

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: P397288

Luminaire Tested: **4VRVT2-LD5-8-DR100-UNV-LR63-CD1-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397288  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-12)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 4VRVT2-LD5-8-DR100-UNV-LR63-CD1-WL-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1318.6 lumens  
Efficiency: N/A  
Efficacy: 8.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')  
CIE Type: Direct

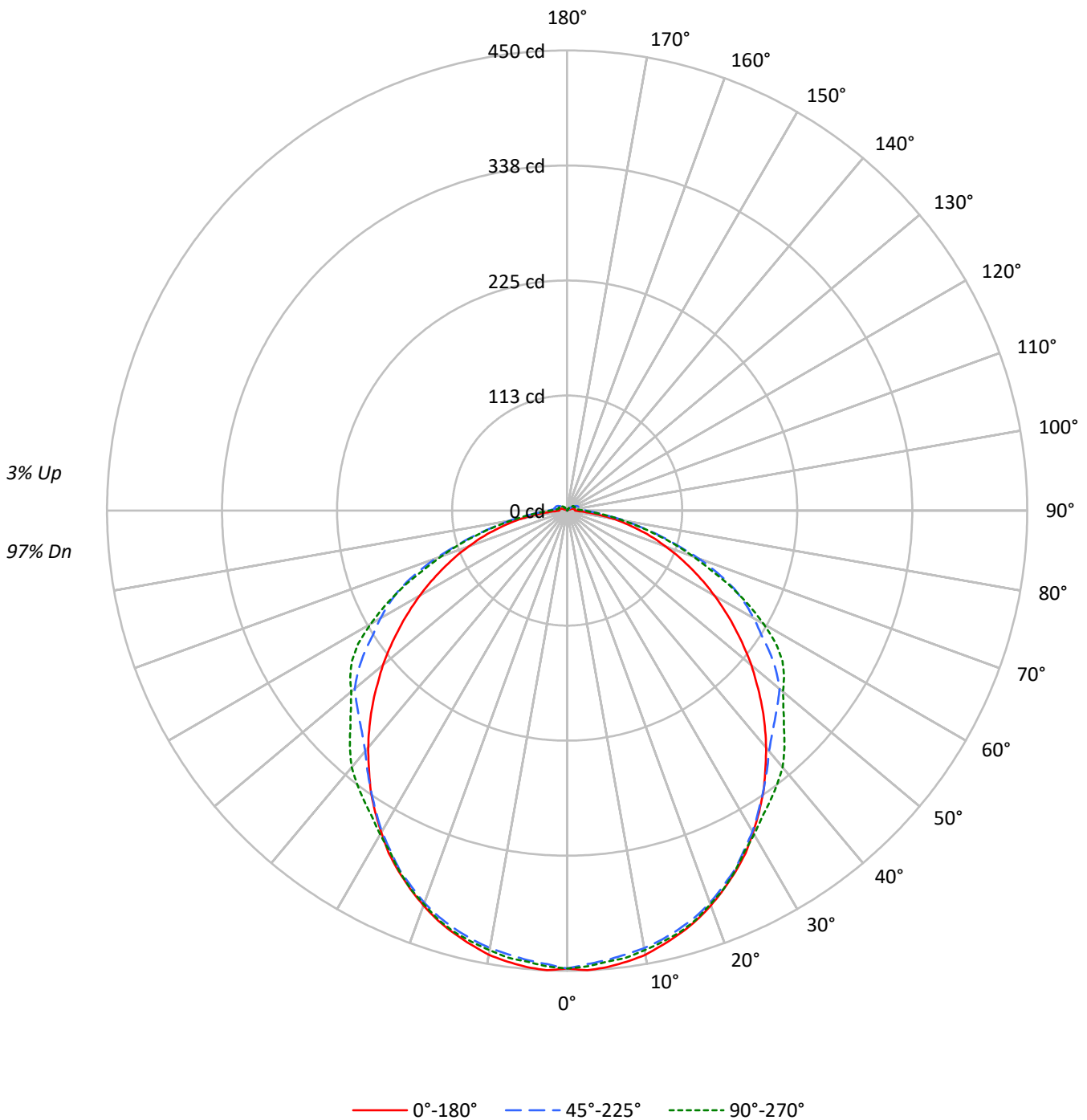
Input Watts (W): 151.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	97
1	108	103	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83	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	68	62	73	66	61	70	64	59	67	62	58	56
4	81	69	60	53	79	67	59	53	64	57	52	62	56	51	59	54	50	47
5	75	62	52	46	72	60	52	45	58	50	44	55	49	44	53	48	43	41
6	69	55	46	40	67	54	46	39	52	44	39	50	43	38	48	42	38	36
7	64	50	41	35	62	49	41	35	47	40	34	46	39	34	44	38	33	31
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	40	34	30	28
9	55	42	34	28	54	41	33	28	40	33	28	39	32	27	37	31	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	2314	2314	2314
5°	2316	2237	2232
10°	2298	2178	2163
15°	2265	2116	2095
20°	2227	2048	2008
25°	2180	1968	1917
30°	2119	1876	1830
35°	2054	1780	1771
40°	1975	1695	1728
45°	1892	1662	1642
50°	1804	1658	1585
55°	1706	1582	1569
60°	1608	1494	1453
65°	1502	1403	1265
70°	1391	1195	1032
75°	1265	930	797
80°	1086	680	563
85°	769	452	362



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.2	3.2
10°-20°	120.1	9.1
20°-30°	178.8	13.6
30°-40°	211.6	16.0
40°-50°	221.0	16.8
50°-60°	207.9	15.8
60°-70°	166.7	12.6
70°-80°	96.8	7.3
80°-90°	34.5	2.6
90°-100°	13.5	1.0
100°-110°	10.1	0.8
110°-120°	7.7	0.6
120°-130°	4.7	0.4
130°-140°	2.3	0.2
140°-150°	0.8	0.1
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	341.1	25.9
0°-40°	552.6	41.9
0°-60°	981.5	74.4
0°-90°	1279.5	97.0
90°-120°	31.3	2.4
90°-150°	39.0	3.0
90°-180°	39.0	3.0
0°-180°	1318.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	448	448	448	448	448	
5°	448	446	441	444	443	43
15°	428	425	424	428	427	121
25°	390	387	388	390	389	179
35°	335	334	334	342	346	209
45°	269	271	288	302	300	208
55°	200	210	242	251	257	179
65°	133	166	180	178	177	133
75°	73	100	92	91	90	77
85°	19	31	31	30	29	21
90°	8	16	18	17	16	5
95°	8	12	14	12	11	6
105°	6	9	12	10	8	7
115°	3	6	10	9	8	3
125°	1	2	7	8	7	1
135°	1	0	3	5	5	0
145°	0	0	1	2	3	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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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	447.8	447.8	447.8	447.8	447.8
2.5°	449.9	447.5	444.0	447.2	446.1
5°	448.2	445.8	441.3	443.5	443.0
7.5°	445.0	441.8	437.8	441.3	441.0
10°	441.1	437.4	434.4	437.8	436.6
12.5°	434.7	431.8	429.6	433.6	431.8
15°	428.0	424.8	423.5	427.8	426.7
17.5°	420.3	417.8	416.8	419.2	419.4
20°	411.0	409.1	408.3	411.5	409.6
22.5°	400.5	397.8	397.9	401.3	400.3
25°	389.6	387.4	387.7	390.4	388.6
27.5°	377.8	375.2	374.6	377.4	375.7
30°	363.4	362.9	362.4	364.8	365.8
32.5°	349.4	349.3	348.3	351.7	355.0
35°	334.7	334.2	334.4	341.8	346.4
37.5°	318.4	318.9	320.8	332.6	337.3
40°	302.7	302.9	307.0	324.8	327.8
42.5°	286.1	286.4	296.5	315.2	314.6
45°	269.3	270.7	287.5	301.8	299.7
47.5°	251.8	254.6	279.2	286.7	286.9
50°	235.2	238.7	271.2	273.0	275.5
52.5°	217.4	224.3	257.8	260.2	267.4
55°	200.2	210.1	241.9	250.7	257.1
57.5°	183.2	197.8	224.8	238.7	242.2
60°	166.4	186.7	210.7	222.1	221.8
62.5°	149.9	176.2	196.0	201.3	200.5
65°	133.4	166.1	179.7	178.4	177.4
67.5°	118.2	152.3	158.9	153.6	152.0
70°	102.2	135.7	136.5	131.2	130.9
72.5°	87.8	117.8	113.0	110.4	110.6
75°	72.8	99.8	92.5	90.7	89.6
77.5°	58.7	80.2	73.0	72.6	72.0
80°	44.8	61.8	57.1	55.7	54.7
82.5°	31.2	44.6	41.8	41.8	41.1
85°	18.9	30.9	30.6	29.9	29.4
87.5°	10.6	21.3	22.9	22.2	21.0
90°	7.7	16.5	18.4	17.3	16.3
92.5°	7.7	13.9	15.4	14.1	13.0
95°	7.8	12.2	13.6	12.0	10.9
97.5°	7.8	11.2	12.8	10.9	9.8
100°	7.5	10.4	12.3	10.2	9.0
102.5°	7.0	9.8	12.0	9.9	8.6
105°	6.4	9.1	12.0	9.8	8.5
107.5°	5.6	8.5	11.7	9.8	8.3
110°	4.8	7.7	11.5	9.6	8.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.2	6.7	11.0	9.4	8.2
115°	3.4	5.8	10.4	9.3	8.0
117.5°	2.7	4.8	9.6	9.0	7.8
120°	2.2	3.8	8.6	8.5	7.7
122.5°	1.6	2.9	7.8	8.2	7.5
125°	1.3	2.2	6.9	7.5	7.2
127.5°	1.1	1.4	5.9	7.0	6.9
130°	0.8	1.0	5.0	6.4	6.4
132.5°	0.6	0.6	4.0	5.8	5.9
135°	0.6	0.5	3.2	5.1	5.3
137.5°	0.5	0.5	2.6	4.3	4.6
140°	0.3	0.3	1.8	3.5	4.0
142.5°	0.3	0.3	1.1	2.9	3.2
145°	0.3	0.3	0.6	2.2	2.6
147.5°	0.3	0.2	0.3	1.6	1.9
150°	0.3	0.2	0.2	1.0	1.3
152.5°	0.2	0.2	0.2	0.5	0.8
155°	0.2	0.2	0.2	0.2	0.3
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)