

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: P332797-927

Luminaire Tested: **S124DIW-S795D1340U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332797-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S795D1340U927-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6952.0 lumens
Efficiency: N/A
Efficacy: 113.2 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: Semi-Indirect

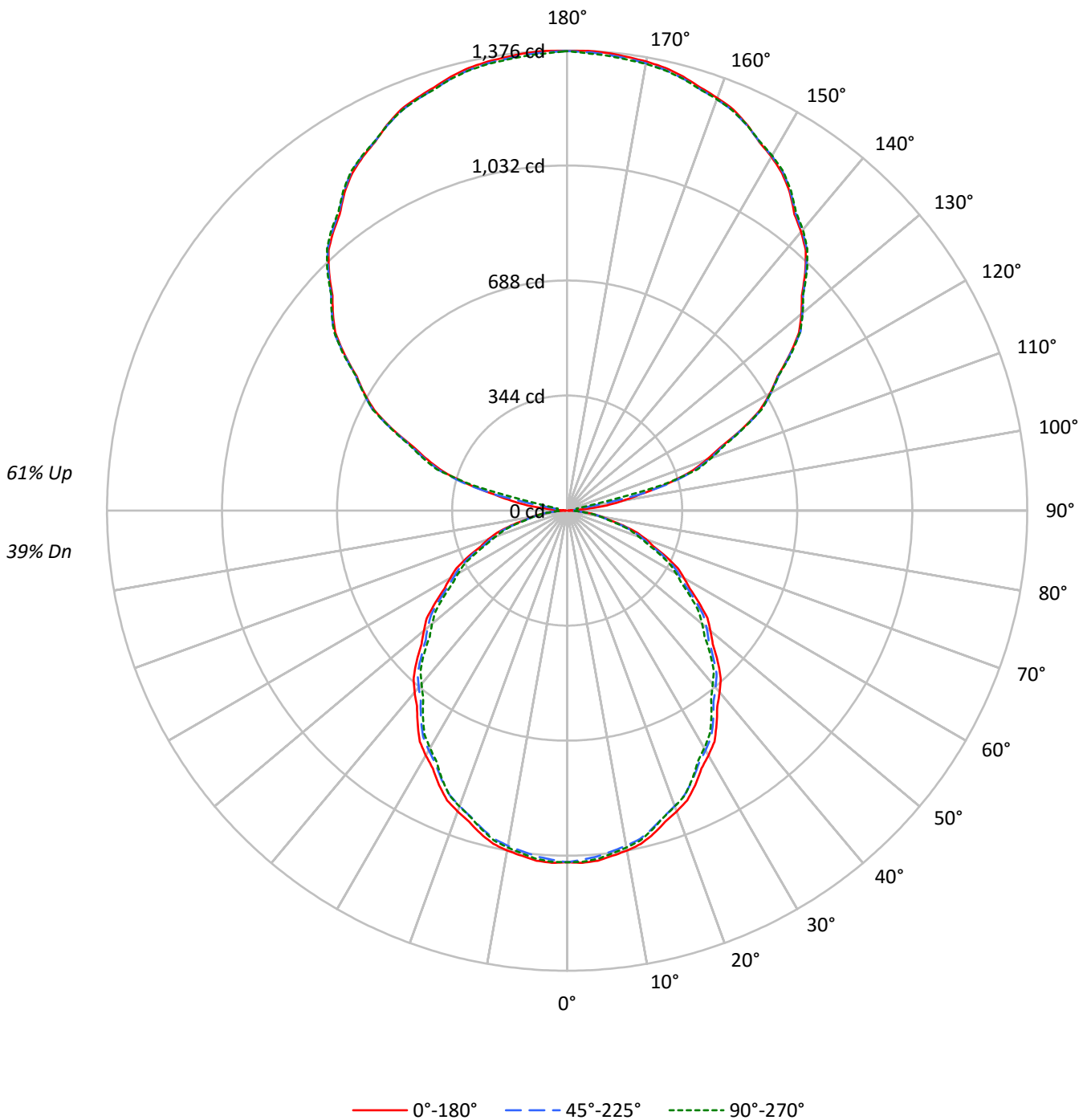
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332797-927

CATALOG NUMBER: S124DIW-S795D1340U927-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P332797-927

CATALOG NUMBER: S124DIW-S795D1340U927-4F0-1E-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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	91	87	84	86	83	80	77	67	65	63	53	52	51	40	40	39	33
2	87	79	73	68	79	72	67	63	59	55	52	47	44	42	36	34	33	27
3	79	70	63	57	72	64	57	52	52	48	44	41	38	36	32	29	28	23
4	72	62	54	48	65	56	50	44	46	41	37	37	33	30	28	26	24	20
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	23	21	17
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	56	44	36	31	51	41	34	29	34	28	25	27	23	20	21	18	16	13
8	52	40	33	27	47	37	30	25	31	25	22	25	21	18	19	17	15	12
9	49	37	29	24	44	34	27	23	28	23	19	23	19	16	18	15	13	11
10	45	33	26	22	41	31	25	20	26	21	17	21	17	15	16	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8490	8490	8490
5°	8515	8413	8474
10°	8461	8344	8385
15°	8359	8226	8247
20°	8223	8079	8086
25°	8068	7911	7888
30°	7879	7713	7643
35°	7681	7508	7407
40°	7477	7273	7140
45°	7263	7042	6907
50°	7027	6836	6625
55°	6773	6570	6356
60°	6516	6273	6082
65°	6229	5989	5746
70°	5908	5611	5391
75°	5415	5153	5022
80°	4816	4621	4505
85°	4215	4057	3974



TEST NUMBER: P332797-927

CATALOG NUMBER: S124DIW-S795D1340U927-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	1.4
10°-20°	279.0	4.0
20°-30°	410.7	5.9
30°-40°	477.4	6.9
40°-50°	477.5	6.9
50°-60°	417.6	6.0
60°-70°	310.2	4.5
70°-80°	176.2	2.5
80°-90°	54.8	0.8
90°-100°	47.0	0.7
100°-110°	299.6	4.3
110°-120°	573.1	8.2
120°-130°	727.5	10.5
130°-140°	778.4	11.2
140°-150°	727.9	10.5
150°-160°	587.0	8.4
160°-170°	378.6	5.4
170°-180°	130.5	1.9
0°-30°	788.7	11.3
0°-40°	1266.2	18.2
0°-60°	2161.3	31.1
0°-90°	2702.5	38.9
90°-120°	919.7	13.2
90°-150°	3153.4	45.4
90°-180°	4250.0	61.1
0°-180°	6952.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1052	1052	1052	1052	1052	
5°	1051	1047	1038	1047	1046	100
15°	1000	996	984	989	987	282
25°	906	900	888	889	886	417
35°	779	773	762	756	752	487
45°	636	630	617	608	605	490
55°	481	478	467	457	452	431
65°	326	322	314	305	301	323
75°	174	169	165	162	161	184
85°	46	45	44	44	43	50
90°	3	14	23	29	31	5
95°	56	24	23	28	30	73
105°	309	315	321	327	293	324
115°	577	580	580	581	582	568
125°	812	816	814	817	818	724
135°	1007	1006	1010	1012	1014	776
145°	1161	1164	1164	1165	1167	725
155°	1273	1274	1271	1275	1272	587
165°	1343	1338	1338	1345	1337	379
175°	1374	1368	1369	1377	1366	131
180°	1374	1374	1374	1374	1374	



TEST NUMBER: P332797-927

CATALOG NUMBER: S124DIW-S795D1340U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6
2.5°	1054.3	1053.8	1053.4	1053.0	1052.5	1051.5	1049.8	1048.1	1046.5	1044.9	1046.3
5°	1050.8	1050.0	1049.2	1048.5	1047.7	1046.3	1044.3	1042.2	1040.1	1038.1	1040.1
7.5°	1041.0	1040.2	1039.5	1038.7	1038.0	1036.5	1034.2	1031.9	1029.6	1027.3	1029.0
10°	1032.2	1031.5	1030.7	1030.0	1029.2	1027.6	1025.2	1022.8	1020.3	1017.9	1019.4
12.5°	1020.7	1020.0	1019.2	1018.5	1017.8	1016.1	1013.5	1010.9	1008.4	1005.8	1007.4
15°	1000.2	999.4	998.7	997.9	997.2	995.5	992.6	989.8	987.0	984.2	985.3
17.5°	975.4	974.5	973.5	972.6	971.7	969.9	967.3	964.6	961.9	959.3	960.0
20°	957.2	956.2	955.4	954.4	953.5	951.6	948.8	945.9	943.2	940.4	941.0
22.5°	937.7	936.4	935.2	934.0	932.7	930.7	927.9	925.1	922.3	919.5	920.5
25°	905.8	904.5	903.2	901.9	900.6	898.6	896.0	893.3	890.7	888.1	888.3
27.5°	869.4	868.1	866.7	865.4	864.0	862.1	859.7	857.3	854.8	852.4	851.9
30°	845.2	843.7	842.2	840.7	839.2	837.2	834.7	832.3	829.9	827.4	826.7
32.5°	819.5	818.2	816.8	815.5	814.1	812.1	809.6	807.0	804.5	801.8	801.0
35°	779.4	778.1	776.8	775.5	774.2	772.2	769.6	767.0	764.4	761.8	760.4
37.5°	737.1	735.9	734.7	733.6	732.3	730.3	727.5	724.7	721.9	719.1	717.6
40°	709.5	708.0	706.5	705.0	703.5	701.3	698.5	695.7	692.9	690.1	688.2
42.5°	679.9	678.9	678.0	677.2	676.2	674.2	671.1	668.0	664.9	661.8	659.7
45°	636.2	634.9	633.6	632.2	631.0	628.8	625.8	622.8	619.8	616.8	614.7
47.5°	590.5	589.6	588.7	587.8	586.9	585.1	582.3	579.6	576.8	574.0	571.6
50°	559.5	558.7	558.0	557.2	556.5	554.8	552.2	549.6	546.9	544.3	541.7
52.5°	529.2	528.3	527.4	526.5	525.5	523.7	520.9	518.2	515.4	512.6	510.3
55°	481.2	480.5	480.0	479.4	478.9	477.3	474.7	472.1	469.4	466.8	464.5
57.5°	435.3	434.7	434.0	433.4	432.8	431.1	428.6	426.0	423.4	420.8	418.7
60°	403.6	402.7	401.7	400.8	399.9	398.2	395.8	393.3	390.9	388.5	386.7
62.5°	372.6	371.9	371.1	370.3	369.5	367.8	365.2	362.6	360.0	357.4	355.9
65°	326.1	325.2	324.2	323.3	322.3	320.9	319.1	317.2	315.3	313.5	311.6
67.5°	279.2	278.4	277.5	276.6	275.8	274.5	272.7	270.8	269.1	267.3	265.5
70°	250.3	249.0	247.6	246.3	245.0	243.6	242.1	240.6	239.1	237.7	236.1
72.5°	219.3	217.9	216.7	215.3	214.0	212.8	211.6	210.3	209.1	207.9	206.8
75°	173.6	172.6	171.7	170.8	169.8	168.9	167.9	167.0	166.1	165.2	164.4
77.5°	129.9	129.5	129.1	128.7	128.3	127.7	126.8	126.0	125.2	124.4	124.1
80°	103.6	103.1	102.5	102.0	101.4	100.9	100.5	100.2	99.8	99.4	99.0
82.5°	78.0	77.8	77.5	77.2	77.0	76.8	76.8	76.7	76.6	76.5	76.3
85°	45.5	45.5	45.5	45.5	45.5	45.3	44.9	44.6	44.2	43.8	43.8
87.5°	18.1	18.5	18.9	19.2	19.6	19.8	20.0	20.3	20.5	20.7	21.0
90°	3.1	5.6	8.1	10.6	13.2	15.3	17.1	18.9	20.8	22.6	24.0
92.5°	12.9	13.1	13.2	13.4	13.5	14.5	16.3	18.1	20.0	21.8	23.1
95°	56.5	48.7	41.0	33.2	25.4	21.7	21.9	22.2	22.3	22.6	24.0
97.5°	120.0	124.8	129.7	134.5	139.3	129.0	103.5	78.1	52.6	27.1	27.3
100°	168.5	172.6	176.7	180.9	185.0	171.3	139.7	108.2	76.7	45.2	41.4
102.5°	222.8	225.8	228.8	231.8	234.8	234.2	230.1	226.1	222.0	217.9	175.9
105°	309.3	310.6	312.0	313.4	314.7	316.0	317.2	318.3	319.4	320.6	322.7
107.5°	389.6	390.3	391.0	391.7	392.4	393.5	395.1	396.6	398.2	399.7	400.7
110°	443.9	444.6	445.3	445.9	446.6	447.7	449.0	450.4	451.8	453.1	453.6



TEST NUMBER: P332797-927

CATALOG NUMBER: S124DIW-S795D1340U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	496.5	497.7	499.0	500.2	501.5	502.3	503.0	503.7	504.3	504.9	504.9
115°	577.4	578.1	578.8	579.5	580.2	580.4	580.2	580.0	579.7	579.5	580.0
117.5°	650.4	651.3	652.2	653.2	654.0	654.7	655.3	655.8	656.2	656.8	656.7
120°	699.7	700.6	701.6	702.5	703.4	703.7	703.5	703.3	703.1	702.8	703.3
122.5°	745.8	746.3	746.9	747.4	748.0	748.4	748.7	749.0	749.3	749.6	750.0
125°	811.7	812.6	813.6	814.4	815.4	815.6	815.2	814.7	814.2	813.8	814.4
127.5°	874.2	874.4	874.6	874.9	875.1	875.8	876.8	877.8	878.9	880.0	879.8
130°	914.5	914.7	915.0	915.1	915.4	915.8	916.6	917.2	917.9	918.6	918.9
132.5°	951.5	951.9	952.3	952.7	953.1	953.8	954.7	955.5	956.3	957.2	957.4
135°	1006.9	1006.7	1006.5	1006.3	1006.1	1006.4	1007.3	1008.2	1009.2	1010.0	1010.5
137.5°	1056.1	1056.1	1056.2	1056.4	1056.5	1057.0	1058.0	1059.0	1060.0	1061.0	1061.5
140°	1088.1	1088.6	1089.0	1089.5	1090.0	1090.4	1090.8	1091.3	1091.8	1092.3	1092.9
142.5°	1116.9	1117.7	1118.6	1119.4	1120.2	1120.7	1121.0	1121.3	1121.6	1121.8	1122.4
145°	1161.1	1161.7	1162.4	1163.2	1163.8	1164.2	1164.2	1164.2	1164.2	1164.2	1164.4
147.5°	1196.2	1197.5	1198.8	1200.1	1201.3	1201.9	1201.7	1201.4	1201.2	1200.9	1201.1
150°	1221.7	1222.7	1223.5	1224.5	1225.3	1225.7	1225.5	1225.3	1225.0	1224.8	1224.8
152.5°	1243.1	1243.8	1244.5	1245.2	1246.0	1246.2	1245.8	1245.3	1244.9	1244.5	1244.9
155°	1273.1	1273.3	1273.5	1273.7	1274.0	1273.7	1273.1	1272.4	1271.7	1271.1	1271.9
157.5°	1298.4	1298.2	1298.1	1297.9	1297.8	1297.4	1296.6	1295.8	1295.1	1294.3	1295.5
160°	1313.1	1312.5	1311.8	1311.1	1310.4	1310.0	1309.7	1309.5	1309.2	1309.1	1310.4
162.5°	1326.3	1325.4	1324.6	1323.7	1322.9	1322.3	1322.1	1321.8	1321.6	1321.4	1322.7
165°	1343.0	1341.8	1340.7	1339.5	1338.4	1337.8	1337.8	1337.8	1337.8	1337.8	1339.7
167.5°	1356.1	1354.9	1353.8	1352.6	1351.4	1350.7	1350.6	1350.4	1350.3	1350.1	1352.2
170°	1363.5	1362.2	1360.7	1359.4	1358.0	1357.5	1357.6	1357.9	1358.1	1358.4	1360.2
172.5°	1368.4	1367.1	1365.7	1364.3	1362.9	1362.4	1362.6	1362.9	1363.0	1363.3	1365.1
175°	1373.8	1372.4	1371.0	1369.7	1368.3	1367.7	1367.9	1368.2	1368.4	1368.7	1370.7
177.5°	1376.3	1375.0	1373.6	1372.4	1371.1	1370.6	1371.0	1371.4	1371.7	1372.1	1373.6
180°	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8



TEST NUMBER: P332797-927

CATALOG NUMBER: S124DIW-S795D1340U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6
2.5°	1047.8	1049.3	1050.8	1051.5	1051.4	1051.2	1051.1	1050.9
5°	1042.2	1044.3	1046.3	1047.2	1046.8	1046.5	1046.1	1045.7
7.5°	1030.6	1032.3	1033.9	1034.6	1034.4	1034.2	1034.0	1033.7
10°	1020.9	1022.4	1023.9	1024.5	1024.1	1023.7	1023.3	1022.9
12.5°	1009.1	1010.7	1012.3	1012.9	1012.4	1011.9	1011.3	1010.8
15°	986.4	987.5	988.6	989.0	988.4	987.9	987.3	986.7
17.5°	960.7	961.4	962.1	962.3	961.9	961.5	961.2	960.8
20°	941.5	942.1	942.6	942.7	942.3	942.0	941.6	941.2
22.5°	921.5	922.5	923.5	923.7	923.0	922.3	921.6	921.0
25°	888.5	888.7	888.9	888.6	887.9	887.1	886.4	885.6
27.5°	851.5	851.0	850.6	849.9	849.0	848.0	847.1	846.1
30°	825.9	825.2	824.4	823.6	822.7	821.7	820.8	819.9
32.5°	800.0	799.2	798.3	797.3	796.4	795.4	794.5	793.6
35°	759.1	757.8	756.5	755.3	754.4	753.5	752.6	751.6
37.5°	716.2	714.8	713.4	712.1	710.8	709.6	708.4	707.1
40°	686.3	684.5	682.6	681.2	680.2	679.4	678.4	677.5
42.5°	657.4	655.3	653.1	651.7	651.1	650.5	649.8	649.2
45°	612.7	610.6	608.6	607.3	606.7	606.1	605.5	605.0
47.5°	569.3	567.0	564.7	562.8	561.4	560.0	558.6	557.1
50°	539.1	536.5	533.9	532.0	530.8	529.7	528.6	527.5
52.5°	508.0	505.6	503.4	501.5	500.1	498.7	497.3	495.8
55°	462.3	460.1	457.8	456.1	455.0	453.9	452.7	451.6
57.5°	416.5	414.4	412.3	410.7	409.6	408.4	407.4	406.3
60°	385.1	383.4	381.7	380.4	379.5	378.5	377.6	376.7
62.5°	354.3	352.8	351.3	350.1	349.1	348.2	347.3	346.3
65°	309.7	307.8	305.9	304.6	303.6	302.7	301.7	300.8
67.5°	263.7	261.9	260.1	259.0	258.8	258.6	258.3	258.0
70°	234.6	233.1	231.6	230.6	230.0	229.5	228.9	228.4
72.5°	205.6	204.4	203.2	202.3	201.7	201.1	200.6	200.0
75°	163.7	162.9	162.2	161.7	161.5	161.3	161.1	161.0
77.5°	123.9	123.7	123.5	123.1	122.6	122.2	121.7	121.2
80°	98.7	98.3	97.9	97.7	97.4	97.3	97.1	96.9
82.5°	76.0	75.8	75.6	75.4	75.3	75.0	74.9	74.6
85°	43.8	43.8	43.8	43.7	43.6	43.3	43.2	42.9
87.5°	21.2	21.5	21.8	21.9	22.1	22.2	22.3	22.3
90°	25.3	26.7	28.1	29.0	29.5	29.9	30.3	30.8
92.5°	24.6	25.9	27.3	28.0	28.1	28.2	28.3	28.4
95°	25.3	26.7	28.1	28.9	29.1	29.3	29.5	29.8
97.5°	27.4	27.6	27.6	27.9	28.1	28.3	28.5	28.8
100°	37.5	33.6	29.7	27.9	28.1	28.3	28.5	28.8
102.5°	134.1	92.2	50.3	29.4	29.5	29.5	29.5	29.6
105°	324.7	326.8	328.8	325.7	317.5	309.3	301.0	292.9
107.5°	401.7	402.7	403.7	404.6	405.5	406.4	407.3	408.1
110°	454.1	454.5	455.0	455.5	456.2	456.9	457.6	458.3



TEST NUMBER: P332797-927

CATALOG NUMBER: S124DIW-S795D1340U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	504.7	504.6	504.5	504.9	505.8	506.7	507.6	508.4
115°	580.4	580.9	581.3	581.5	581.5	581.5	581.5	581.5
117.5°	656.6	656.5	656.4	656.3	656.2	656.2	656.1	655.9
120°	703.7	704.2	704.6	704.6	704.2	703.7	703.3	702.8
122.5°	750.2	750.5	750.8	750.7	750.2	749.7	749.3	748.8
125°	815.2	815.9	816.5	817.0	817.2	817.5	817.7	817.9
127.5°	879.7	879.6	879.4	879.2	879.1	878.8	878.7	878.5
130°	919.0	919.2	919.5	919.6	919.6	919.6	919.6	919.6
132.5°	957.7	957.9	958.1	958.1	958.0	957.8	957.6	957.4
135°	1011.0	1011.4	1011.9	1012.3	1012.8	1013.2	1013.7	1014.2
137.5°	1062.0	1062.5	1063.0	1063.2	1063.0	1063.0	1062.8	1062.6
140°	1093.6	1094.3	1095.0	1095.4	1095.7	1095.9	1096.1	1096.4
142.5°	1122.8	1123.3	1123.9	1124.1	1124.2	1124.2	1124.3	1124.3
145°	1164.6	1164.8	1165.1	1165.5	1165.9	1166.3	1166.8	1167.3
147.5°	1201.3	1201.5	1201.7	1201.9	1202.1	1202.4	1202.5	1202.8
150°	1224.8	1224.8	1224.8	1224.9	1225.1	1225.3	1225.6	1225.8
152.5°	1245.2	1245.6	1245.9	1246.1	1245.9	1245.8	1245.7	1245.5
155°	1272.9	1273.7	1274.7	1274.8	1274.1	1273.4	1272.7	1272.1
157.5°	1296.6	1297.8	1299.0	1299.0	1297.8	1296.6	1295.5	1294.3
160°	1311.8	1313.1	1314.5	1314.5	1313.1	1311.8	1310.4	1309.1
162.5°	1324.1	1325.5	1326.8	1326.7	1325.2	1323.7	1322.1	1320.6
165°	1341.5	1343.3	1345.1	1345.0	1343.0	1340.9	1338.9	1336.8
167.5°	1354.2	1356.1	1358.2	1358.0	1355.7	1353.4	1351.2	1348.9
170°	1362.0	1363.8	1365.6	1365.4	1363.2	1360.9	1358.6	1356.3
172.5°	1366.9	1368.8	1370.6	1370.3	1367.8	1365.3	1362.9	1360.4
175°	1372.8	1374.8	1376.9	1376.5	1373.8	1371.0	1368.3	1365.6
177.5°	1375.1	1376.5	1378.0	1377.6	1375.4	1373.2	1371.0	1368.8
180°	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8

(END OF REPORT)