

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: P332022-840

Luminaire Tested: **S123DIP-S1000D805U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332022-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D805U840-4F0-1E-UDD-D1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7027.8 lumens
Efficiency: N/A
Efficacy: 129.2 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

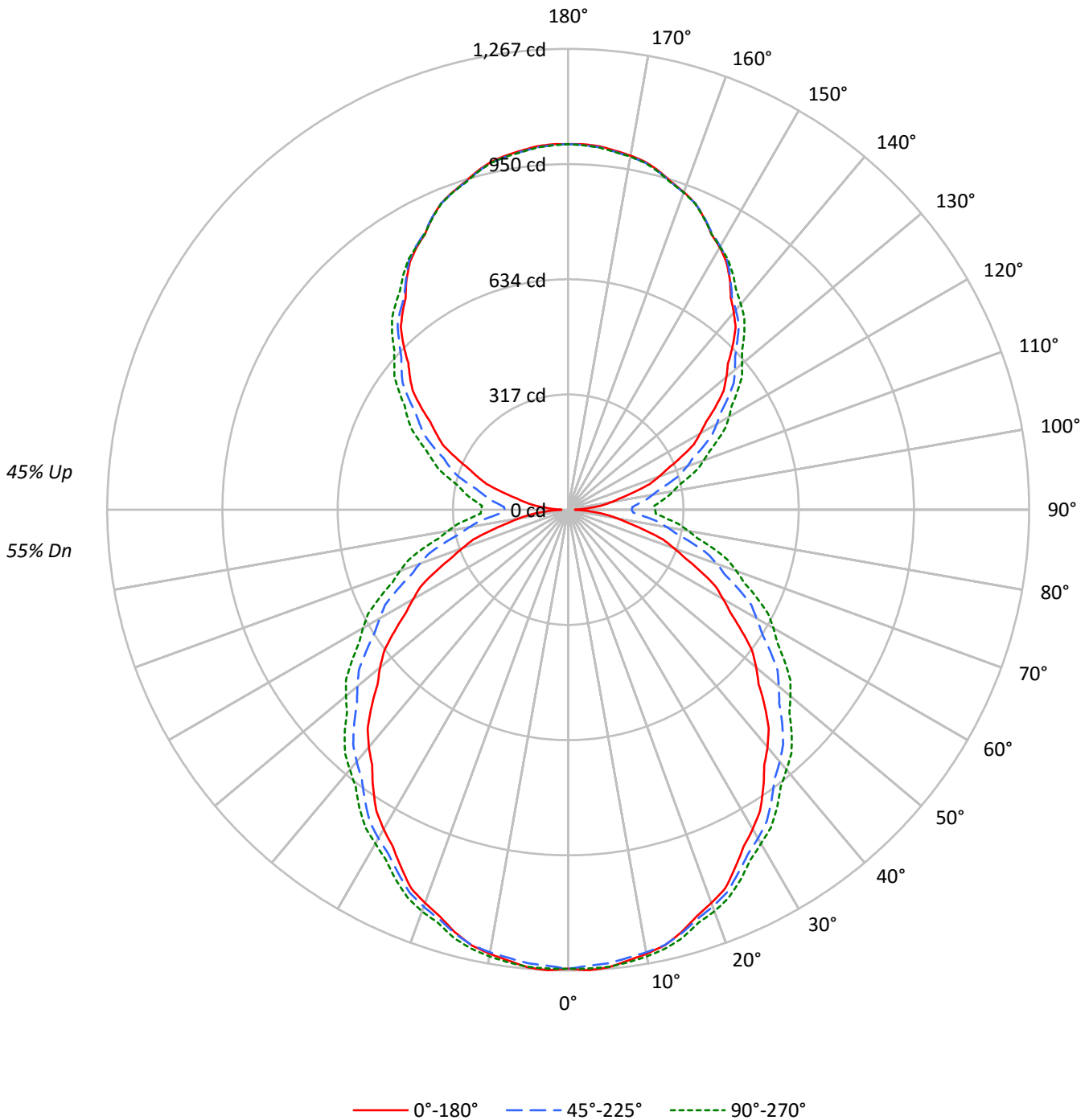
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332022-840

CATALOG NUMBER: S123DIP-S1000D805U840-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P332022-840

CATALOG NUMBER: S123DIP-S1000D805U840-4F0-1E-UDD-D1

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	0
RCR																		
0	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	98	93	89	85	91	86	83	79	74	71	68	63	60	59	52	51	49	44
2	89	81	74	68	82	75	69	64	64	60	56	54	51	48	45	43	41	36
3	81	70	63	56	74	65	59	53	56	51	46	48	44	40	40	37	34	30
4	74	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	47	40	62	51	44	38	44	38	34	38	33	29	32	28	25	22
6	62	49	41	35	57	46	39	33	40	34	29	34	29	26	29	25	22	19
7	57	45	36	30	53	42	34	29	36	30	26	31	26	23	26	22	19	17
8	53	40	32	27	49	38	31	26	33	27	23	28	24	20	24	20	17	15
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	22	18	16	13
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13581	13581	13581
5°	13623	13239	13246
10°	13501	12935	12870
15°	13327	12588	12458
20°	13078	12192	12005
25°	12772	11738	11529
30°	12457	11328	11046
35°	12104	10895	10660
40°	11767	10501	10247
45°	11396	10122	9918
50°	11028	9750	9554
55°	10621	9366	9226
60°	10225	8977	8892
65°	9818	8564	8493
70°	9204	8097	8084
75°	8432	7563	7667
80°	7539	7041	7193
85°	6723	6680	6917



TEST NUMBER: P332022-840

CATALOG NUMBER: S123DIP-S1000D805U840-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.6	1.7
10°-20°	341.0	4.9
20°-30°	510.0	7.3
30°-40°	609.0	8.7
40°-50°	637.2	9.1
50°-60°	598.0	8.5
60°-70°	499.4	7.1
70°-80°	357.3	5.1
80°-90°	216.1	3.1
90°-100°	199.2	2.8
100°-110°	294.2	4.2
110°-120°	398.9	5.7
120°-130°	475.9	6.8
130°-140°	509.6	7.3
140°-150°	488.0	6.9
150°-160°	407.8	5.8
160°-170°	271.5	3.9
170°-180°	95.1	1.4
0°-30°	970.6	13.8
0°-40°	1579.6	22.5
0°-60°	2814.7	40.1
0°-90°	3887.5	55.3
90°-120°	892.4	12.7
90°-150°	2365.9	33.7
90°-180°	3140.0	44.7
0°-180°	7027.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1262	1262	1262	1262	1262	
5°	1263	1260	1252	1262	1262	120
15°	1203	1206	1205	1218	1218	339
25°	1086	1099	1104	1121	1122	500
35°	935	956	974	994	1001	584
45°	764	797	832	857	869	589
55°	583	628	678	713	726	522
65°	403	457	517	556	572	398
75°	218	283	352	396	414	233
85°	67	136	209	254	269	71
90°	19	94	174	222	239	15
95°	62	122	194	238	254	64
105°	189	225	289	327	342	201
115°	342	363	409	442	453	339
125°	495	500	536	561	568	442
135°	640	644	658	678	684	493
145°	774	775	777	787	790	483
155°	885	885	886	889	884	407
165°	964	962	962	966	961	272
175°	1003	1000	1000	1004	999	95
180°	1005	1005	1005	1005	1005	



TEST NUMBER: P332022-840

CATALOG NUMBER: S123DIP-S1000D805U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1261.7	1261.7	1261.7	1261.7	1261.7	1261.7	1261.7	1261.7	1261.7	1261.7	1261.7
2.5°	1267.3	1266.6	1265.8	1265.1	1264.4	1262.9	1261.0	1259.1	1257.1	1255.2	1257.1
5°	1263.1	1262.5	1261.9	1261.3	1260.7	1259.5	1257.7	1255.8	1253.9	1252.1	1254.6
7.5°	1250.7	1250.9	1251.0	1251.1	1251.2	1250.4	1248.7	1246.9	1245.1	1243.3	1246.4
10°	1239.8	1240.4	1241.0	1241.6	1242.2	1241.7	1240.2	1238.7	1237.2	1235.7	1238.7
12.5°	1226.6	1227.4	1228.3	1229.1	1230.0	1229.9	1228.9	1227.8	1226.8	1225.8	1228.6
15°	1202.6	1203.6	1204.5	1205.4	1206.3	1206.6	1206.3	1206.0	1205.7	1205.4	1208.5
17.5°	1172.5	1174.3	1176.1	1177.9	1179.7	1180.6	1180.5	1180.3	1180.2	1180.1	1182.9
20°	1150.4	1152.3	1154.1	1155.9	1157.7	1159.0	1159.6	1160.2	1160.8	1161.4	1164.2
22.5°	1127.3	1129.1	1131.0	1132.9	1134.7	1136.0	1136.9	1137.7	1138.6	1139.4	1142.9
25°	1085.8	1088.8	1092.0	1095.0	1098.0	1100.0	1101.0	1101.9	1102.8	1103.7	1107.6
27.5°	1044.0	1047.5	1051.0	1054.5	1057.9	1060.7	1062.7	1064.6	1066.5	1068.5	1072.0
30°	1014.3	1018.3	1022.3	1026.2	1030.3	1033.4	1035.9	1038.3	1040.8	1043.2	1046.9
32.5°	981.4	985.8	990.3	994.7	999.2	1003.0	1006.2	1009.4	1012.6	1015.7	1019.7
35°	934.6	939.5	944.4	949.3	954.2	958.6	962.6	966.5	970.5	974.5	979.1
37.5°	885.1	890.7	896.2	901.6	907.2	912.3	917.3	922.1	927.0	931.9	937.1
40°	852.1	857.7	863.1	868.7	874.1	880.0	886.1	892.2	898.3	904.4	909.6
42.5°	815.9	822.6	829.3	836.1	842.7	849.3	855.7	862.0	868.4	874.7	880.4
45°	764.2	771.5	778.9	786.2	793.6	801.0	808.6	816.3	823.9	831.5	837.4
47.5°	710.0	718.3	726.7	735.0	743.3	751.8	760.5	769.3	778.0	786.8	793.2
50°	674.9	683.4	692.0	700.5	709.0	718.1	727.5	737.0	746.5	756.0	763.0
52.5°	637.4	646.5	655.6	664.6	673.7	683.4	693.9	704.3	714.7	725.2	732.5
55°	582.8	592.9	602.9	613.0	623.1	633.6	644.6	655.6	666.6	677.6	685.9
57.5°	529.5	540.0	550.5	561.0	571.5	582.8	594.8	606.8	618.8	630.9	639.1
60°	492.1	503.0	514.0	525.0	536.0	547.8	560.3	572.9	585.4	597.9	606.4
62.5°	456.9	468.1	479.4	490.6	501.8	514.1	527.4	540.6	553.8	567.1	575.6
65°	402.7	414.7	426.6	438.5	450.4	463.0	476.5	489.9	503.3	516.8	525.9
67.5°	347.7	360.4	373.0	385.7	398.3	411.5	425.2	438.9	452.5	466.3	476.3
70°	309.2	322.3	335.5	348.7	361.8	375.7	390.3	405.1	419.7	434.3	444.1
72.5°	274.1	287.2	300.3	313.5	326.6	340.7	355.9	371.0	386.2	401.3	411.3
75°	218.5	232.9	247.2	261.7	276.0	290.7	306.1	321.3	336.6	351.8	361.9
77.5°	170.2	184.6	199.1	213.6	228.0	243.0	258.4	273.8	289.2	304.6	315.2
80°	136.0	151.1	166.0	181.0	195.9	211.4	227.2	243.2	259.0	274.9	285.3
82.5°	106.3	121.6	136.8	152.0	167.2	182.9	199.0	215.1	231.3	247.4	257.8
85°	67.4	82.6	97.9	113.2	128.5	144.2	160.4	176.5	192.7	208.9	219.3
87.5°	36.8	52.3	67.9	83.4	99.0	114.7	130.8	146.8	162.9	178.8	189.5
90°	18.7	35.3	52.1	68.8	85.5	102.8	120.7	138.6	156.4	174.3	185.3
92.5°	35.9	50.6	65.2	80.0	94.6	110.3	126.9	143.6	160.2	176.8	187.5
95°	61.7	74.8	88.0	101.1	114.2	129.1	145.4	161.8	178.1	194.5	204.7
97.5°	96.2	107.9	119.6	131.2	142.9	156.3	171.7	187.0	202.3	217.6	227.5
100°	119.8	130.6	141.4	152.2	163.1	175.9	190.9	205.8	220.8	235.6	245.0
102.5°	147.0	156.5	165.9	175.3	184.8	197.0	212.0	226.9	241.9	256.8	266.0
105°	188.6	196.3	204.0	211.7	219.3	230.6	245.3	260.0	274.7	289.4	298.0
107.5°	235.6	242.1	248.5	255.0	261.4	271.1	284.3	297.3	310.4	323.6	332.2
110°	264.9	270.7	276.5	282.4	288.2	297.5	310.0	322.6	335.2	347.7	356.4



TEST NUMBER: P332022-840

CATALOG NUMBER: S123DIP-S1000D805U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	296.4	301.1	305.9	310.6	315.4	323.7	335.4	347.2	359.0	370.8	379.4
115°	342.4	346.6	350.8	355.0	359.2	366.6	377.3	387.9	398.6	409.2	416.7
117.5°	389.8	392.4	395.1	397.7	400.3	406.6	416.4	426.3	436.2	446.0	453.2
120°	418.4	421.0	423.6	426.2	428.8	434.6	443.8	453.0	462.2	471.4	478.3
122.5°	449.4	450.9	452.5	454.0	455.7	461.0	470.1	479.3	488.4	497.6	503.8
125°	495.2	495.7	496.2	496.9	497.4	501.8	510.4	518.9	527.4	535.8	541.6
127.5°	538.8	539.7	540.5	541.3	542.1	545.9	552.9	559.9	566.8	573.7	578.9
130°	567.8	569.0	570.1	571.2	572.3	575.6	581.2	586.7	592.4	597.9	603.0
132.5°	595.8	597.1	598.5	599.9	601.2	604.1	608.6	613.1	617.6	622.1	626.8
135°	640.0	640.7	641.4	642.2	642.9	644.9	648.0	651.3	654.4	657.6	662.4
137.5°	680.8	681.4	682.0	682.6	683.3	684.7	687.1	689.4	691.8	694.1	698.2
140°	708.0	708.9	709.7	710.6	711.6	712.6	713.6	714.7	715.8	716.9	721.2
142.5°	734.0	734.6	735.2	735.8	736.5	737.0	737.5	738.0	738.5	739.0	743.0
145°	774.4	774.4	774.5	774.5	774.6	774.8	775.4	775.9	776.4	776.9	779.2
147.5°	808.4	809.0	809.6	810.2	810.9	811.4	811.9	812.4	812.9	813.4	814.2
150°	832.9	833.3	833.6	834.0	834.4	834.8	835.1	835.5	835.8	836.2	836.2
152.5°	853.2	853.6	854.1	854.6	855.2	855.6	855.8	856.0	856.2	856.4	856.7
155°	885.0	885.0	885.0	885.0	885.0	885.1	885.3	885.6	885.8	885.9	886.6
157.5°	912.2	912.0	911.8	911.6	911.4	911.4	911.5	911.7	911.8	911.9	912.7
160°	929.3	929.0	928.6	928.3	927.9	927.8	927.8	927.8	927.8	927.8	928.6
162.5°	944.4	944.0	943.5	943.0	942.5	942.3	942.5	942.6	942.7	942.9	943.7
165°	964.0	963.5	963.0	962.5	961.9	961.7	961.7	961.7	961.7	961.7	962.7
167.5°	979.7	979.0	978.3	977.5	976.8	976.6	976.7	976.8	977.0	977.1	978.3
170°	988.6	987.8	987.1	986.4	985.7	985.3	985.3	985.3	985.3	985.3	986.6
172.5°	995.4	994.8	994.1	993.4	992.7	992.3	992.3	992.3	992.3	992.3	993.4
175°	1002.7	1002.0	1001.4	1000.7	1000.0	999.6	999.6	999.6	999.6	999.6	1000.7
177.5°	1005.7	1005.2	1004.6	1004.0	1003.5	1003.2	1003.2	1003.2	1003.2	1003.2	1004.0
180°	1005.1	1005.1	1005.1	1005.1	1005.1	1005.1	1005.1	1005.1	1005.1	1005.1	1005.1



TEST NUMBER: P332022-840

CATALOG NUMBER: S123DIP-S1000D805U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1261.7	1261.7	1261.7	1261.7	1261.7	1261.7	1261.7	1261.7
2.5°	1259.1	1261.0	1262.9	1263.8	1263.5	1263.3	1263.1	1262.8
5°	1257.0	1259.5	1261.9	1262.9	1262.6	1262.3	1262.0	1261.7
7.5°	1249.4	1252.5	1255.6	1256.9	1256.6	1256.2	1255.8	1255.5
10°	1241.7	1244.8	1247.9	1249.1	1248.5	1247.9	1247.3	1246.7
12.5°	1231.3	1234.2	1237.0	1238.1	1237.5	1236.9	1236.3	1235.7
15°	1211.5	1214.6	1217.6	1219.0	1218.7	1218.4	1218.1	1217.8
17.5°	1185.6	1188.4	1191.1	1192.2	1191.8	1191.4	1191.0	1190.5
20°	1166.9	1169.6	1172.5	1174.0	1174.3	1174.6	1174.9	1175.2
22.5°	1146.4	1149.8	1153.4	1155.0	1154.8	1154.7	1154.5	1154.3
25°	1111.7	1115.6	1119.5	1121.6	1121.6	1121.6	1121.6	1121.6
27.5°	1075.3	1078.7	1082.2	1084.0	1084.3	1084.5	1084.8	1085.0
30°	1050.6	1054.2	1057.8	1059.8	1059.8	1059.8	1059.8	1059.8
32.5°	1023.6	1027.4	1031.4	1033.7	1034.4	1035.1	1035.9	1036.6
35°	983.6	988.3	992.8	995.7	996.9	998.2	999.4	1000.6
37.5°	942.3	947.5	952.7	955.7	956.7	957.7	958.7	959.7
40°	914.7	920.0	925.1	928.4	929.6	930.8	932.0	933.2
42.5°	886.1	891.7	897.5	901.1	902.8	904.5	906.3	908.0
45°	843.1	849.0	854.7	858.9	861.3	863.7	866.3	868.7
47.5°	799.8	806.4	812.8	817.1	819.0	820.9	822.7	824.7
50°	770.0	777.0	784.1	788.6	790.8	792.9	795.1	797.2
52.5°	739.7	747.0	754.3	759.2	761.8	764.5	767.1	769.7
55°	694.1	702.4	710.6	715.9	718.4	720.8	723.3	725.7
57.5°	647.5	655.8	664.1	669.7	672.6	675.4	678.3	681.2
60°	615.0	623.6	632.1	638.0	641.5	644.8	648.1	651.5
62.5°	584.2	592.8	601.3	607.1	610.3	613.4	616.5	619.7
65°	535.1	544.3	553.4	559.6	562.6	565.6	568.8	571.8
67.5°	486.3	496.2	506.2	512.6	515.1	517.8	520.3	522.8
70°	453.8	463.6	473.4	479.9	482.9	485.9	489.0	492.1
72.5°	421.4	431.4	441.4	448.0	451.0	454.0	457.2	460.2
75°	372.0	382.1	392.1	399.1	402.7	406.4	410.0	413.7
77.5°	325.9	336.5	347.1	353.9	356.6	359.4	362.2	365.1
80°	295.7	306.1	316.4	323.2	326.2	329.2	332.3	335.4
82.5°	268.2	278.5	288.9	295.7	298.7	301.7	304.8	307.9
85°	229.6	240.0	250.4	257.2	260.2	263.3	266.3	269.4
87.5°	200.0	210.5	221.0	227.8	231.0	234.1	237.2	240.3
90°	196.4	207.5	218.6	225.9	229.2	232.7	236.1	239.4
92.5°	198.2	208.9	219.6	226.3	228.9	231.5	234.1	236.7
95°	214.8	225.0	235.2	241.8	244.9	247.9	251.0	254.0
97.5°	237.4	247.3	257.2	263.7	266.7	269.6	272.7	275.6
100°	254.4	263.8	273.2	279.5	283.0	286.4	289.8	293.2
102.5°	275.1	284.3	293.4	299.4	302.5	305.4	308.4	311.4
105°	306.5	315.1	323.7	329.4	332.5	335.7	338.7	341.8
107.5°	341.0	349.8	358.5	364.2	366.6	369.1	371.5	374.1
110°	365.1	373.7	382.3	387.7	389.8	391.8	393.9	396.1



TEST NUMBER: P332022-840

CATALOG NUMBER: S123DIP-S1000D805U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	387.9	396.5	405.0	410.5	413.1	415.8	418.4	421.0
115°	424.2	431.7	439.2	444.1	446.4	448.7	450.9	453.2
117.5°	460.5	467.7	474.9	479.5	481.4	483.3	485.1	487.1
120°	485.1	492.0	498.9	503.2	504.9	506.8	508.6	510.3
122.5°	510.2	516.5	522.8	526.8	528.5	530.1	531.8	533.4
125°	547.3	553.0	558.8	562.3	563.7	565.2	566.6	568.0
127.5°	583.9	589.0	594.0	597.1	598.4	599.7	601.0	602.3
130°	608.1	613.2	618.3	621.2	621.8	622.4	623.0	623.6
132.5°	631.6	636.3	641.0	643.9	645.0	646.2	647.3	648.4
135°	667.2	672.0	676.8	679.7	681.0	682.2	683.3	684.5
137.5°	702.3	706.4	710.4	713.0	713.8	714.7	715.5	716.4
140°	725.7	730.1	734.5	736.9	737.2	737.5	737.8	738.1
142.5°	746.9	750.7	754.7	756.9	757.5	758.1	758.7	759.2
145°	781.4	783.8	786.0	787.4	787.9	788.4	788.9	789.5
147.5°	814.9	815.6	816.4	816.7	816.8	816.8	816.9	816.9
150°	836.2	836.2	836.2	836.0	835.5	835.1	834.6	834.1
152.5°	856.9	857.2	857.5	857.2	856.5	855.7	854.9	854.0
155°	887.3	888.0	888.7	888.4	887.2	886.0	884.7	883.5
157.5°	913.4	914.1	914.8	914.7	913.8	912.8	911.8	910.8
160°	929.5	930.4	931.2	931.3	930.6	929.9	929.2	928.5
162.5°	944.6	945.5	946.4	946.2	945.1	944.0	942.9	941.8
165°	963.8	964.8	965.9	965.8	964.6	963.3	962.1	960.9
167.5°	979.4	980.4	981.5	981.5	980.4	979.4	978.3	977.1
170°	987.8	989.1	990.3	990.3	989.1	987.8	986.6	985.3
172.5°	994.5	995.6	996.6	996.6	995.3	994.1	992.9	991.7
175°	1001.7	1002.7	1003.8	1003.7	1002.5	1001.3	1000.0	998.8
177.5°	1004.9	1005.7	1006.5	1006.5	1005.5	1004.5	1003.6	1002.6
180°	1005.1	1005.1	1005.1	1005.1	1005.1	1005.1	1005.1	1005.1

(END OF REPORT)