

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: P332023-830

Luminaire Tested: **S123DIP-S1000D805U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332023-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D805U830-4F0-1E-UDD-D4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6699.0 lumens
Efficiency: N/A
Efficacy: 123.1 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

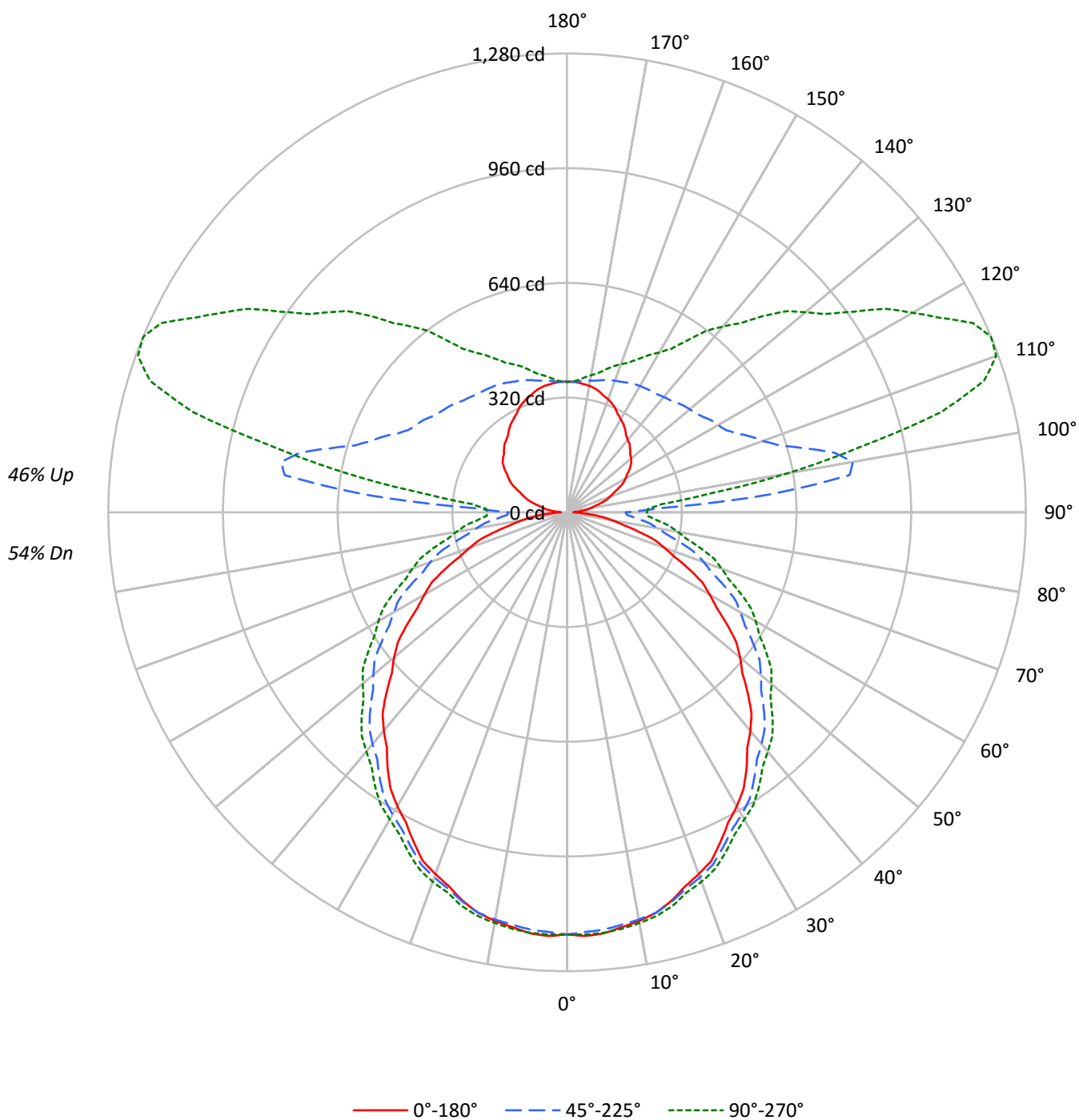
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60
1	98	93	88	84	90	86	82	79	73	71	68	62	60	58	51	50	48
2	88	80	74	68	82	75	69	64	64	59	55	54	50	47	44	42	40
3	80	70	62	56	74	65	58	53	56	50	46	47	43	40	39	36	33
4	73	62	54	47	68	58	50	44	49	44	39	42	37	34	35	31	29
5	67	55	47	40	62	51	44	38	44	38	33	37	33	29	31	28	25
6	62	49	41	35	57	46	38	33	40	34	29	34	29	25	28	24	22
7	57	44	36	30	53	41	34	29	36	30	25	31	26	22	26	22	19
8	53	40	32	27	49	38	30	25	33	27	23	28	23	20	24	20	17
9	49	37	29	24	46	34	27	23	30	24	20	26	21	18	22	18	15
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	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

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.6	1.7
10°-20°	318.2	4.8
20°-30°	476.0	7.1
30°-40°	568.4	8.5
40°-50°	594.7	8.9
50°-60°	558.1	8.3
60°-70°	466.1	7.0
70°-80°	333.5	5.0
80°-90°	201.7	3.0
90°-100°	327.4	4.9
100°-110°	665.3	9.9
110°-120°	625.5	9.3
120°-130°	485.1	7.2
130°-140°	370.6	5.5
140°-150°	268.2	4.0
150°-160°	184.6	2.8
160°-170°	108.5	1.6
170°-180°	35.3	0.5
0°-30°	905.9	13.5
0°-40°	1474.3	22.0
0°-60°	2627.1	39.2
0°-90°	3628.4	54.2
90°-120°	1618.3	24.2
90°-150°	2742.2	40.9
90°-180°	3071.0	45.8
0°-180°	6699.0	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°	18	89	163	208	223	13
95°	39	146	564	293	265	38
105°	96	169	689	1167	1081	101
115°	158	212	521	1091	1249	156
125°	214	254	464	833	976	190
135°	249	296	432	669	774	192
145°	282	322	412	528	585	176
155°	319	344	399	453	472	147
165°	349	358	382	405	412	98
175°	363	364	366	371	371	34
180°	364	364	364	364	364	

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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°	34.4	48.9	63.4	78.0	92.6	107.2	122.2	137.1	152.1	167.1	176.6
90°	18.2	33.6	49.0	65.2	80.7	96.4	113.1	129.9	146.7	163.3	172.3
92.5°	24.8	41.8	60.6	79.0	97.7	122.1	155.7	201.7	247.1	250.1	231.7
95°	39.2	52.5	71.7	95.4	125.6	166.9	243.6	367.3	502.1	564.0	490.3
97.5°	55.3	66.1	82.5	103.4	132.3	175.1	248.3	385.4	600.2	794.9	850.7
100°	66.1	76.0	90.2	109.6	136.5	176.3	241.0	363.2	570.1	809.5	962.9
102.5°	77.4	87.0	99.7	117.7	141.9	178.7	237.9	343.4	528.8	765.0	962.4
105°	95.8	104.8	116.0	131.8	152.6	185.0	237.0	325.2	476.7	688.7	908.1
107.5°	114.0	122.0	132.1	146.6	165.5	195.5	242.0	316.7	440.6	620.5	820.1
110°	127.1	134.4	143.3	156.5	174.1	203.0	247.6	315.0	425.2	581.7	765.3

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	140.1	146.5	154.4	166.7	183.4	211.0	252.8	315.7	413.6	553.2	715.9
115°	157.5	163.8	171.7	182.5	198.4	225.2	263.4	318.7	404.1	521.2	655.5
117.5°	176.0	181.4	187.2	196.1	212.3	236.5	273.9	323.6	397.0	498.0	615.1
120°	187.8	191.5	196.6	205.4	220.8	244.7	280.6	328.4	394.5	486.4	593.2
122.5°	199.1	202.1	206.4	215.2	229.3	253.7	288.6	333.0	394.0	477.2	574.3
125°	213.9	215.4	219.8	227.9	241.9	265.9	299.9	340.6	393.1	464.0	548.8
127.5°	226.1	228.0	233.2	241.2	256.4	279.6	311.2	347.3	393.9	453.6	525.5
130°	233.8	235.7	242.0	250.6	265.8	288.4	318.4	352.1	394.6	446.8	511.9
132.5°	238.7	241.4	248.5	259.1	274.5	296.1	324.3	356.4	394.2	441.0	498.9
135°	248.6	251.4	259.2	269.9	285.1	306.4	332.4	360.6	393.2	432.4	481.1
137.5°	258.2	261.0	268.7	280.3	295.4	314.6	338.4	364.0	392.0	424.7	465.6
140°	263.6	267.3	274.7	286.4	301.2	320.1	342.2	365.2	391.2	420.0	456.0
142.5°	270.7	273.5	281.3	291.7	306.1	323.4	344.3	366.1	389.5	414.7	446.7
145°	282.0	284.0	290.3	301.0	313.3	330.2	349.3	369.2	389.8	411.9	437.8
147.5°	292.3	293.6	300.1	309.6	321.7	336.2	353.7	371.6	389.8	409.2	430.0
150°	299.9	300.7	306.5	316.1	326.4	339.7	356.7	372.1	389.8	406.8	425.2
152.5°	307.6	307.7	313.6	322.1	331.1	343.8	358.4	373.3	388.0	403.8	420.5
155°	319.1	319.1	323.5	330.8	338.9	349.3	361.8	373.6	386.2	398.7	413.4
157.5°	328.2	328.8	332.3	338.8	345.7	353.7	363.7	374.4	383.6	394.1	405.5
160°	335.3	335.3	338.3	344.1	349.3	356.7	365.5	374.4	382.5	390.6	400.1
162.5°	340.6	340.6	343.0	347.7	352.2	358.4	366.1	373.7	380.1	387.0	394.8
165°	348.6	347.8	349.3	353.0	355.9	361.1	366.9	372.1	376.5	381.7	387.6
167.5°	354.6	353.7	354.5	357.2	359.3	362.6	366.8	371.0	373.1	376.5	380.7
170°	358.2	356.7	357.4	359.6	361.1	362.6	366.3	369.2	370.7	372.9	376.5
172.5°	360.5	359.6	359.8	361.4	362.2	363.2	366.3	368.6	368.9	369.9	372.4
175°	363.3	362.6	361.8	363.3	363.3	364.0	365.5	366.9	366.3	366.3	367.7
177.5°	364.6	364.0	363.4	364.0	364.0	364.0	364.6	365.8	364.6	364.0	364.6
180°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0

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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°	186.5	196.3	206.2	212.7	215.5	218.5	221.4	224.1
90°	182.8	193.2	203.6	211.4	213.5	217.1	220.6	222.8
92.5°	217.7	214.3	218.1	220.3	221.6	222.0	225.4	226.7
95°	410.0	333.3	303.1	282.4	271.3	267.5	265.1	265.0
97.5°	796.1	673.0	586.4	503.9	452.4	422.1	405.0	401.5
100°	996.9	945.6	867.6	768.5	696.9	646.0	620.1	623.7
102.5°	1059.3	1065.5	1023.2	962.3	907.3	867.5	846.3	832.3
105°	1070.2	1151.8	1173.8	1159.9	1128.6	1103.2	1082.1	1081.0
107.5°	1002.4	1129.7	1201.9	1233.2	1236.3	1229.4	1224.0	1219.7
110°	941.4	1084.4	1184.7	1241.1	1264.0	1272.1	1273.0	1273.8

TEST NUMBER: P332023-830

CATALOG NUMBER: S123DIP-S1000D805U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	880.0	1025.7	1136.9	1208.1	1248.3	1269.1	1277.2	1280.1
115°	798.7	933.8	1048.9	1133.8	1191.4	1226.1	1243.0	1249.1
117.5°	737.0	854.4	958.5	1044.5	1104.4	1143.7	1167.2	1174.4
120°	703.7	809.7	904.7	983.4	1043.6	1086.8	1106.5	1113.0
122.5°	676.3	772.7	860.9	934.2	988.0	1027.1	1048.5	1056.1
125°	638.9	725.2	801.9	864.9	914.0	948.4	968.8	976.0
127.5°	605.1	682.4	751.9	809.3	853.3	882.9	901.4	908.1
130°	583.6	655.3	720.5	774.1	814.9	843.1	860.4	867.9
132.5°	563.3	629.5	690.2	741.6	780.2	808.7	824.3	830.4
135°	535.6	593.0	646.1	691.4	728.9	752.4	767.1	773.7
137.5°	510.0	557.4	603.2	642.6	674.4	698.2	710.9	715.7
140°	494.8	536.8	576.4	611.0	640.4	662.4	675.6	676.3
142.5°	479.8	515.9	550.4	580.6	605.9	625.6	637.6	638.3
145°	463.6	490.2	516.1	539.2	558.7	575.3	582.4	585.0
147.5°	450.5	470.6	490.3	506.3	521.3	532.8	539.4	541.0
150°	442.1	459.1	474.6	488.8	500.5	509.2	514.2	514.7
152.5°	435.6	450.3	463.9	475.6	484.5	492.1	494.8	494.9
155°	425.9	437.7	448.7	457.6	464.2	470.1	471.6	472.3
157.5°	415.6	425.5	434.0	440.9	446.7	451.1	452.3	452.1
160°	409.7	417.8	425.2	430.4	435.5	439.9	439.9	439.2
162.5°	402.7	409.5	416.3	420.9	424.3	428.1	428.1	427.4
165°	393.5	397.9	403.1	406.8	409.7	412.6	411.9	411.9
167.5°	385.5	388.9	391.9	394.5	395.9	397.9	397.2	397.2
170°	380.2	382.5	385.4	386.9	387.6	389.1	388.3	388.3
172.5°	375.5	377.1	379.5	380.4	380.5	382.0	380.7	380.1
175°	369.2	369.9	371.4	371.4	371.4	372.1	371.4	370.7
177.5°	365.2	365.8	366.4	366.4	365.8	366.4	365.2	365.2
180°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0

(END OF REPORT)