

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: P685785

Luminaire Tested: **8CZL-14-UNV-M-LVR-L835-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685785  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-14-UNV-M-LVR-L835-CD-U  
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL WITH MEDIUM LENS @80 CRI and 3500K  
Light Source: (784) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

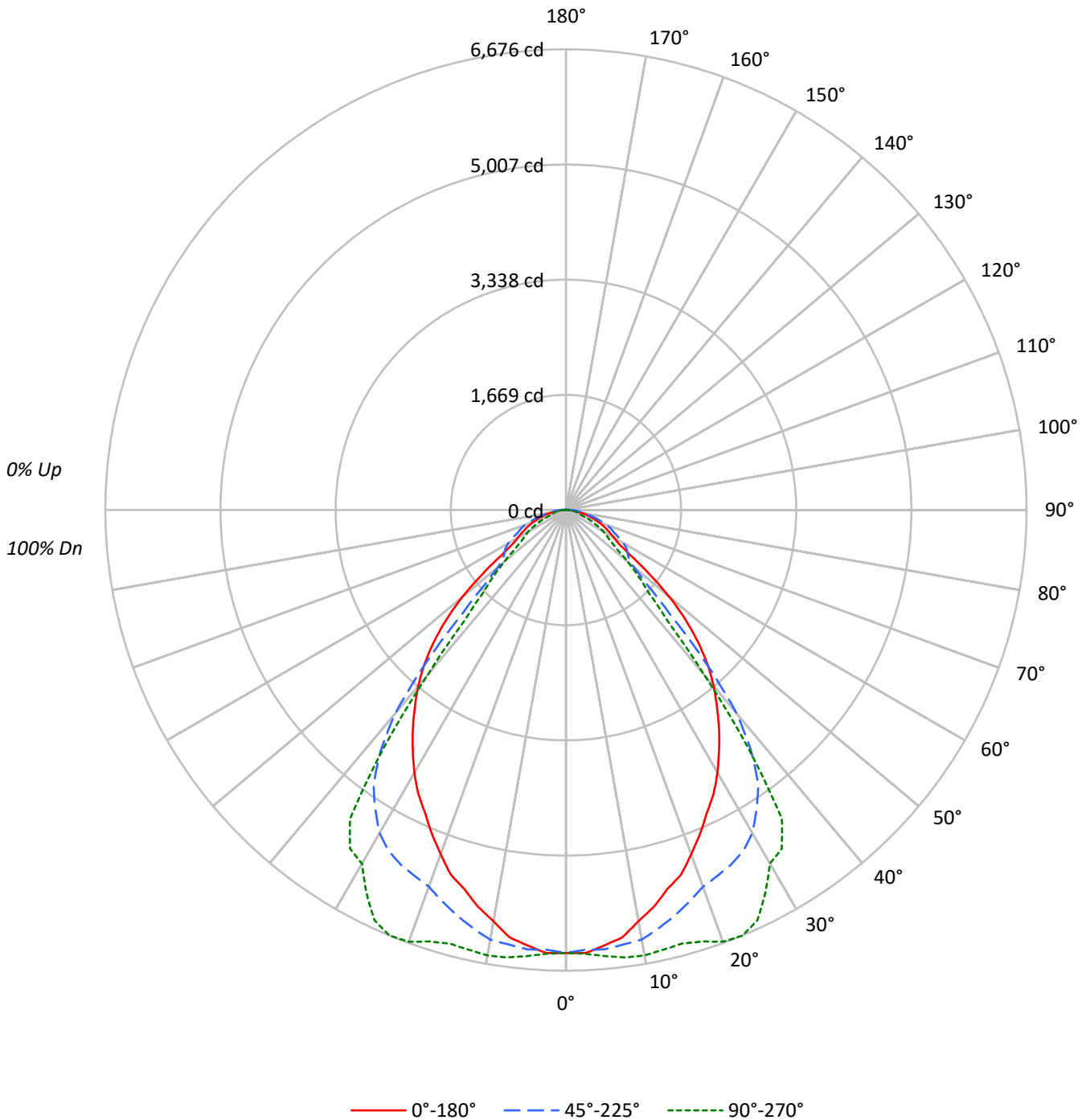
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11873.6 lumens  
Efficiency: N/A  
Efficacy: 133.4 lumens/watt  
Spacing Criteria (0/90/45): 1.05 / 1.34 / 1.2  
Luminous Opening: Rectangular (W 0.83' x L: 8' x H: 0')  
CIE Type: Direct

Input Watts (W): 89  
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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	90	90	90	88
2	103	96	90	86	100	94	89	84	91	86	83	87	84	81	84	81	79	79	79	79	77
3	95	87	80	74	93	85	79	74	82	77	72	79	75	71	77	73	70	70	70	70	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	70	66	62	62	62	62	60
5	83	72	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	56	56	56	54
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	51	51	51	49
7	72	60	53	47	70	59	52	47	58	51	47	57	51	46	55	50	46	46	46	46	44
8	68	56	48	43	66	55	48	43	54	47	42	52	47	42	51	46	42	42	42	42	40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	42	39	39	39	39	37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	35	35	35	35	34

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

	0°	45°	90°
0°	10364	10364	10364
5°	10268	10360	10515
10°	9920	10366	10744
15°	9502	10172	10871
20°	9119	9979	11436
25°	8615	10098	11690
30°	8189	10076	11026
35°	7625	9581	10751
40°	7019	8122	6552
45°	6184	4841	3883
50°	4909	3214	2931
55°	3178	3058	2224
60°	2595	3108	2043
65°	2472	2929	1669
70°	2347	2940	1319
75°	2230	2752	1227
80°	2062	2599	1377
85°	1845	3179	1690



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	609.1	5.1
10°-20°	1727.7	14.6
20°-30°	2605.3	21.9
30°-40°	2878.8	24.2
40°-50°	1805.0	15.2
50°-60°	971.8	8.2
60°-70°	660.0	5.6
70°-80°	394.2	3.3
80°-90°	171.3	1.4
90°-100°	37.5	0.3
100°-110°	4.3	0.0
110°-120°	1.6	0.0
120°-130°	1.4	0.0
130°-140°	1.7	0.0
140°-150°	1.5	0.0
150°-160°	1.2	0.0
160°-170°	0.9	0.0
170°-180°	0.4	0.0
0°-30°	4942.1	41.6
0°-40°	7820.9	65.9
0°-60°	10597.6	89.3
0°-90°	11823.0	99.6
90°-120°	43.4	0.4
90°-150°	48.1	0.4
90°-180°	51.0	0.4
0°-180°	11873.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6419	6419	6419	6419	6419	
5°	6335	6346	6392	6467	6487	597
15°	5685	5884	6086	6380	6503	1605
25°	4836	5130	5668	6272	6562	2233
35°	3868	4323	4861	5229	5454	2414
45°	2708	2949	2120	1728	1701	2066
55°	1129	1181	1086	940	790	1097
65°	647	711	767	623	437	640
75°	357	398	441	362	197	377
85°	100	122	172	226	91	107
90°	2	38	87	145	27	7
95°	1	6	34	74	13	1
105°	1	2	2	6	2	1
115°	1	2	2	2	2	1
125°	1	2	2	2	2	1
135°	2	2	2	2	2	1
145°	2	2	2	2	3	1
155°	2	2	2	2	2	1
165°	2	3	3	3	3	1
175°	3	3	3	4	4	0
180°	4	4	4	4	4	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6418.7	6418.7	6418.7	6418.7	6418.7
2.5°	6427.1	6409.5	6376.9	6435.5	6436.3
5°	6335.0	6345.9	6391.9	6467.3	6487.4
7.5°	6245.5	6287.3	6349.3	6530.9	6540.1
10°	6050.5	6137.5	6322.5	6497.4	6553.5
12.5°	5888.1	6017.0	6207.8	6438.0	6525.0
15°	5684.7	5883.9	6085.6	6380.2	6503.3
17.5°	5542.4	5702.3	5949.2	6353.4	6555.2
20°	5307.2	5532.4	5807.7	6371.9	6655.6
22.5°	5078.7	5352.4	5736.6	6378.6	6676.5
25°	4836.0	5129.8	5668.0	6272.3	6561.8
27.5°	4635.1	4881.2	5565.9	6050.5	6259.7
30°	4392.4	4682.0	5404.3	5711.5	5914.0
32.5°	4131.3	4498.7	5142.3	5452.0	5820.3
35°	3868.5	4323.0	4861.1	5229.4	5454.5
37.5°	3594.0	4178.2	4419.2	4478.6	4324.6
40°	3330.3	3976.4	3853.4	3278.4	3108.5
42.5°	3042.4	3542.9	3005.6	2255.6	2179.5
45°	2708.4	2948.6	2120.0	1728.3	1700.7
47.5°	2352.7	2283.3	1581.0	1444.6	1428.7
50°	1954.3	1825.4	1279.7	1274.7	1166.7
52.5°	1523.3	1449.6	1147.5	1105.6	934.1
55°	1129.1	1181.0	1086.4	939.9	790.1
57.5°	903.9	1024.5	1043.7	821.1	706.4
60°	803.5	896.4	962.5	754.9	632.7
62.5°	720.6	794.3	862.1	700.5	545.7
65°	647.0	711.4	766.7	622.7	436.9
67.5°	569.1	636.1	703.9	534.8	371.6
70°	497.2	568.3	622.7	474.6	279.5
72.5°	422.7	496.3	520.6	396.7	223.5
75°	357.4	397.6	441.1	362.4	196.7
77.5°	288.8	323.1	340.6	332.3	173.3
80°	221.8	249.4	279.5	302.1	148.1
82.5°	162.4	182.5	223.5	266.2	118.8
85°	99.6	122.2	171.6	226.0	91.2
87.5°	44.4	72.8	126.4	186.6	58.6
90°	2.5	37.7	87.0	144.8	26.8
92.5°	0.8	16.7	56.9	107.1	18.4
95°	0.8	5.9	34.3	74.5	13.4
97.5°	0.8	2.5	19.3	47.7	8.4
100°	0.8	1.7	9.2	27.6	5.9
102.5°	0.8	1.7	4.2	13.4	4.2
105°	0.8	1.7	2.5	5.9	2.5
107.5°	0.8	1.7	1.7	2.5	1.7
110°	0.8	1.7	1.7	1.7	1.7



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CATALOG NUMBER: 8CZL-14-UNV-M-LVR-L835-CD-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.8	1.7	1.7	1.7	1.7
115°	0.8	1.7	1.7	1.7	1.7
117.5°	0.8	1.7	1.7	1.7	1.7
120°	0.8	1.7	1.7	1.7	1.7
122.5°	0.8	1.7	1.7	1.7	1.7
125°	0.8	1.7	1.7	1.7	1.7
127.5°	0.8	1.7	1.7	1.7	1.7
130°	0.8	1.7	1.7	1.7	1.7
132.5°	1.7	1.7	2.5	2.5	2.5
135°	1.7	1.7	2.5	2.5	2.5
137.5°	1.7	2.5	2.5	2.5	2.5
140°	1.7	2.5	2.5	2.5	2.5
142.5°	1.7	2.5	2.5	2.5	2.5
145°	1.7	2.5	2.5	2.5	3.3
147.5°	1.7	2.5	2.5	2.5	3.3
150°	1.7	2.5	2.5	2.5	2.5
152.5°	2.5	2.5	2.5	2.5	2.5
155°	2.5	2.5	2.5	2.5	2.5
157.5°	2.5	2.5	2.5	3.3	3.3
160°	2.5	3.3	3.3	3.3	3.3
162.5°	2.5	3.3	3.3	3.3	3.3
165°	2.5	3.3	3.3	3.3	3.3
167.5°	2.5	3.3	3.3	3.3	4.2
170°	3.3	3.3	3.3	4.2	4.2
172.5°	3.3	3.3	3.3	4.2	4.2
175°	3.3	3.3	3.3	4.2	4.2
177.5°	3.3	4.2	3.3	4.2	5.0
180°	4.2	4.2	4.2	4.2	4.2

(END OF REPORT)