

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: P397367

Luminaire Tested: **VRVT4LED-LD5-12-DRF-UNV-LA59-CD1-WL-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P397367
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-367-2)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: VRVT4LED-LD5-12-DRF-UNV-LA59-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

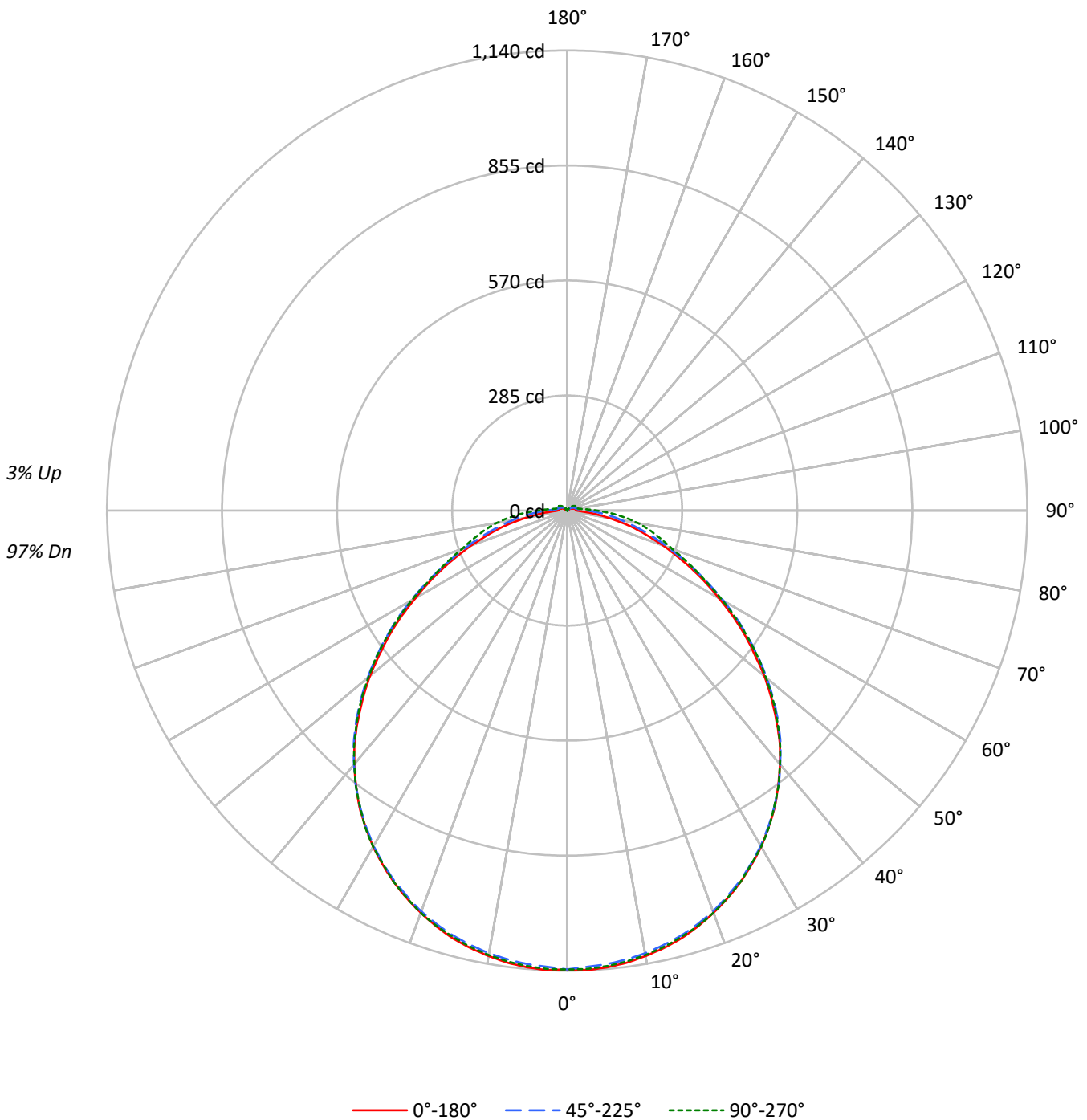
Lumens per Lamp: N/A
Luminaire Lumens: 3247.7 lumens
Efficiency: N/A
Efficacy: 22.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 1.04' x L: 4.12' x H: 0.25')
CIE Type: Direct

Input Watts (W): 141.6
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	0	
RCR																						
0	118	118	118	118	115	115	115	115	110	110	110	104	104	104	99	99	99	99	99	99	97	
1	108	103	99	95	105	100	96	93	96	92	89	91	89	86	87	85	83	87	85	83	81	
2	98	90	83	77	95	88	81	76	84	78	74	80	76	72	77	73	70	77	73	70	67	
3	90	79	71	64	87	77	70	64	74	67	62	71	65	61	68	63	59	68	63	59	57	
4	82	70	61	55	80	69	60	54	66	59	53	63	57	52	61	55	51	61	55	51	49	
5	76	63	54	47	73	61	53	47	59	52	46	57	50	45	55	49	45	55	49	45	42	
6	70	57	48	41	68	55	47	41	53	46	40	51	45	40	50	44	39	50	44	39	37	
7	65	51	43	36	63	50	42	36	49	41	36	47	40	35	45	39	35	45	39	35	33	
8	60	47	38	33	59	46	38	32	44	37	32	43	36	32	42	36	31	42	36	31	29	
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	38	33	28	38	33	28	26	
10	53	40	32	27	51	39	32	26	38	31	26	37	30	26	36	30	26	36	30	26	24	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2848	2848	2848
5°	2841	2785	2790
10°	2820	2730	2728
15°	2799	2675	2664
20°	2766	2615	2600
25°	2731	2546	2524
30°	2687	2471	2443
35°	2631	2383	2342
40°	2552	2279	2233
45°	2446	2159	2102
50°	2318	2007	1947
55°	2160	1832	1773
60°	1967	1638	1572
65°	1781	1426	1375
70°	1584	1228	1221
75°	1387	1050	1149
80°	1128	894	1085
85°	846	738	944



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.6	3.3
10°-20°	308.7	9.5
20°-30°	467.6	14.4
30°-40°	560.4	17.3
40°-50°	568.2	17.5
50°-60°	486.7	15.0
60°-70°	347.0	10.7
70°-80°	210.7	6.5
80°-90°	98.0	3.0
90°-100°	35.9	1.1
100°-110°	22.4	0.7
110°-120°	17.0	0.5
120°-130°	10.7	0.3
130°-140°	5.0	0.2
140°-150°	1.3	0.0
150°-160°	0.2	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	883.8	27.2
0°-40°	1444.2	44.5
0°-60°	2499.2	77.0
0°-90°	3154.9	97.1
90°-120°	75.3	2.3
90°-150°	92.4	2.8
90°-180°	93.0	2.9
0°-180°	3247.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1137	1137	1137	1137	1137	
5°	1136	1133	1128	1134	1133	108
15°	1097	1094	1090	1096	1093	309
25°	1016	1015	1012	1017	1015	468
35°	897	898	895	898	895	560
45°	732	738	739	738	736	565
55°	537	544	547	549	545	479
65°	340	346	350	352	351	337
75°	176	180	195	216	225	186
85°	50	58	88	117	123	53
90°	23	27	51	70	74	14
95°	22	21	31	39	41	17
105°	19	16	22	24	24	20
115°	12	11	18	22	23	12
125°	6	5	12	18	20	6
135°	3	2	5	10	13	2
145°	1	1	0	3	5	1
155°	1	1	0	0	0	0
165°	1	1	1	0	0	0
175°	1	1	1	0	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1136.9	1136.9	1136.9	1136.9	1136.9
2.5°	1139.5	1136.9	1131.3	1136.9	1136.5
5°	1135.8	1133.2	1128.0	1133.6	1132.8
7.5°	1129.8	1127.2	1121.7	1127.6	1126.9
10°	1120.5	1119.4	1113.5	1119.0	1117.9
12.5°	1109.8	1107.9	1102.7	1108.3	1107.2
15°	1096.8	1094.2	1090.1	1095.7	1093.4
17.5°	1079.7	1078.6	1074.5	1080.0	1078.6
20°	1060.4	1058.9	1056.7	1061.1	1060.4
22.5°	1039.2	1038.1	1035.1	1041.1	1038.5
25°	1015.8	1014.7	1012.5	1017.3	1015.4
27.5°	989.4	989.4	986.5	990.9	987.6
30°	961.6	960.8	959.0	962.3	961.6
32.5°	929.3	932.2	927.8	930.7	930.7
35°	897.0	897.7	895.1	898.1	894.7
37.5°	859.1	861.3	860.2	862.0	860.2
40°	820.1	823.0	821.2	821.9	820.5
42.5°	780.0	782.9	782.6	782.2	780.7
45°	732.4	738.0	739.1	738.4	735.8
47.5°	685.6	693.1	693.8	694.9	691.2
50°	637.7	642.5	645.5	645.9	642.5
52.5°	585.7	593.5	596.5	598.0	595.7
55°	537.4	543.7	546.7	548.6	545.2
57.5°	486.2	490.6	498.1	498.4	494.7
60°	433.8	442.0	447.2	446.8	444.2
62.5°	387.0	391.8	398.2	397.8	395.2
65°	339.5	346.2	350.3	351.7	351.3
67.5°	294.2	300.5	306.0	310.9	312.7
70°	252.2	257.0	265.6	274.1	276.7
72.5°	211.7	217.6	229.2	243.3	249.6
75°	175.7	180.5	194.6	216.2	225.1
77.5°	140.4	144.5	164.2	192.4	202.0
80°	105.1	112.5	136.7	168.3	177.5
82.5°	75.8	82.5	111.8	142.2	151.2
85°	49.8	57.9	88.0	116.6	122.9
87.5°	31.6	38.6	67.6	92.1	96.9
90°	23.4	27.1	50.9	69.8	73.5
92.5°	21.9	22.7	38.2	52.8	55.0
95°	21.5	20.8	31.2	39.4	41.2
97.5°	21.2	19.3	27.1	31.9	32.7
100°	20.8	18.2	24.9	27.9	27.9
102.5°	20.0	17.1	23.0	25.6	25.6
105°	18.6	16.4	21.9	24.1	24.1
107.5°	17.1	15.2	20.8	23.8	23.8
110°	15.2	14.1	20.0	23.4	23.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	13.4	12.6	18.9	23.0	23.8
115°	11.5	10.8	17.8	22.3	23.4
117.5°	10.0	9.3	16.7	21.5	23.0
120°	8.5	7.4	15.2	20.8	22.7
122.5°	7.1	5.9	13.7	19.3	21.5
125°	5.9	4.8	11.9	18.2	20.0
127.5°	5.2	3.7	10.0	16.4	18.6
130°	4.1	3.3	8.2	14.5	16.7
132.5°	3.3	2.6	6.7	12.6	14.9
135°	3.0	2.2	4.8	10.4	12.6
137.5°	2.2	1.8	3.3	8.5	10.8
140°	1.8	1.5	1.8	6.7	8.5
142.5°	1.5	1.1	1.1	4.8	6.7
145°	1.1	1.1	0.4	3.3	4.8
147.5°	1.1	0.8	0.4	1.8	3.0
150°	0.8	0.8	0.4	0.8	1.5
152.5°	0.8	0.8	0.4	0.0	0.4
155°	0.8	0.8	0.4	0.0	0.0
157.5°	0.8	0.8	0.4	0.0	0.0
160°	0.8	0.8	0.4	0.0	0.0
162.5°	1.1	0.8	0.4	0.4	0.0
165°	1.1	0.8	0.8	0.4	0.4
167.5°	1.1	1.1	0.8	0.4	0.4
170°	1.1	0.8	0.8	0.4	0.4
172.5°	1.1	0.8	0.8	0.4	0.4
175°	1.1	1.1	0.8	0.4	0.4
177.5°	1.1	1.1	0.8	0.4	0.4
180°	0.8	0.8	0.8	0.8	0.8

(END OF REPORT)