

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: P332565-830

Luminaire Tested: **SA4XXDIP-C575D1035U830-4F0-1E-UDD-D**

Issue Date: 10/7/2019

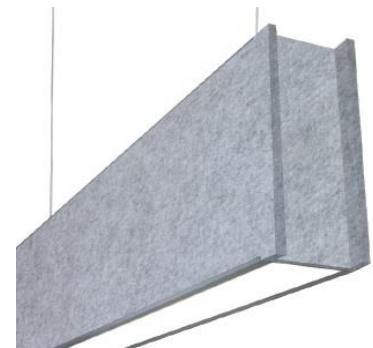
Test Information

Test Method: LM-79-08
Report Number: P332565-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C575D1035U830-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6127.7 lumens
Efficiency: N/A
Efficacy: 137.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

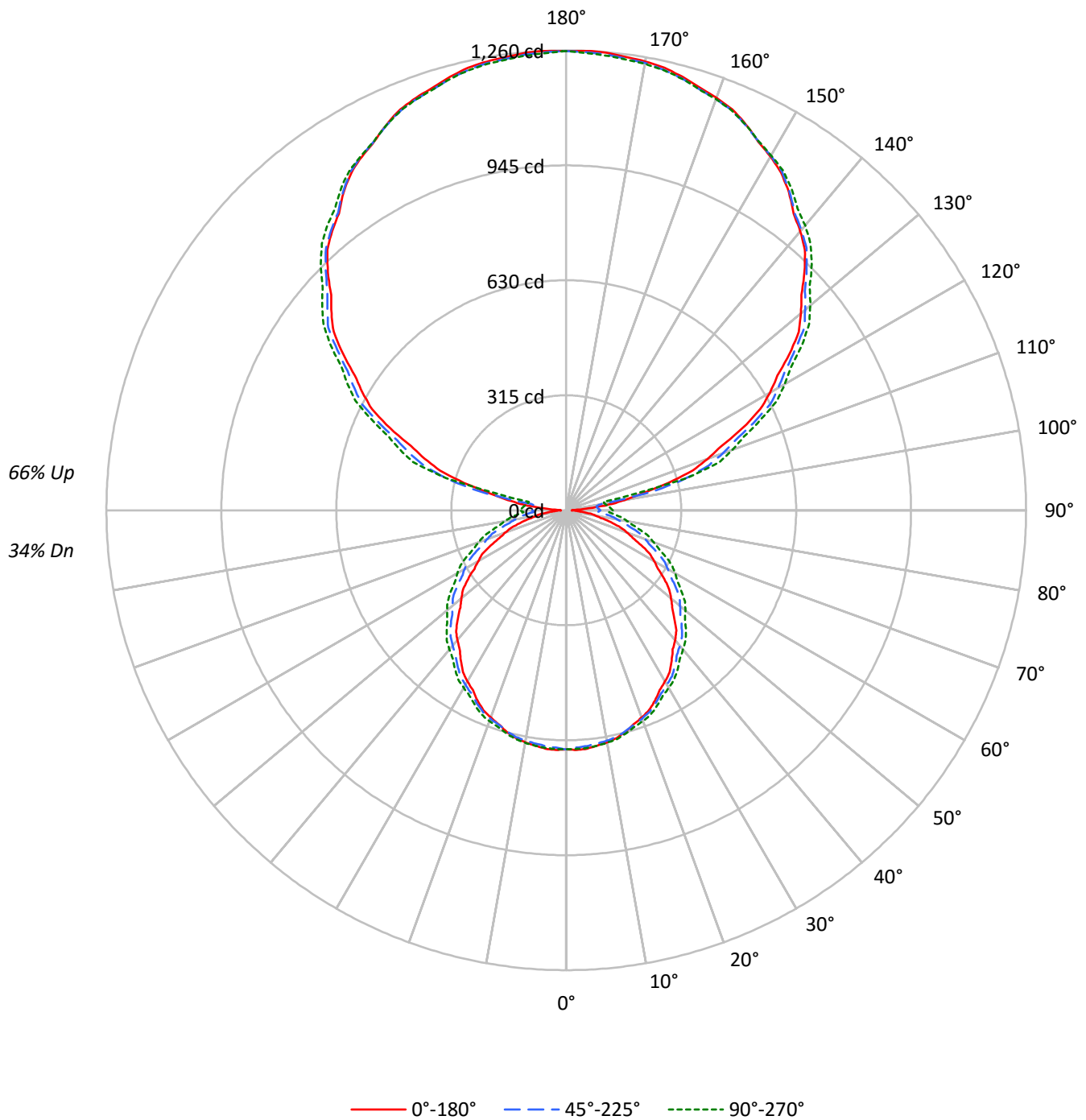
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332565-830

CATALOG NUMBER: SA4XXDIP-C575D1035U830-4F0-1E-UDD-D

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
RCR																	
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41
1	93	89	85	81	84	80	77	74	64	62	59	49	47	46	35	34	33
2	85	77	71	66	76	70	64	60	56	52	49	43	40	38	31	29	28
3	77	68	60	54	69	61	55	50	49	44	40	37	34	32	27	25	23
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	22	20
5	64	53	45	39	58	48	41	36	38	33	29	30	26	23	21	19	17
6	59	47	39	33	53	43	36	31	34	29	25	27	23	20	19	17	15
7	55	42	35	29	49	39	32	27	31	26	22	24	20	18	18	15	13
8	51	38	31	25	45	35	28	23	28	23	19	22	18	16	16	14	12
9	47	35	28	23	42	32	25	21	26	21	17	20	16	14	15	12	10
10	44	32	25	20	39	29	23	18	24	19	15	19	15	12	14	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5288	5288	5288
5°	5304	5168	5182
10°	5272	5083	5079
15°	5225	4985	4958
20°	5153	4877	4840
25°	5073	4756	4710
30°	4986	4636	4576
35°	4887	4512	4460
40°	4809	4395	4338
45°	4692	4287	4233
50°	4593	4163	4123
55°	4491	4045	3993
60°	4332	3894	3876
65°	4156	3735	3731
70°	3945	3551	3561
75°	3649	3349	3408
80°	3322	3156	3259
85°	2903	2980	3172

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	1.0
10°-20°	177.7	2.9
20°-30°	268.7	4.4
30°-40°	325.1	5.3
40°-50°	343.7	5.6
50°-60°	323.5	5.3
60°-70°	268.4	4.4
70°-80°	188.5	3.1
80°-90°	110.2	1.8
90°-100°	106.3	1.7
100°-110°	321.2	5.2
110°-120°	556.2	9.1
120°-130°	683.9	11.2
130°-140°	720.4	11.8
140°-150°	668.1	10.9
150°-160°	537.5	8.8
160°-170°	346.7	5.7
170°-180°	119.5	1.9
0°-30°	508.4	8.3
0°-40°	833.5	13.6
0°-60°	1500.7	24.5
0°-90°	2067.8	33.7
90°-120°	983.7	16.1
90°-150°	3056.2	49.9
90°-180°	4060.0	66.3
0°-180°	6127.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	655	655	655	655	655	
5°	656	653	648	654	654	62
15°	629	629	627	633	633	177
25°	575	579	582	589	590	265
35°	503	512	519	529	532	315
45°	420	433	447	459	464	324
55°	329	344	366	380	385	293
65°	227	251	276	293	300	225
75°	126	153	184	204	211	134
85°	39	70	103	124	132	41
90°	14	54	93	119	128	10
95°	61	56	84	109	118	74
105°	290	311	342	366	341	304
115°	533	543	565	582	588	525
125°	746	750	766	782	788	666
135°	924	923	932	945	951	712
145°	1064	1066	1066	1071	1076	665
155°	1166	1166	1164	1167	1165	537
165°	1230	1225	1225	1232	1224	347
175°	1258	1253	1253	1261	1250	120
180°	1258	1258	1258	1258	1258	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	657.3	657.0	656.6	656.1	655.7	655.1	654.0	653.0	651.9	650.8	651.8
5°	655.7	655.3	654.7	654.2	653.7	652.9	651.8	650.6	649.5	648.4	649.7
7.5°	650.2	649.8	649.5	649.2	648.9	648.4	647.4	646.5	645.5	644.5	646.0
10°	645.5	645.3	645.1	645.0	644.8	644.3	643.5	642.6	641.9	641.0	642.5
12.5°	638.9	638.9	638.9	638.9	638.9	638.6	638.0	637.4	636.9	636.3	637.6
15°	628.6	628.8	628.9	629.1	629.2	629.1	628.6	628.1	627.5	627.1	628.6
17.5°	614.3	614.8	615.3	615.8	616.3	616.5	616.4	616.3	616.2	616.1	617.6
20°	604.4	604.8	605.3	605.9	606.3	606.6	606.8	607.0	607.1	607.3	608.9
22.5°	593.2	593.8	594.5	595.0	595.7	596.2	596.4	596.7	597.0	597.3	599.0
25°	575.0	576.0	577.0	578.0	578.9	579.7	580.1	580.6	581.2	581.6	583.4
27.5°	554.8	556.2	557.6	559.1	560.5	561.6	562.3	563.1	563.8	564.6	566.3
30°	541.3	542.6	543.8	545.2	546.5	547.7	548.8	550.0	551.1	552.3	554.1
32.5°	526.6	528.2	529.7	531.3	532.9	534.3	535.6	536.9	538.1	539.4	541.4
35°	503.1	505.1	507.1	509.0	511.0	512.7	514.3	516.0	517.6	519.2	521.6
37.5°	479.6	481.7	484.0	486.3	488.5	490.7	492.7	494.7	496.7	498.7	501.1
40°	464.3	466.4	468.5	470.6	472.8	474.9	477.2	479.5	481.8	484.1	486.5
42.5°	446.7	449.0	451.4	453.8	456.2	458.7	461.4	464.0	466.7	469.4	472.1
45°	419.5	422.6	425.7	428.9	431.9	435.0	438.1	441.2	444.3	447.4	450.2
47.5°	393.6	396.7	399.9	403.1	406.3	409.7	413.3	416.9	420.5	424.0	427.0
50°	374.8	378.3	381.9	385.6	389.2	392.8	396.3	399.9	403.5	407.1	410.3
52.5°	356.0	359.6	363.2	366.7	370.3	374.2	378.3	382.4	386.5	390.6	393.9
55°	328.6	332.0	335.5	338.8	342.2	346.4	351.3	356.2	361.1	366.0	369.3
57.5°	297.9	302.2	306.4	310.7	314.9	319.4	324.2	329.1	334.0	338.8	342.7
60°	278.0	282.2	286.4	290.7	294.9	299.7	305.1	310.5	315.8	321.2	325.0
62.5°	258.6	263.3	267.9	272.5	277.1	282.1	287.5	292.8	298.3	303.7	307.4
65°	227.3	232.6	237.8	243.0	248.3	253.6	259.1	264.7	270.2	275.8	279.8
67.5°	197.3	202.8	208.4	214.0	219.4	225.2	231.1	237.0	243.0	248.9	253.1
70°	176.7	182.3	187.8	193.4	199.0	204.8	210.9	217.2	223.4	229.6	233.9
72.5°	156.8	162.5	168.1	173.8	179.5	185.6	192.2	198.8	205.4	212.0	216.2
75°	126.1	132.1	138.2	144.2	150.2	156.7	163.5	170.4	177.3	184.1	188.7
77.5°	97.6	104.0	110.4	116.7	123.1	129.9	137.0	144.2	151.4	158.5	163.2
80°	79.9	86.4	93.0	99.5	106.0	112.8	120.1	127.2	134.4	141.6	146.5
82.5°	62.3	69.1	75.9	82.7	89.4	96.4	103.6	110.7	117.9	125.2	130.2
85°	38.8	45.7	52.6	59.4	66.3	73.3	80.7	88.0	95.4	102.6	107.5
87.5°	22.2	29.4	36.5	43.6	50.7	58.0	65.5	73.0	80.4	87.9	92.8
90°	14.5	23.4	32.2	41.0	49.9	58.6	67.3	76.0	84.6	93.3	99.2
92.5°	23.0	29.0	35.0	41.0	46.9	54.3	63.0	71.6	80.4	89.1	94.9
95°	61.3	59.6	57.8	56.1	54.4	56.9	63.8	70.7	77.6	84.5	90.2
97.5°	118.6	127.6	136.7	145.7	154.8	151.0	134.2	117.5	100.9	84.1	88.5
100°	162.4	170.4	178.4	186.3	194.4	187.1	164.7	142.1	119.6	97.2	98.0
102.5°	212.1	218.6	225.0	231.5	238.0	242.4	244.9	247.3	249.8	252.3	218.2
105°	289.8	294.4	298.9	303.4	307.8	313.7	320.7	327.8	334.9	342.0	347.9
107.5°	363.3	366.6	369.9	373.2	376.5	381.6	388.8	396.0	403.0	410.2	415.1
110°	412.4	415.3	418.2	421.0	424.0	429.0	435.8	442.8	449.8	456.8	460.9

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	460.0	463.1	466.3	469.4	472.5	477.1	483.1	489.2	495.2	501.2	504.7
115°	533.2	535.3	537.3	539.5	541.6	545.2	550.2	555.2	560.2	565.1	569.1
117.5°	599.8	601.5	603.3	605.0	606.7	610.2	615.6	620.9	626.2	631.5	634.8
120°	644.4	645.7	647.1	648.4	649.7	652.6	657.1	661.7	666.2	670.7	674.4
122.5°	686.5	687.2	687.8	688.3	689.0	691.6	696.4	701.2	706.0	710.7	714.2
125°	746.2	747.0	747.6	748.3	748.9	751.1	754.8	758.5	762.0	765.7	769.5
127.5°	803.3	803.3	803.4	803.4	803.5	805.6	809.6	813.8	817.8	821.9	824.7
130°	839.6	839.6	839.7	839.7	839.8	841.4	844.7	847.9	851.1	854.4	857.5
132.5°	873.5	873.7	873.9	874.1	874.3	875.9	878.7	881.7	884.5	887.4	890.4
135°	923.6	923.3	923.1	922.9	922.7	923.6	925.6	927.6	929.5	931.5	934.5
137.5°	968.6	968.5	968.4	968.3	968.2	968.9	970.3	971.9	973.4	974.8	977.6
140°	997.9	998.2	998.4	998.6	998.9	999.4	999.9	1000.5	1001.1	1001.6	1004.4
142.5°	1023.7	1024.4	1025.1	1025.8	1026.5	1027.0	1027.1	1027.3	1027.5	1027.6	1029.9
145°	1063.9	1064.4	1064.9	1065.4	1065.8	1066.0	1066.0	1066.0	1066.0	1066.0	1067.2
147.5°	1096.2	1097.1	1098.2	1099.2	1100.1	1100.6	1100.3	1100.1	1099.9	1099.8	1100.0
150°	1119.5	1120.1	1120.8	1121.5	1122.2	1122.4	1122.2	1122.0	1121.8	1121.5	1121.5
152.5°	1138.5	1139.1	1139.7	1140.4	1141.0	1141.1	1140.8	1140.4	1140.0	1139.6	1140.0
155°	1165.8	1166.0	1166.2	1166.4	1166.6	1166.4	1165.8	1165.2	1164.5	1163.9	1164.7
157.5°	1188.9	1188.8	1188.6	1188.5	1188.5	1188.0	1187.3	1186.6	1185.9	1185.2	1186.3
160°	1202.5	1201.8	1201.3	1200.6	1200.0	1199.6	1199.4	1199.1	1198.9	1198.7	1200.0
162.5°	1214.6	1213.7	1213.0	1212.1	1211.4	1210.9	1210.6	1210.4	1210.2	1210.0	1211.3
165°	1229.7	1228.7	1227.7	1226.6	1225.6	1225.0	1225.0	1225.0	1225.0	1225.0	1226.7
167.5°	1241.8	1240.8	1239.6	1238.6	1237.5	1236.9	1236.7	1236.6	1236.5	1236.3	1238.2
170°	1248.6	1247.4	1246.0	1244.8	1243.6	1243.0	1243.2	1243.5	1243.7	1243.9	1245.6
172.5°	1253.1	1251.9	1250.6	1249.3	1248.1	1247.5	1247.7	1248.0	1248.2	1248.4	1250.1
175°	1258.0	1256.8	1255.5	1254.2	1253.0	1252.5	1252.6	1252.9	1253.1	1253.3	1255.2
177.5°	1260.3	1259.0	1257.9	1256.8	1255.6	1255.2	1255.5	1255.8	1256.1	1256.5	1257.8
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	652.7	653.6	654.5	654.9	654.8	654.6	654.5	654.4
5°	651.0	652.2	653.6	654.1	654.0	653.8	653.7	653.5
7.5°	647.5	648.9	650.4	651.1	650.9	650.7	650.5	650.4
10°	643.9	645.5	646.9	647.5	647.4	647.2	647.1	646.9
12.5°	639.0	640.4	641.7	642.3	642.3	642.2	642.2	642.2
15°	630.0	631.5	632.9	633.6	633.5	633.3	633.1	632.9
17.5°	619.1	620.6	622.1	622.7	622.6	622.5	622.4	622.3
20°	610.6	612.2	613.8	614.6	614.6	614.6	614.6	614.6
22.5°	600.6	602.2	603.8	604.8	605.0	605.3	605.6	605.9
25°	585.2	587.0	588.8	589.7	589.9	590.1	590.2	590.4
27.5°	568.0	569.6	571.3	572.2	572.4	572.6	572.8	573.0
30°	555.9	557.7	559.5	560.5	560.8	561.2	561.5	561.8
32.5°	543.5	545.5	547.6	548.7	549.1	549.4	549.8	550.1
35°	523.9	526.1	528.4	529.8	530.3	530.7	531.2	531.8
37.5°	503.4	505.7	508.0	509.4	509.9	510.5	511.0	511.5
40°	489.0	491.4	493.9	495.4	496.1	496.7	497.4	498.0
42.5°	474.9	477.5	480.2	481.8	482.4	482.9	483.4	483.9
45°	453.0	455.7	458.5	460.2	461.1	461.9	462.7	463.5
47.5°	429.8	432.7	435.5	437.4	438.5	439.4	440.5	441.4
50°	413.6	416.9	420.1	422.3	423.2	424.1	425.2	426.1
52.5°	397.2	400.4	403.7	405.8	406.8	407.7	408.7	409.7
55°	372.5	375.8	379.0	381.2	382.1	383.1	384.1	385.0
57.5°	346.6	350.5	354.4	356.8	357.7	358.5	359.5	360.4
60°	328.8	332.5	336.2	338.7	340.1	341.4	342.7	344.0
62.5°	311.1	314.9	318.7	321.1	322.4	323.8	325.1	326.4
65°	283.9	288.0	292.1	294.7	296.1	297.4	298.7	300.0
67.5°	257.2	261.4	265.5	268.2	269.5	270.7	272.0	273.2
70°	238.4	242.8	247.1	250.0	251.1	252.2	253.4	254.5
72.5°	220.5	224.8	229.0	231.8	233.1	234.3	235.6	236.9
75°	193.2	197.7	202.4	205.4	206.8	208.3	209.8	211.2
77.5°	167.9	172.5	177.1	180.2	181.7	183.3	184.8	186.4
80°	151.4	156.2	161.1	164.2	165.5	166.8	168.1	169.5
82.5°	135.2	140.2	145.2	148.5	149.9	151.3	152.7	154.2
85°	112.4	117.3	122.2	125.5	127.1	128.8	130.4	132.1
87.5°	97.8	102.8	107.8	111.0	112.5	114.0	115.6	117.2
90°	105.3	111.2	117.3	121.1	122.8	124.5	126.3	128.0
92.5°	100.8	106.6	112.4	116.0	117.4	118.9	120.3	121.6
95°	95.9	101.5	107.2	110.8	112.4	114.1	115.8	117.5
97.5°	92.9	97.3	101.7	104.7	106.3	107.9	109.5	111.1
100°	98.9	99.7	100.6	101.6	103.0	104.3	105.7	107.0
102.5°	184.2	150.1	115.9	99.6	100.9	102.2	103.5	104.8
105°	353.9	359.9	365.8	365.7	359.5	353.3	346.9	340.7
107.5°	420.0	425.0	429.9	433.4	435.3	437.2	439.2	441.2
110°	465.1	469.3	473.4	476.5	478.4	480.3	482.3	484.2

TEST NUMBER: P332565-830

CATALOG NUMBER: SA4XXDIP-C575D1035U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	508.3	511.8	515.4	518.2	520.3	522.4	524.5	526.6
115°	573.2	577.1	581.2	583.7	584.8	586.0	587.2	588.3
117.5°	638.1	641.4	644.7	647.0	648.2	649.4	650.6	651.9
120°	678.1	681.7	685.4	687.7	688.6	689.5	690.4	691.3
122.5°	717.7	721.2	724.7	726.9	727.6	728.4	729.2	729.9
125°	773.2	776.9	780.6	783.1	784.3	785.4	786.6	787.9
127.5°	827.6	830.4	833.2	835.0	835.9	836.9	837.8	838.8
130°	860.6	863.8	867.0	869.0	870.0	871.0	871.9	872.9
132.5°	893.4	896.5	899.5	901.4	902.2	903.0	903.8	904.7
135°	937.5	940.6	943.6	945.8	947.3	948.7	950.0	951.4
137.5°	980.5	983.4	986.2	988.0	988.6	989.3	990.0	990.7
140°	1007.1	1009.9	1012.7	1014.6	1015.6	1016.5	1017.6	1018.6
142.5°	1032.2	1034.5	1036.9	1038.4	1039.1	1039.8	1040.6	1041.3
145°	1068.5	1069.6	1070.8	1072.0	1073.0	1074.0	1075.2	1076.2
147.5°	1100.3	1100.6	1100.9	1101.5	1102.2	1102.9	1103.6	1104.4
150°	1121.5	1121.5	1121.5	1121.6	1121.9	1122.1	1122.3	1122.5
152.5°	1140.3	1140.7	1140.9	1141.0	1140.9	1140.9	1140.7	1140.6
155°	1165.5	1166.4	1167.2	1167.3	1166.8	1166.1	1165.5	1164.9
157.5°	1187.3	1188.5	1189.5	1189.5	1188.5	1187.3	1186.3	1185.2
160°	1201.3	1202.5	1203.7	1203.7	1202.5	1201.3	1200.0	1198.7
162.5°	1212.5	1213.8	1215.0	1214.9	1213.5	1212.1	1210.7	1209.3
165°	1228.4	1230.1	1231.7	1231.6	1229.7	1227.9	1226.0	1224.1
167.5°	1240.0	1241.9	1243.7	1243.6	1241.5	1239.4	1237.3	1235.2
170°	1247.3	1248.9	1250.6	1250.4	1248.3	1246.2	1244.1	1242.0
172.5°	1251.8	1253.4	1255.1	1254.8	1252.5	1250.3	1248.0	1245.8
175°	1257.1	1259.0	1260.8	1260.5	1258.0	1255.5	1253.0	1250.5
177.5°	1259.1	1260.5	1261.9	1261.5	1259.5	1257.5	1255.5	1253.5
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0

(END OF REPORT)