

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: P397210

Luminaire Tested: **2VRVT2-LD5-4-FR50-UNV-LR63-CD1-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397210  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-3)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 2VRVT2-LD5-4-FR50-UNV-LR63-CD1-WL-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 641.9 lumens  
Efficiency: N/A  
Efficacy: 8.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 2.08' x H: 0.17')  
CIE Type: Direct

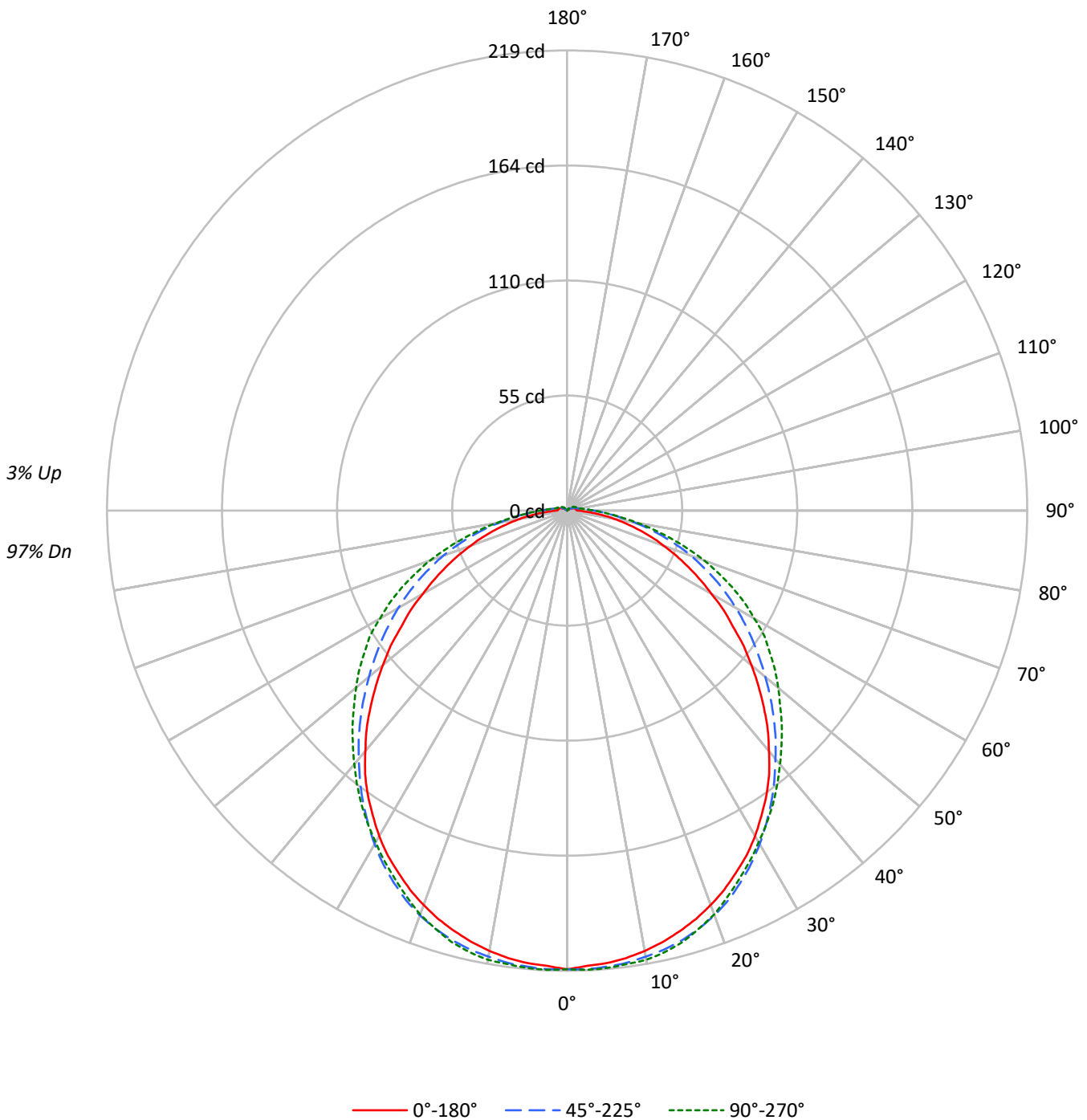
Input Watts (W): 74.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	107	102	98	94	104	100	96	92	95	92	89	91	88	85	87	84	82	80
2	98	89	82	76	95	87	80	75	83	77	73	79	75	71	76	72	69	66
3	89	78	70	63	86	76	69	62	73	66	61	70	64	59	67	62	58	56
4	81	69	60	53	79	68	59	53	65	57	52	62	56	51	60	54	50	47
5	75	62	53	46	72	60	52	46	58	51	45	56	49	44	54	48	43	41
6	69	56	47	40	67	54	46	40	52	45	39	50	44	39	49	43	38	36
7	64	50	42	35	62	49	41	35	48	40	35	46	39	34	44	38	34	32
8	60	46	37	32	58	45	37	31	44	36	31	42	36	31	41	35	30	28
9	56	42	34	28	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	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	2256	2256	2256
5°	2227	2204	2202
10°	2202	2151	2152
15°	2170	2099	2088
20°	2135	2038	2006
25°	2089	1960	1910
30°	2040	1871	1824
35°	1976	1774	1746
40°	1889	1670	1661
45°	1790	1572	1584
50°	1680	1469	1510
55°	1559	1370	1437
60°	1439	1273	1348
65°	1329	1169	1239
70°	1211	1051	1098
75°	1088	898	909
80°	942	728	704
85°	743	565	515



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.7	3.2
10°-20°	59.4	9.3
20°-30°	89.3	13.9
30°-40°	105.7	16.5
40°-50°	107.4	16.7
50°-60°	96.4	15.0
60°-70°	75.7	11.8
70°-80°	48.0	7.5
80°-90°	21.2	3.3
90°-100°	8.2	1.3
100°-110°	4.6	0.7
110°-120°	2.9	0.5
120°-130°	1.7	0.3
130°-140°	0.7	0.1
140°-150°	0.2	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	169.4	26.4
0°-40°	275.1	42.9
0°-60°	478.9	74.6
0°-90°	623.7	97.2
90°-120°	15.7	2.4
90°-150°	18.2	2.8
90°-180°	18.0	2.8
0°-180°	641.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	218	218	218	218	218	
5°	216	217	218	218	218	21
15°	207	209	212	213	213	58
25°	190	193	195	194	194	88
35°	165	169	169	170	171	103
45°	132	136	139	143	144	102
55°	96	101	108	115	118	87
65°	64	67	78	85	87	63
75°	35	39	47	51	51	38
85°	12	16	21	22	21	12
90°	5	9	13	13	13	3
95°	4	6	8	8	8	4
105°	4	3	4	5	5	4
115°	2	2	3	4	4	2
125°	1	1	2	3	3	1
135°	0	0	1	2	2	0
145°	0	0	0	0	1	0
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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CATALOG NUMBER: 2VRVT2-LD5-4-FR50-UNV-LR63-CD1-WL-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	218.3	218.3	218.3	218.3	218.3
2.5°	216.9	217.5	218.5	218.8	218.8
5°	216.2	217.1	217.9	218.5	218.5
7.5°	214.8	215.6	217.1	217.7	217.7
10°	212.8	213.9	215.6	216.9	217.1
12.5°	210.3	211.6	213.9	215.2	215.2
15°	207.2	208.8	211.6	212.8	212.6
17.5°	203.8	205.7	208.6	209.3	208.6
20°	199.8	202.1	205.0	205.5	204.6
22.5°	195.3	198.1	200.6	200.0	199.1
25°	190.1	193.4	195.3	194.3	193.6
27.5°	185.0	188.2	189.6	188.4	188.2
30°	178.9	182.5	183.3	182.5	182.3
32.5°	172.1	176.4	176.4	176.4	176.6
35°	165.4	169.0	169.4	170.0	170.7
37.5°	158.0	161.6	162.0	163.7	164.3
40°	149.4	153.4	154.2	156.7	157.6
42.5°	141.3	144.9	146.8	150.0	151.0
45°	132.3	136.3	139.0	142.8	144.5
47.5°	123.4	127.4	131.0	135.9	137.5
50°	114.5	118.6	123.2	128.9	131.2
52.5°	105.9	109.3	115.4	122.1	124.7
55°	96.4	100.6	107.8	115.2	117.7
57.5°	88.4	91.8	100.2	108.2	111.4
60°	79.3	83.1	92.8	100.8	102.9
62.5°	71.5	75.3	85.2	93.2	95.3
65°	63.7	67.3	77.8	85.0	86.9
67.5°	56.3	60.3	70.0	77.2	78.0
70°	48.9	53.2	62.7	68.8	69.6
72.5°	42.2	46.2	54.8	59.9	60.1
75°	35.4	39.4	47.0	51.1	51.1
77.5°	28.9	33.1	39.7	42.8	42.4
80°	23.0	26.8	32.5	34.2	34.2
82.5°	17.1	21.1	26.0	27.6	26.8
85°	12.0	16.2	20.7	21.5	20.9
87.5°	7.8	12.2	16.0	16.7	16.2
90°	5.1	9.1	12.7	13.1	12.9
92.5°	4.6	7.0	9.9	10.3	10.1
95°	4.4	5.5	8.0	8.4	8.2
97.5°	4.4	4.6	6.8	7.2	7.0
100°	4.2	4.0	5.7	6.1	5.9
102.5°	4.2	3.6	5.1	5.5	5.3
105°	3.8	3.2	4.4	5.1	4.8
107.5°	3.6	2.7	4.0	4.6	4.6
110°	3.2	2.3	3.6	4.4	4.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.7	2.1	3.4	4.2	4.2
115°	2.3	1.9	3.0	3.8	4.0
117.5°	1.9	1.5	2.5	3.6	3.8
120°	1.7	1.3	2.3	3.4	3.6
122.5°	1.5	1.1	2.1	3.0	3.4
125°	1.1	0.6	1.7	2.7	3.0
127.5°	1.1	0.6	1.5	2.3	2.7
130°	0.8	0.6	1.3	2.1	2.3
132.5°	0.6	0.4	0.8	1.7	2.1
135°	0.4	0.4	0.6	1.5	1.7
137.5°	0.4	0.2	0.4	1.3	1.5
140°	0.2	0.2	0.2	0.8	1.1
142.5°	0.2	0.2	0.0	0.6	0.8
145°	0.2	0.2	0.0	0.4	0.6
147.5°	0.2	0.2	0.0	0.2	0.4
150°	0.2	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)