

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: P227553

Luminaire Tested: **ISS-AF-1200-LED-E1-T2-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227553
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29758)-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-T2-8030-ULG
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II, 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: 6684.2 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type II - Medium - Non-Cutoff
BUG Rating: B1 - U5 - G1

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

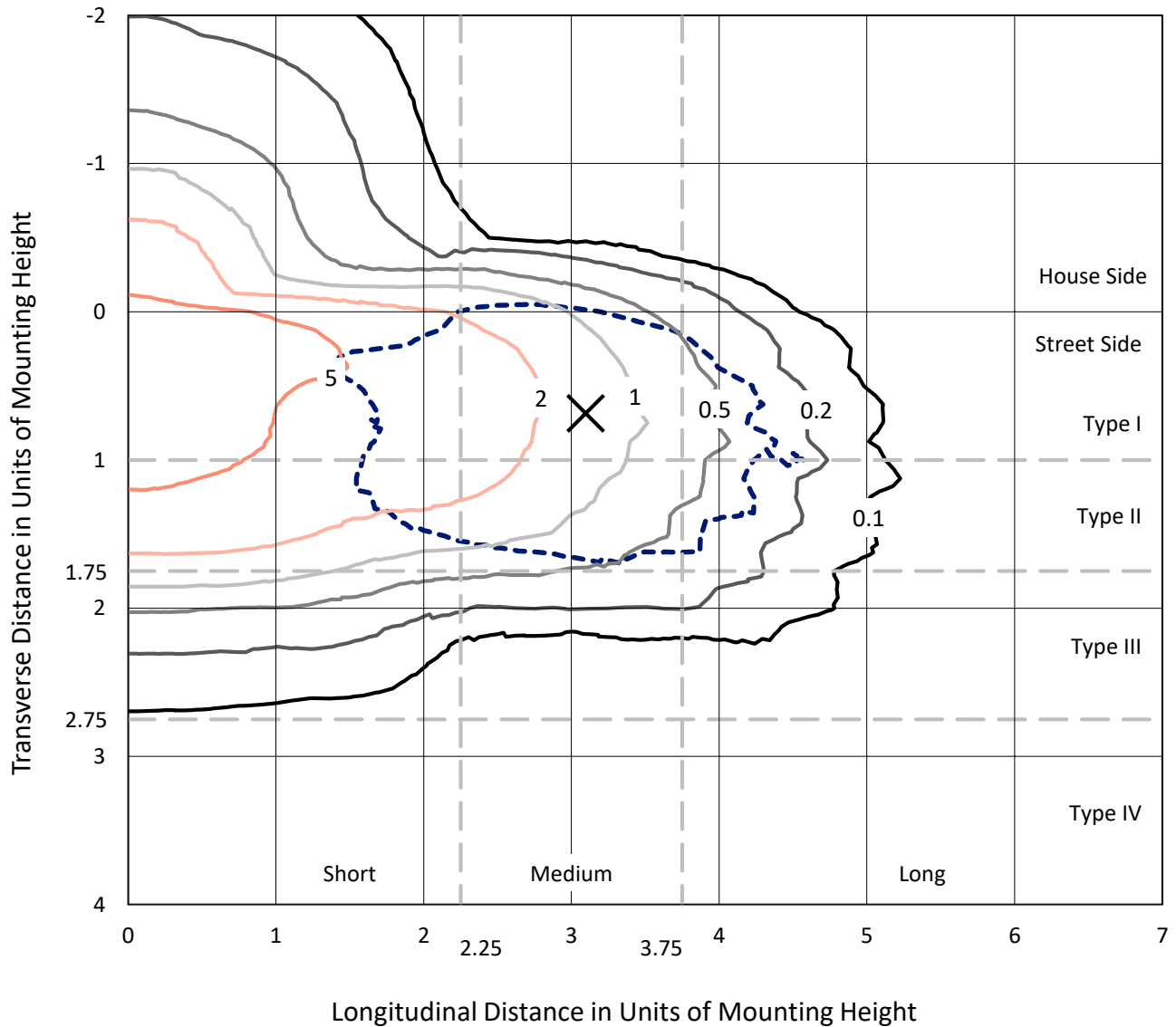


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

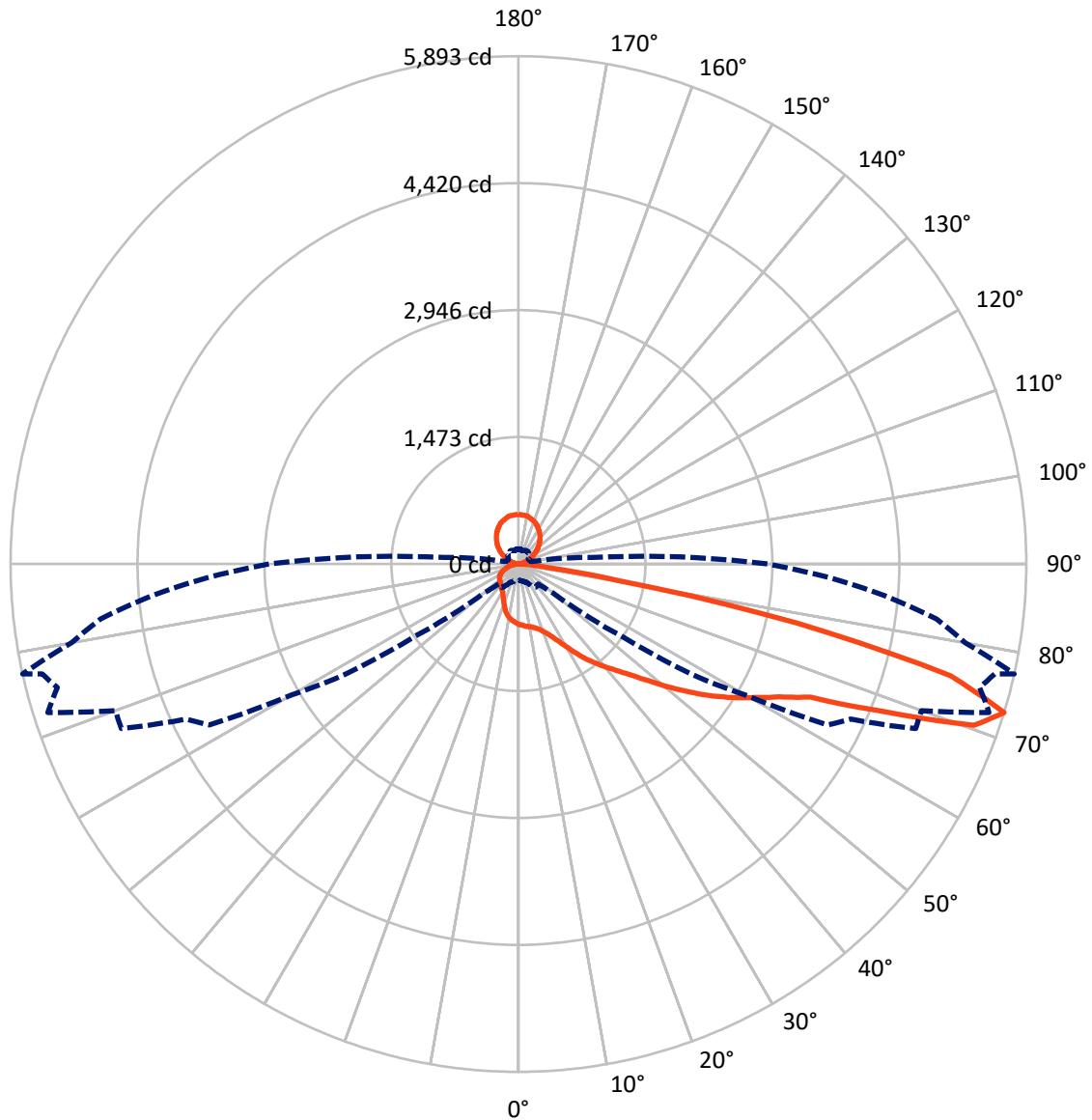


Based on 10 foot mounting height. Maximum calculated value = 8.6 fc
 Type II - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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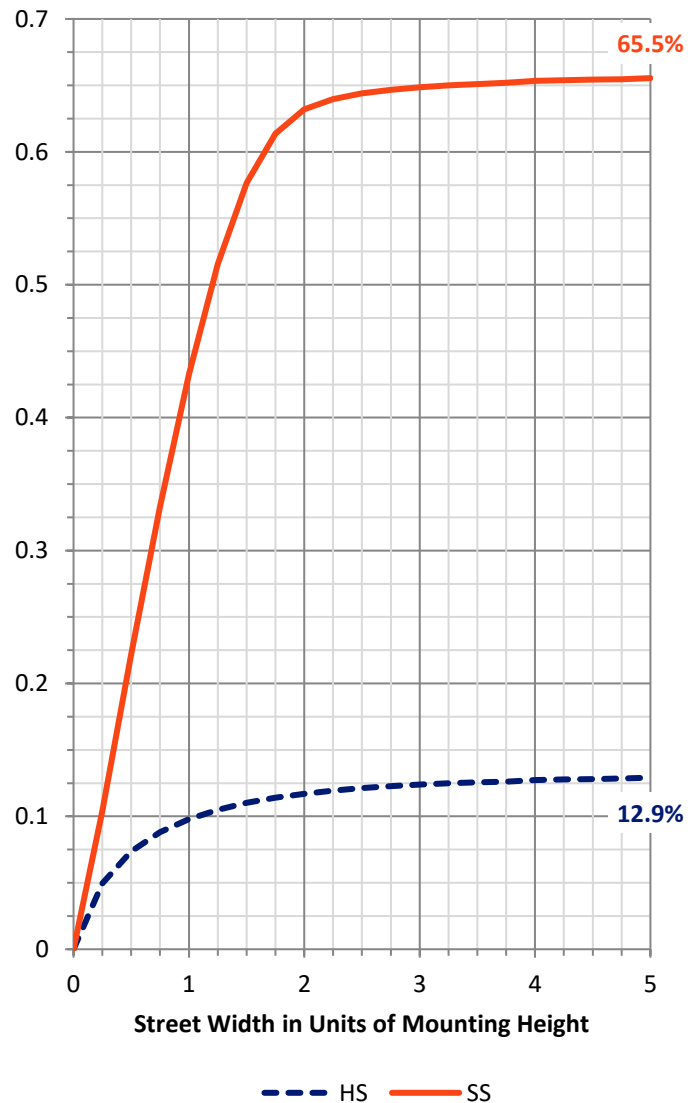
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	871.2	713.1	1584.3
	% Fixture	13.0	10.7	23.7
Street Side	Lumens	4386.8	713.1	5099.8
	% Fixture	65.6	10.7	76.3
Total	Lumens	5258.0	1426.2	6684.2
	% Fixture	78.7	21.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.2	1.0
10°-20°	199.9	3.0
20°-30°	354.9	5.3
30°-40°	562.4	8.4
40°-50°	843.7	12.6
50°-60°	1093.2	16.4
60°-70°	1242.2	18.6
70°-80°	824.3	12.3
80°-90°	72.1	1.1
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	4.0
140°-150°	269.3	4.0
150°-160°	231.1	3.5
160°-170°	155.1	2.3
170°-180°	54.3	0.8
0°-90°	5258.0	78.7
0°-180°	6684.2	100.0

Coefficient of Utilization



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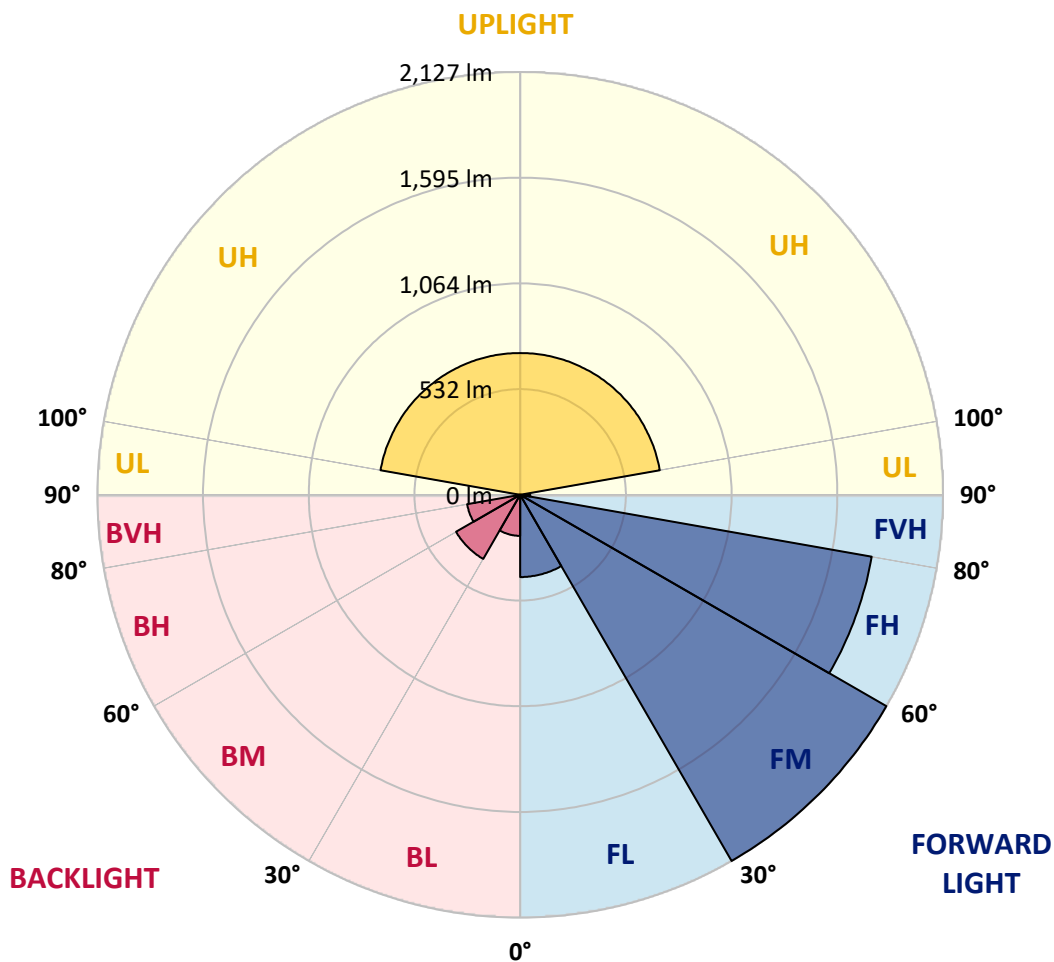
CATALOG NUMBER: ISS-AF-1200-LED-E1-T2-8030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	413.7	6.2			
FM	(30°-60°)	2127.1	31.8			
FH	(60°-80°)	1795.6	26.9			G1/1800
FVH	(80°-90°)	50.4	0.8			G1/100
BL	(0°-30°)	206.4	3.1	B1/500		
BM	(30°-60°)	372.2	5.6	B1/1000		
BH	(60°-80°)	270.9	4.1	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	10.7		U4/1000	

BUG Rating: B1-U5-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
2.5°	760.5	757.0	755.2	751.7	748.1	746.4	741.0	737.5	742.8	741.0	741.0
5°	817.3	813.7	808.4	803.1	796.0	790.7	785.4	780.0	783.6	780.0	776.5
7.5°	863.4	859.8	852.7	847.4	840.3	833.2	826.1	824.4	820.8	815.5	813.7
10°	890.0	886.4	882.9	879.3	868.7	863.4	854.5	849.2	851.0	843.9	843.9
12.5°	914.8	911.2	909.5	909.5	900.6	895.3	891.7	886.4	890.0	879.3	875.8
15°	937.8	934.3	929.0	934.3	932.5	930.7	929.0	927.2	932.5	921.9	923.6
17.5°	975.0	973.3	962.6	955.5	957.3	962.6	966.2	964.4	964.4	959.1	960.9
20°	1033.6	1033.6	1019.4	1007.0	987.5	987.5	989.2	987.5	991.0	994.6	999.9
22.5°	1077.9	1074.3	1069.0	1058.4	1037.1	1019.4	1019.4	1012.3	1017.6	1019.4	1030.0
25°	1134.6	1131.1	1118.6	1118.6	1097.4	1074.3	1070.8	1060.1	1072.6	1049.5	1067.2
27.5°	1203.7	1200.2	1184.2	1177.2	1166.5	1138.1	1131.1	1132.8	1145.2	1111.6	1129.3
30°	1290.6	1287.1	1267.6	1248.1	1230.3	1200.2	1196.7	1194.9	1223.2	1184.2	1207.3
32.5°	1400.5	1400.5	1379.3	1352.7	1317.2	1276.4	1262.2	1264.0	1303.0	1260.5	1299.5
35°	1567.2	1545.9	1506.9	1466.1	1428.9	1381.0	1361.5	1358.0	1393.4	1350.9	1395.2
37.5°	1673.5	1659.4	1623.9	1593.8	1553.0	1506.9	1492.7	1498.0	1528.2	1466.1	1529.9
40°	1769.3	1767.5	1744.5	1725.0	1684.2	1638.1	1655.8	1726.7	1806.5	1685.9	1687.7
42.5°	1833.1	1836.6	1834.9	1836.6	1813.6	1765.7	1795.9	1895.1	2031.6	1960.7	1895.1
45°	1843.7	1856.1	1861.5	1896.9	1920.0	1891.6	1907.6	2012.1	2285.2	2395.1	2099.0
47.5°	1870.3	1882.7	1872.1	1914.6	2021.0	2019.2	2083.1	2122.1	2159.3	2177.0	2400.4
50°	1905.8	1928.8	1918.2	1953.6	2040.5	2090.2	2145.1	2194.7	2164.6	2052.9	2113.2
52.5°	1907.6	1934.1	1992.6	2028.1	2113.2	2102.6	2139.8	2113.2	2159.3	2044.1	2102.6
55°	1751.5	1756.9	1927.1	2106.1	2255.0	2224.9	2201.8	2141.6	2200.1	2056.5	2130.9
57.5°	1505.1	1522.8	1700.1	2001.5	2320.6	2347.2	2340.1	2334.8	2380.9	2189.4	2271.0
60°	1233.9	1255.2	1423.6	1778.1	2184.1	2253.3	2349.0	2407.5	2526.3	2450.0	2584.8
62.5°	769.4	785.4	971.5	1414.7	1927.1	2063.6	2203.6	2272.8	2444.7	2480.2	2708.9
65°	367.0	372.3	445.0	769.4	1400.5	1657.6	1865.0	2012.1	2223.1	2382.7	2691.1
67.5°	285.4	287.2	313.8	409.5	718.0	890.0	1125.7	1320.7	1545.9	1982.0	2364.9
70°	228.7	228.7	250.0	301.4	445.0	468.0	528.3	593.9	689.6	1040.6	1350.9
72.5°	191.5	191.5	205.6	237.6	329.7	335.1	331.5	326.2	326.2	411.3	524.8
75°	161.3	159.6	168.4	189.7	244.6	251.7	248.2	235.8	221.6	221.6	250.0
77.5°	131.2	131.2	138.3	148.9	177.3	180.8	180.8	170.2	157.8	159.6	172.0
80°	102.8	102.8	108.1	115.2	124.1	122.3	122.3	111.7	102.8	101.1	108.1
82.5°	74.5	76.2	88.6	83.3	79.8	74.5	74.5	72.7	65.6	60.3	63.8
85°	23.0	24.8	42.5	49.6	40.8	33.7	31.9	26.6	28.4	23.0	26.6
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
110°	101.0	102.0	103.0	106.0	110.0	110.5	111.0	111.5	112.0	112.5	113.0



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CATALOG NUMBER: ISS-AF-1200-LED-E1-T2-8030-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
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°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77°
0°	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
2.5°	732.2	735.7	728.6	728.6	719.8	725.1	716.2	718.0	709.1	712.7	712.7
5°	767.6	769.4	760.5	757.0	748.1	748.1	739.3	739.3	726.9	730.4	726.9
7.5°	801.3	801.3	792.4	785.4	776.5	772.9	762.3	757.0	746.4	744.6	739.3
10°	829.7	829.7	817.3	810.2	799.5	794.2	780.0	774.7	762.3	753.4	748.1
12.5°	865.1	861.6	847.4	840.3	822.6	820.8	799.5	796.0	778.3	772.9	764.1
15°	907.7	911.2	888.2	886.4	861.6	859.8	831.5	829.7	803.1	801.3	788.9
17.5°	953.8	960.9	941.4	939.6	909.5	909.5	875.8	874.0	838.5	836.8	820.8
20°	994.6	1003.4	991.0	994.6	968.0	969.7	932.5	932.5	882.9	879.3	865.1
22.5°	1031.8	1049.5	1038.9	1058.4	1031.8	1044.2	994.6	1003.4	944.9	937.8	916.5
25°	1069.0	1092.1	1088.5	1120.4	1100.9	1122.2	1070.8	1088.5	1012.3	1017.6	989.2
27.5°	1106.2	1136.4	1132.8	1178.9	1171.8	1214.4	1170.1	1189.6	1106.2	1111.6	1079.6
30°	1168.3	1202.0	1189.6	1237.4	1237.4	1306.6	1272.9	1303.0	1210.8	1221.5	1184.2
32.5°	1251.6	1290.6	1253.4	1315.4	1311.9	1402.3	1375.7	1427.1	1336.7	1350.9	1304.8
35°	1342.0	1404.1	1343.8	1412.9	1402.3	1496.3	1478.5	1561.9	1466.1	1482.1	1436.0
37.5°	1460.8	1535.3	1455.5	1515.8	1467.9	1576.0	1565.4	1678.9	1581.4	1622.1	1567.2
40°	1600.9	1659.4	1560.1	1611.5	1531.7	1643.4	1625.7	1781.7	1691.3	1756.9	1707.2
42.5°	1730.3	1771.0	1639.9	1703.7	1607.9	1721.4	1689.5	1877.4	1799.4	1900.5	1845.5
45°	1847.3	1893.4	1719.6	1790.5	1684.2	1808.3	1753.3	1969.6	1916.4	2068.9	2013.9
47.5°	2013.9	1946.6	1792.3	1884.5	1765.7	1902.2	1829.5	2077.7	2058.2	2274.5	2210.7
50°	1959.0	2003.3	1852.6	1948.3	1840.2	2006.8	1927.1	2207.2	2212.5	2497.9	2460.7
52.5°	1964.3	2038.7	1898.7	2031.6	1927.1	2152.2	2068.9	2363.2	2388.0	2714.2	2662.8
55°	1996.2	2106.1	1967.8	2146.9	2049.4	2313.5	2255.0	2531.6	2574.1	2918.1	2887.9
57.5°	2076.0	2228.4	2086.6	2320.6	2219.6	2497.9	2444.7	2705.3	2763.8	3121.9	3113.1
60°	2382.7	2563.5	2315.3	2574.1	2439.4	2707.1	2636.2	2887.9	2946.4	3316.9	3340.0
62.5°	2724.8	3038.6	2891.5	3160.9	2804.6	3075.8	2866.6	3113.1	3116.6	3526.1	3598.8
65°	2813.5	3295.7	3421.5	3923.2	3737.1	4015.4	3457.0	3621.9	3409.1	3907.3	4011.9
67.5°	2779.8	3370.1	3719.4	4284.9	4495.9	4981.6	4887.7	4830.9	4338.1	4696.2	4822.1
70°	2040.5	2666.3	3520.8	4095.2	4703.3	5022.4	5527.6	5579.1	5557.8	5508.1	5591.5
72.5°	929.0	1457.3	2382.7	3038.6	4042.0	4256.5	4988.7	4974.5	5726.2	5540.1	5671.2
75°	365.2	562.0	1134.6	1696.6	2795.7	3059.9	3889.6	3683.9	4621.7	4348.7	4628.8
77.5°	200.3	251.7	425.5	728.6	1526.4	1666.4	2380.9	2037.0	2866.6	2393.3	2487.3
80°	120.6	150.7	195.0	276.6	648.9	686.1	1015.8	819.0	1171.8	890.0	863.4
82.5°	65.6	81.5	97.5	136.5	241.1	267.7	351.0	315.6	375.8	320.9	313.8
85°	26.6	35.5	37.2	55.0	79.8	92.2	111.7	120.6	147.1	134.7	131.2
87.5°	0.0	1.8	0.0	3.5	0.0	3.5	0.0	5.3	5.3	8.9	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	11.5	10.0	8.5	7.0	6.5	6.0	5.5	5.0	4.8
100°	31.5	32.0	31.5	31.0	30.5	30.0	29.2	28.5	27.8	27.0	26.8
102.5°	50.8	51.0	50.8	50.5	50.2	50.0	49.5	49.0	48.5	48.0	48.2
105°	70.8	71.0	71.0	71.0	71.0	71.0	70.5	70.0	69.5	69.0	69.4
107.5°	92.5	93.0	92.8	92.5	92.2	92.0	91.8	91.5	91.2	91.0	91.2
110°	113.5	114.0	114.0	114.0	114.0	114.0	113.8	113.5	113.2	113.0	113.2



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CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77°
112.5°	135.5	136.0	136.0	136.0	136.0	136.0	135.8	135.5	135.2	135.0	135.4
115°	157.5	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.4
117.5°	179.8	180.0	180.2	180.5	180.8	181.0	180.8	180.5	180.2	180.0	180.4
120°	203.5	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.4
122.5°	227.8	228.0	228.0	228.0	228.0	228.0	228.2	228.5	228.8	229.0	229.8
125°	252.8	253.0	253.2	253.5	253.8	254.0	254.0	254.0	254.0	254.0	254.6
127.5°	277.5	278.0	277.8	277.5	277.2	277.0	277.2	277.5	277.8	278.0	278.6
130°	300.5	301.0	301.0	301.0	301.0	301.0	301.2	301.5	301.8	302.0	302.6
132.5°	324.2	325.0	325.0	325.0	325.0	325.0	325.2	325.5	325.8	326.0	326.6
135°	347.2	348.0	348.0	348.0	348.0	348.0	348.2	348.5	348.8	349.0	349.4
137.5°	368.5	369.0	369.0	369.0	369.0	369.0	369.2	369.5	369.8	370.0	370.8
140°	389.8	390.0	390.0	390.0	390.0	390.0	390.5	391.0	391.5	392.0	392.8
142.5°	411.5	412.0	412.0	412.0	412.0	412.0	412.2	412.5	412.8	413.0	413.6
145°	433.5	434.0	433.8	433.5	433.2	433.0	433.2	433.5	433.8	434.0	434.6
147.5°	453.8	454.0	453.5	453.0	452.5	452.0	452.2	452.5	452.8	453.0	453.6
150°	470.8	471.0	470.5	470.0	469.5	469.0	469.0	469.0	469.0	469.0	469.8
152.5°	486.8	487.0	486.8	486.5	486.2	486.0	486.0	486.0	486.0	486.0	486.6
155°	503.8	504.0	503.8	503.5	503.2	503.0	503.2	503.5	503.8	504.0	504.6
157.5°	519.0	519.0	518.5	518.0	517.5	517.0	517.2	517.5	517.8	518.0	519.0
160°	532.0	532.0	531.5	531.0	530.5	530.0	530.0	530.0	530.0	530.0	530.6
162.5°	541.8	542.0	541.5	541.0	540.5	540.0	539.5	539.0	538.5	538.0	538.4
165°	552.8	553.0	552.2	551.5	550.8	550.0	549.5	549.0	548.5	548.0	548.4
167.5°	560.0	560.0	559.5	559.0	558.5	558.0	558.2	558.5	558.8	559.0	559.8
170°	565.2	565.0	564.8	564.5	564.2	564.0	564.5	565.0	565.5	566.0	567.0
172.5°	568.8	569.0	568.5	568.0	567.5	567.0	567.2	567.5	567.8	568.0	568.6
175°	572.8	573.0	572.2	571.5	570.8	570.0	569.5	569.0	568.5	568.0	568.6
177.5°	577.0	577.0	576.2	575.5	574.8	574.0	574.0	574.0	574.0	574.0	574.6
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°	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
2.5°	707.4	712.7	705.6	705.6	696.7	702.0	696.7	691.4	682.5	684.3	671.9
5°	719.8	723.3	714.4	710.9	705.6	703.8	693.2	682.5	670.1	670.1	655.9
7.5°	732.2	732.2	719.8	719.8	707.4	703.8	687.9	670.1	652.4	650.6	629.4
10°	739.3	737.5	721.5	721.5	703.8	702.0	682.5	655.9	631.1	624.0	593.9
12.5°	753.4	751.7	732.2	728.6	705.6	705.6	677.2	641.8	606.3	593.9	551.3
15°	771.2	772.9	749.9	744.6	718.0	716.2	677.2	624.0	576.2	556.7	505.3
17.5°	799.5	801.3	769.4	764.1	732.2	726.9	679.0	602.8	535.4	514.1	468.0
20°	836.8	831.5	788.9	787.1	744.6	739.3	677.2	570.8	494.6	473.3	432.6
22.5°	882.9	877.5	822.6	817.3	767.6	758.8	675.4	537.2	457.4	434.3	407.7
25°	946.7	939.6	872.2	865.1	803.1	788.9	673.7	501.7	425.5	407.7	391.8
27.5°	1026.5	1012.3	930.7	923.6	840.3	822.6	666.6	460.9	393.6	381.2	374.1
30°	1122.2	1109.8	1005.2	994.6	890.0	866.9	659.5	423.7	370.5	365.2	359.9
32.5°	1235.7	1223.2	1095.6	1083.2	953.8	920.1	647.1	393.6	356.3	356.3	349.2
35°	1354.4	1343.8	1193.1	1184.2	1024.7	980.4	631.1	367.0	343.9	343.9	336.8
37.5°	1460.8	1469.7	1299.5	1292.4	1095.6	1040.6	613.4	349.2	333.3	329.7	322.7
40°	1576.0	1597.3	1398.8	1404.1	1170.1	1104.5	592.1	335.1	320.9	317.3	315.6
42.5°	1693.0	1733.8	1503.3	1522.8	1244.5	1170.1	576.2	326.2	315.6	308.5	306.7
45°	1838.4	1896.9	1632.8	1670.0	1331.4	1249.8	570.8	315.6	299.6	290.7	285.4
47.5°	2019.2	2097.2	1792.3	1834.9	1446.6	1345.6	581.5	312.0	289.0	278.3	267.7
50°	2233.7	2308.2	1982.0	1999.7	1576.0	1450.2	604.5	317.3	285.4	269.5	253.5
52.5°	2460.7	2517.4	2182.3	2162.8	1710.8	1553.0	631.1	319.1	276.6	260.6	241.1
55°	2694.7	2726.6	2368.5	2317.1	1833.1	1655.8	666.6	317.3	269.5	251.7	226.9
57.5°	2923.4	2934.0	2533.4	2483.7	1953.6	1778.1	710.9	312.0	258.8	241.1	214.5
60°	3146.8	3164.5	2716.0	2669.9	2084.8	1935.9	774.7	303.2	244.6	232.2	203.9
62.5°	3391.4	3449.9	2934.0	2941.1	2265.7	2182.3	895.3	292.5	230.5	216.3	187.9
65°	3724.7	3948.1	3293.9	3460.5	2613.1	2646.8	1125.7	262.4	211.0	193.2	173.7
67.5°	4559.7	4804.3	4167.9	4235.3	3426.9	3226.5	1271.1	223.4	186.1	173.7	161.3
70°	5605.6	5430.1	4978.1	4570.3	3902.0	3316.9	1118.6	187.9	164.9	157.8	150.7
72.5°	5892.8	5263.5	4891.2	4279.6	3607.7	2893.2	856.3	161.3	147.1	143.6	138.3
75°	5178.4	4267.2	4288.4	3400.3	2990.7	2205.4	585.0	138.3	127.6	125.9	124.1
77.5°	3311.6	2193.0	2669.9	1680.6	1726.7	1021.1	285.4	115.2	109.9	109.9	106.4
80°	1177.2	730.4	826.1	530.1	482.2	324.4	154.2	92.2	88.6	90.4	88.6
82.5°	352.8	280.1	274.8	214.5	166.6	136.5	85.1	70.9	67.4	69.1	65.6
85°	141.8	109.9	92.2	70.9	58.5	53.2	46.1	47.9	42.5	46.1	40.8
87.5°	8.9	7.1	5.3	7.1	0.0	3.5	8.9	7.1	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
110°	113.2	113.5	113.8	114.0	113.5	113.0	114.0	113.5	113.2	113.0	113.2



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

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DISTRIBUTION (continued):

CANDELA DISTRIBUTION

110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	110°	
702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	112.5°	135.5
680.8	668.4	673.7	668.4	671.9	661.3	664.8	655.9	655.9	654.2	645.3	115°	158.0
657.7	645.3	643.5	631.1	632.9	618.7	616.9	601.0	601.0	586.8	560.2	117.5°	180.5
625.8	606.3	604.5	579.7	577.9	558.4	551.3	533.6	531.8	515.9	499.9	120°	204.0
585.0	554.9	549.6	517.7	519.4	498.2	496.4	484.0	484.0	476.9	476.9	122.5°	228.5
538.9	505.3	501.7	476.9	478.7	464.5	466.3	459.2	462.7	466.3	478.7	125°	254.0
496.4	469.8	466.3	450.3	452.1	448.5	453.8	453.8	459.2	468.0	489.3	127.5°	277.5
460.9	437.9	439.7	432.6	439.7	437.9	448.5	446.7	457.4	468.0	494.6	130°	301.5
429.0	416.6	421.9	420.2	429.0	429.0	437.9	439.7	448.5	462.7	492.8	132.5°	325.5
407.7	404.2	409.5	409.5	416.6	418.4	427.2	432.6	437.9	452.1	478.7	135°	348.5
395.3	393.6	398.9	400.7	406.0	407.7	416.6	416.6	425.5	434.3	448.5	137.5°	369.5
377.6	374.1	381.2	381.2	388.2	386.5	397.1	393.6	402.4	406.0	409.5	140°	391.0
365.2	359.9	365.2	363.4	368.7	363.4	368.7	363.4	368.7	368.7	363.4	142.5°	412.5
352.8	347.5	349.2	342.2	347.5	340.4	342.2	335.1	338.6	335.1	336.8	145°	433.5
340.4	333.3	333.3	324.4	324.4	315.6	319.1	312.0	319.1	324.4	322.7	147.5°	452.5
322.7	317.3	317.3	310.2	313.8	310.2	317.3	313.8	315.6	308.5	296.1	150°	469.0
312.0	315.6	313.8	319.1	315.6	310.2	304.9	294.3	292.5	289.0	281.9	152.5°	486.0
296.1	299.6	290.7	297.8	292.5	294.3	290.7	285.4	281.9	278.3	271.2	155°	503.5
273.0	273.0	265.9	276.6	271.2	281.9	278.3	278.3	274.8	269.5	264.1	157.5°	517.5
253.5	255.3	248.2	257.1	253.5	267.7	265.9	271.2	271.2	267.7	253.5	160°	530.0
241.1	237.6	232.2	241.1	239.3	251.7	253.5	264.1	262.4	264.1	251.7	162.5°	539.0
230.5	223.4	218.1	223.4	223.4	234.0	237.6	250.0	251.7	255.3	248.2	165°	549.0
218.1	209.2	205.6	209.2	209.2	219.8	225.1	234.0	239.3	250.0	246.4	167.5°	558.5
207.4	195.0	191.5	195.0	196.8	207.4	212.7	221.6	228.7	242.9	241.1	170°	565.0
195.0	184.4	180.8	186.1	187.9	198.6	203.9	212.7	218.1	234.0	234.0	172.5°	567.5
180.8	172.0	172.0	173.7	177.3	187.9	191.5	203.9	205.6	225.1	226.9	175°	569.0
168.4	163.1	163.1	164.9	168.4	177.3	179.1	191.5	193.2	212.7	218.1	177.5°	574.0
157.8	154.2	154.2	156.0	157.8	164.9	166.6	179.1	182.6	200.3	209.2	180°	576.0
147.1	143.6	141.8	141.8	147.1	152.5	156.0	168.4	170.2	186.1	196.8		
134.7	131.2	131.2	129.4	134.7	138.3	145.4	152.5	156.0	172.0	179.1		
122.3	118.8	118.8	117.0	120.6	127.6	129.4	136.5	138.3	152.5	159.6		
106.4	102.8	102.8	102.8	106.4	108.1	109.9	117.0	120.6	133.0	140.1		
88.6	85.1	86.9	85.1	90.4	83.3	88.6	95.7	99.3	106.4	102.8		
67.4	62.0	63.8	63.8	65.6	60.3	63.8	67.4	70.9	76.2	74.5		
42.5	37.2	40.8	37.2	40.8	35.5	39.0	39.0	42.5	39.0	37.2		
8.9	3.5	8.9	3.5	10.6	0.0	5.3	0.0	3.5	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		
113.5	113.8	114.0	114.0	114.0	114.0	114.0	113.5	113.0	112.0	110.0		

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REPORT NUMBER: P227553
 CATALOG NUMBER: ISS-AF-12

TION (continued):

CANDELA DISTRIBUTION (con

112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°		155°	165°
135.8	136.0	136.0	136.0	136.0	136.0	135.5	135.0	134.0	132.0	0°	702.0	702.0
158.0	158.0	158.0	158.0	158.0	158.0	157.5	157.0	156.0	154.0	2.5°	636.4	629.4
180.8	181.0	180.8	180.5	180.2	180.0	179.8	179.5	179.0	177.0	5°	546.0	533.6
204.0	204.0	204.0	204.0	204.0	204.0	203.5	203.0	202.0	201.0	7.5°	491.1	487.5
228.2	228.0	228.0	228.0	228.0	228.0	227.8	227.5	227.0	226.0	10°	480.4	485.8
254.0	254.0	253.8	253.5	253.2	253.0	252.8	252.5	252.0	251.0	12.5°	492.8	501.7
277.2	277.0	277.2	277.5	277.8	278.0	277.5	277.0	276.0	274.0	15°	508.8	524.8
301.2	301.0	301.0	301.0	301.0	301.0	300.5	300.0	299.0	298.0	17.5°	521.2	542.5
325.2	325.0	325.0	325.0	325.0	325.0	324.2	323.5	322.0	321.0	20°	523.0	544.3
348.2	348.0	348.0	348.0	348.0	348.0	347.2	346.5	345.0	345.0	22.5°	507.0	521.2
369.2	369.0	369.0	369.0	369.0	369.0	368.5	368.0	367.0	367.0	25°	466.3	473.3
390.5	390.0	390.0	390.0	390.0	390.0	389.8	389.5	389.0	388.0	27.5°	414.8	413.1
412.2	412.0	412.0	412.0	412.0	412.0	411.5	411.0	410.0	410.0	30°	361.7	358.1
433.2	433.0	433.2	433.5	433.8	434.0	433.5	433.0	432.0	431.0	32.5°	342.2	329.7
452.2	452.0	452.5	453.0	453.5	454.0	453.8	453.5	453.0	452.0	35°	312.0	308.5
469.0	469.0	469.5	470.0	470.5	471.0	470.8	470.5	470.0	469.0	37.5°	301.4	331.5
486.0	486.0	486.2	486.5	486.8	487.0	486.8	486.5	486.0	485.0	40°	289.0	326.2
503.2	503.0	503.2	503.5	503.8	504.0	503.8	503.5	503.0	503.0	42.5°	278.3	299.6
517.2	517.0	517.5	518.0	518.5	519.0	519.0	519.0	519.0	519.0	45°	258.8	267.7
530.0	530.0	530.5	531.0	531.5	532.0	532.0	532.0	532.0	532.0	47.5°	250.0	246.4
539.5	540.0	540.5	541.0	541.5	542.0	541.8	541.5	541.0	541.0	50°	242.9	242.9
549.5	550.0	550.8	551.5	552.2	553.0	552.8	552.5	552.0	552.0	52.5°	237.6	234.0
558.2	558.0	558.5	559.0	559.5	560.0	560.0	560.0	560.0	561.0	55°	230.5	226.9
564.5	564.0	564.2	564.5	564.8	565.0	565.2	565.5	566.0	567.0	57.5°	225.1	216.3
567.2	567.0	567.5	568.0	568.5	569.0	568.8	568.5	568.0	569.0	60°	219.8	211.0
569.5	570.0	570.8	571.5	572.2	573.0	572.8	572.5	572.0	572.0	62.5°	216.3	205.6
574.0	574.0	574.8	575.5	576.2	577.0	577.0	577.0	577.0	578.0	65°	211.0	200.3
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	67.5°	203.9	189.7
										70°	189.7	177.3
										72.5°	175.5	161.3
										75°	154.2	141.8
										77.5°	129.4	115.2
										80°	97.5	88.6
										82.5°	70.9	60.3
										85°	31.9	23.0
										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
										110°	106.0	103.0



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tinued):

175°	180°
702.0	702.0
625.8	624.0
530.1	526.5
487.5	485.8
487.5	487.5
508.8	508.8
533.6	533.6
551.3	553.1
556.7	558.4
530.1	530.1
478.7	478.7
411.3	418.4
351.0	358.1
312.0	317.3
299.6	301.4
329.7	331.5
324.4	328.0
278.3	280.1
250.0	250.0
239.3	237.6
239.3	235.8
246.4	244.6
235.8	235.8
230.5	230.5
225.1	225.1
223.4	221.6
223.4	219.8
219.8	214.5
207.4	193.2
177.3	164.9
143.6	141.8
111.7	113.5
85.1	85.1
62.0	51.4
17.7	17.7
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
102.0	101.0

CANDELA DISTRIBUTION (continued):

	155°	165°	175°
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>
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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