

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: P685795

Luminaire Tested: **8CZL-14-UNV-M-LVR-L840-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685795  
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-L840-CD-U  
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL WITH MEDIUM LENS @80 CRI and 4000K  
Light Source: (784) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

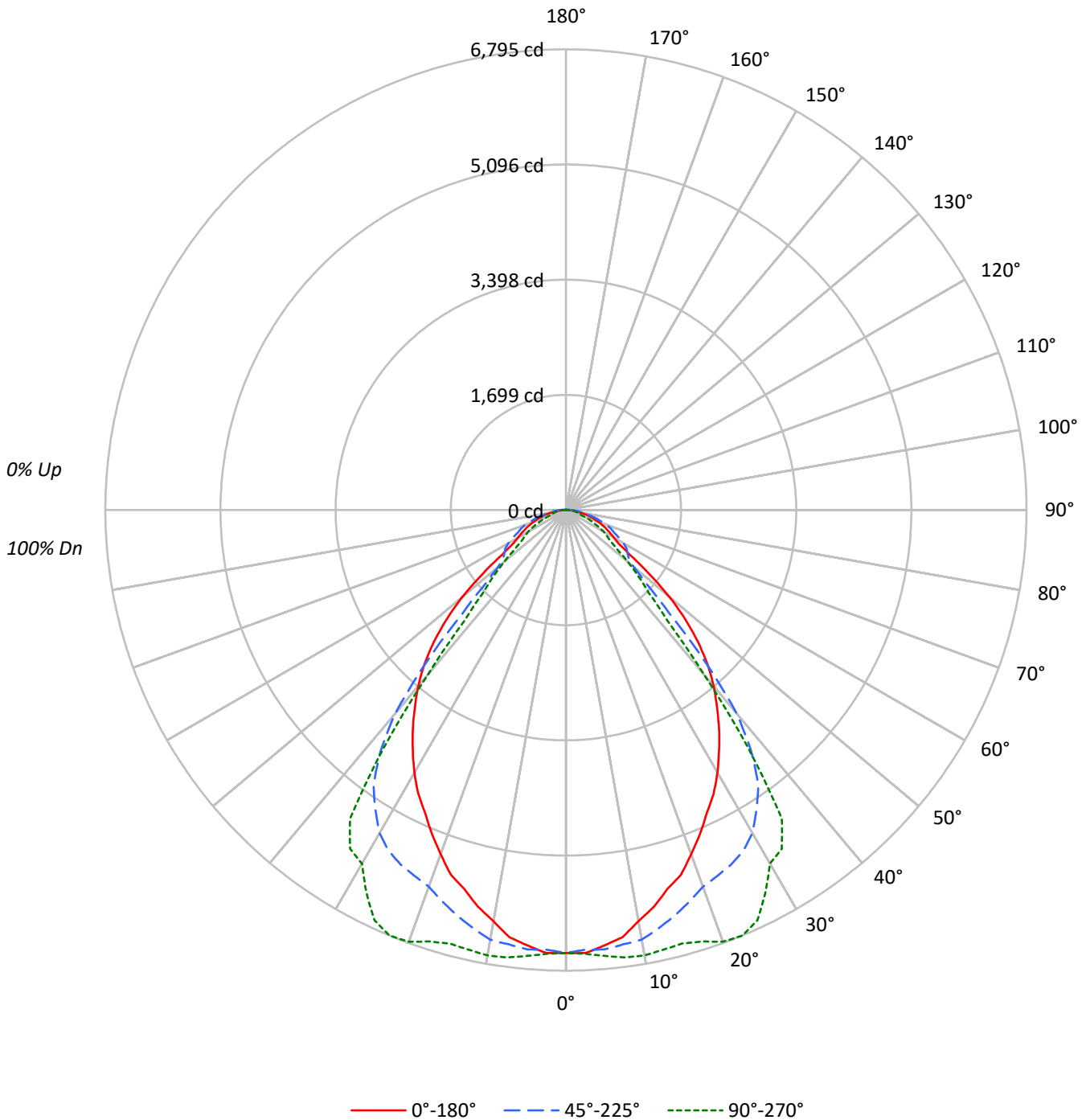
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12085.2 lumens  
Efficiency: N/A  
Efficacy: 135.8 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°	10548	10548	10548
5°	10451	10544	10702
10°	10096	10550	10936
15°	9672	10354	11064
20°	9281	10157	11639
25°	8769	10277	11898
30°	8335	10255	11222
35°	7761	9752	10943
40°	7144	8266	6669
45°	6295	4927	3953
50°	4996	3272	2983
55°	3235	3112	2264
60°	2641	3164	2080
65°	2516	2981	1699
70°	2389	2992	1343
75°	2269	2800	1249
80°	2099	2645	1402
85°	1878	3235	1721



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	619.9	5.1
10°-20°	1758.5	14.6
20°-30°	2651.7	21.9
30°-40°	2930.0	24.2
40°-50°	1837.1	15.2
50°-60°	989.1	8.2
60°-70°	671.7	5.6
70°-80°	401.2	3.3
80°-90°	174.3	1.4
90°-100°	38.2	0.3
100°-110°	4.4	0.0
110°-120°	1.6	0.0
120°-130°	1.4	0.0
130°-140°	1.7	0.0
140°-150°	1.6	0.0
150°-160°	1.3	0.0
160°-170°	1.0	0.0
170°-180°	0.4	0.0
0°-30°	5030.1	41.6
0°-40°	7960.2	65.9
0°-60°	10786.4	89.3
0°-90°	12033.6	99.6
90°-120°	44.2	0.4
90°-150°	49.0	0.4
90°-180°	52.0	0.4
0°-180°	12085.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6533	6533	6533	6533	6533	
5°	6448	6459	6506	6582	6603	608
15°	5786	5989	6194	6494	6619	1634
25°	4922	5221	5769	6384	6679	2272
35°	3937	4400	4948	5322	5552	2457
45°	2757	3001	2158	1759	1731	2103
55°	1149	1202	1106	957	804	1116
65°	658	724	780	634	445	651
75°	364	405	449	369	200	383
85°	101	124	175	230	93	109
90°	3	38	89	147	27	7
95°	1	6	35	76	14	1
105°	1	2	3	6	3	1
115°	1	2	2	2	2	1
125°	1	2	2	2	2	1
135°	2	2	3	3	3	1
145°	2	3	3	3	3	1
155°	3	3	3	3	3	1
165°	3	3	3	3	3	1
175°	3	3	3	4	4	0
180°	4	4	4	4	4	



TEST NUMBER: P685795

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6533.1	6533.1	6533.1	6533.1	6533.1
2.5°	6541.6	6523.7	6490.5	6550.1	6550.9
5°	6447.9	6458.9	6505.8	6582.5	6602.9
7.5°	6356.7	6399.3	6462.3	6647.2	6656.6
10°	6158.2	6246.8	6435.1	6613.1	6670.2
12.5°	5993.0	6124.2	6318.4	6552.6	6641.2
15°	5786.0	5988.7	6194.0	6493.9	6619.1
17.5°	5641.1	5803.8	6055.1	6466.6	6671.9
20°	5401.8	5630.9	5911.2	6485.3	6774.1
22.5°	5169.2	5447.8	5838.8	6492.2	6795.4
25°	4922.2	5221.2	5768.9	6384.0	6678.7
27.5°	4717.7	4968.2	5665.0	6158.2	6371.2
30°	4470.7	4765.4	5500.6	5813.2	6019.4
32.5°	4204.9	4578.8	5233.9	5549.1	5924.0
35°	3937.4	4400.0	4947.7	5322.5	5551.7
37.5°	3658.0	4252.6	4497.9	4558.4	4401.7
40°	3389.6	4047.3	3922.0	3336.8	3163.9
42.5°	3096.6	3606.0	3059.1	2295.8	2218.3
45°	2756.7	3001.2	2157.8	1759.1	1731.0
47.5°	2394.6	2323.9	1609.2	1470.3	1454.2
50°	1989.1	1857.9	1302.5	1297.4	1187.5
52.5°	1550.4	1475.5	1167.9	1125.3	950.7
55°	1149.2	1202.0	1105.7	956.7	804.2
57.5°	920.0	1042.7	1062.3	835.7	719.0
60°	817.8	912.4	979.7	768.4	644.0
62.5°	733.5	808.4	877.4	713.0	555.4
65°	658.5	724.1	780.3	633.8	444.7
67.5°	579.3	647.4	716.4	544.4	378.2
70°	506.0	578.4	633.8	483.0	284.5
72.5°	430.2	505.2	529.9	403.8	227.5
75°	363.8	404.6	448.9	368.9	200.2
77.5°	293.9	328.8	346.7	338.2	176.3
80°	225.7	253.9	284.5	307.5	150.8
82.5°	165.3	185.7	227.5	270.9	121.0
85°	101.4	124.4	174.6	230.0	92.9
87.5°	45.1	74.1	128.6	190.0	59.6
90°	2.6	38.3	88.6	147.4	27.3
92.5°	0.9	17.0	57.9	109.0	18.7
95°	0.9	6.0	34.9	75.8	13.6
97.5°	0.9	2.6	19.6	48.6	8.5
100°	0.9	1.7	9.4	28.1	6.0
102.5°	0.9	1.7	4.3	13.6	4.3
105°	0.9	1.7	2.6	6.0	2.6
107.5°	0.9	1.7	1.7	2.6	1.7
110°	0.9	1.7	1.7	1.7	1.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.9	1.7	1.7	1.7	1.7
115°	0.9	1.7	1.7	1.7	1.7
117.5°	0.9	1.7	1.7	1.7	1.7
120°	0.9	1.7	1.7	1.7	1.7
122.5°	0.9	1.7	1.7	1.7	1.7
125°	0.9	1.7	1.7	1.7	1.7
127.5°	0.9	1.7	1.7	1.7	1.7
130°	0.9	1.7	1.7	1.7	1.7
132.5°	1.7	1.7	2.6	2.6	2.6
135°	1.7	1.7	2.6	2.6	2.6
137.5°	1.7	2.6	2.6	2.6	2.6
140°	1.7	2.6	2.6	2.6	2.6
142.5°	1.7	2.6	2.6	2.6	2.6
145°	1.7	2.6	2.6	2.6	3.4
147.5°	1.7	2.6	2.6	2.6	3.4
150°	1.7	2.6	2.6	2.6	2.6
152.5°	2.6	2.6	2.6	2.6	2.6
155°	2.6	2.6	2.6	2.6	2.6
157.5°	2.6	2.6	2.6	3.4	3.4
160°	2.6	3.4	3.4	3.4	3.4
162.5°	2.6	3.4	3.4	3.4	3.4
165°	2.6	3.4	3.4	3.4	3.4
167.5°	2.6	3.4	3.4	3.4	4.3
170°	3.4	3.4	3.4	4.3	4.3
172.5°	3.4	3.4	3.4	4.3	4.3
175°	3.4	3.4	3.4	4.3	4.3
177.5°	3.4	4.3	3.4	4.3	5.1
180°	4.3	4.3	4.3	4.3	4.3

(END OF REPORT)