

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: P397324

Luminaire Tested: **8VRVT2-LD5-16-DR-W-UNV-LR63-CD2-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397324
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-LD5-16-DR-W-UNV-LR63-CD2-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2437.8 lumens
Efficiency: N/A
Efficacy: 8.0 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

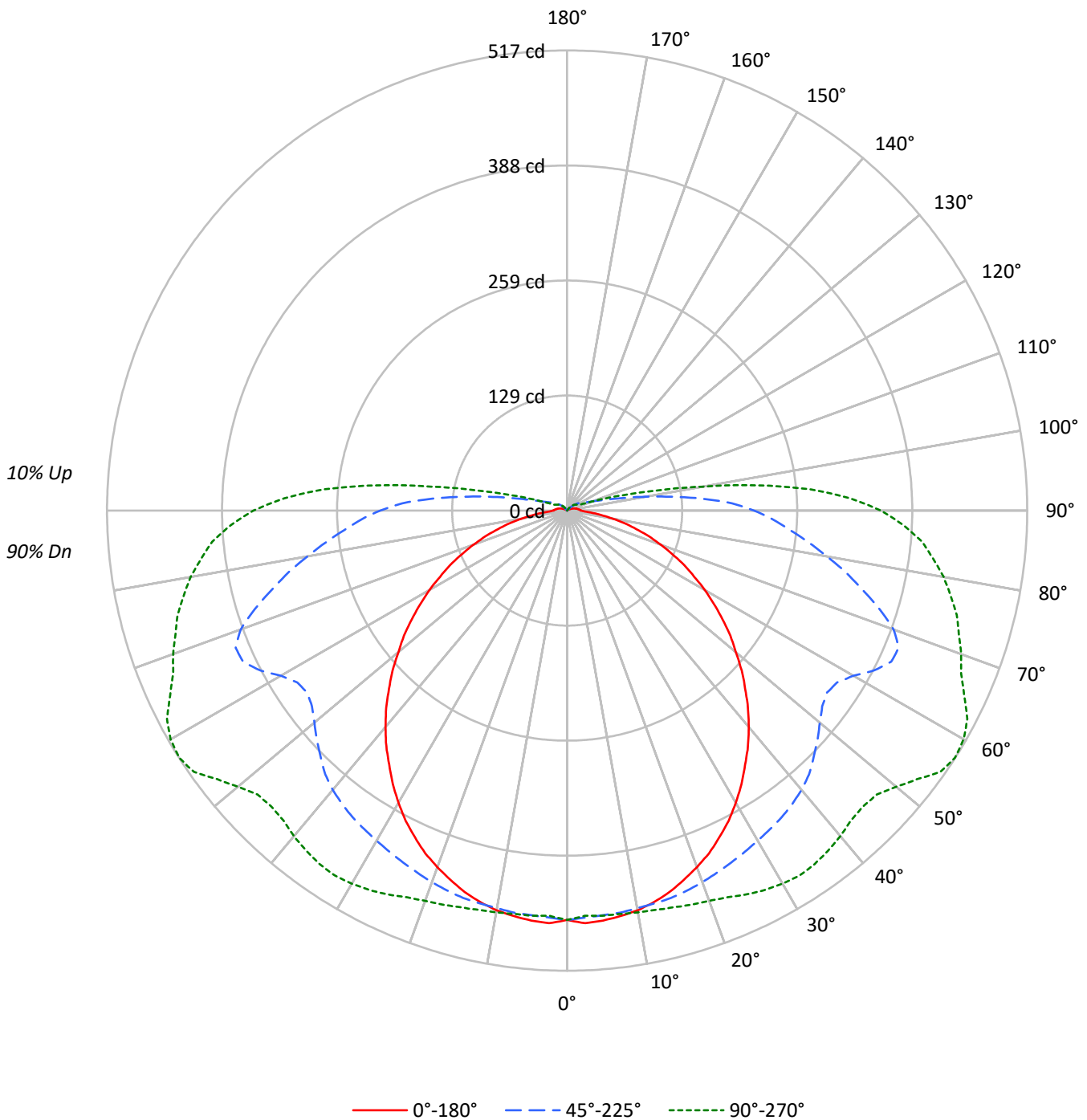
Input Watts (W): 303
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1188	1188	1188
5°	1197	1158	1152
10°	1192	1139	1135
15°	1181	1130	1133
20°	1163	1119	1144
25°	1143	1114	1174
30°	1117	1116	1211
35°	1084	1129	1240
40°	1053	1142	1258
45°	1013	1145	1288
50°	971	1148	1388
55°	933	1183	1562
60°	893	1339	1685
65°	850	1600	1754
70°	800	1749	1857
75°	746	1774	2015
80°	688	1824	2211
85°	656	1933	2467



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.7	1.8
10°-20°	128.0	5.2
20°-30°	203.0	8.3
30°-40°	262.7	10.8
40°-50°	297.4	12.2
50°-60°	326.5	13.4
60°-70°	346.5	14.2
70°-80°	324.8	13.3
80°-90°	262.7	10.8
90°-100°	162.8	6.7
100°-110°	51.1	2.1
110°-120°	16.2	0.7
120°-130°	8.4	0.3
130°-140°	3.5	0.1
140°-150°	0.5	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	374.7	15.4
0°-40°	637.4	26.1
0°-60°	1261.2	51.7
0°-90°	2195.2	90.0
90°-120°	230.1	9.4
90°-150°	242.6	10.0
90°-180°	243.0	10.0
0°-180°	2437.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	462	461	456	458	457	44
15°	444	446	451	460	462	125
25°	405	414	436	465	476	186
35°	348	371	420	470	485	218
45°	283	318	392	448	470	218
55°	213	260	356	475	512	191
65°	145	207	402	479	492	143
75°	80	201	343	420	453	86
85°	27	136	252	362	400	27
90°	15	101	210	314	353	9
95°	13	70	153	239	274	11
105°	9	25	48	63	69	10
115°	4	12	22	19	16	5
125°	2	4	13	13	12	2
135°	1	0	5	8	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°	459.9	459.9	459.9	459.9	459.9	459.9	459.9	459.9	459.9	459.9	459.9
2.5°	464.0	463.4	462.4	462.1	461.8	461.8	462.1	461.5	460.5	458.9	457.6
5°	462.4	461.8	460.8	460.2	460.8	460.8	461.1	460.5	459.2	457.9	456.3
7.5°	459.5	458.9	457.9	457.9	457.6	457.9	457.9	457.9	457.3	456.7	455.7
10°	456.0	455.1	454.7	454.4	454.7	455.4	455.4	455.7	455.1	454.1	453.5
12.5°	450.6	450.3	449.3	449.6	449.9	450.9	451.5	452.2	452.5	452.2	452.2
15°	443.9	443.2	442.9	443.5	445.5	445.8	446.4	448.0	448.7	449.9	450.6
17.5°	435.2	435.2	435.2	436.5	438.7	439.4	440.7	442.3	443.9	445.5	447.7
20°	426.3	426.3	426.3	427.9	430.4	432.3	433.6	435.9	438.4	441.9	444.2
22.5°	416.7	416.0	416.0	417.6	421.5	422.4	425.0	429.5	433.3	437.5	440.3
25°	404.8	404.2	405.1	407.4	411.9	414.1	417.0	422.1	425.9	431.7	436.2
27.5°	393.0	392.0	393.3	396.2	402.3	404.8	408.3	414.4	418.9	425.3	432.3
30°	378.9	378.9	380.5	384.3	390.4	393.9	397.8	405.1	411.2	419.2	428.2
32.5°	364.5	363.9	366.7	370.9	378.9	383.1	387.2	395.5	403.2	413.5	424.3
35°	348.5	348.8	351.7	357.1	366.7	370.9	375.4	385.0	395.2	407.7	420.5
37.5°	333.8	333.1	337.0	344.3	353.6	358.4	363.2	375.1	386.6	400.7	415.4
40°	317.5	317.8	321.3	329.6	339.2	344.7	350.1	363.9	377.6	392.7	409.6
42.5°	300.8	301.1	305.9	314.9	325.5	331.5	338.3	352.7	368.3	385.0	402.3
45°	282.9	283.5	289.3	299.9	310.4	318.1	325.5	341.1	358.7	375.4	391.7
47.5°	265.9	266.9	274.3	283.9	296.0	304.0	312.0	329.9	347.2	364.2	381.5
50°	247.4	250.3	256.7	267.5	281.3	289.0	297.9	316.5	334.7	353.0	370.6
52.5°	231.1	232.3	240.3	250.9	265.6	274.6	282.9	302.7	321.9	340.8	361.3
55°	213.1	215.1	223.7	234.6	249.9	259.9	269.1	289.0	310.1	331.2	356.5
57.5°	195.5	197.8	207.0	218.3	235.2	244.2	255.1	275.9	298.9	326.1	359.4
60°	178.9	180.5	189.1	201.9	219.5	229.8	241.0	265.0	293.1	329.6	371.2
62.5°	161.0	163.8	171.8	186.2	206.4	217.0	229.8	257.9	295.4	341.1	388.8
65°	145.0	147.2	156.2	172.2	193.6	206.7	221.5	258.3	305.9	356.5	401.9
67.5°	128.0	131.8	141.1	158.7	184.0	199.7	218.6	265.0	319.1	367.7	403.2
70°	111.7	115.5	127.4	148.2	178.2	198.1	220.8	275.2	327.4	366.1	390.4
72.5°	96.3	100.2	115.2	139.5	176.3	199.7	225.6	280.0	322.6	348.5	368.0
75°	80.3	85.8	104.3	133.8	176.0	201.3	227.5	272.0	303.1	324.8	343.4
77.5°	66.6	73.3	94.7	128.3	173.4	196.5	216.7	251.2	277.8	299.2	320.7
80°	51.5	60.8	86.1	121.3	161.6	179.8	196.5	224.7	250.9	273.6	296.3
82.5°	38.4	49.9	75.8	109.8	142.7	158.1	173.4	199.7	224.3	248.0	273.6
85°	27.2	39.0	65.0	94.1	122.6	136.0	149.8	175.4	199.7	225.0	251.5
87.5°	19.2	30.4	53.4	79.4	105.0	116.2	129.0	153.3	178.9	203.8	231.7
90°	15.4	24.3	44.5	66.9	89.6	101.4	113.0	136.3	159.7	184.0	209.9
92.5°	14.7	20.2	36.8	56.3	76.2	86.4	96.6	117.8	139.2	161.0	185.6
95°	13.4	16.3	28.5	45.1	61.8	70.4	79.4	96.3	114.9	133.1	153.0
97.5°	12.5	13.4	22.1	35.2	48.6	54.7	61.4	75.8	89.0	103.0	118.4
100°	11.2	11.5	16.6	26.2	37.1	42.6	48.3	57.9	67.8	79.0	89.6
102.5°	10.2	10.2	13.1	19.8	27.8	32.0	36.2	44.5	51.5	58.9	65.0
105°	9.0	9.0	10.6	15.0	21.4	25.0	28.2	33.9	39.7	44.5	48.0
107.5°	8.0	7.7	8.3	12.2	17.3	19.8	22.7	27.2	31.4	34.6	37.4
110°	6.7	6.7	6.7	9.9	14.1	16.3	18.6	22.4	25.9	28.2	29.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	5.4	5.4	5.4	8.0	11.5	13.8	15.7	19.2	22.1	24.0	25.0
115°	4.5	4.5	4.2	6.1	9.6	11.5	13.1	16.6	19.2	20.8	21.8
117.5°	3.5	3.5	3.5	4.5	7.7	9.3	11.2	14.1	17.0	18.6	19.5
120°	2.9	2.9	2.6	2.9	5.8	7.4	9.0	12.2	14.7	16.3	17.3
122.5°	2.2	2.2	1.9	1.9	4.2	5.4	7.0	9.9	12.5	14.1	15.4
125°	1.6	1.6	1.6	1.3	2.6	3.8	5.4	8.0	10.2	12.2	13.4
127.5°	1.3	1.3	1.3	1.0	1.3	2.2	3.5	6.1	8.3	9.9	11.2
130°	1.0	1.0	1.0	0.6	0.6	1.3	2.2	4.2	6.1	7.7	9.3
132.5°	1.0	1.0	0.6	0.6	0.3	0.3	1.0	2.6	4.5	5.8	7.0
135°	0.6	0.6	0.6	0.3	0.3	0.0	0.0	1.3	2.9	4.2	5.4
137.5°	0.6	0.6	0.3	0.3	0.0	0.0	0.0	0.3	1.6	2.6	3.5
140°	0.6	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.3	1.3	2.2
142.5°	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
145°	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.3	0.3	0.3	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°	459.9	459.9	459.9	459.9	459.9	459.9	459.9	459.9	459.9	459.9
2.5°	457.0	457.3	457.9	457.9	457.6	457.6	457.3	457.0	456.3	455.7
5°	456.3	457.0	457.9	458.3	458.3	457.9	457.9	457.9	457.6	457.0
7.5°	456.0	457.0	457.9	458.3	458.6	458.6	458.3	457.9	457.3	457.0
10°	454.4	456.3	457.3	458.3	458.9	458.9	459.2	459.2	458.6	458.3
12.5°	453.8	456.0	457.6	458.9	459.9	459.9	460.5	461.1	459.2	459.5
15°	452.5	455.7	458.3	459.9	460.5	460.8	461.5	461.8	461.1	461.5
17.5°	450.9	455.1	457.6	459.9	460.2	461.1	463.1	464.0	464.0	464.3
20°	448.7	453.5	457.0	460.5	461.8	462.7	464.7	466.6	465.9	466.6
22.5°	446.1	451.5	456.7	460.8	462.4	464.3	467.5	469.5	470.4	470.1
25°	443.9	450.9	457.0	463.4	465.3	467.9	471.7	474.3	475.2	475.9
27.5°	441.3	449.9	458.3	465.3	468.5	471.7	476.5	479.4	480.3	480.7
30°	439.4	450.3	458.9	467.2	470.7	474.3	479.4	482.3	483.5	483.9
32.5°	437.5	449.0	458.9	467.9	471.4	474.6	480.7	485.1	486.1	486.1
35°	434.9	446.4	457.6	466.9	470.4	473.9	480.7	484.2	485.1	484.8
37.5°	430.4	443.2	454.7	463.1	466.6	469.8	476.5	480.3	481.9	481.6
40°	424.0	437.1	448.3	457.6	460.8	464.3	471.4	474.6	476.8	477.5
42.5°	416.3	429.5	440.7	449.9	454.1	458.3	465.3	468.8	471.4	472.0
45°	406.7	420.2	432.3	443.2	448.0	452.2	460.8	466.9	469.5	470.1
47.5°	396.8	412.2	425.9	439.1	445.1	451.5	461.1	468.8	472.3	472.0
50°	387.5	406.1	423.4	440.7	448.7	456.0	468.2	476.5	480.7	482.6
52.5°	383.1	406.1	429.1	449.6	458.9	466.9	481.3	490.9	495.7	495.7
55°	385.3	415.1	441.6	465.3	475.2	483.9	496.3	505.6	509.8	512.0
57.5°	395.5	430.1	458.6	481.0	490.3	497.6	509.1	513.6	518.1	516.8
60°	412.8	445.8	471.1	490.6	497.0	500.8	508.2	512.0	514.3	514.3
62.5°	427.2	457.0	474.6	486.1	491.9	495.1	501.1	504.0	506.9	506.9
65°	433.6	453.1	466.6	476.8	479.4	483.2	487.4	490.3	492.8	492.2
67.5°	425.9	440.0	450.6	459.9	463.1	466.9	472.0	476.2	478.4	479.1
70°	406.7	420.2	430.1	441.6	446.4	451.2	460.2	466.3	469.8	471.1
72.5°	384.3	398.4	413.8	426.9	434.3	439.7	449.6	456.0	460.8	461.5
75°	361.3	378.9	396.5	413.1	420.5	428.2	439.4	446.7	452.2	453.1
77.5°	340.5	360.7	382.4	400.3	409.3	416.0	428.2	435.2	441.0	441.3
80°	319.7	343.4	365.5	384.0	393.0	401.6	413.1	422.4	427.2	429.5
82.5°	299.5	323.9	347.5	369.0	377.0	385.3	398.4	407.4	412.8	414.7
85°	279.7	306.3	330.9	351.7	361.6	369.9	384.0	392.3	398.7	400.3
87.5°	258.9	284.8	309.5	329.9	340.2	347.5	361.9	370.6	377.0	378.3
90°	236.5	260.8	284.8	304.0	313.6	321.6	337.0	345.0	349.8	352.7
92.5°	208.6	232.0	254.1	273.0	282.9	288.7	303.1	311.7	316.8	318.1
95°	174.1	193.9	213.8	230.7	239.4	248.0	257.6	265.9	273.0	273.9
97.5°	134.4	151.0	167.4	184.0	189.4	194.6	202.6	211.2	217.6	217.3
100°	100.2	109.8	121.3	129.9	134.1	139.8	147.5	152.6	153.3	155.2
102.5°	72.0	78.7	83.5	89.9	91.8	97.0	99.5	103.0	103.7	105.3
105°	52.2	55.7	59.2	61.8	63.4	63.7	65.6	68.2	68.8	68.8
107.5°	39.0	41.0	41.3	42.2	42.9	43.2	44.5	44.8	45.1	45.1
110°	30.7	31.0	30.4	30.4	30.1	30.1	29.8	29.4	29.1	29.1



TEST NUMBER: P397324

CATALOG NUMBER: 8VRVT2-LD5-16-DR-W-UNV-LR63-CD2-WL-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	25.0	25.0	24.3	23.4	22.7	22.4	21.4	20.8	20.5	20.5
115°	21.8	21.1	20.5	19.5	18.9	18.6	17.6	17.0	16.3	16.0
117.5°	19.5	19.2	18.2	17.6	17.0	16.6	15.7	14.7	14.4	14.1
120°	17.6	17.3	17.0	16.0	15.7	15.4	14.4	13.8	13.1	13.1
122.5°	15.7	15.7	15.4	14.7	14.4	14.1	13.4	12.8	12.5	12.2
125°	14.1	14.1	14.1	13.8	13.4	13.1	12.5	12.2	11.8	11.5
127.5°	11.8	12.5	12.5	12.5	12.2	12.2	11.8	11.2	10.9	10.9
130°	9.9	10.6	10.9	10.9	10.9	10.9	10.6	10.2	9.9	9.9
132.5°	8.0	9.0	9.3	9.6	9.6	9.6	9.3	9.3	9.0	9.0
135°	6.4	7.0	7.7	8.0	8.0	8.0	8.0	8.0	7.7	7.7
137.5°	4.8	5.1	5.8	6.1	6.4	6.4	6.4	6.4	6.4	6.4
140°	2.9	3.5	4.2	4.5	4.8	4.8	4.8	4.8	4.8	4.8
142.5°	1.6	1.9	2.6	2.9	3.2	3.2	3.2	3.2	3.2	3.2
145°	0.3	0.6	1.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
147.5°	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	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)