

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: P397241

Luminaire Tested: **4VRVT2-LD5-11-DR100-UNV-LA59-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397241
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-LD5-11-DR100-UNV-LA59-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3015.9 lumens
Efficiency: N/A
Efficacy: 23.9 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

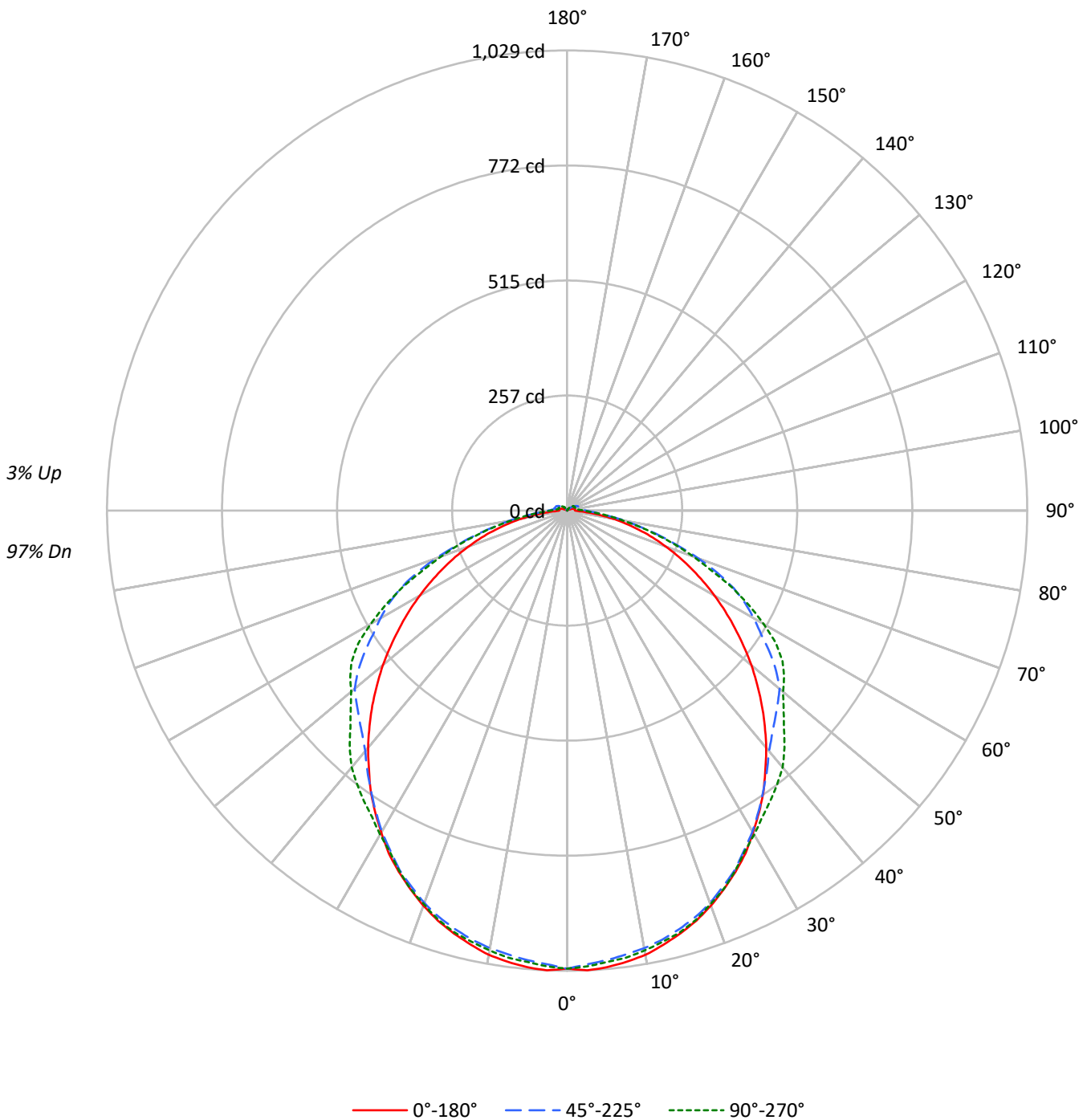
Input Watts (W): 126.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	45	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°	5292	5292	5292
5°	5298	5116	5106
10°	5256	4981	4949
15°	5181	4839	4793
20°	5095	4685	4594
25°	4987	4501	4386
30°	4846	4291	4186
35°	4697	4071	4052
40°	4518	3878	3952
45°	4327	3801	3756
50°	4128	3793	3625
55°	3901	3619	3589
60°	3678	3418	3323
65°	3436	3208	2893
70°	3184	2734	2360
75°	2892	2127	1823
80°	2486	1556	1289
85°	1757	1031	829



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.5	3.2
10°-20°	274.6	9.1
20°-30°	409.0	13.6
30°-40°	483.9	16.0
40°-50°	505.4	16.8
50°-60°	475.5	15.8
60°-70°	381.3	12.6
70°-80°	221.3	7.3
80°-90°	78.8	2.6
90°-100°	30.8	1.0
100°-110°	23.1	0.8
110°-120°	17.6	0.6
120°-130°	10.8	0.4
130°-140°	5.3	0.2
140°-150°	1.7	0.1
150°-160°	0.2	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	780.1	25.9
0°-40°	1264.0	41.9
0°-60°	2244.9	74.4
0°-90°	2926.4	97.0
90°-120°	71.5	2.4
90°-150°	89.3	3.0
90°-180°	90.0	3.0
0°-180°	3015.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1024	1024	1024	1024	1024	
5°	1025	1020	1009	1014	1013	97
15°	979	972	969	979	976	276
25°	891	886	887	893	889	410
35°	766	764	765	782	792	478
45°	616	619	658	690	685	475
55°	458	480	553	573	588	410
65°	305	380	411	408	406	303
75°	166	228	212	208	205	177
85°	43	71	70	68	67	48
90°	18	38	42	40	37	11
95°	18	28	31	27	25	14
105°	15	21	27	22	19	15
115°	8	13	24	21	18	8
125°	3	5	16	17	16	3
135°	2	1	7	12	12	1
145°	1	1	2	5	6	0
155°	0	0	0	0	1	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°	1024.3	1024.3	1024.3	1024.3	1024.3
2.5°	1029.1	1023.6	1015.5	1022.8	1020.3
5°	1025.1	1019.5	1009.3	1014.4	1013.3
7.5°	1017.7	1010.4	1001.3	1009.3	1008.6
10°	1008.9	1000.5	993.6	1001.3	998.7
12.5°	994.3	987.7	982.6	991.7	987.7
15°	978.9	971.6	968.7	978.6	976.0
17.5°	961.4	955.5	953.3	958.8	959.2
20°	940.1	935.7	933.9	941.2	936.9
22.5°	916.0	909.8	910.1	917.8	915.6
25°	891.1	886.0	886.7	892.9	888.9
27.5°	864.0	858.2	856.7	863.3	859.3
30°	831.1	830.0	828.9	834.4	836.6
32.5°	799.2	798.9	796.7	804.4	812.1
35°	765.6	764.5	764.8	781.7	792.3
37.5°	728.3	729.3	733.7	760.8	771.4
40°	692.4	692.7	702.3	742.9	749.8
42.5°	654.3	655.1	678.1	720.9	719.5
45°	615.9	619.2	657.6	690.2	685.4
47.5°	576.0	582.2	638.6	655.8	656.2
50°	538.0	546.0	620.3	624.3	630.2
52.5°	497.3	513.1	589.5	595.1	611.5
55°	457.8	480.5	553.3	573.4	588.1
57.5°	419.0	452.3	514.2	546.0	554.1
60°	380.6	427.1	482.0	507.9	507.2
62.5°	342.9	402.9	448.3	460.4	458.5
65°	305.2	379.8	411.0	408.0	405.8
67.5°	270.5	348.4	363.4	351.3	347.6
70°	233.9	310.3	312.2	300.1	299.3
72.5°	200.9	269.3	258.4	252.5	252.9
75°	166.5	228.4	211.5	207.5	204.9
77.5°	134.3	183.3	166.9	166.2	164.7
80°	102.5	141.3	130.6	127.3	125.2
82.5°	71.4	102.1	95.5	95.5	94.1
85°	43.2	70.6	69.9	68.4	67.3
87.5°	24.2	48.7	52.3	50.9	47.9
90°	17.6	37.7	42.1	39.5	37.3
92.5°	17.6	31.8	35.1	32.2	29.7
95°	17.9	27.8	31.1	27.4	24.9
97.5°	17.9	25.6	29.3	24.9	22.3
100°	17.2	23.8	28.2	23.4	20.5
102.5°	16.1	22.3	27.4	22.7	19.8
105°	14.6	20.9	27.4	22.3	19.4
107.5°	12.8	19.4	26.7	22.3	19.0
110°	11.0	17.6	26.3	22.0	19.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	9.5	15.4	25.3	21.6	18.7
115°	7.7	13.2	23.8	21.2	18.3
117.5°	6.2	11.0	22.0	20.5	17.9
120°	5.1	8.8	19.8	19.4	17.6
122.5°	3.7	6.6	17.9	18.7	17.2
125°	2.9	5.1	15.7	17.2	16.5
127.5°	2.5	3.3	13.6	16.1	15.7
130°	1.8	2.2	11.3	14.6	14.6
132.5°	1.5	1.5	9.2	13.2	13.6
135°	1.5	1.1	7.3	11.7	12.1
137.5°	1.1	1.1	5.9	9.9	10.6
140°	0.7	0.7	4.0	8.1	9.2
142.5°	0.7	0.7	2.5	6.6	7.3
145°	0.7	0.7	1.5	5.1	5.9
147.5°	0.7	0.4	0.7	3.7	4.4
150°	0.7	0.4	0.4	2.2	2.9
152.5°	0.4	0.4	0.4	1.1	1.8
155°	0.4	0.4	0.4	0.4	0.7
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)