

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: P397444

Luminaire Tested: **VRVT4S-LD5-18-DR-LR63-CD2-U**

Issue Date: 3/3/2020



**Test Information**

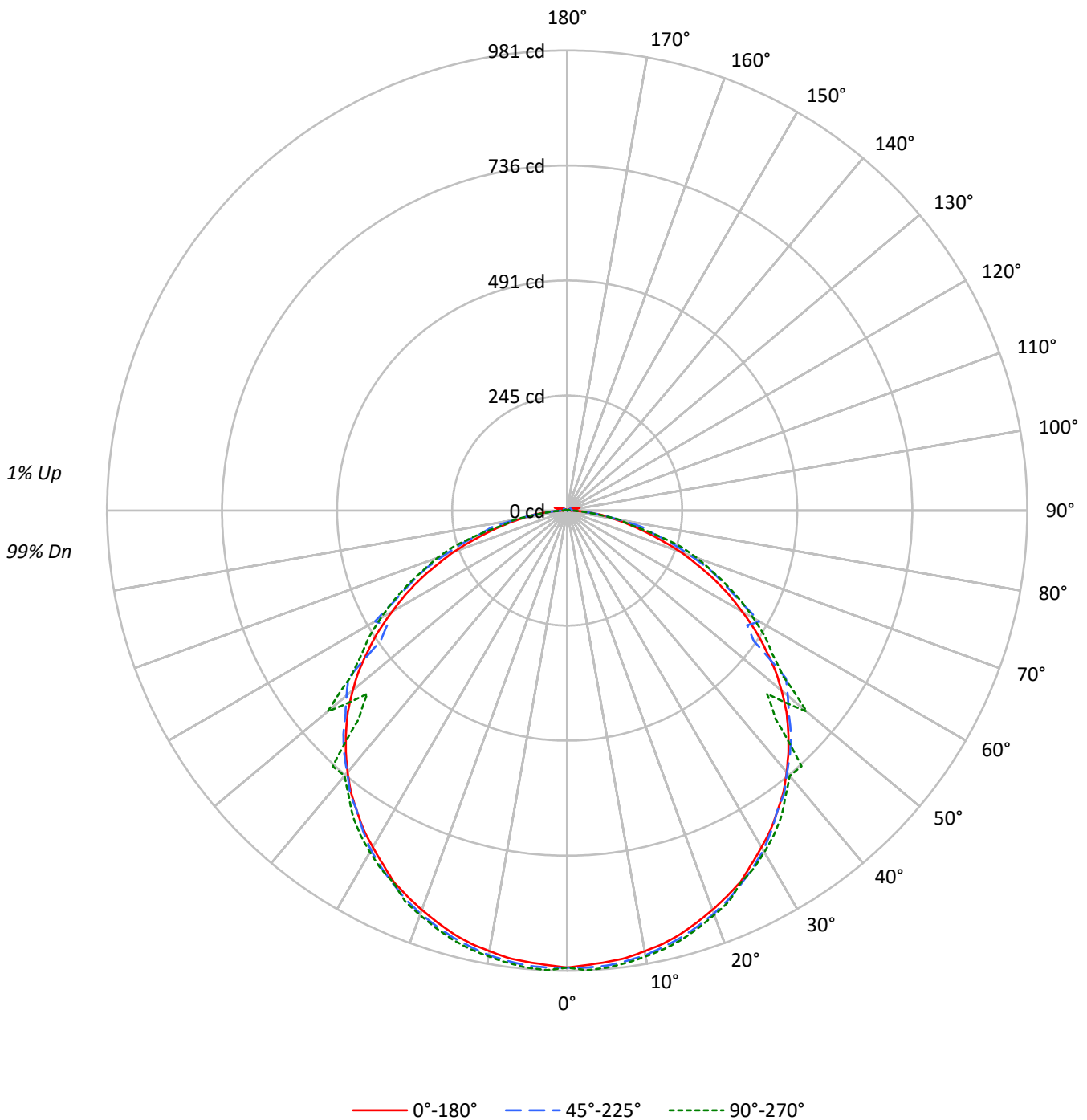
Test Method: LM-79-08  
Report Number: P397444  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1801-511-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: VRVT4S-LD5-18-DR-LR63-CD2-U  
Description:  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2877.8 lumens  
Efficiency: N/A  
Efficacy: 8.8 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	84	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	51	46		57	50	45		55	49	45	42
6	70	56	47	41	68	55	47	40	53	46	40		51	45	39		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	31		43	36	31		42	35	31	29
9	56	42	34	29	54	42	34	29	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26		37	30	25		36	30	25	24

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

	0°	45°	90°
0°	4648	4648	4648
5°	4580	4566	4593
10°	4525	4467	4493
15°	4473	4362	4404
20°	4407	4259	4298
25°	4356	4143	4161
30°	4270	4030	4088
35°	4199	3878	3991
40°	4119	3759	3851
45°	4016	3647	3448
50°	3873	3515	3881
55°	3670	2983	3346
60°	3408	3155	3126
65°	3097	2718	2830
70°	2693	2308	2506
75°	2142	1824	1872
80°	1648	1249	1360
85°	1039	595	603



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.5	3.2
10°-20°	265.7	9.2
20°-30°	404.5	14.1
30°-40°	492.7	17.1
40°-50°	514.6	17.9
50°-60°	470.8	16.4
60°-70°	359.6	12.5
70°-80°	196.0	6.8
80°-90°	53.0	1.8
90°-100°	8.1	0.3
100°-110°	9.9	0.3
110°-120°	5.9	0.2
120°-130°	2.8	0.1
130°-140°	1.0	0.0
140°-150°	0.3	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.1	0.0
0°-30°	762.7	26.5
0°-40°	1255.5	43.6
0°-60°	2240.9	77.9
0°-90°	2849.5	99.0
90°-120°	23.9	0.8
90°-150°	28.0	1.0
90°-180°	28.0	1.0
0°-180°	2877.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	966	970	974	977	978	92
15°	935	938	942	945	947	264
25°	874	876	878	880	876	402
35°	782	786	782	792	796	489
45°	667	670	675	709	629	514
55°	517	520	486	539	535	462
65°	345	355	369	370	375	340
75°	168	181	190	190	189	182
85°	45	45	42	40	40	49
90°	8	13	12	12	12	6
95°	7	7	7	6	6	9
105°	24	31	4	4	4	24
115°	12	6	8	3	3	12
125°	5	4	2	1	2	5
135°	2	2	1	1	1	2
145°	1	1	0	0	0	1
155°	0	0	0	0	0	0
165°	1	1	1	1	0	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	974.2	974.2	974.2	974.2	974.2
2.5°	969.6	972.0	975.1	979.4	980.6
5°	966.2	970.2	973.9	977.2	978.2
7.5°	961.9	966.8	968.4	972.6	972.6
10°	953.6	959.2	962.2	965.0	965.0
12.5°	945.7	949.7	952.4	955.8	957.3
15°	934.7	938.3	941.7	945.1	946.6
17.5°	920.6	926.4	928.5	931.3	932.5
20°	905.9	911.4	914.4	916.9	917.5
22.5°	890.2	894.5	897.6	898.5	901.9
25°	873.7	876.4	878.0	880.4	875.5
27.5°	850.4	855.6	857.8	855.6	860.5
30°	828.7	833.9	836.3	836.9	840.9
32.5°	807.2	810.9	809.7	814.3	820.1
35°	781.5	785.8	781.5	791.6	795.9
37.5°	757.3	759.4	759.7	769.8	765.6
40°	727.9	730.6	729.1	735.5	738.0
42.5°	698.2	700.6	703.4	708.3	739.5
45°	666.6	669.7	674.6	709.2	628.9
47.5°	633.8	634.4	640.9	587.9	577.8
50°	596.4	596.1	613.6	558.2	666.6
52.5°	559.1	558.8	587.9	614.2	579.9
55°	516.8	519.9	485.6	538.6	534.9
57.5°	475.7	478.5	455.2	492.0	500.0
60°	431.3	442.0	472.7	458.3	458.6
62.5°	389.1	398.6	412.0	416.6	418.5
65°	344.9	355.4	368.8	370.1	374.7
67.5°	298.1	313.1	329.3	327.2	331.5
70°	256.7	238.3	278.2	280.0	293.5
72.5°	210.1	232.2	235.3	196.1	252.4
75°	168.2	181.1	190.5	190.2	189.0
77.5°	133.3	141.8	164.8	148.3	134.2
80°	100.8	103.2	109.4	108.8	114.3
82.5°	76.0	72.3	74.4	73.5	64.9
85°	45.0	45.3	41.7	40.4	40.1
87.5°	18.7	20.8	20.2	19.3	20.8
90°	7.7	12.9	12.3	12.0	11.6
92.5°	8.6	9.2	8.6	7.4	6.4
95°	7.4	6.7	7.0	5.8	5.8
97.5°	10.1	5.5	5.5	4.9	4.6
100°	20.2	4.9	5.2	4.3	4.3
102.5°	27.0	5.2	4.6	4.3	4.6
105°	23.6	31.2	4.0	4.3	4.3
107.5°	19.9	18.4	3.7	4.0	4.3
110°	16.8	11.3	3.1	3.7	4.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	13.8	8.0	2.8	3.1	3.7
115°	11.6	5.8	7.7	2.8	3.1
117.5°	9.8	6.1	8.3	2.4	2.8
120°	8.0	12.6	4.3	2.1	2.1
122.5°	6.4	5.8	3.1	1.5	1.8
125°	5.2	4.3	2.1	1.2	1.5
127.5°	4.3	3.4	1.5	0.9	1.2
130°	3.7	3.1	0.9	0.9	0.9
132.5°	3.1	2.4	0.9	0.6	0.9
135°	2.4	1.8	0.9	0.6	0.6
137.5°	1.8	1.5	0.6	0.6	0.6
140°	1.5	0.9	0.3	0.3	0.3
142.5°	1.2	0.9	0.3	0.3	0.3
145°	0.9	0.6	0.3	0.3	0.3
147.5°	0.6	0.3	0.3	0.3	0.3
150°	0.3	0.3	0.3	0.3	0.3
152.5°	0.3	0.3	0.3	0.3	0.3
155°	0.3	0.3	0.3	0.3	0.3
157.5°	0.3	0.3	0.3	0.3	0.3
160°	0.3	0.3	0.3	0.3	0.3
162.5°	0.6	0.6	0.6	0.6	0.3
165°	0.6	0.6	0.6	0.6	0.3
167.5°	0.6	0.6	0.6	0.6	0.3
170°	0.6	0.6	0.6	0.6	0.3
172.5°	0.6	0.6	0.6	0.6	0.6
175°	0.6	0.6	0.6	0.6	0.6
177.5°	0.6	0.6	0.6	0.6	0.6
180°	0.6	0.6	0.6	0.6	0.6

(END OF REPORT)