

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: P331316

Luminaire Tested: **SA2XXDIP-C485D925U835-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331316
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C485D925U835-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5277.4 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

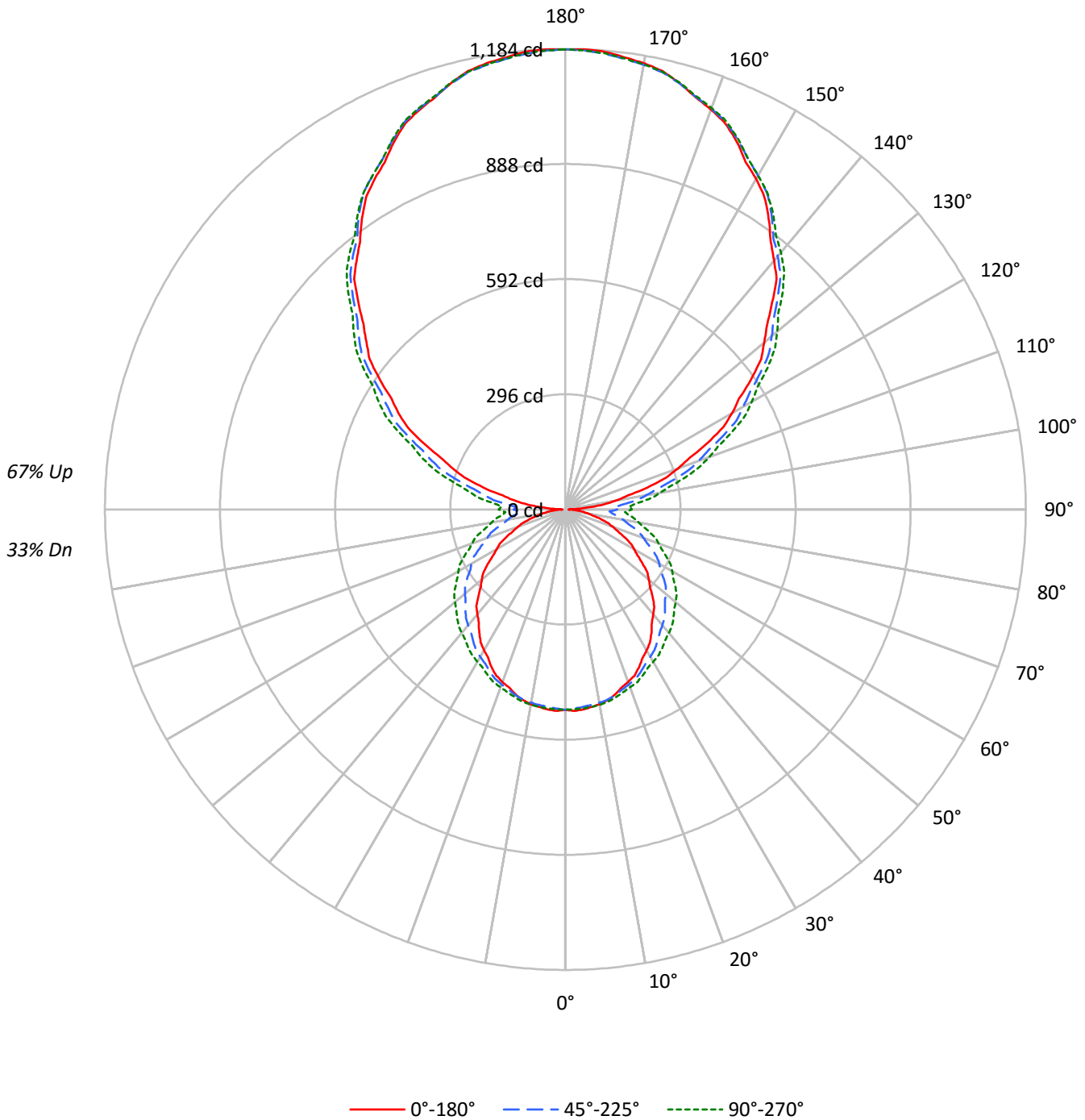
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331316

CATALOG NUMBER: SA2XXDIP-C485D925U835-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33																				
1	93	88	84	80	84	80	76	73	63	61	58	48	47	45	34	33	32	26																				
2	84	77	70	65	75	69	64	59	55	51	48	42	39	37	30	28	26	21																				
3	77	67	59	53	69	60	54	49	48	43	39	37	33	31	26	24	22	17																				
4	70	59	51	45	62	53	46	41	42	37	33	32	29	26	23	21	19	14																				
5	64	52	44	38	57	47	40	35	38	32	28	29	25	22	21	18	16	12																				
6	59	47	39	33	53	42	35	30	34	28	25	26	22	19	19	16	14	11																				
7	54	42	34	28	48	38	31	26	30	25	21	23	20	17	17	14	12	9																				
8	50	38	30	25	45	34	28	23	28	23	19	21	18	15	15	13	11	8																				
9	47	34	27	22	42	31	25	20	25	20	17	20	16	13	14	12	10	8																				
10	43	31	24	20	39	29	22	18	23	18	15	18	14	12	13	11	9	7																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8320	8320	8320
5°	8361	8009	7978
10°	8308	7773	7685
15°	8193	7522	7376
20°	8049	7253	7078
25°	7906	6994	6809
30°	7704	6728	6536
35°	7501	6472	6346
40°	7287	6254	6154
45°	7084	6058	5992
50°	6865	5879	5830
55°	6634	5689	5666
60°	6355	5493	5493
65°	6063	5262	5287
70°	5738	5012	5065
75°	5319	4768	4860
80°	4657	4519	4652
85°	4025	4303	4491



TEST NUMBER: P331316

CATALOG NUMBER: SA2XXDIP-C485D925U835-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.8	0.9
10°-20°	140.0	2.7
20°-30°	212.2	4.0
30°-40°	258.4	4.9
40°-50°	278.0	5.3
50°-60°	270.0	5.1
60°-70°	235.8	4.5
70°-80°	181.5	3.4
80°-90°	126.5	2.4
90°-100°	158.8	3.0
100°-110°	294.0	5.6
110°-120°	438.3	8.3
120°-130°	545.7	10.3
130°-140°	596.6	11.3
140°-150°	577.4	10.9
150°-160°	482.9	9.2
160°-170°	320.3	6.1
170°-180°	111.9	2.1
0°-30°	401.0	7.6
0°-40°	659.5	12.5
0°-60°	1207.5	22.9
0°-90°	1751.3	33.2
90°-120°	891.1	16.9
90°-150°	2610.9	49.5
90°-180°	3526.0	66.8
0°-180°	5277.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	515	515	515	515	515	
5°	517	514	510	514	514	49
15°	493	494	494	501	500	139
25°	448	453	460	469	471	206
35°	386	399	413	429	435	241
45°	317	337	363	385	394	244
55°	243	270	308	334	345	217
65°	166	203	246	276	287	165
75°	92	134	182	212	223	97
85°	27	73	121	151	163	29
90°	8	65	134	160	171	8
95°	58	103	150	177	185	64
105°	218	244	284	311	320	231
115°	402	417	448	468	475	397
125°	582	592	612	629	635	520
135°	752	763	773	787	790	581
145°	912	919	925	930	930	570
155°	1043	1046	1049	1053	1051	480
165°	1135	1134	1134	1140	1136	320
175°	1181	1178	1176	1182	1177	112
180°	1183	1183	1183	1183	1183	



TEST NUMBER: P331316

CATALOG NUMBER: SA2XXDIP-C485D925U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	518.3	517.9	517.5	517.1	516.7	516.0	515.1	514.2	513.3	512.3	513.0
5°	516.8	516.3	515.8	515.3	514.8	514.1	513.1	512.1	511.1	510.1	511.1
7.5°	512.2	511.8	511.5	511.2	510.9	510.3	509.5	508.8	508.0	507.2	508.4
10°	508.6	508.3	507.9	507.6	507.3	506.9	506.4	505.9	505.4	504.9	506.2
12.5°	502.6	502.7	502.8	502.8	502.9	502.7	502.4	502.0	501.6	501.3	502.6
15°	492.9	493.2	493.6	493.9	494.2	494.4	494.4	494.4	494.4	494.4	495.9
17.5°	480.4	481.1	481.8	482.5	483.2	483.8	484.3	484.8	485.4	485.9	487.4
20°	472.0	472.8	473.7	474.5	475.3	476.1	476.7	477.4	478.1	478.7	480.5
22.5°	463.0	464.0	465.0	465.9	466.9	467.8	468.8	469.7	470.6	471.6	473.4
25°	448.1	449.3	450.4	451.6	452.7	454.1	455.6	457.1	458.6	460.0	462.0
27.5°	430.2	432.1	434.0	435.9	437.7	439.6	441.3	443.1	444.8	446.6	449.1
30°	418.2	420.4	422.5	424.7	426.9	429.0	431.2	433.3	435.5	437.6	440.3
32.5°	405.1	407.5	409.9	412.4	414.8	417.3	419.8	422.4	424.9	427.5	430.5
35°	386.1	388.9	391.8	394.6	397.4	400.4	403.5	406.7	409.8	413.0	416.6
37.5°	365.5	368.8	372.0	375.3	378.5	382.2	386.3	390.3	394.4	398.5	402.6
40°	351.8	355.4	359.1	362.7	366.4	370.4	374.9	379.4	383.9	388.4	392.7
42.5°	338.6	342.3	345.9	349.6	353.2	357.6	362.8	367.9	373.1	378.2	382.9
45°	316.7	321.1	325.6	330.1	334.6	339.7	345.5	351.3	357.2	363.0	368.1
47.5°	295.0	299.9	304.8	309.6	314.5	320.4	327.2	334.0	340.8	347.6	353.0
50°	280.1	285.2	290.4	295.5	300.6	306.9	314.4	321.9	329.4	336.8	342.5
52.5°	265.7	271.1	276.5	282.0	287.4	294.0	301.9	309.7	317.6	325.5	331.2
55°	242.7	248.7	254.7	260.6	266.6	273.9	282.6	291.2	299.8	308.4	314.4
57.5°	220.0	226.8	233.5	240.2	247.0	254.7	263.5	272.3	281.1	289.9	296.4
60°	203.9	211.0	218.2	225.3	232.4	240.7	250.2	259.6	269.1	278.6	284.9
62.5°	189.5	196.9	204.4	211.8	219.2	227.6	237.0	246.5	256.0	265.4	272.1
65°	165.8	173.9	182.1	190.2	198.3	207.3	217.1	226.9	236.7	246.5	253.3
67.5°	144.0	152.5	161.0	169.5	178.0	187.2	197.3	207.3	217.3	227.3	234.2
70°	128.5	137.1	145.7	154.3	163.0	172.4	182.7	193.0	203.3	213.6	220.7
72.5°	114.1	123.0	131.9	140.8	149.7	159.4	169.8	180.2	190.6	201.0	208.1
75°	91.9	101.2	110.4	119.7	129.0	139.0	149.6	160.2	170.9	181.5	188.6
77.5°	70.4	80.1	89.8	99.5	109.3	119.5	130.3	141.1	151.9	162.7	169.8
80°	56.0	66.1	76.3	86.4	96.5	107.0	117.8	128.5	139.3	150.1	157.1
82.5°	44.1	54.1	64.0	74.0	84.0	94.5	105.4	116.3	127.2	138.2	145.1
85°	26.9	37.2	47.5	57.8	68.0	78.5	89.1	99.7	110.4	121.0	128.0
87.5°	14.8	25.3	35.7	46.1	56.5	67.5	79.1	90.7	102.3	113.9	120.6
90°	8.5	20.8	33.0	45.3	57.6	71.5	87.0	102.5	118.0	133.5	139.7
92.5°	24.6	35.5	46.5	57.4	68.3	79.4	90.8	102.2	113.6	124.9	131.5
95°	57.9	67.9	77.9	87.9	97.9	108.1	118.6	129.0	139.4	149.8	156.1
97.5°	100.0	108.9	117.8	126.7	135.6	145.2	155.6	166.0	176.4	186.8	193.0
100°	132.0	139.9	147.8	155.7	163.6	172.6	182.5	192.5	202.4	212.4	218.5
102.5°	164.9	171.9	179.0	186.0	193.0	201.5	211.3	221.2	231.1	241.0	247.1
105°	218.3	223.8	229.3	234.7	240.2	247.5	256.6	265.6	274.7	283.8	290.0
107.5°	272.8	277.7	282.5	287.3	292.1	298.7	306.9	315.2	323.5	331.7	337.5
110°	307.4	312.0	316.7	321.3	326.0	332.4	340.5	348.6	356.7	364.9	370.2



TEST NUMBER: P331316

CATALOG NUMBER: SA2XXDIP-C485D925U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	345.7	349.8	353.9	358.0	362.2	368.0	375.6	383.1	390.7	398.2	403.0
115°	402.2	405.3	408.5	411.6	414.8	419.9	426.9	433.9	441.0	448.0	452.7
117.5°	457.7	460.7	463.6	466.6	469.6	473.9	479.6	485.2	490.9	496.5	500.9
120°	495.2	497.7	500.1	502.5	505.0	508.6	513.5	518.4	523.2	528.1	532.7
122.5°	529.6	532.0	534.3	536.7	539.1	542.8	547.8	552.8	557.8	562.8	566.8
125°	582.3	584.3	586.3	588.3	590.3	593.6	598.3	602.9	607.5	612.2	616.0
127.5°	634.4	636.8	639.1	641.5	643.8	646.8	650.3	653.7	657.2	660.7	664.0
130°	667.1	669.8	672.6	675.3	678.0	680.9	683.9	687.0	690.0	693.0	696.6
132.5°	703.9	706.0	708.2	710.4	712.6	715.1	717.8	720.6	723.4	726.2	729.1
135°	752.2	754.6	757.1	759.5	762.0	764.2	766.3	768.4	770.5	772.6	775.9
137.5°	803.9	805.9	807.8	809.8	811.7	813.4	814.7	816.0	817.3	818.6	821.5
140°	835.0	836.9	838.7	840.5	842.4	844.0	845.4	846.9	848.3	849.8	852.4
142.5°	867.0	868.8	870.6	872.5	874.3	875.6	876.4	877.3	878.1	878.9	881.2
145°	912.1	913.7	915.2	916.8	918.3	919.8	921.1	922.4	923.8	925.1	926.3
147.5°	953.0	954.9	956.8	958.6	960.5	961.9	962.8	963.6	964.5	965.4	966.0
150°	981.0	982.3	983.6	985.0	986.3	987.4	988.3	989.2	990.1	991.0	991.6
152.5°	1005.7	1007.1	1008.4	1009.7	1011.1	1012.3	1013.3	1014.4	1015.4	1016.5	1017.4
155°	1042.9	1043.5	1044.2	1044.9	1045.5	1046.2	1046.9	1047.5	1048.2	1048.8	1050.0
157.5°	1074.6	1075.0	1075.5	1075.9	1076.4	1076.8	1077.2	1077.6	1078.0	1078.4	1079.9
160°	1093.8	1094.2	1094.6	1095.1	1095.5	1095.9	1096.1	1096.3	1096.5	1096.7	1098.1
162.5°	1111.3	1111.4	1111.5	1111.6	1111.7	1111.8	1112.1	1112.3	1112.5	1112.7	1114.2
165°	1134.7	1134.5	1134.2	1134.0	1133.8	1133.7	1133.7	1133.7	1133.7	1133.7	1135.2
167.5°	1154.2	1153.6	1152.9	1152.2	1151.6	1151.2	1151.2	1151.1	1151.1	1151.0	1152.6
170°	1164.6	1163.9	1163.3	1162.6	1161.9	1161.5	1161.3	1161.1	1160.8	1160.6	1162.2
172.5°	1171.8	1171.1	1170.5	1169.8	1169.1	1168.7	1168.5	1168.2	1168.0	1167.8	1169.4
175°	1180.6	1179.9	1179.2	1178.6	1177.9	1177.4	1176.9	1176.5	1176.0	1175.6	1177.1
177.5°	1184.2	1183.6	1183.1	1182.6	1182.0	1181.6	1181.2	1180.9	1180.5	1180.2	1181.2
180°	1182.6	1182.6	1182.6	1182.6	1182.6	1182.6	1182.6	1182.6	1182.6	1182.6	1182.6



TEST NUMBER: P331316

CATALOG NUMBER: SA2XXDIP-C485D925U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	513.7	514.3	515.0	515.2	514.9	514.7	514.4	514.1
5°	512.1	513.1	514.1	514.5	514.3	514.2	514.0	513.8
7.5°	509.6	510.8	512.0	512.5	512.4	512.2	512.0	511.9
10°	507.5	508.8	510.2	510.8	510.6	510.4	510.3	510.1
12.5°	503.9	505.3	506.6	507.2	507.0	506.8	506.7	506.5
15°	497.4	498.9	500.4	501.0	500.9	500.7	500.5	500.4
17.5°	489.0	490.6	492.1	492.9	492.9	492.9	492.9	492.9
20°	482.4	484.2	486.0	486.9	486.9	486.9	486.9	486.9
22.5°	475.2	477.0	478.9	479.9	480.2	480.4	480.7	481.0
25°	464.0	466.0	468.0	469.3	469.8	470.3	470.8	471.3
27.5°	451.7	454.2	456.7	458.1	458.5	458.9	459.2	459.6
30°	443.0	445.6	448.3	449.8	450.3	450.8	451.3	451.8
32.5°	433.6	436.6	439.7	441.7	442.6	443.5	444.4	445.3
35°	420.3	424.0	427.6	430.0	431.2	432.3	433.5	434.7
37.5°	406.6	410.7	414.7	417.3	418.6	419.8	421.0	422.3
40°	397.0	401.3	405.6	408.5	410.0	411.5	413.0	414.5
42.5°	387.6	392.3	397.0	400.2	401.6	403.1	404.6	406.1
45°	373.3	378.4	383.5	386.9	388.6	390.3	391.9	393.6
47.5°	358.3	363.7	369.1	372.7	374.5	376.3	378.2	380.0
50°	348.1	353.7	359.4	363.1	365.0	366.8	368.6	370.4
52.5°	337.0	342.8	348.6	352.4	354.4	356.4	358.3	360.3
55°	320.4	326.4	332.3	336.4	338.6	340.7	342.9	345.0
57.5°	302.8	309.2	315.7	320.0	322.2	324.4	326.6	328.8
60°	291.2	297.5	303.8	308.1	310.4	312.8	315.1	317.4
62.5°	278.8	285.5	292.2	296.7	298.9	301.1	303.3	305.5
65°	260.1	266.9	273.7	278.2	280.3	282.5	284.6	286.8
67.5°	241.1	247.9	254.8	259.4	261.6	263.9	266.2	268.4
70°	227.9	235.0	242.1	246.7	248.7	250.7	252.7	254.7
72.5°	215.1	222.1	229.1	233.8	236.1	238.5	240.9	243.3
75°	195.8	202.9	210.0	214.7	216.8	219.0	221.1	223.3
77.5°	176.9	184.0	191.1	195.8	198.1	200.4	202.8	205.1
80°	164.1	171.0	178.0	182.6	185.0	187.3	189.6	191.9
82.5°	152.1	159.1	166.0	170.6	172.8	175.0	177.2	179.4
85°	134.9	141.9	148.9	153.5	155.8	158.2	160.5	162.8
87.5°	127.3	134.0	140.7	145.1	147.3	149.4	151.6	153.8
90°	145.9	152.1	158.3	162.5	164.7	166.9	169.1	171.3
92.5°	138.1	144.7	151.3	155.6	157.7	159.7	161.7	163.8
95°	162.4	168.7	175.0	178.9	180.5	182.0	183.6	185.1
97.5°	199.1	205.3	211.4	215.4	217.3	219.3	221.2	223.1
100°	224.7	230.8	237.0	240.8	242.4	244.0	245.6	247.3
102.5°	253.3	259.5	265.7	269.6	271.2	272.8	274.4	276.0
105°	296.3	302.5	308.8	312.8	314.7	316.5	318.3	320.1
107.5°	343.2	349.0	354.8	358.0	358.8	359.6	360.5	361.3
110°	375.5	380.8	386.1	389.4	390.5	391.7	392.8	394.0



TEST NUMBER: P331316

CATALOG NUMBER: SA2XXDIP-C485D925U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	407.8	412.6	417.3	420.4	421.7	423.1	424.4	425.7
115°	457.5	462.3	467.0	470.0	471.1	472.3	473.5	474.6
117.5°	505.3	509.7	514.1	516.8	517.8	518.8	519.9	520.9
120°	537.4	542.0	546.7	549.6	550.7	551.9	553.1	554.2
122.5°	570.8	574.8	578.8	581.3	582.4	583.4	584.5	585.6
125°	619.8	623.6	627.5	630.0	631.3	632.5	633.8	635.1
127.5°	667.3	670.7	674.0	676.0	676.8	677.5	678.3	679.0
130°	700.1	703.7	707.2	709.2	709.6	710.1	710.5	711.0
132.5°	731.9	734.8	737.7	739.4	740.0	740.7	741.3	741.9
135°	779.2	782.4	785.7	787.7	788.3	789.0	789.7	790.3
137.5°	824.4	827.2	830.1	831.7	831.9	832.2	832.4	832.6
140°	855.1	857.7	860.4	861.8	861.9	862.0	862.1	862.2
142.5°	883.5	885.8	888.1	889.2	889.2	889.2	889.2	889.1
145°	927.5	928.8	930.0	930.6	930.5	930.4	930.4	930.3
147.5°	966.7	967.3	967.9	968.0	967.5	967.1	966.7	966.2
150°	992.3	993.0	993.6	993.6	993.0	992.3	991.6	991.0
152.5°	1018.2	1019.0	1019.9	1019.9	1019.0	1018.2	1017.4	1016.5
155°	1051.1	1052.2	1053.3	1053.5	1052.8	1052.2	1051.5	1050.8
157.5°	1081.4	1082.9	1084.4	1084.6	1083.6	1082.5	1081.4	1080.4
160°	1099.4	1100.7	1102.1	1102.3	1101.4	1100.5	1099.6	1098.7
162.5°	1115.7	1117.2	1118.7	1119.0	1117.9	1116.8	1115.8	1114.7
165°	1136.8	1138.3	1139.9	1140.1	1139.0	1137.9	1136.8	1135.7
167.5°	1154.1	1155.7	1157.2	1157.4	1156.3	1155.1	1154.0	1152.8
170°	1163.7	1165.3	1166.8	1166.9	1165.6	1164.3	1162.9	1161.6
172.5°	1170.9	1172.5	1174.0	1174.1	1172.8	1171.5	1170.1	1168.8
175°	1178.7	1180.2	1181.8	1181.9	1180.6	1179.2	1177.9	1176.6
177.5°	1182.3	1183.4	1184.4	1184.4	1183.4	1182.3	1181.2	1180.2
180°	1182.6	1182.6	1182.6	1182.6	1182.6	1182.6	1182.6	1182.6

(END OF REPORT)