

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: P332044-940

Luminaire Tested: **S123DIP-S1000D1195U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332044-940
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-S1000D1195U940-4F0-1E-UDD-F4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1195 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7527.3 lumens
Efficiency: N/A
Efficacy: 115.1 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

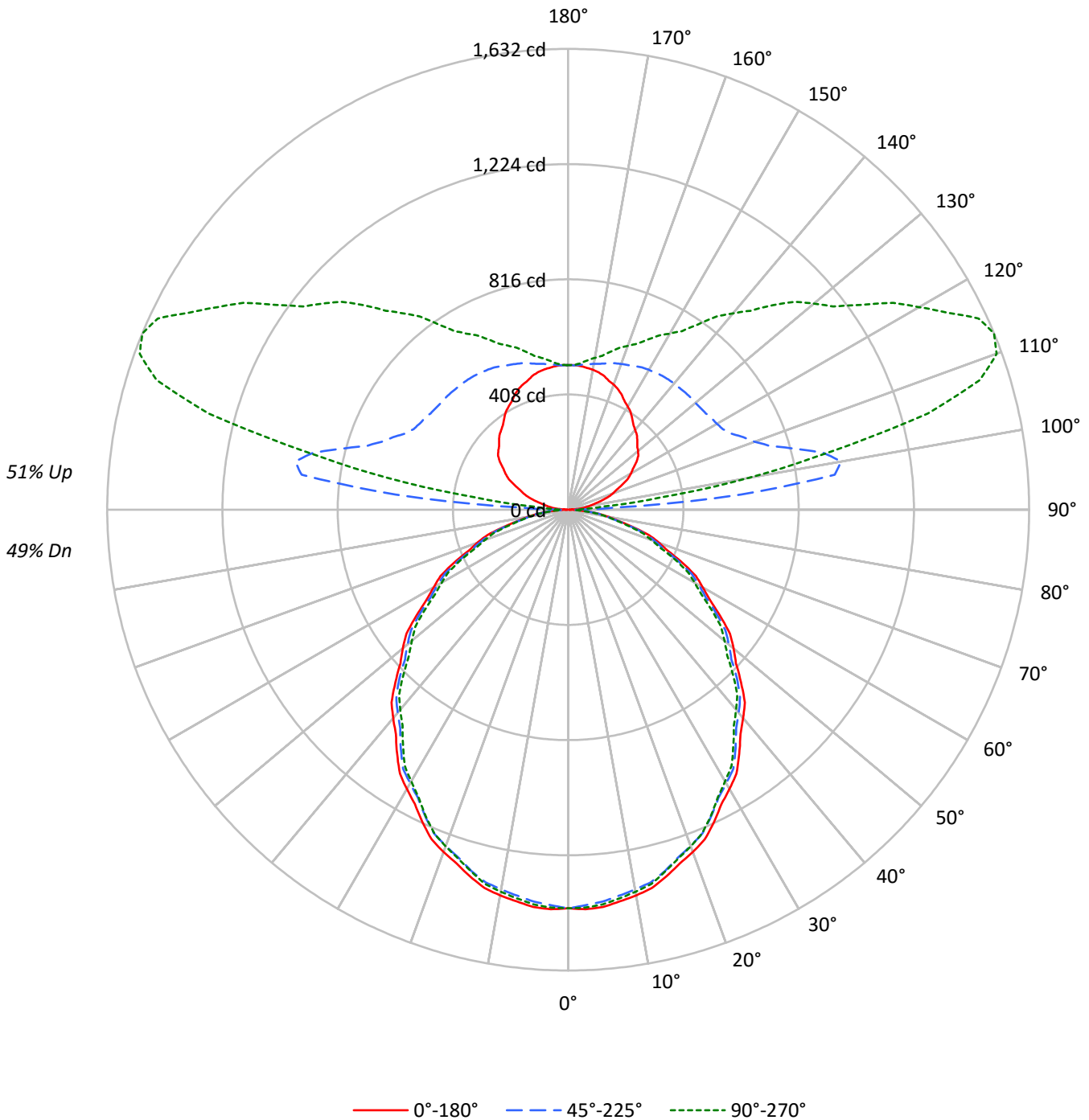
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332044-940

CATALOG NUMBER: S123DIP-S1000D1195U940-4F0-1E-UDD-F4

Luminous Intensity Polar Plot





TEST NUMBER: P332044-940

CATALOG NUMBER: S123DIP-S1000D1195U940-4F0-1E-UDD-F4

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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	97	93	89	86	90	86	83	80	72	70	68	60	58	57	49	47	46	41
2	89	81	75	70	81	75	70	65	63	59	56	53	50	47	43	41	39	34
3	81	71	64	58	74	66	60	54	56	51	47	47	43	40	38	35	33	29
4	74	63	55	49	68	58	52	46	50	44	40	41	37	34	34	31	29	25
5	68	56	48	42	62	52	45	40	44	39	35	37	33	30	30	27	25	22
6	63	50	42	36	57	47	40	34	40	34	30	34	29	26	28	24	22	19
7	58	46	38	32	53	42	35	30	36	31	27	31	26	23	25	22	19	17
8	54	41	34	28	49	38	31	27	33	27	24	28	24	20	23	20	17	15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	14
10	47	35	27	23	43	32	26	21	28	23	19	24	20	17	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15193	15193	15193
5°	15263	15055	15159
10°	15162	14924	15017
15°	14985	14755	14782
20°	14778	14513	14528
25°	14500	14226	14197
30°	14194	13908	13801
35°	13875	13571	13397
40°	13541	13198	12995
45°	13172	12858	12543
50°	12804	12439	12092
55°	12322	12003	11639
60°	11834	11496	11130
65°	11405	10942	10603
70°	10770	10313	9854
75°	9844	9491	9087
80°	8877	8498	8424
85°	7793	7497	7188



TEST NUMBER: P332044-940

CATALOG NUMBER: S123DIP-S1000D1195U940-4F0-1E-UDD-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.0	1.8
10°-20°	375.4	5.0
20°-30°	554.6	7.4
30°-40°	647.8	8.6
40°-50°	651.3	8.7
50°-60°	572.1	7.6
60°-70°	426.2	5.7
70°-80°	242.8	3.2
80°-90°	73.7	1.0
90°-100°	284.8	3.8
100°-110°	806.5	10.7
110°-120°	793.4	10.5
120°-130°	632.8	8.4
130°-140°	498.9	6.6
140°-150°	372.4	4.9
150°-160°	259.6	3.4
160°-170°	152.5	2.0
170°-180°	49.6	0.7
0°-30°	1062.9	14.1
0°-40°	1710.7	22.7
0°-60°	2934.1	39.0
0°-90°	3676.7	48.8
90°-120°	1884.7	25.0
90°-150°	3388.9	45.0
90°-180°	3851.0	51.2
0°-180°	7527.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1412	1412	1412	1412	1412	
5°	1413	1406	1393	1405	1403	134
15°	1345	1339	1324	1333	1326	379
25°	1221	1213	1198	1199	1195	562
35°	1056	1048	1033	1026	1020	660
45°	865	860	845	831	824	668
55°	657	655	640	627	620	588
65°	448	441	430	420	416	442
75°	237	232	228	222	218	253
85°	63	61	61	58	58	69
90°	2	12	26	29	30	6
95°	35	114	614	179	120	38
105°	120	178	833	1457	1318	128
115°	212	265	637	1397	1603	210
125°	295	349	595	1077	1264	262
135°	346	413	586	887	1025	267
145°	395	452	579	728	801	247
155°	449	484	560	637	664	206
165°	490	504	537	569	579	138
175°	511	511	515	522	521	48
180°	512	512	512	512	512	



TEST NUMBER: P332044-940

CATALOG NUMBER: S123DIP-S1000D1195U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1411.5	1411.5	1411.5	1411.5	1411.5	1411.5	1411.5	1411.5	1411.5	1411.5	1411.5
2.5°	1416.3	1415.5	1414.6	1413.7	1412.9	1411.2	1408.9	1406.5	1404.2	1401.8	1403.9
5°	1412.6	1411.3	1410.0	1408.6	1407.3	1405.2	1402.2	1399.2	1396.2	1393.3	1396.0
7.5°	1398.8	1397.5	1396.2	1394.8	1393.5	1391.2	1388.2	1385.1	1382.1	1378.9	1381.3
10°	1387.2	1385.9	1384.5	1383.1	1381.8	1379.4	1375.9	1372.3	1368.9	1365.4	1367.8
12.5°	1371.6	1370.6	1369.4	1368.2	1367.2	1364.9	1361.6	1358.3	1355.0	1351.7	1353.5
15°	1344.7	1343.6	1342.6	1341.5	1340.4	1338.1	1334.6	1331.1	1327.6	1324.1	1326.2
17.5°	1313.4	1312.0	1310.6	1309.2	1307.8	1305.4	1301.8	1298.3	1294.9	1291.3	1292.8
20°	1290.1	1288.5	1286.9	1285.2	1283.6	1281.0	1277.6	1274.1	1270.6	1267.0	1268.1
22.5°	1263.9	1262.3	1260.7	1259.0	1257.4	1254.9	1251.3	1247.9	1244.4	1240.8	1241.7
25°	1220.9	1219.3	1217.7	1216.1	1214.4	1211.9	1208.4	1204.9	1201.4	1197.8	1198.1
27.5°	1175.1	1173.5	1171.9	1170.4	1168.8	1166.1	1162.3	1158.6	1154.8	1151.0	1151.2
30°	1142.0	1140.7	1139.3	1138.0	1136.7	1134.1	1130.3	1126.5	1122.8	1119.0	1119.0
32.5°	1109.0	1107.2	1105.5	1103.7	1101.9	1099.6	1096.6	1093.8	1090.8	1087.9	1086.4
35°	1055.9	1054.3	1052.7	1051.1	1049.4	1046.9	1043.3	1039.8	1036.3	1032.8	1031.2
37.5°	1001.5	999.4	997.4	995.3	993.3	990.5	986.9	983.4	979.8	976.2	974.3
40°	963.7	962.0	960.4	958.8	957.2	954.5	950.7	946.9	943.2	939.3	937.2
42.5°	925.8	923.9	922.1	920.2	918.5	915.6	911.9	908.1	904.3	900.5	898.4
45°	865.3	864.2	863.2	862.1	861.0	858.7	855.2	851.7	848.2	844.7	841.5
47.5°	805.4	803.8	802.3	800.7	799.2	796.7	793.4	790.1	786.8	783.5	780.3
50°	764.6	763.2	761.9	760.5	759.2	756.8	753.2	749.8	746.3	742.8	739.8
52.5°	721.8	720.9	720.1	719.2	718.2	715.9	712.2	708.5	704.7	701.0	698.5
55°	656.6	656.3	656.0	655.8	655.5	653.6	650.1	646.6	643.1	639.6	636.6
57.5°	594.4	593.5	592.6	591.7	590.8	588.9	586.1	583.3	580.5	577.7	575.1
60°	549.7	549.5	549.2	548.9	548.7	547.0	543.7	540.5	537.3	534.0	531.5
62.5°	510.0	509.3	508.5	507.8	507.2	505.2	501.9	498.7	495.5	492.2	489.8
65°	447.8	446.5	445.1	443.8	442.5	440.4	437.7	435.1	432.3	429.6	427.5
67.5°	382.1	380.8	379.7	378.5	377.3	375.7	373.6	371.6	369.5	367.5	365.6
70°	342.2	340.6	339.0	337.4	335.8	334.1	332.5	330.9	329.3	327.7	325.8
72.5°	300.5	299.3	298.1	296.9	295.8	294.3	292.4	290.6	288.7	286.9	285.3
75°	236.7	235.6	234.5	233.4	232.4	231.4	230.6	229.8	229.0	228.2	226.9
77.5°	180.1	179.5	178.9	178.3	177.7	176.9	176.0	175.0	174.1	173.1	172.2
80°	143.2	142.4	141.6	140.8	140.0	139.3	138.8	138.2	137.7	137.1	136.9
82.5°	107.3	107.1	107.0	106.8	106.6	106.5	106.4	106.3	106.2	106.1	105.6
85°	63.1	62.6	62.1	61.5	61.0	60.7	60.7	60.7	60.7	60.7	60.1
87.5°	25.7	25.4	25.2	25.1	25.0	24.9	25.3	25.8	26.1	26.6	26.1
90°	2.1	4.1	6.2	9.4	11.4	13.5	16.6	19.7	22.8	25.9	24.9
92.5°	12.8	19.1	27.7	35.8	44.6	59.9	87.0	131.6	175.3	159.3	120.2
95°	35.2	38.3	49.8	67.3	94.3	134.6	222.7	377.1	547.1	614.4	498.3
97.5°	60.1	61.1	70.0	85.3	111.9	155.6	239.8	413.8	697.1	952.1	1018.6
100°	76.7	77.7	85.0	99.4	124.3	164.7	237.3	390.6	663.1	981.1	1185.3
102.5°	94.1	95.9	102.4	116.0	138.4	175.5	240.6	370.7	613.3	927.3	1193.5
105°	120.2	123.3	129.5	142.0	161.6	193.8	249.7	356.4	552.2	832.9	1130.3
107.5°	147.9	151.1	157.0	169.2	187.7	217.6	266.7	355.3	513.3	749.7	1019.7
110°	167.8	170.9	176.1	187.5	205.1	234.2	280.8	359.5	498.3	702.4	950.0



TEST NUMBER: P332044-940

CATALOG NUMBER: S123DIP-S1000D1195U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	186.1	189.2	194.4	205.7	223.4	251.6	294.9	367.8	490.1	670.9	889.6
115°	212.4	216.5	222.7	233.1	250.7	278.7	318.1	381.3	487.0	637.1	816.4
117.5°	238.7	243.4	248.6	258.2	277.9	303.8	342.7	399.0	488.8	617.2	772.2
120°	256.9	260.0	265.2	275.6	295.2	321.2	358.5	412.3	492.1	608.1	749.0
122.5°	272.7	275.8	281.0	292.1	311.0	338.6	375.1	424.8	497.9	602.4	730.0
125°	295.2	297.4	303.5	315.0	334.7	362.6	398.9	444.4	506.6	594.7	705.5
127.5°	312.5	315.6	323.2	334.8	356.6	384.6	419.5	460.7	516.6	590.9	684.0
130°	323.2	326.4	335.6	348.1	369.9	397.8	432.0	471.4	523.2	588.4	672.3
132.5°	331.5	335.5	345.6	360.5	382.3	409.5	442.8	481.3	528.2	587.6	661.6
135°	346.1	350.2	361.6	377.1	398.9	426.9	459.0	494.2	535.7	586.4	647.6
137.5°	359.7	364.1	375.2	391.8	413.4	439.3	470.1	503.7	540.6	584.1	635.3
140°	368.8	374.0	384.3	400.9	421.7	447.5	477.6	508.7	543.9	583.3	627.9
142.5°	378.8	383.2	394.3	409.2	430.0	454.2	483.4	513.6	546.4	581.7	621.2
145°	394.8	397.8	407.2	422.7	440.3	464.1	491.1	519.1	548.0	579.2	612.3
147.5°	410.9	412.8	421.9	435.3	452.4	472.6	497.3	522.4	548.0	575.2	603.6
150°	421.7	422.7	431.0	444.4	459.0	477.6	501.4	523.2	548.0	571.9	597.8
152.5°	432.5	432.7	441.0	452.7	465.6	483.4	503.9	524.9	545.5	567.8	591.2
155°	448.6	448.6	454.9	465.2	476.5	491.1	508.7	525.3	542.9	560.5	581.2
157.5°	461.5	462.3	467.3	476.4	486.1	497.3	511.4	526.3	539.4	554.1	570.0
160°	471.4	471.4	475.5	483.8	491.1	501.4	513.9	526.3	537.7	549.1	562.6
162.5°	478.8	478.8	482.1	488.8	495.3	503.9	514.7	525.5	534.4	544.1	555.1
165°	490.1	489.0	491.1	496.2	500.4	507.7	515.9	523.2	529.4	536.6	544.9
167.5°	498.6	497.3	498.3	502.3	505.2	509.7	515.8	521.6	524.4	529.2	535.2
170°	503.5	501.4	502.5	505.6	507.7	509.7	514.9	519.1	521.1	524.2	529.4
172.5°	506.8	505.6	505.8	508.1	509.3	510.6	514.9	518.3	518.6	520.0	523.6
175°	510.8	509.7	508.7	510.8	510.8	511.8	513.9	515.9	514.9	514.9	517.0
177.5°	512.6	511.8	511.0	511.8	511.8	511.8	512.6	514.2	512.6	511.8	512.6
180°	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8



TEST NUMBER: P332044-940

CATALOG NUMBER: S123DIP-S1000D1195U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1411.5	1411.5	1411.5	1411.5	1411.5	1411.5	1411.5	1411.5
2.5°	1406.0	1408.3	1410.4	1411.4	1411.1	1411.0	1410.7	1410.5
5°	1398.6	1401.3	1404.1	1405.2	1404.6	1404.1	1403.6	1403.0
7.5°	1383.8	1386.3	1388.7	1389.7	1389.4	1389.1	1388.8	1388.4
10°	1370.2	1372.6	1375.1	1376.0	1375.5	1374.9	1374.4	1373.9
12.5°	1355.3	1357.1	1358.9	1359.6	1359.3	1359.0	1358.6	1358.3
15°	1328.4	1330.5	1332.8	1333.0	1331.4	1329.7	1328.1	1326.5
17.5°	1294.3	1295.8	1297.4	1297.8	1297.3	1296.6	1296.0	1295.5
20°	1269.2	1270.3	1271.4	1271.5	1270.7	1269.9	1269.1	1268.3
22.5°	1242.6	1243.4	1244.3	1244.2	1243.2	1242.2	1241.2	1240.1
25°	1198.4	1198.7	1199.0	1198.7	1197.8	1197.0	1196.2	1195.4
27.5°	1151.5	1151.6	1151.9	1151.5	1150.5	1149.4	1148.4	1147.4
30°	1119.0	1119.0	1119.0	1118.0	1116.2	1114.3	1112.4	1110.4
32.5°	1084.9	1083.4	1081.9	1080.6	1079.6	1078.5	1077.5	1076.5
35°	1029.6	1028.0	1026.4	1024.8	1023.5	1022.2	1020.8	1019.5
37.5°	972.4	970.4	968.5	967.1	966.3	965.4	964.5	963.7
40°	935.0	932.9	930.8	929.1	928.0	926.9	925.9	924.8
42.5°	896.2	894.0	891.9	890.3	889.2	888.1	887.1	886.0
45°	838.2	835.0	831.8	829.5	828.1	826.8	825.5	824.0
47.5°	777.1	774.0	770.8	768.7	767.4	766.2	765.1	763.8
50°	736.8	733.9	730.8	728.6	727.0	725.3	723.7	722.1
52.5°	695.9	693.4	690.9	688.8	687.2	685.5	683.9	682.3
55°	633.6	630.7	627.8	625.5	624.2	622.9	621.5	620.2
57.5°	572.4	569.8	567.1	565.0	563.5	561.9	560.4	558.7
60°	529.1	526.7	524.3	522.5	521.0	519.7	518.4	517.0
62.5°	487.4	485.0	482.5	480.9	479.9	479.0	478.1	477.2
65°	425.3	423.1	421.0	419.5	418.7	417.9	417.1	416.3
67.5°	363.7	361.9	360.0	358.5	357.3	356.1	355.0	353.9
70°	323.9	322.0	320.1	318.5	317.2	315.8	314.5	313.1
72.5°	283.6	281.9	280.2	279.0	278.3	277.6	277.0	276.3
75°	225.5	224.1	222.7	221.7	220.9	220.1	219.3	218.5
77.5°	171.2	170.3	169.4	169.0	169.0	169.0	169.0	169.0
80°	136.6	136.3	136.1	135.9	135.9	135.9	135.9	135.9
82.5°	105.1	104.6	104.2	103.8	103.5	103.3	103.2	102.9
85°	59.6	59.0	58.5	58.2	58.2	58.2	58.2	58.2
87.5°	26.1	26.1	26.1	26.4	26.2	26.4	26.6	26.4
90°	25.9	26.9	28.0	30.1	29.0	30.1	31.1	30.1
92.5°	87.2	69.2	61.1	55.7	53.9	50.7	51.8	49.9
95°	373.0	252.8	197.9	160.6	140.9	131.6	124.3	120.2
97.5°	929.7	744.7	611.1	487.1	410.7	364.1	336.1	327.2
100°	1221.5	1137.6	1016.4	869.2	764.6	688.9	648.5	649.6
102.5°	1318.5	1315.7	1245.1	1151.8	1070.4	1010.6	976.8	953.0
105°	1346.8	1450.5	1470.2	1443.2	1395.5	1356.2	1323.0	1317.9
107.5°	1265.2	1433.4	1524.2	1561.1	1561.9	1548.6	1537.5	1527.9
110°	1187.3	1378.0	1508.5	1581.0	1610.0	1618.3	1616.2	1614.2



TEST NUMBER: P332044-940

CATALOG NUMBER: S123DIP-S1000D1195U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1110.2	1305.0	1451.3	1544.5	1597.6	1623.3	1631.1	1631.6
115°	1008.1	1188.3	1340.6	1453.6	1531.2	1576.8	1597.6	1602.8
117.5°	934.1	1089.7	1226.5	1341.0	1422.1	1474.3	1504.1	1511.2
120°	895.1	1035.0	1159.3	1264.0	1345.8	1403.8	1428.7	1434.9
122.5°	864.4	991.0	1106.3	1203.5	1276.2	1328.4	1355.8	1363.6
125°	823.7	936.6	1036.0	1118.9	1185.3	1230.8	1256.7	1264.0
127.5°	788.0	888.7	978.4	1053.8	1112.9	1151.8	1175.3	1181.9
130°	765.6	858.9	942.8	1013.3	1068.2	1105.5	1127.2	1135.5
132.5°	744.9	830.7	908.8	976.0	1027.5	1064.8	1084.1	1089.9
135°	716.9	790.5	857.8	916.9	967.7	998.7	1017.4	1024.7
137.5°	691.4	751.7	809.8	860.9	903.7	935.1	950.8	955.6
140°	676.5	729.3	779.1	823.7	863.0	892.1	908.6	907.6
142.5°	662.5	707.8	750.9	789.7	823.2	848.9	863.8	862.8
145°	645.4	679.7	712.8	742.8	768.7	790.5	798.8	800.8
147.5°	631.6	658.7	685.5	706.8	726.5	741.2	749.0	749.8
150°	621.6	645.4	667.2	686.9	702.4	713.8	720.1	720.1
152.5°	612.5	633.0	652.3	668.7	680.9	691.4	695.2	695.2
155°	598.8	615.4	631.0	643.4	652.7	661.0	663.1	664.1
157.5°	584.3	598.2	610.2	619.9	628.0	634.3	635.9	635.7
160°	576.0	587.5	597.8	605.0	612.3	618.5	618.5	617.5
162.5°	566.1	575.9	585.3	591.7	596.6	601.9	601.9	600.9
165°	553.2	559.5	566.7	571.9	576.0	580.1	579.2	579.2
167.5°	542.1	546.8	551.0	554.7	556.5	559.5	558.4	558.4
170°	534.6	537.7	541.8	543.9	544.9	547.1	546.0	546.0
172.5°	528.0	530.2	533.6	534.8	535.0	537.1	535.2	534.4
175°	519.1	520.0	522.2	522.2	522.2	523.2	522.2	521.1
177.5°	513.4	514.2	515.1	515.1	514.2	515.1	513.4	513.4
180°	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8

(END OF REPORT)