

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: P685927

Luminaire Tested: **8CZL-24-UNV-LVRF-L850-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685927  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-24-UNV-LVRF-L850-CD-U  
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL WITH FROSTED LAY-IN @80 CRI and 5000K  
Light Source: (1176) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

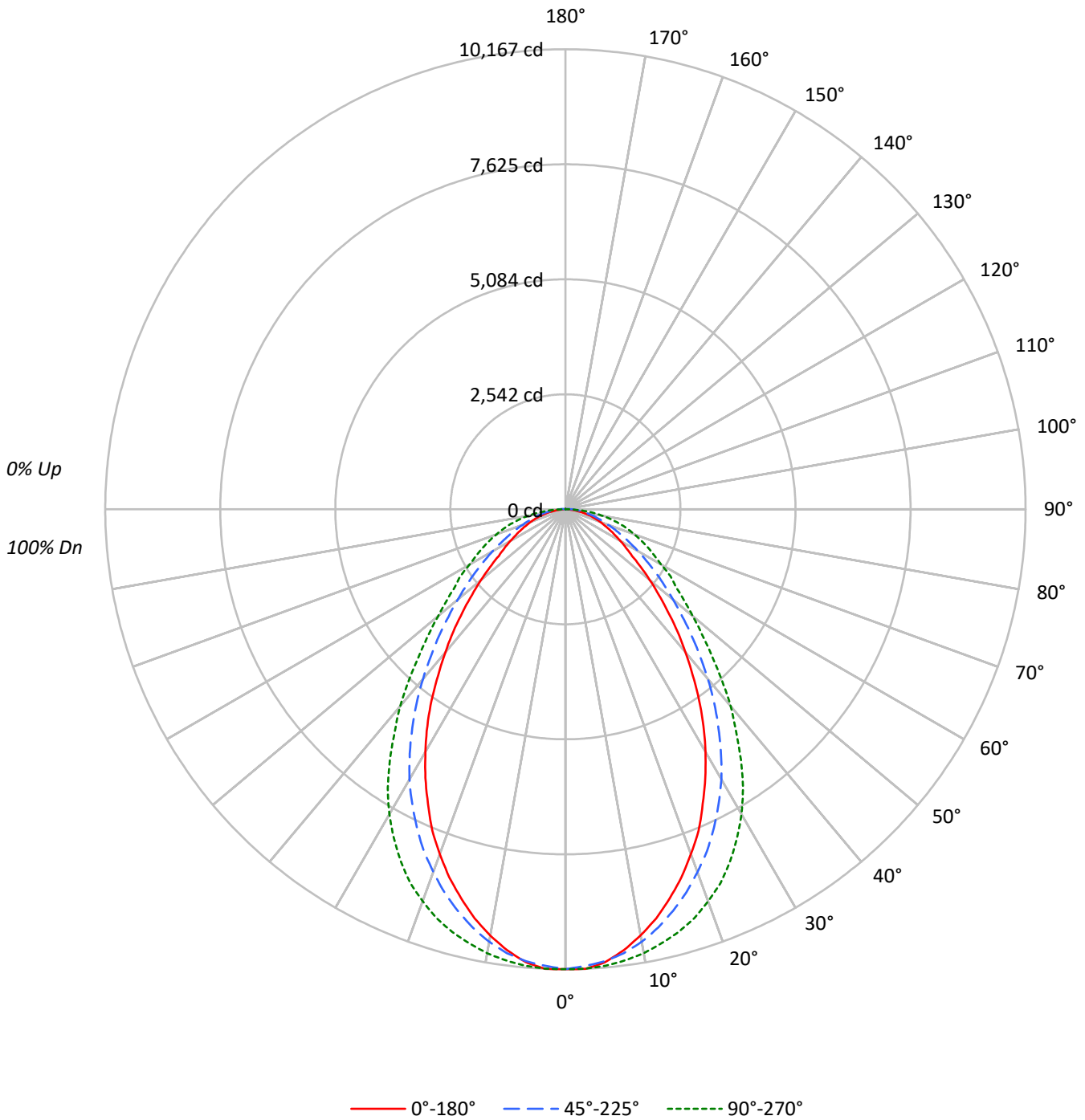
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18746.5 lumens  
Efficiency: N/A  
Efficacy: 121.7 lumens/watt  
Spacing Criteria (0/90/45): 0.97 / 1.15 / 1.12  
Luminous Opening: Rectangular (W 0.83' x L: 8' x H: 0')  
CIE Type: Direct

Input Watts (W): 154  
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	76	76	76	74
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	59	57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	53	53	53	51
6	75	63	55	49	73	62	54	48	60	53	48	58	52	48	57	51	47	47	47	47	45
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	43	43	43	41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	39	39	39	37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	36	36	36	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	33	33	33	31

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

	0°	45°	90°
0°	16408	16408	16408
5°	16288	16251	16414
10°	15680	15912	16333
15°	14878	15356	16162
20°	13933	14656	15840
25°	12794	13827	15315
30°	11532	12850	14503
35°	10156	11622	13320
40°	8693	10319	11978
45°	7323	8994	10432
50°	6116	7796	9223
55°	5061	6849	8362
60°	4561	6004	7886
65°	4146	5284	7712
70°	3861	4743	7653
75°	3581	4428	7808
80°	3246	4387	7822
85°	2786	5141	7738



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	950.9	5.1
10°-20°	2598.6	13.9
20°-30°	3590.5	19.2
30°-40°	3693.6	19.7
40°-50°	3028.1	16.2
50°-60°	2172.8	11.6
60°-70°	1461.4	7.8
70°-80°	853.0	4.6
80°-90°	328.7	1.8
90°-100°	57.0	0.3
100°-110°	4.8	0.0
110°-120°	0.9	0.0
120°-130°	0.8	0.0
130°-140°	1.2	0.0
140°-150°	1.4	0.0
150°-160°	1.2	0.0
160°-170°	1.0	0.0
170°-180°	0.4	0.0
0°-30°	7140.0	38.1
0°-40°	10833.6	57.8
0°-60°	16034.5	85.5
0°-90°	18677.6	99.6
90°-120°	62.7	0.3
90°-150°	66.2	0.4
90°-180°	69.0	0.4
0°-180°	18746.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10162	10162	10162	10162	10162	
5°	10050	10057	10026	10120	10127	943
15°	8900	8991	9187	9543	9669	2497
25°	7181	7349	7761	8302	8597	3296
35°	5153	5391	5896	6448	6758	3211
45°	3207	3457	3939	4326	4568	2489
55°	1798	2013	2433	2766	2971	1655
65°	1085	1149	1383	1776	2018	1081
75°	574	594	710	986	1252	609
85°	150	187	278	415	418	163
90°	2	63	142	216	45	9
95°	2	10	60	104	19	0
105°	0	2	3	6	3	0
115°	2	2	2	0	0	1
125°	2	2	2	0	0	1
135°	2	3	2	2	0	1
145°	3	3	3	2	2	2
155°	3	4	3	2	2	1
165°	4	4	4	3	2	1
175°	4	6	4	3	3	0
180°	4	4	4	4	4	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10162.4	10162.4	10162.4	10162.4	10162.4
2.5°	10166.8	10158.0	10101.0	10166.8	10163.8
5°	10049.9	10057.2	10026.5	10120.0	10127.3
7.5°	9832.3	9861.5	9895.1	10032.4	10057.2
10°	9563.6	9607.4	9705.2	9909.7	9962.3
12.5°	9261.2	9309.4	9468.6	9750.5	9823.5
15°	8900.5	8991.0	9186.7	9543.1	9668.7
17.5°	8528.0	8639.0	8881.5	9303.6	9473.0
20°	8108.9	8219.9	8529.5	8999.8	9218.9
22.5°	7688.2	7796.3	8174.6	8675.6	8948.7
25°	7181.4	7349.4	7761.3	8301.7	8596.7
27.5°	6696.5	6874.7	7333.3	7913.2	8206.7
30°	6185.4	6394.2	6892.2	7445.8	7778.8
32.5°	5678.5	5890.3	6398.6	6975.5	7305.6
35°	5152.8	5390.8	5896.2	6448.2	6757.9
37.5°	4619.7	4879.6	5399.6	5942.9	6192.7
40°	4124.5	4380.1	4895.7	5382.1	5682.9
42.5°	3667.4	3918.6	4396.2	4837.3	5107.5
45°	3207.3	3457.1	3939.1	4326.1	4568.5
47.5°	2795.5	3051.1	3499.4	3890.9	4093.9
50°	2434.7	2666.9	3103.6	3458.5	3671.8
52.5°	2104.6	2316.4	2748.7	3093.4	3299.3
55°	1797.9	2012.6	2433.2	2766.2	2970.7
57.5°	1592.0	1745.3	2123.6	2493.1	2756.0
60°	1412.3	1507.3	1859.3	2297.4	2442.0
62.5°	1229.8	1315.9	1605.1	1990.7	2215.6
65°	1085.2	1149.4	1383.1	1776.0	2018.5
67.5°	942.0	990.2	1190.3	1568.6	1814.0
70°	817.9	848.6	1004.8	1364.1	1621.2
72.5°	699.6	715.7	855.9	1177.2	1432.8
75°	574.0	594.4	709.8	985.9	1251.7
77.5°	454.2	483.4	585.7	822.3	1044.3
80°	349.1	372.4	471.8	676.2	841.3
82.5°	242.4	274.6	368.1	534.6	644.1
85°	150.4	186.9	277.5	414.8	417.7
87.5°	62.8	116.8	203.0	306.7	213.2
90°	1.5	62.8	141.7	216.2	45.3
92.5°	0.0	29.2	96.4	154.8	26.3
95°	1.5	10.2	59.9	103.7	19.0
97.5°	0.0	2.9	32.1	65.7	11.7
100°	0.0	1.5	13.1	36.5	7.3
102.5°	0.0	1.5	5.8	16.1	4.4
105°	0.0	1.5	2.9	5.8	2.9
107.5°	0.0	1.5	1.5	1.5	1.5
110°	1.5	1.5	1.5	1.5	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	1.5	1.5	0.0	0.0
115°	1.5	1.5	1.5	0.0	0.0
117.5°	1.5	1.5	1.5	0.0	0.0
120°	1.5	1.5	1.5	0.0	0.0
122.5°	1.5	1.5	1.5	0.0	0.0
125°	1.5	1.5	1.5	0.0	0.0
127.5°	1.5	1.5	1.5	0.0	0.0
130°	1.5	1.5	1.5	0.0	0.0
132.5°	1.5	2.9	1.5	1.5	0.0
135°	1.5	2.9	1.5	1.5	0.0
137.5°	1.5	2.9	1.5	1.5	0.0
140°	1.5	2.9	1.5	1.5	1.5
142.5°	2.9	2.9	2.9	1.5	1.5
145°	2.9	2.9	2.9	1.5	1.5
147.5°	2.9	2.9	2.9	1.5	1.5
150°	2.9	2.9	2.9	1.5	1.5
152.5°	2.9	4.4	2.9	1.5	1.5
155°	2.9	4.4	2.9	1.5	1.5
157.5°	2.9	4.4	2.9	1.5	1.5
160°	2.9	4.4	2.9	1.5	1.5
162.5°	4.4	4.4	2.9	2.9	1.5
165°	4.4	4.4	4.4	2.9	1.5
167.5°	4.4	4.4	4.4	2.9	1.5
170°	4.4	4.4	4.4	2.9	2.9
172.5°	4.4	4.4	4.4	2.9	2.9
175°	4.4	5.8	4.4	2.9	2.9
177.5°	4.4	5.8	4.4	2.9	2.9
180°	4.4	4.4	4.4	4.4	4.4

(END OF REPORT)