

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: P331364-940

Luminaire Tested: **SA2XXDIP-C675D925U940-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331364-940
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-C675D925U940-4F0-1E-UDD-F1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, FLUSH 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: 5361.4 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.3
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

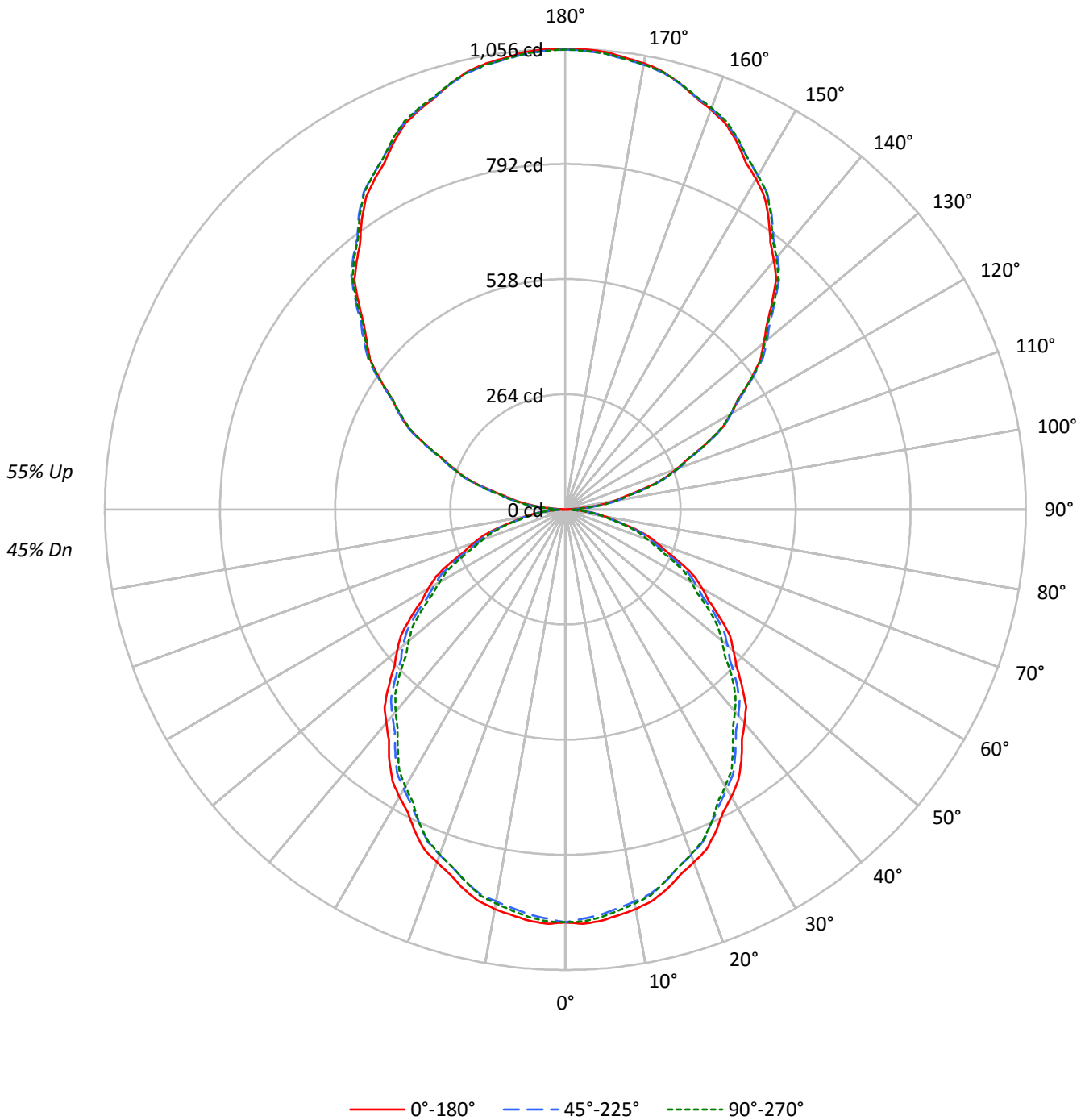
Input Watts (W): 52
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	106	106	106	106	97	97	97	97	81	81	81	65	65	65	52	52	52	45
1	97	92	88	85	88	85	81	78	71	68	66	58	56	54	45	44	43	38
2	88	81	75	69	80	74	69	64	62	58	55	51	48	45	40	38	37	32
3	80	71	64	58	73	65	59	54	55	50	46	45	41	38	35	33	31	27
4	73	63	55	49	67	58	51	46	48	43	39	40	36	33	32	29	27	23
5	67	56	48	42	61	51	44	39	43	38	34	36	32	29	29	26	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	21	18
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	21	18	16
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16	14
9	49	37	30	25	45	35	28	23	30	24	21	25	21	18	20	17	15	13
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15285	15285	15285
5°	15344	15123	15211
10°	15252	14969	15044
15°	15064	14775	14760
20°	14795	14483	14467
25°	14530	14125	14125
30°	14188	13798	13679
35°	13868	13403	13204
40°	13468	13009	12760
45°	13075	12618	12305
50°	12645	12210	11776
55°	12197	11738	11299
60°	11699	11170	10756
65°	11163	10609	10120
70°	10485	9928	9456
75°	9538	9145	8914
80°	8461	8210	7782
85°	6928	6576	5891



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	1.7
10°-20°	250.5	4.7
20°-30°	368.2	6.9
30°-40°	427.7	8.0
40°-50°	427.2	8.0
50°-60°	372.6	6.9
60°-70°	275.5	5.1
70°-80°	156.0	2.9
80°-90°	46.2	0.9
90°-100°	66.8	1.2
100°-110°	207.5	3.9
110°-120°	354.7	6.6
120°-130°	466.5	8.7
130°-140°	523.6	9.8
140°-150°	513.4	9.6
150°-160°	430.6	8.0
160°-170°	285.6	5.3
170°-180°	99.8	1.9
0°-30°	707.7	13.2
0°-40°	1135.4	21.2
0°-60°	1935.1	36.1
0°-90°	2412.8	45.0
90°-120°	629.1	11.7
90°-150°	2132.6	39.8
90°-180°	2949.0	55.0
0°-180°	5361.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	947	947	947	947	947	
5°	947	943	933	940	938	90
15°	901	895	884	887	883	254
25°	816	808	793	794	793	375
35°	704	694	680	675	670	439
45°	573	566	553	543	539	442
55°	433	428	417	406	401	387
65°	292	286	278	270	265	289
75°	153	151	147	142	143	163
85°	37	36	36	33	32	43
90°	1	12	31	30	30	4
95°	46	55	57	57	55	53
105°	191	194	196	197	198	202
115°	356	361	360	358	356	352
125°	518	525	523	521	520	463
135°	670	679	682	681	678	517
145°	813	820	825	826	822	508
155°	930	933	935	939	937	428
165°	1012	1011	1011	1017	1013	285
175°	1053	1050	1048	1054	1049	100
180°	1054	1054	1054	1054	1054	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	946.7	946.7	946.7	946.7	946.7	946.7	946.7	946.7	946.7	946.7	946.7
2.5°	951.1	950.3	949.5	948.7	947.9	946.6	944.8	943.0	941.2	939.4	941.0
5°	946.7	945.9	945.1	944.3	943.5	942.0	939.8	937.5	935.3	933.1	934.7
7.5°	938.3	937.1	935.9	934.6	933.4	931.6	929.3	927.0	924.8	922.5	924.1
10°	930.3	928.9	927.5	926.0	924.7	922.7	920.3	917.9	915.4	913.0	914.6
12.5°	919.4	918.2	916.9	915.6	914.4	912.6	910.1	907.7	905.3	902.9	904.0
15°	901.2	900.0	898.8	897.6	896.3	894.4	891.8	889.1	886.5	883.9	884.8
17.5°	877.9	876.6	875.5	874.2	873.1	871.1	868.4	865.8	863.1	860.4	861.4
20°	861.1	860.0	858.7	857.5	856.3	854.3	851.4	848.6	845.8	842.9	843.6
22.5°	844.4	842.7	841.0	839.3	837.6	835.4	832.8	830.1	827.4	824.7	824.8
25°	815.6	814.0	812.4	810.7	809.1	806.6	803.2	799.8	796.3	792.9	793.3
27.5°	782.8	781.4	780.0	778.5	777.0	775.0	772.2	769.5	766.8	764.1	763.5
30°	761.0	759.4	757.8	756.2	754.6	752.2	749.2	746.2	743.2	740.1	739.5
32.5°	737.7	736.4	735.1	733.8	732.5	730.3	727.1	723.9	720.7	717.5	716.4
35°	703.6	701.7	699.6	697.6	695.5	692.9	689.7	686.4	683.2	680.0	678.8
37.5°	665.2	663.4	661.6	659.9	658.2	655.6	652.4	649.2	646.0	642.7	641.1
40°	639.0	637.4	635.8	634.2	632.6	630.2	626.9	623.7	620.5	617.2	615.4
42.5°	613.6	611.9	610.3	608.7	607.1	604.7	601.4	598.2	594.9	591.7	589.7
45°	572.6	571.1	569.7	568.4	566.9	564.7	561.7	558.7	555.6	552.6	550.4
47.5°	531.8	530.5	529.1	527.8	526.5	524.2	521.0	517.9	514.8	511.6	509.3
50°	503.4	502.4	501.4	500.3	499.4	497.4	494.6	491.8	488.9	486.1	483.3
52.5°	475.7	474.4	473.1	471.7	470.4	468.4	465.7	463.1	460.4	457.7	455.4
55°	433.3	432.1	430.9	429.6	428.5	426.6	424.2	421.8	419.4	417.0	414.5
57.5°	390.7	389.8	388.8	387.8	386.8	385.0	382.4	379.7	377.0	374.3	371.9
60°	362.3	361.5	360.7	359.9	359.1	357.2	354.5	351.6	348.7	345.9	343.7
62.5°	334.7	333.3	332.1	330.7	329.5	327.7	325.6	323.3	321.2	319.0	316.9
65°	292.2	291.0	289.8	288.6	287.3	285.7	283.7	281.7	279.6	277.7	275.8
67.5°	249.1	248.1	247.1	246.1	245.1	243.8	241.9	240.1	238.4	236.5	235.1
70°	222.1	221.3	220.5	219.7	218.9	217.6	215.7	213.9	212.1	210.3	208.8
72.5°	194.5	193.6	192.8	192.0	191.2	190.2	189.0	187.9	186.7	185.5	184.1
75°	152.9	152.5	152.1	151.7	151.3	150.6	149.6	148.6	147.6	146.6	145.3
77.5°	115.8	115.1	114.4	113.7	113.1	112.5	112.1	111.6	111.3	110.8	110.3
80°	91.0	90.9	90.6	90.4	90.2	89.9	89.5	89.1	88.7	88.3	87.7
82.5°	67.8	67.7	67.7	67.6	67.6	67.4	67.1	67.0	66.7	66.4	65.7
85°	37.4	37.1	36.9	36.7	36.5	36.3	36.1	35.9	35.7	35.5	34.9
87.5°	13.3	13.5	13.6	13.7	13.9	14.3	14.8	15.3	15.9	16.4	15.9
90°	0.9	3.3	5.6	8.0	10.3	13.7	18.1	22.5	26.8	31.1	30.8
92.5°	15.9	17.6	19.4	21.0	22.8	24.2	25.2	26.2	27.3	28.3	28.4
95°	46.3	48.2	50.2	52.2	54.2	55.4	55.7	56.2	56.5	57.0	57.0
97.5°	84.5	86.3	88.0	89.8	91.5	92.7	93.5	94.3	95.0	95.8	95.8
100°	113.0	114.6	116.2	117.8	119.3	120.5	121.0	121.6	122.3	122.8	122.8
102.5°	142.9	144.2	145.4	146.7	147.9	149.0	149.7	150.5	151.2	152.0	152.1
105°	191.4	191.9	192.5	193.1	193.7	194.2	194.6	195.0	195.4	195.7	196.2
107.5°	240.0	240.9	241.8	242.7	243.6	244.0	244.0	244.0	244.0	244.0	244.2
110°	271.4	272.6	273.8	275.0	276.2	276.8	276.8	276.8	276.8	276.8	276.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	305.6	306.7	308.0	309.2	310.3	310.9	310.7	310.5	310.4	310.2	309.8
115°	356.0	357.1	358.3	359.5	360.7	361.1	360.7	360.3	359.9	359.5	359.4
117.5°	406.2	407.7	409.3	410.9	412.5	412.7	411.6	410.5	409.4	408.3	407.8
120°	439.6	441.2	442.7	444.3	445.9	445.9	444.3	442.7	441.2	439.6	439.6
122.5°	470.2	472.1	474.0	475.9	477.8	478.2	477.1	476.0	474.9	473.8	473.3
125°	517.9	519.7	521.5	523.3	525.0	525.7	525.0	524.4	523.9	523.3	522.6
127.5°	564.4	566.6	568.9	571.1	573.4	574.2	573.5	572.7	572.0	571.3	570.6
130°	593.5	596.1	598.7	601.3	603.9	604.9	604.5	604.1	603.8	603.3	603.0
132.5°	626.3	628.4	630.5	632.6	634.7	635.8	635.9	636.0	636.0	636.1	635.3
135°	670.1	672.3	674.4	676.6	678.8	680.1	680.5	680.8	681.3	681.6	681.4
137.5°	716.2	717.9	719.7	721.5	723.3	724.4	725.0	725.5	726.0	726.5	726.4
140°	744.0	745.7	747.5	749.3	751.1	752.4	753.4	754.4	755.5	756.4	756.4
142.5°	772.4	774.2	776.0	777.8	779.5	780.8	781.4	782.1	782.7	783.5	783.6
145°	813.3	814.8	816.1	817.5	818.9	820.2	821.4	822.5	823.8	824.9	825.1
147.5°	849.8	851.5	853.2	854.8	856.5	857.7	858.5	859.3	860.1	860.9	861.3
150°	874.8	875.9	877.1	878.3	879.5	880.5	881.3	882.1	882.9	883.7	884.2
152.5°	896.8	898.0	899.2	900.4	901.6	902.7	903.6	904.6	905.4	906.4	907.2
155°	930.0	930.5	931.1	931.7	932.3	932.9	933.5	934.1	934.7	935.2	936.3
157.5°	958.2	958.6	959.0	959.4	959.8	960.2	960.6	960.9	961.3	961.6	963.0
160°	975.4	975.7	976.1	976.5	976.9	977.2	977.4	977.6	977.8	977.9	979.2
162.5°	991.0	991.0	991.1	991.2	991.3	991.4	991.7	991.8	992.0	992.2	993.5
165°	1011.8	1011.6	1011.4	1011.2	1011.0	1010.9	1010.9	1010.9	1010.9	1010.9	1012.3
167.5°	1029.2	1028.7	1028.1	1027.4	1026.9	1026.5	1026.5	1026.4	1026.4	1026.4	1027.8
170°	1038.5	1037.9	1037.3	1036.7	1036.1	1035.7	1035.5	1035.4	1035.1	1034.9	1036.3
172.5°	1044.9	1044.3	1043.7	1043.1	1042.5	1042.1	1042.0	1041.7	1041.5	1041.3	1042.8
175°	1052.8	1052.1	1051.5	1051.0	1050.3	1049.9	1049.5	1049.1	1048.7	1048.3	1049.6
177.5°	1056.0	1055.4	1055.0	1054.5	1054.0	1053.6	1053.3	1053.0	1052.7	1052.4	1053.3
180°	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	946.7	946.7	946.7	946.7	946.7	946.7	946.7	946.7
2.5°	942.6	944.3	945.9	946.6	946.2	945.9	945.6	945.3
5°	936.3	937.9	939.5	940.1	939.8	939.3	939.0	938.5
7.5°	925.8	927.4	929.0	929.5	929.1	928.7	928.3	927.8
10°	916.2	917.9	919.5	920.0	919.4	918.8	918.2	917.6
12.5°	905.1	906.2	907.4	907.7	907.2	906.9	906.4	906.0
15°	885.6	886.4	887.2	887.1	886.0	885.0	884.0	883.0
17.5°	862.3	863.2	864.2	864.2	863.2	862.2	861.2	860.2
20°	844.2	844.8	845.3	845.3	844.5	843.6	842.8	842.0
22.5°	825.0	825.1	825.2	825.0	824.6	824.0	823.6	823.1
25°	793.7	794.1	794.5	794.5	794.1	793.7	793.3	792.9
27.5°	762.9	762.3	761.7	760.9	759.9	758.9	758.0	757.0
30°	738.9	738.2	737.6	736.9	736.1	735.3	734.5	733.7
32.5°	715.3	714.3	713.1	712.2	711.4	710.6	709.7	708.9
35°	677.6	676.4	675.1	674.0	673.1	672.0	671.0	669.9
37.5°	639.7	638.2	636.7	635.4	634.5	633.5	632.6	631.6
40°	613.6	611.7	609.9	608.6	607.8	607.0	606.2	605.4
42.5°	587.7	585.8	583.8	582.2	581.0	580.0	578.8	577.7
45°	548.1	545.9	543.7	542.2	541.4	540.6	539.8	538.9
47.5°	506.9	504.5	502.2	500.4	499.3	498.1	497.0	495.8
50°	480.5	477.6	474.7	472.9	471.8	470.8	469.8	468.8
52.5°	453.0	450.7	448.4	446.5	445.1	443.8	442.5	441.1
55°	412.1	409.7	407.2	405.5	404.5	403.5	402.4	401.4
57.5°	369.5	367.1	364.8	363.2	362.4	361.7	360.9	360.1
60°	341.4	339.2	337.0	335.6	335.0	334.4	333.8	333.1
62.5°	314.9	312.8	310.8	309.3	308.5	307.7	307.0	306.2
65°	274.0	272.2	270.4	268.9	268.0	266.9	265.9	264.9
67.5°	233.6	232.3	230.9	229.7	228.9	228.1	227.3	226.5
70°	207.4	206.1	204.6	203.5	202.7	201.9	201.1	200.3
72.5°	182.7	181.3	179.9	178.8	178.2	177.5	176.9	176.2
75°	144.1	142.9	141.7	141.3	141.7	142.1	142.5	142.9
77.5°	109.7	109.1	108.4	107.9	107.3	106.7	106.2	105.6
80°	87.1	86.5	85.9	85.3	85.0	84.5	84.2	83.7
82.5°	64.9	64.1	63.4	63.0	62.9	62.8	62.7	62.6
85°	34.3	33.7	33.1	32.6	32.5	32.3	32.1	31.8
87.5°	15.3	14.7	14.2	13.8	13.7	13.6	13.5	13.4
90°	30.3	30.0	29.6	29.4	29.7	29.9	30.1	30.2
92.5°	28.4	28.5	28.6	28.7	28.7	28.7	28.8	28.8
95°	57.0	57.0	57.0	56.7	56.4	56.0	55.6	55.2
97.5°	95.8	95.8	95.8	95.8	95.7	95.7	95.6	95.6
100°	122.8	122.8	122.8	122.7	122.5	122.3	122.1	121.9
102.5°	152.3	152.5	152.7	152.6	152.4	152.2	152.0	151.9
105°	196.5	197.0	197.3	197.5	197.5	197.5	197.5	197.5
107.5°	244.3	244.5	244.6	244.2	243.3	242.5	241.6	240.6
110°	276.8	276.8	276.8	276.4	275.9	275.3	274.6	274.1



TEST NUMBER: P331364-940

CATALOG NUMBER: SA2XXDIP-C675D925U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	309.2	308.8	308.4	307.8	307.5	307.0	306.6	306.1
115°	359.1	358.9	358.7	358.3	357.8	357.1	356.5	356.0
117.5°	407.3	406.9	406.4	405.8	405.3	404.7	404.0	403.5
120°	439.6	439.6	439.6	439.3	438.7	438.1	437.6	436.9
122.5°	472.8	472.3	471.9	471.4	471.0	470.6	470.1	469.7
125°	522.1	521.5	520.8	520.5	520.3	520.0	519.9	519.7
127.5°	569.9	569.2	568.5	567.8	567.1	566.5	565.9	565.3
130°	602.5	602.2	601.7	601.2	600.4	599.6	598.8	598.0
132.5°	634.4	633.5	632.6	631.9	631.2	630.6	630.0	629.4
135°	681.3	681.1	680.8	680.5	679.8	679.3	678.7	678.1
137.5°	726.2	726.0	725.9	725.4	724.6	723.8	723.0	722.2
140°	756.4	756.4	756.4	756.0	755.2	754.4	753.7	752.9
142.5°	783.8	783.9	784.1	783.8	783.0	782.2	781.4	780.6
145°	825.3	825.5	825.7	825.5	824.7	823.9	823.0	822.2
147.5°	861.7	862.2	862.6	862.5	861.7	860.9	860.2	859.4
150°	884.8	885.5	886.0	886.0	885.5	884.8	884.2	883.7
152.5°	907.9	908.7	909.5	909.5	908.7	907.9	907.2	906.4
155°	937.3	938.3	939.2	939.4	938.8	938.3	937.6	937.0
157.5°	964.3	965.6	967.0	967.1	966.3	965.3	964.3	963.4
160°	980.3	981.5	982.8	982.9	982.1	981.3	980.5	979.7
162.5°	994.9	996.2	997.6	997.8	996.8	995.9	995.0	994.0
165°	1013.7	1015.0	1016.5	1016.6	1015.7	1014.7	1013.7	1012.7
167.5°	1029.1	1030.6	1031.9	1032.1	1031.1	1030.0	1029.0	1028.0
170°	1037.7	1039.1	1040.4	1040.5	1039.4	1038.2	1037.0	1035.8
172.5°	1044.1	1045.5	1046.9	1047.0	1045.8	1044.6	1043.4	1042.2
175°	1051.1	1052.4	1053.8	1053.9	1052.8	1051.5	1050.3	1049.2
177.5°	1054.3	1055.3	1056.1	1056.1	1055.3	1054.3	1053.3	1052.4
180°	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5	1054.5

(END OF REPORT)