

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: P397339

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397339
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-LR63-CD2-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3186.2 lumens
Efficiency: N/A
Efficacy: 7.5 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

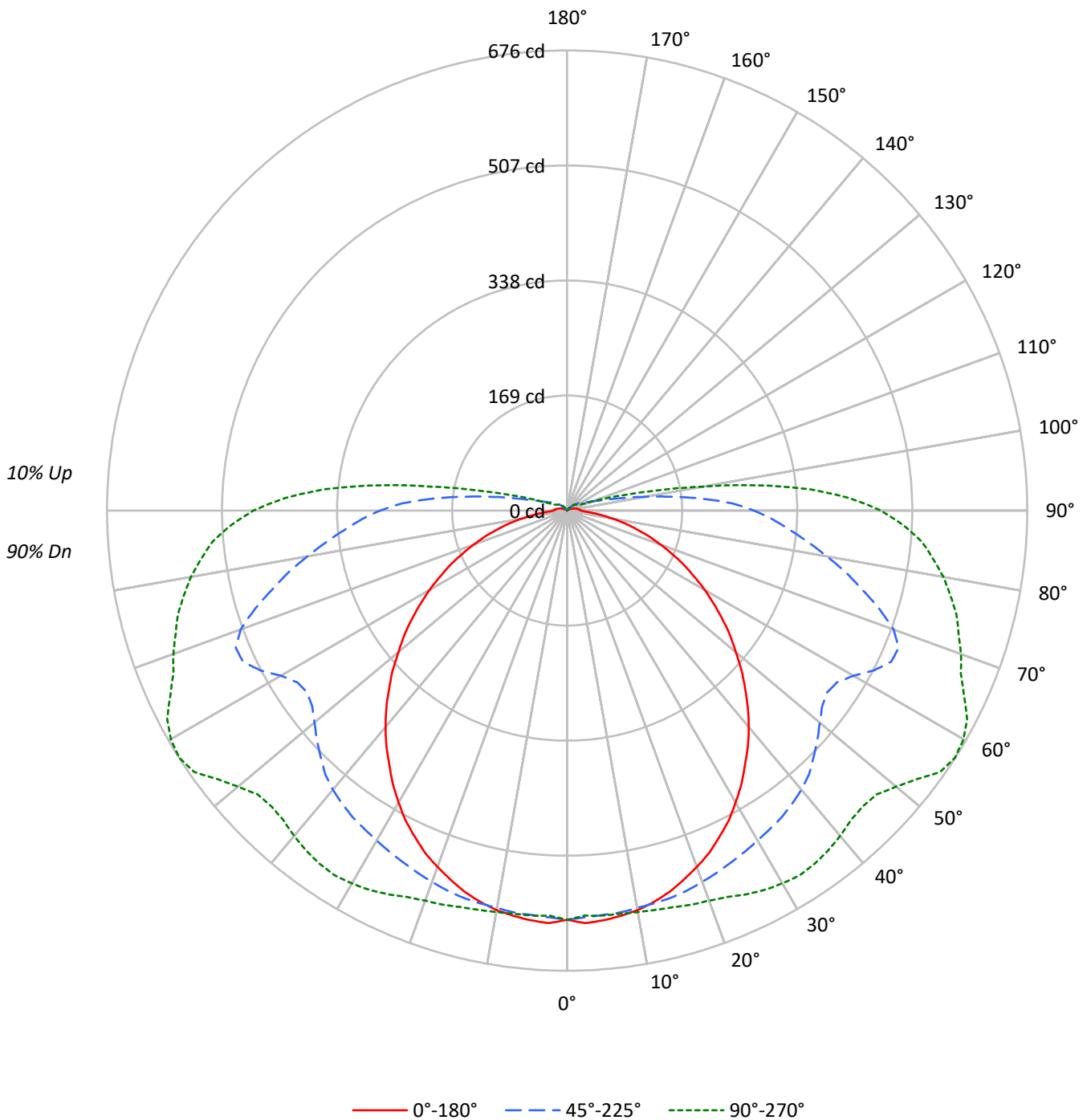
Input Watts (W): 427.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P397339

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

Luminous Intensity Polar Plot





TEST NUMBER: P397339

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

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°	1553	1553	1553
5°	1565	1514	1505
10°	1558	1489	1484
15°	1543	1476	1481
20°	1520	1463	1495
25°	1494	1455	1534
30°	1460	1459	1582
35°	1417	1475	1620
40°	1376	1493	1644
45°	1324	1497	1683
50°	1269	1500	1814
55°	1220	1547	2042
60°	1168	1750	2202
65°	1111	2091	2293
70°	1045	2286	2427
75°	975	2318	2635
80°	899	2384	2889
85°	859	2528	3224



TEST NUMBER: P397339

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.1	1.8
10°-20°	167.2	5.2
20°-30°	265.4	8.3
30°-40°	343.4	10.8
40°-50°	388.7	12.2
50°-60°	426.7	13.4
60°-70°	452.8	14.2
70°-80°	424.5	13.3
80°-90°	343.4	10.8
90°-100°	212.7	6.7
100°-110°	66.7	2.1
110°-120°	21.2	0.7
120°-130°	11.0	0.3
130°-140°	4.6	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°	489.7	15.4
0°-40°	833.1	26.1
0°-60°	1648.5	51.7
0°-90°	2869.2	90.0
90°-120°	300.7	9.4
90°-150°	317.0	10.0
90°-180°	317.0	9.9
0°-180°	3186.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	601	601	601	601	601	
5°	604	602	596	599	597	57
15°	580	583	589	602	603	163
25°	529	541	570	608	622	244
35°	456	485	550	615	634	285
45°	370	416	512	586	614	286
55°	279	340	466	621	669	249
65°	190	270	525	627	643	187
75°	105	263	449	550	592	112
85°	36	178	329	473	523	36
90°	20	133	274	410	461	12
95°	18	92	200	313	358	14
105°	12	33	63	83	90	13
115°	6	15	28	25	21	6
125°	2	5	18	18	15	2
135°	1	0	7	10	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



TEST NUMBER: P397339

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	601.1	601.1	601.1	601.1	601.1	601.1	601.1	601.1	601.1	601.1	601.1
2.5°	606.5	605.6	604.4	604.0	603.6	603.6	604.0	603.1	601.9	599.8	598.1
5°	604.4	603.6	602.3	601.5	602.3	602.3	602.7	601.9	600.2	598.5	596.4
7.5°	600.6	599.8	598.5	598.5	598.1	598.5	598.5	598.5	597.7	596.9	595.6
10°	596.0	594.8	594.4	593.9	594.4	595.2	595.2	595.6	594.8	593.5	592.7
12.5°	588.9	588.5	587.2	587.7	588.1	589.3	590.2	591.0	591.4	591.0	591.0
15°	580.1	579.3	578.9	579.7	582.2	582.6	583.5	585.6	586.4	588.1	588.9
17.5°	568.8	568.8	568.8	570.5	573.4	574.3	576.0	578.0	580.1	582.2	585.2
20°	557.1	557.1	557.1	559.2	562.6	565.1	566.8	569.7	573.0	577.6	580.6
22.5°	544.6	543.7	543.7	545.8	550.9	552.1	555.5	561.3	566.3	571.8	575.5
25°	529.1	528.3	529.5	532.4	538.3	541.2	545.0	551.7	556.7	564.2	570.1
27.5°	513.6	512.4	514.0	517.8	525.8	529.1	533.7	541.7	547.5	555.9	565.1
30°	495.2	495.2	497.3	502.3	510.3	514.9	519.9	529.5	537.5	547.9	559.6
32.5°	476.4	475.6	479.3	484.8	495.2	500.7	506.1	517.0	527.0	540.4	554.6
35°	455.5	455.9	459.7	466.8	479.3	484.8	490.6	503.2	516.6	532.9	549.6
37.5°	436.3	435.4	440.4	450.0	462.2	468.5	474.7	490.2	505.3	523.7	542.9
40°	414.9	415.3	419.9	430.8	443.4	450.5	457.6	475.6	493.6	513.2	535.4
42.5°	393.2	393.6	399.9	411.6	425.4	433.3	442.1	460.9	481.4	503.2	525.8
45°	369.7	370.6	378.1	391.9	405.7	415.8	425.4	445.9	468.9	490.6	512.0
47.5°	347.6	348.8	358.4	371.0	386.9	397.4	407.8	431.2	453.8	476.0	498.6
50°	323.3	327.1	335.5	349.7	367.7	377.7	389.4	413.7	437.5	461.3	484.4
52.5°	302.0	303.7	314.1	327.9	347.2	358.9	369.7	395.7	420.8	445.5	472.2
55°	278.6	281.1	292.4	306.6	326.7	339.6	351.8	377.7	405.3	432.9	466.0
57.5°	255.6	258.5	270.6	285.3	307.4	319.1	333.4	360.5	390.7	426.2	469.7
60°	233.8	235.9	247.2	263.9	286.9	300.3	315.0	346.3	383.1	430.8	485.2
62.5°	210.4	214.2	224.6	243.4	269.8	283.6	300.3	337.1	386.1	445.9	508.2
65°	189.5	192.4	204.1	225.0	253.1	270.2	289.4	337.5	399.9	466.0	525.3
67.5°	167.3	172.3	184.4	207.5	240.5	261.0	285.7	346.3	417.0	480.6	527.0
70°	146.0	151.0	166.5	193.7	233.0	258.9	288.6	359.7	427.9	478.5	510.3
72.5°	125.9	130.9	150.6	182.4	230.5	261.0	294.9	366.0	421.6	455.5	481.0
75°	105.0	112.1	136.4	174.8	230.0	263.1	297.4	355.5	396.1	424.5	448.8
77.5°	87.0	95.8	123.8	167.7	226.7	256.8	283.2	328.3	363.1	391.1	419.1
80°	67.3	79.5	112.5	158.5	211.2	235.1	256.8	293.6	327.9	357.6	387.3
82.5°	50.2	65.2	99.1	143.5	186.5	206.6	226.7	261.0	293.2	324.2	357.6
85°	35.6	51.0	84.9	123.0	160.2	177.8	195.7	229.2	261.0	294.0	328.8
87.5°	25.1	39.7	69.9	103.7	137.2	151.8	168.6	200.4	233.8	266.4	302.8
90°	20.1	31.8	58.1	87.4	117.1	132.6	147.6	178.2	208.7	240.5	274.4
92.5°	19.2	26.4	48.1	73.6	99.6	112.9	126.3	153.9	182.0	210.4	242.6
95°	17.6	21.3	37.2	59.0	80.7	92.0	103.7	125.9	150.2	174.0	199.9
97.5°	16.3	17.6	28.9	46.0	63.6	71.5	80.3	99.1	116.3	134.7	154.8
100°	14.6	15.1	21.7	34.3	48.5	55.6	63.2	75.7	88.7	103.3	117.1
102.5°	13.4	13.4	17.2	25.9	36.4	41.8	47.3	58.1	67.3	77.0	84.9
105°	11.7	11.7	13.8	19.7	28.0	32.6	36.8	44.3	51.9	58.1	62.7
107.5°	10.5	10.0	10.9	15.9	22.6	25.9	29.7	35.6	41.0	45.2	48.9
110°	8.8	8.8	8.8	13.0	18.4	21.3	24.3	29.3	33.9	36.8	38.5



TEST NUMBER: P397339

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	7.1	7.1	7.1	10.5	15.1	18.0	20.5	25.1	28.9	31.4	32.6
115°	5.9	5.9	5.4	8.0	12.5	15.1	17.2	21.7	25.1	27.2	28.4
117.5°	4.6	4.6	4.6	5.9	10.0	12.1	14.6	18.4	22.2	24.3	25.5
120°	3.8	3.8	3.3	3.8	7.5	9.6	11.7	15.9	19.2	21.3	22.6
122.5°	2.9	2.9	2.5	2.5	5.4	7.1	9.2	13.0	16.3	18.4	20.1
125°	2.1	2.1	2.1	1.7	3.3	5.0	7.1	10.5	13.4	15.9	17.6
127.5°	1.7	1.7	1.7	1.2	1.7	2.9	4.6	8.0	10.9	13.0	14.6
130°	1.2	1.2	1.2	0.8	0.8	1.7	2.9	5.4	8.0	10.0	12.1
132.5°	1.2	1.2	0.8	0.8	0.4	0.4	1.2	3.3	5.9	7.5	9.2
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	2.1	3.3	4.6
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



TEST NUMBER: P397339

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	601.1	601.1	601.1	601.1	601.1	601.1	601.1	601.1	601.1	601.1
2.5°	597.3	597.7	598.5	598.5	598.1	598.1	597.7	597.3	596.4	595.6
5°	596.4	597.3	598.5	599.0	599.0	598.5	598.5	598.5	598.1	597.3
7.5°	596.0	597.3	598.5	599.0	599.4	599.4	599.0	598.5	597.7	597.3
10°	593.9	596.4	597.7	599.0	599.8	599.8	600.2	600.2	599.4	599.0
12.5°	593.1	596.0	598.1	599.8	601.1	601.1	601.9	602.7	600.2	600.6
15°	591.4	595.6	599.0	601.1	601.9	602.3	603.1	603.6	602.7	603.1
17.5°	589.3	594.8	598.1	601.1	601.5	602.7	605.2	606.5	606.5	606.9
20°	586.4	592.7	597.3	601.9	603.6	604.8	607.3	609.8	609.0	609.8
22.5°	583.1	590.2	596.9	602.3	604.4	606.9	611.1	613.6	614.8	614.4
25°	580.1	589.3	597.3	605.6	608.2	611.5	616.5	619.9	621.1	622.0
27.5°	576.8	588.1	599.0	608.2	612.3	616.5	622.8	626.6	627.8	628.2
30°	574.3	588.5	599.8	610.7	615.3	619.9	626.6	630.3	632.0	632.4
32.5°	571.8	586.8	599.8	611.5	616.1	620.3	628.2	634.1	635.3	635.3
35°	568.4	583.5	598.1	610.3	614.8	619.5	628.2	632.8	634.1	633.7
37.5°	562.6	579.3	594.4	605.2	609.8	614.0	622.8	627.8	629.9	629.5
40°	554.2	571.4	586.0	598.1	602.3	606.9	616.1	620.3	623.2	624.0
42.5°	544.2	561.3	576.0	588.1	593.5	599.0	608.2	612.8	616.1	616.9
45°	531.6	549.2	565.1	579.3	585.6	591.0	602.3	610.3	613.6	614.4
47.5°	518.7	538.7	556.7	573.9	581.8	590.2	602.7	612.8	617.4	616.9
50°	506.5	530.8	553.4	576.0	586.4	596.0	611.9	622.8	628.2	630.8
52.5°	500.7	530.8	560.9	587.7	599.8	610.3	629.1	641.6	647.9	647.9
55°	503.6	542.5	577.2	608.2	621.1	632.4	648.7	660.9	666.3	669.2
57.5°	517.0	562.1	599.4	628.7	640.8	650.4	665.5	671.3	677.2	675.5
60°	539.6	582.6	615.7	641.2	649.6	654.6	664.2	669.2	672.2	672.2
62.5°	558.4	597.3	620.3	635.3	642.9	647.1	655.0	658.8	662.5	662.5
65°	566.8	592.3	609.8	623.2	626.6	631.6	637.0	640.8	644.1	643.3
67.5°	556.7	575.1	588.9	601.1	605.2	610.3	616.9	622.4	625.3	626.1
70°	531.6	549.2	562.1	577.2	583.5	589.8	601.5	609.4	614.0	615.7
72.5°	502.3	520.7	540.8	558.0	567.6	574.7	587.7	596.0	602.3	603.1
75°	472.2	495.2	518.2	540.0	549.6	559.6	574.3	583.9	591.0	592.3
77.5°	445.0	471.4	499.8	523.2	535.0	543.7	559.6	568.8	576.4	576.8
80°	417.9	448.8	477.7	501.9	513.6	524.9	540.0	552.1	558.4	561.3
82.5°	391.5	423.3	454.2	482.3	492.7	503.6	520.7	532.4	539.6	542.1
85°	365.6	400.3	432.5	459.7	472.6	483.5	501.9	512.8	521.2	523.2
87.5°	338.4	372.3	404.5	431.2	444.6	454.2	473.1	484.4	492.7	494.4
90°	309.1	340.9	372.3	397.4	409.9	420.4	440.4	450.9	457.2	460.9
92.5°	272.7	303.2	332.1	356.8	369.7	377.3	396.1	407.4	414.1	415.8
95°	227.5	253.5	279.4	301.6	312.9	324.2	336.7	347.6	356.8	358.0
97.5°	175.7	197.4	218.8	240.5	247.6	254.3	264.8	276.1	284.4	284.0
100°	130.9	143.5	158.5	169.8	175.2	182.8	192.8	199.5	200.4	202.9
102.5°	94.1	102.9	109.2	117.5	120.0	126.7	130.1	134.7	135.5	137.6
105°	68.2	72.8	77.4	80.7	82.8	83.2	85.7	89.1	89.9	89.9
107.5°	51.0	53.5	54.0	55.2	56.0	56.5	58.1	58.6	59.0	59.0
110°	40.2	40.6	39.7	39.7	39.3	39.3	38.9	38.5	38.1	38.1



TEST NUMBER: P397339

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	32.6	32.6	31.8	30.5	29.7	29.3	28.0	27.2	26.8	26.8
115°	28.4	27.6	26.8	25.5	24.7	24.3	23.0	22.2	21.3	20.9
117.5°	25.5	25.1	23.8	23.0	22.2	21.7	20.5	19.2	18.8	18.4
120°	23.0	22.6	22.2	20.9	20.5	20.1	18.8	18.0	17.2	17.2
122.5°	20.5	20.5	20.1	19.2	18.8	18.4	17.6	16.7	16.3	15.9
125°	18.4	18.4	18.4	18.0	17.6	17.2	16.3	15.9	15.5	15.1
127.5°	15.5	16.3	16.3	16.3	15.9	15.9	15.5	14.6	14.2	14.2
130°	13.0	13.8	14.2	14.2	14.2	14.2	13.8	13.4	13.0	13.0
132.5°	10.5	11.7	12.1	12.5	12.5	12.5	12.1	12.1	11.7	11.7
135°	8.4	9.2	10.0	10.5	10.5	10.5	10.5	10.5	10.0	10.0
137.5°	6.3	6.7	7.5	8.0	8.4	8.4	8.4	8.4	8.4	8.4
140°	3.8	4.6	5.4	5.9	6.3	6.3	6.3	6.3	6.3	6.3
142.5°	2.1	2.5	3.3	3.8	4.2	4.2	4.2	4.2	4.2	4.2
145°	0.4	0.8	1.7	2.1	2.1	2.1	2.1	2.1	2.1	2.1
147.5°	0.0	0.0	0.0	0.0	0.4	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)