

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: P397352

Luminaire Tested: **8VRVT2-LD5-9-DR-W-UNV-LA59-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397352
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 8VRVT2-LD5-9-DR-W-UNV-LA59-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2426.2 lumens
Efficiency: N/A
Efficacy: 24.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.6 / 1.58
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 8.33' x H: 0.17')
CIE Type: Semi-Direct

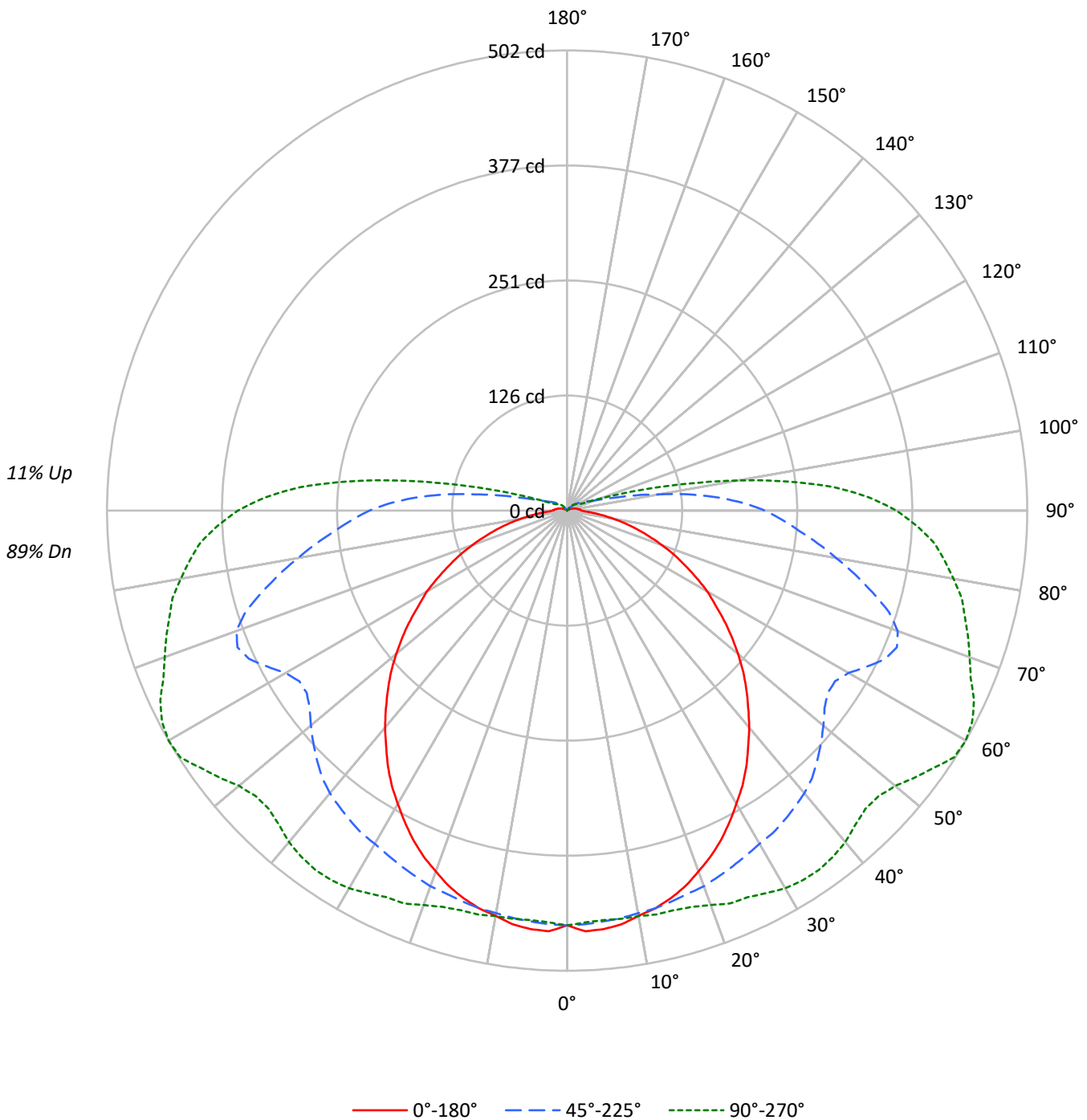
Input Watts (W): 100.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	101	94	88	82	97	91	85	80	84	80	75	78	75	71	73	70	67	64
2	90	79	70	63	86	76	68	61	71	64	58	66	60	55	61	56	52	49
3	81	68	58	50	77	65	56	49	61	53	47	56	50	44	52	47	42	39
4	73	59	49	41	70	57	48	40	53	45	38	49	42	37	46	40	35	32
5	67	52	42	35	64	51	41	34	47	39	32	44	37	31	41	35	30	27
6	62	47	37	30	59	45	36	29	42	34	28	39	32	27	37	30	26	23
7	57	42	32	26	54	41	32	25	38	30	24	36	29	23	33	27	22	20
8	53	38	29	23	51	37	28	22	35	27	21	33	26	21	31	24	20	18
9	49	35	26	20	47	34	25	20	32	24	19	30	23	18	28	22	18	16
10	46	32	24	18	44	31	23	18	29	22	17	28	21	17	26	20	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1169	1169	1169
5°	1186	1142	1130
10°	1173	1120	1113
15°	1164	1106	1108
20°	1143	1099	1122
25°	1121	1092	1148
30°	1089	1094	1190
35°	1060	1108	1224
40°	1025	1122	1244
45°	990	1128	1261
50°	955	1130	1344
55°	915	1152	1492
60°	882	1278	1644
65°	832	1524	1746
70°	788	1719	1842
75°	741	1781	1998
80°	677	1835	2202
85°	671	1953	2475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.1	1.8
10°-20°	125.5	5.2
20°-30°	199.0	8.2
30°-40°	257.7	10.6
40°-50°	291.8	12.0
50°-60°	316.9	13.1
60°-70°	338.8	14.0
70°-80°	322.5	13.3
80°-90°	264.9	10.9
90°-100°	174.3	7.2
100°-110°	60.6	2.5
110°-120°	17.9	0.7
120°-130°	8.9	0.4
130°-140°	3.8	0.2
140°-150°	0.6	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	367.6	15.2
0°-40°	625.3	25.8
0°-60°	1233.9	50.9
0°-90°	2160.1	89.0
90°-120°	252.8	10.4
90°-150°	266.1	11.0
90°-180°	266.0	11.0
0°-180°	2426.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	452	452	452	452	452	
5°	458	455	450	450	448	43
15°	438	438	441	451	451	123
25°	397	405	428	456	466	182
35°	341	362	413	462	479	213
45°	276	312	386	441	460	213
55°	209	256	347	454	489	187
65°	142	202	383	474	490	141
75°	80	192	345	420	449	84
85°	28	139	254	362	402	28
90°	16	104	216	324	359	9
95°	14	74	165	255	292	11
105°	9	26	56	77	92	9
115°	4	12	23	22	18	5
125°	2	4	14	14	12	2
135°	1	0	6	9	8	1
145°	0	0	0	2	2	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°	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5
2.5°	459.4	458.2	456.9	456.5	456.5	456.5	456.5	455.7	454.5	453.3	451.6
5°	458.2	457.4	456.1	455.3	455.3	455.3	455.3	454.5	453.3	451.6	450.0
7.5°	455.3	454.1	452.5	452.0	451.6	451.6	452.0	451.6	450.4	449.6	448.4
10°	448.8	448.4	447.1	446.7	447.5	447.9	447.9	447.9	447.5	446.7	445.9
12.5°	444.3	442.6	441.8	442.2	442.6	442.6	443.4	443.9	443.9	444.3	444.3
15°	437.7	436.1	435.7	436.9	437.3	438.1	438.1	439.0	439.3	440.6	441.4
17.5°	429.5	429.1	427.5	428.7	430.8	432.0	432.0	433.6	434.9	436.1	438.1
20°	418.9	418.5	417.7	419.3	421.8	423.0	425.0	427.5	429.1	433.6	436.1
22.5°	408.7	408.3	407.0	409.5	411.9	414.8	417.3	420.5	424.2	428.3	432.0
25°	396.8	396.4	396.0	400.1	402.9	405.0	407.8	412.8	417.3	423.0	427.9
27.5°	383.3	383.7	384.5	388.2	392.7	395.6	398.4	405.4	410.3	416.4	423.8
30°	369.4	369.4	371.9	375.5	382.1	384.9	388.6	396.8	401.7	411.1	419.7
32.5°	355.9	355.9	357.1	361.6	370.2	373.9	378.4	386.2	394.4	405.8	417.3
35°	340.8	340.8	343.2	349.4	358.0	362.0	366.9	376.8	387.0	400.1	412.8
37.5°	324.4	325.2	329.3	335.9	346.1	351.4	355.5	366.5	379.2	393.5	407.8
40°	308.9	309.7	314.6	321.9	333.0	337.9	343.2	357.1	370.2	385.8	402.5
42.5°	292.5	295.0	299.5	308.0	318.7	324.0	331.4	345.7	360.4	377.2	395.6
45°	276.5	278.6	283.5	293.3	305.2	311.7	319.5	334.6	351.0	367.8	385.8
47.5°	260.6	262.2	268.4	277.8	290.4	299.0	307.2	323.2	340.8	359.6	375.5
50°	243.4	245.4	251.6	261.8	276.1	284.7	292.9	310.5	328.5	347.3	364.9
52.5°	226.2	228.3	236.5	247.9	262.6	270.4	279.8	298.6	316.6	335.9	353.9
55°	209.0	211.5	220.1	230.3	246.7	256.1	264.7	284.7	304.4	324.8	346.9
57.5°	191.5	195.1	202.9	215.6	231.1	240.9	250.3	271.6	292.5	317.4	346.5
60°	176.7	177.9	185.7	199.2	216.4	226.2	237.3	258.9	285.1	317.0	354.3
62.5°	159.1	163.2	169.8	183.7	201.3	213.5	224.6	251.2	283.5	326.0	368.6
65°	142.0	146.0	154.2	169.4	189.8	202.1	215.2	248.3	290.1	339.5	382.9
67.5°	126.8	130.1	139.1	156.7	179.6	193.5	211.1	252.4	302.3	352.2	389.5
70°	110.0	114.1	124.8	144.8	173.0	190.2	211.9	261.4	312.5	355.9	383.7
72.5°	93.7	99.0	112.5	136.2	169.4	190.6	216.0	267.5	313.8	346.1	368.2
75°	79.8	84.3	101.1	128.9	168.5	192.3	218.5	265.1	301.1	324.4	344.8
77.5°	65.0	71.2	92.5	124.0	166.9	190.6	212.7	250.0	279.4	301.9	321.6
80°	50.7	59.7	83.0	117.4	159.1	177.1	195.1	226.6	254.0	276.9	298.2
82.5°	38.9	48.7	74.0	108.4	142.4	158.7	174.7	202.9	227.4	253.2	276.1
85°	27.8	38.9	64.6	94.5	123.5	139.1	151.8	178.4	202.1	228.7	254.0
87.5°	19.2	30.7	53.2	79.8	106.4	118.6	131.3	156.7	181.6	208.6	235.2
90°	15.5	24.9	44.6	68.3	92.0	103.5	116.2	140.3	163.6	189.4	215.6
92.5°	14.7	20.5	37.2	57.3	79.0	90.0	100.2	121.9	144.8	169.8	191.9
95°	13.5	16.4	29.9	46.6	64.6	74.0	83.0	102.3	122.3	144.8	164.9
97.5°	12.3	13.5	22.9	36.0	51.1	58.9	66.3	81.0	99.0	114.9	135.0
100°	11.0	11.5	17.2	27.8	38.9	45.4	51.1	64.2	76.1	88.8	101.9
102.5°	9.8	9.8	13.1	20.9	30.3	34.4	39.3	48.7	57.7	65.9	76.5
105°	9.0	9.0	10.6	15.5	22.5	26.2	29.9	37.2	44.2	49.9	55.6
107.5°	7.8	7.8	8.6	12.3	17.6	20.9	23.3	29.0	34.4	38.4	41.7
110°	6.6	6.6	6.6	9.8	14.3	16.8	19.6	24.1	27.8	30.7	32.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	5.3	5.3	5.3	8.2	11.9	13.9	16.4	20.0	23.3	25.4	27.0
115°	4.5	4.5	4.1	6.1	9.8	11.9	13.9	17.2	20.0	22.1	23.3
117.5°	3.7	3.7	3.3	4.5	7.8	9.8	11.5	14.7	17.6	19.6	20.5
120°	2.9	2.9	2.5	2.9	6.1	7.8	9.8	12.7	15.1	17.2	18.4
122.5°	2.0	2.0	2.0	2.0	4.1	5.7	7.4	10.2	13.1	15.1	16.4
125°	1.6	1.6	1.6	1.2	2.9	4.1	5.7	8.6	10.6	12.7	13.9
127.5°	1.2	1.2	1.2	1.2	1.2	2.5	3.7	6.6	8.6	10.6	11.9
130°	1.2	1.2	0.8	0.8	0.8	1.2	2.5	4.5	6.6	8.2	9.8
132.5°	0.8	0.8	0.8	0.4	0.4	0.4	1.2	2.9	4.9	6.6	7.8
135°	0.8	0.8	0.4	0.4	0.0	0.0	0.0	1.6	3.3	4.5	5.7
137.5°	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.4	1.6	2.9	4.1
140°	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.4	1.6	2.5
142.5°	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8
145°	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.4	0.4	0.4	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°	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5
2.5°	451.2	451.6	452.0	452.0	451.6	451.6	450.8	450.8	450.0	449.6
5°	449.6	450.4	450.8	450.8	450.4	450.4	450.0	449.6	448.8	448.4
7.5°	448.4	449.6	450.4	450.4	450.4	450.4	450.0	450.0	449.6	449.2
10°	446.7	447.9	449.2	450.8	451.2	451.2	450.8	450.4	449.6	449.2
12.5°	445.1	446.7	448.4	450.0	450.4	450.8	451.6	451.6	451.2	451.2
15°	443.4	446.3	448.8	450.8	451.2	452.5	452.8	453.3	452.5	451.2
17.5°	441.8	445.5	447.5	450.8	451.6	452.5	453.3	453.7	453.7	453.3
20°	440.2	444.7	448.4	451.6	452.5	453.7	455.3	456.5	457.8	457.8
22.5°	437.7	443.4	447.5	452.5	455.3	456.5	459.8	461.4	462.3	463.9
25°	434.4	440.6	448.8	454.5	456.5	459.0	463.9	466.3	466.3	465.5
27.5°	432.8	442.2	450.4	456.1	459.0	461.9	466.3	470.0	471.3	470.5
30°	430.8	441.0	450.4	457.8	461.0	464.7	469.2	474.9	475.8	475.8
32.5°	428.3	439.3	450.4	458.6	462.7	465.9	471.3	476.6	478.6	478.2
35°	425.9	438.1	448.8	457.8	462.3	466.3	472.5	476.6	478.2	478.6
37.5°	422.2	435.3	445.9	455.7	460.6	464.3	470.8	473.7	476.2	476.2
40°	416.9	430.4	442.2	451.6	455.3	459.0	465.1	468.4	470.5	472.1
42.5°	410.7	423.8	435.3	443.4	448.4	451.2	458.2	461.4	464.7	465.1
45°	401.3	415.6	426.7	436.9	441.4	444.3	452.0	457.4	460.2	460.2
47.5°	391.5	405.0	418.1	430.8	436.1	441.0	450.0	456.5	459.8	461.0
50°	380.4	397.2	412.8	429.1	436.1	442.2	452.8	460.2	464.3	467.2
52.5°	373.5	395.2	414.4	433.6	441.4	449.6	463.1	470.8	476.6	478.2
55°	372.7	398.9	422.6	445.5	454.5	462.3	476.6	485.2	489.7	488.9
57.5°	378.8	410.7	438.5	459.4	469.2	476.6	489.7	497.4	500.7	500.7
60°	392.3	426.3	453.3	471.7	479.4	486.4	495.8	501.1	502.8	502.0
62.5°	406.2	437.3	459.8	474.9	480.7	484.0	491.7	495.8	497.4	498.3
65°	417.3	442.6	458.2	469.2	473.7	477.0	483.1	488.0	488.9	489.7
67.5°	416.0	433.6	447.5	457.8	461.4	464.7	470.8	474.5	477.4	476.6
70°	404.6	418.5	431.6	442.2	446.3	450.8	458.2	463.9	465.1	467.2
72.5°	384.5	398.9	414.8	425.4	432.8	437.3	446.3	453.7	456.5	458.6
75°	363.7	380.4	396.4	412.4	420.1	427.5	438.1	443.4	450.4	449.2
77.5°	341.6	363.3	382.1	400.1	408.3	416.0	427.1	434.4	439.0	441.0
80°	322.8	345.7	366.5	385.8	393.5	402.5	414.0	421.8	426.7	427.9
82.5°	301.5	326.5	350.2	370.2	378.4	386.2	399.3	407.5	413.6	415.2
85°	280.6	307.2	331.8	353.4	362.0	370.6	384.5	393.5	399.3	401.7
87.5°	263.0	288.0	313.0	333.4	343.6	351.8	365.7	376.3	381.7	381.7
90°	241.4	266.7	291.7	312.1	323.6	329.3	343.2	353.0	359.6	359.2
92.5°	218.5	242.6	263.5	283.9	293.3	300.7	315.4	322.8	328.5	329.7
95°	187.3	209.0	230.7	247.9	255.3	266.7	277.8	287.2	290.9	292.5
97.5°	150.9	172.6	187.8	208.6	213.5	221.3	232.8	240.5	244.2	243.0
100°	115.8	130.1	142.0	155.0	162.8	167.7	177.5	185.3	189.4	189.0
102.5°	82.2	93.7	102.3	112.5	113.3	117.8	124.0	131.7	133.4	135.4
105°	61.0	65.5	72.0	75.7	77.3	82.6	83.9	87.1	87.6	91.6
107.5°	45.4	47.9	50.3	52.4	53.6	54.0	57.3	56.9	57.7	58.5
110°	34.4	35.6	37.2	36.4	38.1	36.8	37.6	37.2	37.6	37.6



TEST NUMBER: P397352

CATALOG NUMBER: 8VRVT2-LD5-9-DR-W-UNV-LA59-CD1-WL-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	27.8	27.8	27.4	27.0	27.0	26.6	26.6	25.4	25.8	25.4
115°	23.7	23.3	22.5	21.7	21.7	20.9	20.5	19.2	18.8	18.4
117.5°	20.9	20.5	19.6	18.8	18.4	18.0	17.2	16.0	15.5	15.5
120°	18.8	18.4	18.0	17.2	16.8	16.4	15.1	14.7	13.9	13.9
122.5°	16.8	16.8	16.4	15.5	15.5	15.1	14.3	13.5	13.1	13.1
125°	14.7	15.1	14.7	14.3	14.3	13.9	13.5	12.7	12.3	12.3
127.5°	12.7	13.1	13.1	13.1	13.1	12.7	12.3	11.9	11.5	11.5
130°	10.6	11.5	11.5	11.5	11.9	11.5	11.5	11.0	10.6	10.6
132.5°	8.6	9.4	9.8	10.2	10.2	10.2	9.8	9.8	9.4	9.4
135°	6.6	7.4	8.2	8.2	8.6	8.6	8.6	8.6	8.2	8.2
137.5°	4.9	5.7	6.1	6.6	6.6	6.9	6.9	6.9	6.6	6.6
140°	3.3	4.1	4.5	4.9	4.9	5.3	5.3	5.3	4.9	4.9
142.5°	1.6	2.5	2.9	3.3	3.3	3.3	3.7	3.7	3.7	3.3
145°	0.4	0.8	1.2	1.6	1.6	1.6	2.0	2.0	2.0	1.6
147.5°	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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)