

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: P397449

Luminaire Tested: **VRVT4S-LD5-18-PC-LG52-CD2-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P397449  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1801-511-6)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: VRVT4S-LD5-18-PC-LG52-CD2-U  
Description:  
Light Source: -  
Ballast/Driver: -

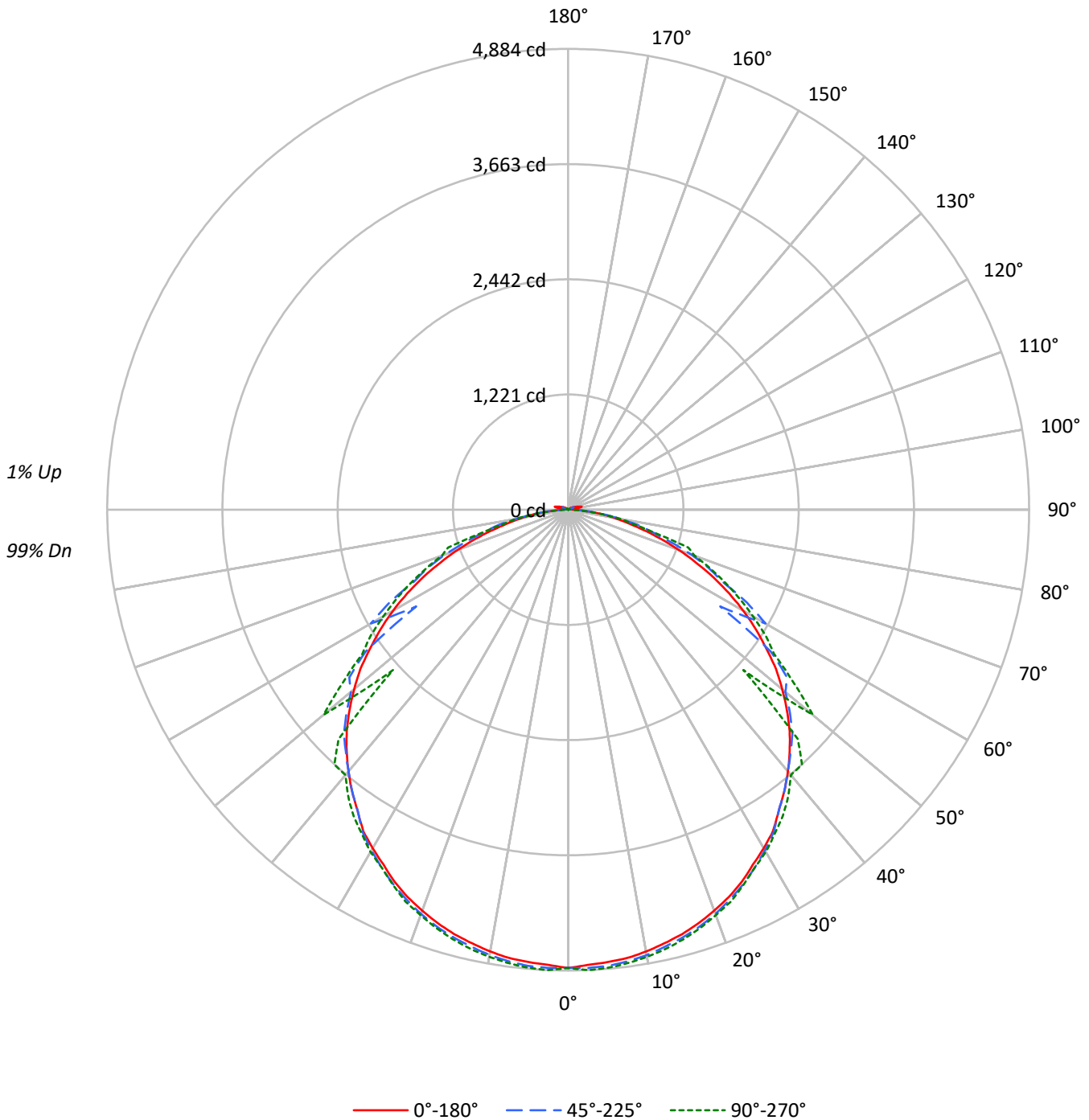
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14291.2 lumens  
Efficiency: N/A  
Efficacy: 43.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.28 / 1.4  
Luminous Opening: Rectangular w/ Sides (W: 1.08' x L: 2.08' x H: 0.25')  
CIE Type: Direct  
  
Input Watts (W): 327.2  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	78	96	88	82	77	85	79	75	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	64	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	47	73	61	53	46	59	52	46	57	50	45	55	49	45	42
6	70	56	47	41	68	55	47	40	53	46	40	51	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	33	28	40	33	28	38	32	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

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

	0°	45°	90°
0°	23173	23173	23173
5°	22811	22753	22881
10°	22559	22247	22401
15°	22289	21736	21927
20°	21995	21228	21418
25°	21699	20677	20864
30°	21346	20089	20363
35°	20903	19301	19880
40°	20493	18660	19155
45°	19992	18162	18861
50°	19223	17209	19695
55°	18192	16109	16658
60°	16933	16106	15416
65°	15274	13266	13890
70°	13117	11463	12146
75°	10436	8821	9315
80°	7977	6278	6634
85°	5083	3210	2811



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	461.0	3.2
10°-20°	1324.4	9.3
20°-30°	2017.0	14.1
30°-40°	2454.2	17.2
40°-50°	2556.1	17.9
50°-60°	2336.3	16.3
60°-70°	1779.1	12.4
70°-80°	965.7	6.8
80°-90°	265.9	1.9
90°-100°	34.1	0.2
100°-110°	46.3	0.3
110°-120°	30.9	0.2
120°-130°	11.9	0.1
130°-140°	4.8	0.0
140°-150°	1.5	0.0
150°-160°	0.9	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	3802.4	26.6
0°-40°	6256.6	43.8
0°-60°	11149.1	78.0
0°-90°	14159.8	99.1
90°-120°	111.3	0.8
90°-150°	129.5	0.9
90°-180°	131.0	0.9
0°-180°	14291.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4856	4856	4856	4856	4856	
5°	4813	4833	4854	4872	4874	458
15°	4657	4679	4693	4711	4714	1315
25°	4352	4374	4382	4390	4390	2004
35°	3890	3918	3889	3937	3964	2439
45°	3318	3326	3359	3518	3440	2554
55°	2562	2569	2623	2800	2663	2291
65°	1701	1753	1800	1837	1839	1678
75°	820	911	922	941	941	883
85°	220	239	225	187	187	237
90°	44	63	59	54	52	31
95°	35	29	30	17	16	51
105°	127	164	16	17	15	130
115°	66	41	65	9	9	66
125°	30	22	9	2	3	27
135°	12	10	4	2	2	10
145°	4	2	2	2	1	3
155°	2	2	2	2	2	1
165°	3	3	3	3	3	1
175°	3	3	3	3	3	0
180°	3	3	3	3	3	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4856.5	4856.5	4856.5	4856.5	4856.5
2.5°	4828.9	4844.1	4860.3	4877.4	4884.1
5°	4812.6	4832.6	4853.6	4871.8	4873.6
7.5°	4792.6	4812.6	4827.0	4842.2	4847.0
10°	4754.5	4783.1	4792.6	4803.1	4811.7
12.5°	4707.8	4734.5	4743.0	4764.0	4768.8
15°	4657.3	4679.2	4692.6	4710.6	4713.5
17.5°	4595.4	4617.3	4632.6	4643.0	4649.7
20°	4521.0	4539.1	4558.2	4565.8	4572.5
22.5°	4443.8	4455.3	4473.4	4485.8	4497.2
25°	4352.3	4374.2	4381.9	4389.5	4389.5
27.5°	4239.9	4272.3	4278.0	4266.6	4276.1
30°	4142.7	4164.6	4168.4	4155.0	4188.4
32.5°	4039.8	4040.7	4052.2	4049.3	4071.2
35°	3890.2	3917.8	3889.2	3936.8	3964.5
37.5°	3762.4	3785.3	3761.5	3833.9	3829.1
40°	3621.4	3643.3	3619.5	3681.4	3671.0
42.5°	3473.7	3492.7	3487.0	3515.6	3665.2
45°	3318.3	3326.0	3359.3	3518.5	3440.3
47.5°	3143.0	3149.7	3185.0	3127.8	2515.9
50°	2960.0	2966.7	3003.8	2363.4	3383.1
52.5°	2775.1	2765.6	2921.9	3178.2	3008.6
55°	2561.7	2569.3	2622.6	2799.9	2662.6
57.5°	2356.8	2373.9	1909.8	2463.5	2476.9
60°	2143.3	2174.7	2413.0	2254.8	2261.4
62.5°	1922.2	1975.6	2133.8	2047.0	2053.7
65°	1701.1	1752.6	1800.2	1837.4	1839.3
67.5°	1465.7	1544.8	1605.8	1591.5	1630.6
70°	1250.3	1214.1	1381.8	1377.1	1422.8
72.5°	1027.4	1116.0	1135.0	985.4	1335.1
75°	819.6	911.0	921.5	940.6	940.6
77.5°	634.7	688.1	767.2	730.0	703.3
80°	487.9	503.2	549.9	567.0	557.5
82.5°	363.1	342.2	379.3	395.5	358.3
85°	220.2	239.2	224.9	186.8	186.8
87.5°	90.6	114.3	101.0	92.5	81.9
90°	43.8	62.9	59.1	54.3	52.4
92.5°	45.8	43.8	31.4	21.9	17.1
95°	35.3	28.6	30.5	17.1	16.2
97.5°	66.7	21.0	21.0	15.3	12.4
100°	123.9	18.1	19.0	15.3	10.5
102.5°	147.7	26.7	19.0	15.3	15.3
105°	126.7	163.9	16.2	17.1	15.3
107.5°	107.7	74.3	12.4	15.3	17.1
110°	90.6	52.4	10.5	14.3	16.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	76.2	39.0	10.5	10.5	14.3
115°	65.8	41.0	64.8	8.6	8.6
117.5°	55.3	64.8	28.6	6.6	8.6
120°	44.8	37.2	17.1	8.6	5.7
122.5°	35.3	27.6	11.4	2.9	5.7
125°	29.5	21.9	8.6	1.9	2.9
127.5°	23.8	18.1	5.7	1.9	1.9
130°	19.0	17.1	3.8	1.9	1.9
132.5°	16.2	12.4	10.5	1.9	1.9
135°	12.4	9.5	3.8	1.9	1.9
137.5°	9.5	7.6	2.9	1.9	1.9
140°	7.6	5.7	1.9	1.9	1.0
142.5°	5.7	3.8	1.9	1.9	1.0
145°	3.8	1.9	1.9	1.9	1.0
147.5°	2.9	1.9	1.9	1.9	1.9
150°	1.9	1.9	1.9	1.9	1.9
152.5°	1.9	1.9	1.9	1.9	1.9
155°	1.9	1.9	1.9	1.9	1.9
157.5°	1.9	1.9	1.9	1.9	1.9
160°	1.9	1.9	1.9	1.9	1.9
162.5°	2.9	2.9	2.9	2.9	1.9
165°	2.9	2.9	2.9	2.9	2.9
167.5°	2.9	2.9	2.9	2.9	2.9
170°	2.9	2.9	2.9	2.9	2.9
172.5°	2.9	2.9	2.9	2.9	2.9
175°	2.9	2.9	2.9	2.9	2.9
177.5°	2.9	2.9	2.9	2.9	2.9
180°	2.9	2.9	2.9	2.9	2.9

(END OF REPORT)