

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: P332623-940

Luminaire Tested: **S124DIP-S795D1205U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332623-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIP-S795D1205U940-4F0-1E-UDD-F1  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

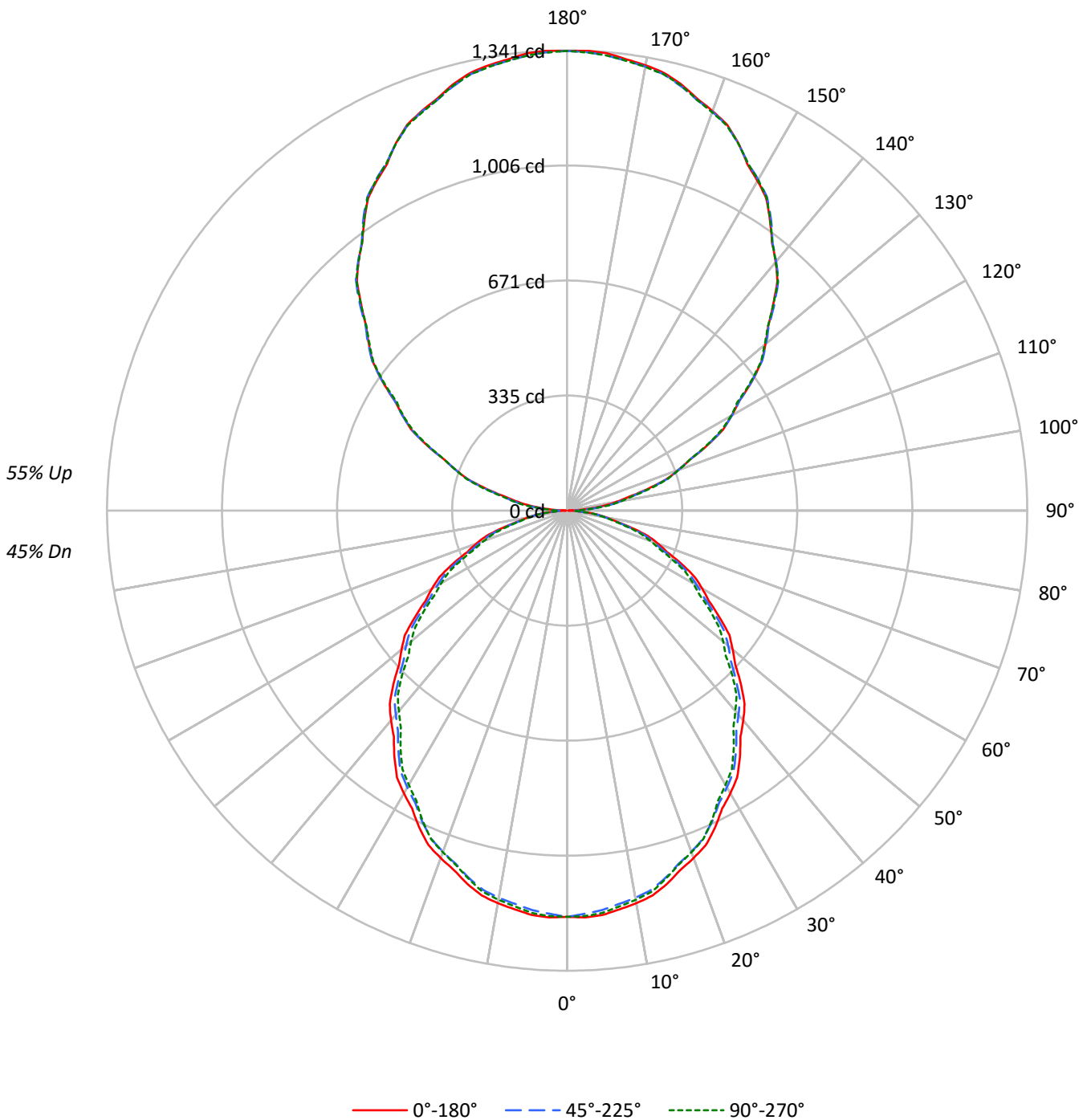
Lumens per Lamp: N/A  
Luminaire Lumens: 6758.0 lumens  
Efficiency: N/A  
Efficacy: 118.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (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





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**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	106	106	106	106	97	97	97	97	81	81	81		65	65	65		52	52	52	45
1	97	92	88	85	88	85	81	78	71	68	66		57	56	54		45	44	43	38
2	88	81	74	69	80	74	69	64	62	58	55		50	48	45		40	38	37	32
3	80	71	64	58	73	65	59	54	54	50	46		45	41	38		35	33	31	27
4	73	63	55	49	67	58	51	45	48	43	39		40	36	33		32	29	27	23
5	67	56	48	42	61	51	44	39	43	38	34		36	32	28		29	26	23	20
6	62	50	42	36	57	46	39	34	39	33	29		32	28	25		26	23	21	18
7	57	45	37	32	52	42	35	30	35	30	26		29	25	22		24	21	18	16
8	53	41	33	28	49	38	31	26	32	27	23		27	23	20		22	19	16	14
9	49	37	30	25	45	35	28	23	29	24	20		25	21	18		20	17	15	13
10	46	34	27	22	42	32	25	21	27	22	18		23	19	16		19	16	13	11

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9556	9556	9556
5°	9585	9469	9539
10°	9525	9393	9439
15°	9410	9260	9283
20°	9257	9094	9101
25°	9082	8905	8879
30°	8869	8682	8603
35°	8647	8451	8339
40°	8416	8186	8037
45°	8176	7927	7775
50°	7910	7695	7458
55°	7623	7396	7156
60°	7335	7061	6846
65°	7011	6739	6468
70°	6649	6314	6069
75°	6095	5798	5652
80°	5421	5202	5072
85°	4742	4566	4474



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.5	1.6
10°-20°	314.1	4.6
20°-30°	462.3	6.8
30°-40°	537.4	8.0
40°-50°	537.5	8.0
50°-60°	470.1	7.0
60°-70°	349.1	5.2
70°-80°	198.4	2.9
80°-90°	61.2	0.9
90°-100°	88.4	1.3
100°-110°	261.7	3.9
110°-120°	444.2	6.6
120°-130°	585.7	8.7
130°-140°	657.8	9.7
140°-150°	646.4	9.6
150°-160°	543.7	8.0
160°-170°	361.7	5.4
170°-180°	126.7	1.9
0°-30°	887.8	13.1
0°-40°	1425.3	21.1
0°-60°	2432.8	36.0
0°-90°	3041.6	45.0
90°-120°	794.3	11.8
90°-150°	2684.3	39.7
90°-180°	3716.0	55.0
0°-180°	6758.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1184	1184	1184	1184	1184	
5°	1183	1179	1168	1178	1177	112
15°	1126	1122	1108	1113	1111	317
25°	1020	1013	1000	1000	997	469
35°	877	870	858	851	846	548
45°	716	709	694	684	681	552
55°	542	538	526	514	508	485
65°	367	362	353	344	339	363
75°	195	191	186	182	181	208
85°	51	51	49	49	48	56
90°	3	14	23	29	31	7
95°	62	71	79	82	82	69
105°	241	243	247	250	253	256
115°	452	452	450	449	448	445
125°	658	658	657	655	653	586
135°	848	854	855	853	850	656
145°	1031	1035	1036	1035	1032	645
155°	1181	1181	1180	1184	1180	543
165°	1286	1283	1280	1286	1282	362
175°	1338	1332	1331	1338	1331	127
180°	1340	1340	1340	1340	1340	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7
2.5°	1186.8	1186.2	1185.7	1185.3	1184.7	1183.6	1181.7	1179.8	1177.9	1176.2	1177.8
5°	1182.8	1182.0	1181.1	1180.3	1179.4	1177.8	1175.5	1173.1	1170.8	1168.5	1170.8
7.5°	1171.8	1170.9	1170.1	1169.2	1168.4	1166.7	1164.1	1161.5	1159.0	1156.4	1158.2
10°	1161.9	1161.1	1160.2	1159.4	1158.5	1156.7	1154.0	1151.3	1148.5	1145.8	1147.5
12.5°	1149.0	1148.2	1147.3	1146.5	1145.7	1143.7	1140.9	1137.9	1135.1	1132.1	1134.0
15°	1125.9	1125.0	1124.2	1123.3	1122.5	1120.5	1117.3	1114.2	1111.0	1107.9	1109.1
17.5°	1098.0	1096.9	1095.8	1094.8	1093.8	1091.7	1088.8	1085.7	1082.7	1079.8	1080.6
20°	1077.5	1076.4	1075.4	1074.3	1073.3	1071.1	1068.0	1064.8	1061.7	1058.5	1059.2
22.5°	1055.5	1054.1	1052.7	1051.3	1049.9	1047.7	1044.5	1041.3	1038.1	1035.0	1036.2
25°	1019.6	1018.2	1016.6	1015.2	1013.7	1011.5	1008.5	1005.6	1002.6	999.7	999.9
27.5°	978.7	977.1	975.6	974.1	972.6	970.4	967.7	965.0	962.2	959.5	958.9
30°	951.4	949.7	948.0	946.3	944.6	942.4	939.6	936.9	934.2	931.4	930.6
32.5°	922.5	921.0	919.4	917.9	916.4	914.2	911.3	908.4	905.5	902.6	901.6
35°	877.4	875.8	874.4	872.9	871.5	869.2	866.3	863.4	860.4	857.5	856.0
37.5°	829.7	828.4	827.1	825.7	824.3	822.1	818.9	815.7	812.6	809.4	807.8
40°	798.6	796.9	795.2	793.5	791.8	789.4	786.3	783.1	780.0	776.8	774.7
42.5°	765.3	764.2	763.2	762.2	761.2	758.9	755.5	752.0	748.4	744.9	742.5
45°	716.1	714.6	713.2	711.7	710.2	707.8	704.5	701.1	697.7	694.3	692.0
47.5°	664.7	663.7	662.7	661.6	660.7	658.6	655.5	652.4	649.3	646.1	643.5
50°	629.8	628.9	628.1	627.2	626.4	624.6	621.6	618.7	615.6	612.7	609.8
52.5°	595.7	594.7	593.6	592.6	591.6	589.5	586.4	583.3	580.1	577.0	574.4
55°	541.6	540.9	540.3	539.7	539.0	537.3	534.3	531.4	528.4	525.5	522.9
57.5°	490.0	489.3	488.6	487.9	487.1	485.3	482.4	479.5	476.6	473.7	471.3
60°	454.3	453.3	452.2	451.2	450.1	448.2	445.5	442.7	440.0	437.3	435.3
62.5°	419.5	418.6	417.7	416.8	415.9	414.0	411.1	408.1	405.3	402.3	400.6
65°	367.0	366.0	365.0	363.9	362.8	361.2	359.2	357.0	354.9	352.8	350.7
67.5°	314.3	313.3	312.4	311.4	310.5	309.0	306.9	304.9	302.9	300.9	298.8
70°	281.7	280.3	278.7	277.2	275.8	274.2	272.5	270.8	269.1	267.5	265.8
72.5°	246.8	245.3	243.9	242.4	240.9	239.5	238.2	236.7	235.4	234.1	232.7
75°	195.4	194.3	193.3	192.3	191.2	190.1	189.0	188.0	187.0	185.9	185.0
77.5°	146.2	145.8	145.3	144.9	144.4	143.7	142.8	141.9	140.9	140.0	139.7
80°	116.6	116.0	115.4	114.8	114.1	113.6	113.2	112.8	112.4	111.9	111.5
82.5°	87.8	87.6	87.2	86.9	86.7	86.5	86.4	86.3	86.2	86.1	85.9
85°	51.2	51.2	51.2	51.2	51.2	51.0	50.6	50.2	49.8	49.3	49.3
87.5°	20.3	20.7	21.0	21.4	21.7	21.9	22.2	22.4	22.6	22.7	23.0
90°	3.1	5.6	8.2	10.7	13.2	15.4	17.3	19.1	21.0	22.8	24.2
92.5°	22.2	25.1	28.0	30.9	33.8	35.8	37.2	38.4	39.8	41.0	41.8
95°	62.2	64.2	66.3	68.4	70.4	72.3	73.9	75.5	77.1	78.7	79.5
97.5°	108.6	110.2	111.9	113.5	115.2	117.0	118.9	120.7	122.6	124.5	125.4
100°	145.1	146.0	146.9	147.8	148.7	150.3	152.3	154.4	156.4	158.5	159.0
102.5°	183.2	183.5	183.9	184.2	184.7	185.7	187.6	189.6	191.5	193.3	193.9
105°	241.4	241.7	241.8	242.1	242.3	242.9	243.8	244.7	245.7	246.6	247.3
107.5°	302.5	302.8	303.1	303.4	303.6	303.8	304.0	304.1	304.3	304.3	305.1
110°	343.9	344.4	344.8	345.4	345.8	345.9	345.7	345.4	345.2	345.0	344.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	387.0	387.2	387.3	387.4	387.4	387.3	386.8	386.5	386.0	385.6	385.5
115°	451.7	451.7	451.7	451.7	451.7	451.5	451.0	450.6	450.0	449.6	449.4
117.5°	512.6	512.8	513.0	513.2	513.4	513.3	512.9	512.6	512.3	512.0	511.2
120°	553.2	554.1	555.1	556.0	556.9	557.1	556.3	555.6	554.9	554.3	553.1
122.5°	595.5	595.8	596.2	596.6	597.0	597.0	596.6	596.4	596.0	595.7	594.9
125°	657.8	657.8	657.8	657.8	657.8	657.7	657.5	657.3	657.0	656.8	656.4
127.5°	714.4	715.2	715.8	716.5	717.2	717.4	716.9	716.6	716.2	715.9	715.4
130°	754.2	754.9	755.5	756.3	757.0	757.3	757.3	757.3	757.3	757.3	756.9
132.5°	794.8	795.3	795.9	796.3	796.8	797.0	796.8	796.7	796.5	796.3	795.8
135°	848.5	849.9	851.2	852.7	854.0	854.7	854.7	854.7	854.7	854.7	854.3
137.5°	906.9	907.6	908.2	908.8	909.5	910.0	910.3	910.7	911.1	911.4	910.9
140°	945.8	946.3	946.8	947.3	947.7	947.9	947.9	947.9	947.9	947.9	947.7
142.5°	981.5	982.0	982.4	982.8	983.4	983.5	983.3	983.1	982.9	982.8	982.7
145°	1030.8	1031.7	1032.7	1033.6	1034.5	1035.1	1035.3	1035.5	1035.7	1036.0	1035.7
147.5°	1079.7	1080.8	1081.9	1083.0	1084.1	1084.6	1084.4	1084.2	1084.1	1083.9	1083.7
150°	1109.6	1110.4	1111.4	1112.3	1113.2	1113.7	1113.7	1113.7	1113.7	1113.7	1113.7
152.5°	1137.7	1138.3	1138.8	1139.3	1140.0	1140.3	1140.5	1140.7	1140.9	1141.0	1141.6
155°	1181.0	1181.0	1181.0	1181.0	1181.0	1180.9	1180.7	1180.4	1180.2	1180.0	1180.9
157.5°	1217.5	1217.1	1216.7	1216.3	1215.8	1215.6	1215.6	1215.5	1215.5	1215.4	1216.1
160°	1239.0	1238.9	1238.6	1238.3	1238.1	1237.9	1237.7	1237.4	1237.2	1237.0	1237.7
162.5°	1258.9	1258.3	1257.8	1257.1	1256.5	1256.2	1255.9	1255.7	1255.4	1255.2	1256.4
165°	1285.7	1285.0	1284.2	1283.6	1282.9	1282.3	1281.8	1281.4	1280.9	1280.5	1281.8
167.5°	1306.2	1305.2	1304.2	1303.2	1302.3	1301.8	1301.9	1301.9	1302.0	1302.0	1303.4
170°	1317.8	1316.6	1315.5	1314.3	1313.1	1312.7	1313.0	1313.1	1313.4	1313.7	1315.0
172.5°	1326.1	1325.1	1324.1	1323.1	1322.2	1321.7	1321.8	1321.9	1321.9	1322.0	1323.5
175°	1337.5	1336.3	1335.2	1334.0	1332.8	1332.1	1331.9	1331.7	1331.5	1331.2	1332.8
177.5°	1341.2	1340.2	1339.3	1338.5	1337.5	1337.0	1337.0	1337.0	1337.0	1337.0	1338.4
180°	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7
2.5°	1179.5	1181.2	1182.9	1183.7	1183.5	1183.3	1183.1	1182.9
5°	1173.1	1175.5	1177.8	1178.8	1178.3	1177.9	1177.5	1177.1
7.5°	1160.1	1162.0	1163.8	1164.6	1164.4	1164.1	1163.9	1163.6
10°	1149.1	1150.8	1152.5	1153.2	1152.7	1152.3	1151.9	1151.5
12.5°	1135.9	1137.6	1139.5	1140.1	1139.6	1139.0	1138.4	1137.8
15°	1110.4	1111.6	1112.9	1113.2	1112.6	1112.0	1111.3	1110.7
17.5°	1081.4	1082.2	1083.0	1083.2	1082.7	1082.3	1081.9	1081.5
20°	1059.8	1060.4	1061.0	1061.1	1060.7	1060.3	1059.9	1059.4
22.5°	1037.2	1038.4	1039.6	1039.7	1038.9	1038.2	1037.4	1036.7
25°	1000.1	1000.3	1000.6	1000.2	999.4	998.5	997.7	996.8
27.5°	958.5	958.0	957.4	956.7	955.6	954.6	953.5	952.4
30°	929.7	928.9	928.0	927.1	926.0	925.0	923.9	922.9
32.5°	900.5	899.6	898.6	897.5	896.4	895.4	894.3	893.3
35°	854.5	853.0	851.5	850.2	849.2	848.2	847.1	846.1
37.5°	806.2	804.6	803.1	801.6	800.1	798.8	797.4	795.9
40°	772.6	770.5	768.4	766.8	765.7	764.7	763.7	762.6
42.5°	740.0	737.6	735.1	733.6	732.9	732.2	731.5	730.8
45°	689.6	687.3	685.0	683.6	682.9	682.2	681.6	681.0
47.5°	640.9	638.3	635.6	633.6	632.0	630.4	628.7	627.1
50°	606.8	603.9	600.9	598.8	597.5	596.3	595.0	593.8
52.5°	571.9	569.2	566.6	564.5	562.9	561.3	559.7	558.1
55°	520.4	517.9	515.3	513.4	512.2	511.0	509.6	508.4
57.5°	468.9	466.5	464.0	462.3	461.0	459.8	458.6	457.4
60°	433.5	431.6	429.6	428.2	427.1	426.1	425.0	424.0
62.5°	398.9	397.2	395.5	394.0	393.0	391.9	390.9	389.9
65°	348.7	346.5	344.4	342.9	341.8	340.7	339.7	338.6
67.5°	296.9	294.8	292.7	291.6	291.3	291.1	290.7	290.4
70°	264.1	262.4	260.7	259.6	259.0	258.3	257.7	257.1
72.5°	231.4	230.1	228.7	227.7	227.0	226.4	225.8	225.2
75°	184.2	183.3	182.5	182.0	181.8	181.6	181.4	181.2
77.5°	139.5	139.2	139.0	138.6	138.0	137.5	137.0	136.4
80°	111.1	110.7	110.2	109.9	109.7	109.5	109.3	109.1
82.5°	85.6	85.3	85.1	84.9	84.7	84.4	84.3	84.0
85°	49.3	49.3	49.3	49.2	49.0	48.8	48.6	48.3
87.5°	23.4	23.6	23.9	24.1	24.2	24.3	24.3	24.4
90°	25.6	26.9	28.4	29.2	29.7	30.1	30.6	31.1
92.5°	42.7	43.5	44.3	44.9	45.2	45.5	45.7	46.0
95°	80.1	80.8	81.5	81.9	81.9	81.9	81.9	81.9
97.5°	126.2	127.0	127.9	128.2	128.2	128.2	128.2	128.2
100°	159.4	159.9	160.3	160.6	160.6	160.6	160.6	160.6
102.5°	194.6	195.3	195.9	196.3	196.5	196.7	196.9	197.1
105°	248.0	248.6	249.3	250.0	250.7	251.4	252.1	252.8
107.5°	305.7	306.3	306.9	307.3	307.2	307.2	307.1	307.1
110°	344.0	343.6	343.1	343.2	343.9	344.6	345.4	346.0





TEST NUMBER: P332623-940

CATALOG NUMBER: S124DIP-S795D1205U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	385.4	385.3	385.2	385.2	385.4	385.5	385.7	385.8
115°	449.2	448.9	448.7	448.4	448.3	448.0	447.8	447.5
117.5°	510.4	509.6	508.8	508.3	507.7	507.3	506.8	506.4
120°	552.0	550.8	549.7	549.3	549.7	550.2	550.7	551.2
122.5°	594.1	593.3	592.5	591.7	590.9	590.1	589.2	588.4
125°	655.9	655.4	655.0	654.5	654.1	653.6	653.1	652.6
127.5°	715.0	714.5	714.0	713.6	713.3	712.8	712.5	712.1
130°	756.3	755.9	755.5	754.7	753.9	753.0	752.0	751.1
132.5°	795.3	794.9	794.4	794.0	793.6	793.3	792.9	792.6
135°	853.8	853.3	852.8	852.3	851.6	850.9	850.2	849.5
137.5°	910.3	909.6	909.1	908.8	909.0	909.1	909.3	909.4
140°	947.4	947.3	947.0	946.8	946.6	946.3	946.1	945.8
142.5°	982.7	982.6	982.6	982.5	982.5	982.4	982.4	982.3
145°	1035.5	1035.3	1035.1	1034.6	1033.9	1033.2	1032.5	1031.9
147.5°	1083.5	1083.3	1083.1	1082.9	1082.7	1082.4	1082.2	1082.0
150°	1113.7	1113.7	1113.7	1113.6	1113.3	1113.1	1112.9	1112.7
152.5°	1142.1	1142.7	1143.3	1143.3	1142.6	1142.0	1141.4	1140.9
155°	1181.9	1182.8	1183.7	1183.7	1182.8	1181.9	1180.9	1180.0
157.5°	1216.8	1217.5	1218.2	1218.2	1217.4	1216.6	1215.8	1215.0
160°	1238.3	1239.0	1239.7	1239.5	1238.3	1237.2	1236.1	1234.9
162.5°	1257.7	1258.9	1260.2	1260.3	1259.1	1257.9	1256.8	1255.6
165°	1283.3	1284.6	1286.0	1286.2	1285.3	1284.4	1283.4	1282.5
167.5°	1304.8	1306.2	1307.5	1307.5	1306.1	1304.7	1303.2	1301.8
170°	1316.4	1317.8	1319.2	1319.0	1317.4	1315.8	1314.2	1312.6
172.5°	1325.1	1326.6	1328.2	1328.2	1326.5	1324.9	1323.3	1321.7
175°	1334.4	1336.1	1337.7	1337.7	1336.1	1334.4	1332.8	1331.2
177.5°	1339.6	1341.0	1342.2	1342.1	1340.6	1339.2	1337.7	1336.2
180°	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5

(END OF REPORT)