

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: P397250

Luminaire Tested: **4VRVT2-LD5-4-DR-UNV-LA59-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397250
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-LA59-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1159.5 lumens
Efficiency: N/A
Efficacy: 25.4 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

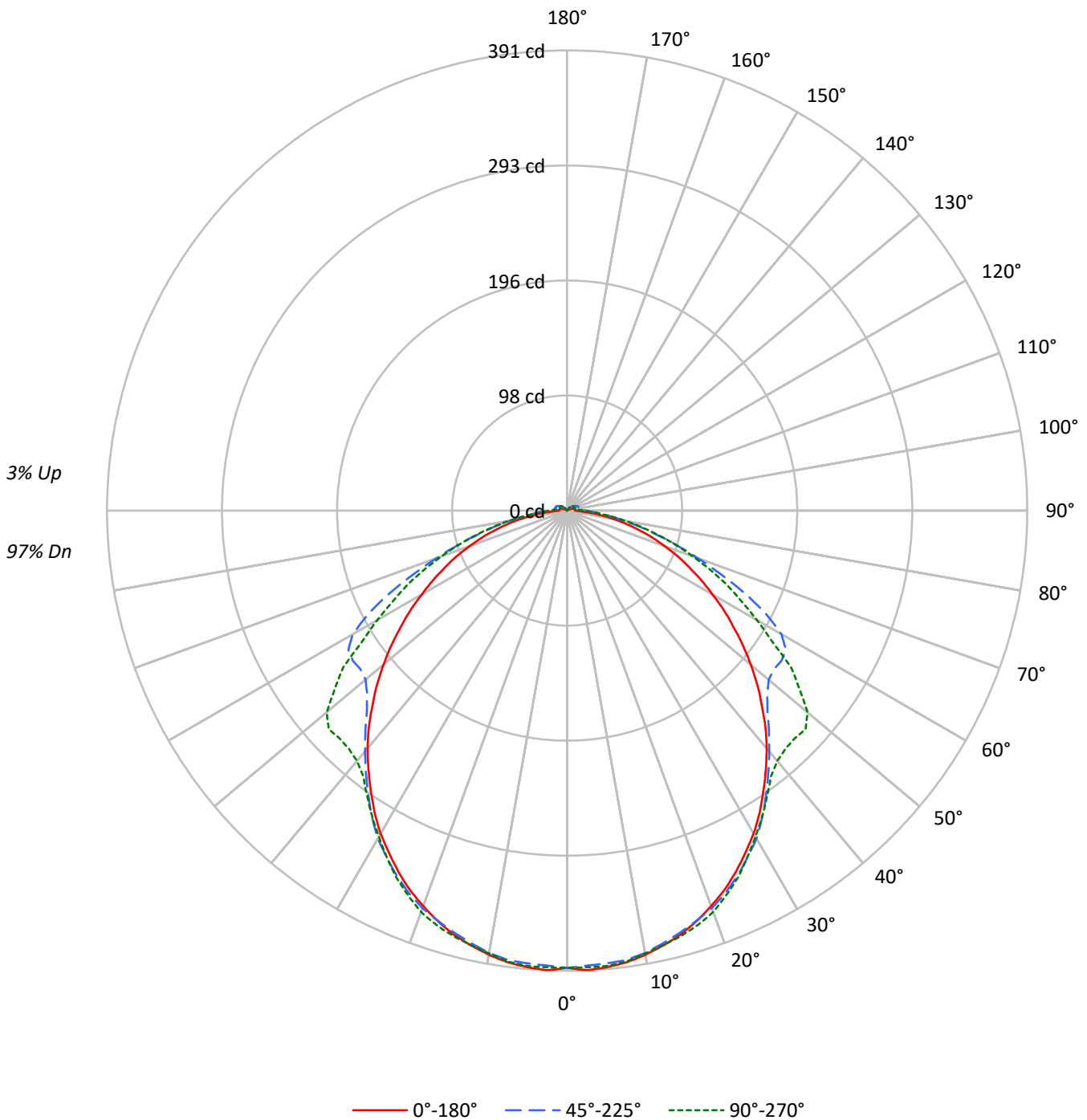
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2008	2008	2008
5°	2013	1958	1957
10°	1996	1913	1893
15°	1973	1854	1837
20°	1938	1803	1780
25°	1897	1738	1696
30°	1849	1666	1601
35°	1784	1569	1515
40°	1721	1475	1464
45°	1643	1391	1499
50°	1562	1367	1534
55°	1472	1454	1417
60°	1378	1491	1221
65°	1291	1301	1070
70°	1199	1032	894
75°	1086	788	711
80°	936	573	518
85°	716	409	330



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.9	3.2
10°-20°	105.4	9.1
20°-30°	157.5	13.6
30°-40°	184.5	15.9
40°-50°	193.1	16.7
50°-60°	186.7	16.1
60°-70°	145.2	12.5
70°-80°	85.7	7.4
80°-90°	30.9	2.7
90°-100°	11.5	1.0
100°-110°	8.6	0.7
110°-120°	6.7	0.6
120°-130°	4.3	0.4
130°-140°	2.2	0.2
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°	299.7	25.9
0°-40°	484.3	41.8
0°-60°	864.1	74.5
0°-90°	1125.8	97.1
90°-120°	26.8	2.3
90°-150°	33.7	2.9
90°-180°	34.0	2.9
0°-180°	1159.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	389	389	389	389	389	
5°	389	388	386	390	388	37
15°	373	374	371	376	374	105
25°	339	340	342	345	344	156
35°	291	294	295	296	296	182
45°	234	238	241	264	274	181
55°	173	179	222	237	232	155
65°	115	138	167	149	150	114
75°	62	93	78	79	80	66
85°	18	28	28	28	27	19
90°	7	14	16	15	14	4
95°	7	10	12	10	9	6
105°	6	8	10	8	7	6
115°	3	5	9	8	7	3
125°	1	2	6	7	6	1
135°	1	0	3	5	5	0
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°	388.6	388.6	388.6	388.6	388.6
2.5°	390.9	389.0	386.9	389.4	388.4
5°	389.4	387.5	386.2	389.6	388.4
7.5°	387.1	385.8	385.1	387.9	386.4
10°	383.2	382.6	381.7	384.5	382.1
12.5°	378.3	378.9	376.5	379.6	378.1
15°	372.9	374.0	371.2	375.7	374.2
17.5°	365.8	367.1	365.4	371.0	369.3
20°	357.6	358.3	359.4	363.4	363.0
22.5°	349.1	349.7	351.6	354.6	353.6
25°	338.9	340.3	342.4	345.0	343.7
27.5°	327.8	330.1	332.1	334.2	331.9
30°	317.0	318.1	321.8	321.6	320.0
32.5°	304.4	307.2	308.7	308.2	308.3
35°	290.8	294.5	294.7	296.4	296.2
37.5°	277.3	281.4	280.8	284.0	284.6
40°	263.8	266.6	267.2	272.8	277.7
42.5°	249.4	252.2	253.7	265.5	274.5
45°	233.9	238.0	240.6	263.6	273.6
47.5°	219.3	223.0	230.5	263.6	274.8
50°	203.6	208.1	223.6	263.1	266.6
52.5°	188.4	192.9	221.5	255.0	248.8
55°	172.7	178.7	222.3	237.0	232.2
57.5°	158.1	166.5	220.4	215.5	205.8
60°	142.6	154.9	210.3	191.6	186.4
62.5°	128.9	145.6	190.8	168.8	166.9
65°	114.7	137.9	166.7	148.9	150.1
67.5°	101.8	131.0	141.5	130.8	131.5
70°	88.1	122.8	117.9	113.6	113.4
72.5°	75.4	111.0	97.3	96.0	96.5
75°	62.5	93.4	78.4	79.3	79.9
77.5°	50.7	75.4	62.9	64.0	64.0
80°	38.6	56.3	48.1	50.1	50.3
82.5°	27.7	40.2	36.7	37.8	36.8
85°	17.6	27.7	27.7	27.5	26.8
87.5°	9.9	19.1	20.2	20.0	19.1
90°	6.7	14.4	15.9	15.1	14.2
92.5°	6.7	12.2	13.3	12.0	11.0
95°	6.9	10.5	11.6	10.1	9.0
97.5°	6.7	9.7	10.9	9.0	7.9
100°	6.6	9.0	10.5	8.4	7.3
102.5°	6.2	8.6	10.3	8.0	6.9
105°	5.6	8.2	10.1	8.0	6.9
107.5°	4.9	7.7	10.1	8.0	6.9
110°	4.3	6.9	9.9	7.9	6.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.6	6.2	9.5	7.9	6.7
115°	2.8	5.4	9.0	7.7	6.7
117.5°	2.4	4.5	8.4	7.7	6.7
120°	1.9	3.8	7.9	7.3	6.6
122.5°	1.5	2.8	7.1	7.1	6.4
125°	1.1	2.1	6.2	6.7	6.4
127.5°	0.9	1.5	5.4	6.4	6.2
130°	0.8	0.9	4.7	6.0	5.8
132.5°	0.6	0.6	3.9	5.4	5.4
135°	0.6	0.4	3.2	4.9	5.0
137.5°	0.4	0.4	2.4	4.1	4.5
140°	0.4	0.4	1.9	3.6	3.9
142.5°	0.4	0.4	1.3	2.8	3.2
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)