

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: P685892

Luminaire Tested: **4CZL-12-UNV-W-LVR-L950-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685892  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CZL-12-UNV-W-LVR-L950-CD-U  
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH WIDE LENS @90 CRI and 5000K  
Light Source: (588) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

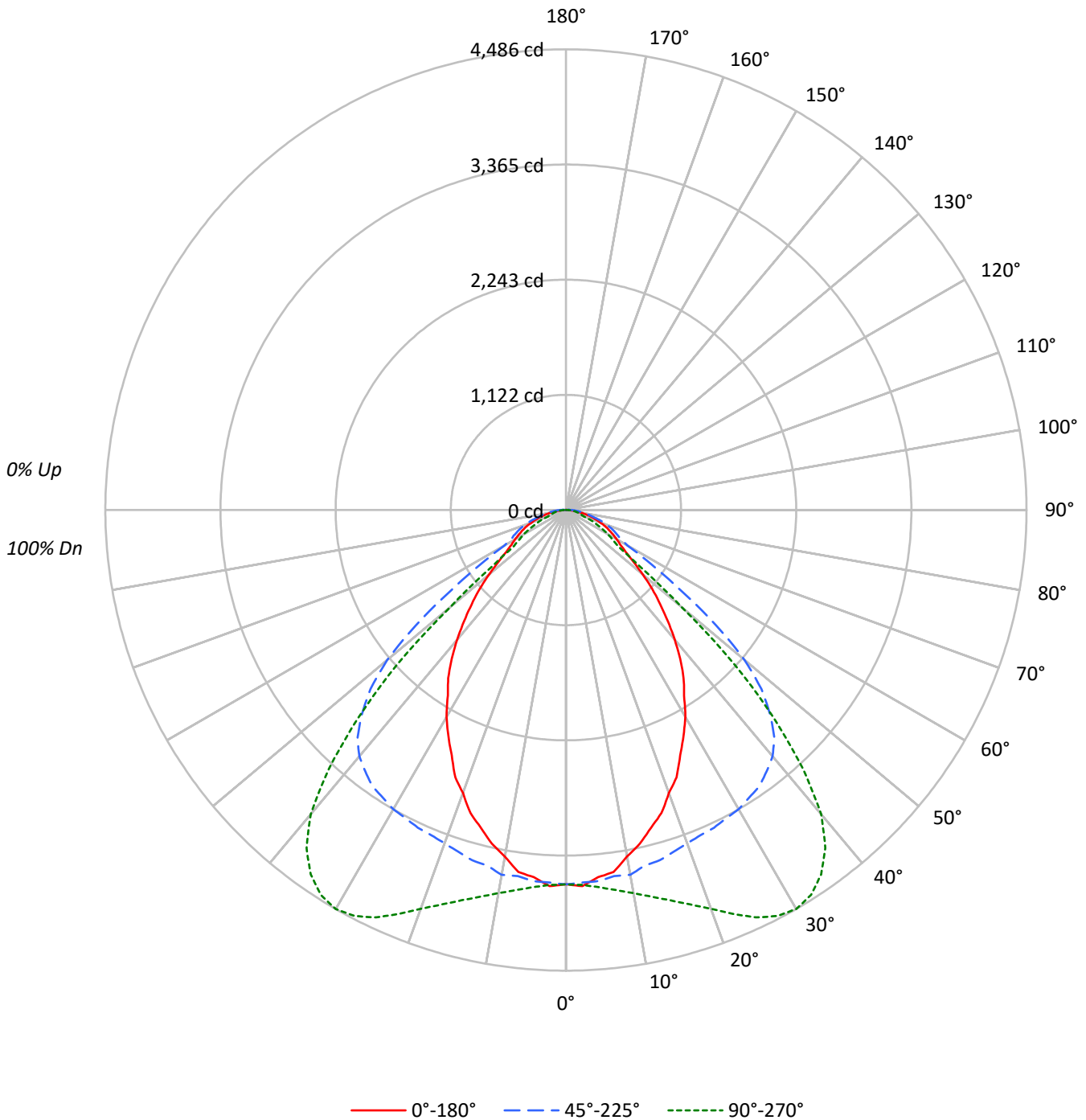
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8670.8 lumens  
Efficiency: N/A  
Efficacy: 112.6 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1.64 / 1.46  
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 77  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87
2	102	95	89	84	99	93	88	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	59	57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31	30

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

	0°	45°	90°
0°	11769	11769	11769
5°	11634	11754	11948
10°	11233	11827	12423
15°	10704	11804	13153
20°	10076	11868	14197
25°	9381	12160	15593
30°	8673	12544	16726
35°	7879	12951	17077
40°	6947	13195	16293
45°	5922	12834	13062
50°	4908	11413	7412
55°	3998	7711	3546
60°	3690	4483	3063
65°	3558	4125	2489
70°	3357	4047	1780
75°	3125	3694	1729
80°	2849	3628	1899
85°	2186	4346	2093



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	346.5	4.0
10°-20°	1005.9	11.6
20°-30°	1596.4	18.4
30°-40°	1993.8	23.0
40°-50°	1831.2	21.1
50°-60°	977.3	11.3
60°-70°	503.0	5.8
70°-80°	276.6	3.2
80°-90°	114.1	1.3
90°-100°	22.0	0.3
100°-110°	1.2	0.0
110°-120°	0.3	0.0
120°-130°	0.4	0.0
130°-140°	0.7	0.0
140°-150°	0.6	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	2948.8	34.0
0°-40°	4942.6	57.0
0°-60°	7751.1	89.4
0°-90°	8644.8	99.7
90°-120°	23.5	0.3
90°-150°	25.1	0.3
90°-180°	26.0	0.3
0°-180°	8670.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3644	3644	3644	3644	3644	
5°	3589	3598	3626	3682	3686	339
15°	3202	3306	3531	3818	3934	900
25°	2633	2880	3413	4038	4376	1213
35°	1999	2368	3285	4002	4332	1241
45°	1297	1869	2810	2912	2860	1004
55°	710	1273	1370	767	630	656
65°	466	610	540	440	326	460
75°	250	278	296	263	139	266
85°	59	77	117	154	56	68
90°	0	22	58	94	12	2
95°	0	2	22	43	6	0
105°	0	1	1	1	0	0
115°	0	1	1	0	0	0
125°	0	1	1	0	0	0
135°	1	1	1	1	1	0
145°	1	1	1	1	1	0
155°	1	1	1	1	1	1
165°	1	2	1	1	1	0
175°	2	2	1	1	1	0
180°	1	1	1	1	1	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3644.5	3644.5	3644.5	3644.5	3644.5
2.5°	3665.8	3657.9	3631.7	3655.4	3653.6
5°	3589.2	3598.3	3626.2	3682.2	3685.8
7.5°	3555.1	3580.0	3595.8	3716.8	3732.6
10°	3425.6	3464.5	3606.8	3732.6	3788.6
12.5°	3328.4	3406.8	3544.8	3758.2	3855.4
15°	3201.9	3306.5	3530.8	3818.3	3934.5
17.5°	3094.3	3201.3	3488.2	3863.9	4026.3
20°	2932.0	3125.9	3453.6	3911.4	4131.4
22.5°	2815.9	3012.2	3426.8	3953.3	4256.0
25°	2632.9	2880.3	3412.9	4037.8	4376.4
27.5°	2479.7	2769.1	3381.9	4091.9	4456.1
30°	2325.9	2632.9	3364.2	4101.6	4485.8
32.5°	2140.5	2522.3	3319.8	4079.1	4443.3
35°	1998.8	2367.8	3285.2	4001.9	4332.0
37.5°	1826.2	2246.3	3209.2	3862.1	4149.7
40°	1648.1	2133.8	3130.2	3643.9	3865.2
42.5°	1468.1	2007.4	3003.7	3352.7	3420.2
45°	1296.7	1869.4	2810.4	2912.5	2860.3
47.5°	1142.9	1721.0	2581.8	2360.6	2237.8
50°	976.9	1570.3	2271.8	1797.0	1475.4
52.5°	827.4	1444.4	1845.0	1217.1	918.0
55°	710.1	1273.0	1369.6	767.2	629.8
57.5°	626.8	1141.7	988.5	606.7	539.2
60°	571.4	977.5	694.2	556.9	474.2
62.5°	516.7	773.3	593.9	507.6	398.8
65°	465.7	610.4	539.8	440.1	325.8
67.5°	412.8	495.5	487.6	399.4	271.7
70°	355.6	407.3	428.6	334.4	188.5
72.5°	304.6	341.7	364.8	285.7	159.9
75°	250.5	277.8	296.1	263.2	138.6
77.5°	198.8	223.7	241.3	238.3	121.6
80°	153.2	169.6	195.1	213.4	102.1
82.5°	104.6	116.7	153.8	184.2	79.6
85°	59.0	77.2	117.3	154.4	56.5
87.5°	17.0	45.6	85.1	124.0	32.8
90°	0.0	21.9	57.8	93.6	12.2
92.5°	0.0	8.5	37.7	65.7	8.5
95°	0.0	2.4	21.9	43.2	5.5
97.5°	0.0	0.6	10.3	25.5	2.4
100°	0.0	0.6	3.6	12.2	0.6
102.5°	0.0	0.6	1.2	4.3	0.0
105°	0.0	0.6	0.6	0.6	0.0
107.5°	0.0	0.6	0.6	0.0	0.0
110°	0.0	0.6	0.6	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.6	0.6	0.0	0.0
115°	0.0	0.6	0.6	0.0	0.0
117.5°	0.0	0.6	0.6	0.0	0.0
120°	0.0	0.6	0.6	0.0	0.0
122.5°	0.0	0.6	0.6	0.0	0.0
125°	0.0	0.6	0.6	0.0	0.0
127.5°	0.6	0.6	0.6	0.6	0.0
130°	0.6	1.2	1.2	0.6	0.0
132.5°	0.6	1.2	1.2	0.6	0.0
135°	0.6	1.2	1.2	0.6	0.6
137.5°	0.6	1.2	1.2	0.6	0.6
140°	0.6	1.2	1.2	0.6	0.6
142.5°	0.6	1.2	1.2	0.6	0.6
145°	0.6	1.2	1.2	0.6	0.6
147.5°	0.6	1.2	1.2	0.6	0.6
150°	0.6	1.2	1.2	0.6	0.6
152.5°	1.2	1.2	1.2	0.6	0.6
155°	1.2	1.2	1.2	0.6	0.6
157.5°	1.2	1.2	1.2	0.6	0.6
160°	1.2	1.2	1.2	0.6	0.6
162.5°	1.2	1.8	1.2	0.6	0.6
165°	1.2	1.8	1.2	0.6	0.6
167.5°	1.2	1.8	1.2	0.6	0.6
170°	1.2	1.8	1.2	0.6	0.6
172.5°	1.2	1.8	1.2	0.6	0.6
175°	1.8	1.8	1.2	0.6	0.6
177.5°	1.8	1.8	1.2	1.2	1.2
180°	1.2	1.2	1.2	1.2	1.2

(END OF REPORT)