

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: METALUX

Report Number: P236626

Luminaire Tested: **VRVT4LED-LD5-24-PC-UNV-L840-CD2-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P236626
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-367-13)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VRVT4LED-LD5-24-PC-UNV-L840-CD2-WL-U
Description: METALUX VRVT4 LED LUMINAIRE
10 BOARDS WITH CLEAR POLY CARBONATE LENS
Light Source: (560) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23334.0 lumens
Efficiency: N/A
Efficacy: 130.5 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.17 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 1.04' x L: 4.12' x H: 0.25')
CIE Type: Direct

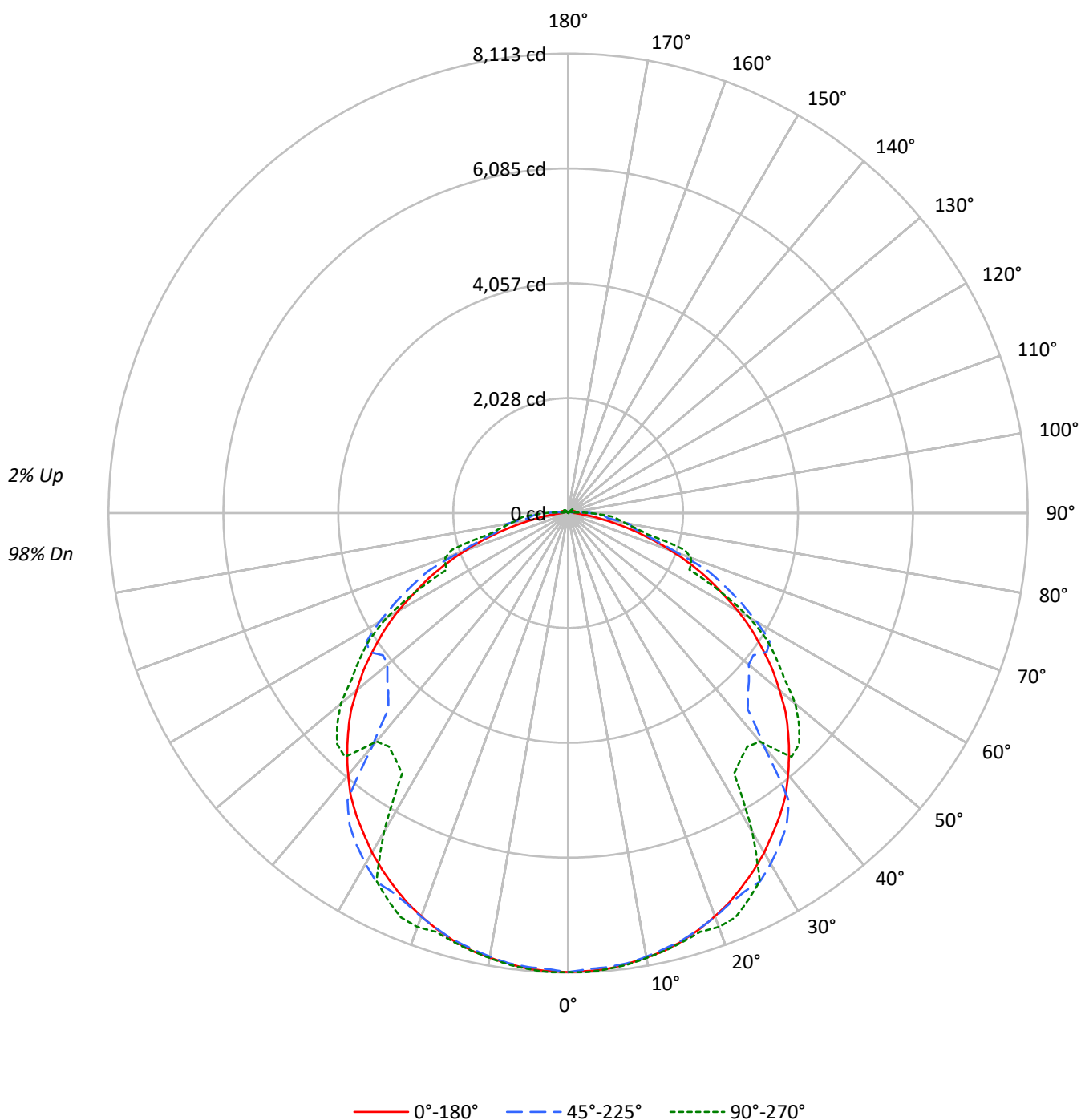
Input Watts (W): 178.82
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	101	101	101			98
1	108	103	99	95	105	101	97	93	96	93	90	92	89	87	88	86	84			82
2	98	90	83	77	96	88	82	76	84	79	74	81	76	72	77	74	70			68
3	90	79	71	64	87	77	70	64	74	68	62	71	66	61	68	64	60			57
4	82	70	61	54	80	69	60	54	66	59	53	63	57	52	61	56	51			49
5	75	63	54	47	73	61	53	47	59	52	46	57	50	45	55	49	45			42
6	70	56	47	41	68	55	47	41	53	46	40	51	45	40	50	44	39			37
7	65	51	42	36	63	50	42	36	48	41	36	47	40	35	45	39	35			33
8	60	47	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31			29
9	56	43	35	29	55	42	34	29	41	34	29	40	33	28	38	33	28			26
10	53	39	32	26	51	39	31	26	38	31	26	37	30	26	36	30	26			24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20306	20306	20306
5°	20206	19866	19905
10°	20059	19501	19469
15°	19951	19148	19094
20°	19758	18768	19066
25°	19550	18539	18721
30°	19345	18424	16521
35°	19115	17898	13894
40°	18792	14927	14328
45°	18348	13118	16482
50°	17697	12938	15873
55°	16829	14333	14604
60°	15729	14083	13094
65°	14211	12398	9251
70°	12055	9474	10183
75°	9480	7141	7419
80°	6259	7169	6275
85°	4228	5515	6281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	766.9	3.3
10°-20°	2208.2	9.5
20°-30°	3406.4	14.6
30°-40°	3873.2	16.6
40°-50°	4066.0	17.4
50°-60°	3823.9	16.4
60°-70°	2655.9	11.4
70°-80°	1492.8	6.4
80°-90°	653.6	2.8
90°-100°	169.1	0.7
100°-110°	78.2	0.3
110°-120°	55.2	0.2
120°-130°	49.2	0.2
130°-140°	24.9	0.1
140°-150°	6.1	0.0
150°-160°	2.2	0.0
160°-170°	1.6	0.0
170°-180°	0.6	0.0
0°-30°	6381.5	27.3
0°-40°	10254.7	43.9
0°-60°	18144.6	77.8
0°-90°	22946.9	98.3
90°-120°	302.5	1.3
90°-150°	382.8	1.6
90°-180°	387.0	1.7
0°-180°	23334.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8106	8106	8106	8106	8106	
5°	8078	8058	8047	8078	8082	767
15°	7818	7821	7804	7826	7836	2205
25°	7273	7300	7372	7523	7531	3354
35°	6516	6566	6724	5282	5307	4074
45°	5493	5659	4490	5470	5769	4233
55°	4187	4293	4278	4505	4490	3744
65°	2709	2279	3045	2622	2364	2666
75°	1201	1175	1323	1599	1453	1282
85°	249	412	658	845	818	276
90°	107	272	391	398	393	64
95°	109	136	127	116	107	95
105°	115	89	66	57	55	119
115°	59	60	58	37	38	61
125°	29	24	70	65	71	27
135°	13	10	29	39	30	11
145°	7	6	5	8	10	5
155°	6	6	6	4	1	3
165°	7	7	7	5	3	2
175°	7	7	7	6	4	1
180°	7	7	7	7	7	



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CATALOG NUMBER: VRVT4LED-LD5-24-PC-UNV-L840-CD2-WL-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8105.9	8105.9	8105.9	8105.9	8105.9
2.5°	8094.9	8085.9	8060.9	8087.9	8112.9
5°	8077.9	8057.9	8046.9	8077.9	8081.9
7.5°	8024.9	8029.9	8016.9	8025.9	8041.9
10°	7969.9	7981.9	7953.9	7974.9	7977.9
12.5°	7909.9	7909.9	7877.9	7900.9	7911.9
15°	7817.9	7820.9	7803.9	7825.9	7835.9
17.5°	7702.9	7704.9	7693.9	7724.9	7752.9
20°	7574.9	7579.9	7584.9	7670.9	7776.9
22.5°	7437.9	7440.9	7458.9	7698.9	7723.9
25°	7272.9	7299.9	7371.9	7522.9	7530.9
27.5°	7102.9	7131.9	7335.9	7359.9	7324.9
30°	6921.9	6943.9	7150.9	7121.9	6502.9
32.5°	6712.9	6763.9	6947.9	6015.9	5452.9
35°	6515.9	6565.9	6723.9	5281.9	5306.9
37.5°	6300.9	6383.9	6396.9	5133.9	5197.9
40°	6038.9	6217.9	5378.9	5005.9	5263.9
42.5°	5772.9	5956.9	4691.9	5032.9	5835.9
45°	5492.9	5658.9	4489.9	5469.9	5768.9
47.5°	5206.9	5361.9	4329.9	5483.9	5526.9
50°	4868.9	5033.9	4160.9	5210.9	5237.9
52.5°	4547.9	4689.9	4120.9	4891.9	4812.9
55°	4186.9	4292.9	4277.9	4504.9	4489.9
57.5°	3841.9	3468.9	4218.9	4164.9	4152.9
60°	3468.9	2825.0	3845.9	3784.9	3699.9
62.5°	3063.0	2539.0	3447.9	3356.0	3077.0
65°	2709.0	2279.0	3045.0	2622.0	2364.0
67.5°	2315.0	1977.0	2675.0	2129.0	2345.0
70°	1920.0	1648.0	2049.0	2081.0	2307.0
72.5°	1553.0	1385.0	1642.0	2059.0	2151.0
75°	1201.0	1175.0	1323.0	1599.0	1453.0
77.5°	860.0	1069.0	1160.0	1229.0	1203.0
80°	583.0	750.0	1096.0	1040.0	1027.0
82.5°	393.0	560.0	711.0	891.0	901.0
85°	249.0	412.0	658.0	845.0	818.0
87.5°	164.0	321.0	554.0	592.0	576.0
90°	107.0	272.0	391.0	398.0	393.0
92.5°	90.0	197.0	243.0	221.0	202.0
95°	109.0	136.0	127.0	116.0	107.0
97.5°	129.0	91.0	85.0	85.0	88.0
100°	133.0	87.0	69.0	62.0	59.0
102.5°	127.0	92.0	65.0	61.0	58.0
105°	115.0	89.0	66.0	57.0	55.0
107.5°	100.0	82.0	67.0	57.0	51.0
110°	85.0	75.0	59.0	64.0	63.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	71.0	68.0	52.0	48.0	53.0
115°	59.0	60.0	58.0	37.0	38.0
117.5°	50.0	52.0	76.0	37.0	33.0
120°	42.0	41.0	66.0	75.0	43.0
122.5°	35.0	32.0	79.0	82.0	89.0
125°	29.0	24.0	70.0	65.0	71.0
127.5°	24.0	19.0	40.0	101.0	66.0
130°	20.0	15.0	37.0	76.0	102.0
132.5°	16.0	13.0	53.0	40.0	63.0
135°	13.0	10.0	29.0	39.0	30.0
137.5°	11.0	9.0	14.0	71.0	54.0
140°	9.0	7.0	8.0	40.0	61.0
142.5°	8.0	6.0	6.0	15.0	32.0
145°	7.0	6.0	5.0	8.0	10.0
147.5°	6.0	5.0	5.0	6.0	5.0
150°	6.0	5.0	5.0	4.0	3.0
152.5°	6.0	6.0	5.0	3.0	2.0
155°	6.0	6.0	6.0	4.0	1.0
157.5°	6.0	6.0	6.0	4.0	2.0
160°	6.0	6.0	6.0	4.0	2.0
162.5°	6.0	6.0	6.0	4.0	2.0
165°	7.0	7.0	7.0	5.0	3.0
167.5°	7.0	7.0	7.0	5.0	3.0
170°	7.0	7.0	7.0	5.0	3.0
172.5°	7.0	7.0	7.0	6.0	4.0
175°	7.0	7.0	7.0	6.0	4.0
177.5°	7.0	7.0	7.0	6.0	4.0
180°	7.0	7.0	7.0	7.0	7.0

(END OF REPORT)