

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: P332952-927

Luminaire Tested: **S124RDIP-S795D1205U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332952-927
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-S795D1205U927-4F0-1E-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: 6352.9 lumens
Efficiency: N/A
Efficacy: 111.7 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

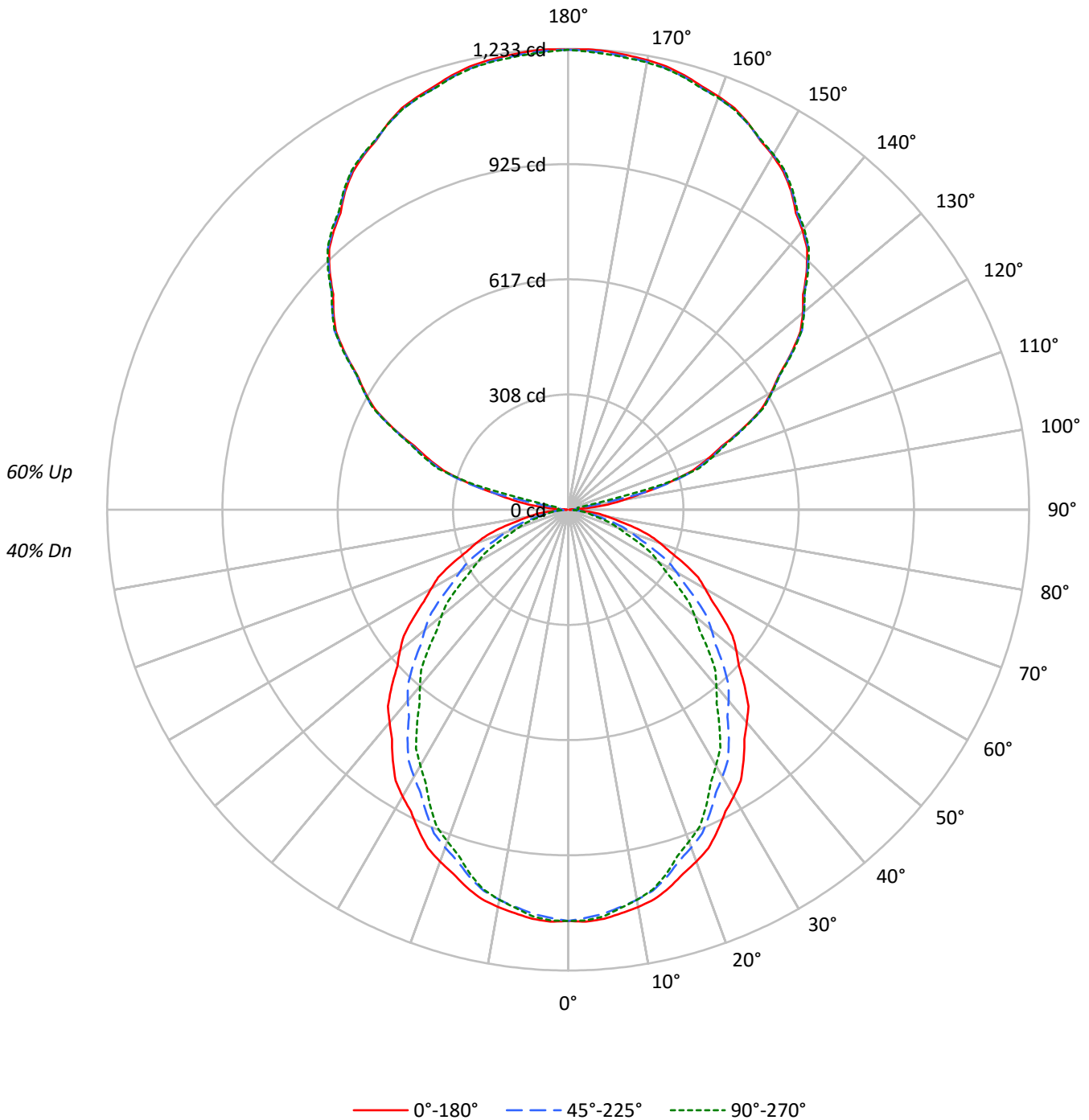
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8884	8884	8884
5°	8904	8795	8849
10°	8848	8689	8689
15°	8747	8507	8444
20°	8607	8267	8115
25°	8429	7986	7783
30°	8255	7690	7368
35°	8064	7383	6951
40°	7832	7032	6500
45°	7618	6687	6042
50°	7376	6286	5556
55°	7116	5871	5029
60°	6830	5414	4490
65°	6567	4846	3960
70°	6187	4216	3361
75°	5702	3497	2732
80°	4974	2664	2506
85°	4215	2418	2260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.4	1.6
10°-20°	288.3	4.5
20°-30°	416.3	6.6
30°-40°	471.8	7.4
40°-50°	455.6	7.2
50°-60°	378.9	6.0
60°-70°	261.6	4.1
70°-80°	132.6	2.1
80°-90°	37.6	0.6
90°-100°	42.1	0.7
100°-110°	268.4	4.2
110°-120°	513.4	8.1
120°-130°	651.7	10.3
130°-140°	697.3	11.0
140°-150°	652.1	10.3
150°-160°	525.8	8.3
160°-170°	339.2	5.3
170°-180°	116.9	1.8
0°-30°	807.9	12.7
0°-40°	1279.7	20.1
0°-60°	2114.3	33.3
0°-90°	2546.1	40.1
90°-120°	823.9	13.0
90°-150°	2825.0	44.5
90°-180°	3807.0	59.9
0°-180°	6352.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1099	1095	1085	1093	1092	104
15°	1047	1038	1018	1016	1010	295
25°	946	930	896	883	874	436
35°	818	790	749	721	705	511
45°	667	635	586	546	529	514
55°	506	471	417	375	357	452
65°	344	307	254	219	207	339
75°	183	151	112	93	88	193
85°	46	29	26	24	24	51
90°	3	13	20	26	28	5
95°	51	21	20	26	27	65
105°	277	282	287	293	262	290
115°	517	520	519	521	521	509
125°	727	731	729	732	733	649
135°	902	901	905	907	908	695
145°	1040	1043	1043	1044	1046	650
155°	1140	1141	1139	1142	1140	526
165°	1203	1199	1198	1205	1198	340
175°	1231	1226	1226	1233	1223	117
180°	1231	1231	1231	1231	1231	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5
2.5°	1103.2	1102.6	1101.9	1101.4	1100.7	1099.6	1098.0	1096.4	1094.7	1093.1	1094.7
5°	1098.8	1098.0	1097.3	1096.5	1095.7	1094.3	1092.0	1089.8	1087.5	1085.3	1087.2
7.5°	1088.9	1088.1	1087.3	1086.5	1085.7	1083.9	1080.9	1078.0	1075.1	1072.1	1073.3
10°	1079.4	1078.5	1077.5	1076.6	1075.6	1073.5	1070.2	1066.8	1063.4	1060.0	1060.7
12.5°	1067.2	1066.2	1065.1	1064.0	1063.0	1060.4	1056.5	1052.4	1048.5	1044.5	1045.0
15°	1046.6	1044.9	1043.1	1041.5	1039.8	1036.6	1031.9	1027.2	1022.5	1017.9	1017.5
17.5°	1021.4	1019.0	1016.5	1014.2	1011.7	1007.7	1002.0	996.4	990.8	985.2	984.1
20°	1001.9	999.4	997.0	994.6	992.1	987.8	981.4	975.0	968.6	962.3	960.8
22.5°	980.3	977.6	974.9	972.1	969.4	964.6	957.7	950.9	944.1	937.3	935.1
25°	946.3	942.9	939.5	936.1	932.8	927.2	919.6	911.9	904.2	896.5	893.3
27.5°	910.5	906.3	902.1	897.9	893.6	887.4	879.2	871.0	862.8	854.6	850.6
30°	885.6	880.9	876.2	871.6	866.9	860.2	851.4	842.6	833.7	824.9	820.2
32.5°	859.3	854.1	848.7	843.4	838.2	831.0	821.9	812.8	803.7	794.6	789.2
35°	818.2	812.2	806.2	800.2	794.2	786.6	777.2	767.8	758.4	749.1	742.8
37.5°	774.2	768.0	761.8	755.7	749.5	741.2	730.9	720.5	710.1	699.7	692.6
40°	743.2	737.0	730.9	724.7	718.5	710.0	699.3	688.7	678.0	667.3	659.5
42.5°	713.5	707.0	700.6	694.1	687.6	678.8	667.7	656.6	645.5	634.3	626.3
45°	667.3	660.4	653.5	646.6	639.6	630.6	619.3	608.1	596.8	585.7	576.5
47.5°	619.6	612.5	605.4	598.2	591.0	581.6	570.0	558.3	546.6	534.9	525.4
50°	587.3	580.0	572.7	565.4	558.1	548.4	536.5	524.5	512.5	500.5	491.2
52.5°	554.3	547.2	540.0	532.8	525.7	515.9	503.7	491.4	479.1	466.8	457.3
55°	505.6	498.0	490.6	483.1	475.6	465.8	453.6	441.4	429.3	417.1	407.3
57.5°	457.4	449.6	441.8	434.0	426.2	416.3	404.3	392.4	380.4	368.4	358.5
60°	423.0	415.5	408.1	400.5	393.0	383.3	371.3	359.3	347.4	335.3	325.6
62.5°	392.0	384.2	376.4	368.6	360.8	350.8	338.5	326.2	313.9	301.7	292.6
65°	343.8	335.7	327.6	319.6	311.6	301.6	289.5	277.6	265.6	253.7	245.6
67.5°	293.7	286.1	278.3	270.6	262.8	253.5	242.3	231.2	220.1	209.0	202.0
70°	262.1	254.2	246.3	238.4	230.6	221.3	210.6	199.9	189.3	178.6	172.5
72.5°	228.4	221.3	214.1	207.0	199.9	191.3	181.3	171.1	161.1	151.0	145.7
75°	182.8	175.9	169.0	162.1	155.1	147.3	138.5	129.7	120.9	112.1	107.7
77.5°	136.7	130.8	124.9	119.1	113.1	106.6	99.6	92.4	85.3	78.2	75.7
80°	107.0	101.6	96.2	90.7	85.3	79.8	74.1	68.5	62.9	57.3	56.7
82.5°	81.4	76.4	71.5	66.5	61.5	57.4	54.2	50.9	47.7	44.5	44.0
85°	45.5	41.7	38.0	34.3	30.5	28.4	27.8	27.3	26.7	26.1	25.7
87.5°	16.1	15.3	14.6	13.8	13.1	12.8	13.0	13.2	13.3	13.5	13.5
90°	2.8	5.0	7.3	9.5	11.7	13.7	15.4	17.0	18.6	20.3	21.5
92.5°	11.6	11.7	11.9	12.0	12.1	13.0	14.6	16.2	17.9	19.5	20.8
95°	50.6	43.6	36.7	29.8	22.8	19.4	19.6	19.8	20.0	20.3	21.5
97.5°	107.5	111.9	116.2	120.5	124.8	115.6	92.8	69.9	47.1	24.3	24.4
100°	151.0	154.6	158.4	162.0	165.7	153.4	125.2	97.0	68.8	40.5	37.0
102.5°	199.6	202.2	204.9	207.6	210.3	209.8	206.2	202.5	198.8	195.1	157.6
105°	277.0	278.3	279.5	280.7	281.9	283.1	284.2	285.1	286.1	287.2	289.1
107.5°	349.0	349.7	350.3	350.9	351.5	352.5	353.9	355.3	356.6	358.1	358.9
110°	397.7	398.2	398.9	399.5	400.1	401.0	402.3	403.5	404.7	405.9	406.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	444.8	445.9	446.9	448.1	449.2	450.0	450.6	451.1	451.8	452.3	452.3
115°	517.3	517.9	518.6	519.1	519.8	520.0	519.8	519.6	519.4	519.1	519.6
117.5°	582.7	583.4	584.3	585.1	585.9	586.5	587.0	587.5	588.0	588.4	588.3
120°	626.9	627.6	628.5	629.3	630.1	630.4	630.3	630.0	629.8	629.6	630.0
122.5°	668.0	668.6	669.1	669.6	670.0	670.4	670.7	671.0	671.3	671.6	671.8
125°	727.1	728.0	728.8	729.6	730.5	730.6	730.2	729.8	729.4	729.0	729.6
127.5°	783.2	783.3	783.5	783.8	783.9	784.5	785.4	786.4	787.3	788.3	788.1
130°	819.2	819.4	819.7	819.8	820.1	820.5	821.1	821.7	822.3	822.9	823.1
132.5°	852.4	852.7	853.1	853.5	853.8	854.4	855.2	856.0	856.7	857.5	857.7
135°	902.1	901.9	901.7	901.4	901.3	901.6	902.4	903.2	904.0	904.8	905.2
137.5°	946.1	946.2	946.3	946.3	946.4	946.9	947.8	948.7	949.6	950.5	950.9
140°	974.8	975.2	975.6	976.0	976.4	976.8	977.2	977.6	978.0	978.5	979.1
142.5°	1000.5	1001.3	1002.0	1002.7	1003.5	1004.0	1004.2	1004.5	1004.7	1005.0	1005.4
145°	1040.1	1040.8	1041.4	1042.0	1042.6	1042.9	1042.9	1042.9	1042.9	1042.9	1043.1
147.5°	1071.6	1072.8	1073.9	1075.1	1076.2	1076.7	1076.5	1076.3	1076.0	1075.9	1076.0
150°	1094.5	1095.3	1096.1	1096.9	1097.7	1098.0	1097.8	1097.6	1097.4	1097.2	1097.2
152.5°	1113.6	1114.3	1114.9	1115.6	1116.2	1116.3	1116.0	1115.6	1115.2	1114.9	1115.2
155°	1140.5	1140.7	1140.9	1141.1	1141.3	1141.1	1140.5	1139.9	1139.2	1138.6	1139.5
157.5°	1163.1	1163.0	1162.8	1162.8	1162.6	1162.2	1161.5	1160.9	1160.2	1159.4	1160.5
160°	1176.4	1175.8	1175.1	1174.6	1173.9	1173.5	1173.3	1173.1	1172.9	1172.7	1173.9
162.5°	1188.1	1187.4	1186.6	1185.8	1185.0	1184.6	1184.3	1184.2	1183.9	1183.8	1184.9
165°	1203.1	1202.1	1201.0	1200.0	1199.0	1198.5	1198.5	1198.5	1198.5	1198.5	1200.1
167.5°	1214.8	1213.8	1212.8	1211.6	1210.6	1210.0	1209.9	1209.7	1209.7	1209.5	1211.3
170°	1221.5	1220.3	1219.0	1217.8	1216.6	1216.1	1216.2	1216.5	1216.6	1216.9	1218.5
172.5°	1225.9	1224.6	1223.4	1222.2	1221.0	1220.4	1220.7	1220.9	1221.1	1221.3	1222.9
175°	1230.7	1229.5	1228.2	1227.0	1225.7	1225.3	1225.4	1225.7	1225.9	1226.1	1227.9
177.5°	1232.9	1231.8	1230.6	1229.5	1228.3	1227.9	1228.2	1228.5	1228.9	1229.2	1230.5
180°	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5
2.5°	1096.4	1098.0	1099.6	1100.4	1100.3	1100.1	1099.9	1099.8
5°	1089.0	1090.9	1092.8	1093.5	1093.1	1092.8	1092.4	1092.0
7.5°	1074.5	1075.8	1077.0	1077.2	1076.7	1076.0	1075.5	1074.8
10°	1061.5	1062.2	1063.0	1063.0	1062.2	1061.5	1060.7	1060.0
12.5°	1045.4	1045.8	1046.3	1046.0	1045.0	1043.9	1042.8	1041.8
15°	1017.2	1016.8	1016.4	1015.6	1014.2	1012.9	1011.6	1010.3
17.5°	983.1	982.1	981.0	979.5	977.5	975.5	973.5	971.5
20°	959.3	957.7	956.2	954.3	951.9	949.4	947.0	944.6
22.5°	932.9	930.6	928.4	926.2	924.2	922.3	920.3	918.3
25°	890.2	887.0	883.8	881.3	879.4	877.6	875.7	873.8
27.5°	846.7	842.8	838.8	835.5	832.8	830.1	827.4	824.7
30°	815.6	810.9	806.2	802.3	799.4	796.4	793.4	790.4
32.5°	783.7	778.3	772.9	768.7	765.9	763.0	760.2	757.3
35°	736.3	730.0	723.7	718.7	715.4	712.0	708.6	705.3
37.5°	685.5	678.3	671.2	666.0	662.7	659.3	655.9	652.5
40°	651.6	643.7	635.9	630.3	626.9	623.5	620.2	616.8
42.5°	618.3	610.3	602.3	596.5	592.9	589.5	586.0	582.4
45°	567.3	558.1	548.9	542.6	539.2	535.9	532.5	529.2
47.5°	515.9	506.4	496.9	490.2	486.6	482.8	479.1	475.4
50°	481.8	472.5	463.0	456.6	453.0	449.5	445.9	442.4
52.5°	447.8	438.3	428.7	422.2	418.4	414.7	411.1	407.3
55°	397.6	387.9	378.2	371.5	368.0	364.4	360.8	357.3
57.5°	348.6	338.7	328.8	322.6	319.9	317.2	314.5	311.8
60°	315.9	306.2	296.4	290.0	287.1	284.1	281.1	278.1
62.5°	283.7	274.7	265.7	260.0	257.6	255.2	252.8	250.4
65°	237.5	229.5	221.4	216.3	214.0	211.8	209.5	207.3
67.5°	195.1	188.2	181.3	176.6	174.1	171.6	169.1	166.7
70°	166.3	160.1	153.9	149.9	148.1	146.2	144.3	142.4
72.5°	140.5	135.1	129.8	126.4	124.7	122.9	121.2	119.5
75°	103.5	99.2	94.8	92.1	91.0	89.9	88.7	87.6
77.5°	73.2	70.7	68.1	66.7	66.4	66.1	65.8	65.4
80°	56.2	55.6	55.1	54.7	54.5	54.3	54.1	53.9
82.5°	43.6	43.3	42.9	42.5	42.4	42.1	42.0	41.8
85°	25.3	25.0	24.6	24.4	24.4	24.4	24.4	24.4
87.5°	13.7	13.8	13.9	14.0	14.3	14.5	14.7	15.0
90°	22.7	23.9	25.2	26.0	26.4	26.8	27.2	27.6
92.5°	21.9	23.2	24.4	25.1	25.2	25.3	25.3	25.4
95°	22.7	23.9	25.2	25.9	26.1	26.3	26.5	26.7
97.5°	24.6	24.6	24.8	25.0	25.2	25.3	25.6	25.7
100°	33.5	30.1	26.6	25.0	25.2	25.3	25.6	25.7
102.5°	120.1	82.6	45.1	26.4	26.4	26.5	26.5	26.5
105°	290.9	292.7	294.5	291.8	284.4	277.0	269.7	262.4
107.5°	359.9	360.8	361.6	362.5	363.3	364.1	364.8	365.6
110°	406.8	407.2	407.6	408.1	408.7	409.3	410.0	410.5



TEST NUMBER: P332952-927

CATALOG NUMBER: S124RDIP-S795D1205U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	452.2	452.1	452.0	452.3	453.1	453.9	454.7	455.4
115°	520.0	520.4	520.8	521.0	521.0	521.0	521.0	521.0
117.5°	588.2	588.1	588.0	588.0	587.9	587.8	587.7	587.6
120°	630.4	630.8	631.2	631.2	630.8	630.4	630.0	629.6
122.5°	672.1	672.3	672.6	672.5	672.1	671.7	671.2	670.8
125°	730.2	730.9	731.5	731.9	732.1	732.3	732.5	732.7
127.5°	788.1	787.9	787.8	787.7	787.5	787.3	787.2	787.0
130°	823.3	823.6	823.7	823.8	823.8	823.8	823.8	823.8
132.5°	857.9	858.2	858.3	858.3	858.2	858.0	857.9	857.7
135°	905.6	906.0	906.5	906.9	907.3	907.7	908.1	908.5
137.5°	951.4	951.8	952.3	952.4	952.4	952.2	952.0	952.0
140°	979.7	980.3	981.0	981.4	981.5	981.8	981.9	982.1
142.5°	1005.9	1006.3	1006.8	1007.0	1007.1	1007.1	1007.2	1007.2
145°	1043.3	1043.5	1043.7	1044.0	1044.4	1044.8	1045.3	1045.7
147.5°	1076.2	1076.3	1076.5	1076.7	1076.9	1077.1	1077.3	1077.5
150°	1097.2	1097.2	1097.2	1097.3	1097.5	1097.7	1098.0	1098.1
152.5°	1115.6	1115.9	1116.2	1116.3	1116.2	1116.0	1115.9	1115.8
155°	1140.3	1141.1	1141.9	1142.0	1141.4	1140.7	1140.2	1139.6
157.5°	1161.6	1162.6	1163.7	1163.7	1162.6	1161.6	1160.5	1159.4
160°	1175.1	1176.4	1177.6	1177.6	1176.4	1175.1	1173.9	1172.7
162.5°	1186.2	1187.4	1188.7	1188.6	1187.2	1185.8	1184.4	1183.0
165°	1201.7	1203.4	1205.0	1204.9	1203.1	1201.2	1199.4	1197.5
167.5°	1213.1	1214.9	1216.7	1216.6	1214.6	1212.5	1210.5	1208.4
170°	1220.1	1221.8	1223.4	1223.2	1221.1	1219.1	1217.1	1215.0
172.5°	1224.6	1226.2	1227.8	1227.6	1225.3	1223.1	1220.9	1218.7
175°	1229.8	1231.6	1233.4	1233.1	1230.7	1228.2	1225.7	1223.3
177.5°	1231.8	1233.1	1234.5	1234.1	1232.2	1230.2	1228.2	1226.3
180°	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7

(END OF REPORT)