

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: P397421

Luminaire Tested: **VRVT4S-LD5-12-DRF-LA59-CD2-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P397421
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1801-511-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: VRVT4S-LD5-12-DRF-LA59-CD2-U
Description:
Light Source: -
Ballast/Driver: -

Summary

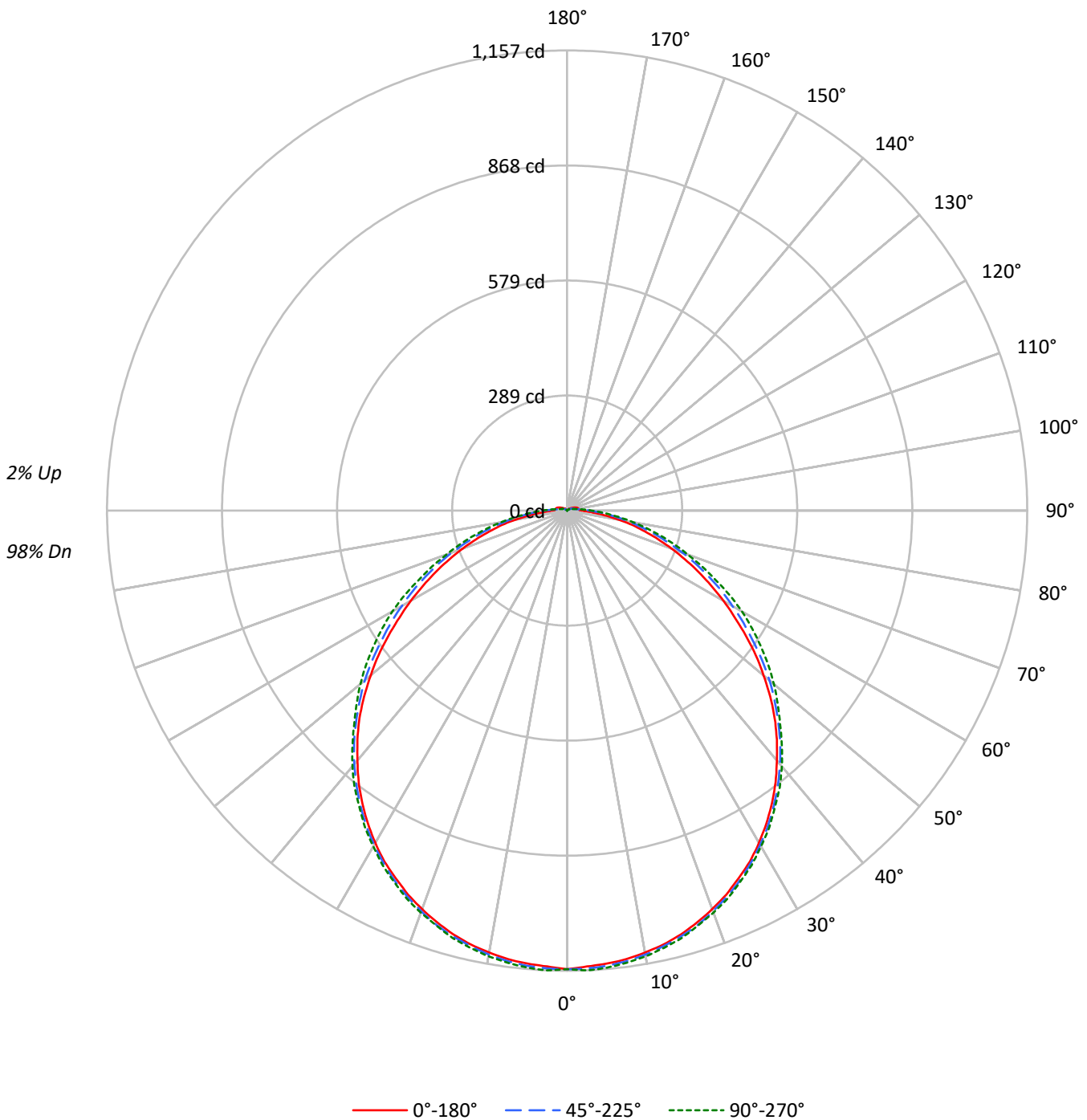
Lumens per Lamp: N/A
Luminaire Lumens: 3362.2 lumens
Efficiency: N/A
Efficacy: 26.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 1.08' x L: 2.08' x H: 0.25')
CIE Type: Direct

Input Watts (W): 128.4
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

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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	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	77	95	87	81	75	83	78	73	80	75	71	76	73	69	67				
3	89	78	70	64	86	77	69	63	73	67	61	70	65	60	67	63	59	56				
4	82	69	61	54	79	68	60	53	65	58	52	63	56	51	60	55	50	48				
5	75	62	53	46	73	61	52	46	58	51	45	56	50	45	54	48	44	42				
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	49	43	39	36				
7	64	51	42	36	62	50	41	36	48	41	35	46	40	35	45	39	34	32				
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	41	35	31	29				
9	56	42	34	29	54	42	34	29	40	33	28	39	33	28	38	32	28	26				
10	52	39	31	26	51	39	31	26	37	30	26	36	30	25	35	29	25	23				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5502	5502	5502
5°	5420	5387	5416
10°	5353	5262	5299
15°	5282	5133	5177
20°	5189	4994	5040
25°	5084	4845	4895
30°	4971	4677	4741
35°	4824	4496	4566
40°	4642	4293	4383
45°	4448	4059	4151
50°	4188	3806	3951
55°	3895	3502	3717
60°	3586	3205	3460
65°	3269	2898	3102
70°	2932	2552	2752
75°	2573	2174	2400
80°	2143	1784	2017
85°	1593	1386	1587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.2	3.2
10°-20°	312.5	9.3
20°-30°	472.6	14.1
30°-40°	566.1	16.8
40°-50°	578.2	17.2
50°-60°	511.9	15.2
60°-70°	388.0	11.5
70°-80°	239.2	7.1
80°-90°	105.8	3.1
90°-100°	38.0	1.1
100°-110°	20.4	0.6
110°-120°	12.1	0.4
120°-130°	5.6	0.2
130°-140°	1.7	0.1
140°-150°	0.3	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	894.3	26.6
0°-40°	1460.5	43.4
0°-60°	2550.6	75.9
0°-90°	3283.7	97.7
90°-120°	70.5	2.1
90°-150°	78.2	2.3
90°-180°	79.0	2.3
0°-180°	3362.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1153	1153	1153	1153	1153	
5°	1144	1146	1149	1152	1154	109
15°	1104	1104	1108	1111	1113	311
25°	1020	1023	1027	1030	1030	470
35°	898	901	906	912	911	561
45°	738	742	751	759	757	568
55°	548	559	570	588	594	491
65°	364	374	393	408	411	361
75°	202	212	227	239	242	215
85°	69	83	97	106	106	70
90°	36	46	56	61	61	21
95°	30	30	33	36	36	24
105°	26	23	17	15	16	28
115°	18	14	11	10	10	18
125°	9	8	5	4	5	8
135°	4	3	1	1	2	3
145°	1	1	0	0	0	1
155°	0	0	0	0	0	0
165°	1	1	0	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°	1153.1	1153.1	1153.1	1153.1	1153.1
2.5°	1147.4	1148.8	1152.4	1156.0	1157.2
5°	1143.5	1145.8	1149.2	1152.4	1153.5
7.5°	1137.9	1139.7	1142.6	1145.8	1146.7
10°	1128.3	1130.4	1133.6	1136.5	1138.1
12.5°	1117.7	1118.6	1121.5	1124.9	1125.9
15°	1103.6	1104.5	1108.2	1110.6	1112.9
17.5°	1086.1	1087.0	1092.5	1093.6	1093.9
20°	1066.6	1068.0	1072.3	1074.4	1075.9
22.5°	1045.3	1047.1	1050.5	1053.0	1055.3
25°	1019.7	1022.6	1026.7	1029.9	1029.9
27.5°	995.0	995.4	999.3	1002.7	1004.9
30°	964.8	965.2	970.5	974.3	975.2
32.5°	932.8	934.6	940.1	944.1	945.3
35°	897.7	900.6	906.0	912.4	910.6
37.5°	861.1	862.7	870.4	875.6	877.7
40°	820.3	824.8	832.7	838.4	840.0
42.5°	780.4	784.4	793.1	798.5	799.2
45°	738.2	742.3	750.7	759.2	757.2
47.5°	692.6	698.9	707.3	716.4	718.0
50°	644.9	654.2	664.4	671.9	678.7
52.5°	598.2	605.7	617.5	630.9	637.2
55°	548.5	559.4	570.1	588.0	594.1
57.5°	499.3	512.5	525.6	545.4	550.8
60°	453.9	464.4	480.2	499.5	507.5
62.5°	407.7	419.7	437.4	455.1	460.5
65°	364.1	373.6	393.3	408.5	410.8
67.5°	320.3	331.7	350.3	366.1	367.1
70°	279.5	289.7	307.6	321.0	322.4
72.5°	240.0	250.4	265.6	279.2	282.0
75°	202.1	211.7	227.1	239.1	242.3
77.5°	168.6	175.6	189.2	202.8	203.9
80°	131.1	139.3	156.3	167.6	169.5
82.5°	99.8	109.6	124.8	135.0	135.4
85°	69.0	82.6	97.1	105.5	105.5
87.5°	47.6	61.9	74.9	80.5	81.2
90°	36.3	45.6	56.3	61.2	61.0
92.5°	31.5	35.8	42.6	46.7	46.1
95°	29.7	29.7	32.7	35.8	35.6
97.5°	28.8	27.0	25.9	27.9	27.7
100°	28.6	25.4	21.3	22.2	22.5
102.5°	27.9	24.1	18.6	18.4	18.6
105°	26.5	22.7	16.8	15.4	15.7
107.5°	24.7	20.9	15.4	13.6	13.8
110°	22.5	18.6	14.1	12.2	12.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	20.2	16.3	12.7	10.9	11.1
115°	17.5	14.1	11.1	9.5	10.0
117.5°	15.2	12.2	9.7	8.2	8.8
120°	12.9	10.7	8.0	6.8	7.7
122.5°	10.9	9.1	6.4	5.7	6.6
125°	9.3	7.5	5.0	4.5	5.4
127.5°	7.7	6.4	3.6	3.6	4.3
130°	6.4	5.2	2.3	2.7	3.4
132.5°	5.2	4.3	1.6	1.8	2.5
135°	4.1	3.4	1.1	1.1	1.8
137.5°	3.4	2.5	0.7	0.4	0.9
140°	2.5	1.8	0.4	0.0	0.2
142.5°	2.0	1.4	0.2	0.0	0.0
145°	1.4	0.9	0.2	0.0	0.0
147.5°	0.9	0.4	0.2	0.2	0.0
150°	0.4	0.4	0.2	0.2	0.0
152.5°	0.4	0.4	0.2	0.2	0.0
155°	0.4	0.4	0.4	0.2	0.0
157.5°	0.4	0.4	0.4	0.2	0.0
160°	0.4	0.4	0.4	0.2	0.2
162.5°	0.7	0.7	0.4	0.2	0.2
165°	0.7	0.7	0.4	0.2	0.2
167.5°	0.7	0.7	0.4	0.4	0.2
170°	0.7	0.7	0.4	0.2	0.2
172.5°	0.7	0.7	0.4	0.4	0.2
175°	0.7	0.7	0.7	0.4	0.2
177.5°	0.7	0.7	0.7	0.4	0.2
180°	0.7	0.7	0.7	0.7	0.7

(END OF REPORT)