

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: P397252

Luminaire Tested: **4VRVT2-LD5-4-DR-UNV-LR63-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397252
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-16)
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-DR-UNV-LR63-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 662.6 lumens
Efficiency: N/A
Efficacy: 8.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.33
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')
CIE Type: Direct

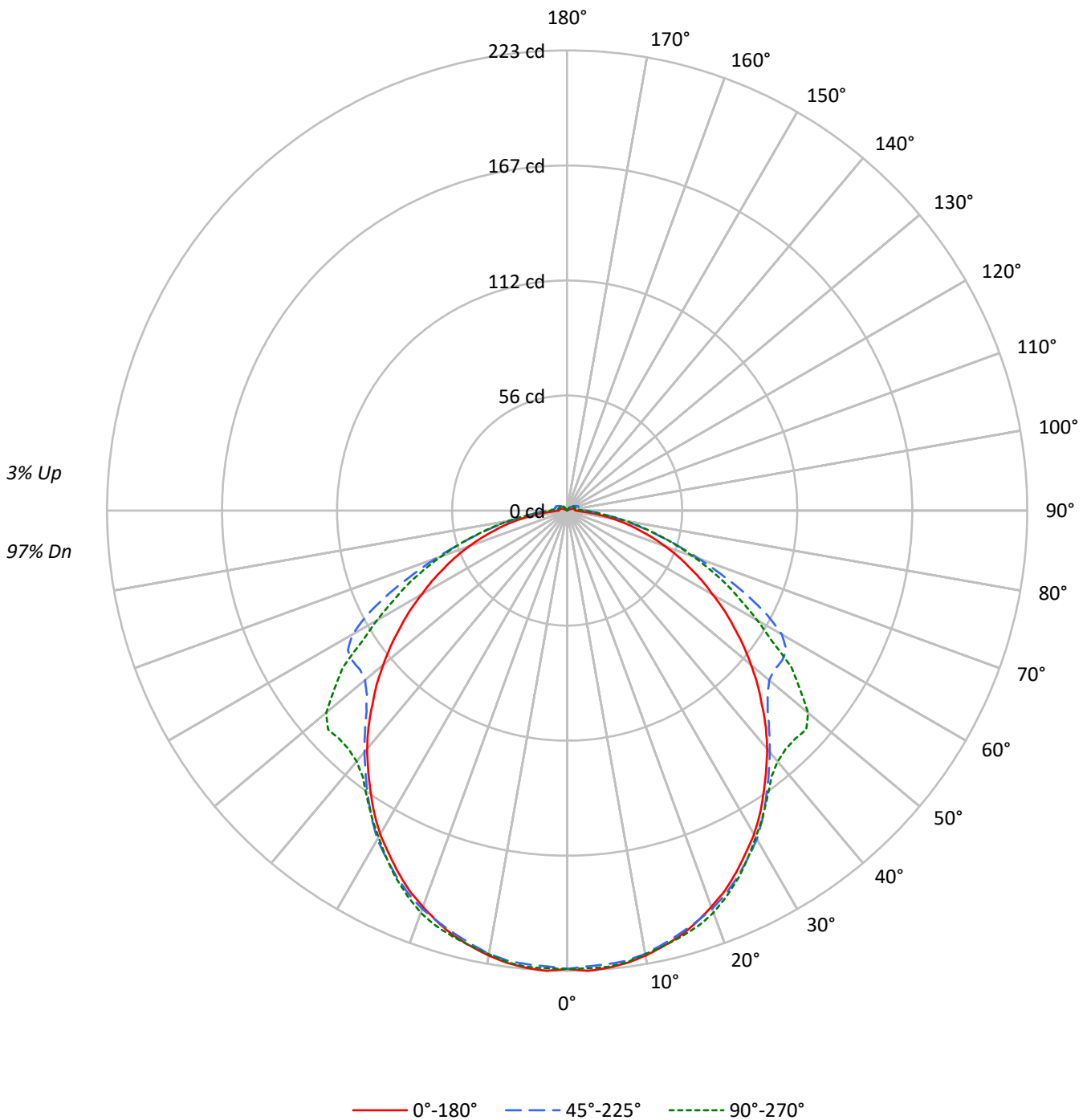
Input Watts (W): 77.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P397252

CATALOG NUMBER: 4VRVT2-LD5-4-DR-UNV-LR63-CD1-WL-U

Luminous Intensity Polar Plot





TEST NUMBER: P397252

CATALOG NUMBER: 4VRVT2-LD5-4-DR-UNV-LR63-CD1-WL-U

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	55
4	81	69	60	53	79	67	59	53	64	57	51	62	56	50	59	54	49	47
5	75	61	52	46	72	60	52	45	58	50	44	55	49	44	53	47	43	41
6	69	55	46	40	67	54	46	39	52	44	39	50	43	38	48	42	38	35
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	38	32	27	37	31	27	25
10	52	39	31	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1148	1148	1148
5°	1150	1119	1119
10°	1141	1093	1082
15°	1128	1060	1050
20°	1107	1030	1017
25°	1083	993	969
30°	1056	952	915
35°	1019	896	865
40°	984	843	836
45°	939	795	857
50°	892	781	877
55°	841	831	810
60°	788	852	698
65°	738	744	611
70°	686	590	511
75°	620	450	406
80°	534	328	296
85°	407	233	189



TEST NUMBER: P397252

CATALOG NUMBER: 4VRVT2-LD5-4-DR-UNV-LR63-CD1-WL-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.1	3.2
10°-20°	60.2	9.1
20°-30°	90.0	13.6
30°-40°	105.4	15.9
40°-50°	110.3	16.7
50°-60°	106.7	16.1
60°-70°	83.0	12.5
70°-80°	48.9	7.4
80°-90°	17.6	2.7
90°-100°	6.6	1.0
100°-110°	4.9	0.7
110°-120°	3.8	0.6
120°-130°	2.4	0.4
130°-140°	1.2	0.2
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°	171.3	25.9
0°-40°	276.7	41.8
0°-60°	493.8	74.5
0°-90°	643.3	97.1
90°-120°	15.3	2.3
90°-150°	19.3	2.9
90°-180°	19.0	2.9
0°-180°	662.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	222	222	222	222	222	
5°	222	221	221	223	222	21
15°	213	214	212	215	214	60
25°	194	194	196	197	196	89
35°	166	168	168	169	169	104
45°	134	136	138	151	156	103
55°	99	102	127	136	133	88
65°	66	79	95	85	86	65
75°	36	53	45	45	46	38
85°	10	16	16	16	15	11
90°	4	8	9	9	8	2
95°	4	6	7	6	5	3
105°	3	5	6	5	4	3
115°	2	3	5	4	4	2
125°	1	1	4	4	4	1
135°	0	0	2	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



TEST NUMBER: P397252

CATALOG NUMBER: 4VRVT2-LD5-4-DR-UNV-LR63-CD1-WL-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	222.1	222.1	222.1	222.1	222.1
2.5°	223.3	222.3	221.1	222.5	222.0
5°	222.5	221.4	220.7	222.6	222.0
7.5°	221.2	220.5	220.0	221.6	220.8
10°	219.0	218.6	218.1	219.7	218.3
12.5°	216.2	216.5	215.1	216.9	216.1
15°	213.1	213.7	212.1	214.7	213.8
17.5°	209.0	209.8	208.8	212.0	211.1
20°	204.3	204.8	205.4	207.6	207.4
22.5°	199.5	199.8	200.9	202.6	202.1
25°	193.6	194.5	195.7	197.2	196.4
27.5°	187.3	188.6	189.8	191.0	189.7
30°	181.1	181.8	183.9	183.8	182.8
32.5°	174.0	175.6	176.4	176.1	176.2
35°	166.1	168.3	168.4	169.4	169.2
37.5°	158.4	160.8	160.5	162.3	162.6
40°	150.8	152.4	152.7	155.9	158.7
42.5°	142.5	144.1	145.0	151.7	156.8
45°	133.6	136.0	137.5	150.6	156.3
47.5°	125.3	127.4	131.7	150.6	157.1
50°	116.3	118.9	127.8	150.3	152.4
52.5°	107.7	110.2	126.6	145.7	142.2
55°	98.7	102.1	127.0	135.5	132.7
57.5°	90.4	95.2	126.0	123.2	117.6
60°	81.5	88.5	120.2	109.5	106.5
62.5°	73.7	83.2	109.1	96.4	95.4
65°	65.5	78.8	95.3	85.1	85.7
67.5°	58.2	74.8	80.8	74.7	75.2
70°	50.4	70.1	67.4	64.9	64.8
72.5°	43.1	63.4	55.6	54.8	55.2
75°	35.7	53.3	44.8	45.3	45.6
77.5°	29.0	43.1	35.9	36.6	36.6
80°	22.0	32.2	27.5	28.7	28.8
82.5°	15.8	23.0	21.0	21.6	21.1
85°	10.0	15.8	15.8	15.7	15.3
87.5°	5.7	10.9	11.6	11.4	10.9
90°	3.9	8.2	9.1	8.7	8.1
92.5°	3.9	6.9	7.6	6.8	6.3
95°	4.0	6.0	6.6	5.8	5.1
97.5°	3.9	5.6	6.2	5.1	4.5
100°	3.7	5.1	6.0	4.8	4.2
102.5°	3.5	4.9	5.9	4.6	4.0
105°	3.2	4.7	5.8	4.6	4.0
107.5°	2.8	4.4	5.8	4.6	4.0
110°	2.5	4.0	5.7	4.5	3.9



TEST NUMBER: P397252

CATALOG NUMBER: 4VRVT2-LD5-4-DR-UNV-LR63-CD1-WL-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.0	3.5	5.5	4.5	3.9
115°	1.6	3.1	5.1	4.4	3.9
117.5°	1.4	2.6	4.8	4.4	3.9
120°	1.1	2.1	4.5	4.2	3.7
122.5°	0.8	1.6	4.1	4.1	3.6
125°	0.6	1.2	3.5	3.9	3.6
127.5°	0.5	0.8	3.1	3.6	3.5
130°	0.4	0.5	2.7	3.4	3.3
132.5°	0.3	0.3	2.2	3.1	3.1
135°	0.3	0.2	1.8	2.8	2.9
137.5°	0.2	0.2	1.4	2.4	2.6
140°	0.2	0.2	1.1	2.0	2.2
142.5°	0.2	0.2	0.8	1.6	1.8
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)