

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Report Prepared for  
Eaton Lighting Division  
(formerly Cooper Lighting)  
io LED

Report Number: P397348

Luminaire Tested: **8VRVT2-LD5-22-FR50-UNV-LR63-CD2-WL-U**

Issue Date: 3/3/2020

Tested By:

Approved By:



NVLAP Lab Code: 200050-0

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Results contained in this report are valid for luminaire sample tested.  
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**Test Information**

Test Method: LM-79-08  
 Report Number: P397348  
 Test Lab: INNOVATION CENTER(G3)  
 Issue Date: 3/3/2020  
 Manufacturer: EATON (FORMERLY COOPER LIGHTING)  
 Product Line: io LED  
 Catalog Number: 8VRVT2-LD5-22-FR50-UNV-LR63-CD2-WL-U  
 Description:  
 Light Source: -  
 Ballast/Driver: -

Luminaire Equipment:	<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
	AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
	AS-5443-2	Good	REFLECTOR
	AS-5443-3	Good	DRIVER
	AS-5443-4	Good	UPPER MODULE
	AS-5443-5	Good	LENS
	AS-5443-6	Good	DRIVER 2
	AS-5443-7	Good	TRIM RING

**Summary**

Lumens per Lamp: N/A  
 Luminaire Lumens: 3398.4 lumens  
 Efficiency: N/A  
 Efficacy: 8.0 lumens/watt  
 Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
 Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 8.33' x H: 0.17')  
 CIE Type: Direct

Input Watts (W): 427.1  
 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

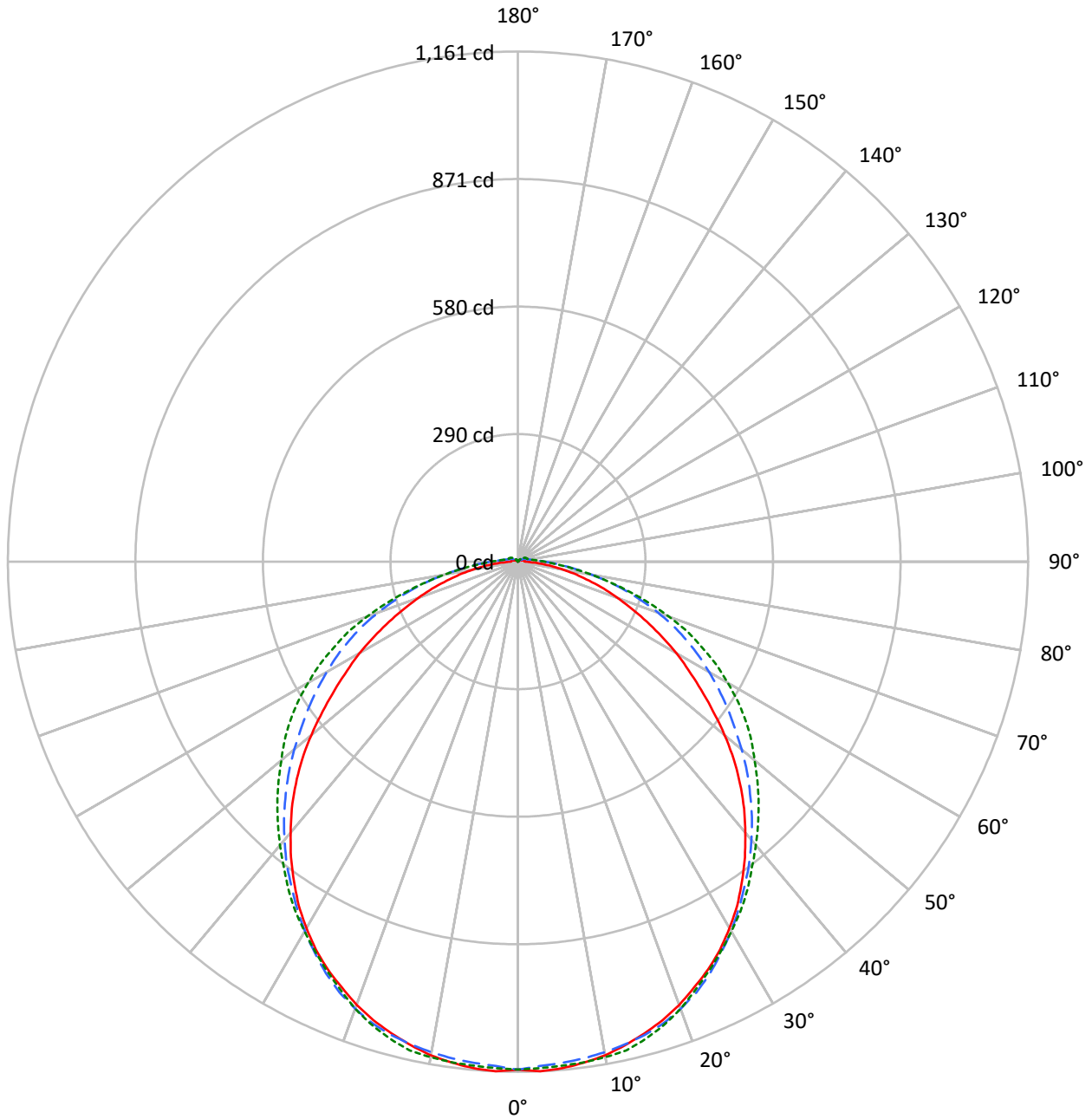


Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	P1		
Power Meter			

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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									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	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	76	95	87	81	75	83	78	73	80	75	71	76	72	69	67																			
3	89	78	70	63	86	76	69	63	73	67	61	70	64	60	67	62	58	56																			
4	81	69	60	54	79	68	60	53	65	58	52	62	56	51	60	55	50	48																			
5	75	62	53	46	73	61	52	46	58	51	45	56	49	44	54	48	44	41																			
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	38	36																			
7	64	51	42	36	62	50	41	35	48	40	35	46	39	34	45	39	34	32																			
8	60	46	38	32	58	45	37	32	44	36	31	42	36	31	41	35	30	29																			
9	56	42	34	29	54	42	34	28	40	33	28	39	33	28	38	32	28	26																			
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23																			

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.5	3.2
10°-20°	315.3	9.3
20°-30°	474.9	14.0
30°-40°	565.6	16.6
40°-50°	577.4	17.0
50°-60°	517.4	15.2
60°-70°	403.8	11.9
70°-80°	248.6	7.3
80°-90°	103.6	3.0
90°-100°	37.3	1.1
100°-110°	20.1	0.6
110°-120°	13.2	0.4
120°-130°	7.5	0.2
130°-140°	3.3	0.1
140°-150°	0.8	0.0
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	899.7	26.5
0°-40°	1465.3	43.1
0°-60°	2560.1	75.3
0°-90°	3316.1	97.6
90°-120°	70.6	2.1
90°-150°	82.2	2.4
90°-180°	82.0	2.4
0°-180°	3398.4	100.0

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
45°	2560	2184	2122
55°	2229	1933	1932
65°	1895	1685	1648
75°	1554	1307	1161
85°	1231	801	619

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1156	1156	1156	1156	1156	
5°	1157	1153	1145	1153	1151	110
15°	1111	1112	1115	1127	1124	314
25°	1024	1032	1034	1032	1028	471
35°	888	907	900	910	911	555
45°	715	733	747	768	774	550
55°	509	539	582	621	633	457
65°	323	357	423	458	462	322
75°	167	204	253	266	261	179
85°	51	79	104	104	100	52
90°	17	42	61	62	61	11
95°	15	24	38	40	39	12
105°	12	12	21	24	23	12
115°	6	6	15	19	20	6
125°	3	2	8	14	15	3
135°	1	1	3	8	9	1
145°	0	0	0	2	3	0
155°	0	0	0	0	0	0

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1155.7	1155.7	1155.7	1155.7	1155.7
2.5°	1160.8	1156.6	1148.6	1156.1	1153.6
5°	1157.0	1152.8	1144.8	1152.8	1151.1
7.5°	1149.9	1146.9	1140.3	1149.9	1149.0
10°	1140.7	1137.7	1133.6	1145.3	1144.8
12.5°	1126.9	1125.6	1125.2	1139.8	1139.0
15°	1111.4	1111.8	1114.7	1127.3	1123.9
17.5°	1093.8	1096.3	1101.4	1108.9	1105.5
20°	1073.3	1077.5	1082.5	1085.5	1082.5
22.5°	1048.2	1055.8	1060.8	1058.7	1054.9
25°	1024.0	1032.3	1033.6	1031.9	1027.7
27.5°	995.5	1006.0	1002.2	1004.3	999.7
30°	962.9	977.5	970.4	974.2	971.3
32.5°	928.2	945.3	935.7	942.0	942.8
35°	888.4	907.3	899.7	909.8	910.6
37.5°	848.3	868.0	864.6	877.2	875.1
40°	804.8	826.5	826.5	840.3	842.4
42.5°	761.7	780.1	788.0	804.4	808.5
45°	714.8	733.3	747.1	768.4	774.3
47.5°	666.8	687.2	706.9	730.3	739.1
50°	613.6	638.3	664.2	694.8	702.7
52.5°	560.1	587.7	621.6	658.4	669.7
55°	509.1	538.8	582.3	621.2	633.3
57.5°	460.5	491.1	542.1	583.1	593.6
60°	416.2	442.5	502.4	545.0	551.3
62.5°	368.5	399.9	463.5	502.8	509.9
65°	323.3	357.2	423.3	458.0	462.2
67.5°	280.7	315.4	382.7	413.3	418.3
70°	240.9	277.7	338.8	364.3	366.0
72.5°	204.5	240.5	295.3	315.8	312.9
75°	167.3	204.1	253.1	265.6	261.0
77.5°	135.9	169.4	210.4	219.6	212.5
80°	103.3	135.5	169.0	172.3	169.0
82.5°	75.7	105.8	134.7	135.5	130.5
85°	51.0	79.5	104.2	104.2	100.4
87.5°	28.9	58.1	79.5	80.3	76.1
90°	16.7	42.2	61.5	62.3	60.7
92.5°	15.5	30.5	48.1	49.4	47.7
95°	15.1	23.8	38.5	40.2	38.9
97.5°	14.6	19.2	32.2	33.5	32.6
100°	14.2	15.9	27.2	29.3	28.9
102.5°	13.0	13.8	23.8	25.9	25.5
105°	11.7	11.7	21.3	23.8	23.4

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
115°	6.3	5.9	14.6	19.2	20.1
117.5°	5.0	5.0	13.0	18.0	18.8
120°	4.2	3.8	11.3	16.7	18.0
122.5°	3.3	2.5	10.0	15.1	16.7
125°	2.9	1.7	8.4	13.8	15.1
127.5°	2.1	1.2	7.1	12.1	13.8
130°	1.7	1.2	5.9	10.5	12.1
132.5°	1.7	0.8	4.6	8.8	10.5
135°	1.2	0.8	3.3	7.5	8.8
137.5°	0.8	0.8	2.1	6.3	7.5
140°	0.8	0.8	1.2	4.6	5.9
142.5°	0.8	0.4	0.4	3.3	4.6
145°	0.4	0.4	0.4	2.1	2.9
147.5°	0.4	0.4	0.4	0.8	1.7
150°	0.4	0.4	0.4	0.0	0.4
152.5°	0.4	0.4	0.4	0.0	0.0
155°	0.4	0.4	0.4	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

Eaton Lighting Division Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



NVLAP Lab Code: 200050-0



This test was performed under the Supervised Manufacturer's Testing Program.  
The results of this test have not been influenced by sources from within Eaton or from external interests.

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AC Power Source			
DC Power Supply			
Room Thermometer			



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— 0°-180°    - - 45°-225°    - - - 90°-270°

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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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107.5°	10.5	10.0	19.2	22.6	22.2
110°	8.8	8.8	17.6	21.3	21.3
112.5°	7.5	7.5	15.9	20.5	20.5