

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: P332952-930

Luminaire Tested: **S124RDIP-S795D1205U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332952-930  
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: S124RDIP-S795D1205U930-4F0-1E-UDD-F  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1205 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6538.3 lumens  
Efficiency: N/A  
Efficacy: 114.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: General Diffuse

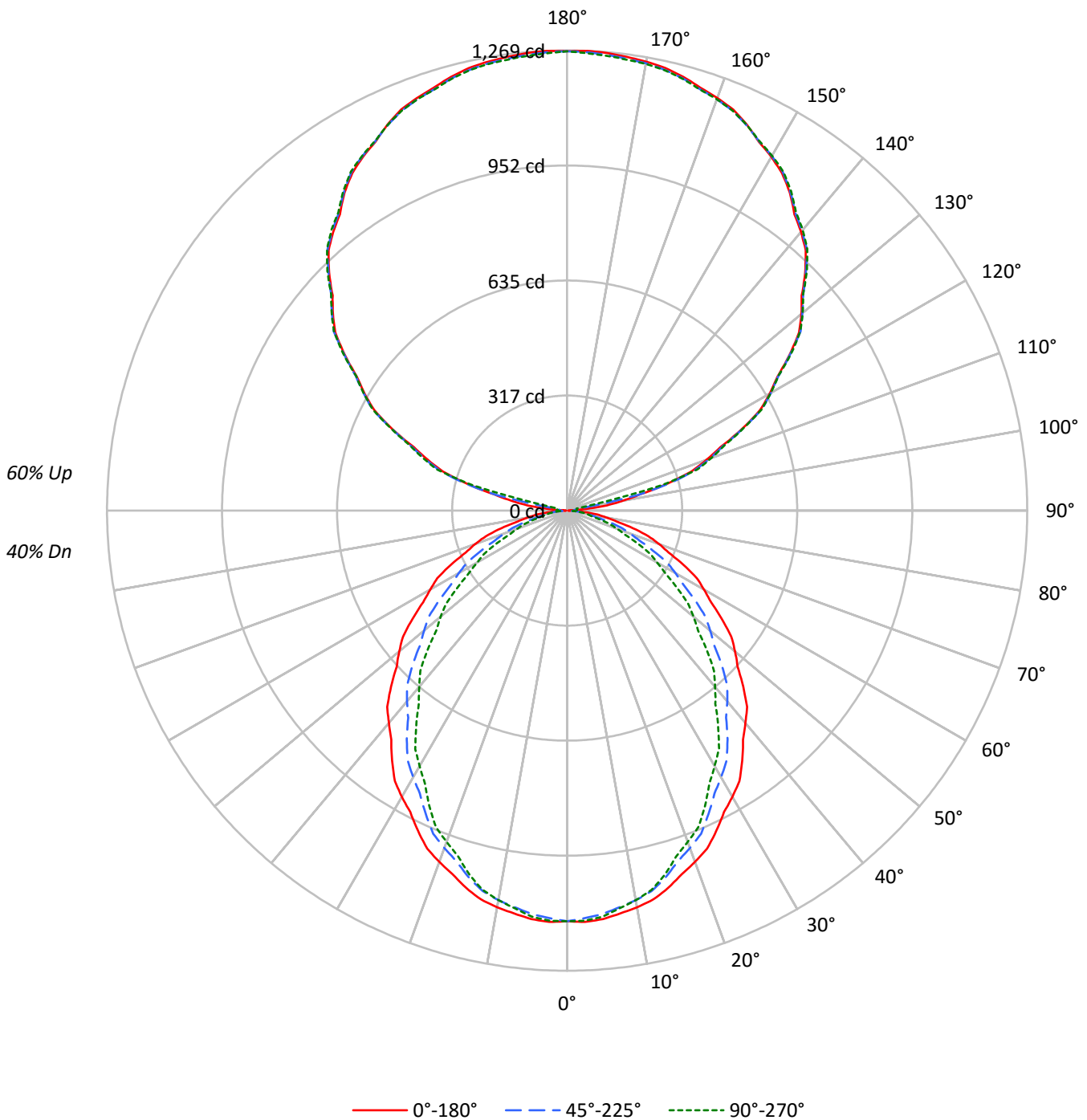
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	96	92	88	84	87	84	80	78	68	66	64	55	53	52	42	41	40	34
2	87	80	74	69	79	73	68	64	60	57	53	48	46	44	37	35	34	29
3	80	71	64	58	72	65	59	54	53	49	45	43	40	37	33	31	29	25
4	73	63	55	49	66	57	51	46	47	42	39	38	35	32	30	27	25	21
5	67	56	48	42	61	51	44	39	42	37	33	34	31	28	27	24	22	19
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	22	20	17
7	57	45	37	32	52	42	35	30	35	29	26	28	24	22	22	20	17	15
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	20	18	16	13
9	49	37	30	25	45	34	28	24	29	24	20	24	20	17	19	16	14	12
10	46	34	27	23	42	32	25	21	27	22	18	22	18	16	18	15	13	11

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

	0°	45°	90°
0°	9143	9143	9143
5°	9164	9052	9108
10°	9107	8943	8943
15°	9002	8756	8690
20°	8858	8508	8352
25°	8675	8219	8011
30°	8496	7914	7582
35°	8298	7597	7154
40°	8061	7238	6690
45°	7841	6882	6218
50°	7592	6469	5718
55°	7323	6042	5175
60°	7030	5572	4621
65°	6758	4988	4076
70°	6366	4338	3460
75°	5870	3599	2813
80°	5119	2738	2580
85°	4335	2492	2325



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.4	1.6
10°-20°	296.7	4.5
20°-30°	428.4	6.6
30°-40°	485.6	7.4
40°-50°	468.9	7.2
50°-60°	389.9	6.0
60°-70°	269.3	4.1
70°-80°	136.5	2.1
80°-90°	38.7	0.6
90°-100°	43.3	0.7
100°-110°	276.2	4.2
110°-120°	528.4	8.1
120°-130°	670.8	10.3
130°-140°	717.7	11.0
140°-150°	671.1	10.3
150°-160°	541.2	8.3
160°-170°	349.1	5.3
170°-180°	120.3	1.8
0°-30°	831.5	12.7
0°-40°	1317.1	20.1
0°-60°	2176.0	33.3
0°-90°	2620.4	40.1
90°-120°	847.9	13.0
90°-150°	2907.4	44.5
90°-180°	3918.0	59.9
0°-180°	6538.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1133	1133	1133	1133	1133	
5°	1131	1127	1117	1125	1124	107
15°	1077	1069	1048	1046	1040	303
25°	974	957	923	908	899	449
35°	842	813	771	742	726	526
45°	687	654	603	562	545	529
55°	520	484	429	386	368	465
65°	354	316	261	225	213	349
75°	188	156	115	96	90	199
85°	47	30	27	25	25	53
90°	3	13	21	26	28	5
95°	52	22	21	26	28	67
105°	285	291	296	302	270	298
115°	532	535	534	536	536	524
125°	748	752	750	753	754	668
135°	928	928	931	933	935	715
145°	1070	1073	1073	1074	1076	669
155°	1174	1174	1172	1175	1173	541
165°	1238	1234	1234	1240	1232	350
175°	1267	1261	1262	1269	1259	121
180°	1267	1267	1267	1267	1267	



TEST NUMBER: P332952-930

CATALOG NUMBER: S124RDIP-S795D1205U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6
2.5°	1135.4	1134.7	1134.1	1133.5	1132.9	1131.7	1130.0	1128.4	1126.7	1124.9	1126.7
5°	1130.8	1130.1	1129.3	1128.5	1127.7	1126.3	1123.9	1121.6	1119.2	1117.0	1118.9
7.5°	1120.6	1119.8	1119.0	1118.2	1117.4	1115.5	1112.5	1109.5	1106.4	1103.4	1104.6
10°	1110.9	1109.9	1109.0	1108.0	1107.0	1104.8	1101.4	1097.9	1094.5	1091.0	1091.7
12.5°	1098.4	1097.3	1096.2	1095.0	1094.0	1091.4	1087.3	1083.1	1079.0	1075.0	1075.5
15°	1077.1	1075.4	1073.6	1071.9	1070.2	1066.9	1062.0	1057.2	1052.4	1047.6	1047.2
17.5°	1051.2	1048.7	1046.2	1043.7	1041.2	1037.1	1031.3	1025.5	1019.7	1013.9	1012.8
20°	1031.1	1028.6	1026.1	1023.6	1021.1	1016.6	1010.0	1003.5	996.9	990.3	988.8
22.5°	1008.9	1006.1	1003.3	1000.5	997.7	992.7	985.7	978.7	971.7	964.7	962.4
25°	973.9	970.4	966.9	963.4	960.0	954.3	946.4	938.5	930.6	922.7	919.4
27.5°	937.1	932.8	928.4	924.1	919.7	913.3	904.8	896.4	887.9	879.5	875.5
30°	911.4	906.6	901.8	897.0	892.2	885.3	876.2	867.2	858.0	849.0	844.2
32.5°	884.4	879.0	873.5	868.0	862.7	855.2	845.9	836.5	827.1	817.7	812.2
35°	842.0	835.9	829.7	823.5	817.4	809.5	799.9	790.2	780.6	770.9	764.4
37.5°	796.8	790.4	784.1	777.7	771.4	762.9	752.2	741.5	730.8	720.2	712.8
40°	764.9	758.6	752.2	745.8	739.5	730.8	719.7	708.8	697.8	686.8	678.7
42.5°	734.3	727.7	721.1	714.4	707.7	698.6	687.2	675.7	664.3	652.8	644.6
45°	686.8	679.7	672.5	665.4	658.3	649.0	637.4	625.8	614.2	602.8	593.3
47.5°	637.7	630.4	623.1	615.6	608.3	598.6	586.6	574.5	562.6	550.5	540.7
50°	604.5	597.0	589.4	581.9	574.4	564.4	552.1	539.8	527.4	515.1	505.5
52.5°	570.5	563.1	555.7	548.4	541.0	531.0	518.4	505.7	493.1	480.5	470.7
55°	520.3	512.6	504.9	497.2	489.5	479.4	466.8	454.3	441.8	429.3	419.2
57.5°	470.8	462.7	454.7	446.7	438.6	428.4	416.1	403.8	391.5	379.1	369.0
60°	435.4	427.6	420.0	412.2	404.5	394.5	382.1	369.8	357.5	345.1	335.1
62.5°	403.4	395.4	387.4	379.4	371.4	361.0	348.4	335.7	323.1	310.5	301.2
65°	353.8	345.5	337.2	329.0	320.7	310.4	298.0	285.7	273.4	261.1	252.7
67.5°	302.3	294.4	286.4	278.5	270.5	260.9	249.4	238.0	226.5	215.1	207.9
70°	269.7	261.6	253.5	245.4	237.3	227.8	216.8	205.8	194.9	183.8	177.5
72.5°	235.1	227.7	220.4	213.0	205.7	196.9	186.5	176.1	165.8	155.4	149.9
75°	188.2	181.1	173.9	166.8	159.6	151.6	142.5	133.5	124.4	115.4	110.9
77.5°	140.6	134.6	128.6	122.5	116.4	109.7	102.5	95.1	87.8	80.5	77.9
80°	110.1	104.5	99.0	93.4	87.8	82.1	76.3	70.5	64.7	58.9	58.4
82.5°	83.8	78.7	73.5	68.4	63.3	59.0	55.8	52.4	49.1	45.8	45.3
85°	46.8	43.0	39.1	35.3	31.4	29.2	28.6	28.0	27.5	26.9	26.5
87.5°	16.6	15.7	15.0	14.2	13.5	13.1	13.4	13.5	13.7	13.9	13.9
90°	2.9	5.1	7.5	9.8	12.1	14.1	15.8	17.4	19.2	20.9	22.1
92.5°	11.9	12.1	12.2	12.3	12.5	13.4	15.0	16.7	18.4	20.1	21.4
95°	52.1	44.9	37.7	30.7	23.5	20.0	20.2	20.4	20.6	20.9	22.1
97.5°	110.6	115.1	119.6	124.0	128.5	119.0	95.5	72.0	48.5	25.0	25.1
100°	155.4	159.1	163.0	166.7	170.6	157.9	128.8	99.8	70.8	41.7	38.1
102.5°	205.4	208.1	210.9	213.7	216.5	216.0	212.2	208.4	204.6	200.8	162.2
105°	285.1	286.4	287.6	288.9	290.2	291.4	292.4	293.4	294.5	295.5	297.5
107.5°	359.2	359.9	360.5	361.1	361.7	362.8	364.2	365.7	367.0	368.5	369.4
110°	409.3	409.9	410.5	411.2	411.8	412.7	414.0	415.2	416.5	417.8	418.2



TEST NUMBER: P332952-930

CATALOG NUMBER: S124RDIP-S795D1205U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	457.8	458.9	460.0	461.1	462.3	463.2	463.7	464.3	465.0	465.5	465.5
115°	532.4	533.0	533.7	534.3	534.9	535.2	534.9	534.8	534.5	534.3	534.8
117.5°	599.7	600.5	601.4	602.2	603.0	603.6	604.1	604.6	605.1	605.5	605.4
120°	645.1	646.0	646.9	647.7	648.5	648.8	648.7	648.4	648.2	648.0	648.4
122.5°	687.5	688.1	688.6	689.1	689.6	690.0	690.3	690.6	690.9	691.2	691.5
125°	748.4	749.3	750.1	750.9	751.8	752.0	751.5	751.1	750.7	750.3	750.9
127.5°	806.0	806.2	806.4	806.7	806.8	807.4	808.4	809.3	810.3	811.3	811.1
130°	843.1	843.3	843.6	843.8	844.0	844.4	845.1	845.6	846.3	846.9	847.1
132.5°	877.3	877.6	878.0	878.4	878.7	879.4	880.1	880.9	881.7	882.6	882.7
135°	928.4	928.2	928.0	927.7	927.6	927.9	928.7	929.5	930.4	931.2	931.6
137.5°	973.7	973.8	973.9	974.0	974.0	974.5	975.4	976.4	977.3	978.2	978.7
140°	1003.2	1003.6	1004.0	1004.5	1004.9	1005.3	1005.8	1006.2	1006.6	1007.1	1007.6
142.5°	1029.7	1030.5	1031.3	1032.0	1032.8	1033.3	1033.6	1033.8	1034.0	1034.3	1034.8
145°	1070.5	1071.1	1071.8	1072.4	1073.0	1073.3	1073.3	1073.3	1073.3	1073.3	1073.6
147.5°	1102.9	1104.1	1105.2	1106.4	1107.6	1108.1	1107.9	1107.7	1107.4	1107.3	1107.4
150°	1126.4	1127.2	1128.0	1128.9	1129.8	1130.1	1129.8	1129.7	1129.4	1129.2	1129.2
152.5°	1146.1	1146.8	1147.5	1148.1	1148.8	1148.9	1148.6	1148.2	1147.8	1147.5	1147.8
155°	1173.8	1173.9	1174.2	1174.4	1174.6	1174.4	1173.8	1173.1	1172.5	1171.8	1172.7
157.5°	1197.0	1196.9	1196.8	1196.7	1196.5	1196.1	1195.4	1194.7	1194.0	1193.3	1194.3
160°	1210.7	1210.1	1209.4	1208.8	1208.2	1207.8	1207.5	1207.3	1207.1	1206.9	1208.2
162.5°	1222.8	1222.1	1221.2	1220.4	1219.6	1219.1	1218.9	1218.7	1218.5	1218.3	1219.5
165°	1238.2	1237.1	1236.1	1235.0	1234.0	1233.5	1233.5	1233.5	1233.5	1233.5	1235.1
167.5°	1250.3	1249.2	1248.1	1247.0	1245.9	1245.3	1245.2	1245.0	1245.0	1244.8	1246.7
170°	1257.1	1255.9	1254.6	1253.4	1252.1	1251.6	1251.7	1252.0	1252.1	1252.4	1254.1
172.5°	1261.7	1260.4	1259.1	1257.8	1256.6	1256.1	1256.3	1256.5	1256.7	1256.9	1258.6
175°	1266.6	1265.3	1264.0	1262.8	1261.5	1261.0	1261.2	1261.4	1261.7	1261.8	1263.7
177.5°	1268.9	1267.7	1266.5	1265.3	1264.1	1263.7	1264.0	1264.4	1264.8	1265.1	1266.4
180°	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6



TEST NUMBER: P332952-930

CATALOG NUMBER: S124RDIP-S795D1205U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6
2.5°	1128.4	1130.0	1131.7	1132.5	1132.4	1132.2	1132.0	1131.9
5°	1120.8	1122.7	1124.7	1125.4	1125.0	1124.7	1124.3	1123.9
7.5°	1105.9	1107.2	1108.4	1108.6	1108.1	1107.4	1106.9	1106.2
10°	1092.5	1093.2	1094.1	1094.1	1093.2	1092.5	1091.7	1091.0
12.5°	1076.0	1076.4	1076.8	1076.5	1075.5	1074.4	1073.3	1072.2
15°	1046.8	1046.4	1046.0	1045.2	1043.8	1042.4	1041.1	1039.8
17.5°	1011.8	1010.7	1009.6	1008.0	1006.0	1004.0	1001.9	999.9
20°	987.2	985.7	984.1	982.2	979.7	977.1	974.6	972.2
22.5°	960.1	957.7	955.4	953.2	951.2	949.2	947.1	945.1
25°	916.2	912.9	909.6	907.0	905.1	903.2	901.2	899.3
27.5°	871.4	867.4	863.3	859.9	857.1	854.4	851.6	848.8
30°	839.4	834.5	829.7	825.7	822.7	819.6	816.5	813.4
32.5°	806.6	801.0	795.4	791.2	788.2	785.3	782.4	779.4
35°	757.8	751.3	744.8	739.7	736.3	732.8	729.3	725.9
37.5°	705.5	698.1	690.8	685.4	682.0	678.5	675.1	671.6
40°	670.7	662.5	654.4	648.7	645.2	641.7	638.3	634.8
42.5°	636.3	628.1	619.9	613.9	610.3	606.7	603.1	599.4
45°	583.8	574.4	564.9	558.5	555.0	551.5	548.0	544.6
47.5°	530.9	521.1	511.4	504.5	500.8	496.9	493.1	489.3
50°	495.9	486.2	476.5	469.9	466.3	462.6	458.9	455.3
52.5°	460.9	451.1	441.2	434.5	430.6	426.8	423.1	419.2
55°	409.2	399.2	389.2	382.4	378.7	375.0	371.4	367.7
57.5°	358.8	348.6	338.4	332.0	329.2	326.4	323.7	320.9
60°	325.1	315.1	305.1	298.5	295.5	292.4	289.3	286.2
62.5°	292.0	282.7	273.5	267.6	265.1	262.7	260.2	257.7
65°	244.4	236.2	227.9	222.6	220.3	217.9	215.6	213.4
67.5°	200.8	193.7	186.5	181.7	179.2	176.6	174.1	171.5
70°	171.1	164.8	158.4	154.3	152.4	150.4	148.5	146.6
72.5°	144.6	139.1	133.6	130.0	128.3	126.5	124.7	122.9
75°	106.5	102.1	97.6	94.8	93.7	92.5	91.3	90.2
77.5°	75.3	72.7	70.1	68.6	68.3	68.0	67.7	67.3
80°	57.8	57.2	56.7	56.3	56.1	55.8	55.7	55.5
82.5°	44.9	44.5	44.1	43.8	43.6	43.4	43.2	43.0
85°	26.1	25.8	25.4	25.1	25.1	25.1	25.1	25.1
87.5°	14.1	14.2	14.3	14.4	14.7	14.9	15.2	15.4
90°	23.4	24.6	25.9	26.7	27.1	27.6	28.0	28.5
92.5°	22.6	23.9	25.1	25.8	25.9	26.0	26.1	26.2
95°	23.4	24.6	25.9	26.7	26.8	27.1	27.2	27.5
97.5°	25.3	25.4	25.5	25.7	25.9	26.1	26.3	26.5
100°	34.5	31.0	27.4	25.7	25.9	26.1	26.3	26.5
102.5°	123.6	85.0	46.4	27.1	27.1	27.2	27.2	27.3
105°	299.4	301.3	303.1	300.3	292.7	285.1	277.6	270.0
107.5°	370.4	371.3	372.2	373.1	373.9	374.7	375.4	376.3
110°	418.7	419.1	419.5	420.0	420.6	421.3	421.9	422.5





TEST NUMBER: P332952-930

CATALOG NUMBER: S124RDIP-S795D1205U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	465.4	465.3	465.2	465.5	466.4	467.2	468.0	468.7
115°	535.2	535.6	536.0	536.2	536.2	536.2	536.2	536.2
117.5°	605.4	605.3	605.2	605.1	605.0	605.0	604.9	604.8
120°	648.8	649.2	649.6	649.6	649.2	648.8	648.4	648.0
122.5°	691.7	691.9	692.2	692.1	691.7	691.3	690.8	690.4
125°	751.5	752.2	752.8	753.3	753.4	753.7	753.9	754.1
127.5°	811.1	810.9	810.8	810.7	810.5	810.3	810.2	810.0
130°	847.3	847.6	847.7	847.8	847.8	847.8	847.8	847.8
132.5°	883.0	883.2	883.4	883.4	883.2	883.1	882.9	882.7
135°	932.1	932.5	932.9	933.4	933.8	934.2	934.6	935.0
137.5°	979.2	979.6	980.1	980.2	980.2	980.0	979.8	979.7
140°	1008.3	1008.9	1009.6	1010.0	1010.2	1010.4	1010.6	1010.8
142.5°	1035.3	1035.7	1036.2	1036.4	1036.5	1036.5	1036.6	1036.6
145°	1073.7	1074.0	1074.2	1074.5	1074.9	1075.3	1075.8	1076.2
147.5°	1107.6	1107.7	1107.9	1108.1	1108.3	1108.6	1108.7	1109.0
150°	1129.2	1129.2	1129.2	1129.4	1129.5	1129.8	1130.0	1130.2
152.5°	1148.1	1148.4	1148.8	1148.8	1148.8	1148.6	1148.5	1148.3
155°	1173.5	1174.4	1175.3	1175.3	1174.7	1174.0	1173.5	1172.8
157.5°	1195.5	1196.5	1197.7	1197.7	1196.5	1195.5	1194.3	1193.3
160°	1209.4	1210.7	1211.9	1211.9	1210.7	1209.4	1208.2	1206.9
162.5°	1220.8	1222.1	1223.4	1223.3	1221.8	1220.4	1219.0	1217.5
165°	1236.8	1238.5	1240.2	1240.1	1238.2	1236.2	1234.4	1232.5
167.5°	1248.5	1250.3	1252.2	1252.1	1250.0	1247.9	1245.8	1243.7
170°	1255.7	1257.4	1259.1	1258.9	1256.8	1254.7	1252.6	1250.5
172.5°	1260.3	1262.0	1263.6	1263.4	1261.1	1258.8	1256.5	1254.3
175°	1265.7	1267.5	1269.4	1269.1	1266.6	1264.0	1261.5	1259.0
177.5°	1267.8	1269.1	1270.5	1270.2	1268.1	1266.1	1264.0	1262.1
180°	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6

(END OF REPORT)