

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: P332789

Luminaire Tested: **S124DIW-S795D1050U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332789
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-S795D1050U835-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7432.1 lumens
Efficiency: N/A
Efficacy: 141.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

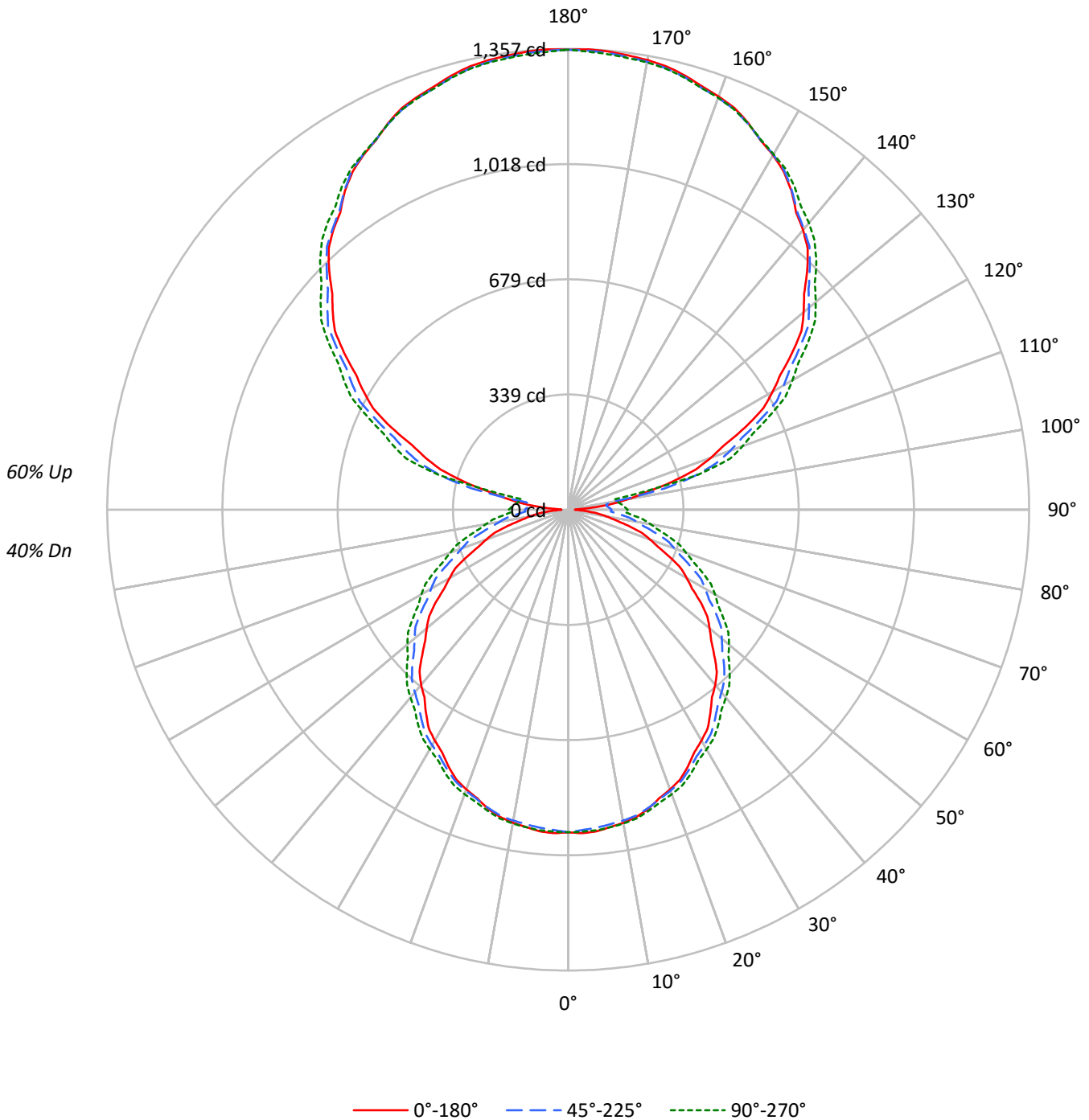
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332789

CATALOG NUMBER: S124DIW-S795D1050U835-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332789

CATALOG NUMBER: S124DIW-S795D1050U835-4F0-1E-UDD-D

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	50	30	10	50	30	10	0		
RCR																										
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40					40			
1	95	90	86	82	86	82	79	75	67	65	62	53	51	50	40	39	38	32					32			
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	32	26					26			
3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	28	26	22					22			
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19					19			
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	24	22	19	16					16			
6	60	48	40	34	54	44	37	31	36	31	26	29	25	22	22	19	17	14					14			
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	20	17	15	12					12			
8	51	39	31	26	47	36	29	24	30	24	20	24	20	17	18	16	13	11					11			
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10					10			
10	45	32	25	20	40	30	23	19	25	20	16	20	16	14	16	13	11	9					9			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7668	7668	7668
5°	7692	7494	7516
10°	7645	7371	7366
15°	7577	7230	7190
20°	7473	7073	7019
25°	7357	6898	6831
30°	7231	6723	6637
35°	7088	6544	6468
40°	6974	6374	6291
45°	6804	6217	6140
50°	6661	6036	5980
55°	6513	5866	5792
60°	6282	5649	5621
65°	6029	5415	5409
70°	5722	5149	5165
75°	5296	4857	4943
80°	4819	4575	4724
85°	4219	4325	4598



TEST NUMBER: P332789

CATALOG NUMBER: S124DIW-S795D1050U835-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	1.2
10°-20°	257.7	3.5
20°-30°	389.7	5.2
30°-40°	471.5	6.3
40°-50°	498.5	6.7
50°-60°	469.1	6.3
60°-70°	389.2	5.2
70°-80°	273.4	3.7
80°-90°	158.5	2.1
90°-100°	138.1	1.9
100°-110°	363.3	4.9
110°-120°	610.7	8.2
120°-130°	743.1	10.0
130°-140°	778.6	10.5
140°-150°	720.0	9.7
150°-160°	578.8	7.8
160°-170°	373.3	5.0
170°-180°	128.7	1.7
0°-30°	737.4	9.9
0°-40°	1208.8	16.3
0°-60°	2176.4	29.3
0°-90°	2997.5	40.3
90°-120°	1112.1	15.0
90°-150°	3353.9	45.1
90°-180°	4435.0	59.7
0°-180°	7432.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	951	948	940	948	948	90
15°	912	912	909	918	918	257
25°	834	840	844	855	856	384
35°	730	742	753	767	771	457
45°	608	629	649	666	672	470
55°	476	499	531	551	558	424
65°	330	364	400	426	435	327
75°	183	223	267	296	306	195
85°	56	101	149	180	192	60
90°	20	74	128	163	175	14
95°	70	73	115	148	160	83
105°	314	343	386	418	394	330
115°	576	590	621	646	654	567
125°	805	809	832	855	863	718
135°	995	995	1006	1024	1033	767
145°	1146	1148	1148	1155	1162	716
155°	1255	1256	1253	1257	1254	579
165°	1324	1319	1319	1326	1318	374
175°	1355	1349	1350	1358	1346	129
180°	1355	1355	1355	1355	1355	



TEST NUMBER: P332789

CATALOG NUMBER: S124DIW-S795D1050U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	953.3	952.7	952.1	951.6	951.0	950.0	948.4	946.9	945.4	943.9	945.2
5°	950.9	950.2	949.5	948.8	948.1	946.9	945.2	943.6	941.9	940.3	942.2
7.5°	942.8	942.4	942.0	941.6	941.1	940.2	938.9	937.5	936.1	934.8	936.9
10°	936.0	935.8	935.6	935.3	935.1	934.4	933.2	932.0	930.8	929.6	931.8
12.5°	926.7	926.6	926.6	926.5	926.5	926.1	925.3	924.4	923.6	922.8	924.8
15°	911.6	911.8	912.0	912.3	912.5	912.3	911.6	910.9	910.1	909.4	911.6
17.5°	890.9	891.6	892.3	893.1	893.8	894.0	893.9	893.8	893.6	893.5	895.7
20°	876.5	877.2	877.9	878.6	879.3	879.8	880.0	880.2	880.5	880.7	883.1
22.5°	860.3	861.2	862.1	863.0	863.9	864.6	865.0	865.4	865.8	866.3	868.6
25°	833.9	835.3	836.8	838.2	839.6	840.7	841.4	842.1	842.8	843.5	846.1
27.5°	804.6	806.6	808.7	810.8	812.9	814.5	815.6	816.6	817.7	818.8	821.2
30°	785.0	786.9	788.8	790.7	792.6	794.3	796.0	797.6	799.3	800.9	803.5
32.5°	763.7	766.0	768.3	770.5	772.8	774.8	776.7	778.5	780.4	782.2	785.2
35°	729.7	732.5	735.4	738.2	741.0	743.6	746.0	748.4	750.7	753.1	756.4
37.5°	695.4	698.7	702.0	705.2	708.5	711.6	714.5	717.4	720.4	723.3	726.7
40°	673.3	676.4	679.4	682.5	685.6	688.8	692.1	695.4	698.7	702.0	705.6
42.5°	647.8	651.2	654.7	658.1	661.6	665.2	669.1	673.0	676.9	680.7	684.7
45°	608.4	612.9	617.4	621.9	626.4	630.9	635.4	639.9	644.3	648.8	652.9
47.5°	570.8	575.4	580.0	584.7	589.3	594.2	599.4	604.6	609.8	615.0	619.2
50°	543.5	548.7	553.9	559.1	564.3	569.5	574.7	579.9	585.1	590.3	595.1
52.5°	516.3	521.5	526.7	531.9	537.1	542.7	548.6	554.6	560.6	566.5	571.2
55°	476.5	481.5	486.5	491.4	496.4	502.4	509.5	516.6	523.7	530.8	535.5
57.5°	432.1	438.2	444.4	450.5	456.6	463.2	470.3	477.3	484.4	491.4	497.0
60°	403.1	409.3	415.4	421.6	427.7	434.7	442.5	450.3	458.1	465.9	471.3
62.5°	375.0	381.8	388.5	395.2	401.9	409.2	417.0	424.8	432.6	440.4	445.8
65°	329.7	337.3	344.9	352.4	360.0	367.8	375.8	383.9	391.9	399.9	405.8
67.5°	286.1	294.2	302.2	310.2	318.3	326.6	335.2	343.8	352.4	361.0	367.0
70°	256.3	264.4	272.4	280.5	288.5	297.0	306.0	315.0	323.9	332.9	339.3
72.5°	227.4	235.6	243.9	252.1	260.3	269.2	278.8	288.3	297.9	307.4	313.6
75°	183.0	191.7	200.4	209.2	217.9	227.3	237.2	247.1	257.1	267.0	273.6
77.5°	141.5	150.7	160.0	169.3	178.5	188.4	198.8	209.2	219.6	230.0	236.7
80°	115.9	125.4	134.8	144.3	153.8	163.7	174.1	184.5	194.9	205.3	212.4
82.5°	90.4	100.2	110.1	119.9	129.7	139.9	150.3	160.7	171.1	181.5	188.7
85°	56.4	66.3	76.2	86.2	96.1	106.4	117.0	127.6	138.3	148.9	156.0
87.5°	32.1	42.2	52.4	62.5	72.6	83.1	93.8	104.5	115.2	125.9	133.1
90°	20.1	32.0	43.9	55.9	67.8	79.7	91.7	103.7	115.6	127.6	135.8
92.5°	28.9	37.6	46.2	54.9	63.5	73.8	85.8	97.7	109.7	121.7	129.7
95°	69.6	69.7	69.8	70.0	70.1	75.2	85.1	95.0	104.9	114.8	122.6
97.5°	130.9	142.4	153.9	165.3	176.8	174.8	159.3	143.8	128.2	112.7	119.0
100°	177.9	188.1	198.3	208.5	218.7	212.8	191.0	169.1	147.3	125.4	128.0
102.5°	231.4	239.7	248.1	256.4	264.8	271.5	276.4	281.4	286.4	291.4	256.3
105°	314.5	320.6	326.7	332.8	338.9	346.8	356.7	366.6	376.4	386.3	394.2
107.5°	393.6	398.1	402.7	407.2	411.8	418.9	428.7	438.6	448.4	458.2	465.0
110°	446.2	450.2	454.2	458.2	462.1	468.9	478.6	488.2	497.8	507.4	513.3



TEST NUMBER: P332789

CATALOG NUMBER: S124DIW-S795D1050U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	497.2	501.4	505.5	509.7	513.8	520.1	528.7	537.2	545.7	554.2	559.4
115°	575.8	578.6	581.4	584.2	587.0	592.1	599.4	606.7	614.1	621.4	627.1
117.5°	647.5	649.7	651.9	654.0	656.2	661.1	668.6	676.2	683.7	691.2	696.1
120°	695.3	696.9	698.5	700.1	701.7	705.9	712.5	719.1	725.7	732.4	737.5
122.5°	740.7	741.4	742.0	742.7	743.4	747.1	753.9	760.7	767.5	774.3	779.3
125°	804.7	805.3	806.0	806.7	807.3	810.4	815.8	821.3	826.8	832.2	837.4
127.5°	866.1	866.0	866.0	866.0	866.0	868.8	874.4	879.9	885.5	891.1	895.2
130°	904.9	904.9	904.9	904.9	904.9	907.1	911.6	916.0	920.5	924.9	929.4
132.5°	941.4	941.6	941.7	941.9	942.1	944.1	948.0	951.9	955.7	959.6	963.9
135°	995.0	994.8	994.6	994.4	994.1	995.3	997.9	1000.4	1003.0	1005.5	1009.8
137.5°	1043.5	1043.3	1043.2	1043.0	1042.9	1043.7	1045.5	1047.3	1049.1	1050.9	1054.8
140°	1075.1	1075.3	1075.5	1075.7	1075.9	1076.4	1077.1	1077.8	1078.4	1079.1	1082.9
142.5°	1102.6	1103.4	1104.1	1104.9	1105.7	1106.1	1106.2	1106.4	1106.5	1106.6	1109.8
145°	1146.0	1146.4	1146.8	1147.3	1147.7	1147.9	1147.9	1147.9	1147.9	1147.9	1149.6
147.5°	1180.6	1181.6	1182.7	1183.7	1184.7	1185.1	1184.9	1184.7	1184.4	1184.2	1184.6
150°	1205.7	1206.4	1207.1	1207.7	1208.4	1208.6	1208.4	1208.2	1207.9	1207.7	1207.7
152.5°	1226.0	1226.6	1227.3	1228.0	1228.6	1228.8	1228.4	1228.0	1227.6	1227.2	1227.5
155°	1255.3	1255.6	1255.8	1256.0	1256.2	1256.0	1255.3	1254.7	1254.0	1253.3	1254.2
157.5°	1280.3	1280.1	1280.0	1279.8	1279.7	1279.3	1278.5	1277.7	1277.0	1276.2	1277.4
160°	1294.8	1294.2	1293.5	1292.8	1292.1	1291.7	1291.5	1291.2	1291.0	1290.8	1292.1
162.5°	1307.8	1307.0	1306.1	1305.2	1304.4	1303.8	1303.6	1303.4	1303.2	1302.9	1304.3
165°	1324.2	1323.1	1322.0	1320.8	1319.7	1319.2	1319.2	1319.2	1319.2	1319.2	1321.0
167.5°	1337.2	1336.0	1334.9	1333.7	1332.5	1331.9	1331.7	1331.6	1331.5	1331.3	1333.3
170°	1344.5	1343.1	1341.8	1340.4	1339.1	1338.5	1338.7	1339.0	1339.2	1339.4	1341.2
172.5°	1349.3	1348.0	1346.6	1345.3	1343.9	1343.4	1343.6	1343.8	1344.1	1344.3	1346.1
175°	1354.6	1353.3	1351.9	1350.6	1349.2	1348.7	1348.9	1349.1	1349.3	1349.6	1351.6
177.5°	1357.0	1355.8	1354.5	1353.3	1352.0	1351.6	1351.9	1352.3	1352.6	1353.0	1354.4
180°	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6



TEST NUMBER: P332789

CATALOG NUMBER: S124DIW-S795D1050U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	946.5	947.9	949.2	949.8	949.6	949.4	949.2	949.0
5°	944.1	946.0	947.8	948.7	948.4	948.2	948.0	947.7
7.5°	939.0	941.1	943.3	944.2	944.0	943.7	943.5	943.3
10°	933.9	936.0	938.2	939.1	938.9	938.6	938.4	938.2
12.5°	926.7	928.7	930.6	931.5	931.5	931.4	931.4	931.3
15°	913.7	915.8	917.9	918.9	918.7	918.4	918.2	917.9
17.5°	897.8	900.0	902.2	903.2	903.0	902.8	902.6	902.4
20°	885.4	887.8	890.2	891.4	891.4	891.4	891.4	891.4
22.5°	871.0	873.3	875.7	877.1	877.5	877.8	878.2	878.6
25°	848.7	851.3	853.9	855.3	855.5	855.8	856.0	856.3
27.5°	823.6	826.0	828.5	829.8	830.1	830.4	830.7	830.9
30°	806.1	808.7	811.3	812.9	813.4	813.8	814.3	814.8
32.5°	788.2	791.2	794.1	795.9	796.3	796.8	797.3	797.8
35°	759.7	763.0	766.3	768.3	769.0	769.7	770.5	771.2
37.5°	730.0	733.4	736.7	738.8	739.5	740.3	741.0	741.8
40°	709.1	712.7	716.2	718.4	719.4	720.3	721.3	722.2
42.5°	688.6	692.5	696.4	698.8	699.5	700.3	701.1	701.8
45°	656.9	660.9	664.9	667.5	668.7	669.9	671.1	672.2
47.5°	623.3	627.5	631.7	634.4	635.9	637.3	638.7	640.1
50°	599.8	604.5	609.2	612.3	613.7	615.2	616.6	618.0
52.5°	576.0	580.7	585.4	588.5	589.9	591.3	592.7	594.2
55°	540.2	545.0	549.7	552.8	554.2	555.6	557.0	558.4
57.5°	502.7	508.3	513.9	517.4	518.7	520.0	521.4	522.7
60°	476.8	482.2	487.6	491.3	493.2	495.1	497.0	498.9
62.5°	451.2	456.7	462.1	465.8	467.7	469.6	471.4	473.3
65°	411.8	417.7	423.6	427.5	429.4	431.3	433.1	435.0
67.5°	373.0	379.0	385.0	388.9	390.8	392.6	394.5	396.3
70°	345.7	352.1	358.5	362.5	364.1	365.8	367.4	369.1
72.5°	319.8	326.0	332.2	336.2	338.0	339.9	341.7	343.6
75°	280.2	286.8	293.5	297.8	300.0	302.1	304.2	306.3
77.5°	243.4	250.1	256.8	261.3	263.6	265.8	268.1	270.4
80°	219.5	226.6	233.7	238.1	240.0	241.9	243.8	245.7
82.5°	196.0	203.3	210.6	215.3	217.3	219.4	221.5	223.6
85°	163.1	170.2	177.3	182.0	184.4	186.7	189.1	191.5
87.5°	140.2	147.3	154.4	159.1	161.2	163.4	165.6	167.8
90°	144.0	152.2	160.4	165.7	168.0	170.4	172.7	175.1
92.5°	137.7	145.7	153.7	158.7	160.7	162.7	164.7	166.7
95°	130.3	138.0	145.8	150.8	153.2	155.5	157.9	160.2
97.5°	125.3	131.7	138.0	142.3	144.6	146.8	149.1	151.3
100°	130.5	133.1	135.6	137.9	139.7	141.6	143.5	145.4
102.5°	221.2	186.1	151.0	134.4	136.3	138.2	140.0	141.9
105°	402.2	410.1	418.1	418.9	412.7	406.5	400.3	394.1
107.5°	471.8	478.6	485.4	490.1	492.6	495.2	497.7	500.3
110°	519.2	525.1	531.0	535.2	537.8	540.3	542.9	545.5



TEST NUMBER: P332789

CATALOG NUMBER: S124DIW-S795D1050U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	564.6	569.7	574.9	578.8	581.6	584.3	587.1	589.8
115°	632.7	638.4	644.0	647.7	649.3	651.0	652.6	654.3
117.5°	700.9	705.7	710.5	713.9	715.7	717.5	719.3	721.1
120°	742.7	747.9	753.1	756.4	757.8	759.3	760.7	762.2
122.5°	784.3	789.3	794.3	797.4	798.7	799.9	801.2	802.4
125°	842.6	847.7	852.9	856.3	857.9	859.6	861.2	862.9
127.5°	899.3	903.4	907.6	910.3	911.8	913.2	914.6	916.0
130°	933.9	938.4	942.8	945.8	947.2	948.6	950.0	951.5
132.5°	968.2	972.5	976.8	979.5	980.8	982.0	983.3	984.5
135°	1014.0	1018.2	1022.5	1025.5	1027.4	1029.2	1031.1	1033.0
137.5°	1058.8	1062.7	1066.7	1069.2	1070.2	1071.3	1072.3	1073.4
140°	1086.6	1090.4	1094.1	1096.7	1098.1	1099.5	1100.9	1102.3
142.5°	1113.0	1116.2	1119.4	1121.5	1122.5	1123.6	1124.6	1125.6
145°	1151.2	1152.9	1154.5	1156.0	1157.4	1158.8	1160.2	1161.6
147.5°	1184.9	1185.3	1185.7	1186.4	1187.3	1188.3	1189.3	1190.3
150°	1207.7	1207.7	1207.7	1207.8	1208.0	1208.3	1208.5	1208.7
152.5°	1227.9	1228.2	1228.6	1228.7	1228.6	1228.4	1228.3	1228.2
155°	1255.1	1256.0	1256.9	1257.0	1256.3	1255.7	1255.0	1254.3
157.5°	1278.5	1279.7	1280.9	1280.9	1279.7	1278.5	1277.4	1276.2
160°	1293.5	1294.8	1296.2	1296.2	1294.8	1293.5	1292.1	1290.8
162.5°	1305.6	1307.0	1308.3	1308.3	1306.7	1305.2	1303.7	1302.1
165°	1322.8	1324.6	1326.4	1326.2	1324.2	1322.2	1320.2	1318.1
167.5°	1335.3	1337.3	1339.2	1339.1	1336.9	1334.6	1332.4	1330.1
170°	1343.0	1344.8	1346.6	1346.4	1344.1	1341.9	1339.6	1337.4
172.5°	1347.9	1349.7	1351.5	1351.2	1348.7	1346.3	1343.9	1341.4
175°	1353.6	1355.6	1357.7	1357.3	1354.6	1351.9	1349.2	1346.5
177.5°	1355.9	1357.3	1358.8	1358.4	1356.2	1354.1	1351.9	1349.8
180°	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6

(END OF REPORT)