

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: P397450

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

Issue Date: 3/3/2020



**Test Information**

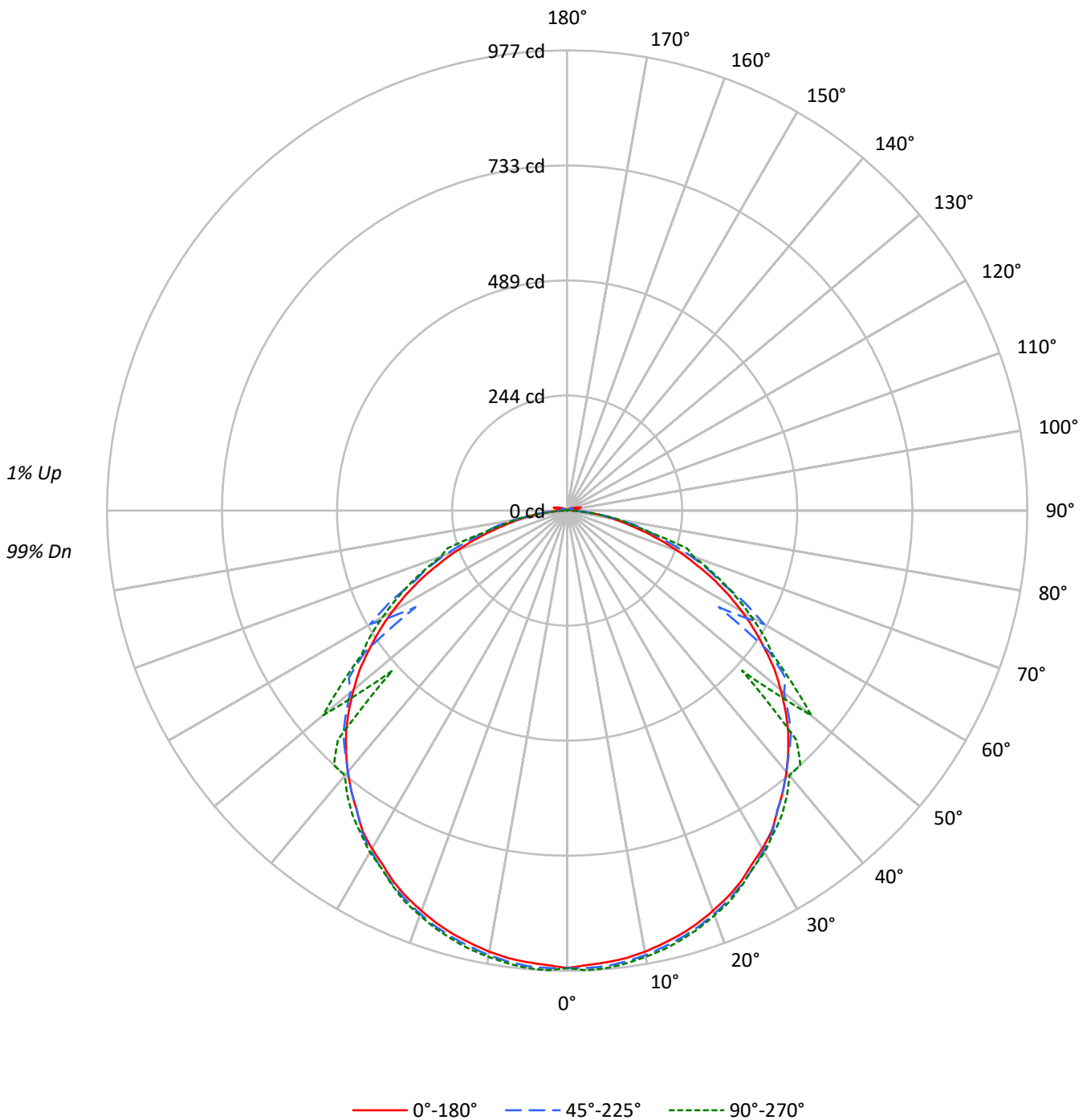
Test Method: LM-79-08  
Report Number: P397450  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1801-511-6)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: VRVT4S-LD5-18-PC-LR63-CD2-U  
Description:  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2858.3 lumens  
Efficiency: N/A  
Efficacy: 8.0 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): 356.1  
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	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	85	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	52	46	57	50	45	55	49	45	42				
6	70	56	47	41	68	55	47	40	53	46	40	51	45	40	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	32	43	36	31	42	36	31	29				
9	56	43	34	29	55	42	34	29	41	33	28	40	33	28	38	32	28	26				
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24				

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

	0°	45°	90°
0°	4635	4635	4635
5°	4562	4551	4576
10°	4512	4449	4480
15°	4458	4347	4385
20°	4399	4245	4284
25°	4340	4136	4173
30°	4269	4018	4073
35°	4180	3860	3976
40°	4099	3732	3831
45°	3999	3633	3772
50°	3845	3442	3939
55°	3638	3222	3331
60°	3387	3221	3083
65°	3055	2653	2778
70°	2624	2293	2430
75°	2087	1764	1863
80°	1596	1256	1327
85°	1016	642	563



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.2	3.2
10°-20°	264.9	9.3
20°-30°	403.4	14.1
30°-40°	490.8	17.2
40°-50°	511.2	17.9
50°-60°	467.3	16.3
60°-70°	355.8	12.4
70°-80°	193.1	6.8
80°-90°	53.2	1.9
90°-100°	6.8	0.2
100°-110°	9.3	0.3
110°-120°	6.2	0.2
120°-130°	2.4	0.1
130°-140°	1.0	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	760.5	26.6
0°-40°	1251.3	43.8
0°-60°	2229.8	78.0
0°-90°	2832.0	99.1
90°-120°	22.3	0.8
90°-150°	25.9	0.9
90°-180°	26.0	0.9
0°-180°	2858.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	971	971	971	971	971	
5°	962	966	971	974	975	92
15°	932	936	938	942	943	263
25°	870	875	876	878	878	401
35°	778	784	778	787	793	488
45°	664	665	672	704	688	511
55°	512	514	524	560	532	458
65°	340	350	360	368	368	336
75°	164	182	184	188	188	177
85°	44	48	45	37	37	47
90°	9	13	12	11	10	6
95°	7	6	6	3	3	10
105°	25	33	3	3	3	26
115°	13	8	13	2	2	13
125°	6	4	2	0	1	5
135°	2	2	1	0	0	2
145°	1	0	0	0	0	1
155°	0	0	0	0	0	0
165°	1	1	1	1	1	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°	971.3	971.3	971.3	971.3	971.3
2.5°	965.8	968.8	972.1	975.5	976.8
5°	962.5	966.5	970.7	974.4	974.7
7.5°	958.5	962.5	965.4	968.4	969.4
10°	950.9	956.6	958.5	960.6	962.3
12.5°	941.6	946.9	948.6	952.8	953.8
15°	931.5	935.8	938.5	942.1	942.7
17.5°	919.1	923.5	926.5	928.6	929.9
20°	904.2	907.8	911.6	913.2	914.5
22.5°	888.8	891.1	894.7	897.2	899.4
25°	870.5	874.8	876.4	877.9	877.9
27.5°	848.0	854.5	855.6	853.3	855.2
30°	828.5	832.9	833.7	831.0	837.7
32.5°	808.0	808.1	810.4	809.9	814.2
35°	778.0	783.6	777.8	787.4	792.9
37.5°	752.5	757.1	752.3	766.8	765.8
40°	724.3	728.7	723.9	736.3	734.2
42.5°	694.7	698.5	697.4	703.1	733.0
45°	663.7	665.2	671.9	703.7	688.1
47.5°	628.6	629.9	637.0	625.6	503.2
50°	592.0	593.3	600.8	472.7	676.6
52.5°	555.0	553.1	584.4	635.6	601.7
55°	512.3	513.9	524.5	560.0	532.5
57.5°	471.4	474.8	382.0	492.7	495.4
60°	428.7	434.9	482.6	451.0	452.3
62.5°	384.4	395.1	426.8	409.4	410.7
65°	340.2	350.5	360.0	367.5	367.9
67.5°	293.1	309.0	321.2	318.3	326.1
70°	250.1	242.8	276.4	275.4	284.6
72.5°	205.5	223.2	227.0	197.1	267.0
75°	163.9	182.2	184.3	188.1	188.1
77.5°	126.9	137.6	153.4	146.0	140.7
80°	97.6	100.6	110.0	113.4	111.5
82.5°	72.6	68.4	75.9	79.1	71.7
85°	44.0	47.8	45.0	37.4	37.4
87.5°	18.1	22.9	20.2	18.5	16.4
90°	8.8	12.6	11.8	10.9	10.5
92.5°	9.2	8.8	6.3	4.4	3.4
95°	7.1	5.7	6.1	3.4	3.2
97.5°	13.3	4.2	4.2	3.1	2.5
100°	24.8	3.6	3.8	3.1	2.1
102.5°	29.5	5.3	3.8	3.1	3.1
105°	25.3	32.8	3.2	3.4	3.1
107.5°	21.5	14.9	2.5	3.1	3.4
110°	18.1	10.5	2.1	2.9	3.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	15.2	7.8	2.1	2.1	2.9
115°	13.2	8.2	13.0	1.7	1.7
117.5°	11.1	13.0	5.7	1.3	1.7
120°	9.0	7.4	3.4	1.7	1.1
122.5°	7.1	5.5	2.3	0.6	1.1
125°	5.9	4.4	1.7	0.4	0.6
127.5°	4.8	3.6	1.1	0.4	0.4
130°	3.8	3.4	0.8	0.4	0.4
132.5°	3.2	2.5	2.1	0.4	0.4
135°	2.5	1.9	0.8	0.4	0.4
137.5°	1.9	1.5	0.6	0.4	0.4
140°	1.5	1.1	0.4	0.4	0.2
142.5°	1.1	0.8	0.4	0.4	0.2
145°	0.8	0.4	0.4	0.4	0.2
147.5°	0.6	0.4	0.4	0.4	0.4
150°	0.4	0.4	0.4	0.4	0.4
152.5°	0.4	0.4	0.4	0.4	0.4
155°	0.4	0.4	0.4	0.4	0.4
157.5°	0.4	0.4	0.4	0.4	0.4
160°	0.4	0.4	0.4	0.4	0.4
162.5°	0.6	0.6	0.6	0.6	0.4
165°	0.6	0.6	0.6	0.6	0.6
167.5°	0.6	0.6	0.6	0.6	0.6
170°	0.6	0.6	0.6	0.6	0.6
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)