

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: P332024-930

Luminaire Tested: **S123DIP-S1000D805U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332024-930
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-S1000D805U930-4F0-1E-UDD-F
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

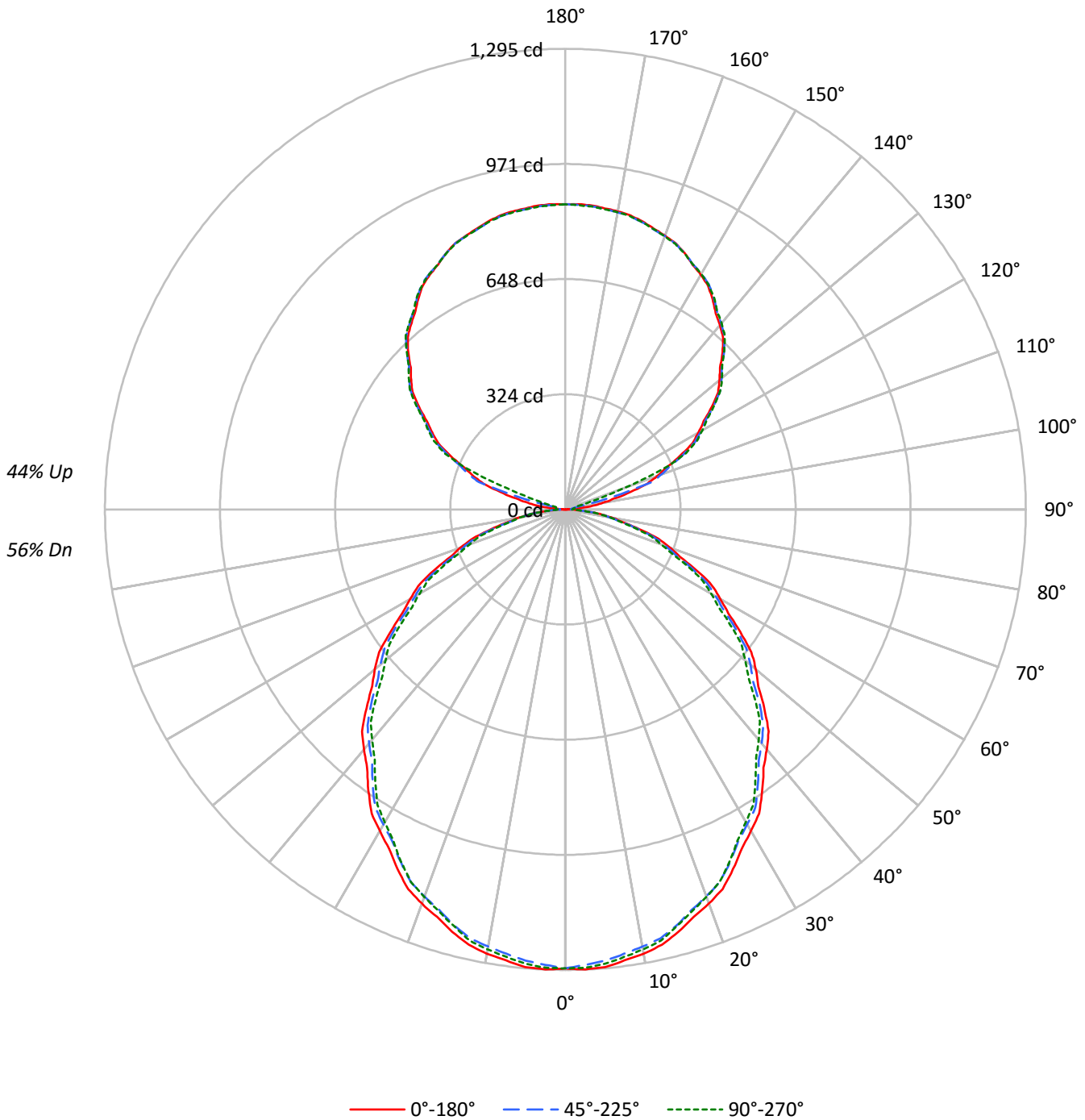
Lumens per Lamp: N/A
Luminaire Lumens: 5976.8 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

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



TEST NUMBER: P332024-930
CATALOG NUMBER: S123DIP-S1000D805U930-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P332024-930

CATALOG NUMBER: S123DIP-S1000D805U930-4F0-1E-UDD-F

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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	99	95	91	87	92	88	85	82	76	74	71	65	63	61	55	53	52	47
2	90	83	76	71	84	77	72	67	67	62	59	57	54	51	48	46	44	39
3	82	73	65	59	76	68	61	56	59	54	49	50	46	43	42	40	37	33
4	75	64	56	50	70	60	53	47	52	47	42	45	41	37	38	35	32	29
5	69	57	49	43	64	54	46	41	47	41	36	40	36	32	34	31	28	25
6	64	51	43	37	59	48	41	35	42	36	32	36	32	28	31	27	25	22
7	59	46	38	33	55	44	36	31	38	32	28	33	28	25	28	25	22	19
8	55	42	34	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	31	26	47	36	29	25	32	26	22	28	23	20	24	20	18	16
10	48	35	28	23	44	33	27	22	29	24	20	26	21	18	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13891	13891	13891
5°	13956	13765	13861
10°	13864	13645	13729
15°	13701	13490	13515
20°	13512	13270	13283
25°	13258	13007	12981
30°	12978	12716	12619
35°	12686	12408	12248
40°	12381	12067	11880
45°	12044	11756	11469
50°	11707	11372	11055
55°	11265	10975	10640
60°	10820	10512	10176
65°	10427	10004	9694
70°	9847	9429	9010
75°	9000	8675	8305
80°	8114	7773	7705
85°	7126	6854	6570



TEST NUMBER: P332024-930

CATALOG NUMBER: S123DIP-S1000D805U930-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.6	2.0
10°-20°	343.3	5.7
20°-30°	507.0	8.5
30°-40°	592.3	9.9
40°-50°	595.5	10.0
50°-60°	523.1	8.8
60°-70°	389.7	6.5
70°-80°	222.0	3.7
80°-90°	66.1	1.1
90°-100°	31.2	0.5
100°-110°	148.7	2.5
110°-120°	357.1	6.0
120°-130°	454.7	7.6
130°-140°	485.8	8.1
140°-150°	454.3	7.6
150°-160°	366.5	6.1
160°-170°	236.5	4.0
170°-180°	81.5	1.4
0°-30°	971.9	16.3
0°-40°	1564.1	26.2
0°-60°	2682.6	44.9
0°-90°	3360.5	56.2
90°-120°	536.9	9.0
90°-150°	1931.8	32.3
90°-180°	2616.0	43.8
0°-180°	5976.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1290	1290	1290	1290	1290	
5°	1292	1286	1274	1284	1283	122
15°	1230	1224	1211	1219	1213	346
25°	1116	1109	1095	1096	1093	514
35°	965	958	944	938	932	604
45°	791	786	772	759	753	611
55°	600	598	585	573	567	538
65°	409	404	393	384	381	404
75°	216	212	209	203	200	231
85°	58	56	56	53	53	63
90°	1	7	15	18	19	5
95°	39	15	20	24	24	48
105°	190	193	140	33	28	201
115°	356	360	366	372	375	352
125°	502	507	510	511	512	448
135°	625	629	632	633	632	481
145°	722	726	727	728	729	451
155°	795	794	794	797	794	366
165°	838	836	836	840	836	237
175°	858	855	855	859	855	82
180°	858	858	858	858	858	



TEST NUMBER: P332024-930

CATALOG NUMBER: S123DIP-S1000D805U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5
2.5°	1294.9	1294.2	1293.4	1292.6	1291.8	1290.3	1288.2	1286.0	1283.9	1281.7	1283.6
5°	1291.6	1290.4	1289.2	1287.9	1286.7	1284.7	1282.1	1279.3	1276.6	1273.9	1276.4
7.5°	1279.0	1277.7	1276.5	1275.3	1274.1	1272.0	1269.3	1266.4	1263.6	1260.8	1263.0
10°	1268.4	1267.1	1265.8	1264.6	1263.4	1261.2	1258.0	1254.7	1251.6	1248.4	1250.6
12.5°	1254.1	1253.1	1252.1	1251.0	1250.0	1248.0	1245.0	1241.9	1238.9	1235.9	1237.5
15°	1229.5	1228.5	1227.5	1226.5	1225.6	1223.4	1220.3	1217.1	1213.8	1210.6	1212.6
17.5°	1200.9	1199.5	1198.3	1197.0	1195.7	1193.5	1190.3	1187.1	1183.9	1180.6	1182.0
20°	1179.6	1178.1	1176.6	1175.1	1173.6	1171.3	1168.1	1164.9	1161.7	1158.5	1159.4
22.5°	1155.6	1154.1	1152.7	1151.1	1149.7	1147.4	1144.1	1140.9	1137.8	1134.5	1135.3
25°	1116.3	1114.8	1113.4	1111.9	1110.4	1108.1	1104.8	1101.6	1098.5	1095.2	1095.4
27.5°	1074.4	1072.9	1071.5	1070.1	1068.6	1066.2	1062.7	1059.3	1055.8	1052.4	1052.6
30°	1044.2	1042.9	1041.7	1040.5	1039.3	1036.9	1033.5	1030.0	1026.5	1023.1	1023.1
32.5°	1014.0	1012.4	1010.7	1009.1	1007.5	1005.3	1002.7	1000.0	997.4	994.7	993.3
35°	965.4	963.9	962.5	961.0	959.4	957.2	953.9	950.7	947.5	944.3	942.8
37.5°	915.7	913.8	911.9	910.0	908.2	905.6	902.4	899.1	895.9	892.6	890.8
40°	881.1	879.5	878.1	876.6	875.1	872.7	869.2	865.8	862.3	858.8	856.9
42.5°	846.4	844.7	843.1	841.4	839.8	837.1	833.7	830.3	826.8	823.4	821.4
45°	791.2	790.2	789.2	788.2	787.3	785.1	782.0	778.7	775.5	772.3	769.4
47.5°	736.4	734.9	733.5	732.1	730.7	728.4	725.5	722.4	719.4	716.4	713.5
50°	699.1	697.8	696.6	695.4	694.1	691.9	688.7	685.5	682.3	679.1	676.4
52.5°	660.0	659.2	658.4	657.5	656.6	654.5	651.2	647.8	644.3	640.9	638.6
55°	600.3	600.1	599.8	599.6	599.3	597.6	594.4	591.2	588.0	584.8	582.0
57.5°	543.5	542.7	541.8	541.0	540.1	538.4	535.9	533.3	530.8	528.2	525.8
60°	502.6	502.4	502.1	501.9	501.7	500.1	497.1	494.2	491.2	488.3	486.0
62.5°	466.3	465.6	465.0	464.3	463.7	461.9	458.9	456.0	453.1	450.0	447.8
65°	409.4	408.2	407.0	405.8	404.6	402.7	400.2	397.8	395.3	392.8	390.9
67.5°	349.4	348.2	347.2	346.1	345.0	343.5	341.6	339.7	337.9	336.0	334.3
70°	312.9	311.4	310.0	308.5	307.0	305.5	304.0	302.6	301.1	299.6	297.9
72.5°	274.8	273.7	272.6	271.5	270.4	269.0	267.3	265.7	264.0	262.3	260.8
75°	216.4	215.4	214.4	213.4	212.5	211.6	210.8	210.1	209.4	208.6	207.4
77.5°	164.7	164.1	163.5	163.1	162.5	161.8	160.9	160.0	159.1	158.2	157.4
80°	130.9	130.2	129.5	128.7	128.0	127.3	126.9	126.4	125.9	125.4	125.1
82.5°	98.1	97.9	97.8	97.7	97.5	97.3	97.3	97.2	97.1	97.0	96.5
85°	57.7	57.2	56.7	56.3	55.8	55.5	55.5	55.5	55.5	55.5	55.0
87.5°	23.2	22.9	22.6	22.3	22.0	21.9	22.1	22.3	22.4	22.6	22.5
90°	0.7	2.0	3.5	4.9	6.3	7.9	9.8	11.6	13.5	15.3	15.9
92.5°	11.8	11.5	11.1	10.7	10.3	10.8	12.1	13.5	14.9	16.3	17.2
95°	38.9	33.1	27.2	21.4	15.7	13.5	15.1	16.6	18.2	19.7	20.8
97.5°	78.1	75.6	73.0	70.4	67.8	61.3	51.1	40.9	30.7	20.5	21.7
100°	107.7	110.6	113.4	116.2	119.0	109.4	87.3	65.2	43.1	21.0	22.2
102.5°	141.4	143.4	145.4	147.5	149.5	138.5	114.4	90.2	66.0	41.9	38.4
105°	190.0	191.5	193.1	194.6	196.2	190.6	177.8	165.1	152.3	139.6	114.5
107.5°	241.2	242.5	243.7	244.9	246.1	247.8	249.8	251.8	253.8	255.8	237.5
110°	275.3	276.5	277.6	278.8	279.9	281.2	282.8	284.4	285.9	287.5	282.8



TEST NUMBER: P332024-930

CATALOG NUMBER: S123DIP-S1000D805U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	308.0	309.0	310.1	311.0	312.1	313.3	315.0	316.5	318.0	319.6	319.7
115°	356.3	357.2	358.0	358.9	359.7	360.8	362.1	363.3	364.6	365.9	367.3
117.5°	403.1	404.1	405.2	406.3	407.2	408.1	408.8	409.4	410.1	410.7	411.9
120°	432.2	433.4	434.7	435.9	437.2	438.1	438.5	439.0	439.4	439.8	440.9
122.5°	461.7	462.8	463.8	464.9	465.9	466.7	467.2	467.8	468.3	468.9	469.7
125°	502.3	503.4	504.5	505.6	506.8	507.7	508.3	508.7	509.3	509.9	510.2
127.5°	541.5	542.7	543.8	544.9	546.1	547.0	547.6	548.4	549.0	549.7	550.2
130°	566.0	567.1	568.3	569.4	570.5	571.4	571.9	572.5	573.1	573.6	574.2
132.5°	589.5	590.6	591.7	592.9	594.0	594.8	595.3	595.7	596.1	596.6	597.2
135°	625.3	626.1	627.0	627.9	628.7	629.4	630.0	630.6	631.1	631.7	632.1
137.5°	655.9	657.0	658.0	659.1	660.1	660.9	661.2	661.5	661.8	662.1	662.8
140°	676.3	677.1	678.0	678.8	679.7	680.3	680.8	681.2	681.6	682.0	682.6
142.5°	695.1	696.0	696.8	697.7	698.5	699.2	699.6	700.0	700.4	700.9	701.3
145°	721.5	722.5	723.5	724.5	725.5	726.1	726.4	726.7	727.0	727.2	727.6
147.5°	746.4	747.1	747.7	748.4	749.0	749.5	749.7	750.0	750.3	750.6	750.9
150°	761.7	762.1	762.5	763.0	763.4	763.8	764.0	764.3	764.6	764.9	765.2
152.5°	775.4	775.7	775.8	776.1	776.2	776.4	776.6	776.7	777.0	777.1	777.6
155°	794.8	794.6	794.3	794.0	793.7	793.6	793.8	793.9	794.0	794.2	794.9
157.5°	809.8	809.8	809.8	809.8	809.8	809.7	809.5	809.4	809.3	809.1	810.0
160°	819.0	818.9	818.8	818.6	818.5	818.3	818.2	818.1	817.9	817.7	818.6
162.5°	827.7	827.4	827.0	826.6	826.2	826.0	825.8	825.7	825.6	825.4	826.4
165°	838.2	837.7	837.3	836.9	836.5	836.2	836.1	835.9	835.8	835.6	836.7
167.5°	846.4	845.8	845.2	844.7	844.1	843.8	843.8	843.8	843.8	843.8	844.9
170°	850.9	850.4	849.8	849.2	848.6	848.4	848.4	848.4	848.4	848.4	849.5
172.5°	853.9	853.3	852.6	851.9	851.3	851.0	851.1	851.2	851.3	851.4	852.6
175°	857.9	857.2	856.6	855.8	855.1	854.8	854.9	855.1	855.2	855.4	856.4
177.5°	858.9	858.4	857.9	857.3	856.7	856.5	856.6	856.7	856.8	856.9	857.9
180°	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9



TEST NUMBER: P332024-930

CATALOG NUMBER: S123DIP-S1000D805U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5	1290.5
2.5°	1285.6	1287.6	1289.6	1290.5	1290.2	1290.0	1289.8	1289.6
5°	1278.8	1281.2	1283.8	1284.7	1284.3	1283.8	1283.3	1282.8
7.5°	1265.3	1267.5	1269.7	1270.6	1270.3	1270.1	1269.7	1269.4
10°	1252.8	1255.0	1257.3	1258.1	1257.6	1257.1	1256.6	1256.1
12.5°	1239.2	1240.8	1242.4	1243.1	1242.8	1242.5	1242.2	1241.9
15°	1214.6	1216.5	1218.5	1218.8	1217.3	1215.8	1214.3	1212.8
17.5°	1183.4	1184.8	1186.2	1186.6	1186.1	1185.5	1185.0	1184.5
20°	1160.4	1161.5	1162.5	1162.5	1161.8	1161.1	1160.3	1159.6
22.5°	1136.1	1136.9	1137.7	1137.6	1136.7	1135.7	1134.8	1133.8
25°	1095.7	1096.0	1096.3	1096.0	1095.2	1094.5	1093.7	1093.0
27.5°	1052.8	1053.0	1053.2	1052.8	1051.9	1050.9	1050.0	1049.0
30°	1023.1	1023.1	1023.1	1022.2	1020.5	1018.8	1017.1	1015.3
32.5°	991.9	990.6	989.2	988.0	987.1	986.1	985.2	984.2
35°	941.3	939.9	938.4	937.0	935.8	934.6	933.4	932.1
37.5°	889.1	887.3	885.5	884.2	883.5	882.6	881.8	881.1
40°	854.9	853.0	851.0	849.5	848.5	847.5	846.5	845.5
42.5°	819.4	817.4	815.5	814.0	813.0	812.0	811.1	810.1
45°	766.4	763.4	760.5	758.4	757.2	755.9	754.7	753.4
47.5°	710.5	707.7	704.7	702.8	701.6	700.6	699.5	698.4
50°	673.7	671.0	668.2	666.2	664.7	663.2	661.7	660.2
52.5°	636.3	634.0	631.7	629.7	628.3	626.8	625.3	623.9
55°	579.4	576.7	574.0	571.9	570.7	569.5	568.3	567.0
57.5°	523.3	521.0	518.5	516.6	515.2	513.7	512.3	510.9
60°	483.8	481.6	479.4	477.7	476.4	475.2	473.9	472.7
62.5°	445.6	443.4	441.2	439.7	438.8	438.0	437.2	436.3
65°	388.9	386.9	384.9	383.6	382.9	382.1	381.3	380.6
67.5°	332.6	330.8	329.1	327.8	326.7	325.6	324.6	323.6
70°	296.1	294.4	292.7	291.2	290.0	288.8	287.6	286.3
72.5°	259.3	257.7	256.2	255.1	254.5	253.8	253.2	252.6
75°	206.2	204.9	203.7	202.7	201.9	201.2	200.5	199.7
77.5°	156.5	155.7	154.9	154.5	154.5	154.5	154.5	154.5
80°	124.9	124.7	124.4	124.3	124.3	124.3	124.3	124.3
82.5°	96.1	95.6	95.2	94.9	94.7	94.5	94.3	94.1
85°	54.5	54.0	53.5	53.2	53.2	53.2	53.2	53.2
87.5°	22.4	22.3	22.3	22.3	22.3	22.3	22.4	22.5
90°	16.5	17.0	17.5	18.0	18.3	18.6	18.8	19.2
92.5°	18.1	19.0	20.0	20.5	20.6	20.8	21.0	21.2
95°	21.8	22.7	23.7	24.2	24.2	24.2	24.2	24.2
97.5°	22.8	23.9	25.0	25.7	25.8	26.0	26.1	26.3
100°	23.3	24.5	25.6	26.2	26.3	26.5	26.7	26.7
102.5°	34.9	31.4	27.9	26.3	26.5	26.7	27.0	27.3
105°	89.4	64.4	39.3	26.9	27.2	27.5	27.8	28.0
107.5°	219.1	200.7	182.3	163.6	144.8	125.9	107.0	88.1
110°	278.1	273.5	268.8	256.3	236.0	215.8	195.5	175.3



TEST NUMBER: P332024-930

CATALOG NUMBER: S123DIP-S1000D805U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	319.8	319.8	319.9	317.8	313.6	309.2	305.0	300.8
115°	368.7	370.1	371.5	372.5	373.1	373.7	374.2	374.8
117.5°	413.0	414.2	415.2	415.9	416.0	416.1	416.2	416.4
120°	442.1	443.2	444.3	444.9	444.9	444.9	444.9	444.9
122.5°	470.4	471.2	472.1	472.5	472.6	472.7	472.9	473.0
125°	510.5	510.8	511.0	511.4	511.6	511.9	512.2	512.5
127.5°	550.6	551.1	551.5	551.5	551.3	551.1	550.7	550.5
130°	574.8	575.4	575.9	576.1	575.8	575.5	575.2	574.9
132.5°	597.7	598.3	598.8	598.9	598.6	598.2	597.8	597.4
135°	632.5	632.9	633.3	633.3	632.9	632.5	632.1	631.7
137.5°	663.5	664.1	664.9	665.0	664.8	664.5	664.2	663.9
140°	683.1	683.7	684.3	684.4	684.1	683.9	683.5	683.3
142.5°	701.8	702.2	702.7	702.7	702.3	701.9	701.6	701.2
145°	727.8	728.1	728.4	728.6	728.6	728.6	728.6	728.6
147.5°	751.1	751.5	751.7	751.5	750.9	750.2	749.6	748.9
150°	765.4	765.7	766.0	766.0	765.5	765.1	764.7	764.3
152.5°	778.1	778.6	779.2	779.1	778.4	777.8	777.1	776.5
155°	795.7	796.3	797.0	797.0	796.1	795.2	794.4	793.5
157.5°	810.8	811.6	812.5	812.4	811.3	810.2	809.1	808.0
160°	819.5	820.4	821.2	821.1	820.1	819.1	818.2	817.2
162.5°	827.4	828.3	829.2	829.3	828.4	827.5	826.7	825.8
165°	837.9	839.0	840.2	840.2	839.3	838.2	837.2	836.3
167.5°	846.0	847.2	848.3	848.3	847.2	846.0	844.9	843.8
170°	850.6	851.7	852.9	852.9	851.7	850.6	849.5	848.4
172.5°	853.7	854.8	856.0	855.9	854.7	853.5	852.2	850.9
175°	857.4	858.3	859.3	859.2	858.2	857.0	855.9	854.8
177.5°	858.8	859.7	860.5	860.5	859.3	858.2	857.0	855.9
180°	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9

(END OF REPORT)