

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: P227681

Luminaire Tested: **ISS-AF-1200-LED-E1-T3-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227681
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29759)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-1200-LED-E1-T3-8030-ULG
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III, 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: 6792.2 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type III - Medium - 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

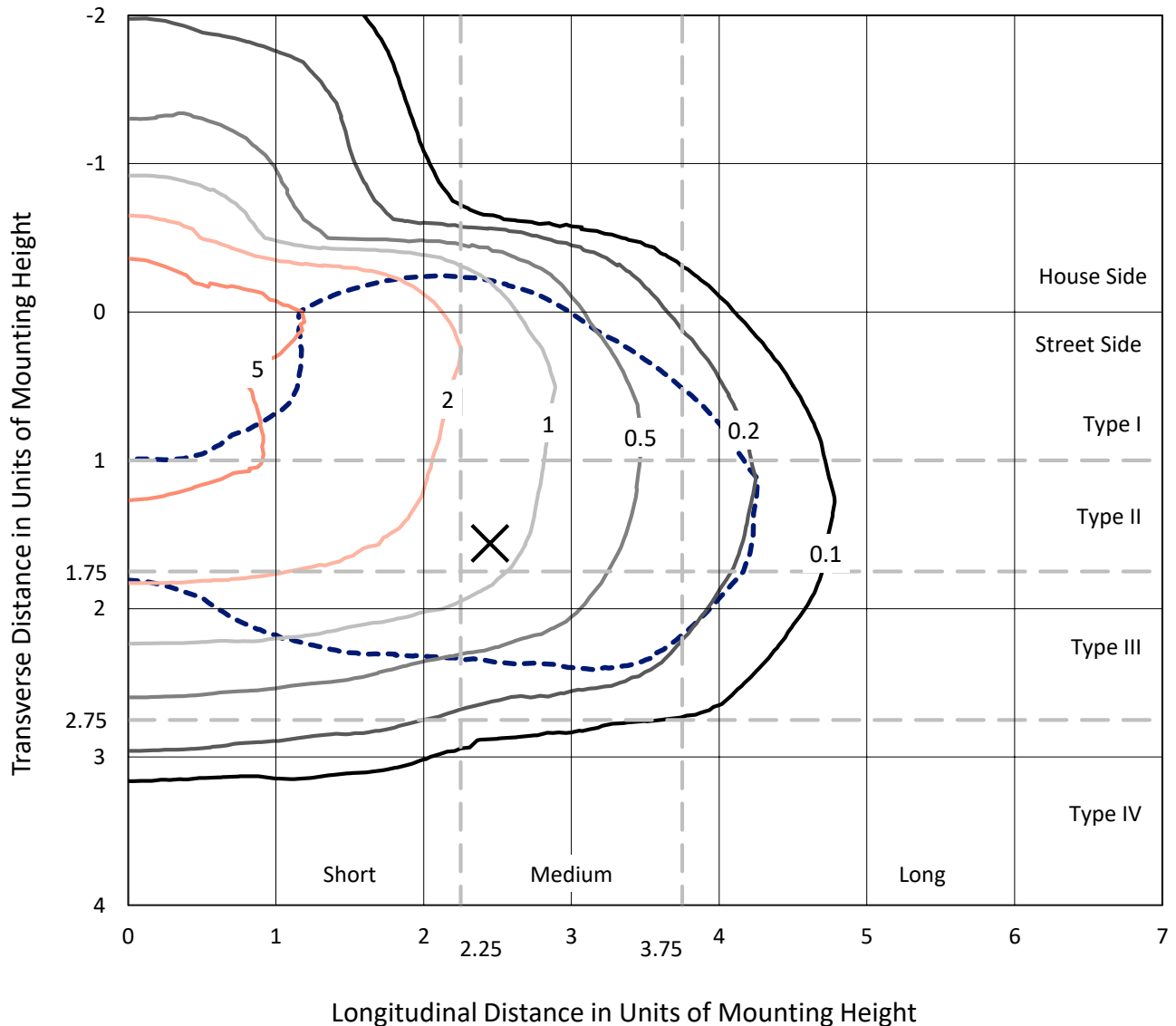


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

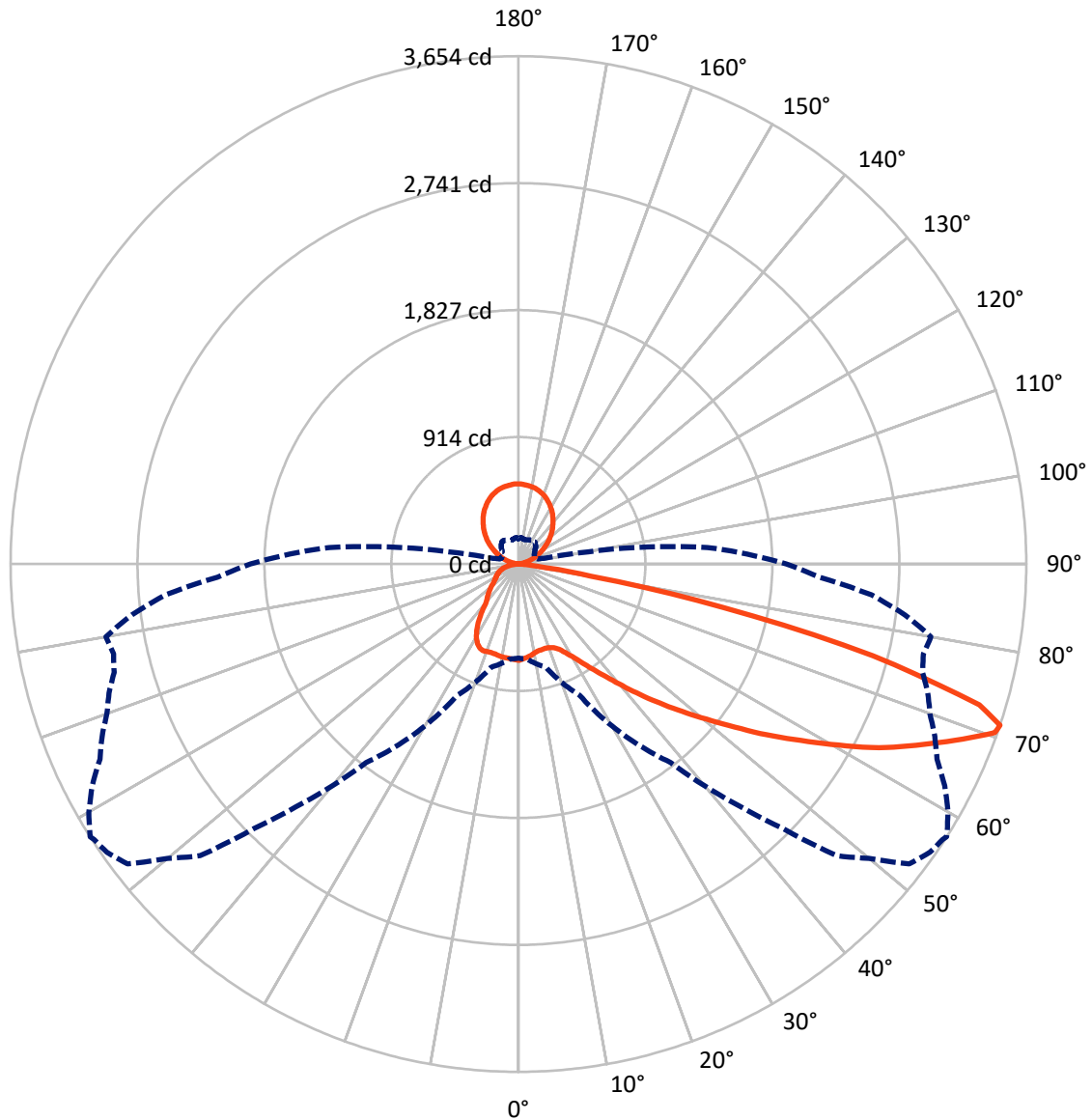


Based on 10 foot mounting height. Maximum calculated value = 7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57.5-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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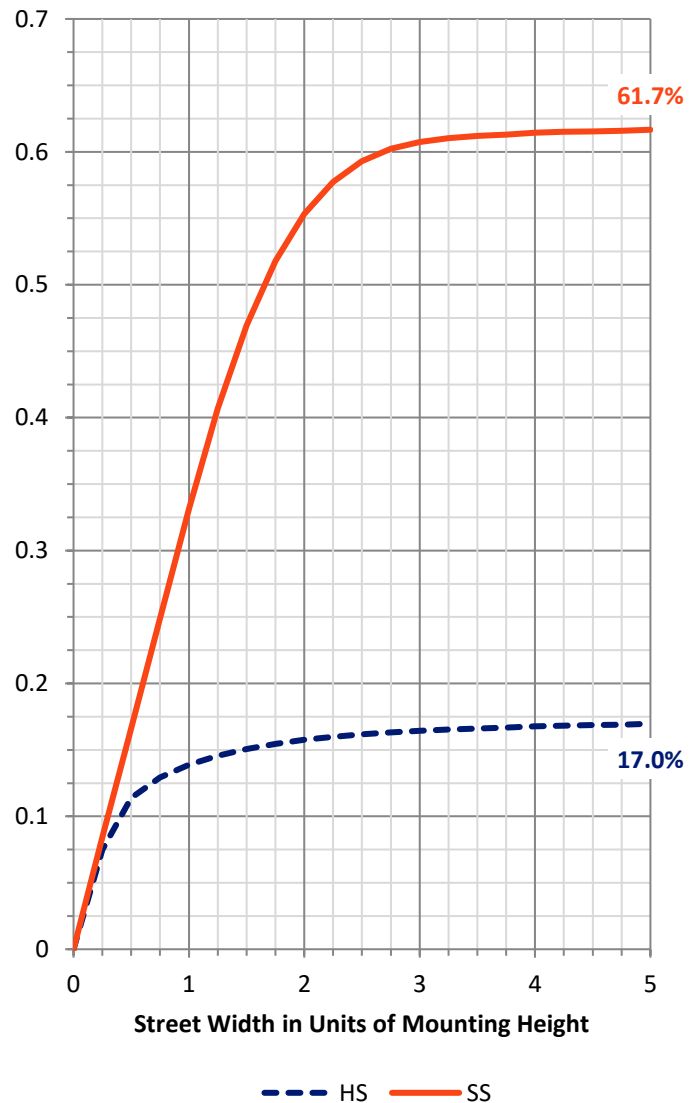
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1168.2	713.1	1881.3
	% Fixture	17.2	10.5	27.7
Street Side	Lumens	4197.8	713.1	4910.9
	% Fixture	61.8	10.5	72.3
Total	Lumens	5366.0	1426.2	6792.2
	% Fixture	79.0	21.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.2	1.0
10°-20°	188.0	2.8
20°-30°	312.1	4.6
30°-40°	496.8	7.3
40°-50°	807.1	11.9
50°-60°	1210.1	17.8
60°-70°	1443.6	21.3
70°-80°	779.7	11.5
80°-90°	63.5	0.9
90°-100°	4.7	0.1
100°-110°	69.0	1.0
110°-120°	153.0	2.3
120°-130°	223.9	3.3
130°-140°	265.6	3.9
140°-150°	269.3	4.0
150°-160°	231.1	3.4
160°-170°	155.1	2.3
170°-180°	54.3	0.8
0°-90°	5366.0	79.0
0°-180°	6792.2	100.0



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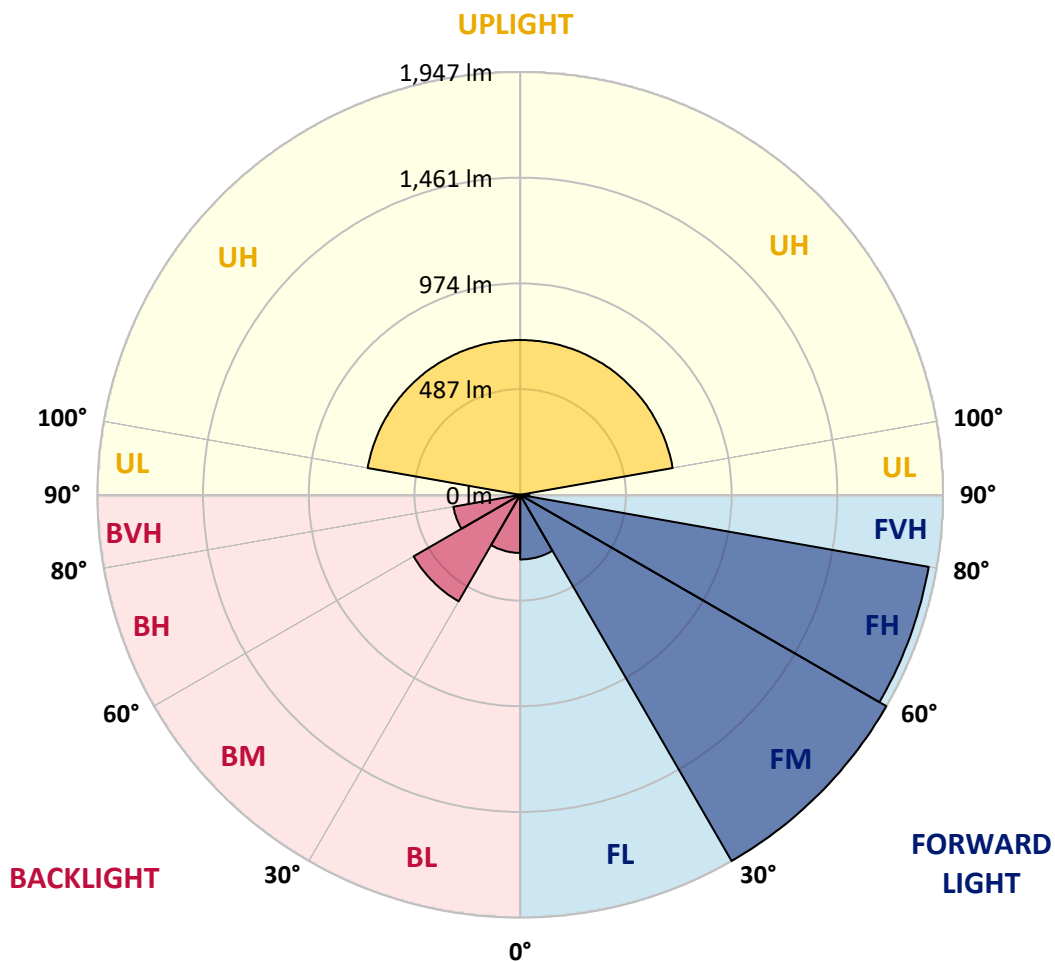
CATALOG NUMBER: ISS-AF-1200-LED-E1-T3-8030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	297.7	4.4			
FM (30°-60°)	1947.5	28.7			
FH (60°-80°)	1910.8	28.1			G2/5000
FVH (80°-90°)	41.8	0.6			G1/100
BL (0°-30°)	267.6	3.9	B1/500		
BM (30°-60°)	566.5	8.3	B1/1000		
BH (60°-80°)	312.5	4.6	B1/500		G1/500
BVH (80°-90°)	21.7	0.3			G1/100
UL (90°-100°)	4.7	0.1		U1/10	
UH (100°-180°)	713.1	10.5		U4/1000	

BUG Rating: B1-U5-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2
2.5°	693.2	691.4	689.7	689.7	689.7	687.9	682.6	684.3	689.7	686.1	691.4
5°	691.4	687.9	686.1	686.1	686.1	680.8	679.0	677.2	687.9	679.0	686.1
7.5°	671.9	671.9	668.4	671.9	675.5	670.2	666.6	668.4	677.2	668.4	677.2
10°	657.7	654.2	652.4	652.4	656.0	648.9	645.3	648.9	659.5	648.9	661.3
12.5°	652.4	654.2	648.9	648.9	647.1	638.2	638.2	638.2	647.1	638.2	648.9
15°	661.3	659.5	654.2	650.7	645.3	638.2	636.5	638.2	645.3	634.7	647.1
17.5°	673.7	673.7	664.8	656.0	650.7	643.6	643.6	640.0	645.3	638.2	647.1
20°	705.6	700.3	687.9	673.7	659.5	656.0	648.9	648.9	652.4	645.3	650.7
22.5°	760.6	755.3	734.0	707.4	684.3	675.5	671.9	670.2	666.6	663.1	663.1
25°	833.3	824.4	799.6	767.7	728.7	721.6	714.5	709.2	696.8	696.8	687.9
27.5°	911.3	902.4	875.8	840.4	792.5	781.9	773.0	765.9	744.6	744.6	728.7
30°	999.9	989.3	957.4	918.4	863.4	859.9	847.4	836.8	808.4	806.7	785.4
32.5°	1102.7	1088.6	1056.7	1005.2	946.7	948.5	929.0	921.9	884.7	886.5	858.1
35°	1219.8	1203.8	1171.9	1104.5	1044.2	1049.6	1031.8	1019.4	973.3	973.3	943.2
37.5°	1343.9	1343.9	1303.1	1225.1	1152.4	1164.8	1143.5	1131.1	1085.0	1092.1	1044.2
40°	1482.1	1491.0	1446.7	1358.0	1283.6	1288.9	1272.9	1258.8	1203.8	1216.2	1164.8
42.5°	1627.5	1643.5	1604.5	1512.3	1429.0	1446.7	1420.1	1405.9	1347.4	1374.0	1313.7
45°	1838.5	1842.0	1769.4	1680.7	1611.6	1627.5	1590.3	1585.0	1512.3	1540.7	1480.4
47.5°	1971.5	1962.6	1909.4	1856.2	1815.5	1847.4	1813.7	1804.8	1721.5	1741.0	1655.9
50°	2061.9	2067.2	2026.4	2021.1	2028.2	2088.5	2083.2	2065.4	1966.2	1952.0	1845.6
52.5°	2143.4	2120.4	2113.3	2162.9	2239.2	2310.1	2338.5	2315.4	2207.3	2168.3	2065.4
55°	2129.3	2095.6	2132.8	2253.4	2404.1	2514.0	2517.5	2501.6	2404.1	2388.1	2276.4
57.5°	2033.5	2040.6	2116.8	2288.8	2544.1	2657.6	2677.1	2657.6	2577.8	2592.0	2499.8
60°	1900.6	1914.7	2035.3	2256.9	2655.8	2753.3	2762.2	2785.2	2732.0	2769.3	2705.5
62.5°	1702.0	1721.5	1875.7	2177.1	2577.8	2723.2	2804.7	2857.9	2847.3	2932.4	2898.7
65°	1563.7	1563.7	1714.4	2084.9	2501.6	2693.0	2815.4	2914.7	2928.8	3063.6	3051.2
67.5°	1306.6	1315.5	1444.9	1827.9	2409.4	2625.7	2810.1	2978.5	3063.6	3276.3	3287.0
70°	904.2	911.3	996.4	1304.9	1946.7	2131.0	2402.3	2677.1	2932.4	3253.3	3419.9
71°	677.2	686.1	769.4	1040.7	1648.8	1801.3	2083.2	2368.6	2689.5	3106.1	3294.1
72.5°	331.5	336.9	418.4	668.4	1147.1	1342.1	1505.2	1778.2	2118.6	2595.5	2861.5
75°	154.2	156.0	173.7	241.1	437.9	521.2	593.9	769.4	980.4	1398.8	1721.5
77.5°	113.5	113.5	124.1	157.8	226.9	230.5	226.9	232.3	280.1	400.7	602.8
80°	83.3	83.3	90.4	106.4	150.7	150.7	145.4	147.2	141.8	147.2	166.7
82.5°	55.0	55.0	58.5	63.8	92.2	92.2	88.6	88.6	85.1	83.3	90.4
85°	31.9	33.7	35.5	30.1	39.0	37.2	33.7	37.2	35.5	31.9	39.0
87.5°	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	1.8	0.0	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	2.0	2.0	2.0	3.0	4.0	5.2	6.5	7.8	9.0	10.0	11.0
100°	8.0	8.0	10.0	14.0	22.0	24.0	26.0	28.0	30.0	30.5	31.0
102.5°	28.0	28.0	32.0	38.0	45.0	46.2	47.5	48.8	50.0	50.2	50.5
105°	54.0	54.0	56.0	61.0	66.0	67.0	68.0	69.0	70.0	70.2	70.5
107.5°	78.0	77.0	80.0	84.0	88.0	88.8	89.5	90.2	91.0	91.5	92.0



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CATALOG NUMBER: ISS-AF-1200-LED-E1-T3-8030-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
110°	101.0	102.0	103.0	106.0	110.0	110.5	111.0	111.5	112.0	112.5	113.0
112.5°	124.0	124.0	126.0	129.0	132.0	132.5	133.0	133.5	134.0	134.5	135.0
115°	146.0	147.0	149.0	151.0	154.0	154.5	155.0	155.5	156.0	156.5	157.0
117.5°	169.0	170.0	172.0	174.0	177.0	177.5	178.0	178.5	179.0	179.2	179.5
120°	193.0	195.0	196.0	198.0	201.0	201.2	201.5	201.8	202.0	202.5	203.0
122.5°	219.0	220.0	221.0	223.0	226.0	226.2	226.5	226.8	227.0	227.2	227.5
125°	244.0	246.0	247.0	248.0	251.0	251.2	251.5	251.8	252.0	252.2	252.5
127.5°	267.0	269.0	270.0	272.0	274.0	274.5	275.0	275.5	276.0	276.5	277.0
130°	290.0	292.0	293.0	294.0	298.0	298.2	298.5	298.8	299.0	299.5	300.0
132.5°	313.0	314.0	317.0	318.0	321.0	321.2	321.5	321.8	322.0	322.8	323.5
135°	336.0	337.0	339.0	341.0	345.0	345.0	345.0	345.0	345.0	345.8	346.5
137.5°	359.0	360.0	363.0	364.0	367.0	367.0	367.0	367.0	367.0	367.5	368.0
140°	382.0	383.0	385.0	386.0	388.0	388.2	388.5	388.8	389.0	389.2	389.5
142.5°	404.0	406.0	408.0	407.0	410.0	410.0	410.0	410.0	410.0	410.5	411.0
145°	425.0	426.0	428.0	428.0	431.0	431.2	431.5	431.8	432.0	432.5	433.0
147.5°	444.0	444.0	447.0	448.0	452.0	452.2	452.5	452.8	453.0	453.2	453.5
150°	461.0	462.0	464.0	465.0	469.0	469.2	469.5	469.8	470.0	470.2	470.5
152.5°	479.0	480.0	483.0	482.0	485.0	485.2	485.5	485.8	486.0	486.2	486.5
155°	499.0	500.0	502.0	501.0	503.0	503.0	503.0	503.0	503.0	503.2	503.5
157.5°	513.0	515.0	517.0	516.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0
160°	525.0	527.0	529.0	529.0	532.0	532.0	532.0	532.0	532.0	532.0	532.0
162.5°	535.0	536.0	539.0	538.0	541.0	541.0	541.0	541.0	541.0	541.2	541.5
165°	546.0	547.0	549.0	548.0	552.0	552.0	552.0	552.0	552.0	552.2	552.5
167.5°	555.0	556.0	559.0	558.0	561.0	560.8	560.5	560.2	560.0	560.0	560.0
170°	562.0	563.0	566.0	565.0	567.0	566.8	566.5	566.2	566.0	565.8	565.5
172.5°	565.0	566.0	569.0	567.0	569.0	568.8	568.5	568.2	568.0	568.2	568.5
175°	567.0	569.0	570.0	569.0	572.0	572.0	572.0	572.0	572.0	572.2	572.5
177.5°	572.0	573.0	575.0	574.0	578.0	577.8	577.5	577.2	577.0	577.0	577.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0



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CANDELA DISTRIBUTION (continued):

	52.5°	55°	57°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2
2.5°	684.3	689.7	689.7	682.6	687.9	682.6	686.1	680.8	686.1	677.2	687.9
5°	679.0	684.3	684.3	673.7	684.3	673.7	682.6	670.2	682.6	668.4	682.6
7.5°	664.8	677.2	677.2	663.1	675.5	664.8	675.5	663.1	673.7	657.7	675.5
10°	648.9	661.3	663.1	648.9	663.1	650.7	666.6	650.7	666.6	648.9	668.4
12.5°	638.2	652.4	656.0	640.0	657.7	641.8	661.3	643.6	661.3	641.8	664.8
15°	636.5	648.9	652.4	638.2	654.2	636.5	659.5	638.2	661.3	640.0	666.6
17.5°	638.2	648.9	652.4	636.5	652.4	638.2	657.7	640.0	661.3	641.8	666.6
20°	643.6	650.7	650.7	641.8	654.2	641.8	657.7	640.0	663.1	645.3	668.4
22.5°	659.5	661.3	661.3	654.2	661.3	652.4	664.8	652.4	668.4	654.2	675.5
25°	686.1	684.3	680.8	679.0	680.8	675.5	682.6	673.7	689.7	677.2	698.5
27.5°	732.2	725.1	721.6	721.6	719.8	721.6	721.6	718.0	725.1	721.6	735.8
30°	788.9	776.5	771.2	776.5	769.4	776.5	774.8	773.0	780.1	776.5	788.9
32.5°	863.4	842.1	838.6	849.2	835.0	847.4	836.8	842.1	847.4	851.0	858.1
35°	950.3	925.5	921.9	932.5	916.6	934.3	921.9	929.0	932.5	941.4	946.7
37.5°	1053.1	1023.0	1017.6	1031.8	1010.6	1030.1	1012.3	1033.6	1028.3	1040.7	1046.0
40°	1177.2	1141.8	1129.3	1148.8	1124.0	1140.0	1122.2	1145.3	1140.0	1164.8	1170.1
42.5°	1329.7	1278.3	1265.9	1285.4	1248.1	1253.4	1239.3	1265.9	1262.3	1296.0	1301.3
45°	1487.5	1425.4	1407.7	1427.2	1384.6	1395.3	1374.0	1402.4	1400.6	1427.2	1448.5
47.5°	1663.0	1586.8	1563.7	1585.0	1533.6	1546.0	1524.7	1554.8	1556.6	1586.8	1608.0
50°	1845.6	1765.8	1735.7	1755.2	1707.3	1716.2	1694.9	1732.1	1730.4	1771.1	1787.1
52.5°	2044.2	1962.6	1939.6	1948.4	1891.7	1902.3	1884.6	1930.7	1920.1	1944.9	1976.8
55°	2264.0	2170.0	2143.4	2170.0	2102.7	2116.8	2093.8	2136.4	2118.6	2150.5	2159.4
57.5°	2489.2	2397.0	2375.7	2395.2	2331.4	2342.0	2311.9	2347.3	2333.1	2354.4	2368.6
60°	2728.5	2645.2	2623.9	2645.2	2583.1	2584.9	2533.5	2570.7	2549.4	2576.0	2570.7
62.5°	2957.2	2886.3	2881.0	2911.1	2833.1	2824.2	2762.2	2788.8	2758.6	2776.4	2755.1
65°	3152.2	3111.4	3118.5	3143.4	3074.2	3052.9	2982.0	2996.2	2951.9	2951.9	2925.3
67.5°	3407.5	3363.2	3363.2	3384.5	3297.6	3242.6	3145.1	3132.7	3060.0	3045.9	2983.8
70°	3620.3	3632.7	3618.5	3636.2	3533.4	3421.7	3292.3	3230.2	3134.5	3088.4	3015.7
71°	3544.0	3615.0	3639.8	3654.0	3568.9	3457.2	3322.4	3242.6	3150.5	3088.4	3010.4
72.5°	3198.3	3370.3	3467.8	3467.8	3478.4	3407.5	3278.1	3191.2	3086.6	3005.1	2932.4
75°	2241.0	2521.1	2646.9	2632.8	2725.0	2756.9	2767.5	2730.3	2671.8	2554.8	2503.3
77.5°	998.1	1315.5	1505.2	1507.0	1606.3	1693.1	1762.3	1835.0	1808.4	1751.6	1748.1
80°	226.9	411.3	526.6	531.9	622.3	702.1	749.9	822.6	831.5	749.9	703.8
82.5°	97.5	115.2	131.2	129.4	159.6	191.5	226.9	246.4	237.6	196.8	186.2
85°	40.8	53.2	56.7	53.2	65.6	72.7	85.1	86.9	101.1	90.4	95.7
87.5°	0.0	1.8	1.8	0.0	3.5	0.0	3.5	1.8	8.9	3.5	10.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	12.0	13.0	11.8	11.5	10.0	8.5	7.0	6.5	6.0	5.5	5.0
100°	31.5	32.0	31.6	31.5	31.0	30.5	30.0	29.2	28.5	27.8	27.0
102.5°	50.8	51.0	50.8	50.8	50.5	50.2	50.0	49.5	49.0	48.5	48.0
105°	70.8	71.0	71.0	71.0	71.0	71.0	71.0	70.5	70.0	69.5	69.0
107.5°	92.5	93.0	92.8	92.8	92.5	92.2	92.0	91.8	91.5	91.2	91.0



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CANDELA DISTRIBUTION (continued):

	52.5°	55°	57°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
110°	113.5	114.0	114.0	114.0	114.0	114.0	114.0	113.8	113.5	113.2	113.0
112.5°	135.5	136.0	136.0	136.0	136.0	136.0	136.0	135.8	135.5	135.2	135.0
115°	157.5	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0
117.5°	179.8	180.0	180.2	180.2	180.5	180.8	181.0	180.8	180.5	180.2	180.0
120°	203.5	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0
122.5°	227.8	228.0	228.0	228.0	228.0	228.0	228.0	228.2	228.5	228.8	229.0
125°	252.8	253.0	253.2	253.2	253.5	253.8	254.0	254.0	254.0	254.0	254.0
127.5°	277.5	278.0	277.8	277.8	277.5	277.2	277.0	277.2	277.5	277.8	278.0
130°	300.5	301.0	301.0	301.0	301.0	301.0	301.0	301.2	301.5	301.8	302.0
132.5°	324.2	325.0	325.0	325.0	325.0	325.0	325.0	325.2	325.5	325.8	326.0
135°	347.2	348.0	348.0	348.0	348.0	348.0	348.0	348.2	348.5	348.8	349.0
137.5°	368.5	369.0	369.0	369.0	369.0	369.0	369.0	369.2	369.5	369.8	370.0
140°	389.8	390.0	390.0	390.0	390.0	390.0	390.0	390.5	391.0	391.5	392.0
142.5°	411.5	412.0	412.0	412.0	412.0	412.0	412.0	412.2	412.5	412.8	413.0
145°	433.5	434.0	433.8	433.8	433.5	433.2	433.0	433.2	433.5	433.8	434.0
147.5°	453.8	454.0	453.6	453.5	453.0	452.5	452.0	452.2	452.5	452.8	453.0
150°	470.8	471.0	470.6	470.5	470.0	469.5	469.0	469.0	469.0	469.0	469.0
152.5°	486.8	487.0	486.8	486.8	486.5	486.2	486.0	486.0	486.0	486.0	486.0
155°	503.8	504.0	503.8	503.8	503.5	503.2	503.0	503.2	503.5	503.8	504.0
157.5°	519.0	519.0	518.6	518.5	518.0	517.5	517.0	517.2	517.5	517.8	518.0
160°	532.0	532.0	531.6	531.5	531.0	530.5	530.0	530.0	530.0	530.0	530.0
162.5°	541.8	542.0	541.6	541.5	541.0	540.5	540.0	539.5	539.0	538.5	538.0
165°	552.8	553.0	552.4	552.2	551.5	550.8	550.0	549.5	549.0	548.5	548.0
167.5°	560.0	560.0	559.6	559.5	559.0	558.5	558.0	558.2	558.5	558.8	559.0
170°	565.2	565.0	564.8	564.8	564.5	564.2	564.0	564.5	565.0	565.5	566.0
172.5°	568.8	569.0	568.6	568.5	568.0	567.5	567.0	567.2	567.5	567.8	568.0
175°	572.8	573.0	572.4	572.2	571.5	570.8	570.0	569.5	569.0	568.5	568.0
177.5°	577.0	577.0	576.4	576.2	575.5	574.8	574.0	574.0	574.0	574.0	574.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0



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CANDELA DISTRIBUTION (continued):

	77.5°	80°	82.5°	85°	87.5°	90°	95°	100°	102.5°	105°	107.5°
0°	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2
2.5°	680.8	689.7	680.8	689.7	684.3	689.7	687.9	689.7	680.8	689.7	679.0
5°	668.4	682.6	670.2	680.8	670.2	682.6	682.6	682.6	670.2	684.3	671.9
7.5°	657.7	673.7	657.7	673.7	663.1	675.5	675.5	680.8	666.6	682.6	664.8
10°	647.1	666.6	647.1	670.2	652.4	671.9	673.7	677.2	657.7	679.0	661.3
12.5°	641.8	666.6	643.6	666.6	645.3	671.9	673.7	677.2	656.0	682.6	659.5
15°	641.8	668.4	643.6	668.4	645.3	671.9	675.5	679.0	656.0	684.3	659.5
17.5°	641.8	668.4	647.1	670.2	648.9	673.7	677.2	680.8	659.5	684.3	663.1
20°	647.1	671.9	650.7	675.5	654.2	679.0	680.8	686.1	663.1	686.1	666.6
22.5°	659.5	680.8	663.1	686.1	670.2	689.7	691.4	696.8	679.0	698.5	682.6
25°	680.8	703.8	689.7	707.4	698.5	714.5	718.0	718.0	710.9	723.3	718.0
27.5°	725.1	742.8	732.2	748.2	742.8	755.3	755.3	757.0	762.3	765.9	771.2
30°	781.9	794.3	790.7	799.6	801.4	808.4	808.4	819.1	840.4	819.1	817.3
32.5°	858.1	865.2	867.0	870.5	877.6	882.9	890.0	902.4	920.1	870.5	854.5
35°	952.1	953.8	959.1	964.5	976.9	980.4	1003.5	994.6	994.6	916.6	882.9
37.5°	1054.9	1054.9	1069.1	1069.1	1099.2	1101.0	1124.0	1077.9	1051.3	950.3	900.6
40°	1184.3	1182.5	1198.5	1202.0	1242.8	1244.6	1241.0	1140.0	1083.2	959.1	891.8
42.5°	1320.8	1326.1	1347.4	1354.5	1384.6	1395.3	1351.0	1182.5	1097.4	953.8	861.6
45°	1469.7	1480.4	1507.0	1526.5	1558.4	1546.0	1439.6	1202.0	1081.5	921.9	803.1
47.5°	1632.8	1643.5	1664.8	1702.0	1716.2	1702.0	1512.3	1209.1	1056.7	872.3	718.0
50°	1797.7	1815.5	1845.6	1898.8	1905.9	1870.4	1600.9	1235.7	1037.1	820.9	620.5
52.5°	1983.9	2001.6	2037.1	2125.7	2108.0	2035.3	1705.5	1285.4	1042.5	788.9	537.2
55°	2180.7	2205.5	2274.6	2361.5	2322.5	2209.0	1820.8	1358.0	1063.7	755.3	445.0
57.5°	2388.1	2414.7	2505.1	2607.9	2531.7	2379.2	1937.8	1414.8	1074.4	686.1	343.9
60°	2593.8	2631.0	2748.0	2833.1	2714.3	2524.6	2042.4	1452.0	1046.0	554.9	265.9
62.5°	2781.7	2842.0	2973.2	3019.3	2829.6	2616.8	2099.1	1425.4	930.8	382.9	214.5
65°	2914.7	2992.7	3077.8	3072.4	2808.3	2586.7	2056.6	1303.1	693.2	253.5	182.6
67.5°	2971.4	3044.1	3063.6	2973.2	2655.8	2453.7	1904.1	1049.6	398.9	189.7	159.6
70°	2992.7	3054.7	2944.8	2726.7	2358.0	2127.5	1556.6	668.4	218.1	154.2	138.3
71°	2983.8	3013.9	2804.7	2549.4	2168.3	1927.1	1365.1	508.8	186.2	143.6	131.2
72.5°	2863.2	2820.7	2498.0	2214.4	1838.5	1593.8	1062.0	320.9	152.5	129.4	122.3
75°	2340.2	2148.8	1838.5	1570.8	1251.7	1001.7	576.2	164.9	122.3	111.7	106.4
77.5°	1530.0	1363.4	1108.1	900.6	684.3	519.5	235.8	113.5	97.5	94.0	92.2
80°	546.1	437.9	331.5	290.8	219.8	180.8	115.2	86.9	76.2	78.0	76.2
82.5°	154.2	141.8	122.3	113.5	99.3	97.5	74.5	65.6	60.3	63.8	62.1
85°	76.2	65.6	47.9	46.1	35.5	40.8	37.2	44.3	39.0	40.8	37.2
87.5°	5.3	7.1	1.8	5.3	0.0	5.3	7.1	8.9	1.8	7.1	5.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	4.8	4.5	4.2	4.0	4.0	4.0	4.0	4.5	4.8	5.0	5.5
100°	26.8	26.5	26.2	26.0	25.5	25.0	26.0	26.5	26.8	27.0	27.8
102.5°	48.2	48.5	48.8	49.0	48.5	48.0	49.0	48.5	48.2	48.0	48.5
105°	69.5	70.0	70.5	71.0	70.0	69.0	71.0	70.0	69.5	69.0	69.5
107.5°	91.2	91.5	91.8	92.0	91.5	91.0	92.0	91.5	91.2	91.0	91.2



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REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	77.5°	80°	82.5°	85°	87.5°	90°	95°	100°	102.5°	105°	107.5°	
110°	113.2	113.5	113.8	114.0	113.5	113.0	114.0	113.5	113.2	113.0	113.2	0°
112.5°	135.5	136.0	136.5	137.0	136.0	135.0	137.0	136.0	135.5	135.0	135.2	2.5°
115°	158.5	159.0	159.5	160.0	159.5	159.0	160.0	159.0	158.5	158.0	158.0	5°
117.5°	180.5	181.0	181.5	182.0	181.0	180.0	182.0	181.0	180.5	180.0	180.2	7.5°
120°	204.5	205.0	205.5	206.0	205.0	204.0	206.0	205.0	204.5	204.0	204.0	10°
122.5°	230.0	231.0	232.0	233.0	232.5	232.0	233.0	231.0	230.0	229.0	228.8	12.5°
125°	254.8	255.5	256.2	257.0	256.5	256.0	257.0	255.5	254.8	254.0	254.0	15°
127.5°	278.8	279.5	280.2	281.0	279.5	278.0	281.0	279.5	278.8	278.0	277.8	17.5°
130°	302.8	303.5	304.2	305.0	304.0	303.0	305.0	303.5	302.8	302.0	301.8	20°
132.5°	326.8	327.5	328.2	329.0	328.0	327.0	329.0	327.5	326.8	326.0	325.8	22.5°
135°	349.5	350.0	350.5	351.0	350.5	350.0	351.0	350.0	349.5	349.0	348.8	25°
137.5°	371.0	372.0	373.0	374.0	373.0	372.0	374.0	372.0	371.0	370.0	369.8	27.5°
140°	393.0	394.0	395.0	396.0	395.0	394.0	396.0	394.0	393.0	392.0	391.5	30°
142.5°	413.8	414.5	415.2	416.0	415.5	415.0	416.0	414.5	413.8	413.0	412.8	32.5°
145°	434.8	435.5	436.2	437.0	436.0	435.0	437.0	435.5	434.8	434.0	433.8	35°
147.5°	453.8	454.5	455.2	456.0	454.5	453.0	456.0	454.5	453.8	453.0	452.8	37.5°
150°	470.0	471.0	472.0	473.0	471.5	470.0	473.0	471.0	470.0	469.0	469.0	40°
152.5°	486.8	487.5	488.2	489.0	487.5	486.0	489.0	487.5	486.8	486.0	486.0	42.5°
155°	504.8	505.5	506.2	507.0	506.0	505.0	507.0	505.5	504.8	504.0	503.8	45°
157.5°	519.2	520.5	521.8	523.0	521.5	520.0	523.0	520.5	519.2	518.0	517.8	47.5°
160°	530.8	531.5	532.2	533.0	532.0	531.0	533.0	531.5	530.8	530.0	530.0	50°
162.5°	538.5	539.0	539.5	540.0	538.5	537.0	540.0	539.0	538.5	538.0	538.5	52.5°
165°	548.5	549.0	549.5	550.0	549.0	548.0	550.0	549.0	548.5	548.0	548.5	55°
167.5°	560.0	561.0	562.0	563.0	562.0	561.0	563.0	561.0	560.0	559.0	558.8	57.5°
170°	567.2	568.5	569.8	571.0	570.0	569.0	571.0	568.5	567.2	566.0	565.5	60°
172.5°	568.8	569.5	570.2	571.0	569.5	568.0	571.0	569.5	568.8	568.0	567.8	62.5°
175°	568.8	569.5	570.2	571.0	569.5	568.0	571.0	569.5	568.8	568.0	568.5	65°
177.5°	574.8	575.5	576.2	577.0	575.5	574.0	577.0	575.5	574.8	574.0	574.0	67.5°
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	70°
												71°
												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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DISTRIBUTION (continued):

CANDELA DISTRIBUTION

110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	110°	110°
693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	110°	113.5
691.4	684.3	693.2	684.3	693.2	687.9	693.2	687.9	693.2	696.8	696.8	112.5°	135.5
687.9	675.5	691.4	682.6	693.2	684.3	691.4	686.1	695.0	698.5	702.1	115°	158.0
686.1	673.7	689.7	677.2	693.2	680.8	691.4	684.3	695.0	698.5	705.6	117.5°	180.5
684.3	668.4	689.7	671.9	691.4	679.0	691.4	680.8	693.2	696.8	698.5	120°	204.0
684.3	666.6	689.7	670.2	691.4	673.7	689.7	673.7	691.4	689.7	684.3	122.5°	228.5
686.1	663.1	689.7	666.6	689.7	668.4	687.9	666.6	684.3	679.0	675.5	125°	254.0
686.1	663.1	687.9	664.8	686.1	666.6	682.6	663.1	679.0	677.2	671.9	127.5°	277.5
689.7	666.6	687.9	671.9	687.9	668.4	680.8	663.1	675.5	664.8	643.6	130°	301.5
700.3	684.3	700.3	684.3	691.4	673.7	679.0	657.7	656.0	638.2	604.6	132.5°	325.5
725.1	718.0	714.5	695.0	689.7	666.6	659.5	634.7	625.8	599.2	553.1	135°	348.5
757.0	741.1	719.8	696.8	673.7	645.3	625.8	606.3	586.8	553.1	494.6	137.5°	369.5
778.3	755.3	710.9	679.0	636.5	613.4	579.7	558.5	530.1	487.5	430.8	140°	391.0
792.5	757.0	689.7	652.4	595.7	565.6	521.2	498.2	457.4	416.6	375.9	142.5°	412.5
796.0	749.9	661.3	620.5	546.1	512.4	453.9	429.0	390.0	361.7	345.7	145°	433.5
781.9	725.1	617.0	563.8	482.2	443.2	388.3	370.5	347.5	336.9	329.8	147.5°	452.5
753.5	677.2	547.8	485.8	402.4	372.3	343.9	343.9	331.5	326.2	313.8	150°	469.0
702.1	606.3	459.2	398.9	342.2	336.9	320.9	328.0	319.1	315.6	297.8	152.5°	486.0
622.3	505.3	370.5	335.1	308.5	312.0	301.4	308.5	303.2	301.4	280.1	155°	503.5
519.5	402.4	312.0	299.6	281.9	287.2	278.3	287.2	281.9	283.7	267.7	157.5°	517.5
414.9	326.2	276.6	269.5	257.1	260.6	255.3	264.2	262.4	269.5	260.6	160°	530.0
331.5	278.3	246.4	241.1	234.0	235.8	234.0	242.9	244.7	258.8	258.8	162.5°	539.0
274.8	239.3	221.6	219.8	212.7	214.5	216.3	225.2	232.3	250.0	258.8	165°	549.0
235.8	214.5	202.1	200.3	196.8	198.6	202.1	212.7	219.8	242.9	262.4	167.5°	558.5
207.4	195.0	186.2	186.2	182.6	186.2	189.7	200.3	209.2	235.8	255.3	170°	565.0
186.2	177.3	172.0	173.7	172.0	175.5	179.1	189.7	200.3	225.2	244.7	172.5°	567.5
166.7	161.3	157.8	159.6	159.6	164.9	168.4	179.1	187.9	211.0	235.8	175°	569.0
150.7	147.2	145.4	147.2	148.9	154.2	159.6	166.7	173.7	195.0	223.4	177.5°	574.0
138.3	134.7	134.7	134.7	136.5	141.8	148.9	152.5	159.6	182.6	209.2	180°	576.0
131.2	129.4	129.4	129.4	131.2	136.5	143.6	147.2	154.2	177.3	202.1		
122.3	122.3	124.1	122.3	125.9	127.6	134.7	138.3	147.2	170.2	193.2		
108.1	108.1	109.9	109.9	113.5	113.5	118.8	122.3	133.0	152.5	173.7		
95.7	95.7	99.3	97.5	97.5	94.0	101.1	104.6	113.5	133.0	154.2		
81.6	79.8	83.3	78.0	76.2	72.7	78.0	83.3	97.5	109.9	113.5		
63.8	58.5	60.3	55.0	55.0	51.4	56.7	58.5	67.4	79.8	86.9		
39.0	31.9	35.5	30.1	33.7	30.1	31.9	33.7	40.8	49.6	47.9		
8.9	5.3	7.1	1.8	5.3	0.0	5.3	1.8	5.3	1.8	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
6.0	6.5	7.0	8.5	10.0	11.5	13.0	12.0	11.0	9.0	4.0		
28.5	29.2	30.0	30.5	31.0	31.5	32.0	31.5	31.0	30.0	22.0		
49.0	49.5	50.0	50.2	50.5	50.8	51.0	50.8	50.5	50.0	45.0		
70.0	70.5	71.0	71.0	71.0	71.0	71.0	70.8	70.5	70.0	66.0		
91.5	91.8	92.0	92.2	92.5	92.8	93.0	92.5	92.0	91.0	88.0		

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TION (continued):

CANDELA DISTRIBUTION (con

112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°		155°	165°
113.8	114.0	114.0	114.0	114.0	114.0	113.5	113.0	112.0	110.0	0°	693.2	693.2
135.8	136.0	136.0	136.0	136.0	136.0	135.5	135.0	134.0	132.0	2.5°	700.3	698.5
158.0	158.0	158.0	158.0	158.0	158.0	157.5	157.0	156.0	154.0	5°	709.2	709.2
180.8	181.0	180.8	180.5	180.2	180.0	179.8	179.5	179.0	177.0	7.5°	710.9	714.5
204.0	204.0	204.0	204.0	204.0	204.0	203.5	203.0	202.0	201.0	10°	698.5	695.0
228.2	228.0	228.0	228.0	228.0	228.0	227.8	227.5	227.0	226.0	12.5°	679.0	675.5
254.0	254.0	253.8	253.5	253.2	253.0	252.8	252.5	252.0	251.0	15°	677.2	675.5
277.2	277.0	277.2	277.5	277.8	278.0	277.5	277.0	276.0	274.0	17.5°	664.8	656.0
301.2	301.0	301.0	301.0	301.0	301.0	300.5	300.0	299.0	298.0	20°	629.4	613.4
325.2	325.0	325.0	325.0	325.0	325.0	324.2	323.5	322.0	321.0	22.5°	579.7	556.7
348.2	348.0	348.0	348.0	348.0	348.0	347.2	346.5	345.0	345.0	25°	519.5	487.5
369.2	369.0	369.0	369.0	369.0	369.0	368.5	368.0	367.0	367.0	27.5°	453.9	422.0
390.5	390.0	390.0	390.0	390.0	390.0	389.8	389.5	389.0	388.0	30°	402.4	377.6
412.2	412.0	412.0	412.0	412.0	412.0	411.5	411.0	410.0	410.0	32.5°	365.2	351.0
433.2	433.0	433.2	433.5	433.8	434.0	433.5	433.0	432.0	431.0	35°	335.1	326.2
452.2	452.0	452.5	453.0	453.5	454.0	453.8	453.5	453.0	452.0	37.5°	315.6	301.4
469.0	469.0	469.5	470.0	470.5	471.0	470.8	470.5	470.0	469.0	40°	296.1	278.3
486.0	486.0	486.2	486.5	486.8	487.0	486.8	486.5	486.0	485.0	42.5°	278.3	260.6
503.2	503.0	503.2	503.5	503.8	504.0	503.8	503.5	503.0	503.0	45°	260.6	248.2
517.2	517.0	517.5	518.0	518.5	519.0	519.0	519.0	519.0	519.0	47.5°	251.8	241.1
530.0	530.0	530.5	531.0	531.5	532.0	532.0	532.0	532.0	532.0	50°	248.2	237.6
539.5	540.0	540.5	541.0	541.5	542.0	541.8	541.5	541.0	541.0	52.5°	251.8	242.9
549.5	550.0	550.8	551.5	552.2	553.0	552.8	552.5	552.0	552.0	55°	258.8	253.5
558.2	558.0	558.5	559.0	559.5	560.0	560.0	560.0	560.0	561.0	57.5°	251.8	242.9
564.5	564.0	564.2	564.5	564.8	565.0	565.2	565.5	566.0	567.0	60°	235.8	221.6
567.2	567.0	567.5	568.0	568.5	569.0	568.8	568.5	568.0	569.0	62.5°	225.2	211.0
569.5	570.0	570.8	571.5	572.2	573.0	572.8	572.5	572.0	572.0	65°	216.3	205.7
574.0	574.0	574.8	575.5	576.2	577.0	577.0	577.0	577.0	578.0	67.5°	207.4	196.8
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	70°	196.8	186.2
										71°	191.5	179.1
										72.5°	182.6	168.4
										75°	164.9	150.7
										77.5°	136.5	120.6
										80°	104.6	94.0
										82.5°	78.0	69.1
										85°	40.8	31.9
										87.5°	0.0	0.0
										90°	0.0	0.0
										92.5°	0.0	0.0
										95°	1.0	1.0
										97.5°	3.0	2.0
										100°	14.0	10.0
										102.5°	38.0	32.0
										105°	61.0	56.0
										107.5°	84.0	80.0



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175°	180°
693.2	693.2
700.3	698.5
710.9	712.7
718.0	716.3
698.5	695.0
679.0	679.0
677.2	677.2
652.4	650.7
609.9	604.6
549.6	544.3
475.1	468.0
409.5	409.5
365.2	365.2
342.2	343.9
320.9	322.7
289.0	289.0
262.4	262.4
250.0	248.2
239.3	237.6
232.3	230.5
225.2	225.2
219.8	219.8
219.8	216.3
221.6	216.3
218.1	214.5
218.1	216.3
221.6	218.1
221.6	214.5
202.1	189.7
191.5	180.8
172.0	164.9
147.2	145.4
115.2	113.5
94.0	88.6
67.4	58.5
26.6	26.6
0.0	0.0
0.0	0.0
0.0	0.0
1.0	1.0
2.0	2.0
8.0	8.0
28.0	28.0
54.0	54.0
77.0	78.0

CANDELA DISTRIBUTION (continued):

	155°	165°	175°
110°	106.0	103.0	102.0
112.5°	129.0	126.0	124.0
115°	151.0	149.0	147.0
117.5°	174.0	172.0	170.0
120°	198.0	196.0	195.0
122.5°	223.0	221.0	220.0
125°	248.0	247.0	246.0
127.5°	272.0	270.0	269.0
130°	294.0	293.0	292.0
132.5°	318.0	317.0	314.0
135°	341.0	339.0	337.0
137.5°	364.0	363.0	360.0
140°	386.0	385.0	383.0
142.5°	407.0	408.0	406.0
145°	428.0	428.0	426.0
147.5°	448.0	447.0	444.0
150°	465.0	464.0	462.0
152.5°	482.0	483.0	480.0
155°	501.0	502.0	500.0
157.5°	516.0	517.0	515.0
160°	529.0	529.0	527.0
162.5°	538.0	539.0	536.0
165°	548.0	549.0	547.0
167.5°	558.0	559.0	556.0
170°	565.0	566.0	563.0
172.5°	567.0	569.0	566.0
175°	569.0	570.0	569.0
177.5°	574.0	575.0	573.0
180°	576.0	576.0	576.0

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<u>180°</u>
101.0
124.0
146.0
169.0
193.0
219.0
244.0
267.0
290.0
313.0
336.0
359.0
382.0
404.0
425.0
444.0
461.0
479.0
499.0
513.0
525.0
535.0
546.0
555.0
562.0
565.0
567.0
572.0
576.0

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