

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: P397232

Luminaire Tested: **2VRVT3-LD5-4-G-UNV-LA59-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P397232  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1709-268-12)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 2VRVT3-LD5-4-G-UNV-LA59-CD1-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

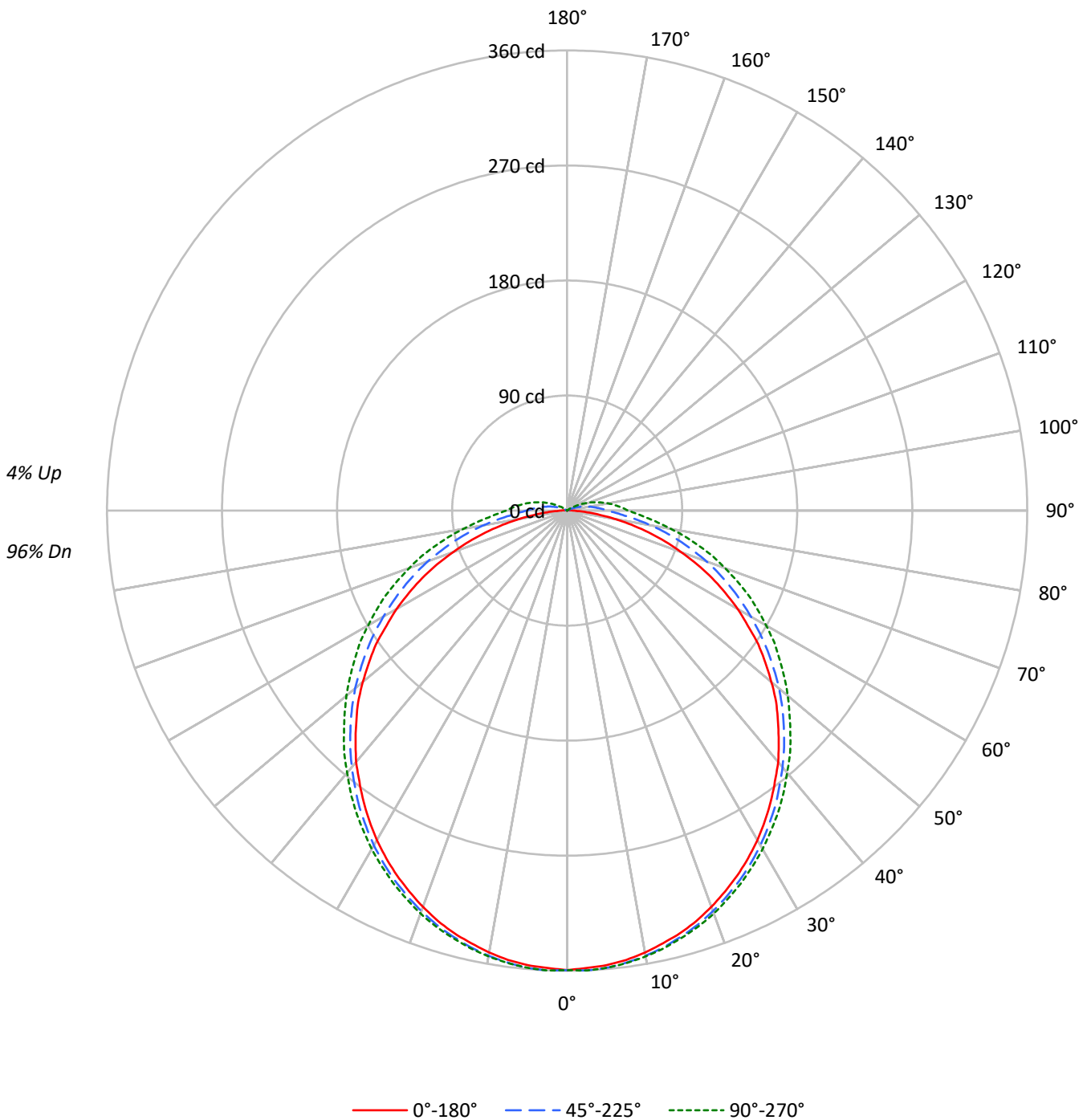
Lumens per Lamp: N/A  
Luminaire Lumens: 1136.2 lumens  
Efficiency: N/A  
Efficacy: 23.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.26 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 1.04')  
CIE Type: Direct

Input Watts (W): 49.1  
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

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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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	96
1	107	101	97	92	103	99	94	90	94	90	87	89	86	83	85	82	80	78
2	96	88	80	74	93	85	79	73	81	76	71	77	73	69	74	70	66	64
3	88	77	68	61	85	75	67	60	71	64	59	68	62	57	65	60	56	53
4	80	68	59	52	77	66	58	51	63	56	50	60	54	49	58	52	48	45
5	74	60	51	44	71	59	50	44	56	49	43	54	47	42	52	46	41	39
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	47	41	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	38	33	43	37	32	30
8	59	45	36	30	57	44	36	30	42	35	30	41	34	29	39	33	29	27
9	55	41	33	27	53	40	32	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	24	50	37	30	24	36	29	24	35	28	24	34	28	23	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4644	4644	4644
5°	4427	3922	3819
10°	4218	3370	3224
15°	4016	2934	2772
20°	3812	2579	2415
25°	3612	2279	2117
30°	3414	2020	1867
35°	3210	1791	1650
40°	3013	1583	1457
45°	2802	1396	1289
50°	2586	1227	1138
55°	2358	1065	999
60°	2096	912	871
65°	1808	771	752
70°	1470	637	630
75°	1121	503	515
80°	732	377	403
85°	335	263	309



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.0	3.0
10°-20°	97.2	8.6
20°-30°	146.9	12.9
30°-40°	177.0	15.6
40°-50°	185.2	16.3
50°-60°	171.7	15.1
60°-70°	139.3	12.3
70°-80°	93.6	8.2
80°-90°	48.0	4.2
90°-100°	24.8	2.2
100°-110°	12.9	1.1
110°-120°	4.8	0.4
120°-130°	0.7	0.1
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	278.2	24.5
0°-40°	455.2	40.1
0°-60°	812.2	71.5
0°-90°	1093.1	96.2
90°-120°	42.5	3.7
90°-150°	43.1	3.8
90°-180°	43.0	3.8
0°-180°	1136.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	360	360	360	360	360	
5°	357	358	359	359	359	34
15°	342	343	345	346	346	97
25°	315	316	319	321	322	145
35°	278	280	283	286	288	174
45°	233	235	240	245	247	180
55°	183	184	192	200	203	163
65°	125	130	141	152	156	124
75°	66	75	90	102	107	70
85°	16	29	45	57	62	18
90°	4	16	32	43	48	3
95°	3	9	24	36	40	2
105°	1	2	12	21	25	1
115°	1	1	3	9	12	1
125°	0	0	0	1	2	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	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°	359.5	359.5	359.5	359.5	359.5
2.5°	358.1	358.7	360.1	360.4	360.1
5°	357.0	357.6	359.0	359.3	359.0
7.5°	354.5	355.3	356.7	357.3	357.0
10°	351.1	352.0	353.7	354.2	354.2
12.5°	346.7	347.8	349.7	350.3	350.6
15°	342.2	343.3	345.0	346.1	346.1
17.5°	336.6	337.4	339.7	341.1	341.3
20°	329.9	331.0	333.5	335.2	335.5
22.5°	322.6	324.0	326.5	328.5	328.7
25°	315.0	316.1	319.2	321.2	321.7
27.5°	306.6	307.7	311.1	313.1	313.9
30°	297.7	299.1	302.4	305.2	305.8
32.5°	287.9	289.5	292.9	295.7	296.8
35°	277.8	279.5	283.4	286.2	287.9
37.5°	267.1	268.8	272.7	276.7	278.3
40°	256.8	258.2	262.1	266.0	267.7
42.5°	245.0	247.0	251.2	255.9	258.2
45°	233.3	234.9	239.7	244.7	247.0
47.5°	221.8	223.5	228.2	233.5	236.1
50°	208.6	210.3	216.5	222.6	225.4
52.5°	195.5	197.4	203.9	211.4	214.2
55°	182.6	184.5	191.5	199.7	202.7
57.5°	167.4	171.4	178.9	187.9	192.1
60°	154.3	157.4	166.0	175.8	179.8
62.5°	139.4	143.4	153.4	164.1	168.0
65°	125.2	129.6	140.8	152.3	156.5
67.5°	110.3	115.1	128.5	140.0	143.6
70°	94.6	101.6	115.9	127.1	131.3
72.5°	80.6	87.9	102.8	114.5	119.8
75°	66.1	74.8	90.4	102.2	106.7
77.5°	51.5	61.9	78.7	89.9	94.9
80°	38.9	49.8	66.4	78.1	82.3
82.5°	25.8	38.6	55.2	67.2	71.7
85°	15.7	28.8	45.1	57.4	61.6
87.5°	7.8	21.0	37.5	49.3	54.0
90°	4.5	16.0	31.6	43.4	47.6
92.5°	3.6	12.3	27.7	39.2	43.7
95°	2.8	9.2	23.8	35.6	39.8
97.5°	2.2	6.7	20.7	31.9	36.1
100°	2.0	4.8	17.4	28.3	32.5
102.5°	1.7	3.1	14.6	24.6	28.6
105°	1.4	2.0	11.8	21.3	24.9
107.5°	1.1	1.1	9.0	17.9	21.3
110°	0.8	0.8	6.4	14.6	18.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.8	0.8	4.5	11.8	14.6
115°	0.6	0.6	2.8	9.0	11.5
117.5°	0.6	0.6	1.4	6.4	8.7
120°	0.3	0.3	0.6	4.2	6.2
122.5°	0.3	0.3	0.3	2.2	3.9
125°	0.3	0.0	0.0	0.8	2.0
127.5°	0.0	0.0	0.0	0.0	0.6
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.3	0.0	0.0	0.0	0.0
135°	0.3	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)