

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: P397414

Luminaire Tested: **VRVT4LED-LD5-9-DRF-UNV-LR63-CD1-WL-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P397414
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-LD5-9-DRF-UNV-LR63-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

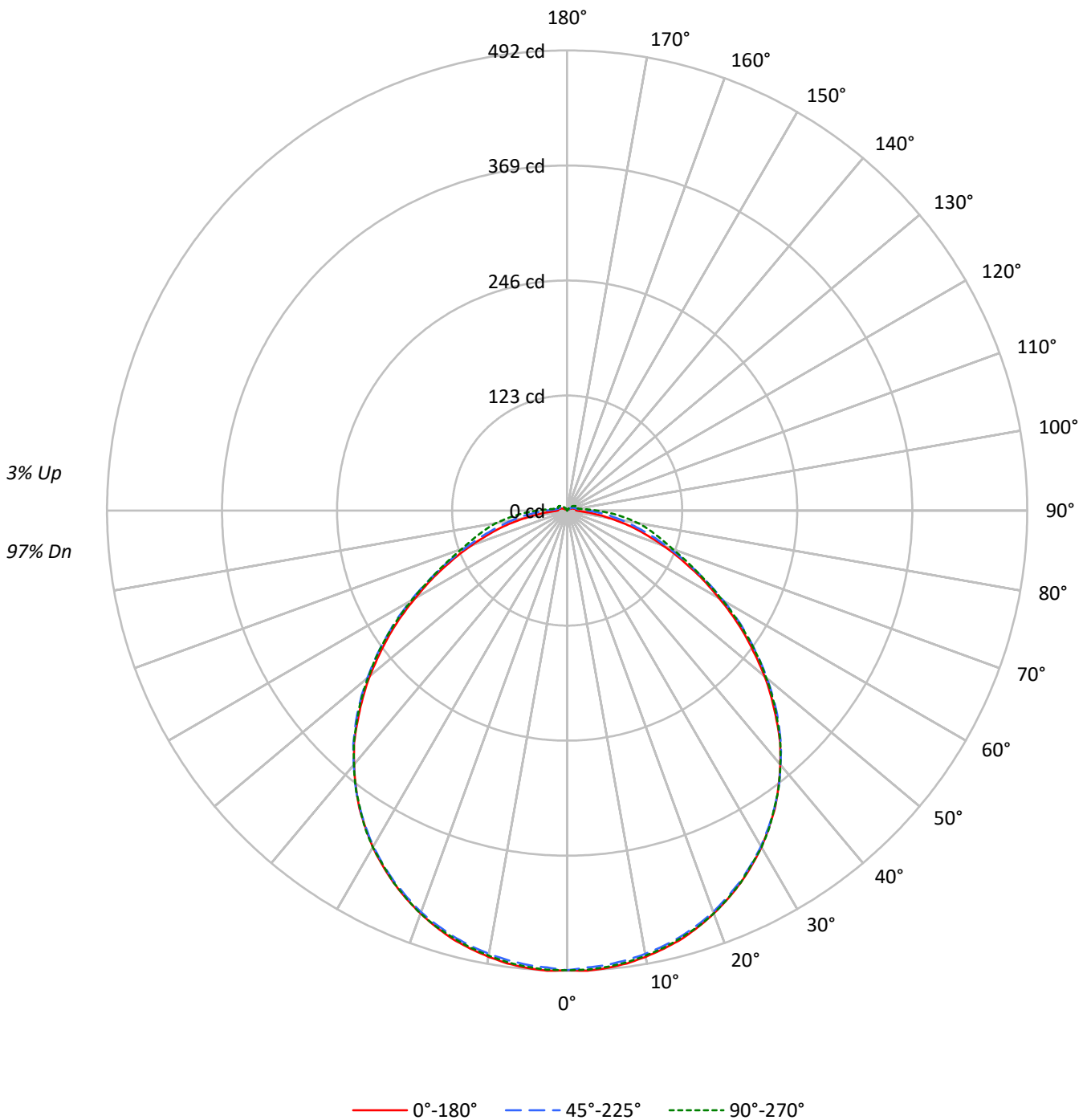
Lumens per Lamp: N/A
Luminaire Lumens: 1403.9 lumens
Efficiency: N/A
Efficacy: 8.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 1.04' x L: 4.12' x H: 0.25')
CIE Type: Direct

Input Watts (W): 166.3
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	104	104	104	99	99	99	97
1	108	103	99	95	105	100	96	93	96	92	89	91	89	86	87	85	83	81
2	98	90	83	77	95	88	81	76	84	78	74	80	76	72	77	73	70	67
3	90	79	71	64	87	77	70	64	74	67	62	71	65	61	68	63	59	57
4	82	70	61	55	80	69	60	54	66	59	53	63	57	52	61	55	51	49
5	76	63	54	47	73	61	53	47	59	52	46	57	50	45	55	49	45	42
6	70	57	48	41	68	55	47	41	53	46	40	51	45	40	50	44	39	37
7	65	51	43	36	63	50	42	36	49	41	36	47	40	35	45	39	35	33
8	60	47	38	33	59	46	38	32	44	37	32	43	36	32	42	36	31	29
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	38	33	28	26
10	53	40	32	27	51	39	32	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1231	1231	1231
5°	1228	1204	1206
10°	1219	1180	1179
15°	1210	1156	1152
20°	1196	1130	1124
25°	1180	1100	1091
30°	1162	1068	1056
35°	1137	1030	1013
40°	1103	985	965
45°	1058	933	909
50°	1002	868	842
55°	934	792	767
60°	850	708	679
65°	770	616	594
70°	684	531	528
75°	599	454	497
80°	487	387	469
85°	365	318	408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.5	3.3
10°-20°	133.4	9.5
20°-30°	202.1	14.4
30°-40°	242.2	17.3
40°-50°	245.6	17.5
50°-60°	210.4	15.0
60°-70°	150.0	10.7
70°-80°	91.1	6.5
80°-90°	42.3	3.0
90°-100°	15.5	1.1
100°-110°	9.7	0.7
110°-120°	7.4	0.5
120°-130°	4.7	0.3
130°-140°	2.2	0.2
140°-150°	0.6	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	382.0	27.2
0°-40°	624.3	44.5
0°-60°	1080.3	76.9
0°-90°	1363.7	97.1
90°-120°	32.6	2.3
90°-150°	40.0	2.8
90°-180°	40.0	2.8
0°-180°	1403.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	491	491	491	491	491	
5°	491	490	488	490	490	47
15°	474	473	471	474	473	134
25°	439	439	438	440	439	202
35°	388	388	387	388	387	242
45°	317	319	320	319	318	244
55°	232	235	236	237	236	207
65°	147	150	151	152	152	146
75°	76	78	84	93	97	81
85°	22	25	38	50	53	23
90°	10	12	22	30	32	6
95°	9	9	14	17	18	8
105°	8	7	10	10	10	8
115°	5	5	8	10	10	5
125°	3	2	5	8	9	2
135°	1	1	2	4	6	1
145°	0	0	0	1	2	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°	491.4	491.4	491.4	491.4	491.4
2.5°	492.5	491.4	489.0	491.4	491.3
5°	490.9	489.8	487.6	490.0	489.7
7.5°	488.4	487.2	484.8	487.4	487.1
10°	484.4	483.9	481.3	483.7	483.2
12.5°	479.7	478.9	476.7	479.1	478.6
15°	474.1	473.0	471.2	473.6	472.6
17.5°	466.7	466.2	464.4	466.9	466.2
20°	458.4	457.7	456.8	458.7	458.4
22.5°	449.2	448.7	447.4	450.0	448.9
25°	439.1	438.6	437.6	439.7	438.9
27.5°	427.7	427.7	426.4	428.3	426.9
30°	415.6	415.3	414.5	416.0	415.6
32.5°	401.7	403.0	401.0	402.3	402.3
35°	387.7	388.0	386.9	388.2	386.8
37.5°	371.3	372.3	371.8	372.6	371.8
40°	354.5	355.8	355.0	355.3	354.6
42.5°	337.1	338.4	338.3	338.1	337.5
45°	316.6	319.0	319.5	319.2	318.0
47.5°	296.4	299.6	299.9	300.4	298.8
50°	275.6	277.7	279.0	279.2	277.7
52.5°	253.2	256.5	257.8	258.5	257.5
55°	232.3	235.0	236.3	237.1	235.7
57.5°	210.1	212.1	215.3	215.5	213.8
60°	187.5	191.0	193.3	193.1	192.0
62.5°	167.3	169.4	172.1	171.9	170.8
65°	146.7	149.6	151.4	152.0	151.9
67.5°	127.2	129.9	132.3	134.4	135.2
70°	109.0	111.1	114.8	118.5	119.6
72.5°	91.5	94.1	99.1	105.2	107.9
75°	75.9	78.0	84.1	93.4	97.3
77.5°	60.7	62.4	71.0	83.2	87.3
80°	45.4	48.6	59.1	72.7	76.7
82.5°	32.8	35.6	48.3	61.5	65.3
85°	21.5	25.0	38.0	50.4	53.1
87.5°	13.6	16.7	29.2	39.8	41.9
90°	10.1	11.7	22.0	30.2	31.8
92.5°	9.5	9.8	16.5	22.8	23.8
95°	9.3	9.0	13.5	17.0	17.8
97.5°	9.2	8.4	11.7	13.8	14.1
100°	9.0	7.9	10.8	12.0	12.0
102.5°	8.7	7.4	10.0	11.1	11.1
105°	8.0	7.1	9.5	10.4	10.4
107.5°	7.4	6.6	9.0	10.3	10.3
110°	6.6	6.1	8.7	10.1	10.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.8	5.5	8.2	10.0	10.3
115°	5.0	4.7	7.7	9.6	10.1
117.5°	4.3	4.0	7.2	9.3	10.0
120°	3.7	3.2	6.6	9.0	9.8
122.5°	3.1	2.6	5.9	8.4	9.3
125°	2.6	2.1	5.1	7.9	8.7
127.5°	2.2	1.6	4.3	7.1	8.0
130°	1.8	1.4	3.5	6.3	7.2
132.5°	1.4	1.1	2.9	5.5	6.4
135°	1.3	1.0	2.1	4.5	5.5
137.5°	1.0	0.8	1.4	3.7	4.7
140°	0.8	0.6	0.8	2.9	3.7
142.5°	0.6	0.5	0.5	2.1	2.9
145°	0.5	0.5	0.2	1.4	2.1
147.5°	0.5	0.3	0.2	0.8	1.3
150°	0.3	0.3	0.2	0.3	0.6
152.5°	0.3	0.3	0.2	0.0	0.2
155°	0.3	0.3	0.2	0.0	0.0
157.5°	0.3	0.3	0.2	0.0	0.0
160°	0.3	0.3	0.2	0.0	0.0
162.5°	0.5	0.3	0.2	0.2	0.0
165°	0.5	0.3	0.3	0.2	0.2
167.5°	0.5	0.5	0.3	0.2	0.2
170°	0.5	0.3	0.3	0.2	0.2
172.5°	0.5	0.3	0.3	0.2	0.2
175°	0.5	0.5	0.3	0.2	0.2
177.5°	0.5	0.5	0.3	0.2	0.2
180°	0.3	0.3	0.3	0.3	0.3

(END OF REPORT)