

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: P332789-935

Luminaire Tested: **S124DIW-S795D1050U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332789-935
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-S795D1050U935-4F0-1E-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: 6399.1 lumens
Efficiency: N/A
Efficacy: 121.7 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

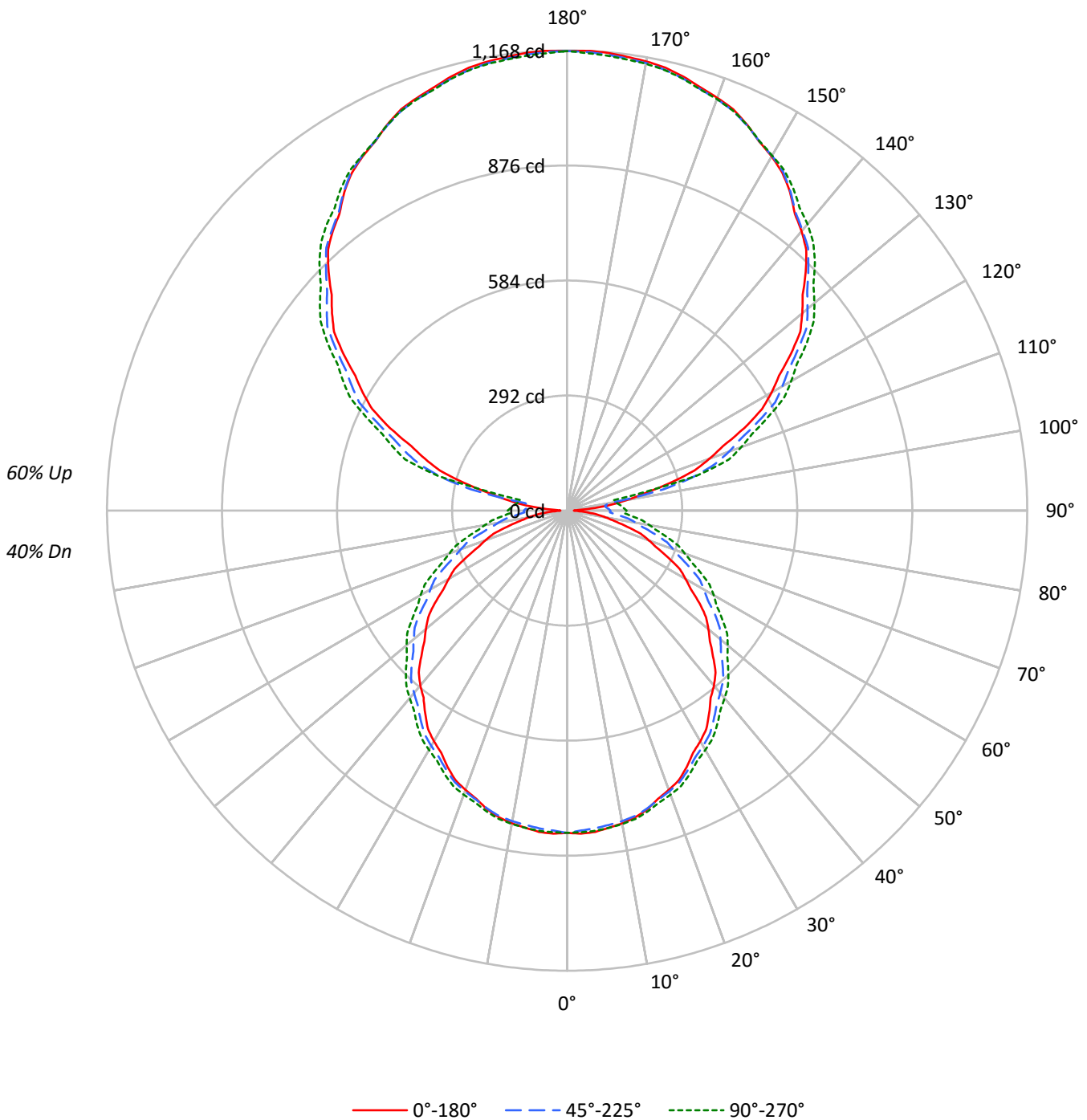
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332789-935

CATALOG NUMBER: S124DIW-S795D1050U935-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332789-935

CATALOG NUMBER: S124DIW-S795D1050U935-4F0-1E-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	0
RCR																		
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	90	86	82	86	82	79	75	67	65	62	53	51	50	40	39	38	32
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	32	26
3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	28	26	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	24	22	19	16
6	60	48	40	34	54	44	37	31	36	31	26	29	25	22	22	19	17	14
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	20	17	15	12
8	51	39	31	26	47	36	29	24	30	24	20	24	20	17	18	16	13	11
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10
10	45	32	25	20	40	30	23	19	25	20	16	20	16	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6603	6603	6603
5°	6622	6453	6471
10°	6582	6347	6342
15°	6524	6225	6190
20°	6435	6090	6044
25°	6334	5939	5882
30°	6226	5788	5714
35°	6103	5635	5569
40°	6004	5488	5417
45°	5858	5352	5286
50°	5735	5197	5149
55°	5608	5051	4987
60°	5409	4863	4840
65°	5191	4662	4657
70°	4927	4433	4447
75°	4561	4182	4255
80°	4149	3940	4067
85°	3636	3724	3960



TEST NUMBER: P332789-935

CATALOG NUMBER: S124DIW-S795D1050U935-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	1.2
10°-20°	221.9	3.5
20°-30°	335.5	5.2
30°-40°	405.9	6.3
40°-50°	429.2	6.7
50°-60°	403.9	6.3
60°-70°	335.1	5.2
70°-80°	235.4	3.7
80°-90°	136.4	2.1
90°-100°	118.9	1.9
100°-110°	312.8	4.9
110°-120°	525.8	8.2
120°-130°	639.8	10.0
130°-140°	670.4	10.5
140°-150°	619.9	9.7
150°-160°	498.4	7.8
160°-170°	321.4	5.0
170°-180°	110.8	1.7
0°-30°	634.9	9.9
0°-40°	1040.8	16.3
0°-60°	1873.9	29.3
0°-90°	2580.8	40.3
90°-120°	957.6	15.0
90°-150°	2887.7	45.1
90°-180°	3818.0	59.7
0°-180°	6399.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	819	816	810	816	816	78
15°	785	786	783	791	790	221
25°	718	723	726	736	737	331
35°	628	639	648	661	664	393
45°	524	541	559	574	579	405
55°	410	430	457	475	481	365
65°	284	313	344	366	374	281
75°	158	192	230	255	264	168
85°	49	87	128	155	165	52
90°	17	64	110	140	151	12
95°	60	63	99	128	138	71
105°	271	295	333	360	339	284
115°	496	508	535	556	563	488
125°	693	696	716	736	743	619
135°	857	856	866	882	889	660
145°	987	988	988	995	1000	616
155°	1081	1082	1079	1082	1080	498
165°	1140	1136	1136	1142	1135	322
175°	1166	1161	1162	1169	1159	111
180°	1166	1166	1166	1166	1166	



TEST NUMBER: P332789-935

CATALOG NUMBER: S124DIW-S795D1050U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	820.8	820.3	819.8	819.3	818.8	817.9	816.6	815.3	814.0	812.7	813.8
5°	818.7	818.1	817.5	816.9	816.3	815.3	813.8	812.4	811.0	809.6	811.2
7.5°	811.8	811.4	811.1	810.7	810.3	809.5	808.4	807.2	806.0	804.9	806.7
10°	805.9	805.7	805.6	805.3	805.1	804.5	803.5	802.5	801.4	800.4	802.3
12.5°	797.9	797.8	797.8	797.7	797.7	797.4	796.7	795.9	795.2	794.5	796.3
15°	784.9	785.1	785.2	785.5	785.7	785.5	784.9	784.3	783.6	783.0	784.9
17.5°	767.1	767.7	768.3	769.0	769.6	769.7	769.6	769.6	769.4	769.3	771.2
20°	754.7	755.3	755.9	756.5	757.1	757.5	757.7	757.9	758.1	758.3	760.3
22.5°	740.7	741.5	742.3	743.0	743.8	744.4	744.8	745.1	745.5	745.9	747.9
25°	718.0	719.2	720.5	721.7	722.9	723.8	724.4	725.0	725.7	726.3	728.5
27.5°	692.8	694.5	696.3	698.1	699.9	701.3	702.2	703.1	704.0	705.0	707.1
30°	675.9	677.5	679.2	680.8	682.4	683.9	685.4	686.7	688.2	689.6	691.8
32.5°	657.5	659.5	661.5	663.4	665.4	667.1	668.7	670.3	671.9	673.5	676.1
35°	628.3	630.7	633.2	635.6	638.0	640.2	642.3	644.4	646.4	648.4	651.3
37.5°	598.7	601.6	604.4	607.2	610.0	612.7	615.2	617.7	620.3	622.8	625.7
40°	579.7	582.4	585.0	587.6	590.3	593.1	595.9	598.7	601.6	604.4	607.5
42.5°	557.8	560.7	563.7	566.6	569.6	572.7	576.1	579.5	582.8	586.1	589.5
45°	523.8	527.7	531.6	535.5	539.3	543.2	547.1	551.0	554.7	558.6	562.1
47.5°	491.5	495.4	499.4	503.4	507.4	511.6	516.1	520.6	525.0	529.5	533.1
50°	468.0	472.4	476.9	481.4	485.9	490.3	494.8	499.3	503.8	508.2	512.4
52.5°	444.5	449.0	453.5	458.0	462.4	467.3	472.3	477.5	482.7	487.8	491.8
55°	410.3	414.6	418.9	423.1	427.4	432.6	438.7	444.8	450.9	457.0	461.1
57.5°	372.0	377.3	382.6	387.9	393.1	398.8	404.9	411.0	417.1	423.1	427.9
60°	347.1	352.4	357.7	363.0	368.2	374.3	381.0	387.7	394.4	401.1	405.8
62.5°	322.9	328.7	334.5	340.3	346.0	352.3	359.0	365.8	372.5	379.2	383.8
65°	283.9	290.4	297.0	303.4	310.0	316.7	323.6	330.5	337.4	344.3	349.4
67.5°	246.3	253.3	260.2	267.1	274.1	281.2	288.6	296.0	303.4	310.8	316.0
70°	220.7	227.6	234.5	241.5	248.4	255.7	263.5	271.2	278.9	286.6	292.1
72.5°	195.8	202.9	210.0	217.1	224.1	231.8	240.0	248.2	256.5	264.7	270.0
75°	157.6	165.1	172.5	180.1	187.6	195.7	204.2	212.8	221.4	229.9	235.6
77.5°	121.8	129.8	137.8	145.8	153.7	162.2	171.2	180.1	189.1	198.0	203.8
80°	99.8	108.0	116.1	124.2	132.4	140.9	149.9	158.9	167.8	176.8	182.9
82.5°	77.8	86.3	94.8	103.2	111.7	120.5	129.4	138.4	147.3	156.3	162.5
85°	48.6	57.1	65.6	74.2	82.7	91.6	100.7	109.9	119.1	128.2	134.3
87.5°	27.6	36.3	45.1	53.8	62.5	71.5	80.8	90.0	99.2	108.4	114.6
90°	17.3	27.6	37.8	48.1	58.4	68.6	79.0	89.3	99.5	109.9	116.9
92.5°	24.9	32.4	39.8	47.3	54.7	63.5	73.9	84.1	94.5	104.8	111.7
95°	59.9	60.0	60.1	60.3	60.4	64.7	73.3	81.8	90.3	98.8	105.6
97.5°	112.7	122.6	132.5	142.3	152.2	150.5	137.2	123.8	110.4	97.0	102.5
100°	153.2	162.0	170.7	179.5	188.3	183.2	164.5	145.6	126.8	108.0	110.2
102.5°	199.2	206.4	213.6	220.8	228.0	233.8	238.0	242.3	246.6	250.9	220.7
105°	270.8	276.0	281.3	286.5	291.8	298.6	307.1	315.6	324.1	332.6	339.4
107.5°	338.9	342.8	346.7	350.6	354.6	360.7	369.1	377.6	386.1	394.5	400.4
110°	384.2	387.6	391.1	394.5	397.9	403.7	412.1	420.3	428.6	436.9	442.0



TEST NUMBER: P332789-935

CATALOG NUMBER: S124DIW-S795D1050U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	428.1	431.7	435.2	438.9	442.4	447.8	455.2	462.5	469.8	477.2	481.6
115°	495.8	498.2	500.6	503.0	505.4	509.8	516.1	522.4	528.7	535.0	539.9
117.5°	557.5	559.4	561.3	563.1	565.0	569.2	575.7	582.2	588.7	595.1	599.3
120°	598.7	600.0	601.4	602.8	604.2	607.8	613.5	619.1	624.8	630.6	635.0
122.5°	637.7	638.3	638.9	639.5	640.1	643.3	649.1	655.0	660.8	666.7	671.0
125°	692.8	693.4	694.0	694.6	695.1	697.8	702.4	707.1	711.9	716.5	721.0
127.5°	745.7	745.6	745.6	745.6	745.6	748.0	752.9	757.6	762.4	767.2	770.8
130°	779.1	779.1	779.1	779.1	779.1	781.0	784.9	788.7	792.6	796.3	800.2
132.5°	810.5	810.7	810.8	811.0	811.1	812.9	816.2	819.6	822.9	826.2	829.9
135°	856.7	856.5	856.4	856.2	855.9	857.0	859.2	861.3	863.6	865.7	869.4
137.5°	898.5	898.3	898.2	898.0	897.9	898.6	900.2	901.7	903.3	904.8	908.2
140°	925.7	925.8	926.0	926.2	926.3	926.8	927.4	928.0	928.5	929.1	932.4
142.5°	949.3	950.0	950.6	951.3	952.0	952.4	952.4	952.6	952.7	952.8	955.5
145°	986.7	987.1	987.4	987.8	988.2	988.3	988.3	988.3	988.3	988.3	989.8
147.5°	1016.5	1017.4	1018.3	1019.2	1020.0	1020.4	1020.2	1020.0	1019.8	1019.6	1019.9
150°	1038.1	1038.7	1039.3	1039.8	1040.4	1040.6	1040.4	1040.3	1040.0	1039.8	1039.8
152.5°	1055.6	1056.1	1056.7	1057.3	1057.8	1058.0	1057.7	1057.3	1057.0	1056.6	1056.9
155°	1080.8	1081.1	1081.2	1081.4	1081.6	1081.4	1080.8	1080.3	1079.7	1079.1	1079.9
157.5°	1102.3	1102.2	1102.1	1101.9	1101.8	1101.5	1100.8	1100.1	1099.5	1098.8	1099.8
160°	1114.8	1114.3	1113.7	1113.1	1112.5	1112.2	1112.0	1111.7	1111.6	1111.4	1112.5
162.5°	1126.0	1125.3	1124.6	1123.8	1123.1	1122.6	1122.4	1122.2	1122.1	1121.8	1123.0
165°	1140.1	1139.2	1138.2	1137.2	1136.3	1135.8	1135.8	1135.8	1135.8	1135.8	1137.4
167.5°	1151.3	1150.3	1149.3	1148.3	1147.3	1146.8	1146.6	1146.5	1146.4	1146.2	1148.0
170°	1157.6	1156.4	1155.3	1154.1	1153.0	1152.4	1152.6	1152.9	1153.1	1153.2	1154.8
172.5°	1161.7	1160.6	1159.4	1158.3	1157.1	1156.7	1156.8	1157.0	1157.3	1157.4	1159.0
175°	1166.3	1165.2	1164.0	1162.9	1161.7	1161.2	1161.4	1161.6	1161.7	1162.0	1163.7
177.5°	1168.4	1167.3	1166.2	1165.2	1164.1	1163.7	1164.0	1164.3	1164.6	1164.9	1166.1
180°	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3



TEST NUMBER: P332789-935

CATALOG NUMBER: S124DIW-S795D1050U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	814.9	816.1	817.3	817.8	817.6	817.4	817.3	817.1
5°	812.9	814.5	816.1	816.8	816.6	816.4	816.2	816.0
7.5°	808.5	810.3	812.2	813.0	812.8	812.5	812.4	812.2
10°	804.1	805.9	807.8	808.6	808.4	808.1	808.0	807.8
12.5°	797.9	799.6	801.2	802.0	802.0	801.9	801.9	801.8
15°	786.7	788.5	790.3	791.2	791.0	790.7	790.6	790.3
17.5°	773.0	774.9	776.8	777.7	777.5	777.3	777.1	777.0
20°	762.3	764.4	766.5	767.5	767.5	767.5	767.5	767.5
22.5°	749.9	751.9	754.0	755.2	755.5	755.8	756.1	756.5
25°	730.7	733.0	735.2	736.4	736.6	736.8	737.0	737.3
27.5°	709.1	711.2	713.3	714.5	714.7	715.0	715.2	715.4
30°	694.1	696.3	698.5	699.9	700.3	700.7	701.1	701.5
32.5°	678.6	681.2	683.7	685.3	685.6	686.0	686.5	686.9
35°	654.1	656.9	659.8	661.5	662.1	662.7	663.4	664.0
37.5°	628.5	631.5	634.3	636.1	636.7	637.4	638.0	638.7
40°	610.5	613.6	616.6	618.5	619.4	620.2	621.0	621.8
42.5°	592.9	596.2	599.6	601.7	602.3	603.0	603.6	604.2
45°	565.6	569.0	572.5	574.7	575.8	576.8	577.8	578.8
47.5°	536.7	540.3	543.9	546.2	547.5	548.7	549.9	551.1
50°	516.4	520.5	524.5	527.2	528.4	529.7	530.9	532.1
52.5°	495.9	500.0	504.0	506.7	507.9	509.1	510.3	511.6
55°	465.1	469.2	473.3	476.0	477.2	478.4	479.6	480.8
57.5°	432.8	437.6	442.5	445.5	446.6	447.7	448.9	450.0
60°	410.5	415.2	419.8	423.0	424.6	426.3	427.9	429.6
62.5°	388.5	393.2	397.9	401.1	402.7	404.3	405.9	407.5
65°	354.6	359.6	364.7	368.1	369.7	371.3	372.9	374.5
67.5°	321.2	326.3	331.5	334.8	336.5	338.0	339.7	341.2
70°	297.6	303.2	308.7	312.1	313.5	315.0	316.3	317.8
72.5°	275.3	280.7	286.0	289.5	291.0	292.7	294.2	295.8
75°	241.3	246.9	252.7	256.4	258.3	260.1	261.9	263.7
77.5°	209.6	215.3	221.1	225.0	227.0	228.9	230.8	232.8
80°	189.0	195.1	201.2	205.0	206.6	208.3	209.9	211.5
82.5°	168.8	175.0	181.3	185.4	187.1	188.9	190.7	192.5
85°	140.4	146.5	152.7	156.7	158.8	160.7	162.8	164.9
87.5°	120.7	126.8	132.9	137.0	138.8	140.7	142.6	144.5
90°	124.0	131.0	138.1	142.7	144.6	146.7	148.7	150.8
92.5°	118.6	125.4	132.3	136.6	138.4	140.1	141.8	143.5
95°	112.2	118.8	125.5	129.8	131.9	133.9	136.0	137.9
97.5°	107.9	113.4	118.8	122.5	124.5	126.4	128.4	130.3
100°	112.4	114.6	116.8	118.7	120.3	121.9	123.6	125.2
102.5°	190.5	160.2	130.0	115.7	117.4	119.0	120.5	122.2
105°	346.3	353.1	360.0	360.7	355.3	350.0	344.7	339.3
107.5°	406.2	412.1	417.9	422.0	424.1	426.4	428.5	430.8
110°	447.0	452.1	457.2	460.8	463.0	465.2	467.4	469.7



TEST NUMBER: P332789-935

CATALOG NUMBER: S124DIW-S795D1050U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	486.1	490.5	495.0	498.3	500.8	503.1	505.5	507.8
115°	544.8	549.7	554.5	557.7	559.0	560.5	561.9	563.4
117.5°	603.5	607.6	611.7	614.7	616.2	617.8	619.3	620.9
120°	639.5	643.9	648.4	651.3	652.5	653.8	655.0	656.3
122.5°	675.3	679.6	683.9	686.6	687.7	688.7	689.8	690.9
125°	725.5	729.9	734.3	737.3	738.7	740.1	741.5	743.0
127.5°	774.3	777.8	781.4	783.8	785.1	786.3	787.5	788.7
130°	804.1	808.0	811.8	814.3	815.5	816.7	817.9	819.2
132.5°	833.6	837.3	841.0	843.3	844.5	845.5	846.6	847.7
135°	873.1	876.7	880.4	883.0	884.6	886.1	887.8	889.4
137.5°	911.6	915.0	918.4	920.6	921.4	922.4	923.3	924.2
140°	935.6	938.8	942.0	944.3	945.5	946.7	947.9	949.1
142.5°	958.3	961.0	963.8	965.6	966.5	967.4	968.3	969.1
145°	991.2	992.6	994.0	995.3	996.5	997.7	998.9	1000.1
147.5°	1020.2	1020.5	1020.9	1021.5	1022.3	1023.1	1024.0	1024.8
150°	1039.8	1039.8	1039.8	1039.9	1040.1	1040.3	1040.5	1040.7
152.5°	1057.2	1057.5	1057.8	1057.9	1057.8	1057.7	1057.6	1057.5
155°	1080.6	1081.4	1082.2	1082.3	1081.7	1081.2	1080.6	1080.0
157.5°	1100.8	1101.8	1102.9	1102.9	1101.8	1100.8	1099.8	1098.8
160°	1113.7	1114.8	1116.0	1116.0	1114.8	1113.7	1112.5	1111.4
162.5°	1124.1	1125.3	1126.4	1126.4	1125.1	1123.8	1122.5	1121.1
165°	1138.9	1140.5	1142.0	1141.9	1140.1	1138.4	1136.7	1134.9
167.5°	1149.7	1151.4	1153.1	1153.0	1151.1	1149.1	1147.2	1145.2
170°	1156.3	1157.9	1159.4	1159.3	1157.3	1155.4	1153.4	1151.5
172.5°	1160.5	1162.1	1163.6	1163.4	1161.2	1159.2	1157.1	1154.9
175°	1165.4	1167.2	1169.0	1168.6	1166.3	1164.0	1161.7	1159.3
177.5°	1167.4	1168.6	1169.9	1169.6	1167.7	1165.9	1164.0	1162.2
180°	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3

(END OF REPORT)