

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: P397280

Luminaire Tested: **4VRVT2-LD5-8-DR-UNV-LA59-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397280
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-11)
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-DR-UNV-LA59-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2304.4 lumens
Efficiency: N/A
Efficacy: 25.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.23 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')
CIE Type: Direct

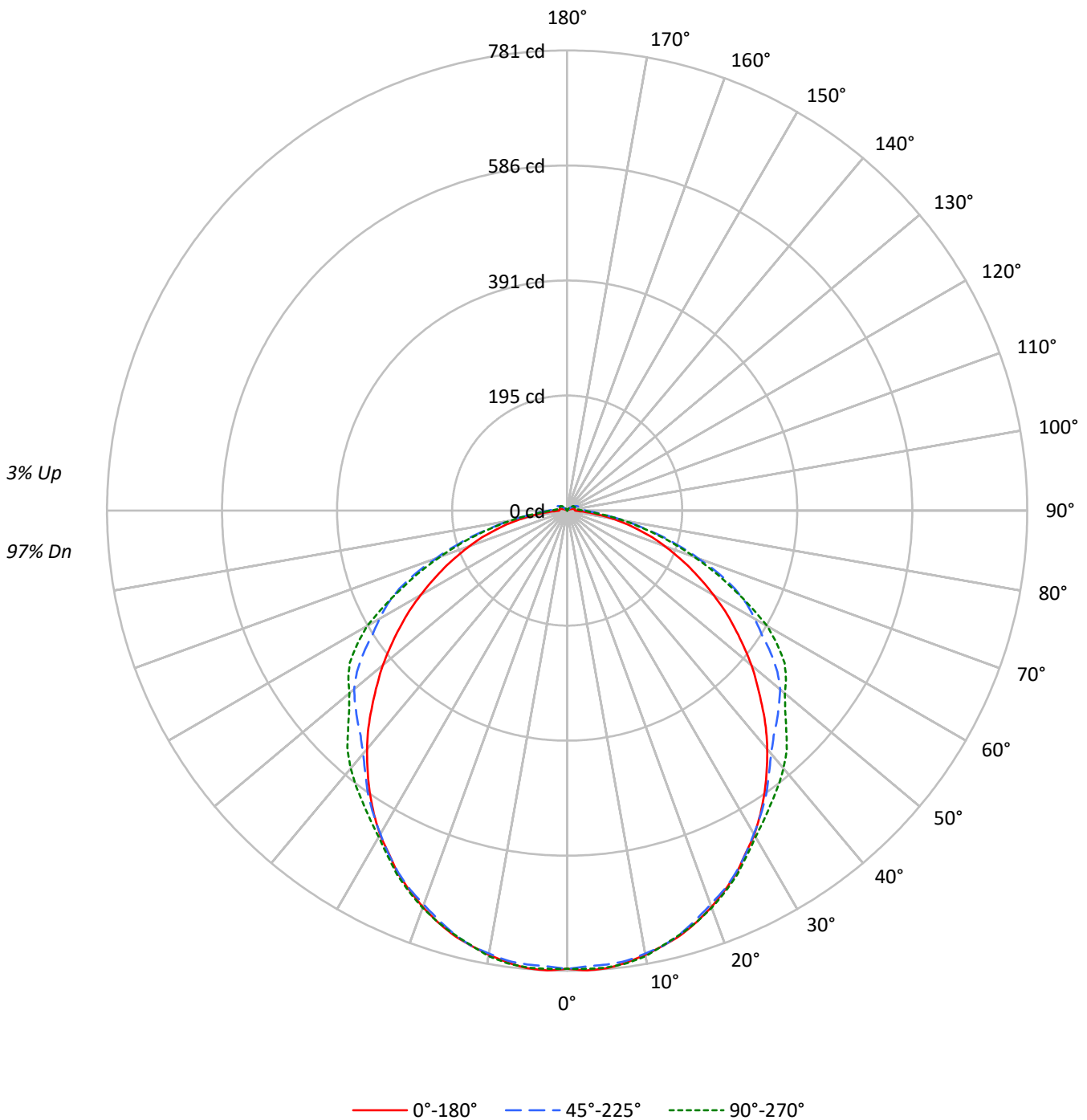
Input Watts (W): 89.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	81	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	65	57	52	62	56	51	59	54	50	47
5	75	62	52	46	72	60	52	45	58	50	45	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°	4018	4018	4018
5°	4030	3921	3923
10°	3988	3828	3805
15°	3947	3715	3654
20°	3880	3569	3518
25°	3802	3441	3365
30°	3705	3282	3199
35°	3584	3134	3093
40°	3448	2972	3010
45°	3285	2910	2881
50°	3134	2887	2775
55°	2956	2761	2749
60°	2776	2607	2568
65°	2592	2453	2190
70°	2397	2072	1810
75°	2169	1644	1402
80°	1867	1175	1001
85°	1412	797	604



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.8	3.2
10°-20°	210.2	9.1
20°-30°	313.4	13.6
30°-40°	370.7	16.1
40°-50°	386.0	16.7
50°-60°	363.1	15.8
60°-70°	291.0	12.6
70°-80°	169.0	7.3
80°-90°	59.6	2.6
90°-100°	23.0	1.0
100°-110°	17.5	0.8
110°-120°	13.3	0.6
120°-130°	8.1	0.4
130°-140°	4.0	0.2
140°-150°	1.3	0.1
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	597.5	25.9
0°-40°	968.2	42.0
0°-60°	1717.3	74.5
0°-90°	2236.9	97.1
90°-120°	53.8	2.3
90°-150°	67.2	2.9
90°-180°	68.0	3.0
0°-180°	2304.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	778	778	778	778	778	
5°	780	776	773	780	778	74
15°	746	748	744	745	744	210
25°	679	682	678	683	682	312
35°	584	586	589	599	605	365
45°	468	472	503	528	526	361
55°	347	367	422	440	450	311
65°	230	288	314	311	307	228
75°	125	173	164	160	158	133
85°	35	53	54	52	49	37
90°	13	29	31	29	27	8
95°	13	21	24	20	19	11
105°	11	16	21	17	15	11
115°	6	10	18	16	14	6
125°	2	4	12	13	13	2
135°	1	1	6	9	9	1
145°	1	0	1	4	4	0
155°	0	0	0	0	1	0
165°	0	0	0	0	0	0
175°	1	1	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°	777.6	777.6	777.6	777.6	777.6
2.5°	781.2	778.4	774.2	779.8	778.4
5°	779.8	776.4	773.4	780.1	778.4
7.5°	773.6	773.1	770.8	776.4	775.0
10°	765.5	767.2	763.6	768.0	767.8
12.5°	756.0	760.2	756.0	757.1	755.4
15°	745.9	748.4	743.7	745.1	744.2
17.5°	731.9	735.6	727.7	734.7	731.9
20°	716.0	719.6	711.5	719.3	717.4
22.5°	698.0	701.4	696.4	702.0	700.6
25°	679.3	681.5	677.9	682.9	682.1
27.5°	656.0	661.4	656.6	662.8	660.2
30°	635.3	637.3	633.9	641.5	639.5
32.5°	610.4	611.8	611.8	618.5	621.9
35°	584.1	585.5	588.8	598.9	604.8
37.5°	556.4	559.4	562.5	582.4	588.8
40°	528.4	530.6	538.2	567.0	571.2
42.5°	499.2	501.5	518.8	550.5	551.9
45°	467.6	472.4	503.4	528.1	525.8
47.5°	437.6	443.5	487.8	499.5	501.8
50°	408.5	415.2	472.1	476.6	482.4
52.5°	377.2	390.0	449.7	455.8	468.2
55°	346.9	367.4	422.0	440.2	450.5
57.5°	318.1	344.7	391.7	420.0	422.8
60°	287.3	325.4	367.6	391.7	392.0
62.5°	257.9	306.9	343.8	353.1	349.2
65°	230.2	287.8	314.2	311.4	307.2
67.5°	201.9	263.5	277.5	271.3	268.5
70°	176.1	237.2	236.6	231.3	229.6
72.5°	151.5	204.4	198.8	194.0	192.6
75°	124.9	173.0	163.5	159.9	157.6
77.5°	100.8	140.6	127.7	126.3	124.6
80°	77.0	107.2	98.6	98.8	97.2
82.5°	53.2	77.0	72.2	71.7	69.7
85°	34.7	52.9	54.0	52.1	49.0
87.5°	18.8	37.0	39.5	38.1	35.8
90°	13.2	28.6	31.1	29.4	27.4
92.5°	13.2	24.1	26.3	23.8	22.1
95°	13.4	21.0	23.5	20.4	18.8
97.5°	13.4	19.0	21.8	18.5	16.5
100°	12.9	17.9	21.3	17.6	15.7
102.5°	12.0	16.8	21.0	17.1	15.1
105°	10.9	15.7	20.7	17.1	14.6
107.5°	9.5	14.6	20.4	16.8	14.6
110°	8.1	13.2	19.9	16.8	14.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.0	11.8	19.0	16.5	14.3
115°	5.6	10.1	17.9	16.0	14.0
117.5°	4.5	8.4	16.5	15.4	13.7
120°	3.6	6.7	15.1	14.8	13.4
122.5°	2.8	5.0	13.4	14.0	12.9
125°	2.2	3.6	11.8	13.2	12.6
127.5°	1.7	2.5	10.1	12.3	11.8
130°	1.4	1.4	8.4	11.2	10.9
132.5°	1.1	1.1	7.0	10.1	10.4
135°	0.8	0.8	5.6	8.7	9.2
137.5°	0.8	0.6	4.2	7.6	8.1
140°	0.6	0.6	3.1	6.2	6.7
142.5°	0.6	0.6	2.0	5.0	5.6
145°	0.6	0.3	1.1	3.6	4.5
147.5°	0.6	0.3	0.6	2.5	3.4
150°	0.3	0.3	0.3	1.7	2.2
152.5°	0.3	0.3	0.3	0.8	1.1
155°	0.3	0.3	0.3	0.3	0.6
157.5°	0.3	0.3	0.3	0.3	0.0
160°	0.3	0.3	0.3	0.3	0.0
162.5°	0.3	0.3	0.3	0.3	0.0
165°	0.3	0.3	0.3	0.3	0.0
167.5°	0.6	0.3	0.3	0.3	0.0
170°	0.6	0.3	0.3	0.3	0.0
172.5°	0.6	0.6	0.3	0.3	0.0
175°	0.6	0.6	0.3	0.3	0.3
177.5°	0.6	0.6	0.3	0.3	0.3
180°	0.3	0.3	0.3	0.3	0.3

(END OF REPORT)