

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: P685780

Luminaire Tested: **4CZL-7-UNV-M-LVR-L835-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685780
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-M-LVR-L835-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH MEDIUM LENS @80 CRI and 3500K
Light Source: (392) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

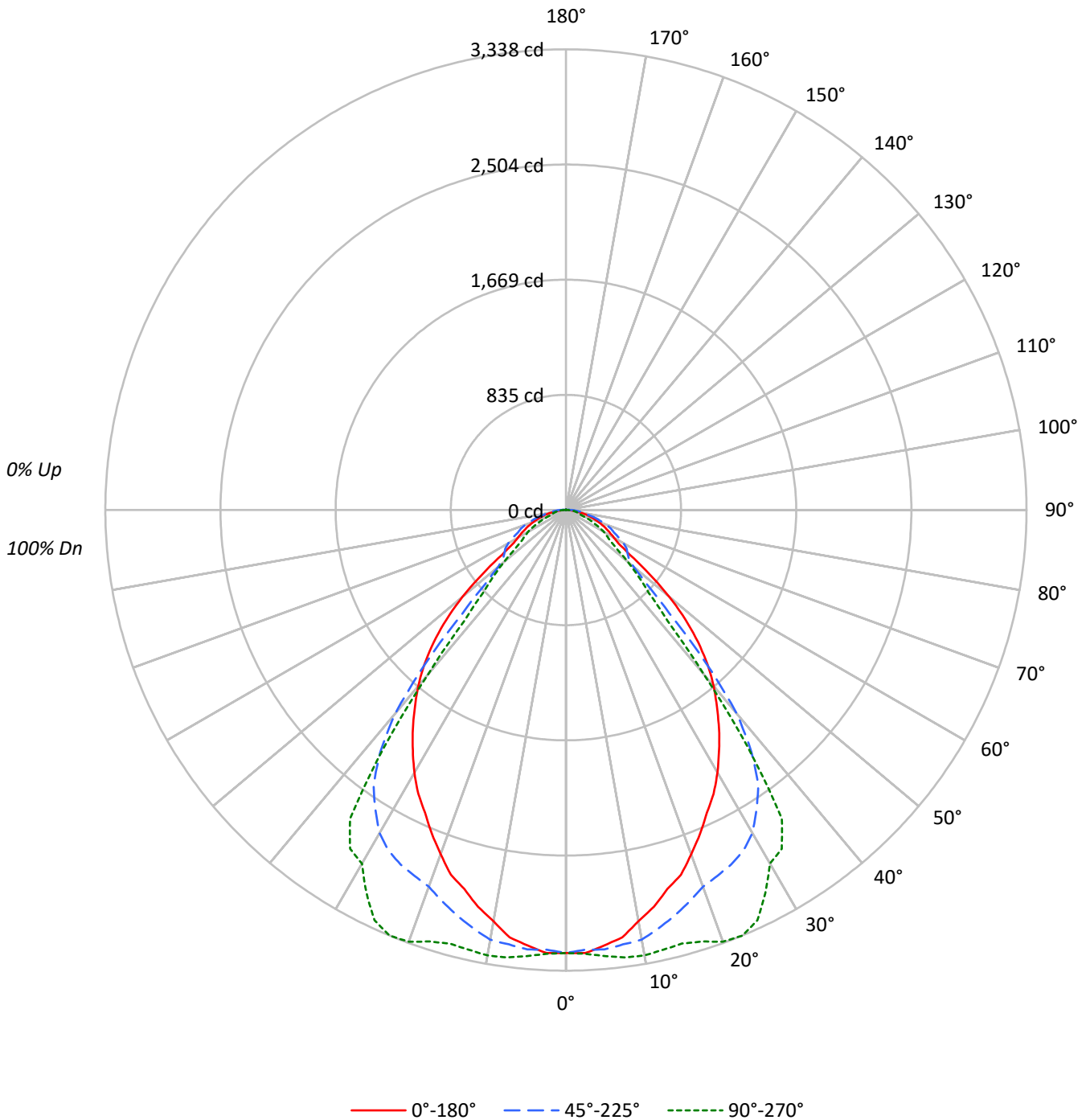
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5936.8 lumens
Efficiency: N/A
Efficacy: 134.9 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.34 / 1.2
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	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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	93	91	90	88
2	103	96	90	86	100	94	89	84	91	86	83	87	84	81	84	81	79	84	81	79	77
3	95	87	80	74	93	85	79	74	82	77	72	79	75	71	77	73	70	77	73	70	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	70	66	62	70	66	62	60
5	83	72	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	65	60	56	54
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	60	55	51	49
7	72	60	53	47	70	59	52	47	58	51	47	57	51	46	55	50	46	55	50	46	44
8	68	56	48	43	66	55	48	43	54	47	42	52	47	42	51	46	42	51	46	42	40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	42	39	48	42	39	37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	35	45	39	35	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10364	10364	10364
5°	10268	10360	10515
10°	9920	10366	10744
15°	9502	10172	10870
20°	9119	9979	11436
25°	8615	10098	11690
30°	8189	10076	11026
35°	7625	9582	10751
40°	7019	8122	6552
45°	6184	4841	3884
50°	4909	3215	2931
55°	3178	3058	2224
60°	2594	3108	2043
65°	2472	2929	1669
70°	2347	2940	1320
75°	2230	2751	1226
80°	2062	2600	1378
85°	1845	3179	1690



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.5	5.1
10°-20°	863.9	14.6
20°-30°	1302.6	21.9
30°-40°	1439.4	24.2
40°-50°	902.5	15.2
50°-60°	485.9	8.2
60°-70°	330.0	5.6
70°-80°	197.1	3.3
80°-90°	85.6	1.4
90°-100°	18.8	0.3
100°-110°	2.1	0.0
110°-120°	0.7	0.0
120°-130°	0.7	0.0
130°-140°	0.9	0.0
140°-150°	0.8	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	2471.0	41.6
0°-40°	3910.4	65.9
0°-60°	5298.8	89.3
0°-90°	5911.5	99.6
90°-120°	21.7	0.4
90°-150°	24.0	0.4
90°-180°	25.0	0.4
0°-180°	5936.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3209	3209	3209	3209	3209	
5°	3168	3173	3196	3234	3244	298
15°	2842	2942	3043	3190	3252	802
25°	2418	2565	2834	3136	3281	1116
35°	1934	2162	2431	2615	2727	1207
45°	1354	1474	1060	864	850	1033
55°	564	590	543	470	395	548
65°	324	356	383	311	218	320
75°	179	199	220	181	98	188
85°	50	61	86	113	46	54
90°	1	19	44	72	13	3
95°	0	3	17	37	7	0
105°	0	1	1	3	1	0
115°	0	1	1	1	1	0
125°	0	1	1	1	1	0
135°	1	1	1	1	1	1
145°	1	1	1	1	2	1
155°	1	1	1	1	1	1
165°	1	2	2	2	2	0
175°	2	2	2	2	2	0
180°	2	2	2	2	2	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3209.4	3209.4	3209.4	3209.4	3209.4
2.5°	3213.5	3204.8	3188.4	3217.7	3218.2
5°	3167.5	3173.0	3196.0	3233.6	3243.7
7.5°	3122.7	3143.7	3174.6	3265.4	3270.0
10°	3025.2	3068.8	3161.2	3248.7	3276.7
12.5°	2944.0	3008.5	3103.9	3219.0	3262.5
15°	2842.4	2942.0	3042.8	3190.1	3251.6
17.5°	2771.2	2851.1	2974.6	3176.7	3277.6
20°	2653.6	2766.2	2903.9	3185.9	3327.8
22.5°	2539.4	2676.2	2868.3	3189.3	3338.3
25°	2418.0	2564.9	2834.0	3136.1	3280.9
27.5°	2317.6	2440.6	2782.9	3025.2	3129.9
30°	2196.2	2341.0	2702.2	2855.7	2957.0
32.5°	2065.6	2249.4	2571.2	2726.0	2910.1
35°	1934.2	2161.5	2430.6	2614.7	2727.3
37.5°	1797.0	2089.1	2209.6	2239.3	2162.3
40°	1665.2	1988.2	1926.7	1639.2	1554.3
42.5°	1521.2	1771.4	1502.8	1127.8	1089.7
45°	1354.2	1474.3	1060.0	864.2	850.4
47.5°	1176.4	1141.6	790.5	722.3	714.4
50°	977.2	912.7	639.9	637.4	583.4
52.5°	761.6	724.8	573.7	552.8	467.0
55°	564.5	590.5	543.2	470.0	395.0
57.5°	452.0	512.2	521.9	410.5	353.2
60°	401.7	448.2	481.3	377.5	316.4
62.5°	360.3	397.1	431.0	350.3	272.9
65°	323.5	355.7	383.3	311.4	218.4
67.5°	284.6	318.0	351.9	267.4	185.8
70°	248.6	284.2	311.4	237.3	139.8
72.5°	211.3	248.2	260.3	198.4	111.7
75°	178.7	198.8	220.5	181.2	98.3
77.5°	144.4	161.5	170.3	166.1	86.6
80°	110.9	124.7	139.8	151.1	74.1
82.5°	81.2	91.2	111.7	133.1	59.4
85°	49.8	61.1	85.8	113.0	45.6
87.5°	22.2	36.4	63.2	93.3	29.3
90°	1.3	18.8	43.5	72.4	13.4
92.5°	0.4	8.4	28.5	53.6	9.2
95°	0.4	2.9	17.2	37.2	6.7
97.5°	0.4	1.3	9.6	23.9	4.2
100°	0.4	0.8	4.6	13.8	2.9
102.5°	0.4	0.8	2.1	6.7	2.1
105°	0.4	0.8	1.3	2.9	1.3
107.5°	0.4	0.8	0.8	1.3	0.8
110°	0.4	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.4	0.8	0.8	0.8	0.8
115°	0.4	0.8	0.8	0.8	0.8
117.5°	0.4	0.8	0.8	0.8	0.8
120°	0.4	0.8	0.8	0.8	0.8
122.5°	0.4	0.8	0.8	0.8	0.8
125°	0.4	0.8	0.8	0.8	0.8
127.5°	0.4	0.8	0.8	0.8	0.8
130°	0.4	0.8	0.8	0.8	0.8
132.5°	0.8	0.8	1.3	1.3	1.3
135°	0.8	0.8	1.3	1.3	1.3
137.5°	0.8	1.3	1.3	1.3	1.3
140°	0.8	1.3	1.3	1.3	1.3
142.5°	0.8	1.3	1.3	1.3	1.3
145°	0.8	1.3	1.3	1.3	1.7
147.5°	0.8	1.3	1.3	1.3	1.7
150°	0.8	1.3	1.3	1.3	1.3
152.5°	1.3	1.3	1.3	1.3	1.3
155°	1.3	1.3	1.3	1.3	1.3
157.5°	1.3	1.3	1.3	1.7	1.7
160°	1.3	1.7	1.7	1.7	1.7
162.5°	1.3	1.7	1.7	1.7	1.7
165°	1.3	1.7	1.7	1.7	1.7
167.5°	1.3	1.7	1.7	1.7	2.1
170°	1.7	1.7	1.7	2.1	2.1
172.5°	1.7	1.7	1.7	2.1	2.1
175°	1.7	1.7	1.7	2.1	2.1
177.5°	1.7	2.1	1.7	2.1	2.5
180°	2.1	2.1	2.1	2.1	2.1

(END OF REPORT)