

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: P397243

Luminaire Tested: **4VRVT2-LD5-11-DR100-UNV-LR63-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397243
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-12)
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-DR100-UNV-LR63-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1723.3 lumens
Efficiency: N/A
Efficacy: 8.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')
CIE Type: Direct

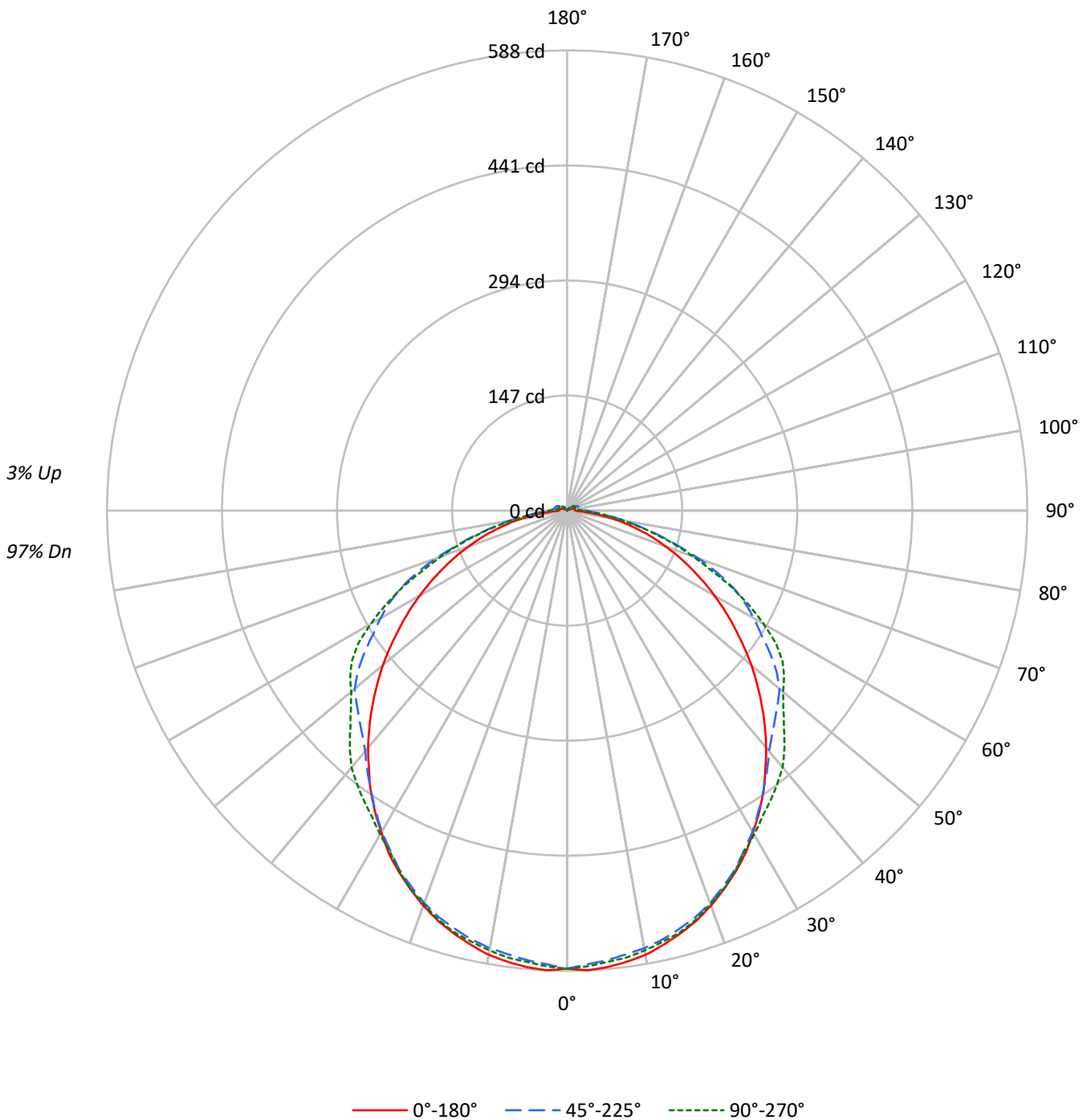
Input Watts (W): 213.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3024	3024	3024
5°	3027	2924	2918
10°	3003	2846	2828
15°	2960	2765	2739
20°	2911	2677	2625
25°	2850	2572	2506
30°	2769	2452	2391
35°	2684	2327	2315
40°	2582	2216	2258
45°	2472	2172	2147
50°	2358	2167	2072
55°	2229	2068	2050
60°	2102	1953	1899
65°	1964	1833	1653
70°	1818	1562	1349
75°	1654	1216	1042
80°	1421	890	736
85°	1005	589	474



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.1	3.2
10°-20°	156.9	9.1
20°-30°	233.7	13.6
30°-40°	276.5	16.0
40°-50°	288.8	16.8
50°-60°	271.7	15.8
60°-70°	217.9	12.6
70°-80°	126.5	7.3
80°-90°	45.0	2.6
90°-100°	17.6	1.0
100°-110°	13.2	0.8
110°-120°	10.0	0.6
120°-130°	6.2	0.4
130°-140°	3.0	0.2
140°-150°	1.0	0.1
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	445.8	25.9
0°-40°	722.3	41.9
0°-60°	1282.8	74.4
0°-90°	1672.2	97.0
90°-120°	40.9	2.4
90°-150°	51.0	3.0
90°-180°	51.0	3.0
0°-180°	1723.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	586	583	577	580	579	56
15°	559	555	554	559	558	158
25°	509	506	507	510	508	234
35°	438	437	437	447	453	273
45°	352	354	376	394	392	271
55°	262	275	316	328	336	234
65°	174	217	235	233	232	173
75°	95	130	121	119	117	101
85°	25	40	40	39	38	28
90°	10	22	24	23	21	6
95°	10	16	18	16	14	8
105°	8	12	16	13	11	9
115°	4	8	14	12	10	4
125°	2	3	9	10	9	2
135°	1	1	4	7	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°	585.3	585.3	585.3	585.3	585.3
2.5°	588.0	584.9	580.3	584.5	583.0
5°	585.7	582.6	576.8	579.7	579.0
7.5°	581.6	577.4	572.1	576.8	576.3
10°	576.5	571.7	567.8	572.1	570.7
12.5°	568.2	564.4	561.5	566.7	564.4
15°	559.4	555.2	553.5	559.2	557.7
17.5°	549.3	546.0	544.8	547.9	548.1
20°	537.2	534.7	533.7	537.9	535.3
22.5°	523.4	519.9	520.1	524.5	523.2
25°	509.2	506.3	506.7	510.2	508.0
27.5°	493.7	490.4	489.5	493.3	491.0
30°	474.9	474.3	473.6	476.8	478.0
32.5°	456.7	456.5	455.2	459.6	464.0
35°	437.5	436.8	437.1	446.7	452.7
37.5°	416.1	416.8	419.3	434.8	440.8
40°	395.6	395.9	401.3	424.5	428.5
42.5°	373.9	374.3	387.5	412.0	411.1
45°	351.9	353.8	375.8	394.4	391.7
47.5°	329.2	332.7	364.9	374.7	374.9
50°	307.4	312.0	354.4	356.8	360.1
52.5°	284.2	293.2	336.9	340.0	349.4
55°	261.6	274.6	316.2	327.7	336.0
57.5°	239.4	258.5	293.8	312.0	316.6
60°	217.5	244.0	275.4	290.3	289.8
62.5°	195.9	230.2	256.2	263.1	262.0
65°	174.4	217.1	234.8	233.2	231.9
67.5°	154.5	199.1	207.6	200.8	198.7
70°	133.6	177.3	178.4	171.5	171.1
72.5°	114.8	153.9	147.6	144.3	144.5
75°	95.2	130.5	120.9	118.6	117.1
77.5°	76.8	104.8	95.4	94.9	94.1
80°	58.6	80.7	74.7	72.8	71.5
82.5°	40.8	58.3	54.6	54.6	53.7
85°	24.7	40.4	39.9	39.1	38.5
87.5°	13.8	27.8	29.9	29.1	27.4
90°	10.0	21.5	24.0	22.6	21.3
92.5°	10.0	18.2	20.1	18.4	16.9
95°	10.2	15.9	17.8	15.7	14.2
97.5°	10.2	14.6	16.7	14.2	12.8
100°	9.8	13.6	16.1	13.4	11.7
102.5°	9.2	12.8	15.7	13.0	11.3
105°	8.4	11.9	15.7	12.8	11.1
107.5°	7.3	11.1	15.3	12.8	10.9
110°	6.3	10.0	15.1	12.5	10.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.4	8.8	14.4	12.3	10.7
115°	4.4	7.5	13.6	12.1	10.4
117.5°	3.6	6.3	12.5	11.7	10.2
120°	2.9	5.0	11.3	11.1	10.0
122.5°	2.1	3.8	10.2	10.7	9.8
125°	1.7	2.9	9.0	9.8	9.4
127.5°	1.5	1.9	7.7	9.2	9.0
130°	1.0	1.2	6.5	8.4	8.4
132.5°	0.8	0.8	5.2	7.5	7.7
135°	0.8	0.6	4.2	6.7	6.9
137.5°	0.6	0.6	3.3	5.6	6.1
140°	0.4	0.4	2.3	4.6	5.2
142.5°	0.4	0.4	1.5	3.8	4.2
145°	0.4	0.4	0.8	2.9	3.3
147.5°	0.4	0.2	0.4	2.1	2.5
150°	0.4	0.2	0.2	1.2	1.7
152.5°	0.2	0.2	0.2	0.6	1.0
155°	0.2	0.2	0.2	0.2	0.4
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)