

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: P397249

Luminaire Tested: **4VRVT2-LD5-11-FR50-UNV-LR63-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397249
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-LD5-11-FR50-UNV-LR63-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1699.2 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: 4.17' x H: 0.17')
CIE Type: Direct

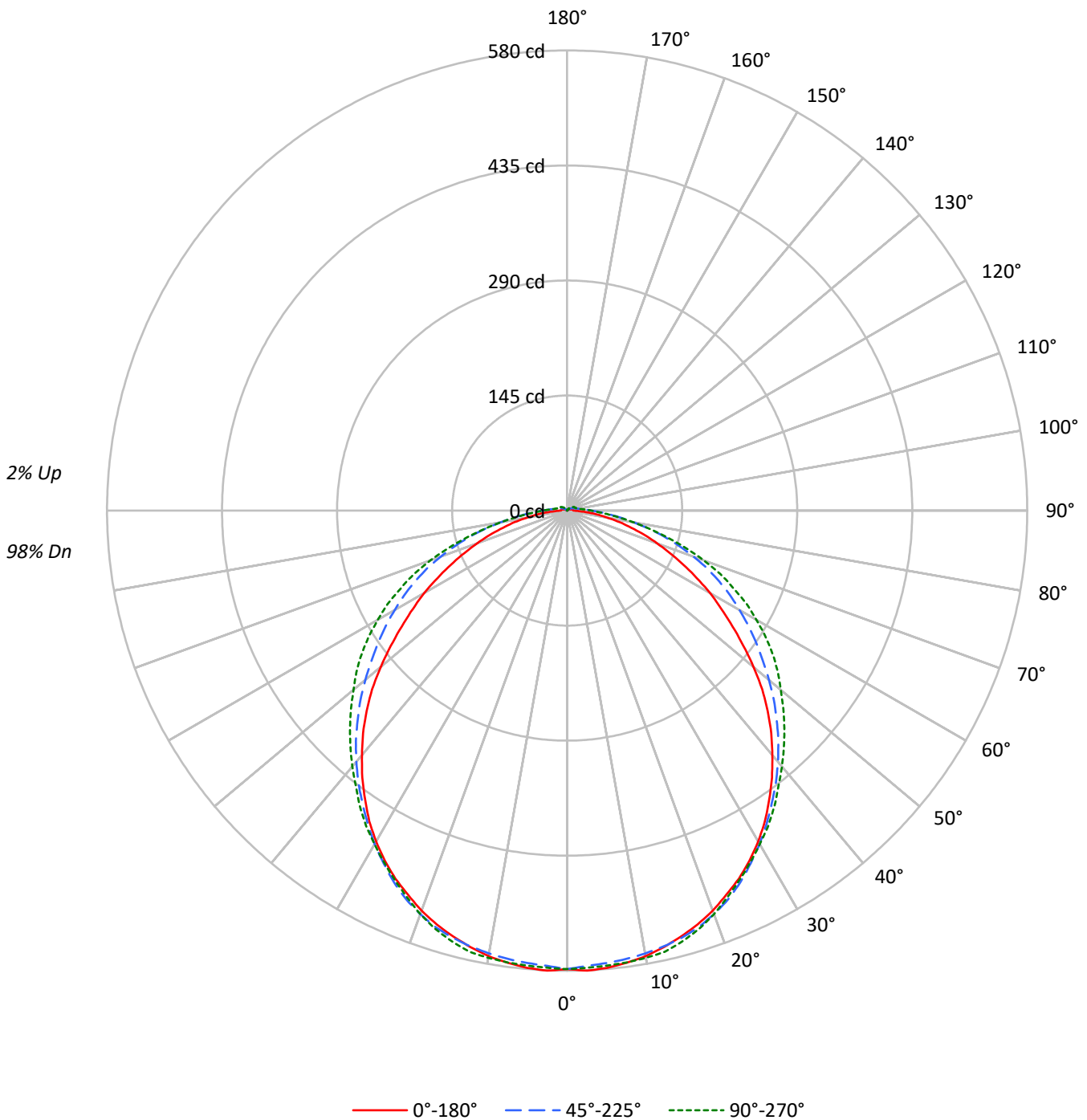
Input Watts (W): 213.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2986	2986	2986
5°	2990	2902	2901
10°	2971	2841	2836
15°	2941	2785	2760
20°	2909	2715	2654
25°	2865	2623	2536
30°	2808	2512	2430
35°	2725	2395	2328
40°	2626	2282	2220
45°	2511	2159	2121
50°	2354	2031	2021
55°	2169	1904	1932
60°	2011	1781	1805
65°	1821	1652	1648
70°	1640	1483	1443
75°	1454	1272	1161
80°	1254	1007	870
85°	1037	769	619



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.8	3.2
10°-20°	157.6	9.3
20°-30°	237.5	14.0
30°-40°	282.8	16.6
40°-50°	288.7	17.0
50°-60°	258.7	15.2
60°-70°	201.9	11.9
70°-80°	124.3	7.3
80°-90°	51.8	3.1
90°-100°	18.7	1.1
100°-110°	10.1	0.6
110°-120°	6.6	0.4
120°-130°	3.7	0.2
130°-140°	1.6	0.1
140°-150°	0.4	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	449.9	26.5
0°-40°	732.7	43.1
0°-60°	1280.1	75.3
0°-90°	1658.1	97.6
90°-120°	35.3	2.1
90°-150°	41.1	2.4
90°-180°	41.0	2.4
0°-180°	1699.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	578	578	578	578	578	
5°	578	576	572	576	576	55
15°	556	556	557	564	562	157
25°	512	516	517	516	514	236
35°	444	454	450	455	455	278
45°	357	367	374	384	387	275
55°	254	269	291	311	317	228
65°	162	179	212	229	231	161
75°	84	102	126	133	130	90
85°	26	40	52	52	50	26
90°	8	21	31	31	30	5
95°	8	12	19	20	20	6
105°	6	6	11	12	12	6
115°	3	3	7	10	10	3
125°	2	1	4	7	8	1
135°	1	0	2	4	4	0
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°	577.9	577.9	577.9	577.9	577.9
2.5°	580.4	578.3	574.3	578.1	576.8
5°	578.5	576.4	572.4	576.4	575.6
7.5°	574.9	573.5	570.1	574.9	574.5
10°	570.3	568.9	566.8	572.6	572.4
12.5°	563.4	562.8	562.6	569.9	569.5
15°	555.7	555.9	557.4	563.6	562.0
17.5°	546.9	548.2	550.7	554.4	552.8
20°	536.7	538.8	541.3	542.7	541.3
22.5°	524.1	527.9	530.4	529.3	527.5
25°	512.0	516.2	516.8	516.0	513.9
27.5°	497.8	503.0	501.1	502.2	499.9
30°	481.5	488.8	485.2	487.1	485.6
32.5°	464.1	472.7	467.9	471.0	471.4
35°	444.2	453.6	449.9	454.9	455.3
37.5°	424.1	434.0	432.3	438.6	437.5
40°	402.4	413.3	413.3	420.2	421.2
42.5°	380.8	390.0	394.0	402.2	404.3
45°	357.4	366.6	373.5	384.2	387.1
47.5°	333.4	343.6	353.5	365.2	369.6
50°	306.8	319.2	332.1	347.4	351.4
52.5°	280.0	293.8	310.8	329.2	334.8
55°	254.5	269.4	291.1	310.6	316.6
57.5°	230.3	245.5	271.1	291.6	296.8
60°	208.1	221.3	251.2	272.5	275.6
62.5°	184.3	199.9	231.7	251.4	254.9
65°	161.7	178.6	211.6	229.0	231.1
67.5°	140.3	157.7	191.4	206.6	209.1
70°	120.5	138.9	169.4	182.2	183.0
72.5°	102.3	120.3	147.6	157.9	156.4
75°	83.7	102.1	126.5	132.8	130.5
77.5°	68.0	84.7	105.2	109.8	106.2
80°	51.7	67.8	84.5	86.2	84.5
82.5°	37.9	52.9	67.3	67.8	65.2
85°	25.5	39.7	52.1	52.1	50.2
87.5°	14.4	29.1	39.7	40.2	38.1
90°	8.4	21.1	30.8	31.2	30.3
92.5°	7.7	15.3	24.0	24.7	23.8
95°	7.5	11.9	19.2	20.1	19.5
97.5°	7.3	9.6	16.1	16.7	16.3
100°	7.1	8.0	13.6	14.6	14.4
102.5°	6.5	6.9	11.9	13.0	12.8
105°	5.9	5.9	10.7	11.9	11.7
107.5°	5.2	5.0	9.6	11.3	11.1
110°	4.4	4.4	8.8	10.7	10.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.8	3.8	8.0	10.3	10.3
115°	3.1	2.9	7.3	9.6	10.0
117.5°	2.5	2.5	6.5	9.0	9.4
120°	2.1	1.9	5.6	8.4	9.0
122.5°	1.7	1.2	5.0	7.5	8.4
125°	1.5	0.8	4.2	6.9	7.5
127.5°	1.0	0.6	3.6	6.1	6.9
130°	0.8	0.6	2.9	5.2	6.1
132.5°	0.8	0.4	2.3	4.4	5.2
135°	0.6	0.4	1.7	3.8	4.4
137.5°	0.4	0.4	1.0	3.1	3.8
140°	0.4	0.4	0.6	2.3	2.9
142.5°	0.4	0.2	0.2	1.7	2.3
145°	0.2	0.2	0.2	1.0	1.5
147.5°	0.2	0.2	0.2	0.4	0.8
150°	0.2	0.2	0.2	0.0	0.2
152.5°	0.2	0.2	0.2	0.0	0.0
155°	0.2	0.2	0.2	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)