

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: P397441

Luminaire Tested: **VRVT4S-LD5-15-PCF-LR63-CD2-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P397441  
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-LD5-15-PCF-LR63-CD2-U  
Description:  
Light Source: -  
Ballast/Driver: -

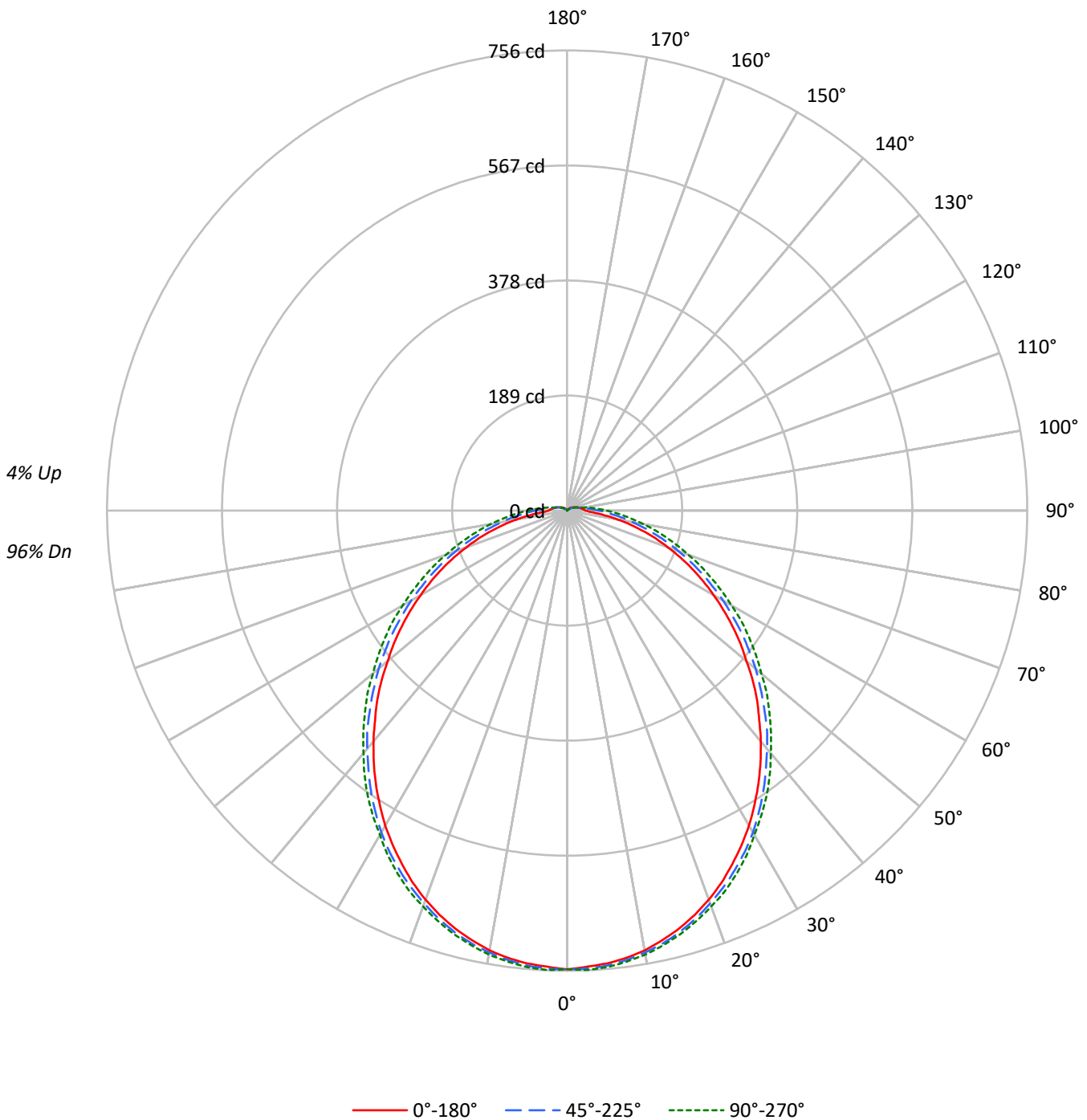
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2150.3 lumens  
Efficiency: N/A  
Efficacy: 7.7 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): 280.5  
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	64	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°	3596	3596	3596
5°	3540	3518	3535
10°	3481	3423	3448
15°	3402	3319	3349
20°	3310	3199	3243
25°	3197	3076	3129
30°	3080	2942	2991
35°	2945	2790	2866
40°	2801	2634	2716
45°	2659	2472	2576
50°	2498	2315	2425
55°	2356	2146	2286
60°	2198	1976	2128
65°	2033	1800	1970
70°	1846	1615	1806
75°	1637	1424	1656
80°	1378	1244	1508
85°	1085	1085	1392



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.2	3.3
10°-20°	201.8	9.4
20°-30°	299.7	13.9
30°-40°	350.8	16.3
40°-50°	352.5	16.4
50°-60°	312.5	14.5
60°-70°	242.5	11.3
70°-80°	158.2	7.4
80°-90°	82.6	3.8
90°-100°	39.5	1.8
100°-110°	20.6	1.0
110°-120°	11.2	0.5
120°-130°	5.3	0.2
130°-140°	1.6	0.1
140°-150°	0.2	0.0
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	572.7	26.6
0°-40°	923.5	42.9
0°-60°	1588.5	73.9
0°-90°	2071.7	96.3
90°-120°	71.3	3.3
90°-150°	78.4	3.6
90°-180°	79.0	3.7
0°-180°	2150.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	747	748	750	752	753	71
15°	711	713	716	719	720	200
25°	641	645	652	657	658	295
35°	548	554	562	569	572	343
45°	441	447	457	466	470	340
55°	332	338	349	361	365	297
65°	226	233	244	257	261	224
75°	129	135	149	163	167	136
85°	47	60	76	89	92	47
90°	30	39	52	62	64	17
95°	26	28	35	42	44	21
105°	19	18	19	19	20	21
115°	13	11	11	10	11	13
125°	8	7	5	5	6	7
135°	4	3	1	1	2	3
145°	1	1	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°	753.6	753.6	753.6	753.6	753.6
2.5°	750.1	751.0	753.1	755.2	755.5
5°	746.9	747.8	750.4	752.1	752.9
7.5°	741.4	742.4	744.8	747.2	747.5
10°	733.6	734.9	737.4	740.1	740.6
12.5°	722.9	724.9	728.1	730.5	731.2
15°	710.9	712.6	716.5	718.9	720.0
17.5°	696.5	698.7	702.7	705.6	706.9
20°	680.3	682.5	686.9	691.8	692.3
22.5°	662.1	665.6	670.2	675.0	676.9
25°	641.3	645.3	651.8	656.9	658.4
27.5°	620.1	624.0	632.0	637.3	638.4
30°	597.7	601.9	610.4	614.5	615.3
32.5°	572.8	577.6	586.7	592.5	593.9
35°	548.0	553.6	562.2	569.1	571.5
37.5°	521.7	528.0	536.3	545.1	547.0
40°	495.0	501.6	510.9	519.0	520.6
42.5°	467.2	474.4	485.9	492.5	495.5
45°	441.3	447.2	457.3	466.1	469.9
47.5°	413.9	419.8	430.4	440.8	445.1
50°	384.6	392.6	404.0	414.1	416.5
52.5°	358.7	366.4	376.3	387.5	391.2
55°	331.7	337.7	349.4	361.3	365.4
57.5°	304.8	311.3	322.1	334.1	340.3
60°	278.2	284.5	296.0	308.5	312.1
62.5°	252.5	258.9	269.3	282.9	286.5
65°	226.4	232.6	244.3	257.4	260.8
67.5°	201.1	207.0	219.0	233.0	237.1
70°	176.0	183.7	194.7	207.7	211.5
72.5°	152.3	159.0	171.7	184.8	189.3
75°	128.6	134.7	148.8	162.6	167.2
77.5°	106.4	114.2	128.0	143.0	146.7
80°	84.3	92.6	109.0	123.4	126.7
82.5°	64.3	75.0	91.7	105.9	108.0
85°	47.0	60.2	76.0	89.3	92.5
87.5°	35.4	48.2	63.7	74.7	77.6
90°	30.4	39.2	52.0	61.9	64.3
92.5°	28.3	32.6	42.7	51.5	53.1
95°	26.4	28.2	35.0	42.2	44.0
97.5°	24.5	25.1	29.4	34.6	36.0
100°	22.7	22.9	24.8	28.5	29.4
102.5°	21.0	20.5	21.3	23.2	24.0
105°	19.4	18.4	18.9	19.2	20.2
107.5°	17.8	16.3	16.6	16.3	16.8
110°	16.2	14.2	14.6	14.1	14.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	14.6	12.5	12.8	12.2	12.8
115°	13.1	10.9	11.0	10.4	11.2
117.5°	11.8	9.8	9.3	8.8	9.8
120°	10.4	8.5	7.7	7.4	8.5
122.5°	9.3	7.5	6.1	6.1	7.2
125°	8.0	6.6	4.6	4.8	5.9
127.5°	7.0	5.6	3.4	3.8	4.8
130°	6.1	4.8	2.1	2.9	3.8
132.5°	5.0	3.8	1.3	1.9	2.7
135°	4.2	3.2	0.8	1.0	1.8
137.5°	3.4	2.4	0.3	0.2	0.8
140°	2.6	1.8	0.2	0.0	0.0
142.5°	1.8	1.1	0.0	0.0	0.0
145°	1.1	0.6	0.0	0.0	0.0
147.5°	0.6	0.3	0.0	0.0	0.0
150°	0.3	0.2	0.0	0.0	0.0
152.5°	0.3	0.2	0.0	0.0	0.0
155°	0.3	0.3	0.0	0.0	0.0
157.5°	0.3	0.3	0.2	0.0	0.0
160°	0.3	0.3	0.2	0.0	0.0
162.5°	0.3	0.3	0.2	0.0	0.0
165°	0.3	0.3	0.2	0.0	0.0
167.5°	0.3	0.3	0.2	0.0	0.0
170°	0.3	0.3	0.2	0.0	0.0
172.5°	0.3	0.3	0.2	0.0	0.0
175°	0.5	0.3	0.2	0.0	0.0
177.5°	0.5	0.3	0.2	0.0	0.0
180°	0.2	0.2	0.2	0.2	0.2

(END OF REPORT)