

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: P332610-830

Luminaire Tested: **S124DIP-S795D1035U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332610-830  
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-S795D1035U830-4F0-1E-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: 6946.9 lumens  
Efficiency: N/A  
Efficacy: 133.6 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

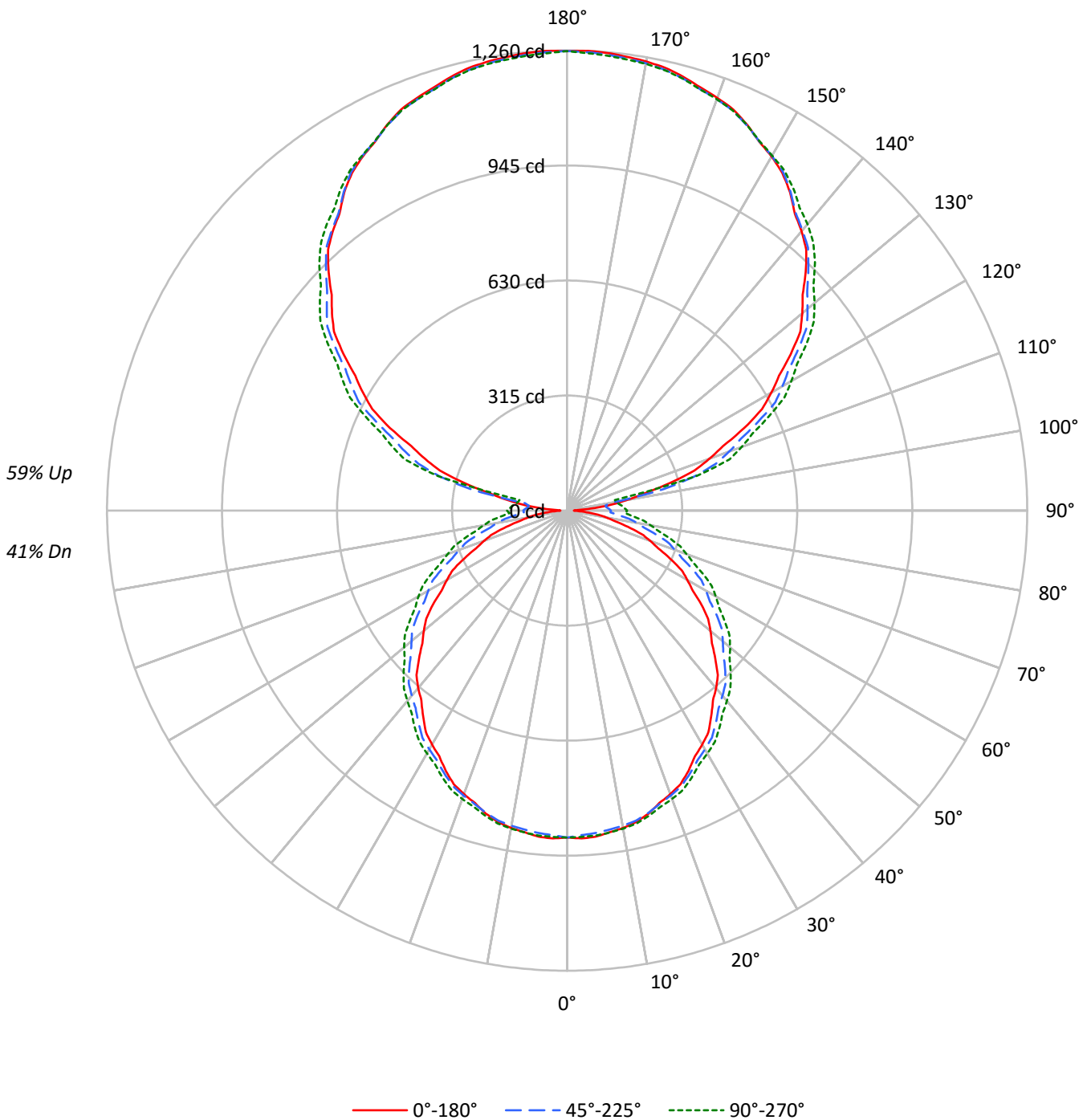
Input Watts (W): 52  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P332610-830

CATALOG NUMBER: S124DIP-S795D1035U830-4F0-1E-UDD-D

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	96	96	96	96	78	78	78	62	62	62	48	48	48	41						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°	7228	7228	7228
5°	7250	7064	7083
10°	7205	6948	6943
15°	7141	6814	6777
20°	7044	6667	6616
25°	6934	6501	6439
30°	6815	6336	6256
35°	6681	6168	6097
40°	6573	6008	5930
45°	6413	5859	5787
50°	6278	5689	5636
55°	6138	5529	5459
60°	5920	5324	5298
65°	5683	5104	5098
70°	5394	4853	4868
75°	4992	4579	4659
80°	4540	4312	4453
85°	3980	4075	4334



TEST NUMBER: P332610-830

CATALOG NUMBER: S124DIP-S795D1035U830-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.8	1.2
10°-20°	242.9	3.5
20°-30°	367.3	5.3
30°-40°	444.4	6.4
40°-50°	469.8	6.8
50°-60°	442.2	6.4
60°-70°	366.8	5.3
70°-80°	257.7	3.7
80°-90°	149.3	2.1
90°-100°	129.5	1.9
100°-110°	338.4	4.9
110°-120°	567.8	8.2
120°-130°	690.5	9.9
130°-140°	723.3	10.4
140°-150°	668.7	9.6
150°-160°	537.5	7.7
160°-170°	346.7	5.0
170°-180°	119.5	1.7
0°-30°	695.0	10.0
0°-40°	1139.4	16.4
0°-60°	2051.4	29.5
0°-90°	2825.2	40.7
90°-120°	1035.7	14.9
90°-150°	3118.0	44.9
90°-180°	4122.0	59.3
0°-180°	6946.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	896	893	886	894	893	85
15°	859	860	857	866	865	242
25°	786	792	795	806	807	362
35°	688	700	710	723	727	431
45°	573	593	612	628	634	443
55°	449	471	500	520	526	400
65°	311	343	377	401	410	308
75°	172	210	252	279	289	183
85°	53	95	140	169	180	57
90°	19	69	120	153	165	13
95°	65	68	108	139	151	77
105°	292	319	360	390	367	306
115°	535	548	578	601	609	527
125°	747	751	773	794	802	667
135°	924	924	934	951	960	712
145°	1064	1066	1066	1073	1079	665
155°	1166	1166	1164	1167	1165	537
165°	1230	1225	1225	1232	1224	347
175°	1258	1253	1253	1261	1250	120
180°	1258	1258	1258	1258	1258	



TEST NUMBER: P332610-830

CATALOG NUMBER: S124DIP-S795D1035U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	898.5	898.0	897.4	896.9	896.4	895.4	893.9	892.5	891.1	889.7	890.9
5°	896.3	895.6	894.9	894.3	893.6	892.5	890.9	889.4	887.8	886.3	888.1
7.5°	888.6	888.3	887.9	887.5	887.0	886.2	885.0	883.6	882.3	881.1	883.1
10°	882.2	882.0	881.8	881.6	881.4	880.7	879.6	878.4	877.3	876.2	878.3
12.5°	873.5	873.4	873.4	873.3	873.3	872.9	872.1	871.3	870.5	869.8	871.7
15°	859.2	859.4	859.6	859.9	860.1	859.9	859.2	858.6	857.8	857.1	859.2
17.5°	839.7	840.4	841.0	841.8	842.4	842.6	842.5	842.4	842.3	842.2	844.2
20°	826.1	826.8	827.5	828.1	828.8	829.2	829.4	829.6	829.9	830.1	832.4
22.5°	810.9	811.7	812.6	813.4	814.3	814.9	815.3	815.7	816.1	816.5	818.7
25°	786.0	787.3	788.7	790.0	791.4	792.4	793.1	793.7	794.4	795.0	797.5
27.5°	758.4	760.3	762.2	764.2	766.2	767.7	768.7	769.7	770.7	771.8	774.0
30°	739.9	741.7	743.5	745.3	747.1	748.7	750.3	751.8	753.4	754.9	757.3
32.5°	719.8	722.0	724.2	726.2	728.4	730.3	732.1	733.8	735.6	737.3	740.1
35°	687.8	690.4	693.1	695.8	698.4	700.9	703.1	705.4	707.6	709.8	712.9
37.5°	655.4	658.6	661.7	664.7	667.8	670.7	673.4	676.2	679.0	681.7	684.9
40°	634.6	637.5	640.4	643.3	646.2	649.2	652.3	655.4	658.6	661.7	665.1
42.5°	610.6	613.8	617.1	620.3	623.6	627.0	630.7	634.3	638.0	641.6	645.4
45°	573.4	577.7	581.9	586.2	590.4	594.7	598.9	603.1	607.3	611.5	615.4
47.5°	538.0	542.3	546.7	551.1	555.4	560.1	565.0	569.9	574.8	579.7	583.6
50°	512.3	517.2	522.1	527.0	531.9	536.8	541.7	546.6	551.5	556.4	560.9
52.5°	486.6	491.5	496.4	501.3	506.2	511.5	517.1	522.7	528.4	534.0	538.4
55°	449.1	453.8	458.5	463.2	467.9	473.5	480.2	486.9	493.6	500.3	504.7
57.5°	407.3	413.0	418.9	424.6	430.4	436.6	443.3	449.9	456.6	463.2	468.4
60°	379.9	385.8	391.5	397.4	403.1	409.7	417.1	424.4	431.8	439.1	444.2
62.5°	353.5	359.9	366.2	372.5	378.8	385.7	393.0	400.4	407.7	415.1	420.2
65°	310.8	317.9	325.1	332.2	339.3	346.7	354.2	361.8	369.4	376.9	382.5
67.5°	269.7	277.3	284.8	292.4	300.0	307.8	315.9	324.0	332.2	340.3	345.9
70°	241.6	249.2	256.7	264.4	271.9	279.9	288.4	296.9	305.3	313.8	319.8
72.5°	214.3	222.1	229.9	237.6	245.3	253.7	262.8	271.7	280.8	289.7	295.6
75°	172.5	180.7	188.9	197.2	205.4	214.2	223.6	232.9	242.3	251.7	257.9
77.5°	133.4	142.0	150.8	159.6	168.2	177.6	187.4	197.2	207.0	216.8	223.1
80°	109.2	118.2	127.1	136.0	145.0	154.3	164.1	173.9	183.7	193.5	200.2
82.5°	85.2	94.4	103.8	113.0	122.2	131.9	141.7	151.5	161.3	171.1	177.9
85°	53.2	62.5	71.8	81.2	90.6	100.3	110.3	120.3	130.4	140.3	147.0
87.5°	30.3	39.8	49.3	58.9	68.4	78.2	88.3	98.4	108.6	118.7	125.4
90°	18.9	30.1	41.3	52.5	63.7	74.9	86.1	97.5	108.7	120.0	127.7
92.5°	27.1	35.3	43.4	51.6	59.7	69.4	80.6	91.9	103.1	114.4	122.0
95°	64.8	65.0	65.2	65.5	65.8	70.5	79.9	89.3	98.6	107.9	115.2
97.5°	121.7	132.5	143.3	154.0	164.8	163.0	148.7	134.4	120.2	105.8	111.8
100°	165.3	174.9	184.5	194.0	203.6	198.2	178.0	158.0	137.8	117.6	120.1
102.5°	215.0	222.8	230.7	238.6	246.4	252.7	257.4	262.1	266.9	271.6	239.1
105°	292.3	297.9	303.7	309.3	315.1	322.5	331.9	341.2	350.4	359.8	367.2
107.5°	365.6	369.9	374.2	378.4	382.8	389.5	398.7	407.9	417.2	426.4	432.8
110°	414.5	418.2	422.0	425.7	429.5	435.9	445.0	454.0	463.1	472.1	477.6



TEST NUMBER: P332610-830

CATALOG NUMBER: S124DIP-S795D1035U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	461.8	465.8	469.7	473.5	477.4	483.4	491.4	499.5	507.5	515.5	520.4
115°	534.8	537.4	540.1	542.7	545.4	550.1	557.0	563.9	570.9	577.8	583.2
117.5°	601.4	603.4	605.5	607.6	609.5	614.2	621.2	628.3	635.5	642.5	647.1
120°	645.7	647.2	648.8	650.3	651.8	655.6	661.9	668.2	674.4	680.7	685.5
122.5°	688.0	688.5	689.2	689.8	690.5	694.0	700.4	706.8	713.2	719.5	724.2
125°	747.3	747.9	748.6	749.1	749.8	752.6	757.8	763.0	768.1	773.3	778.2
127.5°	804.4	804.4	804.3	804.3	804.3	806.9	812.1	817.4	822.7	827.8	831.7
130°	840.5	840.4	840.4	840.4	840.4	842.4	846.7	850.8	855.1	859.2	863.5
132.5°	874.3	874.5	874.6	874.8	874.9	876.8	880.4	884.1	887.8	891.4	895.4
135°	924.1	923.9	923.7	923.5	923.2	924.4	926.7	929.2	931.5	934.0	937.9
137.5°	969.0	968.9	968.8	968.7	968.6	969.3	971.0	972.6	974.3	976.0	979.7
140°	998.4	998.6	998.8	999.0	999.2	999.7	1000.2	1000.9	1001.5	1002.2	1005.7
142.5°	1024.0	1024.6	1025.4	1026.1	1026.8	1027.2	1027.4	1027.5	1027.6	1027.7	1030.7
145°	1064.2	1064.6	1065.1	1065.5	1065.8	1066.0	1066.0	1066.0	1066.0	1066.0	1067.6
147.5°	1096.4	1097.4	1098.3	1099.3	1100.2	1100.6	1100.3	1100.1	1099.9	1099.8	1100.0
150°	1119.7	1120.4	1121.0	1121.6	1122.2	1122.4	1122.2	1122.0	1121.8	1121.5	1121.5
152.5°	1138.5	1139.2	1139.7	1140.4	1141.0	1141.1	1140.8	1140.4	1140.0	1139.6	1140.0
155°	1165.8	1166.0	1166.2	1166.4	1166.6	1166.4	1165.8	1165.2	1164.5	1163.9	1164.7
157.5°	1188.9	1188.8	1188.6	1188.5	1188.5	1188.0	1187.3	1186.6	1185.9	1185.2	1186.3
160°	1202.5	1201.8	1201.3	1200.6	1200.0	1199.6	1199.4	1199.1	1198.9	1198.7	1200.0
162.5°	1214.6	1213.7	1213.0	1212.1	1211.4	1210.9	1210.6	1210.4	1210.2	1210.0	1211.3
165°	1229.7	1228.7	1227.7	1226.6	1225.6	1225.0	1225.0	1225.0	1225.0	1225.0	1226.7
167.5°	1241.8	1240.8	1239.6	1238.6	1237.5	1236.9	1236.7	1236.6	1236.5	1236.3	1238.2
170°	1248.6	1247.4	1246.0	1244.8	1243.6	1243.0	1243.2	1243.5	1243.7	1243.9	1245.6
172.5°	1253.1	1251.9	1250.6	1249.3	1248.1	1247.5	1247.7	1248.0	1248.2	1248.4	1250.1
175°	1258.0	1256.8	1255.5	1254.2	1253.0	1252.5	1252.6	1252.9	1253.1	1253.3	1255.2
177.5°	1260.3	1259.0	1257.9	1256.8	1255.6	1255.2	1255.5	1255.8	1256.1	1256.5	1257.8
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0



TEST NUMBER: P332610-830

CATALOG NUMBER: S124DIP-S795D1035U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	892.1	893.4	894.7	895.2	895.0	894.8	894.7	894.5
5°	889.9	891.6	893.3	894.2	893.9	893.7	893.5	893.2
7.5°	885.0	887.0	889.1	889.9	889.8	889.5	889.3	889.1
10°	880.2	882.2	884.3	885.1	885.0	884.7	884.5	884.3
12.5°	873.5	875.3	877.1	878.0	878.0	877.9	877.9	877.8
15°	861.2	863.2	865.2	866.1	865.9	865.6	865.4	865.2
17.5°	846.2	848.3	850.4	851.3	851.1	850.9	850.7	850.6
20°	834.5	836.8	839.1	840.2	840.2	840.2	840.2	840.2
22.5°	821.0	823.1	825.4	826.7	827.1	827.4	827.7	828.1
25°	799.9	802.4	804.8	806.2	806.3	806.6	806.8	807.1
27.5°	776.3	778.5	780.9	782.1	782.4	782.7	783.0	783.2
30°	759.8	762.2	764.7	766.2	766.7	767.0	767.5	768.0
32.5°	742.9	745.7	748.5	750.2	750.5	751.0	751.5	752.0
35°	716.0	719.2	722.3	724.2	724.8	725.5	726.2	726.9
37.5°	688.1	691.3	694.4	696.4	697.0	697.8	698.4	699.2
40°	668.4	671.8	675.0	677.1	678.1	678.9	679.9	680.7
42.5°	649.0	652.7	656.4	658.6	659.3	660.1	660.8	661.5
45°	619.2	622.9	626.7	629.1	630.3	631.4	632.5	633.6
47.5°	587.5	591.4	595.4	597.9	599.4	600.7	602.0	603.3
50°	565.3	569.8	574.2	577.1	578.4	579.9	581.2	582.5
52.5°	542.9	547.3	551.8	554.7	556.0	557.3	558.6	560.1
55°	509.2	513.7	518.1	521.0	522.4	523.7	525.0	526.3
57.5°	473.8	479.1	484.4	487.7	488.9	490.1	491.4	492.7
60°	449.4	454.5	459.6	463.1	464.9	466.7	468.4	470.2
62.5°	425.3	430.5	435.5	439.0	440.8	442.6	444.3	446.1
65°	388.1	393.7	399.3	402.9	404.7	406.5	408.2	410.0
67.5°	351.6	357.2	362.9	366.6	368.3	370.0	371.8	373.5
70°	325.8	331.9	337.9	341.7	343.2	344.8	346.3	347.9
72.5°	301.4	307.3	313.1	316.9	318.6	320.4	322.1	323.9
75°	264.1	270.3	276.6	280.7	282.8	284.7	286.7	288.7
77.5°	229.4	235.7	242.0	246.3	248.5	250.5	252.7	254.9
80°	206.9	213.6	220.3	224.4	226.2	228.0	229.8	231.6
82.5°	184.7	191.6	198.5	202.9	204.8	206.8	208.8	210.8
85°	153.7	160.4	167.1	171.5	173.8	176.0	178.2	180.5
87.5°	132.1	138.7	145.4	149.9	151.9	153.9	156.0	158.1
90°	135.3	143.1	150.8	155.8	158.0	160.1	162.4	164.6
92.5°	129.5	137.0	144.5	149.2	151.1	153.0	154.9	156.7
95°	122.4	129.7	137.0	141.8	143.9	146.2	148.4	150.6
97.5°	117.8	123.8	129.7	133.7	135.8	138.0	140.2	142.2
100°	122.5	125.0	127.4	129.5	131.3	133.1	134.9	136.7
102.5°	206.6	174.1	141.6	126.2	128.0	129.8	131.6	133.4
105°	374.7	382.1	389.6	390.4	384.7	378.9	373.2	367.4
107.5°	439.1	445.5	451.9	456.4	458.7	461.2	463.5	466.0
110°	483.1	488.7	494.3	498.2	500.7	503.0	505.5	507.8





TEST NUMBER: P332610-830

CATALOG NUMBER: S124DIP-S795D1035U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	525.2	530.1	535.0	538.7	541.2	543.8	546.4	548.9
115°	588.4	593.7	599.1	602.5	604.1	605.7	607.2	608.8
117.5°	651.7	656.2	660.7	663.8	665.5	667.2	668.9	670.6
120°	690.4	695.3	700.2	703.3	704.6	706.1	707.4	708.8
122.5°	729.0	733.7	738.4	741.3	742.5	743.8	744.9	746.1
125°	783.0	787.9	792.7	795.9	797.5	799.0	800.6	802.1
127.5°	835.7	839.5	843.4	846.0	847.3	848.7	850.1	851.4
130°	867.7	871.9	876.1	878.9	880.2	881.6	882.9	884.2
132.5°	899.5	903.5	907.6	910.1	911.3	912.5	913.7	914.8
135°	941.9	945.8	949.9	952.7	954.5	956.2	958.0	959.8
137.5°	983.4	987.1	990.8	993.2	994.2	995.1	996.2	997.1
140°	1009.3	1012.8	1016.2	1018.7	1020.0	1021.3	1022.7	1024.0
142.5°	1033.7	1036.7	1039.7	1041.7	1042.6	1043.7	1044.6	1045.6
145°	1069.1	1070.7	1072.2	1073.7	1075.0	1076.3	1077.6	1078.9
147.5°	1100.4	1100.8	1101.1	1101.7	1102.7	1103.6	1104.6	1105.4
150°	1121.5	1121.5	1121.5	1121.6	1121.9	1122.1	1122.3	1122.5
152.5°	1140.3	1140.7	1140.9	1141.0	1140.9	1140.9	1140.7	1140.6
155°	1165.5	1166.4	1167.2	1167.3	1166.8	1166.1	1165.5	1164.9
157.5°	1187.3	1188.5	1189.5	1189.5	1188.5	1187.3	1186.3	1185.2
160°	1201.3	1202.5	1203.7	1203.7	1202.5	1201.3	1200.0	1198.7
162.5°	1212.5	1213.8	1215.0	1214.9	1213.5	1212.1	1210.7	1209.3
165°	1228.4	1230.1	1231.7	1231.6	1229.7	1227.9	1226.0	1224.1
167.5°	1240.0	1241.9	1243.7	1243.6	1241.5	1239.4	1237.3	1235.2
170°	1247.3	1248.9	1250.6	1250.4	1248.3	1246.2	1244.1	1242.0
172.5°	1251.8	1253.4	1255.1	1254.8	1252.5	1250.3	1248.0	1245.8
175°	1257.1	1259.0	1260.8	1260.5	1258.0	1255.5	1253.0	1250.5
177.5°	1259.1	1260.5	1261.9	1261.5	1259.5	1257.5	1255.5	1253.5
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0

(END OF REPORT)