

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: P332013-830

Luminaire Tested: **S123DIP-S1000D585U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332013-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D585U830-4F0-1E-UDD-D1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 585 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5855.6 lumens
Efficiency: N/A
Efficacy: 120.0 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: Semi-Direct

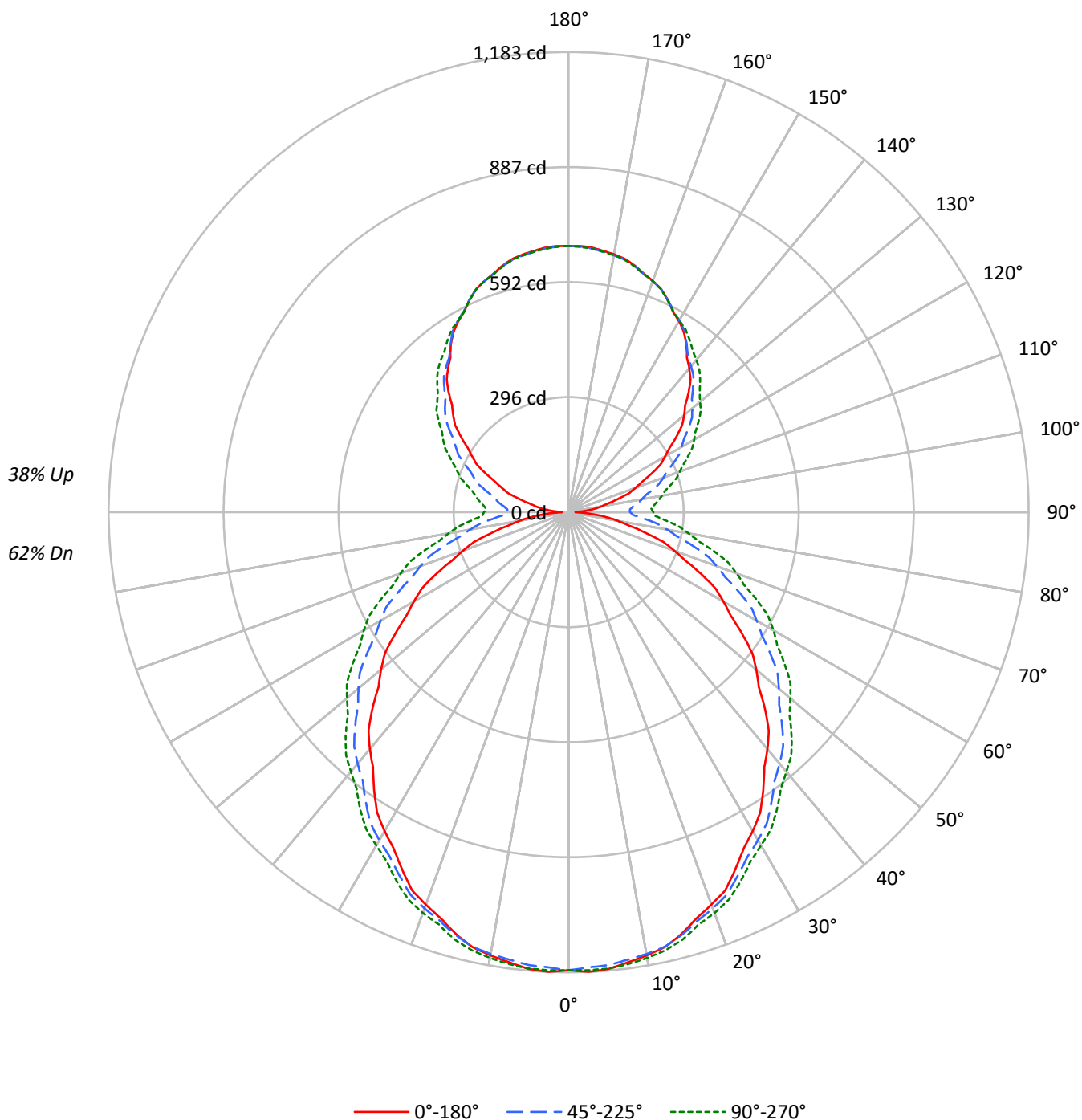
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332013-830

CATALOG NUMBER: S123DIP-S1000D585U830-4F0-1E-UDD-D1

Luminous Intensity Polar Plot



TEST NUMBER: P332013-830

CATALOG NUMBER: S123DIP-S1000D585U830-4F0-1E-UDD-D1

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	0
RCR																				
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62	62	62
1	99	94	90	86	93	88	84	81	77	74	71	67	64	62	57	56	54	49	49	49
2	90	82	75	69	84	76	70	65	67	62	58	58	54	51	50	47	45	40	40	40
3	82	71	63	57	76	67	60	54	58	53	48	51	46	43	44	40	37	34	34	34
4	75	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	29	29	29
5	68	56	47	41	64	53	45	39	46	40	35	40	35	31	35	31	28	25	25	25
6	63	50	42	35	59	47	39	34	42	35	30	36	31	27	31	27	24	21	21	21
7	58	45	37	31	54	43	35	30	38	31	27	33	28	24	29	25	21	19	19	19
8	54	41	33	27	50	39	31	26	34	28	24	30	25	21	26	22	19	17	17	17
9	50	38	30	24	47	35	28	23	32	25	21	28	23	19	24	20	17	15	15	15
10	47	34	27	22	44	33	26	21	29	23	19	26	21	17	23	19	16	14	14	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12676	12676	12676
5°	12715	12357	12363
10°	12602	12072	12012
15°	12439	11748	11627
20°	12206	11380	11204
25°	11920	10955	10760
30°	11627	10572	10310
35°	11297	10169	9950
40°	10983	9801	9564
45°	10635	9448	9257
50°	10293	9100	8917
55°	9912	8741	8611
60°	9543	8380	8298
65°	9165	7994	7927
70°	8591	7558	7545
75°	7872	7060	7157
80°	7040	6572	6712
85°	6274	6235	6458

TEST NUMBER: P332013-830

CATALOG NUMBER: S123DIP-S1000D585U830-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.6	1.9
10°-20°	318.2	5.4
20°-30°	476.0	8.1
30°-40°	568.4	9.7
40°-50°	594.7	10.2
50°-60°	558.1	9.5
60°-70°	466.1	8.0
70°-80°	333.5	5.7
80°-90°	200.9	3.4
90°-100°	169.4	2.9
100°-110°	225.2	3.8
110°-120°	288.2	4.9
120°-130°	333.5	5.7
130°-140°	351.3	6.0
140°-150°	333.2	5.7
150°-160°	277.7	4.7
160°-170°	184.8	3.2
170°-180°	64.7	1.1
0°-30°	905.9	15.5
0°-40°	1474.3	25.2
0°-60°	2627.1	44.9
0°-90°	3627.6	62.0
90°-120°	682.7	11.7
90°-150°	1700.7	29.0
90°-180°	2228.0	38.0
0°-180°	5855.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1178	1178	1178	1178	1178	
5°	1179	1176	1169	1178	1178	112
15°	1122	1126	1125	1137	1137	316
25°	1013	1026	1030	1046	1047	467
35°	872	893	910	928	934	545
45°	713	744	776	800	811	550
55°	544	586	632	666	677	487
65°	376	426	482	519	534	371
75°	204	264	328	369	386	218
85°	63	127	195	237	252	66
90°	17	86	158	202	218	13
95°	46	100	167	207	222	47
105°	131	165	223	258	272	140
115°	235	254	297	327	338	233
125°	338	342	376	400	408	302
135°	436	439	452	472	478	336
145°	528	527	529	538	542	329
155°	603	603	603	605	602	277
165°	656	655	655	658	654	185
175°	683	681	681	683	680	65
180°	684	684	684	684	684	

TEST NUMBER: P332013-830

CATALOG NUMBER: S123DIP-S1000D585U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1177.6	1177.6	1177.6	1177.6	1177.6	1177.6	1177.6	1177.6	1177.6	1177.6	1177.6
2.5°	1182.8	1182.1	1181.4	1180.7	1180.1	1178.7	1177.0	1175.2	1173.3	1171.5	1173.3
5°	1178.9	1178.4	1177.8	1177.2	1176.7	1175.5	1173.8	1172.1	1170.4	1168.7	1170.9
7.5°	1167.3	1167.5	1167.6	1167.7	1167.8	1167.1	1165.5	1163.8	1162.1	1160.5	1163.3
10°	1157.2	1157.7	1158.3	1158.9	1159.4	1159.0	1157.5	1156.1	1154.7	1153.3	1156.1
12.5°	1144.8	1145.6	1146.4	1147.2	1148.0	1147.9	1147.0	1145.9	1145.0	1144.1	1146.7
15°	1122.5	1123.3	1124.2	1125.0	1125.9	1126.1	1125.9	1125.6	1125.3	1125.0	1127.9
17.5°	1094.3	1096.0	1097.7	1099.4	1101.1	1101.9	1101.8	1101.6	1101.5	1101.5	1104.0
20°	1073.7	1075.4	1077.1	1078.8	1080.5	1081.8	1082.3	1082.9	1083.5	1084.0	1086.6
22.5°	1052.2	1053.9	1055.6	1057.3	1059.0	1060.3	1061.1	1061.9	1062.7	1063.5	1066.7
25°	1013.4	1016.2	1019.2	1022.0	1024.8	1026.7	1027.6	1028.4	1029.3	1030.1	1033.8
27.5°	974.4	977.7	980.9	984.2	987.4	990.0	991.8	993.6	995.4	997.3	1000.5
30°	946.7	950.5	954.1	957.8	961.6	964.5	966.9	969.1	971.4	973.6	977.1
32.5°	916.0	920.1	924.3	928.4	932.6	936.1	939.1	942.1	945.1	948.0	951.7
35°	872.3	876.8	881.5	886.0	890.6	894.7	898.4	902.1	905.8	909.6	913.8
37.5°	826.1	831.3	836.4	841.5	846.7	851.5	856.1	860.6	865.2	869.8	874.6
40°	795.3	800.5	805.6	810.8	815.9	821.3	827.0	832.7	838.4	844.1	848.9
42.5°	761.5	767.8	774.0	780.3	786.6	792.7	798.6	804.6	810.5	816.4	821.7
45°	713.2	720.1	727.0	733.8	740.6	747.6	754.7	761.9	769.0	776.1	781.6
47.5°	662.7	670.4	678.3	686.0	693.7	701.7	709.8	718.0	726.1	734.3	740.4
50°	629.9	637.8	645.8	653.8	661.8	670.2	679.0	687.9	696.7	705.6	712.1
52.5°	594.9	603.4	611.9	620.3	628.8	637.8	647.6	657.3	667.0	676.8	683.6
55°	543.9	553.4	562.7	572.1	581.5	591.4	601.6	611.9	622.2	632.4	640.2
57.5°	494.2	504.0	513.8	523.6	533.4	543.9	555.2	566.4	577.6	588.8	596.5
60°	459.3	469.5	479.8	490.0	500.3	511.2	522.9	534.7	546.4	558.1	566.0
62.5°	426.4	436.9	447.4	457.9	468.3	479.8	492.2	504.5	516.9	529.3	537.2
65°	375.9	387.0	398.1	409.3	420.4	432.2	444.7	457.2	469.8	482.4	490.9
67.5°	324.5	336.4	348.2	360.0	371.7	384.1	396.8	409.6	422.4	435.2	444.5
70°	288.6	300.9	313.1	325.5	337.7	350.6	364.3	378.1	391.7	405.4	414.5
72.5°	255.8	268.1	280.3	292.6	304.8	318.0	332.2	346.3	360.4	374.6	383.9
75°	204.0	217.4	230.7	244.2	257.6	271.4	285.7	299.9	314.1	328.4	337.8
77.5°	158.8	172.3	185.9	199.3	212.8	226.8	241.2	255.5	269.9	284.3	294.2
80°	127.0	141.0	155.0	168.9	182.9	197.3	212.1	227.0	241.8	256.6	266.3
82.5°	99.2	113.5	127.7	141.9	156.1	170.7	185.8	200.8	215.8	230.9	240.6
85°	62.9	77.1	91.3	105.7	119.9	134.6	149.7	164.8	179.8	195.0	204.7
87.5°	34.2	48.6	63.1	77.6	92.0	106.6	121.5	136.3	151.2	166.0	175.8
90°	17.2	32.4	47.5	62.7	77.9	93.5	109.6	125.6	141.8	157.9	168.1
92.5°	28.7	42.0	55.5	68.9	82.3	96.6	111.8	127.0	142.2	157.4	167.2
95°	45.8	57.8	69.7	81.7	93.7	107.1	122.0	137.0	151.8	166.8	176.1
97.5°	68.9	79.6	90.2	100.9	111.5	123.9	137.9	151.9	166.0	180.0	189.1
100°	84.6	94.5	104.3	114.1	124.0	135.8	149.5	163.2	176.9	190.7	199.3
102.5°	103.0	111.6	120.3	128.9	137.5	148.7	162.4	176.1	189.7	203.4	211.8
105°	131.2	138.3	145.4	152.5	159.6	169.8	183.1	196.4	209.7	223.1	231.1
107.5°	162.8	168.8	174.7	180.7	186.6	195.7	207.7	219.8	231.9	243.9	251.9
110°	182.4	187.8	193.1	198.5	203.9	212.4	224.0	235.7	247.3	259.0	266.8

TEST NUMBER: P332013-830

CATALOG NUMBER: S123DIP-S1000D585U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	204.0	208.3	212.6	217.0	221.4	229.0	240.1	251.0	262.0	273.1	280.8
115°	234.9	238.7	242.4	246.3	250.1	256.9	266.9	277.0	287.0	297.0	304.0
117.5°	267.1	269.5	271.8	274.2	276.5	282.4	291.7	301.0	310.3	319.6	326.4
120°	286.3	288.4	290.6	292.8	294.8	300.4	309.2	318.0	326.8	335.5	342.0
122.5°	307.4	308.7	309.9	311.2	312.5	317.4	326.0	334.7	343.4	351.9	358.0
125°	338.3	338.6	338.9	339.3	339.7	343.8	351.9	360.0	368.0	376.0	381.5
127.5°	368.0	368.4	368.9	369.4	369.9	373.3	379.9	386.5	393.1	399.7	404.6
130°	387.7	388.4	389.1	389.7	390.4	393.4	398.7	404.1	409.4	414.8	419.7
132.5°	406.4	407.4	408.3	409.2	410.1	412.6	417.0	421.2	425.6	429.9	434.5
135°	436.4	436.9	437.2	437.7	438.2	439.9	442.9	445.9	448.9	451.9	456.6
137.5°	464.1	464.5	464.9	465.2	465.6	466.8	468.9	471.0	473.1	475.1	479.1
140°	482.5	483.1	483.6	484.3	484.8	485.6	486.6	487.6	488.5	489.6	493.7
142.5°	500.1	500.5	500.9	501.1	501.5	501.9	502.3	502.8	503.1	503.5	507.2
145°	527.6	527.5	527.5	527.4	527.4	527.5	527.9	528.3	528.7	529.0	531.2
147.5°	550.4	550.8	551.3	551.7	552.1	552.5	552.9	553.2	553.6	553.8	554.5
150°	567.2	567.4	567.7	567.9	568.2	568.4	568.6	568.8	569.1	569.3	569.3
152.5°	581.0	581.3	581.6	581.9	582.3	582.5	582.7	582.8	583.0	583.1	583.2
155°	602.7	602.7	602.7	602.7	602.7	602.8	602.9	602.9	603.1	603.2	603.7
157.5°	621.1	621.0	620.9	620.8	620.6	620.6	620.7	620.8	620.9	620.9	621.4
160°	632.7	632.5	632.3	632.1	631.8	631.7	631.7	631.7	631.7	631.7	632.3
162.5°	643.1	642.7	642.4	642.1	641.8	641.7	641.8	641.9	642.0	642.1	642.6
165°	656.4	656.1	655.7	655.3	655.0	654.8	654.8	654.8	654.8	654.8	655.5
167.5°	667.0	666.6	666.1	665.6	665.2	665.0	665.1	665.2	665.2	665.3	666.1
170°	673.1	672.6	672.1	671.7	671.2	670.9	670.9	670.9	670.9	670.9	671.8
172.5°	677.8	677.3	676.8	676.4	675.9	675.7	675.7	675.7	675.7	675.7	676.5
175°	682.8	682.3	681.8	681.4	680.9	680.6	680.6	680.6	680.6	680.6	681.4
177.5°	684.9	684.5	684.1	683.6	683.2	683.1	683.1	683.1	683.1	683.1	683.6
180°	684.4	684.4	684.4	684.4	684.4	684.4	684.4	684.4	684.4	684.4	684.4

TEST NUMBER: P332013-830

CATALOG NUMBER: S123DIP-S1000D585U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1177.6	1177.6	1177.6	1177.6	1177.6	1177.6	1177.6	1177.6
2.5°	1175.2	1177.0	1178.7	1179.6	1179.3	1179.1	1178.9	1178.6
5°	1173.2	1175.5	1177.8	1178.7	1178.5	1178.2	1177.9	1177.6
7.5°	1166.1	1169.0	1171.9	1173.1	1172.8	1172.4	1172.1	1171.8
10°	1159.0	1161.8	1164.7	1165.8	1165.3	1164.7	1164.1	1163.6
12.5°	1149.2	1151.9	1154.5	1155.6	1155.0	1154.4	1153.9	1153.3
15°	1130.8	1133.6	1136.4	1137.7	1137.5	1137.2	1136.9	1136.6
17.5°	1106.5	1109.2	1111.7	1112.8	1112.4	1112.0	1111.6	1111.2
20°	1089.1	1091.7	1094.3	1095.7	1096.0	1096.3	1096.6	1096.8
22.5°	1070.0	1073.2	1076.5	1078.0	1077.8	1077.7	1077.5	1077.3
25°	1037.6	1041.2	1044.9	1046.8	1046.8	1046.8	1046.8	1046.8
27.5°	1003.6	1006.8	1010.0	1011.7	1012.0	1012.2	1012.5	1012.7
30°	980.5	983.9	987.3	989.1	989.1	989.1	989.1	989.1
32.5°	955.4	958.9	962.6	964.8	965.4	966.1	966.9	967.5
35°	918.0	922.4	926.6	929.3	930.5	931.6	932.7	933.9
37.5°	879.5	884.3	889.2	892.0	893.0	893.8	894.8	895.7
40°	853.8	858.7	863.5	866.5	867.6	868.7	869.9	871.0
42.5°	827.0	832.3	837.6	841.0	842.6	844.2	845.8	847.4
45°	786.9	792.4	797.8	801.6	803.9	806.2	808.5	810.8
47.5°	746.5	752.6	758.7	762.6	764.4	766.2	767.9	769.7
50°	718.7	725.2	731.8	736.0	738.1	740.1	742.1	744.0
52.5°	690.4	697.2	704.0	708.6	711.1	713.5	716.0	718.4
55°	647.8	655.5	663.3	668.2	670.5	672.8	675.0	677.3
57.5°	604.4	612.1	619.8	625.1	627.7	630.4	633.1	635.7
60°	574.0	582.0	589.9	595.5	598.7	601.8	604.9	608.0
62.5°	545.3	553.3	561.2	566.7	569.6	572.5	575.4	578.3
65°	499.5	508.0	516.5	522.3	525.1	527.9	530.8	533.7
67.5°	453.8	463.2	472.5	478.4	480.8	483.2	485.6	488.0
70°	423.6	432.7	441.9	447.9	450.7	453.6	456.4	459.3
72.5°	393.3	402.7	412.0	418.1	420.9	423.8	426.7	429.5
75°	347.2	356.7	366.0	372.5	375.9	379.3	382.7	386.2
77.5°	304.2	314.1	324.0	330.3	332.8	335.5	338.1	340.7
80°	276.0	285.7	295.3	301.6	304.4	307.3	310.2	313.0
82.5°	250.3	260.0	269.7	276.0	278.8	281.6	284.5	287.4
85°	214.3	224.0	233.8	240.1	242.9	245.7	248.5	251.5
87.5°	185.6	195.4	205.2	211.5	214.4	217.4	220.2	223.1
90°	178.2	188.4	198.5	205.2	208.3	211.3	214.4	217.5
92.5°	177.1	186.9	196.8	202.9	205.4	207.9	210.4	212.8
95°	185.4	194.7	204.1	210.1	213.0	215.8	218.7	221.5
97.5°	198.1	207.2	216.2	222.2	224.9	227.7	230.5	233.4
100°	207.9	216.5	225.2	231.0	234.1	237.1	240.3	243.4
102.5°	220.2	228.6	237.0	242.6	245.4	248.2	251.0	253.8
105°	239.0	247.0	255.1	260.4	263.3	266.0	268.8	271.6
107.5°	260.0	268.0	276.0	281.2	283.5	285.9	288.2	290.7
110°	274.8	282.7	290.5	295.5	297.6	299.5	301.6	303.7

TEST NUMBER: P332013-830

CATALOG NUMBER: S123DIP-S1000D585U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	288.5	296.3	304.1	309.2	311.6	314.1	316.6	319.1
115°	310.9	317.9	324.9	329.4	331.6	333.8	335.9	338.1
117.5°	333.2	340.0	346.7	351.0	352.9	354.8	356.7	358.5
120°	348.5	354.9	361.4	365.4	367.2	368.9	370.7	372.5
122.5°	364.0	370.0	376.1	379.8	381.5	383.2	384.8	386.5
125°	387.0	392.5	398.0	401.5	403.0	404.5	406.0	407.6
127.5°	409.6	414.6	419.6	422.7	424.1	425.6	427.0	428.3
130°	424.6	429.6	434.5	437.4	438.3	439.2	440.1	440.9
132.5°	439.0	443.7	448.3	451.3	452.5	453.8	455.2	456.5
135°	461.3	465.9	470.5	473.4	474.7	475.9	477.0	478.2
137.5°	483.1	487.1	491.2	493.6	494.6	495.6	496.5	497.5
140°	497.9	502.0	506.1	508.5	509.1	509.7	510.3	510.9
142.5°	510.9	514.6	518.3	520.6	521.3	522.1	522.8	523.7
145°	533.4	535.5	537.6	539.0	539.7	540.4	541.0	541.7
147.5°	555.3	555.9	556.6	557.0	557.4	557.7	558.0	558.4
150°	569.3	569.3	569.3	569.3	569.1	569.0	568.8	568.6
152.5°	583.5	583.7	583.9	583.7	583.2	582.7	582.2	581.6
155°	604.2	604.6	605.1	604.9	604.1	603.2	602.5	601.6
157.5°	622.0	622.5	622.9	622.8	622.2	621.5	620.9	620.2
160°	632.9	633.5	634.0	634.1	633.7	633.2	632.7	632.3
162.5°	643.2	643.9	644.4	644.3	643.6	642.8	642.1	641.3
165°	656.3	657.0	657.7	657.6	656.8	655.9	655.2	654.3
167.5°	666.8	667.6	668.4	668.4	667.6	666.8	666.1	665.3
170°	672.6	673.4	674.3	674.3	673.4	672.6	671.8	670.9
172.5°	677.1	677.9	678.6	678.6	677.8	676.9	676.1	675.2
175°	682.0	682.8	683.5	683.4	682.6	681.7	680.9	680.0
177.5°	684.3	684.9	685.4	685.3	684.7	684.0	683.3	682.7
180°	684.4	684.4	684.4	684.4	684.4	684.4	684.4	684.4

(END OF REPORT)