

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: P397345

Luminaire Tested: **8VRVT2-LD5-22-DR100-W-UNV-LR63-CD2-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397345
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-LR63-CD2-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3186.7 lumens
Efficiency: N/A
Efficacy: 7.5 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

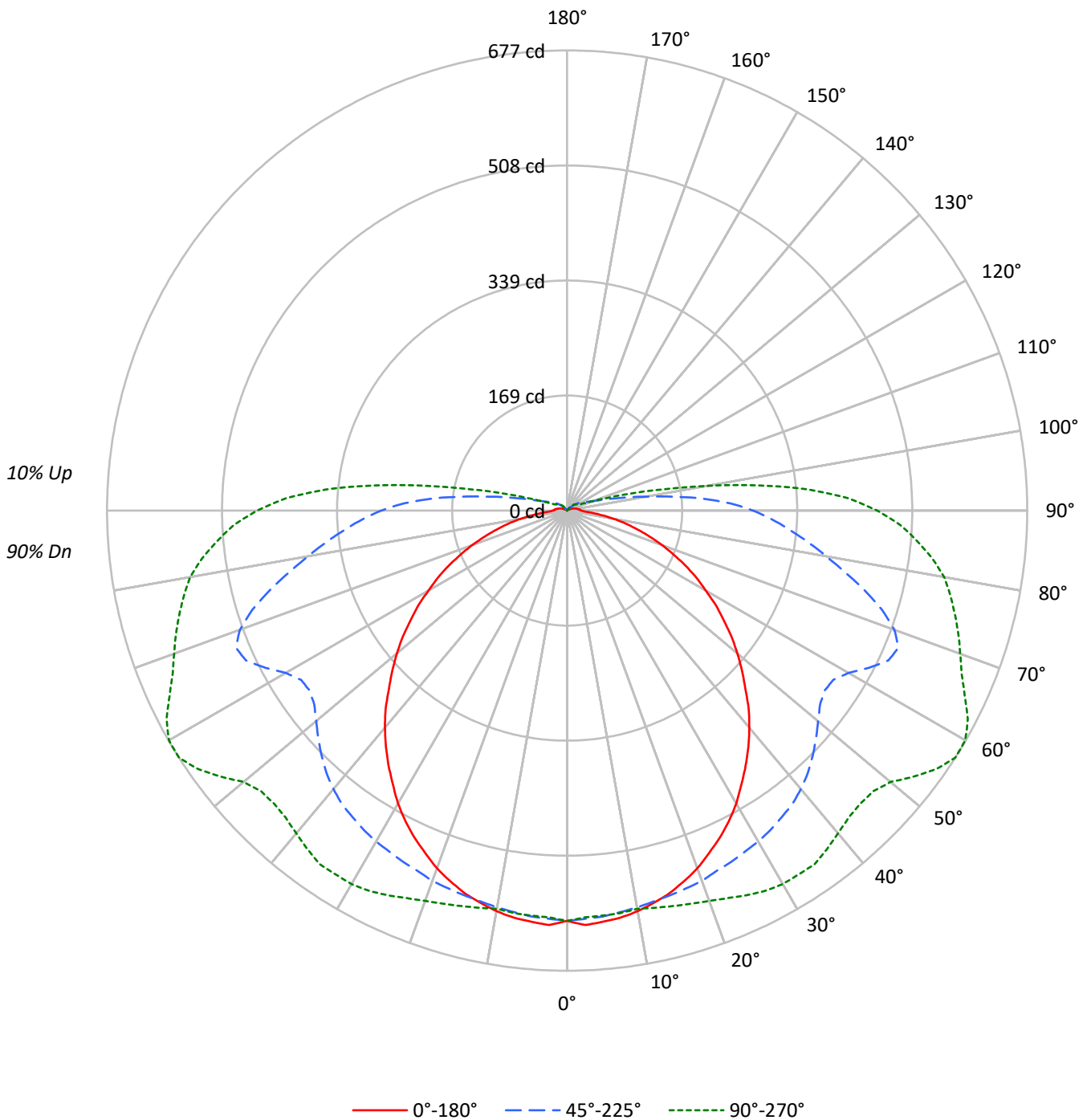
Input Watts (W): 427.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1559	1559	1559
5°	1572	1521	1507
10°	1564	1489	1474
15°	1550	1469	1479
20°	1529	1461	1498
25°	1500	1456	1541
30°	1468	1466	1587
35°	1424	1477	1623
40°	1383	1492	1634
45°	1327	1493	1671
50°	1284	1492	1786
55°	1231	1534	2023
60°	1176	1723	2216
65°	1128	2076	2301
70°	1063	2295	2426
75°	991	2340	2627
80°	927	2381	2900
85°	859	2531	3186



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.3	1.8
10°-20°	167.1	5.2
20°-30°	265.5	8.3
30°-40°	343.2	10.8
40°-50°	387.3	12.2
50°-60°	424.6	13.3
60°-70°	453.1	14.2
70°-80°	424.8	13.3
80°-90°	342.1	10.7
90°-100°	213.0	6.7
100°-110°	69.1	2.2
110°-120°	22.5	0.7
120°-130°	11.5	0.4
130°-140°	4.8	0.1
140°-150°	0.7	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	489.9	15.4
0°-40°	833.1	26.1
0°-60°	1645.1	51.6
0°-90°	2865.1	89.9
90°-120°	304.6	9.6
90°-150°	321.6	10.1
90°-180°	322.0	10.1
0°-180°	3186.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	604	604	604	604	604	
5°	607	605	599	600	598	58
15°	583	583	586	601	602	164
25°	531	538	570	611	624	245
35°	458	484	550	614	635	286
45°	371	416	511	581	610	287
55°	281	341	462	614	663	252
65°	192	270	522	632	645	190
75°	107	261	453	548	591	114
85°	36	179	329	466	517	36
90°	20	133	274	406	456	12
95°	18	93	201	315	356	14
105°	12	34	66	86	96	13
115°	6	15	30	27	23	6
125°	2	5	18	18	16	2
135°	1	0	7	11	10	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°	603.6	603.6	603.6	603.6	603.6	603.6	603.6	603.6	603.6	603.6	603.6
2.5°	610.3	608.6	607.3	607.3	607.3	606.9	606.9	606.5	605.7	603.2	601.1
5°	607.3	606.5	605.2	605.2	605.2	605.2	605.2	604.4	602.7	601.1	599.4
7.5°	604.0	603.2	601.5	601.9	600.6	601.1	600.6	599.8	599.4	598.1	596.0
10°	598.5	597.7	596.0	596.5	595.6	596.0	596.0	596.5	595.6	594.4	592.7
12.5°	591.0	590.6	589.8	589.3	590.2	591.0	591.4	590.6	589.8	589.3	588.9
15°	582.7	581.8	581.0	581.4	582.7	582.7	583.9	583.9	583.9	584.3	586.0
17.5°	571.8	571.4	570.5	571.4	572.2	572.6	574.3	575.1	575.6	578.9	582.7
20°	560.1	559.2	558.4	559.2	560.5	562.2	563.8	566.3	570.1	575.6	579.7
22.5°	545.4	545.0	544.6	545.4	547.5	550.0	553.0	558.4	564.3	570.1	573.9
25°	531.2	530.4	530.0	531.6	535.8	538.3	542.1	549.2	555.9	563.4	570.5
27.5°	515.3	512.8	514.9	516.6	522.0	525.3	530.0	539.2	546.7	555.1	565.9
30°	497.7	496.5	496.5	500.3	507.4	512.4	517.8	528.3	537.1	548.8	562.2
32.5°	477.2	477.7	478.5	483.5	493.2	499.0	503.6	515.7	527.0	541.7	557.1
35°	458.0	457.2	459.3	466.4	477.2	483.9	490.2	503.2	517.4	533.7	550.4
37.5°	437.9	437.1	440.0	448.4	460.1	467.2	474.3	490.6	506.9	525.3	544.2
40°	417.0	417.0	420.4	429.6	442.5	450.1	458.4	476.8	494.8	514.9	535.0
42.5°	395.3	394.4	398.6	411.2	425.8	433.3	443.4	462.6	483.1	503.2	524.1
45°	370.6	373.9	378.1	390.7	405.7	416.2	427.9	448.4	469.3	490.6	510.7
47.5°	348.8	351.3	357.2	370.6	388.2	397.8	410.3	432.1	454.7	475.2	496.5
50°	327.1	328.4	336.3	349.7	368.1	380.2	392.3	414.5	436.7	460.1	481.9
52.5°	304.5	304.9	314.5	327.5	349.3	361.4	372.7	396.1	420.0	444.2	468.9
55°	281.1	282.3	292.4	306.6	329.6	340.9	353.4	377.7	403.6	431.2	462.2
57.5°	259.7	261.0	270.6	286.1	309.9	322.1	334.2	360.5	389.0	423.3	463.9
60°	235.5	238.8	247.6	265.2	289.4	301.6	315.8	345.1	380.6	426.2	477.7
62.5°	215.0	215.8	225.9	245.1	270.6	284.0	299.5	335.0	381.9	439.2	500.7
65°	192.4	194.5	205.0	226.7	253.9	269.8	288.2	333.8	393.6	461.8	521.6
67.5°	169.8	173.2	185.7	209.6	240.9	260.2	283.6	342.6	412.4	478.9	527.4
70°	148.5	152.7	166.9	194.5	232.1	256.4	286.5	355.5	425.4	480.2	512.4
72.5°	127.2	133.0	151.4	183.2	228.8	258.9	293.2	363.5	422.5	460.1	485.6
75°	106.7	113.4	137.2	174.4	228.4	261.0	295.7	356.0	397.8	429.2	453.0
77.5°	88.3	96.2	123.8	167.3	225.5	256.0	284.0	330.4	365.2	394.4	418.7
80°	69.4	79.9	112.1	158.1	211.2	235.5	258.5	297.4	328.8	358.5	386.9
82.5°	51.4	65.2	99.6	144.3	187.0	208.7	226.7	262.3	294.0	325.0	357.6
85°	35.6	51.4	84.5	123.0	159.8	178.6	196.2	230.0	261.4	294.0	329.2
87.5°	24.7	40.6	70.3	104.1	138.0	153.9	169.8	202.4	233.8	266.0	302.0
90°	20.5	32.2	58.6	88.3	118.4	133.4	148.5	178.2	209.1	240.1	273.6
92.5°	19.2	26.8	48.1	74.0	101.2	113.8	127.2	154.8	182.4	212.1	240.5
95°	18.0	21.3	38.1	59.0	82.0	92.9	104.1	125.9	151.0	175.3	201.2
97.5°	16.3	17.6	29.3	46.0	64.4	73.6	82.0	99.6	119.2	137.6	156.0
100°	15.1	15.1	22.2	35.1	49.8	56.5	63.6	78.2	91.2	105.0	118.0
102.5°	13.4	13.4	17.2	26.4	38.1	43.5	49.8	59.8	69.4	79.1	88.3
105°	12.1	11.7	13.8	20.5	28.9	33.5	38.1	46.4	54.0	60.2	66.5
107.5°	10.5	10.5	11.3	16.3	23.0	26.8	30.1	37.2	43.1	47.7	51.0
110°	8.8	8.8	9.2	13.0	18.8	21.7	25.1	30.5	35.1	38.9	41.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	7.5	7.5	7.1	10.5	15.5	18.4	20.9	25.9	30.1	32.6	34.3
115°	5.9	5.9	5.9	8.0	12.5	15.1	17.6	22.2	26.4	28.9	30.1
117.5°	5.0	5.0	4.6	5.9	10.0	12.5	14.6	19.2	22.6	25.5	26.8
120°	3.8	3.8	3.8	3.8	7.5	10.0	12.1	16.3	19.7	22.2	23.4
122.5°	2.9	2.9	2.9	2.5	5.4	7.5	9.6	13.4	16.7	19.2	20.9
125°	2.5	2.1	2.1	2.1	3.3	5.0	7.1	10.5	13.4	16.3	18.0
127.5°	2.1	1.7	1.7	1.7	1.7	2.9	4.6	8.0	10.9	13.4	15.1
130°	1.7	1.2	1.2	1.2	0.8	1.7	2.9	5.4	8.4	10.5	12.1
132.5°	1.2	1.2	0.8	0.8	0.4	0.4	1.2	3.3	5.9	8.0	9.6
135°	0.8	0.8	0.8	0.4	0.4	0.0	0.0	1.7	3.8	5.4	7.1
137.5°	0.8	0.8	0.4	0.4	0.0	0.0	0.0	0.4	1.7	3.3	5.0
140°	0.8	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.4	1.7	2.9
142.5°	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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°	603.6	603.6	603.6	603.6	603.6	603.6	603.6	603.6	603.6	603.6
2.5°	601.1	601.5	601.9	601.9	601.5	601.5	601.1	600.2	599.4	599.0
5°	598.1	599.4	600.2	600.2	600.2	599.8	599.8	599.4	598.5	598.1
7.5°	595.6	597.7	598.5	598.1	598.1	598.1	598.1	598.5	597.7	597.3
10°	593.1	594.8	596.5	596.9	597.3	596.9	596.9	596.0	595.6	594.8
12.5°	590.6	593.5	596.0	598.1	598.1	598.1	599.0	600.2	599.8	598.5
15°	588.5	593.5	596.5	599.8	601.1	602.3	602.7	603.6	602.3	602.3
17.5°	587.2	594.0	598.1	601.5	601.9	603.6	606.1	607.3	606.9	606.5
20°	585.2	593.1	599.0	601.9	604.0	606.1	609.4	610.3	611.1	611.1
22.5°	582.7	591.4	597.3	604.0	607.3	609.4	614.0	616.5	617.4	617.0
25°	580.6	590.6	599.4	607.3	610.7	613.2	619.0	623.6	624.5	624.5
27.5°	578.5	590.2	600.6	611.1	615.3	618.2	624.1	628.7	630.3	630.8
30°	576.4	589.3	601.9	612.4	617.4	620.3	627.0	631.2	634.5	634.5
32.5°	572.6	588.5	601.1	612.4	616.5	621.6	627.8	632.4	634.9	634.5
35°	568.8	583.5	597.7	609.0	613.6	618.6	626.2	631.6	633.3	634.9
37.5°	562.6	578.0	592.3	603.6	610.3	614.4	621.1	625.3	628.7	627.8
40°	554.2	569.7	584.3	595.2	601.1	606.1	613.6	617.4	620.3	619.9
42.5°	542.1	559.6	573.5	585.2	591.4	596.5	605.7	609.0	612.4	612.8
45°	530.0	547.1	562.6	575.1	581.0	586.8	598.1	604.4	608.6	609.8
47.5°	515.3	534.6	552.1	569.3	577.6	585.2	596.9	605.7	610.3	611.1
50°	503.2	527.0	548.8	568.8	579.3	587.7	603.6	614.0	619.0	621.1
52.5°	496.1	524.9	553.4	579.3	591.9	602.3	622.0	633.7	642.0	642.9
55°	497.3	533.7	569.3	601.5	614.0	627.0	645.0	655.9	663.0	663.0
57.5°	509.9	553.4	594.4	624.1	636.6	646.7	663.4	670.5	675.5	676.8
60°	532.5	578.5	614.0	640.0	648.3	656.3	665.5	673.4	675.5	676.4
62.5°	554.6	594.0	622.0	640.0	645.0	651.7	658.4	663.0	664.6	664.6
65°	566.3	595.6	612.8	626.2	631.6	633.7	640.8	642.5	646.2	645.4
67.5°	559.2	578.0	591.9	603.2	607.3	611.5	619.9	624.1	627.4	628.2
70°	535.0	550.0	564.7	578.9	584.3	591.4	601.5	609.4	613.2	615.3
72.5°	505.3	523.3	542.1	559.2	568.0	574.7	587.2	597.7	601.5	603.6
75°	474.7	496.1	517.8	538.7	547.9	556.7	571.8	581.8	588.5	590.6
77.5°	444.2	470.1	496.5	520.3	531.6	540.8	558.0	568.8	576.8	577.6
80°	415.8	446.7	476.0	501.5	512.8	523.7	540.8	553.4	557.6	563.4
82.5°	390.7	422.9	452.6	479.3	491.9	501.5	519.5	532.5	538.7	542.1
85°	363.5	396.9	427.1	453.4	466.4	478.1	494.8	506.9	515.7	517.0
87.5°	335.9	369.3	400.3	427.5	440.4	451.3	468.9	480.6	488.5	491.1
90°	306.6	338.4	368.1	395.3	406.1	417.4	434.2	447.6	455.9	456.3
92.5°	271.5	302.0	329.2	354.7	367.7	376.0	391.9	405.7	411.6	414.1
95°	226.7	254.7	280.7	302.0	315.0	322.5	338.0	348.0	354.7	356.4
97.5°	177.8	199.5	220.4	239.2	248.9	255.2	267.7	276.5	286.5	284.0
100°	133.8	146.0	161.0	173.2	180.3	184.5	193.7	199.5	205.4	208.7
102.5°	97.0	106.2	112.9	119.2	124.2	128.4	135.5	137.6	139.3	143.5
105°	71.1	75.7	79.5	84.1	86.2	87.4	90.4	92.4	92.4	96.2
107.5°	53.5	55.6	57.3	59.8	59.8	61.1	61.1	61.5	62.7	61.9
110°	42.2	42.7	43.1	42.7	43.1	42.7	42.2	41.8	41.8	41.4



TEST NUMBER: P397345

CATALOG NUMBER: 8VRVT2-LD5-22-DR100-W-UNV-LR63-CD2-WL-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	35.1	34.7	34.3	33.0	32.6	31.8	31.4	30.5	29.7	29.7
115°	30.1	29.7	28.9	27.6	26.8	25.9	25.5	24.3	23.4	23.0
117.5°	26.8	26.4	25.5	24.3	23.8	23.0	22.2	20.9	20.1	19.7
120°	24.3	24.3	23.4	22.2	21.7	21.3	20.1	19.2	18.4	18.0
122.5°	21.7	21.7	21.3	20.5	20.1	19.7	18.8	18.0	17.2	17.2
125°	18.8	19.2	19.2	18.8	18.4	18.0	17.6	16.7	16.3	15.9
127.5°	16.3	16.7	17.2	17.2	16.7	16.7	15.9	15.5	15.1	15.1
130°	13.4	14.6	15.1	15.1	15.1	15.1	14.6	14.2	13.8	13.8
132.5°	10.9	11.7	12.5	13.0	13.0	13.0	12.5	12.5	12.1	12.1
135°	8.4	9.2	10.0	10.5	10.9	10.9	10.9	10.9	10.5	10.5
137.5°	6.3	7.1	8.0	8.4	8.4	8.8	8.8	8.8	8.4	8.4
140°	3.8	5.0	5.4	5.9	6.3	6.3	6.7	6.7	6.3	6.3
142.5°	2.1	2.9	3.3	3.8	4.2	4.2	4.6	4.2	4.2	4.2
145°	0.4	0.8	1.7	2.1	2.1	2.1	2.1	2.5	2.1	2.1
147.5°	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	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)