

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: P271742

Luminaire Tested: **IST-AF-1200-LED-E1-SL2-7027-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271742
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-SL2-7027-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) 2700K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7488.9 lumens
Efficiency: N/A
Efficacy: 90.6 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

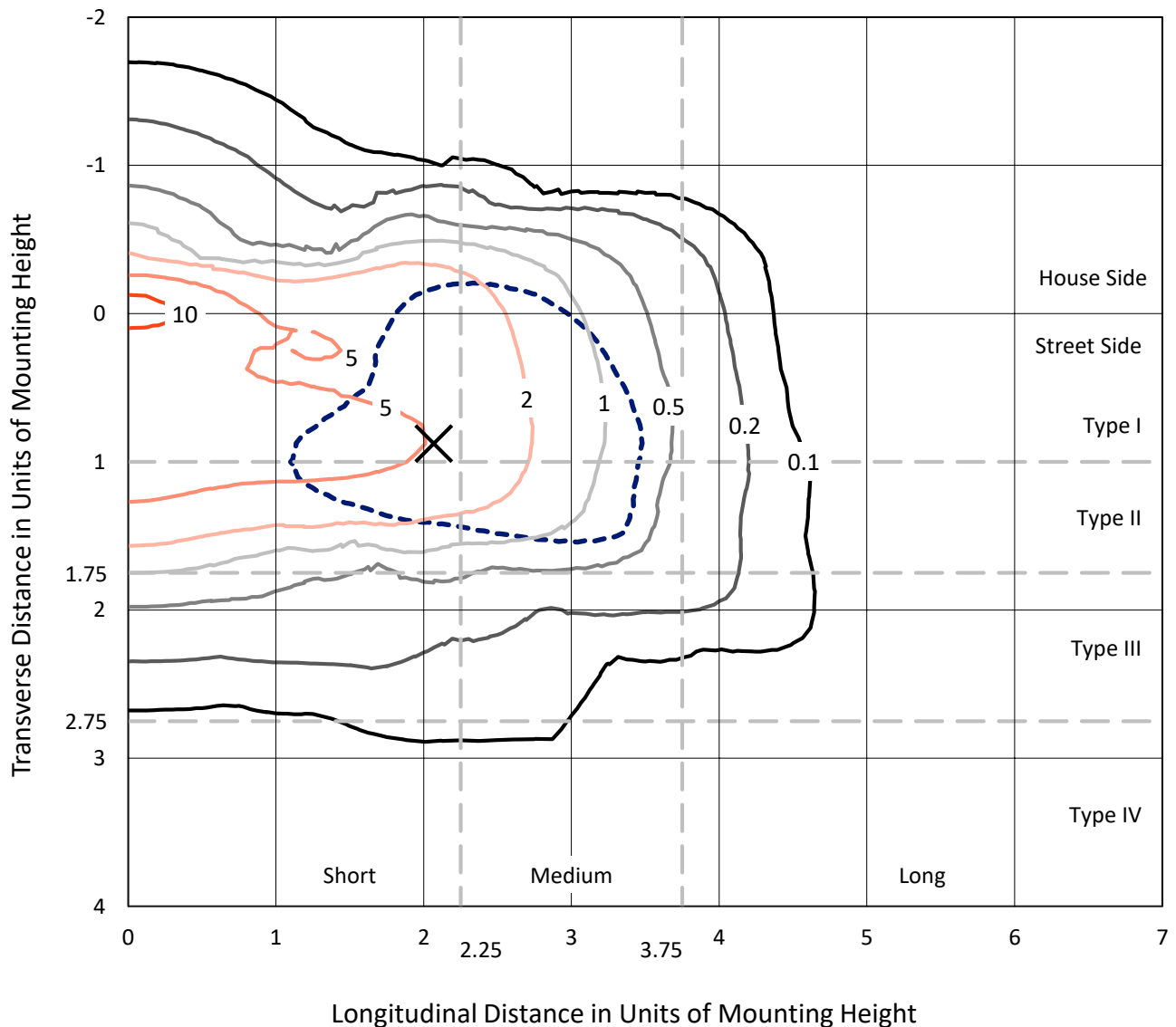


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

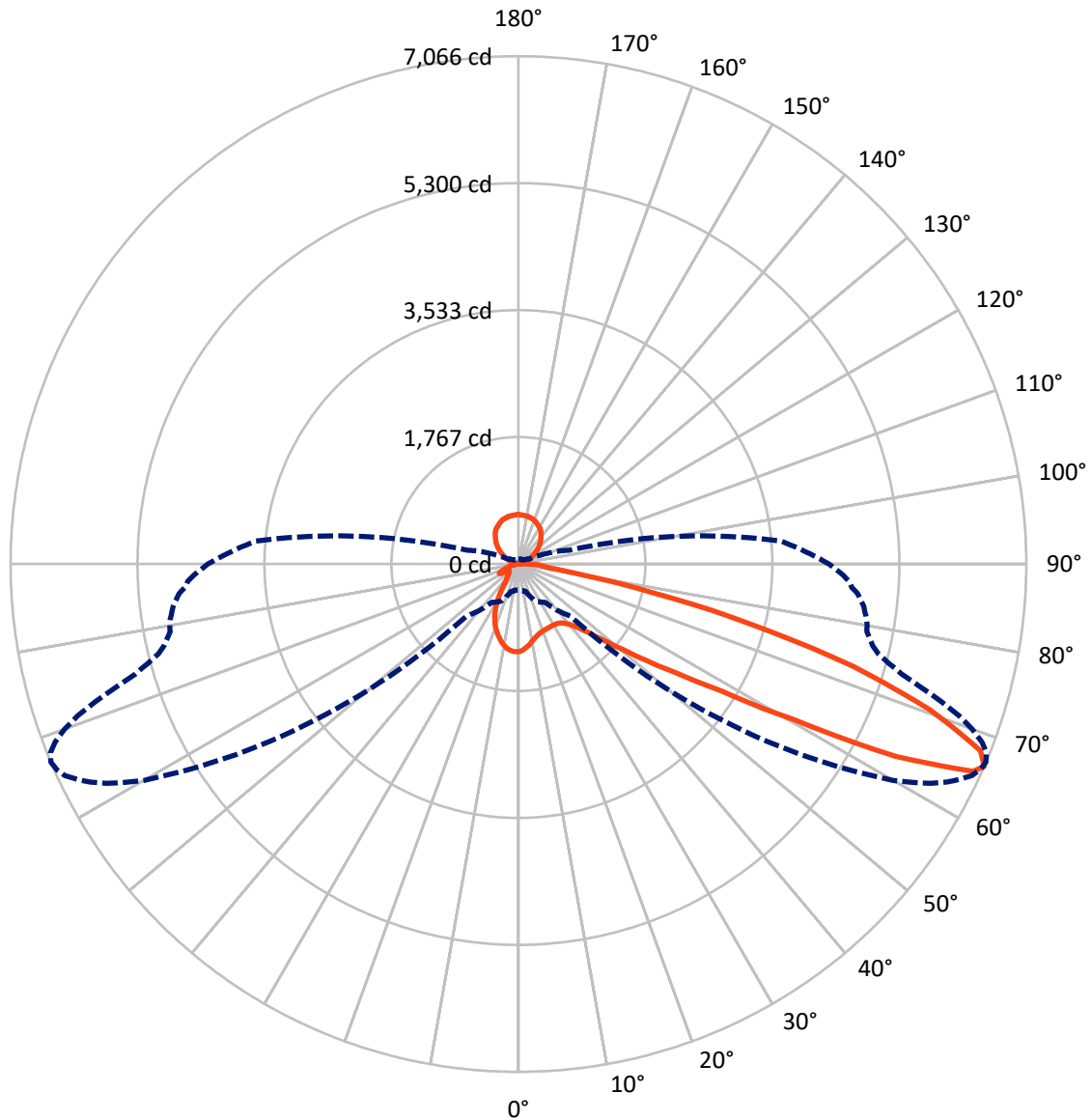


Based on 10 foot mounting height. Maximum calculated value = 12.2 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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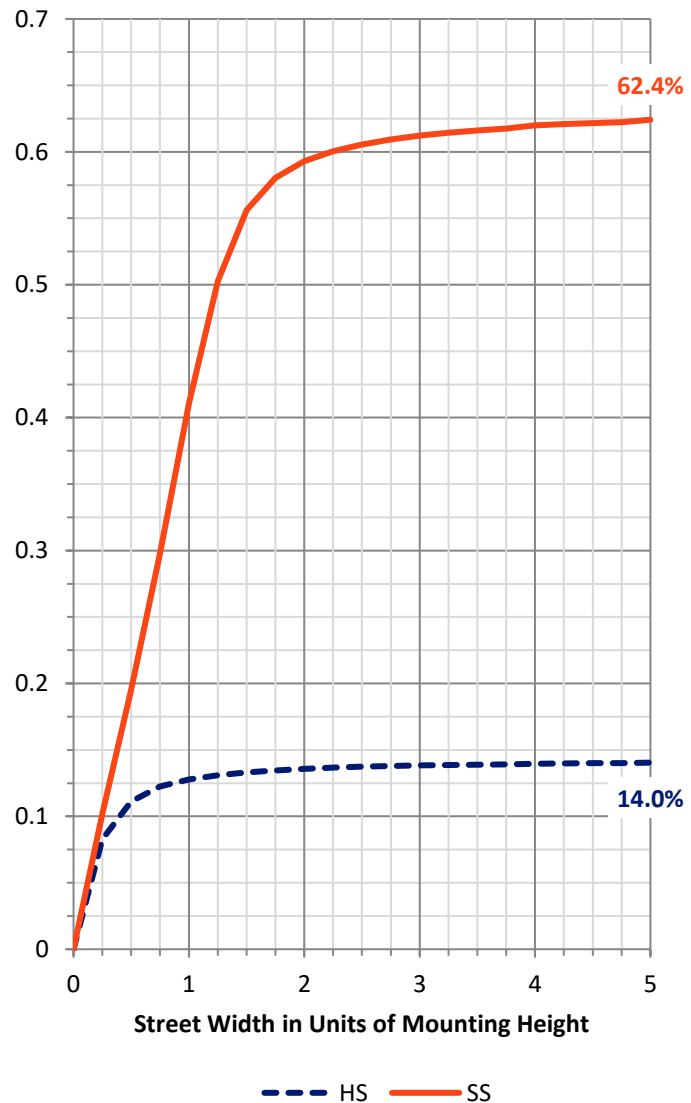
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1068.6	851.9	1920.6
	% Fixture	14.3	11.4	25.6
Street Side	Lumens	4715.2	853.2	5568.3
	% Fixture	63.0	11.4	74.4
Total	Lumens	5783.8	1705.1	7488.9
	% Fixture	77.2	22.8	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.6	1.4
10°-20°	251.3	3.4
20°-30°	344.6	4.6
30°-40°	492.3	6.6
40°-50°	798.3	10.7
50°-60°	1264.9	16.9
60°-70°	1602.8	21.4
70°-80°	796.8	10.6
80°-90°	127.2	1.7
90°-100°	11.2	0.1
100°-110°	56.3	0.8
110°-120°	163.0	2.2
120°-130°	268.1	3.6
130°-140°	330.6	4.4
140°-150°	338.2	4.5
150°-160°	284.9	3.8
160°-170°	187.6	2.5
170°-180°	65.0	0.9
0°-90°	5783.8	77.2
0°-180°	7488.9	100.0



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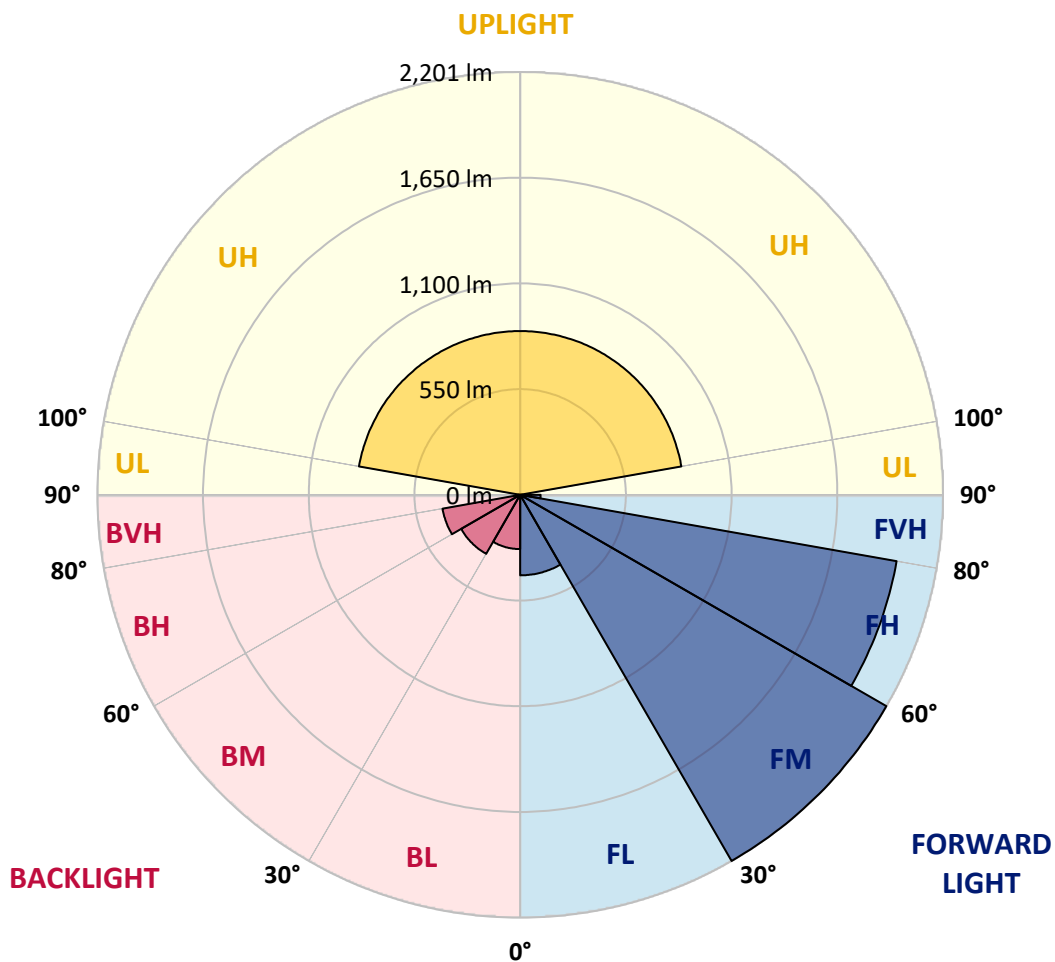
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	419.1	5.6			
FM (30°-60°)	2200.6	29.4			
FH (60°-80°)	1989.1	26.6			G2/5000
FVH (80°-90°)	106.3	1.4			G2/225
BL (0°-30°)	282.4	3.8	B1/500		
BM (30°-60°)	354.9	4.7	B1/1000		
BH (60°-80°)	410.5	5.5	B1/500		G1/500
BVH (80°-90°)	20.9	0.3			G1/100
UL (90°-100°)	11.2	0.1		U2/50	
UH (100°-180°)	851.9	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°	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7
2.5°	1131.7	1134.2	1149.0	1156.7	1168.1	1171.6	1184.7	1189.9	1194.2	1193.3	1193.3
5°	1029.9	1037.7	1044.7	1060.3	1076.9	1096.8	1122.1	1141.2	1144.6	1149.0	1151.5
7.5°	952.6	957.9	969.9	981.3	1002.1	1029.9	1065.6	1089.9	1095.1	1096.8	1102.8
10°	897.8	901.3	911.7	926.5	950.9	977.7	1015.2	1040.3	1048.1	1051.6	1056.9
12.5°	855.3	860.5	870.0	885.7	911.7	939.5	978.6	1003.9	1009.1	1013.4	1021.2
15°	828.2	831.7	840.5	857.8	881.2	909.2	947.4	977.7	981.3	985.6	992.5
17.5°	823.0	825.7	830.9	843.9	862.1	889.1	928.2	953.4	959.5	965.6	972.5
20°	843.9	845.7	847.4	849.2	859.6	876.9	915.2	942.1	947.4	952.6	961.3
22.5°	889.1	891.7	887.3	881.2	873.5	876.9	909.2	936.9	940.3	945.6	952.6
25°	967.4	964.7	951.8	942.1	914.4	891.7	910.8	934.2	938.7	943.8	951.8
27.5°	1059.6	1056.0	1048.1	1022.1	976.0	929.9	921.3	938.7	941.2	945.6	952.6
30°	1158.5	1159.4	1152.4	1123.8	1064.7	987.3	944.7	949.1	950.9	954.3	958.6
32.5°	1248.0	1261.1	1260.2	1258.4	1174.2	1064.7	989.9	972.5	969.9	972.5	974.3
35°	1351.5	1354.1	1378.4	1390.6	1321.9	1177.7	1056.0	1017.8	1007.3	1008.2	1006.4
37.5°	1462.7	1466.2	1508.0	1528.7	1475.7	1306.2	1143.8	1084.6	1075.1	1065.6	1058.7
40°	1624.3	1638.3	1660.1	1683.5	1657.5	1479.3	1259.3	1179.5	1155.1	1153.3	1139.4
42.5°	1866.0	1861.6	1851.2	1870.5	1839.1	1673.0	1399.3	1313.2	1295.0	1270.7	1251.6
45°	2103.3	2112.8	2067.7	2076.3	2078.0	1897.3	1601.8	1480.9	1471.4	1442.8	1421.8
47.5°	2263.2	2252.8	2192.0	2236.3	2344.9	2158.9	1836.5	1709.6	1689.6	1674.8	1661.8
50°	2271.9	2263.2	2224.1	2302.4	2534.4	2623.9	2163.3	2015.4	1986.8	1960.7	1952.9
52.5°	2059.8	2047.7	2060.7	2219.7	2603.1	3013.3	2624.8	2395.3	2371.9	2350.1	2319.7
55°	1681.8	1695.7	1757.4	1986.0	2497.8	3289.6	3533.0	2981.9	2881.1	2880.2	2805.6
57.5°	1255.9	1242.0	1288.1	1502.8	2231.9	3387.9	4367.4	4230.8	4005.8	3853.7	3670.4
60°	847.4	850.9	893.5	1003.9	1553.1	3281.0	4926.2	5401.6	5322.5	5290.4	5240.8
62.5°	587.5	592.7	631.9	735.4	908.3	2639.5	5089.5	6057.8	6199.6	6316.8	6288.1
65°	411.2	412.0	451.1	610.9	680.6	1355.8	4728.9	6144.8	6356.0	6557.5	6738.4
66°	362.5	363.4	395.4	568.4	652.7	1023.0	4416.1	6023.9	6264.7	6499.3	6686.3
67.5°	310.3	315.5	340.6	483.3	625.8	789.3	3647.7	5663.3	5915.2	6173.4	6420.3
70°	213.0	214.7	237.2	392.0	585.8	692.8	2078.9	4421.3	4769.8	5223.5	5485.9
72.5°	152.2	150.4	153.0	242.5	601.4	688.3	1092.5	2909.8	3397.4	3795.5	4079.7
75°	135.6	131.2	119.9	150.4	438.9	751.8	731.8	1713.1	2084.2	2446.6	2737.8
77.5°	120.8	113.8	107.8	115.6	217.3	708.3	657.1	981.3	1170.7	1441.0	1665.3
80°	92.2	87.8	91.3	99.9	130.3	651.8	652.7	652.7	704.0	792.7	881.2
82.5°	60.8	55.7	63.4	82.6	98.3	491.0	674.4	576.3	566.7	563.1	569.3
85°	38.3	33.1	44.4	61.7	75.5	256.4	691.9	608.4	564.0	521.5	478.9
87.5°	13.9	15.6	22.5	35.7	49.6	111.2	606.6	536.3	505.8	452.8	403.2
90°	8.4	7.5	11.2	18.2	19.1	27.8	99.9	156.5	96.7	52.6	44.1
92.5°	4.0	4.0	4.9	5.9	5.9	5.9	6.8	6.8	6.8	6.8	6.8
95°	4.9	4.9	5.9	6.8	6.8	6.8	6.8	7.4	7.5	7.5	7.6
97.5°	6.8	6.8	7.8	7.8	8.8	8.8	11.8	10.8	10.6	10.4	10.2
100°	7.8	7.8	8.8	9.8	11.8	20.6	28.5	26.9	26.7	26.4	26.1
102.5°	10.8	10.8	12.8	17.7	26.5	39.3	49.0	47.6	47.3	47.0	46.7
105°	20.6	21.6	26.5	35.3	47.1	61.8	70.7	69.7	69.5	69.3	69.1
107.5°	40.2	41.2	48.1	57.0	71.7	86.3	93.2	92.7	92.6	92.5	92.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	63°
110°	64.8	66.7	72.7	85.4	100.1	111.9	117.8	118.3	118.4	118.5	118.6
112.5°	97.2	97.2	104.0	118.8	131.5	140.3	145.3	146.2	146.4	146.6	146.9
115°	137.4	136.5	144.3	156.0	164.9	170.8	175.7	177.1	177.4	177.8	178.0
117.5°	180.6	180.6	185.5	193.3	198.3	201.2	207.1	209.0	209.5	209.8	210.2
120°	220.8	218.8	221.8	228.7	232.6	238.5	241.5	243.4	243.8	244.2	244.6
122.5°	258.2	255.2	256.2	262.0	266.0	271.8	273.8	275.8	276.2	276.6	276.9
125°	292.5	288.5	290.5	293.5	299.3	304.3	307.2	308.2	308.4	308.6	308.7
127.5°	323.9	322.9	322.9	326.8	332.7	333.7	338.6	339.1	339.2	339.3	339.4
130°	356.3	354.3	355.3	359.2	363.2	365.1	370.0	372.0	372.3	372.8	373.2
132.5°	388.7	386.7	385.7	393.5	396.5	397.5	403.4	405.9	406.3	406.8	407.3
135°	421.0	418.1	418.1	424.0	427.0	428.9	434.8	437.3	437.7	438.2	438.7
137.5°	451.5	448.5	450.5	451.5	455.4	459.3	464.2	465.2	465.4	465.6	465.8
140°	479.0	476.0	478.0	480.0	481.9	487.8	490.7	491.7	491.9	492.1	492.3
142.5°	508.4	505.5	507.5	508.4	511.3	515.3	517.2	520.2	520.7	521.4	521.9
145°	539.8	535.9	534.0	536.8	539.8	540.8	545.7	548.7	549.2	549.9	550.4
147.5°	564.3	561.4	560.5	563.3	563.3	564.3	569.3	571.7	572.2	572.7	573.2
150°	584.0	581.0	582.0	582.0	582.0	582.0	586.0	587.4	587.7	588.0	588.3
152.5°	599.7	596.7	596.7	597.7	598.7	598.7	599.7	601.1	601.4	601.8	602.0
155°	617.3	613.5	613.5	615.4	618.3	616.3	614.4	616.9	617.3	617.9	618.3
157.5°	634.0	631.1	631.1	632.0	634.0	633.0	632.0	634.0	634.5	634.8	635.2
160°	650.7	647.8	646.8	643.8	642.8	642.8	645.8	648.8	649.4	649.9	650.6
162.5°	660.5	656.6	656.6	652.7	648.8	650.7	654.7	656.6	657.0	657.4	657.8
165°	668.4	665.5	663.5	663.5	660.5	660.5	659.5	662.1	662.5	662.9	663.5
167.5°	677.2	674.3	671.3	673.3	675.3	672.3	665.5	668.4	669.0	669.6	670.1
170°	685.0	682.2	679.2	679.2	680.2	678.2	673.3	674.8	675.1	675.3	675.6
172.5°	686.0	684.1	682.2	680.2	677.2	677.2	676.2	677.7	678.0	678.3	678.6
175°	687.0	685.0	684.1	682.2	678.2	677.2	677.2	679.7	680.2	680.6	681.2
177.5°	693.9	692.0	687.0	686.0	684.1	682.2	681.2	683.6	684.1	684.6	685.0
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0



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CANDELA DISTRIBUTION (continued):

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
0°	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7
2.5°	1194.2	1198.5	1200.2	1198.5	1199.3	1204.5	1202.9	1205.4	1205.4	1207.2	1207.2
5°	1155.1	1158.5	1165.6	1164.7	1171.6	1174.2	1176.8	1180.2	1184.7	1187.2	1192.4
7.5°	1109.0	1116.0	1122.1	1125.6	1129.9	1138.5	1141.2	1149.0	1156.0	1162.9	1168.1
10°	1064.7	1074.2	1081.2	1083.9	1093.3	1097.7	1107.3	1113.4	1122.1	1130.8	1138.5
12.5°	1027.3	1035.9	1039.5	1048.1	1056.9	1065.6	1069.9	1081.2	1089.9	1101.2	1111.7
15°	999.5	1008.2	1015.2	1021.2	1029.9	1038.6	1045.5	1056.9	1067.3	1078.5	1088.2
17.5°	982.0	987.3	996.0	1001.3	1011.7	1022.1	1029.9	1042.9	1054.3	1063.9	1076.9
20°	969.1	975.2	982.9	990.8	1000.4	1013.4	1020.4	1034.3	1046.4	1057.8	1069.9
22.5°	962.2	968.2	976.0	983.8	994.2	1004.8	1016.1	1028.2	1041.2	1053.4	1065.6
25°	959.5	964.7	971.7	979.5	990.8	1002.1	1011.7	1025.5	1036.8	1049.8	1064.7
27.5°	960.4	963.8	971.7	978.6	989.9	1000.4	1010.0	1023.9	1036.8	1049.0	1063.9
30°	963.8	966.5	974.3	980.4	989.9	1000.4	1009.1	1023.9	1035.2	1048.1	1063.9
32.5°	976.0	979.5	982.9	987.3	996.0	1003.9	1014.3	1027.3	1037.7	1050.7	1063.9
35°	1004.8	1002.1	1004.8	1006.4	1012.5	1020.4	1028.2	1039.5	1049.0	1060.3	1074.2
37.5°	1049.8	1044.7	1046.4	1045.5	1045.5	1050.7	1058.7	1066.4	1074.2	1085.5	1099.4
40°	1133.3	1120.3	1116.9	1107.3	1104.6	1109.0	1114.2	1115.1	1124.7	1139.4	1145.5
42.5°	1241.1	1223.7	1226.4	1210.6	1206.3	1201.1	1208.1	1203.8	1209.8	1219.4	1232.5
45°	1411.5	1395.0	1377.6	1352.4	1357.6	1338.5	1333.3	1335.0	1334.2	1337.6	1353.3
47.5°	1614.8	1593.1	1581.8	1572.2	1554.0	1542.7	1527.9	1506.2	1511.4	1518.3	1532.3
50°	1912.1	1905.1	1883.4	1852.1	1847.7	1831.3	1827.0	1807.7	1800.8	1799.9	1799.0
52.5°	2309.3	2264.1	2255.4	2225.8	2203.3	2187.6	2182.4	2155.4	2128.5	2144.2	2142.4
55°	2793.4	2756.0	2708.2	2682.1	2663.8	2626.6	2616.9	2583.1	2567.4	2558.7	2537.0
57.5°	3606.9	3475.6	3377.4	3328.8	3260.1	3190.6	3166.3	3096.6	3042.8	3004.7	3007.2
60°	5025.3	4791.5	4516.0	4392.6	4106.6	4064.9	3868.6	3820.7	3702.5	3624.2	3579.0
62.5°	6268.1	6204.8	6072.6	5892.7	5605.9	5275.6	5127.0	4831.4	4600.3	4499.5	4359.6
65°	6861.7	6951.3	6987.7	6953.9	6839.2	6637.6	6460.3	6171.6	5784.1	5565.0	5293.0
66°	6831.3	6964.3	7031.2	7066.0	7024.3	6905.2	6719.2	6482.0	6182.1	5848.3	5543.4
67.5°	6608.8	6738.4	6831.3	6937.4	6937.4	6900.0	6824.4	6666.2	6454.1	6163.0	5889.2
70°	5699.7	5875.4	6039.6	6071.7	6162.1	6134.3	6194.3	6093.5	6043.1	5921.4	5774.5
72.5°	4440.4	4587.3	4728.0	4868.8	4845.4	4814.9	4808.9	4829.7	4727.2	4763.7	4725.4
75°	2953.3	3206.2	3350.5	3336.6	3346.2	3353.9	3289.6	3146.2	3257.5	3116.7	3163.7
77.5°	1794.7	1912.1	1951.2	1907.7	1851.2	1778.3	1660.9	1592.2	1494.0	1501.9	1436.7
80°	941.2	956.1	924.7	837.0	789.3	745.8	611.8	551.9	496.2	475.5	428.5
82.5°	539.7	504.1	465.8	436.3	379.8	341.5	289.4	256.4	220.7	189.5	178.1
85°	437.1	389.3	353.8	320.8	282.4	248.7	205.2	171.1	145.2	126.0	121.7
87.5°	360.7	327.6	291.2	259.9	222.5	187.7	145.2	113.0	89.5	72.1	66.9
90°	40.9	52.3	40.2	26.2	34.9	22.7	16.7	17.6	15.8	15.8	16.7
92.5°	6.8	6.8	6.7	6.6	6.6	6.5	6.4	6.3	6.2	6.1	6.0
95°	7.7	7.8	7.7	7.6	7.5	7.5	7.4	7.3	7.2	7.1	7.0
97.5°	10.0	9.8	9.7	9.6	9.5	9.4	9.3	9.3	9.2	9.1	8.9
100°	25.8	25.5	25.2	25.0	24.6	24.3	24.1	23.7	23.4	23.2	22.9
102.5°	46.4	46.2	45.6	45.2	44.6	44.2	43.7	43.2	42.7	42.2	41.7
105°	68.9	68.7	68.2	67.7	67.2	66.7	66.3	65.8	65.3	64.8	64.3
107.5°	92.3	92.3	91.9	91.4	91.1	90.7	90.3	89.9	89.5	89.1	88.8



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CATALOG NUMBER: IST-AF-1200-LED-E1-SL2-7027-ULG

CANDELA DISTRIBUTION (continued):

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
110°	118.7	118.8	118.6	118.4	118.1	117.9	117.8	117.6	117.4	117.2	117.0
112.5°	147.1	147.2	147.1	147.1	147.0	146.9	146.7	146.6	146.5	146.4	146.3
115°	178.3	178.7	178.3	178.0	177.8	177.4	177.1	176.9	176.6	176.2	176.0
117.5°	210.7	211.0	210.6	210.0	209.6	209.0	208.6	208.0	207.6	207.1	206.6
120°	245.0	245.3	244.9	244.4	243.9	243.4	242.9	242.5	241.9	241.5	240.9
122.5°	277.4	277.8	277.3	276.8	276.3	275.8	275.3	274.8	274.3	273.8	273.4
125°	308.9	309.2	308.7	308.2	307.7	307.2	306.7	306.2	305.7	305.2	304.7
127.5°	339.5	339.6	339.6	339.6	339.6	339.6	339.6	339.6	339.6	339.6	339.6
130°	373.5	374.0	374.0	374.0	374.0	374.0	374.0	374.0	374.0	374.0	374.0
132.5°	407.8	408.3	408.1	407.9	407.7	407.5	407.3	407.1	406.9	406.8	406.6
135°	439.2	439.7	439.6	439.5	439.5	439.3	439.2	439.1	439.0	438.9	438.8
137.5°	466.0	466.2	466.3	466.4	466.5	466.6	466.7	466.8	466.8	467.0	467.1
140°	492.5	492.7	492.9	493.1	493.3	493.5	493.7	493.9	494.1	494.2	494.4
142.5°	522.5	523.2	523.2	523.2	523.2	523.2	523.2	523.2	523.2	523.2	523.2
145°	551.0	551.6	551.5	551.4	551.3	551.2	551.1	551.0	550.9	550.8	550.8
147.5°	573.7	574.2	574.3	574.4	574.5	574.6	574.6	574.7	574.8	574.9	575.1
150°	588.6	588.9	589.2	589.5	589.7	590.1	590.4	590.6	590.9	591.3	591.5
152.5°	602.3	602.7	603.0	603.4	603.8	604.2	604.6	605.0	605.4	605.7	606.2
155°	618.8	619.3	619.8	620.3	620.8	621.3	621.8	622.3	622.7	623.2	623.7
157.5°	635.6	636.0	636.2	636.4	636.6	636.8	637.0	637.2	637.3	637.5	637.8
160°	651.1	651.7	651.5	651.1	650.8	650.6	650.2	649.9	649.7	649.4	649.0
162.5°	658.2	658.5	658.5	658.4	658.3	658.2	658.1	658.0	657.9	657.8	657.6
165°	663.9	664.5	664.7	665.0	665.4	665.6	665.9	666.3	666.5	666.8	667.1
167.5°	670.8	671.3	671.8	672.1	672.5	672.9	673.3	673.7	674.1	674.4	674.9
170°	676.0	676.2	676.7	677.2	677.7	678.2	678.7	679.2	679.7	680.2	680.6
172.5°	678.8	679.2	679.4	679.6	679.7	679.9	680.2	680.4	680.6	680.7	680.9
175°	681.6	682.2	682.3	682.4	682.4	682.5	682.6	682.7	682.8	682.9	683.0
177.5°	685.6	686.0	686.2	686.5	686.7	686.8	687.0	687.2	687.5	687.7	687.8
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0



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CATALOG NUMBER: IST-AF-1200-LED-E1-SL2-7027-ULG

CANDELA DISTRIBUTION (continued):

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°
0°	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7
2.5°	1209.8	1209.8	1211.5	1213.3	1214.1	1214.1	1214.1	1215.9	1216.8	1214.1	1216.8
5°	1195.0	1199.3	1202.9	1205.4	1206.3	1209.0	1211.5	1213.3	1215.9	1215.9	1217.7
7.5°	1175.1	1182.9	1187.2	1191.6	1195.9	1200.2	1205.4	1209.0	1210.6	1214.1	1216.8
10°	1149.9	1159.4	1168.1	1175.1	1181.1	1189.9	1196.8	1202.0	1209.8	1210.6	1216.8
12.5°	1122.9	1136.9	1143.8	1156.7	1165.6	1178.6	1185.5	1193.3	1202.0	1206.3	1213.3
15°	1103.7	1116.0	1129.0	1141.2	1155.1	1170.7	1179.5	1189.9	1202.0	1211.5	1220.3
17.5°	1089.0	1105.5	1120.3	1136.0	1153.3	1169.9	1182.9	1194.2	1209.8	1215.0	1223.7
20°	1084.6	1102.8	1117.7	1134.2	1152.4	1174.2	1189.9	1202.0	1217.7	1226.4	1234.1
22.5°	1083.0	1100.3	1117.7	1137.7	1157.6	1180.2	1196.8	1212.4	1228.1	1235.9	1242.0
25°	1081.2	1099.4	1118.6	1141.2	1162.9	1186.3	1205.4	1220.3	1235.0	1242.9	1248.0
27.5°	1081.2	1100.3	1121.2	1143.8	1167.3	1193.3	1211.5	1225.5	1238.5	1245.5	1247.2
30°	1080.3	1100.3	1120.3	1145.5	1170.7	1197.7	1217.7	1230.7	1242.0	1246.3	1244.6
32.5°	1082.1	1102.8	1124.7	1149.9	1175.9	1202.0	1222.9	1237.7	1243.7	1242.9	1242.0
35°	1090.7	1109.9	1135.1	1160.3	1187.2	1211.5	1231.6	1242.0	1247.2	1245.5	1241.1
37.5°	1114.2	1133.3	1158.5	1186.3	1207.2	1235.0	1253.2	1261.1	1262.0	1256.8	1246.3
40°	1162.9	1182.0	1204.5	1235.0	1260.2	1279.4	1296.7	1305.5	1300.2	1290.7	1279.4
42.5°	1240.2	1264.5	1291.5	1315.8	1345.4	1371.5	1375.8	1381.1	1372.3	1354.1	1340.2
45°	1364.5	1379.3	1414.1	1432.3	1470.5	1483.6	1493.2	1495.8	1476.6	1461.9	1437.6
47.5°	1543.6	1572.2	1596.6	1614.0	1641.8	1659.2	1678.3	1669.6	1654.8	1629.6	1597.5
50°	1825.2	1843.4	1874.8	1906.0	1935.6	1947.7	1947.7	1939.0	1929.5	1880.8	1841.6
52.5°	2171.0	2172.8	2218.1	2255.4	2280.5	2262.3	2284.1	2262.3	2256.3	2222.4	2190.2
55°	2571.8	2555.2	2609.9	2643.0	2665.6	2687.3	2683.0	2680.5	2657.7	2619.5	2580.4
57.5°	2952.4	3000.2	3026.3	3075.0	3086.3	3101.1	3095.0	3086.3	3073.2	3051.5	3034.1
60°	3501.8	3533.9	3557.4	3566.9	3599.1	3603.4	3625.1	3589.4	3598.3	3573.0	3518.2
62.5°	4249.2	4214.4	4232.6	4232.6	4223.1	4189.2	4207.4	4221.3	4197.9	4177.0	4168.3
65°	5086.1	4974.1	4866.3	4848.1	4798.5	4787.2	4773.2	4738.5	4723.6	4687.2	4657.6
66°	5336.4	5162.6	5060.9	4998.3	4938.4	4925.4	4906.3	4869.7	4840.2	4789.0	4739.4
67.5°	5617.2	5393.0	5239.9	5151.3	5077.4	5028.8	4990.5	4938.4	4891.5	4814.9	4735.9
70°	5599.0	5413.7	5229.6	5094.8	4983.5	4883.6	4824.5	4712.4	4616.7	4507.2	4416.9
72.5°	4704.6	4671.5	4564.6	4489.0	4352.6	4299.6	4143.2	4071.8	3939.8	3798.1	3754.6
75°	3270.5	3141.0	3086.3	3055.9	2995.8	2830.8	2723.0	2746.5	2591.7	2453.5	2374.5
77.5°	1429.7	1455.8	1304.6	1236.8	1184.7	1095.1	1011.7	954.3	921.3	899.6	801.4
80°	395.4	345.1	340.6	316.3	311.2	277.3	281.6	257.3	240.7	237.2	229.4
82.5°	172.9	169.5	164.3	161.7	159.1	155.6	151.3	150.4	145.2	140.9	141.7
85°	114.7	113.8	111.2	108.7	104.3	98.3	93.9	90.4	91.3	87.0	86.1
87.5°	66.9	65.1	64.3	60.8	60.0	54.8	55.7	51.2	50.5	49.6	46.9
90°	18.3	19.0	21.5	20.4	16.8	24.3	21.6	19.7	20.3	17.4	17.2
92.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
95°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
97.5°	8.8	8.7	8.6	8.5	8.4	8.4	8.3	8.2	8.1	7.9	7.8
100°	22.5	22.2	21.8	21.4	21.0	20.6	20.2	19.9	19.4	19.0	18.7
102.5°	41.2	41.0	40.6	40.3	40.1	39.7	39.4	39.2	38.9	38.5	38.3
105°	63.8	63.4	63.0	62.6	62.3	61.8	61.4	61.1	60.6	60.3	59.8
107.5°	88.3	88.0	87.8	87.5	87.1	86.9	86.6	86.2	86.0	85.7	85.4



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 CATALOG NUMBER: IST-AF-1200-LED-E1-SL2-7027-ULG

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	
110°	116.8	116.5	116.2	115.9	115.6	115.3	115.1	114.7	114.4	114.2	113.8	0°
112.5°	146.2	146.1	145.9	145.6	145.4	145.3	145.1	144.9	144.6	144.4	144.3	2.5°
115°	175.7	175.5	175.3	175.1	174.9	174.7	174.5	174.3	174.1	173.9	173.7	5°
117.5°	206.1	205.9	205.7	205.5	205.4	205.2	204.9	204.7	204.5	204.4	204.2	7.5°
120°	240.5	240.3	240.0	239.8	239.7	239.5	239.3	239.1	238.9	238.7	238.5	10°
122.5°	272.8	272.6	272.5	272.3	272.1	271.8	271.6	271.5	271.3	271.1	270.9	12.5°
125°	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	15°
127.5°	339.6	339.5	339.4	339.3	339.2	339.1	339.0	338.9	338.8	338.8	338.6	17.5°
130°	374.0	373.8	373.5	373.3	373.2	373.0	372.8	372.5	372.3	372.2	372.0	20°
132.5°	406.3	406.3	406.3	406.3	406.3	406.3	406.3	406.3	406.3	406.3	406.3	22.5°
135°	438.7	439.0	439.3	439.6	439.9	440.2	440.5	440.8	441.1	441.3	441.7	25°
137.5°	467.2	467.7	468.2	468.6	469.2	469.6	470.2	470.6	471.1	471.6	472.1	27.5°
140°	494.7	495.1	495.7	496.1	496.7	497.1	497.6	498.1	498.6	499.1	499.5	30°
142.5°	523.2	523.3	523.4	523.4	523.5	523.6	523.7	523.8	523.9	524.0	524.1	32.5°
145°	550.6	550.3	550.0	549.8	549.4	549.1	548.9	548.5	548.2	548.0	547.7	35°
147.5°	575.2	574.8	574.6	574.3	573.9	573.7	573.4	573.1	572.8	572.5	572.2	37.5°
150°	591.8	592.2	592.4	592.7	593.0	593.3	593.6	593.9	594.2	594.5	594.8	40°
152.5°	606.5	607.1	607.5	608.1	608.5	609.1	609.5	609.9	610.5	610.9	611.5	42.5°
155°	624.2	624.4	624.6	624.8	625.0	625.2	625.4	625.6	625.8	626.0	626.2	45°
157.5°	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	47.5°
160°	648.8	648.7	648.6	648.5	648.4	648.3	648.1	648.0	647.9	647.9	647.8	50°
162.5°	657.6	657.4	657.2	657.0	656.8	656.6	656.4	656.2	656.0	655.9	655.7	52.5°
165°	667.4	667.2	667.0	666.8	666.6	666.5	666.3	666.0	665.8	665.6	665.5	55°
167.5°	675.3	675.3	675.3	675.3	675.3	675.3	675.3	675.3	675.3	675.3	675.3	57.5°
170°	681.2	681.4	681.5	681.7	681.9	682.2	682.4	682.5	682.7	682.9	683.1	60°
172.5°	681.2	681.4	681.5	681.7	681.9	682.2	682.4	682.5	682.7	682.9	683.1	62.5°
175°	683.1	682.9	682.7	682.5	682.4	682.2	681.9	681.7	681.5	681.4	681.2	65°
177.5°	688.0	687.7	687.5	687.1	686.8	686.6	686.2	685.9	685.7	685.4	685.0	66°
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	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°

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 NUMBER: IST-AF-1200-LED-E1-SL2-7027-ULG

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

86°	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	86°	
1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	1217.7	110°	114.1
1219.4	1221.2	1222.1	1221.2	1222.9	1222.1	1222.9	1222.1	1217.7	1216.8	1215.9	112.5°	144.3
1221.2	1224.6	1225.5	1226.4	1224.6	1226.4	1222.9	1209.0	1193.3	1175.9	1162.0	115°	173.9
1222.9	1227.3	1229.8	1229.8	1230.7	1228.9	1215.9	1185.5	1149.0	1112.6	1084.6	117.5°	204.4
1222.1	1228.1	1230.7	1231.6	1231.6	1228.1	1196.8	1148.1	1092.5	1036.8	980.4	120°	238.5
1219.4	1224.6	1228.9	1228.9	1229.8	1217.7	1169.0	1099.4	1020.4	936.9	861.4	122.5°	271.1
1224.6	1229.8	1229.8	1229.8	1228.9	1208.1	1139.4	1038.6	932.6	819.6	707.4	125°	304.3
1232.5	1235.0	1233.4	1233.4	1229.8	1198.5	1106.4	978.6	839.6	690.1	533.6	127.5°	339.0
1239.4	1241.1	1240.2	1235.9	1231.6	1188.1	1072.5	915.2	728.3	533.6	378.1	130°	372.2
1246.3	1248.0	1243.7	1236.8	1230.7	1174.2	1031.6	834.3	602.3	365.0	250.3	132.5°	406.6
1247.2	1248.9	1241.1	1231.6	1222.9	1153.3	982.0	748.3	464.2	236.4	195.5	135°	441.9
1246.3	1244.6	1231.6	1219.4	1209.8	1128.1	927.4	641.4	309.4	178.1	170.4	137.5°	472.3
1240.2	1232.5	1222.1	1208.1	1194.2	1100.3	872.6	522.4	195.5	154.7	154.7	140°	500.0
1231.6	1223.7	1210.6	1192.4	1176.8	1073.4	810.0	400.6	156.5	142.5	144.3	142.5°	524.5
1228.1	1219.4	1200.2	1181.1	1161.1	1049.0	744.0	269.4	140.9	134.7	135.6	145°	548.1
1235.0	1220.3	1201.1	1179.5	1156.0	1028.2	675.3	187.7	132.9	126.0	127.8	147.5°	572.6
1258.4	1244.6	1222.1	1194.2	1169.0	1016.1	602.3	155.6	125.1	119.0	119.0	150°	595.6
1315.0	1296.7	1266.3	1233.4	1202.9	1023.9	537.2	141.7	119.0	113.0	113.0	152.5°	612.5
1406.3	1384.5	1348.9	1311.5	1271.6	1062.1	463.3	136.5	114.7	106.0	104.3	155°	626.7
1562.7	1534.0	1487.1	1442.8	1395.0	1128.1	388.4	132.9	109.5	101.7	98.3	157.5°	639.0
1808.6	1766.1	1710.5	1652.3	1594.0	1248.9	329.4	129.4	106.0	98.3	94.7	160°	648.9
2125.0	2096.4	2026.8	1950.3	1880.8	1489.7	295.5	126.9	103.5	93.9	91.3	162.5°	656.8
2528.3	2481.4	2426.6	2357.9	2275.4	1801.7	291.9	126.0	100.8	90.4	88.7	165°	666.3
2954.2	2935.9	2843.0	2800.4	2710.8	2217.2	355.5	127.8	99.2	87.8	85.2	167.5°	676.4
3440.0	3447.0	3360.0	3313.1	3239.3	2743.9	565.8	132.9	99.2	85.2	82.6	170°	684.1
4075.3	4086.6	3984.2	3928.5	3865.9	3334.0	889.1	141.7	101.7	82.6	79.9	172.5°	684.1
4596.0	4535.1	4469.1	4371.7	4292.6	3663.4	856.1	157.3	105.1	79.9	77.3	175°	682.2
4649.9	4606.4	4523.0	4417.8	4321.3	3665.2	747.5	162.5	106.0	79.1	76.4	177.5°	685.9
4642.9	4565.5	4470.8	4382.1	4287.4	3571.2	578.0	169.5	108.7	77.3	74.8	180°	687.0
4321.3	4212.6	4120.5	3998.0	3898.9	3195.8	355.5	168.6	105.1	72.1	70.3		
3563.5	3507.8	3398.3	3300.0	3196.7	2586.5	243.4	150.4	93.1	65.1	66.0		
2304.9	2241.5	2130.2	2074.6	2016.3	1654.8	189.5	122.6	79.1	58.2	60.8		
769.2	744.0	703.1	725.7	691.9	644.9	139.1	93.1	63.4	50.5	53.9		
230.3	225.1	232.9	219.1	232.0	196.4	91.3	65.1	48.7	43.5	47.8		
136.5	134.7	134.7	134.7	131.2	122.6	60.0	45.2	37.4	36.5	40.0		
83.5	81.7	82.6	81.7	83.5	74.8	40.9	31.4	27.8	26.9	32.2		
47.8	47.8	48.7	46.9	47.8	46.0	28.7	20.0	18.2	17.3	23.4		
18.1	18.1	15.6	14.7	15.6	19.0	16.7	14.9	12.0	11.2	15.7		
5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.8	6.8	5.9	5.9		
6.8	6.8	6.8	6.8	6.8	6.8	6.8	7.8	6.8	6.8	6.8		
7.8	7.8	7.8	7.8	7.8	7.8	8.8	9.8	11.8	8.8	8.8		
18.7	18.7	18.7	18.7	18.7	18.7	22.5	25.5	28.5	20.6	11.8		
38.1	37.9	37.7	37.5	37.3	38.3	41.2	46.2	49.0	39.3	26.5		
59.8	59.8	59.8	59.8	59.8	59.8	63.8	68.7	70.7	61.8	47.1		
85.2	85.0	84.8	84.6	84.4	85.4	88.3	92.3	93.2	86.3	71.7		

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TION (continued):

CANDELA DISTRIBUTION (con

87°	88°	89°	90°	95°	105°	115°	125°	135°	145°		155°	165°
114.3	114.4	114.6	114.8	113.8	116.8	118.8	117.8	111.9	100.1	0°	1217.7	1217.7
144.3	144.3	144.3	144.3	144.3	146.2	147.2	145.3	140.3	131.5	2.5°	1209.0	1202.9
174.1	174.3	174.5	174.7	173.7	175.7	178.7	175.7	170.8	164.9	5°	1140.3	1123.8
204.5	204.7	204.9	205.2	204.2	206.1	211.0	207.1	201.2	198.3	7.5°	1041.2	1022.1
238.5	238.5	238.5	238.5	238.5	240.5	245.3	241.5	238.5	232.6	10°	928.2	899.6
271.3	271.5	271.6	271.8	270.9	272.8	277.8	273.8	271.8	266.0	12.5°	784.0	727.4
304.3	304.3	304.3	304.3	304.3	304.3	309.2	307.2	304.3	299.3	15°	617.0	541.5
339.4	339.8	340.2	340.5	338.6	339.6	339.6	338.6	333.7	332.7	17.5°	425.0	364.2
372.3	372.5	372.8	373.0	372.0	374.0	374.0	370.0	365.1	363.2	20°	298.1	275.5
406.8	406.9	407.1	407.3	406.3	406.3	408.3	403.4	397.5	396.5	22.5°	230.3	231.2
442.1	442.2	442.4	442.7	441.7	438.7	439.7	434.8	428.9	427.0	25°	191.2	200.0
472.5	472.7	472.9	473.0	472.1	467.2	466.2	464.2	459.3	455.4	27.5°	168.6	177.2
500.4	500.7	501.2	501.5	499.5	494.7	492.7	490.7	487.8	481.9	30°	154.7	162.5
524.9	525.3	525.7	526.0	524.1	523.2	523.2	517.2	515.3	511.3	32.5°	145.2	148.6
548.4	548.9	549.2	549.7	547.7	550.6	551.6	545.7	540.8	539.8	35°	133.8	135.6
573.0	573.4	573.7	574.2	572.2	575.2	574.2	569.3	564.3	563.3	37.5°	124.2	124.2
596.4	597.1	597.9	598.7	594.8	591.8	588.9	586.0	582.0	582.0	40°	115.6	114.7
613.5	614.4	615.4	616.3	611.5	606.5	602.7	599.7	598.7	598.7	42.5°	107.8	106.9
627.4	627.9	628.5	629.2	626.2	624.2	619.3	614.4	616.3	618.3	45°	99.9	100.8
640.0	640.9	641.9	642.8	638.0	638.0	636.0	632.0	633.0	634.0	47.5°	95.6	96.5
650.1	651.3	652.5	653.7	647.8	648.8	651.7	645.8	642.8	642.8	50°	91.3	92.2
658.0	659.2	660.3	661.5	655.7	657.6	658.5	654.7	650.7	648.8	52.5°	87.8	87.8
667.0	667.8	668.6	669.3	665.5	667.4	664.5	659.5	660.5	660.5	55°	84.4	83.5
677.6	678.8	679.9	681.2	675.3	675.3	671.3	665.5	672.3	675.3	57.5°	81.7	79.9
685.0	686.0	687.0	688.0	683.1	681.2	676.2	673.3	678.2	680.2	60°	79.1	77.3
685.0	686.0	687.0	688.0	683.1	681.2	679.2	676.2	677.2	677.2	62.5°	77.3	74.8
683.1	684.1	685.0	686.0	681.2	683.1	682.2	677.2	677.2	678.2	65°	75.5	73.9
686.7	687.5	688.2	689.0	685.0	688.0	686.0	681.2	682.2	684.1	66°	74.8	73.0
687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	67.5°	73.9	72.1
										70°	70.3	68.7
										72.5°	65.1	64.3
										75°	60.0	58.2
										77.5°	53.0	52.1
										80°	45.2	44.4
										82.5°	38.3	36.5
										85°	30.5	28.7
										87.5°	20.9	19.1
										90°	13.0	12.9
										92.5°	5.9	4.9
										95°	6.8	5.9
										97.5°	7.8	7.8
										100°	9.8	8.8
										102.5°	17.7	12.8
										105°	35.3	26.5
										107.5°	57.0	48.1



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tinued):

175°	180°
1217.7	1217.7
1197.7	1205.4
1118.6	1116.0
1006.4	1007.3
870.9	872.6
695.3	684.9
498.0	502.3
346.7	345.8
278.1	279.8
238.1	238.1
212.1	212.1
186.8	187.7
169.5	171.1
153.8	154.7
138.2	139.1
125.1	125.1
116.5	117.3
110.4	110.4
104.3	104.3
99.2	100.8
93.9	94.7
88.7	89.5
83.5	83.5
79.1	79.1
75.5	74.8
73.0	71.2
70.3	69.5
69.5	68.7
68.7	67.8
66.9	66.0
64.3	63.4
59.1	57.3
53.9	52.1
49.6	46.9
41.7	40.0
30.5	28.7
18.2	18.2
9.3	9.3
4.0	4.0
4.9	4.9
6.8	6.8
7.8	7.8
10.8	10.8
21.6	20.6
41.2	40.2

CANDELA DISTRIBUTION (continued):

	155°	165°	175°
110°	85.4	72.7	66.7
112.5°	118.8	104.0	97.2
115°	156.0	144.3	136.5
117.5°	193.3	185.5	180.6
120°	228.7	221.8	218.8
122.5°	262.0	256.2	255.2
125°	293.5	290.5	288.5
127.5°	326.8	322.9	322.9
130°	359.2	355.3	354.3
132.5°	393.5	385.7	386.7
135°	424.0	418.1	418.1
137.5°	451.5	450.5	448.5
140°	480.0	478.0	476.0
142.5°	508.4	507.5	505.5
145°	536.8	534.0	535.9
147.5°	563.3	560.5	561.4
150°	582.0	582.0	581.0
152.5°	597.7	596.7	596.7
155°	615.4	613.5	613.5
157.5°	632.0	631.1	631.1
160°	643.8	646.8	647.8
162.5°	652.7	656.6	656.6
165°	663.5	663.5	665.5
167.5°	673.3	671.3	674.3
170°	679.2	679.2	682.2
172.5°	680.2	682.2	684.1
175°	682.2	684.1	685.0
177.5°	686.0	687.0	692.0
180°	687.0	687.0	687.0

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180°
64.8
97.2
137.4
180.6
220.8
258.2
292.5
323.9
356.3
388.7
421.0
451.5
479.0
508.4
539.8
564.3
584.0
599.7
617.3
634.0
650.7
660.5
668.4
677.2
685.0
686.0
687.0
693.9
687.0

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