

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: P332030-930

Luminaire Tested: **S123DIP-S1000D1025U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332030-930
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-S1000D1025U930-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 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: 6766.5 lumens
Efficiency: N/A
Efficacy: 111.8 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

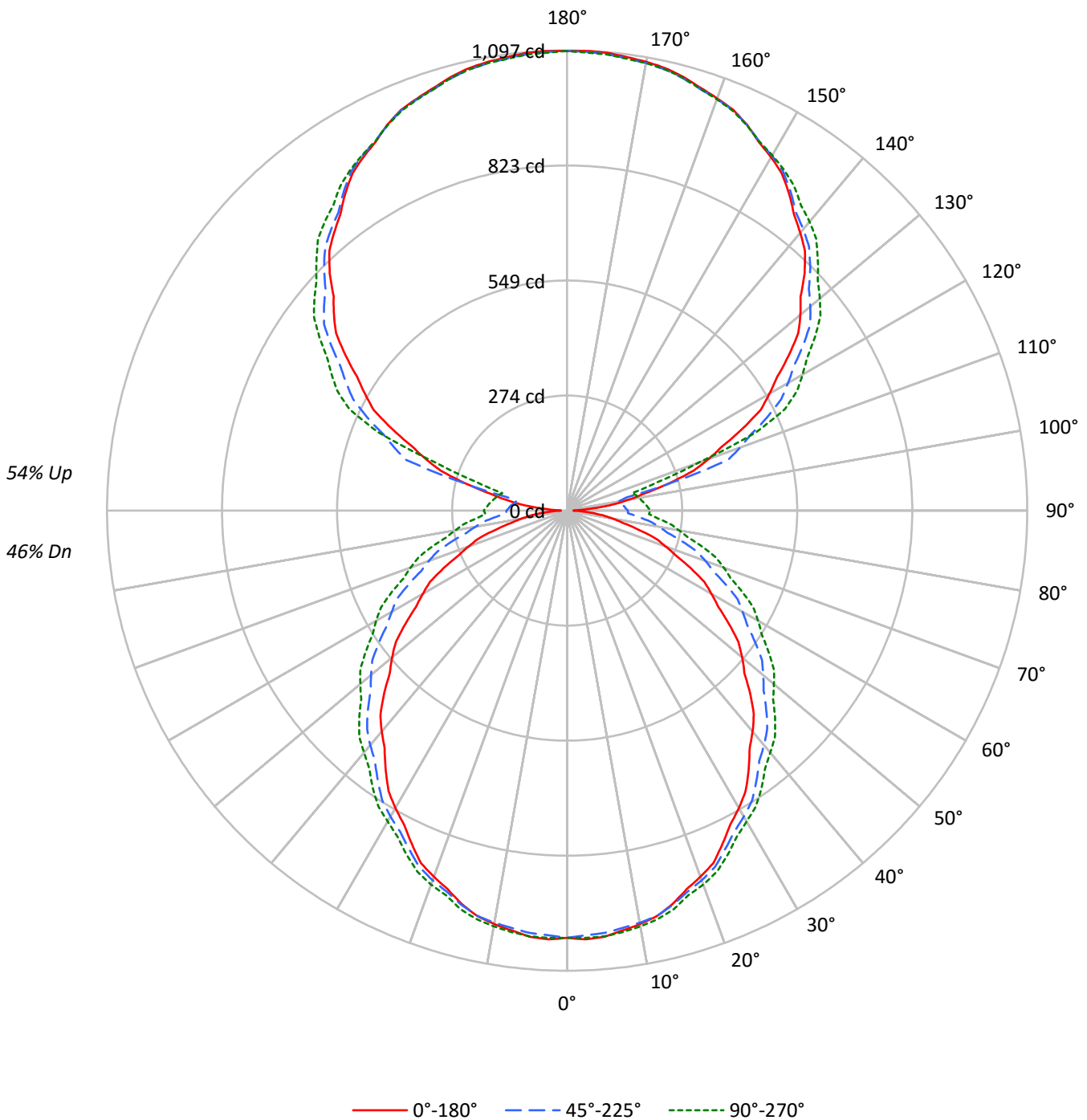
Input Watts (W): 60.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332030-930

CATALOG NUMBER: S123DIP-S1000D1025U930-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332030-930

CATALOG NUMBER: S123DIP-S1000D1025U930-4F0-1E-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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46
1	96	91	87	83	88	84	80	77	70	67	65	57	55	53	45	44	43	37
2	87	79	73	67	79	73	67	62	61	56	53	49	46	44	39	37	35	30
3	79	69	62	55	72	64	57	52	53	48	44	43	40	37	34	32	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	31	28	25	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	49	40	34	56	45	37	32	38	32	28	31	27	23	25	22	19	16
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	23	19	17	14
8	52	40	32	26	48	37	30	25	31	25	21	26	21	18	21	17	15	13
9	48	36	28	23	44	33	27	22	28	23	19	24	19	16	19	16	14	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10964	10964	10964
5°	10999	10689	10694
10°	10900	10443	10390
15°	10759	10162	10058
20°	10559	9844	9692
25°	10311	9476	9308
30°	10057	9145	8918
35°	9773	8796	8606
40°	9500	8479	8272
45°	9199	8172	8007
50°	8904	7871	7713
55°	8574	7562	7449
60°	8255	7248	7178
65°	7926	6915	6856
70°	7430	6538	6527
75°	6807	6107	6190
80°	6087	5683	5807
85°	5426	5394	5585



TEST NUMBER: P332030-930

CATALOG NUMBER: S123DIP-S1000D1025U930-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.4
10°-20°	275.3	4.1
20°-30°	411.7	6.1
30°-40°	491.7	7.3
40°-50°	514.4	7.6
50°-60°	482.8	7.1
60°-70°	403.2	6.0
70°-80°	288.5	4.3
80°-90°	175.1	2.6
90°-100°	147.8	2.2
100°-110°	269.1	4.0
110°-120°	508.9	7.5
120°-130°	610.8	9.0
130°-140°	633.9	9.4
140°-150°	582.9	8.6
150°-160°	467.9	6.9
160°-170°	302.0	4.5
170°-180°	104.1	1.5
0°-30°	783.6	11.6
0°-40°	1275.2	18.8
0°-60°	2272.4	33.6
0°-90°	3139.2	46.4
90°-120°	925.8	13.7
90°-150°	2753.4	40.7
90°-180°	3627.0	53.6
0°-180°	6766.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1020	1017	1011	1019	1019	97
15°	971	974	973	984	983	273
25°	877	887	891	905	906	404
35°	755	772	787	803	808	472
45°	617	644	671	692	701	476
55°	470	507	547	576	586	421
65°	325	369	417	449	462	321
75°	176	229	284	319	334	188
85°	54	110	169	205	218	57
90°	15	78	145	184	199	12
95°	62	75	135	174	186	71
105°	251	284	262	155	160	266
115°	460	480	526	559	573	455
125°	645	653	687	711	721	576
135°	800	805	820	841	845	616
145°	922	927	928	939	944	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: P332030-930

CATALOG NUMBER: S123DIP-S1000D1025U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1023.1	1022.5	1021.9	1021.3	1020.8	1019.6	1018.1	1016.5	1014.9	1013.3	1014.9
5°	1019.8	1019.3	1018.8	1018.3	1017.8	1016.8	1015.4	1013.8	1012.4	1010.9	1012.8
7.5°	1009.7	1009.9	1010.0	1010.1	1010.2	1009.5	1008.1	1006.7	1005.2	1003.8	1006.2
10°	1000.9	1001.4	1001.9	1002.4	1002.9	1002.5	1001.3	1000.0	998.8	997.6	1000.0
12.5°	990.3	990.9	991.6	992.3	993.0	993.0	992.1	991.2	990.4	989.6	991.9
15°	970.9	971.7	972.4	973.1	973.9	974.1	973.9	973.6	973.4	973.1	975.7
17.5°	946.6	948.0	949.5	951.0	952.4	953.2	953.1	952.9	952.8	952.8	955.0
20°	928.8	930.3	931.7	933.2	934.7	935.7	936.2	936.7	937.2	937.7	939.9
22.5°	910.1	911.6	913.1	914.6	916.1	917.1	917.9	918.5	919.2	919.9	922.7
25°	876.6	879.1	881.6	884.0	886.5	888.1	888.8	889.6	890.3	891.0	894.2
27.5°	842.9	845.7	848.5	851.3	854.1	856.3	857.9	859.5	861.0	862.7	865.4
30°	818.9	822.1	825.3	828.5	831.8	834.3	836.3	838.3	840.2	842.2	845.2
32.5°	792.3	795.9	799.5	803.1	806.7	809.8	812.4	814.9	817.5	820.0	823.2
35°	754.6	758.5	762.5	766.4	770.4	773.9	777.1	780.3	783.5	786.8	790.4
37.5°	714.6	719.1	723.5	727.9	732.4	736.5	740.5	744.4	748.4	752.4	756.5
40°	687.9	692.4	696.8	701.3	705.7	710.5	715.3	720.3	725.2	730.2	734.3
42.5°	658.7	664.1	669.5	675.0	680.4	685.7	690.8	695.9	701.1	706.2	710.8
45°	616.9	622.9	628.8	634.7	640.7	646.7	652.8	659.0	665.2	671.3	676.0
47.5°	573.2	579.9	586.7	593.4	600.1	607.0	614.0	621.1	628.1	635.2	640.4
50°	544.9	551.7	558.6	565.6	572.4	579.8	587.3	595.0	602.7	610.3	616.0
52.5°	514.6	522.0	529.3	536.5	543.9	551.7	560.2	568.6	577.0	585.5	591.3
55°	470.5	478.7	486.7	494.9	503.0	511.5	520.4	529.3	538.2	547.1	553.8
57.5°	427.5	435.9	444.4	452.9	461.4	470.5	480.2	489.9	499.6	509.3	516.0
60°	397.3	406.1	415.0	423.9	432.8	442.2	452.3	462.5	472.6	482.7	489.6
62.5°	368.8	377.9	387.0	396.1	405.1	415.1	425.7	436.4	447.1	457.9	464.7
65°	325.1	334.8	344.4	354.0	363.6	373.8	384.7	395.5	406.3	417.3	424.6
67.5°	280.7	291.0	301.2	311.4	321.6	332.2	343.2	354.3	365.3	376.4	384.5
70°	249.6	260.2	270.8	281.5	292.1	303.3	315.1	327.0	338.8	350.7	358.6
72.5°	221.3	231.9	242.5	253.1	263.7	275.1	287.3	299.5	311.8	324.0	332.1
75°	176.4	188.0	199.6	211.2	222.8	234.7	247.1	259.4	271.7	284.1	292.2
77.5°	137.4	149.0	160.8	172.4	184.1	196.2	208.6	221.0	233.5	245.9	254.5
80°	109.8	122.0	134.0	146.1	158.2	170.6	183.4	196.3	209.1	221.9	230.3
82.5°	85.9	98.2	110.5	122.7	135.0	147.7	160.7	173.7	186.7	199.7	208.1
85°	54.4	66.7	79.0	91.4	103.7	116.4	129.5	142.5	155.6	168.7	177.1
87.5°	29.7	42.3	55.0	67.6	80.2	93.1	106.2	119.2	132.2	145.3	153.8
90°	15.2	29.1	43.0	56.9	70.8	85.2	100.1	115.0	130.0	145.0	154.0
92.5°	28.7	39.1	49.5	59.8	70.3	82.5	96.7	110.8	125.0	139.1	148.5
95°	61.9	64.1	66.3	68.5	70.7	78.8	92.9	107.0	121.0	135.1	144.0
97.5°	110.6	116.0	121.3	126.7	132.1	134.0	132.5	131.0	129.6	128.1	136.9
100°	147.5	159.1	170.6	182.1	193.6	190.9	174.0	157.1	140.2	123.4	132.0
102.5°	189.6	199.3	209.0	218.7	228.4	223.5	203.7	184.1	164.4	144.8	147.2
105°	251.4	259.3	267.2	275.1	283.0	284.1	278.4	272.8	267.1	261.5	236.4
107.5°	315.5	322.1	328.7	335.3	341.9	351.6	364.2	376.8	389.5	402.1	385.2
110°	358.2	364.1	370.0	375.9	381.7	390.6	402.5	414.3	426.2	438.1	438.5



TEST NUMBER: P332030-930

CATALOG NUMBER: S123DIP-S1000D1025U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	399.9	404.8	409.8	414.7	419.7	427.9	439.4	450.8	462.3	473.7	480.0
115°	460.5	464.5	468.6	472.6	476.6	483.9	494.4	504.9	515.4	525.9	533.6
117.5°	520.0	523.1	526.3	529.5	532.6	538.7	548.0	557.1	566.3	575.4	582.8
120°	556.2	559.1	561.9	564.8	567.6	573.4	582.0	590.8	599.4	608.1	615.2
122.5°	593.9	595.9	597.9	599.9	601.9	607.1	615.5	623.9	632.3	640.8	647.3
125°	644.6	646.0	647.5	648.9	650.4	655.0	662.9	670.8	678.7	686.6	692.1
127.5°	694.7	695.9	697.2	698.3	699.5	703.5	710.3	717.1	723.9	730.7	736.1
130°	725.9	727.2	728.4	729.6	730.8	734.2	739.9	745.5	751.1	756.8	762.2
132.5°	755.0	756.4	757.8	759.2	760.6	763.6	768.1	772.7	777.1	781.7	786.9
135°	800.5	801.4	802.3	803.1	803.9	806.0	809.5	812.9	816.4	819.8	824.8
137.5°	839.4	840.6	841.7	842.9	844.1	845.6	847.6	849.5	851.4	853.4	858.1
140°	864.5	865.6	866.7	867.8	868.9	870.1	871.3	872.6	873.9	875.2	879.6
142.5°	888.6	889.5	890.4	891.3	892.2	893.0	893.6	894.4	895.0	895.8	899.6
145°	922.3	923.3	924.4	925.4	926.4	927.1	927.5	927.8	928.1	928.5	930.8
147.5°	952.9	953.8	954.6	955.4	956.3	956.8	957.2	957.6	958.0	958.3	959.3
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: P332030-930

CATALOG NUMBER: S123DIP-S1000D1025U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1016.5	1018.1	1019.6	1020.3	1020.1	1019.9	1019.8	1019.5
5°	1014.8	1016.8	1018.8	1019.6	1019.4	1019.1	1018.9	1018.6
7.5°	1008.7	1011.2	1013.7	1014.7	1014.5	1014.2	1013.8	1013.6
10°	1002.5	1004.9	1007.5	1008.4	1008.0	1007.5	1007.0	1006.5
12.5°	994.1	996.4	998.7	999.6	999.1	998.6	998.1	997.6
15°	978.1	980.6	983.0	984.1	983.9	983.7	983.4	983.2
17.5°	957.2	959.4	961.6	962.5	962.2	961.9	961.6	961.2
20°	942.1	944.3	946.6	947.8	948.0	948.3	948.5	948.8
22.5°	925.5	928.3	931.2	932.5	932.3	932.2	932.1	931.9
25°	897.5	900.7	903.8	905.5	905.5	905.5	905.5	905.5
27.5°	868.1	870.9	873.7	875.1	875.4	875.5	875.8	876.0
30°	848.2	851.1	854.0	855.6	855.6	855.6	855.6	855.6
32.5°	826.4	829.5	832.7	834.5	835.1	835.7	836.3	836.9
35°	794.1	797.9	801.5	803.9	804.9	805.8	806.8	807.8
37.5°	760.8	764.9	769.2	771.6	772.4	773.1	774.0	774.8
40°	738.5	742.7	746.9	749.5	750.5	751.5	752.4	753.4
42.5°	715.3	719.9	724.6	727.5	728.9	730.3	731.6	733.0
45°	680.7	685.4	690.1	693.4	695.4	697.3	699.4	701.3
47.5°	645.7	651.0	656.2	659.7	661.2	662.8	664.2	665.8
50°	621.7	627.3	633.0	636.7	638.5	640.2	641.9	643.6
52.5°	597.2	603.1	608.9	612.9	615.1	617.2	619.3	621.4
55°	560.4	567.0	573.7	578.0	580.0	582.0	583.9	585.9
57.5°	522.8	529.5	536.1	540.7	543.0	545.3	547.6	549.9
60°	496.5	503.4	510.3	515.1	517.9	520.6	523.3	525.9
62.5°	471.7	478.6	485.4	490.2	492.7	495.2	497.7	500.3
65°	432.0	439.4	446.8	451.8	454.2	456.6	459.2	461.6
67.5°	392.6	400.6	408.7	413.8	415.9	418.0	420.0	422.1
70°	366.4	374.3	382.2	387.4	389.9	392.3	394.8	397.3
72.5°	340.2	348.3	356.4	361.7	364.1	366.6	369.1	371.5
75°	300.4	308.5	316.6	322.2	325.1	328.1	331.0	334.0
77.5°	263.1	271.7	280.2	285.7	287.9	290.2	292.4	294.7
80°	238.7	247.1	255.4	260.9	263.3	265.8	268.3	270.8
82.5°	216.5	224.9	233.3	238.7	241.2	243.6	246.1	248.6
85°	185.4	193.8	202.2	207.7	210.1	212.5	215.0	217.5
87.5°	162.3	170.9	179.4	184.9	187.4	190.0	192.6	195.1
90°	163.1	172.3	181.3	187.4	190.1	193.0	195.8	198.6
92.5°	157.8	167.1	176.5	182.4	184.9	187.4	189.9	192.3
95°	152.9	161.8	170.7	176.4	178.9	181.3	183.8	186.3
97.5°	145.7	154.4	163.2	169.0	171.6	174.2	176.9	179.5
100°	140.6	149.2	157.8	163.4	166.1	168.7	171.4	174.0
102.5°	149.7	152.1	154.7	157.3	160.0	162.8	165.7	168.4
105°	211.2	186.1	161.0	149.8	152.4	154.9	157.5	160.1
107.5°	368.4	351.6	334.7	315.3	293.3	271.3	249.4	227.4
110°	439.0	439.4	439.8	428.1	404.2	380.3	356.4	332.6



TEST NUMBER: P332030-930

CATALOG NUMBER: S123DIP-S1000D1025U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	486.4	492.7	499.0	500.5	497.3	493.9	490.6	487.4
115°	541.4	549.1	556.8	562.1	564.8	567.4	570.1	572.8
117.5°	590.1	597.4	604.7	609.4	611.5	613.5	615.6	617.7
120°	622.3	629.5	636.6	641.0	642.7	644.5	646.2	647.9
122.5°	653.8	660.2	666.8	670.9	672.8	674.7	676.5	678.4
125°	697.7	703.2	708.7	712.5	714.6	716.7	718.8	720.9
127.5°	741.6	747.1	752.5	755.9	757.2	758.6	759.9	761.2
130°	767.6	773.1	778.4	781.7	782.9	784.0	785.1	786.2
132.5°	792.1	797.3	802.5	805.7	806.9	808.0	809.3	810.4
135°	829.7	834.7	839.7	842.5	843.3	843.9	844.7	845.3
137.5°	862.9	867.6	872.4	875.2	876.1	876.9	877.8	878.7
140°	884.0	888.4	892.9	895.5	896.4	897.2	898.1	899.0
142.5°	903.5	907.3	911.3	913.5	914.3	915.0	915.7	916.5
145°	933.2	935.6	937.8	939.6	940.5	941.5	942.5	943.5
147.5°	960.3	961.2	962.1	962.6	962.7	962.8	962.8	962.9
150°	977.3	977.6	978.0	978.1	978.1	978.0	978.0	978.0
152.5°	993.4	994.1	994.7	994.7	994.0	993.3	992.5	991.8
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)