

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: P397256

Luminaire Tested: **4VRVT2-LD5-4-DR100-UNV-LA59-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397256
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-17)
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-DR100-UNV-LA59-CD1-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1160.3 lumens
Efficiency: N/A
Efficacy: 25.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.21 / 1.32
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')
CIE Type: Direct

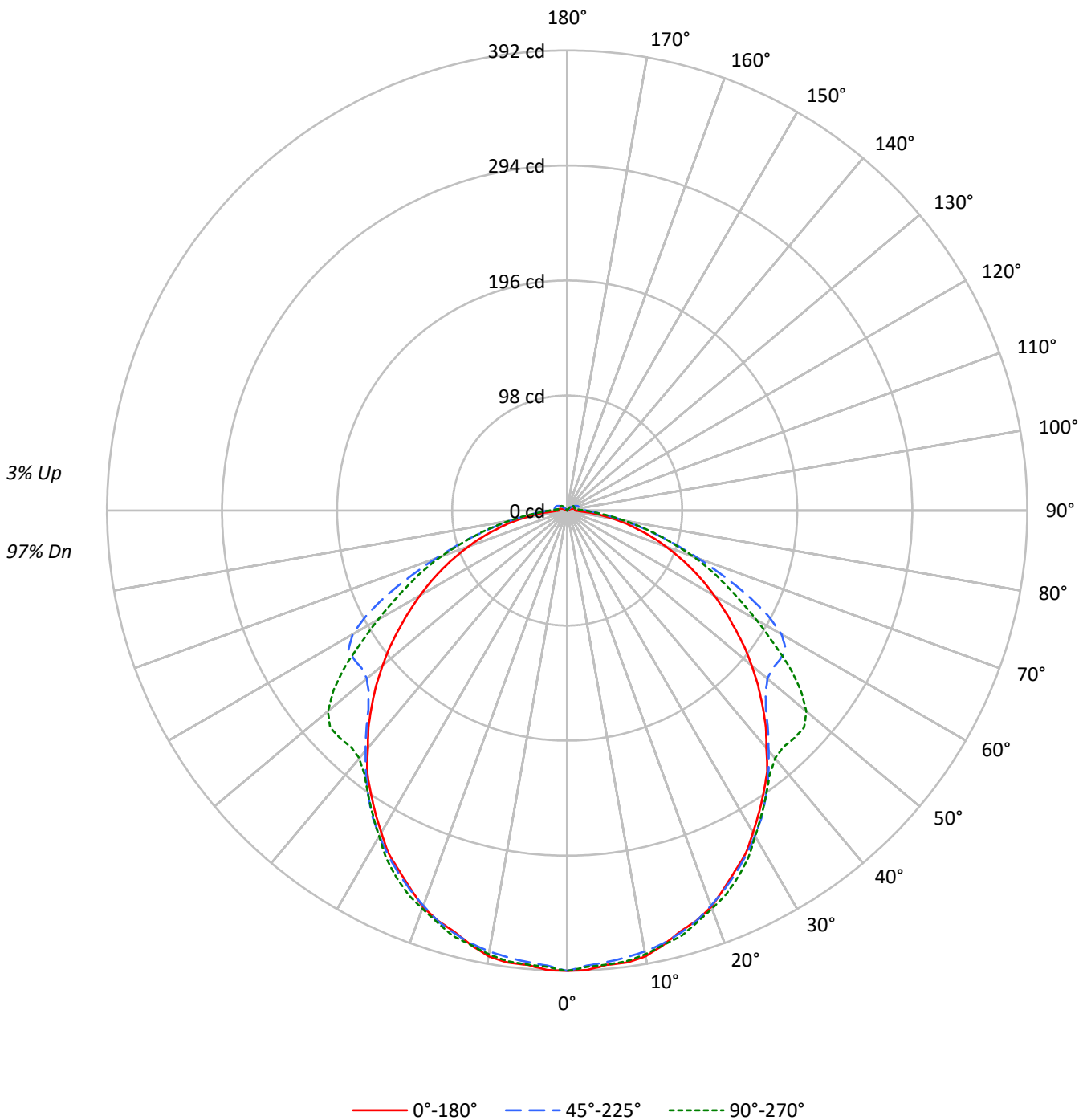
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	100	96	92	95	92	89	91	88	86	87	84	82	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	69	64	59	67	62	58	55
4	81	69	60	53	79	67	59	53	64	57	51	62	55	50	59	54	49	47
5	74	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°	2026	2026	2026
5°	2008	1957	1956
10°	2008	1912	1902
15°	1965	1861	1843
20°	1947	1797	1769
25°	1895	1727	1699
30°	1847	1656	1603
35°	1792	1574	1512
40°	1723	1474	1452
45°	1653	1384	1501
50°	1574	1362	1530
55°	1483	1448	1407
60°	1399	1496	1219
65°	1314	1313	1057
70°	1220	1037	900
75°	1098	795	707
80°	958	575	506
85°	708	406	332



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.9	3.2
10°-20°	105.3	9.1
20°-30°	157.4	13.6
30°-40°	184.4	15.9
40°-50°	192.6	16.6
50°-60°	187.1	16.1
60°-70°	145.6	12.5
70°-80°	85.7	7.4
80°-90°	31.0	2.7
90°-100°	11.8	1.0
100°-110°	8.7	0.8
110°-120°	6.8	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	25.8
0°-40°	484.0	41.7
0°-60°	863.8	74.4
0°-90°	1126.1	97.0
90°-120°	27.3	2.4
90°-150°	34.3	3.0
90°-180°	34.0	2.9
0°-180°	1160.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	392	392	392	392	392	
5°	388	387	386	389	388	37
15°	371	372	372	376	375	105
25°	339	341	340	345	344	156
35°	292	294	296	296	296	183
45°	235	238	240	262	274	182
55°	174	179	221	238	230	156
65°	117	138	168	148	148	116
75°	63	94	79	79	80	67
85°	17	28	28	27	27	19
90°	7	15	16	15	15	4
95°	7	11	12	10	9	6
105°	6	8	10	8	7	6
115°	3	6	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°	392.1	392.1	392.1	392.1	392.1
2.5°	391.7	390.0	388.0	390.2	389.1
5°	388.5	387.4	386.1	388.7	388.2
7.5°	388.4	385.9	384.0	387.4	387.2
10°	385.5	382.4	381.4	385.0	383.9
12.5°	379.0	377.5	377.7	381.6	379.0
15°	371.3	372.5	372.5	375.8	375.3
17.5°	366.3	366.3	366.5	368.7	367.8
20°	359.2	358.8	358.2	362.0	360.8
22.5°	348.7	350.2	349.6	354.7	353.9
25°	338.6	341.4	340.3	344.6	344.4
27.5°	329.4	330.9	330.7	334.3	333.9
30°	316.7	319.1	319.9	322.1	320.4
32.5°	304.4	306.8	308.8	308.8	307.9
35°	292.0	294.1	295.6	295.8	295.6
37.5°	280.0	280.2	281.7	281.7	283.4
40°	264.1	266.4	267.0	271.2	275.5
42.5°	250.5	251.8	253.1	264.1	272.9
45°	235.3	237.6	239.5	261.7	273.9
47.5°	220.6	222.4	229.2	262.6	273.7
50°	205.2	207.8	222.8	263.6	266.0
52.5°	190.1	193.6	220.6	255.3	250.5
55°	174.0	179.4	221.3	238.5	230.5
57.5°	159.2	167.0	220.9	216.4	206.7
60°	144.8	156.0	211.0	191.4	186.1
62.5°	130.6	146.7	192.1	168.9	166.1
65°	116.7	138.2	168.2	148.3	148.3
67.5°	102.9	131.5	142.0	130.0	131.9
70°	89.6	123.5	118.4	111.7	114.1
72.5°	76.3	111.1	97.8	95.4	96.0
75°	63.2	93.9	79.1	78.6	79.5
77.5°	51.8	74.8	62.1	64.0	64.3
80°	39.5	56.3	48.3	50.0	49.2
82.5°	27.7	40.4	36.5	37.6	37.2
85°	17.4	28.1	27.5	27.3	26.9
87.5°	9.9	19.1	20.4	20.4	19.6
90°	6.9	14.6	16.3	15.3	15.0
92.5°	6.9	12.3	13.5	12.2	11.4
95°	7.1	10.7	11.8	10.3	9.4
97.5°	7.1	9.9	11.0	9.2	8.2
100°	6.9	9.2	10.7	8.4	7.5
102.5°	6.4	8.8	10.5	8.2	7.1
105°	5.8	8.2	10.3	8.0	6.9
107.5°	5.2	7.7	10.3	8.0	6.7
110°	4.5	7.1	10.1	8.0	6.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.8	6.4	9.7	7.9	6.7
115°	3.0	5.6	9.2	7.9	6.7
117.5°	2.4	4.7	8.6	7.7	6.7
120°	2.0	3.8	8.0	7.5	6.6
122.5°	1.5	3.0	7.1	7.1	6.6
125°	1.3	2.2	6.4	6.9	6.4
127.5°	0.9	1.5	5.6	6.4	6.2
130°	0.8	0.9	4.7	6.0	6.0
132.5°	0.6	0.6	3.9	5.4	5.6
135°	0.6	0.4	3.2	4.9	5.0
137.5°	0.4	0.4	2.4	4.1	4.7
140°	0.4	0.4	1.9	3.6	3.9
142.5°	0.4	0.4	1.3	2.8	3.4
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)