

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: P397251

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397251
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-16)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 4VRVT2-LD5-4-DR-UNV-LG52-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3312.9 lumens
Efficiency: N/A
Efficacy: 46.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.33
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')
CIE Type: Direct

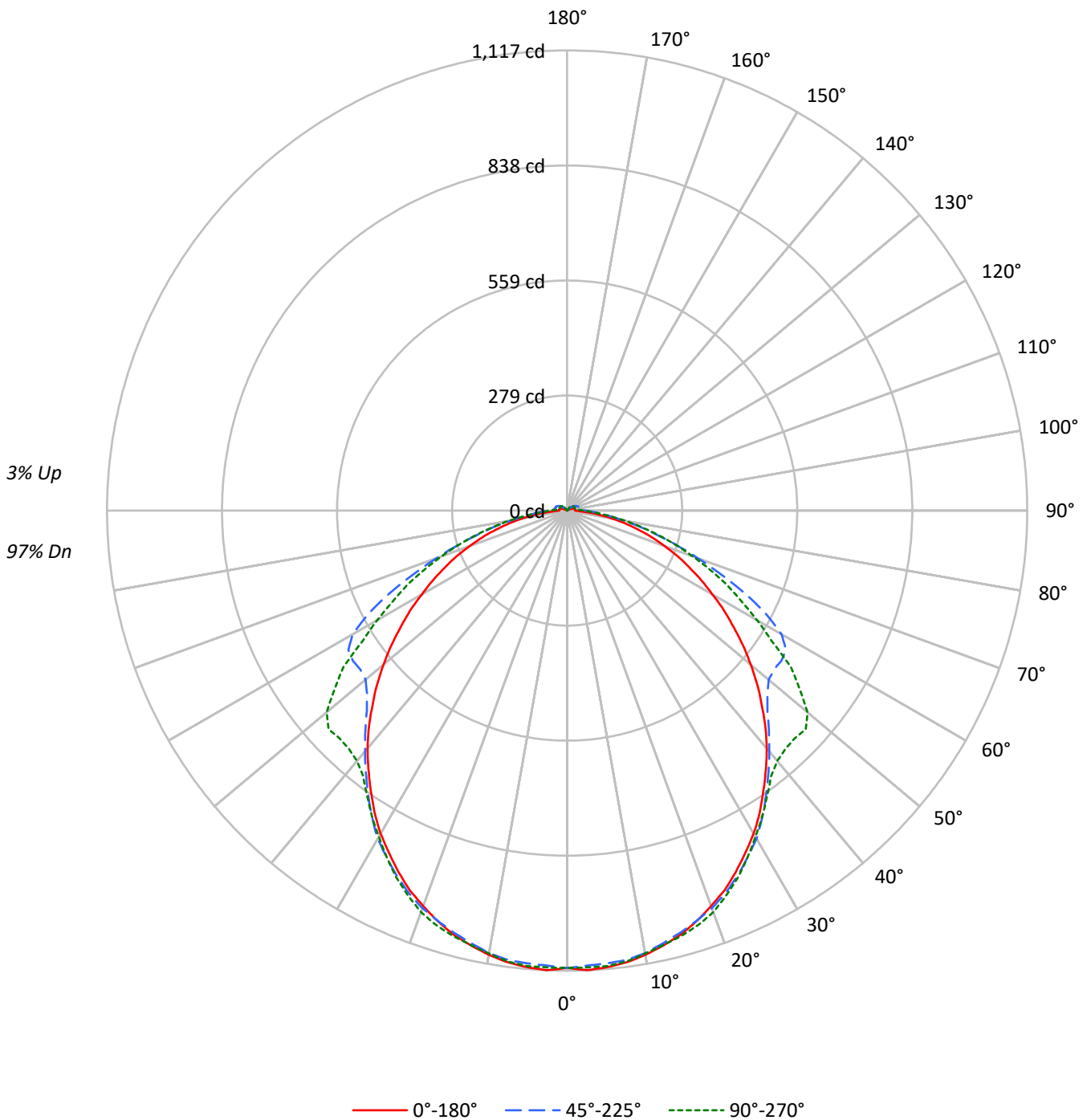
Input Watts (W): 71.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	80	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	55
4	81	69	60	53	79	67	59	53	64	57	51	62	56	50	59	54	49	47
5	75	61	52	46	72	60	52	45	58	50	44	55	49	44	53	47	43	41
6	69	55	46	40	67	54	46	39	52	44	39	50	43	38	48	42	38	35
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	38	32	27	37	31	27	25
10	52	39	31	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5737	5737	5737
5°	5750	5594	5593
10°	5704	5467	5409
15°	5638	5298	5250
20°	5536	5152	5085
25°	5418	4966	4845
30°	5281	4760	4574
35°	5097	4482	4327
40°	4919	4215	4182
45°	4695	3974	4283
50°	4462	3906	4382
55°	4204	4155	4049
60°	3937	4261	3488
65°	3690	3718	3056
70°	3427	2949	2554
75°	3102	2252	2030
80°	2673	1637	1480
85°	2042	1167	943



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.4	3.2
10°-20°	301.1	9.1
20°-30°	450.0	13.6
30°-40°	527.2	15.9
40°-50°	551.7	16.7
50°-60°	533.6	16.1
60°-70°	414.8	12.5
70°-80°	244.7	7.4
80°-90°	88.2	2.7
90°-100°	32.9	1.0
100°-110°	24.7	0.7
110°-120°	19.1	0.6
120°-130°	12.1	0.4
130°-140°	6.3	0.2
140°-150°	1.2	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	856.4	25.9
0°-40°	1383.6	41.8
0°-60°	2468.9	74.5
0°-90°	3216.6	97.1
90°-120°	76.6	2.3
90°-150°	96.3	2.9
90°-180°	96.0	2.9
0°-180°	3312.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1110	1110	1110	1110	1110	
5°	1112	1107	1103	1113	1110	106
15°	1065	1069	1061	1073	1069	300
25°	968	972	978	986	982	446
35°	831	841	842	847	846	520
45°	668	680	687	753	782	516
55°	493	511	635	677	663	442
65°	328	394	476	426	429	326
75°	179	267	224	227	228	190
85°	50	79	79	79	76	54
90°	19	41	45	43	41	12
95°	20	30	33	29	26	16
105°	16	24	29	23	20	17
115°	8	16	26	22	19	8
125°	3	6	18	19	18	3
135°	2	1	9	14	14	1
145°	0	0	0	0	0	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°	1110.3	1110.3	1110.3	1110.3	1110.3
2.5°	1116.7	1111.4	1105.5	1112.5	1109.8
5°	1112.5	1107.1	1103.4	1113.0	1109.8
7.5°	1106.1	1102.3	1100.2	1108.2	1103.9
10°	1094.8	1093.2	1090.6	1098.6	1091.6
12.5°	1081.0	1082.6	1075.6	1084.6	1080.4
15°	1065.4	1068.6	1060.6	1073.4	1069.2
17.5°	1045.1	1048.9	1044.1	1060.1	1055.3
20°	1021.6	1023.8	1027.0	1038.2	1037.1
22.5°	997.5	999.1	1004.5	1013.0	1010.4
25°	968.2	972.4	978.3	985.8	982.0
27.5°	936.6	943.0	948.9	954.8	948.3
30°	905.6	908.8	919.5	919.0	914.2
32.5°	869.8	877.8	882.1	880.5	881.0
35°	830.7	841.4	842.0	846.8	846.2
37.5°	792.2	804.0	802.4	811.5	813.1
40°	753.8	761.8	763.4	779.4	793.4
42.5°	712.6	720.6	724.9	758.6	784.2
45°	668.2	680.0	687.4	753.2	781.6
47.5°	626.6	637.2	658.6	753.2	785.3
50°	581.6	594.5	638.8	751.6	761.8
52.5°	538.3	551.1	633.0	728.6	711.0
55°	493.4	510.6	635.1	677.3	663.4
57.5°	451.8	475.8	629.8	615.8	588.1
60°	407.4	442.6	600.9	547.4	532.5
62.5°	368.3	415.9	545.3	482.2	476.9
65°	327.7	394.0	476.3	425.5	428.7
67.5°	290.8	374.2	404.2	373.7	375.8
70°	251.8	350.7	336.8	324.5	323.9
72.5°	215.4	317.0	278.0	274.2	275.8
75°	178.6	266.7	224.0	226.6	228.2
77.5°	144.9	215.4	179.6	182.8	182.8
80°	110.2	160.9	137.4	143.3	143.8
82.5°	79.1	115.0	104.8	108.0	105.3
85°	50.2	79.1	79.1	78.6	76.5
87.5°	28.3	54.6	57.8	57.2	54.6
90°	19.3	41.2	45.4	43.3	40.6
92.5°	19.3	34.7	37.9	34.2	31.5
95°	19.8	29.9	33.1	28.9	25.7
97.5°	19.3	27.8	31.0	25.7	22.5
100°	18.7	25.7	29.9	24.1	20.9
102.5°	17.7	24.6	29.4	23.0	19.8
105°	16.0	23.5	28.9	23.0	19.8
107.5°	13.9	21.9	28.9	23.0	19.8
110°	12.3	19.8	28.3	22.5	19.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	10.2	17.7	27.3	22.5	19.3
115°	8.0	15.5	25.7	21.9	19.3
117.5°	7.0	12.8	24.1	21.9	19.3
120°	5.4	10.7	22.5	20.9	18.7
122.5°	4.2	8.0	20.3	20.3	18.2
125°	3.2	5.9	17.7	19.3	18.2
127.5°	2.6	4.2	15.5	18.2	17.7
130°	2.2	2.6	13.4	17.1	16.6
132.5°	1.6	1.6	11.2	15.5	15.5
135°	1.6	1.0	9.1	13.9	14.4
137.5°	1.0	1.0	7.0	11.8	12.8
140°	1.0	1.0	5.4	10.2	11.2
142.5°	1.0	1.0	3.8	8.0	9.1
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	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)