

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: P331361-930

Luminaire Tested: **SA2XXDIP-C675D925U930-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331361-930
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-C675D925U930-4F0-1E-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: 4890.7 lumens
Efficiency: N/A
Efficacy: 94.1 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

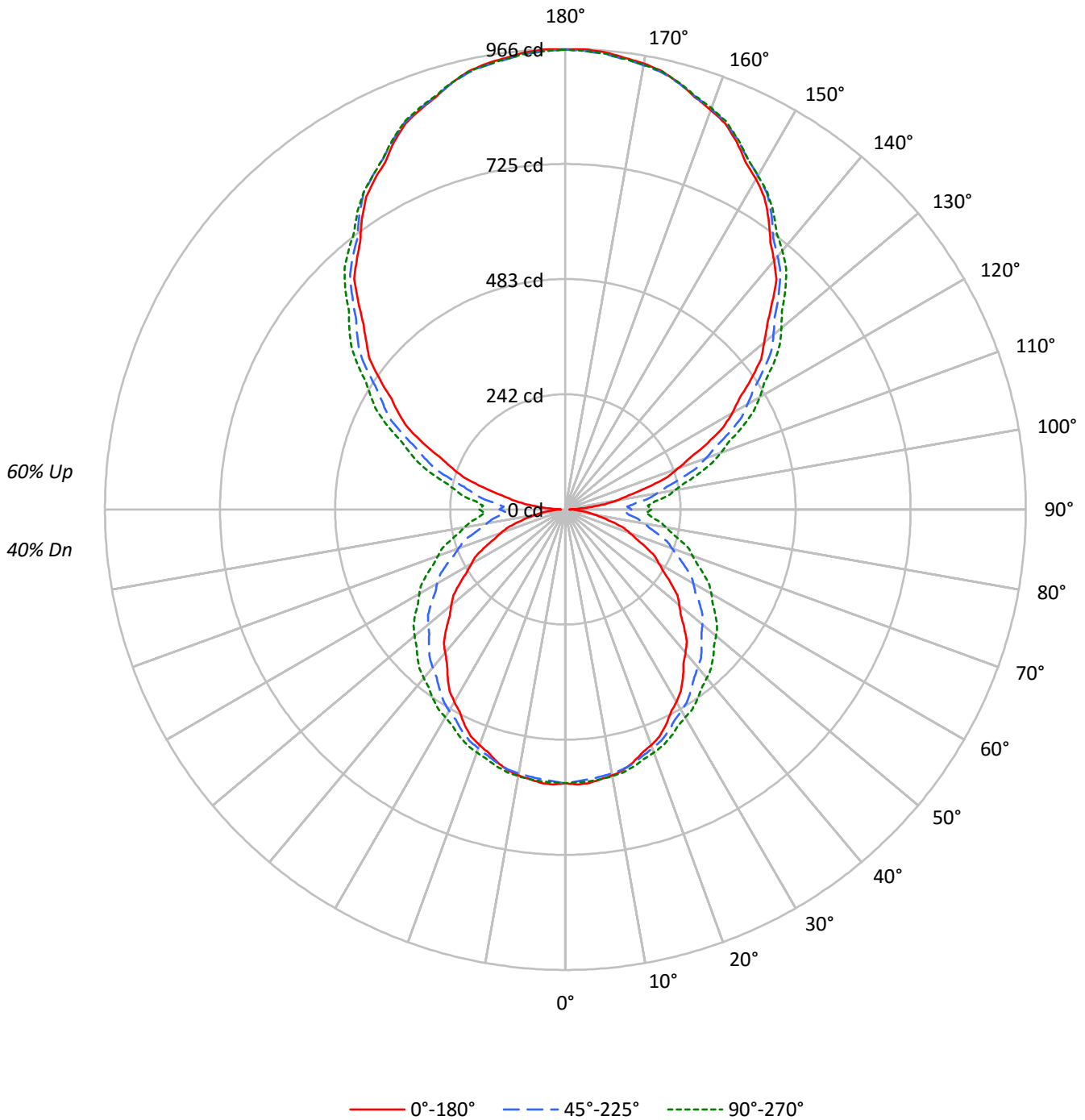
Input Watts (W): 52
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9273	9273	9273
5°	9317	8925	8891
10°	9259	8661	8564
15°	9131	8383	8221
20°	8970	8083	7889
25°	8811	7795	7587
30°	8587	7498	7284
35°	8359	7211	7072
40°	8120	6969	6858
45°	7894	6750	6677
50°	7650	6553	6497
55°	7394	6340	6314
60°	7081	6122	6123
65°	6755	5864	5892
70°	6394	5587	5644
75°	5927	5315	5415
80°	5197	5036	5185
85°	4489	4797	5004



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	1.1
10°-20°	156.0	3.2
20°-30°	236.5	4.8
30°-40°	288.0	5.9
40°-50°	309.9	6.3
50°-60°	300.9	6.2
60°-70°	262.7	5.4
70°-80°	202.3	4.1
80°-90°	139.6	2.9
90°-100°	154.6	3.2
100°-110°	258.0	5.3
110°-120°	369.5	7.6
120°-130°	451.7	9.2
130°-140°	489.3	10.0
140°-150°	471.2	9.6
150°-160°	393.7	8.1
160°-170°	261.1	5.3
170°-180°	91.3	1.9
0°-30°	446.9	9.1
0°-40°	734.9	15.0
0°-60°	1345.7	27.5
0°-90°	1950.3	39.9
90°-120°	782.1	16.0
90°-150°	2194.3	44.9
90°-180°	2940.0	60.1
0°-180°	4890.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	576	573	568	573	573	55
15°	549	551	551	558	558	155
25°	499	505	513	522	525	229
35°	430	445	460	478	484	269
45°	353	376	404	429	439	272
55°	270	301	344	373	384	242
65°	185	226	275	308	320	183
75°	102	149	202	237	249	108
85°	30	82	135	168	181	32
90°	9	68	138	169	181	8
95°	49	96	148	178	188	54
105°	179	207	250	280	290	189
115°	329	344	379	402	410	325
125°	475	483	507	526	534	425
135°	614	622	632	648	653	474
145°	744	749	754	760	761	465
155°	850	853	855	859	857	391
165°	925	924	924	929	926	261
175°	962	960	958	964	959	91
180°	964	964	964	964	964	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3
2.5°	577.6	577.2	576.7	576.3	575.8	575.1	574.1	573.0	572.0	571.0	571.7
5°	575.9	575.4	574.9	574.3	573.7	572.9	571.8	570.7	569.6	568.4	569.6
7.5°	570.8	570.4	570.1	569.6	569.3	568.7	567.9	567.0	566.1	565.3	566.6
10°	566.8	566.4	566.1	565.7	565.3	564.8	564.3	563.8	563.2	562.6	564.1
12.5°	560.1	560.2	560.3	560.4	560.4	560.3	559.9	559.5	559.1	558.6	560.1
15°	549.3	549.7	550.1	550.4	550.8	551.0	551.0	551.0	551.0	551.0	552.6
17.5°	535.3	536.1	536.9	537.7	538.4	539.2	539.7	540.3	540.9	541.5	543.2
20°	526.0	526.9	527.8	528.8	529.7	530.5	531.2	532.1	532.8	533.5	535.6
22.5°	516.0	517.1	518.2	519.3	520.3	521.4	522.4	523.4	524.5	525.5	527.6
25°	499.4	500.7	502.0	503.3	504.6	506.1	507.7	509.4	511.0	512.7	514.9
27.5°	479.4	481.5	483.6	485.8	487.9	489.9	491.9	493.8	495.8	497.7	500.5
30°	466.1	468.5	470.9	473.3	475.7	478.1	480.5	482.9	485.3	487.7	490.6
32.5°	451.4	454.1	456.8	459.5	462.3	465.0	467.9	470.7	473.5	476.4	479.8
35°	430.3	433.4	436.6	439.7	442.9	446.2	449.7	453.2	456.7	460.2	464.3
37.5°	407.3	411.0	414.6	418.2	421.8	425.9	430.5	435.0	439.5	444.1	448.7
40°	392.0	396.1	400.1	404.2	408.3	412.8	417.8	422.8	427.8	432.8	437.6
42.5°	377.4	381.4	385.5	389.6	393.6	398.5	404.3	410.0	415.7	421.5	426.7
45°	352.9	357.9	362.9	367.9	372.8	378.6	385.1	391.6	398.0	404.5	410.3
47.5°	328.7	334.2	339.7	345.0	350.5	357.0	364.6	372.2	379.8	387.3	393.4
50°	312.1	317.9	323.6	329.3	335.0	342.1	350.4	358.7	367.0	375.4	381.6
52.5°	296.1	302.1	308.2	314.2	320.2	327.7	336.4	345.2	353.9	362.7	369.2
55°	270.5	277.1	283.8	290.5	297.1	305.2	314.9	324.5	334.1	343.7	350.4
57.5°	245.2	252.7	260.2	267.7	275.2	283.9	293.7	303.5	313.3	323.1	330.3
60°	227.2	235.1	243.1	251.1	259.0	268.3	278.8	289.3	299.9	310.5	317.5
62.5°	211.2	219.5	227.7	235.9	244.3	253.6	264.2	274.7	285.3	295.8	303.3
65°	184.7	193.8	202.9	212.0	221.0	231.0	241.9	252.8	263.7	274.7	282.3
67.5°	160.5	169.9	179.4	188.9	198.4	208.6	219.8	231.0	242.1	253.3	261.0
70°	143.2	152.8	162.4	172.0	181.6	192.2	203.7	215.1	226.6	238.1	246.0
72.5°	127.2	137.1	147.0	156.9	166.8	177.6	189.2	200.8	212.5	224.0	231.9
75°	102.4	112.8	123.1	133.5	143.8	154.9	166.7	178.6	190.4	202.3	210.2
77.5°	78.4	89.3	100.1	110.9	121.7	133.2	145.2	157.3	169.3	181.2	189.2
80°	62.5	73.7	85.0	96.3	107.5	119.2	131.3	143.2	155.2	167.3	175.0
82.5°	49.1	60.3	71.3	82.5	93.7	105.3	117.5	129.6	141.8	154.0	161.8
85°	30.0	41.4	52.9	64.3	75.8	87.5	99.3	111.1	123.0	134.9	142.6
87.5°	16.5	28.0	39.4	50.9	62.3	74.4	87.0	99.6	112.3	124.9	132.3
90°	9.1	22.0	34.9	47.9	60.7	75.1	90.9	106.7	122.5	138.4	145.4
92.5°	22.2	33.8	45.3	56.9	68.5	80.4	92.8	105.1	117.4	129.7	137.1
95°	49.0	59.4	70.0	80.5	91.0	101.9	113.4	124.9	136.3	147.8	154.8
97.5°	83.2	92.5	101.7	111.1	120.4	130.8	142.1	153.4	164.8	176.1	183.0
100°	109.2	117.5	125.7	134.0	142.4	151.9	162.8	173.7	184.6	195.5	202.4
102.5°	135.8	143.2	150.7	158.1	165.4	174.6	185.3	196.1	206.8	217.5	224.4
105°	179.1	185.0	190.9	196.8	202.7	210.7	220.6	230.6	240.6	250.5	257.4
107.5°	223.5	228.6	233.7	238.8	243.9	251.0	260.2	269.5	278.7	287.9	294.2
110°	251.5	256.2	261.1	265.9	270.6	277.5	286.6	295.7	304.8	313.8	319.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	282.7	286.9	291.1	295.3	299.5	305.8	314.3	322.8	331.3	339.7	345.2
115°	328.8	331.9	335.0	338.1	341.3	346.8	354.7	362.7	370.7	378.6	384.0
117.5°	373.8	376.6	379.4	382.2	385.0	389.7	396.4	403.1	409.7	416.4	421.4
120°	404.5	406.6	408.8	411.0	413.2	417.3	423.2	429.2	435.1	441.1	446.2
122.5°	432.4	434.5	436.5	438.5	440.5	444.5	450.5	456.4	462.4	468.3	472.9
125°	475.2	476.8	478.4	480.0	481.7	485.2	490.6	495.9	501.3	506.7	511.2
127.5°	517.6	519.5	521.4	523.3	525.1	528.2	532.3	536.4	540.5	544.6	548.6
130°	544.4	546.5	548.7	550.8	553.0	555.9	559.4	562.9	566.5	570.0	574.1
132.5°	574.3	576.0	577.7	579.5	581.2	583.6	586.7	589.8	592.8	595.9	599.4
135°	613.5	615.5	617.5	619.5	621.4	623.5	625.7	627.9	630.1	632.4	636.1
137.5°	655.7	657.2	658.8	660.4	662.0	663.4	664.7	666.0	667.3	668.5	671.8
140°	681.0	682.5	683.9	685.3	686.8	688.2	689.4	690.7	691.9	693.2	696.2
142.5°	707.0	708.5	710.0	711.4	712.8	713.9	714.6	715.3	716.0	716.6	719.2
145°	743.6	744.9	746.2	747.5	748.7	749.9	751.0	752.0	753.2	754.2	755.5
147.5°	777.0	778.5	780.1	781.5	783.1	784.2	785.0	785.6	786.4	787.1	787.7
150°	799.8	800.9	801.9	803.1	804.1	805.0	805.8	806.5	807.2	808.0	808.5
152.5°	819.9	821.1	822.1	823.2	824.3	825.3	826.1	827.0	827.9	828.8	829.5
155°	850.3	850.8	851.3	851.9	852.4	853.0	853.5	854.0	854.6	855.1	856.1
157.5°	876.1	876.4	876.9	877.2	877.6	877.9	878.2	878.6	878.9	879.2	880.4
160°	891.8	892.1	892.4	892.8	893.2	893.5	893.6	893.8	894.0	894.1	895.3
162.5°	906.0	906.1	906.2	906.3	906.4	906.4	906.7	906.9	907.0	907.2	908.4
165°	925.1	925.0	924.7	924.5	924.4	924.3	924.3	924.3	924.3	924.3	925.5
167.5°	941.0	940.5	940.0	939.4	938.9	938.6	938.6	938.5	938.5	938.4	939.7
170°	949.5	948.9	948.4	947.9	947.3	947.0	946.8	946.6	946.4	946.2	947.5
172.5°	955.4	954.8	954.3	953.7	953.2	952.8	952.7	952.4	952.3	952.1	953.4
175°	962.5	962.0	961.4	960.9	960.3	959.9	959.5	959.2	958.8	958.5	959.7
177.5°	965.5	965.0	964.6	964.2	963.7	963.4	963.0	962.8	962.5	962.2	963.0
180°	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3
2.5°	572.4	573.2	573.9	574.1	573.8	573.6	573.2	573.0
5°	570.7	571.8	572.9	573.4	573.2	573.0	572.8	572.6
7.5°	567.9	569.3	570.6	571.2	571.0	570.8	570.6	570.5
10°	565.6	567.0	568.6	569.2	569.0	568.8	568.7	568.4
12.5°	561.6	563.0	564.6	565.2	565.0	564.8	564.7	564.4
15°	554.3	556.0	557.7	558.4	558.2	558.0	557.8	557.7
17.5°	544.9	546.7	548.5	549.3	549.3	549.3	549.3	549.3
20°	537.6	539.6	541.6	542.7	542.7	542.7	542.7	542.7
22.5°	529.6	531.7	533.6	534.8	535.1	535.4	535.7	536.0
25°	517.1	519.3	521.5	522.9	523.5	524.1	524.6	525.2
27.5°	503.4	506.1	509.0	510.5	510.9	511.4	511.8	512.2
30°	493.7	496.6	499.5	501.3	501.9	502.5	503.0	503.5
32.5°	483.2	486.7	490.0	492.2	493.3	494.2	495.2	496.2
35°	468.4	472.5	476.5	479.2	480.5	481.8	483.1	484.4
37.5°	453.1	457.6	462.2	465.1	466.5	467.8	469.2	470.6
40°	442.4	447.2	452.0	455.3	456.9	458.6	460.2	461.9
42.5°	431.9	437.2	442.5	446.0	447.6	449.3	450.9	452.6
45°	416.0	421.7	427.5	431.2	433.1	435.0	436.8	438.6
47.5°	399.3	405.4	411.3	415.3	417.4	419.4	421.4	423.5
50°	387.9	394.2	400.6	404.7	406.8	408.8	410.7	412.8
52.5°	375.6	382.0	388.5	392.8	394.9	397.1	399.3	401.5
55°	357.0	363.7	370.4	374.9	377.3	379.7	382.1	384.5
57.5°	337.5	344.6	351.8	356.6	359.1	361.5	363.9	366.4
60°	324.5	331.5	338.6	343.4	345.9	348.5	351.1	353.8
62.5°	310.7	318.2	325.7	330.7	333.0	335.5	337.9	340.4
65°	289.8	297.4	305.0	310.0	312.4	314.8	317.2	319.6
67.5°	268.6	276.3	284.0	289.1	291.6	294.1	296.6	299.1
70°	254.0	261.9	269.9	274.9	277.1	279.4	281.6	283.8
72.5°	239.7	247.4	255.3	260.5	263.2	265.9	268.5	271.2
75°	218.2	226.1	234.1	239.2	241.7	244.0	246.5	248.8
77.5°	197.1	205.0	213.0	218.2	220.8	223.4	225.9	228.5
80°	182.8	190.6	198.4	203.6	206.1	208.7	211.3	213.9
82.5°	169.5	177.2	185.1	190.1	192.6	195.0	197.5	199.9
85°	150.3	158.2	165.9	171.0	173.7	176.3	178.9	181.4
87.5°	139.8	147.3	154.7	159.7	162.1	164.5	166.9	169.3
90°	152.4	159.5	166.5	171.2	173.6	176.0	178.4	180.8
92.5°	144.4	151.7	159.1	163.8	166.1	168.4	170.6	172.8
95°	161.8	168.8	175.9	180.3	182.2	184.1	185.9	187.8
97.5°	189.8	196.7	203.5	208.0	210.1	212.3	214.4	216.5
100°	209.2	216.1	222.9	227.2	229.1	231.0	232.8	234.6
102.5°	231.2	238.1	244.9	249.2	251.1	253.0	254.8	256.7
105°	264.2	271.1	277.9	282.3	284.4	286.4	288.5	290.5
107.5°	300.6	307.0	313.3	317.1	318.3	319.4	320.7	321.9
110°	325.6	331.6	337.5	341.2	342.7	344.1	345.7	347.2



TEST NUMBER: P331361-930

CATALOG NUMBER: SA2XXDIP-C675D925U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	350.7	356.2	361.7	365.3	366.9	368.5	370.1	371.8
115°	389.4	394.8	400.1	403.6	405.0	406.5	408.1	409.5
117.5°	426.5	431.5	436.6	439.8	441.1	442.5	443.8	445.2
120°	451.4	456.6	461.8	465.1	466.6	468.1	469.6	471.1
122.5°	477.5	482.1	486.7	489.7	491.0	492.4	493.7	495.0
125°	515.6	520.1	524.5	527.5	529.0	530.4	531.9	533.5
127.5°	552.5	556.4	560.4	562.9	563.9	565.0	566.1	567.1
130°	578.1	582.2	586.3	588.6	589.5	590.2	590.9	591.7
132.5°	602.9	606.4	609.8	612.0	612.9	613.9	614.8	615.7
135°	639.8	643.5	647.2	649.5	650.4	651.4	652.3	653.3
137.5°	675.1	678.3	681.6	683.5	684.0	684.6	685.1	685.7
140°	699.2	702.1	705.1	706.8	707.1	707.5	707.9	708.3
142.5°	721.7	724.1	726.7	728.1	728.3	728.6	728.8	729.0
145°	756.8	758.1	759.4	760.1	760.3	760.5	760.8	760.9
147.5°	788.2	788.7	789.3	789.5	789.2	789.0	788.7	788.5
150°	809.0	809.6	810.1	810.1	809.6	809.0	808.5	808.0
152.5°	830.1	830.8	831.5	831.5	830.8	830.1	829.5	828.8
155°	857.0	857.9	858.8	858.9	858.3	857.9	857.3	856.7
157.5°	881.7	882.9	884.1	884.3	883.5	882.6	881.7	880.8
160°	896.3	897.4	898.5	898.7	898.0	897.2	896.5	895.8
162.5°	909.6	910.9	912.1	912.3	911.4	910.5	909.7	908.8
165°	926.8	928.1	929.4	929.5	928.6	927.7	926.8	925.9
167.5°	940.9	942.2	943.5	943.6	942.7	941.8	940.9	939.9
170°	948.8	950.1	951.3	951.4	950.3	949.3	948.1	947.1
172.5°	954.6	955.9	957.2	957.2	956.2	955.1	954.0	952.9
175°	961.0	962.2	963.5	963.6	962.5	961.4	960.3	959.3
177.5°	963.9	964.8	965.6	965.6	964.8	963.9	963.0	962.2
180°	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2

(END OF REPORT)