

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: P332079-927

Luminaire Tested: **S123DIP-S1165D1025U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332079-927
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-S1165D1025U927-4F0-1E-UDD-F1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1025 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6560.4 lumens
Efficiency: N/A
Efficacy: 98.2 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

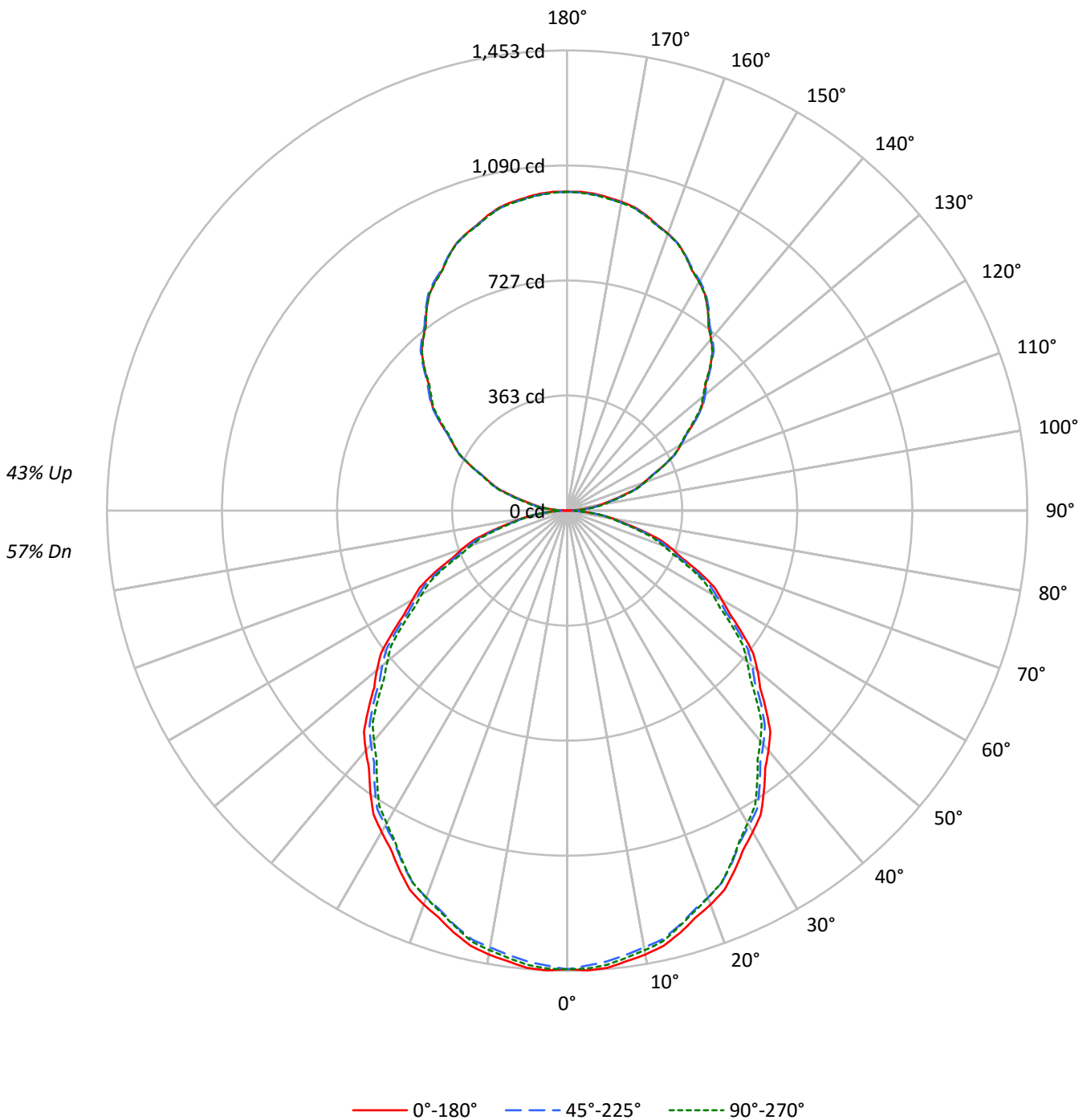
Input Watts (W): 66.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332079-927

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P332079-927

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-F1

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	75	75	75	63	63	63	57
1	99	95	91	87	92	89	85	82	77	74	72	66	64	62	56	54	53	48
2	90	83	77	71	84	77	72	67	67	63	59	58	55	52	49	47	45	40
3	83	73	65	59	77	68	62	56	59	54	50	51	47	44	43	40	38	34
4	76	65	56	50	70	60	53	48	53	47	43	45	41	38	39	35	33	29
5	69	57	49	43	64	54	46	41	47	41	37	41	36	33	35	31	28	25
6	64	52	43	37	59	48	41	36	42	36	32	37	32	29	32	28	25	22
7	59	47	39	33	55	44	37	31	39	33	28	34	29	25	29	25	22	20
8	55	42	35	29	51	40	33	28	35	29	25	31	26	23	27	23	20	18
9	51	39	31	26	48	37	30	25	32	27	23	28	24	20	24	21	18	16
10	48	36	28	23	45	34	27	22	30	24	20	26	22	18	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15588	15588	15588
5°	15662	15446	15554
10°	15557	15312	15407
15°	15375	15139	15166
20°	15163	14892	14905
25°	14878	14598	14567
30°	14564	14270	14162
35°	14236	13925	13745
40°	13893	13543	13333
45°	13516	13192	12871
50°	13137	12762	12407
55°	12643	12314	11941
60°	12144	11795	11418
65°	11703	11227	10878
70°	11053	10581	10112
75°	10098	9736	9320
80°	9106	8722	8647
85°	7991	7694	7385



TEST NUMBER: P332079-927

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.4	2.1
10°-20°	385.2	5.9
20°-30°	569.0	8.7
30°-40°	664.6	10.1
40°-50°	668.2	10.2
50°-60°	587.0	8.9
60°-70°	437.3	6.7
70°-80°	249.1	3.8
80°-90°	74.5	1.1
90°-100°	65.6	1.0
100°-110°	196.3	3.0
110°-120°	333.8	5.1
120°-130°	439.1	6.7
130°-140°	493.6	7.5
140°-150°	485.2	7.4
150°-160°	408.4	6.2
160°-170°	271.9	4.1
170°-180°	95.2	1.5
0°-30°	1090.6	16.6
0°-40°	1755.3	26.8
0°-60°	3010.4	45.9
0°-90°	3771.4	57.5
90°-120°	595.7	9.1
90°-150°	2013.5	30.7
90°-180°	2789.0	42.5
0°-180°	6560.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1448	1448	1448	1448	1448	
5°	1450	1443	1430	1441	1440	137
15°	1380	1374	1358	1368	1361	389
25°	1253	1245	1229	1230	1226	577
35°	1083	1075	1060	1052	1046	677
45°	888	882	867	852	846	685
55°	674	672	656	643	636	603
65°	460	453	441	431	427	453
75°	243	238	234	228	224	260
85°	65	62	62	60	60	71
90°	1	9	19	22	24	6
95°	47	52	58	62	62	52
105°	178	180	187	187	188	191
115°	336	338	337	338	337	332
125°	492	494	493	489	486	438
135°	638	643	642	639	637	492
145°	774	776	778	777	774	483
155°	886	886	887	890	885	408
165°	966	963	963	967	962	272
175°	1004	1001	1001	1005	1000	95
180°	1007	1007	1007	1007	1007	



TEST NUMBER: P332079-927

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2
2.5°	1453.2	1452.3	1451.4	1450.6	1449.6	1448.0	1445.6	1443.1	1440.7	1438.2	1440.4
5°	1449.5	1448.1	1446.7	1445.3	1443.9	1441.7	1438.7	1435.6	1432.6	1429.5	1432.3
7.5°	1435.3	1433.8	1432.5	1431.1	1429.7	1427.4	1424.3	1421.2	1418.0	1414.8	1417.3
10°	1423.3	1421.9	1420.5	1419.1	1417.8	1415.3	1411.7	1408.1	1404.5	1400.9	1403.4
12.5°	1407.4	1406.2	1405.0	1403.9	1402.7	1400.4	1397.1	1393.7	1390.3	1387.0	1388.8
15°	1379.7	1378.6	1377.5	1376.4	1375.3	1372.9	1369.4	1365.7	1362.2	1358.5	1360.7
17.5°	1347.6	1346.2	1344.7	1343.3	1341.8	1339.3	1335.7	1332.1	1328.5	1324.9	1326.5
20°	1323.7	1322.0	1320.3	1318.7	1317.1	1314.4	1310.8	1307.3	1303.6	1300.1	1301.2
22.5°	1296.8	1295.1	1293.5	1291.8	1290.1	1287.5	1283.9	1280.3	1276.8	1273.1	1274.0
25°	1252.7	1251.0	1249.4	1247.7	1246.1	1243.4	1239.8	1236.3	1232.6	1229.1	1229.3
27.5°	1205.6	1204.0	1202.5	1200.8	1199.2	1196.5	1192.6	1188.7	1184.9	1181.0	1181.2
30°	1171.8	1170.4	1169.0	1167.6	1166.3	1163.6	1159.8	1155.9	1152.0	1148.1	1148.1
32.5°	1137.9	1136.1	1134.2	1132.4	1130.6	1128.1	1125.2	1122.2	1119.2	1116.3	1114.7
35°	1083.4	1081.7	1080.1	1078.4	1076.7	1074.1	1070.5	1066.9	1063.3	1059.7	1058.0
37.5°	1027.5	1025.5	1023.3	1021.3	1019.1	1016.3	1012.6	1009.0	1005.4	1001.6	999.7
40°	988.7	987.1	985.4	983.7	982.1	979.3	975.4	971.5	967.7	963.8	961.6
42.5°	949.8	948.0	946.1	944.2	942.3	939.4	935.6	931.7	927.8	924.0	921.8
45°	887.9	886.8	885.7	884.6	883.4	881.1	877.5	873.9	870.3	866.6	863.4
47.5°	826.3	824.7	823.2	821.5	819.9	817.5	814.0	810.6	807.3	803.9	800.7
50°	784.5	783.2	781.7	780.4	779.0	776.5	772.9	769.3	765.6	762.1	759.1
52.5°	740.7	739.7	738.8	737.8	736.9	734.5	730.7	726.9	723.1	719.2	716.6
55°	673.7	673.4	673.1	672.9	672.6	670.7	667.0	663.5	659.8	656.2	653.2
57.5°	609.9	609.0	608.0	607.1	606.2	604.3	601.3	598.5	595.6	592.7	590.0
60°	564.1	563.8	563.6	563.2	563.0	561.2	557.9	554.5	551.2	547.9	545.4
62.5°	523.2	522.5	521.8	521.1	520.4	518.3	515.0	511.7	508.4	505.1	502.6
65°	459.5	458.1	456.7	455.3	453.9	451.9	449.1	446.3	443.5	440.8	438.6
67.5°	392.0	390.8	389.6	388.3	387.1	385.5	383.3	381.3	379.1	377.1	375.1
70°	351.2	349.5	347.8	346.2	344.5	342.9	341.2	339.5	337.9	336.2	334.3
72.5°	308.3	307.1	305.9	304.7	303.5	301.9	300.0	298.1	296.3	294.4	292.6
75°	242.8	241.7	240.6	239.5	238.4	237.4	236.6	235.8	235.0	234.1	232.7
77.5°	184.8	184.2	183.5	183.0	182.4	181.6	180.5	179.6	178.6	177.6	176.7
80°	146.9	146.1	145.3	144.4	143.6	142.9	142.4	141.8	141.2	140.7	140.5
82.5°	110.1	109.9	109.7	109.6	109.4	109.2	109.2	109.1	108.9	108.8	108.4
85°	64.7	64.2	63.6	63.1	62.5	62.3	62.3	62.3	62.3	62.3	61.7
87.5°	26.1	25.7	25.4	25.1	24.8	24.8	25.0	25.3	25.5	25.7	25.7
90°	0.8	2.5	4.3	6.1	7.8	9.8	12.1	14.4	16.7	19.0	19.6
92.5°	19.2	20.4	21.5	22.7	23.9	25.2	26.5	27.7	29.1	30.3	30.9
95°	46.7	47.8	49.1	50.4	51.6	52.9	54.3	55.7	57.1	58.5	59.3
97.5°	82.9	83.8	84.7	85.6	86.5	87.5	88.5	89.5	90.5	91.6	92.4
100°	107.6	108.6	109.6	110.7	111.8	112.7	113.6	114.5	115.3	116.2	116.8
102.5°	136.0	136.7	137.3	137.9	138.6	139.4	140.6	141.7	142.9	144.1	144.6
105°	177.9	178.2	178.6	179.0	179.4	180.3	181.9	183.5	185.1	186.6	186.6
107.5°	226.6	226.9	227.0	227.3	227.5	227.9	228.5	229.2	229.8	230.4	231.0
110°	257.0	257.4	257.7	258.0	258.4	258.7	259.1	259.4	259.8	260.2	260.9



TEST NUMBER: P332079-927

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	288.6	288.8	289.1	289.2	289.5	289.6	289.7	289.8	289.9	289.9	290.7
115°	336.0	336.6	337.2	337.6	338.2	338.3	337.9	337.5	337.2	336.8	337.1
117.5°	383.8	384.2	384.5	384.9	385.2	385.2	384.8	384.3	383.8	383.3	383.3
120°	413.6	414.6	415.7	416.8	417.8	417.9	417.0	416.1	415.3	414.4	414.2
122.5°	444.6	445.4	446.1	446.9	447.7	447.8	447.3	446.9	446.5	446.0	445.5
125°	491.9	492.4	492.9	493.5	493.9	494.1	493.7	493.4	493.0	492.7	491.9
127.5°	535.5	536.6	537.7	538.8	540.0	540.3	540.0	539.6	539.2	538.8	537.8
130°	564.6	566.0	567.4	568.8	570.2	570.7	570.1	569.6	569.1	568.5	567.8
132.5°	593.7	595.1	596.5	597.9	599.4	599.8	599.4	599.0	598.7	598.3	597.5
135°	638.2	639.2	640.2	641.3	642.4	642.8	642.6	642.5	642.3	642.1	641.4
137.5°	679.3	680.2	681.0	681.9	682.8	683.4	683.9	684.4	684.8	685.2	684.5
140°	707.7	708.6	709.5	710.3	711.2	711.8	711.9	712.1	712.3	712.5	712.3
142.5°	733.6	734.5	735.5	736.3	737.2	737.8	738.1	738.4	738.7	739.0	738.9
145°	774.1	774.5	774.8	775.2	775.5	776.0	776.5	777.1	777.6	778.1	777.9
147.5°	809.6	810.2	810.9	811.5	812.1	812.7	813.2	813.7	814.1	814.7	814.7
150°	834.2	834.6	835.0	835.3	835.7	836.0	836.4	836.7	837.1	837.4	837.4
152.5°	854.5	855.0	855.5	856.0	856.4	856.8	857.1	857.2	857.5	857.7	857.9
155°	886.5	886.5	886.5	886.5	886.5	886.5	886.7	886.8	887.1	887.2	888.0
157.5°	913.6	913.5	913.2	913.0	912.8	912.8	912.9	913.1	913.2	913.3	914.1
160°	930.7	930.3	930.0	929.7	929.3	929.2	929.2	929.2	929.2	929.2	930.0
162.5°	945.9	945.4	944.9	944.4	944.0	943.8	943.9	944.0	944.2	944.4	945.2
165°	965.5	965.0	964.5	963.9	963.5	963.1	963.1	963.1	963.1	963.1	964.2
167.5°	981.2	980.5	979.8	979.1	978.3	978.1	978.3	978.3	978.5	978.7	979.8
170°	990.1	989.4	988.6	987.9	987.2	986.9	986.9	986.9	986.9	986.9	988.1
172.5°	997.0	996.3	995.6	994.9	994.2	993.8	993.8	993.8	993.8	993.8	994.9
175°	1004.2	1003.5	1002.8	1002.2	1001.5	1001.1	1001.1	1001.1	1001.1	1001.1	1002.2
177.5°	1007.3	1006.7	1006.2	1005.6	1005.0	1004.7	1004.7	1004.7	1004.7	1004.7	1005.6
180°	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6



TEST NUMBER: P332079-927

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2
2.5°	1442.6	1444.9	1447.1	1448.1	1447.9	1447.6	1447.4	1447.2
5°	1435.0	1437.8	1440.6	1441.7	1441.1	1440.6	1440.0	1439.5
7.5°	1419.8	1422.3	1424.8	1425.8	1425.5	1425.2	1424.9	1424.6
10°	1405.9	1408.3	1410.9	1411.8	1411.3	1410.7	1410.2	1409.6
12.5°	1390.6	1392.4	1394.2	1395.0	1394.6	1394.3	1394.0	1393.7
15°	1362.9	1365.2	1367.4	1367.7	1366.0	1364.4	1362.7	1361.0
17.5°	1328.0	1329.6	1331.1	1331.6	1331.0	1330.4	1329.8	1329.2
20°	1302.3	1303.4	1304.5	1304.6	1303.8	1302.9	1302.1	1301.2
22.5°	1274.9	1275.8	1276.7	1276.6	1275.6	1274.5	1273.4	1272.4
25°	1229.6	1229.9	1230.2	1229.9	1229.1	1228.2	1227.4	1226.5
27.5°	1181.5	1181.6	1181.9	1181.5	1180.4	1179.3	1178.3	1177.3
30°	1148.1	1148.1	1148.1	1147.2	1145.2	1143.3	1141.3	1139.4
32.5°	1113.1	1111.6	1110.0	1108.7	1107.7	1106.6	1105.6	1104.5
35°	1056.4	1054.7	1053.0	1051.5	1050.1	1048.8	1047.3	1046.0
37.5°	997.7	995.7	993.7	992.3	991.3	990.5	989.6	988.7
40°	959.4	957.2	955.0	953.3	952.2	951.1	950.0	948.9
42.5°	919.6	917.3	915.1	913.5	912.4	911.2	910.1	909.0
45°	860.1	856.7	853.4	851.0	849.7	848.3	846.9	845.5
47.5°	797.4	794.2	790.8	788.6	787.4	786.2	785.0	783.8
50°	756.0	753.0	749.9	747.6	745.9	744.3	742.6	740.9
52.5°	714.1	711.5	708.8	706.7	705.0	703.4	701.7	700.1
55°	650.1	647.1	644.0	641.8	640.5	639.1	637.7	636.3
57.5°	587.3	584.6	581.9	579.7	578.1	576.6	574.9	573.3
60°	543.0	540.4	538.0	536.0	534.6	533.2	531.9	530.4
62.5°	500.1	497.6	495.1	493.4	492.4	491.5	490.6	489.6
65°	436.4	434.2	432.0	430.5	429.6	428.8	427.9	427.1
67.5°	373.2	371.2	369.3	367.7	366.6	365.4	364.2	363.1
70°	332.3	330.4	328.4	326.8	325.4	324.0	322.7	321.3
72.5°	291.0	289.2	287.5	286.3	285.6	284.9	284.2	283.4
75°	231.3	230.0	228.5	227.4	226.6	225.8	225.0	224.1
77.5°	175.7	174.8	173.8	173.3	173.3	173.3	173.3	173.3
80°	140.1	139.9	139.6	139.5	139.5	139.5	139.5	139.5
82.5°	107.8	107.3	106.9	106.5	106.2	106.1	105.8	105.6
85°	61.2	60.6	60.0	59.8	59.8	59.8	59.8	59.8
87.5°	25.6	25.5	25.3	25.3	25.4	25.5	25.6	25.7
90°	20.4	21.1	21.8	22.3	22.7	23.1	23.4	23.7
92.5°	31.5	32.1	32.6	32.8	32.6	32.4	32.2	31.9
95°	59.9	60.6	61.3	61.7	61.7	61.7	61.7	61.7
97.5°	93.2	94.0	94.8	95.1	95.1	95.1	95.0	94.9
100°	117.3	117.8	118.4	118.8	119.1	119.5	119.9	120.2
102.5°	145.1	145.7	146.2	146.4	146.3	146.2	146.2	146.2
105°	186.6	186.6	186.6	186.8	187.1	187.5	187.8	188.2
107.5°	231.6	232.1	232.7	232.8	232.7	232.4	232.2	232.0
110°	261.6	262.3	263.0	263.2	262.8	262.4	262.1	261.7



TEST NUMBER: P332079-927

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	291.6	292.4	293.3	293.7	293.6	293.5	293.4	293.3
115°	337.2	337.4	337.5	337.5	337.4	337.2	337.1	336.8
117.5°	383.3	383.3	383.3	382.9	382.5	382.0	381.5	381.0
120°	414.0	413.8	413.7	413.4	413.0	412.7	412.3	412.0
122.5°	445.0	444.7	444.2	443.7	443.2	442.7	442.2	441.7
125°	491.2	490.5	489.8	489.1	488.5	487.7	487.0	486.3
127.5°	536.9	535.9	534.9	534.0	533.2	532.3	531.6	530.8
130°	567.1	566.4	565.8	564.7	563.6	562.3	561.1	559.8
132.5°	596.6	595.8	594.9	594.1	593.1	592.2	591.2	590.3
135°	640.7	640.0	639.3	638.7	638.4	638.0	637.7	637.4
137.5°	683.8	683.1	682.3	681.6	681.0	680.2	679.6	679.0
140°	712.1	711.9	711.8	711.1	709.9	708.6	707.4	706.2
142.5°	738.7	738.6	738.3	737.8	736.8	735.9	734.9	734.0
145°	777.8	777.6	777.4	777.0	776.3	775.5	774.8	774.1
147.5°	814.7	814.7	814.7	814.1	813.1	812.0	811.0	809.9
150°	837.4	837.4	837.4	836.9	835.8	834.8	833.7	832.7
152.5°	858.3	858.5	858.8	858.5	857.5	856.7	855.7	854.8
155°	888.7	889.4	890.0	889.8	888.6	887.3	886.1	884.9
157.5°	914.8	915.5	916.3	916.2	915.2	914.2	913.2	912.2
160°	930.9	931.8	932.6	932.7	932.1	931.4	930.7	929.9
162.5°	946.1	947.0	947.8	947.7	946.6	945.5	944.4	943.3
165°	965.3	966.3	967.3	967.3	966.1	964.8	963.6	962.3
167.5°	980.8	981.9	983.0	983.0	981.9	980.8	979.8	978.7
170°	989.4	990.5	991.8	991.8	990.5	989.4	988.1	986.9
172.5°	996.0	997.1	998.1	998.1	996.9	995.7	994.4	993.2
175°	1003.2	1004.2	1005.4	1005.2	1004.0	1002.7	1001.6	1000.3
177.5°	1006.5	1007.3	1008.1	1008.1	1007.1	1006.1	1005.1	1004.1
180°	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6

(END OF REPORT)