

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: P685697

Luminaire Tested: **8CZL-24-UNV-LVR-L935-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685697
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-24-UNV-LVR-L935-CD-U
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL @90 CRI and 3500K
Light Source: (1176) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

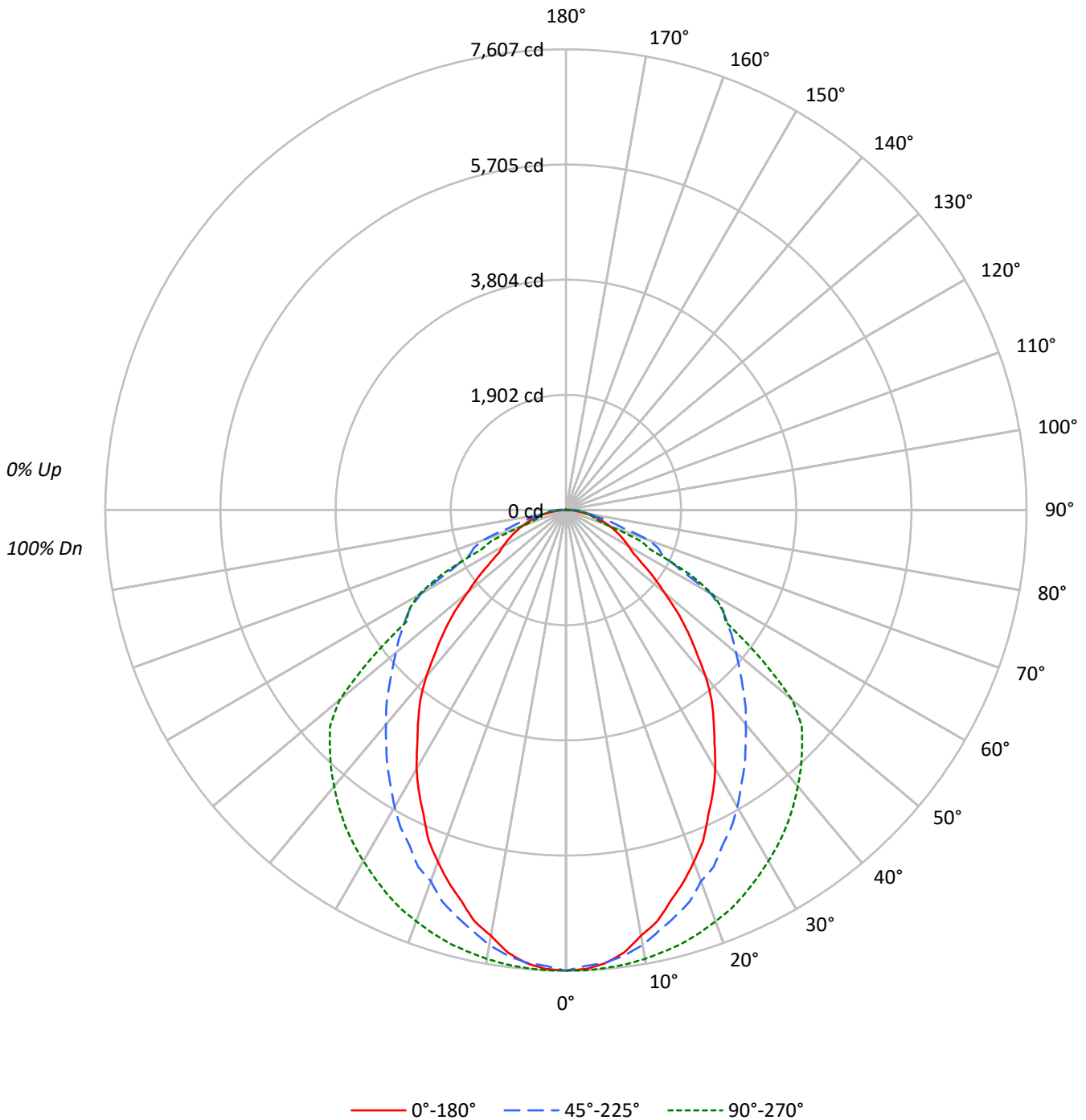
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17223.7 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1.31 / 1.26
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 (Ain): 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: P685697
CATALOG NUMBER: 8CZL-24-UNV-LVR-L935-CD-U

Luminous Intensity Polar Plot





TEST NUMBER: P685697
 CATALOG NUMBER: 8CZL-24-UNV-LVR-L935-CD-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	88	88	88	88	85
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	56	56	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	49	49	49	49	47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	44	44	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	39	39	39	37
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35	35	35	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	32	32	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	29	29	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12280	12280	12280
5°	12173	12156	12302
10°	11700	11958	12337
15°	11169	11623	12387
20°	10620	11211	12416
25°	9904	10887	12457
30°	9196	10552	12477
35°	8383	10139	12535
40°	7563	9744	12557
45°	6505	9432	12590
50°	5317	9209	12259
55°	4329	9173	9067
60°	3860	8917	9097
65°	3732	6692	5866
70°	3585	6858	3334
75°	3456	4833	2977
80°	3152	3931	3547
85°	2823	4902	4420



TEST NUMBER: P685697
 CATALOG NUMBER: 8CZL-24-UNV-LVR-L935-CD-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	712.4	4.1
10°-20°	1974.8	11.5
20°-30°	2857.1	16.6
30°-40°	3261.0	18.9
40°-50°	3204.2	18.6
50°-60°	2555.8	14.8
60°-70°	1609.9	9.3
70°-80°	713.2	4.1
80°-90°	273.5	1.6
90°-100°	54.2	0.3
100°-110°	3.6	0.0
110°-120°	0.4	0.0
120°-130°	0.5	0.0
130°-140°	0.8	0.0
140°-150°	0.8	0.0
150°-160°	0.6	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	5544.3	32.2
0°-40°	8805.3	51.1
0°-60°	14565.3	84.6
0°-90°	17161.9	99.6
90°-120°	58.3	0.3
90°-150°	60.4	0.4
90°-180°	62.0	0.4
0°-180°	17223.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7605	7605	7605	7605	7605	
5°	7511	7527	7500	7563	7590	705
15°	6682	6748	6953	7279	7410	1881
25°	5560	5739	6111	6671	6992	2562
35°	4253	4511	5144	5902	6359	2659
45°	2849	3264	4130	5055	5514	2189
55°	1538	2082	3259	3514	3221	1414
65°	977	1330	1752	1866	1536	968
75°	554	640	775	587	477	581
85°	152	185	265	341	239	161
90°	1	64	139	203	39	9
95°	1	9	58	99	13	1
105°	1	1	1	4	0	1
115°	1	1	0	0	0	1
125°	1	2	0	0	0	1
135°	1	2	1	0	0	1
145°	2	2	1	0	0	2
155°	2	2	1	0	0	1
165°	4	4	2	1	0	1
175°	4	4	2	1	1	0
180°	2	2	2	2	2	



TEST NUMBER: P685697

CATALOG NUMBER: 8CZL-24-UNV-LVR-L935-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7605.4	7605.4	7605.4	7605.4	7605.4
2.5°	7585.3	7580.6	7534.5	7599.5	7606.6
5°	7510.9	7527.4	7500.3	7562.9	7590.0
7.5°	7368.0	7385.7	7417.6	7532.1	7565.2
10°	7136.5	7181.3	7293.6	7454.2	7525.1
12.5°	6959.3	7014.8	7115.2	7388.0	7469.5
15°	6681.7	6747.9	6953.4	7279.4	7410.5
17.5°	6445.5	6566.0	6784.5	7142.4	7325.4
20°	6180.9	6277.8	6524.6	7007.7	7226.2
22.5°	5916.3	6039.2	6375.8	6828.2	7125.8
25°	5559.6	5739.2	6111.2	6671.1	6992.4
27.5°	5257.3	5484.0	5911.6	6485.6	6843.5
30°	4932.4	5108.4	5660.0	6296.7	6692.3
32.5°	4566.3	4842.7	5388.4	6080.5	6534.1
35°	4253.3	4510.8	5143.9	5902.2	6359.3
37.5°	3950.9	4193.1	4873.4	5700.2	6165.6
40°	3588.3	3907.2	4623.0	5469.9	5957.7
42.5°	3186.7	3577.7	4390.3	5252.5	5746.3
45°	2848.9	3263.5	4130.5	5055.3	5513.6
47.5°	2498.1	2935.1	3887.1	4815.5	5283.2
50°	2116.6	2648.1	3666.3	4593.5	4880.5
52.5°	1837.9	2349.3	3467.8	4191.9	4113.9
55°	1537.8	2082.4	3258.8	3513.9	3221.0
57.5°	1309.9	1841.4	3062.7	2759.1	3074.5
60°	1195.3	1648.9	2761.5	2626.9	2817.0
62.5°	1087.8	1480.0	2111.9	2463.9	2317.4
65°	976.8	1330.0	1751.6	1866.2	1535.5
67.5°	869.3	1200.0	1651.2	1393.7	1337.1
70°	759.5	1099.6	1452.8	1188.2	706.3
72.5°	655.5	983.9	993.3	657.9	524.4
75°	554.0	640.2	774.8	587.0	477.2
77.5°	442.9	549.2	518.5	525.6	432.3
80°	339.0	378.0	422.8	470.1	381.5
82.5°	239.8	281.1	342.5	411.0	313.0
85°	152.4	185.4	264.6	341.3	238.6
87.5°	60.2	116.9	197.3	275.2	140.6
90°	1.2	63.8	139.4	203.2	39.0
92.5°	1.2	29.5	93.3	148.8	20.1
95°	1.2	9.4	57.9	99.2	13.0
97.5°	1.2	3.5	30.7	61.4	7.1
100°	1.2	1.2	13.0	33.1	3.5
102.5°	1.2	1.2	4.7	13.0	1.2
105°	1.2	1.2	1.2	3.5	0.0
107.5°	1.2	1.2	0.0	0.0	0.0
110°	1.2	1.2	0.0	0.0	0.0



TEST NUMBER: P685697
 CATALOG NUMBER: 8CZL-24-UNV-LVR-L935-CD-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.2	1.2	0.0	0.0	0.0
115°	1.2	1.2	0.0	0.0	0.0
117.5°	1.2	1.2	0.0	0.0	0.0
120°	1.2	1.2	0.0	0.0	0.0
122.5°	1.2	1.2	0.0	0.0	0.0
125°	1.2	2.4	0.0	0.0	0.0
127.5°	1.2	1.2	0.0	0.0	0.0
130°	1.2	2.4	1.2	0.0	0.0
132.5°	1.2	2.4	1.2	0.0	0.0
135°	1.2	2.4	1.2	0.0	0.0
137.5°	1.2	2.4	1.2	0.0	0.0
140°	2.4	2.4	1.2	0.0	0.0
142.5°	2.4	2.4	1.2	0.0	0.0
145°	2.4	2.4	1.2	0.0	0.0
147.5°	2.4	2.4	1.2	0.0	0.0
150°	2.4	2.4	1.2	0.0	0.0
152.5°	2.4	2.4	1.2	0.0	0.0
155°	2.4	2.4	1.2	0.0	0.0
157.5°	2.4	3.5	1.2	0.0	0.0
160°	3.5	3.5	1.2	0.0	0.0
162.5°	3.5	3.5	2.4	1.2	0.0
165°	3.5	3.5	2.4	1.2	0.0
167.5°	3.5	3.5	2.4	1.2	0.0
170°	3.5	3.5	2.4	1.2	1.2
172.5°	3.5	3.5	2.4	1.2	1.2
175°	3.5	3.5	2.4	1.2	1.2
177.5°	3.5	3.5	2.4	1.2	1.2
180°	2.4	2.4	2.4	2.4	2.4

(END OF REPORT)