

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: P397445

Luminaire Tested: **VRVT4S-LD5-18-DRF-LA59-CD2-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P397445
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1801-511-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: VRVT4S-LD5-18-DRF-LA59-CD2-U
Description:
Light Source: -
Ballast/Driver: -

Summary

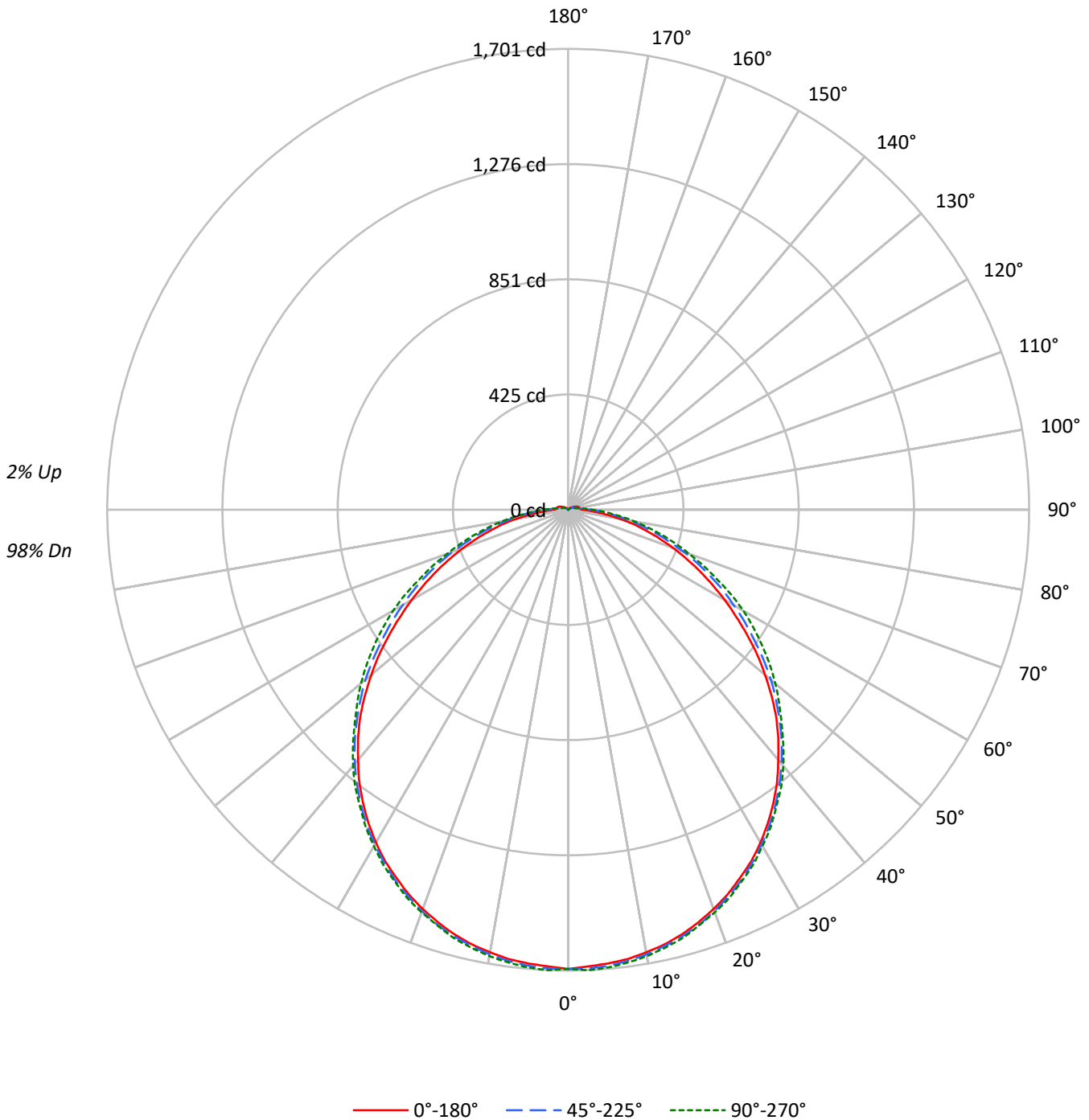
Lumens per Lamp: N/A
Luminaire Lumens: 4943.7 lumens
Efficiency: N/A
Efficacy: 23.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 1.08' x L: 2.08' x H: 0.25')
CIE Type: Direct

Input Watts (W): 210.4
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	110	110	110	105	105	105	100	100	100	98
1	108	103	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83	81
2	98	89	82	77	95	87	81	75	83	78	73	80	75	71	76	73	69	67
3	89	78	70	64	86	77	69	63	73	67	61	70	65	60	67	63	59	56
4	82	69	61	54	79	68	60	53	65	58	52	63	56	51	60	55	50	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	45	54	48	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	49	43	39	36
7	64	51	42	36	62	50	41	36	48	41	35	46	40	35	45	39	34	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	41	35	31	29
9	56	42	34	29	54	42	34	29	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8090	8090	8090
5°	7970	7921	7963
10°	7872	7737	7791
15°	7766	7547	7613
20°	7630	7343	7410
25°	7475	7124	7198
30°	7309	6877	6971
35°	7092	6611	6713
40°	6825	6312	6445
45°	6539	5967	6104
50°	6158	5597	5810
55°	5727	5149	5465
60°	5273	4713	5086
65°	4807	4262	4561
70°	4311	3752	4046
75°	3784	3196	3528
80°	3152	2623	2965
85°	2341	2038	2334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.5	3.2
10°-20°	459.5	9.3
20°-30°	694.9	14.1
30°-40°	832.4	16.8
40°-50°	850.2	17.2
50°-60°	752.7	15.2
60°-70°	570.6	11.5
70°-80°	351.7	7.1
80°-90°	155.6	3.1
90°-100°	55.9	1.1
100°-110°	30.0	0.6
110°-120°	17.9	0.4
120°-130°	8.2	0.2
130°-140°	2.6	0.1
140°-150°	0.5	0.0
150°-160°	0.2	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	1315.0	26.6
0°-40°	2147.4	43.4
0°-60°	3750.3	75.9
0°-90°	4828.2	97.7
90°-120°	103.8	2.1
90°-150°	115.0	2.3
90°-180°	116.0	2.3
0°-180°	4943.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1695	1695	1695	1695	1695	
5°	1681	1685	1690	1694	1696	160
15°	1623	1624	1629	1633	1636	458
25°	1499	1504	1510	1514	1514	691
35°	1320	1324	1332	1342	1339	825
45°	1085	1091	1104	1116	1113	835
55°	806	822	838	865	874	722
65°	535	549	578	601	604	531
75°	297	311	334	352	356	316
85°	101	121	143	155	155	103
90°	53	67	83	90	90	31
95°	44	44	48	53	52	35
105°	39	33	25	23	23	41
115°	26	21	16	14	15	26
125°	14	11	7	7	8	12
135°	6	5	2	2	3	5
145°	2	1	0	0	0	1
155°	1	1	1	0	0	0
165°	1	1	1	0	0	0
175°	1	1	1	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1695.4	1695.4	1695.4	1695.4	1695.4
2.5°	1687.1	1689.1	1694.4	1699.8	1701.4
5°	1681.4	1684.8	1689.7	1694.4	1696.1
7.5°	1673.1	1675.7	1680.1	1684.8	1686.1
10°	1659.1	1662.1	1666.7	1671.1	1673.4
12.5°	1643.4	1644.7	1649.1	1654.1	1655.4
15°	1622.7	1624.0	1629.4	1633.0	1636.4
17.5°	1597.0	1598.4	1606.4	1608.0	1608.4
20°	1568.3	1570.4	1576.7	1579.7	1582.0
22.5°	1537.0	1539.7	1544.6	1548.3	1551.6
25°	1499.3	1503.6	1509.6	1514.3	1514.3
27.5°	1462.9	1463.6	1469.3	1474.3	1477.6
30°	1418.6	1419.2	1426.9	1432.6	1433.9
32.5°	1371.6	1374.2	1382.2	1388.2	1389.9
35°	1319.8	1324.2	1332.2	1341.5	1338.8
37.5°	1266.1	1268.5	1279.8	1287.5	1290.5
40°	1206.1	1212.8	1224.4	1232.8	1235.1
42.5°	1147.4	1153.4	1166.1	1174.1	1175.1
45°	1085.4	1091.4	1103.7	1116.4	1113.4
47.5°	1018.3	1027.7	1040.0	1053.3	1055.7
50°	948.3	961.9	976.9	988.0	998.0
52.5°	879.6	890.6	907.9	927.6	936.9
55°	806.5	822.5	838.2	864.6	873.6
57.5°	734.1	753.5	772.8	801.8	809.8
60°	667.4	682.8	706.1	734.5	746.1
62.5°	599.4	617.1	643.1	669.1	677.1
65°	535.3	549.4	578.4	600.7	604.0
67.5°	471.0	487.6	515.0	538.4	539.7
70°	410.9	425.9	452.3	472.0	474.0
72.5°	352.9	368.2	390.6	410.6	414.6
75°	297.2	311.2	333.9	351.6	356.2
77.5°	247.8	258.2	278.2	298.2	299.9
80°	192.8	204.8	229.8	246.5	249.2
82.5°	146.7	161.1	183.5	198.5	199.1
85°	101.4	121.4	142.8	155.1	155.1
87.5°	70.1	91.1	110.1	118.4	119.4
90°	53.4	67.0	82.7	90.0	89.7
92.5°	46.4	52.7	62.7	68.7	67.7
95°	43.7	43.7	48.0	52.7	52.4
97.5°	42.4	39.7	38.0	41.0	40.7
100°	42.0	37.4	31.4	32.7	33.0
102.5°	41.0	35.4	27.4	27.0	27.4
105°	39.0	33.3	24.7	22.7	23.0
107.5°	36.3	30.7	22.7	20.0	20.4
110°	33.0	27.4	20.7	18.0	18.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	29.7	24.0	18.7	16.0	16.4
115°	25.7	20.7	16.4	14.0	14.7
117.5°	22.3	18.0	14.3	12.0	13.0
120°	19.0	15.7	11.7	10.0	11.3
122.5°	16.0	13.3	9.4	8.3	9.7
125°	13.7	11.0	7.3	6.7	8.0
127.5°	11.3	9.4	5.3	5.3	6.3
130°	9.4	7.7	3.3	4.0	5.0
132.5°	7.7	6.3	2.3	2.7	3.7
135°	6.0	5.0	1.7	1.7	2.7
137.5°	5.0	3.7	1.0	0.7	1.3
140°	3.7	2.7	0.7	0.0	0.3
142.5°	3.0	2.0	0.3	0.0	0.0
145°	2.0	1.3	0.3	0.0	0.0
147.5°	1.3	0.7	0.3	0.3	0.0
150°	0.7	0.7	0.3	0.3	0.0
152.5°	0.7	0.7	0.3	0.3	0.0
155°	0.7	0.7	0.7	0.3	0.0
157.5°	0.7	0.7	0.7	0.3	0.0
160°	0.7	0.7	0.7	0.3	0.3
162.5°	1.0	1.0	0.7	0.3	0.3
165°	1.0	1.0	0.7	0.3	0.3
167.5°	1.0	1.0	0.7	0.7	0.3
170°	1.0	1.0	0.7	0.3	0.3
172.5°	1.0	1.0	0.7	0.7	0.3
175°	1.0	1.0	1.0	0.7	0.3
177.5°	1.0	1.0	1.0	0.7	0.3
180°	1.0	1.0	1.0	1.0	1.0

(END OF REPORT)