

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: P332619-935

Luminaire Tested: **S124DIP-S795D1205U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332619-935  
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: S124DIP-S795D1205U935-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6929.3 lumens  
Efficiency: N/A  
Efficacy: 121.8 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: Semi-Indirect

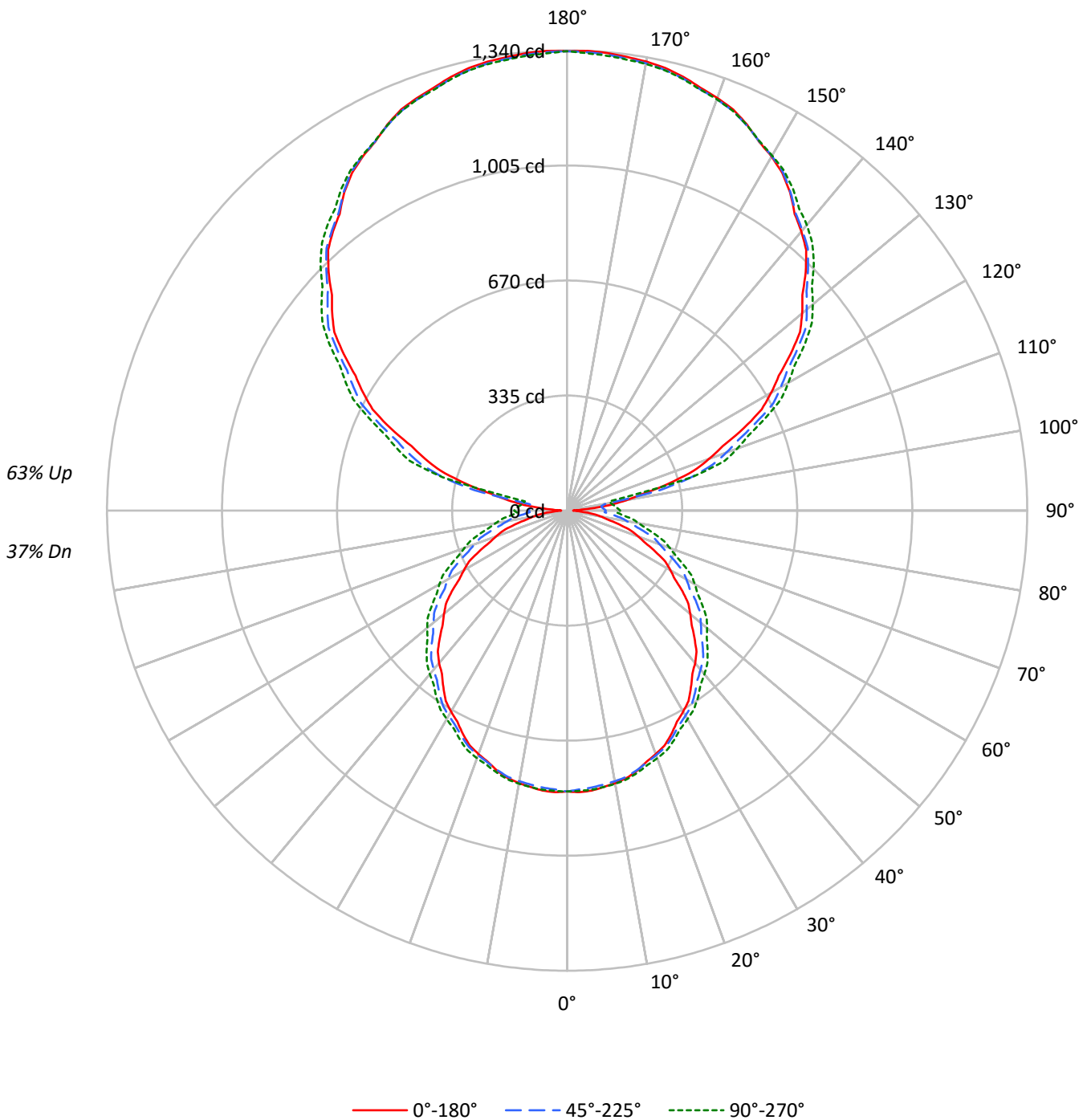
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P332619-935

CATALOG NUMBER: S124DIP-S795D1205U935-4F0-1E-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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37
1	94	90	85	82	85	81	78	75	66	63	61	51	50	48	38	37	36	30
2	85	78	71	66	77	71	65	61	57	53	50	45	42	39	33	31	30	24
3	78	68	61	55	70	62	55	50	50	45	41	39	36	33	29	27	25	20
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15
6	60	48	39	34	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	29	50	39	32	27	32	27	23	25	21	18	19	16	14	11
8	51	39	31	26	46	35	29	24	29	24	20	23	19	16	17	15	13	10
9	47	35	28	23	43	32	26	21	26	21	18	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	19	24	19	16	19	16	13	15	12	10	8

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.4	1.1
10°-20°	221.9	3.2
20°-30°	335.5	4.8
30°-40°	405.9	5.9
40°-50°	429.2	6.2
50°-60°	403.9	5.8
60°-70°	335.1	4.8
70°-80°	235.4	3.4
80°-90°	136.9	2.0
90°-100°	124.8	1.8
100°-110°	350.2	5.1
110°-120°	597.3	8.6
120°-130°	730.5	10.5
130°-140°	767.5	11.1
140°-150°	710.6	10.3
150°-160°	571.5	8.2
160°-170°	368.6	5.3
170°-180°	127.0	1.8
0°-30°	634.9	9.2
0°-40°	1040.8	15.0
0°-60°	1873.9	27.0
0°-90°	2581.3	37.3
90°-120°	1072.2	15.5
90°-150°	3280.8	47.3
90°-180°	4348.0	62.7
0°-180°	6929.3	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°	18	65	113	144	154	12
95°	67	65	102	131	142	80
105°	309	334	373	401	376	324
115°	568	580	607	629	636	559
125°	794	798	818	838	845	709
135°	982	982	992	1008	1016	757
145°	1131	1133	1134	1140	1146	707
155°	1240	1240	1238	1241	1238	571
165°	1308	1303	1303	1310	1302	369
175°	1338	1332	1333	1340	1330	127
180°	1338	1338	1338	1338	1338	



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**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°	27.7	36.5	45.3	54.1	62.9	71.9	81.2	90.5	99.7	109.0	115.1
90°	17.7	28.2	38.8	49.4	60.0	70.5	81.1	91.6	102.1	112.7	119.9
92.5°	26.5	34.0	41.4	48.9	56.4	65.3	75.9	86.4	96.9	107.5	114.5
95°	66.9	66.1	65.3	64.4	63.5	67.4	76.0	84.6	93.2	101.7	108.5
97.5°	127.7	138.2	148.6	159.1	169.6	166.6	150.1	133.5	116.9	100.4	105.9
100°	174.2	183.5	192.7	202.0	211.3	204.6	181.8	159.1	136.4	113.7	115.4
102.5°	227.0	234.5	242.1	249.7	257.3	262.9	266.7	270.5	274.2	278.0	242.6
105°	309.4	314.8	320.2	325.6	331.0	338.0	346.6	355.3	363.9	372.6	379.7
107.5°	387.4	391.4	395.5	399.4	403.5	409.7	418.4	427.1	435.7	444.3	450.3
110°	439.5	443.1	446.5	450.0	453.6	459.6	468.0	476.5	484.9	493.4	498.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	490.0	493.7	497.5	501.2	504.9	510.5	517.9	525.3	532.7	540.2	544.6
115°	567.7	570.2	572.7	575.2	577.7	582.1	588.4	594.7	601.0	607.3	612.3
117.5°	638.6	640.6	642.6	644.5	646.5	650.8	657.4	663.9	670.5	677.0	681.1
120°	685.9	687.4	688.9	690.3	691.9	695.4	701.1	706.8	712.5	718.2	722.7
122.5°	730.7	731.3	732.0	732.6	733.3	736.6	742.4	748.4	754.2	760.2	764.5
125°	794.0	794.7	795.4	796.1	796.8	799.4	804.1	808.7	813.4	817.9	822.5
127.5°	854.6	854.7	854.7	854.7	854.7	857.2	862.1	867.0	872.0	876.9	880.5
130°	893.1	893.2	893.2	893.2	893.2	895.2	899.1	903.0	907.0	910.9	914.7
132.5°	929.2	929.4	929.5	929.7	930.0	931.8	935.2	938.7	942.1	945.6	949.3
135°	982.2	982.1	981.8	981.6	981.4	982.4	984.7	987.1	989.4	991.7	995.4
137.5°	1030.1	1029.9	1029.8	1029.8	1029.7	1030.4	1032.1	1033.7	1035.4	1037.1	1040.5
140°	1061.3	1061.5	1061.8	1062.0	1062.3	1062.7	1063.3	1064.0	1064.6	1065.3	1068.6
142.5°	1088.6	1089.3	1090.1	1090.9	1091.6	1092.1	1092.2	1092.4	1092.5	1092.6	1095.5
145°	1131.4	1131.9	1132.3	1132.8	1133.2	1133.5	1133.5	1133.5	1133.5	1133.5	1135.0
147.5°	1165.6	1166.7	1167.7	1168.7	1169.8	1170.2	1170.0	1169.8	1169.5	1169.3	1169.7
150°	1190.4	1191.1	1191.8	1192.5	1193.2	1193.4	1193.2	1193.0	1192.7	1192.5	1192.5
152.5°	1210.5	1211.2	1211.9	1212.5	1213.2	1213.3	1213.0	1212.5	1212.1	1211.8	1212.1
155°	1239.6	1239.8	1240.0	1240.2	1240.4	1240.2	1239.6	1238.9	1238.2	1237.5	1238.5
157.5°	1264.1	1264.0	1263.9	1263.8	1263.6	1263.2	1262.4	1261.7	1260.9	1260.2	1261.3
160°	1278.6	1277.9	1277.2	1276.6	1275.9	1275.5	1275.2	1275.0	1274.8	1274.5	1275.9
162.5°	1291.3	1290.6	1289.7	1288.8	1288.0	1287.5	1287.2	1287.0	1286.8	1286.6	1287.9
165°	1307.6	1306.5	1305.4	1304.2	1303.1	1302.6	1302.6	1302.6	1302.6	1302.6	1304.3
167.5°	1320.3	1319.2	1318.1	1316.9	1315.8	1315.1	1315.0	1314.8	1314.7	1314.6	1316.6
170°	1327.6	1326.3	1324.9	1323.6	1322.2	1321.7	1321.9	1322.2	1322.3	1322.6	1324.4
172.5°	1332.4	1331.0	1329.7	1328.4	1327.1	1326.5	1326.7	1327.0	1327.1	1327.4	1329.1
175°	1337.6	1336.3	1334.9	1333.6	1332.2	1331.7	1331.9	1332.1	1332.4	1332.6	1334.6
177.5°	1340.0	1338.8	1337.5	1336.3	1335.0	1334.6	1334.9	1335.2	1335.7	1336.0	1337.4
180°	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6



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**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°	121.3	127.5	133.6	137.7	139.6	141.5	143.4	145.2
90°	127.2	134.4	141.6	146.3	148.4	150.4	152.5	154.5
92.5°	121.7	128.7	135.8	140.2	141.9	143.6	145.3	147.1
95°	115.4	122.2	129.0	133.5	135.5	137.6	139.6	141.6
97.5°	111.3	116.8	122.3	126.0	127.9	129.9	131.9	133.9
100°	117.0	118.7	120.5	122.2	123.8	125.4	127.1	128.7
102.5°	207.2	171.7	136.3	119.3	121.0	122.6	124.2	125.9
105°	386.8	393.8	401.0	401.3	394.9	388.6	382.2	375.8
107.5°	456.2	462.3	468.2	472.4	474.7	477.0	479.3	481.6
110°	503.7	508.8	513.9	517.6	519.9	522.2	524.5	526.8





TEST NUMBER: P332619-935

CATALOG NUMBER: S124DIP-S795D1205U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	549.0	553.5	557.8	561.3	563.8	566.3	568.8	571.2
115°	617.2	622.1	627.0	630.2	631.5	633.0	634.4	635.8
117.5°	685.4	689.5	693.6	696.5	698.0	699.6	701.0	702.6
120°	727.2	731.8	736.2	739.1	740.3	741.5	742.6	743.8
122.5°	768.8	773.2	777.5	780.2	781.2	782.2	783.3	784.3
125°	827.1	831.6	836.1	839.1	840.6	842.0	843.4	844.9
127.5°	884.0	887.5	891.0	893.4	894.6	895.8	897.0	898.2
130°	918.7	922.6	926.4	928.9	930.2	931.4	932.6	933.8
132.5°	953.0	956.7	960.4	962.9	963.9	964.9	966.0	967.0
135°	999.1	1002.8	1006.5	1009.2	1010.8	1012.5	1014.2	1015.8
137.5°	1044.0	1047.5	1050.9	1053.1	1054.0	1054.9	1055.8	1056.6
140°	1071.9	1075.2	1078.6	1080.8	1082.1	1083.3	1084.5	1085.8
142.5°	1098.3	1101.0	1103.9	1105.8	1106.6	1107.5	1108.5	1109.3
145°	1136.3	1137.8	1139.3	1140.7	1141.9	1143.1	1144.4	1145.6
147.5°	1170.0	1170.4	1170.7	1171.3	1172.2	1173.0	1173.9	1174.7
150°	1192.5	1192.5	1192.5	1192.7	1192.8	1193.1	1193.3	1193.5
152.5°	1212.5	1212.8	1213.1	1213.2	1213.1	1213.0	1212.9	1212.7
155°	1239.3	1240.2	1241.1	1241.2	1240.5	1239.8	1239.2	1238.5
157.5°	1262.5	1263.6	1264.8	1264.8	1263.6	1262.5	1261.3	1260.2
160°	1277.2	1278.6	1279.9	1279.9	1278.6	1277.2	1275.9	1274.5
162.5°	1289.3	1290.6	1291.9	1291.8	1290.3	1288.8	1287.3	1285.7
165°	1306.1	1307.9	1309.7	1309.6	1307.6	1305.5	1303.6	1301.6
167.5°	1318.5	1320.4	1322.4	1322.2	1320.1	1317.8	1315.6	1313.4
170°	1326.1	1327.9	1329.7	1329.5	1327.2	1325.0	1322.8	1320.6
172.5°	1330.9	1332.7	1334.5	1334.2	1331.8	1329.4	1327.0	1324.6
175°	1336.6	1338.6	1340.6	1340.2	1337.6	1334.9	1332.2	1329.6
177.5°	1338.9	1340.2	1341.7	1341.4	1339.2	1337.0	1334.9	1332.8
180°	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6

(END OF REPORT)