

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: P226838

Luminaire Tested: **IST-AF-1200-LED-E1-SL2-7050-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226838  
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-SL2-7050-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) 5000K CCT, 70 CRI LEDs and (1) UPLIGHT LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

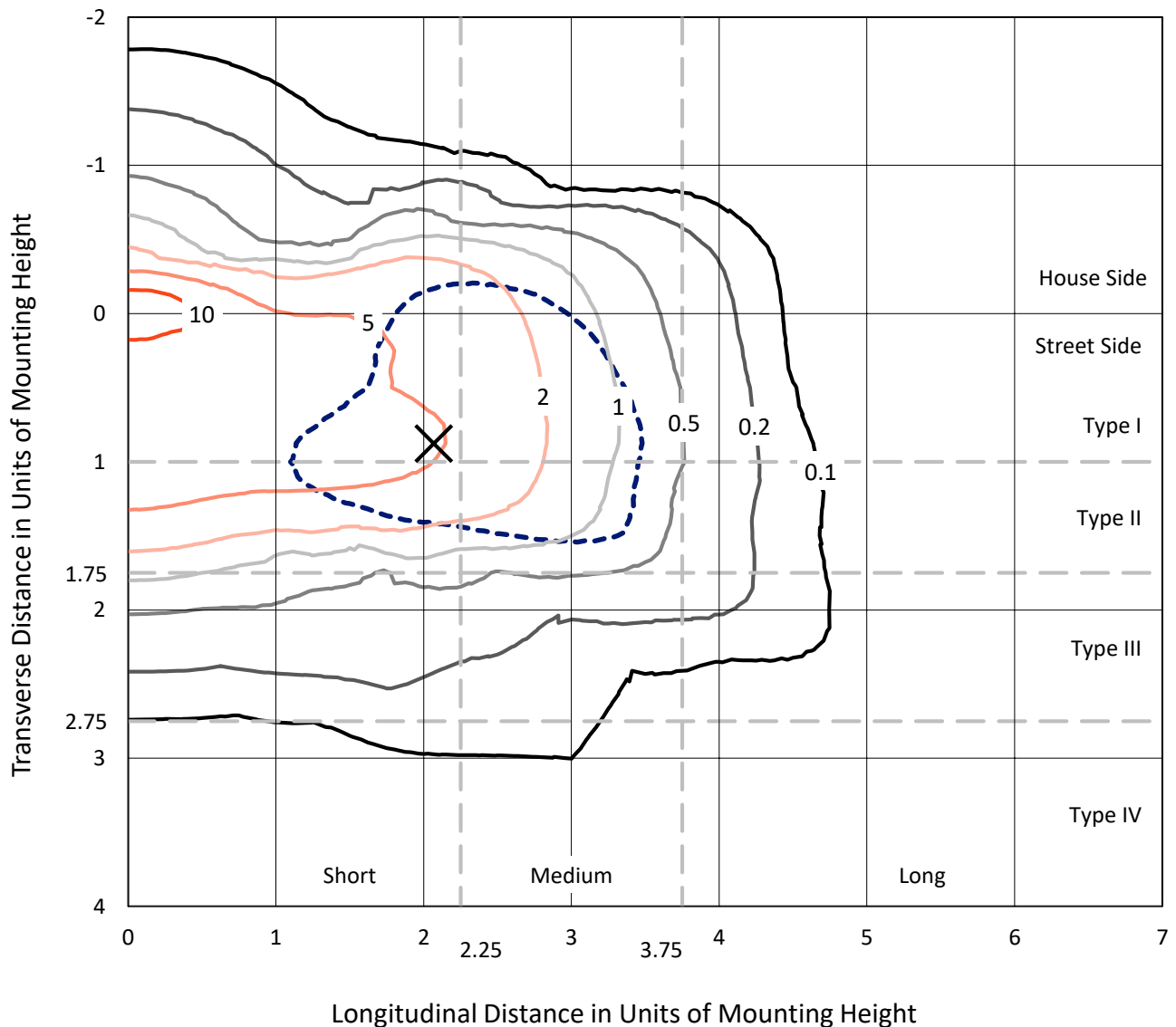
Lumens per Lamp: N/A  
Luminaire Lumens: 8394.5 lumens  
Efficiency: N/A  
Efficacy: 101.5 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B1 - U5 - G2  
  
Input Watts (W): 82.7  
Input Voltage (V): 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

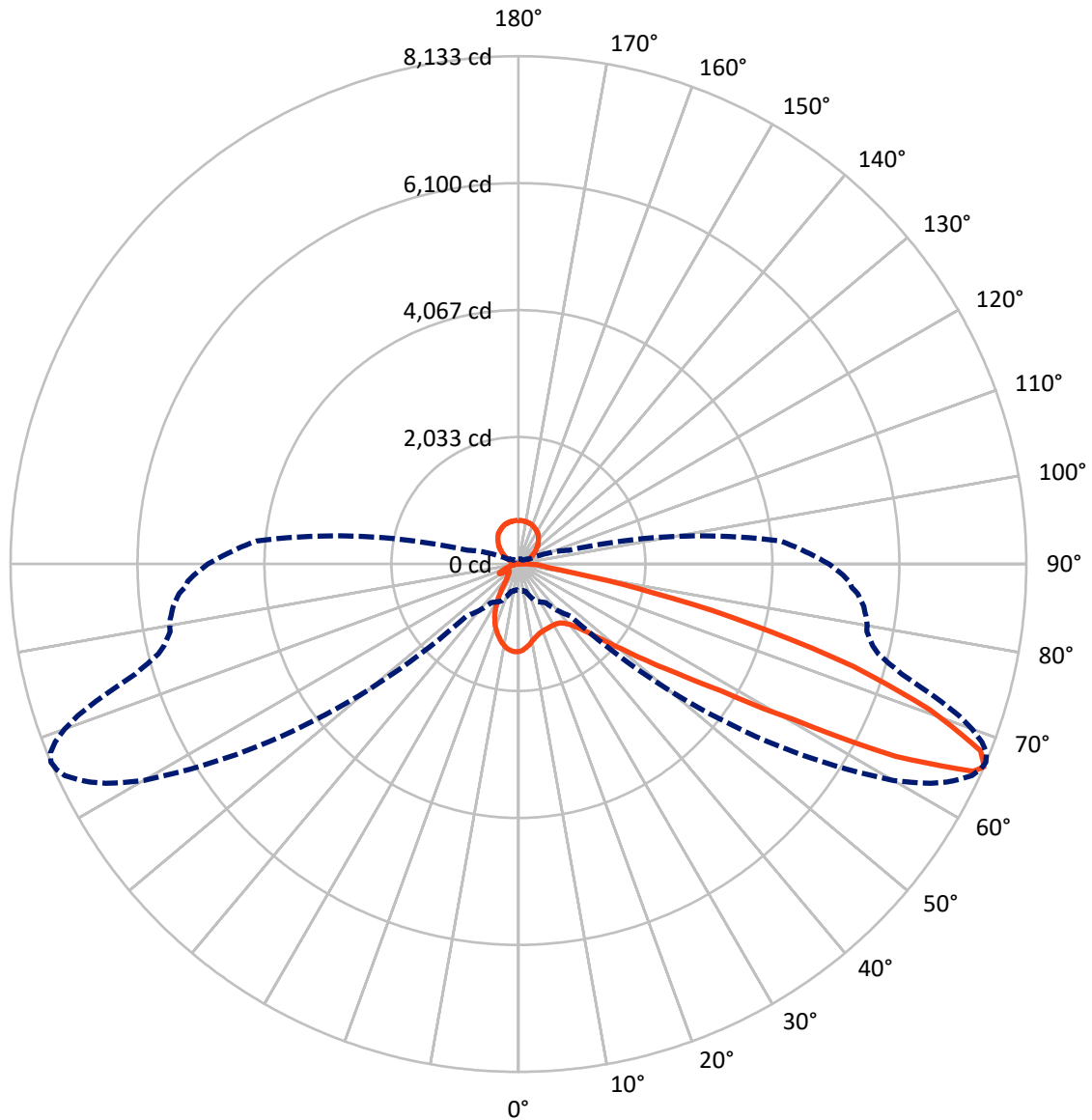
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14 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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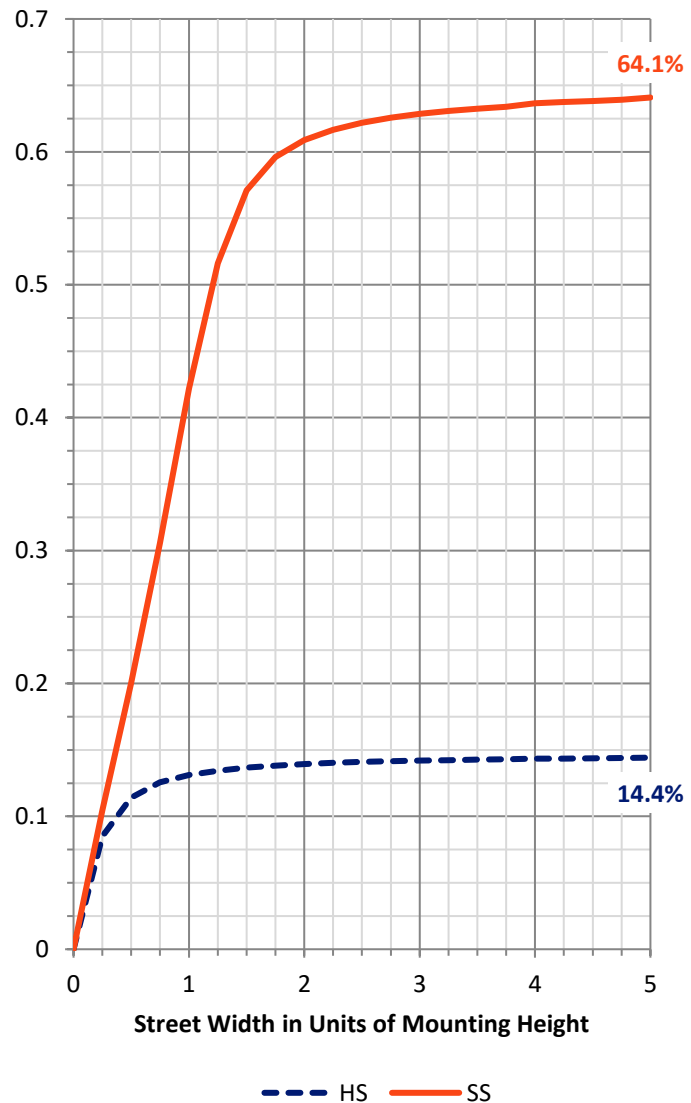
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1229.9	868.1	2098.0
	% Fixture	14.7	10.3	25.0
<b>Street Side</b>	Lumens	5427.1	869.5	6296.6
	% Fixture	64.7	10.4	75.0
<b>Total</b>	Lumens	6657.0	1737.6	8394.5
	% Fixture	79.3	20.7	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.5	1.4
10°-20°	289.3	3.4
20°-30°	396.7	4.7
30°-40°	566.7	6.8
40°-50°	918.8	10.9
50°-60°	1455.8	17.3
60°-70°	1844.8	22.0
70°-80°	917.1	10.9
80°-90°	146.3	1.7
90°-100°	11.7	0.1
100°-110°	57.4	0.7
110°-120°	166.1	2.0
120°-130°	273.2	3.3
130°-140°	336.8	4.0
140°-150°	344.6	4.1
150°-160°	290.3	3.5
160°-170°	191.2	2.3
170°-180°	66.3	0.8
0°-90°	6657.0	79.3
0°-180°	8394.5	100.0



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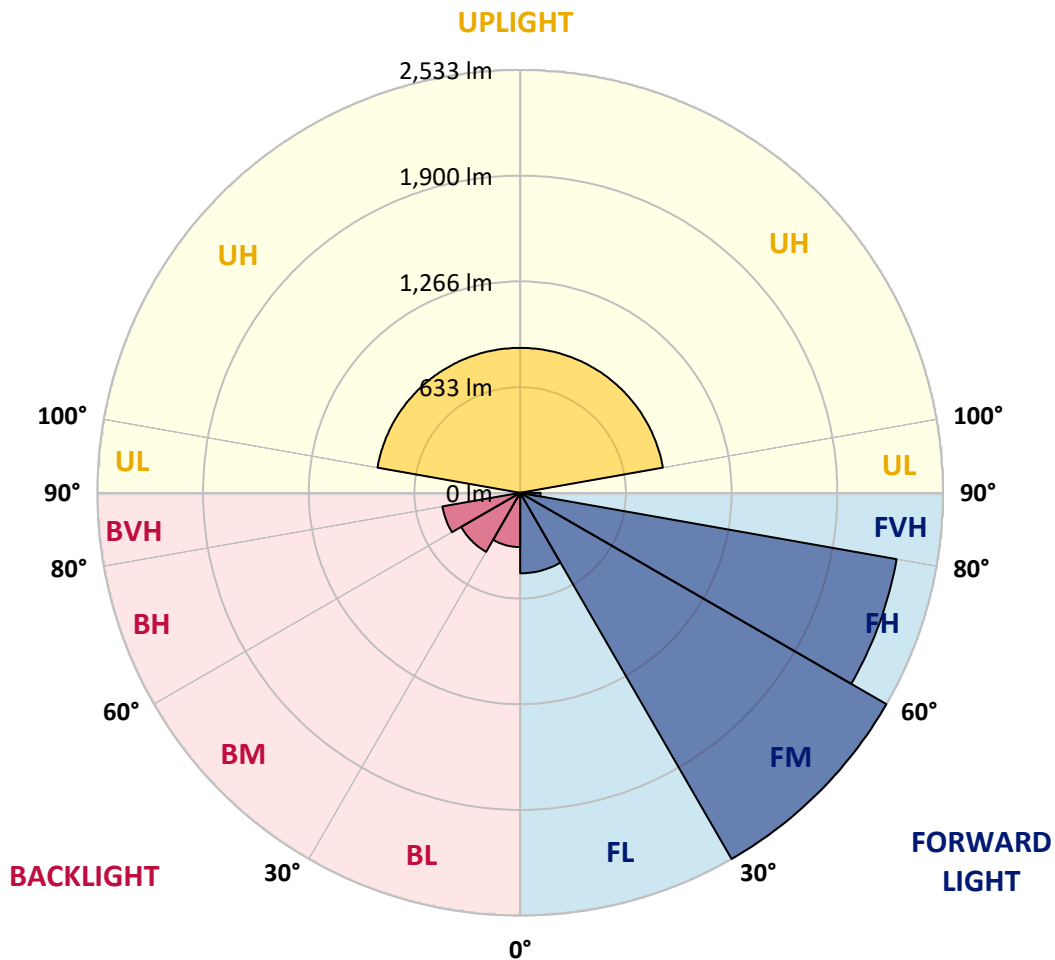
CATALOG NUMBER: IST-AF-1200-LED-E1-SL2-7050-ULG

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	482.4	5.7			
FM (30°-60°)	2532.9	30.2			
FH (60°-80°)	2289.5	27.3			G2/5000
FVH (80°-90°)	122.3	1.5			G2/225
BL (0°-30°)	325.1	3.9	B1/500		
BM (30°-60°)	408.4	4.9	B1/1000		
BH (60°-80°)	472.4	5.6	B1/500		G1/500
BVH (80°-90°)	23.9	0.3			G1/100
UL (90°-100°)	11.7	0.1		U2/50	
UH (100°-180°)	868.1	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°	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5
2.5°	1302.5	1305.5	1322.5	1331.5	1344.5	1348.5	1363.5	1369.5	1374.5	1373.5	1373.5
5°	1185.4	1194.4	1202.4	1220.5	1239.5	1262.5	1291.5	1313.5	1317.5	1322.5	1325.5
7.5°	1096.4	1102.4	1116.4	1129.4	1153.4	1185.4	1226.5	1254.5	1260.5	1262.5	1269.5
10°	1033.4	1037.4	1049.4	1066.4	1094.4	1125.4	1168.4	1197.4	1206.4	1210.4	1216.4
12.5°	984.4	990.4	1001.4	1019.4	1049.4	1081.4	1126.4	1155.4	1161.4	1166.4	1175.4
15°	953.4	957.4	967.4	987.4	1014.4	1046.4	1090.4	1125.4	1129.4	1134.4	1142.4
17.5°	947.3	950.4	956.4	971.4	992.4	1023.4	1068.4	1097.4	1104.4	1111.4	1119.4
20°	971.4	973.4	975.4	977.4	989.4	1009.4	1053.4	1084.4	1090.4	1096.4	1106.4
22.5°	1023.4	1026.4	1021.4	1014.4	1005.4	1009.4	1046.4	1078.4	1082.4	1088.4	1096.4
25°	1113.4	1110.4	1095.4	1084.4	1052.4	1026.4	1048.4	1075.4	1080.4	1086.4	1095.4
27.5°	1219.4	1215.4	1206.4	1176.4	1123.4	1070.4	1060.4	1080.4	1083.4	1088.4	1096.4
30°	1333.5	1334.5	1326.5	1293.5	1225.5	1136.4	1087.4	1092.4	1094.4	1098.4	1103.4
32.5°	1436.5	1451.5	1450.5	1448.5	1351.5	1225.5	1139.4	1119.4	1116.4	1119.4	1121.4
35°	1555.6	1558.6	1586.6	1600.6	1521.6	1355.5	1215.4	1171.4	1159.4	1160.4	1158.4
37.5°	1683.6	1687.6	1735.6	1759.6	1698.6	1503.6	1316.5	1248.5	1237.5	1226.5	1218.4
40°	1869.7	1885.7	1910.7	1937.7	1907.7	1702.6	1449.5	1357.5	1329.5	1327.5	1311.5
42.5°	2147.8	2142.8	2130.8	2152.8	2116.8	1925.7	1610.6	1511.6	1490.5	1462.5	1440.5
45°	2420.9	2431.9	2379.9	2389.9	2391.9	2183.8	1843.7	1704.6	1693.6	1660.6	1636.6
47.5°	2605.0	2593.0	2522.9	2573.9	2699.0	2484.9	2113.8	1967.7	1944.7	1927.7	1912.7
50°	2615.0	2605.0	2559.9	2650.0	2917.1	3020.1	2489.9	2319.9	2286.8	2256.8	2247.8
52.5°	2370.9	2356.9	2371.9	2554.9	2996.1	3468.3	3021.1	2757.0	2730.0	2705.0	2670.0
55°	1935.7	1951.7	2022.7	2285.8	2875.1	3786.4	4066.5	3432.3	3316.2	3315.2	3229.2
57.5°	1445.5	1429.5	1482.5	1729.6	2568.9	3899.4	5026.9	4869.8	4610.7	4435.6	4224.6
60°	975.4	979.4	1028.4	1155.4	1787.7	3776.4	5670.1	6217.3	6126.3	6089.2	6032.2
62.5°	676.2	682.3	727.3	846.3	1045.4	3038.1	5858.2	6972.6	7135.6	7270.7	7237.7
65°	473.2	474.2	519.2	703.3	783.3	1560.6	5443.0	7072.6	7315.7	7547.8	7755.9
66°	417.2	418.2	455.2	654.2	751.3	1177.4	5082.9	6933.6	7210.7	7480.8	7695.8
67.5°	357.1	363.1	392.1	556.2	720.3	908.3	4198.5	6518.4	6808.5	7105.6	7389.7
70°	245.1	247.1	273.1	451.2	674.2	797.3	2392.9	5088.9	5490.0	6012.2	6314.3
72.5°	175.1	173.1	176.1	279.1	692.3	792.3	1257.5	3349.2	3910.4	4368.6	4695.7
75°	156.1	151.1	138.1	173.1	505.2	865.3	842.3	1971.7	2398.9	2816.0	3151.2
77.5°	139.1	131.0	124.0	133.0	250.1	815.3	756.3	1129.4	1347.5	1658.6	1916.7
80°	106.0	101.0	105.0	115.0	150.1	750.3	751.3	751.3	810.3	912.3	1014.4
82.5°	70.0	64.0	73.0	95.0	113.0	565.2	776.3	663.2	652.2	648.2	655.2
85°	44.0	38.0	51.0	71.0	87.0	295.1	796.3	700.3	649.2	600.2	551.2
87.5°	16.0	18.0	26.0	41.0	57.0	128.0	698.3	617.2	582.2	521.2	464.2
90°	9.0	8.0	12.0	20.0	21.0	31.0	114.0	179.1	110.2	59.4	49.6
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.5	7.6	7.7	7.8
97.5°	7.0	7.0	8.0	8.0	9.0	9.0	12.0	11.0	10.8	10.6	10.4
100°	8.0	8.0	9.0	10.0	12.0	21.0	29.0	27.5	27.2	26.9	26.6
102.5°	11.0	11.0	13.0	18.0	27.0	40.0	50.0	48.5	48.2	47.9	47.6
105°	21.0	22.0	27.0	36.0	48.0	63.0	72.0	71.0	70.8	70.6	70.4
107.5°	41.0	42.0	49.0	58.0	73.0	88.0	95.0	94.5	94.4	94.3	94.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	63°
110°	66.0	68.0	74.0	87.0	102.0	114.0	120.0	120.5	120.6	120.7	120.8
112.5°	99.0	99.0	106.0	121.0	134.0	143.0	148.0	149.0	149.2	149.4	149.6
115°	140.0	139.0	147.0	159.0	168.0	174.0	179.0	180.5	180.8	181.1	181.4
117.5°	184.0	184.0	189.0	197.0	202.0	205.0	211.0	213.0	213.4	213.8	214.2
120°	225.0	223.0	226.0	233.0	237.0	243.0	246.0	248.0	248.4	248.8	249.2
122.5°	263.0	260.0	261.0	267.0	271.0	277.0	279.0	281.0	281.4	281.8	282.2
125°	298.0	294.0	296.0	299.0	305.0	310.0	313.0	314.0	314.2	314.4	314.6
127.5°	330.0	329.0	329.0	333.0	339.0	340.0	345.0	345.5	345.6	345.7	345.8
130°	363.0	361.0	362.0	366.0	370.0	372.0	377.0	379.0	379.4	379.8	380.2
132.5°	396.0	394.0	393.0	401.0	404.0	405.0	411.0	413.5	414.0	414.5	415.0
135°	429.0	426.0	426.0	432.0	435.0	437.0	443.0	445.5	446.0	446.5	447.0
137.5°	460.0	457.0	459.0	460.0	464.0	468.0	473.0	474.0	474.2	474.4	474.6
140°	488.0	485.0	487.0	489.0	491.0	497.0	500.0	501.0	501.2	501.4	501.6
142.5°	518.0	515.0	517.0	518.0	521.0	525.0	527.0	530.0	530.6	531.2	531.8
145°	550.0	546.0	544.0	547.0	550.0	551.0	556.0	559.0	559.6	560.2	560.8
147.5°	575.0	572.0	571.0	574.0	574.0	575.0	580.0	582.5	583.0	583.5	584.0
150°	595.0	592.0	593.0	593.0	593.0	593.0	597.0	598.5	598.8	599.1	599.4
152.5°	611.0	608.0	608.0	609.0	610.0	610.0	611.0	612.5	612.8	613.1	613.4
155°	629.0	625.0	625.0	627.0	630.0	628.0	626.0	628.5	629.0	629.5	630.0
157.5°	646.0	643.0	643.0	644.0	646.0	645.0	644.0	646.0	646.4	646.8	647.2
160°	663.0	660.0	659.0	656.0	655.0	655.0	658.0	661.0	661.6	662.2	662.8
162.5°	673.0	669.0	669.0	665.0	661.0	663.0	667.0	669.0	669.4	669.8	670.2
165°	681.0	678.0	676.0	676.0	673.0	673.0	672.0	674.5	675.0	675.5	676.0
167.5°	690.0	687.0	684.0	686.0	688.0	685.0	678.0	681.0	681.6	682.2	682.8
170°	698.0	695.0	692.0	692.0	693.0	691.0	686.0	687.5	687.8	688.1	688.4
172.5°	699.0	697.0	695.0	693.0	690.0	690.0	689.0	690.5	690.8	691.1	691.4
175°	700.0	698.0	697.0	695.0	691.0	690.0	690.0	692.5	693.0	693.5	694.0
177.5°	707.0	705.0	700.0	699.0	697.0	695.0	694.0	696.5	697.0	697.5	698.0
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):**

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
0°	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5
2.5°	1374.5	1379.5	1381.5	1379.5	1380.5	1386.5	1384.5	1387.5	1387.5	1389.5	1389.5
5°	1329.5	1333.5	1341.5	1340.5	1348.5	1351.5	1354.5	1358.5	1363.5	1366.5	1372.5
7.5°	1276.5	1284.5	1291.5	1295.5	1300.5	1310.5	1313.5	1322.5	1330.5	1338.5	1344.5
10°	1225.5	1236.5	1244.5	1247.5	1258.5	1263.5	1274.5	1281.5	1291.5	1301.5	1310.5
12.5°	1182.4	1192.4	1196.4	1206.4	1216.4	1226.5	1231.5	1244.5	1254.5	1267.5	1279.5
15°	1150.4	1160.4	1168.4	1175.4	1185.4	1195.4	1203.4	1216.4	1228.5	1241.5	1252.5
17.5°	1130.4	1136.4	1146.4	1152.4	1164.4	1176.4	1185.4	1200.4	1213.4	1224.5	1239.5
20°	1115.4	1122.4	1131.4	1140.4	1151.4	1166.4	1174.4	1190.4	1204.4	1217.4	1231.5
22.5°	1107.4	1114.4	1123.4	1132.4	1144.4	1156.4	1169.4	1183.4	1198.4	1212.4	1226.5
25°	1104.4	1110.4	1118.4	1127.4	1140.4	1153.4	1164.4	1180.4	1193.4	1208.4	1225.5
27.5°	1105.4	1109.4	1118.4	1126.4	1139.4	1151.4	1162.4	1178.4	1193.4	1207.4	1224.5
30°	1109.4	1112.4	1121.4	1128.4	1139.4	1151.4	1161.4	1178.4	1191.4	1206.4	1224.5
32.5°	1123.4	1127.4	1131.4	1136.4	1146.4	1155.4	1167.4	1182.4	1194.4	1209.4	1224.5
35°	1156.4	1153.4	1156.4	1158.4	1165.4	1174.4	1183.4	1196.4	1207.4	1220.5	1236.5
37.5°	1208.4	1202.4	1204.4	1203.4	1203.4	1209.4	1218.4	1227.5	1236.5	1249.5	1265.5
40°	1304.5	1289.5	1285.5	1274.5	1271.5	1276.5	1282.5	1283.5	1294.5	1311.5	1318.5
42.5°	1428.5	1408.5	1411.5	1393.5	1388.5	1382.5	1390.5	1385.5	1392.5	1403.5	1418.5
45°	1624.6	1605.6	1585.6	1556.6	1562.6	1540.6	1534.6	1536.6	1535.6	1539.6	1557.6
47.5°	1858.7	1833.7	1820.7	1809.7	1788.7	1775.7	1758.6	1733.6	1739.6	1747.6	1763.7
50°	2200.8	2192.8	2167.8	2131.8	2126.8	2107.8	2102.8	2080.8	2072.8	2071.8	2070.8
52.5°	2658.0	2606.0	2596.0	2561.9	2535.9	2517.9	2511.9	2480.9	2449.9	2467.9	2465.9
55°	3215.2	3172.2	3117.1	3087.1	3066.1	3023.1	3012.1	2973.1	2955.1	2945.1	2920.1
57.5°	4151.5	4000.5	3887.4	3831.4	3752.4	3672.4	3644.3	3564.3	3502.3	3458.3	3461.3
60°	5784.1	5515.0	5197.9	5055.9	4726.7	4678.7	4452.6	4397.6	4261.6	4171.5	4119.5
62.5°	7214.7	7141.6	6989.6	6782.5	6452.4	6072.2	5901.2	5561.1	5295.0	5178.9	5017.9
65°	7897.9	8001.0	8043.0	8004.0	7871.9	7639.8	7435.7	7103.6	6657.5	6405.4	6092.2
66°	7862.9	8016.0	8093.0	8133.0	8085.0	7947.9	7733.9	7460.8	7115.6	6731.5	6380.4
67.5°	7606.8	7755.9	7862.9	7984.9	7984.9	7941.9	7854.9	7672.8	7428.7	7093.6	6778.5
70°	6560.4	6762.5	6951.6	6988.6	7092.6	7060.6	7129.6	7013.6	6955.6	6815.5	6646.5
72.5°	5110.9	5279.9	5442.0	5604.1	5577.1	5542.0	5535.0	5559.1	5441.0	5483.0	5439.0
75°	3399.3	3690.4	3856.4	3840.4	3851.4	3860.4	3786.4	3621.3	3749.4	3587.3	3641.3
77.5°	2065.8	2200.8	2245.8	2195.8	2130.8	2046.8	1911.7	1832.7	1719.6	1728.6	1653.6
80°	1083.4	1100.4	1064.4	963.4	908.3	858.3	704.3	635.2	571.2	547.2	493.2
82.5°	621.2	580.2	536.2	502.2	437.2	393.1	333.1	295.1	254.1	218.1	205.1
85°	503.2	448.2	407.2	369.1	325.1	286.1	236.1	197.1	167.1	145.1	140.1
87.5°	415.2	377.1	335.1	299.1	256.1	216.1	167.1	130.0	103.0	83.0	77.0
90°	45.8	59.0	45.0	29.0	39.0	25.0	18.0	19.0	17.0	17.0	18.0
92.5°	7.0	7.0	6.9	6.8	6.7	6.6	6.5	6.4	6.3	6.2	6.1
95°	7.9	8.0	7.9	7.8	7.7	7.6	7.5	7.4	7.3	7.2	7.1
97.5°	10.2	10.0	9.9	9.8	9.7	9.6	9.5	9.4	9.3	9.2	9.1
100°	26.3	26.0	25.7	25.4	25.1	24.8	24.5	24.2	23.9	23.6	23.3
102.5°	47.3	47.0	46.5	46.0	45.5	45.0	44.5	44.0	43.5	43.0	42.5
105°	70.2	70.0	69.5	69.0	68.5	68.0	67.5	67.0	66.5	66.0	65.5
107.5°	94.1	94.0	93.6	93.2	92.8	92.4	92.0	91.6	91.2	90.8	90.4



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**CANDELA DISTRIBUTION (continued):**

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
110°	120.9	121.0	120.8	120.6	120.4	120.2	120.0	119.8	119.6	119.4	119.2
112.5°	149.8	150.0	149.9	149.8	149.7	149.6	149.5	149.4	149.3	149.2	149.1
115°	181.7	182.0	181.7	181.4	181.1	180.8	180.5	180.2	179.9	179.6	179.3
117.5°	214.6	215.0	214.5	214.0	213.5	213.0	212.5	212.0	211.5	211.0	210.5
120°	249.6	250.0	249.5	249.0	248.5	248.0	247.5	247.0	246.5	246.0	245.5
122.5°	282.6	283.0	282.5	282.0	281.5	281.0	280.5	280.0	279.5	279.0	278.5
125°	314.8	315.0	314.5	314.0	313.5	313.0	312.5	312.0	311.5	311.0	310.5
127.5°	345.9	346.0	346.0	346.0	346.0	346.0	346.0	346.0	346.0	346.0	346.0
130°	380.6	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
132.5°	415.5	416.0	415.8	415.6	415.4	415.2	415.0	414.8	414.6	414.4	414.2
135°	447.5	448.0	447.9	447.8	447.7	447.6	447.5	447.4	447.3	447.2	447.1
137.5°	474.8	475.0	475.1	475.2	475.3	475.4	475.5	475.6	475.7	475.8	475.9
140°	501.8	502.0	502.2	502.4	502.6	502.8	503.0	503.2	503.4	503.6	503.8
142.5°	532.4	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
145°	561.4	562.0	561.9	561.8	561.7	561.6	561.5	561.4	561.3	561.2	561.1
147.5°	584.5	585.0	585.1	585.2	585.3	585.4	585.5	585.6	585.7	585.8	585.9
150°	599.7	600.0	600.3	600.6	600.9	601.2	601.5	601.8	602.1	602.4	602.7
152.5°	613.7	614.0	614.4	614.8	615.2	615.6	616.0	616.4	616.8	617.2	617.6
155°	630.5	631.0	631.5	632.0	632.5	633.0	633.5	634.0	634.5	635.0	635.5
157.5°	647.6	648.0	648.2	648.4	648.6	648.8	649.0	649.2	649.4	649.6	649.8
160°	663.4	664.0	663.7	663.4	663.1	662.8	662.5	662.2	661.9	661.6	661.3
162.5°	670.6	671.0	670.9	670.8	670.7	670.6	670.5	670.4	670.3	670.2	670.1
165°	676.5	677.0	677.3	677.6	677.9	678.2	678.5	678.8	679.1	679.4	679.7
167.5°	683.4	684.0	684.4	684.8	685.2	685.6	686.0	686.4	686.8	687.2	687.6
170°	688.7	689.0	689.5	690.0	690.5	691.0	691.5	692.0	692.5	693.0	693.5
172.5°	691.7	692.0	692.2	692.4	692.6	692.8	693.0	693.2	693.4	693.6	693.8
175°	694.5	695.0	695.1	695.2	695.3	695.4	695.5	695.6	695.7	695.8	695.9
177.5°	698.5	699.0	699.2	699.4	699.6	699.8	700.0	700.2	700.4	700.6	700.8
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):**

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°
0°	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5
2.5°	1392.5	1392.5	1394.5	1396.5	1397.5	1397.5	1397.5	1399.5	1400.5	1397.5	1400.5
5°	1375.5	1380.5	1384.5	1387.5	1388.5	1391.5	1394.5	1396.5	1399.5	1399.5	1401.5
7.5°	1352.5	1361.5	1366.5	1371.5	1376.5	1381.5	1387.5	1391.5	1393.5	1397.5	1400.5
10°	1323.5	1334.5	1344.5	1352.5	1359.5	1369.5	1377.5	1383.5	1392.5	1393.5	1400.5
12.5°	1292.5	1308.5	1316.5	1331.5	1341.5	1356.5	1364.5	1373.5	1383.5	1388.5	1396.5
15°	1270.5	1284.5	1299.5	1313.5	1329.5	1347.5	1357.5	1369.5	1383.5	1394.5	1404.5
17.5°	1253.5	1272.5	1289.5	1307.5	1327.5	1346.5	1361.5	1374.5	1392.5	1398.5	1408.5
20°	1248.5	1269.5	1286.5	1305.5	1326.5	1351.5	1369.5	1383.5	1401.5	1411.5	1420.5
22.5°	1246.5	1266.5	1286.5	1309.5	1332.5	1358.5	1377.5	1395.5	1413.5	1422.5	1429.5
25°	1244.5	1265.5	1287.5	1313.5	1338.5	1365.5	1387.5	1404.5	1421.5	1430.5	1436.5
27.5°	1244.5	1266.5	1290.5	1316.5	1343.5	1373.5	1394.5	1410.5	1425.5	1433.5	1435.5
30°	1243.5	1266.5	1289.5	1318.5	1347.5	1378.5	1401.5	1416.5	1429.5	1434.5	1432.5
32.5°	1245.5	1269.5	1294.5	1323.5	1353.5	1383.5	1407.5	1424.5	1431.5	1430.5	1429.5
35°	1255.5	1277.5	1306.5	1335.5	1366.5	1394.5	1417.5	1429.5	1435.5	1433.5	1428.5
37.5°	1282.5	1304.5	1333.5	1365.5	1389.5	1421.5	1442.5	1451.5	1452.5	1446.5	1434.5
40°	1338.5	1360.5	1386.5	1421.5	1450.5	1472.5	1492.6	1502.6	1496.6	1485.5	1472.5
42.5°	1427.5	1455.5	1486.5	1514.6	1548.6	1578.6	1583.6	1589.6	1579.6	1558.6	1542.6
45°	1570.6	1587.6	1627.6	1648.6	1692.6	1707.6	1718.6	1721.6	1699.6	1682.6	1654.6
47.5°	1776.7	1809.7	1837.7	1857.7	1889.7	1909.7	1931.7	1921.7	1904.7	1875.7	1838.7
50°	2100.8	2121.8	2157.8	2193.8	2227.8	2241.8	2241.8	2231.8	2220.8	2164.8	2119.8
52.5°	2498.9	2500.9	2552.9	2596.0	2625.0	2604.0	2629.0	2604.0	2597.0	2557.9	2520.9
55°	2960.1	2941.1	3004.1	3042.1	3068.1	3093.1	3088.1	3085.1	3059.1	3015.1	2970.1
57.5°	3398.3	3453.3	3483.3	3539.3	3552.3	3569.3	3562.3	3552.3	3537.3	3512.3	3492.3
60°	4030.5	4067.5	4094.5	4105.5	4142.5	4147.5	4172.5	4131.5	4141.5	4112.5	4049.5
62.5°	4890.8	4850.8	4871.8	4871.8	4860.8	4821.8	4842.8	4858.8	4831.8	4807.8	4797.8
65°	5854.2	5725.1	5601.1	5580.1	5523.0	5510.0	5494.0	5454.0	5437.0	5395.0	5361.0
66°	6142.3	5942.2	5825.1	5753.1	5684.1	5669.1	5647.1	5605.1	5571.1	5512.0	5455.0
67.5°	6465.4	6207.3	6031.2	5929.2	5844.2	5788.1	5744.1	5684.1	5630.1	5542.0	5451.0
70°	6444.4	6231.3	6019.2	5864.2	5736.1	5621.1	5553.0	5424.0	5314.0	5187.9	5083.9
72.5°	5415.0	5377.0	5253.9	5166.9	5009.8	4948.8	4768.8	4686.7	4534.7	4371.6	4321.6
75°	3764.4	3615.3	3552.3	3517.3	3448.3	3258.2	3134.2	3161.2	2983.1	2824.0	2733.0
77.5°	1645.6	1675.6	1501.6	1423.5	1363.5	1260.5	1164.4	1098.4	1060.4	1035.4	922.3
80°	455.2	397.1	392.1	364.1	358.1	319.1	324.1	296.1	277.1	273.1	264.1
82.5°	199.1	195.1	189.1	186.1	183.1	179.1	174.1	173.1	167.1	162.1	163.1
85°	132.0	131.0	128.0	125.0	120.0	113.0	108.0	104.0	105.0	100.0	99.0
87.5°	77.0	75.0	74.0	70.0	69.0	63.0	64.0	59.0	58.0	57.0	54.0
90°	20.0	20.8	23.6	22.4	18.2	27.0	23.8	21.6	22.4	19.2	19.0
92.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
95°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
97.5°	9.0	8.9	8.8	8.7	8.6	8.5	8.4	8.3	8.2	8.1	8.0
100°	23.0	22.6	22.2	21.8	21.4	21.0	20.6	20.2	19.8	19.4	19.0
102.5°	42.0	41.7	41.4	41.1	40.8	40.5	40.2	39.9	39.6	39.3	39.0
105°	65.0	64.6	64.2	63.8	63.4	63.0	62.6	62.2	61.8	61.4	61.0
107.5°	90.0	89.7	89.4	89.1	88.8	88.5	88.2	87.9	87.6	87.3	87.0



REPORT NUMBER: P226838  
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REPORT N  
 CATALOG

**CANDELA DISTRIBUTION (continued):**

**CANDELA**

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	
110°	119.0	118.7	118.4	118.1	117.8	117.5	117.2	116.9	116.6	116.3	116.0	0°
112.5°	149.0	148.8	148.6	148.4	148.2	148.0	147.8	147.6	147.4	147.2	147.0	2.5°
115°	179.0	178.8	178.6	178.4	178.2	178.0	177.8	177.6	177.4	177.2	177.0	5°
117.5°	210.0	209.8	209.6	209.4	209.2	209.0	208.8	208.6	208.4	208.2	208.0	7.5°
120°	245.0	244.8	244.6	244.4	244.2	244.0	243.8	243.6	243.4	243.2	243.0	10°
122.5°	278.0	277.8	277.6	277.4	277.2	277.0	276.8	276.6	276.4	276.2	276.0	12.5°
125°	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	15°
127.5°	346.0	345.9	345.8	345.7	345.6	345.5	345.4	345.3	345.2	345.1	345.0	17.5°
130°	381.0	380.8	380.6	380.4	380.2	380.0	379.8	379.6	379.4	379.2	379.0	20°
132.5°	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	22.5°
135°	447.0	447.3	447.6	447.9	448.2	448.5	448.8	449.1	449.4	449.7	450.0	25°
137.5°	476.0	476.5	477.0	477.5	478.0	478.5	479.0	479.5	480.0	480.5	481.0	27.5°
140°	504.0	504.5	505.0	505.5	506.0	506.5	507.0	507.5	508.0	508.5	509.0	30°
142.5°	533.0	533.1	533.2	533.3	533.4	533.5	533.6	533.7	533.8	533.9	534.0	32.5°
145°	561.0	560.7	560.4	560.1	559.8	559.5	559.2	558.9	558.6	558.3	558.0	35°
147.5°	586.0	585.7	585.4	585.1	584.8	584.5	584.2	583.9	583.6	583.3	583.0	37.5°
150°	603.0	603.3	603.6	603.9	604.2	604.5	604.8	605.1	605.4	605.7	606.0	40°
152.5°	618.0	618.5	619.0	619.5	620.0	620.5	621.0	621.5	622.0	622.5	623.0	42.5°
155°	636.0	636.2	636.4	636.6	636.8	637.0	637.2	637.4	637.6	637.8	638.0	45°
157.5°	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	47.5°
160°	661.0	660.9	660.8	660.7	660.6	660.5	660.4	660.3	660.2	660.1	660.0	50°
162.5°	670.0	669.8	669.6	669.4	669.2	669.0	668.8	668.6	668.4	668.2	668.0	52.5°
165°	680.0	679.8	679.6	679.4	679.2	679.0	678.8	678.6	678.4	678.2	678.0	55°
167.5°	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	57.5°
170°	694.0	694.2	694.4	694.6	694.8	695.0	695.2	695.4	695.6	695.8	696.0	60°
172.5°	694.0	694.2	694.4	694.6	694.8	695.0	695.2	695.4	695.6	695.8	696.0	62.5°
175°	696.0	695.8	695.6	695.4	695.2	695.0	694.8	694.6	694.4	694.2	694.0	65°
177.5°	701.0	700.7	700.4	700.1	699.8	699.5	699.2	698.9	698.6	698.3	698.0	66°
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°

NUMBER: P226838  
 NUMBER: IST-AF-1200-LED-E1-SL2-7050-ULG

REPORT NUMBER: P  
 CATALOG NUMBER:

**DISTRIBUTION (continued):**

**CANDELA DISTRIBUTION**

86°	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	86°	
1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	1401.5	110°	116.2
1403.5	1405.5	1406.5	1405.5	1407.5	1406.5	1407.5	1406.5	1401.5	1400.5	1399.5	112.5°	147.0
1405.5	1409.5	1410.5	1411.5	1409.5	1411.5	1407.5	1391.5	1373.5	1353.5	1337.5	115°	177.2
1407.5	1412.5	1415.5	1415.5	1416.5	1414.5	1399.5	1364.5	1322.5	1280.5	1248.5	117.5°	208.2
1406.5	1413.5	1416.5	1417.5	1417.5	1413.5	1377.5	1321.5	1257.5	1193.4	1128.4	120°	243.0
1403.5	1409.5	1414.5	1414.5	1415.5	1401.5	1345.5	1265.5	1174.4	1078.4	991.4	122.5°	276.2
1409.5	1415.5	1415.5	1415.5	1414.5	1390.5	1311.5	1195.4	1073.4	943.3	814.3	125°	310.0
1418.5	1421.5	1419.5	1419.5	1415.5	1379.5	1273.5	1126.4	966.4	794.3	614.2	127.5°	345.4
1426.5	1428.5	1427.5	1422.5	1417.5	1367.5	1234.5	1053.4	838.3	614.2	435.2	130°	379.2
1434.5	1436.5	1431.5	1423.5	1416.5	1351.5	1187.4	960.4	693.3	420.2	288.1	132.5°	414.2
1435.5	1437.5	1428.5	1417.5	1407.5	1327.5	1130.4	861.3	534.2	272.1	225.1	135°	450.2
1434.5	1432.5	1417.5	1403.5	1392.5	1298.5	1067.4	738.3	356.1	205.1	196.1	137.5°	481.2
1427.5	1418.5	1406.5	1390.5	1374.5	1266.5	1004.4	601.2	225.1	178.1	178.1	140°	509.4
1417.5	1408.5	1393.5	1372.5	1354.5	1235.5	932.3	461.2	180.1	164.1	166.1	142.5°	534.4
1413.5	1403.5	1381.5	1359.5	1336.5	1207.4	856.3	310.1	162.1	155.1	156.1	145°	558.4
1421.5	1404.5	1382.5	1357.5	1330.5	1183.4	777.3	216.1	153.1	145.1	147.1	147.5°	583.4
1448.5	1432.5	1406.5	1374.5	1345.5	1169.4	693.3	179.1	144.1	137.1	137.1	150°	606.8
1513.6	1492.6	1457.5	1419.5	1384.5	1178.4	618.2	163.1	137.1	130.0	130.0	152.5°	624.0
1618.6	1593.6	1552.6	1509.6	1463.5	1222.5	533.2	157.1	132.0	122.0	120.0	155°	638.6
1798.7	1765.7	1711.6	1660.6	1605.6	1298.5	447.2	153.1	126.0	117.0	113.0	157.5°	651.0
2081.8	2032.7	1968.7	1901.7	1834.7	1437.5	379.1	149.1	122.0	113.0	109.0	160°	661.2
2445.9	2412.9	2332.9	2244.8	2164.8	1714.6	340.1	146.1	119.0	108.0	105.0	162.5°	669.2
2910.1	2856.1	2793.0	2714.0	2619.0	2073.8	336.1	145.1	116.0	104.0	102.0	165°	678.8
3400.3	3379.2	3272.2	3223.2	3120.2	2551.9	409.2	147.1	114.0	101.0	98.0	167.5°	689.2
3959.5	3967.5	3867.4	3813.4	3728.4	3158.2	651.2	153.1	114.0	98.0	95.0	170°	697.0
4690.7	4703.7	4585.7	4521.7	4449.6	3837.4	1023.4	163.1	117.0	95.0	92.0	172.5°	697.0
5290.0	5219.9	5143.9	5031.9	4940.8	4216.6	985.4	181.1	121.0	92.0	89.0	175°	695.0
5352.0	5302.0	5205.9	5084.9	4973.8	4218.6	860.3	187.1	122.0	91.0	88.0	177.5°	698.8
5344.0	5254.9	5145.9	5043.9	4934.8	4110.5	665.2	195.1	125.0	89.0	86.0	180°	700.0
4973.8	4848.8	4742.7	4601.7	4487.7	3678.4	409.2	194.1	121.0	83.0	81.0		
4101.5	4037.5	3911.4	3798.4	3679.4	2977.1	280.1	173.1	107.0	75.0	76.0		
2653.0	2580.0	2451.9	2387.9	2320.9	1904.7	218.1	141.1	91.0	67.0	70.0		
885.3	856.3	809.3	835.3	796.3	742.3	160.1	107.0	73.0	58.0	62.0		
265.1	259.1	268.1	252.1	267.1	226.1	105.0	75.0	56.0	50.0	55.0		
157.1	155.1	155.1	155.1	151.1	141.1	69.0	52.0	43.0	42.0	46.0		
96.0	94.0	95.0	94.0	96.0	86.0	47.0	36.0	32.0	31.0	37.0		
55.0	55.0	56.0	54.0	55.0	53.0	33.0	23.0	21.0	20.0	27.0		
20.0	20.0	17.0	16.0	17.0	21.0	18.0	16.0	13.0	12.0	17.0		
6.0	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	6.0	6.0		
7.0	7.0	7.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0	7.0		
8.0	8.0	8.0	8.0	8.0	8.0	9.0	10.0	12.0	9.0	9.0		
19.0	19.0	19.0	19.0	19.0	19.0	23.0	26.0	29.0	21.0	12.0		
38.8	38.6	38.4	38.2	38.0	39.0	42.0	47.0	50.0	40.0	27.0		
61.0	61.0	61.0	61.0	61.0	61.0	65.0	70.0	72.0	63.0	48.0		
86.8	86.6	86.4	86.2	86.0	87.0	90.0	94.0	95.0	88.0	73.0		

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 IST-AF-1200-LED-E1-SL2-7050-ULG

REPORT NUMBER: P226838  
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**TION (continued):**

**CANDELA DISTRIBUTION (con**

87°	88°	89°	90°	95°	105°	115°	125°	135°	145°		155°	165°
116.4	116.6	116.8	117.0	116.0	119.0	121.0	120.0	114.0	102.0	0°	1401.5	1401.5
147.0	147.0	147.0	147.0	147.0	149.0	150.0	148.0	143.0	134.0	2.5°	1391.5	1384.5
177.4	177.6	177.8	178.0	177.0	179.0	182.0	179.0	174.0	168.0	5°	1312.5	1293.5
208.4	208.6	208.8	209.0	208.0	210.0	215.0	211.0	205.0	202.0	7.5°	1198.4	1176.4
243.0	243.0	243.0	243.0	243.0	245.0	250.0	246.0	243.0	237.0	10°	1068.4	1035.4
276.4	276.6	276.8	277.0	276.0	278.0	283.0	279.0	277.0	271.0	12.5°	902.3	837.3
310.0	310.0	310.0	310.0	310.0	310.0	315.0	313.0	310.0	305.0	15°	710.3	623.2
345.8	346.2	346.6	347.0	345.0	346.0	346.0	345.0	340.0	339.0	17.5°	489.2	419.2
379.4	379.6	379.8	380.0	379.0	381.0	381.0	377.0	372.0	370.0	20°	343.1	317.1
414.4	414.6	414.8	415.0	414.0	414.0	416.0	411.0	405.0	404.0	22.5°	265.1	266.1
450.4	450.6	450.8	451.0	450.0	447.0	448.0	443.0	437.0	435.0	25°	220.1	230.1
481.4	481.6	481.8	482.0	481.0	476.0	475.0	473.0	468.0	464.0	27.5°	194.1	204.1
509.8	510.2	510.6	511.0	509.0	504.0	502.0	500.0	497.0	491.0	30°	178.1	187.1
534.8	535.2	535.6	536.0	534.0	533.0	533.0	527.0	525.0	521.0	32.5°	167.1	171.1
558.8	559.2	559.6	560.0	558.0	561.0	562.0	556.0	551.0	550.0	35°	154.1	156.1
583.8	584.2	584.6	585.0	583.0	586.0	585.0	580.0	575.0	574.0	37.5°	143.1	143.1
607.6	608.4	609.2	610.0	606.0	603.0	600.0	597.0	593.0	593.0	40°	133.0	132.0
625.0	626.0	627.0	628.0	623.0	618.0	614.0	611.0	610.0	610.0	42.5°	124.0	123.0
639.2	639.8	640.4	641.0	638.0	636.0	631.0	626.0	628.0	630.0	45°	115.0	116.0
652.0	653.0	654.0	655.0	650.0	650.0	648.0	644.0	645.0	646.0	47.5°	110.0	111.0
662.4	663.6	664.8	666.0	660.0	661.0	664.0	658.0	655.0	655.0	50°	105.0	106.0
670.4	671.6	672.8	674.0	668.0	670.0	671.0	667.0	663.0	661.0	52.5°	101.0	101.0
679.6	680.4	681.2	682.0	678.0	680.0	677.0	672.0	673.0	673.0	55°	97.0	96.0
690.4	691.6	692.8	694.0	688.0	688.0	684.0	678.0	685.0	688.0	57.5°	94.0	92.0
698.0	699.0	700.0	701.0	696.0	694.0	689.0	686.0	691.0	693.0	60°	91.0	89.0
698.0	699.0	700.0	701.0	696.0	694.0	692.0	689.0	690.0	690.0	62.5°	89.0	86.0
696.0	697.0	698.0	699.0	694.0	696.0	695.0	690.0	690.0	691.0	65°	87.0	85.0
699.6	700.4	701.2	702.0	698.0	701.0	699.0	694.0	695.0	697.0	66°	86.0	84.0
700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	67.5°	85.0	83.0
										70°	81.0	79.0
										72.5°	75.0	74.0
										75°	69.0	67.0
										77.5°	61.0	60.0
										80°	52.0	51.0
										82.5°	44.0	42.0
										85°	35.0	33.0
										87.5°	24.0	22.0
										90°	14.0	14.0
										92.5°	6.0	5.0
										95°	7.0	6.0
										97.5°	8.0	8.0
										100°	10.0	9.0
										102.5°	18.0	13.0
										105°	36.0	27.0
										107.5°	58.0	49.0



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**tinued):**

175°	180°
1401.5	1401.5
1378.5	1387.5
1287.5	1284.5
1158.4	1159.4
1002.4	1004.4
800.3	788.3
573.2	578.2
399.1	398.1
320.1	322.1
274.1	274.1
244.1	244.1
215.1	216.1
195.1	197.1
177.1	178.1
159.1	160.1
144.1	144.1
134.0	135.0
127.0	127.0
120.0	120.0
114.0	116.0
108.0	109.0
102.0	103.0
96.0	96.0
91.0	91.0
87.0	86.0
84.0	82.0
81.0	80.0
80.0	79.0
79.0	78.0
77.0	76.0
74.0	73.0
68.0	66.0
62.0	60.0
57.0	54.0
48.0	46.0
35.0	33.0
21.0	21.0
10.0	10.0
4.0	4.0
5.0	5.0
7.0	7.0
8.0	8.0
11.0	11.0
22.0	21.0
42.0	41.0

**CANDELA DISTRIBUTION (continued):**

	155°	165°	175°
110°	87.0	74.0	68.0
112.5°	121.0	106.0	99.0
115°	159.0	147.0	139.0
117.5°	197.0	189.0	184.0
120°	233.0	226.0	223.0
122.5°	267.0	261.0	260.0
125°	299.0	296.0	294.0
127.5°	333.0	329.0	329.0
130°	366.0	362.0	361.0
132.5°	401.0	393.0	394.0
135°	432.0	426.0	426.0
137.5°	460.0	459.0	457.0
140°	489.0	487.0	485.0
142.5°	518.0	517.0	515.0
145°	547.0	544.0	546.0
147.5°	574.0	571.0	572.0
150°	593.0	593.0	592.0
152.5°	609.0	608.0	608.0
155°	627.0	625.0	625.0
157.5°	644.0	643.0	643.0
160°	656.0	659.0	660.0
162.5°	665.0	669.0	669.0
165°	676.0	676.0	678.0
167.5°	686.0	684.0	687.0
170°	692.0	692.0	695.0
172.5°	693.0	695.0	697.0
175°	695.0	697.0	698.0
177.5°	699.0	700.0	705.0
180°	700.0	700.0	700.0



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180°
66.0
99.0
140.0
184.0
225.0
263.0
298.0
330.0
363.0
396.0
429.0
460.0
488.0
518.0
550.0
575.0
595.0
611.0
629.0
646.0
663.0
673.0
681.0
690.0
698.0
699.0
700.0
707.0
700.0

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