

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: P332917

Luminaire Tested: **SA4XXRDIP-C575D1035U835-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332917
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: SA4XXRDIP-C575D1035U835-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1035 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

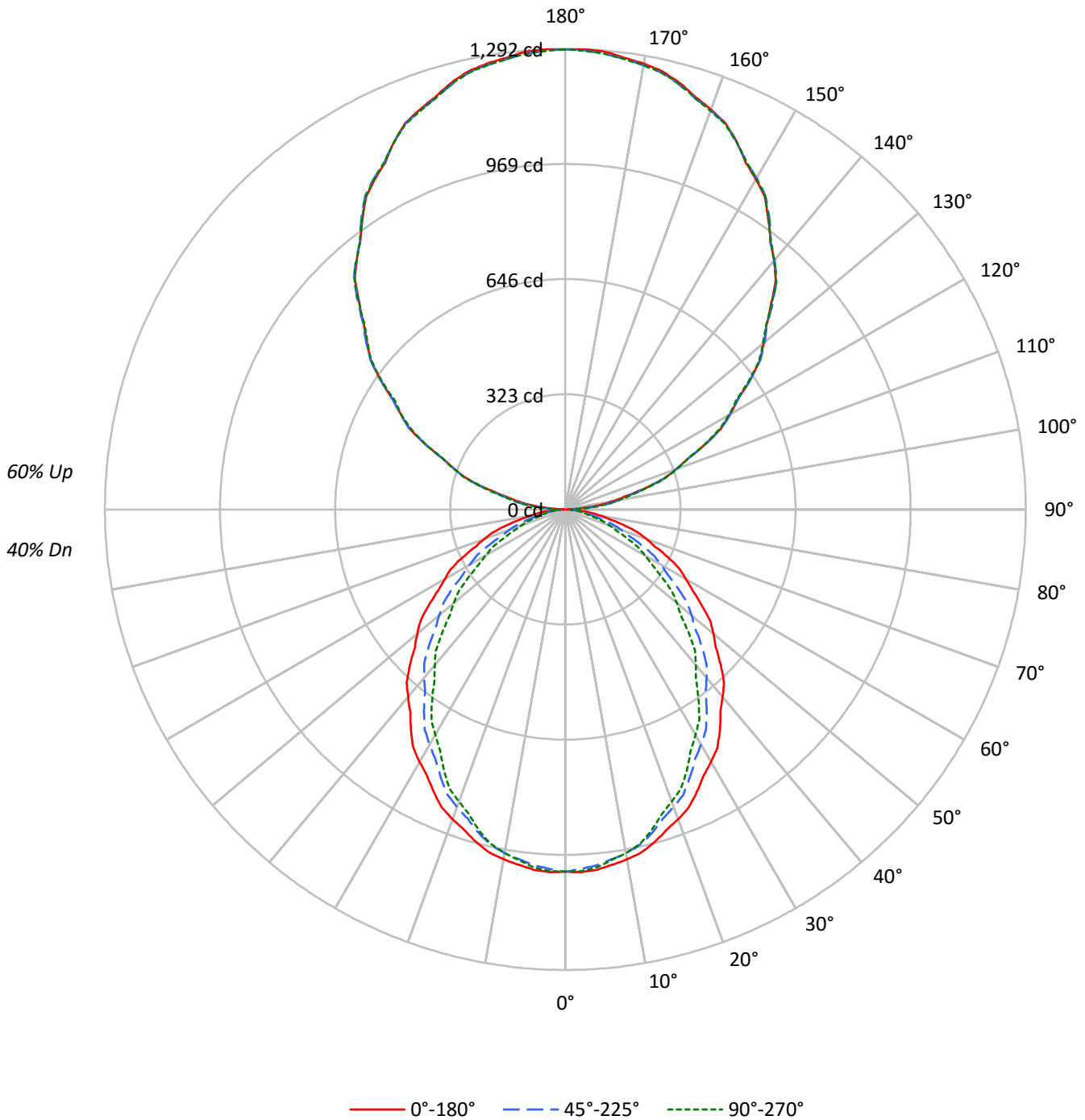
Lumens per Lamp: N/A
Luminaire Lumens: 5932.5 lumens
Efficiency: N/A
Efficacy: 133.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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





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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	95	95	95	95	78	78	78	61	61	61	47	47	47	40				
1	96	91	88	84	87	83	80	77	68	66	64	54	53	52	41	41	40	34				
2	87	80	74	69	79	73	68	64	60	56	53	48	45	43	37	35	34	29				
3	80	71	63	58	72	64	58	53	53	49	45	43	39	37	33	31	29	24				
4	73	62	55	49	66	57	51	45	47	42	38	38	34	32	29	27	25	21				
5	67	56	48	42	61	51	44	39	42	37	33	34	30	28	27	24	22	18				
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	21	19	16				
7	57	45	37	32	52	41	35	30	35	29	26	28	24	21	22	19	17	15				
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	20	18	16	13				
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12				
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	17	15	13	11				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8205	8205	8205
5°	8223	8122	8173
10°	8171	8025	8025
15°	8078	7856	7798
20°	7948	7635	7494
25°	7784	7375	7187
30°	7623	7101	6804
35°	7447	6818	6419
40°	7233	6495	6003
45°	7036	6174	5579
50°	6812	5805	5130
55°	6572	5422	4643
60°	6307	5000	4146
65°	6065	4474	3656
70°	5712	3895	3104
75°	5268	3228	2523
80°	4593	2459	2315
85°	3890	2232	2093



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.5	1.6
10°-20°	266.2	4.5
20°-30°	384.4	6.5
30°-40°	435.7	7.3
40°-50°	420.8	7.1
50°-60°	349.9	5.9
60°-70°	241.6	4.1
70°-80°	122.5	2.1
80°-90°	35.3	0.6
90°-100°	85.1	1.4
100°-110°	252.2	4.3
110°-120°	428.0	7.2
120°-130°	564.3	9.5
130°-140°	633.8	10.7
140°-150°	622.8	10.5
150°-160°	523.8	8.8
160°-170°	348.5	5.9
170°-180°	122.0	2.1
0°-30°	746.1	12.6
0°-40°	1181.8	19.9
0°-60°	1952.5	32.9
0°-90°	2351.9	39.6
90°-120°	765.3	12.9
90°-150°	2586.3	43.6
90°-180°	3581.0	60.4
0°-180°	5932.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1015	1011	1002	1010	1008	96
15°	966	959	940	938	933	272
25°	874	859	828	815	807	402
35°	756	730	692	666	651	472
45°	616	586	541	504	489	475
55°	467	435	385	346	330	418
65°	318	283	234	202	191	313
75°	169	140	104	86	81	178
85°	42	27	24	23	23	47
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°	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3
2.5°	1018.8	1018.2	1017.7	1017.1	1016.6	1015.5	1014.0	1012.5	1010.9	1009.4	1010.9
5°	1014.7	1014.0	1013.3	1012.6	1012.0	1010.6	1008.5	1006.4	1004.3	1002.3	1004.0
7.5°	1005.5	1004.8	1004.1	1003.4	1002.6	1000.9	998.2	995.5	992.8	990.1	991.2
10°	996.8	996.0	995.1	994.2	993.4	991.4	988.3	985.1	982.0	978.9	979.6
12.5°	985.6	984.6	983.6	982.6	981.6	979.3	975.6	971.9	968.3	964.6	965.0
15°	966.5	964.9	963.4	961.8	960.2	957.3	953.0	948.7	944.3	940.0	939.7
17.5°	943.3	941.0	938.8	936.5	934.3	930.6	925.4	920.2	915.0	909.8	908.9
20°	925.2	923.0	920.7	918.5	916.2	912.2	906.3	900.4	894.5	888.7	887.3
22.5°	905.3	902.8	900.3	897.7	895.2	890.8	884.5	878.2	871.9	865.6	863.5
25°	873.9	870.8	867.6	864.5	861.4	856.3	849.2	842.1	835.0	828.0	825.0
27.5°	840.9	837.0	833.1	829.2	825.2	819.5	811.9	804.4	796.8	789.2	785.6
30°	817.8	813.5	809.2	804.9	800.6	794.3	786.2	778.1	769.9	761.8	757.5
32.5°	793.6	788.7	783.8	778.9	774.1	767.4	759.0	750.6	742.2	733.8	728.8
35°	755.6	750.1	744.5	739.0	733.5	726.4	717.7	709.1	700.4	691.8	685.9
37.5°	715.0	709.3	703.6	697.9	692.1	684.5	674.9	665.3	655.8	646.2	639.6
40°	686.3	680.6	674.9	669.2	663.5	655.7	645.9	636.0	626.2	616.3	609.0
42.5°	658.9	653.0	647.0	641.0	635.0	626.9	616.6	606.3	596.1	585.8	578.4
45°	616.3	609.9	603.5	597.1	590.7	582.3	571.9	561.6	551.2	540.8	532.3
47.5°	572.3	565.7	559.0	552.4	545.8	537.1	526.3	515.6	504.8	494.0	485.2
50°	542.4	535.6	528.9	522.1	515.4	506.5	495.4	484.4	473.3	462.2	453.6
52.5°	511.9	505.3	498.7	492.1	485.4	476.5	465.1	453.8	442.4	431.1	422.3
55°	466.9	460.0	453.1	446.1	439.2	430.1	418.9	407.7	396.4	385.2	376.2
57.5°	422.4	415.2	408.0	400.8	393.6	384.5	373.4	362.3	351.3	340.2	331.1
60°	390.6	383.7	376.8	369.9	363.0	354.0	342.9	331.8	320.8	309.7	300.7
62.5°	362.0	354.8	347.6	340.4	333.2	324.0	312.6	301.3	289.9	278.6	270.3
65°	317.5	310.1	302.6	295.2	287.7	278.5	267.4	256.4	245.3	234.2	226.8
67.5°	271.3	264.1	257.0	249.9	242.8	234.1	223.8	213.5	203.3	193.0	186.6
70°	242.0	234.7	227.5	220.2	213.0	204.4	194.5	184.7	174.8	165.0	159.3
72.5°	210.9	204.3	197.7	191.2	184.6	176.7	167.4	158.1	148.7	139.4	134.6
75°	168.9	162.5	156.1	149.7	143.3	136.0	127.9	119.7	111.6	103.5	99.5
77.5°	126.2	120.8	115.4	109.9	104.5	98.5	91.9	85.4	78.8	72.2	69.9
80°	98.8	93.8	88.8	83.8	78.8	73.7	68.5	63.3	58.1	52.9	52.4
82.5°	75.2	70.6	66.0	61.4	56.8	53.0	50.0	47.0	44.1	41.1	40.7
85°	42.0	38.6	35.1	31.6	28.2	26.2	25.7	25.2	24.6	24.1	23.8
87.5°	14.9	14.3	13.7	13.1	12.4	12.2	12.5	12.7	12.9	13.1	13.2
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°	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3
2.5°	1012.5	1014.0	1015.5	1016.2	1016.1	1015.9	1015.8	1015.7
5°	1005.7	1007.5	1009.2	1009.9	1009.5	1009.2	1008.8	1008.5
7.5°	992.3	993.4	994.6	994.8	994.3	993.7	993.2	992.6
10°	980.3	981.0	981.7	981.7	981.0	980.3	979.6	978.9
12.5°	965.4	965.8	966.3	966.0	965.0	964.1	963.1	962.1
15°	939.3	939.0	938.6	937.9	936.6	935.4	934.2	933.0
17.5°	907.9	906.9	905.9	904.5	902.7	900.9	899.0	897.2
20°	885.9	884.5	883.1	881.3	879.1	876.8	874.6	872.3
22.5°	861.5	859.4	857.3	855.4	853.5	851.7	849.9	848.0
25°	822.1	819.1	816.2	813.9	812.1	810.4	808.7	806.9
27.5°	781.9	778.3	774.7	771.6	769.1	766.6	764.2	761.7
30°	753.2	748.8	744.5	741.0	738.2	735.4	732.7	729.9
32.5°	723.8	718.8	713.7	709.9	707.3	704.7	702.0	699.4
35°	680.0	674.1	668.3	663.8	660.7	657.5	654.4	651.3
37.5°	633.0	626.5	619.9	615.1	611.9	608.8	605.7	602.6
40°	601.8	594.5	587.2	582.1	578.9	575.8	572.7	569.6
42.5°	571.0	563.6	556.2	550.9	547.6	544.4	541.1	537.9
45°	523.9	515.4	506.9	501.1	498.0	494.9	491.8	488.7
47.5°	476.4	467.6	458.8	452.7	449.3	445.9	442.5	439.0
50°	444.9	436.3	427.6	421.7	418.4	415.1	411.8	408.5
52.5°	413.5	404.7	396.0	389.9	386.4	383.0	379.6	376.2
55°	367.2	358.2	349.2	343.1	339.8	336.5	333.2	329.9
57.5°	321.9	312.8	303.7	297.9	295.4	292.9	290.4	287.9
60°	291.7	282.7	273.7	267.9	265.1	262.3	259.6	256.8
62.5°	262.0	253.7	245.4	240.1	237.9	235.7	233.5	231.3
65°	219.4	211.9	204.5	199.7	197.7	195.6	193.5	191.4
67.5°	180.2	173.8	167.4	163.1	160.8	158.5	156.2	153.9
70°	153.6	147.9	142.1	138.4	136.7	135.0	133.2	131.5
72.5°	129.7	124.8	119.9	116.7	115.1	113.5	111.9	110.3
75°	95.5	91.6	87.6	85.1	84.0	83.0	82.0	80.9
77.5°	67.6	65.3	62.9	61.6	61.3	61.0	60.7	60.4
80°	51.9	51.4	50.8	50.5	50.3	50.1	50.0	49.8
82.5°	40.3	39.9	39.6	39.3	39.1	38.9	38.8	38.6
85°	23.4	23.1	22.7	22.6	22.6	22.6	22.6	22.6
87.5°	13.4	13.5	13.6	13.8	14.0	14.3	14.5	14.7
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: P332917

CATALOG NUMBER: SA4XXRDIP-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)