.1	2410.1	2430.1	2502.1	2661.1	2898.1	3234.1	3316.1	2845.1	2202.1
45°	2675.1	2663.1	2615.1	2569.1	2561.1	2683.1	2927.1	3304.1	3416.1	2950.1	2268.1
47.5°	3064.1	3038.1	2907.1	2756.1	2672.1	2723.1	2978.1	3407.1	3539.2	3088.1	2350.1
50°	3513.1	3452.1	3238.1	2983.1	2828.1	2836.1	3107.1	3550.2	3701.2	3268.1	2503.1
52.5°	3929.2	3820.2	3565.2	3228.1	3006.1	3033.1	3339.1	3846.2	4033.2	3566.2	2760.1
55°	4296.2	4156.2	3881.2	3512.1	3311.1	3358.1	3710.2	4238.2	4415.2	3921.2	3020.1
57.5°	4608.2	4459.2	4188.2	3863.2	3613.2	3652.2	4041.2	4602.2	4721.2	4240.2	3269.1
59°	4750.2	4603.2	4353.2	4053.2	3819.2	3901.2	4275.2	4783.2	4834.2	4363.2	3364.1
60°	4819.2	4672.2	4452.2	4159.2	3945.2	4053.2	4399.2	4920.2	4876.2	4381.2	3400.1
62.5°	4814.2	4711.2	4566.2	4366.2	4327.2	4507.2	4802.2	5096.2	4905.2	4329.2	3423.1
65°	4419.2	4410.2	4320.2	4343.2	4506.2	4784.2	4965.2	5125.2	4845.2	4122.2	3312.1
67.5°	3686.2	3723.2	3735.2	3876.2	4257.2	4729.2	4888.2	4919.2	4584.2	3679.2	2967.1
70°	2846.1	2764.1	2899.1	3148.1	3697.2	4305.2	4531.2	4423.2	4050.2	3081.1	2423.1
72.5°	2015.1	2039.1	2233.1	2556.1	3115.1	3745.2	4099.2	3510.1	3047.1	2306.1	1718.1
75°	1516.1	1629.1	1723.1	2006.1	2530.1	3208.1	3500.1	2413.1	1985.1	1590.1	1124.0
77.5°	1453.1	1444.1	1372.1	1432.1	1824.1	2247.1	2497.1	1506.1	1243.1	1040.0	679.0
80°	1343.1	1266.1	1135.0	1077.0	1149.0	1443.1	1585.1	968.0	827.0	727.0	383.0
82.5°	1042.0	990.0	852.0	848.0	958.0	1025.0	1090.0	686.0	622.0	589.0	235.0
85°	661.0	679.0	696.0	849.0	1063.0	1075.0	848.0	418.0	328.0	462.0	150.0
87.5°	196.0	319.0	387.0	657.0	958.0	961.0	638.0	137.0	123.0	144.0	87.0
90°	7.0	7.0	8.0	9.0	9.0	9.0	9.0	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-1200-LED-E1-SLL-7050-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-1200-LED-E1-SLL-7050-ULG

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1
2.5°	2016.1	2012.1	1984.1	1937.1	1941.1	1919.1	1891.1	1846.1	1837.1	1812.1	1808.1
5°	1834.1	1787.1	1726.1	1652.1	1624.1	1586.1	1547.1	1519.1	1484.1	1452.1	1495.1
7.5°	1591.1	1522.1	1451.1	1373.1	1328.1	1266.1	1233.1	1169.0	1122.0	1113.0	1076.0
10°	1388.1	1301.1	1220.1	1150.0	1066.0	1008.0	966.0	931.0	899.0	860.0	836.0
12.5°	1253.1	1155.0	1069.0	982.0	942.0	894.0	868.0	835.0	789.0	756.0	724.0
15°	1192.1	1086.0	992.0	916.0	858.0	813.0	767.0	727.0	677.0	640.0	603.0
17.5°	1184.1	1046.0	927.0	842.0	779.0	730.0	669.0	616.0	555.0	514.0	483.0
20°	1193.1	1016.0	867.0	756.0	692.0	606.0	549.0	484.0	424.0	370.0	321.0
22.5°	1229.1	1000.0	808.0	686.0	591.0	493.0	432.0	349.0	298.0	246.0	227.0
25°	1278.1	990.0	757.0	609.0	489.0	392.0	309.0	240.0	217.0	204.0	197.0
27.5°	1330.1	972.0	700.0	538.0	407.0	289.0	231.0	202.0	193.0	186.0	181.0
30°	1369.1	937.0	630.0	462.0	324.0	247.0	206.0	187.0	181.0	173.0	168.0
32.5°	1386.1	883.0	567.0	390.0	273.0	212.0	180.0	169.0	163.0	156.0	153.0
35°	1383.1	822.0	535.0	362.0	250.0	188.0	158.0	151.0	143.0	136.0	129.0
37.5°	1386.1	766.0	510.0	355.0	240.0	170.0	144.0	139.0	133.0	126.0	120.0
40°	1398.1	735.0	498.0	340.0	232.0	163.0	133.0	128.0	127.0	119.0	114.0
42.5°	1403.1	738.0	492.0	319.0	212.0	161.0	133.0	122.0	122.0	116.0	110.0
45°	1397.1	760.0	496.0	307.0	197.0	151.0	140.0	122.0	119.0	114.0	108.0
47.5°	1415.1	776.0	496.0	305.0	187.0	141.0	133.0	134.0	121.0	115.0	106.0
50°	1489.1	791.0	486.0	302.0	184.0	131.0	126.0	132.0	136.0	117.0	107.0
52.5°	1620.1	810.0	475.0	297.0	180.0	123.0	117.0	124.0	139.0	123.0	107.0
55°	1754.1	844.0	468.0	289.0	174.0	118.0	106.0	119.0	127.0	122.0	106.0
57.5°	1897.1	881.0	461.0	270.0	160.0	113.0	102.0	104.0	114.0	118.0	103.0
59°	1940.1	899.0	455.0	256.0	148.0	109.0	99.0	96.0	102.0	113.0	101.0
60°	1971.1	900.0	448.0	244.0	141.0	107.0	97.0	93.0	95.0	116.0	102.0
62.5°	1974.1	899.0	426.0	219.0	127.0	103.0	94.0	89.0	87.0	97.0	104.0
65°	1850.1	857.0	386.0	206.0	128.0	99.0	89.0	85.0	81.0	83.0	90.0
67.5°	1618.1	749.0	344.0	209.0	135.0	96.0	85.0	81.0	78.0	76.0	79.0
70°	1224.1	622.0	332.0	216.0	141.0	94.0	79.0	75.0	73.0	72.0	72.0
72.5°	848.0	512.0	319.0	221.0	146.0	93.0	73.0	69.0	68.0	67.0	67.0
75°	546.0	372.0	264.0	188.0	133.0	85.0	66.0	62.0	61.0	60.0	61.0
77.5°	323.0	260.0	194.0	132.0	97.0	68.0	57.0	54.0	54.0	54.0	55.0
80°	179.0	154.0	129.0	85.0	69.0	51.0	47.0	44.0	44.0	45.0	47.0
82.5°	107.0	85.0	73.0	54.0	47.0	36.0	35.0	33.0	34.0	35.0	37.0
85°	70.0	54.0	44.0	36.0	32.0	23.0	20.0	21.0	22.0	24.0	25.0
87.5°	39.0	30.0	24.0	21.0	19.0	10.0	8.0	8.0	10.0	12.0	14.0
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
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

160°	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	110°	160°
1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	110°	80.5
1822.1	1793.1	1762.1	1739.1	1749.1	1716.1	1719.1	1710.1	1706.1	1704.1	1683.1	112.5°	113.5
1443.1	1454.1	1408.1	1413.1	1427.1	1393.1	1370.1	1408.1	1403.1	1369.1	1388.1	115°	153.0
1040.0	1043.0	1022.0	975.0	975.0	1000.0	1009.0	1027.0	1039.0	1081.0	1055.0	117.5°	193.0
795.0	767.0	746.0	725.0	713.0	688.0	694.0	716.0	730.0	754.0	773.0	120°	229.5
691.0	660.0	623.0	591.0	574.0	551.0	536.0	531.0	536.0	521.0	522.0	122.5°	264.0
574.0	546.0	505.0	488.0	456.0	438.0	428.0	415.0	405.0	384.0	375.0	125°	297.5
445.0	408.0	366.0	366.0	343.0	328.0	324.0	321.0	315.0	304.0	293.0	127.5°	331.0
296.0	272.0	248.0	236.0	238.0	236.0	230.0	240.0	240.0	244.0	242.0	130°	364.0
216.0	212.0	203.0	196.0	192.0	191.0	192.0	195.0	201.0	206.0	211.0	132.5°	397.0
194.0	192.0	184.0	177.0	176.0	174.0	174.0	177.0	178.0	179.0	178.0	135°	429.0
180.0	176.0	169.0	164.0	162.0	161.0	162.0	159.0	157.0	158.0	157.0	137.5°	459.5
163.0	160.0	153.0	149.0	148.0	148.0	145.0	144.0	142.0	143.0	142.0	140°	488.0
150.0	146.0	139.0	134.0	134.0	133.0	134.0	133.0	132.0	131.0	131.0	142.5°	517.5
126.0	125.0	118.0	116.0	117.0	120.0	120.0	120.0	121.0	120.0	120.0	145°	545.5
117.0	116.0	109.0	104.0	103.0	103.0	103.0	105.0	108.0	109.0	111.0	147.5°	572.5
111.0	110.0	103.0	99.0	97.0	96.0	95.0	95.0	96.0	100.0	103.0	150°	593.0
107.0	105.0	98.0	93.0	92.0	91.0	90.0	90.0	90.0	91.0	94.0	152.5°	608.5
105.0	102.0	94.0	89.0	87.0	86.0	86.0	87.0	86.0	86.0	86.0	155°	626.0
102.0	100.0	92.0	86.0	84.0	84.0	83.0	83.0	83.0	81.0	81.0	157.5°	643.5
101.0	98.0	90.0	84.0	82.0	81.0	80.0	81.0	79.0	78.0	77.0	160°	657.5
99.0	95.0	86.0	81.0	80.0	78.0	77.0	77.0	77.0	75.0	75.0	162.5°	667.0
98.0	93.0	84.0	79.0	77.0	75.0	74.0	74.0	76.0	74.0	74.0	165°	676.0
97.0	90.0	81.0	75.0	74.0	72.0	71.0	72.0	75.0	73.0	72.0	167.5°	685.0
93.0	88.0	79.0	74.0	72.0	70.0	69.0	70.0	72.0	72.0	72.0	170°	692.0
91.0	86.0	77.0	72.0	71.0	69.0	68.0	68.0	71.0	71.0	70.0	172.5°	694.0
88.0	84.0	75.0	69.0	67.0	67.0	66.0	66.0	67.0	67.0	68.0	175°	696.0
84.0	82.0	73.0	66.0	65.0	64.0	64.0	64.0	64.0	66.0	66.0	177.5°	699.5
80.0	79.0	70.0	64.0	62.0	62.0	62.0	62.0	62.0	63.0	64.0	180°	700.0
74.0	74.0	66.0	60.0	59.0	58.0	58.0	58.0	58.0	59.0	60.0		
68.0	69.0	61.0	55.0	54.0	54.0	54.0	54.0	55.0	55.0	56.0		
62.0	63.0	55.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	51.0		
56.0	56.0	47.0	41.0	42.0	43.0	44.0	43.0	43.0	44.0	47.0		
48.0	47.0	39.0	34.0	34.0	36.0	37.0	36.0	37.0	37.0	41.0		
38.0	38.0	30.0	25.0	25.0	29.0	29.0	29.0	30.0	31.0	34.0		
29.0	28.0	21.0	17.0	17.0	20.0	21.0	22.0	23.0	24.0	26.0		
17.0	17.0	11.0	7.0	8.0	9.0	12.0	12.0	12.0	14.0	17.0		
7.5	8.0	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		

'227228
 IST-AF-1200-LED-E1-SLL-7050-ULG

REPORT NUMBER: P227228
 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°	1963.1	1963.1
106.0	102.5	99.0	99.0	99.0	102.5	106.0	113.5	121.0	127.5	2.5°	1701.1	1700.1
147.0	143.0	139.0	140.0	139.0	143.0	147.0	153.0	159.0	163.5	5°	1396.1	1387.1
189.0	186.5	184.0	184.0	184.0	186.5	189.0	193.0	197.0	199.5	7.5°	1082.0	1115.0
226.0	224.5	223.0	225.0	223.0	224.5	226.0	229.5	233.0	235.0	10°	780.0	803.0
261.0	260.5	260.0	263.0	260.0	260.5	261.0	264.0	267.0	269.0	12.5°	543.0	555.0
296.0	295.0	294.0	298.0	294.0	295.0	296.0	297.5	299.0	302.0	15°	374.0	398.0
329.0	329.0	329.0	330.0	329.0	329.0	329.0	331.0	333.0	336.0	17.5°	291.0	294.0
362.0	361.5	361.0	363.0	361.0	361.5	362.0	364.0	366.0	368.0	20°	240.0	242.0
393.0	393.5	394.0	396.0	394.0	393.5	393.0	397.0	401.0	402.5	22.5°	213.0	217.0
426.0	426.0	426.0	429.0	426.0	426.0	426.0	429.0	432.0	433.5	25°	179.0	183.0
459.0	458.0	457.0	460.0	457.0	458.0	459.0	459.5	460.0	462.0	27.5°	158.0	162.0
487.0	486.0	485.0	488.0	485.0	486.0	487.0	488.0	489.0	490.0	30°	145.0	147.0
517.0	516.0	515.0	518.0	515.0	516.0	517.0	517.5	518.0	519.5	32.5°	132.0	132.0
544.0	545.0	546.0	550.0	546.0	545.0	544.0	545.5	547.0	548.5	35°	121.0	122.0
571.0	571.5	572.0	575.0	572.0	571.5	571.0	572.5	574.0	574.0	37.5°	113.0	115.0
593.0	592.5	592.0	595.0	592.0	592.5	593.0	593.0	593.0	593.0	40°	106.0	107.0
608.0	608.0	608.0	611.0	608.0	608.0	608.0	608.5	609.0	609.5	42.5°	96.0	98.0
625.0	625.0	625.0	629.0	625.0	625.0	625.0	626.0	627.0	628.5	45°	87.0	88.0
643.0	643.0	643.0	646.0	643.0	643.0	643.0	643.5	644.0	645.0	47.5°	81.0	81.0
659.0	659.5	660.0	663.0	660.0	659.5	659.0	657.5	656.0	655.5	50°	77.0	78.0
669.0	669.0	669.0	673.0	669.0	669.0	669.0	667.0	665.0	663.0	52.5°	75.0	76.0
676.0	677.0	678.0	681.0	678.0	677.0	676.0	676.0	676.0	674.5	55°	74.0	76.0
684.0	685.5	687.0	690.0	687.0	685.5	684.0	685.0	686.0	687.0	57.5°	74.0	75.0
692.0	693.5	695.0	698.0	695.0	693.5	692.0	692.0	692.0	692.5	59°	73.0	74.0
695.0	696.0	697.0	699.0	697.0	696.0	695.0	694.0	693.0	691.5	60°	73.0	75.0
697.0	697.5	698.0	700.0	698.0	697.5	697.0	696.0	695.0	693.0	62.5°	70.0	72.0
700.0	702.5	705.0	707.0	705.0	702.5	700.0	699.5	699.0	698.0	65°	68.0	70.0
700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	67.5°	65.0	68.0
										70°	62.0	65.0
										72.5°	58.0	62.0
										75°	54.0	57.0
										77.5°	49.0	52.0
										80°	43.0	44.0
										82.5°	36.0	36.0
										85°	27.0	24.0
										87.5°	15.0	16.0
										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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CATALOG NUMBER: IST-AF-1200-LED-E1

00-LED-E1-SLL-7050-ULG

tinued):

CANDELA DISTRIBUTION (continued):

225°	230°	235°	240°	245°	250°	255°	260°	265°		215°	220°	225°
1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	110°	102.0	108.0	114.0
1679.1	1679.1	1709.1	1712.1	1677.1	1686.1	1703.1	1683.1	1705.1	112.5°	134.0	138.5	143.0
1409.1	1397.1	1398.1	1390.1	1404.1	1388.1	1405.1	1399.1	1394.1	115°	168.0	171.0	174.0
1094.0	1115.0	1100.0	1071.0	1094.0	1076.0	1042.0	1045.0	1007.0	117.5°	202.0	203.5	205.0
822.0	807.0	799.0	785.0	748.0	755.0	717.0	723.0	736.0	120°	237.0	240.0	243.0
567.0	556.0	569.0	560.0	545.0	548.0	556.0	564.0	585.0	122.5°	271.0	274.0	277.0
398.0	393.0	390.0	396.0	413.0	422.0	435.0	459.0	471.0	125°	305.0	307.5	310.0
299.0	300.0	297.0	306.0	320.0	327.0	330.0	332.0	346.0	127.5°	339.0	339.5	340.0
247.0	251.0	250.0	253.0	249.0	245.0	248.0	242.0	237.0	130°	370.0	371.0	372.0
216.0	217.0	212.0	211.0	205.0	200.0	196.0	196.0	194.0	132.5°	404.0	404.5	405.0
183.0	184.0	179.0	179.0	178.0	181.0	179.0	175.0	174.0	135°	435.0	436.0	437.0
164.0	162.0	159.0	159.0	157.0	157.0	158.0	159.0	158.0	137.5°	464.0	466.0	468.0
147.0	145.0	144.0	145.0	144.0	145.0	146.0	145.0	146.0	140°	491.0	494.0	497.0
135.0	133.0	133.0	134.0	133.0	134.0	134.0	134.0	133.0	142.5°	521.0	523.0	525.0
125.0	123.0	123.0	123.0	122.0	120.0	118.0	115.0	112.0	145°	550.0	550.5	551.0
117.0	116.0	114.0	113.0	110.0	104.0	102.0	102.0	102.0	147.5°	574.0	574.5	575.0
110.0	108.0	107.0	103.0	99.0	97.0	97.0	97.0	97.0	150°	593.0	593.0	593.0
101.0	98.0	96.0	95.0	94.0	94.0	93.0	93.0	93.0	152.5°	610.0	610.0	610.0
90.0	89.0	89.0	90.0	90.0	90.0	90.0	89.0	90.0	155°	630.0	629.0	628.0
83.0	83.0	84.0	85.0	86.0	87.0	88.0	87.0	88.0	157.5°	646.0	645.5	645.0
80.0	80.0	80.0	82.0	83.0	84.0	86.0	86.0	86.0	160°	655.0	655.0	655.0
78.0	78.0	79.0	80.0	81.0	82.0	83.0	84.0	85.0	162.5°	661.0	662.0	663.0
77.0	78.0	77.0	78.0	79.0	81.0	82.0	82.0	83.0	165°	673.0	673.0	673.0
77.0	77.0	77.0	77.0	79.0	80.0	79.0	80.0	81.0	167.5°	688.0	686.5	685.0
77.0	77.0	76.0	77.0	78.0	79.0	78.0	78.0	80.0	170°	693.0	692.0	691.0
76.0	77.0	76.0	76.0	77.0	78.0	77.0	78.0	79.0	172.5°	690.0	690.0	690.0
74.0	75.0	74.0	75.0	75.0	76.0	76.0	76.0	77.0	175°	691.0	690.5	690.0
72.0	72.0	72.0	73.0	73.0	74.0	74.0	75.0	74.0	177.5°	697.0	696.0	695.0
70.0	70.0	70.0	71.0	71.0	72.0	73.0	72.0	72.0	180°	700.0	700.0	700.0
68.0	67.0	66.0	67.0	68.0	68.0	69.0	68.0	69.0				
65.0	64.0	63.0	63.0	64.0	64.0	65.0	64.0	64.0				
60.0	60.0	58.0	58.0	58.0	58.0	59.0	58.0	57.0				
54.0	54.0	52.0	52.0	52.0	52.0	51.0	51.0	51.0				
45.0	46.0	46.0	45.0	45.0	44.0	44.0	43.0	42.0				
34.0	36.0	37.0	37.0	37.0	37.0	37.0	35.0	33.0				
24.0	27.0	30.0	30.0	29.0	29.0	29.0	26.0	23.0				
15.0	18.0	19.0	21.0	18.0	17.0	17.0	15.0	14.0				
7.0	7.0	9.0	9.0	12.0	12.0	13.0	10.0	8.0				
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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CATALOG NUMBER: IST-AF-1200-LED-E1-SLL-7050-

-SLL-7050-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°	1963.1	1963.1	1963.1	1963.1
145.5	148.0	149.0	150.0	149.5	149.0	148.0	147.0	2.5°	1686.1	1723.1	1728.1	1733.1
176.5	179.0	180.5	182.0	180.5	179.0	178.0	177.0	5°	1386.1	1423.1	1402.1	1411.1
208.0	211.0	213.0	215.0	212.5	210.0	209.0	208.0	7.5°	1012.0	988.0	1019.0	1038.0
244.5	246.0	248.0	250.0	247.5	245.0	244.0	243.0	10°	739.0	767.0	779.0	801.0
278.0	279.0	281.0	283.0	280.5	278.0	277.0	276.0	12.5°	613.0	631.0	653.0	688.0
311.5	313.0	314.0	315.0	312.5	310.0	310.0	310.0	15°	497.0	510.0	538.0	572.0
342.5	345.0	345.5	346.0	346.0	346.0	345.5	345.0	17.5°	362.0	381.0	399.0	427.0
374.5	377.0	379.0	381.0	381.0	381.0	380.0	379.0	20°	243.0	251.0	273.0	286.0
408.0	411.0	413.5	416.0	415.0	414.0	414.0	414.0	22.5°	195.0	198.0	202.0	213.0
440.0	443.0	445.5	448.0	447.5	447.0	448.5	450.0	25°	175.0	177.0	180.0	184.0
470.5	473.0	474.0	475.0	475.5	476.0	478.5	481.0	27.5°	159.0	160.0	163.0	165.0
498.5	500.0	501.0	502.0	503.0	504.0	506.5	509.0	30°	145.0	144.0	145.0	148.0
526.0	527.0	530.0	533.0	533.0	533.0	533.5	534.0	32.5°	130.0	130.0	132.0	132.0
553.5	556.0	559.0	562.0	561.5	561.0	559.5	558.0	35°	112.0	111.0	113.0	116.0
577.5	580.0	582.5	585.0	585.5	586.0	584.5	583.0	37.5°	103.0	104.0	106.0	108.0
595.0	597.0	598.5	600.0	601.5	603.0	604.5	606.0	40°	98.0	99.0	101.0	103.0
610.5	611.0	612.5	614.0	616.0	618.0	620.5	623.0	42.5°	93.0	95.0	97.0	100.0
627.0	626.0	628.5	631.0	633.5	636.0	637.0	638.0	45°	90.0	92.0	95.0	98.0
644.5	644.0	646.0	648.0	649.0	650.0	650.0	650.0	47.5°	89.0	91.0	94.0	98.0
656.5	658.0	661.0	664.0	662.5	661.0	660.5	660.0	50°	87.0	90.0	93.0	97.0
665.0	667.0	669.0	671.0	670.5	670.0	669.0	668.0	52.5°	87.0	89.0	92.0	97.0
672.5	672.0	674.5	677.0	678.5	680.0	679.0	678.0	55°	84.0	87.0	90.0	95.0
681.5	678.0	681.0	684.0	686.0	688.0	688.0	688.0	57.5°	82.0	84.0	88.0	94.0
688.5	686.0	687.5	689.0	691.5	694.0	695.0	696.0	59°	81.0	83.0	87.0	93.0
689.5	689.0	690.5	692.0	693.0	694.0	695.0	696.0	60°	79.0	82.0	86.0	92.0
690.0	690.0	692.5	695.0	695.5	696.0	695.0	694.0	62.5°	77.0	80.0	84.0	90.0
694.5	694.0	696.5	699.0	700.0	701.0	699.5	698.0	65°	74.0	78.0	82.0	86.0
700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	67.5°	72.0	74.0	78.0	82.0
								70°	68.0	70.0	73.0	76.0
								72.5°	63.0	64.0	66.0	69.0
								75°	56.0	57.0	58.0	61.0
								77.5°	49.0	49.0	50.0	54.0
								80°	41.0	41.0	42.0	44.0
								82.5°	31.0	31.0	33.0	36.0
								85°	22.0	21.0	24.0	26.0
								87.5°	13.0	12.0	13.0	13.0
								90°	8.0	10.0	10.0	11.0
								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-1200-LED-E1-SLL-7050-ULG

ULG

CANDELA DISTRIBUTION (continued):

290°	295°	300°	305°	310°	315°	320°		270°	275°	280°	285°	290°
1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1	110°	117.0	116.0	117.5	119.0	120.0
1753.1	1743.1	1751.1	1782.1	1793.1	1807.1	1854.1	112.5°	147.0	147.0	148.0	149.0	149.5
1433.1	1446.1	1433.1	1496.1	1499.1	1541.1	1558.1	115°	178.0	177.0	178.0	179.0	180.5
1053.0	1070.0	1098.0	1140.0	1152.0	1212.1	1263.1	117.5°	209.0	208.0	209.0	210.0	212.5
822.0	844.0	883.0	909.0	935.0	970.0	1011.0	120°	243.0	243.0	244.0	245.0	247.5
730.0	753.0	787.0	820.0	857.0	884.0	918.0	122.5°	277.0	276.0	277.0	278.0	280.5
610.0	646.0	679.0	722.0	753.0	802.0	842.0	125°	310.0	310.0	310.0	310.0	312.5
466.0	516.0	549.0	601.0	648.0	691.0	745.0	127.5°	347.0	345.0	345.5	346.0	346.0
324.0	363.0	405.0	461.0	522.0	581.0	653.0	130°	380.0	379.0	380.0	381.0	381.0
223.0	244.0	276.0	334.0	397.0	482.0	560.0	132.5°	415.0	414.0	414.0	414.0	415.0
190.0	198.0	210.0	238.0	291.0	384.0	470.0	135°	451.0	450.0	448.5	447.0	447.5
169.0	175.0	183.0	197.0	225.0	289.0	384.0	137.5°	482.0	481.0	478.5	476.0	475.5
155.0	162.0	170.0	180.0	195.0	239.0	310.0	140°	511.0	509.0	506.5	504.0	503.0
136.0	141.0	148.0	159.0	170.0	205.0	274.0	142.5°	536.0	534.0	533.5	533.0	533.0
120.0	126.0	135.0	143.0	154.0	182.0	249.0	145°	560.0	558.0	559.5	561.0	561.5
112.0	118.0	126.0	133.0	141.0	164.0	231.0	147.5°	585.0	583.0	584.5	586.0	585.5
107.0	113.0	121.0	127.0	132.0	158.0	224.0	150°	610.0	606.0	604.5	603.0	601.5
104.0	111.0	118.0	122.0	132.0	161.0	207.0	152.5°	628.0	623.0	620.5	618.0	616.0
103.0	110.0	118.0	125.0	145.0	152.0	196.0	155°	641.0	638.0	637.0	636.0	633.5
104.0	110.0	120.0	140.0	141.0	144.0	184.0	157.5°	655.0	650.0	650.0	650.0	649.0
104.0	113.0	134.0	146.0	134.0	136.0	173.0	160°	666.0	660.0	660.5	661.0	662.5
105.0	117.0	139.0	136.0	130.0	127.0	161.0	162.5°	674.0	668.0	669.0	670.0	670.5
105.0	115.0	133.0	128.0	120.0	121.0	147.0	165°	682.0	678.0	679.0	680.0	678.5
102.0	115.0	128.0	116.0	110.0	115.0	135.0	167.5°	694.0	688.0	688.0	688.0	686.0
100.0	118.0	114.0	107.0	107.0	112.0	129.0	170°	701.0	696.0	695.0	694.0	691.5
99.0	121.0	108.0	104.0	104.0	111.0	126.0	172.5°	701.0	696.0	695.0	694.0	693.0
96.0	113.0	99.0	97.0	100.0	105.0	122.0	175°	699.0	694.0	695.0	696.0	695.5
90.0	94.0	91.0	91.0	95.0	101.0	120.0	177.5°	702.0	698.0	699.5	701.0	700.0
83.0	85.0	85.0	86.0	90.0	95.0	122.0	180°	700.0	700.0	700.0	700.0	700.0
77.0	77.0	79.0	80.0	83.0	90.0	117.0						
70.0	71.0	71.0	73.0	75.0	82.0	113.0						
62.0	62.0	64.0	64.0	67.0	74.0	101.0						
54.0	54.0	54.0	55.0	57.0	64.0	83.0						
45.0	45.0	45.0	46.0	47.0	53.0	63.0						
36.0	35.0	34.0	34.0	36.0	41.0	49.0						
25.0	25.0	24.0	24.0	24.0	27.0	33.0						
14.0	12.0	13.0	14.0	13.0	15.0	18.0						
10.0	11.0	11.0	11.0	11.0	11.0	13.5						
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°	1963.1	1963.1	1963.1	1963.1	1963.1	1963.1
150.0	149.0	148.0	145.5	143.0	138.5	2.5°	1848.1	1874.1	1915.1	1923.1	1956.1	1979.1
182.0	180.5	179.0	176.5	174.0	171.0	5°	1566.1	1628.1	1650.1	1693.1	1768.1	1806.1
215.0	213.0	211.0	208.0	205.0	203.5	7.5°	1292.1	1339.1	1392.1	1461.1	1516.1	1581.1
250.0	248.0	246.0	244.5	243.0	240.0	10°	1063.0	1130.0	1199.1	1255.1	1332.1	1410.1
283.0	281.0	279.0	278.0	277.0	274.0	12.5°	944.0	981.0	1049.0	1128.0	1224.1	1311.1
315.0	314.0	313.0	311.5	310.0	307.5	15°	882.0	926.0	999.0	1083.0	1185.1	1293.1
346.0	345.5	345.0	342.5	340.0	339.5	17.5°	805.0	875.0	958.0	1078.0	1210.1	1360.1
381.0	379.0	377.0	374.5	372.0	371.0	20°	729.0	814.0	923.0	1081.0	1264.1	1459.1
416.0	413.5	411.0	408.0	405.0	404.5	22.5°	662.0	763.0	901.0	1099.0	1333.1	1593.1
448.0	445.5	443.0	440.0	437.0	436.0	25°	583.0	718.0	884.0	1136.0	1439.1	1773.1
475.0	474.0	473.0	470.5	468.0	466.0	27.5°	520.0	675.0	859.0	1168.0	1536.1	1946.1
502.0	501.0	500.0	498.5	497.0	494.0	30°	450.0	625.0	824.0	1179.1	1654.1	2088.1
533.0	530.0	527.0	526.0	525.0	523.0	32.5°	394.0	578.0	784.0	1169.0	1707.1	2187.1
562.0	559.0	556.0	553.5	551.0	550.5	35°	367.0	544.0	750.0	1134.0	1751.1	2294.1
585.0	582.5	580.0	577.5	575.0	574.5	37.5°	349.0	507.0	717.0	1076.0	1801.1	2400.1
600.0	598.5	597.0	595.0	593.0	593.0	40°	326.0	478.0	690.0	1034.0	1840.1	2488.1
614.0	612.5	611.0	610.5	610.0	610.0	42.5°	305.0	452.0	669.0	997.0	1850.1	2567.1
631.0	628.5	626.0	627.0	628.0	629.0	45°	287.0	436.0	653.0	999.0	1857.1	2677.1
648.0	646.0	644.0	644.5	645.0	645.5	47.5°	273.0	421.0	647.0	1033.0	1931.1	2830.1
664.0	661.0	658.0	656.5	655.0	655.0	50°	260.0	408.0	637.0	1099.0	2050.1	3037.1
671.0	669.0	667.0	665.0	663.0	662.0	52.5°	245.0	390.0	624.0	1167.0	2180.1	3314.1
677.0	674.5	672.0	672.5	673.0	673.0	55°	225.0	366.0	610.0	1224.1	2357.1	3651.2
684.0	681.0	678.0	681.5	685.0	686.5	57.5°	194.0	338.0	601.0	1253.1	2466.1	3845.2
689.0	687.5	686.0	688.5	691.0	692.0	59°	178.0	311.0	596.0	1239.1	2495.1	3878.2
692.0	690.5	689.0	689.5	690.0	690.0	60°	169.0	295.0	588.0	1222.1	2503.1	3857.2
695.0	692.5	690.0	690.0	690.0	690.5	62.5°	157.0	257.0	555.0	1137.0	2391.1	3603.2
699.0	696.5	694.0	694.5	695.0	696.0	65°	160.0	243.0	480.0	968.0	2134.1	3107.1
700.0	700.0	700.0	700.0	700.0	700.0	67.5°	164.0	237.0	415.0	782.0	1701.1	2571.1
						70°	161.0	234.0	377.0	622.0	1274.1	1925.1
						72.5°	157.0	221.0	327.0	500.0	808.0	1348.1
						75°	139.0	186.0	257.0	343.0	510.0	982.0
						77.5°	109.0	143.0	182.0	213.0	259.0	693.0
						80°	80.0	104.0	119.0	128.0	144.0	473.0
						82.5°	57.0	70.0	76.0	81.0	96.0	354.0
						85°	43.0	49.0	53.0	53.0	65.0	250.0
						87.5°	24.0	25.0	25.0	27.0	32.0	68.0
						90°	15.0	15.0	14.0	14.5	12.0	10.0
						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°
1963.1	1963.1	1963.1	110°	102.0	94.5	87.0	80.5	74.0	71.0	68.0
2005.1	2020.1	2032.1	112.5°	134.0	127.5	121.0	113.5	106.0	102.5	99.0
1864.1	1901.1	1908.1	115°	168.0	163.5	159.0	153.0	147.0	143.0	139.0
1653.1	1713.1	1734.1	117.5°	202.0	199.5	197.0	193.0	189.0	186.5	184.0
1498.1	1563.1	1585.1	120°	237.0	235.0	233.0	229.5	226.0	224.5	223.0
1413.1	1489.1	1513.1	122.5°	271.0	269.0	267.0	264.0	261.0	260.5	260.0
1415.1	1506.1	1541.1	125°	305.0	302.0	299.0	297.5	296.0	295.0	294.0
1507.1	1611.1	1654.1	127.5°	339.0	336.0	333.0	331.0	329.0	329.0	329.0
1665.1	1816.1	1848.1	130°	370.0	368.0	366.0	364.0	362.0	361.5	361.0
1879.1	2027.1	2075.1	132.5°	404.0	402.5	401.0	397.0	393.0	393.5	394.0
2080.1	2276.1	2313.1	135°	435.0	433.5	432.0	429.0	426.0	426.0	426.0
2278.1	2472.1	2505.1	137.5°	464.0	462.0	460.0	459.5	459.0	458.0	457.0
2431.1	2634.1	2662.1	140°	491.0	490.0	489.0	488.0	487.0	486.0	485.0
2578.1	2807.1	2838.1	142.5°	521.0	519.5	518.0	517.5	517.0	516.0	515.0
2742.1	2995.1	3031.1	145°	550.0	548.5	547.0	545.5	544.0	545.0	546.0
2890.1	3180.1	3203.1	147.5°	574.0	574.0	574.0	572.5	571.0	571.5	572.0
3054.1	3331.1	3337.1	150°	593.0	593.0	593.0	593.0	593.0	592.5	592.0
3188.1	3443.1	3445.1	152.5°	610.0	609.5	609.0	608.5	608.0	608.0	608.0
3318.1	3548.2	3549.2	155°	630.0	628.5	627.0	626.0	625.0	625.0	625.0
3454.1	3663.2	3648.2	157.5°	646.0	645.0	644.0	643.5	643.0	643.0	643.0
3669.2	3799.2	3814.2	160°	655.0	655.5	656.0	657.5	659.0	659.5	660.0
3996.2	4112.2	4129.2	162.5°	661.0	663.0	665.0	667.0	669.0	669.0	669.0
4376.2	4537.2	4514.2	165°	673.0	674.5	676.0	676.0	676.0	677.0	678.0
4537.2	4721.2	4740.2	167.5°	688.0	687.0	686.0	685.0	684.0	685.5	687.0
4510.2	4761.2	4793.2	170°	693.0	692.5	692.0	692.0	692.0	693.5	695.0
4467.2	4749.2	4788.2	172.5°	690.0	691.5	693.0	694.0	695.0	696.0	697.0
4223.2	4624.2	4685.2	175°	691.0	693.0	695.0	696.0	697.0	697.5	698.0
3813.2	4365.2	4451.2	177.5°	697.0	698.0	699.0	699.5	700.0	702.5	705.0
3286.1	3978.2	4047.2	180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0
2564.1	3233.1	3292.1								
1704.1	2220.1	2322.1								
1083.0	1432.1	1413.1								
799.0	931.0	932.0								
580.0	639.0	632.0								
449.0	390.0	389.0								
157.0	138.0	135.0								
68.0	57.0	58.0								
8.0	8.0	9.0								
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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