

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: P685680

Luminaire Tested: **4CZL-7-UNV-LVR-L850-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685680  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CZL-7-UNV-LVR-L850-CD-U  
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL @80 CRI and 5000K  
Light Source: (392) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

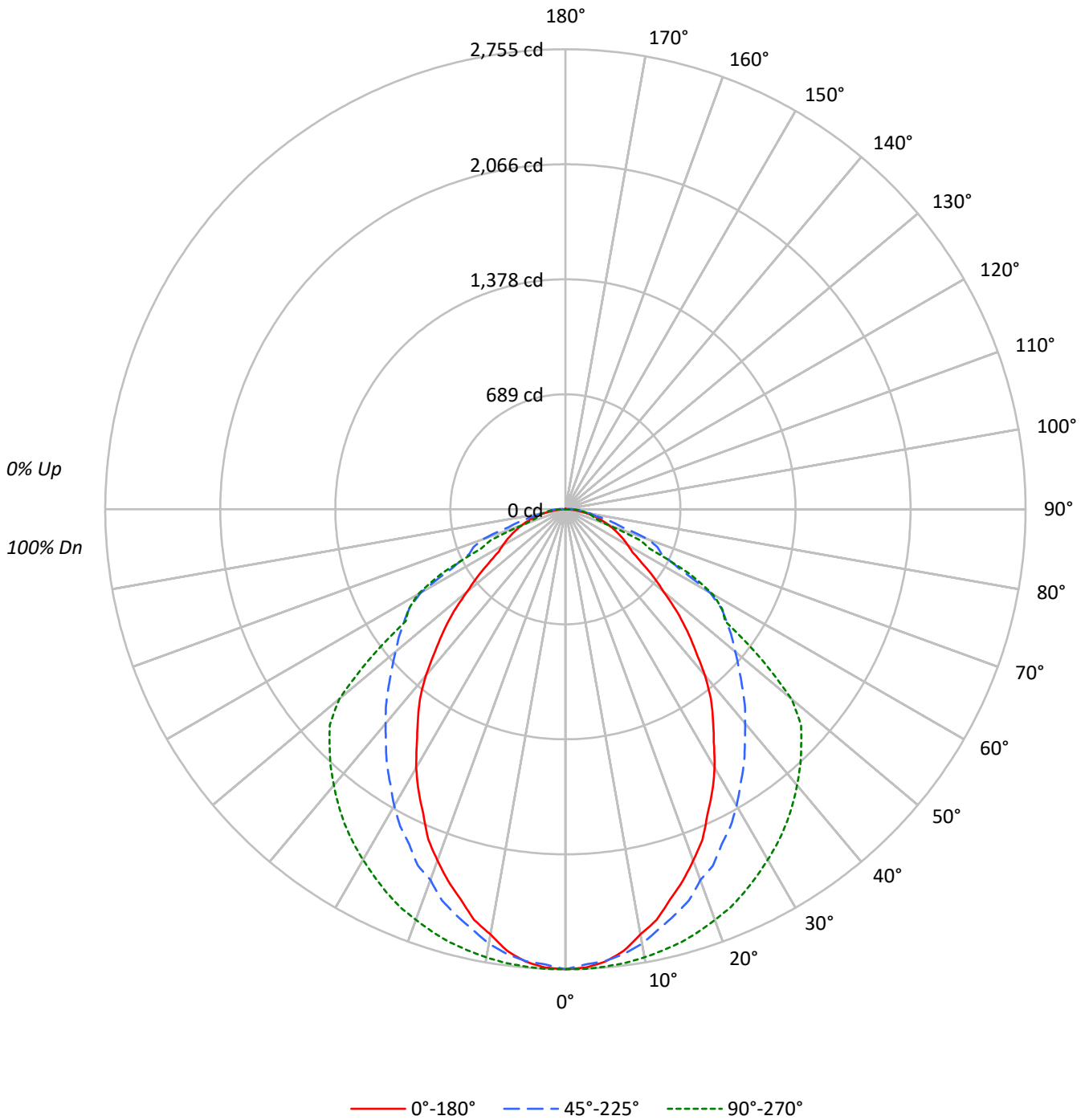
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6237.3 lumens  
Efficiency: N/A  
Efficacy: 141.8 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1.31 / 1.26  
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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				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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	88	88	88	88	85
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	56	56	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	49	49	49	49	47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	44	44	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	39	39	39	37
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35	35	35	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	32	32	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	29	29	29	29	28

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

	0°	45°	90°
0°	8894	8894	8894
5°	8817	8804	8910
10°	8474	8661	8936
15°	8089	8418	8972
20°	7692	8120	8993
25°	7174	7885	9022
30°	6660	7643	9037
35°	6072	7343	9078
40°	5478	7057	9095
45°	4712	6831	9118
50°	3851	6670	8879
55°	3135	6644	6567
60°	2796	6458	6589
65°	2703	4847	4249
70°	2596	4967	2415
75°	2503	3501	2156
80°	2284	2847	2570
85°	2045	3549	3201



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.0	4.1
10°-20°	715.2	11.5
20°-30°	1034.7	16.6
30°-40°	1180.9	18.9
40°-50°	1160.4	18.6
50°-60°	925.6	14.8
60°-70°	583.0	9.3
70°-80°	258.3	4.1
80°-90°	99.0	1.6
90°-100°	19.6	0.3
100°-110°	1.3	0.0
110°-120°	0.1	0.0
120°-130°	0.2	0.0
130°-140°	0.3	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	2007.8	32.2
0°-40°	3188.7	51.1
0°-60°	5274.7	84.6
0°-90°	6215.0	99.6
90°-120°	21.1	0.3
90°-150°	21.8	0.4
90°-180°	22.0	0.4
0°-180°	6237.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2754	2754	2754	2754	2754	
5°	2720	2726	2716	2739	2749	255
15°	2420	2444	2518	2636	2684	681
25°	2013	2078	2213	2416	2532	928
35°	1540	1634	1863	2137	2303	963
45°	1032	1182	1496	1831	1997	793
55°	557	754	1180	1272	1166	512
65°	354	482	634	676	556	350
75°	201	232	281	213	173	210
85°	55	67	96	124	86	58
90°	0	23	50	74	14	3
95°	0	3	21	36	5	0
105°	0	0	0	1	0	0
115°	0	0	0	0	0	0
125°	0	1	0	0	0	0
135°	0	1	0	0	0	0
145°	1	1	0	0	0	1
155°	1	1	0	0	0	0
165°	1	1	1	0	0	0
175°	1	1	1	0	0	0
180°	1	1	1	1	1	



TEST NUMBER: P685680

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2754.2	2754.2	2754.2	2754.2	2754.2
2.5°	2746.9	2745.2	2728.5	2752.1	2754.6
5°	2720.0	2726.0	2716.1	2738.8	2748.6
7.5°	2668.2	2674.6	2686.2	2727.7	2739.7
10°	2584.4	2600.6	2641.3	2699.4	2725.1
12.5°	2520.2	2540.3	2576.7	2675.5	2705.0
15°	2419.7	2443.7	2518.1	2636.1	2683.6
17.5°	2334.2	2377.8	2456.9	2586.5	2652.8
20°	2238.3	2273.4	2362.8	2537.8	2616.9
22.5°	2142.5	2187.0	2308.9	2472.7	2580.5
25°	2013.4	2078.4	2213.1	2415.9	2532.2
27.5°	1903.9	1986.0	2140.8	2348.7	2478.3
30°	1786.2	1850.0	2049.7	2280.3	2423.6
32.5°	1653.6	1753.7	1951.3	2202.0	2366.2
35°	1540.3	1633.5	1862.8	2137.4	2302.9
37.5°	1430.8	1518.5	1764.8	2064.3	2232.8
40°	1299.5	1415.0	1674.2	1980.8	2157.5
42.5°	1154.0	1295.6	1589.9	1902.1	2080.9
45°	1031.7	1181.8	1495.8	1830.7	1996.7
47.5°	904.7	1062.9	1407.7	1743.9	1913.3
50°	766.5	959.0	1327.7	1663.5	1767.4
52.5°	665.6	850.8	1255.8	1518.0	1489.8
55°	556.9	754.1	1180.1	1272.5	1166.4
57.5°	474.4	666.8	1109.1	999.2	1113.4
60°	432.9	597.1	1000.0	951.3	1020.2
62.5°	393.9	536.0	764.8	892.3	839.2
65°	353.7	481.6	634.3	675.8	556.1
67.5°	314.8	434.6	598.0	504.7	484.2
70°	275.0	398.2	526.1	430.3	255.8
72.5°	237.4	356.3	359.7	238.2	189.9
75°	200.6	231.8	280.6	212.6	172.8
77.5°	160.4	198.9	187.8	190.3	156.6
80°	122.8	136.9	153.1	170.2	138.2
82.5°	86.8	101.8	124.0	148.9	113.4
85°	55.2	67.2	95.8	123.6	86.4
87.5°	21.8	42.3	71.4	99.7	50.9
90°	0.4	23.1	50.5	73.6	14.1
92.5°	0.4	10.7	33.8	53.9	7.3
95°	0.4	3.4	21.0	35.9	4.7
97.5°	0.4	1.3	11.1	22.2	2.6
100°	0.4	0.4	4.7	12.0	1.3
102.5°	0.4	0.4	1.7	4.7	0.4
105°	0.4	0.4	0.4	1.3	0.0
107.5°	0.4	0.4	0.0	0.0	0.0
110°	0.4	0.4	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.4	0.4	0.0	0.0	0.0
115°	0.4	0.4	0.0	0.0	0.0
117.5°	0.4	0.4	0.0	0.0	0.0
120°	0.4	0.4	0.0	0.0	0.0
122.5°	0.4	0.4	0.0	0.0	0.0
125°	0.4	0.9	0.0	0.0	0.0
127.5°	0.4	0.4	0.0	0.0	0.0
130°	0.4	0.9	0.4	0.0	0.0
132.5°	0.4	0.9	0.4	0.0	0.0
135°	0.4	0.9	0.4	0.0	0.0
137.5°	0.4	0.9	0.4	0.0	0.0
140°	0.9	0.9	0.4	0.0	0.0
142.5°	0.9	0.9	0.4	0.0	0.0
145°	0.9	0.9	0.4	0.0	0.0
147.5°	0.9	0.9	0.4	0.0	0.0
150°	0.9	0.9	0.4	0.0	0.0
152.5°	0.9	0.9	0.4	0.0	0.0
155°	0.9	0.9	0.4	0.0	0.0
157.5°	0.9	1.3	0.4	0.0	0.0
160°	1.3	1.3	0.4	0.0	0.0
162.5°	1.3	1.3	0.9	0.4	0.0
165°	1.3	1.3	0.9	0.4	0.0
167.5°	1.3	1.3	0.9	0.4	0.0
170°	1.3	1.3	0.9	0.4	0.4
172.5°	1.3	1.3	0.9	0.4	0.4
175°	1.3	1.3	0.9	0.4	0.4
177.5°	1.3	1.3	0.9	0.4	0.4
180°	0.9	0.9	0.9	0.9	0.9

(END OF REPORT)