

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: P332923-940

Luminaire Tested: **SA4XXRDIP-C575D1205U940-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332923-940
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-C575D1205U940-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5814.2 lumens
Efficiency: N/A
Efficacy: 117.7 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

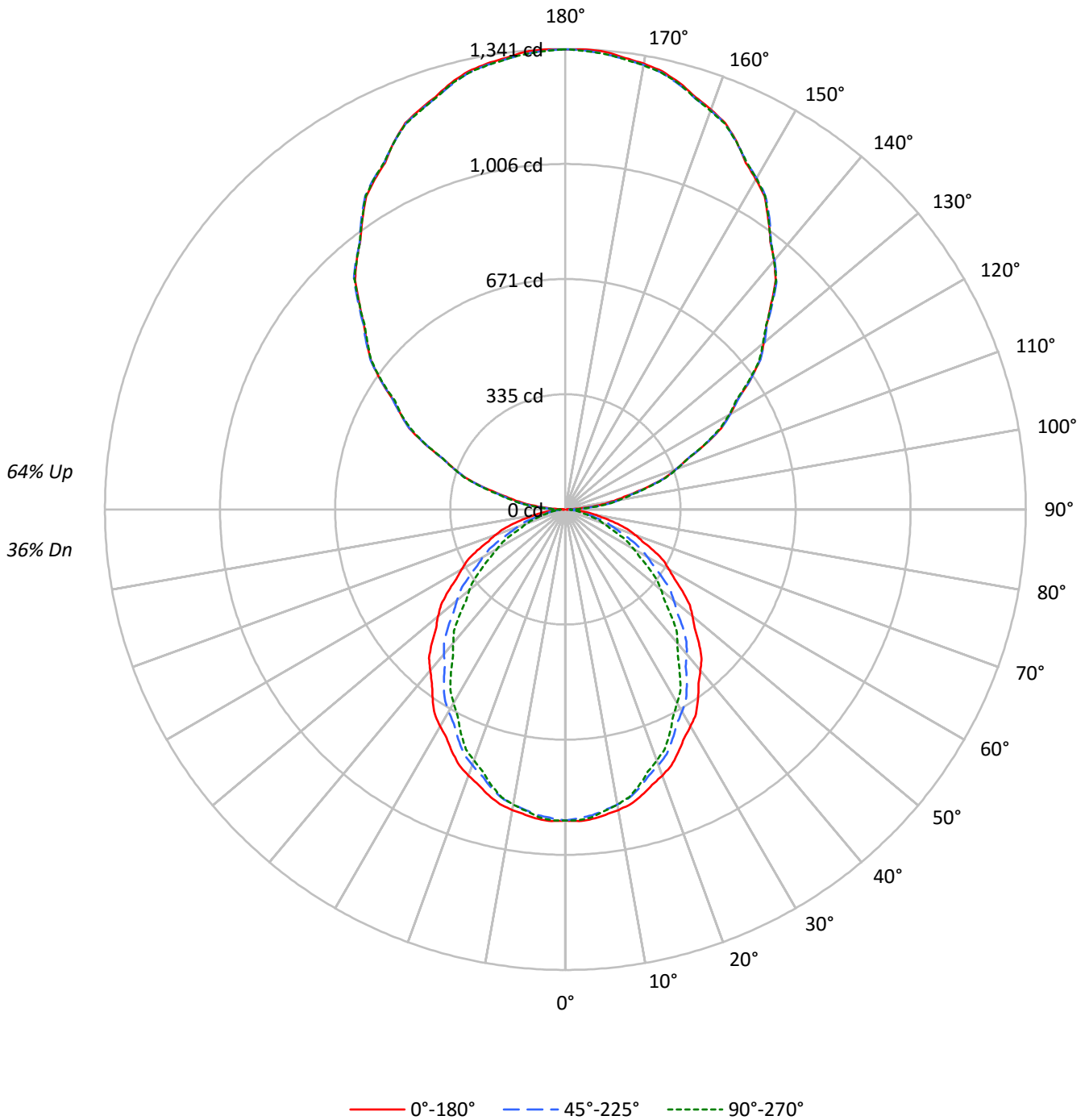
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332923-940

CATALOG NUMBER: SA4XXRDIP-C575D1205U940-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P332923-940

CATALOG NUMBER: SA4XXRDIP-C575D1205U940-4F0-1E-UDD-F1

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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43	36				36
1	95	91	87	84	86	82	79	76	66	64	62	52	51	49	39	38	37	31				31
2	86	79	73	69	78	72	67	63	58	55	52	46	43	41	34	33	31	26				26
3	79	70	63	57	71	64	58	53	52	47	44	41	38	35	30	29	27	22				22
4	72	62	54	48	65	56	50	45	46	41	37	36	33	30	27	25	23	19				19
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17				17
6	61	49	42	36	55	45	38	33	37	32	28	29	26	23	22	20	18	15				15
7	56	45	37	31	51	41	34	29	34	28	25	27	23	20	20	18	16	13				13
8	52	40	33	28	47	37	30	26	31	26	22	24	21	18	19	16	14	12				12
9	49	37	30	25	44	34	27	23	28	23	20	23	19	16	17	15	13	11				11
10	45	34	27	22	41	31	25	21	26	21	18	21	17	15	16	14	12	10				10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7316	7316	7316
5°	7332	7243	7288
10°	7287	7156	7156
15°	7203	7005	6954
20°	7088	6808	6682
25°	6942	6576	6409
30°	6797	6332	6068
35°	6640	6080	5724
40°	6450	5792	5352
45°	6275	5505	4975
50°	6075	5176	4575
55°	5859	4835	4141
60°	5624	4459	3697
65°	5408	3989	3261
70°	5094	3472	2769
75°	4697	2879	2249
80°	4096	2194	2064
85°	3473	1991	1871



TEST NUMBER: P332923-940

CATALOG NUMBER: SA4XXRDIP-C575D1205U940-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.1	1.5
10°-20°	237.4	4.1
20°-30°	342.8	5.9
30°-40°	388.6	6.7
40°-50°	375.2	6.5
50°-60°	312.0	5.4
60°-70°	215.4	3.7
70°-80°	109.2	1.9
80°-90°	32.0	0.6
90°-100°	88.4	1.5
100°-110°	261.7	4.5
110°-120°	444.2	7.6
120°-130°	585.7	10.1
130°-140°	657.8	11.3
140°-150°	646.4	11.1
150°-160°	543.7	9.4
160°-170°	361.7	6.2
170°-180°	126.7	2.2
0°-30°	665.3	11.4
0°-40°	1053.9	18.1
0°-60°	1741.1	29.9
0°-90°	2097.8	36.1
90°-120°	794.3	13.7
90°-150°	2684.3	46.2
90°-180°	3716.0	63.9
0°-180°	5814.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	905	902	894	900	899	86
15°	862	855	838	837	832	243
25°	779	766	738	727	720	359
35°	674	651	617	594	581	421
45°	550	523	482	449	436	424
55°	416	388	344	309	294	372
65°	283	252	209	180	171	279
75°	151	125	92	77	72	159
85°	38	24	22	20	20	42
90°	3	14	23	29	31	6
95°	62	71	79	82	82	69
105°	241	243	247	250	253	256
115°	452	452	450	449	448	445
125°	658	658	657	655	653	586
135°	848	854	855	853	850	656
145°	1031	1035	1036	1035	1032	645
155°	1181	1181	1180	1184	1180	543
165°	1286	1283	1280	1286	1282	362
175°	1338	1332	1331	1338	1331	127
180°	1340	1340	1340	1340	1340	



TEST NUMBER: P332923-940

CATALOG NUMBER: SA4XXRDIP-C575D1205U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	906.2	906.2	906.2	906.2	906.2	906.2	906.2	906.2	906.2	906.2	906.2
2.5°	908.5	907.9	907.5	907.0	906.5	905.5	904.2	902.9	901.4	900.1	901.4
5°	904.8	904.2	903.6	902.9	902.4	901.2	899.3	897.4	895.5	893.8	895.3
7.5°	896.6	896.0	895.4	894.7	894.0	892.5	890.1	887.7	885.3	882.9	883.9
10°	888.9	888.1	887.3	886.5	885.8	884.0	881.3	878.4	875.7	872.9	873.5
12.5°	878.9	878.0	877.1	876.2	875.3	873.3	870.0	866.7	863.4	860.1	860.5
15°	861.8	860.4	859.1	857.6	856.2	853.6	849.8	846.0	842.0	838.2	837.9
17.5°	841.2	839.1	837.1	835.1	833.1	829.8	825.2	820.6	815.9	811.3	810.5
20°	825.0	823.0	821.0	819.0	817.0	813.4	808.2	802.9	797.6	792.5	791.2
22.5°	807.3	805.0	802.8	800.5	798.3	794.3	788.7	783.1	777.5	771.9	770.0
25°	779.3	776.5	773.6	770.9	768.1	763.6	757.2	750.9	744.6	738.3	735.7
27.5°	749.8	746.4	742.9	739.4	735.8	730.8	724.0	717.3	710.5	703.7	700.5
30°	729.2	725.4	721.6	717.7	713.9	708.3	701.1	693.8	686.5	679.3	675.5
32.5°	707.7	703.3	698.9	694.6	690.3	684.3	676.8	669.3	661.8	654.3	649.9
35°	673.8	668.9	663.9	659.0	654.1	647.7	640.0	632.3	624.6	616.9	611.6
37.5°	637.6	632.5	627.4	622.3	617.2	610.4	601.8	593.3	584.8	576.2	570.3
40°	612.0	606.9	601.8	596.7	591.7	584.7	576.0	567.1	558.4	549.6	543.1
42.5°	587.5	582.3	576.9	571.6	566.2	559.0	549.8	540.6	531.5	522.4	515.8
45°	549.6	543.9	538.1	532.4	526.7	519.2	510.0	500.8	491.5	482.2	474.7
47.5°	510.3	504.4	498.5	492.6	486.7	478.9	469.3	459.8	450.1	440.5	432.7
50°	483.7	477.6	471.6	465.6	459.6	451.7	441.8	431.9	422.0	412.1	404.5
52.5°	456.5	450.6	444.7	438.8	432.8	424.9	414.7	404.7	394.5	384.4	376.6
55°	416.3	410.2	404.0	397.8	391.6	383.5	373.5	363.6	353.5	343.5	335.5
57.5°	376.7	370.2	363.8	357.4	351.0	342.9	333.0	323.1	313.3	303.4	295.2
60°	348.3	342.1	336.0	329.8	323.7	315.7	305.8	295.9	286.1	276.2	268.1
62.5°	322.8	316.4	310.0	303.5	297.1	288.9	278.7	268.7	258.5	248.4	241.0
65°	283.1	276.5	269.8	263.2	256.5	248.3	238.4	228.6	218.7	208.8	202.2
67.5°	241.9	235.5	229.2	222.8	216.5	208.7	199.6	190.4	181.3	172.1	166.4
70°	215.8	209.3	202.9	196.4	189.9	182.3	173.4	164.7	155.9	147.1	142.0
72.5°	188.1	182.2	176.3	170.5	164.6	157.6	149.3	141.0	132.6	124.3	120.0
75°	150.6	144.9	139.2	133.5	127.8	121.3	114.0	106.7	99.5	92.3	88.7
77.5°	112.5	107.7	102.9	98.0	93.2	87.8	81.9	76.2	70.3	64.4	62.3
80°	88.1	83.6	79.2	74.7	70.3	65.7	61.1	56.4	51.8	47.2	46.7
82.5°	67.1	63.0	58.9	54.8	50.6	47.3	44.6	41.9	39.3	36.6	36.3
85°	37.5	34.4	31.3	28.2	25.1	23.4	22.9	22.5	21.9	21.5	21.2
87.5°	13.4	12.9	12.4	11.9	11.5	11.3	11.6	11.9	12.1	12.3	12.5
90°	3.1	5.6	8.2	10.7	13.2	15.4	17.3	19.1	21.0	22.8	24.2
92.5°	22.2	25.1	28.0	30.9	33.8	35.8	37.2	38.4	39.8	41.0	41.8
95°	62.2	64.2	66.3	68.4	70.4	72.3	73.9	75.5	77.1	78.7	79.5
97.5°	108.6	110.2	111.9	113.5	115.2	117.0	118.9	120.7	122.6	124.5	125.4
100°	145.1	146.0	146.9	147.8	148.7	150.3	152.3	154.4	156.4	158.5	159.0
102.5°	183.2	183.5	183.9	184.2	184.7	185.7	187.6	189.6	191.5	193.3	193.9
105°	241.4	241.7	241.8	242.1	242.3	242.9	243.8	244.7	245.7	246.6	247.3
107.5°	302.5	302.8	303.1	303.4	303.6	303.8	304.0	304.1	304.3	304.3	305.1
110°	343.9	344.4	344.8	345.4	345.8	345.9	345.7	345.4	345.2	345.0	344.6



TEST NUMBER: P332923-940

CATALOG NUMBER: SA4XXRDIP-C575D1205U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	387.0	387.2	387.3	387.4	387.4	387.3	386.8	386.5	386.0	385.6	385.5
115°	451.7	451.7	451.7	451.7	451.7	451.5	451.0	450.6	450.0	449.6	449.4
117.5°	512.6	512.8	513.0	513.2	513.4	513.3	512.9	512.6	512.3	512.0	511.2
120°	553.2	554.1	555.1	556.0	556.9	557.1	556.3	555.6	554.9	554.3	553.1
122.5°	595.5	595.8	596.2	596.6	597.0	597.0	596.6	596.4	596.0	595.7	594.9
125°	657.8	657.8	657.8	657.8	657.8	657.7	657.5	657.3	657.0	656.8	656.4
127.5°	714.4	715.2	715.8	716.5	717.2	717.4	716.9	716.6	716.2	715.9	715.4
130°	754.2	754.9	755.5	756.3	757.0	757.3	757.3	757.3	757.3	757.3	756.9
132.5°	794.8	795.3	795.9	796.3	796.8	797.0	796.8	796.7	796.5	796.3	795.8
135°	848.5	849.9	851.2	852.7	854.0	854.7	854.7	854.7	854.7	854.7	854.3
137.5°	906.9	907.6	908.2	908.8	909.5	910.0	910.3	910.7	911.1	911.4	910.9
140°	945.8	946.3	946.8	947.3	947.7	947.9	947.9	947.9	947.9	947.9	947.7
142.5°	981.5	982.0	982.4	982.8	983.4	983.5	983.3	983.1	982.9	982.8	982.7
145°	1030.8	1031.7	1032.7	1033.6	1034.5	1035.1	1035.3	1035.5	1035.7	1036.0	1035.7
147.5°	1079.7	1080.8	1081.9	1083.0	1084.1	1084.6	1084.4	1084.2	1084.1	1083.9	1083.7
150°	1109.6	1110.4	1111.4	1112.3	1113.2	1113.7	1113.7	1113.7	1113.7	1113.7	1113.7
152.5°	1137.7	1138.3	1138.8	1139.3	1140.0	1140.3	1140.5	1140.7	1140.9	1141.0	1141.6
155°	1181.0	1181.0	1181.0	1181.0	1181.0	1180.9	1180.7	1180.4	1180.2	1180.0	1180.9
157.5°	1217.5	1217.1	1216.7	1216.3	1215.8	1215.6	1215.6	1215.5	1215.5	1215.4	1216.1
160°	1239.0	1238.9	1238.6	1238.3	1238.1	1237.9	1237.7	1237.4	1237.2	1237.0	1237.7
162.5°	1258.9	1258.3	1257.8	1257.1	1256.5	1256.2	1255.9	1255.7	1255.4	1255.2	1256.4
165°	1285.7	1285.0	1284.2	1283.6	1282.9	1282.3	1281.8	1281.4	1280.9	1280.5	1281.8
167.5°	1306.2	1305.2	1304.2	1303.2	1302.3	1301.8	1301.9	1301.9	1302.0	1302.0	1303.4
170°	1317.8	1316.6	1315.5	1314.3	1313.1	1312.7	1313.0	1313.1	1313.4	1313.7	1315.0
172.5°	1326.1	1325.1	1324.1	1323.1	1322.2	1321.7	1321.8	1321.9	1321.9	1322.0	1323.5
175°	1337.5	1336.3	1335.2	1334.0	1332.8	1332.1	1331.9	1331.7	1331.5	1331.2	1332.8
177.5°	1341.2	1340.2	1339.3	1338.5	1337.5	1337.0	1337.0	1337.0	1337.0	1337.0	1338.4
180°	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5



TEST NUMBER: P332923-940

CATALOG NUMBER: SA4XXRDIP-C575D1205U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	906.2	906.2	906.2	906.2	906.2	906.2	906.2	906.2
2.5°	902.9	904.2	905.5	906.2	906.1	905.9	905.8	905.7
5°	896.8	898.4	899.9	900.5	900.2	899.9	899.6	899.3
7.5°	884.8	885.8	886.9	887.1	886.6	886.1	885.6	885.1
10°	874.1	874.8	875.4	875.4	874.8	874.1	873.5	872.9
12.5°	860.9	861.2	861.7	861.4	860.5	859.7	858.8	857.9
15°	837.6	837.3	837.0	836.3	835.2	834.1	833.0	832.0
17.5°	809.6	808.7	807.8	806.6	804.9	803.3	801.6	800.0
20°	790.0	788.7	787.5	785.9	783.9	781.9	779.9	777.8
22.5°	768.2	766.3	764.5	762.8	761.1	759.5	757.9	756.2
25°	733.1	730.4	727.8	725.8	724.2	722.6	721.1	719.5
27.5°	697.2	694.0	690.8	688.0	685.8	683.6	681.4	679.2
30°	671.6	667.7	663.9	660.8	658.3	655.8	653.4	650.9
32.5°	645.4	641.0	636.4	633.0	630.7	628.4	626.0	623.7
35°	606.4	601.1	595.9	591.9	589.2	586.3	583.5	580.8
37.5°	564.5	558.7	552.8	548.5	545.6	542.9	540.1	537.3
40°	536.6	530.1	523.6	519.1	516.2	513.4	510.7	507.9
42.5°	509.2	502.6	496.0	491.2	488.3	485.4	482.5	479.7
45°	467.2	459.6	452.0	446.8	444.1	441.3	438.5	435.8
47.5°	424.8	417.0	409.1	403.7	400.6	397.6	394.6	391.5
50°	396.7	389.1	381.3	376.0	373.1	370.1	367.2	364.3
52.5°	368.7	360.9	353.1	347.7	344.6	341.5	338.5	335.5
55°	327.4	319.4	311.4	305.9	303.0	300.1	297.1	294.2
57.5°	287.0	278.9	270.8	265.6	263.4	261.2	259.0	256.7
60°	260.1	252.1	244.1	238.9	236.4	233.9	231.5	229.0
62.5°	233.6	226.2	218.8	214.1	212.1	210.2	208.2	206.3
65°	195.6	189.0	182.4	178.1	176.3	174.4	172.5	170.7
67.5°	160.7	155.0	149.3	145.4	143.4	141.3	139.3	137.2
70°	137.0	131.9	126.7	123.4	121.9	120.4	118.8	117.3
72.5°	115.7	111.3	106.9	104.1	102.6	101.2	99.8	98.4
75°	85.2	81.7	78.1	75.9	74.9	74.0	73.1	72.1
77.5°	60.3	58.2	56.1	54.9	54.7	54.4	54.1	53.9
80°	46.3	45.8	45.3	45.0	44.9	44.7	44.6	44.4
82.5°	35.9	35.6	35.3	35.0	34.9	34.7	34.6	34.4
85°	20.9	20.6	20.2	20.2	20.2	20.2	20.2	20.2
87.5°	12.7	12.8	12.9	13.1	13.4	13.6	13.7	14.0
90°	25.6	26.9	28.4	29.2	29.7	30.1	30.6	31.1
92.5°	42.7	43.5	44.3	44.9	45.2	45.5	45.7	46.0
95°	80.1	80.8	81.5	81.9	81.9	81.9	81.9	81.9
97.5°	126.2	127.0	127.9	128.2	128.2	128.2	128.2	128.2
100°	159.4	159.9	160.3	160.6	160.6	160.6	160.6	160.6
102.5°	194.6	195.3	195.9	196.3	196.5	196.7	196.9	197.1
105°	248.0	248.6	249.3	250.0	250.7	251.4	252.1	252.8
107.5°	305.7	306.3	306.9	307.3	307.2	307.2	307.1	307.1
110°	344.0	343.6	343.1	343.2	343.9	344.6	345.4	346.0



TEST NUMBER: P332923-940

CATALOG NUMBER: SA4XXRDIP-C575D1205U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	385.4	385.3	385.2	385.2	385.4	385.5	385.7	385.8
115°	449.2	448.9	448.7	448.4	448.3	448.0	447.8	447.5
117.5°	510.4	509.6	508.8	508.3	507.7	507.3	506.8	506.4
120°	552.0	550.8	549.7	549.3	549.7	550.2	550.7	551.2
122.5°	594.1	593.3	592.5	591.7	590.9	590.1	589.2	588.4
125°	655.9	655.4	655.0	654.5	654.1	653.6	653.1	652.6
127.5°	715.0	714.5	714.0	713.6	713.3	712.8	712.5	712.1
130°	756.3	755.9	755.5	754.7	753.9	753.0	752.0	751.1
132.5°	795.3	794.9	794.4	794.0	793.6	793.3	792.9	792.6
135°	853.8	853.3	852.8	852.3	851.6	850.9	850.2	849.5
137.5°	910.3	909.6	909.1	908.8	909.0	909.1	909.3	909.4
140°	947.4	947.3	947.0	946.8	946.6	946.3	946.1	945.8
142.5°	982.7	982.6	982.6	982.5	982.5	982.4	982.4	982.3
145°	1035.5	1035.3	1035.1	1034.6	1033.9	1033.2	1032.5	1031.9
147.5°	1083.5	1083.3	1083.1	1082.9	1082.7	1082.4	1082.2	1082.0
150°	1113.7	1113.7	1113.7	1113.6	1113.3	1113.1	1112.9	1112.7
152.5°	1142.1	1142.7	1143.3	1143.3	1142.6	1142.0	1141.4	1140.9
155°	1181.9	1182.8	1183.7	1183.7	1182.8	1181.9	1180.9	1180.0
157.5°	1216.8	1217.5	1218.2	1218.2	1217.4	1216.6	1215.8	1215.0
160°	1238.3	1239.0	1239.7	1239.5	1238.3	1237.2	1236.1	1234.9
162.5°	1257.7	1258.9	1260.2	1260.3	1259.1	1257.9	1256.8	1255.6
165°	1283.3	1284.6	1286.0	1286.2	1285.3	1284.4	1283.4	1282.5
167.5°	1304.8	1306.2	1307.5	1307.5	1306.1	1304.7	1303.2	1301.8
170°	1316.4	1317.8	1319.2	1319.0	1317.4	1315.8	1314.2	1312.6
172.5°	1325.1	1326.6	1328.2	1328.2	1326.5	1324.9	1323.3	1321.7
175°	1334.4	1336.1	1337.7	1337.7	1336.1	1334.4	1332.8	1331.2
177.5°	1339.6	1341.0	1342.2	1342.1	1340.6	1339.2	1337.7	1336.2
180°	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5

(END OF REPORT)