

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: P397222

Luminaire Tested: **2VRVT2-LD5-5-DR100-W-UNV-LR63-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397222
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 2VRVT2-LD5-5-DR100-W-UNV-LR63-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 727.8 lumens
Efficiency: N/A
Efficacy: 7.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.56 / 1.56
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 2.08' x H: 0.17')
CIE Type: Direct

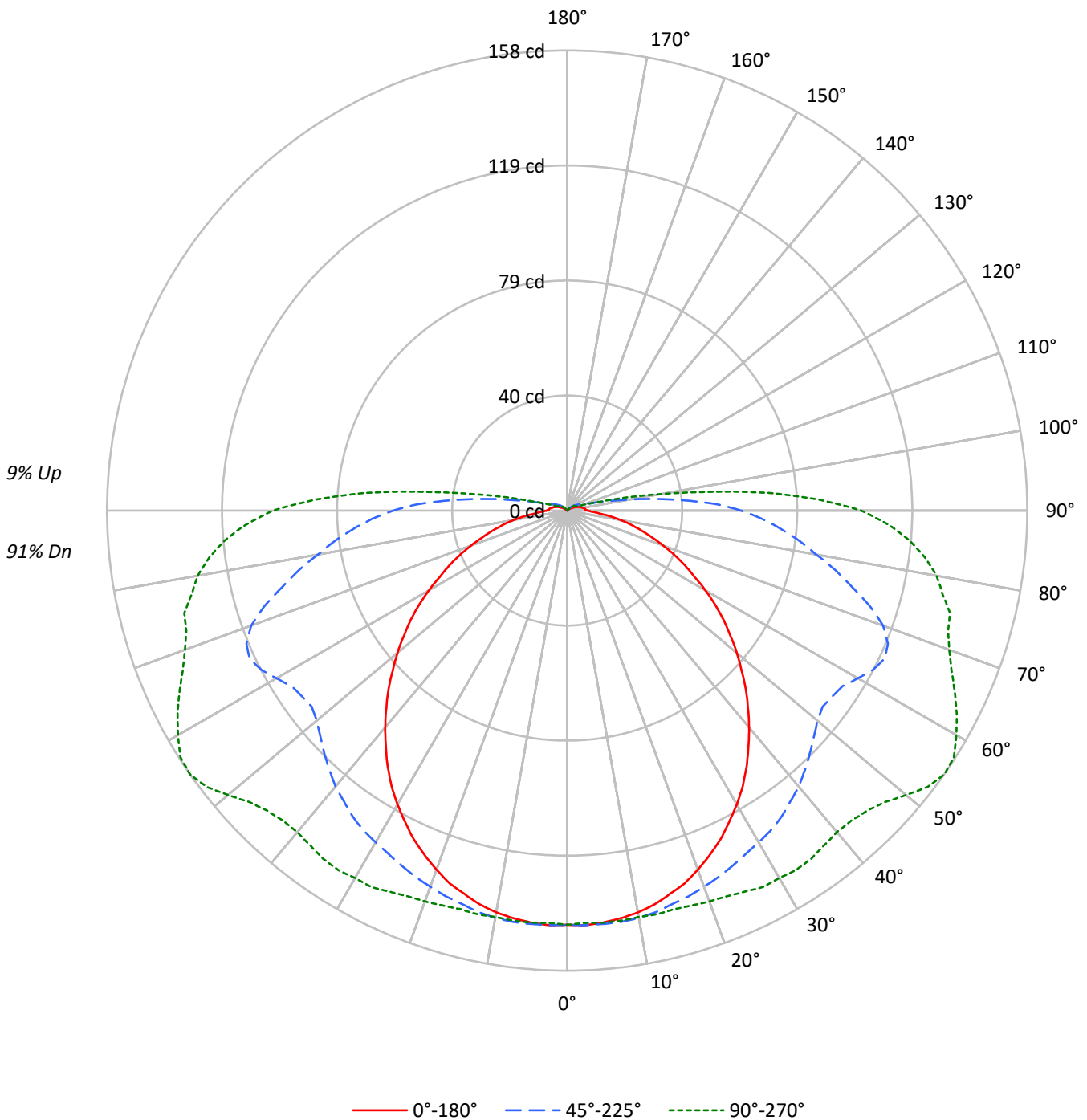
Input Watts (W): 101
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100	100	94	94	94	91
1	102	95	89	83	98	92	86	81	86	81	77	80	76	73	75	72	69	66
2	90	80	71	64	87	77	69	62	72	65	59	67	62	57	63	58	54	51
3	81	68	59	51	78	66	57	50	62	54	48	58	51	46	54	48	44	41
4	74	60	49	42	71	58	48	41	54	46	39	50	43	38	47	41	36	33
5	67	53	42	35	64	51	41	34	48	39	33	45	38	32	42	36	31	28
6	62	47	37	30	59	46	36	29	43	35	28	40	33	27	38	31	27	24
7	57	42	33	26	55	41	32	26	39	31	25	36	29	24	34	28	23	21
8	53	38	29	23	51	37	29	23	35	27	22	33	26	21	31	25	21	18
9	50	35	26	20	48	34	26	20	32	25	19	31	24	19	29	23	18	16
10	46	32	24	18	45	31	23	18	30	23	18	28	22	17	27	21	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1469	1469	1469
5°	1463	1441	1431
10°	1450	1417	1404
15°	1428	1387	1392
20°	1402	1366	1400
25°	1370	1350	1425
30°	1329	1343	1458
35°	1283	1344	1493
40°	1229	1340	1519
45°	1174	1333	1597
50°	1117	1338	1748
55°	1061	1413	1928
60°	997	1581	2022
65°	933	1808	2093
70°	869	1934	2202
75°	809	1932	2421
80°	757	1944	2652
85°	681	2019	2911



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.6	1.9
10°-20°	39.5	5.4
20°-30°	62.2	8.5
30°-40°	79.8	11.0
40°-50°	90.8	12.5
50°-60°	100.4	13.8
60°-70°	104.1	14.3
70°-80°	97.0	13.3
80°-90°	78.2	10.7
90°-100°	43.5	6.0
100°-110°	11.7	1.6
110°-120°	4.1	0.6
120°-130°	2.1	0.3
130°-140°	0.8	0.1
140°-150°	0.1	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	115.3	15.8
0°-40°	195.1	26.8
0°-60°	386.2	53.1
0°-90°	665.5	91.4
90°-120°	59.3	8.1
90°-150°	62.3	8.6
90°-180°	62.0	8.5
0°-180°	727.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	142	142	142	142	142	
5°	142	142	142	143	142	13
15°	136	138	140	142	142	38
25°	125	128	134	142	144	57
35°	107	114	128	142	146	67
45°	87	96	118	137	146	67
55°	66	78	111	148	158	59
65°	45	63	120	142	147	44
75°	26	61	101	125	136	28
85°	11	43	74	106	118	11
90°	7	32	60	89	101	4
95°	6	21	40	60	70	5
105°	5	7	11	12	12	5
115°	3	4	5	4	4	3
125°	1	1	3	3	3	1
135°	0	0	1	2	2	0
145°	0	0	0	0	0	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°	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2
2.5°	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5
5°	142.0	142.2	142.2	142.2	142.2	142.2	142.5	142.5	142.5	142.8	142.5
7.5°	141.2	141.4	141.4	141.4	141.7	141.7	142.0	142.0	142.2	142.5	142.5
10°	140.1	140.4	140.4	140.6	140.6	140.9	140.9	141.4	141.4	141.7	142.0
12.5°	138.5	138.5	138.8	139.3	139.6	139.6	139.8	140.1	140.6	140.9	141.2
15°	136.3	136.3	136.9	137.4	137.7	137.7	138.0	138.2	139.3	139.6	139.8
17.5°	134.2	133.9	134.5	135.0	135.3	135.5	135.8	136.6	137.1	138.0	138.8
20°	131.2	131.2	131.8	132.6	133.1	133.4	133.9	134.7	135.8	136.6	137.4
22.5°	128.0	128.3	128.6	129.4	130.2	130.7	131.0	132.0	133.4	134.5	136.1
25°	124.6	124.8	125.4	126.2	127.2	127.8	128.3	129.6	131.5	132.6	134.5
27.5°	120.5	120.8	121.6	122.4	123.7	124.6	125.4	126.7	128.6	130.4	132.9
30°	116.5	116.8	117.6	118.9	120.3	121.1	122.1	124.0	126.4	128.6	131.5
32.5°	112.2	112.5	113.3	115.2	116.5	117.6	118.4	120.8	123.5	126.7	130.2
35°	107.4	107.7	108.8	110.4	112.5	113.6	114.6	117.1	120.8	124.6	128.3
37.5°	102.3	102.9	104.2	105.5	108.0	109.0	110.6	113.8	117.6	121.9	125.9
40°	97.2	97.8	99.1	101.0	103.4	105.0	106.6	110.6	114.6	119.2	123.7
42.5°	91.9	92.7	94.0	96.2	98.8	100.4	102.3	106.9	111.7	116.3	120.8
45°	86.8	87.3	88.9	91.3	94.0	95.9	98.3	103.1	108.0	113.0	117.9
47.5°	81.2	82.0	83.6	86.5	89.7	91.9	94.0	99.4	104.5	109.6	114.9
50°	76.1	76.6	78.5	81.2	84.9	87.3	89.7	95.1	100.7	106.3	112.2
52.5°	70.7	71.2	73.4	76.1	80.1	82.8	85.2	90.8	96.7	103.4	110.6
55°	65.6	66.2	68.3	71.0	75.5	78.2	80.9	87.1	93.7	101.5	111.2
57.5°	60.3	60.5	62.9	66.2	71.0	73.7	76.3	83.3	91.6	101.2	112.2
60°	54.9	55.4	57.6	61.3	66.7	69.6	72.9	80.6	90.8	102.6	115.2
62.5°	49.3	50.4	52.8	56.8	62.7	66.2	69.9	79.3	91.3	105.3	118.4
65°	44.7	45.5	48.0	52.8	59.2	63.2	67.8	79.6	93.7	108.2	120.3
67.5°	39.9	41.0	43.9	49.0	56.8	61.6	67.2	81.2	96.4	109.8	119.2
70°	35.1	36.2	39.9	46.1	54.9	60.8	67.5	82.8	97.0	107.7	115.4
72.5°	30.5	32.4	36.4	43.9	54.1	60.8	68.3	82.8	94.8	103.1	109.0
75°	26.3	28.1	33.5	42.0	53.8	61.1	67.8	80.4	89.5	96.4	101.2
77.5°	22.5	24.6	31.1	40.4	52.8	59.2	65.1	75.0	82.2	88.4	94.3
80°	18.5	21.2	28.4	38.6	49.6	54.9	59.5	67.8	74.5	80.6	86.8
82.5°	14.7	18.0	25.7	35.4	44.7	49.3	53.0	60.3	66.7	73.1	80.6
85°	11.0	14.7	22.2	31.1	38.8	42.9	46.3	53.0	59.2	66.4	73.9
87.5°	8.3	11.8	18.8	26.5	33.5	37.0	39.9	46.1	52.5	59.5	67.2
90°	7.0	9.6	15.8	22.2	28.7	31.6	34.3	40.4	46.3	52.5	59.7
92.5°	6.4	8.0	13.1	18.5	23.8	26.3	28.9	34.0	39.1	45.0	51.2
95°	6.2	7.0	10.4	14.7	19.0	20.9	23.0	26.8	30.8	35.6	40.2
97.5°	5.9	6.2	8.3	11.5	14.7	16.1	17.7	20.9	23.8	26.8	30.3
100°	5.4	5.6	6.7	8.8	11.2	12.6	13.4	15.5	17.7	19.6	21.7
102.5°	5.1	5.1	5.6	7.0	8.6	9.4	10.2	11.8	13.1	14.5	15.3
105°	4.6	4.6	4.8	5.6	6.7	7.2	7.8	8.8	9.6	10.4	11.0
107.5°	4.0	4.0	4.0	4.8	5.6	5.9	6.4	7.0	7.8	8.0	8.3
110°	3.5	3.5	3.5	4.0	4.6	4.8	5.4	5.9	6.4	6.4	6.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	3.2	2.9	2.9	3.2	4.0	4.3	4.6	5.1	5.4	5.6	5.6
115°	2.7	2.7	2.4	2.7	3.2	3.5	3.7	4.3	4.8	5.1	5.1
117.5°	2.1	2.1	2.1	2.1	2.7	2.9	3.2	3.7	4.3	4.6	4.6
120°	1.9	1.9	1.6	1.6	2.1	2.4	2.7	3.2	3.7	4.0	4.0
122.5°	1.3	1.3	1.3	1.3	1.6	1.9	2.1	2.7	3.2	3.5	3.5
125°	1.1	1.1	1.1	1.1	1.1	1.3	1.6	2.1	2.4	2.9	3.2
127.5°	1.1	0.8	0.8	0.8	0.8	0.8	1.1	1.6	2.1	2.4	2.7
130°	0.8	0.8	0.8	0.5	0.5	0.5	0.8	1.1	1.6	1.9	2.1
132.5°	0.5	0.5	0.5	0.5	0.5	0.3	0.5	0.8	1.1	1.3	1.6
135°	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.8	0.8	1.1
137.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.5	0.8
140°	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.3
142.5°	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	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°	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2
2.5°	142.2	142.2	142.2	142.2	142.2	142.0	142.0	142.0	141.7	141.7
5°	142.8	142.8	142.8	142.8	142.8	142.5	142.5	142.2	142.2	142.0
7.5°	142.5	142.8	142.5	142.5	142.5	142.5	142.2	142.2	142.0	142.0
10°	142.0	142.2	142.2	142.5	142.5	142.5	142.2	142.2	141.7	141.7
12.5°	141.4	141.7	141.7	142.2	142.2	142.2	142.0	142.0	142.0	142.0
15°	140.4	140.9	141.7	142.0	142.0	142.0	141.7	141.7	141.7	141.7
17.5°	139.3	139.8	140.6	141.2	141.4	141.7	141.7	142.0	142.2	142.2
20°	138.2	139.3	140.1	140.9	141.2	141.4	142.0	142.5	142.8	142.8
22.5°	137.4	138.8	139.8	140.9	141.4	141.7	142.2	143.3	143.6	143.3
25°	136.3	138.5	139.8	141.7	142.2	142.8	143.3	144.1	144.4	144.4
27.5°	135.5	137.7	139.6	141.2	142.2	143.0	144.1	144.9	145.4	145.7
30°	134.2	137.1	139.6	141.7	142.5	143.3	144.9	145.7	146.0	145.7
32.5°	133.4	136.3	139.0	141.2	142.0	143.0	144.9	146.0	146.5	146.3
35°	131.8	135.3	138.2	140.9	141.7	142.8	144.4	145.7	146.0	146.0
37.5°	129.6	133.4	136.6	139.6	140.4	141.4	143.0	144.4	144.9	144.9
40°	127.8	131.2	134.7	137.7	138.8	139.8	141.7	143.6	144.4	144.1
42.5°	125.1	129.1	132.9	136.3	137.7	138.8	141.2	143.3	144.1	144.4
45°	122.4	127.0	131.2	135.3	137.4	139.0	142.0	144.6	146.0	145.7
47.5°	120.0	125.6	131.2	136.3	139.0	140.6	144.1	146.5	147.6	148.1
50°	118.7	125.9	132.6	138.0	140.6	142.8	146.8	149.5	151.1	151.9
52.5°	118.9	127.0	134.5	141.2	143.8	146.5	150.8	154.0	155.1	155.9
55°	120.5	129.6	138.0	145.2	148.1	150.5	154.3	156.2	157.8	158.0
57.5°	123.2	133.4	141.4	147.6	149.7	151.6	154.8	156.4	157.2	157.5
60°	127.0	136.1	142.5	147.9	149.2	150.8	152.9	154.0	154.0	154.3
62.5°	129.1	136.9	142.0	144.6	146.3	147.3	149.2	150.3	151.1	150.8
65°	128.6	134.7	138.2	141.4	142.2	143.3	144.4	146.3	146.3	146.8
67.5°	125.6	130.7	133.4	136.1	137.1	138.8	140.4	142.0	142.2	142.8
70°	120.5	124.6	127.5	130.7	131.8	133.4	135.8	138.2	139.0	139.6
72.5°	113.6	117.6	121.9	126.2	128.0	129.9	133.1	135.3	136.6	137.1
75°	106.3	111.4	117.1	122.4	125.1	127.5	130.4	133.9	134.7	136.1
77.5°	100.2	106.3	113.3	118.9	121.6	124.0	127.8	130.2	131.8	132.0
80°	94.0	100.7	108.0	114.4	117.3	119.7	124.0	126.7	128.8	128.8
82.5°	87.9	95.9	103.4	109.6	112.8	114.9	119.7	121.9	124.3	124.0
85°	81.7	90.0	97.2	103.4	106.3	109.0	113.3	116.3	118.1	118.1
87.5°	75.0	82.0	89.5	96.2	98.3	101.0	105.0	108.2	109.3	110.4
90°	67.0	73.7	80.9	86.3	88.7	91.3	95.4	98.3	99.9	101.0
92.5°	57.6	63.7	69.4	73.9	76.3	79.0	82.2	85.4	86.3	86.5
95°	45.3	49.8	54.9	59.2	60.0	62.7	65.4	68.3	69.6	69.6
97.5°	33.7	36.7	40.2	42.3	43.7	44.7	46.6	48.5	48.8	49.3
100°	23.8	25.4	27.3	28.9	29.5	30.3	31.3	32.4	32.4	32.4
102.5°	16.6	17.7	18.5	19.3	19.3	19.6	19.8	20.4	20.4	20.6
105°	11.5	12.0	12.0	12.0	12.3	12.3	12.0	12.3	12.6	12.0
107.5°	8.6	8.6	8.3	8.0	8.3	8.0	7.8	7.8	7.5	7.5
110°	6.7	6.4	6.2	6.2	5.9	5.9	5.6	5.4	5.1	5.4



TEST NUMBER: P397222

CATALOG NUMBER: 2VRVT2-LD5-5-DR100-W-UNV-LR63-CD1-WL-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	5.6	5.4	5.1	4.8	4.8	4.6	4.6	4.3	4.0	4.0
115°	5.1	4.8	4.6	4.3	4.3	4.3	4.0	3.7	3.7	3.5
117.5°	4.6	4.6	4.3	4.0	4.0	3.7	3.7	3.5	3.5	3.2
120°	4.0	4.0	4.0	3.7	3.7	3.5	3.5	3.2	3.2	3.2
122.5°	3.7	3.7	3.5	3.5	3.5	3.2	3.2	2.9	2.9	2.9
125°	3.2	3.2	3.2	3.2	2.9	2.9	2.9	2.7	2.7	2.7
127.5°	2.7	2.7	2.9	2.7	2.7	2.7	2.7	2.7	2.4	2.4
130°	2.1	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.1	2.1
132.5°	1.9	1.9	1.9	2.1	2.1	2.1	2.1	1.9	1.9	1.9
135°	1.3	1.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
137.5°	0.8	1.1	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.1
140°	0.5	0.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
142.5°	0.3	0.3	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	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
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)