

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: P397358

Luminaire Tested: **8VRVT2-LD5-9-DR100-W-UNV-LA59-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397358
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-20)
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-DR100-W-UNV-LA59-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2432.1 lumens
Efficiency: N/A
Efficacy: 24.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.58 / 1.57
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 8.33' x H: 0.17')
CIE Type: Semi-Direct

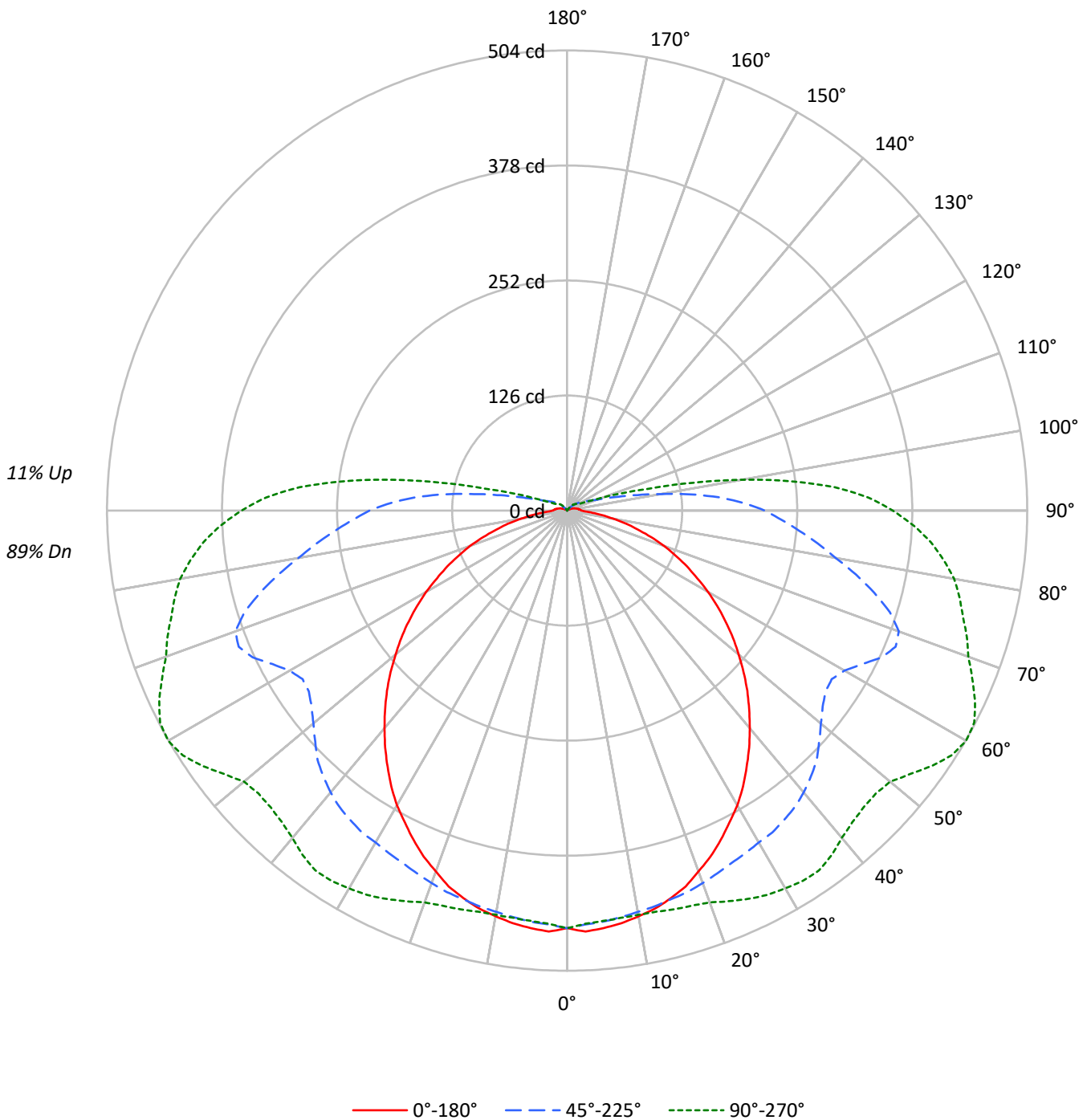
Input Watts (W): 100.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	74	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	50	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	32	26	21	30	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°	1182	1182	1182
5°	1188	1147	1137
10°	1179	1121	1114
15°	1169	1104	1110
20°	1148	1094	1119
25°	1124	1087	1158
30°	1099	1094	1195
35°	1066	1111	1230
40°	1032	1124	1233
45°	999	1130	1259
50°	962	1124	1329
55°	928	1146	1488
60°	891	1264	1652
65°	849	1513	1757
70°	808	1731	1844
75°	741	1798	1996
80°	683	1838	2215
85°	671	1963	2466



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.2	1.8
10°-20°	125.6	5.2
20°-30°	199.2	8.2
30°-40°	258.2	10.6
40°-50°	291.3	12.0
50°-60°	315.6	13.0
60°-70°	339.4	14.0
70°-80°	323.2	13.3
80°-90°	264.9	10.9
90°-100°	175.4	7.2
100°-110°	63.1	2.6
110°-120°	19.1	0.8
120°-130°	9.3	0.4
130°-140°	3.9	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°	368.0	15.1
0°-40°	626.2	25.7
0°-60°	1233.1	50.7
0°-90°	2160.6	88.8
90°-120°	257.6	10.6
90°-150°	271.5	11.2
90°-180°	271.0	11.1
0°-180°	2432.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	457	457	457	457	457	
5°	459	457	452	453	451	44
15°	439	439	441	450	452	124
25°	398	404	426	460	469	183
35°	343	362	414	464	481	214
45°	279	312	387	438	459	215
55°	212	258	345	450	488	190
65°	145	202	380	479	493	143
75°	80	192	348	420	449	86
85°	28	139	255	362	400	28
90°	16	106	216	320	357	9
95°	14	75	166	258	294	11
105°	9	28	58	81	92	10
115°	4	12	25	23	22	5
125°	2	4	14	15	13	2
135°	1	0	6	9	9	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°	457.4	457.4	457.4	457.4	457.4	457.4	457.4	457.4	457.4	457.4	457.4
2.5°	461.5	460.7	459.4	459.0	459.0	459.0	459.0	458.2	457.0	455.3	453.7
5°	459.0	458.2	457.0	457.0	456.6	457.0	457.0	456.1	455.3	453.7	452.1
7.5°	455.8	455.3	453.7	452.9	452.9	452.9	453.7	452.9	452.5	450.8	449.2
10°	451.2	450.4	449.6	449.6	450.0	450.0	450.0	450.4	449.6	447.6	446.3
12.5°	446.3	445.1	444.3	444.3	444.7	444.7	445.1	445.1	445.1	443.9	443.9
15°	439.4	439.0	437.3	437.8	437.8	438.6	439.0	439.4	439.0	440.2	440.6
17.5°	431.6	431.2	429.6	429.6	430.4	430.8	432.0	433.7	434.5	436.1	438.1
20°	420.6	420.6	419.7	420.6	422.2	423.0	423.8	426.7	428.3	431.6	434.1
22.5°	410.3	409.5	409.5	410.3	412.0	414.0	415.7	419.7	422.6	426.7	430.0
25°	398.1	397.7	397.2	399.3	401.7	403.8	406.6	411.6	415.7	420.6	425.9
27.5°	385.0	384.6	385.4	387.0	391.5	394.4	396.8	403.4	408.3	416.1	423.0
30°	372.7	371.5	372.3	374.8	380.5	384.6	387.0	394.4	401.3	410.3	419.7
32.5°	358.4	357.1	358.8	362.5	369.0	373.1	377.6	385.4	393.6	404.6	418.1
35°	342.8	343.3	344.1	349.8	356.7	361.6	366.2	376.4	386.6	400.1	414.0
37.5°	327.3	326.5	329.8	336.3	344.5	350.6	355.1	365.7	380.1	394.8	409.5
40°	311.3	312.1	314.6	322.0	330.6	338.3	343.3	357.1	372.7	387.8	403.0
42.5°	295.0	297.0	299.5	308.1	318.7	324.8	332.2	347.3	363.7	379.7	395.2
45°	279.0	280.6	284.3	293.7	304.0	312.1	320.3	336.3	354.3	371.1	386.6
47.5°	262.2	263.9	268.8	278.6	290.1	299.1	307.7	324.8	343.3	360.4	374.3
50°	245.1	247.5	252.4	262.2	277.4	285.6	294.1	313.0	330.1	346.9	362.9
52.5°	229.1	230.3	238.1	247.5	263.1	272.5	280.6	299.9	316.2	335.0	352.7
55°	211.9	214.4	221.3	230.7	247.9	257.7	267.1	285.6	304.0	323.6	345.3
57.5°	195.1	197.2	204.6	215.2	233.6	243.0	252.0	272.0	290.9	315.4	343.6
60°	178.4	180.8	188.2	200.5	218.9	228.7	238.1	259.4	283.9	314.2	350.6
62.5°	160.8	164.9	170.2	185.3	204.1	214.0	225.4	250.0	282.3	320.7	364.1
65°	144.8	146.9	155.1	170.6	190.7	202.1	215.2	246.7	287.6	334.7	380.1
67.5°	128.0	130.9	139.9	157.1	179.6	193.1	209.5	250.0	299.9	349.8	389.5
70°	112.9	115.0	126.0	144.8	171.8	189.4	209.5	258.2	311.8	355.5	386.6
72.5°	96.2	99.4	112.9	135.8	168.6	189.8	213.6	266.7	314.2	347.7	370.7
75°	79.8	84.7	102.3	128.5	167.7	191.9	217.2	265.5	302.7	328.1	348.2
77.5°	66.3	72.4	92.0	123.6	166.1	189.8	213.1	251.2	281.1	305.2	324.0
80°	51.1	60.5	83.5	117.4	158.7	179.2	198.0	230.7	254.9	278.2	298.6
82.5°	38.9	49.5	74.5	108.0	143.6	160.8	175.5	204.6	229.9	252.0	277.0
85°	27.8	39.3	64.2	94.1	124.0	139.1	152.6	180.0	205.0	229.9	255.3
87.5°	19.2	30.7	54.4	80.6	107.2	119.4	132.6	158.7	183.3	207.4	235.2
90°	15.5	24.9	45.4	69.1	92.0	105.6	117.0	140.7	165.3	190.7	216.4
92.5°	14.7	20.9	38.1	58.5	79.8	90.8	101.5	123.1	146.0	169.8	192.7
95°	13.5	16.8	29.9	47.5	65.5	75.3	83.9	104.3	123.6	144.4	166.5
97.5°	12.7	13.5	22.9	36.8	52.0	60.1	67.1	83.0	100.2	116.2	136.2
100°	11.5	11.9	17.6	28.6	39.7	46.6	52.4	65.5	77.7	90.4	103.9
102.5°	10.2	10.2	13.5	21.3	31.1	35.6	40.5	51.1	60.1	68.3	78.5
105°	9.0	9.0	10.6	16.4	23.3	27.8	31.1	38.9	45.8	52.0	58.5
107.5°	8.2	7.8	8.6	12.7	18.4	21.7	24.9	30.7	36.0	40.1	44.6
110°	6.6	6.6	6.9	10.2	15.1	17.6	20.5	24.9	29.5	32.3	34.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	5.7	5.3	5.3	8.2	12.3	14.7	16.8	21.3	24.9	27.4	28.6
115°	4.5	4.5	4.1	6.1	9.8	12.3	13.9	18.0	21.3	23.3	24.6
117.5°	3.7	3.7	3.7	4.5	8.2	9.8	11.9	15.5	18.4	20.5	21.7
120°	2.9	2.9	2.9	2.9	6.1	7.8	9.8	13.1	16.0	18.0	19.2
122.5°	2.5	2.0	2.0	2.0	4.1	6.1	7.4	10.6	13.5	15.5	17.2
125°	1.6	1.6	1.6	1.2	2.9	4.1	5.7	8.6	11.0	13.1	14.3
127.5°	1.2	1.2	1.2	1.2	1.2	2.5	3.7	6.6	9.0	11.0	12.3
130°	1.2	1.2	0.8	0.8	0.4	1.2	2.0	4.5	6.6	8.6	10.2
132.5°	0.8	0.8	0.8	0.4	0.4	0.4	0.8	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	0.0	0.0	0.0	0.0	0.0	0.4	1.2	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	0.0	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°	457.4	457.4	457.4	457.4	457.4	457.4	457.4	457.4	457.4	457.4
2.5°	453.7	454.5	454.5	454.5	454.5	454.5	453.7	453.3	452.9	452.9
5°	451.7	452.5	452.9	452.9	452.9	452.9	452.5	452.1	451.7	451.2
7.5°	449.2	450.4	451.2	451.7	451.7	451.7	451.2	451.2	450.4	450.0
10°	446.7	448.0	449.2	450.0	450.4	450.4	450.4	450.4	450.0	449.6
12.5°	445.1	447.2	448.8	449.6	449.6	450.0	450.8	450.8	450.4	450.0
15°	443.1	446.3	448.4	449.6	449.6	450.4	452.1	452.1	451.7	452.1
17.5°	441.4	444.7	448.0	450.0	450.8	452.1	453.3	453.7	454.1	453.7
20°	438.1	443.5	448.0	450.4	452.1	452.5	455.3	457.4	457.4	456.6
22.5°	436.9	443.1	448.4	453.7	454.5	456.1	459.8	461.9	463.1	463.1
25°	434.5	442.7	450.4	457.0	459.8	461.9	465.6	468.8	468.0	469.3
27.5°	433.2	443.1	450.8	459.0	463.1	465.2	470.5	472.5	473.8	474.6
30°	432.4	443.5	452.1	461.1	464.4	468.4	473.3	476.6	478.2	477.8
32.5°	431.2	442.3	453.3	461.1	466.0	469.3	474.2	477.8	480.3	480.7
35°	428.3	441.0	451.2	460.7	464.4	468.4	474.2	476.2	480.3	481.1
37.5°	424.6	436.9	446.7	457.0	460.7	463.9	470.9	472.9	474.6	475.8
40°	418.9	430.4	441.0	450.8	454.1	457.8	462.7	466.0	468.4	468.0
42.5°	411.6	422.2	432.4	443.1	445.5	449.6	455.8	459.4	461.9	462.7
45°	399.7	412.0	423.8	433.2	438.1	442.7	449.6	453.7	456.6	459.4
47.5°	388.2	403.4	416.9	427.5	433.2	437.8	446.3	452.5	457.0	458.6
50°	379.2	394.8	410.3	426.3	432.4	438.1	448.0	454.5	459.4	461.9
52.5°	371.9	390.7	410.3	430.0	438.6	445.5	457.0	465.2	471.7	473.8
55°	369.0	392.8	417.7	440.2	450.0	459.0	472.1	479.9	486.4	487.6
57.5°	373.9	405.8	433.2	456.6	466.4	473.8	486.4	493.0	498.3	499.1
60°	387.4	421.0	449.6	469.7	479.9	486.4	495.9	500.8	504.4	504.4
62.5°	404.2	434.5	459.4	476.2	483.6	488.5	494.2	499.9	501.2	502.8
65°	416.9	443.1	460.2	472.5	479.1	481.1	487.3	489.7	493.0	493.0
67.5°	417.7	438.6	450.8	460.7	464.4	467.2	474.6	477.4	479.9	480.3
70°	406.6	421.0	434.9	443.5	447.6	453.3	460.2	464.7	467.2	467.6
72.5°	389.1	402.2	416.1	429.2	434.9	439.8	448.8	454.9	457.4	459.0
75°	367.8	382.1	398.9	414.4	420.2	425.1	437.8	443.5	448.4	448.8
77.5°	344.9	362.1	381.7	398.5	405.8	414.4	424.6	433.2	436.9	440.2
80°	322.0	344.1	364.1	383.7	390.7	400.5	412.8	422.6	426.7	430.4
82.5°	300.3	325.2	349.8	369.8	377.6	386.2	398.9	409.9	413.6	416.1
85°	281.5	307.2	331.4	351.8	361.6	369.0	383.3	392.8	398.1	400.1
87.5°	261.4	287.6	311.3	333.4	341.6	349.0	363.7	373.9	378.8	380.1
90°	241.8	268.8	290.9	310.1	319.9	328.9	342.4	351.8	356.7	356.7
92.5°	216.8	242.6	265.9	283.5	292.9	300.3	315.0	322.0	330.1	330.1
95°	188.2	210.7	232.4	250.4	258.2	265.9	278.2	287.6	292.1	294.1
97.5°	155.9	173.0	192.7	207.4	218.1	220.5	234.0	243.4	248.3	246.7
100°	117.4	130.9	146.5	158.7	166.9	171.4	180.8	186.1	193.5	194.3
102.5°	87.6	97.4	106.4	113.3	119.9	121.9	128.5	133.8	137.1	140.7
105°	64.2	69.9	75.3	80.2	81.4	85.1	90.4	94.1	92.0	92.5
107.5°	47.9	50.7	53.6	55.2	57.3	59.7	61.0	61.0	63.0	63.8
110°	36.4	38.1	39.3	39.7	40.5	40.5	40.5	40.5	40.9	41.7



TEST NUMBER: P397358

CATALOG NUMBER: 8VRVT2-LD5-9-DR100-W-UNV-LA59-CD1-WL-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	29.0	29.9	29.9	29.9	29.5	29.5	29.0	28.6	27.8	28.6
115°	24.9	24.9	24.1	23.7	23.3	22.9	22.1	21.3	20.9	21.7
117.5°	22.1	21.7	21.3	20.0	19.6	19.2	18.4	18.0	17.2	16.8
120°	19.6	19.6	18.8	18.4	18.0	17.2	16.4	16.0	15.1	14.7
122.5°	17.6	17.6	17.2	16.8	16.4	16.0	15.1	14.7	13.9	13.9
125°	15.1	15.5	15.5	15.1	14.7	14.7	13.9	13.5	13.1	13.1
127.5°	13.1	13.5	13.9	13.9	13.5	13.5	13.1	12.7	12.3	11.9
130°	11.0	11.9	11.9	12.3	12.3	11.9	11.9	11.5	11.0	11.0
132.5°	9.0	9.8	10.2	10.2	10.6	10.6	10.6	10.2	10.2	9.8
135°	6.9	7.8	8.2	8.6	8.6	9.0	9.0	8.6	8.6	8.6
137.5°	5.3	5.7	6.6	6.9	6.9	6.9	6.9	6.9	6.9	6.9
140°	3.3	4.1	4.9	4.9	5.3	5.3	5.3	5.3	5.3	5.3
142.5°	1.6	2.5	2.9	3.3	3.3	3.7	3.7	3.7	3.7	3.7
145°	0.4	0.8	1.2	1.6	2.0	2.0	2.0	2.0	2.0	2.0
147.5°	0.0	0.0	0.0	0.0	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)