

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: P397440

Luminaire Tested: **VRVT4S-LD5-15-PCF-LG52-CD2-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P397440  
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-LG52-CD2-U  
Description:  
Light Source: -  
Ballast/Driver: -

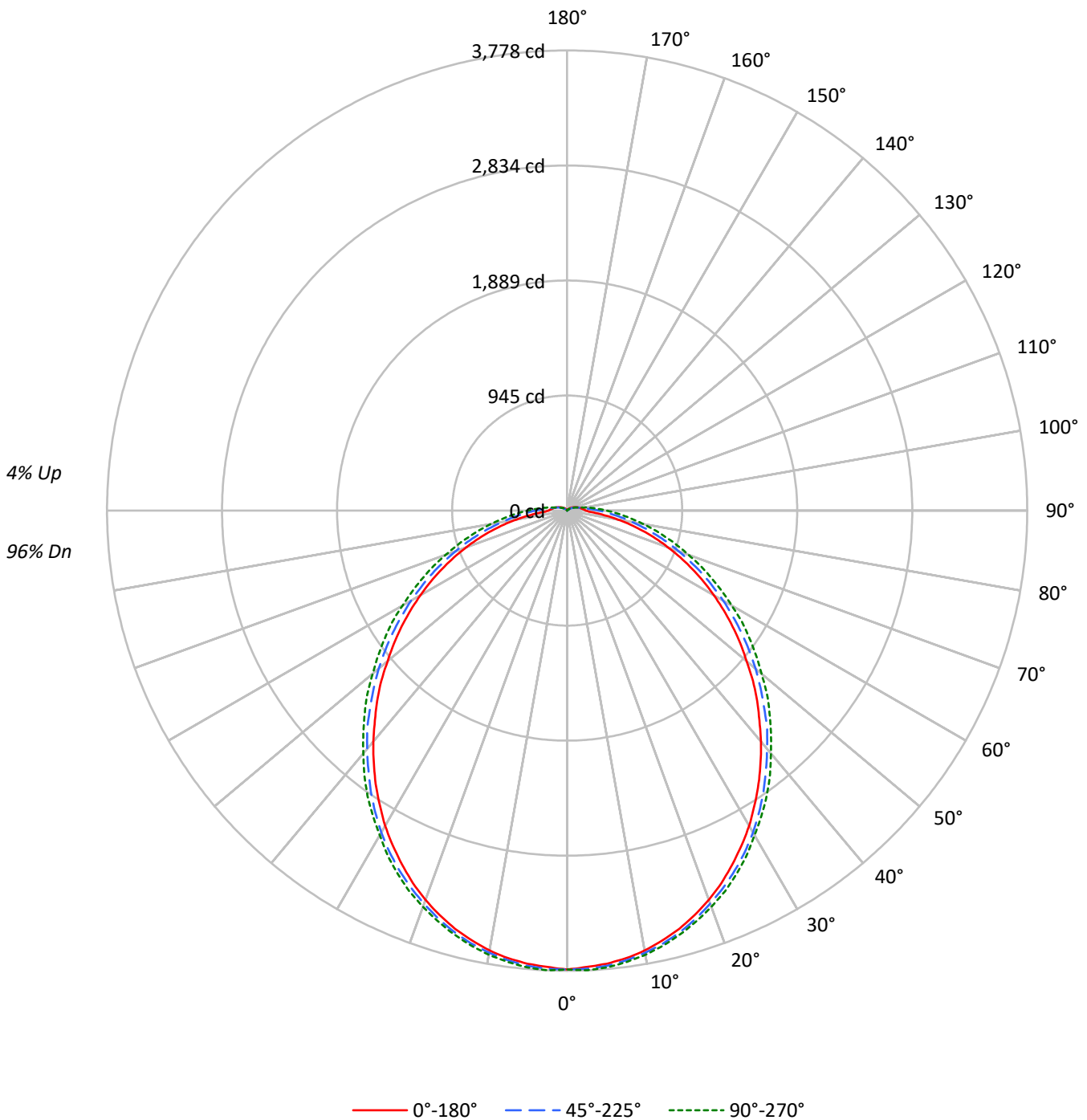
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10751.2 lumens  
Efficiency: N/A  
Efficacy: 41.7 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): 257.8  
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

TEST NUMBER: P397440

CATALOG NUMBER: VRVT4S-LD5-15-PCF-LG52-CD2-U

### Luminous Intensity Polar Plot





TEST NUMBER: P397440

CATALOG NUMBER: VRVT4S-LD5-15-PCF-LG52-CD2-U

**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°	17978	17978	17978
5°	17700	17589	17675
10°	17403	17116	17240
15°	17010	16593	16747
20°	16549	15994	16214
25°	15986	15379	15647
30°	15400	14708	14958
35°	14722	13951	14329
40°	14006	13169	13583
45°	13292	12361	12881
50°	12489	11572	12122
55°	11777	10731	11431
60°	10990	9878	10640
65°	10164	9002	9848
70°	9232	8077	9028
75°	8190	7122	8279
80°	6893	6219	7540
85°	5429	5424	6957



TEST NUMBER: P397440

CATALOG NUMBER: VRVT4S-LD5-15-PCF-LG52-CD2-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	355.9	3.3
10°-20°	1009.0	9.4
20°-30°	1498.6	13.9
30°-40°	1753.9	16.3
40°-50°	1762.5	16.4
50°-60°	1562.6	14.5
60°-70°	1212.3	11.3
70°-80°	790.9	7.4
80°-90°	413.0	3.8
90°-100°	197.6	1.8
100°-110°	102.9	1.0
110°-120°	56.0	0.5
120°-130°	26.4	0.2
130°-140°	8.1	0.1
140°-150°	1.1	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	2863.5	26.6
0°-40°	4617.3	42.9
0°-60°	7942.4	73.9
0°-90°	10358.6	96.3
90°-120°	356.4	3.3
90°-150°	392.0	3.6
90°-180°	393.0	3.7
0°-180°	10751.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3768	3768	3768	3768	3768	
5°	3734	3739	3752	3761	3765	354
15°	3554	3563	3582	3594	3600	1001
25°	3206	3226	3259	3285	3292	1477
35°	2740	2768	2811	2846	2858	1713
45°	2206	2236	2286	2330	2350	1700
55°	1658	1689	1747	1806	1827	1483
65°	1132	1163	1222	1287	1304	1122
75°	643	674	744	813	836	683
85°	235	301	380	446	462	233
90°	152	196	260	310	322	85
95°	132	141	175	211	220	104
105°	97	92	94	96	101	103
115°	66	54	55	52	56	66
125°	40	33	23	24	30	37
135°	21	16	4	5	9	16
145°	6	3	0	0	0	4
155°	2	2	0	0	0	1
165°	2	2	1	0	0	0
175°	2	2	1	0	0	0
180°	1	1	1	1	1	



TEST NUMBER: P397440

CATALOG NUMBER: VRVT4S-LD5-15-PCF-LG52-CD2-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3767.9	3767.9	3767.9	3767.9	3767.9
2.5°	3750.3	3755.1	3765.5	3775.9	3777.5
5°	3734.3	3739.1	3751.9	3760.7	3764.7
7.5°	3707.1	3711.9	3723.9	3735.9	3737.5
10°	3667.9	3674.3	3687.1	3700.7	3703.1
12.5°	3614.3	3624.7	3640.7	3652.7	3655.9
15°	3554.3	3563.1	3582.3	3594.3	3599.9
17.5°	3482.3	3493.5	3513.5	3527.9	3534.3
20°	3401.5	3412.7	3434.3	3459.1	3461.5
22.5°	3310.3	3327.9	3351.1	3375.1	3384.7
25°	3206.3	3226.3	3259.1	3284.7	3291.9
27.5°	3100.7	3119.9	3159.9	3186.3	3191.9
30°	2988.7	3009.5	3051.9	3072.7	3076.7
32.5°	2863.9	2887.9	2933.5	2962.3	2969.5
35°	2739.9	2767.9	2811.1	2845.5	2857.5
37.5°	2608.7	2639.9	2681.5	2725.5	2735.1
40°	2475.1	2507.9	2554.3	2595.1	2603.1
42.5°	2335.9	2371.9	2429.5	2462.3	2477.5
45°	2206.3	2235.9	2286.3	2330.3	2349.5
47.5°	2069.5	2099.1	2151.9	2203.9	2225.5
50°	1923.1	1963.1	2019.9	2070.3	2082.3
52.5°	1793.5	1831.9	1881.5	1937.5	1955.9
55°	1658.3	1688.7	1747.1	1806.3	1827.1
57.5°	1523.9	1556.7	1610.3	1670.3	1701.5
60°	1391.1	1422.3	1479.9	1542.3	1560.7
62.5°	1262.4	1294.4	1346.4	1414.3	1432.7
65°	1132.0	1163.2	1221.6	1287.2	1304.0
67.5°	1005.6	1035.2	1095.2	1164.8	1185.6
70°	880.0	918.4	973.6	1038.4	1057.6
72.5°	761.6	795.2	858.4	924.0	946.4
75°	643.2	673.6	744.0	812.8	836.0
77.5°	532.0	571.2	640.0	715.2	733.6
80°	421.6	463.2	544.8	616.8	633.6
82.5°	321.6	375.2	458.4	529.6	540.0
85°	235.2	300.8	380.0	446.4	462.4
87.5°	176.8	240.8	318.4	373.6	388.0
90°	152.0	196.0	260.0	309.6	321.6
92.5°	141.6	163.2	213.6	257.6	265.6
95°	132.0	140.8	175.2	211.2	220.0
97.5°	122.4	125.6	147.2	172.8	180.0
100°	113.6	114.4	124.0	142.4	147.2
102.5°	104.8	102.4	106.4	116.0	120.0
105°	96.8	92.0	94.4	96.0	100.8
107.5°	88.8	81.6	83.2	81.6	84.0
110°	80.8	71.2	72.8	70.4	72.8



TEST NUMBER: P397440

CATALOG NUMBER: VRVT4S-LD5-15-PCF-LG52-CD2-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	72.8	62.4	64.0	60.8	64.0
115°	65.6	54.4	55.2	52.0	56.0
117.5°	59.2	48.8	46.4	44.0	48.8
120°	52.0	42.4	38.4	36.8	42.4
122.5°	46.4	37.6	30.4	30.4	36.0
125°	40.0	32.8	23.2	24.0	29.6
127.5°	35.2	28.0	16.8	19.2	24.0
130°	30.4	24.0	10.4	14.4	19.2
132.5°	24.8	19.2	6.4	9.6	13.6
135°	20.8	16.0	4.0	4.8	8.8
137.5°	16.8	12.0	1.6	0.8	4.0
140°	12.8	8.8	0.8	0.0	0.0
142.5°	8.8	5.6	0.0	0.0	0.0
145°	5.6	3.2	0.0	0.0	0.0
147.5°	3.2	1.6	0.0	0.0	0.0
150°	1.6	0.8	0.0	0.0	0.0
152.5°	1.6	0.8	0.0	0.0	0.0
155°	1.6	1.6	0.0	0.0	0.0
157.5°	1.6	1.6	0.8	0.0	0.0
160°	1.6	1.6	0.8	0.0	0.0
162.5°	1.6	1.6	0.8	0.0	0.0
165°	1.6	1.6	0.8	0.0	0.0
167.5°	1.6	1.6	0.8	0.0	0.0
170°	1.6	1.6	0.8	0.0	0.0
172.5°	1.6	1.6	0.8	0.0	0.0
175°	2.4	1.6	0.8	0.0	0.0
177.5°	2.4	1.6	0.8	0.0	0.0
180°	0.8	0.8	0.8	0.8	0.8

(END OF REPORT)