

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: P685857

Luminaire Tested: **8CZL-24-UNV-W-LVR-L840-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685857  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-24-UNV-W-LVR-L840-CD-U  
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL WITH WIDE LENS @80 CRI and 4000K  
Light Source: (1176) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

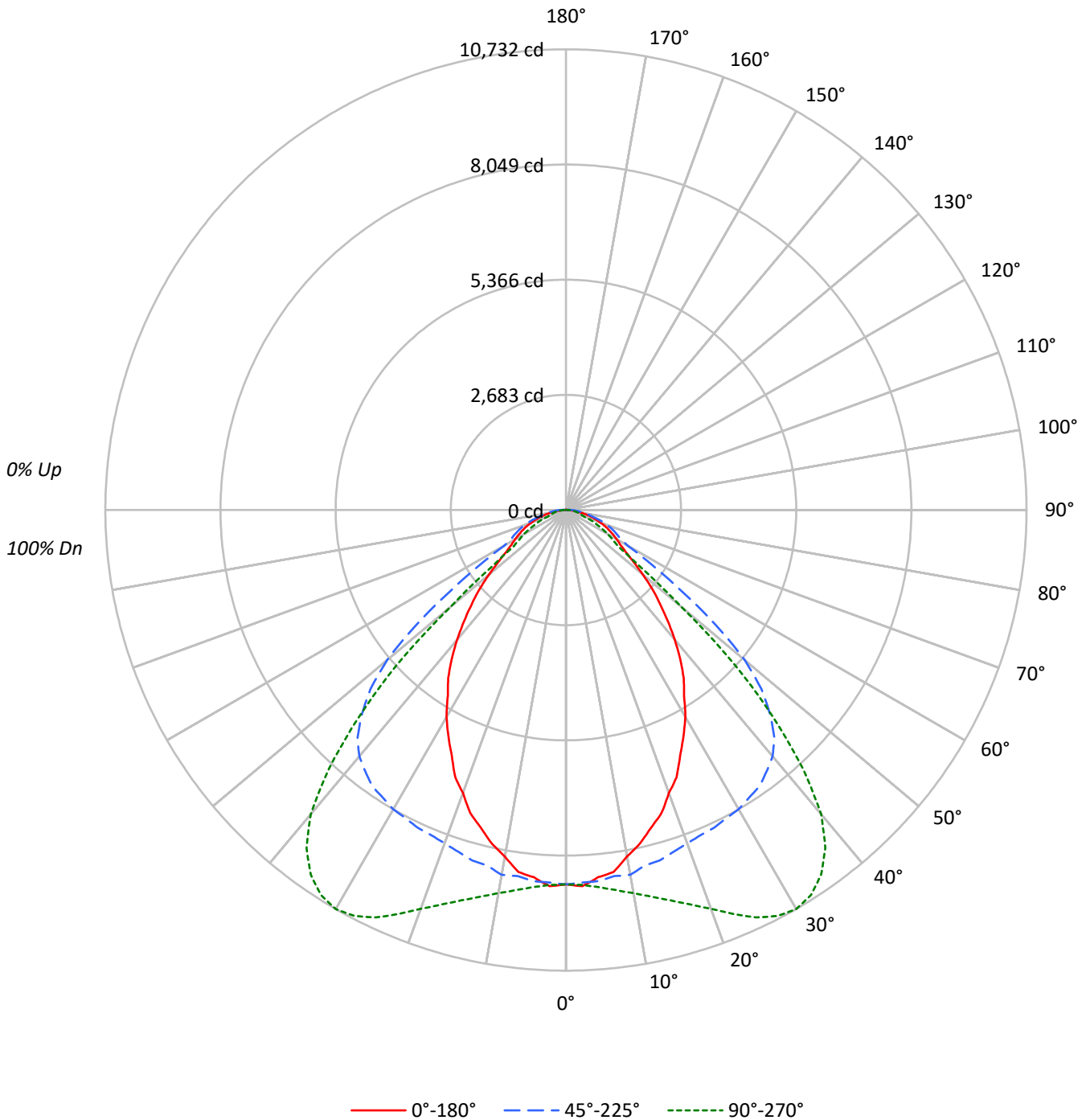
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20745.4 lumens  
Efficiency: N/A  
Efficacy: 134.7 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1.64 / 1.46  
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 (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	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	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	89	89	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	77	77	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	68	68	68	66
4	87	76	68	62	85	75	68	62	72	66	61	70	65	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	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	38	38	38	36
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	34	34	34	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31	31	31	31	30

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

	0°	45°	90°
0°	14079	14079	14079
5°	13918	14062	14293
10°	13437	14148	14861
15°	12805	14121	15735
20°	12053	14197	16984
25°	11222	14547	18654
30°	10375	15006	20009
35°	9426	15492	20429
40°	8311	15785	19491
45°	7084	15353	15626
50°	5871	13653	8867
55°	4782	9224	4242
60°	4415	5364	3664
65°	4256	4934	2978
70°	4017	4841	2129
75°	3738	4419	2069
80°	3408	4341	2272
85°	2614	5200	2506



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	829.1	4.0
10°-20°	2406.7	11.6
20°-30°	3819.3	18.4
30°-40°	4770.2	23.0
40°-50°	4381.3	21.1
50°-60°	2338.2	11.3
60°-70°	1203.4	5.8
70°-80°	661.7	3.2
80°-90°	273.0	1.3
90°-100°	52.7	0.3
100°-110°	2.9	0.0
110°-120°	0.7	0.0
120°-130°	0.9	0.0
130°-140°	1.6	0.0
140°-150°	1.4	0.0
150°-160°	1.1	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	7055.1	34.0
0°-40°	11825.3	57.0
0°-60°	18544.9	89.4
0°-90°	20683.0	99.7
90°-120°	56.3	0.3
90°-150°	60.3	0.3
90°-180°	62.0	0.3
0°-180°	20745.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8720	8720	8720	8720	8720	
5°	8587	8609	8676	8810	8818	811
15°	7661	7911	8448	9136	9413	2154
25°	6299	6891	8165	9661	10471	2902
35°	4782	5665	7860	9575	10365	2969
45°	3102	4472	6724	6968	6843	2401
55°	1699	3046	3277	1836	1507	1568
65°	1114	1460	1292	1053	780	1100
75°	599	665	708	630	332	636
85°	141	185	281	369	135	162
90°	0	52	138	224	29	6
95°	0	6	52	103	13	0
105°	0	2	2	2	0	0
115°	0	2	2	0	0	0
125°	0	2	2	0	0	1
135°	2	3	3	2	2	1
145°	2	3	3	2	2	1
155°	3	3	3	2	2	1
165°	3	4	3	2	2	1
175°	4	4	3	2	2	0
180°	3	3	3	3	3	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8719.6	8719.6	8719.6	8719.6	8719.6
2.5°	8770.5	8751.5	8689.0	8745.7	8741.4
5°	8587.2	8609.0	8675.9	8809.7	8818.5
7.5°	8505.7	8565.4	8603.2	8892.6	8930.4
10°	8195.9	8289.0	8629.4	8930.4	9064.3
12.5°	7963.2	8150.9	8481.0	8991.5	9224.3
15°	7660.7	7910.9	8447.6	9135.5	9413.3
17.5°	7403.3	7659.2	8345.8	9244.6	9633.0
20°	7014.9	7478.9	8262.8	9358.1	9884.6
22.5°	6737.1	7206.9	8198.8	9458.4	10182.7
25°	6299.3	6891.3	8165.4	9660.6	10470.7
27.5°	5932.8	6625.1	8091.2	9790.0	10661.3
30°	5564.8	6299.3	8049.0	9813.3	10732.5
32.5°	5121.2	6034.6	7942.9	9759.5	10630.7
35°	4782.3	5665.2	7860.0	9574.8	10364.6
37.5°	4369.2	5374.3	7678.1	9240.3	9928.2
40°	3943.1	5105.2	7489.1	8718.1	9247.5
42.5°	3512.5	4802.7	7186.5	8021.4	8182.9
45°	3102.4	4472.5	6724.0	6968.4	6843.3
47.5°	2734.4	4117.6	6177.1	5647.7	5353.9
50°	2337.3	3756.9	5435.4	4299.4	3530.0
52.5°	1979.5	3455.8	4414.3	2911.8	2196.3
55°	1698.8	3045.7	3276.9	1835.5	1506.8
57.5°	1499.6	2731.5	2365.0	1451.6	1290.1
60°	1367.2	2338.8	1661.0	1332.3	1134.5
62.5°	1236.3	1850.1	1421.0	1214.5	954.1
65°	1114.1	1460.3	1291.6	1053.0	779.6
67.5°	987.6	1185.4	1166.5	955.6	650.1
70°	850.9	974.5	1025.4	800.0	450.9
72.5°	728.7	817.4	872.7	683.6	382.5
75°	599.2	664.7	708.3	629.8	331.6
77.5°	475.6	535.2	577.4	570.2	290.9
80°	366.5	405.8	466.9	510.5	244.4
82.5°	250.2	279.3	368.0	440.7	190.5
85°	141.1	184.7	280.7	369.4	135.3
87.5°	40.7	109.1	203.6	296.7	78.5
90°	0.0	52.4	138.2	224.0	29.1
92.5°	0.0	20.4	90.2	157.1	20.4
95°	0.0	5.8	52.4	103.3	13.1
97.5°	0.0	1.5	24.7	61.1	5.8
100°	0.0	1.5	8.7	29.1	1.5
102.5°	0.0	1.5	2.9	10.2	0.0
105°	0.0	1.5	1.5	1.5	0.0
107.5°	0.0	1.5	1.5	0.0	0.0
110°	0.0	1.5	1.5	0.0	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°	0.0	1.5	1.5	0.0	0.0
117.5°	0.0	1.5	1.5	0.0	0.0
120°	0.0	1.5	1.5	0.0	0.0
122.5°	0.0	1.5	1.5	0.0	0.0
125°	0.0	1.5	1.5	0.0	0.0
127.5°	1.5	1.5	1.5	1.5	0.0
130°	1.5	2.9	2.9	1.5	0.0
132.5°	1.5	2.9	2.9	1.5	0.0
135°	1.5	2.9	2.9	1.5	1.5
137.5°	1.5	2.9	2.9	1.5	1.5
140°	1.5	2.9	2.9	1.5	1.5
142.5°	1.5	2.9	2.9	1.5	1.5
145°	1.5	2.9	2.9	1.5	1.5
147.5°	1.5	2.9	2.9	1.5	1.5
150°	1.5	2.9	2.9	1.5	1.5
152.5°	2.9	2.9	2.9	1.5	1.5
155°	2.9	2.9	2.9	1.5	1.5
157.5°	2.9	2.9	2.9	1.5	1.5
160°	2.9	2.9	2.9	1.5	1.5
162.5°	2.9	4.4	2.9	1.5	1.5
165°	2.9	4.4	2.9	1.5	1.5
167.5°	2.9	4.4	2.9	1.5	1.5
170°	2.9	4.4	2.9	1.5	1.5
172.5°	2.9	4.4	2.9	1.5	1.5
175°	4.4	4.4	2.9	1.5	1.5
177.5°	4.4	4.4	2.9	2.9	2.9
180°	2.9	2.9	2.9	2.9	2.9

(END OF REPORT)