

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: P397262

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397262
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 4VRVT2-LD5-4-FR50-UNV-LA59-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1148.0 lumens
Efficiency: N/A
Efficacy: 25.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')
CIE Type: Direct

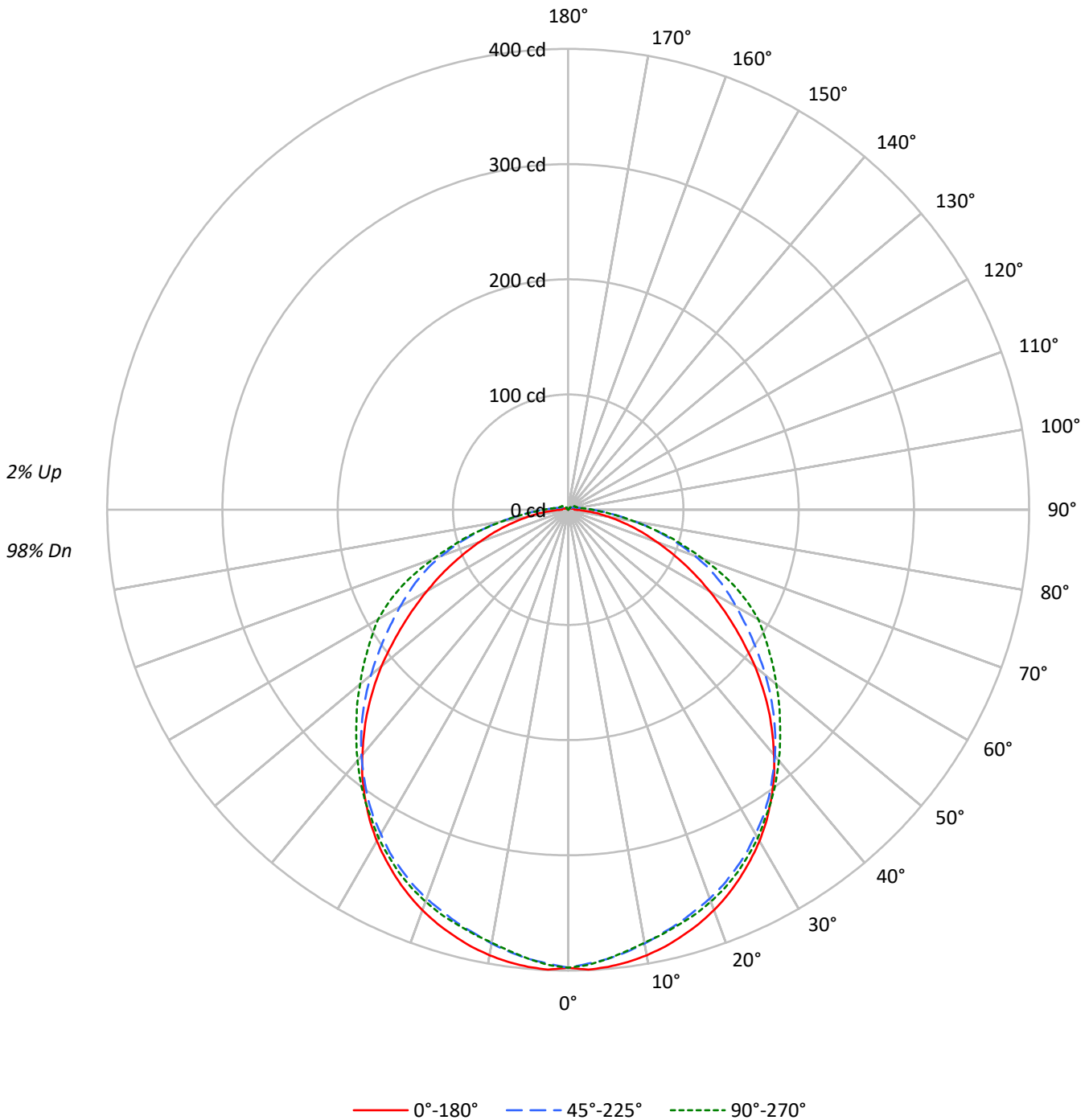
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	80
2	98	89	82	76	95	87	81	75	83	78	73	79	75	71	76	72	69	67
3	89	78	70	63	86	76	69	62	73	66	61	70	64	60	67	62	58	56
4	81	69	60	53	79	68	59	53	65	58	52	62	56	51	60	54	50	48
5	75	62	53	46	73	61	52	46	58	51	45	56	49	44	54	48	43	41
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	38	36
7	64	50	42	35	62	50	41	35	48	40	35	46	39	34	45	39	34	32
8	60	46	37	32	58	45	37	31	44	36	31	42	36	31	41	35	30	28
9	56	42	34	28	54	42	34	28	40	33	28	39	32	28	38	32	27	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°	2054	2054	2054
5°	2059	1984	1972
10°	2046	1917	1891
15°	2027	1855	1830
20°	2005	1802	1775
25°	1974	1746	1714
30°	1937	1683	1647
35°	1884	1617	1573
40°	1813	1541	1499
45°	1728	1458	1424
50°	1625	1366	1356
55°	1495	1274	1296
60°	1368	1194	1248
65°	1245	1125	1147
70°	1111	1024	979
75°	995	879	806
80°	859	699	597
85°	716	527	424



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.3	3.2
10°-20°	105.8	9.2
20°-30°	159.7	13.9
30°-40°	190.6	16.6
40°-50°	194.3	16.9
50°-60°	174.0	15.2
60°-70°	137.5	12.0
70°-80°	85.1	7.4
80°-90°	35.8	3.1
90°-100°	12.8	1.1
100°-110°	6.8	0.6
110°-120°	4.4	0.4
120°-130°	2.6	0.2
130°-140°	1.2	0.1
140°-150°	0.2	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	302.8	26.4
0°-40°	493.4	43.0
0°-60°	861.7	75.1
0°-90°	1120.1	97.6
90°-120°	24.0	2.1
90°-150°	27.9	2.4
90°-180°	28.0	2.4
0°-180°	1148.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	398	398	398	398	398	
5°	398	395	391	393	391	38
15°	383	377	371	374	373	108
25°	353	345	344	348	347	162
35°	307	301	304	308	308	192
45°	246	244	252	259	260	189
55°	176	179	195	209	212	157
65°	111	118	144	159	161	110
75°	57	69	87	91	91	61
85°	18	28	36	36	34	18
90°	6	14	21	22	21	4
95°	5	8	13	14	13	4
105°	4	4	7	8	8	4
115°	2	2	5	7	7	2
125°	1	1	3	5	5	1
135°	0	0	1	3	3	0
145°	0	0	0	0	0	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°	397.5	397.5	397.5	397.5	397.5
2.5°	399.6	397.4	394.4	396.4	395.5
5°	398.3	395.3	391.4	392.7	391.4
7.5°	396.1	392.3	387.3	387.8	386.5
10°	392.7	388.2	382.4	383.0	381.6
12.5°	388.4	383.0	376.6	378.6	377.4
15°	383.0	376.8	371.4	373.6	372.7
17.5°	377.0	370.2	365.2	368.7	368.0
20°	369.9	362.4	359.2	362.6	362.0
22.5°	361.8	353.8	352.1	355.8	355.3
25°	352.7	345.2	344.0	347.8	347.4
27.5°	342.7	334.9	335.4	338.6	338.4
30°	332.1	325.2	325.0	329.3	329.1
32.5°	320.1	313.2	315.1	318.4	317.9
35°	307.0	301.4	303.8	307.6	307.6
37.5°	293.4	288.1	291.3	295.2	296.2
40°	277.8	273.9	279.1	283.8	284.4
42.5°	262.1	259.5	265.8	271.1	272.2
45°	246.0	244.1	252.2	258.6	259.9
47.5°	228.8	228.8	238.0	245.6	248.1
50°	211.8	211.8	223.4	232.9	235.7
52.5°	192.9	195.5	208.8	220.2	224.3
55°	175.5	179.4	194.7	208.6	212.4
57.5°	158.3	163.1	181.1	197.2	201.5
60°	141.6	148.2	168.4	185.6	190.5
62.5°	125.9	132.8	156.2	173.0	176.4
65°	110.6	118.2	144.1	158.8	160.9
67.5°	95.8	105.7	131.3	142.5	143.3
70°	81.6	93.2	116.9	125.4	124.2
72.5°	69.2	80.8	102.1	107.9	106.1
75°	57.3	69.2	87.4	90.7	90.6
77.5°	46.0	57.8	73.0	74.8	73.0
80°	35.4	47.2	58.7	59.7	58.0
82.5°	26.4	36.5	46.2	46.8	45.8
85°	17.6	27.5	35.7	35.9	34.4
87.5°	10.7	20.0	27.3	27.7	26.6
90°	5.8	14.4	21.3	21.5	20.8
92.5°	5.4	10.5	16.5	16.8	16.5
95°	5.2	8.0	13.3	13.7	13.3
97.5°	5.2	6.6	10.9	11.4	11.0
100°	4.9	5.4	9.2	9.7	9.5
102.5°	4.7	4.5	8.0	8.8	8.4
105°	4.1	3.9	7.1	8.0	7.9
107.5°	3.8	3.4	6.6	7.5	7.3
110°	3.2	3.0	6.0	7.1	7.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.6	2.4	5.4	6.7	6.7
115°	2.2	2.0	4.9	6.6	6.6
117.5°	1.9	1.7	4.5	6.2	6.4
120°	1.5	1.3	3.9	5.6	6.0
122.5°	1.3	0.9	3.4	5.2	5.6
125°	0.9	0.6	3.0	4.7	5.2
127.5°	0.8	0.6	2.4	4.1	4.7
130°	0.6	0.4	2.0	3.8	4.1
132.5°	0.6	0.4	1.5	3.2	3.6
135°	0.4	0.4	1.1	2.6	3.2
137.5°	0.4	0.2	0.8	2.0	2.6
140°	0.4	0.2	0.4	1.7	2.0
142.5°	0.2	0.2	0.2	1.1	1.5
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	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)