

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: NEO-RAY

Report Number: P332042-930

Luminaire Tested: **S123DIP-S1000D1195U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332042-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D1195U930-4F0-1E-UDD-F
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1195 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7249.7 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

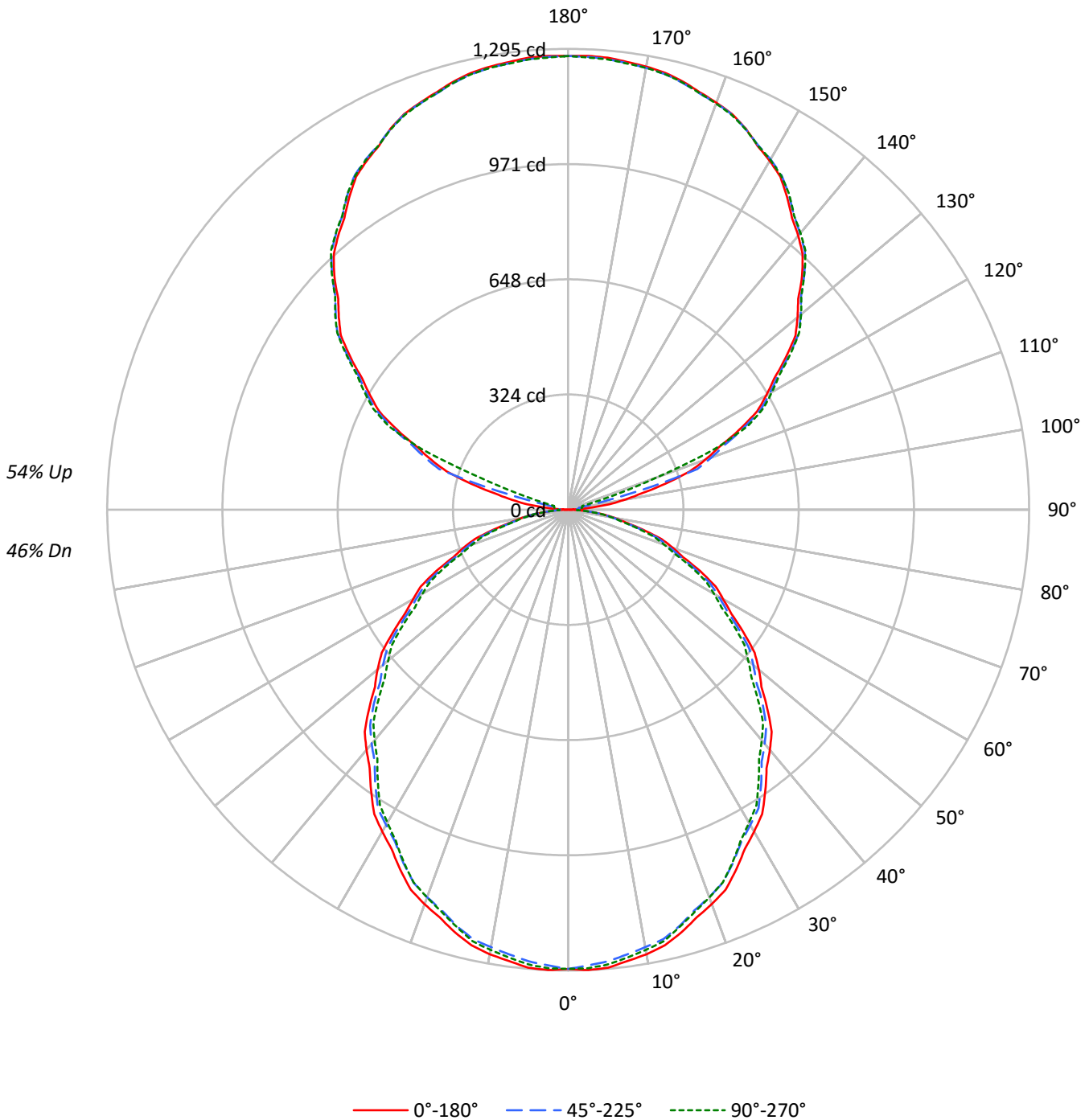
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332042-930

CATALOG NUMBER: S123DIP-S1000D1195U930-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P332042-930

CATALOG NUMBER: S123DIP-S1000D1195U930-4F0-1E-UDD-F

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46				
1	97	93	89	85	89	85	82	79	71	69	67	58	57	55	47	45	44	39				
2	88	81	75	70	81	74	69	65	62	58	55	51	48	46	41	39	37	33				
3	80	71	64	58	74	65	59	54	55	50	46	45	42	39	36	34	32	28				
4	74	63	55	49	67	58	51	46	49	44	39	40	36	33	32	30	27	24				
5	67	56	48	42	62	52	44	39	44	38	34	36	32	29	29	26	24	20				
6	62	50	42	36	57	46	39	34	39	34	30	33	28	25	26	23	21	18				
7	57	45	37	32	53	42	35	30	36	30	26	30	25	22	24	21	19	16				
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	17	14				
9	50	37	30	25	45	35	28	23	30	24	21	25	21	18	20	17	15	13				
10	46	34	27	22	43	32	25	21	27	22	19	23	19	16	19	16	14	12				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13891	13891	13891
5°	13956	13765	13861
10°	13864	13645	13729
15°	13701	13490	13515
20°	13512	13270	13283
25°	13258	13007	12981
30°	12978	12716	12619
35°	12686	12408	12248
40°	12381	12067	11880
45°	12044	11756	11469
50°	11707	11372	11055
55°	11265	10975	10640
60°	10820	10512	10176
65°	10427	10004	9694
70°	9847	9429	9010
75°	9000	8675	8305
80°	8114	7773	7705
85°	7126	6854	6570



TEST NUMBER: P332042-930

CATALOG NUMBER: S123DIP-S1000D1195U930-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.6	1.7
10°-20°	343.3	4.7
20°-30°	507.0	7.0
30°-40°	592.3	8.2
40°-50°	595.5	8.2
50°-60°	523.1	7.2
60°-70°	389.7	5.4
70°-80°	222.0	3.1
80°-90°	67.3	0.9
90°-100°	46.4	0.6
100°-110°	220.9	3.0
110°-120°	530.6	7.3
120°-130°	675.7	9.3
130°-140°	722.0	10.0
140°-150°	675.1	9.3
150°-160°	544.6	7.5
160°-170°	351.5	4.8
170°-180°	121.1	1.7
0°-30°	971.9	13.4
0°-40°	1564.1	21.6
0°-60°	2682.6	37.0
0°-90°	3361.6	46.4
90°-120°	797.9	11.0
90°-150°	2870.8	39.6
90°-180°	3888.0	53.6
0°-180°	7249.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1290	1290	1290	1290	1290	
5°	1292	1286	1274	1284	1283	122
15°	1230	1224	1211	1219	1213	346
25°	1116	1109	1095	1096	1093	514
35°	965	958	944	938	932	604
45°	791	786	772	759	753	611
55°	600	598	585	573	567	538
65°	409	404	393	384	381	404
75°	216	212	209	203	200	231
85°	58	56	56	53	53	63
90°	1	11	23	26	28	6
95°	58	22	29	36	36	71
105°	282	287	207	49	42	299
115°	530	535	544	553	557	522
125°	746	754	758	760	762	666
135°	929	935	939	941	939	715
145°	1072	1079	1081	1083	1083	671
155°	1181	1179	1180	1184	1179	544
165°	1246	1243	1242	1249	1243	352
175°	1275	1270	1271	1277	1270	121
180°	1275	1275	1275	1275	1275	



TEST NUMBER: P332042-930

CATALOG NUMBER: S123DIP-S1000D1195U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5
2.5°	1294.9	1294.2	1293.4	1292.6	1291.8	1290.3	1288.2	1286.0	1283.9	1281.7	1283.6
5°	1291.6	1290.4	1289.2	1287.9	1286.7	1284.7	1282.1	1279.3	1276.6	1273.9	1276.4
7.5°	1279.0	1277.7	1276.5	1275.3	1274.1	1272.0	1269.3	1266.4	1263.6	1260.8	1263.0
10°	1268.4	1267.1	1265.8	1264.6	1263.4	1261.2	1258.0	1254.7	1251.6	1248.4	1250.6
12.5°	1254.1	1253.1	1252.1	1251.0	1250.0	1248.0	1245.0	1241.9	1238.9	1235.9	1237.5
15°	1229.5	1228.5	1227.5	1226.5	1225.6	1223.4	1220.3	1217.1	1213.8	1210.6	1212.6
17.5°	1200.9	1199.5	1198.3	1197.0	1195.7	1193.5	1190.3	1187.1	1183.9	1180.6	1182.0
20°	1179.6	1178.1	1176.6	1175.1	1173.6	1171.3	1168.1	1164.9	1161.7	1158.5	1159.4
22.5°	1155.6	1154.1	1152.7	1151.1	1149.7	1147.4	1144.1	1140.9	1137.8	1134.5	1135.3
25°	1116.3	1114.8	1113.4	1111.9	1110.4	1108.1	1104.8	1101.6	1098.5	1095.2	1095.4
27.5°	1074.4	1072.9	1071.5	1070.1	1068.6	1066.2	1062.7	1059.3	1055.8	1052.4	1052.6
30°	1044.2	1042.9	1041.7	1040.5	1039.3	1036.9	1033.5	1030.0	1026.5	1023.1	1023.1
32.5°	1014.0	1012.4	1010.7	1009.1	1007.5	1005.3	1002.7	1000.0	997.4	994.7	993.3
35°	965.4	963.9	962.5	961.0	959.4	957.2	953.9	950.7	947.5	944.3	942.8
37.5°	915.7	913.8	911.9	910.0	908.2	905.6	902.4	899.1	895.9	892.6	890.8
40°	881.1	879.5	878.1	876.6	875.1	872.7	869.2	865.8	862.3	858.8	856.9
42.5°	846.4	844.7	843.1	841.4	839.8	837.1	833.7	830.3	826.8	823.4	821.4
45°	791.2	790.2	789.2	788.2	787.3	785.1	782.0	778.7	775.5	772.3	769.4
47.5°	736.4	734.9	733.5	732.1	730.7	728.4	725.5	722.4	719.4	716.4	713.5
50°	699.1	697.8	696.6	695.4	694.1	691.9	688.7	685.5	682.3	679.1	676.4
52.5°	660.0	659.2	658.4	657.5	656.6	654.5	651.2	647.8	644.3	640.9	638.6
55°	600.3	600.1	599.8	599.6	599.3	597.6	594.4	591.2	588.0	584.8	582.0
57.5°	543.5	542.7	541.8	541.0	540.1	538.4	535.9	533.3	530.8	528.2	525.8
60°	502.6	502.4	502.1	501.9	501.7	500.1	497.1	494.2	491.2	488.3	486.0
62.5°	466.3	465.6	465.0	464.3	463.7	461.9	458.9	456.0	453.1	450.0	447.8
65°	409.4	408.2	407.0	405.8	404.6	402.7	400.2	397.8	395.3	392.8	390.9
67.5°	349.4	348.2	347.2	346.1	345.0	343.5	341.6	339.7	337.9	336.0	334.3
70°	312.9	311.4	310.0	308.5	307.0	305.5	304.0	302.6	301.1	299.6	297.9
72.5°	274.8	273.7	272.6	271.5	270.4	269.0	267.3	265.7	264.0	262.3	260.8
75°	216.4	215.4	214.4	213.4	212.5	211.6	210.8	210.1	209.4	208.6	207.4
77.5°	164.7	164.1	163.5	163.1	162.5	161.8	160.9	160.0	159.1	158.2	157.4
80°	130.9	130.2	129.5	128.7	128.0	127.3	126.9	126.4	125.9	125.4	125.1
82.5°	98.1	97.9	97.8	97.7	97.5	97.3	97.3	97.2	97.1	97.0	96.5
85°	57.7	57.2	56.7	56.3	55.8	55.5	55.5	55.5	55.5	55.5	55.0
87.5°	23.2	23.1	22.9	22.7	22.6	22.7	23.0	23.4	23.7	24.1	24.1
90°	1.0	3.0	5.1	7.3	9.4	11.8	14.5	17.3	20.0	22.7	23.6
92.5°	17.6	17.0	16.5	15.8	15.2	16.0	18.1	20.1	22.2	24.2	25.6
95°	57.8	49.2	40.5	31.9	23.2	20.1	22.4	24.7	27.1	29.4	30.8
97.5°	116.1	112.3	108.4	104.5	100.6	91.2	76.0	60.8	45.7	30.5	32.2
100°	160.0	164.3	168.5	172.7	176.9	162.6	129.8	96.9	64.1	31.2	32.9
102.5°	210.1	213.1	216.1	219.2	222.3	205.8	169.9	134.0	98.2	62.3	57.1
105°	282.3	284.6	286.9	289.2	291.6	283.2	264.2	245.3	226.4	207.4	170.2
107.5°	358.4	360.3	362.2	363.9	365.8	368.3	371.3	374.2	377.2	380.3	352.9
110°	409.2	410.9	412.5	414.3	416.0	417.9	420.3	422.6	424.9	427.2	420.3



TEST NUMBER: P332042-930

CATALOG NUMBER: S123DIP-S1000D1195U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	457.7	459.2	460.7	462.3	463.7	465.7	468.0	470.3	472.6	474.9	475.1
115°	529.5	530.8	532.0	533.3	534.5	536.1	538.0	539.9	541.8	543.7	545.8
117.5°	599.0	600.5	602.1	603.7	605.3	606.5	607.5	608.5	609.4	610.4	612.0
120°	642.2	644.1	646.0	647.9	649.8	651.1	651.7	652.3	653.0	653.5	655.3
122.5°	686.2	687.7	689.3	690.8	692.4	693.6	694.4	695.2	695.9	696.8	698.0
125°	746.4	748.1	749.7	751.5	753.2	754.4	755.2	756.1	756.9	757.7	758.2
127.5°	804.8	806.4	808.1	809.8	811.5	812.9	813.8	814.9	815.9	816.8	817.6
130°	841.1	842.9	844.5	846.2	847.8	849.1	849.9	850.8	851.7	852.5	853.4
132.5°	876.0	877.7	879.4	881.0	882.7	883.9	884.6	885.3	885.9	886.6	887.5
135°	929.2	930.5	931.7	933.0	934.3	935.3	936.2	937.0	937.8	938.7	939.3
137.5°	974.7	976.3	977.9	979.5	981.1	982.1	982.6	983.1	983.5	984.0	985.0
140°	1005.0	1006.2	1007.5	1008.8	1010.1	1011.0	1011.6	1012.3	1012.9	1013.5	1014.4
142.5°	1033.1	1034.3	1035.6	1036.8	1038.1	1039.0	1039.7	1040.3	1041.0	1041.5	1042.3
145°	1072.3	1073.7	1075.2	1076.7	1078.2	1079.1	1079.5	1079.9	1080.4	1080.8	1081.2
147.5°	1109.2	1110.2	1111.2	1112.1	1113.0	1113.8	1114.2	1114.6	1115.0	1115.4	1115.9
150°	1132.0	1132.5	1133.2	1133.8	1134.5	1135.0	1135.4	1135.8	1136.3	1136.7	1137.1
152.5°	1152.4	1152.7	1153.0	1153.2	1153.6	1153.8	1154.1	1154.4	1154.6	1154.9	1155.6
155°	1181.2	1180.8	1180.3	1179.9	1179.5	1179.4	1179.6	1179.8	1180.1	1180.2	1181.3
157.5°	1203.5	1203.5	1203.5	1203.4	1203.4	1203.2	1203.1	1202.8	1202.6	1202.4	1203.7
160°	1217.2	1217.0	1216.8	1216.6	1216.3	1216.1	1215.9	1215.7	1215.5	1215.3	1216.6
162.5°	1230.0	1229.6	1229.0	1228.4	1227.8	1227.5	1227.3	1227.1	1226.9	1226.6	1228.1
165°	1245.6	1245.0	1244.3	1243.7	1243.1	1242.7	1242.4	1242.2	1242.0	1241.8	1243.5
167.5°	1257.8	1256.9	1256.1	1255.2	1254.3	1253.9	1253.9	1253.9	1253.9	1253.9	1255.6
170°	1264.5	1263.7	1262.9	1262.0	1261.2	1260.8	1260.8	1260.8	1260.8	1260.8	1262.4
172.5°	1269.1	1268.1	1267.1	1266.1	1265.0	1264.6	1264.8	1264.9	1265.1	1265.3	1267.0
175°	1275.0	1273.9	1272.8	1271.8	1270.7	1270.3	1270.6	1270.7	1271.0	1271.1	1272.7
177.5°	1276.5	1275.6	1274.8	1274.0	1273.1	1272.8	1272.9	1273.1	1273.3	1273.4	1274.8
180°	1275.0	1275.0	1275.0	1275.0	1275.0	1275.0	1275.0	1275.0	1275.0	1275.0	1275.0



TEST NUMBER: P332042-930

CATALOG NUMBER: S123DIP-S1000D1195U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5
2.5°	1285.6	1287.6	1289.6	1290.5	1290.2	1290.0	1289.8	1289.6
5°	1278.8	1281.2	1283.8	1284.7	1284.3	1283.8	1283.3	1282.8
7.5°	1265.3	1267.5	1269.7	1270.6	1270.3	1270.1	1269.7	1269.4
10°	1252.8	1255.0	1257.3	1258.1	1257.6	1257.1	1256.6	1256.1
12.5°	1239.2	1240.8	1242.4	1243.1	1242.8	1242.5	1242.2	1241.9
15°	1214.6	1216.5	1218.5	1218.8	1217.3	1215.8	1214.3	1212.8
17.5°	1183.4	1184.8	1186.2	1186.6	1186.1	1185.5	1185.0	1184.5
20°	1160.4	1161.5	1162.5	1162.5	1161.8	1161.1	1160.3	1159.6
22.5°	1136.1	1136.9	1137.7	1137.6	1136.7	1135.7	1134.8	1133.8
25°	1095.7	1096.0	1096.3	1096.0	1095.2	1094.5	1093.7	1093.0
27.5°	1052.8	1053.0	1053.2	1052.8	1051.9	1050.9	1050.0	1049.0
30°	1023.1	1023.1	1023.1	1022.2	1020.5	1018.8	1017.1	1015.3
32.5°	991.9	990.6	989.2	988.0	987.1	986.1	985.2	984.2
35°	941.3	939.9	938.4	937.0	935.8	934.6	933.4	932.1
37.5°	889.1	887.3	885.5	884.2	883.5	882.6	881.8	881.1
40°	854.9	853.0	851.0	849.5	848.5	847.5	846.5	845.5
42.5°	819.4	817.4	815.5	814.0	813.0	812.0	811.1	810.1
45°	766.4	763.4	760.5	758.4	757.2	755.9	754.7	753.4
47.5°	710.5	707.7	704.7	702.8	701.6	700.6	699.5	698.4
50°	673.7	671.0	668.2	666.2	664.7	663.2	661.7	660.2
52.5°	636.3	634.0	631.7	629.7	628.3	626.8	625.3	623.9
55°	579.4	576.7	574.0	571.9	570.7	569.5	568.3	567.0
57.5°	523.3	521.0	518.5	516.6	515.2	513.7	512.3	510.9
60°	483.8	481.6	479.4	477.7	476.4	475.2	473.9	472.7
62.5°	445.6	443.4	441.2	439.7	438.8	438.0	437.2	436.3
65°	388.9	386.9	384.9	383.6	382.9	382.1	381.3	380.6
67.5°	332.6	330.8	329.1	327.8	326.7	325.6	324.6	323.6
70°	296.1	294.4	292.7	291.2	290.0	288.8	287.6	286.3
72.5°	259.3	257.7	256.2	255.1	254.5	253.8	253.2	252.6
75°	206.2	204.9	203.7	202.7	201.9	201.2	200.5	199.7
77.5°	156.5	155.7	154.9	154.5	154.5	154.5	154.5	154.5
80°	124.9	124.7	124.4	124.3	124.3	124.3	124.3	124.3
82.5°	96.1	95.6	95.2	94.9	94.7	94.5	94.3	94.1
85°	54.5	54.0	53.5	53.2	53.2	53.2	53.2	53.2
87.5°	24.1	24.0	24.0	24.0	24.1	24.1	24.2	24.3
90°	24.4	25.3	26.1	26.7	27.1	27.6	28.0	28.5
92.5°	26.9	28.3	29.7	30.4	30.7	31.0	31.2	31.5
95°	32.3	33.8	35.2	36.0	36.0	36.0	36.0	36.0
97.5°	33.8	35.5	37.3	38.2	38.4	38.6	38.8	39.1
100°	34.7	36.3	38.0	39.0	39.1	39.4	39.5	39.8
102.5°	51.9	46.6	41.4	39.1	39.4	39.8	40.2	40.5
105°	132.9	95.6	58.4	40.0	40.4	40.8	41.3	41.7
107.5°	325.5	298.2	270.9	243.2	215.2	187.0	159.0	130.9
110°	413.3	406.3	399.4	380.9	350.8	320.7	290.6	260.5



TEST NUMBER: P332042-930

CATALOG NUMBER: S123DIP-S1000D1195U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	475.2	475.3	475.5	472.3	465.9	459.6	453.2	446.9
115°	547.9	550.0	552.1	553.6	554.4	555.3	556.1	556.9
117.5°	613.8	615.5	617.1	618.1	618.2	618.4	618.6	618.7
120°	657.0	658.6	660.3	661.1	661.1	661.1	661.1	661.1
122.5°	699.1	700.3	701.5	702.1	702.3	702.5	702.7	702.9
125°	758.6	759.0	759.5	759.9	760.3	760.8	761.2	761.6
127.5°	818.2	818.9	819.5	819.7	819.3	818.9	818.5	818.0
130°	854.2	855.0	855.9	856.1	855.7	855.2	854.8	854.4
132.5°	888.3	889.2	890.0	890.1	889.5	888.9	888.4	887.7
135°	940.0	940.6	941.3	941.3	940.6	940.0	939.3	938.7
137.5°	986.0	987.0	988.0	988.3	987.9	987.5	987.1	986.6
140°	1015.2	1016.0	1016.9	1017.1	1016.7	1016.3	1015.9	1015.5
142.5°	1042.9	1043.6	1044.2	1044.3	1043.7	1043.1	1042.5	1042.0
145°	1081.7	1082.1	1082.5	1082.6	1082.6	1082.6	1082.6	1082.6
147.5°	1116.3	1116.7	1117.1	1116.9	1115.9	1114.9	1113.9	1113.0
150°	1137.5	1137.9	1138.3	1138.2	1137.6	1137.0	1136.4	1135.7
152.5°	1156.3	1157.2	1157.9	1157.8	1156.8	1155.8	1154.9	1153.9
155°	1182.3	1183.4	1184.5	1184.3	1183.1	1181.9	1180.6	1179.3
157.5°	1204.9	1206.2	1207.5	1207.3	1205.7	1204.0	1202.3	1200.7
160°	1217.8	1219.0	1220.3	1220.3	1218.8	1217.3	1215.8	1214.3
162.5°	1229.6	1230.9	1232.4	1232.4	1231.1	1229.8	1228.5	1227.2
165°	1245.2	1246.8	1248.5	1248.6	1247.2	1245.7	1244.2	1242.8
167.5°	1257.3	1259.0	1260.7	1260.7	1259.0	1257.3	1255.6	1253.9
170°	1264.1	1265.8	1267.5	1267.5	1265.8	1264.1	1262.4	1260.8
172.5°	1268.7	1270.3	1272.0	1271.9	1270.1	1268.3	1266.4	1264.5
175°	1274.1	1275.6	1277.1	1276.9	1275.3	1273.6	1271.9	1270.2
177.5°	1276.1	1277.5	1278.8	1278.6	1277.0	1275.3	1273.6	1271.9
180°	1275.0	1275.0	1275.0	1275.0	1275.0	1275.0	1275.0	1275.0

(END OF REPORT)