

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: P397411

Luminaire Tested: **VRVT4LED-LD5-9-DR-UNV-LR63-CD1-WL-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P397411
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-367-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: VRVT4LED-LD5-9-DR-UNV-LR63-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

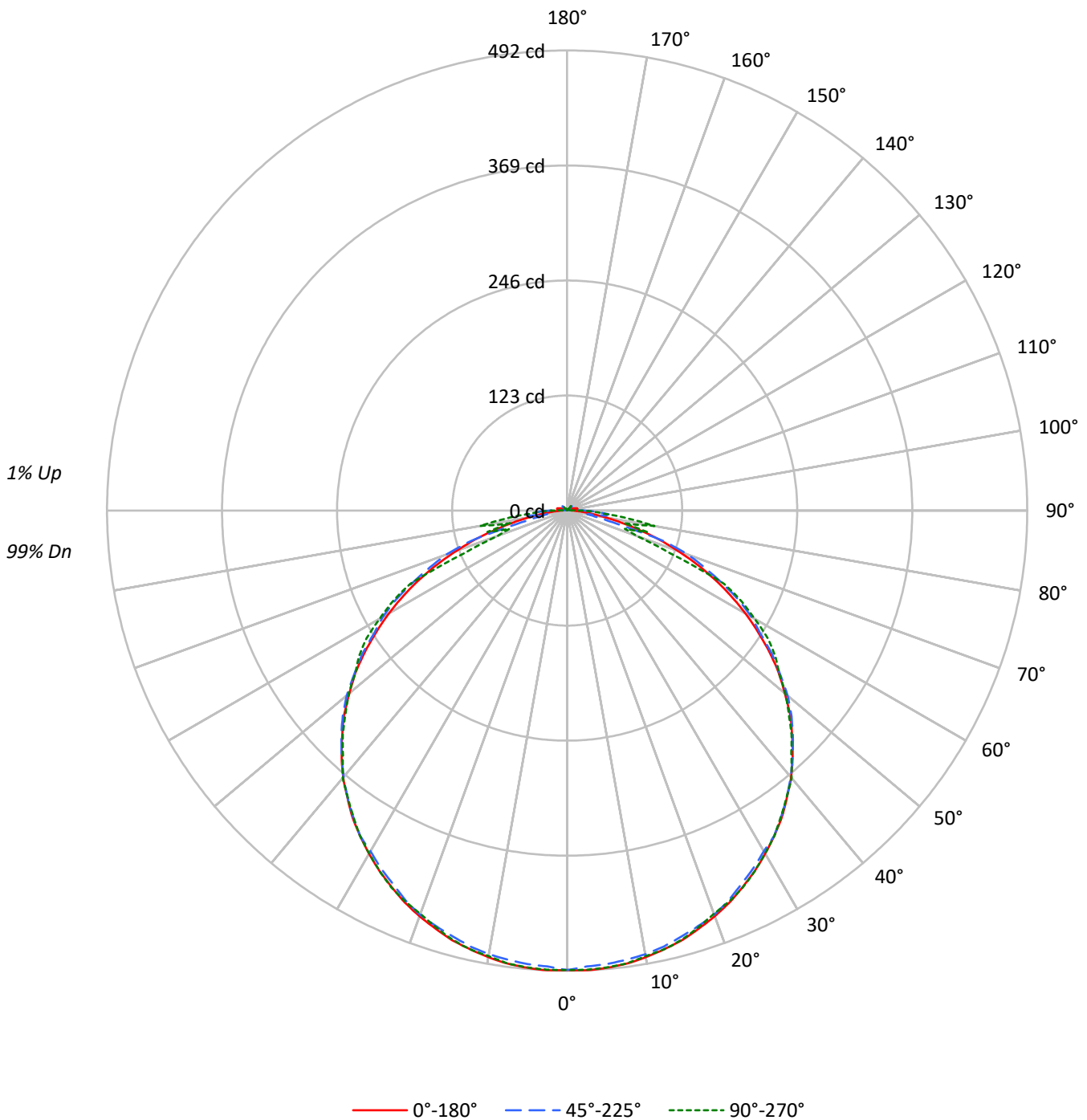
Lumens per Lamp: N/A
Luminaire Lumens: 1440.3 lumens
Efficiency: N/A
Efficacy: 8.6 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1.04' x L: 4.12' x H: 0.25')
CIE Type: Direct

Input Watts (W): 166.8
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: P397411

CATALOG NUMBER: VRVT4LED-LD5-9-DR-UNV-LR63-CD1-WL-U

Luminous Intensity Polar Plot





TEST NUMBER: P397411

CATALOG NUMBER: VRVT4LED-LD5-9-DR-UNV-LR63-CD1-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	119	119	119	119	116	116	116	116	110	110	110	106	106	106	101	101	101	99
1	108	104	99	96	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	84	78	96	88	82	77	85	79	75	81	77	73	78	74	71	69
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	64	60	58
4	82	70	62	55	80	69	61	54	66	59	54	64	58	53	61	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	44	37	32	43	36	32	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1230	1230	1230
5°	1227	1202	1207
10°	1220	1181	1180
15°	1213	1157	1157
20°	1204	1138	1125
25°	1194	1108	1105
30°	1184	1084	1075
35°	1174	1063	1044
40°	1159	1032	1016
45°	1136	997	969
50°	1104	956	924
55°	1062	896	884
60°	999	833	819
65°	913	739	724
70°	789	633	348
75°	628	300	450
80°	443	143	579
85°	277	373	312



TEST NUMBER: P397411

CATALOG NUMBER: VRVT4LED-LD5-9-DR-UNV-LR63-CD1-WL-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.5	3.2
10°-20°	133.9	9.3
20°-30°	204.5	14.2
30°-40°	250.1	17.4
40°-50°	262.5	18.2
50°-60°	239.3	16.6
60°-70°	175.0	12.1
70°-80°	76.9	5.3
80°-90°	35.4	2.5
90°-100°	6.3	0.4
100°-110°	3.4	0.2
110°-120°	2.4	0.2
120°-130°	1.5	0.1
130°-140°	1.8	0.1
140°-150°	0.6	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	384.9	26.7
0°-40°	634.9	44.1
0°-60°	1136.7	78.9
0°-90°	1423.9	98.9
90°-120°	12.1	0.8
90°-150°	16.0	1.1
90°-180°	16.0	1.1
0°-180°	1440.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	491	491	491	491	491	
5°	491	490	487	490	490	47
15°	476	475	472	476	475	134
25°	444	444	441	445	445	205
35°	400	400	399	400	399	250
45°	340	340	341	340	339	262
55°	264	268	267	272	272	236
65°	174	176	182	189	185	172
75°	80	83	56	39	88	86
85°	16	12	44	48	41	19
90°	5	13	19	17	14	3
95°	8	4	3	3	3	7
105°	10	3	2	2	2	10
115°	4	3	2	1	1	5
125°	2	2	2	1	1	2
135°	1	1	2	3	2	1
145°	0	0	0	2	1	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: P397411

CATALOG NUMBER: VRVT4LED-LD5-9-DR-UNV-LR63-CD1-WL-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	491.2	491.2	491.2	491.2	491.2
2.5°	492.0	491.3	487.8	491.2	491.3
5°	490.7	490.0	486.8	490.2	490.2
7.5°	488.6	487.6	484.4	488.4	488.4
10°	484.9	484.6	481.6	484.3	483.6
12.5°	480.4	479.8	477.4	480.1	480.4
15°	475.5	474.8	471.5	476.3	474.8
17.5°	468.6	469.1	465.9	469.1	467.0
20°	461.6	462.0	459.8	458.8	458.7
22.5°	453.6	453.2	451.3	450.8	452.4
25°	444.1	443.6	440.6	444.8	444.6
27.5°	434.4	434.2	431.2	436.3	434.5
30°	423.6	423.6	420.6	424.9	423.3
32.5°	412.3	412.9	412.1	412.9	412.3
35°	400.3	400.5	399.2	399.5	398.9
37.5°	386.2	387.2	385.9	386.4	385.6
40°	372.6	372.1	372.0	372.8	373.3
42.5°	356.9	353.9	356.8	357.4	354.7
45°	340.1	340.3	341.4	340.5	339.3
47.5°	323.7	323.0	325.3	323.2	321.3
50°	303.8	308.5	307.5	304.0	304.8
52.5°	285.3	288.8	286.9	287.7	285.4
55°	264.1	267.5	267.3	271.7	271.7
57.5°	242.2	245.7	244.9	250.7	254.5
60°	220.3	223.8	227.5	231.2	231.5
62.5°	197.1	200.6	206.4	209.6	210.2
65°	174.1	176.3	181.6	188.8	185.1
67.5°	150.1	151.7	159.0	160.1	119.0
70°	125.6	127.7	136.8	84.5	78.9
72.5°	103.4	104.2	107.5	70.6	64.6
75°	79.5	83.0	55.5	38.7	88.2
77.5°	59.2	61.9	32.0	64.0	62.4
80°	41.3	44.5	21.9	57.1	94.7
82.5°	26.9	20.8	41.4	64.5	67.0
85°	16.3	11.5	44.5	48.2	40.6
87.5°	10.1	8.8	29.9	30.6	28.3
90°	4.8	12.6	18.7	16.6	14.1
92.5°	4.5	9.0	8.3	6.7	6.2
95°	7.7	4.2	3.2	2.7	2.6
97.5°	10.7	2.7	2.2	1.9	1.9
100°	10.9	2.6	2.2	1.9	1.8
102.5°	10.9	2.7	2.2	1.9	1.8
105°	9.6	3.0	2.2	1.9	1.8
107.5°	8.2	3.4	2.1	1.9	1.8
110°	6.9	3.8	2.1	1.8	1.8



TEST NUMBER: P397411

CATALOG NUMBER: VRVT4LED-LD5-9-DR-UNV-LR63-CD1-WL-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.4	3.7	1.9	1.6	1.6
115°	4.5	3.4	1.8	1.4	1.4
117.5°	3.7	3.0	1.8	1.4	1.3
120°	3.0	2.7	1.8	1.3	1.3
122.5°	2.6	2.4	1.8	1.1	1.1
125°	2.1	1.8	1.6	1.1	1.1
127.5°	1.8	1.3	1.9	1.1	1.0
130°	1.4	1.1	3.4	1.1	1.1
132.5°	1.1	0.8	6.9	1.4	1.1
135°	1.0	0.6	1.6	3.2	1.6
137.5°	0.8	0.6	1.1	9.9	4.5
140°	0.6	0.5	1.1	1.6	6.2
142.5°	0.5	0.5	0.8	1.1	1.1
145°	0.5	0.5	0.3	1.8	1.3
147.5°	0.5	0.3	0.3	1.9	2.1
150°	0.3	0.3	0.3	0.6	1.1
152.5°	0.3	0.3	0.3	0.3	0.3
155°	0.3	0.5	0.5	0.3	0.2
157.5°	0.3	0.5	0.5	0.3	0.2
160°	0.5	0.5	0.5	0.3	0.2
162.5°	0.5	0.5	0.5	0.3	0.3
165°	0.5	0.5	0.5	0.3	0.3
167.5°	0.5	0.5	0.5	0.3	0.3
170°	0.5	0.5	0.5	0.3	0.3
172.5°	0.5	0.5	0.5	0.3	0.3
175°	0.5	0.5	0.5	0.5	0.3
177.5°	0.5	0.5	0.5	0.5	0.3
180°	0.5	0.5	0.5	0.5	0.5

(END OF REPORT)