

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: P226835

Luminaire Tested: **IST-AF-1200-LED-E1-SL2-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226835
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35945)-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-SL2-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II W/SPILL CONTROL, WITH UPLIGHT
GLOW
Light Source: (16) 4000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8587.2 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B1 - U5 - G2

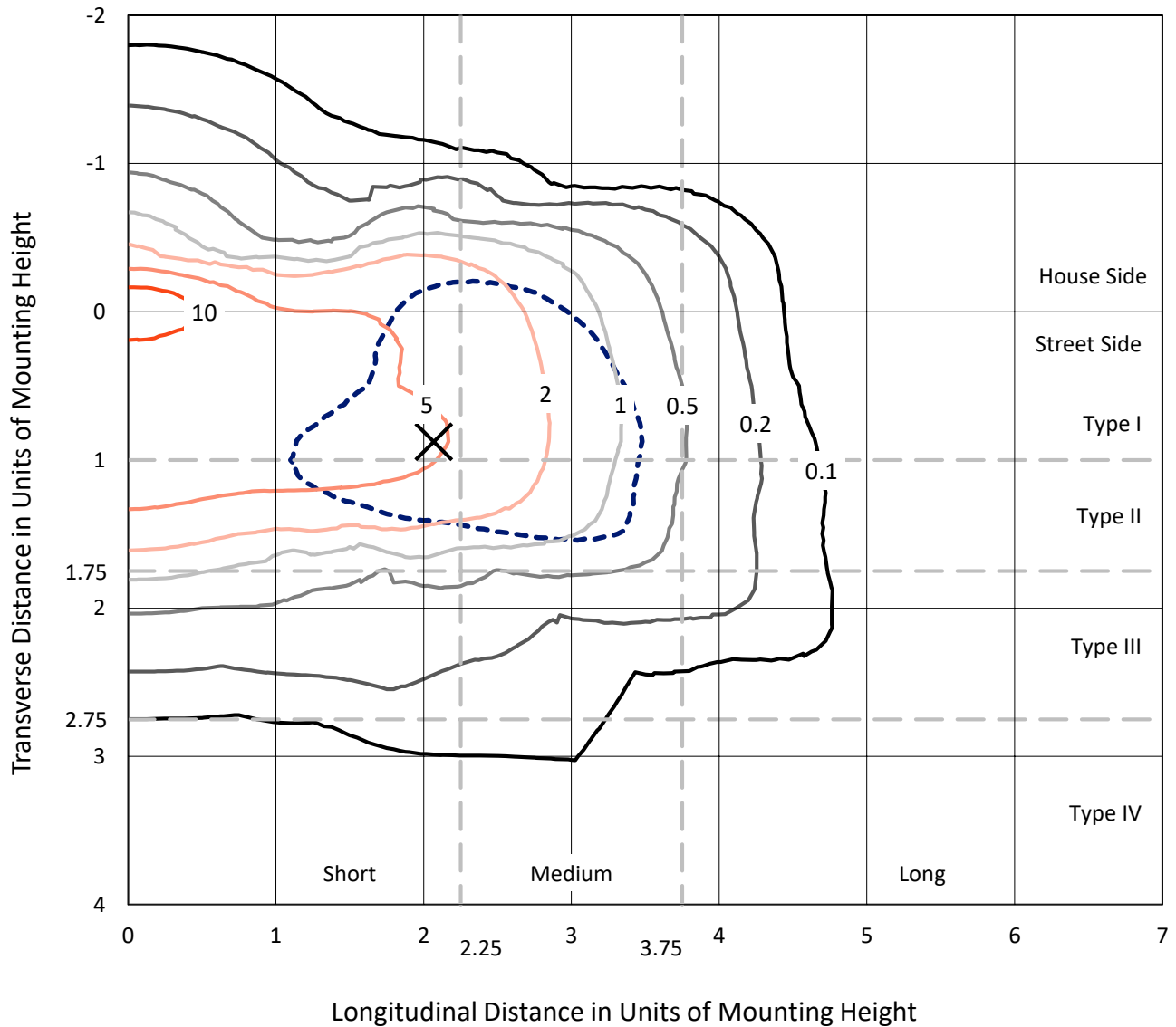
Input Watts (W): 82.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

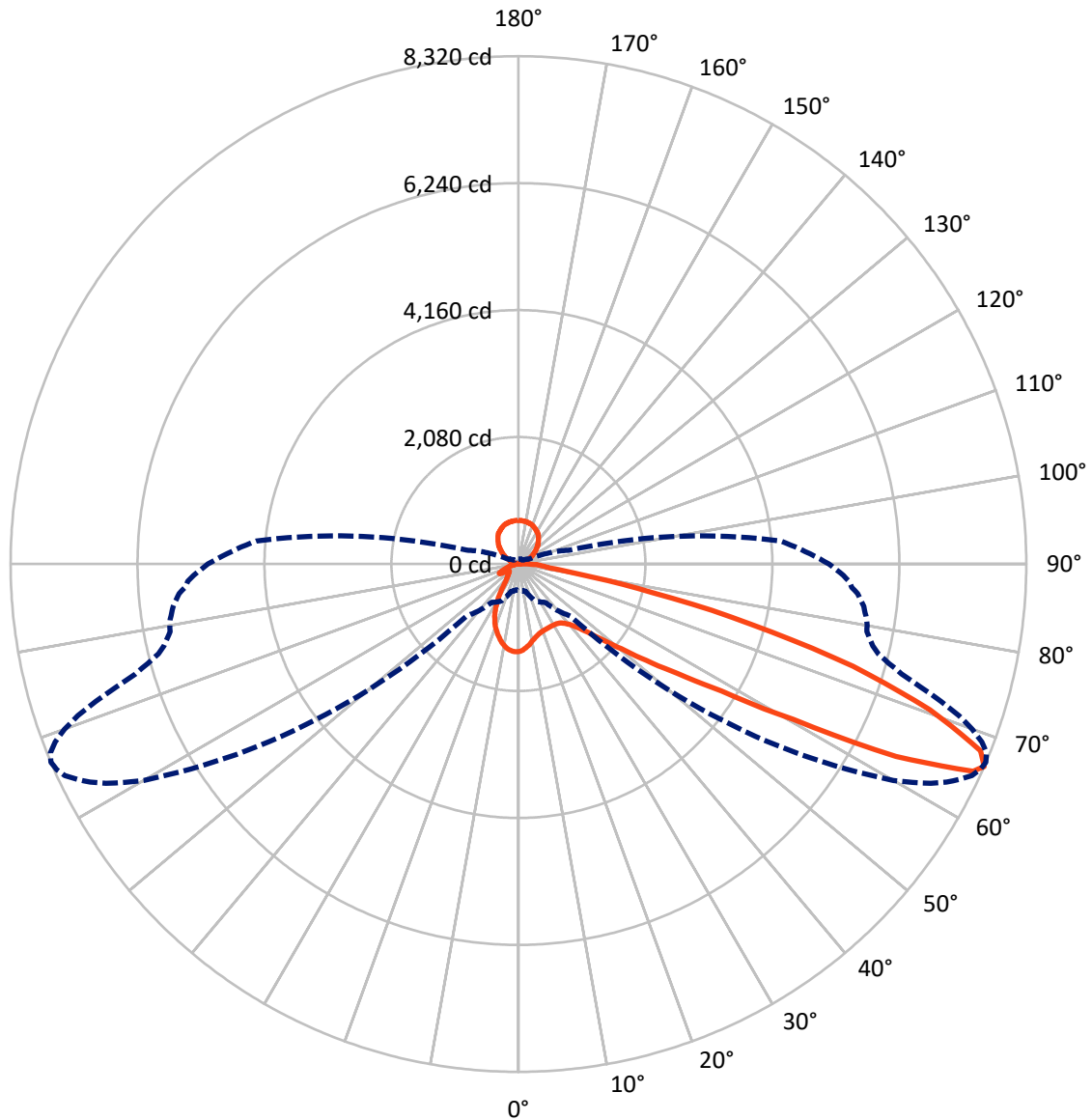
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.3 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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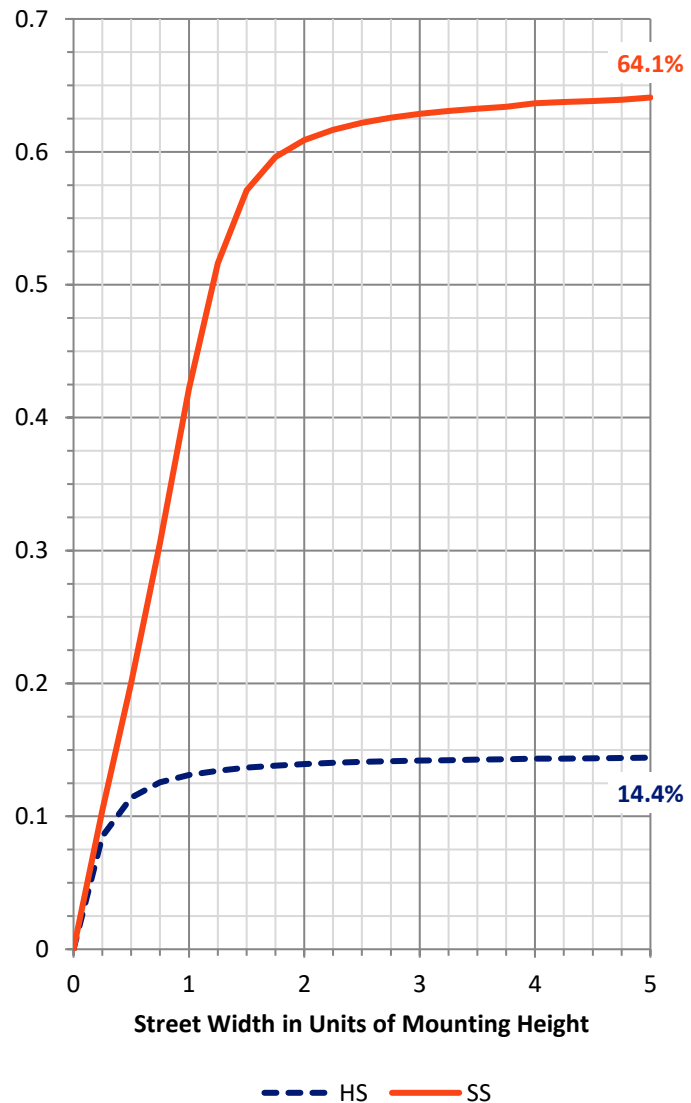
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1258.1	888.0	2146.1
	% Fixture	14.7	10.3	25.0
Street Side	Lumens	5551.7	889.4	6441.1
	% Fixture	64.7	10.4	75.0
Total	Lumens	6809.8	1777.4	8587.2
	% Fixture	79.3	20.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.3	1.4
10°-20°	295.9	3.4
20°-30°	405.8	4.7
30°-40°	579.7	6.8
40°-50°	939.9	10.9
50°-60°	1489.2	17.3
60°-70°	1887.2	22.0
70°-80°	938.1	10.9
80°-90°	149.6	1.7
90°-100°	12.0	0.1
100°-110°	58.7	0.7
110°-120°	169.9	2.0
120°-130°	279.4	3.3
130°-140°	344.6	4.0
140°-150°	352.5	4.1
150°-160°	297.0	3.5
160°-170°	195.5	2.3
170°-180°	67.8	0.8
0°-90°	6809.8	79.3
0°-180°	8587.2	100.0

Coefficient of Utilization



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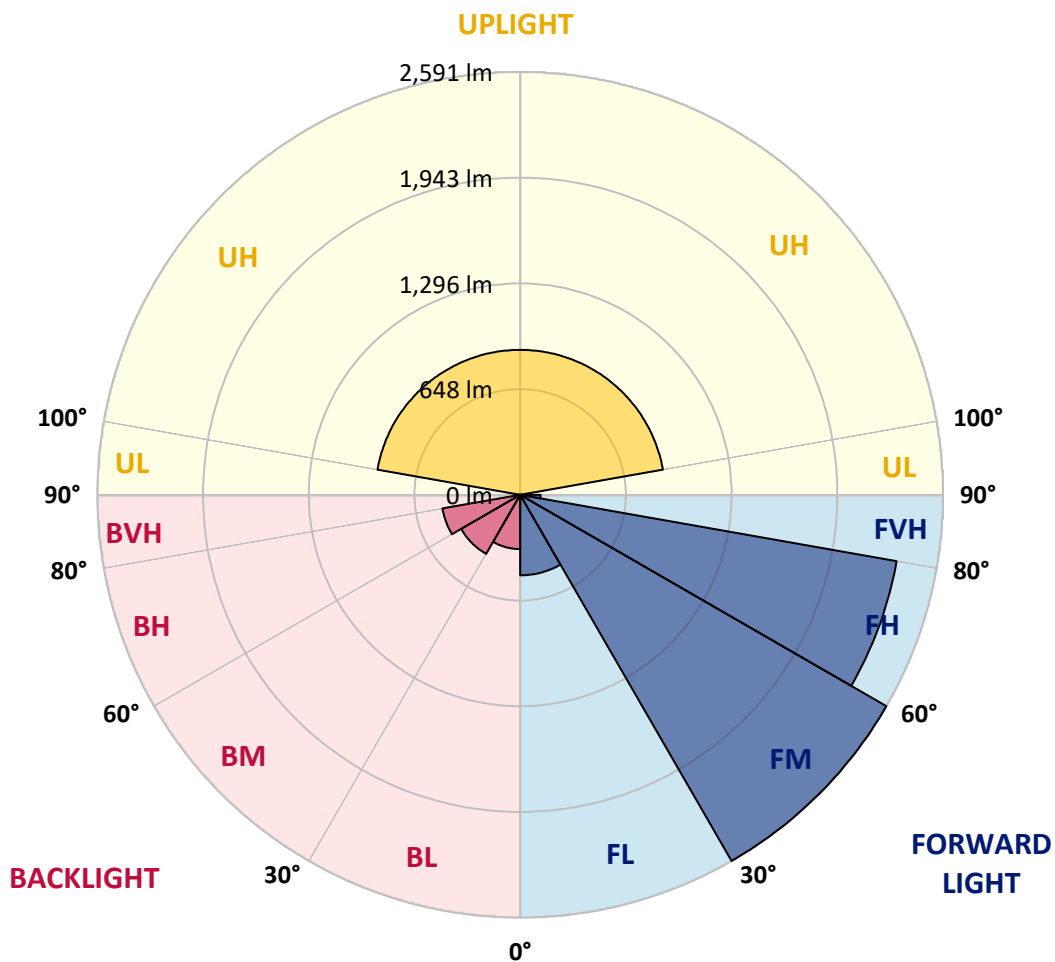
CATALOG NUMBER: IST-AF-1200-LED-E1-SL2-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	493.5	5.7			
FM (30°-60°)	2591.0	30.2			
FH (60°-80°)	2342.0	27.3			G2/5000
FVH (80°-90°)	125.1	1.5			G2/225
BL (0°-30°)	332.5	3.9	B1/500		
BM (30°-60°)	417.8	4.9	B1/1000		
BH (60°-80°)	483.3	5.6	B1/500		G1/500
BVH (80°-90°)	24.5	0.3			G1/100
UL (90°-100°)	12.0	0.1		U2/50	
UH (100°-180°)	888.0	10.3		U4/1000	

BUG Rating: B1-U5-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	63°
0°	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7
2.5°	1332.4	1335.5	1352.9	1362.1	1375.4	1379.4	1394.8	1400.9	1406.0	1405.0	1405.0
5°	1212.6	1221.8	1230.0	1248.5	1267.9	1291.5	1321.1	1343.6	1347.7	1352.9	1355.9
7.5°	1121.6	1127.7	1142.0	1155.3	1179.9	1212.6	1254.6	1283.3	1289.4	1291.5	1298.6
10°	1057.1	1061.2	1073.5	1090.9	1119.5	1151.2	1195.2	1224.9	1234.1	1238.2	1244.3
12.5°	1007.0	1013.1	1024.4	1042.8	1073.5	1106.2	1152.3	1181.9	1188.1	1193.2	1202.4
15°	975.3	979.4	989.6	1010.1	1037.7	1070.4	1115.4	1151.2	1155.3	1160.4	1168.6
17.5°	969.0	972.2	978.4	993.7	1015.2	1046.9	1092.9	1122.6	1129.7	1136.9	1145.1
20°	993.7	995.7	997.8	999.8	1012.1	1032.6	1077.6	1109.3	1115.4	1121.6	1131.8
22.5°	1046.9	1050.0	1044.8	1037.7	1028.5	1032.6	1070.4	1103.2	1107.2	1113.4	1121.6
25°	1139.0	1135.9	1120.5	1109.3	1076.6	1050.0	1072.5	1100.1	1105.2	1111.3	1120.5
27.5°	1247.4	1243.3	1234.1	1203.4	1149.2	1095.0	1084.7	1105.2	1108.3	1113.4	1121.6
30°	1364.1	1365.1	1356.9	1323.2	1253.6	1162.5	1112.4	1117.5	1119.5	1123.6	1128.7
32.5°	1469.5	1484.8	1483.8	1481.7	1382.5	1253.6	1165.6	1145.1	1142.0	1145.1	1147.1
35°	1591.3	1594.4	1623.0	1637.3	1556.5	1386.6	1243.3	1198.3	1186.0	1187.0	1185.0
37.5°	1722.2	1726.3	1775.4	1800.0	1737.6	1538.1	1346.7	1277.2	1265.9	1254.6	1246.4
40°	1912.6	1929.0	1954.6	1982.2	1951.5	1741.7	1482.8	1388.7	1360.0	1358.0	1341.6
42.5°	2197.1	2192.0	2179.7	2202.2	2165.4	1969.9	1647.6	1546.3	1524.7	1496.1	1473.6
45°	2476.5	2487.7	2434.5	2444.8	2446.8	2233.9	1886.0	1743.7	1732.5	1698.7	1674.2
47.5°	2664.8	2652.5	2580.8	2633.0	2760.9	2541.9	2162.3	2012.9	1989.3	1971.9	1956.6
50°	2675.0	2664.8	2618.7	2710.8	2984.0	3089.4	2547.0	2373.1	2339.3	2308.6	2299.4
52.5°	2425.3	2411.0	2426.3	2613.5	3064.9	3547.9	3090.4	2820.3	2792.7	2767.1	2731.3
55°	1980.1	1996.5	2069.1	2338.3	2941.1	3873.3	4159.8	3511.1	3392.3	3391.3	3303.3
57.5°	1478.7	1462.3	1516.5	1769.3	2627.9	3988.9	5142.3	4981.6	4716.5	4537.4	4321.6
60°	997.8	1001.9	1052.0	1181.9	1828.7	3863.1	5800.2	6360.0	6266.9	6229.0	6170.6
62.5°	691.7	698.0	744.0	865.7	1069.4	3107.8	5992.7	7132.6	7299.4	7437.6	7403.8
65°	484.1	485.1	531.1	719.4	801.3	1596.4	5567.9	7234.9	7483.6	7721.0	7933.9
66°	426.8	427.8	465.6	669.2	768.5	1204.4	5199.6	7092.7	7376.2	7652.5	7872.4
67.5°	365.3	371.4	401.1	569.0	736.8	929.1	4294.9	6668.0	6964.8	7268.7	7559.3
70°	250.7	252.8	279.4	461.6	689.7	815.6	2447.8	5205.7	5616.0	6150.2	6459.2
72.5°	179.1	177.1	180.1	285.5	708.2	810.5	1286.4	3426.1	4000.1	4468.9	4803.5
75°	159.7	154.6	141.3	177.1	516.8	885.2	861.6	2017.0	2454.0	2880.6	3223.5
77.5°	142.3	134.0	126.8	136.1	255.8	834.0	773.7	1155.3	1378.4	1696.7	1960.7
80°	108.4	103.3	107.4	117.6	153.5	767.5	768.5	768.5	828.9	933.2	1037.7
82.5°	71.6	65.5	74.7	97.2	115.6	578.2	794.1	678.4	667.2	663.1	670.2
85°	45.0	38.9	52.2	72.6	89.0	301.9	814.6	716.4	664.1	614.0	563.9
87.5°	16.4	18.4	26.6	41.9	58.3	130.9	714.3	631.4	595.6	533.2	474.9
90°	9.2	8.2	12.3	20.5	21.5	31.7	116.6	183.2	112.7	60.8	50.7
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.2	7.2	7.2
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.7	7.8	7.9	8.0
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.3	11.0	10.8	10.6
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.1	27.8	27.5	27.2
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	49.6	49.3	49.0	48.7
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	72.6	72.4	72.2	72.0
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.7	96.6	96.5	96.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	63°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.3	123.4	123.5	123.6
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.4	152.6	152.8	153.0
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.6	184.9	185.3	185.6
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.9	218.3	218.7	219.1
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	253.7	254.1	254.5	254.9
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	287.4	287.9	288.3	288.7
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	321.2	321.4	321.6	321.8
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.4	353.5	353.6	353.7
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	387.7	388.1	388.5	388.9
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	423.0	423.5	424.0	424.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	455.7	456.2	456.7	457.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.9	485.1	485.3	485.5
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.5	512.7	512.9	513.1
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	542.2	542.8	543.4	544.0
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	571.8	572.4	573.1	573.7
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	595.9	596.4	596.9	597.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	612.2	612.5	612.8	613.2
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.6	626.9	627.2	627.5
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	642.9	643.4	643.9	644.5
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.8	661.2	661.6	662.1
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	676.2	676.8	677.4	678.0
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	684.4	684.8	685.2	685.6
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	690.0	690.5	691.0	691.5
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	696.6	697.2	697.9	698.5
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	703.3	703.6	703.9	704.2
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	706.3	706.7	707.0	707.3
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	708.4	708.9	709.4	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	712.5	713.0	713.5	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
0°	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7
2.5°	1406.0	1411.2	1413.2	1411.2	1412.2	1418.3	1416.3	1419.3	1419.3	1421.4	1421.4
5°	1360.0	1364.1	1372.3	1371.3	1379.4	1382.5	1385.6	1389.7	1394.8	1397.9	1404.0
7.5°	1305.8	1314.0	1321.1	1325.2	1330.3	1340.6	1343.6	1352.9	1361.0	1369.2	1375.4
10°	1253.6	1264.9	1273.1	1276.1	1287.4	1292.5	1303.8	1310.9	1321.1	1331.4	1340.6
12.5°	1209.5	1219.8	1223.9	1234.1	1244.3	1254.6	1259.8	1273.1	1283.3	1296.6	1308.9
15°	1176.8	1187.0	1195.2	1202.4	1212.6	1222.8	1231.0	1244.3	1256.7	1270.0	1281.2
17.5°	1156.3	1162.5	1172.7	1178.8	1191.1	1203.4	1212.6	1228.0	1241.2	1252.6	1267.9
20°	1141.0	1148.2	1157.4	1166.6	1177.8	1193.2	1201.4	1217.7	1232.0	1245.3	1259.8
22.5°	1132.8	1140.0	1149.2	1158.4	1170.7	1182.9	1196.2	1210.6	1225.9	1240.2	1254.6
25°	1129.7	1135.9	1144.1	1153.3	1166.6	1179.9	1191.1	1207.5	1220.8	1236.1	1253.6
27.5°	1130.8	1134.9	1144.1	1152.3	1165.6	1177.8	1189.1	1205.4	1220.8	1235.1	1252.6
30°	1134.9	1137.9	1147.1	1154.3	1165.6	1177.8	1188.1	1205.4	1218.7	1234.1	1252.6
32.5°	1149.2	1153.3	1157.4	1162.5	1172.7	1181.9	1194.2	1209.5	1221.8	1237.2	1252.6
35°	1182.9	1179.9	1182.9	1185.0	1192.1	1201.4	1210.6	1223.9	1235.1	1248.5	1264.9
37.5°	1236.1	1230.0	1232.0	1231.0	1231.0	1237.2	1246.4	1255.7	1264.9	1278.2	1294.5
40°	1334.4	1319.1	1315.0	1303.8	1300.7	1305.8	1311.9	1313.0	1324.2	1341.6	1348.8
42.5°	1461.3	1440.8	1443.9	1425.5	1420.4	1414.2	1422.4	1417.3	1424.5	1435.7	1451.1
45°	1661.9	1642.4	1622.0	1592.3	1598.5	1576.0	1569.8	1571.9	1570.8	1574.9	1593.3
47.5°	1901.4	1875.8	1862.5	1851.2	1829.8	1816.5	1799.0	1773.4	1779.5	1787.7	1804.2
50°	2251.3	2243.1	2217.6	2180.7	2175.6	2156.2	2151.1	2128.6	2120.4	2119.3	2118.3
52.5°	2719.0	2665.8	2655.6	2620.7	2594.1	2575.7	2569.6	2537.8	2506.1	2524.5	2522.5
55°	3289.0	3245.0	3188.6	3158.0	3136.5	3092.5	3081.2	3041.3	3022.9	3012.7	2987.1
57.5°	4246.8	4092.3	3976.6	3919.3	3838.5	3756.7	3727.9	3646.1	3582.7	3537.7	3540.7
60°	5916.8	5641.6	5317.2	5171.9	4835.2	4786.1	4554.8	4498.5	4359.4	4267.2	4214.0
62.5°	7380.3	7305.5	7150.0	6938.2	6600.5	6211.6	6036.6	5688.7	5416.5	5297.8	5133.1
65°	8079.2	8184.6	8227.6	8187.7	8052.6	7815.1	7606.4	7266.6	6810.3	6552.4	6232.0
66°	8043.4	8200.0	8278.7	8319.7	8270.6	8130.3	7911.4	7632.0	7278.9	6886.0	6526.8
67.5°	7781.4	7933.9	8043.4	8168.2	8168.2	8124.2	8035.2	7848.9	7599.2	7256.4	6934.1
70°	6711.0	6917.7	7111.1	7149.0	7255.4	7222.6	7293.2	7174.6	7115.2	6971.9	6799.0
72.5°	5228.2	5401.1	5566.9	5732.7	5705.1	5669.2	5662.0	5686.7	5565.9	5608.8	5563.8
75°	3477.3	3775.1	3944.9	3928.5	3939.8	3949.0	3873.3	3704.4	3835.5	3669.6	3724.9
77.5°	2113.2	2251.3	2297.3	2246.2	2179.7	2093.8	1955.6	1874.8	1759.1	1768.3	1691.6
80°	1108.3	1125.7	1088.8	985.5	929.1	878.0	720.5	649.8	584.3	559.8	504.5
82.5°	635.5	593.5	548.5	513.7	447.2	402.1	340.7	301.9	259.9	223.1	209.8
85°	514.7	458.5	416.5	377.6	332.6	292.7	241.5	201.6	170.9	148.4	143.3
87.5°	424.7	385.8	342.8	306.0	262.0	221.1	170.9	133.0	105.4	84.9	78.8
90°	46.9	60.4	46.0	29.7	39.9	25.6	18.4	19.4	17.4	17.4	18.4
92.5°	7.2	7.2	7.1	7.0	6.9	6.8	6.6	6.5	6.4	6.3	6.2
95°	8.1	8.2	8.1	8.0	7.9	7.8	7.7	7.6	7.5	7.4	7.3
97.5°	10.4	10.2	10.1	10.0	9.9	9.8	9.7	9.6	9.5	9.4	9.3
100°	26.9	26.6	26.3	26.0	25.7	25.4	25.1	24.8	24.4	24.1	23.8
102.5°	48.4	48.1	47.6	47.1	46.5	46.0	45.5	45.0	44.5	44.0	43.5
105°	71.8	71.6	71.1	70.6	70.1	69.6	69.0	68.5	68.0	67.5	67.0
107.5°	96.3	96.2	95.7	95.3	94.9	94.5	94.1	93.7	93.3	92.9	92.5



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CATALOG NUMBER: IST-AF-1200-LED-E1-SL2-ULG

CANDELA DISTRIBUTION (continued):

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
110°	123.7	123.8	123.6	123.4	123.2	123.0	122.8	122.5	122.3	122.1	121.9
112.5°	153.2	153.4	153.3	153.2	153.1	153.0	152.9	152.8	152.7	152.6	152.5
115°	185.9	186.2	185.9	185.6	185.3	184.9	184.6	184.3	184.0	183.7	183.4
117.5°	219.5	219.9	219.4	218.9	218.4	217.9	217.4	216.9	216.4	215.8	215.3
120°	255.3	255.7	255.2	254.7	254.2	253.7	253.2	252.7	252.2	251.6	251.1
122.5°	289.1	289.5	289.0	288.5	288.0	287.4	286.9	286.4	285.9	285.4	284.9
125°	322.0	322.2	321.7	321.2	320.7	320.2	319.7	319.2	318.6	318.1	317.6
127.5°	353.8	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9
130°	389.3	389.7	389.7	389.7	389.7	389.7	389.7	389.7	389.7	389.7	389.7
132.5°	425.0	425.5	425.3	425.1	424.9	424.7	424.5	424.3	424.1	423.9	423.7
135°	457.8	458.3	458.2	458.1	458.0	457.9	457.8	457.7	457.6	457.5	457.4
137.5°	485.7	485.9	486.0	486.1	486.2	486.3	486.4	486.5	486.6	486.7	486.8
140°	513.3	513.5	513.7	513.9	514.1	514.3	514.5	514.7	515.0	515.2	515.4
142.5°	544.6	545.2	545.2	545.2	545.2	545.2	545.2	545.2	545.2	545.2	545.2
145°	574.3	574.9	574.8	574.7	574.6	574.5	574.4	574.3	574.2	574.1	574.0
147.5°	597.9	598.4	598.5	598.6	598.7	598.8	598.9	599.0	599.1	599.2	599.3
150°	613.5	613.8	614.1	614.4	614.7	615.0	615.3	615.6	615.9	616.2	616.5
152.5°	627.8	628.1	628.5	628.9	629.3	629.7	630.1	630.5	631.0	631.4	631.8
155°	645.0	645.5	646.0	646.5	647.0	647.5	648.0	648.6	649.1	649.6	650.1
157.5°	662.5	662.9	663.1	663.3	663.5	663.7	663.9	664.1	664.3	664.5	664.7
160°	678.6	679.2	678.9	678.6	678.3	678.0	677.7	677.4	677.1	676.8	676.5
162.5°	686.0	686.4	686.3	686.2	686.1	686.0	685.9	685.8	685.7	685.6	685.5
165°	692.0	692.5	692.8	693.2	693.5	693.8	694.1	694.4	694.7	695.0	695.3
167.5°	699.1	699.7	700.1	700.5	700.9	701.3	701.7	702.2	702.6	703.0	703.4
170°	704.5	704.8	705.3	705.8	706.3	706.9	707.4	707.9	708.4	708.9	709.4
172.5°	707.6	707.9	708.1	708.3	708.5	708.7	708.9	709.1	709.3	709.5	709.7
175°	710.4	711.0	711.1	711.2	711.3	711.4	711.5	711.6	711.7	711.8	711.9
177.5°	714.5	715.0	715.2	715.5	715.7	715.9	716.1	716.3	716.5	716.7	716.9
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°
0°	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7
2.5°	1424.5	1424.5	1426.5	1428.6	1429.6	1429.6	1429.6	1431.6	1432.6	1429.6	1432.6
5°	1407.1	1412.2	1416.3	1419.3	1420.4	1423.4	1426.5	1428.6	1431.6	1431.6	1433.7
7.5°	1383.5	1392.7	1397.9	1403.0	1408.1	1413.2	1419.3	1423.4	1425.5	1429.6	1432.6
10°	1353.9	1365.1	1375.4	1383.5	1390.7	1400.9	1409.1	1415.3	1424.5	1425.5	1432.6
12.5°	1322.2	1338.5	1346.7	1362.1	1372.3	1387.6	1395.8	1405.0	1415.3	1420.4	1428.6
15°	1299.7	1314.0	1329.3	1343.6	1360.0	1378.4	1388.7	1400.9	1415.3	1426.5	1436.7
17.5°	1282.3	1301.7	1319.1	1337.5	1358.0	1377.4	1392.7	1406.0	1424.5	1430.6	1440.8
20°	1277.2	1298.6	1316.0	1335.5	1356.9	1382.5	1400.9	1415.3	1433.7	1443.9	1453.1
22.5°	1275.1	1295.6	1316.0	1339.6	1363.1	1389.7	1409.1	1427.5	1445.9	1455.1	1462.3
25°	1273.1	1294.5	1317.0	1343.6	1369.2	1396.8	1419.3	1436.7	1454.1	1463.3	1469.5
27.5°	1273.1	1295.6	1320.1	1346.7	1374.3	1405.0	1426.5	1442.9	1458.2	1466.4	1468.4
30°	1272.0	1295.6	1319.1	1348.8	1378.4	1410.1	1433.7	1449.0	1462.3	1467.4	1465.4
32.5°	1274.1	1298.6	1324.2	1353.9	1384.6	1415.3	1439.8	1457.2	1464.4	1463.3	1462.3
35°	1284.3	1306.8	1336.5	1366.2	1397.9	1426.5	1450.0	1462.3	1468.4	1466.4	1461.3
37.5°	1311.9	1334.4	1364.1	1396.8	1421.4	1454.1	1475.6	1484.8	1485.8	1479.7	1467.4
40°	1369.2	1391.7	1418.3	1454.1	1483.8	1506.3	1526.9	1537.1	1530.9	1519.6	1506.3
42.5°	1460.3	1488.9	1520.6	1549.4	1584.1	1614.8	1619.9	1626.1	1615.9	1594.4	1578.0
45°	1606.6	1624.0	1665.0	1686.4	1731.4	1746.8	1758.0	1761.1	1738.6	1721.2	1692.6
47.5°	1817.5	1851.2	1879.9	1900.3	1933.1	1953.5	1976.0	1965.8	1948.4	1918.7	1880.9
50°	2149.0	2170.5	2207.3	2244.1	2278.9	2293.3	2293.3	2283.0	2271.8	2214.5	2168.5
52.5°	2556.3	2558.3	2611.5	2655.6	2685.2	2663.8	2689.3	2663.8	2656.6	2616.6	2578.8
55°	3028.0	3008.6	3073.0	3111.9	3138.5	3164.1	3159.0	3155.9	3129.3	3084.3	3038.3
57.5°	3476.3	3532.6	3563.2	3620.5	3633.8	3651.2	3644.1	3633.8	3618.5	3592.9	3572.5
60°	4123.0	4160.9	4188.5	4199.7	4237.6	4242.7	4268.3	4226.3	4236.6	4206.9	4142.4
62.5°	5003.0	4962.1	4983.6	4983.6	4972.4	4932.5	4953.9	4970.3	4942.7	4918.1	4907.9
65°	5988.6	5856.5	5729.6	5708.2	5649.8	5636.5	5620.1	5579.2	5561.8	5518.8	5484.0
66°	6283.3	6078.6	5958.8	5885.1	5814.6	5799.2	5776.7	5733.7	5699.0	5638.5	5580.2
67.5°	6613.8	6349.8	6169.6	6065.3	5978.3	5920.9	5875.9	5814.6	5759.3	5669.2	5576.1
70°	6592.3	6374.3	6157.3	5998.8	5867.7	5750.1	5680.4	5548.5	5436.0	5307.0	5200.6
72.5°	5539.3	5500.4	5374.5	5285.5	5124.8	5062.4	4878.2	4794.3	4638.8	4471.9	4420.8
75°	3850.8	3698.3	3633.8	3598.0	3527.4	3333.0	3206.1	3233.8	3051.6	2888.8	2795.7
77.5°	1683.4	1714.1	1536.1	1456.2	1394.8	1289.4	1191.1	1123.6	1084.7	1059.2	943.5
80°	465.6	406.2	401.1	372.5	366.3	326.4	331.5	302.9	283.5	279.4	270.2
82.5°	203.7	199.6	193.4	190.4	187.3	183.2	178.1	177.1	170.9	165.8	166.8
85°	135.0	134.0	130.9	127.9	122.8	115.6	110.5	106.4	107.4	102.3	101.3
87.5°	78.8	76.7	75.7	71.6	70.6	64.4	65.5	60.4	59.3	58.3	55.2
90°	20.5	21.3	24.1	22.9	18.6	27.6	24.3	22.1	22.9	19.6	19.4
92.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
95°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
97.5°	9.2	9.1	9.0	8.9	8.8	8.7	8.6	8.5	8.4	8.3	8.2
100°	23.5	23.1	22.7	22.3	21.9	21.5	21.1	20.7	20.3	19.8	19.4
102.5°	43.0	42.7	42.4	42.0	41.7	41.4	41.1	40.8	40.5	40.2	39.9
105°	66.5	66.1	65.7	65.3	64.9	64.4	64.0	63.6	63.2	62.8	62.4
107.5°	92.1	91.8	91.5	91.1	90.8	90.5	90.2	89.9	89.6	89.3	89.0



REPORT NUMBER: P226835
 CATALOG NUMBER: IST-AF-1200-LED-E1-SL2-ULG

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	
110°	121.7	121.4	121.1	120.8	120.5	120.2	119.9	119.6	119.3	119.0	118.7	0°
112.5°	152.4	152.2	152.0	151.8	151.6	151.4	151.2	151.0	150.8	150.6	150.4	2.5°
115°	183.1	182.9	182.7	182.5	182.3	182.1	181.9	181.7	181.5	181.3	181.1	5°
117.5°	214.8	214.6	214.4	214.2	214.0	213.8	213.6	213.4	213.2	213.0	212.8	7.5°
120°	250.6	250.4	250.2	250.0	249.8	249.6	249.4	249.2	249.0	248.8	248.6	10°
122.5°	284.4	284.2	284.0	283.8	283.6	283.4	283.2	282.9	282.7	282.5	282.3	12.5°
125°	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	15°
127.5°	353.9	353.8	353.7	353.6	353.5	353.4	353.3	353.2	353.1	353.0	352.9	17.5°
130°	389.7	389.5	389.3	389.1	388.9	388.7	388.5	388.3	388.1	387.9	387.7	20°
132.5°	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5	22.5°
135°	457.3	457.6	457.9	458.2	458.5	458.8	459.1	459.4	459.7	460.0	460.3	25°
137.5°	486.9	487.4	487.9	488.5	489.0	489.5	490.0	490.5	491.0	491.5	492.0	27.5°
140°	515.6	516.1	516.6	517.1	517.6	518.1	518.6	519.1	519.7	520.2	520.7	30°
142.5°	545.2	545.3	545.4	545.5	545.6	545.7	545.8	545.9	546.1	546.2	546.3	32.5°
145°	573.9	573.6	573.3	573.0	572.6	572.3	572.0	571.7	571.4	571.1	570.8	35°
147.5°	599.4	599.1	598.8	598.5	598.2	597.9	597.6	597.3	597.0	596.7	596.4	37.5°
150°	616.8	617.1	617.5	617.8	618.1	618.4	618.7	619.0	619.3	619.6	619.9	40°
152.5°	632.2	632.7	633.2	633.7	634.2	634.7	635.3	635.8	636.3	636.8	637.3	42.5°
155°	650.6	650.8	651.0	651.2	651.4	651.6	651.8	652.0	652.2	652.4	652.6	45°
157.5°	664.9	664.9	664.9	664.9	664.9	664.9	664.9	664.9	664.9	664.9	664.9	47.5°
160°	676.2	676.1	676.0	675.9	675.8	675.7	675.6	675.5	675.4	675.2	675.1	50°
162.5°	685.4	685.2	685.0	684.8	684.6	684.4	684.1	683.9	683.7	683.5	683.3	52.5°
165°	695.6	695.4	695.2	695.0	694.8	694.6	694.4	694.2	694.0	693.8	693.6	55°
167.5°	703.8	703.8	703.8	703.8	703.8	703.8	703.8	703.8	703.8	703.8	703.8	57.5°
170°	709.9	710.1	710.3	710.5	710.7	711.0	711.2	711.4	711.6	711.8	712.0	60°
172.5°	709.9	710.1	710.3	710.5	710.7	711.0	711.2	711.4	711.6	711.8	712.0	62.5°
175°	712.0	711.8	711.6	711.4	711.2	711.0	710.7	710.5	710.3	710.1	709.9	65°
177.5°	717.1	716.8	716.5	716.2	715.9	715.6	715.2	714.9	714.6	714.3	714.0	66°
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	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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 NUMBER: IST-AF-1200-LED-E1-SL2-ULG

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

86°	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	110°	86°
1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	110°	118.9
1435.7	1437.8	1438.8	1437.8	1439.8	1438.8	1439.8	1438.8	1433.7	1432.6	1431.6	112.5°	150.4
1437.8	1441.8	1442.9	1443.9	1441.8	1443.9	1439.8	1423.4	1405.0	1384.6	1368.2	115°	181.3
1439.8	1444.9	1448.0	1448.0	1449.0	1447.0	1431.6	1395.8	1352.9	1309.9	1277.2	117.5°	213.0
1438.8	1445.9	1449.0	1450.0	1450.0	1445.9	1409.1	1351.8	1286.4	1220.8	1154.3	120°	248.6
1435.7	1441.8	1447.0	1447.0	1448.0	1433.7	1376.4	1294.5	1201.4	1103.2	1014.2	122.5°	282.5
1441.8	1448.0	1448.0	1448.0	1447.0	1422.4	1341.6	1222.8	1098.0	964.9	833.0	125°	317.1
1451.1	1454.1	1452.1	1452.1	1448.0	1411.2	1302.7	1152.3	988.6	812.5	628.3	127.5°	353.3
1459.2	1461.3	1460.3	1455.1	1450.0	1398.9	1262.8	1077.6	857.5	628.3	445.2	130°	387.9
1467.4	1469.5	1464.4	1456.2	1449.0	1382.5	1214.7	982.4	709.2	429.8	294.7	132.5°	423.7
1468.4	1470.5	1461.3	1450.0	1439.8	1358.0	1156.3	881.1	546.5	278.3	230.3	135°	460.5
1467.4	1465.4	1450.0	1435.7	1424.5	1328.3	1091.9	755.2	364.3	209.8	200.6	137.5°	492.2
1460.3	1451.1	1438.8	1422.4	1406.0	1295.6	1027.5	615.0	230.3	182.2	182.2	140°	521.1
1450.0	1440.8	1425.5	1404.0	1385.6	1263.9	953.7	471.8	184.2	167.9	169.9	142.5°	546.7
1445.9	1435.7	1413.2	1390.7	1367.2	1235.1	876.0	317.2	165.8	158.7	159.7	145°	571.2
1454.1	1436.7	1414.2	1388.7	1361.0	1210.6	795.1	221.1	156.6	148.4	150.5	147.5°	596.8
1481.7	1465.4	1438.8	1406.0	1376.4	1196.2	709.2	183.2	147.4	140.2	140.2	150°	620.7
1548.3	1526.9	1491.0	1452.1	1416.3	1205.4	632.4	166.8	140.2	133.0	133.0	152.5°	638.3
1655.7	1630.2	1588.2	1544.2	1497.1	1250.6	545.4	160.7	135.0	124.8	122.8	155°	653.3
1840.0	1806.2	1750.9	1698.7	1642.4	1328.3	457.5	156.6	128.9	119.7	115.6	157.5°	665.9
2129.6	2079.4	2013.9	1945.3	1876.8	1470.5	387.8	152.5	124.8	115.6	111.5	160°	676.4
2502.0	2468.3	2386.4	2296.3	2214.5	1754.0	347.9	149.5	121.7	110.5	107.4	162.5°	684.6
2976.9	2921.6	2857.1	2776.3	2679.1	2121.4	343.8	148.4	118.7	106.4	104.3	165°	694.4
3478.3	3456.8	3347.3	3297.2	3191.8	2610.5	418.6	150.5	116.6	103.3	100.2	167.5°	705.0
4050.4	4058.6	3956.2	3900.9	3814.0	3230.7	666.1	156.6	116.6	100.2	97.2	170°	713.0
4798.4	4811.7	4690.9	4625.5	4551.7	3925.5	1046.9	166.8	119.7	97.2	94.1	172.5°	713.0
5411.4	5339.7	5262.0	5147.4	5054.2	4313.4	1008.0	185.3	123.8	94.1	91.0	175°	711.0
5474.8	5423.7	5325.4	5201.6	5088.0	4315.4	880.0	191.4	124.8	93.1	90.0	177.5°	714.8
5466.6	5375.5	5264.0	5159.7	5048.1	4204.8	680.5	199.6	127.9	91.0	88.0	180°	716.1
5088.0	4960.1	4851.5	4707.3	4590.7	3762.8	418.6	198.6	123.8	84.9	82.9		
4195.6	4130.2	4001.2	3885.6	3763.8	3045.4	286.5	177.1	109.5	76.7	77.7		
2713.9	2639.2	2508.2	2442.7	2374.2	1948.4	223.1	144.3	93.1	68.5	71.6		
905.6	876.0	827.9	854.5	814.6	759.3	163.8	109.5	74.7	59.3	63.4		
271.2	265.0	274.3	257.9	273.2	231.3	107.4	76.7	57.3	51.1	56.3		
160.7	158.7	158.7	158.7	154.6	144.3	70.6	53.2	44.0	43.0	47.1		
98.2	96.2	97.2	96.2	98.2	88.0	48.1	36.8	32.7	31.7	37.8		
56.3	56.3	57.3	55.2	56.3	54.2	33.8	23.5	21.5	20.5	27.6		
20.5	20.5	17.4	16.4	17.4	21.5	18.4	16.4	13.3	12.3	17.4		
6.1	6.1	6.1	6.1	6.1	6.1	6.1	7.2	7.2	6.1	6.1		
7.2	7.2	7.2	7.2	7.2	7.2	7.2	8.2	7.2	7.2	7.2		
8.2	8.2	8.2	8.2	8.2	8.2	9.2	10.2	12.3	9.2	9.2		
19.4	19.4	19.4	19.4	19.4	19.4	23.5	26.6	29.7	21.5	12.3		
39.7	39.5	39.3	39.1	38.9	39.9	43.0	48.1	51.1	40.9	27.6		
62.4	62.4	62.4	62.4	62.4	62.4	66.5	71.6	73.7	64.4	49.1		
88.8	88.6	88.4	88.2	88.0	89.0	92.1	96.2	97.2	90.0	74.7		

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 IST-AF-1200-LED-E1-SL2-ULG

REPORT NUMBER: P226835
 CATALOG NUMBER: IST-AF-12

TION (continued):

CANDELA DISTRIBUTION (con

87°	88°	89°	90°	95°	105°	115°	125°	135°	145°		155°	165°
119.1	119.3	119.5	119.7	118.7	121.7	123.8	122.8	116.6	104.3	0°	1433.7	1433.7
150.4	150.4	150.4	150.4	150.4	152.4	153.4	151.4	146.3	137.1	2.5°	1423.4	1416.3
181.5	181.7	181.9	182.1	181.1	183.1	186.2	183.1	178.0	171.9	5°	1342.6	1323.2
213.2	213.4	213.6	213.8	212.8	214.8	219.9	215.8	209.7	206.6	7.5°	1225.9	1203.4
248.6	248.6	248.6	248.6	248.6	250.6	255.7	251.6	248.6	242.4	10°	1092.9	1059.2
282.7	282.9	283.2	283.4	282.3	284.4	289.5	285.4	283.4	277.2	12.5°	923.0	856.5
317.1	317.1	317.1	317.1	317.1	317.1	322.2	320.2	317.1	312.0	15°	726.6	637.5
353.7	354.1	354.6	355.0	352.9	353.9	353.9	352.9	347.8	346.8	17.5°	500.4	428.8
388.1	388.3	388.5	388.7	387.7	389.7	389.7	385.7	380.5	378.5	20°	351.0	324.4
423.9	424.1	424.3	424.5	423.5	423.5	425.5	420.4	414.3	413.3	22.5°	271.2	272.2
460.7	460.9	461.1	461.4	460.3	457.3	458.3	453.2	447.0	445.0	25°	225.2	235.4
492.4	492.7	492.9	493.1	492.0	486.9	485.9	483.9	478.7	474.6	27.5°	198.6	208.8
521.5	521.9	522.3	522.7	520.7	515.6	513.5	511.5	508.4	502.3	30°	182.2	191.4
547.1	547.5	547.9	548.3	546.3	545.2	545.2	539.1	537.0	533.0	32.5°	170.9	175.0
571.6	572.0	572.4	572.9	570.8	573.9	574.9	568.8	563.6	562.6	35°	157.6	159.7
597.2	597.6	598.0	598.4	596.4	599.4	598.4	593.3	588.2	587.2	37.5°	146.4	146.4
621.5	622.4	623.2	624.0	619.9	616.8	613.8	610.7	606.6	606.6	40°	136.1	135.0
639.3	640.4	641.4	642.4	637.3	632.2	628.1	625.0	624.0	624.0	42.5°	126.8	125.8
653.9	654.5	655.1	655.7	652.6	650.6	645.5	640.4	642.4	644.5	45°	117.6	118.7
667.0	668.0	669.0	670.0	664.9	664.9	662.9	658.8	659.8	660.8	47.5°	112.5	113.5
677.6	678.8	680.1	681.3	675.1	676.2	679.2	673.1	670.0	670.0	50°	107.4	108.4
685.8	687.0	688.2	689.5	683.3	685.4	686.4	682.3	678.2	676.2	52.5°	103.3	103.3
695.2	696.0	696.8	697.7	693.6	695.6	692.5	687.4	688.4	688.4	55°	99.2	98.2
706.2	707.5	708.7	709.9	703.8	703.8	699.7	693.6	700.7	703.8	57.5°	96.2	94.1
714.0	715.0	716.1	717.1	712.0	709.9	704.8	701.7	706.9	708.9	60°	93.1	91.0
714.0	715.0	716.1	717.1	712.0	709.9	707.9	704.8	705.8	705.8	62.5°	91.0	88.0
712.0	713.0	714.0	715.0	709.9	712.0	711.0	705.8	705.8	706.9	65°	89.0	87.0
715.7	716.5	717.3	718.1	714.0	717.1	715.0	709.9	711.0	713.0	66°	88.0	85.9
716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	67.5°	87.0	84.9
										70°	82.9	80.8
										72.5°	76.7	75.7
										75°	70.6	68.5
										77.5°	62.4	61.4
										80°	53.2	52.2
										82.5°	45.0	43.0
										85°	35.8	33.8
										87.5°	24.6	22.5
										90°	14.3	14.3
										92.5°	6.1	5.1
										95°	7.2	6.1
										97.5°	8.2	8.2
										100°	10.2	9.2
										102.5°	18.4	13.3
										105°	36.8	27.6
										107.5°	59.3	50.1



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175°	180°
1433.7	1433.7
1410.1	1419.3
1317.0	1314.0
1185.0	1186.0
1025.4	1027.5
818.7	806.4
586.4	591.5
408.3	407.2
327.4	329.5
280.4	280.4
249.7	249.7
220.0	221.1
199.6	201.6
181.2	182.2
162.8	163.8
147.4	147.4
137.1	138.1
129.9	129.9
122.8	122.8
116.6	118.7
110.5	111.5
104.3	105.4
98.2	98.2
93.1	93.1
89.0	88.0
85.9	83.9
82.9	81.8
81.8	80.8
80.8	79.8
78.8	77.7
75.7	74.7
69.6	67.5
63.4	61.4
58.3	55.2
49.1	47.1
35.8	33.8
21.5	21.5
10.2	10.2
4.1	4.1
5.1	5.1
7.2	7.2
8.2	8.2
11.3	11.3
22.5	21.5
43.0	41.9

CANDELA DISTRIBUTION (continued):

	155°	165°	175°
110°	89.0	75.7	69.6
112.5°	123.8	108.4	101.3
115°	162.6	150.4	142.2
117.5°	201.5	193.3	188.2
120°	238.3	231.2	228.1
122.5°	273.1	267.0	266.0
125°	305.9	302.8	300.7
127.5°	340.6	336.6	336.6
130°	374.4	370.3	369.3
132.5°	410.2	402.0	403.0
135°	441.9	435.8	435.8
137.5°	470.6	469.5	467.5
140°	500.2	498.2	496.1
142.5°	529.9	528.9	526.8
145°	559.6	556.5	558.5
147.5°	587.2	584.1	585.1
150°	606.6	606.6	605.6
152.5°	623.0	622.0	622.0
155°	641.4	639.3	639.3
157.5°	658.8	657.8	657.8
160°	671.1	674.1	675.1
162.5°	680.3	684.4	684.4
165°	691.5	691.5	693.6
167.5°	701.7	699.7	702.8
170°	707.9	707.9	711.0
172.5°	708.9	711.0	713.0
175°	711.0	713.0	714.0
177.5°	715.0	716.1	721.2
180°	716.1	716.1	716.1



-SL2-ULG

180°

67.5
101.3
143.2
188.2
230.2
269.0
304.8
337.6
371.3
405.1
438.8
470.6
499.2
529.9
562.6
588.2
608.7
625.0
643.4
660.8
678.2
688.4
696.6
705.8
714.0
715.0
716.1
723.2
716.1

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