

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: P226840

Luminaire Tested: **IST-AF-1000-LED-E1-SL2-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226840
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-1000-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: 7761.4 lumens
Efficiency: N/A
Efficacy: 108.9 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

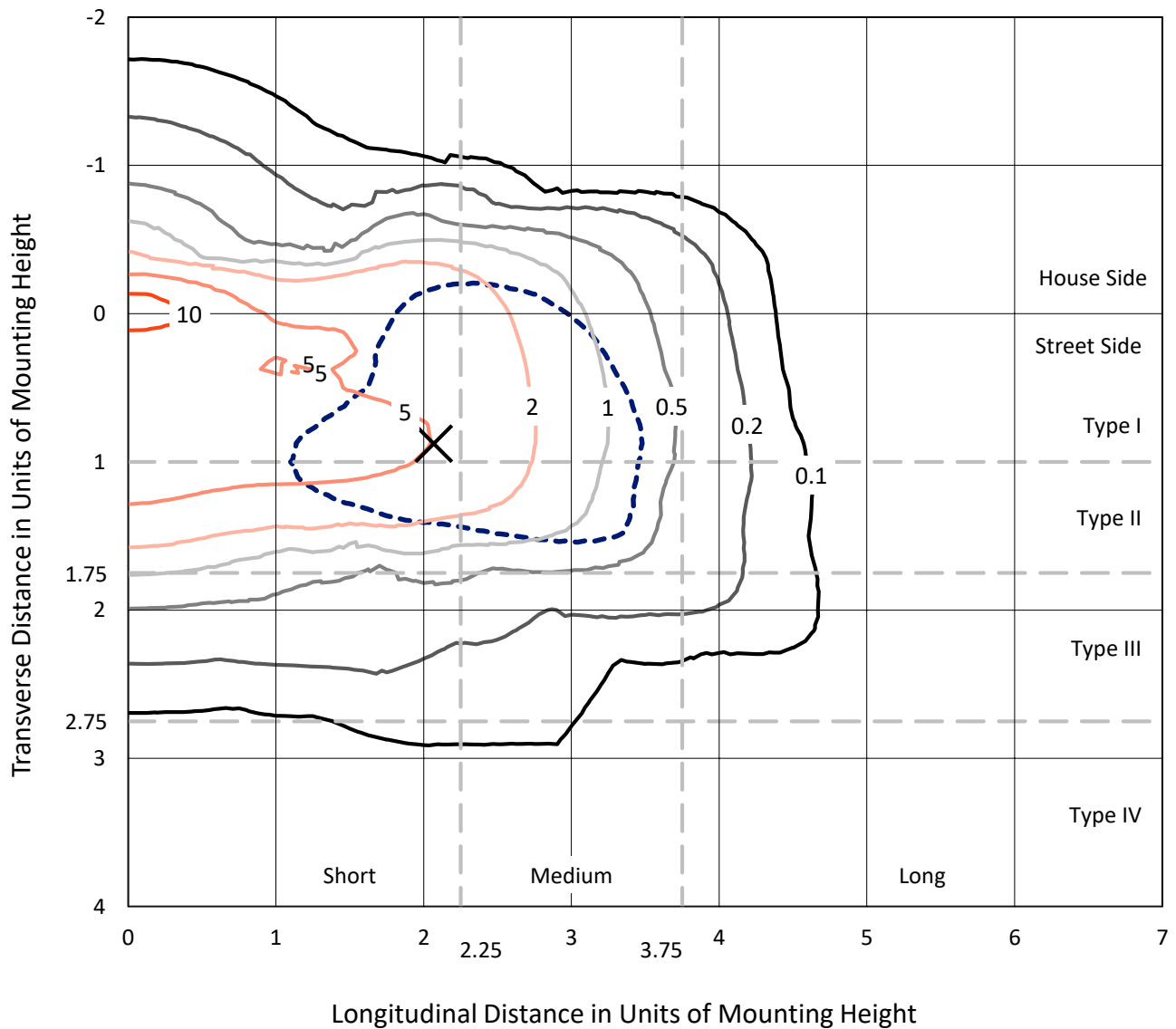
Input Watts (W): 71.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

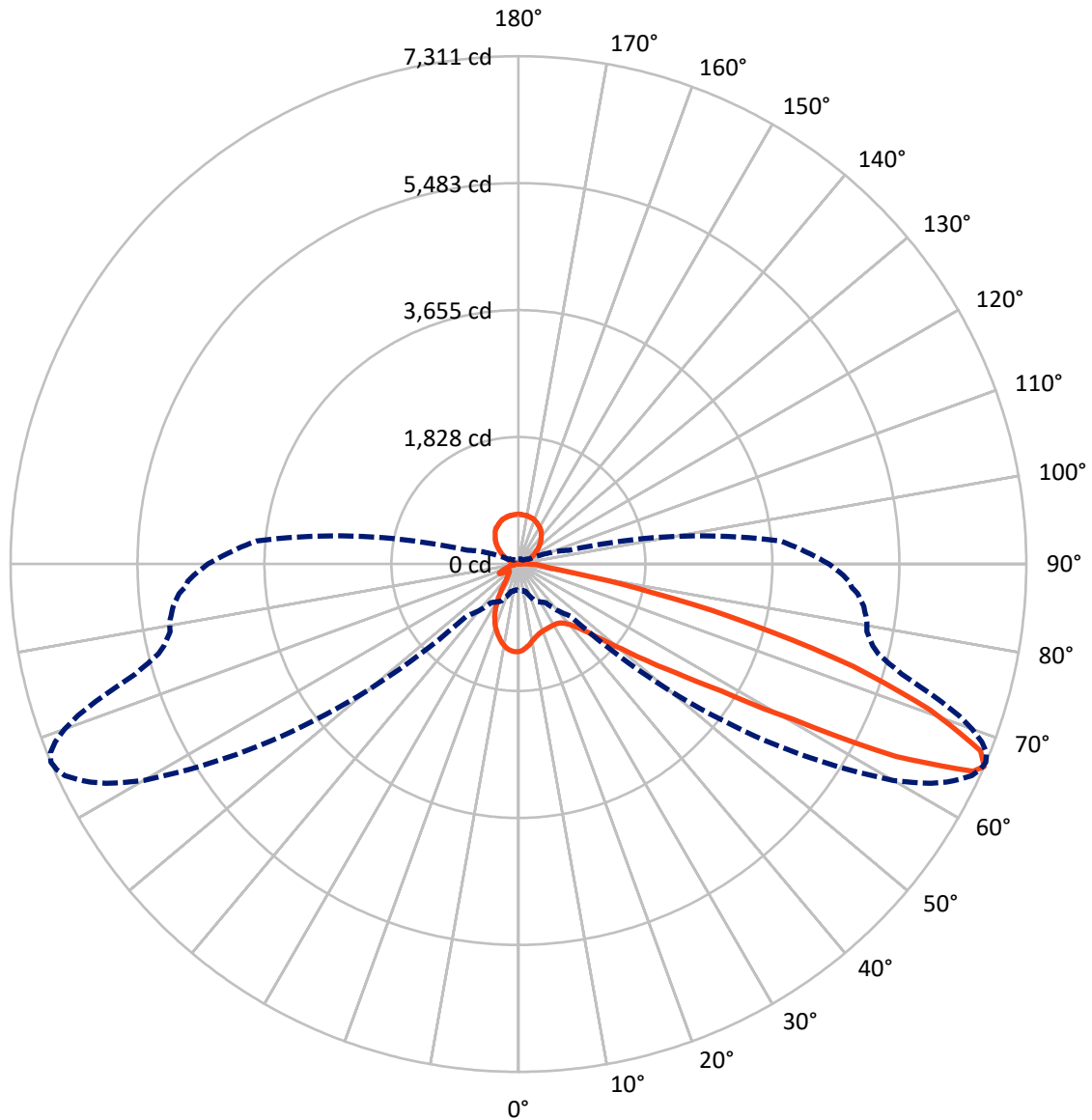
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.6 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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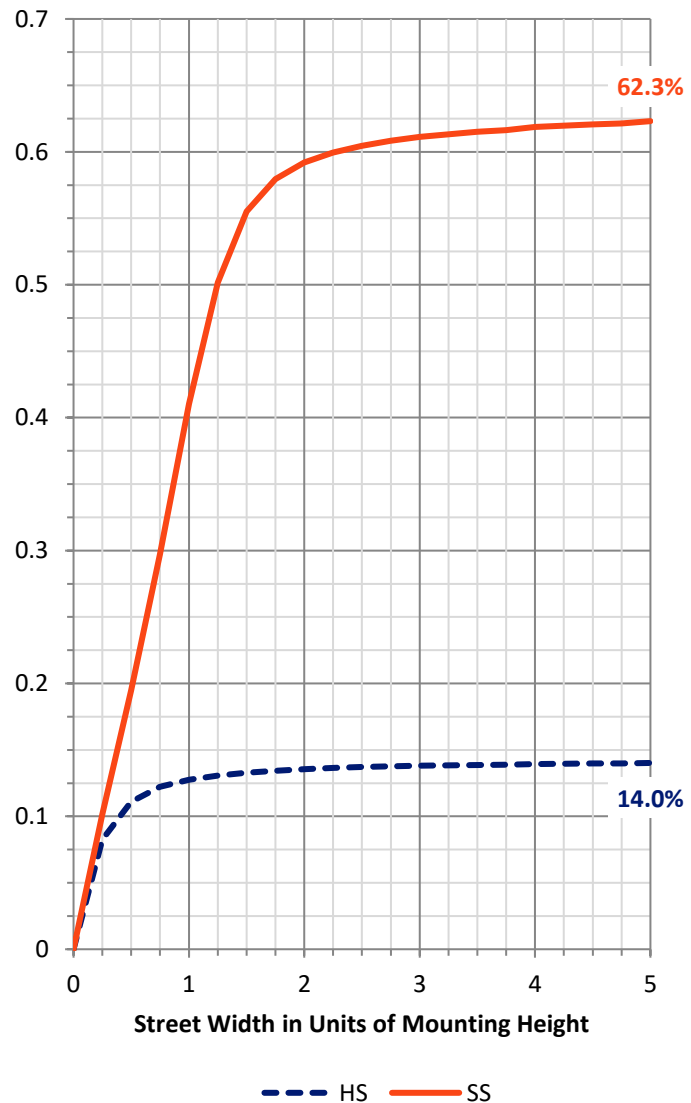
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1105.6	887.9	1993.6
	% Fixture	14.2	11.4	25.7
Street Side	Lumens	4878.6	889.2	5767.8
	% Fixture	62.9	11.5	74.3
Total	Lumens	5984.2	1777.1	7761.4
	% Fixture	77.1	22.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.2	1.4
10°-20°	260.1	3.4
20°-30°	356.6	4.6
30°-40°	509.4	6.6
40°-50°	825.9	10.6
50°-60°	1308.7	16.9
60°-70°	1658.4	21.4
70°-80°	824.4	10.6
80°-90°	131.6	1.7
90°-100°	11.7	0.2
100°-110°	58.7	0.8
110°-120°	169.9	2.2
120°-130°	279.4	3.6
130°-140°	344.6	4.4
140°-150°	352.5	4.5
150°-160°	297.0	3.8
160°-170°	195.5	2.5
170°-180°	67.8	0.9
0°-90°	5984.2	77.1
0°-180°	7761.4	100.0



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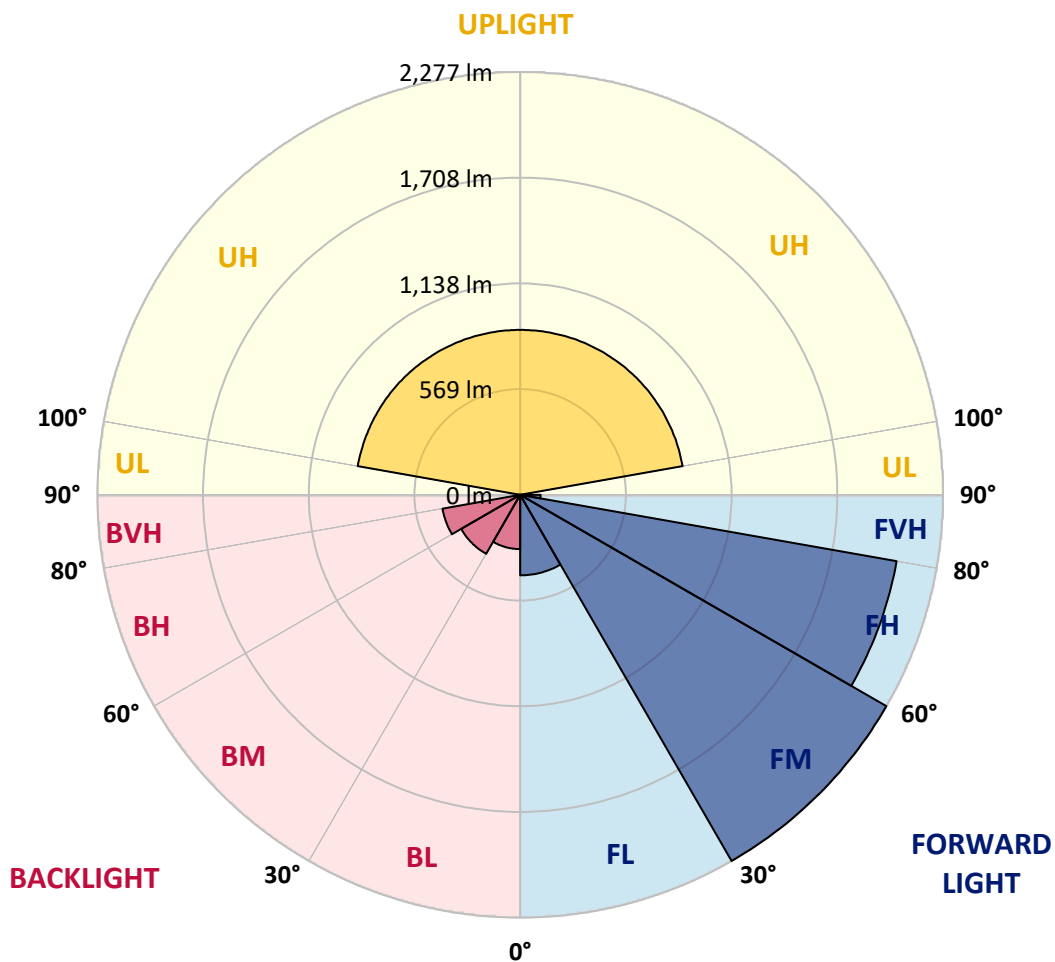
CATALOG NUMBER: IST-AF-1000-LED-E1-SL2-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	433.6	5.6			
FM (30°-60°)	2276.9	29.3			
FH (60°-80°)	2058.1	26.5			G2/5000
FVH (80°-90°)	110.0	1.4			G2/225
BL (0°-30°)	292.2	3.8	B1/500		
BM (30°-60°)	367.1	4.7	B1/1000		
BH (60°-80°)	424.7	5.5	B1/500		G1/500
BVH (80°-90°)	21.6	0.3			G1/100
UL (90°-100°)	11.7	0.2		U2/50	
UH (100°-180°)	887.9	11.4		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°	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9
2.5°	1170.9	1173.5	1188.8	1197.0	1208.6	1212.2	1225.7	1231.1	1235.6	1234.7	1234.7
5°	1065.6	1073.7	1081.0	1097.1	1114.2	1134.9	1160.9	1180.7	1184.3	1188.8	1191.5
7.5°	985.6	990.9	1003.5	1015.3	1036.9	1065.6	1102.4	1127.7	1133.0	1134.9	1141.1
10°	928.9	932.5	943.4	958.6	983.8	1011.7	1050.4	1076.5	1084.5	1088.1	1093.5
12.5°	884.9	890.3	900.2	916.4	943.4	972.1	1012.5	1038.6	1044.0	1048.5	1056.6
15°	857.0	860.6	869.6	887.5	911.9	940.6	980.2	1011.7	1015.3	1019.8	1026.9
17.5°	851.6	854.3	859.7	873.2	892.0	919.9	960.4	986.4	992.8	999.1	1006.3
20°	873.2	874.9	876.8	878.6	889.4	907.4	946.9	974.8	980.2	985.6	994.6
22.5°	919.9	922.6	918.1	911.9	903.8	907.4	940.6	969.3	973.0	978.4	985.6
25°	1000.9	998.2	984.7	974.8	946.0	922.6	942.4	966.7	971.2	976.6	984.7
27.5°	1096.2	1092.6	1084.5	1057.5	1009.9	962.2	953.2	971.2	973.8	978.4	985.6
30°	1198.7	1199.6	1192.5	1162.7	1101.6	1021.5	977.5	982.0	983.8	987.4	991.9
32.5°	1291.4	1304.8	1304.0	1302.1	1214.9	1101.6	1024.3	1006.3	1003.5	1006.3	1008.0
35°	1398.4	1401.0	1426.2	1438.8	1367.8	1218.4	1092.6	1053.0	1042.3	1043.1	1041.4
37.5°	1513.5	1517.0	1560.2	1581.8	1527.0	1351.6	1183.5	1122.3	1112.4	1102.4	1095.3
40°	1680.7	1695.1	1717.5	1741.9	1714.9	1530.5	1303.0	1220.3	1195.1	1193.3	1179.0
42.5°	1930.7	1926.2	1915.4	1935.2	1902.8	1731.0	1447.8	1358.8	1339.9	1314.7	1295.0
45°	2176.2	2186.0	2139.3	2148.3	2150.1	1963.0	1657.3	1532.3	1522.5	1492.8	1471.2
47.5°	2341.6	2330.9	2267.9	2313.8	2426.1	2233.7	1900.1	1768.8	1748.1	1732.9	1719.4
50°	2350.6	2341.6	2301.2	2382.1	2622.2	2714.8	2238.2	2085.4	2055.7	2028.7	2020.6
52.5°	2131.2	2118.6	2132.1	2296.7	2693.2	3117.7	2715.7	2478.3	2454.1	2431.6	2400.1
55°	1740.0	1754.5	1818.3	2054.8	2584.5	3403.7	3655.4	3085.3	2981.0	2980.2	2902.8
57.5°	1299.5	1285.0	1332.7	1554.8	2309.3	3505.2	4518.8	4377.5	4144.7	3987.3	3797.5
60°	876.8	880.4	924.4	1038.6	1607.0	3394.7	5097.0	5588.9	5507.1	5473.7	5422.5
62.5°	607.9	613.3	653.8	760.8	939.7	2731.1	5266.0	6267.8	6414.4	6535.7	6506.1
65°	425.3	426.3	466.7	632.2	704.1	1402.9	4892.9	6357.7	6576.2	6784.8	6971.9
66°	375.0	375.9	409.2	588.1	675.4	1058.4	4569.1	6232.7	6481.8	6724.6	6917.9
67.5°	321.0	326.4	352.5	500.0	647.4	816.5	3774.2	5859.6	6120.3	6387.4	6642.7
70°	220.3	222.1	245.5	405.6	606.1	716.7	2151.1	4574.5	4935.1	5404.6	5676.0
72.5°	157.3	155.6	158.3	250.9	622.3	712.2	1130.4	3010.6	3515.2	3927.0	4221.1
75°	140.2	135.7	124.1	155.6	454.1	777.9	757.2	1772.5	2156.4	2531.4	2832.7
77.5°	125.0	117.8	111.5	119.6	224.8	732.8	679.9	1015.3	1211.3	1491.0	1723.0
80°	95.3	90.8	94.4	103.4	134.9	674.4	675.4	675.4	728.4	820.1	911.9
82.5°	62.9	57.6	65.7	85.4	101.6	508.1	697.9	596.2	586.4	582.7	589.0
85°	39.6	34.2	45.8	63.8	78.3	265.3	715.8	629.5	583.6	539.5	495.5
87.5°	14.4	16.2	23.4	36.8	51.2	115.1	627.7	554.8	523.3	468.5	417.3
90°	8.7	7.8	11.7	18.9	19.8	28.7	103.4	161.9	100.1	54.4	45.6
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°	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9
2.5°	1235.6	1240.0	1241.9	1240.0	1240.9	1246.4	1244.5	1247.3	1247.3	1249.0	1249.0
5°	1195.1	1198.7	1205.9	1205.0	1212.2	1214.9	1217.6	1221.2	1225.7	1228.4	1233.8
7.5°	1147.4	1154.6	1160.9	1164.5	1169.0	1178.0	1180.7	1188.8	1196.0	1203.2	1208.6
10°	1101.6	1111.4	1118.7	1121.4	1131.3	1135.8	1145.6	1151.9	1160.9	1169.9	1178.0
12.5°	1062.9	1072.0	1075.5	1084.5	1093.5	1102.4	1106.9	1118.7	1127.7	1139.4	1150.1
15°	1034.1	1043.1	1050.4	1056.6	1065.6	1074.6	1081.8	1093.5	1104.3	1115.9	1125.9
17.5°	1016.2	1021.5	1030.5	1035.9	1046.7	1057.5	1065.6	1079.1	1090.8	1100.7	1114.2
20°	1002.7	1008.9	1017.0	1025.1	1035.0	1048.5	1055.7	1070.1	1082.7	1094.4	1106.9
22.5°	995.4	1001.8	1009.9	1017.9	1028.8	1039.5	1051.2	1063.8	1077.3	1089.9	1102.4
25°	992.8	998.2	1005.4	1013.4	1025.1	1036.9	1046.7	1061.1	1072.8	1086.3	1101.6
27.5°	993.7	997.3	1005.4	1012.5	1024.3	1035.0	1044.9	1059.4	1072.8	1085.4	1100.7
30°	997.3	999.9	1008.0	1014.4	1024.3	1035.0	1044.0	1059.4	1071.0	1084.5	1100.7
32.5°	1009.9	1013.4	1017.0	1021.5	1030.5	1038.6	1049.4	1062.9	1073.7	1087.2	1100.7
35°	1039.5	1036.9	1039.5	1041.4	1047.6	1055.7	1063.8	1075.5	1085.4	1097.1	1111.4
37.5°	1086.3	1081.0	1082.7	1081.8	1081.8	1087.2	1095.3	1103.4	1111.4	1123.2	1137.5
40°	1172.6	1159.1	1155.5	1145.6	1142.9	1147.4	1152.9	1153.8	1163.6	1179.0	1185.2
42.5°	1284.1	1266.1	1268.9	1252.7	1248.2	1242.8	1249.9	1245.4	1251.8	1261.6	1275.1
45°	1460.4	1443.3	1425.3	1399.2	1404.6	1384.9	1379.4	1381.3	1380.4	1384.0	1400.1
47.5°	1670.8	1648.3	1636.6	1626.8	1607.9	1596.2	1580.9	1558.4	1563.8	1570.9	1585.4
50°	1978.4	1971.1	1948.7	1916.3	1911.8	1894.7	1890.2	1870.5	1863.2	1862.4	1861.5
52.5°	2389.3	2342.6	2333.6	2303.0	2279.6	2263.4	2258.1	2230.1	2202.3	2218.5	2216.6
55°	2890.2	2851.6	2802.1	2775.1	2756.2	2717.6	2707.6	2672.6	2656.4	2647.4	2624.9
57.5°	3731.9	3596.1	3494.5	3444.2	3373.1	3301.2	3276.0	3204.1	3148.2	3108.7	3111.4
60°	5199.5	4957.6	4672.5	4544.9	4248.9	4205.8	4002.6	3953.1	3830.8	3749.9	3703.1
62.5°	6485.4	6419.7	6283.1	6096.9	5800.1	5458.5	5304.7	4999.0	4759.8	4655.4	4510.6
65°	7099.6	7192.3	7230.0	7194.9	7076.3	6867.6	6684.2	6385.6	5984.6	5757.9	5476.5
66°	7068.1	7205.7	7274.9	7310.9	7267.8	7144.6	6952.1	6706.7	6396.4	6051.1	5735.5
67.5°	6837.9	6971.9	7068.1	7177.8	7177.8	7139.2	7060.9	6897.2	6677.8	6376.6	6093.3
70°	5897.3	6079.0	6248.9	6282.1	6375.7	6346.9	6409.0	6304.7	6252.5	6126.7	5974.6
72.5°	4594.3	4746.3	4892.0	5037.6	5013.4	4981.9	4975.5	4997.1	4891.0	4928.8	4889.2
75°	3055.7	3317.3	3466.6	3452.3	3462.1	3470.3	3403.7	3255.3	3370.4	3224.8	3273.2
77.5°	1857.0	1978.4	2018.8	1973.9	1915.4	1839.9	1718.5	1647.5	1545.8	1553.9	1486.4
80°	973.8	989.2	956.8	866.0	816.5	771.5	633.1	571.0	513.5	491.9	443.3
82.5°	558.4	521.6	482.0	451.4	393.0	353.4	299.4	265.3	228.4	196.0	184.3
85°	452.3	402.8	366.0	331.8	292.3	257.2	212.3	177.2	150.2	130.4	125.9
87.5°	373.2	339.0	301.3	268.8	230.2	194.3	150.2	116.9	92.6	74.7	69.3
90°	42.2	54.2	41.5	27.2	36.2	23.6	17.3	18.2	16.4	16.4	17.3
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



REPORT NUMBER: P226840

CATALOG NUMBER: IST-AF-1000-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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CATALOG NUMBER: IST-AF-1000-LED-E1-SL2-ULG

CANDELA DISTRIBUTION (continued):

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°
0°	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9
2.5°	1251.8	1251.8	1253.5	1255.4	1256.3	1256.3	1256.3	1258.0	1258.9	1256.3	1258.9
5°	1236.4	1240.9	1244.5	1247.3	1248.2	1250.9	1253.5	1255.4	1258.0	1258.0	1259.9
7.5°	1215.8	1223.9	1228.4	1232.9	1237.4	1241.9	1247.3	1250.9	1252.7	1256.3	1258.9
10°	1189.7	1199.6	1208.6	1215.8	1222.1	1231.1	1238.3	1243.7	1251.8	1252.7	1258.9
12.5°	1161.9	1176.2	1183.5	1197.0	1205.9	1219.4	1226.6	1234.7	1243.7	1248.2	1255.4
15°	1142.0	1154.6	1168.1	1180.7	1195.1	1211.3	1220.3	1231.1	1243.7	1253.5	1262.5
17.5°	1126.8	1143.9	1159.1	1175.4	1193.3	1210.4	1223.9	1235.6	1251.8	1257.1	1266.1
20°	1122.3	1141.1	1156.4	1173.5	1192.5	1214.9	1231.1	1243.7	1259.9	1268.9	1276.9
22.5°	1120.4	1138.4	1156.4	1177.1	1197.8	1221.2	1238.3	1254.4	1270.6	1278.7	1285.0
25°	1118.7	1137.5	1157.4	1180.7	1203.2	1227.4	1247.3	1262.5	1277.9	1286.0	1291.4
27.5°	1118.7	1138.4	1160.0	1183.5	1207.7	1234.7	1253.5	1267.9	1281.5	1288.6	1290.5
30°	1117.8	1138.4	1159.1	1185.2	1211.3	1239.2	1259.9	1273.4	1285.0	1289.5	1287.7
32.5°	1119.6	1141.1	1163.6	1189.7	1216.7	1243.7	1265.3	1280.5	1286.9	1286.0	1285.0
35°	1128.5	1148.4	1174.4	1200.5	1228.4	1253.5	1274.3	1285.0	1290.5	1288.6	1284.1
37.5°	1152.9	1172.6	1198.7	1227.4	1249.0	1277.9	1296.7	1304.8	1305.7	1300.3	1289.5
40°	1203.2	1222.9	1246.4	1277.9	1304.0	1323.7	1341.7	1350.7	1345.3	1335.4	1323.7
42.5°	1283.2	1308.5	1336.3	1361.4	1392.0	1419.0	1423.5	1429.0	1420.0	1401.0	1386.6
45°	1411.9	1427.1	1463.1	1481.9	1521.5	1535.0	1545.0	1547.6	1527.9	1512.5	1487.4
47.5°	1597.0	1626.8	1652.0	1669.9	1698.7	1716.7	1736.5	1727.5	1712.2	1686.1	1652.8
50°	1888.5	1907.3	1939.7	1972.0	2002.6	2015.2	2015.2	2006.2	1996.4	1946.0	1905.6
52.5°	2246.3	2248.1	2294.9	2333.6	2359.6	2340.7	2363.2	2340.7	2334.5	2299.4	2266.1
55°	2660.9	2643.8	2700.5	2734.7	2758.0	2780.5	2776.0	2773.3	2749.9	2710.3	2669.9
57.5°	3054.7	3104.2	3131.2	3181.6	3193.2	3208.5	3202.2	3193.2	3179.7	3157.2	3139.3
60°	3623.1	3656.3	3680.7	3690.5	3723.8	3728.3	3750.8	3713.9	3722.9	3696.8	3640.2
62.5°	4396.4	4360.4	4379.4	4379.4	4369.4	4334.4	4353.3	4367.7	4343.3	4321.8	4312.9
65°	5262.5	5146.5	5035.0	5016.0	4964.8	4953.1	4938.7	4902.7	4887.5	4849.7	4819.1
66°	5521.4	5341.5	5236.4	5171.6	5109.5	5096.0	5076.3	5038.5	5008.0	4954.9	4903.6
67.5°	5811.9	5579.9	5421.6	5329.9	5253.5	5203.0	5163.5	5109.5	5060.9	4981.9	4900.0
70°	5793.0	5601.5	5410.8	5271.4	5156.3	5052.9	4991.8	4875.8	4776.9	4663.5	4570.0
72.5°	4867.6	4833.4	4722.9	4644.6	4503.4	4448.6	4286.8	4213.0	4076.4	3929.8	3884.8
75°	3383.9	3249.9	3193.2	3161.7	3099.7	2928.9	2817.3	2841.7	2681.6	2538.6	2456.7
77.5°	1479.3	1506.3	1349.8	1279.6	1225.7	1133.0	1046.7	987.4	953.2	930.7	829.1
80°	409.2	357.0	352.5	327.3	321.9	286.8	291.3	266.2	249.1	245.5	237.4
82.5°	178.9	175.3	169.9	167.3	164.6	161.0	156.5	155.6	150.2	145.7	146.6
85°	118.7	117.8	115.1	112.4	107.9	101.6	97.1	93.5	94.4	89.9	89.0
87.5°	69.3	67.4	66.6	62.9	62.1	56.7	57.6	53.1	52.2	51.2	48.6
90°	19.1	19.7	22.3	21.2	17.4	25.3	22.4	20.4	21.1	18.1	17.9
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: P226840
 CATALOG NUMBER: IST-AF-1000-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°

NUMBER: P226840
 NUMBER: IST-AF-1000-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°
1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	1259.9	110°	118.9
1261.6	1263.4	1264.4	1263.4	1265.3	1264.4	1265.3	1264.4	1259.9	1258.9	1258.0	112.5°	150.4
1263.4	1267.0	1267.9	1268.9	1267.0	1268.9	1265.3	1250.9	1234.7	1216.7	1202.3	115°	181.3
1265.3	1269.8	1272.4	1272.4	1273.4	1271.5	1258.0	1226.6	1188.8	1151.0	1122.3	117.5°	213.0
1264.4	1270.6	1273.4	1274.3	1274.3	1270.6	1238.3	1188.0	1130.4	1072.8	1014.4	120°	248.6
1261.6	1267.0	1271.5	1271.5	1272.4	1259.9	1209.5	1137.5	1055.7	969.3	891.2	122.5°	282.5
1267.0	1272.4	1272.4	1272.4	1271.5	1249.9	1179.0	1074.6	964.8	848.0	732.0	125°	317.1
1275.1	1277.9	1276.0	1276.0	1272.4	1240.0	1144.8	1012.5	868.7	714.0	552.2	127.5°	353.3
1282.4	1284.1	1283.2	1278.7	1274.3	1229.3	1109.7	946.9	753.6	552.2	391.2	130°	387.9
1289.5	1291.4	1286.9	1279.6	1273.4	1214.9	1067.4	863.3	623.2	377.7	259.0	132.5°	423.7
1290.5	1292.2	1284.1	1274.3	1265.3	1193.3	1016.2	774.3	480.2	244.6	202.3	135°	460.5
1289.5	1287.7	1274.3	1261.6	1251.8	1167.2	959.5	663.7	320.2	184.3	176.3	137.5°	492.2
1283.2	1275.1	1264.4	1249.9	1235.6	1138.4	902.9	540.4	202.3	160.1	160.1	140°	521.1
1274.3	1266.1	1252.7	1233.8	1217.6	1110.6	838.1	414.6	161.8	147.5	149.2	142.5°	546.7
1270.6	1261.6	1241.9	1222.1	1201.4	1085.4	769.8	278.8	145.7	139.4	140.2	145°	571.2
1277.9	1262.5	1242.8	1220.3	1196.0	1063.8	698.7	194.3	137.6	130.4	132.2	147.5°	596.8
1302.1	1287.7	1264.4	1235.6	1209.5	1051.2	623.2	161.0	129.5	123.2	123.2	150°	620.7
1360.5	1341.7	1310.2	1276.0	1244.5	1059.4	555.8	146.6	123.2	116.9	116.9	152.5°	638.3
1454.9	1432.5	1395.6	1356.9	1315.6	1098.9	479.3	141.2	118.7	109.7	107.9	155°	653.3
1616.9	1587.2	1538.6	1492.8	1443.3	1167.2	401.9	137.6	113.3	105.3	101.6	157.5°	665.9
1871.4	1827.3	1769.7	1709.5	1649.2	1292.2	340.8	134.0	109.7	101.6	98.0	160°	676.4
2198.6	2169.0	2097.0	2017.9	1946.0	1541.3	305.8	131.2	107.0	97.1	94.4	162.5°	684.6
2615.9	2567.4	2510.7	2439.6	2354.2	1864.1	302.2	130.4	104.3	93.5	91.8	165°	694.4
3056.6	3037.7	2941.5	2897.4	2804.7	2294.0	367.8	132.2	102.5	90.8	88.1	167.5°	705.0
3559.3	3566.4	3476.5	3427.9	3351.5	2838.9	585.4	137.6	102.5	88.1	85.4	170°	713.0
4216.6	4228.3	4122.2	4064.6	3999.8	3449.5	919.9	146.6	105.3	85.4	82.8	172.5°	713.0
4755.3	4692.3	4623.9	4523.3	4441.4	3790.3	885.8	162.8	108.8	82.8	80.0	175°	711.0
4811.0	4766.0	4679.7	4570.9	4471.1	3792.2	773.4	168.2	109.7	81.8	79.2	177.5°	714.8
4803.8	4723.8	4625.8	4534.0	4436.0	3695.0	598.0	175.3	112.4	80.0	77.3	180°	716.1
4471.1	4358.7	4263.4	4136.6	4034.0	3306.6	367.8	174.4	108.8	74.7	72.8		
3686.9	3629.4	3516.1	3414.5	3307.4	2676.1	251.7	155.6	96.3	67.4	68.3		
2384.8	2319.1	2204.0	2146.6	2086.3	1712.2	196.0	126.7	81.8	60.3	62.9		
795.9	769.8	727.5	750.8	715.8	667.3	143.9	96.3	65.7	52.2	55.8		
238.3	232.9	241.0	226.6	240.1	203.3	94.4	67.4	50.3	45.0	49.4		
141.2	139.4	139.4	139.4	135.7	126.7	62.1	46.7	38.7	37.7	41.3		
86.3	84.5	85.4	84.5	86.3	77.3	42.2	32.3	28.7	27.9	33.2		
49.4	49.4	50.3	48.6	49.4	47.7	29.7	20.7	18.9	18.0	24.2		
18.8	18.8	16.2	15.2	16.2	19.7	17.3	15.5	12.6	11.7	16.3		
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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REPORT NUMBER: P226840
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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°	1259.9	1259.9
150.4	150.4	150.4	150.4	150.4	152.4	153.4	151.4	146.3	137.1	2.5°	1250.9	1244.5
181.5	181.7	181.9	182.1	181.1	183.1	186.2	183.1	178.0	171.9	5°	1179.8	1162.7
213.2	213.4	213.6	213.8	212.8	214.8	219.9	215.8	209.7	206.6	7.5°	1077.3	1057.5
248.6	248.6	248.6	248.6	248.6	250.6	255.7	251.6	248.6	242.4	10°	960.4	930.7
282.7	282.9	283.2	283.4	282.3	284.4	289.5	285.4	283.4	277.2	12.5°	811.1	752.7
317.1	317.1	317.1	317.1	317.1	317.1	322.2	320.2	317.1	312.0	15°	638.4	560.3
353.7	354.1	354.6	355.0	352.9	353.9	353.9	352.9	347.8	346.8	17.5°	439.8	376.8
388.1	388.3	388.5	388.7	387.7	389.7	389.7	385.7	380.5	378.5	20°	308.4	285.1
423.9	424.1	424.3	424.5	423.5	423.5	425.5	420.4	414.3	413.3	22.5°	238.3	239.2
460.7	460.9	461.1	461.4	460.3	457.3	458.3	453.2	447.0	445.0	25°	197.8	206.8
492.4	492.7	492.9	493.1	492.0	486.9	485.9	483.9	478.7	474.6	27.5°	174.4	183.4
521.5	521.9	522.3	522.7	520.7	515.6	513.5	511.5	508.4	502.3	30°	160.1	168.2
547.1	547.5	547.9	548.3	546.3	545.2	545.2	539.1	537.0	533.0	32.5°	150.2	153.7
571.6	572.0	572.4	572.9	570.8	573.9	574.9	568.8	563.6	562.6	35°	138.5	140.2
597.2	597.6	598.0	598.4	596.4	599.4	598.4	593.3	588.2	587.2	37.5°	128.6	128.6
621.5	622.4	623.2	624.0	619.9	616.8	613.8	610.7	606.6	606.6	40°	119.6	118.7
639.3	640.4	641.4	642.4	637.3	632.2	628.1	625.0	624.0	624.0	42.5°	111.5	110.6
653.9	654.5	655.1	655.7	652.6	650.6	645.5	640.4	642.4	644.5	45°	103.4	104.3
667.0	668.0	669.0	670.0	664.9	664.9	662.9	658.8	659.8	660.8	47.5°	98.9	99.8
677.6	678.8	680.1	681.3	675.1	676.2	679.2	673.1	670.0	670.0	50°	94.4	95.3
685.8	687.0	688.2	689.5	683.3	685.4	686.4	682.3	678.2	676.2	52.5°	90.8	90.8
695.2	696.0	696.8	697.7	693.6	695.6	692.5	687.4	688.4	688.4	55°	87.3	86.3
706.2	707.5	708.7	709.9	703.8	703.8	699.7	693.6	700.7	703.8	57.5°	84.5	82.8
714.0	715.0	716.1	717.1	712.0	709.9	704.8	701.7	706.9	708.9	60°	81.8	80.0
714.0	715.0	716.1	717.1	712.0	709.9	707.9	704.8	705.8	705.8	62.5°	80.0	77.3
712.0	713.0	714.0	715.0	709.9	712.0	711.0	705.8	705.8	706.9	65°	78.3	76.4
715.7	716.5	717.3	718.1	714.0	717.1	715.0	709.9	711.0	713.0	66°	77.3	75.5
716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	67.5°	76.4	74.7
										70°	72.8	71.0
										72.5°	67.4	66.6
										75°	62.1	60.3
										77.5°	54.8	53.9
										80°	46.7	45.8
										82.5°	39.6	37.7
										85°	31.5	29.7
										87.5°	21.6	19.7
										90°	13.6	13.5
										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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tinued):

175°	180°
1259.9	1259.9
1239.2	1247.3
1157.4	1154.6
1041.4	1042.3
901.0	902.9
719.4	708.6
515.3	519.8
358.9	357.9
287.8	289.6
246.4	246.4
219.4	219.4
193.3	194.3
175.3	177.2
159.2	160.1
143.0	143.9
129.5	129.5
120.5	121.4
114.2	114.2
107.9	107.9
102.5	104.3
97.1	98.0
91.8	92.6
86.3	86.3
81.8	81.8
78.3	77.3
75.5	73.8
72.8	71.9
71.9	71.0
71.0	70.2
69.3	68.3
66.6	65.7
61.2	59.3
55.8	53.9
51.2	48.6
43.2	41.3
31.5	29.7
18.9	18.9
9.6	9.6
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



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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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