

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: P332610-840

Luminaire Tested: **S124DIP-S795D1035U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332610-840  
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-S795D1035U840-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7443.1 lumens  
Efficiency: N/A  
Efficacy: 143.1 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

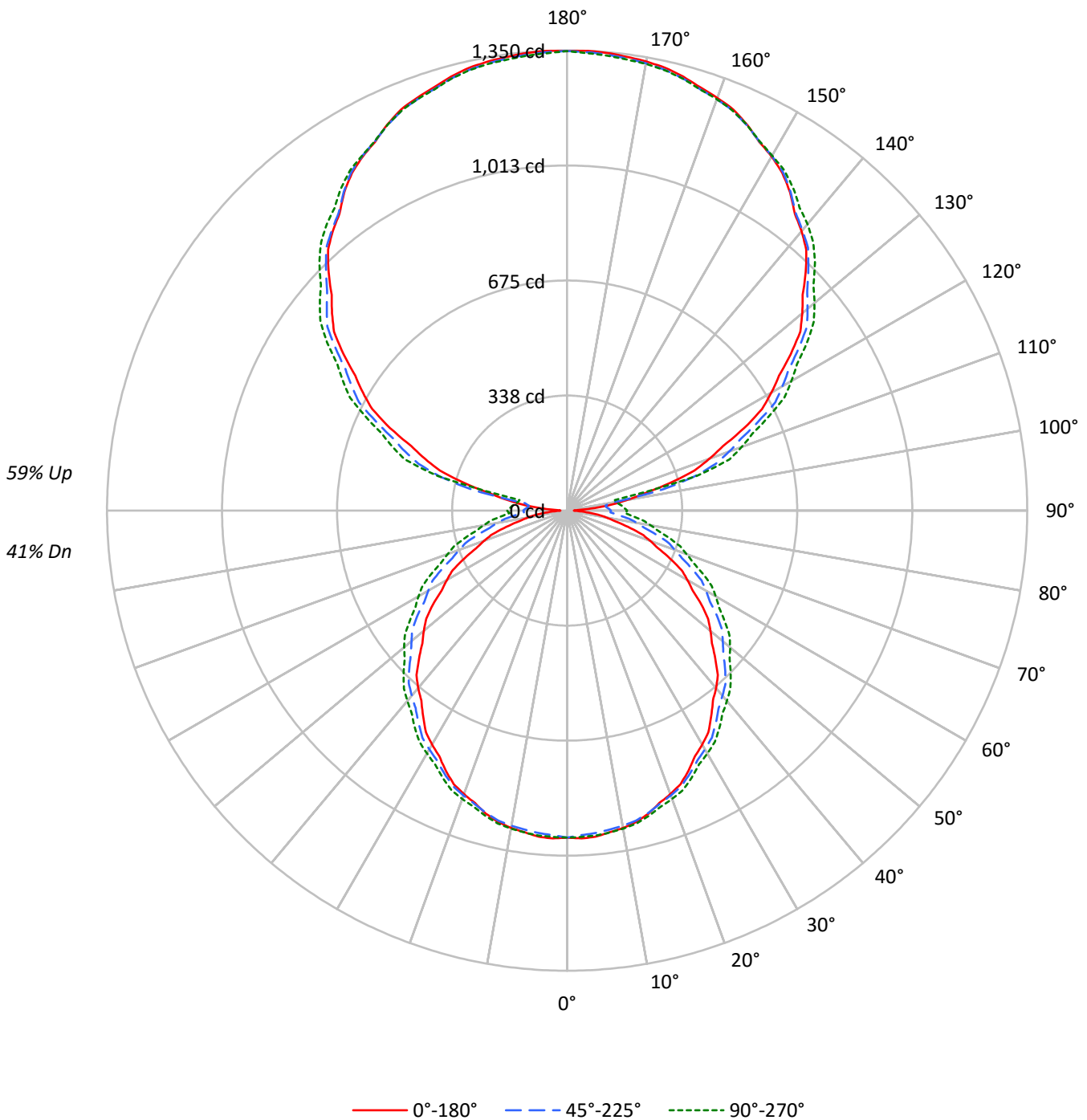
Input Watts (W): 52  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332610-840

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### Luminous Intensity Polar Plot





TEST NUMBER: P332610-840

CATALOG NUMBER: S124DIP-S795D1035U840-4F0-1E-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	96	96	96	96	78	78	78	62	62	62	48	48	48	41
1	95	90	86	82	86	82	79	75	67	65	62	53	52	50	41	40	38	33
2	86	78	72	67	78	71	66	61	58	54	51	46	44	41	35	33	32	27
3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	29	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	28	25	23	19
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	25	22	20	16
6	60	48	40	34	54	44	37	31	36	31	27	29	25	22	22	19	17	14
7	55	43	35	29	50	40	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	19	16	13	11
9	48	36	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°	7744	7744	7744
5°	7768	7569	7589
10°	7720	7444	7439
15°	7651	7301	7261
20°	7547	7143	7089
25°	7429	6965	6898
30°	7302	6789	6703
35°	7158	6609	6532
40°	7042	6436	6353
45°	6871	6278	6200
50°	6727	6095	6039
55°	6577	5924	5849
60°	6344	5704	5676
65°	6089	5468	5463
70°	5778	5200	5215
75°	5348	4904	4991
80°	4865	4620	4771
85°	4264	4369	4644



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.8	1.2
10°-20°	260.3	3.5
20°-30°	393.5	5.3
30°-40°	476.1	6.4
40°-50°	503.4	6.8
50°-60°	473.7	6.4
60°-70°	393.1	5.3
70°-80°	276.1	3.7
80°-90°	160.0	2.1
90°-100°	138.8	1.9
100°-110°	362.5	4.9
110°-120°	608.3	8.2
120°-130°	739.8	9.9
130°-140°	774.9	10.4
140°-150°	716.4	9.6
150°-160°	575.9	7.7
160°-170°	371.4	5.0
170°-180°	128.0	1.7
0°-30°	744.6	10.0
0°-40°	1220.8	16.4
0°-60°	2197.9	29.5
0°-90°	3027.0	40.7
90°-120°	1109.6	14.9
90°-150°	3340.7	44.9
90°-180°	4416.0	59.3
0°-180°	7443.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	960	957	950	958	957	91
15°	921	921	918	928	927	259
25°	842	848	852	863	865	388
35°	737	750	760	775	779	461
45°	614	635	655	673	679	475
55°	481	504	536	557	564	429
65°	333	368	404	430	439	330
75°	185	225	270	299	309	196
85°	57	102	150	181	193	61
90°	20	74	129	164	176	14
95°	69	73	116	149	161	82
105°	313	342	386	418	394	328
115°	573	587	619	644	652	564
125°	801	805	828	851	859	715
135°	990	990	1001	1019	1028	763
145°	1140	1142	1142	1150	1156	712
155°	1249	1250	1247	1251	1248	576
165°	1318	1313	1312	1320	1312	372
175°	1348	1342	1343	1351	1340	128
180°	1348	1348	1348	1348	1348	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	962.7	962.1	961.5	961.0	960.4	959.4	957.8	956.2	954.7	953.2	954.5
5°	960.3	959.6	958.9	958.2	957.5	956.2	954.5	952.9	951.2	949.6	951.5
7.5°	952.1	951.7	951.3	950.9	950.4	949.5	948.2	946.7	945.3	944.0	946.1
10°	945.2	945.0	944.8	944.5	944.3	943.6	942.4	941.2	940.0	938.8	941.0
12.5°	935.8	935.7	935.7	935.6	935.6	935.2	934.4	933.5	932.7	931.9	933.9
15°	920.6	920.8	921.0	921.3	921.5	921.3	920.6	919.9	919.1	918.4	920.6
17.5°	899.7	900.4	901.1	901.9	902.6	902.8	902.7	902.6	902.4	902.3	904.5
20°	885.1	885.9	886.6	887.3	888.0	888.5	888.7	888.9	889.2	889.4	891.8
22.5°	868.8	869.7	870.6	871.5	872.4	873.1	873.5	873.9	874.3	874.8	877.2
25°	842.1	843.5	845.1	846.5	847.9	849.0	849.7	850.4	851.1	851.8	854.4
27.5°	812.5	814.6	816.7	818.8	820.9	822.5	823.6	824.7	825.8	826.9	829.3
30°	792.7	794.7	796.6	798.5	800.4	802.1	803.9	805.5	807.2	808.8	811.4
32.5°	771.2	773.6	775.9	778.1	780.4	782.4	784.4	786.2	788.1	789.9	792.9
35°	736.9	739.7	742.7	745.5	748.3	750.9	753.4	755.8	758.1	760.5	763.9
37.5°	702.3	705.6	708.9	712.2	715.5	718.6	721.5	724.5	727.5	730.4	733.9
40°	679.9	683.1	686.1	689.2	692.4	695.6	698.9	702.3	705.6	708.9	712.6
42.5°	654.2	657.6	661.2	664.6	668.1	671.8	675.7	679.6	683.6	687.4	691.5
45°	614.4	618.9	623.5	628.0	632.6	637.1	641.7	646.2	650.7	655.2	659.3
47.5°	576.4	581.1	585.7	590.5	595.1	600.1	605.3	610.6	615.8	621.1	625.3
50°	548.9	554.1	559.4	564.6	569.9	575.1	580.4	585.6	590.9	596.1	601.0
52.5°	521.4	526.6	531.9	537.1	542.4	548.1	554.0	560.1	566.1	572.1	576.8
55°	481.2	486.3	491.3	496.2	501.3	507.4	514.5	521.7	528.9	536.0	540.8
57.5°	436.4	442.5	448.8	454.9	461.1	467.8	474.9	482.0	489.2	496.2	501.9
60°	407.1	413.3	419.5	425.8	431.9	439.0	446.9	454.7	462.6	470.5	475.9
62.5°	378.7	385.6	392.3	399.1	405.9	413.2	421.1	429.0	436.9	444.7	450.2
65°	333.0	340.6	348.3	355.9	363.6	371.4	379.5	387.7	395.8	403.8	409.8
67.5°	288.9	297.1	305.2	313.3	321.4	329.8	338.5	347.2	355.9	364.6	370.6
70°	258.8	267.0	275.1	283.3	291.3	299.9	309.0	318.1	327.1	336.2	342.6
72.5°	229.6	237.9	246.3	254.6	262.9	271.9	281.6	291.1	300.8	310.4	316.7
75°	184.8	193.6	202.4	211.3	220.0	229.5	239.5	249.5	259.6	269.6	276.3
77.5°	142.9	152.2	161.6	171.0	180.3	190.3	200.8	211.3	221.8	232.3	239.0
80°	117.0	126.6	136.1	145.7	155.3	165.3	175.8	186.3	196.8	207.3	214.5
82.5°	91.3	101.2	111.2	121.1	131.0	141.3	151.8	162.3	172.8	183.3	190.6
85°	57.0	67.0	77.0	87.1	97.0	107.4	118.2	128.9	139.7	150.4	157.5
87.5°	32.4	42.6	52.8	63.1	73.3	83.8	94.6	105.4	116.3	127.1	134.3
90°	20.2	32.2	44.2	56.2	68.3	80.3	92.3	104.4	116.4	128.6	136.8
92.5°	29.0	37.8	46.5	55.2	63.9	74.3	86.3	98.5	110.5	122.6	130.7
95°	69.4	69.7	69.9	70.2	70.5	75.5	85.6	95.6	105.6	115.6	123.4
97.5°	130.4	142.0	153.5	165.0	176.5	174.6	159.4	144.0	128.8	113.4	119.8
100°	177.1	187.4	197.6	207.8	218.1	212.4	190.8	169.3	147.6	126.0	128.7
102.5°	230.4	238.7	247.2	255.6	264.0	270.7	275.8	280.8	286.0	291.0	256.2
105°	313.2	319.2	325.4	331.4	337.6	345.6	355.6	365.6	375.5	385.5	393.4
107.5°	391.7	396.3	400.9	405.5	410.1	417.3	427.2	437.1	447.0	456.9	463.7
110°	444.1	448.1	452.1	456.2	460.2	467.1	476.8	486.5	496.1	505.8	511.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	494.8	499.1	503.2	507.4	511.5	518.0	526.5	535.1	543.7	552.3	557.5
115°	573.0	575.8	578.7	581.5	584.3	589.4	596.8	604.2	611.7	619.0	624.8
117.5°	644.4	646.5	648.7	651.0	653.1	658.0	665.6	673.2	680.9	688.4	693.3
120°	691.9	693.5	695.1	696.7	698.3	702.5	709.2	715.9	722.6	729.3	734.5
122.5°	737.1	737.7	738.4	739.1	739.8	743.6	750.4	757.3	764.2	770.9	776.0
125°	800.7	801.3	802.0	802.6	803.3	806.4	811.9	817.5	822.9	828.5	833.7
127.5°	861.8	861.8	861.7	861.7	861.7	864.5	870.1	875.8	881.4	887.0	891.1
130°	900.5	900.4	900.4	900.4	900.4	902.6	907.2	911.6	916.1	920.6	925.1
132.5°	936.8	937.0	937.1	937.3	937.4	939.5	943.3	947.3	951.2	955.0	959.4
135°	990.1	989.9	989.7	989.5	989.2	990.4	992.9	995.5	998.0	1000.7	1004.9
137.5°	1038.2	1038.1	1038.0	1037.8	1037.7	1038.5	1040.4	1042.1	1043.9	1045.7	1049.7
140°	1069.8	1070.0	1070.2	1070.4	1070.6	1071.1	1071.7	1072.4	1073.1	1073.8	1077.5
142.5°	1097.1	1097.8	1098.6	1099.3	1100.1	1100.6	1100.8	1100.9	1101.0	1101.1	1104.3
145°	1140.2	1140.6	1141.1	1141.6	1142.0	1142.2	1142.2	1142.2	1142.2	1142.2	1143.9
147.5°	1174.7	1175.8	1176.8	1177.8	1178.8	1179.2	1178.9	1178.7	1178.5	1178.3	1178.6
150°	1199.7	1200.4	1201.0	1201.7	1202.3	1202.5	1202.3	1202.1	1201.9	1201.6	1201.6
152.5°	1219.8	1220.5	1221.1	1221.8	1222.5	1222.6	1222.2	1221.8	1221.4	1221.0	1221.4
155°	1249.1	1249.3	1249.5	1249.7	1249.9	1249.7	1249.1	1248.4	1247.7	1247.1	1247.9
157.5°	1273.8	1273.7	1273.5	1273.4	1273.3	1272.8	1272.1	1271.3	1270.6	1269.8	1271.0
160°	1288.4	1287.7	1287.1	1286.4	1285.7	1285.3	1285.1	1284.8	1284.5	1284.3	1285.7
162.5°	1301.3	1300.4	1299.6	1298.7	1297.9	1297.4	1297.1	1296.9	1296.7	1296.5	1297.8
165°	1317.6	1316.5	1315.3	1314.2	1313.1	1312.5	1312.5	1312.5	1312.5	1312.5	1314.3
167.5°	1330.5	1329.4	1328.2	1327.1	1325.9	1325.2	1325.0	1324.9	1324.8	1324.6	1326.7
170°	1337.8	1336.5	1335.0	1333.7	1332.4	1331.8	1332.0	1332.3	1332.5	1332.7	1334.5
172.5°	1342.6	1341.3	1339.9	1338.6	1337.3	1336.7	1336.9	1337.2	1337.4	1337.6	1339.4
175°	1347.9	1346.6	1345.1	1343.8	1342.5	1341.9	1342.1	1342.4	1342.6	1342.8	1344.8
177.5°	1350.3	1349.0	1347.8	1346.6	1345.2	1344.8	1345.1	1345.5	1345.8	1346.3	1347.7
180°	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	955.8	957.3	958.6	959.2	959.0	958.8	958.6	958.4
5°	953.4	955.3	957.2	958.1	957.8	957.6	957.4	957.0
7.5°	948.3	950.4	952.6	953.5	953.3	953.0	952.8	952.6
10°	943.1	945.2	947.5	948.4	948.2	947.9	947.7	947.5
12.5°	935.8	937.9	939.8	940.7	940.7	940.6	940.6	940.5
15°	922.7	924.8	927.0	928.0	927.8	927.5	927.3	927.0
17.5°	906.7	908.9	911.1	912.1	911.9	911.7	911.5	911.3
20°	894.1	896.6	899.0	900.2	900.2	900.2	900.2	900.2
22.5°	879.6	881.9	884.3	885.8	886.2	886.5	886.9	887.3
25°	857.1	859.7	862.3	863.7	863.9	864.2	864.4	864.7
27.5°	831.7	834.1	836.7	838.0	838.3	838.6	838.9	839.1
30°	814.1	816.7	819.3	820.9	821.4	821.8	822.3	822.8
32.5°	796.0	799.0	801.9	803.8	804.2	804.7	805.2	805.7
35°	767.2	770.5	773.9	775.9	776.6	777.3	778.1	778.8
37.5°	737.2	740.6	744.0	746.1	746.8	747.6	748.3	749.1
40°	716.1	719.7	723.3	725.5	726.5	727.4	728.4	729.3
42.5°	695.4	699.3	703.3	705.7	706.4	707.2	708.0	708.7
45°	663.4	667.4	671.5	674.1	675.3	676.5	677.7	678.8
47.5°	629.4	633.7	637.9	640.7	642.2	643.6	645.0	646.4
50°	605.7	610.5	615.2	618.3	619.8	621.3	622.7	624.1
52.5°	581.7	586.4	591.2	594.3	595.7	597.1	598.5	600.1
55°	545.5	550.4	555.1	558.3	559.7	561.1	562.5	563.9
57.5°	507.7	513.3	519.0	522.5	523.8	525.1	526.5	527.9
60°	481.5	487.0	492.4	496.1	498.1	500.0	501.9	503.8
62.5°	455.7	461.2	466.7	470.4	472.3	474.2	476.1	478.0
65°	415.9	421.8	427.8	431.7	433.6	435.6	437.4	439.3
67.5°	376.7	382.7	388.8	392.7	394.7	396.5	398.4	400.2
70°	349.1	355.6	362.0	366.1	367.7	369.4	371.0	372.7
72.5°	323.0	329.2	335.5	339.5	341.3	343.3	345.1	347.0
75°	283.0	289.6	296.4	300.7	303.0	305.1	307.2	309.3
77.5°	245.8	252.6	259.3	263.9	266.2	268.4	270.7	273.1
80°	221.7	228.8	236.0	240.4	242.4	244.3	246.2	248.1
82.5°	197.9	205.3	212.7	217.4	219.4	221.6	223.7	225.8
85°	164.7	171.9	179.0	183.8	186.2	188.5	191.0	193.4
87.5°	141.5	148.7	155.8	160.6	162.8	164.9	167.1	169.4
90°	145.0	153.3	161.6	166.9	169.3	171.6	174.0	176.3
92.5°	138.8	146.8	154.8	159.9	161.9	163.9	165.9	167.9
95°	131.2	139.0	146.8	151.9	154.2	156.6	159.0	161.4
97.5°	126.2	132.6	139.0	143.3	145.5	147.8	150.2	152.4
100°	131.3	133.9	136.5	138.8	140.7	142.6	144.5	146.4
102.5°	221.4	186.5	151.7	135.2	137.1	139.1	141.0	142.9
105°	401.4	409.4	417.4	418.3	412.1	406.0	399.8	393.6
107.5°	470.5	477.4	484.2	489.0	491.5	494.1	496.7	499.3
110°	517.7	523.6	529.6	533.8	536.4	539.0	541.6	544.1





TEST NUMBER: P332610-840

CATALOG NUMBER: S124DIP-S795D1035U840-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	562.7	567.9	573.2	577.1	579.9	582.7	585.4	588.1
115°	630.5	636.1	641.9	645.5	647.2	648.9	650.6	652.3
117.5°	698.2	703.1	707.9	711.2	713.1	714.9	716.7	718.5
120°	739.7	745.0	750.2	753.6	755.0	756.5	757.9	759.4
122.5°	781.0	786.1	791.1	794.3	795.6	796.9	798.1	799.4
125°	838.9	844.1	849.3	852.7	854.4	856.1	857.8	859.4
127.5°	895.3	899.5	903.6	906.5	907.9	909.3	910.8	912.2
130°	929.7	934.1	938.7	941.7	943.1	944.5	945.9	947.4
132.5°	963.7	968.1	972.4	975.1	976.4	977.7	979.0	980.2
135°	1009.2	1013.4	1017.7	1020.8	1022.7	1024.5	1026.4	1028.3
137.5°	1053.7	1057.6	1061.6	1064.1	1065.2	1066.2	1067.3	1068.3
140°	1081.4	1085.1	1088.8	1091.5	1092.9	1094.3	1095.7	1097.1
142.5°	1107.5	1110.8	1114.0	1116.1	1117.1	1118.2	1119.2	1120.2
145°	1145.5	1147.2	1148.8	1150.3	1151.8	1153.2	1154.6	1156.0
147.5°	1179.0	1179.4	1179.7	1180.4	1181.4	1182.5	1183.5	1184.4
150°	1201.6	1201.6	1201.6	1201.7	1202.0	1202.2	1202.4	1202.6
152.5°	1221.7	1222.1	1222.4	1222.5	1222.4	1222.3	1222.1	1222.0
155°	1248.8	1249.7	1250.6	1250.7	1250.1	1249.4	1248.7	1248.1
157.5°	1272.1	1273.3	1274.4	1274.4	1273.3	1272.1	1271.0	1269.8
160°	1287.1	1288.4	1289.7	1289.7	1288.4	1287.1	1285.7	1284.3
162.5°	1299.1	1300.5	1301.8	1301.7	1300.2	1298.7	1297.2	1295.7
165°	1316.2	1318.0	1319.7	1319.6	1317.6	1315.6	1313.5	1311.5
167.5°	1328.6	1330.6	1332.5	1332.4	1330.2	1328.0	1325.6	1323.4
170°	1336.4	1338.1	1339.9	1339.7	1337.5	1335.2	1332.9	1330.7
172.5°	1341.2	1342.9	1344.7	1344.4	1342.0	1339.6	1337.2	1334.7
175°	1346.9	1348.9	1350.9	1350.5	1347.9	1345.1	1342.5	1339.8
177.5°	1349.1	1350.5	1352.0	1351.6	1349.5	1347.4	1345.1	1343.0
180°	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9

(END OF REPORT)