

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: P397412

Luminaire Tested: **VRVT4LED-LD5-9-DRF-UNV-LA59-CD1-WL-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P397412
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-LA59-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

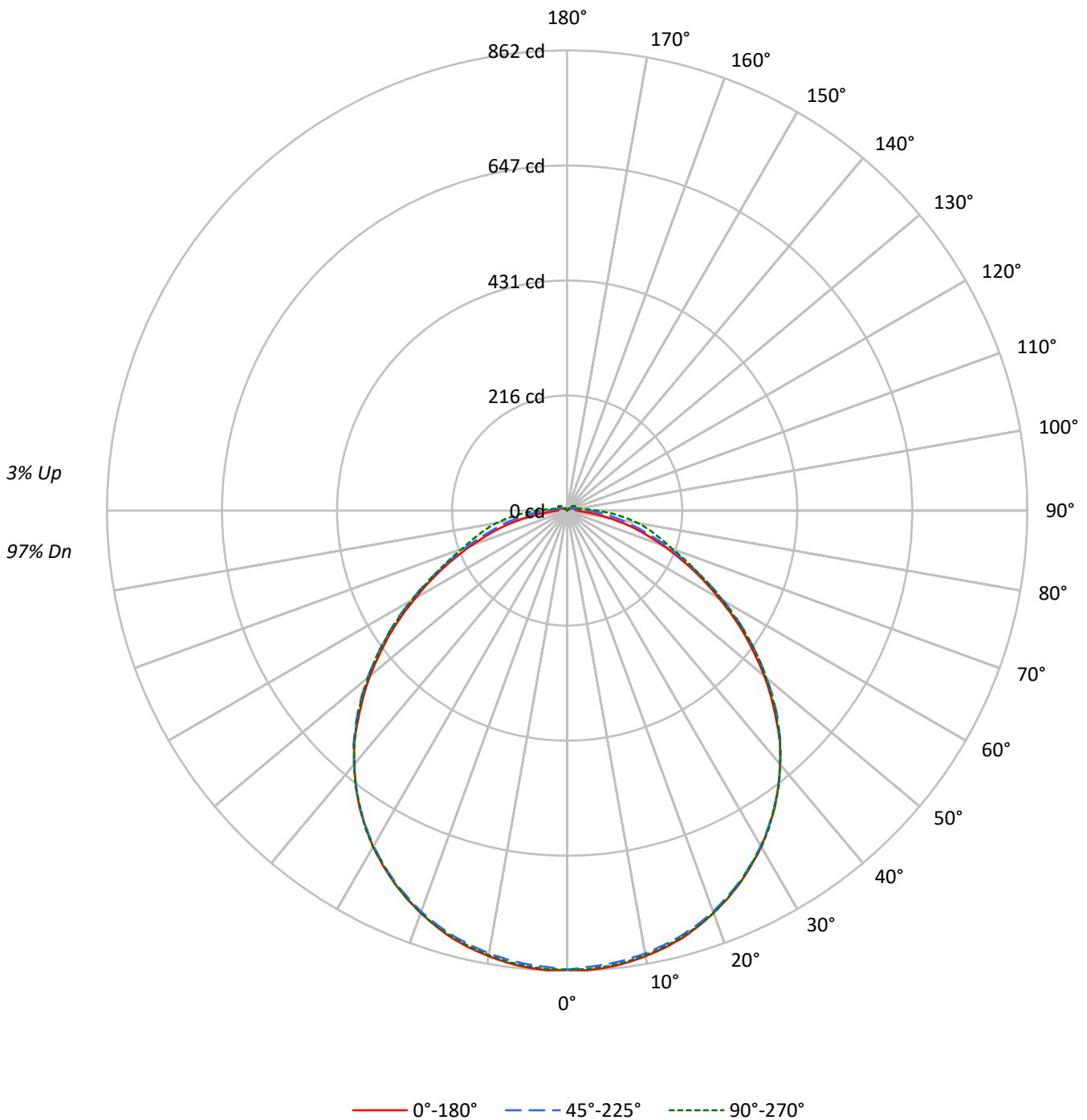
Lumens per Lamp: N/A
Luminaire Lumens: 2456.7 lumens
Efficiency: N/A
Efficacy: 25.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 1.04' x L: 4.12' x H: 0.25')
CIE Type: Direct

Input Watts (W): 98.2
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°	2154	2154	2154
5°	2149	2106	2110
10°	2133	2065	2064
15°	2117	2023	2015
20°	2092	1978	1966
25°	2066	1926	1909
30°	2033	1869	1848
35°	1990	1802	1772
40°	1930	1724	1689
45°	1850	1633	1590
50°	1753	1518	1473
55°	1634	1386	1341
60°	1488	1239	1189
65°	1347	1079	1040
70°	1198	929	924
75°	1049	794	869
80°	854	676	821
85°	640	558	714



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.4	3.3
10°-20°	233.5	9.5
20°-30°	353.7	14.4
30°-40°	423.9	17.3
40°-50°	429.8	17.5
50°-60°	368.2	15.0
60°-70°	262.5	10.7
70°-80°	159.4	6.5
80°-90°	74.1	3.0
90°-100°	27.1	1.1
100°-110°	17.0	0.7
110°-120°	12.9	0.5
120°-130°	8.1	0.3
130°-140°	3.8	0.2
140°-150°	1.0	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.1	0.0
0°-30°	668.6	27.2
0°-40°	1092.5	44.5
0°-60°	1890.5	77.0
0°-90°	2386.5	97.1
90°-120°	57.0	2.3
90°-150°	69.9	2.8
90°-180°	70.0	2.8
0°-180°	2456.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	860	860	860	860	860	
5°	859	857	853	858	857	82
15°	830	828	825	829	827	234
25°	768	768	766	770	768	354
35°	678	679	677	679	677	424
45°	554	558	559	558	557	427
55°	406	411	414	415	412	363
65°	257	262	265	266	266	255
75°	133	136	147	164	170	141
85°	38	44	67	88	93	40
90°	18	20	38	53	56	10
95°	16	16	24	30	31	13
105°	14	12	17	18	18	15
115°	9	8	14	17	18	9
125°	4	4	9	14	15	4
135°	2	2	4	8	10	2
145°	1	1	0	2	4	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°	860.0	860.0	860.0	860.0	860.0
2.5°	862.0	860.0	855.8	860.0	859.7
5°	859.2	857.2	853.2	857.5	856.9
7.5°	854.6	852.7	848.5	853.0	852.4
10°	847.6	846.8	842.3	846.5	845.7
12.5°	839.5	838.1	834.1	838.3	837.5
15°	829.6	827.7	824.6	828.8	827.1
17.5°	816.7	815.9	812.8	817.0	815.9
20°	802.1	801.0	799.3	802.7	802.1
22.5°	786.1	785.3	783.0	787.5	785.5
25°	768.4	767.6	765.9	769.5	768.1
27.5°	748.4	748.4	746.2	749.6	747.0
30°	727.4	726.8	725.4	727.9	727.4
32.5°	702.9	705.2	701.8	704.1	704.1
35°	678.5	679.1	677.1	679.3	676.8
37.5°	649.8	651.5	650.7	652.1	650.7
40°	620.3	622.6	621.2	621.7	620.6
42.5°	590.0	592.3	592.0	591.7	590.5
45°	554.0	558.2	559.1	558.5	556.6
47.5°	518.6	524.2	524.8	525.6	522.8
50°	482.4	486.1	488.3	488.6	486.1
52.5°	443.1	449.0	451.2	452.3	450.6
55°	406.5	411.3	413.6	415.0	412.4
57.5°	367.8	371.1	376.8	377.0	374.2
60°	328.2	334.3	338.3	338.0	336.0
62.5°	292.7	296.4	301.2	300.9	298.9
65°	256.8	261.9	264.9	266.1	265.8
67.5°	222.5	227.3	231.5	235.1	236.6
70°	190.8	194.4	200.9	207.3	209.3
72.5°	160.1	164.6	173.3	184.0	188.8
75°	132.9	136.5	147.2	163.5	170.3
77.5°	106.2	109.3	124.2	145.5	152.8
80°	79.5	85.1	103.4	127.3	134.3
82.5°	57.3	62.4	84.6	107.6	114.4
85°	37.7	43.8	66.6	88.2	93.0
87.5°	23.9	29.2	51.1	69.7	73.3
90°	17.7	20.5	38.5	52.8	55.6
92.5°	16.6	17.1	28.9	39.9	41.6
95°	16.3	15.7	23.6	29.8	31.2
97.5°	16.0	14.6	20.5	24.2	24.7
100°	15.7	13.8	18.8	21.1	21.1
102.5°	15.2	12.9	17.4	19.4	19.4
105°	14.1	12.3	16.6	18.3	18.3
107.5°	12.9	11.5	15.7	18.0	18.0
110°	11.5	10.7	15.2	17.7	18.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	10.1	9.5	14.3	17.4	18.0
115°	8.7	8.1	13.5	16.9	17.7
117.5°	7.6	7.0	12.7	16.3	17.4
120°	6.5	5.6	11.5	15.7	17.1
122.5°	5.3	4.5	10.4	14.6	16.3
125°	4.5	3.6	9.0	13.8	15.2
127.5°	3.9	2.8	7.6	12.3	14.1
130°	3.1	2.5	6.2	10.9	12.7
132.5°	2.5	2.0	5.1	9.5	11.2
135°	2.2	1.7	3.6	7.9	9.5
137.5°	1.7	1.4	2.5	6.5	8.1
140°	1.4	1.1	1.4	5.1	6.5
142.5°	1.1	0.8	0.8	3.6	5.1
145°	0.8	0.8	0.3	2.5	3.6
147.5°	0.8	0.6	0.3	1.4	2.2
150°	0.6	0.6	0.3	0.6	1.1
152.5°	0.6	0.6	0.3	0.0	0.3
155°	0.6	0.6	0.3	0.0	0.0
157.5°	0.6	0.6	0.3	0.0	0.0
160°	0.6	0.6	0.3	0.0	0.0
162.5°	0.8	0.6	0.3	0.3	0.0
165°	0.8	0.6	0.6	0.3	0.3
167.5°	0.8	0.8	0.6	0.3	0.3
170°	0.8	0.6	0.6	0.3	0.3
172.5°	0.8	0.6	0.6	0.3	0.3
175°	0.8	0.8	0.6	0.3	0.3
177.5°	0.8	0.8	0.6	0.3	0.3
180°	0.6	0.6	0.6	0.6	0.6

(END OF REPORT)