

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: P397463

Luminaire Tested: **VRVT4S-LD5-9-PCF-LA59-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P397463
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1801-511-7)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: VRVT4S-LD5-9-PCF-LA59-CD1-U
Description:
Light Source: -
Ballast/Driver: -

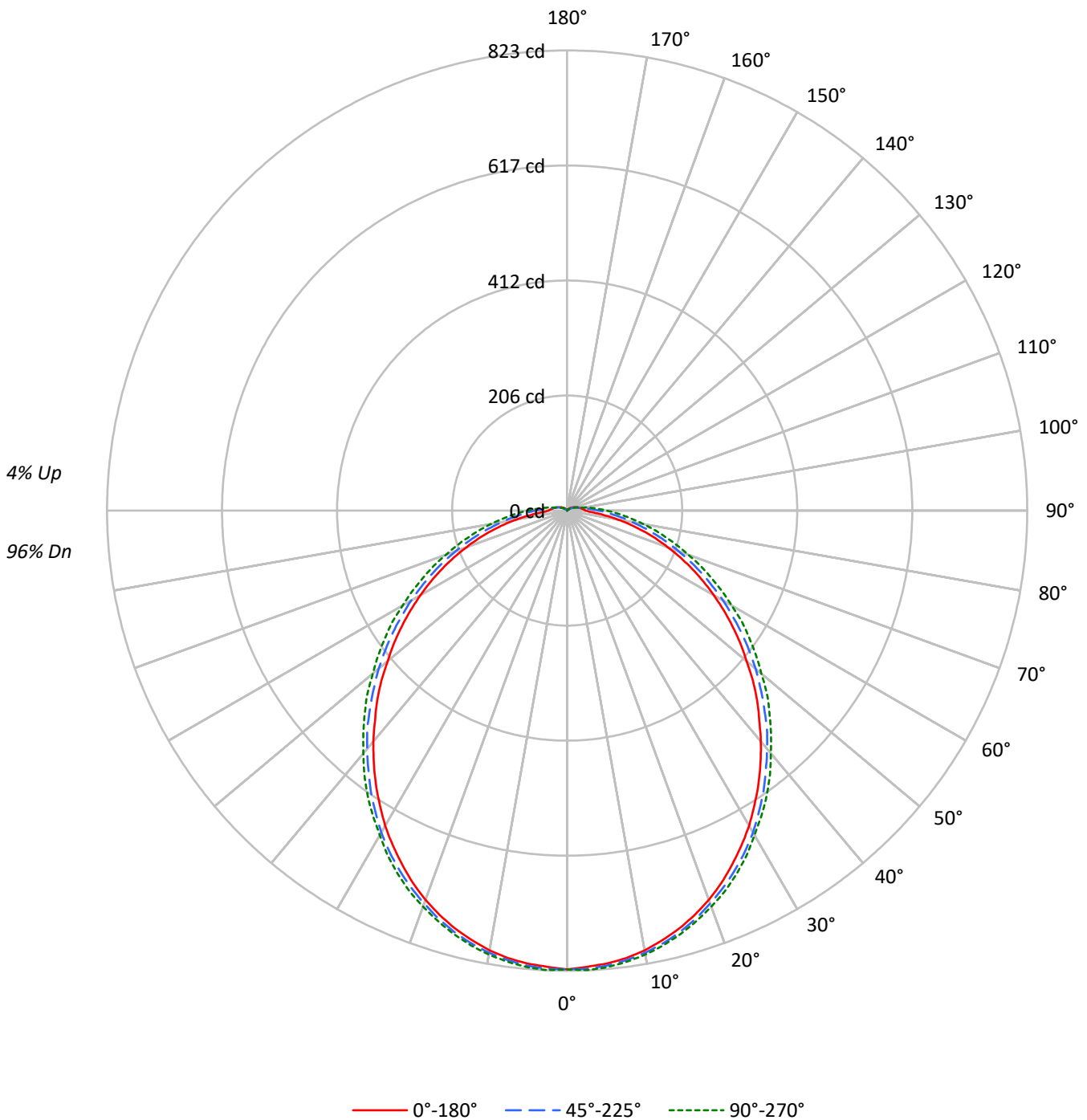
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2341.3 lumens
Efficiency: N/A
Efficacy: 24.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.32
Luminous Opening: Rectangular w/ Sides (W: 1.08' x L: 2.08' x H: 0.25')
CIE Type: Direct

Input Watts (W): 94.1
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	96
1	107	102	97	93	104	99	95	91	94	91	88	90	87	85	86	83	81	79
2	97	89	82	76	94	87	80	75	82	77	72	79	74	70	75	71	68	66
3	89	78	70	63	86	76	68	62	73	66	61	69	64	59	66	62	58	55
4	81	69	60	53	79	67	59	53	65	57	52	62	56	51	59	54	50	47
5	75	62	53	46	72	60	52	46	58	50	45	56	49	44	53	48	43	41
6	69	56	47	40	67	55	46	40	52	45	39	50	44	39	48	43	38	36
7	64	51	42	36	62	50	41	35	48	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	32	44	36	31	42	36	31	41	35	30	28
9	56	42	34	29	54	42	34	28	40	33	28	39	32	28	38	32	27	26
10	52	39	31	26	51	38	31	26	37	30	26	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3915	3915	3915
5°	3855	3831	3849
10°	3790	3728	3755
15°	3704	3613	3647
20°	3604	3483	3531
25°	3482	3349	3407
30°	3354	3203	3257
35°	3206	3038	3120
40°	3050	2868	2958
45°	2895	2692	2805
50°	2720	2520	2640
55°	2564	2337	2489
60°	2394	2151	2317
65°	2213	1960	2145
70°	2010	1759	1966
75°	1784	1551	1803
80°	1501	1354	1642
85°	1182	1180	1515



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.5	3.3
10°-20°	219.7	9.4
20°-30°	326.3	13.9
30°-40°	382.0	16.3
40°-50°	383.8	16.4
50°-60°	340.3	14.5
60°-70°	264.0	11.3
70°-80°	172.2	7.4
80°-90°	89.9	3.8
90°-100°	43.0	1.8
100°-110°	22.4	1.0
110°-120°	12.2	0.5
120°-130°	5.7	0.2
130°-140°	1.8	0.1
140°-150°	0.2	0.0
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	623.6	26.6
0°-40°	1005.5	42.9
0°-60°	1729.7	73.9
0°-90°	2255.9	96.3
90°-120°	77.6	3.3
90°-150°	85.3	3.6
90°-180°	85.0	3.6
0°-180°	2341.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	821	821	821	821	821	
5°	813	814	817	819	820	77
15°	774	776	780	783	784	218
25°	698	703	710	715	717	322
35°	597	603	612	620	622	373
45°	480	487	498	508	512	370
55°	361	368	380	393	398	323
65°	246	253	266	280	284	244
75°	140	147	162	177	182	149
85°	51	66	83	97	101	51
90°	33	43	57	67	70	19
95°	29	31	38	46	48	23
105°	21	20	21	21	22	22
115°	14	12	12	11	12	14
125°	9	7	5	5	6	8
135°	4	4	1	1	2	4
145°	1	1	0	0	0	1
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°	820.6	820.6	820.6	820.6	820.6
2.5°	816.7	817.8	820.0	822.3	822.6
5°	813.2	814.3	817.1	819.0	819.9
7.5°	807.3	808.4	811.0	813.6	813.9
10°	798.8	800.2	803.0	805.9	806.5
12.5°	787.1	789.4	792.8	795.5	796.2
15°	774.0	776.0	780.1	782.7	784.0
17.5°	758.4	760.8	765.2	768.3	769.7
20°	740.8	743.2	747.9	753.3	753.8
22.5°	720.9	724.8	729.8	735.0	737.1
25°	698.3	702.6	709.7	715.3	716.9
27.5°	675.2	679.4	688.2	693.9	695.1
30°	650.9	655.4	664.6	669.2	670.0
32.5°	623.7	628.9	638.8	645.1	646.7
35°	596.7	602.8	612.2	619.7	622.3
37.5°	568.1	574.9	584.0	593.5	595.6
40°	539.0	546.2	556.3	565.2	566.9
42.5°	508.7	516.5	529.1	536.2	539.6
45°	480.5	486.9	497.9	507.5	511.7
47.5°	450.7	457.2	468.6	480.0	484.7
50°	418.8	427.5	439.9	450.9	453.5
52.5°	390.6	398.9	409.8	422.0	426.0
55°	361.1	367.8	380.5	393.4	397.9
57.5°	331.9	339.0	350.7	363.8	370.6
60°	303.0	309.8	322.3	335.9	339.9
62.5°	274.9	281.9	293.2	308.0	312.0
65°	246.5	253.3	266.0	280.3	284.0
67.5°	219.0	225.4	238.5	253.7	258.2
70°	191.6	200.0	212.0	226.1	230.3
72.5°	165.8	173.2	186.9	201.2	206.1
75°	140.1	146.7	162.0	177.0	182.1
77.5°	115.9	124.4	139.4	155.7	159.8
80°	91.8	100.9	118.6	134.3	138.0
82.5°	70.0	81.7	99.8	115.3	117.6
85°	51.2	65.5	82.7	97.2	100.7
87.5°	38.5	52.4	69.3	81.4	84.5
90°	33.1	42.7	56.6	67.4	70.0
92.5°	30.8	35.5	46.5	56.1	57.8
95°	28.8	30.7	38.2	46.0	47.9
97.5°	26.7	27.4	32.1	37.6	39.2
100°	24.8	24.9	27.0	31.0	32.1
102.5°	22.8	22.3	23.2	25.3	26.1
105°	21.1	20.0	20.6	20.9	22.0
107.5°	19.3	17.8	18.1	17.8	18.3
110°	17.6	15.5	15.8	15.3	15.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	15.8	13.6	13.9	13.2	13.9
115°	14.3	11.8	12.0	11.3	12.2
117.5°	12.9	10.6	10.1	9.6	10.6
120°	11.3	9.2	8.4	8.0	9.2
122.5°	10.1	8.2	6.6	6.6	7.8
125°	8.7	7.1	5.0	5.2	6.4
127.5°	7.7	6.1	3.7	4.2	5.2
130°	6.6	5.2	2.3	3.1	4.2
132.5°	5.4	4.2	1.4	2.1	3.0
135°	4.5	3.5	0.9	1.0	1.9
137.5°	3.7	2.6	0.3	0.2	0.9
140°	2.8	1.9	0.2	0.0	0.0
142.5°	1.9	1.2	0.0	0.0	0.0
145°	1.2	0.7	0.0	0.0	0.0
147.5°	0.7	0.3	0.0	0.0	0.0
150°	0.3	0.2	0.0	0.0	0.0
152.5°	0.3	0.2	0.0	0.0	0.0
155°	0.3	0.3	0.0	0.0	0.0
157.5°	0.3	0.3	0.2	0.0	0.0
160°	0.3	0.3	0.2	0.0	0.0
162.5°	0.3	0.3	0.2	0.0	0.0
165°	0.3	0.3	0.2	0.0	0.0
167.5°	0.3	0.3	0.2	0.0	0.0
170°	0.3	0.3	0.2	0.0	0.0
172.5°	0.3	0.3	0.2	0.0	0.0
175°	0.5	0.3	0.2	0.0	0.0
177.5°	0.5	0.3	0.2	0.0	0.0
180°	0.2	0.2	0.2	0.2	0.2

(END OF REPORT)