

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: P397247

Luminaire Tested: **4VRVT2-LD5-11-FR50-UNV-LA59-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397247
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-13)
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-FR50-UNV-LA59-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2973.6 lumens
Efficiency: N/A
Efficacy: 23.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')
CIE Type: Direct

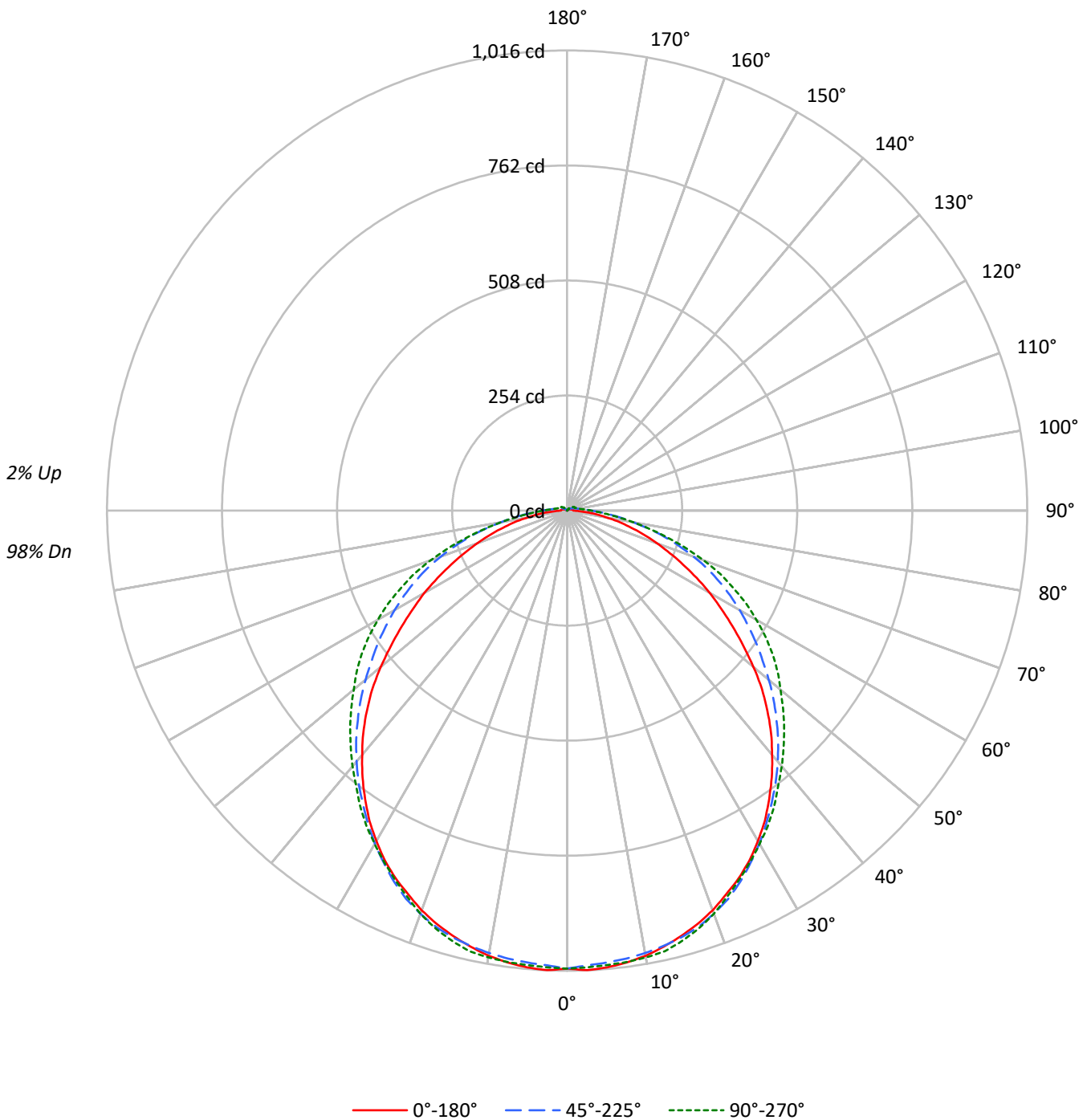
Input Watts (W): 126.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	105	105	105	100	100	100	98
1	108	103	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83	81
2	98	89	82	76	95	87	81	75	83	78	73	80	75	71	76	72	69	67
3	89	78	70	63	86	76	69	63	73	67	61	70	64	60	67	62	58	56
4	81	69	60	54	79	68	60	53	65	58	52	62	56	51	60	55	50	48
5	75	62	53	46	73	61	52	46	58	51	45	56	49	44	54	48	44	41
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	38	36
7	64	51	42	36	62	50	41	35	48	40	35	46	39	34	45	39	34	32
8	60	46	38	32	58	45	37	32	44	36	31	42	36	31	41	35	30	29
9	56	42	34	29	54	42	34	28	40	33	28	39	33	28	38	32	28	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°	5225	5225	5225
5°	5232	5078	5076
10°	5200	4972	4964
15°	5147	4873	4829
20°	5089	4751	4644
25°	5014	4591	4437
30°	4913	4396	4252
35°	4770	4191	4075
40°	4595	3993	3885
45°	4395	3779	3713
50°	4119	3554	3537
55°	3795	3333	3381
60°	3520	3117	3160
65°	3185	2891	2883
70°	2869	2596	2526
75°	2543	2226	2032
80°	2192	1762	1522
85°	1818	1344	1082



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	3.2
10°-20°	275.9	9.3
20°-30°	415.5	14.0
30°-40°	494.9	16.6
40°-50°	505.2	17.0
50°-60°	452.7	15.2
60°-70°	353.3	11.9
70°-80°	217.5	7.3
80°-90°	90.7	3.1
90°-100°	32.7	1.1
100°-110°	17.6	0.6
110°-120°	11.5	0.4
120°-130°	6.5	0.2
130°-140°	2.9	0.1
140°-150°	0.7	0.0
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	787.2	26.5
0°-40°	1282.1	43.1
0°-60°	2240.1	75.3
0°-90°	2901.6	97.6
90°-120°	61.8	2.1
90°-150°	71.9	2.4
90°-180°	72.0	2.4
0°-180°	2973.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1011	1011	1011	1011	1011	
5°	1012	1009	1002	1009	1007	96
15°	972	973	975	986	983	274
25°	896	903	904	903	899	412
35°	777	794	787	796	797	486
45°	626	642	654	672	678	481
55°	445	471	510	544	554	400
65°	283	313	370	401	404	282
75°	146	179	221	232	228	157
85°	45	70	91	91	88	46
90°	15	37	54	54	53	9
95°	13	21	34	35	34	11
105°	10	10	19	21	20	11
115°	6	5	13	17	18	6
125°	3	2	7	12	13	2
135°	1	1	3	7	8	1
145°	0	0	0	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°	1011.3	1011.3	1011.3	1011.3	1011.3
2.5°	1015.6	1012.0	1005.0	1011.6	1009.4
5°	1012.4	1008.7	1001.8	1008.7	1007.2
7.5°	1006.2	1003.6	997.7	1006.2	1005.4
10°	998.1	995.5	991.9	1002.1	1001.8
12.5°	986.0	984.9	984.5	997.4	996.6
15°	972.5	972.8	975.4	986.4	983.4
17.5°	957.1	959.3	963.7	970.3	967.3
20°	939.1	942.8	947.2	949.8	947.2
22.5°	917.2	923.8	928.2	926.4	923.0
25°	896.0	903.3	904.4	902.9	899.3
27.5°	871.1	880.2	876.9	878.8	874.7
30°	842.5	855.3	849.1	852.4	849.9
32.5°	812.2	827.2	818.7	824.2	825.0
35°	777.4	793.9	787.3	796.1	796.8
37.5°	742.3	759.4	756.5	767.5	765.7
40°	704.2	723.2	723.2	735.3	737.1
42.5°	666.5	682.6	689.6	703.8	707.5
45°	625.5	641.6	653.7	672.3	677.5
47.5°	583.4	601.3	618.5	639.0	646.7
50°	536.9	558.5	581.2	607.9	614.9
52.5°	490.1	514.2	543.9	576.1	586.0
55°	445.4	471.4	509.5	543.5	554.1
57.5°	403.0	429.7	474.3	510.2	519.3
60°	364.2	387.2	439.6	476.9	482.4
62.5°	322.4	349.9	405.5	439.9	446.2
65°	282.9	312.6	370.4	400.8	404.4
67.5°	245.6	276.0	334.9	361.6	366.0
70°	210.8	243.0	296.5	318.8	320.3
72.5°	179.0	210.4	258.4	276.3	273.8
75°	146.4	178.6	221.4	232.4	228.4
77.5°	118.9	148.2	184.1	192.2	185.9
80°	90.4	118.6	147.9	150.8	147.9
82.5°	66.2	92.6	117.9	118.6	114.2
85°	44.7	69.6	91.1	91.1	87.8
87.5°	25.3	50.9	69.6	70.3	66.6
90°	14.6	37.0	53.8	54.5	53.1
92.5°	13.6	26.7	42.1	43.2	41.7
95°	13.2	20.9	33.7	35.1	34.0
97.5°	12.8	16.8	28.2	29.3	28.6
100°	12.4	13.9	23.8	25.6	25.3
102.5°	11.3	12.1	20.9	22.7	22.3
105°	10.2	10.2	18.7	20.9	20.5
107.5°	9.2	8.8	16.8	19.8	19.4
110°	7.7	7.7	15.4	18.7	18.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.6	6.6	13.9	17.9	17.9
115°	5.5	5.1	12.8	16.8	17.6
117.5°	4.4	4.4	11.3	15.7	16.5
120°	3.7	3.3	9.9	14.6	15.7
122.5°	2.9	2.2	8.8	13.2	14.6
125°	2.6	1.5	7.3	12.1	13.2
127.5°	1.8	1.1	6.2	10.6	12.1
130°	1.5	1.1	5.1	9.2	10.6
132.5°	1.5	0.7	4.0	7.7	9.2
135°	1.1	0.7	2.9	6.6	7.7
137.5°	0.7	0.7	1.8	5.5	6.6
140°	0.7	0.7	1.1	4.0	5.1
142.5°	0.7	0.4	0.4	2.9	4.0
145°	0.4	0.4	0.4	1.8	2.6
147.5°	0.4	0.4	0.4	0.7	1.5
150°	0.4	0.4	0.4	0.0	0.4
152.5°	0.4	0.4	0.4	0.0	0.0
155°	0.4	0.4	0.4	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)