

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: P333070-927

Luminaire Tested: **S124RDIW-S795D1340U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333070-927  
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: S124RDIW-S795D1340U927-4F0-1E-UDD-F1  
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6232.0 lumens  
Efficiency: N/A  
Efficacy: 101.5 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

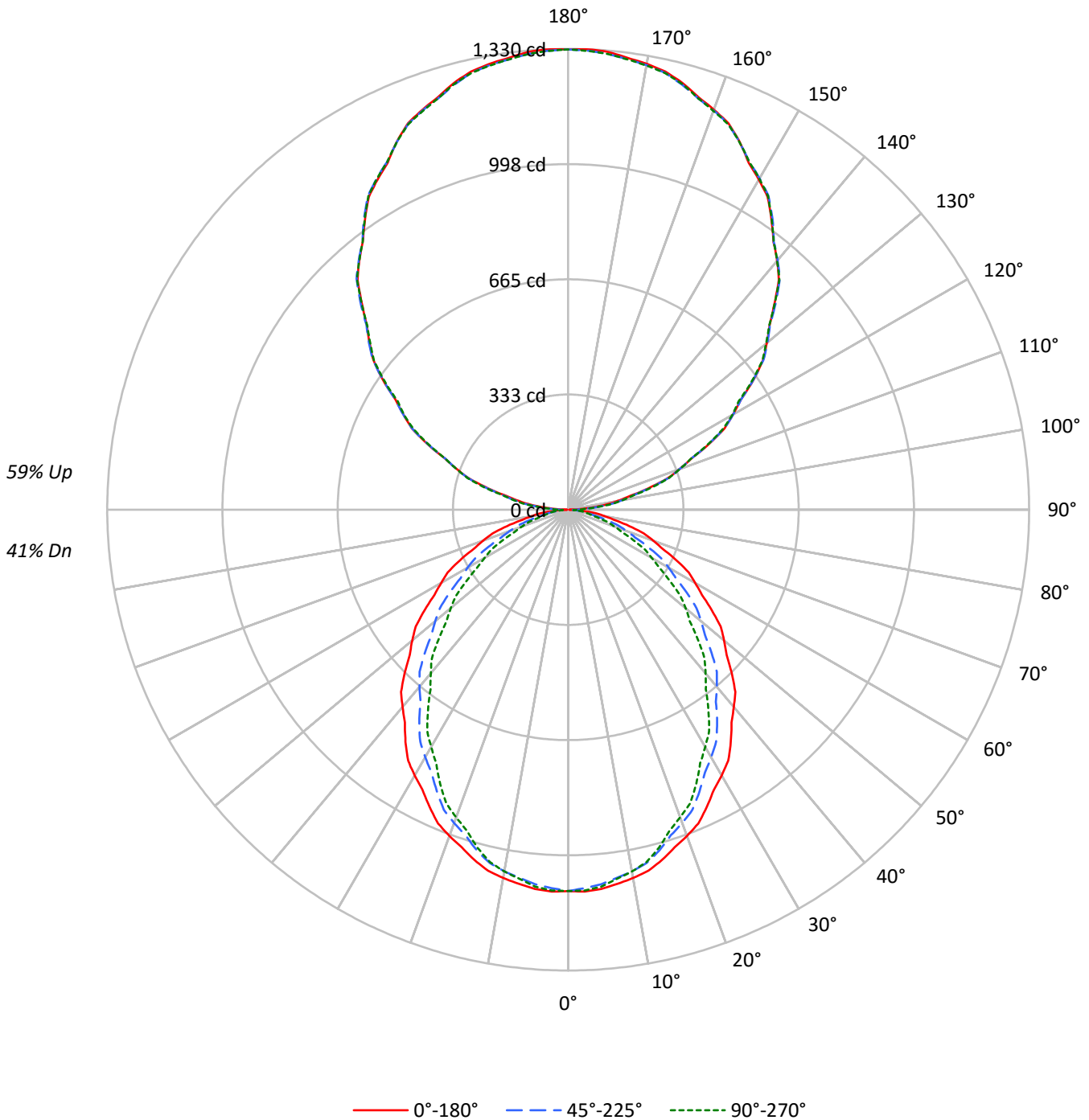
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20										
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																				
1	96	92	88	85	87	84	81	78	69	67	65	55	54	52	42	42	41	35																				
2	88	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30																				
3	80	71	64	58	73	65	59	54	54	49	45	43	40	37	34	31	30	25																				
4	73	63	55	49	66	58	51	46	48	43	39	39	35	32	30	28	26	22																				
5	67	56	48	42	61	51	44	39	43	38	34	35	31	28	27	25	22	19																				
6	62	50	42	37	56	46	39	34	38	33	29	31	27	25	25	22	20	17																				
7	57	45	38	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15																				
8	53	41	34	28	48	38	31	27	32	27	23	26	22	19	21	18	16	13																				
9	49	37	30	25	45	35	28	24	29	24	21	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	1.7
10°-20°	288.3	4.6
20°-30°	416.3	6.7
30°-40°	471.8	7.6
40°-50°	455.6	7.3
50°-60°	378.9	6.1
60°-70°	261.6	4.2
70°-80°	132.6	2.1
80°-90°	38.0	0.6
90°-100°	87.6	1.4
100°-110°	259.5	4.2
110°-120°	440.5	7.1
120°-130°	580.9	9.3
130°-140°	652.4	10.5
140°-150°	641.1	10.3
150°-160°	539.2	8.7
160°-170°	358.7	5.8
170°-180°	125.6	2.0
0°-30°	807.9	13.0
0°-40°	1279.7	20.5
0°-60°	2114.3	33.9
0°-90°	2546.5	40.9
90°-120°	787.7	12.6
90°-150°	2662.0	42.7
90°-180°	3686.0	59.1
0°-180°	6232.0	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	14	23	28	31	6
95°	62	71	78	81	81	69
105°	239	241	244	248	251	254
115°	448	448	446	445	444	442
125°	652	652	651	649	647	581
135°	841	847	848	845	842	651
145°	1022	1026	1027	1026	1023	639
155°	1171	1171	1170	1174	1170	539
165°	1275	1272	1270	1275	1272	359
175°	1326	1321	1320	1327	1320	126
180°	1328	1328	1328	1328	1328	



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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	15.4	14.7	14.0	13.3	13.1	13.3	13.5	13.7	13.9	14.1
90°	3.1	5.6	8.1	10.6	13.2	15.3	17.1	18.9	20.8	22.6	24.0
92.5°	22.0	24.9	27.7	30.6	33.5	35.6	36.8	38.1	39.4	40.7	41.5
95°	61.6	63.7	65.8	67.8	69.9	71.7	73.3	74.9	76.4	78.1	78.7
97.5°	107.7	109.3	111.0	112.6	114.2	116.0	117.9	119.8	121.6	123.5	124.3
100°	143.9	144.7	145.7	146.6	147.5	148.9	151.0	153.0	155.1	157.2	157.6
102.5°	181.6	182.0	182.4	182.8	183.1	184.2	186.1	188.0	189.8	191.7	192.3
105°	239.4	239.6	239.9	240.0	240.3	240.8	241.8	242.7	243.6	244.5	245.2
107.5°	300.0	300.2	300.6	300.8	301.1	301.3	301.4	301.6	301.7	301.8	302.5
110°	341.1	341.5	342.0	342.5	342.9	343.0	342.8	342.5	342.4	342.1	341.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	383.8	383.9	384.0	384.1	384.2	384.0	383.7	383.2	382.8	382.4	382.3
115°	447.9	447.9	447.9	447.9	447.9	447.7	447.3	446.8	446.3	445.8	445.7
117.5°	508.3	508.5	508.7	508.9	509.1	509.0	508.7	508.3	508.0	507.7	506.9
120°	548.6	549.5	550.4	551.4	552.2	552.4	551.7	551.0	550.3	549.6	548.5
122.5°	590.5	590.9	591.3	591.6	592.0	592.0	591.7	591.4	591.0	590.7	589.9
125°	652.4	652.4	652.4	652.4	652.4	652.3	652.0	651.8	651.6	651.3	650.9
127.5°	708.4	709.2	709.9	710.5	711.2	711.4	711.0	710.7	710.3	709.9	709.5
130°	747.9	748.6	749.3	750.0	750.7	751.0	751.0	751.0	751.0	751.0	750.5
132.5°	788.2	788.7	789.2	789.7	790.2	790.4	790.2	790.0	789.8	789.6	789.2
135°	841.4	842.8	844.1	845.5	846.9	847.6	847.6	847.6	847.6	847.6	847.2
137.5°	899.4	900.0	900.6	901.3	901.9	902.5	902.8	903.2	903.5	903.9	903.2
140°	938.0	938.4	938.9	939.4	939.8	940.0	940.0	940.0	940.0	940.0	939.8
142.5°	973.4	973.8	974.2	974.7	975.2	975.3	975.1	974.9	974.8	974.5	974.5
145°	1022.2	1023.2	1024.1	1025.0	1025.9	1026.4	1026.7	1026.9	1027.1	1027.4	1027.1
147.5°	1070.7	1071.8	1072.9	1074.0	1075.1	1075.5	1075.4	1075.2	1075.0	1074.8	1074.7
150°	1100.3	1101.2	1102.2	1103.0	1104.0	1104.4	1104.4	1104.4	1104.4	1104.4	1104.4
152.5°	1128.2	1128.8	1129.3	1129.9	1130.4	1130.8	1131.0	1131.2	1131.4	1131.6	1132.1
155°	1171.2	1171.2	1171.2	1171.2	1171.2	1171.1	1170.8	1170.6	1170.4	1170.2	1171.1
157.5°	1207.4	1207.0	1206.6	1206.1	1205.7	1205.5	1205.5	1205.4	1205.4	1205.3	1206.0
160°	1228.8	1228.5	1228.3	1228.0	1227.8	1227.6	1227.3	1227.2	1226.9	1226.7	1227.3
162.5°	1248.5	1247.8	1247.3	1246.7	1246.1	1245.7	1245.5	1245.2	1245.0	1244.8	1246.0
165°	1274.9	1274.3	1273.6	1272.9	1272.2	1271.7	1271.2	1270.7	1270.3	1269.8	1271.2
167.5°	1295.3	1294.3	1293.4	1292.4	1291.5	1291.0	1291.1	1291.1	1291.2	1291.2	1292.6
170°	1306.8	1305.7	1304.6	1303.4	1302.3	1301.8	1302.0	1302.3	1302.5	1302.7	1304.1
172.5°	1315.0	1314.1	1313.1	1312.2	1311.2	1310.7	1310.8	1310.8	1310.9	1310.9	1312.5
175°	1326.4	1325.2	1324.1	1322.9	1321.8	1321.0	1320.9	1320.6	1320.4	1320.2	1321.8
177.5°	1330.0	1329.1	1328.2	1327.3	1326.4	1326.0	1326.0	1326.0	1326.0	1326.0	1327.2
180°	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4



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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°	14.2	14.3	14.4	14.7	14.9	15.1	15.4	15.6
90°	25.3	26.7	28.0	29.0	29.5	29.9	30.3	30.8
92.5°	42.3	43.2	44.0	44.5	44.8	45.1	45.3	45.6
95°	79.5	80.2	80.8	81.2	81.2	81.2	81.2	81.2
97.5°	125.2	126.0	126.7	127.2	127.2	127.2	127.2	127.2
100°	158.1	158.6	159.0	159.2	159.2	159.2	159.2	159.2
102.5°	193.0	193.6	194.2	194.6	194.9	195.0	195.2	195.4
105°	245.9	246.6	247.2	248.0	248.6	249.3	250.0	250.6
107.5°	303.1	303.7	304.4	304.7	304.7	304.6	304.6	304.5
110°	341.2	340.7	340.3	340.4	341.1	341.7	342.5	343.2





TEST NUMBER: P333070-927

CATALOG NUMBER: S124RDIW-S795D1340U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	382.2	382.1	382.0	382.1	382.1	382.3	382.5	382.6
115°	445.4	445.2	445.0	444.7	444.5	444.3	444.0	443.9
117.5°	506.2	505.4	504.6	504.0	503.5	503.1	502.6	502.2
120°	547.4	546.2	545.1	544.7	545.2	545.7	546.1	546.5
122.5°	589.1	588.4	587.6	586.8	586.0	585.2	584.4	583.5
125°	650.5	650.0	649.5	649.0	648.6	648.2	647.7	647.2
127.5°	709.0	708.5	708.1	707.7	707.3	706.9	706.5	706.2
130°	750.1	749.6	749.2	748.5	747.6	746.6	745.8	744.8
132.5°	788.7	788.3	787.8	787.4	787.0	786.6	786.3	785.9
135°	846.7	846.2	845.7	845.2	844.5	843.8	843.1	842.4
137.5°	902.7	902.1	901.5	901.3	901.4	901.6	901.7	901.8
140°	939.6	939.4	939.1	938.9	938.7	938.4	938.2	938.0
142.5°	974.5	974.5	974.4	974.3	974.3	974.2	974.2	974.1
145°	1026.9	1026.7	1026.4	1026.0	1025.3	1024.6	1024.0	1023.3
147.5°	1074.4	1074.3	1074.1	1073.9	1073.6	1073.4	1073.2	1073.0
150°	1104.4	1104.4	1104.4	1104.3	1104.1	1103.8	1103.6	1103.4
152.5°	1132.7	1133.2	1133.8	1133.7	1133.1	1132.5	1131.9	1131.3
155°	1172.0	1172.9	1173.9	1173.9	1172.9	1172.0	1171.1	1170.2
157.5°	1206.7	1207.4	1208.1	1208.0	1207.2	1206.4	1205.7	1204.9
160°	1228.0	1228.8	1229.4	1229.2	1228.0	1226.9	1225.7	1224.6
162.5°	1247.2	1248.5	1249.7	1249.7	1248.6	1247.4	1246.3	1245.2
165°	1272.6	1273.9	1275.3	1275.6	1274.6	1273.7	1272.8	1271.8
167.5°	1294.0	1295.3	1296.6	1296.6	1295.2	1293.8	1292.4	1291.0
170°	1305.4	1306.8	1308.2	1308.1	1306.5	1304.9	1303.3	1301.7
172.5°	1314.0	1315.6	1317.2	1317.1	1315.5	1313.9	1312.3	1310.7
175°	1323.3	1324.9	1326.6	1326.6	1324.9	1323.3	1321.8	1320.2
177.5°	1328.5	1329.8	1331.0	1330.9	1329.5	1328.0	1326.6	1325.1
180°	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4

(END OF REPORT)