

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: P332021-940

Luminaire Tested: **S123DIP-S1000D805U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332021-940
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-S1000D805U940-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6608.1 lumens
Efficiency: N/A
Efficacy: 121.5 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

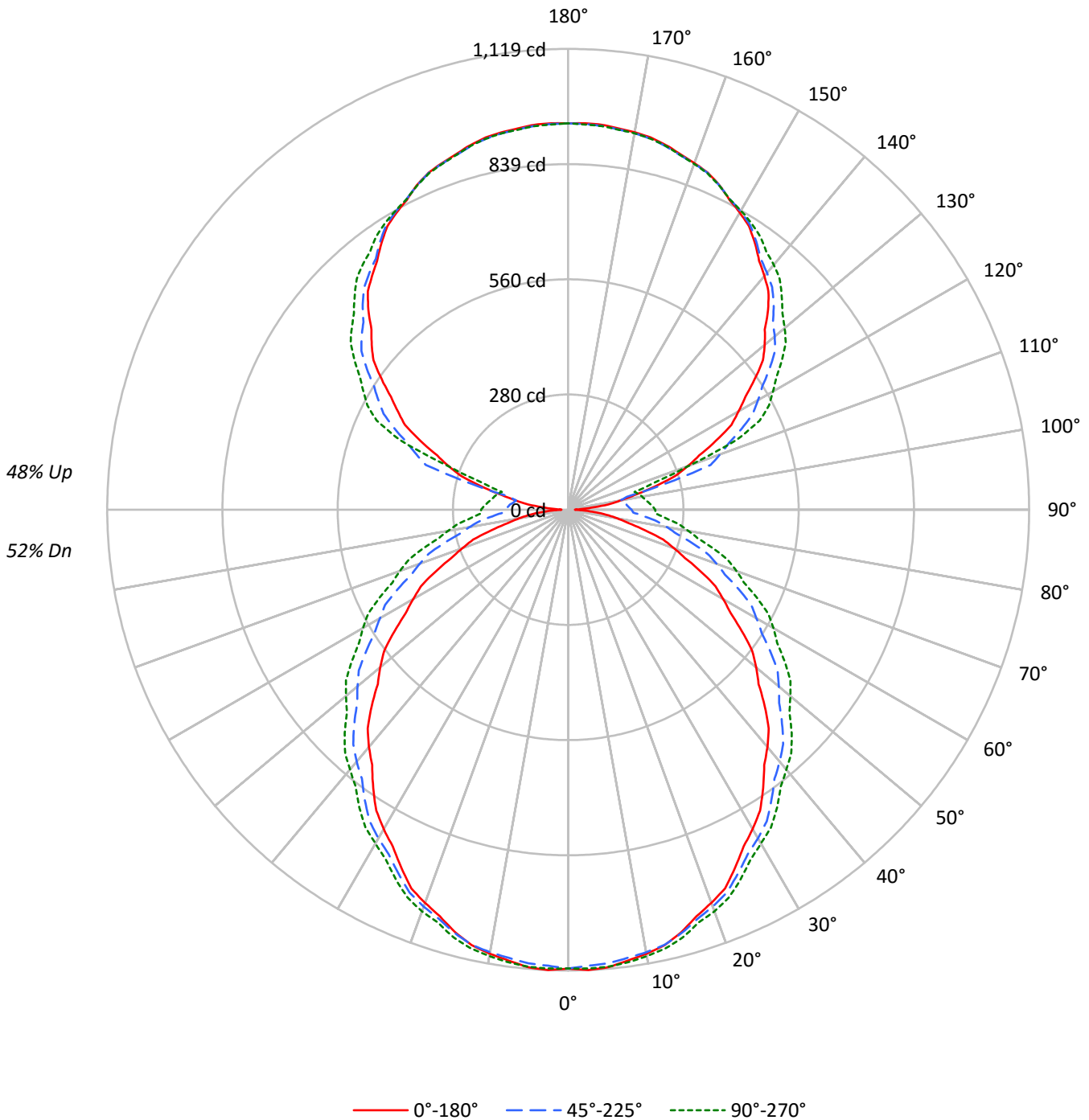
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332021-940

CATALOG NUMBER: S123DIP-S1000D805U940-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332021-940

CATALOG NUMBER: S123DIP-S1000D805U940-4F0-1E-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	108	108	108	108	100	100	100	100	84	84	84	71	71	71	58	58	58	52
1	97	92	88	84	90	85	82	78	72	70	67	60	58	57	49	48	47	41
2	88	80	73	68	81	74	68	63	63	58	55	52	49	46	43	41	39	34
3	80	70	62	56	74	65	58	52	55	50	45	46	42	39	38	35	32	28
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	28	24
5	67	55	46	40	61	51	43	38	43	38	33	36	32	28	30	27	24	21
6	62	49	41	35	57	46	38	33	39	33	29	33	28	25	27	24	21	18
7	57	44	36	30	52	41	34	29	35	29	25	30	25	22	25	21	18	16
8	53	40	32	27	49	37	30	25	32	26	22	27	23	19	23	19	16	14
9	49	37	29	24	45	34	27	22	29	24	20	25	21	17	21	17	15	13
10	46	34	26	21	42	31	25	20	27	22	18	23	19	16	19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11992	11992	11992
5°	12030	11690	11697
10°	11922	11421	11364
15°	11768	11114	11000
20°	11548	10767	10600
25°	11278	10365	10179
30°	10999	10002	9754
35°	10689	9620	9413
40°	10391	9273	9048
45°	10062	8938	8757
50°	9737	8608	8436
55°	9378	8270	8147
60°	9028	7928	7850
65°	8670	7563	7499
70°	8127	7150	7138
75°	7448	6679	6770
80°	6658	6216	6350
85°	5935	5899	6108



TEST NUMBER: P332021-940

CATALOG NUMBER: S123DIP-S1000D805U940-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.6	1.6
10°-20°	301.1	4.6
20°-30°	450.3	6.8
30°-40°	537.8	8.1
40°-50°	562.6	8.5
50°-60°	528.0	8.0
60°-70°	441.0	6.7
70°-80°	315.5	4.8
80°-90°	190.8	2.9
90°-100°	152.2	2.3
100°-110°	249.4	3.8
110°-120°	448.5	6.8
120°-130°	530.4	8.0
130°-140°	546.2	8.3
140°-150°	500.1	7.6
150°-160°	400.8	6.1
160°-170°	258.7	3.9
170°-180°	89.2	1.3
0°-30°	857.0	13.0
0°-40°	1394.8	21.1
0°-60°	2485.4	37.6
0°-90°	3432.7	51.9
90°-120°	850.0	12.9
90°-150°	2426.8	36.7
90°-180°	3175.0	48.0
0°-180°	6608.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1114	1114	1114	1114	1114	
5°	1115	1113	1106	1115	1114	106
15°	1062	1065	1064	1076	1075	299
25°	959	970	975	989	990	442
35°	825	844	860	878	884	516
45°	675	704	734	757	767	520
55°	515	555	598	630	641	461
65°	356	403	456	491	505	351
75°	193	250	311	349	365	206
85°	60	120	184	224	238	62
90°	16	83	154	196	211	13
95°	56	77	142	183	196	63
105°	218	252	244	160	167	230
115°	396	416	464	499	513	391
125°	553	560	597	623	633	494
135°	686	690	705	728	733	528
145°	790	794	795	806	811	494
155°	869	868	869	872	868	400
165°	917	915	914	919	915	259
175°	938	935	936	940	935	89
180°	938	938	938	938	938	



TEST NUMBER: P332021-940

CATALOG NUMBER: S123DIP-S1000D805U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1
2.5°	1119.0	1118.4	1117.7	1117.0	1116.4	1115.2	1113.5	1111.8	1110.0	1108.3	1110.0
5°	1115.4	1114.8	1114.3	1113.7	1113.2	1112.1	1110.5	1108.8	1107.2	1105.6	1107.8
7.5°	1104.4	1104.6	1104.7	1104.7	1104.8	1104.1	1102.6	1101.0	1099.4	1097.9	1100.5
10°	1094.8	1095.3	1095.8	1096.4	1096.9	1096.4	1095.1	1093.8	1092.4	1091.1	1093.8
12.5°	1083.1	1083.8	1084.6	1085.3	1086.1	1086.0	1085.1	1084.1	1083.3	1082.4	1084.9
15°	1061.9	1062.7	1063.5	1064.3	1065.1	1065.4	1065.1	1064.9	1064.6	1064.3	1067.1
17.5°	1035.3	1036.9	1038.5	1040.1	1041.7	1042.5	1042.4	1042.2	1042.1	1042.1	1044.5
20°	1015.8	1017.4	1019.0	1020.7	1022.3	1023.4	1024.0	1024.5	1025.0	1025.6	1028.0
22.5°	995.4	997.0	998.7	1000.3	1001.9	1003.1	1003.9	1004.6	1005.4	1006.1	1009.1
25°	958.8	961.4	964.2	966.9	969.6	971.3	972.1	972.9	973.7	974.6	978.0
27.5°	921.9	925.0	928.0	931.1	934.2	936.6	938.3	940.0	941.7	943.5	946.6
30°	895.6	899.2	902.7	906.2	909.7	912.5	914.7	916.9	919.0	921.1	924.4
32.5°	866.6	870.5	874.4	878.3	882.3	885.6	888.5	891.3	894.1	896.9	900.4
35°	825.3	829.6	833.9	838.2	842.6	846.4	850.0	853.5	856.9	860.5	864.5
37.5°	781.6	786.5	791.3	796.1	801.0	805.6	809.9	814.2	818.5	822.9	827.4
40°	752.4	757.3	762.1	767.0	771.9	777.0	782.4	787.8	793.2	798.6	803.2
42.5°	720.4	726.4	732.3	738.2	744.1	749.9	755.5	761.2	766.8	772.4	777.4
45°	674.8	681.3	687.8	694.2	700.7	707.3	714.0	720.8	727.5	734.2	739.4
47.5°	627.0	634.3	641.7	649.0	656.3	663.9	671.5	679.3	687.0	694.7	700.4
50°	595.9	603.4	611.0	618.6	626.1	634.1	642.4	650.8	659.2	667.5	673.7
52.5°	562.8	570.9	578.9	586.8	594.9	603.4	612.7	621.9	631.1	640.3	646.8
55°	514.6	523.5	532.4	541.3	550.2	559.5	569.2	578.9	588.6	598.3	605.6
57.5°	467.5	476.8	486.1	495.3	504.6	514.6	525.2	535.8	546.4	557.1	564.4
60°	434.5	444.2	453.9	463.6	473.3	483.7	494.7	505.9	516.9	528.0	535.5
62.5°	403.4	413.3	423.3	433.2	443.1	454.0	465.7	477.3	489.0	500.8	508.3
65°	355.6	366.1	376.7	387.2	397.7	408.8	420.7	432.6	444.4	456.4	464.4
67.5°	307.0	318.3	329.4	340.5	351.7	363.4	375.4	387.5	399.6	411.7	420.5
70°	273.0	284.6	296.2	307.9	319.5	331.7	344.6	357.7	370.6	383.5	392.2
72.5°	242.0	253.6	265.2	276.8	288.4	300.9	314.2	327.6	341.0	354.4	363.2
75°	193.0	205.6	218.3	231.0	243.7	256.7	270.3	283.7	297.2	310.7	319.6
77.5°	150.3	163.0	175.8	188.6	201.3	214.5	228.2	241.7	255.4	268.9	278.3
80°	120.1	133.4	146.6	159.8	173.0	186.6	200.6	214.7	228.7	242.7	251.9
82.5°	93.9	107.4	120.8	134.2	147.7	161.5	175.8	189.9	204.2	218.5	227.7
85°	59.5	72.9	86.4	100.0	113.4	127.3	141.6	155.9	170.1	184.5	193.7
87.5°	32.5	46.2	59.9	73.7	87.4	101.3	115.5	129.7	143.8	157.9	167.3
90°	16.5	31.2	46.0	60.7	75.5	90.8	106.6	122.3	138.1	153.9	163.6
92.5°	27.7	39.2	50.7	62.2	73.7	87.0	102.0	117.1	132.2	147.2	157.2
95°	55.9	60.0	64.2	68.4	72.6	82.1	97.0	111.9	126.8	141.8	151.2
97.5°	97.4	104.0	110.7	117.3	123.9	128.0	129.5	130.9	132.4	133.8	143.1
100°	128.8	140.4	152.2	163.9	175.7	175.7	163.9	152.1	140.4	128.6	137.7
102.5°	164.6	174.6	184.6	194.6	204.6	202.5	188.2	174.1	159.9	145.6	149.4
105°	217.5	225.6	233.8	242.0	250.1	253.1	250.7	248.4	246.0	243.7	223.8
107.5°	272.1	278.9	285.8	292.7	299.5	309.5	322.7	335.9	349.2	362.4	349.5
110°	308.4	314.5	320.7	326.7	332.8	342.1	354.6	367.1	379.6	392.1	394.0



TEST NUMBER: P332021-940

CATALOG NUMBER: S123DIP-S1000D805U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	344.1	349.3	354.4	359.4	364.5	373.2	385.2	397.3	409.3	421.4	428.3
115°	395.7	399.9	404.1	408.2	412.4	420.1	431.1	442.3	453.3	464.5	472.5
117.5°	446.7	449.9	453.0	456.1	459.2	465.7	475.5	485.4	495.3	505.1	512.7
120°	477.5	480.3	483.0	485.7	488.5	494.5	503.9	513.3	522.6	532.0	539.4
122.5°	509.9	511.7	513.5	515.4	517.3	522.7	531.7	540.8	549.9	558.9	565.8
125°	552.9	554.2	555.4	556.7	557.9	562.8	571.2	579.7	588.1	596.6	602.5
127.5°	595.9	596.9	597.9	598.9	599.8	603.9	611.1	618.3	625.5	632.8	638.6
130°	622.7	623.7	624.6	625.6	626.6	630.1	636.1	642.1	648.1	654.2	659.9
132.5°	647.4	648.5	649.8	650.9	652.1	655.1	660.0	664.8	669.6	674.4	679.9
135°	686.3	687.0	687.6	688.3	688.9	691.1	694.6	698.2	701.9	705.4	710.8
137.5°	719.5	720.5	721.5	722.5	723.4	724.9	726.9	728.9	730.9	732.9	737.9
140°	740.8	741.8	742.7	743.7	744.6	745.7	747.0	748.2	749.5	750.8	755.5
142.5°	761.5	762.2	762.9	763.7	764.4	765.0	765.6	766.2	766.9	767.6	771.7
145°	790.4	791.2	792.0	792.8	793.6	794.2	794.5	794.8	795.1	795.4	797.9
147.5°	816.4	817.1	817.8	818.5	819.2	819.7	820.0	820.3	820.6	820.9	821.9
150°	833.0	833.6	834.0	834.5	834.9	835.4	835.6	836.0	836.2	836.6	836.9
152.5°	848.1	848.4	848.6	848.8	849.0	849.2	849.4	849.5	849.8	850.0	850.5
155°	869.3	869.1	868.7	868.4	868.1	868.0	868.2	868.3	868.4	868.6	869.4
157.5°	885.7	885.7	885.7	885.6	885.6	885.6	885.4	885.3	885.1	884.9	885.9
160°	895.8	895.6	895.5	895.4	895.2	895.0	894.9	894.7	894.6	894.4	895.4
162.5°	905.3	904.9	904.5	904.1	903.7	903.4	903.2	903.1	902.9	902.8	903.8
165°	916.8	916.2	915.8	915.3	914.9	914.5	914.4	914.3	914.1	913.9	915.2
167.5°	925.7	925.1	924.4	923.8	923.2	922.8	922.8	922.8	922.8	922.8	924.1
170°	930.7	930.1	929.4	928.8	928.2	927.9	927.9	927.9	927.9	927.9	929.2
172.5°	934.0	933.3	932.6	931.7	931.0	930.8	930.9	930.9	931.1	931.2	932.5
175°	938.3	937.5	936.8	936.0	935.2	935.0	935.0	935.2	935.4	935.6	936.7
177.5°	939.4	938.9	938.3	937.6	937.0	936.7	936.8	937.0	937.1	937.2	938.3
180°	938.3	938.3	938.3	938.3	938.3	938.3	938.3	938.3	938.3	938.3	938.3



TEST NUMBER: P332021-940

CATALOG NUMBER: S123DIP-S1000D805U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1
2.5°	1111.8	1113.5	1115.2	1116.0	1115.7	1115.5	1115.4	1115.1
5°	1109.9	1112.1	1114.3	1115.2	1114.9	1114.6	1114.4	1114.1
7.5°	1103.2	1106.0	1108.7	1109.8	1109.6	1109.2	1108.8	1108.6
10°	1096.4	1099.1	1101.9	1103.0	1102.4	1101.9	1101.4	1100.8
12.5°	1087.3	1089.8	1092.3	1093.2	1092.7	1092.2	1091.6	1091.1
15°	1069.8	1072.5	1075.1	1076.4	1076.1	1075.8	1075.6	1075.3
17.5°	1046.9	1049.4	1051.8	1052.8	1052.4	1052.0	1051.7	1051.2
20°	1030.4	1032.8	1035.3	1036.6	1036.9	1037.1	1037.4	1037.7
22.5°	1012.3	1015.3	1018.4	1019.8	1019.7	1019.6	1019.4	1019.2
25°	981.6	985.1	988.6	990.3	990.3	990.3	990.3	990.3
27.5°	949.5	952.5	955.6	957.2	957.4	957.6	957.9	958.1
30°	927.6	930.9	934.1	935.8	935.8	935.8	935.8	935.8
32.5°	903.8	907.2	910.7	912.8	913.4	914.0	914.7	915.3
35°	868.5	872.6	876.6	879.2	880.3	881.4	882.4	883.5
37.5°	832.1	836.6	841.2	843.9	844.8	845.6	846.5	847.4
40°	807.7	812.3	816.9	819.7	820.8	821.9	823.0	824.0
42.5°	782.4	787.4	792.5	795.7	797.2	798.7	800.2	801.7
45°	744.5	749.7	754.7	758.4	760.5	762.7	764.9	767.0
47.5°	706.2	712.0	717.7	721.5	723.2	724.9	726.5	728.2
50°	679.9	686.1	692.3	696.3	698.3	700.2	702.0	703.9
52.5°	653.2	659.6	666.0	670.4	672.7	675.0	677.3	679.7
55°	612.9	620.2	627.5	632.1	634.4	636.5	638.6	640.8
57.5°	571.8	579.1	586.4	591.4	593.9	596.4	599.0	601.5
60°	543.1	550.6	558.1	563.4	566.4	569.4	572.3	575.2
62.5°	515.9	523.4	530.9	536.1	538.9	541.6	544.4	547.2
65°	472.5	480.6	488.7	494.1	496.8	499.4	502.2	504.9
67.5°	429.4	438.2	447.0	452.6	454.9	457.2	459.4	461.6
70°	400.7	409.4	418.0	423.7	426.4	429.1	431.8	434.5
72.5°	372.1	380.9	389.8	395.6	398.2	400.9	403.7	406.4
75°	328.5	337.4	346.3	352.4	355.6	358.8	362.0	365.3
77.5°	287.8	297.1	306.5	312.5	314.9	317.4	319.9	322.4
80°	261.1	270.3	279.4	285.3	288.0	290.7	293.5	296.1
82.5°	236.8	245.9	255.1	261.1	263.8	266.4	269.1	271.9
85°	202.8	212.0	221.1	227.1	229.8	232.5	235.1	237.9
87.5°	176.6	185.8	195.1	201.2	203.9	206.7	209.5	212.2
90°	173.4	183.2	193.1	199.4	202.4	205.5	208.5	211.4
92.5°	167.1	177.1	187.0	193.3	196.0	198.7	201.3	204.0
95°	160.7	170.1	179.5	185.7	188.3	191.0	193.7	196.4
97.5°	152.4	161.7	170.9	177.0	179.9	182.7	185.6	188.4
100°	146.7	155.8	164.9	170.8	173.6	176.5	179.3	182.2
102.5°	153.2	156.9	160.7	164.1	167.0	170.0	173.0	175.9
105°	203.9	184.0	164.3	155.7	158.4	161.1	163.9	166.6
107.5°	336.6	323.7	310.9	295.2	277.0	258.7	240.4	222.0
110°	395.9	397.8	399.7	390.7	370.6	350.6	330.6	310.7



TEST NUMBER: P332021-940

CATALOG NUMBER: S123DIP-S1000D805U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	435.2	442.0	449.0	451.2	449.0	446.7	444.3	442.0
115°	480.5	488.6	496.6	501.9	504.7	507.6	510.3	513.1
117.5°	520.4	528.1	535.7	540.6	542.9	545.1	547.3	549.6
120°	546.9	554.3	561.8	566.4	568.3	570.2	572.1	574.0
122.5°	572.7	579.5	586.4	590.8	592.8	594.8	596.8	598.9
125°	608.5	614.5	620.5	624.6	626.7	628.9	631.2	633.3
127.5°	644.4	650.2	656.1	659.8	661.3	662.8	664.3	665.8
130°	665.6	671.4	677.1	680.6	681.9	683.2	684.6	685.8
132.5°	685.5	691.0	696.5	699.9	701.3	702.8	704.2	705.5
135°	716.0	721.4	726.7	729.8	730.7	731.6	732.5	733.3
137.5°	743.0	748.0	753.0	756.0	757.0	758.0	759.1	760.1
140°	760.1	764.8	769.5	772.3	773.4	774.4	775.4	776.4
142.5°	775.8	779.9	784.0	786.5	787.4	788.4	789.3	790.1
145°	800.4	802.8	805.3	807.1	808.2	809.2	810.3	811.4
147.5°	822.9	823.9	824.7	825.4	825.6	825.9	826.2	826.4
150°	837.1	837.5	837.8	838.0	838.0	838.1	838.2	838.3
152.5°	851.0	851.6	852.2	852.1	851.6	851.0	850.3	849.7
155°	870.2	870.9	871.7	871.6	870.8	869.8	868.9	867.9
157.5°	886.8	887.7	888.7	888.5	887.3	886.1	884.9	883.7
160°	896.3	897.2	898.1	898.0	897.0	895.9	894.8	893.8
162.5°	904.9	906.0	907.0	907.0	906.1	905.1	904.2	903.2
165°	916.4	917.7	918.9	919.0	917.9	916.8	915.7	914.6
167.5°	925.3	926.6	927.8	927.8	926.6	925.3	924.1	922.8
170°	930.3	931.6	932.8	932.8	931.6	930.3	929.2	927.9
172.5°	933.7	935.0	936.2	936.1	934.8	933.4	932.0	930.7
175°	937.7	938.8	939.9	939.8	938.6	937.4	936.1	934.9
177.5°	939.2	940.2	941.2	941.1	939.9	938.6	937.4	936.1
180°	938.3	938.3	938.3	938.3	938.3	938.3	938.3	938.3

(END OF REPORT)