

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: P331697-935

Luminaire Tested: **SA2XXRDIP-C675D925U935-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331697-935
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: SA2XXRDIP-C675D925U935-4F0-1E-UDD-F1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

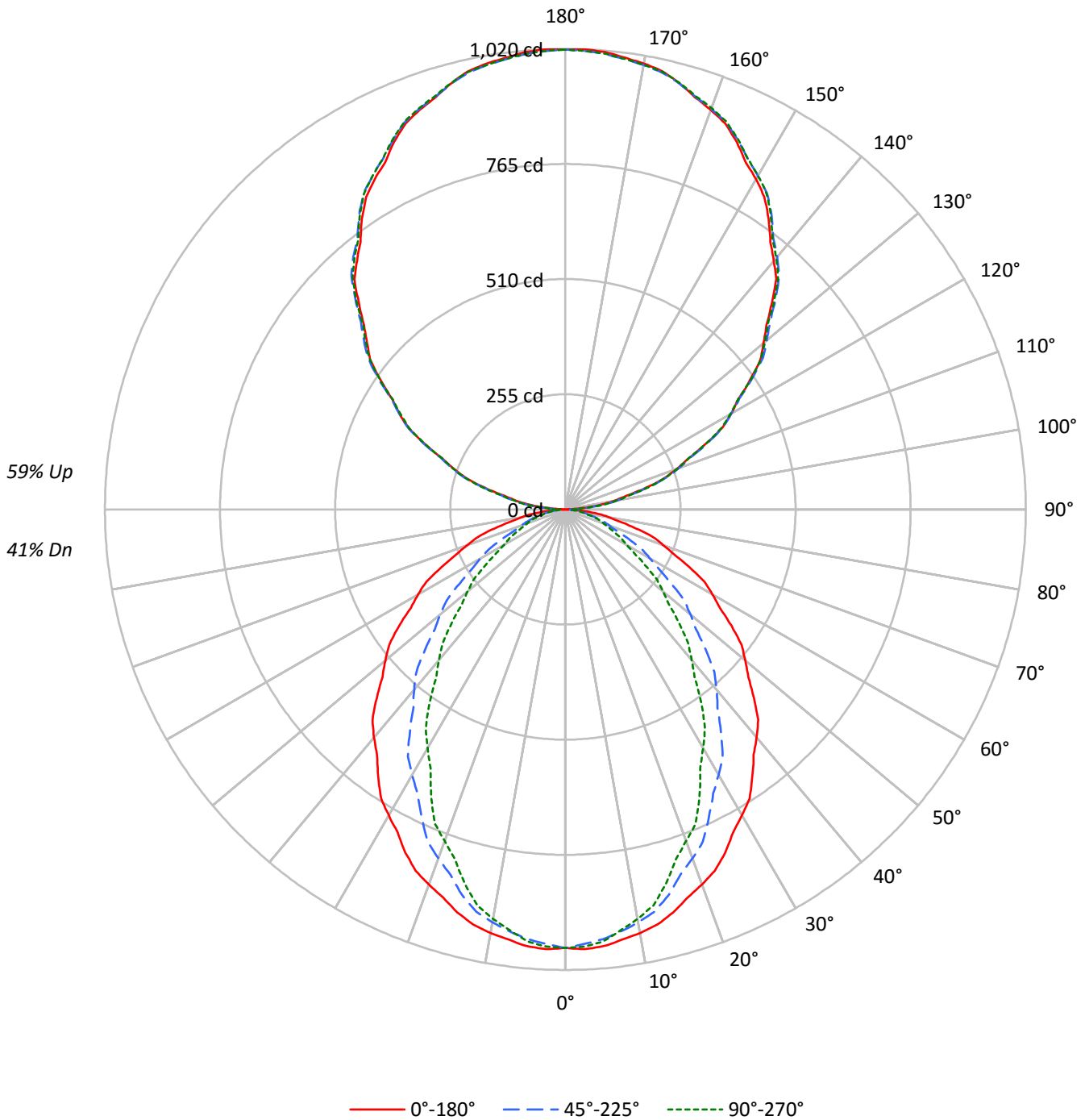
Lumens per Lamp: N/A
Luminaire Lumens: 4848.7 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 52
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: P331697-935
CATALOG NUMBER: SA2XXRDIP-C675D925U935-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P331697-935

CATALOG NUMBER: SA2XXRDIP-C675D925U935-4F0-1E-UDD-F1

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	105	105	105	105	96	96	96	96	78	78	78	63	63	63	48	48	48	41				
1	96	92	88	85	88	84	81	78	69	67	65	56	54	53	43	42	41	36				
2	88	81	75	70	80	74	69	65	61	58	55	49	47	45	38	37	35	30				
3	80	71	64	59	73	65	59	55	54	50	46	44	41	38	34	32	31	26				
4	74	63	56	50	67	58	52	47	48	44	40	39	36	33	31	29	27	23				
5	68	57	49	43	62	52	45	40	44	38	34	36	32	29	28	26	23	20				
6	63	51	43	37	57	47	40	35	39	34	30	32	28	25	26	23	21	18				
7	58	46	38	33	53	42	36	31	36	31	27	29	26	23	23	21	19	16				
8	54	42	34	29	49	39	32	27	33	27	24	27	23	20	22	19	17	14				
9	50	38	31	26	46	35	29	24	30	25	21	25	21	18	20	17	15	13				
10	47	35	28	23	43	33	26	22	28	23	19	23	19	17	19	16	14	12				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15681	15681	15681
5°	15741	15486	15571
10°	15621	15231	15101
15°	15442	14780	14355
20°	15192	14136	13426
25°	14938	13402	12527
30°	14585	12652	11373
35°	14241	11832	10360
40°	13894	10985	9187
45°	13486	10035	8127
50°	13069	9075	7086
55°	12645	8042	6086
60°	12148	6952	5050
65°	11584	5841	4604
70°	10914	4810	4230
75°	10087	4386	3949
80°	8908	3924	3598
85°	7003	3094	3094



TEST NUMBER: P331697-935

CATALOG NUMBER: SA2XXRDIP-C675D925U935-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.9	1.9
10°-20°	249.6	5.1
20°-30°	350.5	7.2
30°-40°	382.2	7.9
40°-50°	351.5	7.2
50°-60°	276.0	5.7
60°-70°	180.0	3.7
70°-80°	92.8	1.9
80°-90°	28.1	0.6
90°-100°	64.5	1.3
100°-110°	200.4	4.1
110°-120°	342.5	7.1
120°-130°	450.4	9.3
130°-140°	505.6	10.4
140°-150°	495.7	10.2
150°-160°	415.8	8.6
160°-170°	275.8	5.7
170°-180°	96.4	2.0
0°-30°	691.1	14.3
0°-40°	1073.3	22.1
0°-60°	1700.8	35.1
0°-90°	2001.7	41.3
90°-120°	607.4	12.5
90°-150°	2059.1	42.5
90°-180°	2847.0	58.7
0°-180°	4848.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	971	971	971	971	971	
5°	971	966	956	963	961	92
15°	924	913	884	868	859	260
25°	838	809	752	718	703	385
35°	722	676	600	547	526	452
45°	591	530	440	379	356	456
55°	449	379	286	235	216	401
65°	303	232	153	125	120	300
75°	162	102	70	64	63	171
85°	38	20	17	17	17	45
90°	1	12	30	28	29	4
95°	45	53	55	55	53	51
105°	185	187	189	191	191	195
115°	344	348	347	346	344	340
125°	500	507	505	503	502	447
135°	647	656	658	657	655	500
145°	785	791	796	797	794	490
155°	898	900	903	907	905	413
165°	977	976	976	982	978	275
175°	1016	1014	1012	1018	1013	97
180°	1018	1018	1018	1018	1018	



TEST NUMBER: P331697-935

CATALOG NUMBER: SA2XXRDIP-C675D925U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	971.2	971.2	971.2	971.2	971.2	971.2	971.2	971.2	971.2	971.2	971.2
2.5°	974.7	974.0	973.2	972.4	971.6	970.3	968.6	966.9	965.3	963.5	965.1
5°	971.2	970.3	969.3	968.3	967.3	965.6	963.0	960.5	957.9	955.5	957.2
7.5°	961.2	960.0	958.8	957.6	956.4	954.2	951.3	948.4	945.4	942.5	942.9
10°	952.8	951.4	950.0	948.6	947.3	944.7	940.7	936.9	933.0	929.0	928.5
12.5°	942.2	940.6	938.8	937.2	935.5	932.2	927.2	922.2	917.1	912.1	911.1
15°	923.8	921.6	919.5	917.3	915.2	910.8	904.1	897.5	890.9	884.2	880.5
17.5°	901.1	897.9	894.6	891.2	887.9	882.1	873.6	865.0	856.5	848.0	843.6
20°	884.2	880.3	876.4	872.5	868.6	861.8	852.0	842.2	832.5	822.7	817.8
22.5°	865.9	861.6	857.2	852.8	848.4	840.8	829.7	818.7	807.7	796.7	790.4
25°	838.5	832.2	826.0	819.8	813.6	803.9	791.1	778.2	765.3	752.3	744.3
27.5°	805.5	798.7	791.9	785.1	778.3	767.6	753.1	738.6	724.0	709.5	700.2
30°	782.3	774.8	767.4	760.0	752.6	741.1	725.4	709.8	694.1	678.6	668.6
32.5°	759.7	751.1	742.4	733.7	725.0	712.7	696.8	680.9	665.0	649.0	637.7
35°	722.5	712.6	702.6	692.6	682.7	669.1	651.9	634.7	617.5	600.3	588.0
37.5°	685.3	674.2	663.3	652.4	641.4	626.8	608.6	590.2	571.9	553.5	540.0
40°	659.2	647.5	635.8	624.1	612.3	597.0	578.1	559.1	540.2	521.2	507.4
42.5°	632.5	620.2	607.8	595.5	583.2	567.1	547.6	528.1	508.4	488.9	474.5
45°	590.6	577.6	564.5	551.4	538.3	521.5	501.0	480.5	459.9	439.5	425.6
47.5°	549.8	536.0	522.1	508.2	494.4	476.9	455.7	434.5	413.4	392.2	378.4
50°	520.3	506.4	492.6	478.7	464.9	447.2	425.7	404.2	382.7	361.3	347.8
52.5°	491.5	477.0	462.5	448.1	433.5	415.8	394.8	373.8	352.8	331.7	318.7
55°	449.2	433.9	418.7	403.5	388.2	370.1	349.0	327.9	306.8	285.7	274.0
57.5°	405.7	390.1	374.4	358.9	343.2	325.3	305.0	284.7	264.4	244.2	233.4
60°	376.2	360.6	344.9	329.3	313.7	295.8	275.7	255.5	235.5	215.3	205.3
62.5°	347.3	331.7	316.1	300.5	284.8	267.4	248.3	229.1	209.9	190.7	181.2
65°	303.2	287.4	271.6	255.8	240.0	223.3	205.7	188.1	170.5	152.9	146.3
67.5°	260.7	245.0	229.3	213.6	197.9	182.1	166.3	150.5	134.7	118.8	115.8
70°	231.2	215.9	200.7	185.5	170.2	155.8	142.4	128.9	115.5	101.9	100.0
72.5°	203.0	188.4	173.8	159.2	144.6	131.9	121.1	110.2	99.4	88.6	87.0
75°	161.7	148.1	134.4	120.7	107.0	96.9	90.2	83.6	77.0	70.3	69.0
77.5°	121.1	109.1	97.1	85.2	73.2	65.5	62.3	59.2	56.0	52.8	51.9
80°	95.8	85.8	75.9	66.0	56.0	50.0	48.0	46.1	44.2	42.2	41.4
82.5°	72.6	64.8	57.1	49.2	41.5	36.9	35.6	34.3	33.0	31.7	31.2
85°	37.8	33.7	29.6	25.5	21.4	19.0	18.4	17.9	17.3	16.7	16.7
87.5°	11.5	10.6	9.8	9.0	8.3	8.3	9.1	10.0	10.8	11.6	11.4
90°	0.9	3.2	5.4	7.7	10.0	13.3	17.5	21.7	25.8	30.0	29.7
92.5°	15.3	17.0	18.7	20.3	22.0	23.3	24.4	25.3	26.3	27.3	27.4
95°	44.7	46.6	48.5	50.4	52.3	53.5	53.8	54.2	54.6	55.0	55.0
97.5°	81.6	83.3	85.0	86.7	88.3	89.5	90.3	91.0	91.7	92.5	92.5
100°	109.1	110.6	112.2	113.7	115.2	116.3	116.8	117.4	118.0	118.6	118.6
102.5°	138.0	139.2	140.4	141.6	142.8	143.9	144.6	145.3	146.0	146.8	146.9
105°	184.8	185.3	185.9	186.5	187.0	187.5	187.9	188.3	188.6	189.0	189.4
107.5°	231.8	232.6	233.5	234.4	235.2	235.6	235.6	235.6	235.6	235.6	235.7
110°	262.1	263.2	264.3	265.5	266.7	267.3	267.3	267.3	267.3	267.3	267.3



TEST NUMBER: P331697-935

CATALOG NUMBER: SA2XXRDIP-C675D925U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	295.1	296.2	297.4	298.5	299.6	300.1	300.0	299.8	299.7	299.5	299.1
115°	343.7	344.8	345.9	347.2	348.3	348.6	348.3	347.9	347.5	347.2	347.0
117.5°	392.2	393.6	395.2	396.7	398.3	398.5	397.4	396.3	395.3	394.3	393.7
120°	424.5	426.0	427.5	429.0	430.6	430.6	429.0	427.5	426.0	424.5	424.5
122.5°	454.0	455.8	457.7	459.5	461.3	461.8	460.6	459.6	458.6	457.4	457.0
125°	500.1	501.8	503.5	505.2	507.0	507.6	507.0	506.4	505.8	505.2	504.6
127.5°	544.9	547.1	549.3	551.5	553.6	554.4	553.7	553.0	552.3	551.6	551.0
130°	573.1	575.6	578.1	580.6	583.1	584.1	583.7	583.3	583.0	582.6	582.2
132.5°	604.8	606.7	608.8	610.8	612.9	613.9	614.0	614.1	614.1	614.2	613.4
135°	647.0	649.1	651.2	653.3	655.4	656.7	657.0	657.4	657.8	658.1	658.0
137.5°	691.6	693.2	694.9	696.6	698.4	699.5	700.0	700.5	701.0	701.5	701.4
140°	718.3	720.1	721.8	723.5	725.2	726.5	727.5	728.4	729.4	730.4	730.4
142.5°	745.8	747.5	749.2	751.0	752.7	753.9	754.5	755.2	755.8	756.5	756.6
145°	785.3	786.7	788.0	789.4	790.7	791.9	793.1	794.2	795.4	796.5	796.7
147.5°	820.5	822.2	823.8	825.4	827.0	828.2	829.0	829.7	830.4	831.2	831.6
150°	844.6	845.8	846.9	848.1	849.2	850.2	850.9	851.7	852.5	853.3	853.8
152.5°	865.9	867.1	868.2	869.4	870.6	871.6	872.5	873.4	874.3	875.2	876.0
155°	897.9	898.5	899.1	899.7	900.2	900.8	901.4	901.9	902.5	903.0	904.0
157.5°	925.2	925.6	926.0	926.3	926.8	927.1	927.5	927.8	928.2	928.5	929.8
160°	941.8	942.1	942.5	942.9	943.2	943.6	943.7	943.9	944.1	944.3	945.5
162.5°	956.8	956.9	957.0	957.1	957.2	957.3	957.5	957.7	957.9	958.0	959.3
165°	977.0	976.8	976.5	976.4	976.2	976.1	976.1	976.1	976.1	976.1	977.4
167.5°	993.8	993.2	992.6	992.0	991.5	991.2	991.2	991.1	991.1	991.0	992.4
170°	1002.7	1002.1	1001.6	1001.0	1000.4	1000.1	999.9	999.7	999.4	999.3	1000.7
172.5°	1008.9	1008.3	1007.8	1007.2	1006.6	1006.3	1006.1	1005.8	1005.6	1005.5	1006.9
175°	1016.5	1015.9	1015.3	1014.8	1014.2	1013.7	1013.3	1013.0	1012.5	1012.2	1013.5
177.5°	1019.6	1019.1	1018.6	1018.2	1017.7	1017.4	1017.0	1016.8	1016.4	1016.2	1017.0
180°	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2



TEST NUMBER: P331697-935

CATALOG NUMBER: SA2XXRDIP-C675D925U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	971.2	971.2	971.2	971.2	971.2	971.2	971.2	971.2
2.5°	966.6	968.2	969.7	970.3	970.1	969.7	969.5	969.1
5°	958.9	960.7	962.4	963.0	962.4	961.8	961.3	960.7
7.5°	943.4	943.9	944.4	944.2	943.1	942.2	941.2	940.1
10°	927.9	927.3	926.7	925.8	924.6	923.5	922.3	921.1
12.5°	910.1	909.0	907.9	906.5	904.5	902.6	900.6	898.6
15°	876.8	873.1	869.4	866.5	864.6	862.6	860.7	858.8
17.5°	839.2	834.7	830.3	826.5	823.1	819.8	816.4	813.0
20°	813.0	808.0	803.1	798.6	794.3	790.0	785.7	781.4
22.5°	784.1	777.8	771.5	766.8	763.5	760.3	757.2	754.0
25°	736.3	728.3	720.3	714.9	712.0	709.0	706.1	703.2
27.5°	690.8	681.5	672.2	665.1	660.5	655.8	651.2	646.5
30°	658.7	648.7	638.7	631.1	625.8	620.5	615.3	610.0
32.5°	626.3	614.9	603.6	595.4	590.4	585.5	580.5	575.6
35°	575.8	563.4	551.1	542.8	538.5	534.2	529.9	525.6
37.5°	526.4	512.9	499.4	490.1	485.2	480.3	475.4	470.5
40°	493.4	479.6	465.7	456.2	451.2	446.1	441.0	435.9
42.5°	460.2	445.8	431.5	421.9	417.0	412.1	407.2	402.2
45°	411.7	397.9	384.0	374.7	370.1	365.3	360.7	355.9
47.5°	364.6	350.9	337.0	328.0	323.7	319.5	315.2	311.0
50°	334.3	320.8	307.4	298.5	294.5	290.3	286.3	282.1
52.5°	305.7	292.7	279.7	271.3	267.5	263.7	259.9	256.1
55°	262.3	250.5	238.8	231.1	227.4	223.6	219.9	216.2
57.5°	222.7	212.0	201.2	194.2	191.1	188.0	184.9	181.8
60°	195.4	185.5	175.5	168.9	165.8	162.7	159.5	156.4
62.5°	171.8	162.2	152.7	147.1	145.2	143.4	141.5	139.6
65°	139.7	133.0	126.4	122.8	122.2	121.6	121.0	120.5
67.5°	112.7	109.7	106.7	104.8	104.2	103.6	103.0	102.3
70°	98.1	96.1	94.1	92.8	92.0	91.2	90.4	89.6
72.5°	85.3	83.7	82.1	81.0	80.5	80.1	79.6	79.1
75°	67.6	66.2	64.8	64.1	63.9	63.7	63.5	63.3
77.5°	51.1	50.4	49.6	49.1	48.7	48.5	48.1	47.8
80°	40.6	39.9	39.1	38.7	38.7	38.7	38.7	38.7
82.5°	30.7	30.2	29.8	29.5	29.5	29.5	29.5	29.5
85°	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
87.5°	11.2	10.9	10.7	10.6	10.7	10.7	10.8	10.8
90°	29.3	28.9	28.6	28.4	28.7	28.8	29.0	29.2
92.5°	27.5	27.6	27.6	27.7	27.7	27.7	27.8	27.8
95°	55.0	55.0	55.0	54.8	54.4	54.1	53.6	53.3
97.5°	92.5	92.5	92.5	92.5	92.4	92.4	92.3	92.3
100°	118.6	118.6	118.6	118.5	118.3	118.1	117.9	117.7
102.5°	147.1	147.2	147.4	147.3	147.1	147.0	146.8	146.6
105°	189.8	190.2	190.5	190.7	190.7	190.7	190.7	190.7
107.5°	235.9	236.1	236.2	235.8	235.0	234.1	233.2	232.3
110°	267.3	267.3	267.3	266.9	266.4	265.8	265.2	264.7



TEST NUMBER: P331697-935

CATALOG NUMBER: SA2XXRDIP-C675D925U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	298.6	298.2	297.7	297.2	296.9	296.4	296.0	295.6
115°	346.7	346.6	346.4	345.9	345.4	344.8	344.2	343.7
117.5°	393.3	392.9	392.4	391.8	391.3	390.7	390.1	389.6
120°	424.5	424.5	424.5	424.2	423.6	423.0	422.5	421.9
122.5°	456.5	456.1	455.6	455.2	454.8	454.3	453.9	453.5
125°	504.1	503.5	502.9	502.6	502.4	502.1	502.0	501.8
127.5°	550.3	549.6	548.9	548.2	547.6	547.0	546.4	545.8
130°	581.8	581.4	581.0	580.5	579.7	578.9	578.2	577.4
132.5°	612.5	611.7	610.8	610.1	609.5	608.9	608.3	607.7
135°	657.8	657.6	657.4	657.0	656.4	655.9	655.3	654.7
137.5°	701.2	701.0	700.9	700.4	699.6	698.9	698.1	697.3
140°	730.4	730.4	730.4	730.0	729.2	728.4	727.7	726.9
142.5°	756.8	756.9	757.1	756.8	756.0	755.3	754.5	753.7
145°	796.9	797.1	797.3	797.0	796.3	795.5	794.7	793.9
147.5°	832.1	832.5	832.9	832.8	832.1	831.3	830.6	829.8
150°	854.4	855.0	855.5	855.5	855.0	854.4	853.8	853.3
152.5°	876.7	877.4	878.1	878.1	877.4	876.7	876.0	875.2
155°	905.0	905.9	906.9	907.1	906.5	905.9	905.3	904.7
157.5°	931.1	932.4	933.7	933.8	933.0	932.0	931.1	930.2
160°	946.6	947.7	948.9	949.1	948.3	947.5	946.8	946.0
162.5°	960.6	961.9	963.2	963.5	962.5	961.6	960.7	959.8
165°	978.8	980.1	981.5	981.6	980.7	979.7	978.8	977.8
167.5°	993.7	995.1	996.3	996.5	995.6	994.5	993.6	992.6
170°	1001.9	1003.3	1004.6	1004.7	1003.6	1002.5	1001.3	1000.1
172.5°	1008.1	1009.5	1010.8	1010.9	1009.8	1008.7	1007.5	1006.3
175°	1014.9	1016.2	1017.5	1017.6	1016.5	1015.3	1014.2	1013.1
177.5°	1018.0	1018.9	1019.8	1019.8	1018.9	1018.0	1017.0	1016.2
180°	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2

(END OF REPORT)