

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: P397234

Luminaire Tested: **2VRVT3-LD5-4-G-UNV-LR63-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P397234  
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-LR63-CD1-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

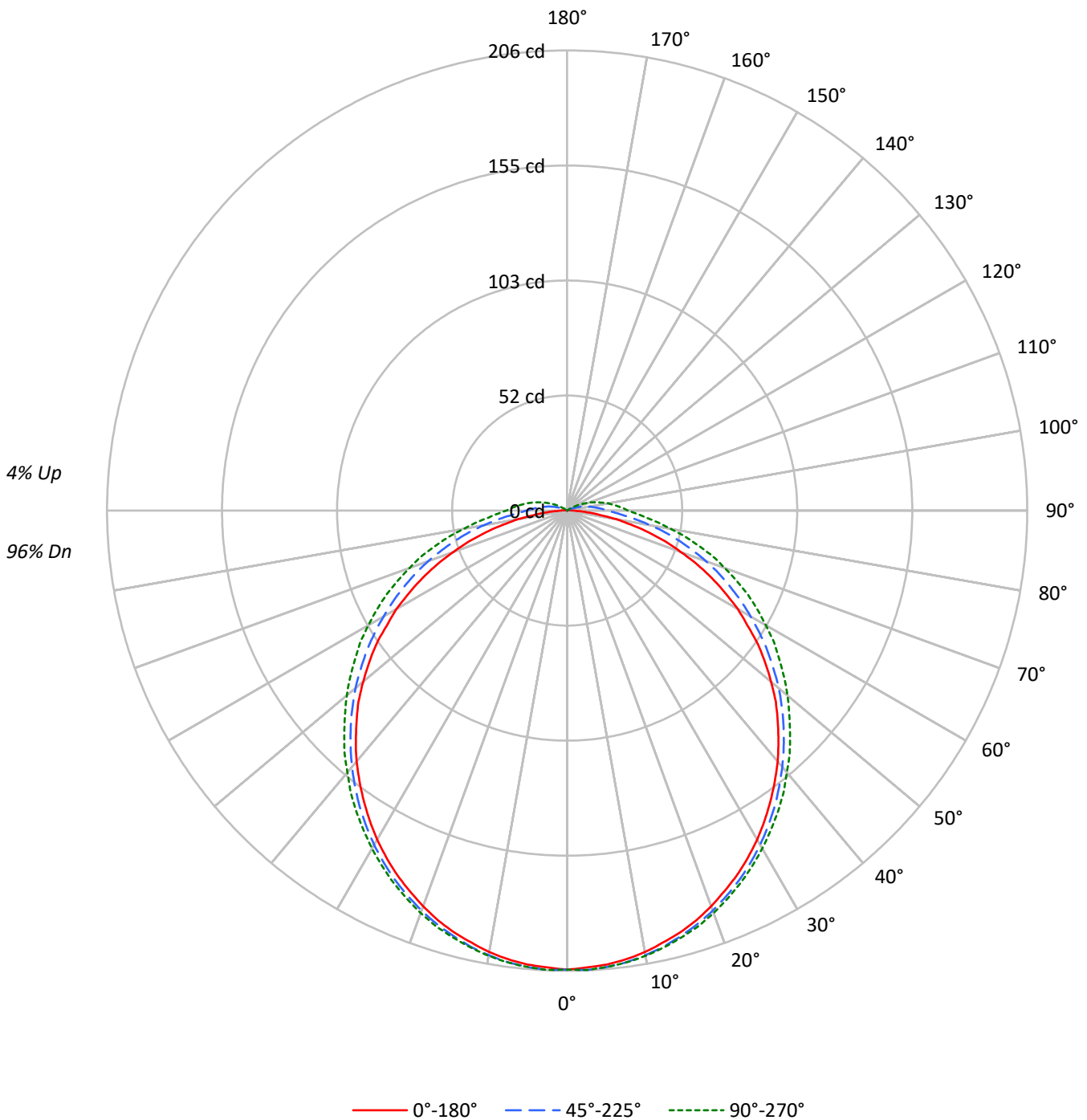
Lumens per Lamp: N/A  
Luminaire Lumens: 649.3 lumens  
Efficiency: N/A  
Efficacy: 7.8 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.26 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 1.04')  
CIE Type: Direct

Input Watts (W): 83.2  
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°	2654	2654	2654
5°	2530	2241	2182
10°	2411	1926	1842
15°	2294	1676	1584
20°	2178	1474	1380
25°	2064	1302	1210
30°	1951	1154	1066
35°	1834	1023	943
40°	1721	905	833
45°	1601	798	736
50°	1478	701	650
55°	1347	609	571
60°	1198	522	498
65°	1032	441	430
70°	840	364	360
75°	641	288	295
80°	418	215	230
85°	192	150	176



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	19.5	3.0
10°-20°	55.6	8.6
20°-30°	83.9	12.9
30°-40°	101.2	15.6
40°-50°	105.9	16.3
50°-60°	98.1	15.1
60°-70°	79.6	12.3
70°-80°	53.5	8.2
80°-90°	27.4	4.2
90°-100°	14.2	2.2
100°-110°	7.4	1.1
110°-120°	2.7	0.4
120°-130°	0.4	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°	159.0	24.5
0°-40°	260.1	40.1
0°-60°	464.1	71.5
0°-90°	624.7	96.2
90°-120°	24.2	3.7
90°-150°	24.6	3.8
90°-180°	25.0	3.9
0°-180°	649.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	206	206	206	206	206	
5°	204	204	205	205	205	19
15°	196	196	197	198	198	55
25°	180	181	182	184	184	83
35°	159	160	162	164	164	99
45°	133	134	137	140	141	103
55°	104	106	110	114	116	93
65°	72	74	80	87	89	71
75°	38	43	52	58	61	40
85°	9	16	26	33	35	10
90°	3	9	18	25	27	2
95°	2	5	14	20	23	1
105°	1	1	7	12	14	1
115°	0	0	2	5	7	0
125°	0	0	0	0	1	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°	205.5	205.5	205.5	205.5	205.5
2.5°	204.7	205.0	205.8	205.9	205.8
5°	204.0	204.3	205.1	205.3	205.1
7.5°	202.6	203.1	203.9	204.2	204.0
10°	200.7	201.1	202.1	202.4	202.4
12.5°	198.1	198.7	199.9	200.2	200.3
15°	195.5	196.2	197.1	197.8	197.8
17.5°	192.3	192.8	194.1	194.9	195.1
20°	188.5	189.1	190.6	191.5	191.7
22.5°	184.3	185.1	186.6	187.7	187.9
25°	180.0	180.7	182.4	183.5	183.9
27.5°	175.2	175.9	177.8	178.9	179.4
30°	170.1	170.9	172.8	174.4	174.7
32.5°	164.5	165.5	167.4	169.0	169.6
35°	158.7	159.7	161.9	163.5	164.5
37.5°	152.7	153.6	155.9	158.1	159.1
40°	146.7	147.5	149.8	152.0	153.0
42.5°	140.0	141.1	143.5	146.3	147.5
45°	133.3	134.3	137.0	139.9	141.1
47.5°	126.7	127.7	130.4	133.5	134.9
50°	119.2	120.2	123.7	127.2	128.8
52.5°	111.7	112.8	116.5	120.8	122.4
55°	104.3	105.5	109.5	114.1	115.9
57.5°	95.7	97.9	102.2	107.4	109.8
60°	88.2	89.9	94.9	100.5	102.7
62.5°	79.7	81.9	87.7	93.8	96.0
65°	71.5	74.1	80.5	87.0	89.4
67.5°	63.0	65.8	73.4	80.0	82.1
70°	54.1	58.1	66.2	72.6	75.0
72.5°	46.1	50.2	58.7	65.4	68.5
75°	37.8	42.7	51.7	58.4	61.0
77.5°	29.4	35.4	45.0	51.4	54.2
80°	22.2	28.5	37.9	44.6	47.0
82.5°	14.7	22.1	31.5	38.4	41.0
85°	9.0	16.5	25.8	32.8	35.2
87.5°	4.5	12.0	21.4	28.2	30.9
90°	2.6	9.1	18.1	24.8	27.2
92.5°	2.1	7.0	15.8	22.4	25.0
95°	1.6	5.3	13.6	20.3	22.7
97.5°	1.3	3.8	11.8	18.2	20.6
100°	1.1	2.7	9.9	16.2	18.6
102.5°	1.0	1.8	8.3	14.1	16.3
105°	0.8	1.1	6.7	12.2	14.2
107.5°	0.6	0.6	5.1	10.2	12.2
110°	0.5	0.5	3.7	8.3	10.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.5	0.5	2.6	6.7	8.3
115°	0.3	0.3	1.6	5.1	6.6
117.5°	0.3	0.3	0.8	3.7	5.0
120°	0.2	0.2	0.3	2.4	3.5
122.5°	0.2	0.2	0.2	1.3	2.2
125°	0.2	0.0	0.0	0.5	1.1
127.5°	0.0	0.0	0.0	0.0	0.3
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.2	0.0	0.0	0.0	0.0
135°	0.2	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)