

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: P397417

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P397417
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-367-3)
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-PC-UNV-LR63-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

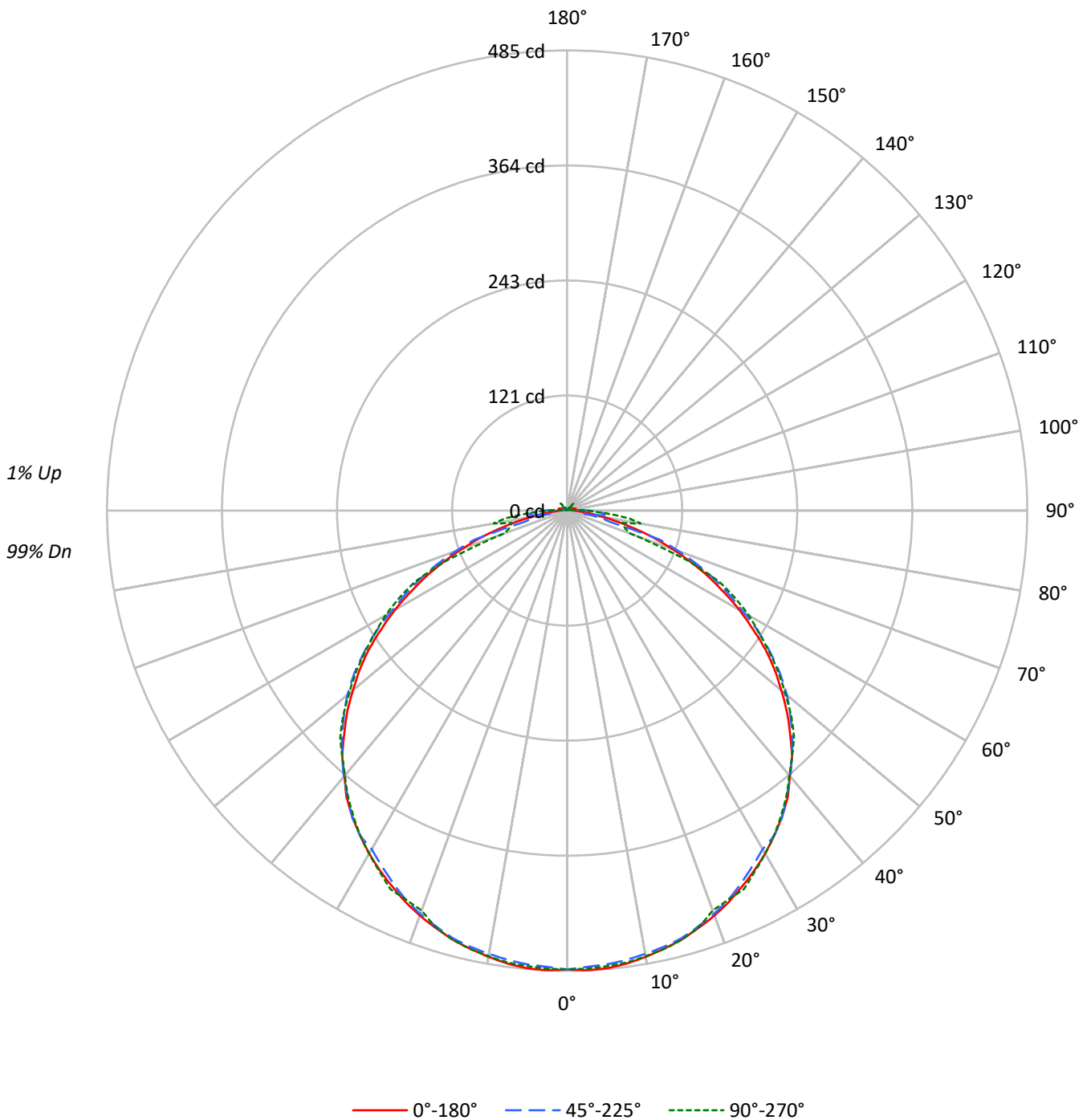
Lumens per Lamp: N/A
Luminaire Lumens: 1404.9 lumens
Efficiency: N/A
Efficacy: 8.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1.04' x L: 4.12' x H: 0.25')
CIE Type: Direct

Input Watts (W): 166.3
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	119	119	119	119	116	116	116	116	110	110	110	105	105	105	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	91	84	78	96	89	82	77	85	80	75	81	77	73	78	75	71	69
3	90	80	72	65	88	78	70	64	75	68	63	72	66	62	69	65	61	58
4	83	71	62	55	80	69	61	55	66	59	54	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	60	52	46	57	51	46	55	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38
7	65	51	43	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1212	1212	1212
5°	1211	1185	1187
10°	1202	1163	1164
15°	1194	1144	1141
20°	1185	1120	1100
25°	1174	1091	1095
30°	1166	1062	1061
35°	1157	1051	1029
40°	1136	1016	992
45°	1109	981	966
50°	1071	941	909
55°	1025	877	847
60°	952	787	782
65°	859	698	690
70°	735	576	312
75°	583	256	315
80°	407	118	479
85°	272	334	366



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.8	3.3
10°-20°	131.8	9.4
20°-30°	201.1	14.3
30°-40°	246.3	17.5
40°-50°	258.0	18.4
50°-60°	231.9	16.5
60°-70°	165.7	11.8
70°-80°	70.3	5.0
80°-90°	35.8	2.5
90°-100°	7.5	0.5
100°-110°	3.2	0.2
110°-120°	2.3	0.2
120°-130°	1.6	0.1
130°-140°	2.4	0.2
140°-150°	0.8	0.1
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	378.8	27.0
0°-40°	625.1	44.5
0°-60°	1115.0	79.4
0°-90°	1386.8	98.7
90°-120°	13.0	0.9
90°-150°	17.8	1.3
90°-180°	18.0	1.3
0°-180°	1404.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	484	484	484	484	484	
5°	484	482	480	482	482	46
15°	468	467	466	468	468	132
25°	437	438	434	438	440	202
35°	394	395	395	394	393	246
45°	332	333	336	336	338	256
55°	255	258	262	261	260	227
65°	164	167	171	177	176	162
75°	74	75	47	31	62	79
85°	16	12	40	51	48	18
90°	7	10	23	19	20	4
95°	6	6	5	3	3	6
105°	8	4	2	2	2	9
115°	5	4	2	1	1	5
125°	2	2	2	1	1	2
135°	1	1	3	9	4	1
145°	0	0	0	3	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°	22.5°	45°	67.5°	90°
0°	483.7	483.7	483.7	483.7	483.7
2.5°	484.9	483.5	481.3	483.3	483.2
5°	484.1	482.1	480.1	482.4	481.9
7.5°	481.6	479.3	477.7	480.1	480.5
10°	477.6	476.3	474.4	477.3	476.9
12.5°	472.9	472.5	470.9	473.1	473.1
15°	468.0	466.9	466.4	468.5	468.1
17.5°	461.1	461.1	459.5	462.4	460.6
20°	454.2	453.6	452.5	450.9	448.6
22.5°	446.1	446.2	444.1	440.8	443.7
25°	436.9	437.9	433.7	437.7	440.3
27.5°	427.5	428.1	422.5	430.2	428.6
30°	417.3	417.1	412.1	417.7	417.6
32.5°	406.1	407.0	406.2	406.2	405.9
35°	394.4	394.7	395.0	394.2	392.9
37.5°	381.7	380.6	379.8	380.6	379.8
40°	365.1	366.5	366.2	366.7	364.3
42.5°	350.9	347.5	350.5	351.0	351.0
45°	332.1	333.1	335.8	335.7	338.2
47.5°	314.4	314.2	318.9	321.1	320.3
50°	294.7	300.0	302.5	301.9	300.0
52.5°	275.7	280.1	283.0	282.5	280.9
55°	255.0	257.9	261.7	261.4	260.3
57.5°	231.7	237.6	240.1	241.1	239.8
60°	209.9	213.0	215.0	218.9	221.1
62.5°	186.2	190.2	193.0	199.0	199.5
65°	163.7	166.6	171.4	177.0	176.2
67.5°	140.3	143.4	148.6	154.7	136.6
70°	117.1	119.5	124.6	73.8	70.7
72.5°	96.0	95.5	103.0	62.6	64.6
75°	73.8	75.2	47.4	30.7	61.6
77.5°	54.1	56.8	36.8	61.0	59.8
80°	37.9	41.1	18.1	56.6	78.4
82.5°	25.1	20.6	39.5	67.4	67.2
85°	16.0	11.5	39.8	50.9	47.7
87.5°	10.7	8.8	34.4	33.6	30.6
90°	6.6	9.9	23.0	19.4	20.2
92.5°	5.1	10.4	12.2	9.4	8.5
95°	6.4	6.2	4.8	3.2	2.7
97.5°	8.5	3.4	2.6	2.1	1.8
100°	9.1	3.0	2.2	1.8	1.6
102.5°	9.1	3.4	2.2	1.8	1.6
105°	8.3	3.7	2.1	1.8	1.6
107.5°	7.4	3.8	2.1	1.6	1.4
110°	6.4	4.0	1.9	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.4	3.8	1.8	1.3	1.1
115°	4.6	3.5	1.8	1.1	1.0
117.5°	3.8	3.2	1.6	1.0	1.0
120°	3.2	2.9	1.6	1.0	0.8
122.5°	2.7	2.6	1.6	0.8	0.8
125°	2.2	1.9	1.8	0.8	0.8
127.5°	1.9	1.4	2.9	1.0	0.8
130°	1.6	1.1	6.4	1.3	1.0
132.5°	1.3	1.0	5.6	2.6	1.4
135°	1.1	0.8	2.7	9.4	3.8
137.5°	0.8	0.6	1.6	6.7	10.2
140°	0.6	0.5	1.8	3.8	6.1
142.5°	0.6	0.5	1.0	1.8	2.6
145°	0.5	0.5	0.3	2.9	2.1
147.5°	0.5	0.3	0.3	2.1	3.5
150°	0.3	0.3	0.3	0.6	1.6
152.5°	0.3	0.3	0.3	0.2	0.3
155°	0.3	0.3	0.3	0.2	0.2
157.5°	0.3	0.3	0.5	0.2	0.2
160°	0.3	0.5	0.5	0.2	0.2
162.5°	0.3	0.5	0.5	0.2	0.2
165°	0.5	0.5	0.5	0.3	0.2
167.5°	0.5	0.5	0.5	0.3	0.2
170°	0.5	0.5	0.5	0.3	0.2
172.5°	0.5	0.5	0.5	0.3	0.3
175°	0.5	0.5	0.5	0.3	0.3
177.5°	0.5	0.5	0.5	0.3	0.3
180°	0.3	0.3	0.3	0.3	0.3

(END OF REPORT)