

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: P397429

Luminaire Tested: **VRVT4S-LD5-12-PCF-LR63-CD2-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P397429  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1801-511-7)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: VRVT4S-LD5-12-PCF-LR63-CD2-U  
Description:  
Light Source: -  
Ballast/Driver: -

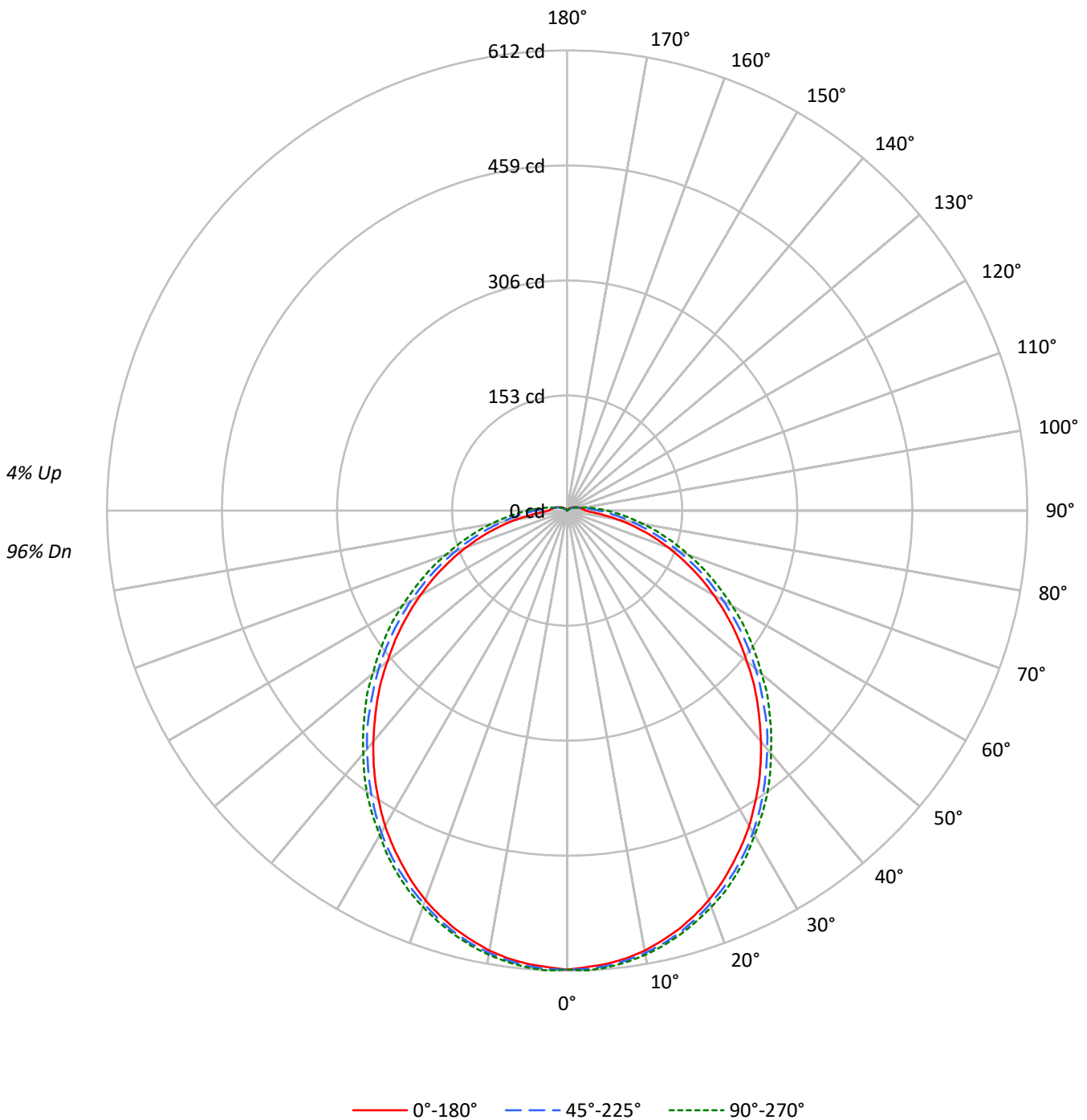
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1742.1 lumens  
Efficiency: N/A  
Efficacy: 8.0 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.32  
Luminous Opening: Rectangular w/ Sides (W: 1.08' x L: 2.08' x H: 0.25')  
CIE Type: Direct  
  
Input Watts (W): 217.3  
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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	96
1	107	102	97	93	104	99	95	91	94	91	88	90	87	85	86	83	81	79
2	97	89	82	76	94	87	80	75	82	77	72	79	74	70	75	71	68	66
3	89	78	70	63	86	76	68	62	73	66	61	69	64	59	66	62	58	55
4	81	69	60	53	79	67	59	53	65	57	52	62	56	51	59	54	50	47
5	75	62	53	46	72	60	52	46	58	50	45	56	49	44	53	48	43	41
6	69	56	47	40	67	55	46	40	52	45	39	50	44	39	48	43	38	36
7	64	51	42	36	62	50	41	35	48	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	32	44	36	31	42	36	31	41	35	30	28
9	56	42	34	29	54	42	34	28	40	33	28	39	32	28	38	32	27	26
10	52	39	31	26	51	38	31	26	37	30	26	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	2913	2913	2913
5°	2868	2850	2864
10°	2820	2773	2793
15°	2756	2689	2714
20°	2682	2592	2627
25°	2590	2492	2535
30°	2495	2383	2424
35°	2386	2261	2322
40°	2270	2134	2201
45°	2154	2003	2087
50°	2024	1875	1964
55°	1908	1739	1852
60°	1781	1601	1724
65°	1647	1458	1596
70°	1496	1309	1463
75°	1327	1153	1342
80°	1117	1008	1222
85°	879	879	1127



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.7	3.3
10°-20°	163.5	9.4
20°-30°	242.8	13.9
30°-40°	284.2	16.3
40°-50°	285.6	16.4
50°-60°	253.2	14.5
60°-70°	196.4	11.3
70°-80°	128.1	7.4
80°-90°	66.9	3.8
90°-100°	32.0	1.8
100°-110°	16.7	1.0
110°-120°	9.1	0.5
120°-130°	4.3	0.2
130°-140°	1.3	0.1
140°-150°	0.2	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	464.0	26.6
0°-40°	748.2	42.9
0°-60°	1287.0	73.9
0°-90°	1678.5	96.3
90°-120°	57.7	3.3
90°-150°	63.5	3.6
90°-180°	64.0	3.7
0°-180°	1742.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	610	610	610	610	610	
5°	605	606	608	609	610	57
15°	576	577	580	582	583	162
25°	520	523	528	532	533	239
35°	444	448	456	461	463	278
45°	358	362	370	378	381	275
55°	269	274	283	293	296	240
65°	183	188	198	209	211	182
75°	104	109	120	132	136	111
85°	38	49	62	72	75	38
90°	25	32	42	50	52	14
95°	21	23	28	34	36	17
105°	16	15	15	16	16	17
115°	11	9	9	8	9	11
125°	6	5	4	4	5	6
135°	3	3	1	1	1	3
145°	1	0	0	0	0	1
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°	610.5	610.5	610.5	610.5	610.5
2.5°	607.7	608.5	610.1	611.8	612.1
5°	605.1	605.9	607.9	609.4	610.0
7.5°	600.7	601.5	603.4	605.3	605.6
10°	594.3	595.4	597.4	599.6	600.0
12.5°	585.6	587.3	589.9	591.9	592.4
15°	575.9	577.3	580.5	582.4	583.3
17.5°	564.3	566.1	569.3	571.6	572.7
20°	551.2	553.0	556.5	560.5	560.9
22.5°	536.4	539.2	543.0	546.9	548.4
25°	519.5	522.8	528.1	532.2	533.4
27.5°	502.4	505.5	512.0	516.3	517.2
30°	484.3	487.6	494.5	497.9	498.5
32.5°	464.1	468.0	475.3	480.0	481.2
35°	444.0	448.5	455.5	461.1	463.0
37.5°	422.7	427.8	434.5	441.6	443.2
40°	401.1	406.4	413.9	420.5	421.8
42.5°	378.5	384.3	393.7	399.0	401.5
45°	357.5	362.3	370.5	377.6	380.7
47.5°	335.3	340.1	348.7	357.1	360.6
50°	311.6	318.1	327.3	335.5	337.4
52.5°	290.6	296.8	304.9	314.0	316.9
55°	268.7	273.6	283.1	292.7	296.1
57.5°	246.9	252.3	260.9	270.7	275.7
60°	225.4	230.5	239.8	249.9	252.9
62.5°	204.5	209.7	218.2	229.2	232.2
65°	183.4	188.5	197.9	208.6	211.3
67.5°	162.9	167.7	177.5	188.7	192.1
70°	142.6	148.8	157.8	168.3	171.4
72.5°	123.4	128.8	139.1	149.7	153.3
75°	104.2	109.2	120.5	131.7	135.5
77.5°	86.2	92.6	103.7	115.9	118.9
80°	68.3	75.1	88.3	99.9	102.7
82.5°	52.1	60.8	74.3	85.8	87.5
85°	38.1	48.7	61.6	72.3	74.9
87.5°	28.6	39.0	51.6	60.5	62.9
90°	24.6	31.8	42.1	50.2	52.1
92.5°	22.9	26.4	34.6	41.7	43.0
95°	21.4	22.8	28.4	34.2	35.6
97.5°	19.8	20.4	23.9	28.0	29.2
100°	18.4	18.5	20.1	23.1	23.9
102.5°	17.0	16.6	17.2	18.8	19.4
105°	15.7	14.9	15.3	15.6	16.3
107.5°	14.4	13.2	13.5	13.2	13.6
110°	13.1	11.5	11.8	11.4	11.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	11.8	10.1	10.4	9.9	10.4
115°	10.6	8.8	8.9	8.4	9.1
117.5°	9.6	7.9	7.5	7.1	7.9
120°	8.4	6.9	6.2	6.0	6.9
122.5°	7.5	6.1	4.9	4.9	5.8
125°	6.5	5.3	3.8	3.9	4.8
127.5°	5.7	4.5	2.7	3.1	3.9
130°	4.9	3.9	1.7	2.3	3.1
132.5°	4.0	3.1	1.0	1.6	2.2
135°	3.4	2.6	0.7	0.8	1.4
137.5°	2.7	2.0	0.3	0.1	0.7
140°	2.1	1.4	0.1	0.0	0.0
142.5°	1.4	0.9	0.0	0.0	0.0
145°	0.9	0.5	0.0	0.0	0.0
147.5°	0.5	0.3	0.0	0.0	0.0
150°	0.3	0.1	0.0	0.0	0.0
152.5°	0.3	0.1	0.0	0.0	0.0
155°	0.3	0.3	0.0	0.0	0.0
157.5°	0.3	0.3	0.1	0.0	0.0
160°	0.3	0.3	0.1	0.0	0.0
162.5°	0.3	0.3	0.1	0.0	0.0
165°	0.3	0.3	0.1	0.0	0.0
167.5°	0.3	0.3	0.1	0.0	0.0
170°	0.3	0.3	0.1	0.0	0.0
172.5°	0.3	0.3	0.1	0.0	0.0
175°	0.4	0.3	0.1	0.0	0.0
177.5°	0.4	0.3	0.1	0.0	0.0
180°	0.1	0.1	0.1	0.1	0.1

(END OF REPORT)