

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: P685390

Luminaire Tested: **4CZL-7-UNV-N-L935-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685390  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CZL-7-UNV-N-L935-CD-U  
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @90 CRI and 3500K  
Light Source: (392) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

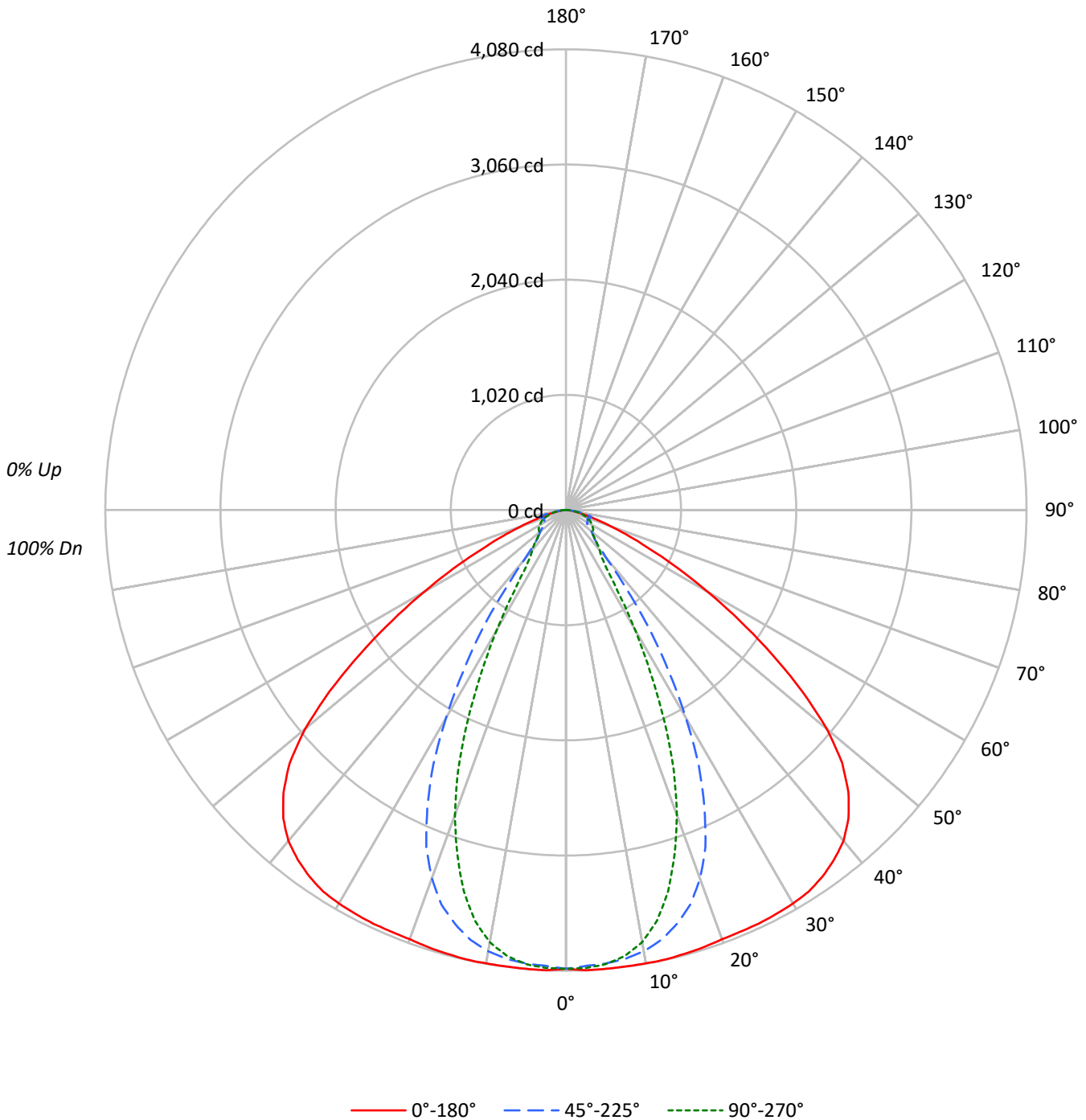
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5735.4 lumens  
Efficiency: N/A  
Efficacy: 130.3 lumens/watt  
Spacing Criteria (0/90/45): 1.48 / 0.81 / 0.89  
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			
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89	89	
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	79	79	
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70	70	
4	90	80	73	68	88	79	72	67	77	71	66	74	70	66	72	68	65	63	63	
5	84	74	66	61	82	73	66	60	71	64	60	69	63	59	67	62	59	57	57	
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52	52	
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47	47	
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44	44	
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40	40	
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37	37	

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

	0°	45°	90°
0°	13118	13118	13118
5°	13220	13068	13088
10°	13368	13012	12743
15°	13601	12690	11683
20°	13900	11934	9877
25°	14400	10343	7339
30°	15002	7922	4553
35°	15619	5121	2443
40°	16125	2384	1956
45°	16160	1618	1665
50°	15151	1482	1533
55°	12526	1335	1663
60°	9376	1408	1707
65°	6321	1610	1828
70°	4012	1963	1881
75°	2420	2925	1878
80°	1477	2611	1748
85°	956	1690	1200



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	384.6	6.7
10°-20°	1061.8	18.5
20°-30°	1356.1	23.6
30°-40°	1099.8	19.2
40°-50°	778.2	13.6
50°-60°	506.8	8.8
60°-70°	311.3	5.4
70°-80°	184.9	3.2
80°-90°	51.9	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2802.4	48.9
0°-40°	3902.2	68.0
0°-60°	5187.3	90.4
0°-90°	5735.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5735.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4062	4062	4062	4062	4062	
5°	4078	4070	4031	4048	4038	389
15°	4068	4013	3796	3599	3495	1152
25°	4042	3708	2903	2257	2060	1869
35°	3962	2690	1299	697	620	2478
45°	3539	1354	354	376	365	2699
55°	2225	456	237	277	295	1988
65°	827	234	211	253	239	859
75°	194	133	234	172	150	226
85°	26	52	46	41	32	36
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4062.4	4062.4	4062.4	4062.4	4062.4
2.5°	4080.5	4072.5	4041.5	4065.9	4058.9
5°	4078.4	4069.7	4031.4	4047.8	4037.7
7.5°	4077.0	4064.2	4009.8	4004.9	3984.0
10°	4076.7	4054.1	3968.4	3921.4	3886.2
12.5°	4077.4	4037.3	3900.5	3796.7	3725.3
15°	4068.3	4013.3	3796.0	3598.8	3494.7
17.5°	4060.0	3958.3	3664.3	3356.8	3200.4
20°	4045.0	3903.9	3472.8	3060.0	2874.1
22.5°	4040.8	3821.7	3230.7	2678.0	2493.7
25°	4041.5	3707.9	2903.0	2256.9	2059.8
27.5°	4033.9	3556.0	2546.0	1849.7	1616.4
30°	4023.4	3340.8	2124.5	1413.3	1221.1
32.5°	4004.9	3038.8	1693.0	1007.2	847.7
35°	3962.1	2689.8	1299.1	696.9	619.6
37.5°	3902.5	2301.8	875.9	523.1	510.6
40°	3825.2	1949.7	565.6	457.3	463.9
42.5°	3705.4	1645.7	413.1	415.9	416.6
45°	3538.6	1354.1	354.2	376.5	364.7
47.5°	3319.2	1063.3	321.8	328.1	326.3
50°	3015.8	796.2	295.0	293.6	305.1
52.5°	2640.7	589.0	267.5	279.3	300.9
55°	2224.9	455.9	237.2	276.9	295.3
57.5°	1826.1	369.5	219.8	269.9	280.7
60°	1451.7	307.9	218.0	257.0	264.3
62.5°	1121.5	264.0	217.0	250.8	253.6
65°	827.2	233.7	210.7	252.9	239.3
67.5°	602.5	223.9	205.8	249.4	220.5
70°	424.9	196.8	207.9	230.2	199.2
72.5°	288.4	164.4	231.3	203.1	174.5
75°	194.0	132.7	234.4	171.7	150.5
77.5°	126.1	110.4	199.2	140.4	124.7
80°	79.4	91.9	140.4	108.0	94.0
82.5°	51.5	70.7	88.8	76.3	64.8
85°	25.8	51.5	45.6	40.7	32.4
87.5°	15.3	31.3	24.4	17.8	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)