

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: P331360-930

Luminaire Tested: **S122DIP-S675D925U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331360-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S675D925U930-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5209.1 lumens
Efficiency: N/A
Efficacy: 100.2 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

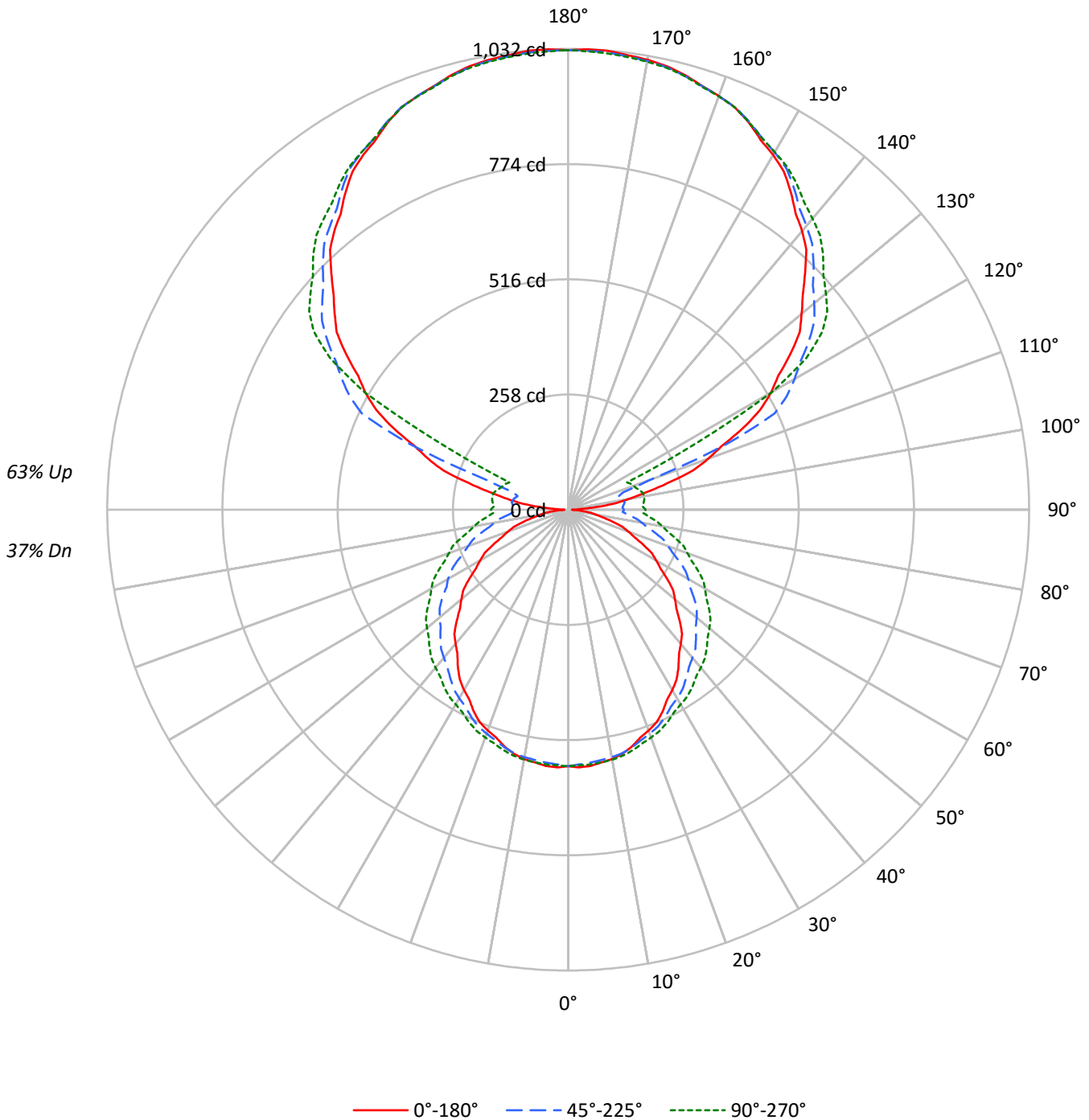
Input Watts (W): 52
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331360-930

CATALOG NUMBER: S122DIP-S675D925U930-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P331360-930

CATALOG NUMBER: S122DIP-S675D925U930-4F0-1E-UDD-D

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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37
1	94	89	85	81	85	81	77	74	65	63	60	51	49	47	38	36	35	29
2	85	77	71	65	77	70	64	60	56	52	49	44	41	39	32	31	29	24
3	77	67	60	54	69	61	55	49	49	45	41	38	35	32	28	26	24	19
4	70	59	51	45	63	54	47	41	44	38	34	34	30	27	25	23	20	16
5	64	53	44	38	58	48	41	35	39	33	29	30	26	23	22	20	18	14
6	59	47	39	33	53	43	36	30	35	29	25	27	23	20	20	18	15	12
7	55	42	34	29	49	39	31	26	31	26	22	25	21	18	18	16	14	11
8	51	38	30	25	46	35	28	23	29	23	19	23	19	16	17	14	12	9
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	8
10	44	32	25	20	40	29	23	18	24	19	15	19	15	13	14	12	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



TEST NUMBER: P331360-930

CATALOG NUMBER: S122DIP-S675D925U930-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	1.0
10°-20°	156.0	3.0
20°-30°	236.5	4.5
30°-40°	288.0	5.5
40°-50°	309.9	5.9
50°-60°	300.9	5.8
60°-70°	262.7	5.0
70°-80°	202.3	3.9
80°-90°	138.3	2.7
90°-100°	127.8	2.5
100°-110°	194.2	3.7
110°-120°	381.6	7.3
120°-130°	580.6	11.1
130°-140°	601.3	11.5
140°-150°	550.9	10.6
150°-160°	441.4	8.5
160°-170°	284.5	5.5
170°-180°	97.9	1.9
0°-30°	446.9	8.6
0°-40°	734.9	14.1
0°-60°	1345.7	25.8
0°-90°	1949.0	37.4
90°-120°	703.6	13.5
90°-150°	2436.4	46.8
90°-180°	3260.0	62.6
0°-180°	5209.1	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	66	125	160	173	8
95°	55	72	125	159	169	64
105°	230	266	117	153	166	247
115°	432	455	509	205	145	424
125°	607	618	658	684	695	541
135°	750	762	777	801	807	579
145°	869	869	881	891	892	544
155°	957	951	959	963	958	441
165°	1008	1004	1006	1011	1006	285
175°	1031	1026	1028	1032	1025	98
180°	1029	1029	1029	1029	1029	



TEST NUMBER: P331360-930

CATALOG NUMBER: S122DIP-S675D925U930-4F0-1E-UDD-D

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	27.9	39.2	50.6	62.0	73.8	85.9	98.0	110.1	122.1	129.9
90°	9.0	21.6	34.2	46.7	59.3	72.1	85.3	98.4	111.6	124.7	133.0
92.5°	22.7	32.5	42.3	52.2	62.0	72.9	85.0	97.0	109.1	121.2	128.8
95°	55.0	58.3	61.6	64.7	68.0	75.7	88.0	100.3	112.5	124.7	132.6
97.5°	101.9	94.2	86.6	78.9	71.3	74.1	87.4	100.8	114.1	127.4	134.9
100°	137.6	121.8	106.0	90.2	74.4	73.0	86.2	99.3	112.5	125.6	133.9
102.5°	176.3	177.7	179.2	180.7	182.1	176.1	162.6	149.1	135.7	122.2	130.6
105°	230.5	240.8	251.2	261.5	271.8	259.2	223.6	188.1	152.5	117.0	125.3
107.5°	293.3	301.7	310.0	318.2	326.5	308.2	263.3	218.3	173.3	128.3	132.7
110°	333.2	340.4	347.6	354.7	361.9	346.1	307.4	268.6	229.8	191.0	180.4



TEST NUMBER: P331360-930

CATALOG NUMBER: S122DIP-S675D925U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	371.3	377.5	383.7	389.9	396.1	397.5	394.4	391.2	388.0	384.7	330.4
115°	431.5	436.3	441.2	446.1	450.9	459.5	472.0	484.5	496.9	509.4	438.3
117.5°	484.4	488.9	493.3	497.8	502.3	509.8	520.3	530.9	541.4	552.0	538.9
120°	523.7	526.9	530.2	533.4	536.6	543.4	553.8	564.2	574.5	584.9	592.1
122.5°	557.1	560.0	562.9	565.8	568.8	575.3	585.5	595.7	605.8	616.0	622.3
125°	607.0	609.2	611.3	613.5	615.6	621.3	630.3	639.4	648.4	657.5	663.7
127.5°	653.1	655.3	657.5	659.7	661.9	666.5	673.6	680.8	687.9	695.0	701.2
130°	682.2	684.7	687.1	689.7	692.1	696.2	701.9	707.6	713.3	719.0	725.2
132.5°	712.0	714.1	716.2	718.2	720.3	723.7	728.6	733.4	738.2	743.0	748.9
135°	749.9	752.5	755.2	757.8	760.5	763.5	766.8	770.1	773.5	776.8	782.4
137.5°	789.0	790.9	792.7	794.5	796.3	798.5	801.0	803.5	806.0	808.5	813.5
140°	814.7	815.8	816.9	818.1	819.2	820.9	823.1	825.3	827.4	829.6	834.1
142.5°	836.2	837.1	838.1	839.2	840.2	841.7	843.9	846.0	848.2	850.4	854.1
145°	868.9	868.8	868.6	868.5	868.3	869.6	872.5	875.2	878.1	880.8	883.1
147.5°	898.3	897.6	897.1	896.4	895.8	896.8	899.6	902.5	905.2	908.0	909.0
150°	917.4	916.2	915.0	913.9	912.7	913.5	916.2	918.8	921.5	924.1	925.0
152.5°	933.4	932.1	930.8	929.6	928.3	928.9	931.4	933.9	936.5	939.0	940.0
155°	956.8	955.4	953.8	952.4	950.9	951.1	953.1	955.1	957.1	959.0	960.0
157.5°	975.1	973.9	972.7	971.3	970.1	970.2	971.6	973.0	974.4	975.8	976.9
160°	985.9	984.9	983.9	982.8	981.9	981.9	982.8	983.9	984.9	985.9	986.8
162.5°	995.4	994.4	993.4	992.4	991.4	991.3	992.2	993.0	993.9	994.8	995.9
165°	1008.2	1007.2	1006.2	1005.2	1004.2	1004.0	1004.4	1004.9	1005.5	1006.0	1007.1
167.5°	1017.7	1016.8	1015.8	1014.7	1013.7	1013.5	1014.0	1014.4	1014.9	1015.4	1016.5
170°	1023.1	1022.1	1021.1	1020.1	1019.1	1018.8	1019.1	1019.5	1019.8	1020.1	1021.2
172.5°	1026.6	1025.6	1024.7	1023.7	1022.7	1022.4	1022.7	1023.0	1023.4	1023.7	1024.8
175°	1031.3	1030.1	1029.0	1027.8	1026.6	1026.2	1026.5	1026.9	1027.2	1027.5	1028.7
177.5°	1032.0	1031.1	1030.2	1029.2	1028.3	1027.9	1028.1	1028.2	1028.3	1028.4	1029.4
180°	1029.1	1029.1	1029.1	1029.1	1029.1	1029.1	1029.1	1029.1	1029.1	1029.1	1029.1



TEST NUMBER: P331360-930

CATALOG NUMBER: S122DIP-S675D925U930-4F0-1E-UDD-D

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°	137.6	145.3	153.0	158.1	160.5	163.0	165.4	167.8
90°	141.2	149.4	157.7	163.1	165.6	168.1	170.7	173.3
92.5°	136.5	144.2	151.9	156.9	159.3	161.8	164.2	166.6
95°	140.5	148.3	156.2	161.1	163.2	165.3	167.3	169.3
97.5°	142.4	149.9	157.4	162.4	164.8	167.1	169.5	171.9
100°	142.0	150.2	158.3	163.6	166.0	168.4	170.7	173.1
102.5°	139.0	147.5	155.9	161.3	163.8	166.3	168.8	171.3
105°	133.5	141.9	150.2	155.6	158.3	161.0	163.8	166.5
107.5°	137.1	141.5	145.8	149.3	152.1	154.7	157.4	160.1
110°	169.8	159.1	148.5	144.6	147.2	150.0	152.7	155.4



TEST NUMBER: P331360-930

CATALOG NUMBER: S122DIP-S675D925U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	275.9	221.4	167.0	141.0	143.6	146.2	148.7	151.3
115°	367.2	296.2	225.1	184.7	174.7	164.9	155.0	145.1
117.5°	525.9	512.8	499.8	474.6	437.3	400.1	362.8	325.5
120°	599.2	606.4	613.6	607.0	586.7	566.4	546.1	525.8
122.5°	628.5	634.7	641.0	642.8	640.2	637.6	635.0	632.3
125°	669.8	676.0	682.1	686.2	688.4	690.6	692.8	694.9
127.5°	707.5	713.8	720.1	724.1	725.8	727.6	729.3	731.0
130°	731.5	737.8	744.0	747.8	749.1	750.4	751.8	753.1
132.5°	754.6	760.5	766.4	770.0	771.3	772.6	773.9	775.2
135°	787.9	793.4	799.0	802.3	803.5	804.6	805.8	806.9
137.5°	818.6	823.6	828.6	831.4	832.2	832.8	833.6	834.2
140°	838.5	843.0	847.4	849.9	850.1	850.4	850.7	850.9
142.5°	857.9	861.5	865.3	867.2	867.3	867.5	867.6	867.7
145°	885.4	887.7	890.0	891.1	891.2	891.3	891.4	891.5
147.5°	910.0	911.0	912.0	912.4	912.2	911.9	911.7	911.4
150°	926.0	927.1	928.1	928.1	927.3	926.4	925.6	924.8
152.5°	940.9	941.9	942.9	942.9	941.8	940.7	939.6	938.5
155°	961.1	962.1	963.0	962.9	961.6	960.2	958.9	957.6
157.5°	978.0	979.1	980.2	980.2	978.8	977.5	976.2	975.0
160°	987.8	988.9	989.9	989.8	988.6	987.4	986.3	985.1
162.5°	997.0	998.2	999.3	999.1	997.8	996.3	994.9	993.4
165°	1008.3	1009.4	1010.6	1010.6	1009.4	1008.3	1007.1	1006.0
167.5°	1017.7	1018.8	1020.0	1019.8	1018.3	1016.8	1015.4	1013.8
170°	1022.5	1023.6	1024.7	1024.6	1023.1	1021.6	1020.1	1018.6
172.5°	1026.0	1027.2	1028.3	1028.2	1026.6	1025.2	1023.7	1022.2
175°	1029.9	1031.0	1032.2	1031.9	1030.3	1028.7	1027.0	1025.3
177.5°	1030.3	1031.3	1032.2	1032.0	1030.9	1029.6	1028.4	1027.3
180°	1029.1	1029.1	1029.1	1029.1	1029.1	1029.1	1029.1	1029.1

(END OF REPORT)