

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: P331361-840

Luminaire Tested: **SA2XXDIP-C675D925U840-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

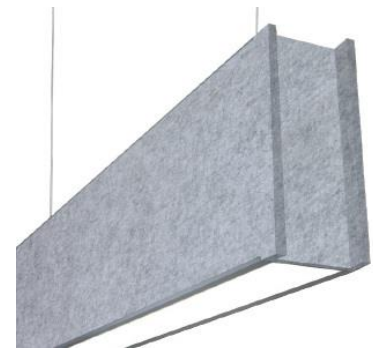
Test Information

Test Method: LM-79-08
Report Number: P331361-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C675D925U840-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6057.9 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

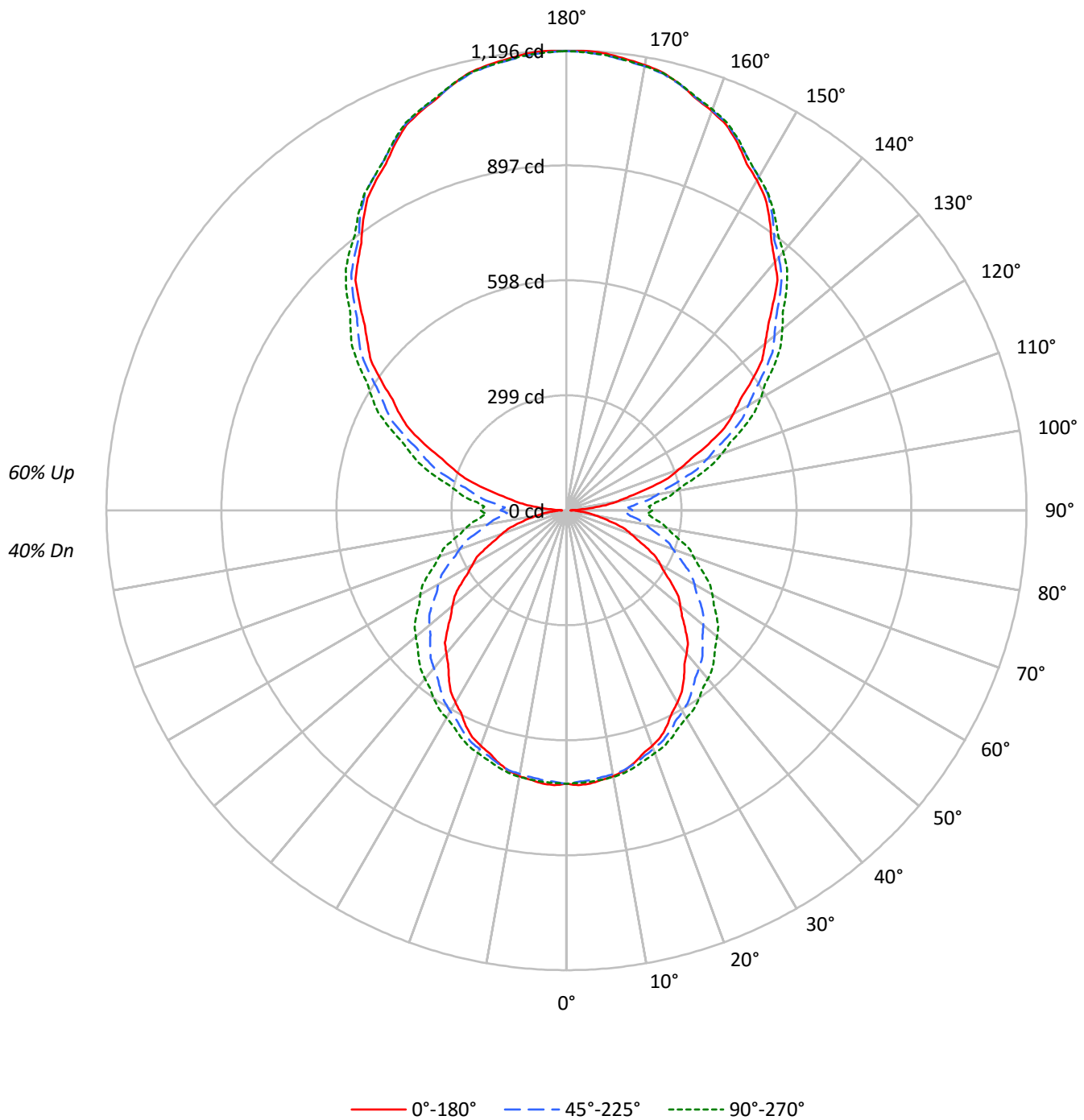
Input Watts (W): 52
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47
1	94	90	85	81	85	81	78	74	66	64	61	52	50	49	39	38	37
2	85	77	71	65	77	70	65	60	57	53	50	45	42	40	34	32	30
3	78	68	60	54	70	62	55	50	50	45	41	40	36	33	30	27	25
4	71	60	51	45	64	54	47	42	44	39	35	35	31	28	26	24	21
5	65	53	45	38	58	48	41	35	39	34	30	31	27	24	24	21	18
6	59	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16
7	55	42	34	29	50	39	32	27	32	26	22	25	21	18	19	16	14
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13
9	47	35	27	22	43	32	25	21	26	21	18	21	17	14	16	13	11
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11485	11485	11485
5°	11541	11055	11013
10°	11469	10729	10608
15°	11310	10384	10181
20°	11112	10013	9772
25°	10913	9655	9399
30°	10635	9288	9023
35°	10355	8933	8760
40°	10057	8630	8496
45°	9777	8361	8270
50°	9476	8116	8048
55°	9160	7855	7822
60°	8770	7583	7583
65°	8367	7262	7299
70°	7917	6920	6990
75°	7339	6581	6708
80°	6436	6238	6424
85°	5566	5939	6199

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	1.1
10°-20°	193.3	3.2
20°-30°	292.9	4.8
30°-40°	356.7	5.9
40°-50°	383.8	6.3
50°-60°	372.7	6.2
60°-70°	325.4	5.4
70°-80°	250.5	4.1
80°-90°	172.9	2.9
90°-100°	191.5	3.2
100°-110°	319.6	5.3
110°-120°	457.6	7.6
120°-130°	559.5	9.2
130°-140°	606.0	10.0
140°-150°	583.7	9.6
150°-160°	487.7	8.1
160°-170°	323.5	5.3
170°-180°	113.0	1.9
0°-30°	553.6	9.1
0°-40°	910.3	15.0
0°-60°	1666.8	27.5
0°-90°	2415.7	39.9
90°-120°	968.8	16.0
90°-150°	2718.0	44.9
90°-180°	3642.0	60.1
0°-180°	6057.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	713	710	704	710	709	68
15°	680	682	682	691	691	192
25°	618	626	635	647	651	284
35°	533	551	570	592	600	333
45°	437	465	501	532	543	337
55°	335	373	426	462	476	299
65°	229	280	340	381	396	227
75°	127	185	250	293	308	134
85°	37	101	167	209	225	40
90°	11	84	171	209	224	10
95°	61	119	183	221	233	67
105°	222	256	310	347	360	235
115°	407	426	469	498	507	402
125°	588	599	628	652	661	526
135°	760	771	783	803	809	587
145°	921	928	934	941	942	575
155°	1053	1056	1059	1064	1061	485
165°	1146	1145	1145	1151	1147	323
175°	1192	1189	1187	1194	1188	113
180°	1194	1194	1194	1194	1194	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	711.3	711.3	711.3	711.3	711.3	711.3	711.3	711.3	711.3	711.3	711.3
2.5°	715.5	714.9	714.4	713.8	713.3	712.4	711.0	709.7	708.5	707.2	708.1
5°	713.4	712.7	712.1	711.3	710.6	709.6	708.2	706.9	705.5	704.1	705.5
7.5°	707.0	706.5	706.1	705.6	705.2	704.4	703.4	702.3	701.3	700.2	701.9
10°	702.1	701.6	701.1	700.6	700.2	699.6	698.9	698.3	697.6	696.9	698.7
12.5°	693.8	693.9	694.0	694.1	694.2	694.0	693.5	693.0	692.5	692.0	693.8
15°	680.4	680.9	681.4	681.8	682.3	682.5	682.5	682.5	682.5	682.5	684.5
17.5°	663.1	664.1	665.0	666.0	666.9	667.8	668.5	669.2	669.9	670.8	672.9
20°	651.6	652.7	653.8	655.0	656.1	657.1	658.0	659.0	659.9	660.9	663.4
22.5°	639.1	640.5	641.9	643.2	644.5	645.8	647.1	648.3	649.6	651.0	653.5
25°	618.5	620.2	621.8	623.4	625.0	626.8	628.8	631.0	633.0	635.0	637.8
27.5°	593.8	596.4	599.1	601.7	604.3	606.8	609.3	611.7	614.1	616.5	620.0
30°	577.3	580.3	583.3	586.2	589.3	592.2	595.2	598.1	601.2	604.1	607.7
32.5°	559.2	562.5	565.8	569.2	572.6	576.0	579.6	583.0	586.5	590.1	594.3
35°	533.0	536.8	540.8	544.6	548.6	552.7	557.0	561.4	565.7	570.1	575.1
37.5°	504.5	509.1	513.5	518.0	522.5	527.6	533.2	538.9	544.4	550.1	555.7
40°	485.5	490.6	495.6	500.7	505.7	511.3	517.6	523.7	529.9	536.0	542.0
42.5°	467.5	472.4	477.5	482.5	487.6	493.6	500.8	507.9	514.9	522.1	528.6
45°	437.1	443.3	449.5	455.7	461.8	469.0	477.0	485.0	493.0	501.0	508.2
47.5°	407.2	413.9	420.7	427.4	434.1	442.2	451.6	461.0	470.4	479.8	487.3
50°	386.6	393.7	400.8	407.9	415.0	423.7	434.0	444.3	454.6	464.9	472.7
52.5°	366.8	374.3	381.7	389.2	396.7	405.9	416.7	427.6	438.4	449.3	457.3
55°	335.1	343.3	351.5	359.8	368.0	378.1	390.0	401.9	413.8	425.8	434.0
57.5°	303.7	313.1	322.3	331.6	340.9	351.6	363.8	375.9	388.1	400.2	409.1
60°	281.4	291.2	301.1	311.0	320.8	332.3	345.4	358.4	371.4	384.6	393.2
62.5°	261.7	271.9	282.1	292.3	302.6	314.2	327.2	340.2	353.4	366.4	375.7
65°	228.8	240.0	251.4	262.6	273.8	286.1	299.6	313.2	326.7	340.2	349.6
67.5°	198.7	210.5	222.3	234.0	245.7	258.4	272.3	286.1	299.9	313.8	323.3
70°	177.3	189.2	201.2	213.1	225.0	238.0	252.3	266.4	280.6	294.9	304.7
72.5°	157.5	169.8	182.1	194.4	206.6	219.9	234.4	248.7	263.2	277.5	287.2
75°	126.8	139.7	152.5	165.3	178.1	191.9	206.5	221.2	235.8	250.5	260.3
77.5°	97.1	110.6	124.0	137.3	150.8	165.0	179.9	194.8	209.6	224.5	234.4
80°	77.4	91.3	105.2	119.3	133.2	147.6	162.6	177.4	192.3	207.2	216.8
82.5°	60.8	74.6	88.4	102.2	116.0	130.4	145.5	160.6	175.6	190.8	200.4
85°	37.2	51.3	65.5	79.7	93.9	108.4	123.0	137.6	152.4	167.0	176.6
87.5°	20.4	34.6	48.8	63.0	77.2	92.1	107.8	123.4	139.1	154.7	163.9
90°	11.3	27.3	43.2	59.3	75.2	93.0	112.6	132.2	151.8	171.4	180.1
92.5°	27.5	41.8	56.1	70.5	84.8	99.6	114.9	130.2	145.4	160.7	169.8
95°	60.7	73.6	86.6	99.7	112.7	126.2	140.5	154.7	168.8	183.1	191.8
97.5°	103.0	114.5	126.0	137.6	149.2	162.0	176.0	190.1	204.1	218.1	226.6
100°	135.2	145.5	155.7	166.0	176.3	188.1	201.7	215.2	228.6	242.2	250.6
102.5°	168.2	177.4	186.6	195.8	204.9	216.2	229.5	242.9	256.1	269.4	277.9
105°	221.9	229.1	236.5	243.8	251.1	260.9	273.3	285.7	298.0	310.3	318.8
107.5°	276.8	283.2	289.4	295.8	302.1	310.9	322.3	333.8	345.2	356.6	364.5
110°	311.5	317.4	323.4	329.3	335.2	343.8	355.0	366.3	377.5	388.7	396.0

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	350.2	355.4	360.6	365.8	370.9	378.8	389.3	399.8	410.3	420.8	427.6
115°	407.3	411.1	415.0	418.8	422.7	429.6	439.4	449.3	459.2	469.0	475.6
117.5°	463.0	466.5	469.9	473.4	476.9	482.7	491.0	499.3	507.5	515.7	522.0
120°	501.0	503.6	506.3	509.1	511.8	516.8	524.2	531.6	539.0	546.3	552.7
122.5°	535.6	538.2	540.7	543.2	545.6	550.6	558.0	565.3	572.7	580.1	585.7
125°	588.5	590.6	592.6	594.6	596.6	601.0	607.6	614.3	621.0	627.6	633.2
127.5°	641.2	643.5	645.8	648.1	650.5	654.2	659.3	664.4	669.5	674.6	679.5
130°	674.3	676.9	679.6	682.3	685.0	688.5	692.9	697.2	701.7	706.0	711.0
132.5°	711.3	713.5	715.6	717.8	719.9	722.9	726.7	730.5	734.3	738.1	742.5
135°	759.9	762.3	764.9	767.3	769.7	772.3	775.1	777.8	780.5	783.4	787.9
137.5°	812.1	814.1	816.1	818.0	820.0	821.7	823.3	825.0	826.6	828.1	832.1
140°	843.5	845.4	847.1	848.9	850.7	852.4	853.9	855.6	857.1	858.7	862.3
142.5°	875.8	877.6	879.4	881.2	882.9	884.2	885.1	886.0	886.9	887.7	890.8
145°	921.1	922.7	924.2	925.8	927.4	928.9	930.2	931.5	932.9	934.2	935.8
147.5°	962.4	964.3	966.2	968.1	970.0	971.4	972.3	973.1	974.0	974.9	975.6
150°	990.7	992.0	993.3	994.7	996.0	997.1	998.0	999.0	999.9	1000.8	1001.4
152.5°	1015.6	1017.0	1018.3	1019.7	1021.1	1022.3	1023.3	1024.4	1025.4	1026.5	1027.4
155°	1053.2	1053.8	1054.5	1055.2	1055.8	1056.5	1057.2	1057.8	1058.5	1059.1	1060.4
157.5°	1085.2	1085.6	1086.1	1086.5	1087.0	1087.4	1087.8	1088.2	1088.6	1089.0	1090.6
160°	1104.6	1105.0	1105.4	1105.9	1106.3	1106.7	1106.9	1107.1	1107.3	1107.5	1108.9
162.5°	1122.3	1122.4	1122.5	1122.6	1122.7	1122.8	1123.1	1123.3	1123.5	1123.7	1125.2
165°	1145.9	1145.7	1145.4	1145.2	1145.0	1144.9	1144.9	1144.9	1144.9	1144.9	1146.4
167.5°	1165.6	1165.0	1164.3	1163.6	1163.0	1162.6	1162.6	1162.5	1162.5	1162.4	1164.0
170°	1176.1	1175.4	1174.8	1174.1	1173.4	1173.0	1172.8	1172.6	1172.3	1172.0	1173.7
172.5°	1183.4	1182.7	1182.0	1181.3	1180.6	1180.2	1180.0	1179.7	1179.5	1179.3	1180.9
175°	1192.2	1191.5	1190.8	1190.2	1189.5	1189.0	1188.5	1188.1	1187.6	1187.2	1188.7
177.5°	1195.9	1195.3	1194.8	1194.3	1193.7	1193.3	1192.9	1192.5	1192.1	1191.8	1192.9
180°	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	711.3	711.3	711.3	711.3	711.3	711.3	711.3	711.3
2.5°	709.0	709.9	710.8	711.1	710.7	710.4	710.0	709.7
5°	706.9	708.2	709.6	710.2	709.9	709.7	709.5	709.2
7.5°	703.5	705.2	706.8	707.5	707.3	707.0	706.8	706.6
10°	700.5	702.4	704.3	705.0	704.8	704.6	704.4	704.1
12.5°	695.6	697.4	699.3	700.0	699.8	699.6	699.4	699.1
15°	686.6	688.6	690.7	691.7	691.5	691.2	690.9	690.7
17.5°	675.0	677.2	679.3	680.4	680.4	680.4	680.4	680.4
20°	665.9	668.4	670.9	672.2	672.2	672.2	672.2	672.2
22.5°	656.0	658.5	661.0	662.5	662.8	663.2	663.6	663.9
25°	640.6	643.3	646.0	647.7	648.4	649.1	649.8	650.6
27.5°	623.5	626.9	630.5	632.4	632.9	633.4	633.9	634.4
30°	611.5	615.1	618.7	621.0	621.7	622.4	623.0	623.7
32.5°	598.5	602.8	606.9	609.7	611.0	612.2	613.4	614.6
35°	580.2	585.2	590.3	593.6	595.2	596.8	598.3	600.0
37.5°	561.3	566.8	572.5	576.1	577.8	579.5	581.2	582.9
40°	548.0	553.9	559.9	563.9	565.9	568.0	570.1	572.2
42.5°	535.0	541.6	548.1	552.4	554.4	556.5	558.6	560.6
45°	515.2	522.3	529.5	534.1	536.4	538.8	541.0	543.3
47.5°	494.6	502.1	509.5	514.4	516.9	519.5	522.0	524.5
50°	480.5	488.3	496.1	501.3	503.8	506.3	508.8	511.3
52.5°	465.2	473.2	481.2	486.6	489.2	491.9	494.6	497.4
55°	442.2	450.5	458.8	464.3	467.4	470.3	473.3	476.3
57.5°	418.0	426.9	435.8	441.7	444.7	447.8	450.8	453.8
60°	401.9	410.6	419.4	425.4	428.5	431.7	434.9	438.2
62.5°	384.9	394.2	403.4	409.6	412.5	415.6	418.6	421.6
65°	359.0	368.4	377.8	384.0	387.0	389.9	392.9	395.9
67.5°	332.8	342.2	351.7	358.1	361.1	364.3	367.4	370.5
70°	314.6	324.4	334.3	340.5	343.3	346.1	348.8	351.5
72.5°	296.9	306.5	316.2	322.7	326.0	329.3	332.5	335.9
75°	270.2	280.0	289.9	296.3	299.3	302.3	305.3	308.2
77.5°	244.2	254.0	263.8	270.2	273.5	276.7	279.8	283.1
80°	226.4	236.1	245.7	252.2	255.3	258.5	261.8	265.0
82.5°	210.0	219.5	229.2	235.5	238.5	241.6	244.6	247.6
85°	186.2	195.9	205.5	211.9	215.1	218.3	221.6	224.7
87.5°	173.2	182.5	191.7	197.8	200.8	203.8	206.7	209.7
90°	188.7	197.5	206.2	212.1	215.0	218.0	221.0	224.0
92.5°	178.8	187.9	197.0	202.9	205.7	208.5	211.3	214.1
95°	200.5	209.1	217.8	223.4	225.7	228.0	230.2	232.6
97.5°	235.1	243.6	252.1	257.6	260.2	263.0	265.6	268.2
100°	259.1	267.6	276.1	281.4	283.8	286.1	288.3	290.6
102.5°	286.4	294.9	303.4	308.7	311.0	313.4	315.6	317.9
105°	327.3	335.8	344.3	349.7	352.2	354.8	357.3	359.8
107.5°	372.3	380.2	388.1	392.7	394.3	395.7	397.2	398.7
110°	403.3	410.7	418.0	422.6	424.4	426.3	428.2	430.0

TEST NUMBER: P331361-840

CATALOG NUMBER: SA2XXDIP-C675D925U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	434.3	441.2	448.0	452.4	454.4	456.5	458.5	460.5
115°	482.3	489.0	495.6	499.9	501.7	503.5	505.4	507.3
117.5°	528.3	534.5	540.8	544.7	546.3	548.1	549.7	551.4
120°	559.2	565.5	572.0	576.1	577.9	579.8	581.7	583.5
122.5°	591.5	597.1	602.8	606.5	608.1	609.9	611.5	613.2
125°	638.6	644.2	649.6	653.4	655.2	657.0	658.8	660.8
127.5°	684.4	689.2	694.2	697.2	698.5	699.8	701.1	702.5
130°	716.1	721.1	726.2	729.1	730.1	731.0	732.0	732.9
132.5°	746.8	751.1	755.4	758.1	759.2	760.4	761.5	762.7
135°	792.4	797.1	801.6	804.6	805.7	806.9	808.0	809.2
137.5°	836.2	840.2	844.2	846.6	847.3	848.0	848.6	849.3
140°	866.1	869.7	873.3	875.5	875.9	876.4	876.9	877.4
142.5°	893.9	897.0	900.1	901.8	902.1	902.4	902.7	903.0
145°	937.5	939.1	940.6	941.5	941.8	942.0	942.3	942.5
147.5°	976.3	976.9	977.7	977.9	977.5	977.2	976.9	976.6
150°	1002.1	1002.8	1003.4	1003.4	1002.8	1002.1	1001.4	1000.8
152.5°	1028.2	1029.1	1030.0	1030.0	1029.1	1028.2	1027.4	1026.5
155°	1061.5	1062.6	1063.7	1063.9	1063.2	1062.6	1061.9	1061.2
157.5°	1092.1	1093.6	1095.1	1095.3	1094.3	1093.2	1092.1	1091.1
160°	1110.2	1111.6	1113.0	1113.2	1112.3	1111.4	1110.4	1109.5
162.5°	1126.7	1128.2	1129.7	1130.0	1128.9	1127.8	1126.8	1125.7
165°	1148.0	1149.5	1151.1	1151.3	1150.2	1149.1	1148.0	1146.9
167.5°	1165.5	1167.1	1168.6	1168.8	1167.7	1166.5	1165.4	1164.2
170°	1175.2	1176.8	1178.3	1178.4	1177.1	1175.8	1174.4	1173.1
172.5°	1182.5	1184.1	1185.6	1185.7	1184.4	1183.1	1181.6	1180.3
175°	1190.3	1191.8	1193.5	1193.6	1192.2	1190.8	1189.5	1188.2
177.5°	1194.0	1195.1	1196.1	1196.1	1195.1	1194.0	1192.9	1191.8
180°	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3

(END OF REPORT)