

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: P397236

Luminaire Tested: **4VRVT2-LD5-11-DR-UNV-LG52-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397236
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-LG52-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8605.6 lumens
Efficiency: N/A
Efficacy: 43.9 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

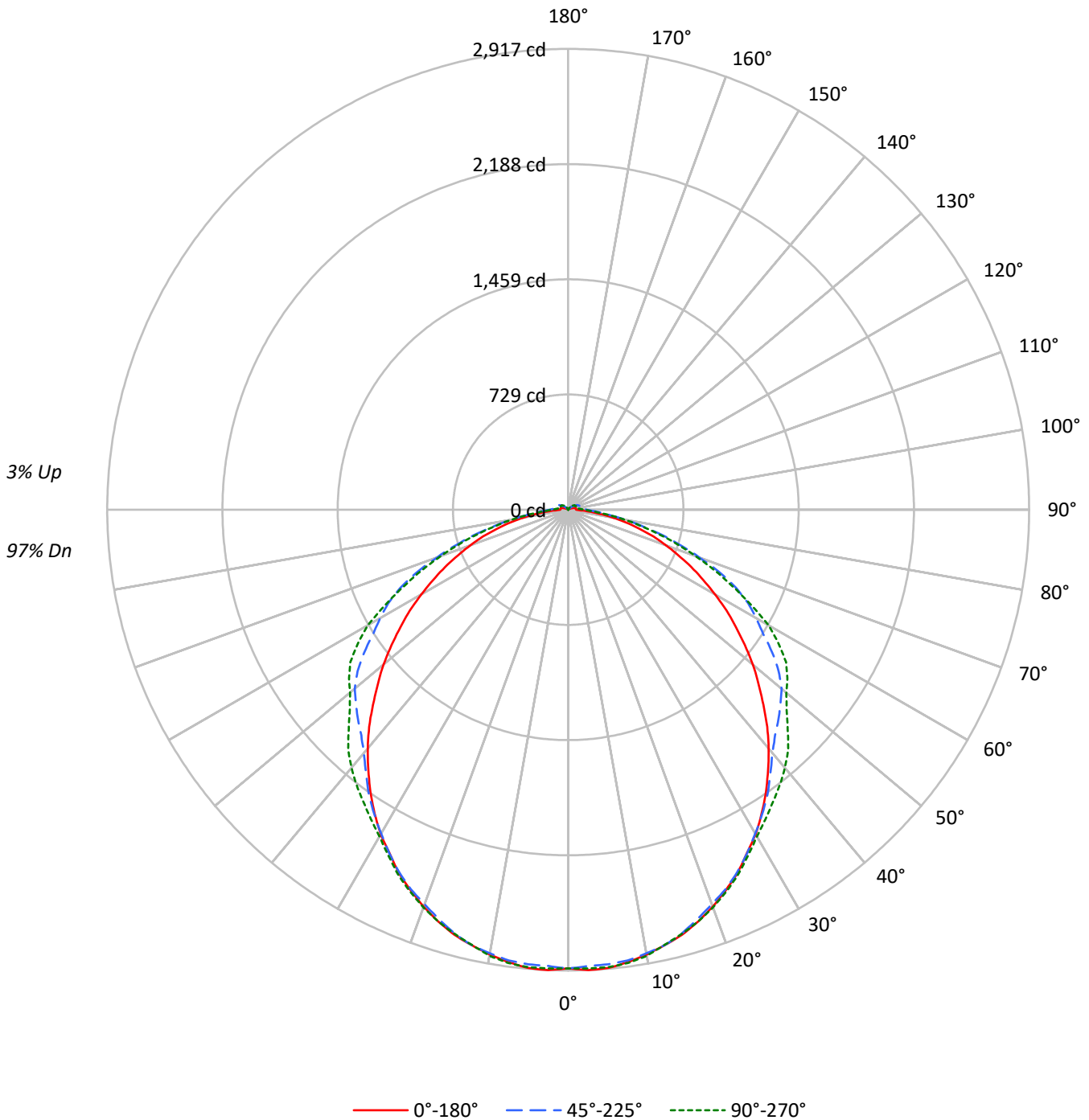
Input Watts (W): 196.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	15003	15003	15003
5°	15051	14641	14649
10°	14893	14295	14207
15°	14742	13874	13648
20°	14490	13328	13136
25°	14196	12850	12568
30°	13835	12256	11948
35°	13383	11706	11550
40°	12876	11097	11242
45°	12268	10868	10762
50°	11705	10780	10365
55°	11040	10308	10268
60°	10367	9736	9590
65°	9678	9158	8177
70°	8952	7737	6761
75°	8101	6140	5237
80°	6972	4386	3736
85°	5276	2978	2255



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.8	3.2
10°-20°	785.2	9.1
20°-30°	1170.3	13.6
30°-40°	1384.5	16.1
40°-50°	1441.4	16.7
50°-60°	1356.0	15.8
60°-70°	1086.5	12.6
70°-80°	631.2	7.3
80°-90°	222.6	2.6
90°-100°	86.0	1.0
100°-110°	65.4	0.8
110°-120°	49.7	0.6
120°-130°	30.3	0.4
130°-140°	14.8	0.2
140°-150°	4.8	0.1
150°-160°	0.7	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	2231.2	25.9
0°-40°	3615.7	42.0
0°-60°	6413.0	74.5
0°-90°	8353.4	97.1
90°-120°	201.1	2.3
90°-150°	251.0	2.9
90°-180°	252.0	2.9
0°-180°	8605.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2904	2904	2904	2904	2904	
5°	2912	2900	2888	2913	2907	276
15°	2786	2795	2777	2782	2779	785
25°	2537	2545	2532	2550	2547	1167
35°	2181	2186	2199	2237	2259	1363
45°	1746	1764	1880	1972	1964	1349
55°	1296	1372	1576	1644	1682	1160
65°	860	1075	1173	1163	1147	851
75°	466	646	611	597	589	496
85°	130	198	202	194	183	138
90°	49	107	116	110	102	30
95°	50	78	88	76	70	41
105°	41	59	77	64	54	43
115°	21	38	67	60	52	21
125°	8	14	44	49	47	8
135°	3	3	21	32	34	3
145°	2	1	4	14	17	1
155°	1	1	1	1	2	0
165°	1	1	1	1	0	0
175°	2	2	1	1	1	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2903.8	2903.8	2903.8	2903.8	2903.8
2.5°	2917.4	2906.9	2891.2	2912.2	2906.9
5°	2912.2	2899.6	2888.1	2913.2	2906.9
7.5°	2889.1	2887.0	2878.6	2899.6	2894.4
10°	2858.8	2865.1	2851.5	2868.2	2867.2
12.5°	2823.3	2839.0	2823.3	2827.4	2821.2
15°	2785.6	2795.0	2777.3	2782.5	2779.4
17.5°	2733.4	2747.0	2717.7	2743.8	2733.4
20°	2673.8	2687.4	2657.0	2686.2	2679.0
22.5°	2606.8	2619.4	2600.6	2621.4	2616.2
25°	2536.7	2545.1	2531.5	2550.3	2547.2
27.5°	2450.0	2469.8	2452.1	2475.0	2465.7
30°	2372.6	2379.9	2367.4	2395.6	2388.2
32.5°	2279.5	2284.7	2284.7	2309.8	2322.4
35°	2181.2	2186.5	2199.0	2236.6	2258.6
37.5°	2077.7	2089.2	2100.7	2175.0	2199.0
40°	1973.1	1981.5	2009.8	2117.4	2133.1
42.5°	1864.4	1872.8	1937.6	2055.8	2061.0
45°	1746.2	1764.0	1880.1	1972.1	1963.8
47.5°	1634.3	1656.3	1821.5	1865.4	1873.8
50°	1525.6	1550.7	1763.0	1779.7	1801.7
52.5°	1408.5	1456.6	1679.3	1702.3	1748.3
55°	1295.6	1371.9	1575.8	1643.8	1682.5
57.5°	1187.8	1287.2	1462.9	1568.5	1579.0
60°	1072.8	1215.0	1373.0	1462.9	1463.9
62.5°	963.0	1146.0	1284.1	1318.6	1303.9
65°	859.5	1075.0	1173.2	1162.8	1147.0
67.5°	753.9	983.9	1036.2	1013.2	1002.8
70°	657.7	885.7	883.6	863.7	857.4
72.5°	565.7	763.4	742.4	724.6	719.4
75°	466.4	646.2	610.6	597.0	588.7
77.5°	376.4	524.9	476.8	471.6	465.3
80°	287.5	400.5	368.1	369.1	362.9
82.5°	198.6	287.5	269.8	267.7	260.4
85°	129.7	197.6	201.8	194.5	183.0
87.5°	70.1	138.0	147.4	142.2	133.8
90°	49.1	106.6	116.1	109.8	102.5
92.5°	49.1	89.9	98.3	88.9	82.6
95°	50.2	78.4	87.8	76.3	70.1
97.5°	50.2	71.1	81.6	69.0	61.7
100°	48.1	67.0	79.4	65.8	58.6
102.5°	45.0	62.7	78.4	63.8	56.5
105°	40.8	58.6	77.4	63.8	54.4
107.5°	35.5	54.4	76.3	62.7	54.4
110°	30.3	49.1	74.2	62.7	53.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	26.2	43.9	71.1	61.7	53.4
115°	20.9	37.7	67.0	59.6	52.3
117.5°	16.7	31.4	61.7	57.5	51.2
120°	13.6	25.1	56.5	55.4	50.2
122.5°	10.5	18.8	50.2	52.3	48.1
125°	8.4	13.6	43.9	49.1	47.0
127.5°	6.2	9.4	37.7	46.0	43.9
130°	5.2	5.2	31.4	41.8	40.8
132.5°	4.2	4.2	26.2	37.7	38.7
135°	3.1	3.1	20.9	32.4	34.5
137.5°	3.1	2.1	15.7	28.2	30.3
140°	2.1	2.1	11.5	23.0	25.1
142.5°	2.1	2.1	7.3	18.8	20.9
145°	2.1	1.0	4.2	13.6	16.7
147.5°	2.1	1.0	2.1	9.4	12.6
150°	1.0	1.0	1.0	6.2	8.4
152.5°	1.0	1.0	1.0	3.1	4.2
155°	1.0	1.0	1.0	1.0	2.1
157.5°	1.0	1.0	1.0	1.0	0.0
160°	1.0	1.0	1.0	1.0	0.0
162.5°	1.0	1.0	1.0	1.0	0.0
165°	1.0	1.0	1.0	1.0	0.0
167.5°	2.1	1.0	1.0	1.0	0.0
170°	2.1	1.0	1.0	1.0	0.0
172.5°	2.1	2.1	1.0	1.0	0.0
175°	2.1	2.1	1.0	1.0	1.0
177.5°	2.1	2.1	1.0	1.0	1.0
180°	1.0	1.0	1.0	1.0	1.0

(END OF REPORT)