

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: P397337

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397337  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-14)  
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-DR-W-UNV-LA59-CD2-WL-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5575.9 lumens  
Efficiency: N/A  
Efficacy: 22.1 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.59 / 1.58  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 8.33' x H: 0.17')  
CIE Type: Direct

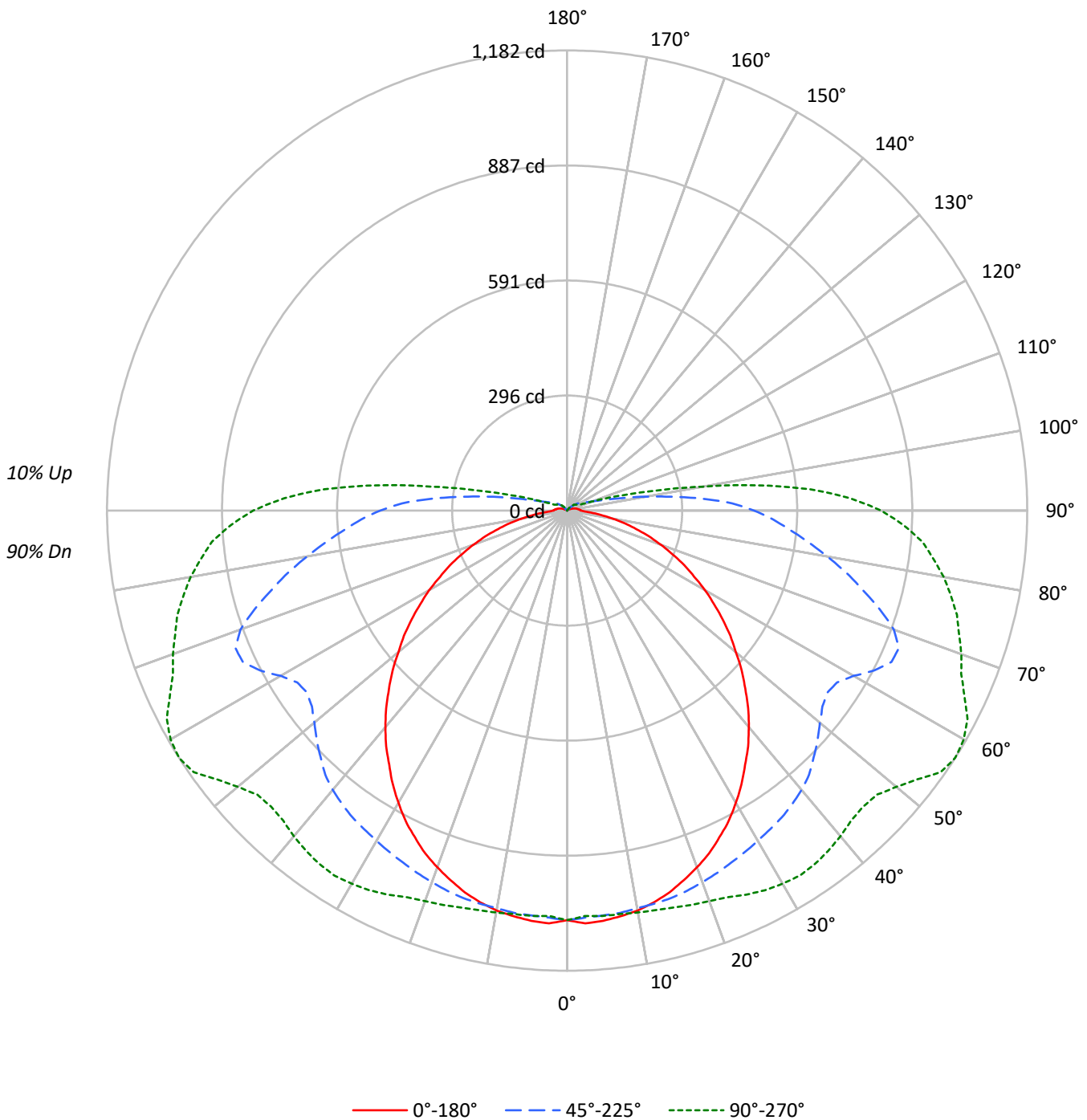
Input Watts (W): 252.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	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°	2717	2717	2717
5°	2738	2649	2634
10°	2727	2606	2597
15°	2701	2583	2591
20°	2661	2560	2616
25°	2615	2547	2685
30°	2556	2553	2768
35°	2479	2582	2835
40°	2408	2612	2878
45°	2318	2619	2946
50°	2221	2625	3175
55°	2135	2707	3574
60°	2043	3062	3853
65°	1944	3659	4013
70°	1829	4000	4248
75°	1706	4057	4610
80°	1575	4172	5056
85°	1501	4423	5643



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.0	1.8
10°-20°	292.7	5.2
20°-30°	464.4	8.3
30°-40°	600.9	10.8
40°-50°	680.1	12.2
50°-60°	746.8	13.4
60°-70°	792.5	14.2
70°-80°	742.9	13.3
80°-90°	600.9	10.8
90°-100°	372.3	6.7
100°-110°	116.8	2.1
110°-120°	37.1	0.7
120°-130°	19.3	0.3
130°-140°	8.1	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°	857.0	15.4
0°-40°	1457.9	26.1
0°-60°	2884.8	51.7
0°-90°	5021.1	90.0
90°-120°	526.2	9.4
90°-150°	554.8	10.0
90°-180°	555.0	10.0
0°-180°	5575.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1052	1052	1052	1052	1052	
5°	1058	1054	1044	1048	1045	100
15°	1015	1020	1031	1053	1056	286
25°	926	947	998	1064	1088	427
35°	797	848	962	1076	1109	499
45°	647	728	896	1025	1075	500
55°	488	594	815	1087	1171	436
65°	332	473	919	1096	1126	328
75°	184	460	785	962	1036	196
85°	62	311	575	827	916	63
90°	35	232	480	717	807	20
95°	31	161	350	548	627	24
105°	20	57	110	145	157	22
115°	10	26	50	43	37	10
125°	4	9	31	31	26	4
135°	2	0	12	18	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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CATALOG NUMBER: 8VRVT2-LD5-22-DR-W-UNV-LA59-CD2-WL-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1051.8	1051.8	1051.8	1051.8	1051.8	1051.8	1051.8	1051.8	1051.8	1051.8	1051.8
2.5°	1061.3	1059.9	1057.7	1057.0	1056.2	1056.2	1057.0	1055.5	1053.3	1049.6	1046.7
5°	1057.7	1056.2	1054.0	1052.6	1054.0	1054.0	1054.8	1053.3	1050.4	1047.5	1043.8
7.5°	1051.1	1049.6	1047.5	1047.5	1046.7	1047.5	1047.5	1047.5	1046.0	1044.5	1042.3
10°	1043.1	1040.9	1040.1	1039.4	1040.1	1041.6	1041.6	1042.3	1040.9	1038.7	1037.2
12.5°	1030.6	1029.9	1027.7	1028.4	1029.1	1031.4	1032.8	1034.3	1035.0	1034.3	1034.3
15°	1015.3	1013.8	1013.0	1014.5	1018.9	1019.6	1021.1	1024.7	1026.2	1029.1	1030.6
17.5°	995.5	995.5	995.5	998.4	1003.5	1005.0	1007.9	1011.6	1015.3	1018.9	1024.0
20°	975.0	975.0	975.0	978.6	984.5	988.9	991.8	996.9	1002.8	1010.9	1016.0
22.5°	953.0	951.6	951.6	955.2	964.0	966.2	972.0	982.3	991.1	1000.6	1007.2
25°	925.9	924.5	926.7	931.8	942.0	947.2	953.8	965.5	974.3	987.4	997.7
27.5°	898.9	896.7	899.6	906.2	920.1	925.9	934.0	947.9	958.2	972.8	988.9
30°	866.7	866.7	870.3	879.1	893.0	901.0	909.8	926.7	940.6	958.9	979.4
32.5°	833.7	832.2	838.8	848.3	866.7	876.2	885.7	904.7	922.3	945.7	970.6
35°	797.1	797.8	804.4	816.9	838.8	848.3	858.6	880.5	904.0	932.5	961.8
37.5°	763.4	762.0	770.8	787.6	808.8	819.8	830.8	857.9	884.2	916.4	950.1
40°	726.1	726.9	734.9	753.9	775.9	788.3	800.8	832.2	863.7	898.1	936.9
42.5°	688.0	688.8	699.7	720.2	744.4	758.3	773.7	806.6	842.5	880.5	920.1
45°	647.1	648.5	661.7	685.9	710.0	727.6	744.4	780.3	820.5	858.6	895.9
47.5°	608.3	610.5	627.3	649.3	677.1	695.4	713.7	754.7	794.2	833.0	872.5
50°	565.8	572.4	587.0	611.9	643.4	661.0	681.5	723.9	765.6	807.4	847.6
52.5°	528.5	531.4	549.7	573.9	607.5	628.0	647.1	692.4	736.4	779.5	826.4
55°	487.5	491.9	511.6	536.5	571.7	594.4	615.6	661.0	709.3	757.6	815.4
57.5°	447.2	452.4	473.6	499.2	538.0	558.5	583.4	631.0	683.6	745.9	822.0
60°	409.2	412.8	432.6	461.9	502.1	525.6	551.2	606.1	670.5	753.9	849.1
62.5°	368.2	374.8	393.1	426.0	472.1	496.3	525.6	590.0	675.6	780.3	889.3
65°	331.6	336.7	357.2	393.8	442.8	472.9	506.5	590.7	699.7	815.4	919.4
67.5°	292.8	301.6	322.8	363.0	420.9	456.7	499.9	606.1	729.8	841.0	922.3
70°	255.4	264.2	291.3	338.9	407.7	453.1	505.1	629.5	748.8	837.4	893.0
72.5°	220.3	229.1	263.5	319.1	403.3	456.7	516.0	640.5	737.8	797.1	841.8
75°	183.7	196.2	238.6	306.0	402.6	460.4	520.4	622.2	693.2	743.0	785.4
77.5°	152.2	167.6	216.7	293.5	396.7	449.4	495.5	574.6	635.3	684.4	733.4
80°	117.9	139.1	196.9	277.4	369.7	411.4	449.4	513.8	573.9	625.8	677.8
82.5°	87.8	114.2	173.5	251.1	326.5	361.6	396.7	456.7	513.1	567.3	625.8
85°	62.2	89.3	148.6	215.2	280.3	311.1	342.6	401.1	456.7	514.6	575.3
87.5°	43.9	69.5	122.2	181.5	240.1	265.7	295.0	350.6	409.2	466.3	530.0
90°	35.1	55.6	101.8	153.0	205.0	232.0	258.4	311.8	365.3	420.9	480.2
92.5°	33.7	46.1	84.2	128.8	174.2	197.6	221.1	269.4	318.4	368.2	424.5
95°	30.7	37.3	65.2	103.2	141.3	161.0	181.5	220.3	262.8	304.5	349.9
97.5°	28.6	30.7	50.5	80.5	111.3	125.2	140.5	173.5	203.5	235.7	270.8
100°	25.6	26.3	38.1	60.0	84.9	97.4	110.5	132.5	155.2	180.8	205.0
102.5°	23.4	23.4	30.0	45.4	63.7	73.2	82.7	101.8	117.9	134.7	148.6
105°	20.5	20.5	24.2	34.4	49.0	57.1	64.4	77.6	90.8	101.8	109.8
107.5°	18.3	17.6	19.0	27.8	39.5	45.4	52.0	62.2	71.7	79.0	85.7
110°	15.4	15.4	15.4	22.7	32.2	37.3	42.4	51.2	59.3	64.4	67.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	12.4	12.4	12.4	18.3	26.3	31.5	35.9	43.9	50.5	54.9	57.1
115°	10.2	10.2	9.5	13.9	22.0	26.3	30.0	38.1	43.9	47.6	49.8
117.5°	8.1	8.1	8.1	10.2	17.6	21.2	25.6	32.2	38.8	42.4	44.7
120°	6.6	6.6	5.9	6.6	13.2	16.8	20.5	27.8	33.7	37.3	39.5
122.5°	5.1	5.1	4.4	4.4	9.5	12.4	16.1	22.7	28.6	32.2	35.1
125°	3.7	3.7	3.7	2.9	5.9	8.8	12.4	18.3	23.4	27.8	30.7
127.5°	2.9	2.9	2.9	2.2	2.9	5.1	8.1	13.9	19.0	22.7	25.6
130°	2.2	2.2	2.2	1.5	1.5	2.9	5.1	9.5	13.9	17.6	21.2
132.5°	2.2	2.2	1.5	1.5	0.7	0.7	2.2	5.9	10.2	13.2	16.1
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	3.7	5.9	8.1
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°	1051.8	1051.8	1051.8	1051.8	1051.8	1051.8	1051.8	1051.8	1051.8	1051.8
2.5°	1045.2	1046.0	1047.5	1047.5	1046.7	1046.7	1046.0	1045.2	1043.8	1042.3
5°	1043.8	1045.2	1047.5	1048.2	1048.2	1047.5	1047.5	1047.5	1046.7	1045.2
7.5°	1043.1	1045.2	1047.5	1048.2	1048.9	1048.9	1048.2	1047.5	1046.0	1045.2
10°	1039.4	1043.8	1046.0	1048.2	1049.6	1049.6	1050.4	1050.4	1048.9	1048.2
12.5°	1037.9	1043.1	1046.7	1049.6	1051.8	1051.8	1053.3	1054.8	1050.4	1051.1
15°	1035.0	1042.3	1048.2	1051.8	1053.3	1054.0	1055.5	1056.2	1054.8	1055.5
17.5°	1031.4	1040.9	1046.7	1051.8	1052.6	1054.8	1059.2	1061.3	1061.3	1062.1
20°	1026.2	1037.2	1045.2	1053.3	1056.2	1058.4	1062.8	1067.2	1065.7	1067.2
22.5°	1020.4	1032.8	1044.5	1054.0	1057.7	1062.1	1069.4	1073.8	1076.0	1075.3
25°	1015.3	1031.4	1045.2	1059.9	1064.3	1070.1	1078.9	1084.8	1087.0	1088.4
27.5°	1009.4	1029.1	1048.2	1064.3	1071.6	1078.9	1089.9	1096.5	1098.7	1099.4
30°	1005.0	1029.9	1049.6	1068.7	1076.7	1084.8	1096.5	1103.1	1106.0	1106.7
32.5°	1000.6	1027.0	1049.6	1070.1	1078.2	1085.5	1099.4	1109.7	1111.9	1111.9
35°	994.8	1021.1	1046.7	1067.9	1076.0	1084.0	1099.4	1107.5	1109.7	1108.9
37.5°	984.5	1013.8	1040.1	1059.2	1067.2	1074.5	1089.9	1098.7	1102.3	1101.6
40°	969.9	999.9	1025.5	1046.7	1054.0	1062.1	1078.2	1085.5	1090.6	1092.1
42.5°	952.3	982.3	1007.9	1029.1	1038.7	1048.2	1064.3	1072.3	1078.2	1079.7
45°	930.3	961.1	988.9	1013.8	1024.7	1034.3	1054.0	1067.9	1073.8	1075.3
47.5°	907.6	942.8	974.3	1004.2	1018.2	1032.8	1054.8	1072.3	1080.4	1079.7
50°	886.4	928.9	968.4	1007.9	1026.2	1043.1	1070.9	1089.9	1099.4	1103.8
52.5°	876.2	928.9	981.6	1028.4	1049.6	1067.9	1100.9	1122.8	1133.8	1133.8
55°	881.3	949.4	1010.1	1064.3	1087.0	1106.7	1135.3	1156.5	1166.0	1171.2
57.5°	904.7	983.8	1048.9	1100.1	1121.4	1138.2	1164.5	1174.8	1185.0	1182.1
60°	944.2	1019.6	1077.5	1122.1	1136.7	1145.5	1162.4	1171.2	1176.3	1176.3
62.5°	977.2	1045.2	1085.5	1111.9	1125.0	1132.3	1146.3	1152.8	1159.4	1159.4
65°	991.8	1036.5	1067.2	1090.6	1096.5	1105.3	1114.8	1121.4	1127.2	1125.8
67.5°	974.3	1006.5	1030.6	1051.8	1059.2	1067.9	1079.7	1089.2	1094.3	1095.8
70°	930.3	961.1	983.8	1010.1	1021.1	1032.1	1052.6	1066.5	1074.5	1077.5
72.5°	879.1	911.3	946.4	976.4	993.3	1005.7	1028.4	1043.1	1054.0	1055.5
75°	826.4	866.7	906.9	945.0	961.8	979.4	1005.0	1021.8	1034.3	1036.5
77.5°	778.8	824.9	874.7	915.7	936.2	951.6	979.4	995.5	1008.6	1009.4
80°	731.2	785.4	835.9	878.4	898.9	918.6	945.0	966.2	977.2	982.3
82.5°	685.1	740.7	794.9	843.9	862.3	881.3	911.3	931.8	944.2	948.6
85°	639.7	700.5	756.9	804.4	827.1	846.2	878.4	897.4	912.0	915.7
87.5°	592.2	651.4	707.8	754.7	778.1	794.9	827.8	847.6	862.3	865.2
90°	540.9	596.5	651.4	695.4	717.3	735.6	770.8	789.1	800.0	806.6
92.5°	477.2	530.7	581.2	624.4	647.1	660.2	693.2	712.9	724.6	727.6
95°	398.2	443.6	489.0	527.7	547.5	567.3	589.2	608.3	624.4	626.6
97.5°	307.4	345.5	382.8	420.9	433.3	445.0	463.3	483.1	497.7	497.0
100°	229.1	251.1	277.4	297.2	306.7	319.9	337.4	349.2	350.6	355.0
102.5°	164.7	180.1	191.0	205.7	210.1	221.8	227.6	235.7	237.2	240.8
105°	119.3	127.4	135.4	141.3	144.9	145.7	150.1	155.9	157.4	157.4
107.5°	89.3	93.7	94.4	96.6	98.1	98.8	101.8	102.5	103.2	103.2
110°	70.3	71.0	69.5	69.5	68.8	68.8	68.1	67.3	66.6	66.6





TEST NUMBER: P397337

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

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	57.1	57.1	55.6	53.4	52.0	51.2	49.0	47.6	46.8	46.8
115°	49.8	48.3	46.8	44.7	43.2	42.4	40.3	38.8	37.3	36.6
117.5°	44.7	43.9	41.7	40.3	38.8	38.1	35.9	33.7	32.9	32.2
120°	40.3	39.5	38.8	36.6	35.9	35.1	32.9	31.5	30.0	30.0
122.5°	35.9	35.9	35.1	33.7	32.9	32.2	30.7	29.3	28.6	27.8
125°	32.2	32.2	32.2	31.5	30.7	30.0	28.6	27.8	27.1	26.3
127.5°	27.1	28.6	28.6	28.6	27.8	27.8	27.1	25.6	24.9	24.9
130°	22.7	24.2	24.9	24.9	24.9	24.9	24.2	23.4	22.7	22.7
132.5°	18.3	20.5	21.2	22.0	22.0	22.0	21.2	21.2	20.5	20.5
135°	14.6	16.1	17.6	18.3	18.3	18.3	18.3	18.3	17.6	17.6
137.5°	11.0	11.7	13.2	13.9	14.6	14.6	14.6	14.6	14.6	14.6
140°	6.6	8.1	9.5	10.2	11.0	11.0	11.0	11.0	11.0	11.0
142.5°	3.7	4.4	5.9	6.6	7.3	7.3	7.3	7.3	7.3	7.3
145°	0.7	1.5	2.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7
147.5°	0.0	0.0	0.0	0.0	0.7	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)