

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: P331451-830

Luminaire Tested: **SA2XXDIP-C1005D925U830-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331451-830
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-C1005D925U830-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

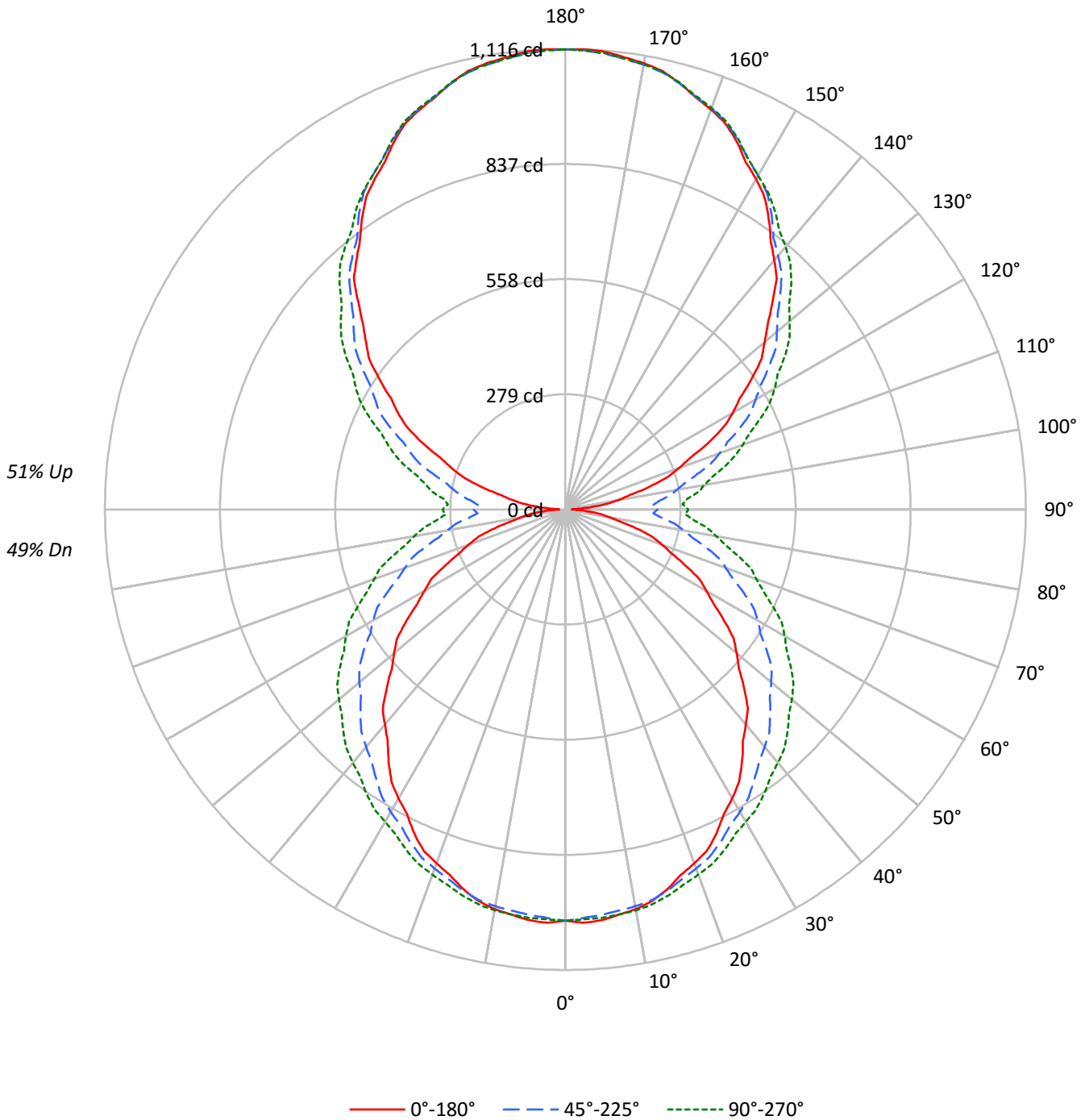
Lumens per Lamp: N/A
Luminaire Lumens: 6923.6 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 66.8
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: P331451-830
CATALOG NUMBER: SA2XXDIP-C1005D925U830-4F0-1E-UDD-D1

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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	96	91	87	83	88	84	80	77	70	67	65	58	56	54	46	45	44	38
2	87	79	72	66	79	72	67	62	61	56	52	50	47	44	40	38	36	31
3	79	69	61	55	72	63	56	51	53	48	43	44	40	36	35	32	30	25
4	72	60	52	46	66	56	48	43	47	41	37	39	34	31	31	28	25	21
5	66	54	45	39	60	50	42	36	42	36	31	34	30	26	28	24	22	18
6	61	48	40	33	55	44	37	31	37	32	27	31	26	23	25	22	19	16
7	56	43	35	29	51	40	33	27	34	28	24	28	24	20	23	19	17	14
8	52	39	31	26	47	36	29	24	31	25	21	26	21	18	21	17	15	12
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	19	16	13	11
10	45	33	25	20	41	30	24	19	26	20	17	22	17	14	18	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16091	16091	16091
5°	16172	15491	15432
10°	16069	15033	14865
15°	15848	14548	14266
20°	15567	14030	13691
25°	15292	13528	13167
30°	14902	13015	12643
35°	14508	12517	12274
40°	14092	12094	11903
45°	13700	11715	11587
50°	13277	11373	11276
55°	12834	11004	10959
60°	12292	10623	10624
65°	11728	10173	10227
70°	11096	9693	9797
75°	10286	9222	9401
80°	9006	8739	9001
85°	7780	8321	8687



TEST NUMBER: P331451-830

CATALOG NUMBER: SA2XXDIP-C1005D925U830-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	1.4
10°-20°	270.8	3.9
20°-30°	410.4	5.9
30°-40°	499.9	7.2
40°-50°	537.8	7.8
50°-60°	522.2	7.5
60°-70°	456.0	6.6
70°-80°	351.0	5.1
80°-90°	240.0	3.5
90°-100°	232.9	3.4
100°-110°	337.9	4.9
110°-120°	453.2	6.5
120°-130°	536.8	7.8
130°-140°	571.8	8.3
140°-150°	545.8	7.9
150°-160°	455.2	6.6
160°-170°	301.9	4.4
170°-180°	105.5	1.5
0°-30°	775.7	11.2
0°-40°	1275.5	18.4
0°-60°	2335.5	33.7
0°-90°	3382.6	48.9
90°-120°	1024.1	14.8
90°-150°	2678.4	38.7
90°-180°	3541.0	51.1
0°-180°	6923.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	997	997	997	997	997	
5°	1000	995	987	995	994	95
15°	953	956	956	968	968	268
25°	867	877	890	906	911	398
35°	747	772	799	829	841	467
45°	612	652	702	745	761	473
55°	470	523	596	647	667	420
65°	321	392	477	534	555	318
75°	178	259	351	411	432	188
85°	52	142	234	292	315	56
90°	15	111	224	277	298	12
95°	60	138	226	279	297	65
105°	209	256	331	382	399	222
115°	382	406	467	507	522	377
125°	550	561	602	637	650	492
135°	710	720	736	765	774	548
145°	860	866	872	881	885	537
155°	983	986	988	993	990	452
165°	1070	1069	1069	1074	1070	301
175°	1113	1110	1108	1114	1109	106
180°	1115	1115	1115	1115	1115	



TEST NUMBER: P331451-830

CATALOG NUMBER: SA2XXDIP-C1005D925U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6
2.5°	1002.5	1001.7	1000.9	1000.1	999.4	998.1	996.3	994.5	992.7	990.9	992.2
5°	999.6	998.6	997.7	996.6	995.7	994.3	992.4	990.4	988.5	986.6	988.5
7.5°	990.6	990.0	989.3	988.7	988.1	987.0	985.5	984.0	982.6	981.1	983.4
10°	983.7	983.1	982.4	981.8	981.1	980.3	979.4	978.4	977.4	976.5	979.0
12.5°	972.1	972.2	972.4	972.5	972.6	972.3	971.7	970.9	970.3	969.5	972.1
15°	953.4	954.0	954.6	955.3	955.9	956.2	956.2	956.2	956.2	956.2	959.1
17.5°	929.1	930.5	931.8	933.1	934.4	935.7	936.7	937.7	938.8	939.8	942.8
20°	912.9	914.5	916.2	917.8	919.4	920.8	922.1	923.3	924.6	926.0	929.4
22.5°	895.6	897.4	899.3	901.2	903.1	904.8	906.6	908.4	910.2	912.0	915.6
25°	866.7	868.9	871.2	873.5	875.7	878.3	881.1	884.0	886.9	889.8	893.6
27.5°	832.0	835.7	839.3	843.0	846.7	850.2	853.6	857.0	860.4	863.8	868.6
30°	808.9	813.0	817.3	821.4	825.6	829.8	834.0	838.1	842.3	846.5	851.6
32.5°	783.4	788.2	792.9	797.6	802.2	807.0	812.0	816.9	821.9	826.8	832.7
35°	746.8	752.2	757.7	763.2	768.6	774.4	780.5	786.6	792.7	798.8	805.9
37.5°	706.9	713.2	719.5	725.8	732.1	739.1	747.1	755.0	762.9	770.8	778.6
40°	680.3	687.4	694.5	701.5	708.6	716.4	725.1	733.8	742.4	751.1	759.5
42.5°	655.0	661.9	669.0	676.1	683.2	691.6	701.6	711.6	721.5	731.5	740.6
45°	612.5	621.1	629.8	638.5	647.1	657.0	668.4	679.6	690.8	702.0	712.0
47.5°	570.6	580.0	589.5	598.9	608.3	619.6	632.8	645.9	659.1	672.2	682.7
50°	541.7	551.7	561.6	571.6	581.5	593.7	608.1	622.5	637.0	651.5	662.4
52.5°	514.0	524.4	534.9	545.4	555.8	568.6	583.8	599.1	614.3	629.5	640.6
55°	469.5	481.0	492.6	504.2	515.7	529.8	546.5	563.2	579.9	596.5	608.1
57.5°	425.6	438.6	451.6	464.7	477.7	492.7	509.7	526.7	543.8	560.7	573.2
60°	394.4	408.1	422.0	435.7	449.6	465.6	483.9	502.2	520.5	538.8	551.0
62.5°	366.6	380.9	395.2	409.5	423.9	440.2	458.5	476.7	495.1	513.4	526.3
65°	320.7	336.4	352.1	367.9	383.6	401.0	419.9	438.8	457.7	476.6	489.8
67.5°	278.5	294.9	311.3	327.8	344.2	362.1	381.5	401.0	420.3	439.7	453.0
70°	248.5	265.1	281.8	298.5	315.2	333.5	353.5	373.3	393.2	413.1	426.9
72.5°	220.7	237.9	255.1	272.3	289.5	308.2	328.4	348.6	368.7	388.9	402.4
75°	177.7	195.7	213.6	231.6	249.6	268.8	289.4	309.9	330.5	351.0	364.8
77.5°	136.1	154.9	173.7	192.5	211.3	231.1	252.0	272.9	293.7	314.6	328.4
80°	108.3	127.9	147.5	167.1	186.6	206.9	227.7	248.6	269.5	290.3	303.8
82.5°	85.2	104.5	123.9	143.2	162.5	182.8	203.9	225.0	246.1	267.2	280.7
85°	52.0	71.9	91.8	111.7	131.6	151.8	172.4	192.9	213.5	234.0	247.5
87.5°	28.5	48.2	67.8	87.4	107.1	127.6	149.0	170.5	192.0	213.4	226.5
90°	15.4	36.5	57.7	78.8	99.9	123.0	148.2	173.3	198.4	223.6	236.0
92.5°	30.1	49.2	68.3	87.6	106.7	126.8	147.6	168.4	189.4	210.2	222.8
95°	60.5	77.7	94.8	112.0	129.2	147.6	167.3	187.0	206.6	226.3	238.6
97.5°	99.4	114.7	130.0	145.2	160.5	177.8	197.1	216.3	235.6	254.9	266.7
100°	129.6	143.1	156.7	170.2	183.8	199.8	218.5	237.0	255.6	274.3	286.2
102.5°	160.0	172.2	184.4	196.6	208.8	223.9	242.2	260.5	278.8	297.0	308.8
105°	209.4	219.4	229.3	239.2	249.2	262.7	279.8	296.9	314.1	331.1	342.8
107.5°	260.7	269.1	277.5	285.8	294.2	306.3	322.3	338.3	354.3	370.3	381.3
110°	292.7	300.3	308.0	315.7	323.4	335.1	350.8	366.6	382.3	397.9	408.2



TEST NUMBER: P331451-830

CATALOG NUMBER: SA2XXDIP-C1005D925U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	328.8	335.5	342.0	348.7	355.3	366.1	380.9	395.7	410.5	425.3	435.0
115°	382.0	386.8	391.6	396.3	401.1	410.6	424.6	438.7	452.6	466.7	476.1
117.5°	433.7	437.6	441.6	445.5	449.6	457.6	469.9	482.0	494.2	506.3	515.4
120°	469.0	471.9	474.9	477.9	480.8	487.9	499.1	510.2	521.4	532.5	541.6
122.5°	501.3	503.9	506.4	508.9	511.4	518.1	529.0	540.0	550.8	561.8	570.0
125°	550.4	552.2	554.1	556.0	557.9	563.6	573.3	582.9	592.6	602.2	610.2
127.5°	599.5	601.5	603.5	605.6	607.7	612.5	620.0	627.5	635.1	642.6	649.8
130°	630.3	632.6	635.1	637.4	639.9	644.2	650.5	656.9	663.2	669.5	676.8
132.5°	664.9	666.8	668.6	670.6	672.5	676.1	681.4	686.6	691.9	697.2	703.7
135°	709.7	712.0	714.4	716.6	718.9	721.9	725.5	729.2	732.7	736.4	742.9
137.5°	758.5	760.3	762.0	763.9	765.7	767.6	769.6	771.5	773.5	775.4	781.2
140°	787.8	789.4	790.9	792.5	794.0	795.7	797.4	799.0	800.7	802.4	807.6
142.5°	817.9	819.4	821.0	822.6	824.2	825.3	826.1	827.0	827.8	828.7	832.9
145°	859.7	861.2	862.6	864.1	865.5	867.0	868.2	869.4	870.7	871.9	874.1
147.5°	898.2	900.0	901.8	903.5	905.3	906.6	907.5	908.2	909.1	909.9	910.7
150°	924.6	925.9	927.1	928.4	929.6	930.7	931.5	932.4	933.2	934.1	934.6
152.5°	947.9	949.2	950.5	951.7	953.0	954.1	955.1	956.1	957.1	958.1	958.9
155°	983.0	983.5	984.2	984.9	985.4	986.1	986.7	987.3	988.0	988.5	989.7
157.5°	1012.9	1013.2	1013.7	1014.1	1014.6	1014.9	1015.3	1015.7	1016.1	1016.4	1017.9
160°	1031.0	1031.3	1031.7	1032.2	1032.6	1032.9	1033.1	1033.3	1033.5	1033.7	1035.0
162.5°	1047.4	1047.5	1047.6	1047.7	1047.8	1047.9	1048.2	1048.4	1048.6	1048.8	1050.2
165°	1069.5	1069.3	1069.0	1068.8	1068.7	1068.6	1068.6	1068.6	1068.6	1068.6	1070.0
167.5°	1087.9	1087.3	1086.7	1086.0	1085.4	1085.1	1085.1	1085.0	1085.0	1084.9	1086.4
170°	1097.7	1097.0	1096.5	1095.8	1095.1	1094.8	1094.6	1094.4	1094.1	1093.9	1095.4
172.5°	1104.5	1103.8	1103.2	1102.6	1101.9	1101.5	1101.4	1101.1	1100.9	1100.7	1102.2
175°	1112.8	1112.1	1111.4	1110.9	1110.2	1109.7	1109.3	1108.9	1108.4	1108.1	1109.5
177.5°	1116.2	1115.6	1115.1	1114.7	1114.1	1113.7	1113.3	1113.0	1112.7	1112.4	1113.3
180°	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7



TEST NUMBER: P331451-830

CATALOG NUMBER: SA2XXDIP-C1005D925U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6
2.5°	993.4	994.8	996.1	996.5	995.9	995.4	994.9	994.4
5°	990.4	992.4	994.3	995.0	994.8	994.5	994.1	993.8
7.5°	985.7	988.1	990.3	991.4	991.0	990.7	990.3	990.0
10°	981.6	984.2	986.7	987.9	987.5	987.2	986.9	986.6
12.5°	974.7	977.2	979.8	980.9	980.6	980.2	980.0	979.7
15°	962.1	964.9	967.8	969.1	968.7	968.5	968.1	967.8
17.5°	945.8	948.9	951.9	953.4	953.4	953.4	953.4	953.4
20°	932.9	936.5	940.0	941.8	941.8	941.8	941.8	941.8
22.5°	919.1	922.7	926.1	928.2	928.7	929.3	929.7	930.3
25°	897.5	901.4	905.2	907.6	908.6	909.6	910.5	911.4
27.5°	873.5	878.4	883.4	886.1	886.8	887.5	888.3	888.9
30°	856.8	861.9	867.0	870.1	871.0	871.9	873.0	873.9
32.5°	838.7	844.5	850.5	854.2	856.0	857.7	859.5	861.2
35°	812.9	820.0	827.1	831.7	834.0	836.2	838.5	840.7
37.5°	786.5	794.3	802.1	807.2	809.5	812.0	814.4	816.7
40°	767.8	776.2	784.5	790.1	793.1	795.9	798.8	801.7
42.5°	749.7	758.8	768.0	773.9	776.8	779.8	782.6	785.5
45°	721.9	731.9	741.8	748.4	751.6	754.8	758.0	761.2
47.5°	693.1	703.4	713.9	720.9	724.3	727.9	731.4	735.0
50°	673.3	684.2	695.1	702.4	705.9	709.4	712.9	716.4
52.5°	651.9	663.0	674.2	681.6	685.4	689.3	693.1	696.8
55°	619.7	631.2	642.8	650.6	654.8	659.0	663.2	667.3
57.5°	585.7	598.1	610.6	618.9	623.1	627.4	631.6	635.8
60°	563.2	575.4	587.6	596.0	600.4	604.9	609.4	613.9
62.5°	539.3	552.2	565.2	573.8	578.1	582.3	586.5	590.8
65°	503.0	516.1	529.3	538.0	542.2	546.3	550.5	554.7
67.5°	466.3	479.6	492.9	501.7	506.1	510.4	514.8	519.2
70°	440.7	454.5	468.3	477.1	481.0	484.8	488.7	492.6
72.5°	415.9	429.5	443.0	452.1	456.8	461.4	466.0	470.6
75°	378.6	392.4	406.2	415.2	419.3	423.6	427.7	431.9
77.5°	342.0	355.8	369.6	378.7	383.1	387.7	392.2	396.6
80°	317.3	330.8	344.3	353.3	357.8	362.2	366.7	371.3
82.5°	294.2	307.6	321.1	330.0	334.2	338.5	342.7	346.9
85°	261.0	274.5	287.9	296.9	301.4	305.9	310.4	314.9
87.5°	239.5	252.5	265.5	274.1	278.2	282.4	286.5	290.7
90°	248.5	260.9	273.2	281.5	285.6	289.6	293.7	297.7
92.5°	235.5	248.2	260.9	269.1	273.1	276.9	280.8	284.7
95°	250.7	262.9	275.1	283.0	286.3	289.8	293.2	296.6
97.5°	278.6	290.5	302.4	310.2	314.0	317.7	321.5	325.2
100°	298.0	309.9	321.8	329.3	332.7	336.0	339.3	342.6
102.5°	320.6	332.3	344.1	351.8	355.1	358.4	361.7	365.0
105°	354.5	366.1	377.8	385.4	388.9	392.4	396.0	399.4
107.5°	392.2	403.1	414.2	420.8	423.5	426.0	428.6	431.1
110°	418.5	428.8	439.0	445.6	448.6	451.5	454.4	457.2



TEST NUMBER: P331451-830

CATALOG NUMBER: SA2XXDIP-C1005D925U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	444.8	454.6	464.3	470.8	473.8	476.9	479.9	483.1
115°	485.5	494.9	504.4	510.5	513.4	516.3	519.2	522.2
117.5°	524.3	533.4	542.3	548.2	550.8	553.5	556.1	558.8
120°	550.5	559.5	568.5	574.5	577.3	580.2	583.2	586.1
122.5°	578.2	586.4	594.7	600.0	602.6	605.2	607.8	610.3
125°	618.3	626.3	634.3	639.7	642.4	645.1	647.7	650.4
127.5°	657.0	664.2	671.4	676.1	678.3	680.4	682.6	684.8
130°	684.1	691.4	698.6	703.1	704.9	706.6	708.3	710.1
132.5°	710.2	716.8	723.3	727.5	729.4	731.3	733.2	735.1
135°	749.4	756.0	762.5	766.8	768.7	770.6	772.6	774.5
137.5°	786.9	792.7	798.4	801.9	803.2	804.6	806.0	807.3
140°	812.7	817.8	822.9	826.0	827.2	828.2	829.3	830.4
142.5°	837.3	841.5	845.8	848.4	849.2	850.0	850.8	851.7
145°	876.2	878.4	880.5	881.9	882.7	883.4	884.3	885.0
147.5°	911.3	912.1	912.9	913.1	913.1	913.1	913.1	913.0
150°	935.3	935.9	936.5	936.5	935.9	935.3	934.6	934.1
152.5°	959.7	960.5	961.3	961.3	960.5	959.7	958.9	958.1
155°	990.7	991.7	992.8	993.0	992.3	991.7	991.1	990.4
157.5°	1019.3	1020.7	1022.1	1022.3	1021.3	1020.3	1019.3	1018.3
160°	1036.2	1037.5	1038.8	1039.0	1038.1	1037.3	1036.4	1035.6
162.5°	1051.6	1053.0	1054.4	1054.7	1053.7	1052.6	1051.7	1050.7
165°	1071.5	1072.9	1074.4	1074.6	1073.6	1072.5	1071.5	1070.4
167.5°	1087.8	1089.3	1090.7	1090.9	1089.9	1088.7	1087.7	1086.6
170°	1096.8	1098.3	1099.8	1099.9	1098.6	1097.4	1096.1	1094.9
172.5°	1103.6	1105.1	1106.5	1106.6	1105.4	1104.2	1102.9	1101.6
175°	1111.0	1112.4	1113.9	1114.0	1112.8	1111.4	1110.2	1109.0
177.5°	1114.4	1115.4	1116.3	1116.3	1115.4	1114.4	1113.3	1112.4
180°	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7

(END OF REPORT)