

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: P331979

Luminaire Tested: **S123DIP-S775D805U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331979
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-S775D805U835-4F0-1E-UDD-F
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6380.7 lumens
Efficiency: N/A
Efficacy: 139.0 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

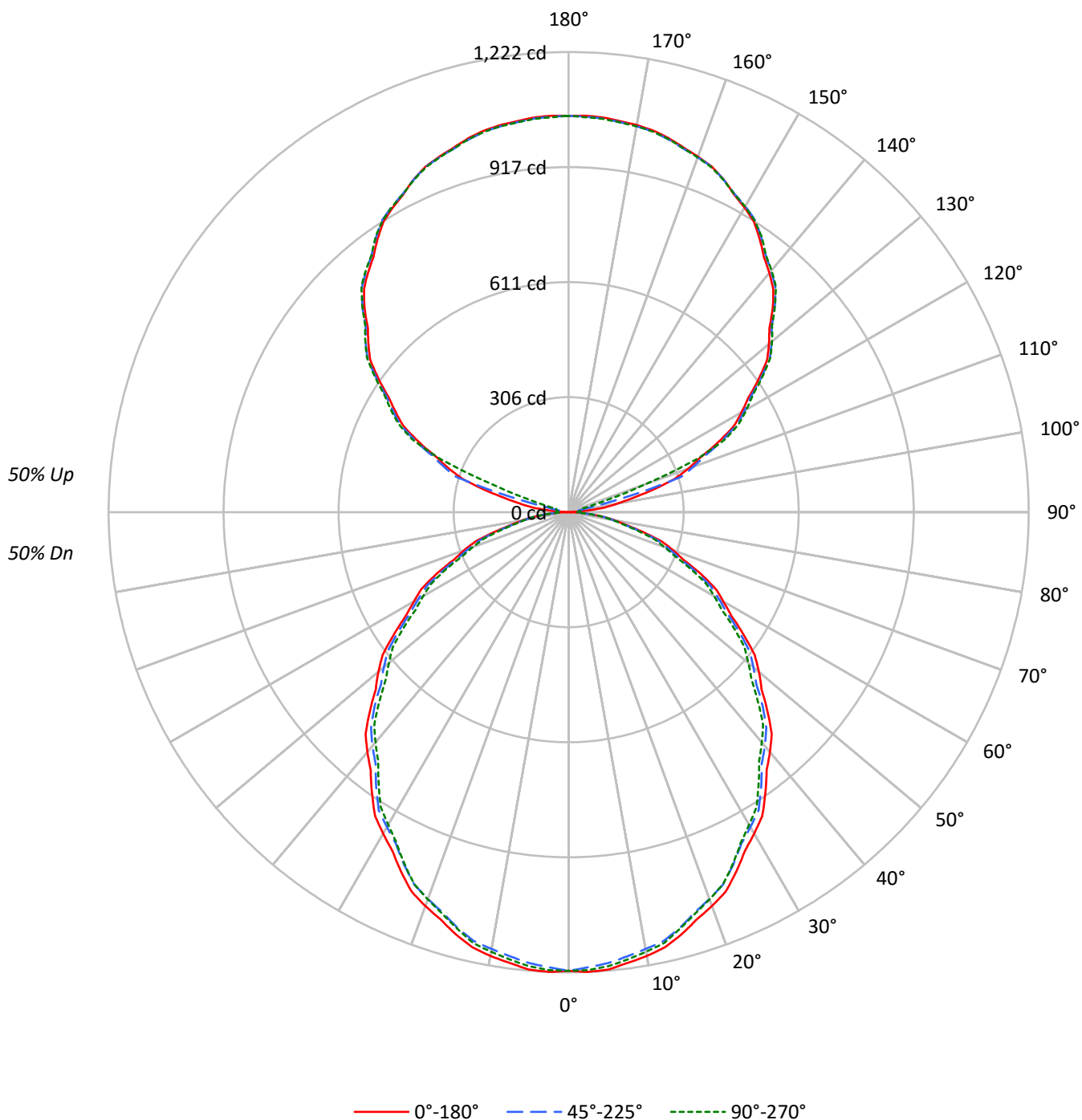
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331979

CATALOG NUMBER: S123DIP-S775D805U835-4F0-1E-UDD-F

Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	107	107	107	107	99	99	99	99	83	83	83		69	69	69		56
1	98	93	89	86	90	86	83	80	73	70	68		61	59	57		49
2	89	81	75	70	82	75	70	65	64	60	56		53	50	48		43
3	81	72	64	58	74	66	60	55	56	51	47		47	43	40		38
4	74	63	55	49	68	59	52	46	50	45	40		42	38	35		34
5	68	56	48	42	62	52	45	40	45	39	35		38	33	30		31
6	63	51	42	37	58	47	40	34	40	35	30		34	30	26		28
7	58	46	38	32	53	42	35	30	36	31	27		31	26	23		26
8	54	41	34	28	49	39	32	27	33	28	24		28	24	21		23
9	50	38	30	25	46	35	29	24	30	25	21		26	22	19		22
10	47	35	27	23	43	32	26	21	28	23	19		24	20	17		20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13108	13108	13108
5°	13169	12988	13078
10°	13081	12875	12955
15°	12929	12730	12754
20°	12749	12521	12534
25°	12511	12275	12250
30°	12246	11999	11908
35°	11971	11709	11557
40°	11682	11387	11212
45°	11365	11094	10823
50°	11047	10731	10433
55°	10631	10355	10042
60°	10211	9918	9604
65°	9841	9442	9146
70°	9294	8897	8500
75°	8492	8189	7839
80°	7662	7333	7271
85°	6719	6472	6212

TEST NUMBER: P331979

CATALOG NUMBER: S123DIP-S775D805U835-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.7	1.8
10°-20°	323.9	5.1
20°-30°	478.4	7.5
30°-40°	558.9	8.8
40°-50°	561.9	8.8
50°-60°	493.6	7.7
60°-70°	367.7	5.8
70°-80°	209.5	3.3
80°-90°	63.1	1.0
90°-100°	38.3	0.6
100°-110°	182.3	2.9
110°-120°	438.0	6.9
120°-130°	557.7	8.7
130°-140°	595.9	9.3
140°-150°	557.2	8.7
150°-160°	449.5	7.0
160°-170°	290.1	4.5
170°-180°	100.0	1.6
0°-30°	917.1	14.4
0°-40°	1475.9	23.1
0°-60°	2531.4	39.7
0°-90°	3171.7	49.7
90°-120°	658.6	10.3
90°-150°	2369.4	37.1
90°-180°	3209.0	50.3
0°-180°	6380.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1219	1213	1202	1212	1210	115
15°	1160	1155	1142	1150	1144	327
25°	1053	1047	1034	1034	1031	485
35°	911	904	891	885	880	570
45°	747	742	729	717	711	576
55°	566	565	552	541	535	507
65°	386	381	371	363	359	381
75°	204	200	197	192	188	218
85°	54	52	52	50	50	60
90°	1	9	19	22	24	5
95°	48	18	24	29	30	59
105°	233	237	171	41	34	247
115°	437	442	449	456	460	431
125°	616	622	625	627	629	550
135°	767	772	775	777	775	590
145°	885	890	892	894	894	554
155°	975	973	974	978	973	449
165°	1028	1026	1025	1031	1026	290
175°	1052	1049	1049	1054	1048	100
180°	1052	1052	1052	1052	1052	

TEST NUMBER: P331979

CATALOG NUMBER: S123DIP-S775D805U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1217.8	1217.8	1217.8	1217.8	1217.8	1217.8	1217.8	1217.8	1217.8	1217.8	1217.8
2.5°	1221.9	1221.2	1220.5	1219.7	1219.0	1217.6	1215.5	1213.5	1211.4	1209.4	1211.2
5°	1218.8	1217.6	1216.5	1215.3	1214.1	1212.3	1209.7	1207.2	1204.6	1202.0	1204.4
7.5°	1206.9	1205.7	1204.5	1203.4	1202.2	1200.3	1197.6	1195.0	1192.3	1189.7	1191.8
10°	1196.8	1195.6	1194.5	1193.3	1192.2	1190.1	1187.0	1184.0	1181.0	1178.0	1180.1
12.5°	1183.4	1182.4	1181.5	1180.5	1179.5	1177.6	1174.8	1171.9	1169.1	1166.2	1167.8
15°	1160.2	1159.2	1158.3	1157.4	1156.4	1154.5	1151.4	1148.4	1145.4	1142.4	1144.2
17.5°	1133.1	1131.9	1130.7	1129.5	1128.3	1126.2	1123.2	1120.1	1117.1	1114.1	1115.4
20°	1113.0	1111.6	1110.3	1108.9	1107.5	1105.2	1102.2	1099.2	1096.2	1093.1	1094.1
22.5°	1090.4	1089.0	1087.6	1086.2	1084.8	1082.6	1079.6	1076.6	1073.6	1070.5	1071.3
25°	1053.4	1052.0	1050.6	1049.2	1047.8	1045.6	1042.5	1039.5	1036.5	1033.5	1033.7
27.5°	1013.8	1012.4	1011.1	1009.7	1008.4	1006.1	1002.8	999.6	996.3	993.0	993.2
30°	985.3	984.1	983.0	981.8	980.6	978.4	975.2	971.9	968.7	965.4	965.4
32.5°	956.8	955.3	953.7	952.2	950.7	948.7	946.1	943.6	941.1	938.6	937.3
35°	911.0	909.6	908.2	906.8	905.4	903.2	900.1	897.1	894.1	891.1	889.7
37.5°	864.0	862.3	860.5	858.7	857.0	854.6	851.5	848.4	845.3	842.3	840.6
40°	831.4	830.0	828.6	827.2	825.8	823.5	820.2	817.0	813.7	810.4	808.6
42.5°	798.7	797.1	795.5	794.0	792.4	790.0	786.7	783.4	780.2	776.9	775.1
45°	746.6	745.6	744.7	743.8	742.8	740.9	737.8	734.8	731.8	728.8	726.0
47.5°	694.8	693.5	692.1	690.8	689.4	687.3	684.5	681.7	678.8	676.0	673.2
50°	659.7	658.5	657.3	656.2	655.0	652.9	649.9	646.9	643.8	640.8	638.3
52.5°	622.8	622.0	621.2	620.4	619.6	617.6	614.4	611.2	608.0	604.8	602.6
55°	566.5	566.2	566.0	565.8	565.5	563.9	560.9	557.9	554.8	551.8	549.3
57.5°	512.9	512.1	511.3	510.5	509.7	508.1	505.7	503.2	500.8	498.4	496.1
60°	474.3	474.1	473.9	473.6	473.4	471.9	469.1	466.3	463.5	460.7	458.6
62.5°	440.0	439.4	438.8	438.2	437.6	435.9	433.1	430.3	427.5	424.7	422.6
65°	386.4	385.2	384.0	382.9	381.7	380.0	377.6	375.3	373.0	370.7	368.8
67.5°	329.6	328.6	327.6	326.5	325.5	324.1	322.4	320.6	318.8	317.1	315.4
70°	295.3	293.9	292.5	291.1	289.7	288.3	286.9	285.5	284.1	282.7	281.1
72.5°	259.3	258.2	257.2	256.2	255.2	253.9	252.3	250.7	249.1	247.5	246.1
75°	204.2	203.2	202.3	201.4	200.5	199.6	198.9	198.2	197.5	196.9	195.7
77.5°	155.4	154.9	154.4	153.9	153.3	152.7	151.8	151.0	150.2	149.3	148.5
80°	123.6	122.9	122.2	121.5	120.8	120.2	119.7	119.3	118.8	118.3	118.1
82.5°	92.6	92.4	92.3	92.1	92.0	91.9	91.8	91.7	91.6	91.5	91.1
85°	54.4	54.0	53.5	53.1	52.6	52.4	52.4	52.4	52.4	52.4	51.9
87.5°	21.9	21.7	21.5	21.3	21.1	21.1	21.4	21.7	21.9	22.2	22.1
90°	0.8	2.5	4.3	6.0	7.7	9.7	12.0	14.2	16.5	18.8	19.5
92.5°	14.5	14.1	13.6	13.1	12.6	13.2	14.9	16.6	18.3	20.0	21.1
95°	47.7	40.6	33.4	26.3	19.2	16.6	18.5	20.4	22.3	24.2	25.5
97.5°	95.8	92.7	89.5	86.3	83.1	75.2	62.7	50.2	37.7	25.2	26.6
100°	132.1	135.6	139.1	142.5	146.0	134.2	107.1	80.0	52.9	25.8	27.2
102.5°	173.4	175.9	178.4	180.9	183.4	169.9	140.3	110.6	81.0	51.4	47.1
105°	233.0	234.9	236.8	238.7	240.6	233.8	218.1	202.5	186.8	171.2	140.5
107.5°	295.8	297.4	298.9	300.4	301.9	303.9	306.4	308.9	311.3	313.8	291.3
110°	337.7	339.1	340.5	341.9	343.3	344.9	346.9	348.8	350.7	352.6	346.9

TEST NUMBER: P331979

CATALOG NUMBER: S123DIP-S775D805U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	377.8	379.0	380.3	381.5	382.8	384.3	386.3	388.2	390.1	392.0	392.1
115°	437.0	438.1	439.1	440.2	441.2	442.5	444.1	445.6	447.2	448.8	450.5
117.5°	494.4	495.7	497.0	498.3	499.5	500.6	501.4	502.2	503.0	503.8	505.2
120°	530.1	531.6	533.2	534.7	536.3	537.4	537.9	538.4	538.9	539.4	540.8
122.5°	566.3	567.6	568.9	570.2	571.5	572.4	573.1	573.8	574.4	575.1	576.1
125°	616.1	617.4	618.8	620.2	621.6	622.7	623.4	624.0	624.7	625.4	625.8
127.5°	664.2	665.6	667.0	668.4	669.8	670.9	671.7	672.6	673.4	674.2	674.8
130°	694.2	695.6	697.0	698.4	699.8	700.8	701.5	702.2	702.9	703.6	704.3
132.5°	723.0	724.4	725.8	727.2	728.6	729.5	730.1	730.6	731.2	731.8	732.5
135°	766.9	768.0	769.0	770.1	771.1	772.0	772.7	773.4	774.1	774.8	775.3
137.5°	804.5	805.8	807.1	808.4	809.7	810.6	811.0	811.4	811.7	812.1	813.0
140°	829.5	830.5	831.6	832.6	833.7	834.4	835.0	835.5	836.0	836.5	837.2
142.5°	852.6	853.7	854.7	855.8	856.8	857.6	858.1	858.6	859.1	859.7	860.2
145°	885.0	886.2	887.4	888.6	889.9	890.6	891.0	891.3	891.7	892.0	892.4
147.5°	915.5	916.3	917.1	917.9	918.7	919.3	919.6	919.9	920.3	920.6	921.0
150°	934.2	934.8	935.3	935.8	936.3	936.8	937.1	937.5	937.8	938.2	938.5
152.5°	951.1	951.4	951.6	951.9	952.1	952.3	952.5	952.7	953.0	953.2	953.8
155°	974.9	974.6	974.2	973.9	973.5	973.4	973.6	973.8	973.9	974.1	975.0
157.5°	993.3	993.3	993.3	993.2	993.2	993.1	992.9	992.8	992.6	992.4	993.5
160°	1004.6	1004.4	1004.3	1004.1	1003.9	1003.7	1003.6	1003.4	1003.2	1003.0	1004.1
162.5°	1015.2	1014.8	1014.3	1013.9	1013.4	1013.1	1012.9	1012.8	1012.6	1012.4	1013.6
165°	1028.1	1027.5	1027.0	1026.5	1026.0	1025.6	1025.5	1025.3	1025.1	1024.9	1026.3
167.5°	1038.1	1037.4	1036.7	1036.0	1035.3	1034.9	1034.9	1034.9	1034.9	1034.9	1036.3
170°	1043.7	1043.0	1042.3	1041.6	1040.9	1040.6	1040.6	1040.6	1040.6	1040.6	1042.0
172.5°	1047.4	1046.6	1045.8	1044.9	1044.1	1043.8	1043.9	1044.0	1044.2	1044.3	1045.7
175°	1052.3	1051.4	1050.6	1049.7	1048.8	1048.5	1048.6	1048.8	1049.0	1049.2	1050.4
177.5°	1053.5	1052.9	1052.2	1051.5	1050.8	1050.5	1050.6	1050.8	1050.9	1051.0	1052.2
180°	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3

TEST NUMBER: P331979

CATALOG NUMBER: S123DIP-S775D805U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1217.8	1217.8	1217.8	1217.8	1217.8	1217.8	1217.8	1217.8
2.5°	1213.1	1215.0	1216.8	1217.7	1217.5	1217.3	1217.1	1216.9
5°	1206.7	1209.0	1211.4	1212.3	1211.8	1211.4	1210.9	1210.4
7.5°	1193.9	1196.0	1198.1	1199.0	1198.7	1198.4	1198.1	1197.9
10°	1182.2	1184.2	1186.3	1187.2	1186.7	1186.2	1185.8	1185.3
12.5°	1169.3	1170.8	1172.4	1173.0	1172.7	1172.4	1172.2	1171.9
15°	1146.1	1147.9	1149.8	1150.0	1148.6	1147.2	1145.9	1144.5
17.5°	1116.7	1118.0	1119.3	1119.7	1119.2	1118.7	1118.2	1117.7
20°	1095.0	1095.9	1096.9	1097.0	1096.3	1095.6	1094.9	1094.2
22.5°	1072.0	1072.8	1073.5	1073.4	1072.6	1071.7	1070.8	1069.9
25°	1033.9	1034.2	1034.4	1034.2	1033.5	1032.8	1032.1	1031.4
27.5°	993.4	993.6	993.8	993.4	992.6	991.7	990.8	989.9
30°	965.4	965.4	965.4	964.6	963.0	961.3	959.7	958.1
32.5°	936.0	934.7	933.4	932.3	931.4	930.5	929.6	928.8
35°	888.3	886.9	885.5	884.2	883.0	881.9	880.7	879.5
37.5°	838.9	837.2	835.6	834.4	833.6	832.9	832.1	831.4
40°	806.7	804.9	803.0	801.6	800.7	799.7	798.8	797.9
42.5°	773.2	771.3	769.5	768.1	767.2	766.2	765.3	764.4
45°	723.2	720.4	717.6	715.6	714.5	713.3	712.1	711.0
47.5°	670.5	667.8	665.0	663.1	662.1	661.1	660.1	659.0
50°	635.7	633.1	630.6	628.6	627.2	625.8	624.4	623.0
52.5°	600.4	598.2	596.0	594.3	592.9	591.5	590.1	588.7
55°	546.7	544.1	541.6	539.7	538.5	537.4	536.2	535.1
57.5°	493.8	491.6	489.3	487.5	486.1	484.8	483.4	482.1
60°	456.5	454.4	452.3	450.7	449.5	448.4	447.2	446.1
62.5°	420.5	418.4	416.3	414.9	414.1	413.3	412.5	411.7
65°	366.9	365.1	363.2	361.9	361.2	360.5	359.8	359.1
67.5°	313.8	312.2	310.5	309.2	308.3	307.3	306.3	305.3
70°	279.5	277.8	276.2	274.8	273.6	272.5	271.3	270.1
72.5°	244.6	243.2	241.8	240.7	240.1	239.5	238.9	238.3
75°	194.5	193.4	192.2	191.3	190.6	189.9	189.2	188.5
77.5°	147.7	146.9	146.1	145.8	145.8	145.8	145.8	145.8
80°	117.9	117.6	117.4	117.3	117.3	117.3	117.3	117.3
82.5°	90.7	90.3	89.8	89.5	89.4	89.2	89.0	88.8
85°	51.4	51.0	50.5	50.3	50.3	50.3	50.3	50.3
87.5°	22.1	22.0	22.0	22.0	22.1	22.1	22.2	22.3
90°	20.2	20.8	21.5	22.1	22.4	22.8	23.1	23.5
92.5°	22.2	23.3	24.5	25.1	25.3	25.5	25.7	26.0
95°	26.7	27.9	29.1	29.7	29.7	29.7	29.7	29.7
97.5°	28.0	29.3	30.7	31.5	31.7	31.9	32.0	32.2
100°	28.6	30.0	31.4	32.1	32.3	32.5	32.7	32.8
102.5°	42.8	38.5	34.2	32.2	32.5	32.8	33.1	33.5
105°	109.7	79.0	48.2	33.0	33.4	33.7	34.1	34.4
107.5°	268.7	246.2	223.6	200.7	177.6	154.4	131.2	108.0
110°	341.1	335.4	329.7	314.4	289.5	264.7	239.8	215.0

TEST NUMBER: P331979

CATALOG NUMBER: S123DIP-S775D805U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	392.2	392.3	392.4	389.8	384.6	379.3	374.1	368.9
115°	452.2	454.0	455.7	456.9	457.6	458.3	459.0	459.7
117.5°	506.6	508.0	509.3	510.1	510.3	510.4	510.5	510.7
120°	542.2	543.6	545.0	545.7	545.7	545.7	545.7	545.7
122.5°	577.0	578.0	579.0	579.5	579.7	579.8	580.0	580.1
125°	626.1	626.5	626.8	627.2	627.5	627.9	628.2	628.6
127.5°	675.3	675.9	676.4	676.5	676.2	675.9	675.5	675.2
130°	705.0	705.7	706.4	706.6	706.2	705.9	705.5	705.2
132.5°	733.1	733.8	734.5	734.6	734.2	733.7	733.2	732.7
135°	775.8	776.3	776.8	776.8	776.3	775.8	775.3	774.8
137.5°	813.8	814.6	815.5	815.7	815.4	815.0	814.7	814.3
140°	837.9	838.6	839.3	839.5	839.1	838.8	838.4	838.1
142.5°	860.8	861.3	861.9	861.9	861.4	860.9	860.5	860.0
145°	892.7	893.1	893.4	893.6	893.6	893.6	893.6	893.6
147.5°	921.3	921.7	922.0	921.8	921.0	920.2	919.4	918.6
150°	938.8	939.2	939.5	939.5	938.9	938.4	937.9	937.4
152.5°	954.4	955.0	955.7	955.6	954.8	954.0	953.2	952.4
155°	975.9	976.7	977.6	977.5	976.5	975.4	974.4	973.3
157.5°	994.5	995.5	996.6	996.4	995.1	993.7	992.4	991.0
160°	1005.1	1006.2	1007.2	1007.1	1005.9	1004.7	1003.5	1002.3
162.5°	1014.8	1016.0	1017.1	1017.2	1016.1	1015.0	1014.0	1012.9
165°	1027.7	1029.1	1030.5	1030.6	1029.4	1028.1	1026.9	1025.7
167.5°	1037.7	1039.1	1040.5	1040.5	1039.1	1037.7	1036.3	1034.9
170°	1043.3	1044.7	1046.1	1046.1	1044.7	1043.3	1042.0	1040.6
172.5°	1047.1	1048.5	1049.9	1049.8	1048.3	1046.8	1045.2	1043.7
175°	1051.6	1052.8	1054.0	1053.9	1052.6	1051.2	1049.8	1048.4
177.5°	1053.3	1054.4	1055.5	1055.4	1054.0	1052.6	1051.2	1049.8
180°	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3

(END OF REPORT)