

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: P397394

Luminaire Tested: **VRVT4LED-LD5-24-DRF-UNV-LA59-CD2-WL-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P397394
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-367-12)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: VRVT4LED-LD5-24-DRF-UNV-LA59-CD2-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

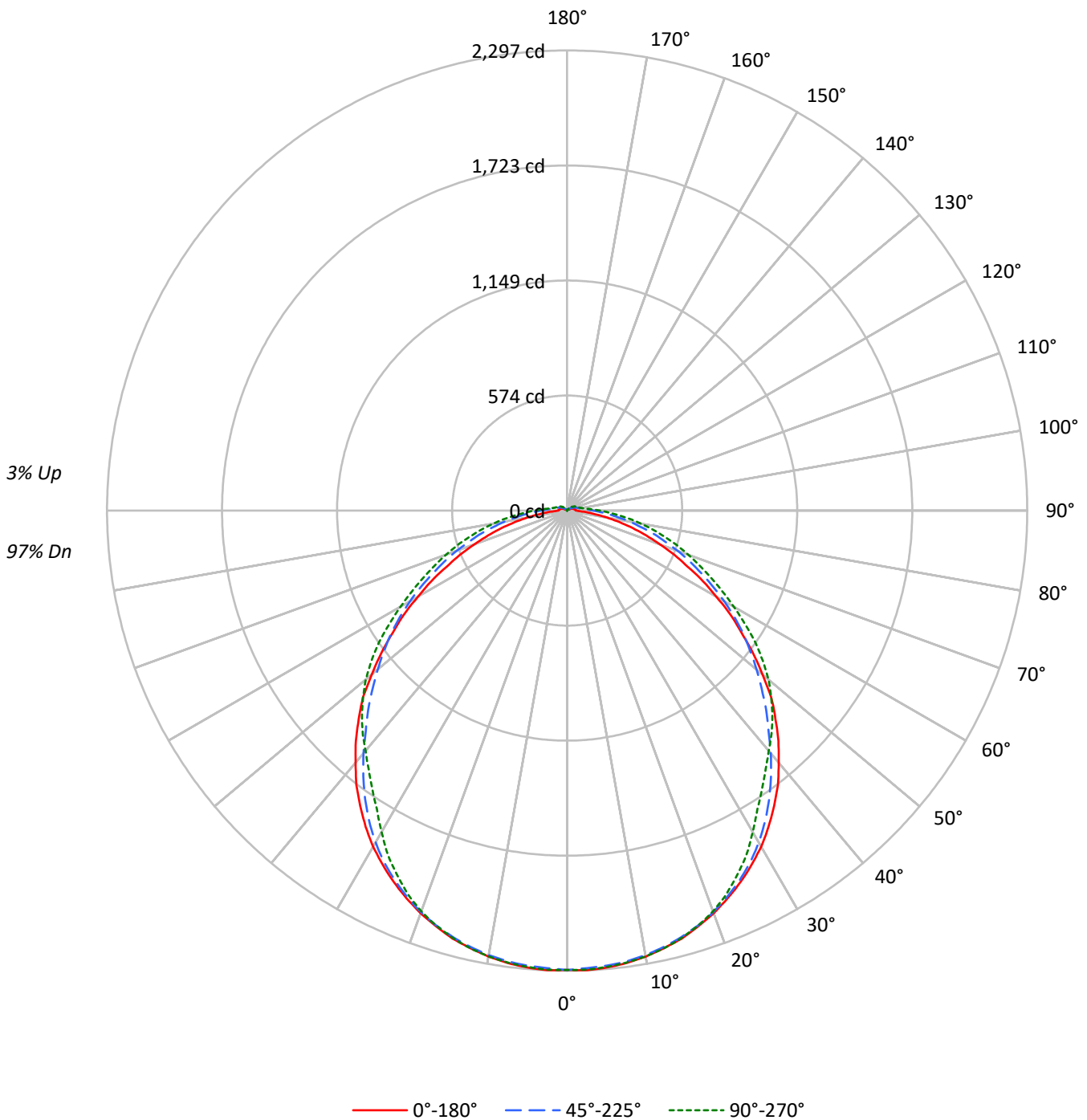
Lumens per Lamp: N/A
Luminaire Lumens: 6567.4 lumens
Efficiency: N/A
Efficacy: 24.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.2 / 1.32
Luminous Opening: Rectangular w/ Sides (W: 1.04' x L: 4.12' x H: 0.25')
CIE Type: Direct

Input Watts (W): 274.2
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

TEST NUMBER: P397394

CATALOG NUMBER: VRVT4LED-LD5-24-DRF-UNV-LA59-CD2-WL-U

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	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	99	99	99	99	99	99	97		
1	108	103	98	94	104	100	96	92	95	92	89	91	88	85	87	84	82	87	84	82	87	84	82	80		
2	98	89	82	77	95	87	81	75	83	78	73	79	75	71	76	72	69	76	72	69	76	72	69	67		
3	89	79	70	64	86	77	69	63	73	67	61	70	65	60	67	62	58	67	62	58	67	62	58	56		
4	82	70	61	54	79	68	60	54	65	58	52	62	56	51	60	55	50	60	55	50	60	55	50	48		
5	75	62	53	47	73	61	53	46	58	51	45	56	50	45	54	48	44	54	48	44	54	48	44	42		
6	69	56	47	41	67	55	47	40	53	45	40	51	44	39	49	43	39	49	43	39	49	43	39	37		
7	64	51	42	36	62	50	42	36	48	41	35	46	40	35	45	39	34	45	39	34	45	39	34	32		
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	41	35	31	41	35	31	41	35	31	29		
9	56	43	35	29	54	42	34	29	41	33	28	39	33	28	38	32	28	38	32	28	38	32	28	26		
10	53	39	32	26	51	39	31	26	38	31	26	36	30	26	35	30	25	35	30	25	35	30	25	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5744	5744	5744
5°	5726	5630	5631
10°	5689	5524	5513
15°	5644	5408	5381
20°	5579	5278	5221
25°	5502	5122	4992
30°	5414	4927	4706
35°	5283	4680	4440
40°	5112	4387	4261
45°	4913	4104	4138
50°	4627	3838	3975
55°	4270	3597	3728
60°	3898	3315	3399
65°	3488	3004	3097
70°	3087	2711	2841
75°	2674	2406	2566
80°	2171	2062	2270
85°	1627	1739	1950



TEST NUMBER: P397394

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.2	3.3
10°-20°	622.7	9.5
20°-30°	935.6	14.2
30°-40°	1096.9	16.7
40°-50°	1108.6	16.9
50°-60°	976.1	14.9
60°-70°	728.2	11.1
70°-80°	457.6	7.0
80°-90°	215.9	3.3
90°-100°	90.9	1.4
100°-110°	52.8	0.8
110°-120°	33.9	0.5
120°-130°	19.0	0.3
130°-140°	8.5	0.1
140°-150°	2.4	0.0
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	1775.6	27.0
0°-40°	2872.5	43.7
0°-60°	4957.2	75.5
0°-90°	6358.8	96.8
90°-120°	177.7	2.7
90°-150°	207.6	3.2
90°-180°	209.0	3.2
0°-180°	6567.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2293	2293	2293	2293	2293	
5°	2289	2286	2280	2285	2286	218
15°	2212	2208	2204	2207	2208	624
25°	2047	2045	2037	2022	2008	943
35°	1801	1799	1758	1709	1696	1126
45°	1471	1462	1405	1426	1448	1133
55°	1062	1058	1074	1132	1146	953
65°	665	676	738	783	791	665
75°	339	367	446	492	503	361
85°	96	134	208	248	254	101
90°	45	79	131	158	163	27
95°	41	59	87	101	103	33
105°	33	39	53	59	60	35
115°	20	22	37	44	46	20
125°	10	9	22	31	34	9
135°	5	4	9	17	20	4
145°	2	2	1	6	8	2
155°	2	2	1	0	0	1
165°	2	2	1	1	0	1
175°	2	2	1	1	1	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2293.0	2293.0	2293.0	2293.0	2293.0
2.5°	2296.6	2293.3	2286.0	2289.9	2293.5
5°	2289.3	2286.3	2280.4	2284.6	2286.5
7.5°	2278.1	2274.5	2269.7	2272.8	2275.6
10°	2260.5	2258.5	2252.9	2256.6	2259.1
12.5°	2236.7	2235.9	2230.8	2236.1	2237.8
15°	2211.5	2207.9	2203.9	2206.7	2208.4
17.5°	2176.2	2175.7	2172.0	2175.1	2172.3
20°	2139.0	2138.4	2133.1	2134.5	2129.5
22.5°	2094.5	2095.9	2087.7	2080.2	2074.6
25°	2046.9	2044.9	2036.8	2022.5	2008.2
27.5°	1993.9	1992.8	1979.9	1954.2	1938.2
30°	1937.1	1932.6	1912.5	1873.8	1852.5
32.5°	1871.3	1869.6	1839.1	1792.0	1767.7
35°	1800.7	1798.7	1758.1	1708.6	1696.0
37.5°	1727.9	1721.5	1671.3	1632.4	1627.7
40°	1642.8	1638.6	1580.9	1557.4	1565.5
42.5°	1561.0	1555.1	1487.1	1489.1	1510.9
45°	1470.9	1462.2	1404.8	1426.3	1448.5
47.5°	1382.9	1361.1	1316.9	1362.8	1381.8
50°	1272.9	1265.6	1234.3	1288.9	1311.8
52.5°	1170.1	1165.4	1152.2	1215.8	1230.9
55°	1062.3	1058.1	1073.5	1131.5	1146.3
57.5°	966.3	960.1	990.7	1044.7	1051.7
60°	859.6	858.5	905.3	958.7	960.4
62.5°	766.1	757.7	821.3	868.6	873.1
65°	665.0	676.5	737.8	783.2	791.3
67.5°	580.7	595.0	661.1	709.5	714.0
70°	491.7	509.6	586.3	633.9	643.7
72.5°	414.7	436.8	509.0	562.2	573.4
75°	338.8	366.8	445.8	492.0	502.6
77.5°	268.5	301.8	374.4	429.2	438.5
80°	202.2	237.2	315.3	364.0	371.6
82.5°	143.9	180.9	255.4	304.4	313.9
85°	95.8	134.4	207.5	248.4	254.0
87.5°	61.9	100.5	164.6	198.8	203.6
90°	44.8	79.0	131.0	158.2	163.0
92.5°	42.3	66.6	105.6	125.7	126.0
95°	40.6	59.1	87.4	101.4	102.8
97.5°	39.5	53.8	74.5	83.7	84.3
100°	38.1	48.4	65.8	72.0	72.8
102.5°	35.8	43.4	58.2	65.0	65.2
105°	33.0	39.2	53.2	58.8	59.9
107.5°	30.0	34.7	48.2	54.3	55.7
110°	26.6	30.5	44.2	50.7	52.6



TEST NUMBER: P397394

CATALOG NUMBER: VRVT4LED-LD5-24-DRF-UNV-LA59-CD2-WL-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	23.5	26.0	40.3	47.3	49.3
115°	20.2	22.1	36.7	44.0	46.5
117.5°	17.1	18.2	32.8	40.6	43.7
120°	14.6	14.6	29.1	37.5	40.3
122.5°	12.0	11.5	25.8	34.2	37.2
125°	10.1	8.7	22.1	30.8	34.2
127.5°	8.4	6.7	18.8	27.4	30.5
130°	7.3	5.6	15.1	24.1	27.2
132.5°	5.9	4.8	12.0	20.7	23.5
135°	5.0	3.9	9.2	17.4	20.2
137.5°	4.2	3.4	6.4	14.3	16.8
140°	3.4	2.8	4.2	11.5	13.4
142.5°	2.8	2.2	2.2	8.4	10.6
145°	2.2	2.0	1.1	5.6	7.6
147.5°	2.0	1.7	1.1	3.6	5.0
150°	1.7	1.4	1.1	1.4	2.8
152.5°	1.7	1.4	1.1	0.3	0.6
155°	1.7	1.7	1.1	0.3	0.0
157.5°	1.7	1.7	1.1	0.3	0.0
160°	1.7	1.7	1.1	0.6	0.0
162.5°	1.7	1.7	1.4	0.6	0.0
165°	2.0	1.7	1.4	0.6	0.3
167.5°	2.0	2.0	1.4	0.6	0.3
170°	2.0	2.0	1.4	0.8	0.3
172.5°	2.0	2.0	1.4	0.8	0.3
175°	2.0	2.0	1.4	0.8	0.6
177.5°	2.0	2.0	1.4	0.8	0.6
180°	1.4	1.4	1.4	1.4	1.4

(END OF REPORT)