

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: P332529

Luminaire Tested: **SA4XXDIP-C350D1205U835-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332529
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-C350D1205U835-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 350 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

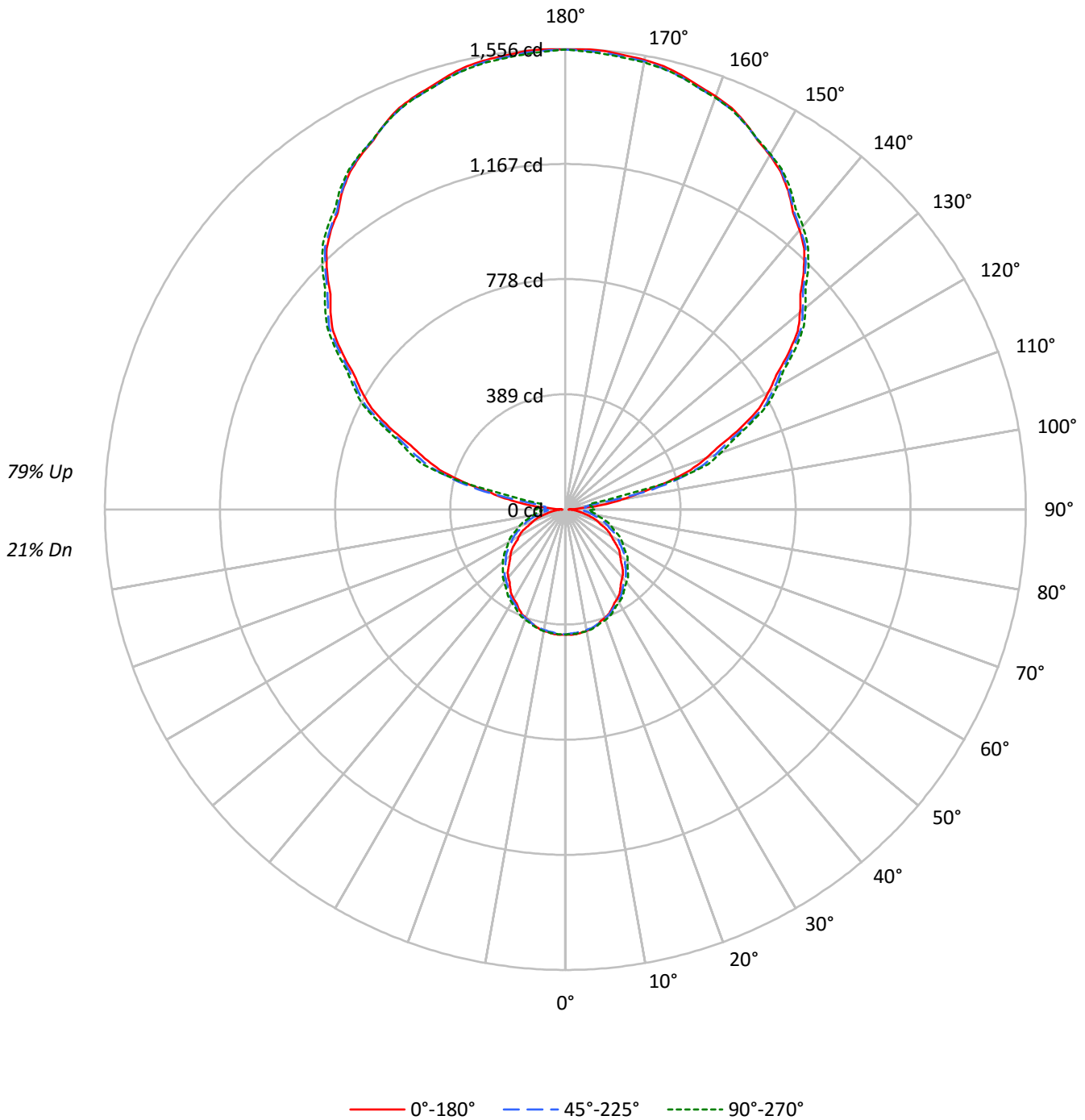
Lumens per Lamp: N/A
Luminaire Lumens: 6250.9 lumens
Efficiency: N/A
Efficacy: 148.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

Input Watts (W): 42.2
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: P332529
CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332529

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-D

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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21				
1	91	87	83	79	80	77	73	71	58	56	54	41	40	39	26	25	24	17				
2	83	75	69	64	73	67	62	57	51	47	44	36	34	32	22	21	20	14				
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12				
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10				
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	16	14	12	8				
6	58	46	38	33	51	41	34	29	31	27	23	22	19	17	14	12	11	7				
7	53	41	34	28	47	37	30	25	28	24	20	20	17	15	13	11	9	6				
8	49	37	30	25	43	33	27	22	26	21	18	18	15	13	12	10	8	6				
9	46	34	27	22	40	30	24	20	23	19	16	17	14	12	11	9	8	5				
10	42	31	24	19	37	28	22	17	21	17	14	15	12	10	10	8	7	5				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3412	3412	3412
5°	3423	3335	3344
10°	3402	3281	3278
15°	3371	3217	3200
20°	3325	3147	3124
25°	3274	3070	3039
30°	3217	2992	2954
35°	3154	2912	2878
40°	3103	2836	2800
45°	3027	2766	2732
50°	2964	2686	2661
55°	2899	2610	2577
60°	2796	2513	2501
65°	2682	2410	2407
70°	2547	2292	2298
75°	2356	2161	2199
80°	2145	2037	2102
85°	1878	1926	2046



TEST NUMBER: P332529

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.0	0.6
10°-20°	114.7	1.8
20°-30°	173.4	2.8
30°-40°	209.8	3.4
40°-50°	221.8	3.5
50°-60°	208.8	3.3
60°-70°	173.2	2.8
70°-80°	121.7	1.9
80°-90°	73.3	1.2
90°-100°	94.0	1.5
100°-110°	369.0	5.9
110°-120°	668.4	10.7
120°-130°	834.2	13.3
130°-140°	885.2	14.2
140°-150°	824.1	13.2
150°-160°	663.8	10.6
160°-170°	428.1	6.8
170°-180°	147.6	2.4
0°-30°	328.1	5.2
0°-40°	537.9	8.6
0°-60°	968.5	15.5
0°-90°	1336.6	21.4
90°-120°	1131.4	18.1
90°-150°	3674.8	58.8
90°-180°	4914.0	78.6
0°-180°	6250.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	423	423	423	423	423	
5°	423	422	418	422	422	40
15°	406	406	405	409	408	114
25°	371	374	375	380	381	171
35°	325	330	335	341	343	203
45°	271	280	289	296	299	209
55°	212	222	236	245	248	189
65°	147	162	178	189	194	145
75°	81	99	119	132	136	87
85°	25	45	66	80	85	27
90°	11	43	72	92	99	8
95°	70	49	67	86	92	87
105°	354	371	394	413	378	371
115°	656	664	678	690	694	645
125°	920	924	934	946	950	821
135°	1140	1139	1146	1156	1162	878
145°	1314	1316	1316	1321	1325	820
155°	1440	1441	1437	1442	1438	664
165°	1519	1513	1513	1521	1512	429
175°	1554	1547	1548	1557	1544	148
180°	1554	1554	1554	1554	1554	



TEST NUMBER: P332529

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7
2.5°	424.2	423.9	423.7	423.4	423.2	422.7	422.1	421.4	420.7	420.0	420.6
5°	423.2	422.8	422.5	422.2	421.9	421.4	420.6	419.9	419.2	418.4	419.3
7.5°	419.6	419.4	419.2	419.0	418.8	418.4	417.8	417.2	416.6	416.0	416.9
10°	416.5	416.4	416.3	416.2	416.1	415.8	415.3	414.7	414.2	413.7	414.6
12.5°	412.4	412.3	412.3	412.3	412.3	412.1	411.7	411.4	411.0	410.7	411.5
15°	405.6	405.8	405.9	406.0	406.1	406.0	405.6	405.3	405.0	404.7	405.6
17.5°	396.5	396.8	397.1	397.4	397.7	397.9	397.8	397.7	397.7	397.6	398.6
20°	390.0	390.3	390.7	391.0	391.3	391.5	391.6	391.7	391.8	391.9	393.0
22.5°	382.8	383.2	383.6	384.0	384.4	384.7	384.9	385.1	385.3	385.5	386.5
25°	371.1	371.7	372.4	373.0	373.6	374.1	374.4	374.7	375.0	375.4	376.5
27.5°	358.0	359.0	359.9	360.8	361.7	362.4	362.9	363.4	363.9	364.4	365.4
30°	349.3	350.2	351.0	351.8	352.7	353.5	354.2	354.9	355.7	356.4	357.6
32.5°	339.9	340.9	341.9	342.9	343.9	344.8	345.6	346.4	347.3	348.1	349.4
35°	324.7	326.0	327.2	328.5	329.8	330.9	332.0	333.0	334.1	335.1	336.6
37.5°	309.5	310.9	312.4	313.8	315.3	316.6	318.0	319.3	320.6	321.9	323.4
40°	299.6	301.0	302.4	303.7	305.1	306.5	308.0	309.5	310.9	312.4	314.0
42.5°	288.3	289.8	291.3	292.9	294.4	296.0	297.8	299.5	301.2	302.9	304.7
45°	270.7	272.7	274.7	276.7	278.7	280.7	282.7	284.7	286.7	288.7	290.5
47.5°	254.0	256.1	258.1	260.2	262.2	264.4	266.7	269.1	271.4	273.7	275.5
50°	241.9	244.2	246.5	248.8	251.1	253.4	255.8	258.1	260.4	262.7	264.8
52.5°	229.8	232.1	234.4	236.7	239.0	241.5	244.1	246.8	249.4	252.1	254.2
55°	212.1	214.3	216.5	218.7	220.9	223.6	226.7	229.9	233.0	236.2	238.3
57.5°	192.3	195.0	197.7	200.5	203.2	206.1	209.3	212.4	215.5	218.7	221.2
60°	179.4	182.1	184.9	187.6	190.3	193.4	196.9	200.4	203.8	207.3	209.7
62.5°	166.9	169.9	172.9	175.9	178.8	182.1	185.5	189.0	192.5	196.0	198.4
65°	146.7	150.1	153.5	156.8	160.2	163.7	167.2	170.8	174.4	178.0	180.6
67.5°	127.3	130.9	134.5	138.1	141.6	145.3	149.2	153.0	156.8	160.6	163.3
70°	114.1	117.6	121.2	124.8	128.4	132.2	136.2	140.2	144.2	148.2	151.0
72.5°	101.2	104.9	108.5	112.2	115.8	119.8	124.0	128.3	132.5	136.8	139.5
75°	81.4	85.3	89.2	93.1	97.0	101.1	105.6	110.0	114.4	118.8	121.8
77.5°	63.0	67.1	71.2	75.3	79.4	83.8	88.4	93.1	97.7	102.3	105.3
80°	51.6	55.8	60.0	64.2	68.4	72.8	77.5	82.1	86.7	91.4	94.5
82.5°	40.2	44.6	49.0	53.4	57.7	62.2	66.9	71.5	76.1	80.8	84.0
85°	25.1	29.5	33.9	38.3	42.8	47.3	52.1	56.8	61.5	66.3	69.4
87.5°	14.7	19.6	24.4	29.3	34.1	39.1	44.1	49.1	54.1	59.2	62.5
90°	11.1	18.1	25.2	32.2	39.3	46.1	52.7	59.2	65.8	72.4	77.0
92.5°	21.8	25.8	29.7	33.7	37.6	42.9	49.5	56.0	62.6	69.2	73.7
95°	70.1	64.8	59.4	54.1	48.8	48.5	53.0	57.6	62.2	66.7	71.1
97.5°	141.3	149.8	158.2	166.7	175.1	167.1	142.6	118.0	93.5	68.9	71.8
100°	195.8	203.1	210.5	217.9	225.3	213.2	181.7	150.2	118.6	87.1	85.5
102.5°	257.1	262.9	268.7	274.5	280.3	282.9	282.3	281.7	281.0	280.4	235.8
105°	354.0	357.7	361.3	365.0	368.6	373.0	378.2	383.4	388.6	393.8	398.7
107.5°	444.8	447.3	449.8	452.3	454.8	458.7	464.2	469.6	475.1	480.5	484.2
110°	505.8	508.0	510.2	512.5	514.7	518.5	523.7	528.9	534.2	539.4	542.3



TEST NUMBER: P332529

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	564.9	567.6	570.3	573.0	575.7	579.1	583.4	587.6	591.8	596.1	598.3
115°	655.9	657.6	659.3	661.0	662.7	665.2	668.3	671.4	674.5	677.6	680.4
117.5°	738.3	739.9	741.5	743.1	744.7	747.3	751.0	754.7	758.4	762.1	764.2
120°	793.7	795.0	796.4	797.7	799.1	801.1	803.9	806.7	809.5	812.3	814.9
122.5°	845.7	846.4	847.1	847.8	848.4	850.4	853.7	856.9	860.1	863.4	865.8
125°	919.8	920.8	921.7	922.6	923.5	925.1	927.2	929.3	931.4	933.5	936.3
127.5°	990.4	990.5	990.7	990.8	991.0	992.7	995.9	999.1	1002.3	1005.5	1007.2
130°	1035.6	1035.7	1035.9	1036.0	1036.2	1037.5	1039.9	1042.4	1044.8	1047.3	1049.5
132.5°	1077.4	1077.7	1078.1	1078.5	1078.8	1080.2	1082.5	1084.8	1087.2	1089.5	1091.5
135°	1139.7	1139.4	1139.1	1138.9	1138.6	1139.4	1141.2	1142.9	1144.7	1146.5	1148.7
137.5°	1195.2	1195.2	1195.2	1195.2	1195.2	1195.9	1197.4	1198.9	1200.4	1201.9	1204.0
140°	1231.5	1231.9	1232.3	1232.7	1233.1	1233.6	1234.2	1234.9	1235.5	1236.1	1238.2
142.5°	1263.6	1264.5	1265.4	1266.3	1267.2	1267.8	1268.1	1268.3	1268.6	1268.8	1270.6
145°	1313.5	1314.1	1314.8	1315.5	1316.2	1316.5	1316.5	1316.5	1316.5	1316.5	1317.4
147.5°	1353.2	1354.6	1355.9	1357.2	1358.6	1359.1	1358.9	1358.6	1358.3	1358.1	1358.4
150°	1382.0	1383.0	1383.9	1384.8	1385.7	1386.1	1385.8	1385.6	1385.3	1385.0	1385.0
152.5°	1405.8	1406.6	1407.4	1408.2	1409.0	1409.2	1408.8	1408.3	1407.8	1407.4	1407.8
155°	1439.7	1439.9	1440.2	1440.4	1440.7	1440.4	1439.7	1438.9	1438.1	1437.3	1438.4
157.5°	1468.2	1468.1	1467.9	1467.8	1467.6	1467.1	1466.2	1465.4	1464.5	1463.6	1464.9
160°	1485.0	1484.2	1483.4	1482.7	1481.9	1481.4	1481.1	1480.8	1480.6	1480.3	1481.9
162.5°	1499.8	1498.9	1497.9	1496.9	1495.9	1495.3	1495.0	1494.8	1494.5	1494.3	1495.8
165°	1518.7	1517.4	1516.1	1514.8	1513.5	1512.9	1512.9	1512.9	1512.9	1512.9	1514.9
167.5°	1533.5	1532.2	1530.9	1529.5	1528.2	1527.4	1527.3	1527.1	1527.0	1526.8	1529.1
170°	1541.9	1540.4	1538.8	1537.3	1535.7	1535.1	1535.3	1535.6	1535.8	1536.1	1538.2
172.5°	1547.5	1545.9	1544.4	1542.8	1541.3	1540.6	1540.9	1541.2	1541.4	1541.7	1543.7
175°	1553.5	1552.0	1550.4	1548.9	1547.3	1546.7	1546.9	1547.2	1547.5	1547.7	1550.0
177.5°	1556.3	1554.9	1553.4	1552.0	1550.5	1550.0	1550.4	1550.8	1551.3	1551.7	1553.3
180°	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5



TEST NUMBER: P332529

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7
2.5°	421.2	421.8	422.4	422.6	422.6	422.5	422.4	422.3
5°	420.1	420.9	421.8	422.2	422.1	421.9	421.8	421.7
7.5°	417.9	418.8	419.8	420.2	420.1	420.0	419.9	419.8
10°	415.6	416.5	417.5	417.9	417.8	417.7	417.6	417.5
12.5°	412.4	413.3	414.1	414.5	414.5	414.5	414.5	414.4
15°	406.6	407.5	408.5	408.9	408.8	408.7	408.6	408.5
17.5°	399.5	400.5	401.5	401.9	401.8	401.7	401.7	401.6
20°	394.0	395.1	396.1	396.7	396.7	396.7	396.7	396.7
22.5°	387.6	388.6	389.7	390.3	390.5	390.6	390.8	391.0
25°	377.7	378.8	380.0	380.6	380.7	380.8	380.9	381.0
27.5°	366.5	367.6	368.7	369.3	369.4	369.5	369.6	369.8
30°	358.7	359.9	361.0	361.7	361.9	362.2	362.4	362.6
32.5°	350.7	352.1	353.4	354.2	354.4	354.6	354.8	355.0
35°	338.1	339.5	341.0	341.9	342.2	342.5	342.9	343.2
37.5°	324.9	326.3	327.8	328.8	329.1	329.4	329.8	330.1
40°	315.6	317.1	318.7	319.7	320.1	320.6	321.0	321.4
42.5°	306.4	308.2	309.9	311.0	311.3	311.6	312.0	312.3
45°	292.3	294.1	295.9	297.0	297.6	298.1	298.6	299.1
47.5°	277.4	279.2	281.1	282.3	283.0	283.6	284.2	284.9
50°	266.9	269.0	271.1	272.5	273.1	273.7	274.4	275.0
52.5°	256.3	258.4	260.5	261.9	262.5	263.1	263.8	264.4
55°	240.4	242.5	244.6	246.0	246.6	247.2	247.9	248.5
57.5°	223.7	226.2	228.7	230.2	230.8	231.4	232.0	232.6
60°	212.2	214.6	217.0	218.6	219.5	220.3	221.2	222.0
62.5°	200.8	203.2	205.6	207.3	208.1	208.9	209.8	210.6
65°	183.2	185.9	188.5	190.2	191.1	191.9	192.8	193.6
67.5°	166.0	168.7	171.3	173.1	173.9	174.7	175.5	176.4
70°	153.8	156.7	159.5	161.3	162.0	162.8	163.5	164.2
72.5°	142.3	145.1	147.8	149.6	150.4	151.2	152.1	152.9
75°	124.7	127.6	130.6	132.5	133.5	134.4	135.4	136.3
77.5°	108.3	111.3	114.3	116.3	117.3	118.3	119.3	120.3
80°	97.7	100.8	104.0	106.0	106.8	107.7	108.5	109.3
82.5°	87.2	90.5	93.7	95.8	96.7	97.6	98.6	99.5
85°	72.6	75.7	78.9	81.0	82.0	83.1	84.1	85.2
87.5°	65.9	69.2	72.6	74.8	75.8	76.9	77.9	78.9
90°	81.6	86.2	90.8	93.8	95.2	96.5	97.9	99.2
92.5°	78.3	82.8	87.3	90.0	91.0	91.9	92.8	93.8
95°	75.5	79.9	84.3	87.1	88.3	89.5	90.7	91.9
97.5°	74.7	77.7	80.6	82.6	83.8	84.9	86.1	87.3
100°	84.0	82.5	80.9	80.6	81.6	82.6	83.6	84.6
102.5°	191.2	146.6	102.0	80.1	81.0	81.9	82.8	83.6
105°	403.7	408.6	413.6	411.8	403.4	394.9	386.5	378.0
107.5°	487.9	491.7	495.4	498.1	499.9	501.6	503.3	505.1
110°	545.3	548.2	551.1	553.4	555.0	556.7	558.3	559.9



TEST NUMBER: P332529

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	600.5	602.8	605.0	607.0	608.8	610.7	612.5	614.3
115°	683.2	686.1	688.9	690.7	691.4	692.2	692.9	693.6
117.5°	766.3	768.4	770.5	771.9	772.6	773.4	774.1	774.8
120°	817.5	820.1	822.8	824.2	824.6	824.9	825.2	825.5
122.5°	868.2	870.6	873.0	874.4	874.6	874.8	875.1	875.3
125°	939.1	941.8	944.6	946.4	947.3	948.2	949.1	950.0
127.5°	1009.0	1010.7	1012.5	1013.6	1014.1	1014.6	1015.1	1015.6
130°	1051.6	1053.8	1055.9	1057.3	1057.9	1058.6	1059.2	1059.8
132.5°	1093.6	1095.7	1097.8	1099.0	1099.4	1099.8	1100.3	1100.7
135°	1150.9	1153.1	1155.3	1156.9	1158.1	1159.2	1160.4	1161.5
137.5°	1206.1	1208.2	1210.3	1211.6	1211.9	1212.3	1212.7	1213.1
140°	1240.4	1242.5	1244.7	1246.1	1246.9	1247.7	1248.5	1249.3
142.5°	1272.3	1274.1	1275.9	1277.0	1277.5	1278.0	1278.5	1279.0
145°	1318.3	1319.2	1320.1	1321.0	1321.9	1322.8	1323.8	1324.7
147.5°	1358.7	1359.0	1359.3	1359.7	1360.3	1360.9	1361.5	1362.1
150°	1385.0	1385.0	1385.0	1385.2	1385.4	1385.7	1386.0	1386.2
152.5°	1408.2	1408.6	1409.0	1409.1	1409.0	1408.8	1408.7	1408.5
155°	1439.4	1440.4	1441.5	1441.6	1440.8	1440.0	1439.3	1438.5
157.5°	1466.3	1467.6	1469.0	1469.0	1467.6	1466.3	1464.9	1463.6
160°	1483.4	1485.0	1486.5	1486.5	1485.0	1483.4	1481.9	1480.3
162.5°	1497.4	1498.9	1500.5	1500.4	1498.6	1496.9	1495.1	1493.3
165°	1517.0	1519.1	1521.1	1521.0	1518.7	1516.3	1514.0	1511.7
167.5°	1531.4	1533.6	1535.9	1535.7	1533.2	1530.6	1528.0	1525.4
170°	1540.2	1542.3	1544.4	1544.1	1541.5	1538.9	1536.4	1533.8
172.5°	1545.8	1547.9	1549.9	1549.6	1546.8	1544.0	1541.2	1538.4
175°	1552.4	1554.7	1557.0	1556.6	1553.5	1550.4	1547.3	1544.2
177.5°	1555.0	1556.6	1558.3	1557.9	1555.4	1552.9	1550.4	1548.0
180°	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5

(END OF REPORT)