

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: P332039-930

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332039-930
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-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1195 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7314.8 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

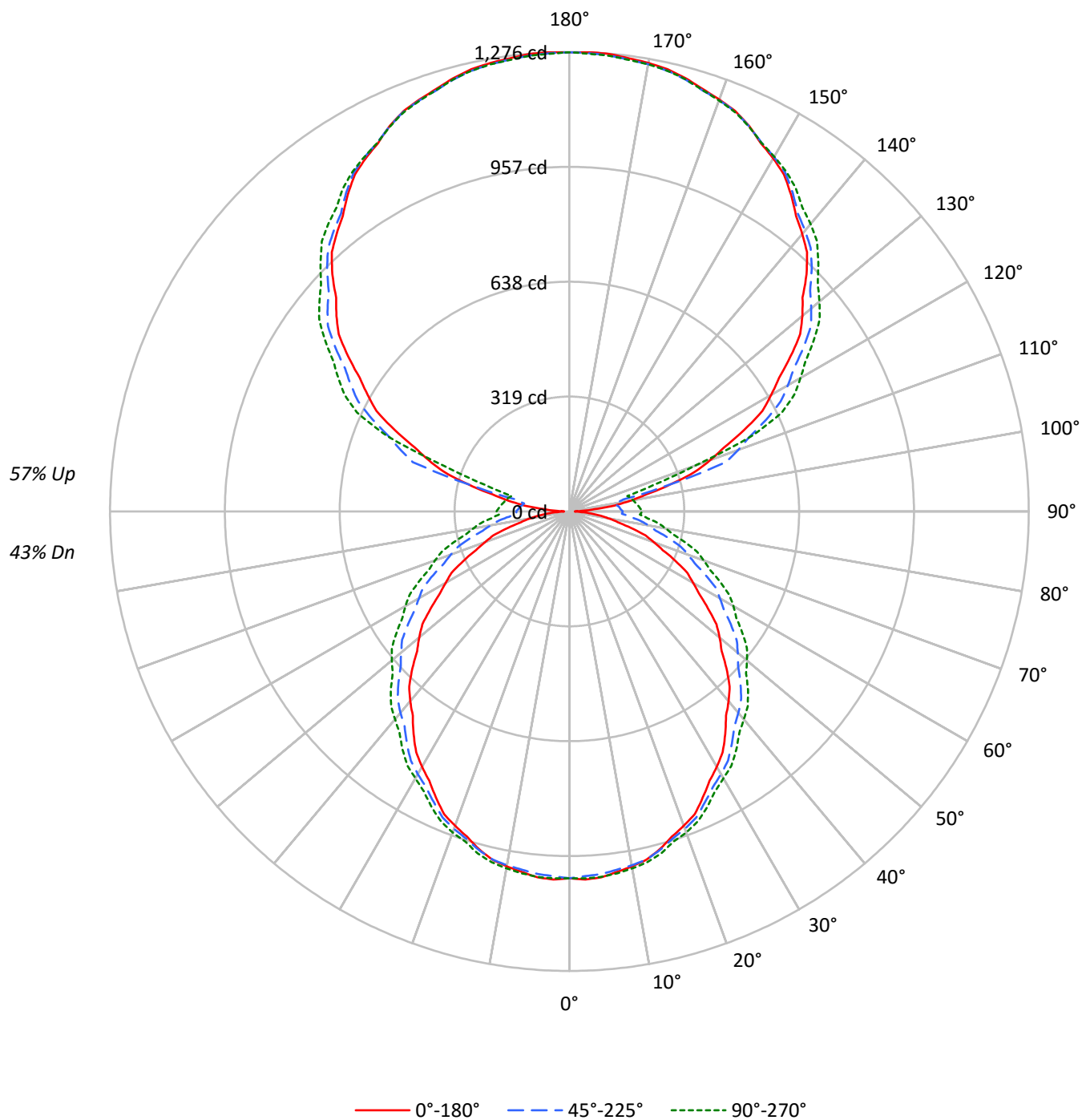
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot



TEST NUMBER: P332039-930

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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	30	10	0		
RCR																				
0	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50	43		
1	95	91	86	83	87	83	79	76	68	66	63	55	53	51	42	41	40	34		
2	86	79	72	67	79	72	66	62	59	55	52	48	45	42	37	35	33	28		
3	79	69	61	55	71	63	56	51	52	47	43	42	38	35	32	30	28	23		
4	72	61	53	46	65	56	48	43	46	41	36	37	33	30	29	26	24	20		
5	66	54	46	39	60	49	42	37	41	35	31	33	29	26	26	23	20	17		
6	60	48	40	34	55	44	37	32	37	31	27	30	26	22	23	20	18	15		
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13		
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	19	16	14	12		
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13	10		
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	17	14	11	9		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10964	10964	10964
5°	10999	10689	10694
10°	10900	10443	10390
15°	10759	10162	10058
20°	10559	9844	9692
25°	10311	9476	9308
30°	10057	9145	8918
35°	9773	8796	8606
40°	9500	8479	8272
45°	9199	8172	8007
50°	8904	7871	7713
55°	8574	7562	7449
60°	8255	7248	7178
65°	7926	6915	6856
70°	7430	6538	6527
75°	6807	6107	6190
80°	6087	5683	5807
85°	5426	5394	5585

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.3
10°-20°	275.3	3.8
20°-30°	411.7	5.6
30°-40°	491.7	6.7
40°-50°	514.4	7.0
50°-60°	482.8	6.6
60°-70°	403.2	5.5
70°-80°	288.5	3.9
80°-90°	175.6	2.4
90°-100°	154.3	2.1
100°-110°	300.2	4.1
110°-120°	583.6	8.0
120°-130°	706.0	9.7
130°-140°	735.6	10.1
140°-150°	678.1	9.3
150°-160°	544.6	7.4
160°-170°	351.5	4.8
170°-180°	121.1	1.7
0°-30°	783.6	10.7
0°-40°	1275.2	17.4
0°-60°	2272.4	31.1
0°-90°	3139.7	42.9
90°-120°	1038.2	14.2
90°-150°	3157.8	43.2
90°-180°	4175.0	57.1
0°-180°	7314.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1020	1017	1011	1019	1019	97
15°	971	974	973	984	983	273
25°	877	887	891	905	906	404
35°	755	772	787	803	808	472
45°	617	644	671	692	701	476
55°	470	507	547	576	586	421
65°	325	369	417	449	462	321
75°	176	229	284	319	334	188
85°	54	110	169	205	218	57
90°	15	80	148	188	203	13
95°	70	78	139	179	191	81
105°	291	324	291	162	166	308
115°	535	556	602	637	651	528
125°	750	759	793	818	828	670
135°	932	937	952	974	978	717
145°	1073	1079	1081	1091	1096	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	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1023.1	1022.5	1021.9	1021.3	1020.8	1019.6	1018.1	1016.5	1014.9	1013.3	1014.9
5°	1019.8	1019.3	1018.8	1018.3	1017.8	1016.8	1015.4	1013.8	1012.4	1010.9	1012.8
7.5°	1009.7	1009.9	1010.0	1010.1	1010.2	1009.5	1008.1	1006.7	1005.2	1003.8	1006.2
10°	1000.9	1001.4	1001.9	1002.4	1002.9	1002.5	1001.3	1000.0	998.8	997.6	1000.0
12.5°	990.3	990.9	991.6	992.3	993.0	993.0	992.1	991.2	990.4	989.6	991.9
15°	970.9	971.7	972.4	973.1	973.9	974.1	973.9	973.6	973.4	973.1	975.7
17.5°	946.6	948.0	949.5	951.0	952.4	953.2	953.1	952.9	952.8	952.8	955.0
20°	928.8	930.3	931.7	933.2	934.7	935.7	936.2	936.7	937.2	937.7	939.9
22.5°	910.1	911.6	913.1	914.6	916.1	917.1	917.9	918.5	919.2	919.9	922.7
25°	876.6	879.1	881.6	884.0	886.5	888.1	888.8	889.6	890.3	891.0	894.2
27.5°	842.9	845.7	848.5	851.3	854.1	856.3	857.9	859.5	861.0	862.7	865.4
30°	818.9	822.1	825.3	828.5	831.8	834.3	836.3	838.3	840.2	842.2	845.2
32.5°	792.3	795.9	799.5	803.1	806.7	809.8	812.4	814.9	817.5	820.0	823.2
35°	754.6	758.5	762.5	766.4	770.4	773.9	777.1	780.3	783.5	786.8	790.4
37.5°	714.6	719.1	723.5	727.9	732.4	736.5	740.5	744.4	748.4	752.4	756.5
40°	687.9	692.4	696.8	701.3	705.7	710.5	715.3	720.3	725.2	730.2	734.3
42.5°	658.7	664.1	669.5	675.0	680.4	685.7	690.8	695.9	701.1	706.2	710.8
45°	616.9	622.9	628.8	634.7	640.7	646.7	652.8	659.0	665.2	671.3	676.0
47.5°	573.2	579.9	586.7	593.4	600.1	607.0	614.0	621.1	628.1	635.2	640.4
50°	544.9	551.7	558.6	565.6	572.4	579.8	587.3	595.0	602.7	610.3	616.0
52.5°	514.6	522.0	529.3	536.5	543.9	551.7	560.2	568.6	577.0	585.5	591.3
55°	470.5	478.7	486.7	494.9	503.0	511.5	520.4	529.3	538.2	547.1	553.8
57.5°	427.5	435.9	444.4	452.9	461.4	470.5	480.2	489.9	499.6	509.3	516.0
60°	397.3	406.1	415.0	423.9	432.8	442.2	452.3	462.5	472.6	482.7	489.6
62.5°	368.8	377.9	387.0	396.1	405.1	415.1	425.7	436.4	447.1	457.9	464.7
65°	325.1	334.8	344.4	354.0	363.6	373.8	384.7	395.5	406.3	417.3	424.6
67.5°	280.7	291.0	301.2	311.4	321.6	332.2	343.2	354.3	365.3	376.4	384.5
70°	249.6	260.2	270.8	281.5	292.1	303.3	315.1	327.0	338.8	350.7	358.6
72.5°	221.3	231.9	242.5	253.1	263.7	275.1	287.3	299.5	311.8	324.0	332.1
75°	176.4	188.0	199.6	211.2	222.8	234.7	247.1	259.4	271.7	284.1	292.2
77.5°	137.4	149.0	160.8	172.4	184.1	196.2	208.6	221.0	233.5	245.9	254.5
80°	109.8	122.0	134.0	146.1	158.2	170.6	183.4	196.3	209.1	221.9	230.3
82.5°	85.9	98.2	110.5	122.7	135.0	147.7	160.7	173.7	186.7	199.7	208.1
85°	54.4	66.7	79.0	91.4	103.7	116.4	129.5	142.5	155.6	168.7	177.1
87.5°	29.7	42.4	55.1	67.8	80.6	93.4	106.6	119.7	132.8	145.9	154.5
90°	15.4	29.6	43.8	58.0	72.2	86.9	102.2	117.5	132.8	148.1	157.4
92.5°	31.1	41.5	51.8	62.1	72.4	84.8	99.2	113.7	128.1	142.5	152.1
95°	70.0	71.0	72.0	73.0	73.9	81.6	96.0	110.4	124.8	139.3	148.3
97.5°	127.0	131.8	136.6	141.5	146.3	146.8	143.2	139.6	136.0	132.4	141.4
100°	170.1	182.1	194.3	206.4	218.5	213.8	192.2	170.8	149.3	127.8	136.6
102.5°	219.2	229.3	239.5	249.6	259.8	252.4	227.7	203.0	178.2	153.5	155.3
105°	291.1	299.4	307.6	315.8	324.1	324.0	315.7	307.4	299.0	290.7	260.3
107.5°	366.0	372.8	379.8	386.6	393.5	403.5	416.5	429.6	442.6	455.7	435.0
110°	415.9	422.0	428.1	434.2	440.3	449.5	461.7	473.9	486.0	498.2	497.7

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	464.4	469.5	474.7	479.9	485.0	493.5	505.2	517.1	528.9	540.6	547.0
115°	535.1	539.2	543.5	547.7	552.0	559.5	570.2	581.0	591.7	602.5	610.6
117.5°	604.4	607.7	611.1	614.5	617.9	624.2	633.5	642.9	652.2	661.5	669.0
120°	646.7	649.8	652.9	656.1	659.2	665.1	673.8	682.7	691.5	700.2	707.5
122.5°	690.6	692.8	695.0	697.2	699.4	704.7	713.3	721.9	730.4	738.9	745.6
125°	749.7	751.5	753.1	754.8	756.5	761.3	769.3	777.3	785.3	793.3	798.9
127.5°	808.1	809.5	811.0	812.4	813.8	818.0	824.9	831.8	838.8	845.7	851.3
130°	844.5	845.9	847.3	848.8	850.2	853.8	859.6	865.4	871.1	876.9	882.5
132.5°	878.4	880.0	881.7	883.4	885.0	888.1	892.8	897.3	902.0	906.6	911.9
135°	931.5	932.5	933.5	934.5	935.5	937.8	941.3	944.9	948.4	952.0	957.1
137.5°	976.7	978.1	979.5	980.9	982.3	984.0	986.0	988.0	989.9	992.0	996.9
140°	1006.1	1007.4	1008.6	1009.9	1011.1	1012.5	1013.8	1015.2	1016.6	1018.0	1022.5
142.5°	1034.1	1035.2	1036.2	1037.4	1038.4	1039.3	1040.1	1040.9	1041.7	1042.4	1046.4
145°	1073.3	1074.6	1075.8	1077.0	1078.2	1079.1	1079.5	1079.9	1080.4	1080.8	1083.2
147.5°	1109.2	1110.2	1111.2	1112.1	1113.0	1113.8	1114.2	1114.6	1115.0	1115.4	1116.5
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

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1016.5	1018.1	1019.6	1020.3	1020.1	1019.9	1019.8	1019.5
5°	1014.8	1016.8	1018.8	1019.6	1019.4	1019.1	1018.9	1018.6
7.5°	1008.7	1011.2	1013.7	1014.7	1014.5	1014.2	1013.8	1013.6
10°	1002.5	1004.9	1007.5	1008.4	1008.0	1007.5	1007.0	1006.5
12.5°	994.1	996.4	998.7	999.6	999.1	998.6	998.1	997.6
15°	978.1	980.6	983.0	984.1	983.9	983.7	983.4	983.2
17.5°	957.2	959.4	961.6	962.5	962.2	961.9	961.6	961.2
20°	942.1	944.3	946.6	947.8	948.0	948.3	948.5	948.8
22.5°	925.5	928.3	931.2	932.5	932.3	932.2	932.1	931.9
25°	897.5	900.7	903.8	905.5	905.5	905.5	905.5	905.5
27.5°	868.1	870.9	873.7	875.1	875.4	875.5	875.8	876.0
30°	848.2	851.1	854.0	855.6	855.6	855.6	855.6	855.6
32.5°	826.4	829.5	832.7	834.5	835.1	835.7	836.3	836.9
35°	794.1	797.9	801.5	803.9	804.9	805.8	806.8	807.8
37.5°	760.8	764.9	769.2	771.6	772.4	773.1	774.0	774.8
40°	738.5	742.7	746.9	749.5	750.5	751.5	752.4	753.4
42.5°	715.3	719.9	724.6	727.5	728.9	730.3	731.6	733.0
45°	680.7	685.4	690.1	693.4	695.4	697.3	699.4	701.3
47.5°	645.7	651.0	656.2	659.7	661.2	662.8	664.2	665.8
50°	621.7	627.3	633.0	636.7	638.5	640.2	641.9	643.6
52.5°	597.2	603.1	608.9	612.9	615.1	617.2	619.3	621.4
55°	560.4	567.0	573.7	578.0	580.0	582.0	583.9	585.9
57.5°	522.8	529.5	536.1	540.7	543.0	545.3	547.6	549.9
60°	496.5	503.4	510.3	515.1	517.9	520.6	523.3	525.9
62.5°	471.7	478.6	485.4	490.2	492.7	495.2	497.7	500.3
65°	432.0	439.4	446.8	451.8	454.2	456.6	459.2	461.6
67.5°	392.6	400.6	408.7	413.8	415.9	418.0	420.0	422.1
70°	366.4	374.3	382.2	387.4	389.9	392.3	394.8	397.3
72.5°	340.2	348.3	356.4	361.7	364.1	366.6	369.1	371.5
75°	300.4	308.5	316.6	322.2	325.1	328.1	331.0	334.0
77.5°	263.1	271.7	280.2	285.7	287.9	290.2	292.4	294.7
80°	238.7	247.1	255.4	260.9	263.3	265.8	268.3	270.8
82.5°	216.5	224.9	233.3	238.7	241.2	243.6	246.1	248.6
85°	185.4	193.8	202.2	207.7	210.1	212.5	215.0	217.5
87.5°	163.1	171.5	180.1	185.6	188.3	190.8	193.3	195.9
90°	166.6	175.8	185.0	191.1	194.0	196.9	199.7	202.6
92.5°	161.6	171.1	180.7	186.7	189.2	191.8	194.3	196.8
95°	157.4	166.6	175.7	181.5	183.9	186.4	188.9	191.4
97.5°	150.4	159.5	168.5	174.3	177.0	179.7	182.4	185.1
100°	145.4	154.3	163.1	168.9	171.5	174.2	176.9	179.6
102.5°	157.0	158.7	160.5	162.7	165.6	168.4	171.3	174.1
105°	230.0	199.6	169.3	155.4	158.0	160.7	163.3	166.0
107.5°	414.3	393.5	372.8	349.5	323.6	297.7	271.7	245.9
110°	497.2	496.6	496.1	481.8	453.6	425.5	397.4	369.2

TEST NUMBER: P332039-930

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	553.3	559.6	566.0	567.0	562.9	558.7	554.5	550.3
115°	618.6	626.6	634.6	640.0	642.9	645.6	648.5	651.3
117.5°	676.5	684.1	691.6	696.4	698.5	700.7	702.7	704.8
120°	714.9	722.3	729.6	734.2	735.9	737.6	739.3	741.0
122.5°	752.3	758.9	765.6	769.8	771.8	773.6	775.5	777.4
125°	804.5	810.1	815.7	819.5	821.7	823.9	826.0	828.2
127.5°	856.9	862.4	868.0	871.4	872.6	873.8	875.1	876.4
130°	887.9	893.5	899.0	902.3	903.4	904.4	905.5	906.5
132.5°	917.2	922.6	927.9	931.1	932.2	933.3	934.3	935.5
135°	962.1	967.2	972.3	975.1	975.8	976.3	977.0	977.5
137.5°	1001.8	1006.7	1011.6	1014.5	1015.3	1016.1	1016.9	1017.7
140°	1027.0	1031.6	1036.2	1038.8	1039.6	1040.4	1041.2	1042.0
142.5°	1050.4	1054.4	1058.3	1060.7	1061.4	1061.9	1062.6	1063.2
145°	1085.6	1087.9	1090.4	1092.0	1093.1	1094.1	1095.0	1096.0
147.5°	1117.4	1118.5	1119.5	1120.0	1119.9	1119.8	1119.7	1119.7
150°	1137.5	1137.9	1138.3	1138.5	1138.3	1138.2	1138.1	1137.9
152.5°	1156.3	1157.2	1157.9	1157.8	1157.0	1156.1	1155.2	1154.4
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)