

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: P331985-930

Luminaire Tested: **S123DIP-S775D1025U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331985-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D1025U930-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1025 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5976.9 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

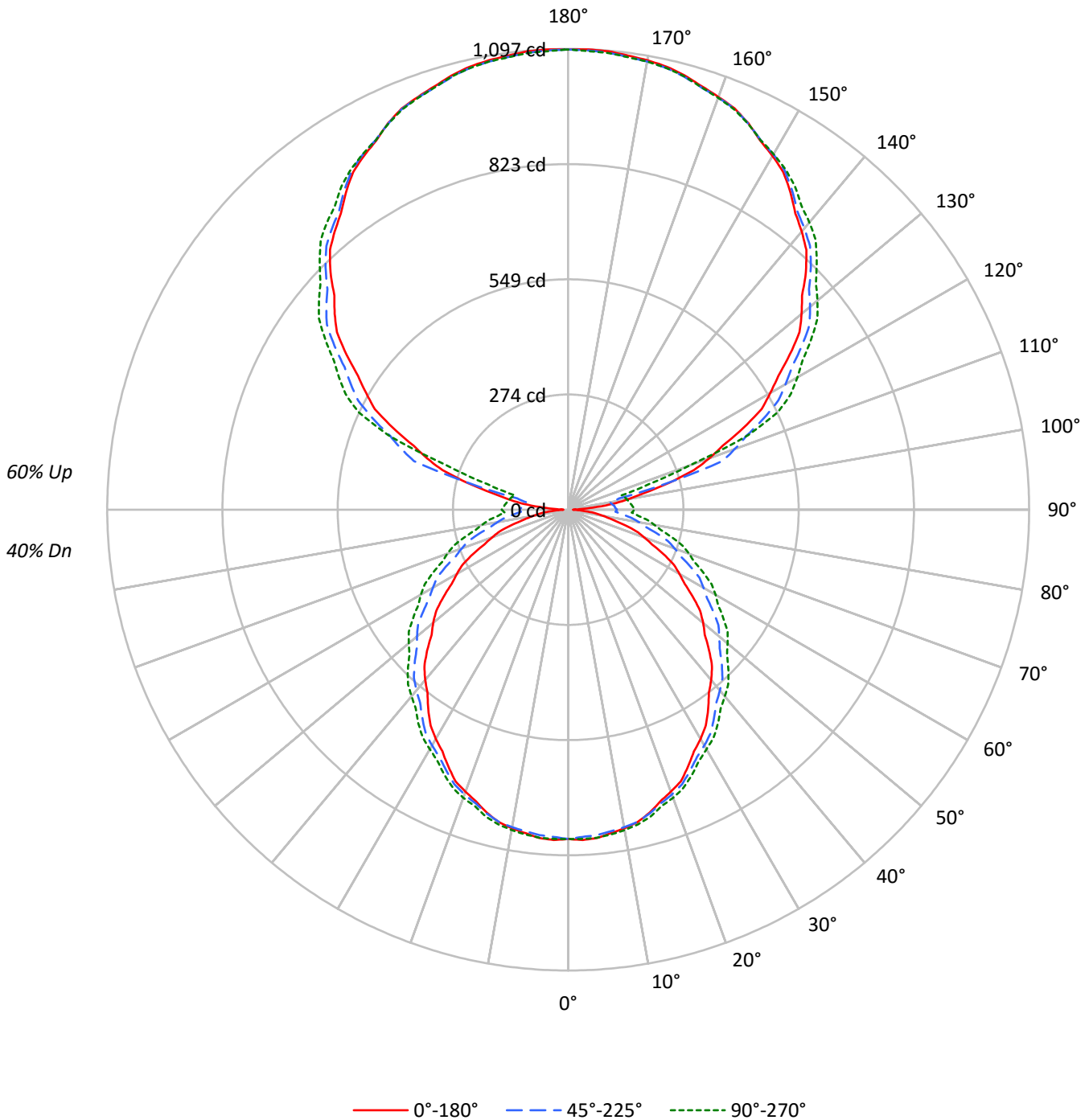
Input Watts (W): 52
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331985-930

CATALOG NUMBER: S123DIP-S775D1025U930-4F0-1E-UDD-D

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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	90	86	82	86	82	79	75	67	64	62	53	51	50	40	39	38	32
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	32	26
3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	28	26	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	25	22	20	16
6	60	48	40	34	54	44	37	31	36	31	27	29	25	22	22	19	17	14
7	55	43	35	30	50	40	32	27	33	27	23	26	22	19	20	17	15	12
8	51	39	31	26	47	36	29	24	30	24	21	24	20	17	19	16	13	11
9	48	36	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10
10	45	33	25	21	41	30	23	19	25	20	16	20	16	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8436	8436	8436
5°	8462	8223	8228
10°	8386	8033	7993
15°	8278	7819	7738
20°	8123	7573	7456
25°	7933	7290	7160
30°	7737	7036	6861
35°	7518	6767	6621
40°	7310	6522	6365
45°	7079	6288	6161
50°	6848	6055	5934
55°	6597	5818	5731
60°	6352	5577	5522
65°	6098	5319	5274
70°	5718	5030	5022
75°	5236	4699	4763
80°	4684	4372	4467
85°	4170	4150	4296



TEST NUMBER: P331985-930

CATALOG NUMBER: S123DIP-S775D1025U930-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	1.2
10°-20°	211.8	3.5
20°-30°	316.7	5.3
30°-40°	378.3	6.3
40°-50°	395.8	6.6
50°-60°	371.4	6.2
60°-70°	310.2	5.2
70°-80°	221.9	3.7
80°-90°	135.4	2.3
90°-100°	122.9	2.1
100°-110°	250.8	4.2
110°-120°	496.7	8.3
120°-130°	603.8	10.1
130°-140°	630.7	10.6
140°-150°	582.3	9.7
150°-160°	467.9	7.8
160°-170°	302.0	5.1
170°-180°	104.1	1.7
0°-30°	602.8	10.1
0°-40°	981.1	16.4
0°-60°	1748.2	29.2
0°-90°	2415.8	40.4
90°-120°	870.3	14.6
90°-150°	2687.2	45.0
90°-180°	3561.0	59.6
0°-180°	5976.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	784	784	784	784	784	
5°	785	783	778	784	784	74
15°	747	749	749	757	756	210
25°	674	683	686	696	697	311
35°	580	594	605	618	622	363
45°	475	495	516	532	540	366
55°	362	390	421	443	451	324
65°	250	284	321	346	355	247
75°	136	176	219	246	257	145
85°	42	85	130	158	167	44
90°	12	62	116	147	158	10
95°	59	62	110	141	150	69
105°	249	275	242	129	131	264
115°	459	476	512	540	551	453
125°	644	652	678	697	706	575
135°	800	804	817	834	836	616
145°	922	927	928	937	940	577
155°	1015	1013	1014	1018	1013	467
165°	1070	1068	1067	1073	1068	302
175°	1095	1092	1092	1097	1091	104
180°	1095	1095	1095	1095	1095	



TEST NUMBER: P331985-930

CATALOG NUMBER: S123DIP-S775D1025U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7
2.5°	787.1	786.6	786.2	785.7	785.3	784.4	783.3	782.0	780.8	779.6	780.8
5°	784.6	784.2	783.7	783.4	783.0	782.3	781.1	780.0	778.9	777.7	779.3
7.5°	776.8	776.9	777.0	777.1	777.1	776.7	775.5	774.5	773.3	772.3	774.1
10°	770.1	770.4	770.8	771.2	771.5	771.3	770.3	769.4	768.4	767.4	769.4
12.5°	761.8	762.4	762.9	763.4	763.9	763.9	763.3	762.6	762.0	761.3	763.0
15°	747.0	747.5	748.1	748.7	749.3	749.4	749.3	749.1	748.9	748.7	750.6
17.5°	728.2	729.4	730.5	731.6	732.7	733.3	733.2	733.1	733.0	733.0	734.7
20°	714.5	715.7	716.8	718.0	719.1	719.8	720.2	720.6	721.0	721.4	723.1
22.5°	700.2	701.3	702.5	703.6	704.7	705.6	706.1	706.6	707.2	707.7	709.9
25°	674.4	676.3	678.2	680.1	682.0	683.2	683.8	684.4	684.9	685.5	687.9
27.5°	648.5	650.6	652.8	654.9	657.1	658.8	660.0	661.2	662.4	663.7	665.8
30°	630.0	632.5	635.0	637.4	639.8	641.9	643.4	644.9	646.5	647.9	650.2
32.5°	609.5	612.3	615.1	617.8	620.6	623.0	624.9	627.0	628.9	630.9	633.3
35°	580.5	583.5	586.6	589.6	592.6	595.4	597.9	600.3	602.8	605.3	608.1
37.5°	549.8	553.2	556.6	560.0	563.5	566.6	569.7	572.7	575.8	578.8	582.0
40°	529.3	532.7	536.1	539.6	542.9	546.6	550.3	554.2	557.9	561.7	564.9
42.5°	506.7	510.9	515.1	519.3	523.4	527.5	531.4	535.4	539.3	543.3	546.8
45°	474.7	479.2	483.7	488.3	492.8	497.5	502.2	507.0	511.8	516.5	520.1
47.5°	441.0	446.2	451.3	456.5	461.6	466.9	472.4	477.8	483.2	488.6	492.7
50°	419.1	424.4	429.7	435.1	440.4	446.0	451.9	457.8	463.7	469.5	473.9
52.5°	395.9	401.5	407.2	412.8	418.4	424.4	431.0	437.4	443.9	450.4	454.9
55°	362.0	368.2	374.5	380.7	387.0	393.5	400.4	407.2	414.0	420.9	426.0
57.5°	328.8	335.3	341.9	348.4	355.0	361.9	369.4	376.9	384.3	391.8	397.0
60°	305.7	312.4	319.3	326.1	333.0	340.2	348.1	355.8	363.5	371.4	376.7
62.5°	283.7	290.7	297.7	304.7	311.7	319.3	327.5	335.7	344.0	352.2	357.5
65°	250.1	257.6	264.9	272.3	279.7	287.6	296.0	304.3	312.7	321.0	326.7
67.5°	216.0	223.8	231.7	239.5	247.4	255.6	264.1	272.6	281.0	289.6	295.8
70°	192.1	200.2	208.4	216.5	224.7	233.3	242.5	251.5	260.7	269.8	275.8
72.5°	170.2	178.4	186.5	194.7	202.8	211.7	221.0	230.5	239.9	249.2	255.5
75°	135.7	144.6	153.6	162.5	171.4	180.6	190.0	199.6	209.0	218.6	224.8
77.5°	105.7	114.7	123.7	132.6	141.6	150.9	160.5	170.1	179.6	189.1	195.8
80°	84.5	93.8	103.1	112.4	121.7	131.3	141.1	151.0	160.9	170.7	177.2
82.5°	66.0	75.5	85.0	94.4	103.9	113.6	123.6	133.6	143.7	153.7	160.1
85°	41.8	51.3	60.8	70.3	79.7	89.5	99.6	109.7	119.7	129.8	136.2
87.5°	22.9	32.7	42.5	52.3	62.1	72.1	82.3	92.4	102.5	112.7	119.3
90°	11.9	23.0	34.1	45.2	56.3	67.9	79.9	92.0	104.0	116.0	123.2
92.5°	25.5	33.4	41.3	49.2	57.1	66.7	77.9	89.3	100.5	111.9	119.3
95°	59.0	59.0	59.0	58.9	58.9	64.6	75.9	87.2	98.5	109.7	116.9
97.5°	108.1	111.5	114.9	118.2	121.6	121.2	117.0	112.8	108.7	104.6	111.7
100°	145.2	154.9	164.6	174.3	183.9	179.0	159.6	140.1	120.6	101.1	108.1
102.5°	187.5	195.6	203.7	211.7	219.8	212.7	190.5	168.2	145.9	123.7	124.6
105°	249.3	255.8	262.4	269.0	275.5	274.8	266.6	258.4	250.4	242.2	215.6
107.5°	313.7	319.2	324.7	330.1	335.6	343.5	353.8	364.1	374.4	384.7	366.3
110°	356.7	361.5	366.4	371.3	376.1	383.4	392.9	402.5	412.1	421.7	420.6



TEST NUMBER: P331985-930

CATALOG NUMBER: S123DIP-S775D1025U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	398.4	402.4	406.6	410.7	414.8	421.5	430.7	440.0	449.3	458.6	463.5
115°	459.2	462.5	465.9	469.3	472.6	478.5	487.0	495.5	503.9	512.3	518.7
117.5°	518.8	521.5	524.2	526.9	529.7	534.7	541.9	549.2	556.4	563.7	569.6
120°	555.1	557.7	560.4	562.9	565.5	570.1	577.0	583.8	590.6	597.4	603.2
122.5°	592.9	594.8	596.6	598.4	600.2	604.5	611.1	617.8	624.4	631.0	636.3
125°	643.8	645.3	646.7	648.2	649.6	653.5	659.7	665.9	672.1	678.3	682.7
127.5°	694.0	695.2	696.5	697.7	699.0	702.3	707.8	713.1	718.6	724.0	728.3
130°	725.2	726.4	727.7	729.0	730.3	733.1	737.6	742.2	746.7	751.2	755.5
132.5°	754.5	755.9	757.2	758.7	760.1	762.6	766.2	769.8	773.5	777.1	781.2
135°	800.1	801.0	801.8	802.7	803.6	805.4	808.3	811.1	813.9	816.7	820.7
137.5°	838.9	840.2	841.4	842.6	843.8	845.2	846.8	848.4	849.9	851.5	855.4
140°	864.3	865.4	866.4	867.6	868.6	869.8	870.8	872.0	873.0	874.2	877.8
142.5°	888.4	889.3	890.2	891.2	892.1	892.9	893.6	894.2	894.9	895.5	898.6
145°	922.0	923.2	924.2	925.3	926.3	927.1	927.5	927.8	928.1	928.5	930.4
147.5°	952.9	953.8	954.6	955.4	956.3	956.8	957.2	957.6	958.0	958.3	959.1
150°	972.5	973.1	973.5	974.1	974.6	975.1	975.4	975.8	976.2	976.6	976.9
152.5°	990.0	990.3	990.6	990.8	991.1	991.3	991.5	991.7	992.0	992.1	992.8
155°	1014.8	1014.4	1014.1	1013.7	1013.3	1013.3	1013.4	1013.6	1013.8	1014.0	1014.9
157.5°	1034.0	1034.0	1034.0	1033.9	1033.9	1033.7	1033.6	1033.4	1033.2	1033.0	1034.1
160°	1045.7	1045.5	1045.4	1045.2	1045.0	1044.8	1044.6	1044.5	1044.2	1044.1	1045.2
162.5°	1056.8	1056.3	1055.8	1055.4	1054.9	1054.6	1054.4	1054.2	1054.0	1053.9	1055.1
165°	1070.2	1069.6	1069.0	1068.5	1068.0	1067.6	1067.4	1067.2	1067.1	1066.9	1068.3
167.5°	1080.5	1079.9	1079.1	1078.4	1077.7	1077.3	1077.3	1077.3	1077.3	1077.3	1078.7
170°	1086.4	1085.7	1085.0	1084.3	1083.5	1083.1	1083.1	1083.1	1083.1	1083.1	1084.6
172.5°	1090.3	1089.5	1088.6	1087.7	1086.9	1086.5	1086.6	1086.8	1086.9	1087.0	1088.5
175°	1095.4	1094.5	1093.6	1092.7	1091.8	1091.4	1091.5	1091.8	1091.9	1092.1	1093.4
177.5°	1096.7	1095.9	1095.2	1094.5	1093.8	1093.5	1093.6	1093.8	1093.9	1094.1	1095.2
180°	1095.4	1095.4	1095.4	1095.4	1095.4	1095.4	1095.4	1095.4	1095.4	1095.4	1095.4



TEST NUMBER: P331985-930

CATALOG NUMBER: S123DIP-S775D1025U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7
2.5°	782.0	783.3	784.4	785.0	784.8	784.6	784.5	784.4
5°	780.7	782.3	783.7	784.4	784.2	784.1	783.9	783.7
7.5°	776.0	778.0	779.8	780.6	780.4	780.2	780.0	779.8
10°	771.3	773.1	775.0	775.8	775.4	775.0	774.7	774.3
12.5°	764.8	766.5	768.3	769.0	768.6	768.3	767.8	767.4
15°	752.4	754.4	756.3	757.1	756.9	756.8	756.5	756.4
17.5°	736.4	738.1	739.8	740.5	740.3	740.0	739.7	739.5
20°	724.8	726.5	728.2	729.1	729.4	729.5	729.7	729.9
22.5°	712.0	714.2	716.3	717.4	717.3	717.1	717.1	716.9
25°	690.5	692.9	695.4	696.6	696.6	696.6	696.6	696.6
27.5°	667.9	670.0	672.1	673.3	673.4	673.6	673.8	673.9
30°	652.5	654.8	657.0	658.2	658.2	658.2	658.2	658.2
32.5°	635.7	638.1	640.6	642.0	642.5	642.9	643.4	643.8
35°	611.0	613.8	616.6	618.5	619.2	620.0	620.7	621.5
37.5°	585.2	588.5	591.7	593.6	594.2	594.8	595.4	596.1
40°	568.2	571.4	574.6	576.6	577.4	578.1	578.9	579.7
42.5°	550.3	553.8	557.4	559.7	560.8	561.8	562.9	563.9
45°	523.7	527.3	530.9	533.5	535.0	536.5	538.0	539.6
47.5°	496.8	500.8	504.9	507.5	508.7	509.9	511.0	512.2
50°	478.3	482.6	487.0	489.8	491.1	492.4	493.8	495.1
52.5°	459.4	464.0	468.5	471.6	473.2	474.8	476.5	478.1
55°	431.1	436.3	441.3	444.7	446.2	447.7	449.2	450.8
57.5°	402.2	407.3	412.5	416.0	417.8	419.6	421.3	423.1
60°	382.0	387.3	392.6	396.3	398.4	400.5	402.6	404.6
62.5°	362.9	368.2	373.5	377.1	379.0	381.0	382.9	384.8
65°	332.4	338.0	343.7	347.6	349.4	351.3	353.3	355.1
67.5°	302.0	308.3	314.5	318.4	319.9	321.6	323.2	324.7
70°	281.9	288.0	294.1	298.0	299.9	301.8	303.7	305.7
72.5°	261.7	267.9	274.2	278.3	280.1	282.0	283.9	285.8
75°	231.1	237.3	243.6	247.9	250.1	252.4	254.7	257.0
77.5°	202.4	209.0	215.6	219.7	221.5	223.2	225.0	226.7
80°	183.6	190.0	196.6	200.7	202.6	204.5	206.4	208.3
82.5°	166.6	173.0	179.4	183.6	185.6	187.4	189.3	191.2
85°	142.7	149.1	155.6	159.7	161.6	163.5	165.4	167.3
87.5°	125.9	132.5	139.0	143.3	145.3	147.2	149.2	151.2
90°	130.4	137.5	144.7	149.4	151.6	153.9	156.2	158.4
92.5°	126.8	134.2	141.7	146.3	148.3	150.3	152.2	154.3
95°	124.0	131.2	138.4	142.8	144.7	146.7	148.5	150.4
97.5°	118.8	125.9	133.0	137.5	139.7	141.7	143.8	145.9
100°	115.0	122.0	128.9	133.5	135.5	137.6	139.7	141.8
102.5°	125.5	126.3	127.2	128.7	130.9	133.1	135.4	137.6
105°	188.8	162.2	135.4	123.1	125.2	127.3	129.4	131.4
107.5°	347.9	329.5	311.1	290.7	268.2	245.8	223.4	200.9
110°	419.6	418.6	417.5	404.8	380.5	356.1	331.8	307.4



TEST NUMBER: P331985-930

CATALOG NUMBER: S123DIP-S775D1025U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	468.4	473.2	478.1	478.7	474.9	471.1	467.3	463.5
115°	525.1	531.4	537.8	542.1	544.4	546.6	548.9	551.1
117.5°	575.6	581.6	587.5	591.3	593.0	594.6	596.2	597.8
120°	609.0	614.8	620.6	624.2	625.5	626.8	628.2	629.5
122.5°	641.5	646.7	652.0	655.3	656.8	658.3	659.7	661.2
125°	687.1	691.4	695.7	698.7	700.4	702.1	703.8	705.5
127.5°	732.7	737.0	741.4	744.0	744.9	745.8	746.7	747.7
130°	759.9	764.2	768.5	771.0	771.8	772.6	773.4	774.1
132.5°	785.5	789.6	793.8	796.2	797.0	797.9	798.6	799.4
135°	824.6	828.6	832.5	834.7	835.1	835.5	835.9	836.3
137.5°	859.2	863.1	867.0	869.2	869.8	870.3	871.0	871.6
140°	881.3	884.8	888.4	890.6	891.1	891.7	892.3	892.8
142.5°	901.8	904.9	908.0	909.8	910.2	910.7	911.1	911.6
145°	932.3	934.2	936.0	937.3	938.2	938.9	939.6	940.4
147.5°	959.9	960.7	961.6	961.9	961.8	961.6	961.5	961.3
150°	977.3	977.6	978.0	978.1	978.0	977.8	977.6	977.5
152.5°	993.4	994.1	994.7	994.7	993.9	993.2	992.5	991.7
155°	1015.8	1016.7	1017.6	1017.5	1016.4	1015.4	1014.2	1013.2
157.5°	1035.2	1036.2	1037.4	1037.2	1035.8	1034.4	1033.0	1031.6
160°	1046.3	1047.3	1048.4	1048.3	1047.1	1045.8	1044.6	1043.3
162.5°	1056.3	1057.5	1058.7	1058.8	1057.7	1056.5	1055.5	1054.3
165°	1069.8	1071.2	1072.7	1072.8	1071.5	1070.2	1068.9	1067.7
167.5°	1080.2	1081.7	1083.0	1083.0	1081.7	1080.2	1078.7	1077.3
170°	1086.1	1087.5	1088.9	1088.9	1087.5	1086.1	1084.6	1083.1
172.5°	1090.0	1091.4	1092.8	1092.7	1091.2	1089.6	1088.0	1086.4
175°	1094.6	1095.9	1097.1	1097.1	1095.6	1094.2	1092.7	1091.3
177.5°	1096.3	1097.6	1098.7	1098.5	1097.1	1095.7	1094.2	1092.7
180°	1095.4	1095.4	1095.4	1095.4	1095.4	1095.4	1095.4	1095.4

(END OF REPORT)