

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: P332922-927

Luminaire Tested: **SA4XXRDIP-C575D1205U927-4F0-1E-UDD-F**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332922-927
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: SA4XXRDIP-C575D1205U927-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1205 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5670.5 lumens
Efficiency: N/A
Efficacy: 114.8 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

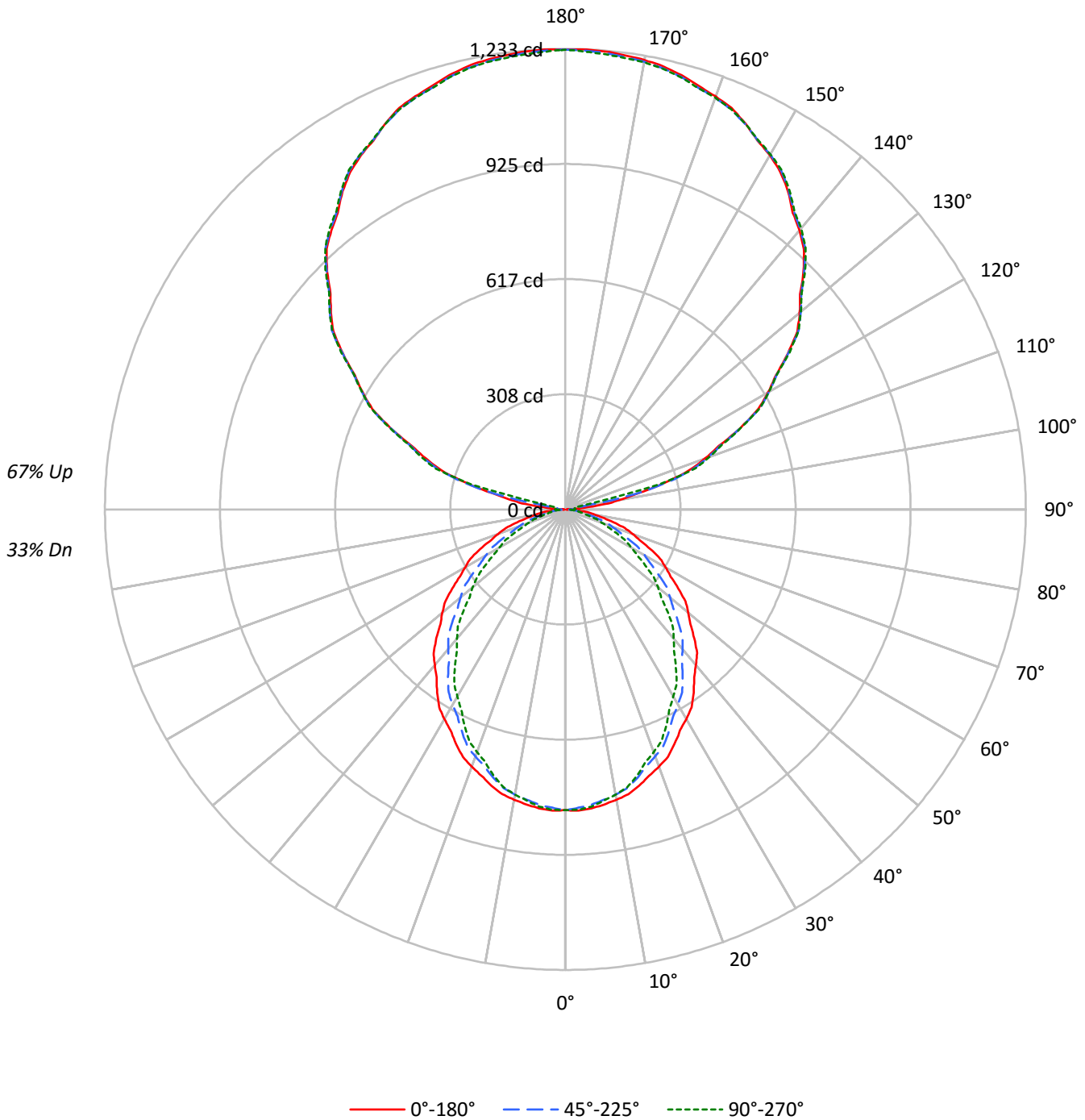
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332922-927

CATALOG NUMBER: SA4XXRDIP-C575D1205U927-4F0-1E-UDD-F

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	103	103	103	103	93	93	93	93	74	74	74	56	56	56	40	40	40	33
1	94	90	86	83	85	81	78	75	65	63	61	50	48	47	36	35	34	28
2	86	79	73	68	77	71	66	62	57	54	51	44	42	40	32	30	29	24
3	78	69	62	57	70	63	57	52	50	46	43	39	36	34	28	27	25	20
4	72	61	54	48	64	56	49	44	45	40	36	35	32	29	25	23	22	18
5	66	55	47	41	59	50	43	38	40	35	31	31	28	25	23	21	19	15
6	61	49	41	36	54	44	38	33	36	31	27	28	25	22	21	19	17	14
7	56	44	36	31	50	40	33	29	33	28	24	26	22	19	19	17	15	12
8	52	40	32	27	47	36	30	25	30	25	21	23	20	17	17	15	13	11
9	48	36	29	24	43	33	27	23	27	22	19	21	18	16	16	14	12	10
10	45	33	26	22	41	30	24	20	25	20	17	20	16	14	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6500	6500	6500
5°	6514	6434	6474
10°	6473	6357	6357
15°	6399	6224	6177
20°	6296	6048	5936
25°	6167	5842	5694
30°	6039	5626	5390
35°	5899	5401	5084
40°	5730	5145	4755
45°	5574	4891	4419
50°	5397	4598	4064
55°	5206	4294	3678
60°	4996	3961	3284
65°	4804	3543	2896
70°	4525	3085	2460
75°	4173	2558	1999
80°	3640	1948	1836
85°	3084	1769	1658



TEST NUMBER: P332922-927

CATALOG NUMBER: SA4XXRDIP-C575D1205U927-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	1.3
10°-20°	210.9	3.7
20°-30°	304.5	5.4
30°-40°	345.2	6.1
40°-50°	333.3	5.9
50°-60°	277.2	4.9
60°-70°	191.4	3.4
70°-80°	97.0	1.7
80°-90°	28.4	0.5
90°-100°	42.1	0.7
100°-110°	268.4	4.7
110°-120°	513.4	9.1
120°-130°	651.7	11.5
130°-140°	697.3	12.3
140°-150°	652.1	11.5
150°-160°	525.8	9.3
160°-170°	339.2	6.0
170°-180°	116.9	2.1
0°-30°	591.0	10.4
0°-40°	936.2	16.5
0°-60°	1546.7	27.3
0°-90°	1863.6	32.9
90°-120°	823.9	14.5
90°-150°	2825.0	49.8
90°-180°	3807.0	67.1
0°-180°	5670.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	804	801	794	800	799	76
15°	766	760	745	743	739	216
25°	692	680	656	646	639	319
35°	599	578	548	528	516	374
45°	488	465	428	399	387	376
55°	370	344	305	274	261	331
65°	252	224	186	160	152	248
75°	134	111	82	68	64	141
85°	33	22	19	18	18	38
90°	3	13	20	26	28	4
95°	51	21	20	26	27	65
105°	277	282	287	293	262	290
115°	517	520	519	521	521	509
125°	727	731	729	732	733	649
135°	902	901	905	907	908	695
145°	1040	1043	1043	1044	1046	650
155°	1140	1141	1139	1142	1140	526
165°	1203	1199	1198	1205	1198	340
175°	1231	1226	1226	1233	1223	117
180°	1231	1231	1231	1231	1231	



TEST NUMBER: P332922-927

CATALOG NUMBER: SA4XXRDIP-C575D1205U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	807.1	806.6	806.2	805.7	805.3	804.5	803.3	802.1	800.8	799.6	800.8
5°	803.8	803.3	802.7	802.2	801.7	800.6	798.9	797.3	795.6	794.0	795.4
7.5°	796.5	796.0	795.4	794.9	794.2	792.9	790.8	788.6	786.5	784.3	785.2
10°	789.6	789.0	788.3	787.6	787.0	785.4	782.9	780.4	777.9	775.5	776.0
12.5°	780.8	780.0	779.2	778.4	777.6	775.8	772.9	769.9	767.1	764.1	764.5
15°	765.6	764.4	763.2	761.9	760.7	758.4	754.9	751.5	748.1	744.7	744.4
17.5°	747.3	745.4	743.7	741.9	740.1	737.2	733.1	729.0	724.8	720.7	720.0
20°	732.9	731.2	729.4	727.6	725.8	722.6	718.0	713.3	708.6	704.0	702.9
22.5°	717.2	715.2	713.2	711.1	709.2	705.7	700.7	695.7	690.7	685.7	684.0
25°	692.3	689.8	687.3	684.8	682.4	678.3	672.7	667.1	661.5	655.9	653.6
27.5°	666.1	663.1	660.0	656.9	653.7	649.2	643.2	637.2	631.2	625.2	622.3
30°	647.8	644.4	641.0	637.6	634.2	629.2	622.8	616.4	609.9	603.5	600.1
32.5°	628.7	624.8	620.9	617.0	613.2	607.9	601.3	594.6	588.0	581.3	577.3
35°	598.6	594.2	589.8	585.4	581.1	575.4	568.5	561.7	554.8	548.0	543.4
37.5°	566.4	561.9	557.4	552.9	548.3	542.2	534.6	527.0	519.5	511.9	506.7
40°	543.7	539.2	534.6	530.1	525.6	519.4	511.7	503.8	496.1	488.2	482.4
42.5°	522.0	517.3	512.5	507.8	503.0	496.6	488.5	480.3	472.2	464.1	458.2
45°	488.2	483.2	478.1	473.0	467.9	461.3	453.0	444.9	436.7	428.4	421.7
47.5°	453.4	448.1	442.8	437.6	432.4	425.5	416.9	408.4	399.9	391.3	384.4
50°	429.7	424.3	419.0	413.6	408.3	401.2	392.4	383.7	374.9	366.1	359.3
52.5°	405.5	400.3	395.1	389.8	384.5	377.5	368.4	359.5	350.5	341.5	334.5
55°	369.9	364.4	358.9	353.4	347.9	340.7	331.8	323.0	314.0	305.1	298.0
57.5°	334.6	328.9	323.2	317.5	311.8	304.6	295.8	287.0	278.3	269.5	262.3
60°	309.4	304.0	298.5	293.0	287.6	280.4	271.6	262.8	254.1	245.3	238.2
62.5°	286.8	281.1	275.4	269.7	264.0	256.7	247.6	238.7	229.7	220.7	214.1
65°	251.5	245.7	239.7	233.9	227.9	220.6	211.8	203.1	194.3	185.5	179.7
67.5°	214.9	209.2	203.6	198.0	192.3	185.4	177.3	169.1	161.1	152.9	147.8
70°	191.7	185.9	180.2	174.4	168.7	161.9	154.1	146.3	138.5	130.7	126.2
72.5°	167.1	161.8	156.6	151.5	146.2	140.0	132.6	125.2	117.8	110.4	106.6
75°	133.8	128.7	123.7	118.6	113.5	107.7	101.3	94.8	88.4	82.0	78.8
77.5°	100.0	95.7	91.4	87.1	82.8	78.0	72.8	67.7	62.4	57.2	55.4
80°	78.3	74.3	70.3	66.4	62.4	58.4	54.3	50.1	46.0	41.9	41.5
82.5°	59.6	55.9	52.3	48.6	45.0	42.0	39.6	37.2	34.9	32.6	32.2
85°	33.3	30.6	27.8	25.0	22.3	20.8	20.4	20.0	19.5	19.1	18.9
87.5°	11.9	11.5	11.0	10.6	10.2	10.1	10.3	10.5	10.8	10.9	11.1
90°	2.8	5.0	7.3	9.5	11.7	13.7	15.4	17.0	18.6	20.3	21.5
92.5°	11.6	11.7	11.9	12.0	12.1	13.0	14.6	16.2	17.9	19.5	20.8
95°	50.6	43.6	36.7	29.8	22.8	19.4	19.6	19.8	20.0	20.3	21.5
97.5°	107.5	111.9	116.2	120.5	124.8	115.6	92.8	69.9	47.1	24.3	24.4
100°	151.0	154.6	158.4	162.0	165.7	153.4	125.2	97.0	68.8	40.5	37.0
102.5°	199.6	202.2	204.9	207.6	210.3	209.8	206.2	202.5	198.8	195.1	157.6
105°	277.0	278.3	279.5	280.7	281.9	283.1	284.2	285.1	286.1	287.2	289.1
107.5°	349.0	349.7	350.3	350.9	351.5	352.5	353.9	355.3	356.6	358.1	358.9
110°	397.7	398.2	398.9	399.5	400.1	401.0	402.3	403.5	404.7	405.9	406.3



TEST NUMBER: P332922-927

CATALOG NUMBER: SA4XXRDIP-C575D1205U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	444.8	445.9	446.9	448.1	449.2	450.0	450.6	451.1	451.8	452.3	452.3
115°	517.3	517.9	518.6	519.1	519.8	520.0	519.8	519.6	519.4	519.1	519.6
117.5°	582.7	583.4	584.3	585.1	585.9	586.5	587.0	587.5	588.0	588.4	588.3
120°	626.9	627.6	628.5	629.3	630.1	630.4	630.3	630.0	629.8	629.6	630.0
122.5°	668.0	668.6	669.1	669.6	670.0	670.4	670.7	671.0	671.3	671.6	671.8
125°	727.1	728.0	728.8	729.6	730.5	730.6	730.2	729.8	729.4	729.0	729.6
127.5°	783.2	783.3	783.5	783.8	783.9	784.5	785.4	786.4	787.3	788.3	788.1
130°	819.2	819.4	819.7	819.8	820.1	820.5	821.1	821.7	822.3	822.9	823.1
132.5°	852.4	852.7	853.1	853.5	853.8	854.4	855.2	856.0	856.7	857.5	857.7
135°	902.1	901.9	901.7	901.4	901.3	901.6	902.4	903.2	904.0	904.8	905.2
137.5°	946.1	946.2	946.3	946.3	946.4	946.9	947.8	948.7	949.6	950.5	950.9
140°	974.8	975.2	975.6	976.0	976.4	976.8	977.2	977.6	978.0	978.5	979.1
142.5°	1000.5	1001.3	1002.0	1002.7	1003.5	1004.0	1004.2	1004.5	1004.7	1005.0	1005.4
145°	1040.1	1040.8	1041.4	1042.0	1042.6	1042.9	1042.9	1042.9	1042.9	1042.9	1043.1
147.5°	1071.6	1072.8	1073.9	1075.1	1076.2	1076.7	1076.5	1076.3	1076.0	1075.9	1076.0
150°	1094.5	1095.3	1096.1	1096.9	1097.7	1098.0	1097.8	1097.6	1097.4	1097.2	1097.2
152.5°	1113.6	1114.3	1114.9	1115.6	1116.2	1116.3	1116.0	1115.6	1115.2	1114.9	1115.2
155°	1140.5	1140.7	1140.9	1141.1	1141.3	1141.1	1140.5	1139.9	1139.2	1138.6	1139.5
157.5°	1163.1	1163.0	1162.8	1162.8	1162.6	1162.2	1161.5	1160.9	1160.2	1159.4	1160.5
160°	1176.4	1175.8	1175.1	1174.6	1173.9	1173.5	1173.3	1173.1	1172.9	1172.7	1173.9
162.5°	1188.1	1187.4	1186.6	1185.8	1185.0	1184.6	1184.3	1184.2	1183.9	1183.8	1184.9
165°	1203.1	1202.1	1201.0	1200.0	1199.0	1198.5	1198.5	1198.5	1198.5	1198.5	1200.1
167.5°	1214.8	1213.8	1212.8	1211.6	1210.6	1210.0	1209.9	1209.7	1209.7	1209.5	1211.3
170°	1221.5	1220.3	1219.0	1217.8	1216.6	1216.1	1216.2	1216.5	1216.6	1216.9	1218.5
172.5°	1225.9	1224.6	1223.4	1222.2	1221.0	1220.4	1220.7	1220.9	1221.1	1221.3	1222.9
175°	1230.7	1229.5	1228.2	1227.0	1225.7	1225.3	1225.4	1225.7	1225.9	1226.1	1227.9
177.5°	1232.9	1231.8	1230.6	1229.5	1228.3	1227.9	1228.2	1228.5	1228.9	1229.2	1230.5
180°	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7



TEST NUMBER: P332922-927

CATALOG NUMBER: SA4XXRDIP-C575D1205U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	802.1	803.3	804.5	805.0	804.9	804.8	804.7	804.6
5°	796.7	798.1	799.5	800.0	799.7	799.5	799.2	798.9
7.5°	786.1	787.0	787.9	788.1	787.7	787.2	786.8	786.3
10°	776.6	777.1	777.7	777.7	777.1	776.6	776.0	775.5
12.5°	764.8	765.1	765.5	765.2	764.5	763.7	763.0	762.2
15°	744.1	743.9	743.5	743.0	742.0	741.0	740.1	739.1
17.5°	719.2	718.4	717.6	716.5	715.1	713.7	712.2	710.7
20°	701.8	700.7	699.6	698.2	696.4	694.6	692.8	691.0
22.5°	682.5	680.8	679.1	677.6	676.1	674.7	673.3	671.8
25°	651.3	648.9	646.6	644.8	643.3	642.0	640.6	639.2
27.5°	619.4	616.6	613.7	611.2	609.3	607.3	605.4	603.4
30°	596.7	593.2	589.8	587.0	584.8	582.6	580.4	578.2
32.5°	573.4	569.4	565.4	562.4	560.3	558.3	556.1	554.1
35°	538.7	534.0	529.4	525.9	523.4	520.9	518.4	515.9
37.5°	501.5	496.3	491.1	487.3	484.7	482.3	479.8	477.4
40°	476.7	471.0	465.2	461.1	458.6	456.1	453.7	451.2
42.5°	452.3	446.5	440.6	436.4	433.8	431.3	428.6	426.1
45°	415.0	408.3	401.6	397.0	394.5	392.1	389.6	387.1
47.5°	377.4	370.4	363.5	358.6	355.9	353.2	350.5	347.8
50°	352.4	345.6	338.7	334.1	331.4	328.8	326.2	323.6
52.5°	327.6	320.6	313.7	308.9	306.1	303.4	300.7	298.0
55°	290.9	283.8	276.6	271.8	269.2	266.6	264.0	261.3
57.5°	255.0	247.8	240.6	236.0	234.0	232.0	230.0	228.1
60°	231.1	223.9	216.8	212.2	210.0	207.8	205.7	203.4
62.5°	207.6	201.0	194.4	190.2	188.5	186.7	185.0	183.2
65°	173.8	167.9	162.0	158.2	156.6	155.0	153.3	151.6
67.5°	142.8	137.7	132.6	129.2	127.4	125.6	123.7	121.9
70°	121.7	117.2	112.6	109.6	108.3	106.9	105.5	104.2
72.5°	102.7	98.9	95.0	92.4	91.2	89.9	88.6	87.4
75°	75.7	72.6	69.4	67.4	66.5	65.8	65.0	64.1
77.5°	53.6	51.7	49.8	48.8	48.6	48.3	48.1	47.8
80°	41.1	40.7	40.2	40.0	39.8	39.7	39.6	39.5
82.5°	31.9	31.6	31.4	31.1	31.0	30.8	30.7	30.6
85°	18.5	18.3	18.0	17.9	17.9	17.9	17.9	17.9
87.5°	11.2	11.3	11.5	11.6	11.9	12.0	12.2	12.4
90°	22.7	23.9	25.2	26.0	26.4	26.8	27.2	27.6
92.5°	21.9	23.2	24.4	25.1	25.2	25.3	25.3	25.4
95°	22.7	23.9	25.2	25.9	26.1	26.3	26.5	26.7
97.5°	24.6	24.6	24.8	25.0	25.2	25.3	25.6	25.7
100°	33.5	30.1	26.6	25.0	25.2	25.3	25.6	25.7
102.5°	120.1	82.6	45.1	26.4	26.4	26.5	26.5	26.5
105°	290.9	292.7	294.5	291.8	284.4	277.0	269.7	262.4
107.5°	359.9	360.8	361.6	362.5	363.3	364.1	364.8	365.6
110°	406.8	407.2	407.6	408.1	408.7	409.3	410.0	410.5



TEST NUMBER: P332922-927

CATALOG NUMBER: SA4XXRDIP-C575D1205U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	452.2	452.1	452.0	452.3	453.1	453.9	454.7	455.4
115°	520.0	520.4	520.8	521.0	521.0	521.0	521.0	521.0
117.5°	588.2	588.1	588.0	588.0	587.9	587.8	587.7	587.6
120°	630.4	630.8	631.2	631.2	630.8	630.4	630.0	629.6
122.5°	672.1	672.3	672.6	672.5	672.1	671.7	671.2	670.8
125°	730.2	730.9	731.5	731.9	732.1	732.3	732.5	732.7
127.5°	788.1	787.9	787.8	787.7	787.5	787.3	787.2	787.0
130°	823.3	823.6	823.7	823.8	823.8	823.8	823.8	823.8
132.5°	857.9	858.2	858.3	858.3	858.2	858.0	857.9	857.7
135°	905.6	906.0	906.5	906.9	907.3	907.7	908.1	908.5
137.5°	951.4	951.8	952.3	952.4	952.4	952.2	952.0	952.0
140°	979.7	980.3	981.0	981.4	981.5	981.8	981.9	982.1
142.5°	1005.9	1006.3	1006.8	1007.0	1007.1	1007.1	1007.2	1007.2
145°	1043.3	1043.5	1043.7	1044.0	1044.4	1044.8	1045.3	1045.7
147.5°	1076.2	1076.3	1076.5	1076.7	1076.9	1077.1	1077.3	1077.5
150°	1097.2	1097.2	1097.2	1097.3	1097.5	1097.7	1098.0	1098.1
152.5°	1115.6	1115.9	1116.2	1116.3	1116.2	1116.0	1115.9	1115.8
155°	1140.3	1141.1	1141.9	1142.0	1141.4	1140.7	1140.2	1139.6
157.5°	1161.6	1162.6	1163.7	1163.7	1162.6	1161.6	1160.5	1159.4
160°	1175.1	1176.4	1177.6	1177.6	1176.4	1175.1	1173.9	1172.7
162.5°	1186.2	1187.4	1188.7	1188.6	1187.2	1185.8	1184.4	1183.0
165°	1201.7	1203.4	1205.0	1204.9	1203.1	1201.2	1199.4	1197.5
167.5°	1213.1	1214.9	1216.7	1216.6	1214.6	1212.5	1210.5	1208.4
170°	1220.1	1221.8	1223.4	1223.2	1221.1	1219.1	1217.1	1215.0
172.5°	1224.6	1226.2	1227.8	1227.6	1225.3	1223.1	1220.9	1218.7
175°	1229.8	1231.6	1233.4	1233.1	1230.7	1228.2	1225.7	1223.3
177.5°	1231.8	1233.1	1234.5	1234.1	1232.2	1230.2	1228.2	1226.3
180°	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7

(END OF REPORT)