

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: io LED

Report Number: P397343

Luminaire Tested: **8VRVT2-LD5-22-DR100-W-UNV-LA59-CD2-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397343  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-15)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 8VRVT2-LD5-22-DR100-W-UNV-LA59-CD2-WL-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5576.7 lumens  
Efficiency: N/A  
Efficacy: 22.1 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.58 / 1.57  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 8.33' x H: 0.17')  
CIE Type: Semi-Direct

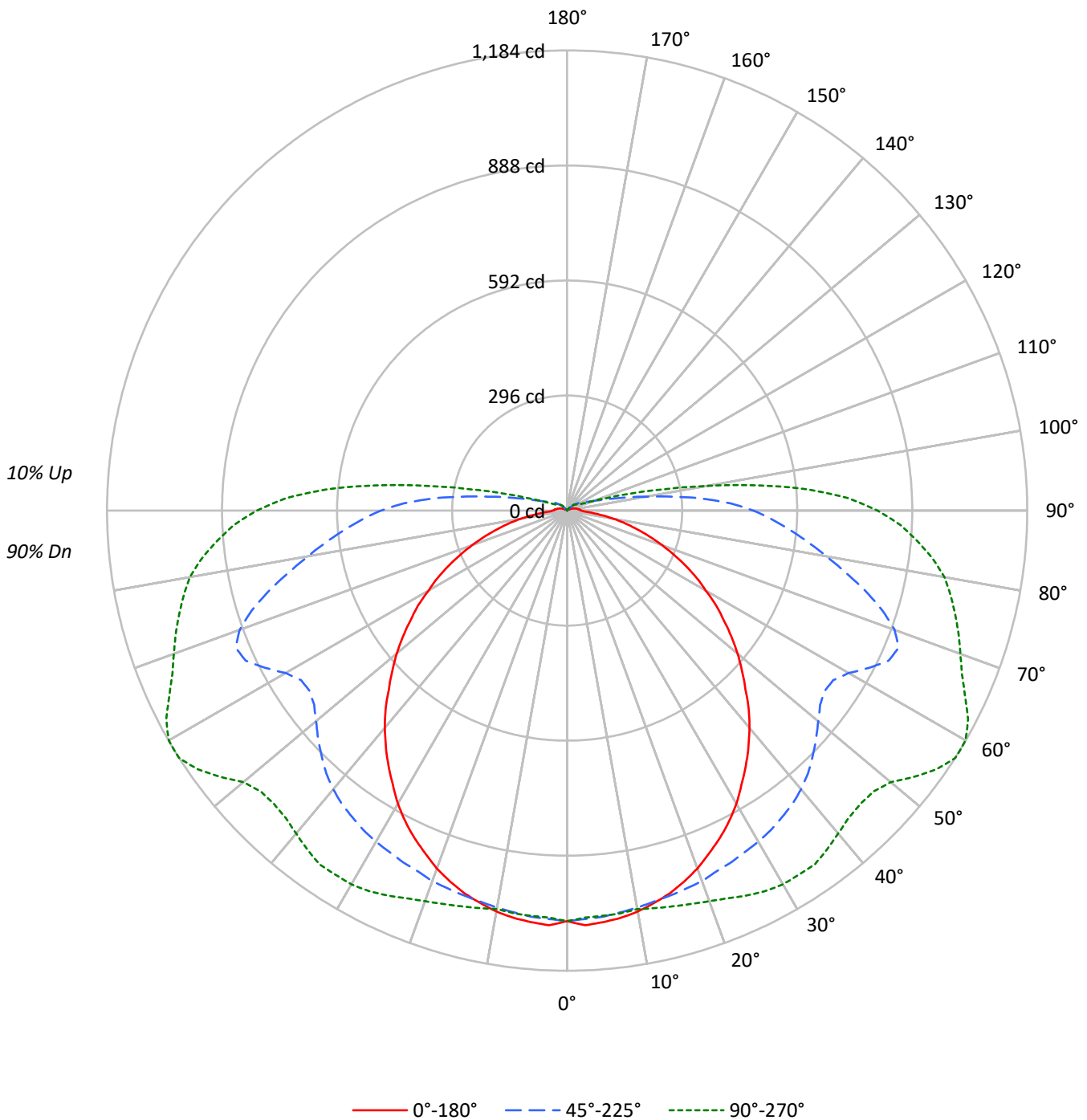
Input Watts (W): 252.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20										
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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90																				
1	101	94	88	83	97	91	85	80	85	80	76	79	75	72	74	71	68	65																				
2	90	79	71	63	86	77	69	62	71	64	59	66	61	56	62	57	53	50																				
3	81	68	58	50	77	66	57	49	61	53	47	57	50	45	53	47	43	40																				
4	73	59	49	41	70	57	48	40	53	45	39	50	43	37	46	40	35	33																				
5	67	52	42	35	64	51	41	34	47	39	33	44	37	31	41	35	30	27																				
6	62	47	37	30	59	45	36	29	42	34	28	40	32	27	37	31	26	23																				
7	57	42	33	26	55	41	32	25	38	30	24	36	29	24	34	27	23	20																				
8	53	38	29	23	51	37	28	22	35	27	22	33	26	21	31	25	20	18																				
9	49	35	26	20	47	34	26	20	32	24	19	30	23	19	28	22	18	16																				
10	46	32	24	18	44	31	23	18	30	22	17	28	21	17	26	20	16	14																				

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

	0°	45°	90°
0°	2729	2729	2729
5°	2751	2662	2637
10°	2738	2606	2579
15°	2712	2571	2588
20°	2675	2557	2622
25°	2625	2549	2696
30°	2569	2565	2778
35°	2493	2586	2841
40°	2420	2610	2859
45°	2323	2612	2924
50°	2247	2611	3127
55°	2154	2685	3540
60°	2058	3014	3877
65°	1974	3633	4026
70°	1860	4016	4245
75°	1733	4094	4597
80°	1623	4168	5075
85°	1501	4429	5575



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	1.8
10°-20°	292.4	5.2
20°-30°	464.7	8.3
30°-40°	600.7	10.8
40°-50°	677.8	12.2
50°-60°	743.1	13.3
60°-70°	793.0	14.2
70°-80°	743.4	13.3
80°-90°	598.7	10.7
90°-100°	372.8	6.7
100°-110°	120.8	2.2
110°-120°	39.4	0.7
120°-130°	20.2	0.4
130°-140°	8.3	0.1
140°-150°	1.3	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	857.3	15.4
0°-40°	1457.9	26.1
0°-60°	2878.9	51.6
0°-90°	5013.9	89.9
90°-120°	533.1	9.6
90°-150°	562.9	10.1
90°-180°	563.0	10.1
0°-180°	5576.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1056	1056	1056	1056	1056	
5°	1063	1059	1049	1050	1047	101
15°	1020	1020	1026	1052	1054	287
25°	930	942	998	1069	1093	428
35°	802	847	963	1074	1111	501
45°	648	728	894	1017	1067	502
55°	492	597	809	1075	1160	441
65°	337	472	913	1105	1129	333
75°	187	457	793	959	1034	199
85°	62	313	576	816	905	64
90°	36	234	479	711	799	20
95°	32	162	352	551	624	25
105°	21	58	116	151	168	22
115°	10	26	53	47	40	11
125°	4	9	32	32	28	4
135°	2	0	12	19	18	1
145°	1	0	0	4	4	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1056.2	1056.2	1056.2	1056.2	1056.2	1056.2	1056.2	1056.2	1056.2	1056.2	1056.2
2.5°	1067.9	1065.0	1062.8	1062.8	1062.8	1062.1	1062.1	1061.4	1059.9	1055.5	1051.8
5°	1062.8	1061.4	1059.2	1059.2	1059.2	1059.2	1059.2	1057.7	1054.8	1051.8	1048.9
7.5°	1057.0	1055.5	1052.6	1053.3	1051.1	1051.8	1051.1	1049.7	1048.9	1046.7	1043.1
10°	1047.5	1046.0	1043.1	1043.8	1042.3	1043.1	1043.1	1043.8	1042.3	1040.1	1037.2
12.5°	1034.3	1033.6	1032.1	1031.4	1032.8	1034.3	1035.0	1033.6	1032.1	1031.4	1030.6
15°	1019.6	1018.2	1016.7	1017.5	1019.6	1019.6	1021.8	1021.8	1021.8	1022.6	1025.5
17.5°	1000.6	999.9	998.4	999.9	1001.3	1002.1	1005.0	1006.5	1007.2	1013.1	1019.6
20°	980.1	978.7	977.2	978.7	980.8	983.8	986.7	991.1	997.7	1007.2	1014.5
22.5°	954.5	953.8	953.0	954.5	958.2	962.6	967.7	977.2	987.4	997.7	1004.3
25°	929.6	928.1	927.4	930.4	937.7	942.1	948.6	961.1	972.8	986.0	998.4
27.5°	901.8	897.4	901.1	904.0	913.5	919.4	927.4	943.5	956.7	971.3	990.4
30°	871.1	868.9	868.9	875.4	887.9	896.7	906.2	924.5	939.8	960.3	983.8
32.5°	835.2	835.9	837.4	846.2	863.0	873.3	881.3	902.5	922.3	947.9	975.0
35°	801.5	800.0	803.7	816.1	835.2	846.9	857.9	880.6	905.5	934.0	963.3
37.5°	766.4	764.9	770.0	784.7	805.2	817.6	830.1	858.6	887.2	919.4	952.3
40°	729.8	729.8	735.6	751.7	774.4	787.6	802.3	834.5	865.9	901.1	936.2
42.5°	691.7	690.3	697.6	719.5	745.2	758.3	775.9	809.6	845.4	880.6	917.2
45°	648.5	654.4	661.7	683.7	710.0	728.3	748.8	784.7	821.3	858.6	893.7
47.5°	610.5	614.9	625.1	648.5	679.3	696.1	718.1	756.1	795.6	831.5	868.9
50°	572.4	574.6	588.5	611.9	644.1	665.4	686.6	725.4	764.2	805.2	843.2
52.5°	532.9	533.6	550.5	573.1	611.2	632.4	652.2	693.2	734.9	777.4	820.5
55°	491.9	494.1	511.6	536.5	576.8	596.6	618.5	661.0	706.4	754.7	808.8
57.5°	454.6	456.8	473.6	500.7	542.4	563.6	584.9	631.0	680.7	740.8	811.8
60°	412.1	418.0	433.3	464.1	506.5	527.7	552.6	603.9	666.1	745.9	835.9
62.5°	376.2	377.7	395.3	428.9	473.6	497.0	524.1	586.3	668.3	768.6	876.2
65°	336.7	340.4	358.7	396.7	444.3	472.1	504.3	584.1	688.8	808.1	912.8
67.5°	297.2	303.0	325.0	366.7	421.6	455.3	496.3	599.5	721.7	838.1	923.0
70°	259.8	267.2	292.1	340.4	406.3	448.7	501.4	622.2	744.4	840.3	896.7
72.5°	222.5	232.8	265.0	320.6	400.4	453.1	513.1	636.1	739.3	805.2	849.8
75°	186.6	198.4	240.1	305.2	399.7	456.8	517.5	622.9	696.1	751.0	792.7
77.5°	154.4	168.4	216.7	292.8	394.5	448.0	497.0	578.3	639.0	690.3	732.7
80°	121.5	139.8	196.2	276.7	369.7	412.1	452.4	520.4	575.3	627.3	677.1
82.5°	90.0	114.2	174.2	252.5	327.2	365.3	396.7	458.9	514.6	568.7	625.8
85°	62.2	90.0	147.9	215.2	279.6	312.6	343.3	402.6	457.5	514.6	576.1
87.5°	43.2	71.0	123.0	182.3	241.6	269.4	297.2	354.3	409.2	465.5	528.5
90°	35.9	56.4	102.5	154.4	207.1	233.5	259.8	311.8	366.0	420.2	478.7
92.5°	33.7	46.8	84.2	129.6	177.1	199.1	222.5	270.8	319.1	371.1	420.9
95°	31.5	37.3	66.6	103.2	143.5	162.5	182.3	220.3	264.2	306.7	352.1
97.5°	28.6	30.7	51.2	80.5	112.7	128.8	143.5	174.2	208.6	240.8	273.0
100°	26.3	26.3	38.8	61.5	87.1	98.8	111.3	136.9	159.6	183.7	206.4
102.5°	23.4	23.4	30.0	46.1	66.6	76.1	87.1	104.7	121.5	138.3	154.4
105°	21.2	20.5	24.2	35.9	50.5	58.5	66.6	81.3	94.4	105.4	116.4
107.5°	18.3	18.3	19.8	28.6	40.3	46.8	52.7	65.2	75.4	83.4	89.3
110°	15.4	15.4	16.1	22.7	32.9	38.1	43.9	53.4	61.5	68.1	71.7



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CATALOG NUMBER: 8VRVT2-LD5-22-DR100-W-UNV-LA59-CD2-WL-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	13.2	13.2	12.4	18.3	27.1	32.2	36.6	45.4	52.7	57.1	60.0
115°	10.2	10.2	10.2	13.9	22.0	26.3	30.7	38.8	46.1	50.5	52.7
117.5°	8.8	8.8	8.1	10.2	17.6	22.0	25.6	33.7	39.5	44.7	46.8
120°	6.6	6.6	6.6	6.6	13.2	17.6	21.2	28.6	34.4	38.8	41.0
122.5°	5.1	5.1	5.1	4.4	9.5	13.2	16.8	23.4	29.3	33.7	36.6
125°	4.4	3.7	3.7	3.7	5.9	8.8	12.4	18.3	23.4	28.6	31.5
127.5°	3.7	2.9	2.9	2.9	2.9	5.1	8.1	13.9	19.0	23.4	26.3
130°	2.9	2.2	2.2	2.2	1.5	2.9	5.1	9.5	14.6	18.3	21.2
132.5°	2.2	2.2	1.5	1.5	0.7	0.7	2.2	5.9	10.2	13.9	16.8
135°	1.5	1.5	1.5	0.7	0.7	0.0	0.0	2.9	6.6	9.5	12.4
137.5°	1.5	1.5	0.7	0.7	0.0	0.0	0.0	0.7	2.9	5.9	8.8
140°	1.5	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.7	2.9	5.1
142.5°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
145°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1056.2	1056.2	1056.2	1056.2	1056.2	1056.2	1056.2	1056.2	1056.2	1056.2
2.5°	1051.8	1052.6	1053.3	1053.3	1052.6	1052.6	1051.8	1050.4	1048.9	1048.2
5°	1046.7	1048.9	1050.4	1050.4	1050.4	1049.7	1049.7	1048.9	1047.5	1046.7
7.5°	1042.3	1046.0	1047.5	1046.7	1046.7	1046.7	1046.7	1047.5	1046.0	1045.3
10°	1037.9	1040.9	1043.8	1044.5	1045.3	1044.5	1044.5	1043.1	1042.3	1040.9
12.5°	1033.6	1038.7	1043.1	1046.7	1046.7	1046.7	1048.2	1050.4	1049.7	1047.5
15°	1029.9	1038.7	1043.8	1049.7	1051.8	1054.1	1054.8	1056.2	1054.1	1054.1
17.5°	1027.7	1039.4	1046.7	1052.6	1053.3	1056.2	1060.6	1062.8	1062.1	1061.4
20°	1024.0	1037.9	1048.2	1053.3	1057.0	1060.6	1066.5	1067.9	1069.4	1069.4
22.5°	1019.6	1035.0	1045.3	1057.0	1062.8	1066.5	1074.6	1078.9	1080.4	1079.7
25°	1016.0	1033.6	1048.9	1062.8	1068.7	1073.1	1083.3	1091.4	1092.8	1092.8
27.5°	1012.3	1032.8	1051.1	1069.4	1076.7	1081.9	1092.1	1100.2	1103.1	1103.8
30°	1008.7	1031.4	1053.3	1071.6	1080.4	1085.5	1097.2	1104.5	1110.4	1110.4
32.5°	1002.1	1029.9	1051.8	1071.6	1078.9	1087.7	1098.7	1106.8	1111.2	1110.4
35°	995.5	1021.1	1046.0	1065.8	1073.8	1082.6	1095.8	1105.3	1108.2	1111.2
37.5°	984.5	1011.6	1036.5	1056.2	1067.9	1075.3	1087.0	1094.3	1100.2	1098.7
40°	969.9	997.0	1022.6	1041.6	1051.8	1060.6	1073.8	1080.4	1085.5	1084.8
42.5°	948.6	979.4	1003.5	1024.0	1035.0	1043.8	1059.9	1065.8	1071.6	1072.3
45°	927.4	957.4	984.5	1006.5	1016.7	1027.0	1046.7	1057.7	1065.0	1067.2
47.5°	901.8	935.5	966.2	996.2	1010.9	1024.0	1044.5	1059.9	1067.9	1069.4
50°	880.6	922.3	960.3	995.5	1013.8	1028.4	1056.2	1074.6	1083.3	1087.0
52.5°	868.1	918.6	968.4	1013.8	1035.7	1054.1	1088.4	1108.9	1123.6	1125.0
55°	870.3	934.0	996.2	1052.6	1074.6	1097.2	1128.7	1147.7	1160.2	1160.2
57.5°	892.3	968.4	1040.1	1092.1	1114.1	1131.6	1160.9	1173.4	1182.1	1184.3
60°	931.8	1012.3	1074.6	1119.9	1134.6	1148.5	1164.6	1178.5	1182.1	1183.6
62.5°	970.6	1039.4	1088.4	1119.9	1128.7	1140.4	1152.1	1160.2	1163.1	1163.1
65°	991.1	1042.3	1072.3	1095.8	1105.3	1108.9	1121.4	1124.3	1130.9	1129.4
67.5°	978.7	1011.6	1035.7	1055.5	1062.8	1070.2	1084.8	1092.1	1098.0	1099.4
70°	936.2	962.6	988.2	1013.1	1022.6	1035.0	1052.6	1066.5	1073.1	1076.7
72.5°	884.2	915.7	948.6	978.7	994.0	1005.7	1027.7	1046.0	1052.6	1056.2
75°	830.8	868.1	906.2	942.8	958.9	974.3	1000.6	1018.2	1029.9	1033.6
77.5°	777.4	822.8	868.9	910.6	930.4	946.5	976.5	995.5	1009.4	1010.9
80°	727.6	781.8	833.0	877.6	897.4	916.4	946.5	968.4	975.7	986.0
82.5°	683.7	740.0	792.0	838.9	860.8	877.6	909.1	931.8	942.8	948.6
85°	636.1	694.7	747.3	793.5	816.1	836.6	865.9	887.2	902.5	904.7
87.5°	587.8	646.3	700.5	748.1	770.8	789.8	820.5	841.0	855.0	859.3
90°	536.5	592.2	644.1	691.7	710.8	730.5	759.8	783.2	797.9	798.6
92.5°	475.0	528.5	576.1	620.7	643.4	658.1	685.9	710.0	720.3	724.7
95°	396.7	445.8	491.1	528.5	551.2	564.4	591.4	609.0	620.7	623.6
97.5°	311.1	349.2	385.8	418.7	435.5	446.5	468.5	483.8	501.4	497.0
100°	234.2	255.5	281.8	303.0	315.5	322.8	338.9	349.2	359.4	365.3
102.5°	169.8	185.9	197.6	208.6	217.4	224.7	237.2	240.8	243.7	251.1
105°	124.4	132.5	139.1	147.1	150.8	153.0	158.1	161.8	161.8	168.4
107.5°	93.7	97.4	100.3	104.7	104.7	106.9	106.9	107.6	109.8	108.3
110°	73.9	74.6	75.4	74.6	75.4	74.6	73.9	73.2	73.2	72.5





TEST NUMBER: P397343

CATALOG NUMBER: 8VRVT2-LD5-22-DR100-W-UNV-LA59-CD2-WL-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	61.5	60.8	60.0	57.8	57.1	55.6	54.9	53.4	52.0	52.0
115°	52.7	52.0	50.5	48.3	46.8	45.4	44.7	42.4	41.0	40.3
117.5°	46.8	46.1	44.7	42.4	41.7	40.3	38.8	36.6	35.1	34.4
120°	42.4	42.4	41.0	38.8	38.1	37.3	35.1	33.7	32.2	31.5
122.5°	38.1	38.1	37.3	35.9	35.1	34.4	32.9	31.5	30.0	30.0
125°	32.9	33.7	33.7	32.9	32.2	31.5	30.7	29.3	28.6	27.8
127.5°	28.6	29.3	30.0	30.0	29.3	29.3	27.8	27.1	26.3	26.3
130°	23.4	25.6	26.3	26.3	26.3	26.3	25.6	24.9	24.2	24.2
132.5°	19.0	20.5	22.0	22.7	22.7	22.7	22.0	22.0	21.2	21.2
135°	14.6	16.1	17.6	18.3	19.0	19.0	19.0	19.0	18.3	18.3
137.5°	11.0	12.4	13.9	14.6	14.6	15.4	15.4	15.4	14.6	14.6
140°	6.6	8.8	9.5	10.2	11.0	11.0	11.7	11.7	11.0	11.0
142.5°	3.7	5.1	5.9	6.6	7.3	7.3	8.1	7.3	7.3	7.3
145°	0.7	1.5	2.9	3.7	3.7	3.7	3.7	4.4	3.7	3.7
147.5°	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)