

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: P685794

Luminaire Tested: **8CZL-10-UNV-M-LVR-L840-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685794  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-10-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

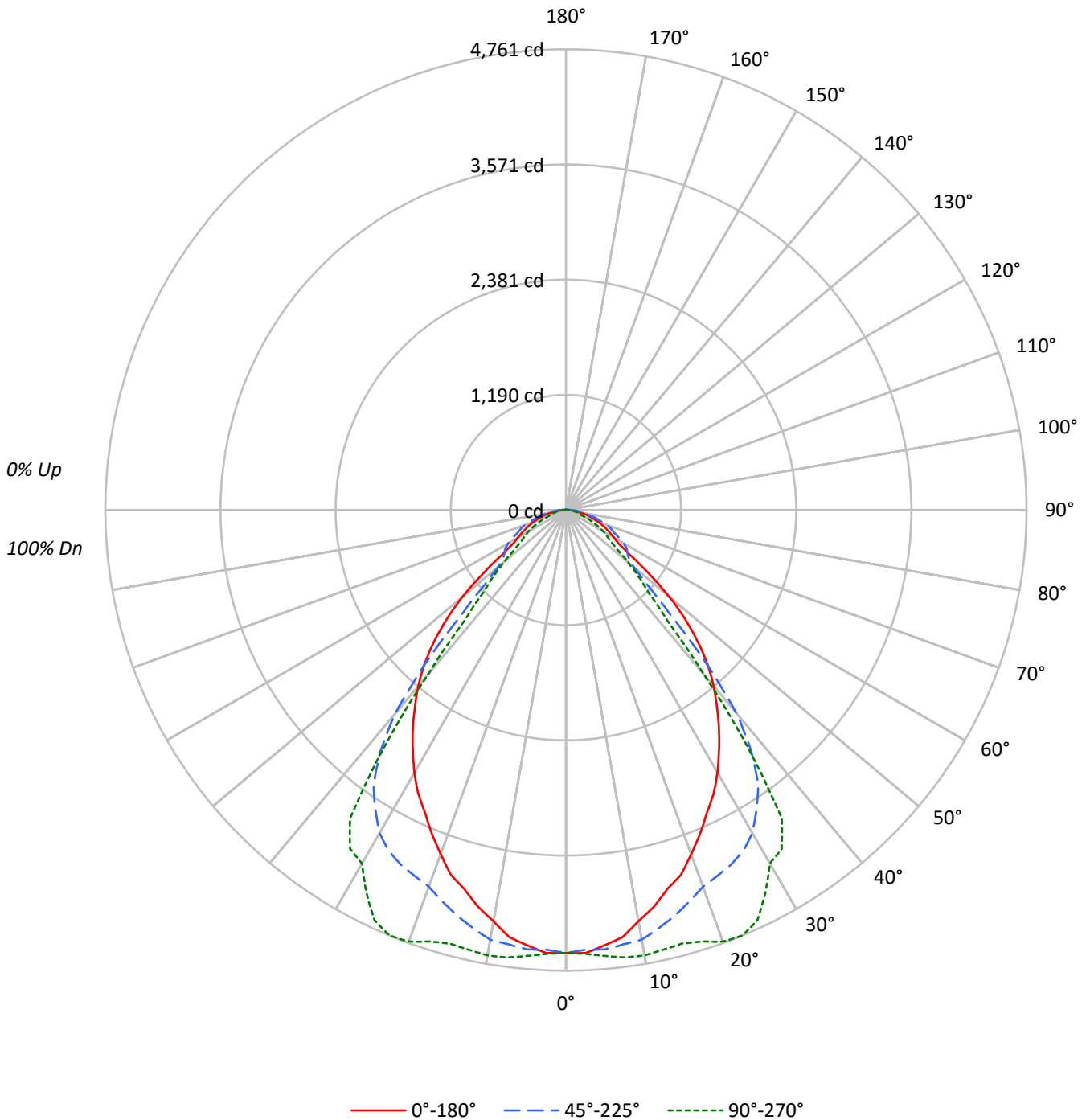
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8467.3 lumens  
Efficiency: N/A  
Efficacy: 134.4 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): 63  
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

TEST NUMBER: P685794  
CATALOG NUMBER: 8CZL-10-UNV-M-LVR-L840-CD-U

### Luminous Intensity Polar Plot





TEST NUMBER: P685794

CATALOG NUMBER: 8CZL-10-UNV-M-LVR-L840-CD-U

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

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

	0°	45°	90°
0°	7390	7390	7390
5°	7322	7388	7498
10°	7074	7392	7662
15°	6776	7254	7752
20°	6503	7116	8155
25°	6144	7201	8336
30°	5840	7185	7863
35°	5438	6833	7667
40°	5006	5792	4672
45°	4410	3452	2769
50°	3501	2292	2090
55°	2267	2181	1586
60°	1850	2217	1457
65°	1763	2089	1190
70°	1674	2096	941
75°	1590	1962	875
80°	1471	1854	982
85°	1315	2268	1206



TEST NUMBER: P685794  
 CATALOG NUMBER: 8CZL-10-UNV-M-LVR-L840-CD-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	434.4	5.1
10°-20°	1232.1	14.6
20°-30°	1857.9	21.9
30°-40°	2052.9	24.2
40°-50°	1287.1	15.2
50°-60°	693.0	8.2
60°-70°	470.7	5.6
70°-80°	281.1	3.3
80°-90°	122.2	1.4
90°-100°	26.8	0.3
100°-110°	3.1	0.0
110°-120°	1.1	0.0
120°-130°	1.0	0.0
130°-140°	1.2	0.0
140°-150°	1.1	0.0
150°-160°	0.9	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	3524.3	41.6
0°-40°	5577.2	65.9
0°-60°	7557.3	89.3
0°-90°	8431.3	99.6
90°-120°	31.0	0.4
90°-150°	34.3	0.4
90°-180°	36.0	0.4
0°-180°	8467.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4577	4577	4577	4577	4577	
5°	4518	4525	4558	4612	4626	426
15°	4054	4196	4340	4550	4638	1144
25°	3449	3658	4042	4473	4679	1592
35°	2759	3083	3467	3729	3890	1722
45°	1931	2103	1512	1232	1213	1473
55°	805	842	775	670	563	782
65°	461	507	547	444	312	456
75°	255	284	314	258	140	269
85°	71	87	122	161	65	77
90°	2	27	62	103	19	5
95°	1	4	24	53	10	0
105°	1	1	2	4	2	1
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	2	2	2	1
145°	1	2	2	2	2	1
155°	2	2	2	2	2	1
165°	2	2	2	2	2	1
175°	2	2	2	3	3	0
180°	3	3	3	3	3	



TEST NUMBER: P685794

CATALOG NUMBER: 8CZL-10-UNV-M-LVR-L840-CD-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4577.3	4577.3	4577.3	4577.3	4577.3
2.5°	4583.3	4570.7	4547.5	4589.2	4589.8
5°	4517.6	4525.4	4558.2	4611.9	4626.2
7.5°	4453.8	4483.6	4527.8	4657.3	4663.9
10°	4314.7	4376.8	4508.7	4633.4	4673.4
12.5°	4198.9	4290.8	4426.9	4591.0	4653.1
15°	4053.9	4195.9	4339.8	4549.9	4637.6
17.5°	3952.4	4066.4	4242.5	4530.8	4674.6
20°	3784.7	3945.2	4141.6	4543.9	4746.2
22.5°	3621.7	3816.9	4090.9	4548.7	4761.1
25°	3448.6	3658.1	4041.9	4472.9	4679.4
27.5°	3305.4	3480.9	3969.1	4314.7	4463.9
30°	3132.3	3338.8	3853.9	4073.0	4217.4
32.5°	2946.1	3208.1	3667.1	3887.9	4150.6
35°	2758.7	3082.8	3466.6	3729.2	3889.7
37.5°	2562.9	2979.5	3151.4	3193.8	3084.0
40°	2374.9	2835.7	2747.9	2337.9	2216.7
42.5°	2169.6	2526.5	2143.3	1608.5	1554.2
45°	1931.4	2102.7	1511.8	1232.5	1212.8
47.5°	1677.8	1628.2	1127.5	1030.2	1018.8
50°	1393.7	1301.7	912.6	909.0	832.0
52.5°	1086.3	1033.8	818.3	788.4	666.1
55°	805.2	842.2	774.7	670.3	563.4
57.5°	644.6	730.6	744.3	585.5	503.7
60°	573.0	639.2	686.4	538.4	451.2
62.5°	513.9	566.4	614.8	499.6	389.2
65°	461.4	507.3	546.7	444.1	311.6
67.5°	405.9	453.6	502.0	381.4	265.0
70°	354.5	405.3	444.1	338.4	199.4
72.5°	301.4	353.9	371.2	282.9	159.4
75°	254.9	283.5	314.5	258.4	140.3
77.5°	205.9	230.4	242.9	237.0	123.5
80°	158.2	177.9	199.4	215.5	105.6
82.5°	115.8	130.1	159.4	189.8	84.8
85°	71.0	87.1	122.4	161.2	65.1
87.5°	31.6	51.9	90.1	133.1	41.8
90°	1.8	26.9	62.1	103.3	19.1
92.5°	0.6	11.9	40.6	76.4	13.1
95°	0.6	4.2	24.5	53.1	9.5
97.5°	0.6	1.8	13.7	34.0	6.0
100°	0.6	1.2	6.6	19.7	4.2
102.5°	0.6	1.2	3.0	9.5	3.0
105°	0.6	1.2	1.8	4.2	1.8
107.5°	0.6	1.2	1.2	1.8	1.2
110°	0.6	1.2	1.2	1.2	1.2



TEST NUMBER: P685794  
 CATALOG NUMBER: 8CZL-10-UNV-M-LVR-L840-CD-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	1.2	1.2	1.2	1.2
115°	0.6	1.2	1.2	1.2	1.2
117.5°	0.6	1.2	1.2	1.2	1.2
120°	0.6	1.2	1.2	1.2	1.2
122.5°	0.6	1.2	1.2	1.2	1.2
125°	0.6	1.2	1.2	1.2	1.2
127.5°	0.6	1.2	1.2	1.2	1.2
130°	0.6	1.2	1.2	1.2	1.2
132.5°	1.2	1.2	1.8	1.8	1.8
135°	1.2	1.2	1.8	1.8	1.8
137.5°	1.2	1.8	1.8	1.8	1.8
140°	1.2	1.8	1.8	1.8	1.8
142.5°	1.2	1.8	1.8	1.8	1.8
145°	1.2	1.8	1.8	1.8	2.4
147.5°	1.2	1.8	1.8	1.8	2.4
150°	1.2	1.8	1.8	1.8	1.8
152.5°	1.8	1.8	1.8	1.8	1.8
155°	1.8	1.8	1.8	1.8	1.8
157.5°	1.8	1.8	1.8	2.4	2.4
160°	1.8	2.4	2.4	2.4	2.4
162.5°	1.8	2.4	2.4	2.4	2.4
165°	1.8	2.4	2.4	2.4	2.4
167.5°	1.8	2.4	2.4	2.4	3.0
170°	2.4	2.4	2.4	3.0	3.0
172.5°	2.4	2.4	2.4	3.0	3.0
175°	2.4	2.4	2.4	3.0	3.0
177.5°	2.4	3.0	2.4	3.0	3.6
180°	3.0	3.0	3.0	3.0	3.0

(END OF REPORT)