

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: P397378

Luminaire Tested: **VRVT4LED-LD5-15-DRF-UNV-LR63-CD2-WL-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P397378  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-367-6)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: VRVT4LED-LD5-15-DRF-UNV-LR63-CD2-WL-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

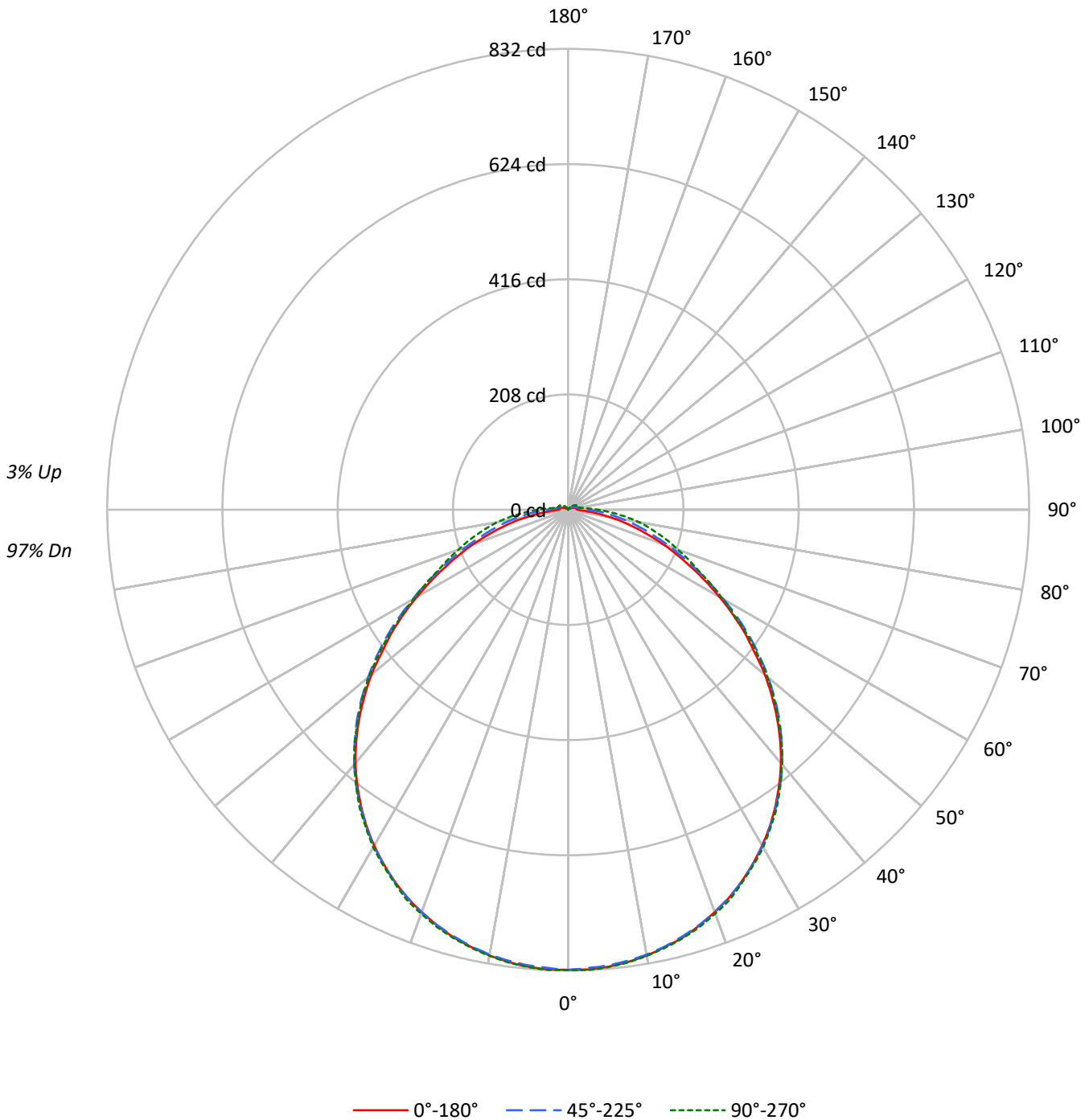
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2373.4 lumens  
Efficiency: N/A  
Efficacy: 8.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.26 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 1.04' x L: 4.12' x H: 0.25')  
CIE Type: Direct  
  
Input Watts (W): 291.2  
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	110	110	110	104	104	104	99	99	99	97
1	108	103	99	95	105	100	96	93	96	92	89	91	88	86	87	85	83	81
2	98	90	83	77	95	88	81	76	84	78	74	80	76	72	76	73	70	67
3	90	79	71	64	87	77	70	64	74	67	62	71	65	61	68	63	59	57
4	82	70	61	55	80	69	60	54	66	59	53	63	57	52	61	55	51	49
5	76	63	54	47	73	61	53	47	59	52	46	57	50	45	55	49	44	42
6	70	57	48	41	68	55	47	41	53	46	40	51	45	40	50	44	39	37
7	65	51	43	36	63	50	42	36	49	41	36	47	40	35	45	39	35	33
8	60	47	38	33	59	46	38	32	44	37	32	43	36	32	42	36	31	29
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	38	33	28	26
10	53	40	32	27	51	39	32	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	2081	2081	2081
5°	2072	2039	2042
10°	2057	1999	1996
15°	2040	1956	1951
20°	2016	1913	1903
25°	1991	1864	1847
30°	1957	1807	1789
35°	1913	1740	1719
40°	1859	1668	1634
45°	1781	1576	1533
50°	1685	1466	1422
55°	1567	1341	1287
60°	1431	1189	1140
65°	1284	1039	1012
70°	1148	903	928
75°	990	780	861
80°	801	668	791
85°	593	551	672



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.7	3.3
10°-20°	225.6	9.5
20°-30°	341.9	14.4
30°-40°	409.3	17.2
40°-50°	414.3	17.5
50°-60°	353.9	14.9
60°-70°	253.5	10.7
70°-80°	155.8	6.6
80°-90°	71.6	3.0
90°-100°	27.2	1.1
100°-110°	16.9	0.7
110°-120°	12.4	0.5
120°-130°	7.6	0.3
130°-140°	3.5	0.1
140°-150°	0.9	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	646.2	27.2
0°-40°	1055.5	44.5
0°-60°	1823.7	76.8
0°-90°	2304.6	97.1
90°-120°	56.5	2.4
90°-150°	68.5	2.9
90°-180°	69.0	2.9
0°-180°	2373.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	831	831	831	831	831	
5°	828	828	826	828	829	79
15°	800	800	797	800	801	225
25°	741	742	741	744	743	341
35°	652	656	654	656	656	408
45°	533	537	540	540	537	411
55°	390	395	400	396	396	348
65°	245	251	255	258	259	244
75°	125	131	144	164	169	134
85°	35	43	66	84	88	37
90°	17	21	38	51	53	10
95°	15	16	24	30	31	12
105°	13	12	17	19	19	14
115°	8	8	13	16	17	8
125°	4	3	8	13	14	4
135°	2	2	4	7	9	2
145°	1	1	0	2	3	1
155°	1	1	0	0	0	0
165°	1	1	0	0	0	0
175°	1	1	0	0	0	0
180°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	830.9	830.9	830.9	830.9	830.9
2.5°	830.7	830.9	828.2	830.7	831.7
5°	828.3	828.5	825.9	828.5	829.0
7.5°	823.9	824.0	821.5	824.2	824.5
10°	817.3	817.9	815.4	817.8	817.9
12.5°	808.7	809.8	807.5	810.1	809.9
15°	799.5	800.3	797.3	800.3	800.8
17.5°	787.2	787.7	786.3	789.3	789.6
20°	773.1	773.8	773.0	776.0	776.2
22.5°	758.4	758.7	757.8	760.7	762.1
25°	740.8	741.6	741.3	743.5	742.9
27.5°	721.1	723.1	721.6	724.5	723.4
30°	700.2	702.6	701.3	703.9	704.0
32.5°	677.3	679.2	678.7	680.5	679.9
35°	652.0	655.9	653.8	656.3	656.5
37.5°	625.5	629.0	628.7	630.1	628.5
40°	597.5	599.9	601.0	600.8	600.3
42.5°	566.1	570.7	570.4	570.6	570.7
45°	533.3	537.3	539.5	539.9	536.7
47.5°	498.6	503.9	506.1	506.1	504.2
50°	463.7	468.7	471.4	470.4	469.3
52.5°	424.3	433.5	436.2	434.4	431.9
55°	389.8	394.7	400.2	396.2	395.7
57.5°	352.6	358.7	362.1	360.5	355.8
60°	315.7	321.3	324.8	324.0	322.1
62.5°	279.0	285.8	289.6	288.6	290.1
65°	244.8	250.6	255.2	258.1	258.6
67.5°	212.5	218.4	223.8	231.0	234.7
70°	182.9	187.4	195.2	207.2	210.2
72.5°	152.8	158.4	168.0	184.5	190.1
75°	125.4	130.9	144.5	163.8	168.6
77.5°	99.8	105.0	122.4	143.4	148.8
80°	74.6	82.1	102.2	123.2	129.4
82.5°	53.6	61.1	82.9	103.4	108.8
85°	34.9	43.0	65.8	83.8	87.5
87.5°	21.9	29.3	50.7	66.1	69.8
90°	16.6	21.3	38.4	50.7	53.3
92.5°	15.7	17.6	29.8	38.9	40.5
95°	15.4	16.2	24.5	29.9	30.7
97.5°	15.2	15.0	21.4	24.6	25.1
100°	14.7	14.1	19.2	21.4	21.4
102.5°	14.2	13.1	17.6	19.7	19.7
105°	13.1	12.3	16.6	18.6	18.7
107.5°	12.0	11.5	15.7	17.9	18.1
110°	10.7	10.4	14.9	17.3	17.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	9.4	9.1	14.1	16.8	17.4
115°	8.2	8.0	13.1	16.3	17.1
117.5°	7.0	6.7	12.2	15.5	16.6
120°	5.9	5.4	11.0	14.7	15.8
122.5°	5.0	4.3	9.8	13.8	15.0
125°	4.2	3.4	8.5	12.6	13.9
127.5°	3.5	2.7	7.2	11.4	12.8
130°	2.9	2.2	5.9	10.1	11.5
132.5°	2.4	1.9	4.8	8.6	10.1
135°	1.9	1.6	3.5	7.4	8.8
137.5°	1.6	1.3	2.4	5.9	7.4
140°	1.3	1.1	1.4	4.6	5.9
142.5°	1.1	0.8	0.6	3.5	4.5
145°	1.0	0.6	0.3	2.2	3.2
147.5°	0.8	0.6	0.3	1.3	2.1
150°	0.6	0.5	0.3	0.5	1.1
152.5°	0.6	0.5	0.3	0.0	0.2
155°	0.6	0.6	0.3	0.2	0.0
157.5°	0.6	0.6	0.3	0.2	0.0
160°	0.6	0.6	0.5	0.2	0.0
162.5°	0.6	0.6	0.5	0.2	0.2
165°	0.6	0.6	0.5	0.2	0.2
167.5°	0.6	0.6	0.5	0.2	0.2
170°	0.8	0.6	0.5	0.2	0.2
172.5°	0.8	0.6	0.5	0.3	0.2
175°	0.8	0.6	0.5	0.3	0.3
177.5°	0.8	0.8	0.5	0.3	0.3
180°	0.5	0.5	0.5	0.5	0.5

(END OF REPORT)