

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: P397237

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397237
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-11)
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-DR-UNV-LR63-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1721.1 lumens
Efficiency: N/A
Efficacy: 8.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.23 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')
CIE Type: Direct

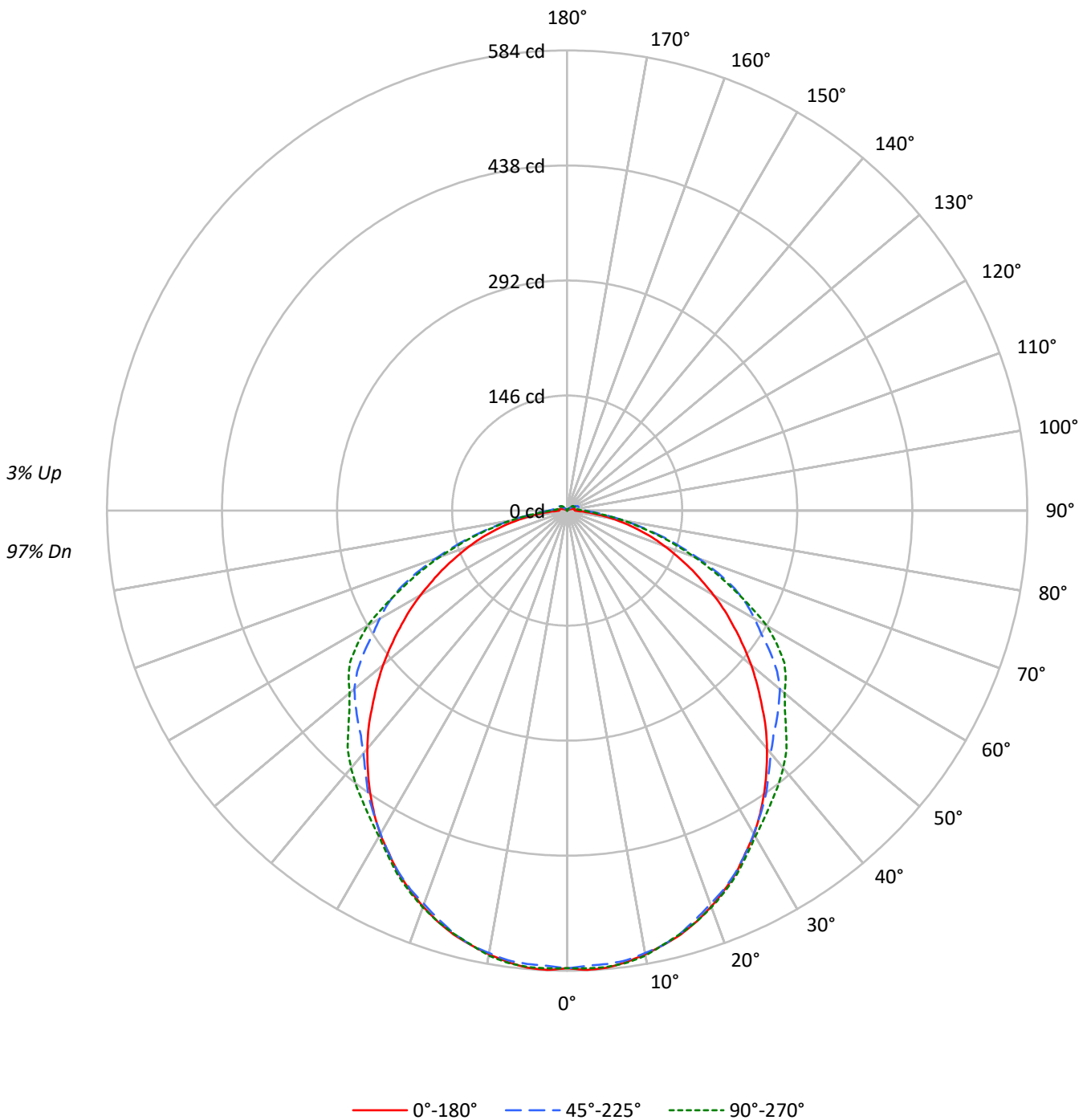
Input Watts (W): 213.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	104	104	104	99	99	99	97
1	108	103	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83	80
2	98	89	82	76	95	87	81	75	83	77	73	79	75	71	76	72	69	66
3	89	78	70	63	86	76	68	62	73	66	61	70	64	59	67	62	58	56
4	81	69	60	53	79	67	59	53	65	57	52	62	56	51	59	54	50	47
5	75	62	52	46	72	60	52	45	58	50	45	55	49	44	53	48	43	41
6	69	55	46	40	67	54	46	39	52	45	39	50	43	38	48	42	38	36
7	64	50	41	35	62	49	41	35	47	40	34	46	39	34	44	38	33	31
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	40	34	30	28
9	55	42	34	28	54	41	33	28	40	33	28	39	32	27	37	31	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3001	3001	3001
5°	3010	2928	2930
10°	2979	2859	2841
15°	2948	2775	2730
20°	2898	2666	2627
25°	2839	2570	2513
30°	2767	2451	2389
35°	2676	2341	2310
40°	2575	2220	2248
45°	2453	2174	2153
50°	2341	2156	2073
55°	2208	2062	2054
60°	2074	1947	1918
65°	1936	1831	1635
70°	1790	1547	1352
75°	1621	1228	1047
80°	1394	877	747
85°	1054	596	451



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.2	3.2
10°-20°	157.0	9.1
20°-30°	234.1	13.6
30°-40°	276.9	16.1
40°-50°	288.3	16.7
50°-60°	271.2	15.8
60°-70°	217.3	12.6
70°-80°	126.2	7.3
80°-90°	44.5	2.6
90°-100°	17.2	1.0
100°-110°	13.1	0.8
110°-120°	9.9	0.6
120°-130°	6.1	0.4
130°-140°	3.0	0.2
140°-150°	1.0	0.1
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	446.2	25.9
0°-40°	723.1	42.0
0°-60°	1282.6	74.5
0°-90°	1670.7	97.1
90°-120°	40.2	2.3
90°-150°	50.2	2.9
90°-180°	50.0	2.9
0°-180°	1721.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	581	581	581	581	581	
5°	582	580	578	583	581	55
15°	557	559	556	556	556	157
25°	507	509	506	510	509	233
35°	436	437	440	447	452	273
45°	349	353	376	394	393	270
55°	259	274	315	329	336	232
65°	172	215	235	233	229	170
75°	93	129	122	119	118	99
85°	26	40	40	39	37	28
90°	10	21	23	22	20	6
95°	10	16	18	15	14	8
105°	8	12	16	13	11	9
115°	4	8	13	12	10	4
125°	2	3	9	10	9	2
135°	1	1	4	6	7	1
145°	0	0	1	3	3	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°	580.8	580.8	580.8	580.8	580.8
2.5°	583.5	581.4	578.2	582.4	581.4
5°	582.4	579.9	577.6	582.6	581.4
7.5°	577.8	577.4	575.7	579.9	578.9
10°	571.8	573.0	570.3	573.6	573.4
12.5°	564.7	567.8	564.7	565.5	564.2
15°	557.1	559.0	555.5	556.5	555.9
17.5°	546.7	549.4	543.5	548.8	546.7
20°	534.8	537.5	531.4	537.2	535.8
22.5°	521.4	523.9	520.1	524.3	523.2
25°	507.3	509.0	506.3	510.1	509.4
27.5°	490.0	494.0	490.4	495.0	493.1
30°	474.5	476.0	473.5	479.1	477.6
32.5°	455.9	456.9	456.9	462.0	464.5
35°	436.2	437.3	439.8	447.3	451.7
37.5°	415.5	417.8	420.1	435.0	439.8
40°	394.6	396.3	402.0	423.5	426.6
42.5°	372.9	374.6	387.5	411.2	412.2
45°	349.2	352.8	376.0	394.4	392.8
47.5°	326.9	331.3	364.3	373.1	374.8
50°	305.1	310.1	352.6	355.9	360.3
52.5°	281.7	291.3	335.9	340.5	349.7
55°	259.1	274.4	315.2	328.8	336.5
57.5°	237.6	257.4	292.6	313.7	315.8
60°	214.6	243.0	274.6	292.6	292.8
62.5°	192.6	229.2	256.8	263.7	260.8
65°	171.9	215.0	234.6	232.6	229.4
67.5°	150.8	196.8	207.2	202.6	200.6
70°	131.5	177.1	176.7	172.7	171.5
72.5°	113.1	152.7	148.5	144.9	143.9
75°	93.3	129.2	122.1	119.4	117.7
77.5°	75.3	105.0	95.4	94.3	93.1
80°	57.5	80.1	73.6	73.8	72.6
82.5°	39.7	57.5	54.0	53.5	52.1
85°	25.9	39.5	40.4	38.9	36.6
87.5°	14.0	27.6	29.5	28.4	26.8
90°	9.8	21.3	23.2	22.0	20.5
92.5°	9.8	18.0	19.7	17.8	16.5
95°	10.0	15.7	17.6	15.3	14.0
97.5°	10.0	14.2	16.3	13.8	12.3
100°	9.6	13.4	15.9	13.2	11.7
102.5°	9.0	12.5	15.7	12.8	11.3
105°	8.2	11.7	15.5	12.8	10.9
107.5°	7.1	10.9	15.3	12.5	10.9
110°	6.1	9.8	14.8	12.5	10.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.2	8.8	14.2	12.3	10.7
115°	4.2	7.5	13.4	11.9	10.5
117.5°	3.3	6.3	12.3	11.5	10.2
120°	2.7	5.0	11.3	11.1	10.0
122.5°	2.1	3.8	10.0	10.5	9.6
125°	1.7	2.7	8.8	9.8	9.4
127.5°	1.2	1.9	7.5	9.2	8.8
130°	1.0	1.0	6.3	8.4	8.2
132.5°	0.8	0.8	5.2	7.5	7.7
135°	0.6	0.6	4.2	6.5	6.9
137.5°	0.6	0.4	3.1	5.6	6.1
140°	0.4	0.4	2.3	4.6	5.0
142.5°	0.4	0.4	1.5	3.8	4.2
145°	0.4	0.2	0.8	2.7	3.3
147.5°	0.4	0.2	0.4	1.9	2.5
150°	0.2	0.2	0.2	1.2	1.7
152.5°	0.2	0.2	0.2	0.6	0.8
155°	0.2	0.2	0.2	0.2	0.4
157.5°	0.2	0.2	0.2	0.2	0.0
160°	0.2	0.2	0.2	0.2	0.0
162.5°	0.2	0.2	0.2	0.2	0.0
165°	0.2	0.2	0.2	0.2	0.0
167.5°	0.4	0.2	0.2	0.2	0.0
170°	0.4	0.2	0.2	0.2	0.0
172.5°	0.4	0.4	0.2	0.2	0.0
175°	0.4	0.4	0.2	0.2	0.2
177.5°	0.4	0.4	0.2	0.2	0.2
180°	0.2	0.2	0.2	0.2	0.2

(END OF REPORT)