

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: P397293

Luminaire Tested: **4VRVT2-LD5-8-FR50-UNV-LG52-CD1-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397293  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-13)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 4VRVT2-LD5-8-FR50-UNV-LG52-CD1-WL-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6500.0 lumens  
Efficiency: N/A  
Efficacy: 46.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')  
CIE Type: Direct

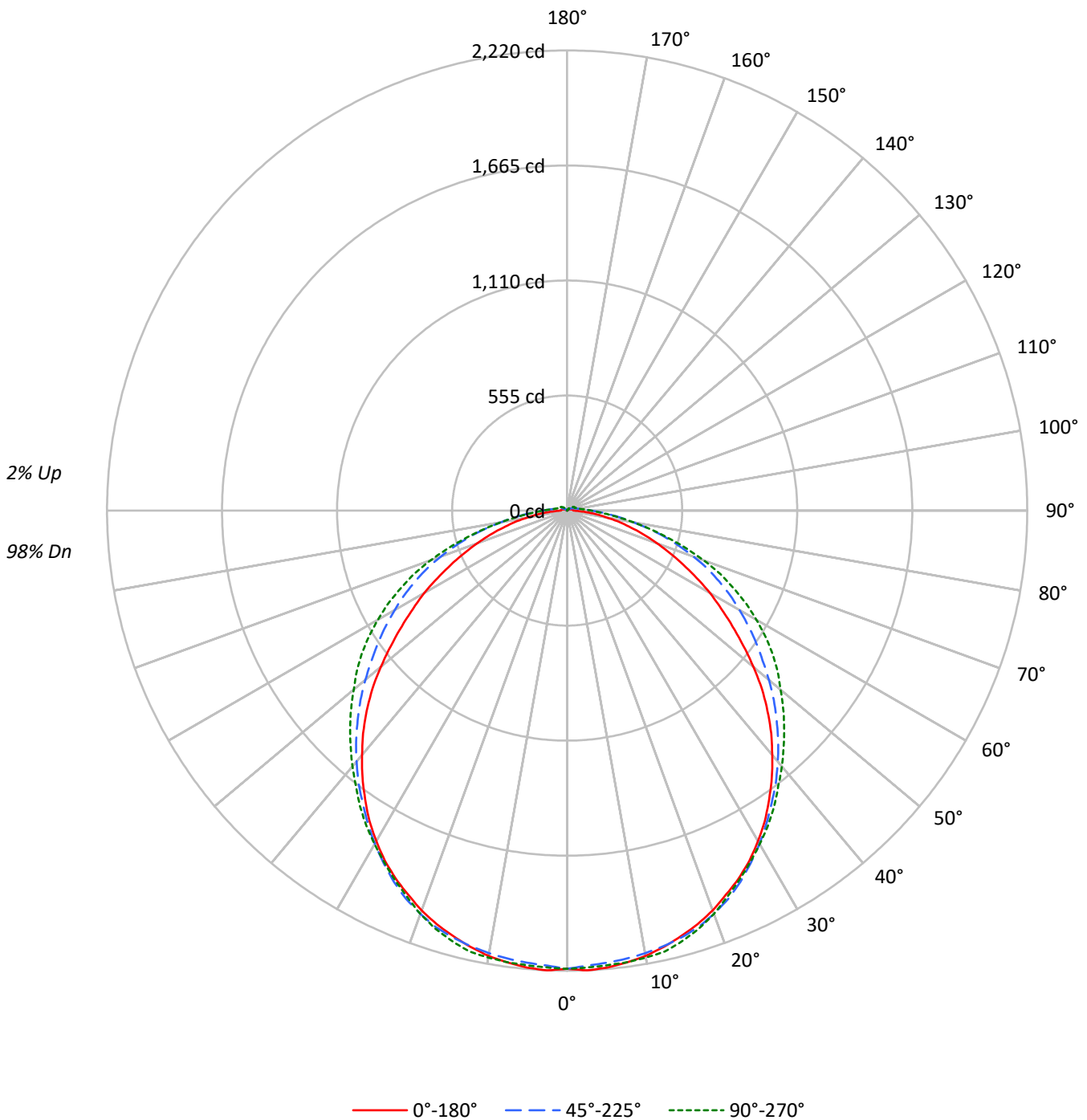
Input Watts (W): 139.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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

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

	0°	45°	90°
0°	11421	11421	11421
5°	11438	11101	11096
10°	11366	10869	10851
15°	11250	10651	10556
20°	11125	10386	10152
25°	10961	10035	9699
30°	10740	9609	9294
35°	10426	9161	8907
40°	10045	8729	8492
45°	9606	8260	8115
50°	9005	7768	7732
55°	8297	7285	7392
60°	7693	6814	6908
65°	6963	6321	6303
70°	6272	5674	5520
75°	5558	4867	4441
80°	4792	3851	3327
85°	3971	2939	2366



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	209.5	3.2
10°-20°	603.0	9.3
20°-30°	908.3	14.0
30°-40°	1081.7	16.6
40°-50°	1104.3	17.0
50°-60°	989.7	15.2
60°-70°	772.4	11.9
70°-80°	475.5	7.3
80°-90°	198.2	3.0
90°-100°	71.4	1.1
100°-110°	38.5	0.6
110°-120°	25.2	0.4
120°-130°	14.3	0.2
130°-140°	6.3	0.1
140°-150°	1.5	0.0
150°-160°	0.2	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1720.8	26.5
0°-40°	2802.6	43.1
0°-60°	4896.6	75.3
0°-90°	6342.7	97.6
90°-120°	135.0	2.1
90°-150°	157.2	2.4
90°-180°	157.0	2.4
0°-180°	6500.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2211	2211	2211	2211	2211	
5°	2213	2205	2190	2205	2202	210
15°	2126	2126	2132	2156	2150	600
25°	1958	1974	1977	1974	1966	901
35°	1699	1735	1721	1740	1742	1062
45°	1367	1402	1429	1470	1481	1052
55°	974	1030	1114	1188	1211	874
65°	618	683	810	876	884	615
75°	320	390	484	508	499	343
85°	98	152	199	199	192	100
90°	32	81	118	119	116	20
95°	29	46	74	77	74	23
105°	22	22	41	46	45	24
115°	12	11	28	37	38	12
125°	6	3	16	26	29	5
135°	2	2	6	14	17	2
145°	1	1	1	4	6	1
155°	1	1	1	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°	2210.6	2210.6	2210.6	2210.6	2210.6
2.5°	2220.2	2212.2	2197.0	2211.4	2206.6
5°	2213.0	2205.0	2189.8	2205.0	2201.8
7.5°	2199.4	2193.8	2181.0	2199.4	2197.8
10°	2181.8	2176.2	2168.2	2190.6	2189.8
12.5°	2155.4	2152.9	2152.1	2180.2	2178.6
15°	2125.7	2126.5	2132.1	2156.2	2149.7
17.5°	2092.1	2096.9	2106.5	2120.9	2114.5
20°	2052.9	2060.9	2070.5	2076.1	2070.5
22.5°	2004.9	2019.3	2028.9	2024.9	2017.7
25°	1958.5	1974.5	1976.9	1973.7	1965.7
27.5°	1904.1	1924.1	1916.9	1920.9	1912.1
30°	1841.7	1869.7	1856.1	1863.3	1857.7
32.5°	1775.3	1808.1	1789.7	1801.7	1803.3
35°	1699.3	1735.3	1720.9	1740.1	1741.7
37.5°	1622.5	1660.1	1653.7	1677.7	1673.7
40°	1539.3	1580.9	1580.9	1607.3	1611.3
42.5°	1456.9	1492.1	1507.3	1538.5	1546.5
45°	1367.3	1402.5	1428.9	1469.7	1480.9
47.5°	1275.3	1314.5	1352.1	1396.9	1413.7
50°	1173.7	1220.9	1270.5	1328.9	1344.1
52.5°	1071.3	1124.1	1188.9	1259.3	1280.9
55°	973.7	1030.5	1113.7	1188.1	1211.3
57.5°	880.9	939.3	1036.9	1115.3	1135.3
60°	796.1	846.5	960.9	1042.5	1054.5
62.5°	704.8	764.9	886.5	961.7	975.3
65°	618.4	683.2	809.7	876.1	884.1
67.5°	536.8	603.2	732.1	790.5	800.1
70°	460.8	531.2	648.0	696.8	700.0
72.5°	391.2	460.0	564.8	604.0	598.4
75°	320.0	390.4	484.0	508.0	499.2
77.5°	260.0	324.0	402.4	420.0	406.4
80°	197.6	259.2	323.2	329.6	323.2
82.5°	144.8	202.4	257.6	259.2	249.6
85°	97.6	152.0	199.2	199.2	192.0
87.5°	55.2	111.2	152.0	153.6	145.6
90°	32.0	80.8	117.6	119.2	116.0
92.5°	29.6	58.4	92.0	94.4	91.2
95°	28.8	45.6	73.6	76.8	74.4
97.5°	28.0	36.8	61.6	64.0	62.4
100°	27.2	30.4	52.0	56.0	55.2
102.5°	24.8	26.4	45.6	49.6	48.8
105°	22.4	22.4	40.8	45.6	44.8
107.5°	20.0	19.2	36.8	43.2	42.4
110°	16.8	16.8	33.6	40.8	40.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	14.4	14.4	30.4	39.2	39.2
115°	12.0	11.2	28.0	36.8	38.4
117.5°	9.6	9.6	24.8	34.4	36.0
120°	8.0	7.2	21.6	32.0	34.4
122.5°	6.4	4.8	19.2	28.8	32.0
125°	5.6	3.2	16.0	26.4	28.8
127.5°	4.0	2.4	13.6	23.2	26.4
130°	3.2	2.4	11.2	20.0	23.2
132.5°	3.2	1.6	8.8	16.8	20.0
135°	2.4	1.6	6.4	14.4	16.8
137.5°	1.6	1.6	4.0	12.0	14.4
140°	1.6	1.6	2.4	8.8	11.2
142.5°	1.6	0.8	0.8	6.4	8.8
145°	0.8	0.8	0.8	4.0	5.6
147.5°	0.8	0.8	0.8	1.6	3.2
150°	0.8	0.8	0.8	0.0	0.8
152.5°	0.8	0.8	0.8	0.0	0.0
155°	0.8	0.8	0.8	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

(END OF REPORT)