

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P237867

Luminaire Tested: **4VRVT2-LD5-11-FR50-UNV-L840-CD1-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P237867  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-13)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4VRVT2-LD5-11-FR50-UNV-L840-CD1-WL-U  
Description: METALUX VRVT2 LED LUMINAIRE  
FROSTED LENS/15% DR HIGH IMPACT ADDITIVE STANDARD DISTRIBUTION  
4FT FIXTURE  
Light Source: (224) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10620.0 lumens  
Efficiency: N/A  
Efficacy: 128.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')  
CIE Type: Direct

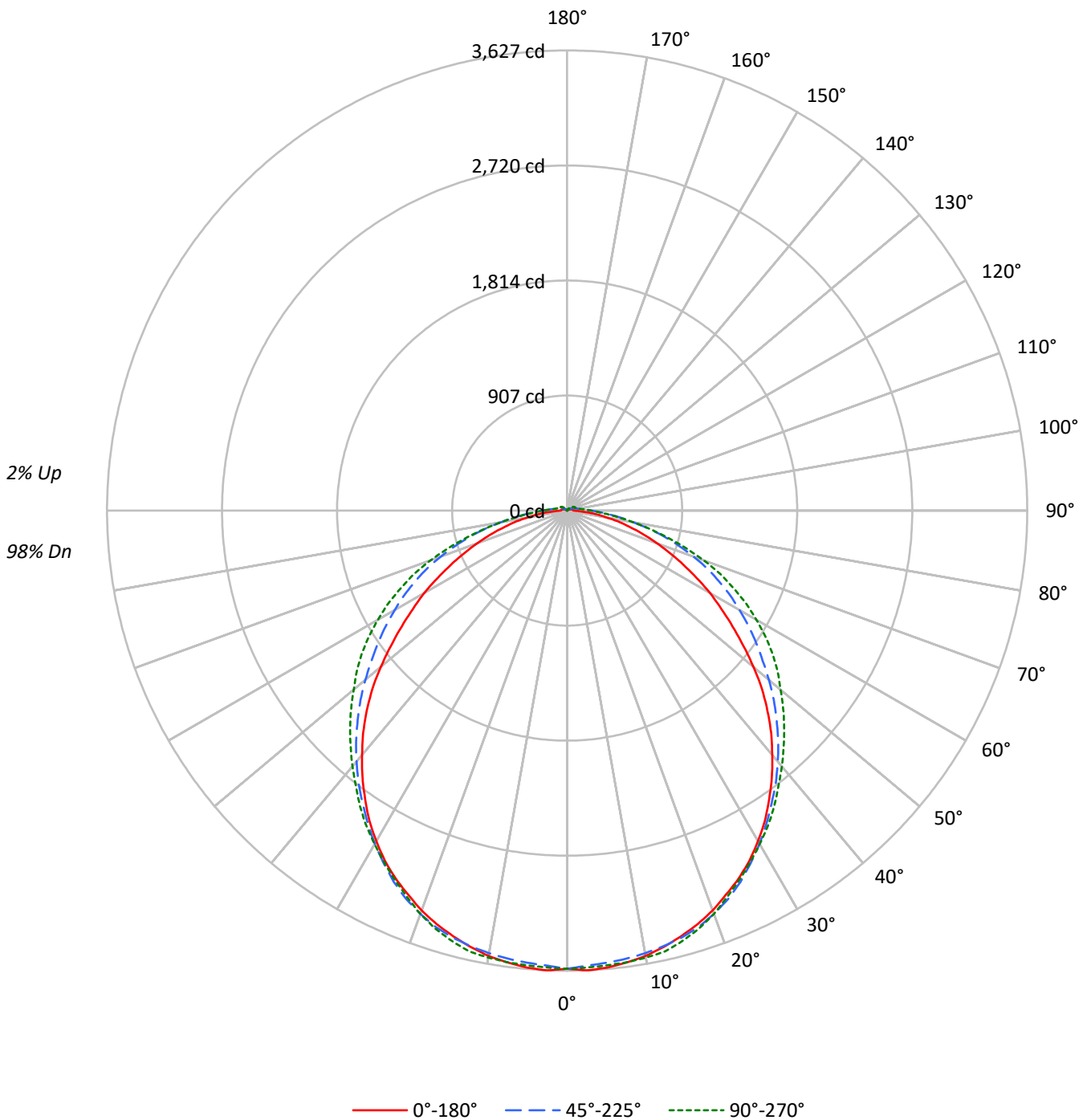
Input Watts (W): 82.44  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				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	76	95	87	81	75	83	78	73	80	75	71	76	72	69	67
3	89	78	70	63	86	76	69	63	73	67	61	70	64	60	67	62	58	56
4	81	69	60	54	79	68	60	53	65	58	52	62	56	51	60	55	50	48
5	75	62	53	46	73	61	52	46	58	51	45	56	49	44	54	48	44	41
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	38	36
7	64	51	42	36	62	50	41	35	48	40	35	46	39	34	45	39	34	32
8	60	46	38	32	58	45	37	32	44	36	31	42	36	31	41	35	30	29
9	56	42	34	29	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	18660	18660	18660
5°	18687	18137	18128
10°	18570	17758	17728
15°	18380	17403	17247
20°	18177	16970	16588
25°	17908	16395	15846
30°	17547	15700	15185
35°	17035	14968	14552
40°	16412	14262	13875
45°	15695	13496	13259
50°	14712	12692	12633
55°	13555	11903	12077
60°	12569	11132	11286
65°	11377	10326	10297
70°	10247	9271	9019
75°	9083	7952	7256
80°	7831	6292	5436
85°	6489	4803	3866



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	342.3	3.2
10°-20°	985.2	9.3
20°-30°	1484.1	14.0
30°-40°	1767.4	16.6
40°-50°	1804.3	17.0
50°-60°	1617.0	15.2
60°-70°	1261.9	11.9
70°-80°	776.8	7.3
80°-90°	323.9	3.0
90°-100°	116.7	1.1
100°-110°	62.9	0.6
110°-120°	41.1	0.4
120°-130°	23.4	0.2
130°-140°	10.3	0.1
140°-150°	2.5	0.0
150°-160°	0.3	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2811.6	26.5
0°-40°	4579.0	43.1
0°-60°	8000.2	75.3
0°-90°	10362.9	97.6
90°-120°	220.6	2.1
90°-150°	256.9	2.4
90°-180°	257.0	2.4
0°-180°	10620.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3612	3612	3612	3612	3612	
5°	3616	3602	3578	3602	3597	343
15°	3473	3474	3484	3523	3512	980
25°	3200	3226	3230	3225	3212	1473
35°	2776	2835	2812	2843	2846	1736
45°	2234	2291	2335	2401	2420	1720
55°	1591	1684	1820	1941	1979	1428
65°	1010	1116	1323	1431	1444	1005
75°	523	638	791	830	816	560
85°	160	248	326	326	314	164
90°	52	132	192	195	190	33
95°	47	74	120	126	122	38
105°	37	37	67	74	73	39
115°	20	18	46	60	63	20
125°	9	5	26	43	47	8
135°	4	3	10	24	28	3
145°	1	1	1	6	9	1
155°	1	1	1	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°	3611.7	3611.7	3611.7	3611.7	3611.7
2.5°	3627.3	3614.3	3589.4	3613.0	3605.1
5°	3615.6	3602.5	3577.7	3602.5	3597.3
7.5°	3593.4	3584.2	3563.3	3593.4	3590.7
10°	3564.6	3555.4	3542.4	3579.0	3577.7
12.5°	3521.5	3517.5	3516.2	3562.0	3559.4
15°	3473.1	3474.4	3483.6	3522.8	3512.3
17.5°	3418.2	3426.0	3441.7	3465.3	3454.8
20°	3354.1	3367.2	3382.9	3392.1	3382.9
22.5°	3275.7	3299.2	3314.9	3308.4	3296.6
25°	3199.9	3226.0	3230.0	3224.7	3211.7
27.5°	3111.0	3143.7	3131.9	3138.5	3124.1
30°	3009.1	3054.8	3032.6	3044.4	3035.2
32.5°	2900.6	2954.2	2924.1	2943.7	2946.3
35°	2776.4	2835.2	2811.7	2843.1	2845.7
37.5°	2650.9	2712.3	2701.9	2741.1	2734.6
40°	2515.0	2582.9	2582.9	2626.1	2632.6
42.5°	2380.3	2437.8	2462.7	2513.6	2526.7
45°	2233.9	2291.4	2334.6	2401.2	2419.5
47.5°	2083.6	2147.6	2209.1	2282.3	2309.7
50°	1917.6	1994.7	2075.8	2171.2	2196.0
52.5°	1750.3	1836.5	1942.4	2057.5	2092.7
55°	1590.8	1683.6	1819.6	1941.1	1979.0
57.5°	1439.2	1534.6	1694.1	1822.2	1854.8
60°	1300.6	1383.0	1569.9	1703.2	1722.8
62.5°	1151.6	1249.6	1448.3	1571.2	1593.4
65°	1010.4	1116.3	1322.8	1431.3	1444.4
67.5°	877.1	985.6	1196.0	1291.5	1307.1
70°	752.9	867.9	1058.8	1138.5	1143.8
72.5°	639.2	751.6	922.8	986.9	977.7
75°	522.9	637.9	790.8	830.0	815.7
77.5°	424.8	529.4	657.5	686.3	664.0
80°	322.9	423.5	528.1	538.5	528.1
82.5°	236.6	330.7	420.9	423.5	407.8
85°	159.5	248.4	325.5	325.5	313.7
87.5°	90.2	181.7	248.4	251.0	237.9
90°	52.3	132.0	192.2	194.8	189.5
92.5°	48.4	95.4	150.3	154.2	149.0
95°	47.1	74.5	120.3	125.5	121.6
97.5°	45.8	60.1	100.7	104.6	102.0
100°	44.4	49.7	85.0	91.5	90.2
102.5°	40.5	43.1	74.5	81.0	79.7
105°	36.6	36.6	66.7	74.5	73.2
107.5°	32.7	31.4	60.1	70.6	69.3
110°	27.5	27.5	54.9	66.7	66.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	23.5	23.5	49.7	64.1	64.1
115°	19.6	18.3	45.8	60.1	62.7
117.5°	15.7	15.7	40.5	56.2	58.8
120°	13.1	11.8	35.3	52.3	56.2
122.5°	10.5	7.8	31.4	47.1	52.3
125°	9.2	5.2	26.1	43.1	47.1
127.5°	6.5	3.9	22.2	37.9	43.1
130°	5.2	3.9	18.3	32.7	37.9
132.5°	5.2	2.6	14.4	27.5	32.7
135°	3.9	2.6	10.5	23.5	27.5
137.5°	2.6	2.6	6.5	19.6	23.5
140°	2.6	2.6	3.9	14.4	18.3
142.5°	2.6	1.3	1.3	10.5	14.4
145°	1.3	1.3	1.3	6.5	9.2
147.5°	1.3	1.3	1.3	2.6	5.2
150°	1.3	1.3	1.3	0.0	1.3
152.5°	1.3	1.3	1.3	0.0	0.0
155°	1.3	1.3	1.3	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)