

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: P332565-840

Luminaire Tested: **SA4XXDIP-C575D1035U840-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332565-840
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-C575D1035U840-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6565.3 lumens
Efficiency: N/A
Efficacy: 147.5 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

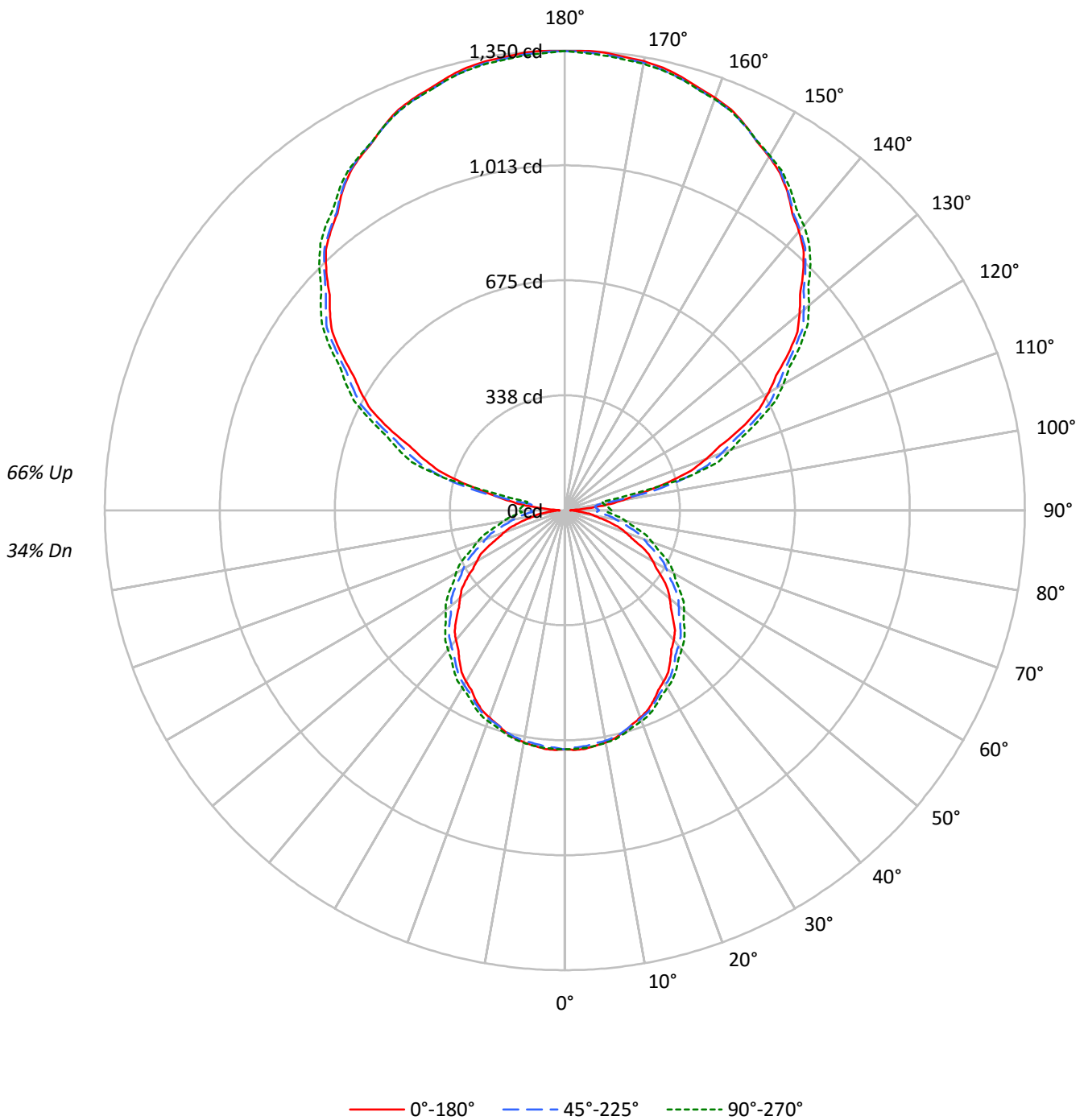
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34				
1	93	89	85	81	84	80	77	74	64	62	59	49	47	46	35	34	33	27				
2	85	77	71	66	76	70	64	60	56	52	49	43	40	38	31	29	28	22				
3	77	68	60	54	69	61	55	50	49	44	40	37	34	32	27	25	23	18				
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	22	20	16				
5	64	53	45	39	58	48	41	36	38	33	29	30	26	23	21	19	17	13				
6	59	47	39	33	53	43	36	31	34	29	25	27	23	20	19	17	15	12				
7	55	42	35	29	49	39	32	27	31	26	22	24	20	18	18	15	13	10				
8	51	38	31	25	45	35	28	23	28	23	19	22	18	16	16	14	12	9				
9	47	35	28	23	42	32	25	21	26	21	17	20	16	14	15	12	10	8				
10	44	32	25	20	39	29	23	18	24	19	15	19	15	12	14	11	9	7				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5666	5666	5666
5°	5683	5537	5552
10°	5649	5446	5442
15°	5598	5341	5312
20°	5521	5226	5185
25°	5435	5096	5047
30°	5342	4967	4904
35°	5237	4834	4779
40°	5153	4710	4648
45°	5027	4594	4537
50°	4920	4460	4418
55°	4811	4333	4278
60°	4641	4173	4153
65°	4454	4001	3997
70°	4226	3805	3816
75°	3910	3587	3652
80°	3559	3381	3492
85°	3112	3195	3398



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	1.0
10°-20°	190.4	2.9
20°-30°	287.9	4.4
30°-40°	348.3	5.3
40°-50°	368.3	5.6
50°-60°	346.6	5.3
60°-70°	287.5	4.4
70°-80°	202.0	3.1
80°-90°	118.1	1.8
90°-100°	113.9	1.7
100°-110°	344.1	5.2
110°-120°	596.0	9.1
120°-130°	732.8	11.2
130°-140°	771.9	11.8
140°-150°	715.8	10.9
150°-160°	575.9	8.8
160°-170°	371.4	5.7
170°-180°	128.0	1.9
0°-30°	544.7	8.3
0°-40°	893.1	13.6
0°-60°	1607.9	24.5
0°-90°	2215.5	33.7
90°-120°	1054.0	16.1
90°-150°	3274.5	49.9
90°-180°	4350.0	66.3
0°-180°	6565.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	703	700	695	700	700	67
15°	674	674	672	678	678	190
25°	616	621	623	631	633	284
35°	539	548	556	567	570	337
45°	450	464	479	492	497	347
55°	352	369	392	407	412	314
65°	244	269	296	314	321	241
75°	135	164	197	218	226	144
85°	42	75	110	133	142	44
90°	16	58	100	128	137	11
95°	66	60	91	117	126	79
105°	310	333	366	392	365	325
115°	571	582	606	624	630	562
125°	800	804	820	838	844	714
135°	990	989	998	1012	1019	762
145°	1140	1142	1142	1148	1153	712
155°	1249	1250	1247	1251	1248	576
165°	1318	1313	1312	1320	1312	372
175°	1348	1342	1343	1351	1340	128
180°	1348	1348	1348	1348	1348	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8
2.5°	704.3	703.9	703.5	703.0	702.6	701.9	700.7	699.6	698.4	697.3	698.3
5°	702.6	702.1	701.5	700.9	700.4	699.5	698.3	697.1	695.9	694.7	696.1
7.5°	696.6	696.2	695.9	695.6	695.3	694.7	693.7	692.7	691.6	690.5	692.2
10°	691.6	691.4	691.2	691.1	690.8	690.3	689.4	688.5	687.7	686.8	688.4
12.5°	684.6	684.6	684.6	684.5	684.5	684.2	683.6	683.0	682.4	681.8	683.2
15°	673.5	673.7	673.8	674.0	674.2	674.0	673.5	673.0	672.4	671.9	673.5
17.5°	658.2	658.7	659.2	659.7	660.4	660.6	660.5	660.4	660.2	660.1	661.7
20°	647.5	648.0	648.5	649.1	649.6	649.9	650.2	650.4	650.5	650.7	652.4
22.5°	635.6	636.2	636.9	637.5	638.2	638.7	639.0	639.3	639.6	640.0	641.8
25°	616.1	617.1	618.2	619.2	620.3	621.1	621.6	622.1	622.7	623.2	625.1
27.5°	594.4	595.9	597.4	599.1	600.6	601.7	602.5	603.3	604.1	604.9	606.7
30°	580.0	581.4	582.7	584.1	585.5	586.8	588.0	589.3	590.5	591.8	593.7
32.5°	564.2	565.9	567.5	569.3	571.0	572.5	573.8	575.2	576.5	577.9	580.1
35°	539.1	541.2	543.3	545.3	547.4	549.4	551.1	552.9	554.6	556.3	558.9
37.5°	513.8	516.1	518.6	521.0	523.4	525.7	527.9	530.1	532.2	534.3	536.8
40°	497.5	499.7	502.0	504.2	506.5	508.9	511.3	513.7	516.2	518.7	521.3
42.5°	478.6	481.1	483.6	486.3	488.8	491.5	494.3	497.2	500.1	502.9	505.8
45°	449.5	452.8	456.2	459.5	462.7	466.1	469.4	472.7	476.1	479.4	482.3
47.5°	421.7	425.1	428.5	431.9	435.4	439.0	442.8	446.7	450.5	454.3	457.5
50°	401.5	405.4	409.2	413.1	417.0	420.8	424.6	428.5	432.3	436.2	439.6
52.5°	381.4	385.3	389.1	392.9	396.8	400.9	405.4	409.7	414.1	418.5	422.0
55°	352.0	355.7	359.4	363.0	366.7	371.1	376.4	381.6	386.9	392.1	395.7
57.5°	319.2	323.8	328.3	332.9	337.4	342.2	347.4	352.6	357.9	363.0	367.2
60°	297.8	302.4	306.9	311.4	316.0	321.1	326.9	332.6	338.4	344.2	348.2
62.5°	277.1	282.1	287.0	292.0	296.9	302.3	308.0	313.8	319.6	325.4	329.3
65°	243.6	249.2	254.8	260.3	266.0	271.8	277.6	283.6	289.5	295.5	299.8
67.5°	211.4	217.3	223.3	229.2	235.1	241.3	247.6	254.0	260.3	266.7	271.1
70°	189.3	195.3	201.3	207.2	213.2	219.4	226.0	232.7	239.3	246.0	250.6
72.5°	168.0	174.1	180.2	186.2	192.3	198.8	205.9	213.0	220.0	227.1	231.7
75°	135.1	141.6	148.0	154.5	161.0	167.9	175.2	182.6	190.0	197.2	202.2
77.5°	104.5	111.4	118.3	125.0	131.9	139.2	146.8	154.5	162.2	169.9	174.8
80°	85.6	92.6	99.7	106.6	113.6	120.9	128.7	136.3	144.0	151.7	156.9
82.5°	66.8	74.0	81.3	88.6	95.8	103.3	111.0	118.7	126.3	134.1	139.5
85°	41.6	49.0	56.4	63.6	71.0	78.6	86.4	94.3	102.2	110.0	115.2
87.5°	23.8	31.5	39.1	46.8	54.3	62.1	70.2	78.2	86.1	94.2	99.5
90°	15.6	25.0	34.5	43.9	53.4	62.8	72.1	81.4	90.7	100.0	106.3
92.5°	24.6	31.1	37.5	43.9	50.3	58.2	67.5	76.7	86.1	95.4	101.7
95°	65.6	63.8	61.9	60.1	58.3	61.0	68.4	75.7	83.1	90.6	96.6
97.5°	127.0	136.7	146.4	156.1	165.8	161.8	143.8	125.9	108.1	90.1	94.8
100°	174.0	182.6	191.2	199.7	208.2	200.5	176.4	152.3	128.2	104.1	105.0
102.5°	227.2	234.2	241.1	248.0	255.0	259.7	262.4	265.0	267.6	270.3	233.8
105°	310.5	315.4	320.2	325.1	329.8	336.1	343.7	351.2	358.8	366.4	372.7
107.5°	389.2	392.7	396.3	399.8	403.3	408.9	416.6	424.2	431.8	439.5	444.7
110°	441.8	444.9	448.1	451.1	454.2	459.6	467.0	474.4	481.9	489.4	493.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	492.8	496.1	499.6	502.9	506.2	511.2	517.7	524.1	530.6	537.0	540.8
115°	571.3	573.5	575.7	578.0	580.3	584.1	589.5	594.8	600.2	605.5	609.8
117.5°	642.7	644.5	646.4	648.2	650.1	653.8	659.5	665.2	671.0	676.6	680.1
120°	690.4	691.9	693.3	694.7	696.1	699.2	704.1	708.9	713.8	718.6	722.6
122.5°	735.6	736.3	736.9	737.5	738.2	741.0	746.2	751.2	756.4	761.4	765.2
125°	799.5	800.3	801.0	801.7	802.4	804.8	808.7	812.6	816.5	820.4	824.5
127.5°	860.7	860.7	860.8	860.8	860.9	863.1	867.5	871.9	876.3	880.6	883.6
130°	899.6	899.6	899.7	899.7	899.8	901.5	905.0	908.5	911.9	915.4	918.8
132.5°	935.8	936.1	936.3	936.5	936.8	938.5	941.5	944.6	947.7	950.8	954.0
135°	989.6	989.3	989.1	988.9	988.7	989.6	991.7	993.8	995.9	998.0	1001.3
137.5°	1037.7	1037.6	1037.5	1037.4	1037.3	1038.1	1039.7	1041.3	1042.9	1044.4	1047.4
140°	1069.1	1069.4	1069.8	1070.0	1070.3	1070.8	1071.4	1072.0	1072.6	1073.2	1076.1
142.5°	1096.8	1097.5	1098.3	1099.0	1099.8	1100.3	1100.4	1100.7	1100.9	1101.0	1103.5
145°	1139.9	1140.4	1140.9	1141.5	1142.0	1142.2	1142.2	1142.2	1142.2	1142.2	1143.5
147.5°	1174.5	1175.5	1176.6	1177.7	1178.7	1179.2	1178.9	1178.7	1178.5	1178.3	1178.6
150°	1199.4	1200.1	1200.8	1201.6	1202.3	1202.5	1202.3	1202.1	1201.9	1201.6	1201.6
152.5°	1219.8	1220.4	1221.1	1221.8	1222.5	1222.6	1222.2	1221.8	1221.4	1221.0	1221.4
155°	1249.1	1249.3	1249.5	1249.7	1249.9	1249.7	1249.1	1248.4	1247.7	1247.1	1247.9
157.5°	1273.8	1273.7	1273.5	1273.4	1273.3	1272.8	1272.1	1271.3	1270.6	1269.8	1271.0
160°	1288.4	1287.7	1287.1	1286.4	1285.7	1285.3	1285.1	1284.8	1284.5	1284.3	1285.7
162.5°	1301.3	1300.4	1299.6	1298.7	1297.9	1297.4	1297.1	1296.9	1296.7	1296.5	1297.8
165°	1317.6	1316.5	1315.3	1314.2	1313.1	1312.5	1312.5	1312.5	1312.5	1312.5	1314.3
167.5°	1330.5	1329.4	1328.2	1327.1	1325.9	1325.2	1325.0	1324.9	1324.8	1324.6	1326.7
170°	1337.8	1336.5	1335.0	1333.7	1332.4	1331.8	1332.0	1332.3	1332.5	1332.7	1334.5
172.5°	1342.6	1341.3	1339.9	1338.6	1337.3	1336.7	1336.9	1337.2	1337.4	1337.6	1339.4
175°	1347.9	1346.6	1345.1	1343.8	1342.5	1341.9	1342.1	1342.4	1342.6	1342.8	1344.8
177.5°	1350.3	1349.0	1347.8	1346.6	1345.2	1344.8	1345.1	1345.5	1345.8	1346.3	1347.7
180°	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8
2.5°	699.3	700.2	701.3	701.7	701.6	701.4	701.3	701.1
5°	697.5	698.8	700.2	700.8	700.7	700.5	700.3	700.1
7.5°	693.8	695.3	696.9	697.6	697.4	697.2	697.0	696.9
10°	689.9	691.6	693.1	693.8	693.7	693.5	693.3	693.1
12.5°	684.7	686.1	687.5	688.2	688.2	688.1	688.1	688.1
15°	675.0	676.6	678.1	678.8	678.7	678.5	678.3	678.1
17.5°	663.3	664.9	666.5	667.2	667.1	667.0	666.8	666.7
20°	654.2	655.9	657.6	658.5	658.5	658.5	658.5	658.5
22.5°	643.5	645.2	646.9	648.0	648.2	648.5	648.8	649.1
25°	627.0	628.9	630.9	631.9	632.1	632.3	632.4	632.6
27.5°	608.5	610.3	612.1	613.1	613.3	613.5	613.7	613.9
30°	595.6	597.5	599.5	600.6	600.9	601.3	601.6	602.0
32.5°	582.3	584.5	586.7	587.9	588.3	588.7	589.1	589.4
35°	561.3	563.7	566.1	567.6	568.2	568.7	569.2	569.8
37.5°	539.4	541.8	544.3	545.8	546.3	546.9	547.4	548.1
40°	523.9	526.5	529.2	530.8	531.5	532.2	532.9	533.6
42.5°	508.8	511.6	514.5	516.2	516.8	517.4	518.0	518.5
45°	485.3	488.3	491.2	493.1	494.0	494.9	495.7	496.7
47.5°	460.5	463.6	466.7	468.7	469.8	470.8	471.9	472.9
50°	443.1	446.7	450.1	452.4	453.4	454.4	455.6	456.6
52.5°	425.6	429.0	432.5	434.7	435.9	436.9	437.9	439.0
55°	399.1	402.6	406.1	408.4	409.4	410.5	411.5	412.5
57.5°	371.3	375.6	379.7	382.2	383.2	384.2	385.2	386.2
60°	352.2	356.3	360.2	362.9	364.4	365.8	367.2	368.6
62.5°	333.4	337.4	341.4	344.1	345.5	346.9	348.3	349.7
65°	304.2	308.6	313.0	315.8	317.2	318.6	320.0	321.4
67.5°	275.6	280.0	284.5	287.3	288.7	290.0	291.4	292.8
70°	255.4	260.1	264.8	267.8	269.0	270.2	271.5	272.7
72.5°	236.2	240.9	245.4	248.3	249.7	251.1	252.5	253.8
75°	207.0	211.9	216.8	220.0	221.6	223.2	224.8	226.3
77.5°	179.9	184.8	189.8	193.1	194.7	196.4	198.0	199.8
80°	162.2	167.3	172.6	175.9	177.3	178.7	180.2	181.6
82.5°	144.8	150.2	155.6	159.1	160.6	162.1	163.6	165.2
85°	120.5	125.7	131.0	134.5	136.2	137.9	139.7	141.5
87.5°	104.8	110.2	115.5	119.0	120.6	122.2	123.9	125.5
90°	112.8	119.2	125.6	129.8	131.6	133.4	135.3	137.1
92.5°	108.0	114.2	120.5	124.3	125.8	127.3	128.9	130.3
95°	102.7	108.8	114.8	118.8	120.5	122.3	124.1	125.9
97.5°	99.6	104.2	109.0	112.2	113.9	115.6	117.3	119.1
100°	105.9	106.8	107.8	108.9	110.4	111.8	113.2	114.6
102.5°	197.3	160.8	124.2	106.7	108.2	109.5	110.9	112.3
105°	379.2	385.6	391.9	391.8	385.2	378.5	371.7	365.1
107.5°	450.0	455.3	460.6	464.3	466.4	468.5	470.6	472.7
110°	498.3	502.8	507.3	510.5	512.6	514.6	516.7	518.8



TEST NUMBER: P332565-840

CATALOG NUMBER: SA4XXDIP-C575D1035U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	544.6	548.4	552.2	555.2	557.4	559.7	562.0	564.2
115°	614.1	618.3	622.7	625.4	626.6	627.8	629.1	630.4
117.5°	683.7	687.2	690.7	693.2	694.5	695.8	697.1	698.4
120°	726.5	730.4	734.4	736.8	737.8	738.7	739.7	740.6
122.5°	769.0	772.7	776.5	778.8	779.6	780.4	781.2	782.0
125°	828.4	832.4	836.4	839.0	840.3	841.5	842.8	844.1
127.5°	886.7	889.7	892.7	894.6	895.6	896.7	897.7	898.7
130°	922.1	925.5	928.9	931.1	932.1	933.2	934.2	935.2
132.5°	957.3	960.5	963.7	965.7	966.6	967.5	968.4	969.3
135°	1004.5	1007.7	1011.0	1013.4	1014.9	1016.4	1017.8	1019.4
137.5°	1050.6	1053.6	1056.6	1058.5	1059.2	1060.0	1060.8	1061.5
140°	1079.0	1082.1	1085.0	1087.0	1088.1	1089.1	1090.3	1091.4
142.5°	1105.9	1108.4	1111.0	1112.6	1113.3	1114.1	1114.9	1115.7
145°	1144.8	1146.0	1147.3	1148.5	1149.6	1150.7	1152.0	1153.1
147.5°	1178.9	1179.2	1179.5	1180.1	1180.9	1181.6	1182.5	1183.3
150°	1201.6	1201.6	1201.6	1201.7	1202.0	1202.2	1202.4	1202.6
152.5°	1221.7	1222.1	1222.4	1222.5	1222.4	1222.3	1222.1	1222.0
155°	1248.8	1249.7	1250.6	1250.7	1250.1	1249.4	1248.7	1248.1
157.5°	1272.1	1273.3	1274.4	1274.4	1273.3	1272.1	1271.0	1269.8
160°	1287.1	1288.4	1289.7	1289.7	1288.4	1287.1	1285.7	1284.3
162.5°	1299.1	1300.5	1301.8	1301.7	1300.2	1298.7	1297.2	1295.7
165°	1316.2	1318.0	1319.7	1319.6	1317.6	1315.6	1313.5	1311.5
167.5°	1328.6	1330.6	1332.5	1332.4	1330.2	1328.0	1325.6	1323.4
170°	1336.4	1338.1	1339.9	1339.7	1337.5	1335.2	1332.9	1330.7
172.5°	1341.2	1342.9	1344.7	1344.4	1342.0	1339.6	1337.2	1334.7
175°	1346.9	1348.9	1350.9	1350.5	1347.9	1345.1	1342.5	1339.8
177.5°	1349.1	1350.5	1352.0	1351.6	1349.5	1347.4	1345.1	1343.0
180°	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9

(END OF REPORT)