

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: P332798-940

Luminaire Tested: **S124DIW-S795D1340U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332798-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S795D1340U940-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7190.6 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

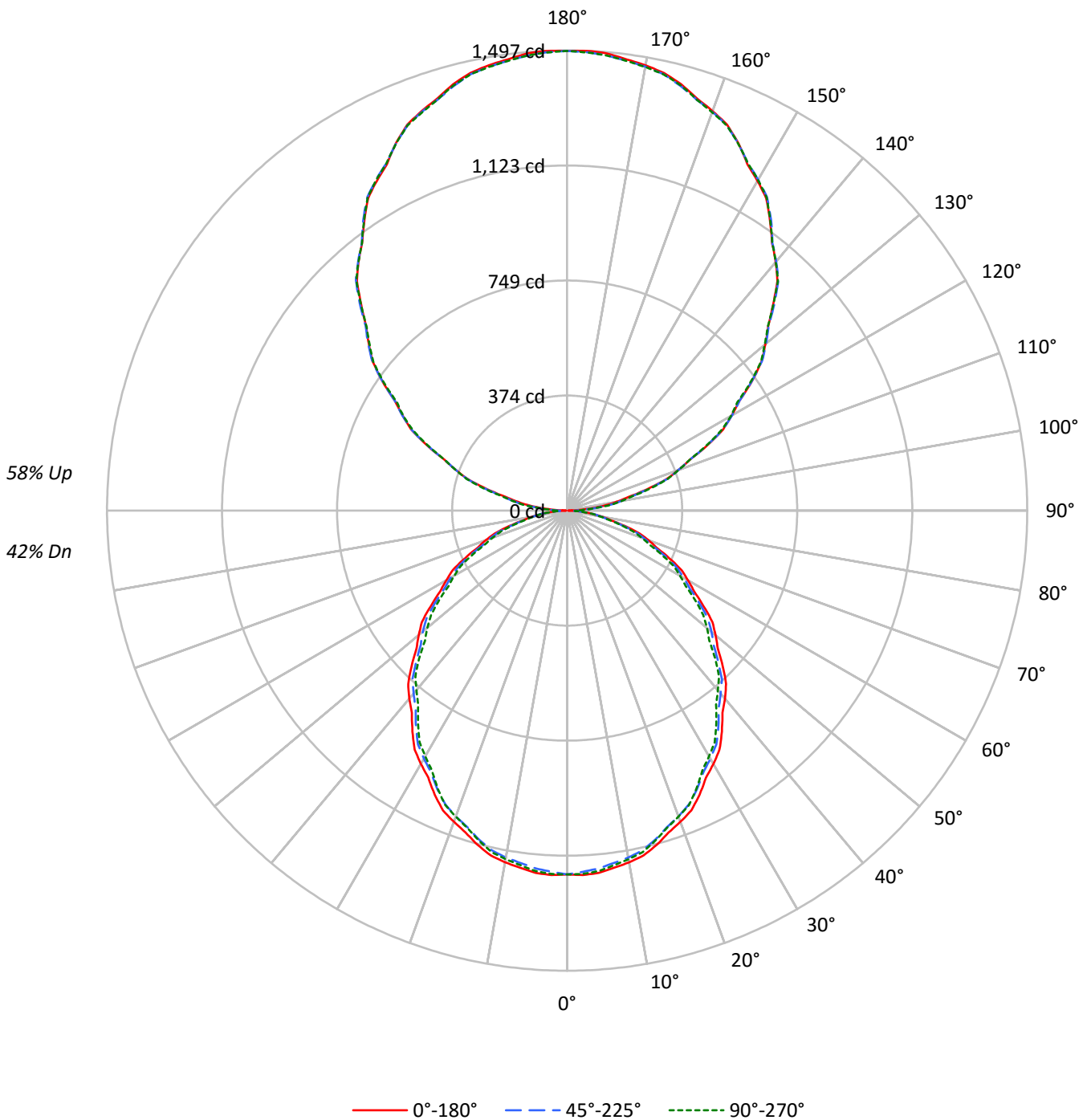
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332798-940

CATALOG NUMBER: S124DIW-S795D1340U940-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P332798-940

CATALOG NUMBER: S124DIW-S795D1340U940-4F0-1E-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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	43	42	41	36
2	87	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	34	31	30	25
4	73	62	54	48	66	57	50	45	47	42	38	38	35	32	30	28	25	22
5	67	55	47	41	61	51	44	39	42	37	33	35	31	28	27	24	22	19
6	62	50	42	36	56	46	39	33	38	33	29	31	27	24	25	22	20	16
7	57	45	37	31	52	41	34	29	35	29	25	28	24	21	22	20	17	15
8	53	41	33	28	48	37	31	26	31	26	22	26	22	19	21	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	27	21	18	22	18	15	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9556	9556	9556
5°	9585	9469	9539
10°	9525	9393	9439
15°	9410	9260	9283
20°	9257	9094	9101
25°	9082	8905	8879
30°	8869	8682	8603
35°	8647	8451	8339
40°	8416	8186	8037
45°	8176	7927	7775
50°	7910	7695	7458
55°	7623	7396	7156
60°	7335	7061	6846
65°	7011	6739	6468
70°	6649	6314	6069
75°	6095	5798	5652
80°	5421	5202	5072
85°	4742	4566	4474



TEST NUMBER: P332798-940

CATALOG NUMBER: S124DIW-S795D1340U940-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.5	1.6
10°-20°	314.1	4.4
20°-30°	462.3	6.4
30°-40°	537.4	7.5
40°-50°	537.5	7.5
50°-60°	470.1	6.5
60°-70°	349.1	4.9
70°-80°	198.4	2.8
80°-90°	61.7	0.9
90°-100°	98.6	1.4
100°-110°	292.2	4.1
110°-120°	495.9	6.9
120°-130°	653.9	9.1
130°-140°	734.3	10.2
140°-150°	721.6	10.0
150°-160°	606.9	8.4
160°-170°	403.8	5.6
170°-180°	141.4	2.0
0°-30°	887.8	12.3
0°-40°	1425.3	19.8
0°-60°	2432.8	33.8
0°-90°	3042.0	42.3
90°-120°	886.7	12.3
90°-150°	2996.4	41.7
90°-180°	4149.0	57.7
0°-180°	7190.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1184	1184	1184	1184	1184	
5°	1183	1179	1168	1178	1177	112
15°	1126	1122	1108	1113	1111	317
25°	1020	1013	1000	1000	997	469
35°	877	870	858	851	846	548
45°	716	709	694	684	681	552
55°	542	538	526	514	508	485
65°	367	362	353	344	339	363
75°	195	191	186	182	181	208
85°	51	51	49	49	48	56
90°	4	16	25	32	35	7
95°	69	80	88	91	91	77
105°	270	271	275	279	282	286
115°	504	504	502	501	500	497
125°	734	734	733	731	728	654
135°	947	954	954	952	948	732
145°	1151	1155	1156	1155	1152	720
155°	1318	1318	1317	1321	1317	606
165°	1435	1432	1429	1436	1432	404
175°	1493	1487	1486	1493	1486	142
180°	1495	1495	1495	1495	1495	



TEST NUMBER: P332798-940

CATALOG NUMBER: S124DIW-S795D1340U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7
2.5°	1186.8	1186.2	1185.7	1185.3	1184.7	1183.6	1181.7	1179.8	1177.9	1176.2	1177.8
5°	1182.8	1182.0	1181.1	1180.3	1179.4	1177.8	1175.5	1173.1	1170.8	1168.5	1170.8
7.5°	1171.8	1170.9	1170.1	1169.2	1168.4	1166.7	1164.1	1161.5	1159.0	1156.4	1158.2
10°	1161.9	1161.1	1160.2	1159.4	1158.5	1156.7	1154.0	1151.3	1148.5	1145.8	1147.5
12.5°	1149.0	1148.2	1147.3	1146.5	1145.7	1143.7	1140.9	1137.9	1135.1	1132.1	1134.0
15°	1125.9	1125.0	1124.2	1123.3	1122.5	1120.5	1117.3	1114.2	1111.0	1107.9	1109.1
17.5°	1098.0	1096.9	1095.8	1094.8	1093.8	1091.7	1088.8	1085.7	1082.7	1079.8	1080.6
20°	1077.5	1076.4	1075.4	1074.3	1073.3	1071.1	1068.0	1064.8	1061.7	1058.5	1059.2
22.5°	1055.5	1054.1	1052.7	1051.3	1049.9	1047.7	1044.5	1041.3	1038.1	1035.0	1036.2
25°	1019.6	1018.2	1016.6	1015.2	1013.7	1011.5	1008.5	1005.6	1002.6	999.7	999.9
27.5°	978.7	977.1	975.6	974.1	972.6	970.4	967.7	965.0	962.2	959.5	958.9
30°	951.4	949.7	948.0	946.3	944.6	942.4	939.6	936.9	934.2	931.4	930.6
32.5°	922.5	921.0	919.4	917.9	916.4	914.2	911.3	908.4	905.5	902.6	901.6
35°	877.4	875.8	874.4	872.9	871.5	869.2	866.3	863.4	860.4	857.5	856.0
37.5°	829.7	828.4	827.1	825.7	824.3	822.1	818.9	815.7	812.6	809.4	807.8
40°	798.6	796.9	795.2	793.5	791.8	789.4	786.3	783.1	780.0	776.8	774.7
42.5°	765.3	764.2	763.2	762.2	761.2	758.9	755.5	752.0	748.4	744.9	742.5
45°	716.1	714.6	713.2	711.7	710.2	707.8	704.5	701.1	697.7	694.3	692.0
47.5°	664.7	663.7	662.7	661.6	660.7	658.6	655.5	652.4	649.3	646.1	643.5
50°	629.8	628.9	628.1	627.2	626.4	624.6	621.6	618.7	615.6	612.7	609.8
52.5°	595.7	594.7	593.6	592.6	591.6	589.5	586.4	583.3	580.1	577.0	574.4
55°	541.6	540.9	540.3	539.7	539.0	537.3	534.3	531.4	528.4	525.5	522.9
57.5°	490.0	489.3	488.6	487.9	487.1	485.3	482.4	479.5	476.6	473.7	471.3
60°	454.3	453.3	452.2	451.2	450.1	448.2	445.5	442.7	440.0	437.3	435.3
62.5°	419.5	418.6	417.7	416.8	415.9	414.0	411.1	408.1	405.3	402.3	400.6
65°	367.0	366.0	365.0	363.9	362.8	361.2	359.2	357.0	354.9	352.8	350.7
67.5°	314.3	313.3	312.4	311.4	310.5	309.0	306.9	304.9	302.9	300.9	298.8
70°	281.7	280.3	278.7	277.2	275.8	274.2	272.5	270.8	269.1	267.5	265.8
72.5°	246.8	245.3	243.9	242.4	240.9	239.5	238.2	236.7	235.4	234.1	232.7
75°	195.4	194.3	193.3	192.3	191.2	190.1	189.0	188.0	187.0	185.9	185.0
77.5°	146.2	145.8	145.3	144.9	144.4	143.7	142.8	141.9	140.9	140.0	139.7
80°	116.6	116.0	115.4	114.8	114.1	113.6	113.2	112.8	112.4	111.9	111.5
82.5°	87.8	87.6	87.2	86.9	86.7	86.5	86.4	86.3	86.2	86.1	85.9
85°	51.2	51.2	51.2	51.2	51.2	51.0	50.6	50.2	49.8	49.3	49.3
87.5°	20.4	20.8	21.2	21.6	22.0	22.3	22.6	22.8	23.1	23.3	23.6
90°	3.5	6.3	9.1	11.9	14.8	17.2	19.3	21.3	23.4	25.4	27.0
92.5°	24.8	28.0	31.2	34.4	37.7	40.0	41.5	42.9	44.3	45.8	46.7
95°	69.4	71.7	74.0	76.3	78.6	80.7	82.5	84.3	86.1	87.9	88.6
97.5°	121.2	123.1	124.9	126.7	128.6	130.5	132.7	134.8	136.9	139.0	139.9
100°	161.9	162.9	164.0	165.0	166.0	167.6	170.0	172.3	174.6	176.9	177.5
102.5°	204.5	204.9	205.3	205.7	206.1	207.3	209.5	211.6	213.7	215.8	216.5
105°	269.5	269.7	270.0	270.2	270.5	271.1	272.2	273.2	274.2	275.3	276.0
107.5°	337.7	338.0	338.3	338.6	338.9	339.1	339.3	339.5	339.7	339.7	340.5
110°	384.0	384.4	385.0	385.5	386.0	386.1	385.8	385.6	385.4	385.1	384.6



TEST NUMBER: P332798-940

CATALOG NUMBER: S124DIW-S795D1340U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	432.0	432.1	432.2	432.4	432.5	432.3	431.9	431.3	430.9	430.4	430.3
115°	504.2	504.2	504.2	504.2	504.2	504.0	503.5	502.9	502.4	501.9	501.7
117.5°	572.2	572.4	572.7	572.8	573.0	572.9	572.6	572.2	571.9	571.5	570.6
120°	617.5	618.6	619.6	620.6	621.6	621.8	621.0	620.3	619.5	618.7	617.4
122.5°	664.7	665.1	665.6	665.9	666.4	666.4	666.0	665.7	665.3	664.9	664.1
125°	734.3	734.3	734.3	734.3	734.3	734.2	734.0	733.7	733.4	733.2	732.6
127.5°	797.5	798.3	799.1	799.8	800.6	800.8	800.3	800.0	799.5	799.1	798.6
130°	841.9	842.7	843.5	844.2	845.0	845.3	845.3	845.3	845.3	845.3	844.8
132.5°	887.3	887.8	888.3	888.9	889.5	889.7	889.5	889.2	889.0	888.9	888.3
135°	947.1	948.7	950.2	951.7	953.3	954.0	954.0	954.0	954.0	954.0	953.6
137.5°	1012.4	1013.1	1013.8	1014.5	1015.2	1015.8	1016.2	1016.6	1017.0	1017.4	1016.7
140°	1055.9	1056.3	1056.9	1057.4	1057.9	1058.1	1058.1	1058.1	1058.1	1058.1	1057.9
142.5°	1095.6	1096.1	1096.6	1097.2	1097.7	1097.8	1097.6	1097.4	1097.3	1097.0	1097.0
145°	1150.7	1151.7	1152.7	1153.8	1154.8	1155.4	1155.7	1155.9	1156.2	1156.5	1156.2
147.5°	1205.2	1206.5	1207.7	1209.0	1210.1	1210.7	1210.5	1210.3	1210.1	1209.9	1209.7
150°	1238.6	1239.6	1240.6	1241.6	1242.7	1243.1	1243.1	1243.1	1243.1	1243.1	1243.1
152.5°	1270.0	1270.6	1271.2	1271.8	1272.5	1272.9	1273.1	1273.3	1273.5	1273.7	1274.3
155°	1318.3	1318.3	1318.3	1318.3	1318.3	1318.2	1317.9	1317.7	1317.4	1317.2	1318.2
157.5°	1359.1	1358.6	1358.2	1357.6	1357.2	1356.9	1356.9	1356.8	1356.8	1356.7	1357.5
160°	1383.1	1382.9	1382.6	1382.3	1382.1	1381.8	1381.5	1381.3	1381.1	1380.8	1381.5
162.5°	1405.3	1404.6	1404.0	1403.3	1402.7	1402.2	1401.9	1401.7	1401.4	1401.1	1402.6
165°	1435.1	1434.4	1433.6	1432.8	1432.1	1431.5	1430.9	1430.4	1429.9	1429.3	1430.9
167.5°	1458.0	1457.0	1455.9	1454.8	1453.8	1453.2	1453.3	1453.3	1453.4	1453.4	1455.0
170°	1471.0	1469.7	1468.5	1467.1	1465.9	1465.3	1465.6	1465.9	1466.2	1466.3	1467.9
172.5°	1480.2	1479.2	1478.1	1477.0	1476.0	1475.4	1475.5	1475.5	1475.6	1475.6	1477.4
175°	1493.0	1491.7	1490.4	1489.2	1487.8	1487.0	1486.8	1486.6	1486.3	1486.0	1487.8
177.5°	1497.1	1496.1	1495.0	1494.1	1493.0	1492.5	1492.5	1492.5	1492.5	1492.5	1494.0
180°	1495.3	1495.3	1495.3	1495.3	1495.3	1495.3	1495.3	1495.3	1495.3	1495.3	1495.3



TEST NUMBER: P332798-940

CATALOG NUMBER: S124DIW-S795D1340U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7
2.5°	1179.5	1181.2	1182.9	1183.7	1183.5	1183.3	1183.1	1182.9
5°	1173.1	1175.5	1177.8	1178.8	1178.3	1177.9	1177.5	1177.1
7.5°	1160.1	1162.0	1163.8	1164.6	1164.4	1164.1	1163.9	1163.6
10°	1149.1	1150.8	1152.5	1153.2	1152.7	1152.3	1151.9	1151.5
12.5°	1135.9	1137.6	1139.5	1140.1	1139.6	1139.0	1138.4	1137.8
15°	1110.4	1111.6	1112.9	1113.2	1112.6	1112.0	1111.3	1110.7
17.5°	1081.4	1082.2	1083.0	1083.2	1082.7	1082.3	1081.9	1081.5
20°	1059.8	1060.4	1061.0	1061.1	1060.7	1060.3	1059.9	1059.4
22.5°	1037.2	1038.4	1039.6	1039.7	1038.9	1038.2	1037.4	1036.7
25°	1000.1	1000.3	1000.6	1000.2	999.4	998.5	997.7	996.8
27.5°	958.5	958.0	957.4	956.7	955.6	954.6	953.5	952.4
30°	929.7	928.9	928.0	927.1	926.0	925.0	923.9	922.9
32.5°	900.5	899.6	898.6	897.5	896.4	895.4	894.3	893.3
35°	854.5	853.0	851.5	850.2	849.2	848.2	847.1	846.1
37.5°	806.2	804.6	803.1	801.6	800.1	798.8	797.4	795.9
40°	772.6	770.5	768.4	766.8	765.7	764.7	763.7	762.6
42.5°	740.0	737.6	735.1	733.6	732.9	732.2	731.5	730.8
45°	689.6	687.3	685.0	683.6	682.9	682.2	681.6	681.0
47.5°	640.9	638.3	635.6	633.6	632.0	630.4	628.7	627.1
50°	606.8	603.9	600.9	598.8	597.5	596.3	595.0	593.8
52.5°	571.9	569.2	566.6	564.5	562.9	561.3	559.7	558.1
55°	520.4	517.9	515.3	513.4	512.2	511.0	509.6	508.4
57.5°	468.9	466.5	464.0	462.3	461.0	459.8	458.6	457.4
60°	433.5	431.6	429.6	428.2	427.1	426.1	425.0	424.0
62.5°	398.9	397.2	395.5	394.0	393.0	391.9	390.9	389.9
65°	348.7	346.5	344.4	342.9	341.8	340.7	339.7	338.6
67.5°	296.9	294.8	292.7	291.6	291.3	291.1	290.7	290.4
70°	264.1	262.4	260.7	259.6	259.0	258.3	257.7	257.1
72.5°	231.4	230.1	228.7	227.7	227.0	226.4	225.8	225.2
75°	184.2	183.3	182.5	182.0	181.8	181.6	181.4	181.2
77.5°	139.5	139.2	139.0	138.6	138.0	137.5	137.0	136.4
80°	111.1	110.7	110.2	109.9	109.7	109.5	109.3	109.1
82.5°	85.6	85.3	85.1	84.9	84.7	84.4	84.3	84.0
85°	49.3	49.3	49.3	49.2	49.0	48.8	48.6	48.3
87.5°	23.9	24.3	24.5	24.7	24.9	25.0	25.1	25.1
90°	28.5	30.1	31.6	32.6	33.2	33.7	34.2	34.7
92.5°	47.6	48.6	49.5	50.1	50.4	50.7	51.0	51.4
95°	89.4	90.2	91.0	91.4	91.4	91.4	91.4	91.4
97.5°	140.9	141.8	142.7	143.2	143.2	143.2	143.2	143.2
100°	178.0	178.5	179.0	179.2	179.2	179.2	179.2	179.2
102.5°	217.2	217.9	218.6	219.1	219.4	219.5	219.7	220.0
105°	276.8	277.6	278.3	279.1	279.8	280.6	281.4	282.1
107.5°	341.2	341.9	342.7	343.0	343.0	342.9	342.9	342.8
110°	384.1	383.5	383.1	383.2	384.0	384.7	385.5	386.3



TEST NUMBER: P332798-940

CATALOG NUMBER: S124DIW-S795D1340U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	430.3	430.2	430.0	430.1	430.2	430.3	430.5	430.7
115°	501.4	501.1	500.9	500.6	500.3	500.1	499.8	499.6
117.5°	569.8	568.9	568.0	567.3	566.8	566.3	565.8	565.3
120°	616.2	614.8	613.6	613.1	613.7	614.2	614.7	615.2
122.5°	663.2	662.4	661.5	660.6	659.6	658.7	657.8	656.8
125°	732.2	731.6	731.1	730.6	730.1	729.6	729.1	728.5
127.5°	798.1	797.5	797.0	796.6	796.2	795.8	795.3	795.0
130°	844.4	843.8	843.3	842.6	841.5	840.4	839.5	838.4
132.5°	887.8	887.3	886.8	886.4	885.9	885.5	885.1	884.7
135°	953.1	952.5	952.0	951.4	950.6	949.9	949.0	948.2
137.5°	1016.1	1015.5	1014.8	1014.5	1014.7	1014.9	1014.9	1015.1
140°	1057.7	1057.4	1057.1	1056.9	1056.6	1056.3	1056.1	1055.9
142.5°	1096.9	1096.9	1096.8	1096.7	1096.7	1096.6	1096.6	1096.5
145°	1155.9	1155.7	1155.4	1154.9	1154.1	1153.3	1152.6	1151.8
147.5°	1209.4	1209.2	1209.1	1208.8	1208.5	1208.3	1208.1	1207.8
150°	1243.1	1243.1	1243.1	1243.0	1242.8	1242.5	1242.2	1242.1
152.5°	1275.0	1275.6	1276.2	1276.1	1275.5	1274.8	1274.2	1273.5
155°	1319.3	1320.3	1321.3	1321.3	1320.3	1319.3	1318.2	1317.2
157.5°	1358.3	1359.1	1359.9	1359.8	1358.9	1358.0	1357.2	1356.3
160°	1382.3	1383.1	1383.8	1383.6	1382.3	1381.1	1379.7	1378.5
162.5°	1403.9	1405.3	1406.7	1406.8	1405.4	1404.2	1402.9	1401.6
165°	1432.4	1434.0	1435.6	1435.8	1434.8	1433.7	1432.7	1431.6
167.5°	1456.5	1458.0	1459.6	1459.6	1457.9	1456.3	1454.8	1453.2
170°	1469.5	1471.0	1472.6	1472.4	1470.6	1468.8	1467.0	1465.3
172.5°	1479.1	1480.9	1482.6	1482.6	1480.8	1479.0	1477.2	1475.4
175°	1489.6	1491.4	1493.3	1493.3	1491.4	1489.6	1487.8	1486.0
177.5°	1495.4	1496.8	1498.3	1498.2	1496.6	1494.9	1493.3	1491.6
180°	1495.3	1495.3	1495.3	1495.3	1495.3	1495.3	1495.3	1495.3

(END OF REPORT)