

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: P332012-840

Luminaire Tested: **S123DIP-S1000D585U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332012-840
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-S1000D585U840-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 585 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6606.4 lumens
Efficiency: N/A
Efficacy: 135.4 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

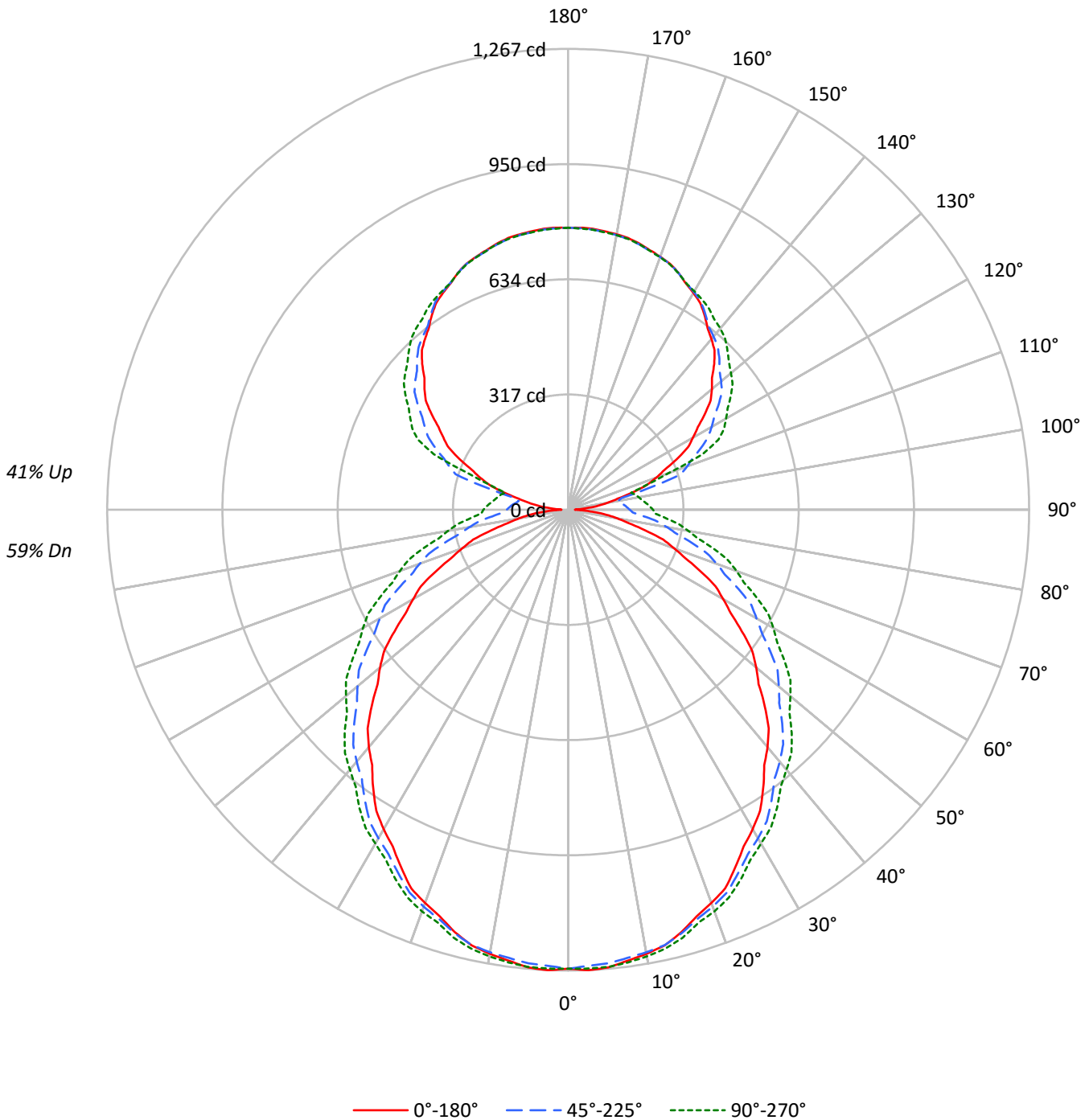
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332012-840

CATALOG NUMBER: S123DIP-S1000D585U840-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332012-840

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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	50	30	10	0		
RCR																										
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59								
1	99	94	89	85	92	87	83	80	76	73	70	65	63	61	55	53	52	47								
2	89	81	74	69	83	76	70	65	66	61	57	56	53	50	48	45	43	38								
3	81	71	63	57	75	66	59	53	57	52	47	49	45	41	42	39	36	32								
4	74	63	54	48	69	58	51	45	51	45	40	44	39	35	37	33	31	27								
5	68	56	47	41	63	52	44	39	45	39	34	39	34	30	33	29	26	23								
6	63	50	41	35	58	47	39	33	41	35	30	35	30	26	30	26	23	20								
7	58	45	37	31	54	42	35	29	37	31	26	32	27	23	27	24	20	18								
8	54	41	33	27	50	38	31	26	34	28	23	29	24	21	25	21	18	16								
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	16	14								
10	47	34	27	22	43	32	25	21	28	23	19	25	20	17	22	18	15	13								

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: P332012-840

CATALOG NUMBER: S123DIP-S1000D585U840-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.6	1.8
10°-20°	341.0	5.2
20°-30°	510.0	7.7
30°-40°	609.0	9.2
40°-50°	637.2	9.6
50°-60°	598.0	9.1
60°-70°	499.4	7.6
70°-80°	357.3	5.4
80°-90°	215.2	3.3
90°-100°	161.9	2.5
100°-110°	232.6	3.5
110°-120°	388.3	5.9
120°-130°	448.4	6.8
130°-140°	455.9	6.9
140°-150°	414.1	6.3
150°-160°	331.2	5.0
160°-170°	213.7	3.2
170°-180°	73.7	1.1
0°-30°	970.6	14.7
0°-40°	1579.6	23.9
0°-60°	2814.7	42.6
0°-90°	3886.7	58.8
90°-120°	782.8	11.8
90°-150°	2101.2	31.8
90°-180°	2720.0	41.2
0°-180°	6606.4	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°	18	92	169	216	233	14
95°	50	83	154	199	214	55
105°	183	220	229	170	179	193
115°	329	351	403	441	456	325
125°	458	465	505	534	546	409
135°	568	571	587	613	619	437
145°	653	656	657	669	675	409
155°	718	717	718	720	717	331
165°	757	756	755	759	756	214
175°	775	773	773	777	772	74
180°	775	775	775	775	775	



TEST NUMBER: P332012-840

CATALOG NUMBER: S123DIP-S1000D585U840-4F0-1E-UDD-D

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°	36.7	52.1	67.6	83.1	98.6	114.2	130.2	146.0	162.0	177.8	188.3
90°	18.5	34.7	50.9	67.2	83.4	100.2	117.4	134.6	151.9	169.2	180.1
92.5°	27.5	40.6	53.7	67.0	80.1	94.9	111.5	128.1	144.7	161.3	172.2
95°	50.3	57.0	63.6	70.3	77.0	88.5	104.8	121.2	137.5	153.9	164.3
97.5°	84.1	92.5	100.9	109.3	117.6	124.4	129.5	134.6	139.7	144.7	154.8
100°	109.7	122.1	134.4	146.7	159.1	162.3	156.3	150.5	144.5	138.6	148.5
102.5°	139.1	149.7	160.3	171.0	181.6	182.9	174.9	166.9	158.9	150.9	156.3
105°	182.7	191.4	200.2	208.8	217.6	222.8	224.4	226.0	227.6	229.2	215.1
107.5°	227.3	234.7	242.0	249.3	256.7	267.5	281.9	296.1	310.4	324.7	316.2
110°	257.1	263.6	270.1	276.6	283.2	293.3	306.9	320.5	334.1	347.7	351.4



TEST NUMBER: P332012-840

CATALOG NUMBER: S123DIP-S1000D585U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	286.6	292.1	297.4	302.9	308.3	317.6	330.7	343.9	357.0	370.1	377.9
115°	328.8	333.3	337.7	342.1	346.6	354.9	367.0	379.2	391.3	403.4	412.0
117.5°	370.8	374.1	377.3	380.5	383.6	390.7	401.6	412.5	423.4	434.3	442.7
120°	396.0	398.7	401.4	404.0	406.8	413.3	423.7	434.2	444.6	455.1	463.2
122.5°	422.7	424.4	426.3	428.0	429.7	435.7	445.7	455.8	465.9	475.9	483.4
125°	458.0	459.0	460.1	461.1	462.1	467.3	476.7	486.0	495.4	504.7	511.4
127.5°	493.5	494.2	494.9	495.6	496.3	500.7	508.7	516.5	524.5	532.5	539.0
130°	515.6	516.3	517.1	517.8	518.5	522.1	528.8	535.4	542.0	548.7	554.9
132.5°	535.7	536.6	537.7	538.6	539.6	542.7	548.0	553.3	558.6	563.9	570.0
135°	567.7	568.3	568.8	569.2	569.7	571.8	575.7	579.6	583.4	587.3	593.2
137.5°	595.1	595.9	596.6	597.3	598.0	599.6	601.7	603.9	606.0	608.2	613.7
140°	612.5	613.3	614.0	614.8	615.6	616.6	617.9	619.1	620.5	621.8	626.9
142.5°	629.5	630.1	630.6	631.1	631.7	632.2	632.8	633.3	633.9	634.5	638.9
145°	653.4	654.0	654.6	655.2	655.7	656.2	656.4	656.7	656.9	657.2	659.8
147.5°	674.5	675.1	675.7	676.2	676.8	677.2	677.5	677.7	678.0	678.3	679.2
150°	688.3	688.7	689.0	689.4	689.8	690.1	690.4	690.6	690.9	691.2	691.5
152.5°	700.7	700.9	701.0	701.3	701.5	701.7	701.8	702.0	702.1	702.3	702.7
155°	718.2	718.0	717.7	717.5	717.2	717.2	717.3	717.4	717.5	717.7	718.3
157.5°	731.8	731.8	731.7	731.7	731.7	731.6	731.5	731.4	731.2	731.1	732.0
160°	740.1	740.0	739.9	739.7	739.6	739.5	739.3	739.2	739.1	739.0	739.7
162.5°	748.0	747.6	747.3	747.0	746.6	746.4	746.3	746.2	746.0	745.9	746.8
165°	757.4	757.0	756.7	756.3	755.9	755.6	755.5	755.4	755.3	755.1	756.2
167.5°	764.8	764.3	763.8	763.3	762.8	762.4	762.4	762.4	762.4	762.4	763.6
170°	768.9	768.4	767.9	767.4	766.9	766.6	766.6	766.6	766.6	766.6	767.7
172.5°	771.7	771.1	770.4	769.8	769.2	769.0	769.1	769.2	769.3	769.4	770.4
175°	775.3	774.7	774.0	773.4	772.7	772.4	772.5	772.7	772.8	773.0	773.9
177.5°	776.2	775.7	775.2	774.7	774.2	774.0	774.1	774.2	774.3	774.4	775.2
180°	775.3	775.3	775.3	775.3	775.3	775.3	775.3	775.3	775.3	775.3	775.3



TEST NUMBER: P332012-840

CATALOG NUMBER: S123DIP-S1000D585U840-4F0-1E-UDD-D

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°	198.8	209.3	219.8	226.6	229.7	232.9	235.9	239.0
90°	191.0	201.9	212.7	219.8	223.2	226.4	229.7	233.1
92.5°	183.2	194.1	205.1	212.1	215.0	218.0	221.0	223.9
95°	174.7	185.0	195.4	202.1	205.1	208.2	211.3	214.3
97.5°	165.0	175.1	185.2	191.9	195.1	198.2	201.5	204.6
100°	158.3	168.2	178.1	184.6	187.8	191.0	194.2	197.3
102.5°	161.8	167.2	172.7	177.0	180.3	183.6	186.8	190.2
105°	201.1	186.9	172.8	167.2	170.3	173.3	176.3	179.3
107.5°	307.8	299.4	290.9	279.5	265.2	250.7	236.4	222.0
110°	355.2	358.9	362.6	356.5	340.6	324.8	308.9	293.1



TEST NUMBER: P332012-840

CATALOG NUMBER: S123DIP-S1000D585U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	385.7	393.4	401.2	404.6	403.3	402.2	401.0	399.8
115°	420.7	429.3	437.9	443.7	446.7	449.6	452.5	455.6
117.5°	451.0	459.3	467.6	472.9	475.4	478.0	480.4	482.9
120°	471.2	479.3	487.4	492.4	494.6	496.8	498.9	501.0
122.5°	490.9	498.4	505.9	510.8	513.0	515.2	517.5	519.8
125°	518.1	524.8	531.5	535.9	538.4	540.8	543.2	545.5
127.5°	545.3	551.8	558.3	562.4	564.2	566.0	567.8	569.7
130°	561.3	567.5	573.9	577.8	579.4	581.0	582.6	584.1
132.5°	576.0	582.1	588.1	592.1	593.8	595.5	597.2	599.0
135°	599.1	604.9	610.9	614.3	615.5	616.6	617.7	618.9
137.5°	619.1	624.5	630.0	633.4	634.6	635.9	637.1	638.4
140°	632.0	637.1	642.2	645.4	646.6	647.9	649.1	650.5
142.5°	643.5	647.9	652.5	655.3	656.5	657.6	658.8	659.9
145°	662.6	665.3	668.0	669.9	671.2	672.4	673.6	674.8
147.5°	680.2	681.3	682.3	683.0	683.5	684.0	684.5	685.0
150°	691.7	692.0	692.2	692.5	692.7	692.9	693.2	693.4
152.5°	703.2	703.6	704.1	704.1	703.6	703.2	702.7	702.3
155°	718.9	719.6	720.2	720.1	719.4	718.6	717.9	717.1
157.5°	732.7	733.5	734.3	734.1	733.1	732.2	731.1	730.1
160°	740.5	741.2	742.0	741.9	741.1	740.2	739.3	738.4
162.5°	747.6	748.5	749.4	749.4	748.6	747.8	747.0	746.3
165°	757.2	758.2	759.2	759.3	758.4	757.5	756.6	755.7
167.5°	764.6	765.6	766.6	766.6	765.6	764.6	763.6	762.4
170°	768.7	769.7	770.7	770.7	769.7	768.7	767.7	766.6
172.5°	771.4	772.4	773.5	773.5	772.3	771.2	770.0	768.9
175°	774.8	775.7	776.6	776.5	775.5	774.5	773.5	772.3
177.5°	776.0	776.8	777.6	777.5	776.5	775.5	774.5	773.5
180°	775.3	775.3	775.3	775.3	775.3	775.3	775.3	775.3

(END OF REPORT)