

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: P332569

Luminaire Tested: **SA4XXDIP-C575D1035U835-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332569
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C575D1035U835-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

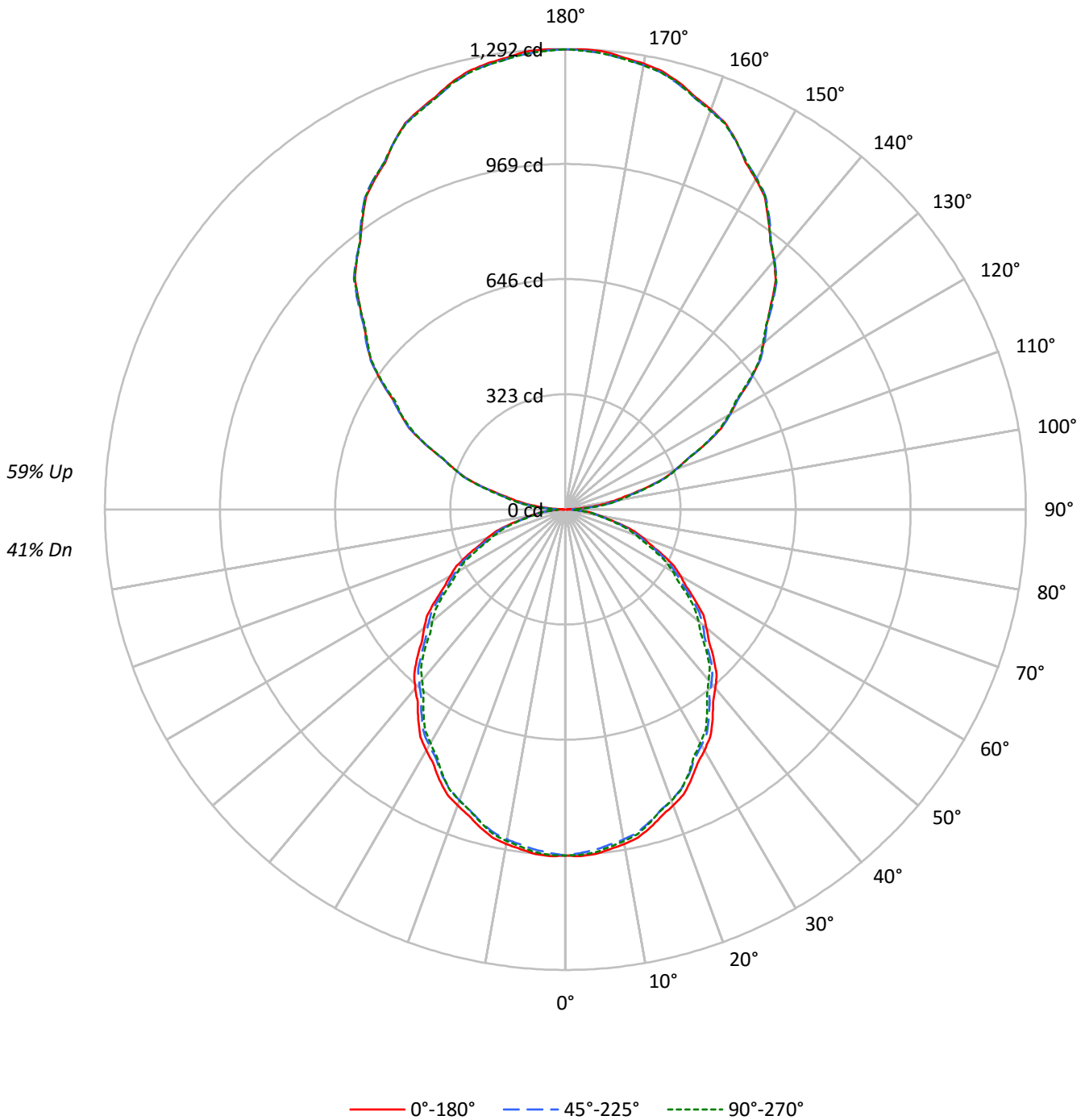
Lumens per Lamp: N/A
Luminaire Lumens: 6076.6 lumens
Efficiency: N/A
Efficacy: 136.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

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





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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	0	
RCR																						
0	105	105	105	105	96	96	96	96	78	78	78	63	63	63	48	48	48	41				
1	96	91	88	84	87	83	80	77	69	66	64	55	53	52	42	41	40	34				
2	87	80	74	69	79	73	68	63	60	56	53	48	46	43	37	35	34	29				
3	79	70	63	57	72	64	58	53	53	48	45	43	39	37	33	31	29	24				
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21				
5	67	55	47	41	60	51	44	38	42	37	33	34	30	27	26	24	22	18				
6	61	49	41	36	56	45	38	33	38	32	28	31	27	24	24	21	19	16				
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17	14				
8	53	40	33	28	48	37	30	26	31	26	22	25	22	19	20	17	15	13				
9	49	37	29	24	45	34	27	23	29	23	20	23	20	17	19	16	14	11				
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	14	12	10				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7840	7840	7840
5°	7864	7769	7826
10°	7814	7706	7744
15°	7720	7596	7616
20°	7594	7460	7467
25°	7451	7306	7285
30°	7276	7124	7058
35°	7094	6933	6841
40°	6905	6716	6593
45°	6707	6503	6379
50°	6489	6314	6118
55°	6253	6068	5871
60°	6018	5792	5616
65°	5752	5530	5307
70°	5455	5179	4978
75°	5000	4757	4635
80°	4449	4268	4161
85°	3890	3751	3677



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.5	1.5
10°-20°	257.7	4.2
20°-30°	379.3	6.2
30°-40°	440.9	7.3
40°-50°	440.9	7.3
50°-60°	385.7	6.3
60°-70°	286.4	4.7
70°-80°	162.7	2.7
80°-90°	50.8	0.8
90°-100°	85.1	1.4
100°-110°	252.2	4.1
110°-120°	428.0	7.0
120°-130°	564.3	9.3
130°-140°	633.8	10.4
140°-150°	622.8	10.2
150°-160°	523.8	8.6
160°-170°	348.5	5.7
170°-180°	122.0	2.0
0°-30°	728.4	12.0
0°-40°	1169.3	19.2
0°-60°	1996.0	32.8
0°-90°	2495.9	41.1
90°-120°	765.3	12.6
90°-150°	2586.3	42.6
90°-180°	3581.0	58.9
0°-180°	6076.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	971	971	971	971	971	
5°	970	967	959	967	966	92
15°	924	920	909	913	911	260
25°	836	831	820	821	818	385
35°	720	714	704	698	694	450
45°	588	582	570	561	559	453
55°	444	442	431	422	417	398
65°	301	297	290	282	278	298
75°	160	156	152	150	149	170
85°	42	42	40	40	40	46
90°	3	14	22	28	30	6
95°	60	69	76	79	79	67
105°	233	234	238	241	244	247
115°	435	435	433	432	431	429
125°	634	634	633	631	629	565
135°	818	823	824	821	818	632
145°	993	997	998	997	994	621
155°	1138	1138	1137	1140	1137	523
165°	1239	1236	1234	1239	1236	349
175°	1289	1284	1283	1289	1283	122
180°	1291	1291	1291	1291	1291	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1
2.5°	973.6	973.2	972.8	972.4	972.0	971.0	969.5	968.0	966.4	964.9	966.3
5°	970.4	969.7	969.0	968.3	967.6	966.3	964.4	962.5	960.6	958.7	960.6
7.5°	961.3	960.6	960.0	959.3	958.6	957.2	955.1	953.0	950.8	948.7	950.3
10°	953.2	952.6	951.9	951.2	950.5	949.0	946.8	944.5	942.3	940.0	941.4
12.5°	942.7	942.0	941.3	940.6	939.9	938.4	936.0	933.6	931.2	928.8	930.3
15°	923.7	923.0	922.3	921.6	920.9	919.3	916.7	914.1	911.5	908.9	909.9
17.5°	900.8	899.9	899.1	898.2	897.3	895.7	893.2	890.8	888.3	885.9	886.5
20°	884.0	883.1	882.3	881.4	880.5	878.8	876.2	873.6	871.0	868.4	868.9
22.5°	865.9	864.8	863.7	862.5	861.4	859.5	856.9	854.3	851.7	849.1	850.1
25°	836.5	835.3	834.1	832.9	831.7	829.9	827.4	825.0	822.6	820.2	820.4
27.5°	802.9	801.7	800.4	799.2	797.9	796.2	793.9	791.7	789.4	787.2	786.8
30°	780.5	779.1	777.7	776.3	775.0	773.1	770.9	768.6	766.4	764.2	763.5
32.5°	756.8	755.6	754.3	753.1	751.9	750.0	747.7	745.3	742.9	740.5	739.7
35°	719.8	718.6	717.4	716.2	715.0	713.1	710.7	708.3	705.9	703.5	702.2
37.5°	680.7	679.6	678.5	677.4	676.3	674.5	671.9	669.3	666.7	664.1	662.8
40°	655.2	653.8	652.4	651.1	649.7	647.7	645.1	642.5	639.9	637.3	635.6
42.5°	627.8	627.0	626.2	625.3	624.5	622.6	619.8	616.9	614.0	611.2	609.2
45°	587.5	586.3	585.1	583.9	582.7	580.7	577.9	575.1	572.4	569.6	567.7
47.5°	545.3	544.5	543.7	542.8	542.0	540.3	537.8	535.2	532.6	530.1	527.9
50°	516.7	516.0	515.3	514.6	513.9	512.4	510.0	507.5	505.1	502.7	500.3
52.5°	488.7	487.9	487.0	486.2	485.4	483.7	481.1	478.6	476.0	473.4	471.3
55°	444.3	443.8	443.3	442.8	442.3	440.8	438.4	435.9	433.5	431.1	429.0
57.5°	402.0	401.4	400.8	400.2	399.6	398.2	395.8	393.4	391.0	388.6	386.6
60°	372.7	371.9	371.0	370.1	369.3	367.7	365.5	363.2	361.0	358.7	357.2
62.5°	344.1	343.4	342.6	341.9	341.2	339.6	337.3	334.9	332.5	330.1	328.7
65°	301.1	300.3	299.4	298.6	297.7	296.4	294.7	292.9	291.2	289.5	287.7
67.5°	257.9	257.1	256.3	255.5	254.7	253.5	251.8	250.2	248.5	246.8	245.2
70°	231.1	229.9	228.7	227.5	226.3	225.0	223.6	222.2	220.8	219.4	218.1
72.5°	202.5	201.3	200.1	198.8	197.6	196.5	195.4	194.3	193.2	192.0	190.9
75°	160.3	159.4	158.6	157.7	156.8	156.0	155.1	154.2	153.4	152.5	151.8
77.5°	120.0	119.6	119.2	118.9	118.5	117.9	117.1	116.4	115.6	114.9	114.6
80°	95.7	95.2	94.7	94.2	93.6	93.2	92.9	92.5	92.2	91.8	91.5
82.5°	72.1	71.8	71.6	71.3	71.1	70.9	70.9	70.8	70.7	70.7	70.4
85°	42.0	42.0	42.0	42.0	42.0	41.8	41.5	41.2	40.8	40.5	40.5
87.5°	16.8	17.1	17.5	17.8	18.2	18.5	18.7	18.9	19.1	19.3	19.6
90°	3.0	5.4	7.9	10.3	12.8	14.9	16.6	18.4	20.2	22.0	23.3
92.5°	21.4	24.2	26.9	29.7	32.5	34.6	35.8	37.0	38.3	39.5	40.3
95°	59.9	61.9	63.9	65.9	67.9	69.6	71.2	72.8	74.3	75.9	76.5
97.5°	104.6	106.2	107.8	109.4	111.0	112.7	114.5	116.3	118.2	120.0	120.8
100°	139.7	140.6	141.5	142.4	143.3	144.7	146.7	148.7	150.7	152.7	153.2
102.5°	176.5	176.8	177.2	177.5	177.9	179.0	180.8	182.6	184.4	186.3	186.9
105°	232.6	232.8	233.0	233.2	233.5	234.0	234.9	235.8	236.7	237.6	238.2
107.5°	291.5	291.7	292.0	292.3	292.5	292.7	292.9	293.0	293.1	293.3	293.9
110°	331.4	331.8	332.3	332.7	333.2	333.3	333.0	332.8	332.6	332.4	331.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	372.9	373.0	373.1	373.2	373.3	373.1	372.7	372.3	371.9	371.5	371.4
115°	435.2	435.2	435.2	435.2	435.2	435.0	434.5	434.1	433.6	433.2	433.0
117.5°	493.9	494.1	494.2	494.4	494.6	494.5	494.2	493.9	493.6	493.3	492.5
120°	533.0	533.9	534.8	535.7	536.6	536.7	536.0	535.3	534.7	534.0	532.9
122.5°	573.7	574.1	574.4	574.8	575.1	575.2	574.9	574.5	574.2	573.9	573.2
125°	633.8	633.8	633.8	633.8	633.8	633.7	633.5	633.3	633.0	632.8	632.4
127.5°	688.3	689.0	689.6	690.3	691.0	691.1	690.8	690.4	690.1	689.7	689.3
130°	726.6	727.3	728.0	728.6	729.3	729.6	729.6	729.6	729.6	729.6	729.2
132.5°	765.8	766.3	766.7	767.2	767.7	767.9	767.7	767.5	767.3	767.2	766.7
135°	817.5	818.8	820.1	821.5	822.8	823.5	823.5	823.5	823.5	823.5	823.0
137.5°	873.8	874.4	875.0	875.6	876.3	876.7	877.1	877.5	877.8	878.2	877.6
140°	911.3	911.7	912.2	912.6	913.1	913.3	913.3	913.3	913.3	913.3	913.1
142.5°	945.6	946.1	946.5	947.0	947.4	947.5	947.4	947.2	947.0	946.8	946.8
145°	993.1	994.0	994.9	995.8	996.7	997.2	997.5	997.7	997.9	998.1	997.9
147.5°	1040.3	1041.3	1042.4	1043.5	1044.5	1045.0	1044.8	1044.6	1044.4	1044.3	1044.1
150°	1069.0	1069.9	1070.8	1071.7	1072.6	1073.0	1073.0	1073.0	1073.0	1073.0	1073.0
152.5°	1096.2	1096.7	1097.2	1097.8	1098.3	1098.6	1098.8	1099.0	1099.2	1099.3	1099.9
155°	1137.9	1137.9	1137.9	1137.9	1137.9	1137.8	1137.5	1137.3	1137.1	1136.9	1137.8
157.5°	1173.0	1172.6	1172.2	1171.8	1171.4	1171.2	1171.1	1171.1	1171.1	1171.0	1171.7
160°	1193.8	1193.5	1193.3	1193.1	1192.9	1192.7	1192.4	1192.2	1192.0	1191.8	1192.4
162.5°	1212.9	1212.4	1211.8	1211.2	1210.6	1210.2	1210.0	1209.8	1209.6	1209.3	1210.5
165°	1238.7	1238.0	1237.4	1236.7	1236.0	1235.5	1235.0	1234.6	1234.1	1233.7	1235.0
167.5°	1258.5	1257.5	1256.6	1255.7	1254.7	1254.3	1254.3	1254.4	1254.4	1254.5	1255.8
170°	1269.6	1268.5	1267.4	1266.3	1265.2	1264.7	1265.0	1265.2	1265.4	1265.6	1267.0
172.5°	1277.6	1276.7	1275.8	1274.8	1273.9	1273.4	1273.5	1273.5	1273.6	1273.6	1275.1
175°	1288.6	1287.5	1286.4	1285.3	1284.2	1283.5	1283.3	1283.0	1282.8	1282.6	1284.2
177.5°	1292.2	1291.3	1290.4	1289.5	1288.6	1288.2	1288.2	1288.2	1288.2	1288.2	1289.4
180°	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1
2.5°	967.7	969.1	970.5	971.1	970.9	970.8	970.7	970.5
5°	962.5	964.4	966.3	967.1	966.7	966.4	966.0	965.7
7.5°	951.8	953.3	954.8	955.5	955.3	955.1	954.9	954.6
10°	942.8	944.2	945.6	946.1	945.7	945.4	945.0	944.7
12.5°	931.9	933.4	934.9	935.4	934.9	934.4	934.0	933.5
15°	911.0	912.0	913.0	913.3	912.8	912.3	911.7	911.2
17.5°	887.2	887.8	888.5	888.6	888.3	887.9	887.6	887.3
20°	869.5	870.0	870.5	870.6	870.2	869.9	869.6	869.2
22.5°	851.0	851.9	852.9	853.0	852.4	851.8	851.2	850.5
25°	820.5	820.7	820.9	820.6	819.9	819.2	818.5	817.8
27.5°	786.4	785.9	785.5	784.9	784.0	783.2	782.3	781.4
30°	762.8	762.1	761.4	760.6	759.7	758.9	758.0	757.1
32.5°	738.8	738.0	737.2	736.3	735.5	734.6	733.7	732.9
35°	701.0	699.8	698.6	697.6	696.7	695.8	695.0	694.1
37.5°	661.5	660.1	658.8	657.6	656.5	655.3	654.2	653.0
40°	633.9	632.1	630.4	629.1	628.2	627.4	626.5	625.6
42.5°	607.2	605.1	603.1	601.8	601.3	600.7	600.1	599.5
45°	565.8	563.9	562.0	560.8	560.3	559.8	559.2	558.7
47.5°	525.8	523.6	521.5	519.8	518.5	517.1	515.8	514.5
50°	497.8	495.4	493.0	491.3	490.2	489.2	488.2	487.1
52.5°	469.1	467.0	464.9	463.1	461.8	460.5	459.2	457.9
55°	427.0	424.9	422.8	421.2	420.2	419.2	418.1	417.1
57.5°	384.7	382.7	380.7	379.2	378.2	377.2	376.2	375.2
60°	355.6	354.1	352.5	351.3	350.4	349.6	348.7	347.8
62.5°	327.3	325.8	324.4	323.3	322.4	321.6	320.7	319.8
65°	286.0	284.3	282.6	281.3	280.4	279.5	278.7	277.8
67.5°	243.5	241.9	240.2	239.2	239.0	238.8	238.5	238.3
70°	216.7	215.3	213.9	213.0	212.4	211.9	211.4	210.9
72.5°	189.8	188.7	187.6	186.8	186.3	185.8	185.3	184.7
75°	151.1	150.4	149.8	149.3	149.1	149.0	148.8	148.6
77.5°	114.4	114.2	114.0	113.7	113.2	112.8	112.3	111.9
80°	91.1	90.8	90.4	90.2	90.0	89.8	89.7	89.5
82.5°	70.2	70.0	69.8	69.6	69.5	69.3	69.1	68.9
85°	40.5	40.5	40.5	40.4	40.2	40.0	39.9	39.7
87.5°	19.9	20.1	20.4	20.6	20.7	20.8	20.8	20.9
90°	24.6	26.0	27.3	28.2	28.6	29.1	29.5	29.9
92.5°	41.1	41.9	42.7	43.3	43.5	43.8	44.1	44.3
95°	77.2	77.9	78.5	78.9	78.9	78.9	78.9	78.9
97.5°	121.6	122.4	123.2	123.6	123.6	123.6	123.6	123.6
100°	153.6	154.0	154.5	154.7	154.7	154.7	154.7	154.7
102.5°	187.5	188.1	188.7	189.1	189.3	189.5	189.7	189.8
105°	238.9	239.6	240.2	240.9	241.5	242.2	242.9	243.5
107.5°	294.5	295.1	295.7	296.0	296.0	295.9	295.9	295.8
110°	331.5	331.0	330.6	330.7	331.4	332.0	332.7	333.4



TEST NUMBER: P332569

CATALOG NUMBER: SA4XXDIP-C575D1035U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	371.3	371.2	371.2	371.2	371.3	371.4	371.6	371.7
115°	432.7	432.5	432.3	432.1	431.9	431.6	431.4	431.2
117.5°	491.8	491.0	490.3	489.7	489.2	488.8	488.3	487.9
120°	531.8	530.7	529.6	529.2	529.7	530.1	530.6	531.0
122.5°	572.4	571.7	570.9	570.1	569.3	568.5	567.7	566.9
125°	631.9	631.5	631.0	630.6	630.2	629.7	629.3	628.8
127.5°	688.8	688.4	687.9	687.5	687.2	686.8	686.5	686.1
130°	728.8	728.3	727.9	727.2	726.3	725.4	724.5	723.6
132.5°	766.3	765.8	765.4	765.0	764.6	764.3	763.9	763.6
135°	822.6	822.1	821.7	821.1	820.5	819.8	819.1	818.5
137.5°	877.0	876.4	875.9	875.6	875.8	875.9	876.0	876.2
140°	912.9	912.6	912.4	912.2	912.0	911.7	911.5	911.3
142.5°	946.7	946.7	946.7	946.6	946.6	946.5	946.5	946.4
145°	997.7	997.5	997.2	996.8	996.1	995.5	994.8	994.1
147.5°	1043.9	1043.7	1043.5	1043.3	1043.1	1042.9	1042.7	1042.5
150°	1073.0	1073.0	1073.0	1072.9	1072.7	1072.4	1072.2	1072.0
152.5°	1100.4	1100.9	1101.5	1101.5	1100.9	1100.3	1099.7	1099.1
155°	1138.7	1139.5	1140.4	1140.4	1139.5	1138.7	1137.8	1136.9
157.5°	1172.3	1173.0	1173.7	1173.6	1172.9	1172.1	1171.4	1170.6
160°	1193.1	1193.8	1194.4	1194.2	1193.1	1192.0	1190.9	1189.8
162.5°	1211.7	1212.9	1214.1	1214.2	1213.1	1212.0	1210.9	1209.7
165°	1236.4	1237.7	1239.0	1239.2	1238.4	1237.5	1236.6	1235.7
167.5°	1257.1	1258.5	1259.8	1259.8	1258.4	1257.0	1255.6	1254.3
170°	1268.3	1269.6	1271.0	1270.8	1269.3	1267.7	1266.2	1264.6
172.5°	1276.6	1278.1	1279.7	1279.6	1278.1	1276.5	1275.0	1273.4
175°	1285.7	1287.3	1288.8	1288.8	1287.3	1285.7	1284.2	1282.6
177.5°	1290.7	1291.9	1293.2	1293.1	1291.7	1290.2	1288.8	1287.4
180°	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6

(END OF REPORT)