

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: P397286

Luminaire Tested: **4VRVT2-LD5-8-DR100-UNV-LA59-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397286
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-LA59-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2307.5 lumens
Efficiency: N/A
Efficacy: 25.8 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

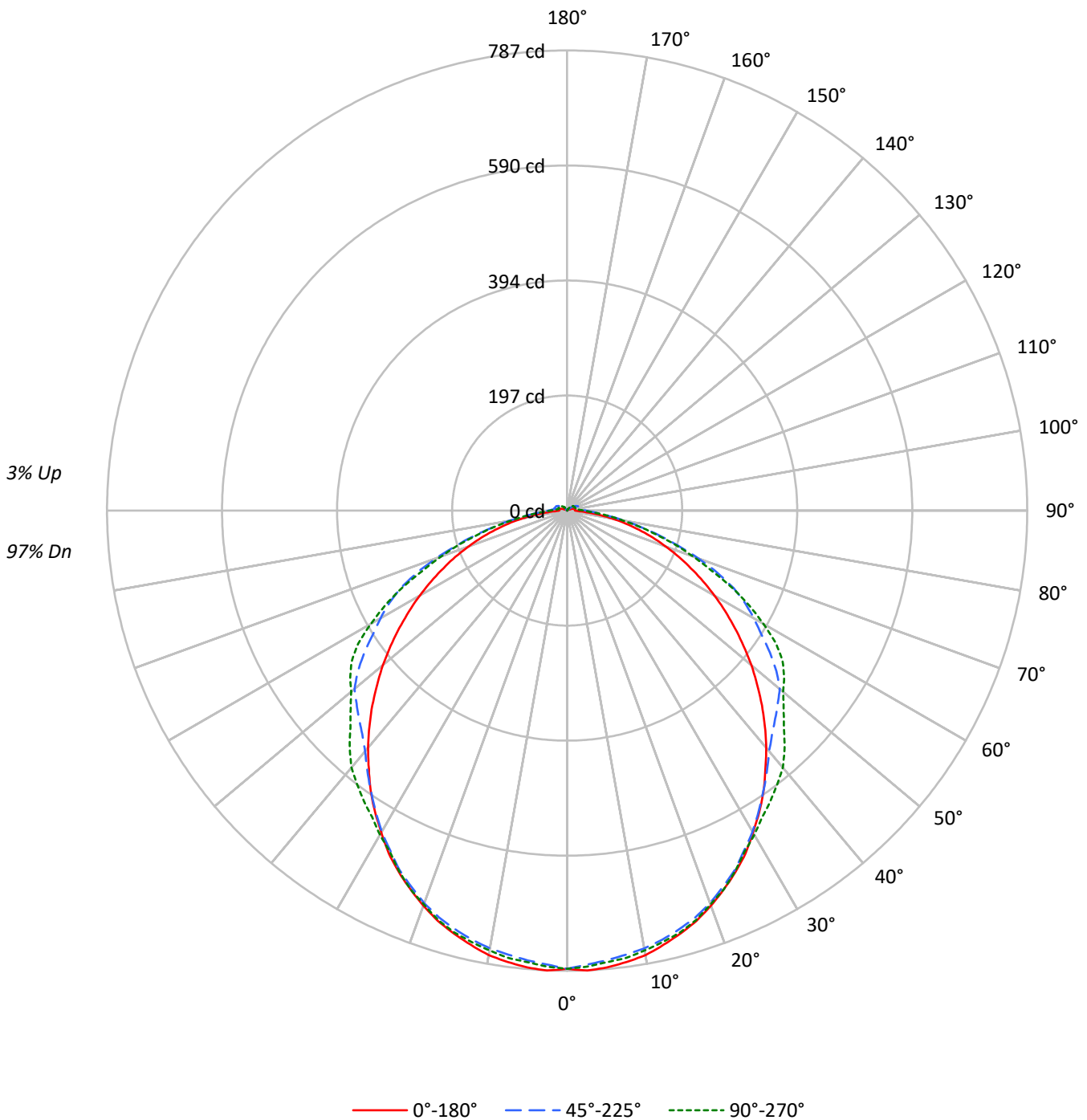
Input Watts (W): 89.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	99	99	99	99	99	99	97		
1	108	103	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83	87	85	83	87	85	83	80		
2	98	89	82	76	95	87	80	75	83	77	73	79	75	71	76	72	69	76	72	69	76	72	69	66		
3	89	78	70	63	86	76	68	62	73	66	61	70	64	59	67	62	58	67	62	58	67	62	58	56		
4	81	69	60	53	79	67	59	53	64	57	52	62	56	51	59	54	50	59	54	50	59	54	50	47		
5	75	62	52	46	72	60	52	45	58	50	44	55	49	44	53	48	43	53	48	43	53	48	43	41		
6	69	55	46	40	67	54	46	39	52	45	39	50	43	38	48	42	38	48	42	38	48	42	38	36		
7	64	50	41	35	62	49	41	35	47	40	34	46	39	34	44	38	33	44	38	33	44	38	33	31		
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	40	34	30	40	34	30	40	34	30	28		
9	55	42	34	28	54	41	33	28	40	33	28	39	32	27	37	31	27	37	31	27	37	31	27	25		
10	52	39	31	25	51	38	30	25	37	30	25	36	29	25	35	29	25	35	29	25	35	29	25	23		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4049	4049	4049
5°	4054	3915	3907
10°	4022	3811	3786
15°	3964	3703	3667
20°	3898	3585	3515
25°	3816	3444	3356
30°	3708	3283	3202
35°	3594	3115	3100
40°	3457	2967	3024
45°	3311	2909	2874
50°	3158	2902	2774
55°	2985	2770	2746
60°	2814	2615	2542
65°	2629	2454	2214
70°	2435	2091	1806
75°	2213	1627	1395
80°	1901	1192	986
85°	1342	789	635



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.8	3.2
10°-20°	210.1	9.1
20°-30°	312.9	13.6
30°-40°	370.3	16.0
40°-50°	386.7	16.8
50°-60°	363.8	15.8
60°-70°	291.8	12.6
70°-80°	169.3	7.3
80°-90°	60.3	2.6
90°-100°	23.5	1.0
100°-110°	17.7	0.8
110°-120°	13.5	0.6
120°-130°	8.2	0.4
130°-140°	4.0	0.2
140°-150°	1.3	0.1
150°-160°	0.2	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	596.8	25.9
0°-40°	967.1	41.9
0°-60°	1717.6	74.4
0°-90°	2239.0	97.0
90°-120°	54.7	2.4
90°-150°	68.3	3.0
90°-180°	69.0	3.0
0°-180°	2307.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	784	784	784	784	784	
5°	784	780	772	776	775	74
15°	749	743	741	749	747	211
25°	682	678	678	683	680	314
35°	586	585	585	598	606	366
45°	471	474	503	528	524	363
55°	350	368	423	439	450	314
65°	234	291	314	312	310	232
75°	127	175	162	159	157	135
85°	33	54	54	52	52	37
90°	13	29	32	30	29	8
95°	14	21	24	21	19	11
105°	11	16	21	17	15	12
115°	6	10	18	16	14	6
125°	2	4	12	13	13	2
135°	1	1	6	9	9	1
145°	1	1	1	4	4	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°	783.7	783.7	783.7	783.7	783.7
2.5°	787.4	783.2	777.0	782.6	780.6
5°	784.3	780.1	772.2	776.2	775.3
7.5°	778.7	773.1	766.1	772.2	771.7
10°	772.0	765.5	760.2	766.1	764.1
12.5°	760.8	755.7	751.8	758.8	755.7
15°	749.0	743.4	741.2	748.7	746.8
17.5°	735.6	731.1	729.4	733.6	733.9
20°	719.3	716.0	714.6	720.2	716.8
22.5°	700.8	696.1	696.4	702.2	700.6
25°	681.8	677.9	678.4	683.2	680.1
27.5°	661.1	656.6	655.5	660.5	657.4
30°	635.9	635.0	634.2	638.4	640.1
32.5°	611.5	611.2	609.6	615.4	621.3
35°	585.8	584.9	585.2	598.1	606.2
37.5°	557.2	558.0	561.4	582.1	590.2
40°	529.8	530.0	537.3	568.4	573.7
42.5°	500.6	501.2	518.8	551.6	550.5
45°	471.2	473.8	503.2	528.1	524.4
47.5°	440.7	445.5	488.6	501.8	502.0
50°	411.6	417.8	474.6	477.7	482.2
52.5°	380.5	392.6	451.1	455.3	467.9
55°	350.3	367.6	423.4	438.8	450.0
57.5°	320.6	346.1	393.4	417.8	423.9
60°	291.2	326.8	368.8	388.6	388.1
62.5°	262.4	308.3	343.0	352.2	350.8
65°	233.5	290.6	314.4	312.2	310.5
67.5°	206.9	266.6	278.0	268.8	266.0
70°	178.9	237.4	238.8	229.6	229.0
72.5°	153.7	206.1	197.7	193.2	193.5
75°	127.4	174.7	161.8	158.8	156.8
77.5°	102.8	140.3	127.7	127.1	126.0
80°	78.4	108.1	100.0	97.4	95.8
82.5°	54.6	78.1	73.1	73.1	72.0
85°	33.0	54.0	53.5	52.4	51.5
87.5°	18.5	37.2	40.0	38.9	36.7
90°	13.4	28.8	32.2	30.2	28.6
92.5°	13.4	24.4	26.9	24.6	22.7
95°	13.7	21.3	23.8	21.0	19.0
97.5°	13.7	19.6	22.4	19.0	17.1
100°	13.2	18.2	21.6	17.9	15.7
102.5°	12.3	17.1	21.0	17.4	15.1
105°	11.2	16.0	21.0	17.1	14.8
107.5°	9.8	14.8	20.4	17.1	14.6
110°	8.4	13.4	20.2	16.8	14.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.3	11.8	19.3	16.5	14.3
115°	5.9	10.1	18.2	16.2	14.0
117.5°	4.8	8.4	16.8	15.7	13.7
120°	3.9	6.7	15.1	14.8	13.4
122.5°	2.8	5.0	13.7	14.3	13.2
125°	2.2	3.9	12.0	13.2	12.6
127.5°	2.0	2.5	10.4	12.3	12.0
130°	1.4	1.7	8.7	11.2	11.2
132.5°	1.1	1.1	7.0	10.1	10.4
135°	1.1	0.8	5.6	9.0	9.2
137.5°	0.8	0.8	4.5	7.6	8.1
140°	0.6	0.6	3.1	6.2	7.0
142.5°	0.6	0.6	2.0	5.0	5.6
145°	0.6	0.6	1.1	3.9	4.5
147.5°	0.6	0.3	0.6	2.8	3.4
150°	0.6	0.3	0.3	1.7	2.2
152.5°	0.3	0.3	0.3	0.8	1.4
155°	0.3	0.3	0.3	0.3	0.6
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)