

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: P685827

Luminaire Tested: **8CZL-24-UNV-M-LVR-L940-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685827  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-24-UNV-M-LVR-L940-CD-U  
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL WITH MEDIUM LENS @90 CRI and 4000K  
Light Source: (1176) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

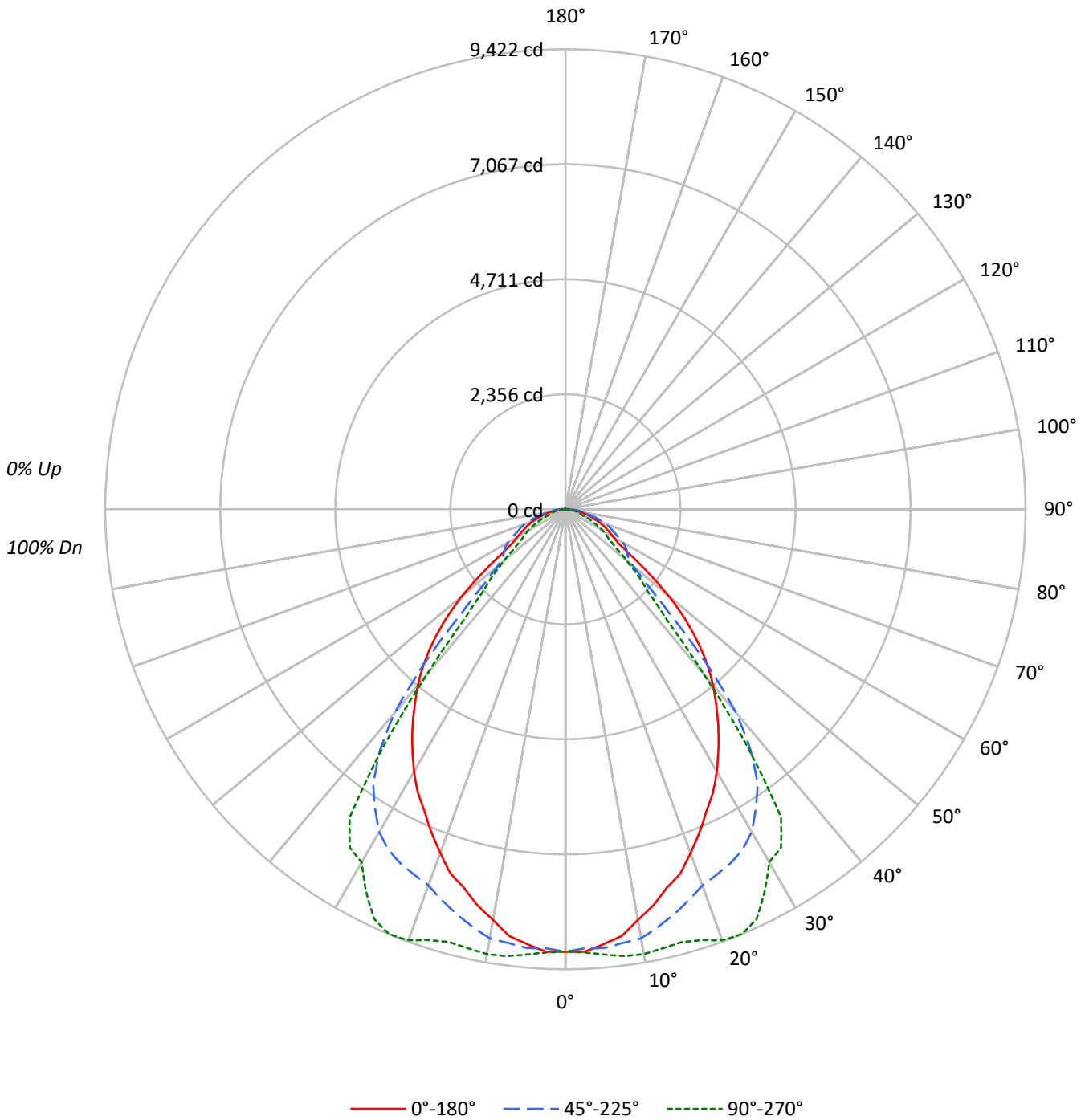
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16755.9 lumens  
Efficiency: N/A  
Efficacy: 108.8 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): 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

TEST NUMBER: P685827  
CATALOG NUMBER: 8CZL-24-UNV-M-LVR-L940-CD-U

### Luminous Intensity Polar Plot





TEST NUMBER: P685827

CATALOG NUMBER: 8CZL-24-UNV-M-LVR-L940-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°	14625	14625	14625
5°	14489	14620	14838
10°	13999	14628	15162
15°	13410	14355	15340
20°	12869	14082	16138
25°	12158	14249	16497
30°	11556	14219	15560
35°	10760	13521	15172
40°	9906	11461	9246
45°	8727	6831	5480
50°	6927	4536	4136
55°	4485	4316	3139
60°	3662	4386	2883
65°	3488	4133	2355
70°	3312	4149	1862
75°	3146	3883	1732
80°	2910	3668	1944
85°	2605	4485	2384



TEST NUMBER: P685827  
 CATALOG NUMBER: 8CZL-24-UNV-M-LVR-L940-CD-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	859.6	5.1
10°-20°	2438.1	14.6
20°-30°	3676.5	21.9
30°-40°	4062.5	24.2
40°-50°	2547.1	15.2
50°-60°	1371.4	8.2
60°-70°	931.4	5.6
70°-80°	556.3	3.3
80°-90°	241.7	1.4
90°-100°	53.0	0.3
100°-110°	6.1	0.0
110°-120°	2.2	0.0
120°-130°	2.0	0.0
130°-140°	2.4	0.0
140°-150°	2.2	0.0
150°-160°	1.7	0.0
160°-170°	1.3	0.0
170°-180°	0.5	0.0
0°-30°	6974.2	41.6
0°-40°	11036.7	65.9
0°-60°	14955.2	89.3
0°-90°	16684.5	99.6
90°-120°	61.3	0.4
90°-150°	67.8	0.4
90°-180°	71.0	0.4
0°-180°	16755.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9058	9058	9058	9058	9058	
5°	8940	8955	9020	9126	9155	842
15°	8022	8303	8588	9004	9177	2265
25°	6824	7239	7998	8851	9260	3151
35°	5459	6100	6860	7380	7697	3407
45°	3822	4161	2992	2439	2400	2915
55°	1593	1667	1533	1326	1115	1548
65°	913	1004	1082	879	616	903
75°	504	561	622	511	278	532
85°	141	172	242	319	129	152
90°	4	53	123	204	38	10
95°	1	8	48	105	19	1
105°	1	2	4	8	4	1
115°	1	2	2	2	2	1
125°	1	2	2	2	2	1
135°	2	2	4	4	4	2
145°	2	4	4	4	5	2
155°	4	4	4	4	4	2
165°	4	5	5	5	5	1
175°	5	5	5	6	6	0
180°	6	6	6	6	6	



TEST NUMBER: P685827

CATALOG NUMBER: 8CZL-24-UNV-M-LVR-L940-CD-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9058.0	9058.0	9058.0	9058.0	9058.0
2.5°	9069.8	9045.0	8998.9	9081.6	9082.8
5°	8939.9	8955.2	9020.2	9126.5	9154.8
7.5°	8813.5	8872.6	8960.0	9216.3	9229.3
10°	8538.3	8661.1	8922.2	9169.0	9248.2
12.5°	8309.2	8491.1	8760.4	9085.2	9208.0
15°	8022.2	8303.3	8587.9	9003.7	9177.3
17.5°	7821.4	8047.0	8395.4	8965.9	9250.5
20°	7489.5	7807.2	8195.8	8991.9	9392.3
22.5°	7167.0	7553.3	8095.4	9001.3	9421.8
25°	6824.5	7239.1	7998.5	8851.3	9260.0
27.5°	6541.0	6888.3	7854.4	8538.3	8833.6
30°	6198.5	6607.2	7626.5	8059.9	8345.8
32.5°	5830.0	6348.5	7256.8	7693.8	8213.5
35°	5459.1	6100.5	6859.9	7379.6	7697.3
37.5°	5071.7	5896.1	6236.3	6320.2	6102.8
40°	4699.7	5611.5	5437.9	4626.4	4386.7
42.5°	4293.4	4999.7	4241.4	3183.1	3075.6
45°	3822.1	4161.1	2991.8	2439.0	2400.0
47.5°	3320.1	3222.1	2231.1	2038.6	2016.2
50°	2757.9	2576.0	1805.9	1798.8	1646.5
52.5°	2149.6	2045.7	1619.3	1560.3	1318.1
55°	1593.3	1666.6	1533.1	1326.4	1115.0
57.5°	1275.6	1445.7	1472.9	1158.7	996.9
60°	1133.9	1265.0	1358.3	1065.4	892.9
62.5°	1016.9	1120.9	1216.6	988.6	770.1
65°	913.0	1004.0	1081.9	878.8	616.5
67.5°	803.2	897.6	993.3	754.7	524.4
70°	701.6	802.0	878.8	669.7	394.5
72.5°	596.5	700.4	734.7	559.8	315.4
75°	504.3	561.0	622.4	511.4	277.6
77.5°	407.5	455.9	480.7	468.9	244.5
80°	313.0	352.0	394.5	426.4	209.1
82.5°	229.1	257.5	315.4	375.6	167.7
85°	140.6	172.4	242.1	318.9	128.7
87.5°	62.6	102.8	178.3	263.4	82.7
90°	3.5	53.2	122.8	204.3	37.8
92.5°	1.2	23.6	80.3	151.2	26.0
95°	1.2	8.3	48.4	105.1	18.9
97.5°	1.2	3.5	27.2	67.3	11.8
100°	1.2	2.4	13.0	39.0	8.3
102.5°	1.2	2.4	5.9	18.9	5.9
105°	1.2	2.4	3.5	8.3	3.5
107.5°	1.2	2.4	2.4	3.5	2.4
110°	1.2	2.4	2.4	2.4	2.4



TEST NUMBER: P685827  
CATALOG NUMBER: 8CZL-24-UNV-M-LVR-L940-CD-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.2	2.4	2.4	2.4	2.4
115°	1.2	2.4	2.4	2.4	2.4
117.5°	1.2	2.4	2.4	2.4	2.4
120°	1.2	2.4	2.4	2.4	2.4
122.5°	1.2	2.4	2.4	2.4	2.4
125°	1.2	2.4	2.4	2.4	2.4
127.5°	1.2	2.4	2.4	2.4	2.4
130°	1.2	2.4	2.4	2.4	2.4
132.5°	2.4	2.4	3.5	3.5	3.5
135°	2.4	2.4	3.5	3.5	3.5
137.5°	2.4	3.5	3.5	3.5	3.5
140°	2.4	3.5	3.5	3.5	3.5
142.5°	2.4	3.5	3.5	3.5	3.5
145°	2.4	3.5	3.5	3.5	4.7
147.5°	2.4	3.5	3.5	3.5	4.7
150°	2.4	3.5	3.5	3.5	3.5
152.5°	3.5	3.5	3.5	3.5	3.5
155°	3.5	3.5	3.5	3.5	3.5
157.5°	3.5	3.5	3.5	4.7	4.7
160°	3.5	4.7	4.7	4.7	4.7
162.5°	3.5	4.7	4.7	4.7	4.7
165°	3.5	4.7	4.7	4.7	4.7
167.5°	3.5	4.7	4.7	4.7	5.9
170°	4.7	4.7	4.7	5.9	5.9
172.5°	4.7	4.7	4.7	5.9	5.9
175°	4.7	4.7	4.7	5.9	5.9
177.5°	4.7	5.9	4.7	5.9	7.1
180°	5.9	5.9	5.9	5.9	5.9

(END OF REPORT)