

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: P685783

Luminaire Tested: **4CZL-16-UNV-M-LVR-L835-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685783
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-16-UNV-M-LVR-L835-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH MEDIUM LENS @80 CRI and 3500K
Light Source: (588) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

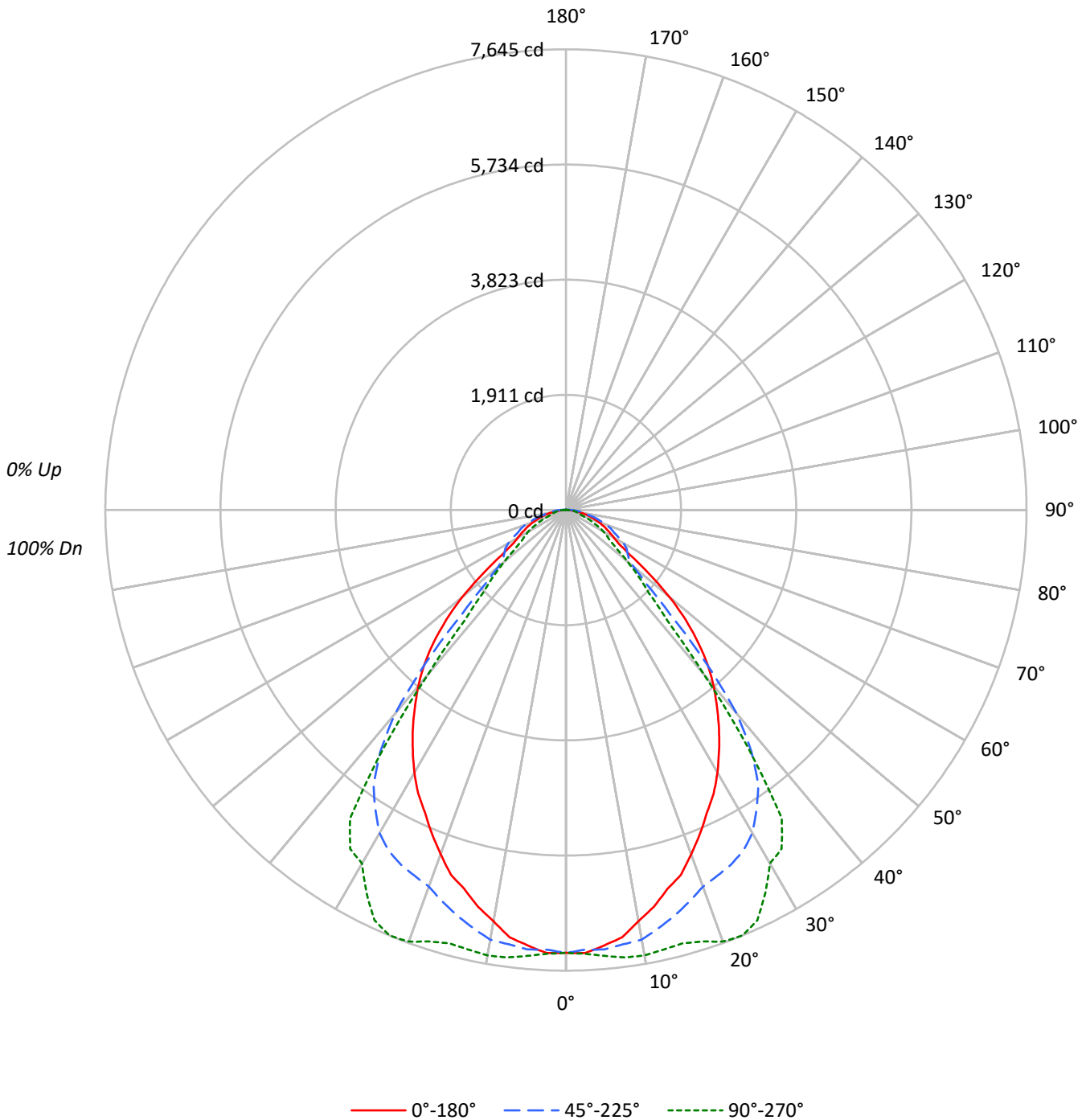
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13595.2 lumens
Efficiency: N/A
Efficacy: 132.0 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.34 / 1.2
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 103
Input Voltage (V): 120
Input Current (A_{in}): 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°	23733	23733	23733
5°	23513	23724	24078
10°	22716	23737	24605
15°	21760	23295	24893
20°	20882	22852	26188
25°	19729	23123	26770
30°	18753	23073	25249
35°	17461	21942	24620
40°	16074	18599	15003
45°	14162	11085	8893
50°	11242	7361	6711
55°	7278	7003	5093
60°	5942	7118	4679
65°	5660	6707	3822
70°	5374	6732	3022
75°	5105	6301	2810
80°	4723	5953	3154
85°	4224	7280	3872



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	697.4	5.1
10°-20°	1978.2	14.6
20°-30°	2983.0	21.9
30°-40°	3296.2	24.2
40°-50°	2066.7	15.2
50°-60°	1112.7	8.2
60°-70°	755.7	5.6
70°-80°	451.3	3.3
80°-90°	196.1	1.4
90°-100°	43.0	0.3
100°-110°	4.9	0.0
110°-120°	1.8	0.0
120°-130°	1.6	0.0
130°-140°	1.9	0.0
140°-150°	1.8	0.0
150°-160°	1.4	0.0
160°-170°	1.1	0.0
170°-180°	0.4	0.0
0°-30°	5658.7	41.6
0°-40°	8954.8	65.9
0°-60°	12134.2	89.3
0°-90°	13537.3	99.6
90°-120°	49.7	0.4
90°-150°	55.0	0.4
90°-180°	58.0	0.4
0°-180°	13595.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7349	7349	7349	7349	7349	
5°	7254	7266	7319	7405	7428	683
15°	6509	6737	6968	7305	7446	1838
25°	5537	5874	6490	7182	7513	2556
35°	4429	4950	5566	5988	6245	2764
45°	3101	3376	2427	1979	1947	2366
55°	1293	1352	1244	1076	905	1256
65°	741	815	878	713	500	733
75°	409	455	505	415	225	431
85°	114	140	196	259	104	123
90°	3	43	100	166	31	8
95°	1	7	39	85	15	1
105°	1	2	3	7	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	4	1
155°	3	3	3	3	3	1
165°	3	4	4	4	4	1
175°	4	4	4	5	5	0
180°	5	5	5	5	5	



TEST NUMBER: P685783

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7349.4	7349.4	7349.4	7349.4	7349.4
2.5°	7359.0	7338.9	7301.5	7368.6	7369.5
5°	7253.6	7266.0	7318.7	7405.0	7428.0
7.5°	7151.0	7198.9	7269.9	7477.8	7488.4
10°	6927.7	7027.4	7239.2	7439.5	7503.7
12.5°	6741.8	6889.4	7107.9	7371.4	7471.1
15°	6508.9	6737.0	6968.0	7305.3	7446.2
17.5°	6346.0	6529.1	6811.8	7274.7	7505.6
20°	6076.7	6334.5	6649.8	7295.7	7620.6
22.5°	5815.1	6128.5	6568.4	7303.4	7644.6
25°	5537.2	5873.6	6489.8	7181.7	7513.3
27.5°	5307.2	5589.0	6372.9	6927.7	7167.3
30°	5029.3	5360.9	6187.9	6539.6	6771.5
32.5°	4730.3	5151.0	5888.0	6242.5	6664.2
35°	4429.4	4949.8	5566.0	5987.6	6245.4
37.5°	4115.1	4784.0	5060.0	5128.0	4951.7
40°	3813.2	4553.0	4412.1	3753.8	3559.2
42.5°	3483.5	4056.6	3441.3	2582.7	2495.5
45°	3101.1	3376.2	2427.4	1978.9	1947.3
47.5°	2693.9	2614.3	1810.3	1654.1	1635.9
50°	2237.7	2090.1	1465.3	1459.5	1335.9
52.5°	1744.2	1659.8	1313.9	1265.9	1069.5
55°	1292.8	1352.2	1243.9	1076.2	904.7
57.5°	1035.0	1173.0	1195.0	940.1	808.8
60°	920.0	1026.4	1102.1	864.4	724.5
62.5°	825.1	909.5	987.1	802.1	624.8
65°	740.8	814.6	877.8	713.0	500.2
67.5°	651.7	728.3	806.0	612.4	425.5
70°	569.2	650.7	713.0	543.4	320.1
72.5°	484.0	568.3	596.1	454.2	255.9
75°	409.2	455.2	505.0	415.0	225.2
77.5°	330.6	369.9	390.0	380.5	198.4
80°	254.0	285.6	320.1	346.0	169.6
82.5°	185.9	208.9	255.9	304.7	136.1
85°	114.0	139.9	196.5	258.7	104.5
87.5°	50.8	83.4	144.7	213.7	67.1
90°	2.9	43.1	99.7	165.8	30.7
92.5°	1.0	19.2	65.2	122.7	21.1
95°	1.0	6.7	39.3	85.3	15.3
97.5°	1.0	2.9	22.0	54.6	9.6
100°	1.0	1.9	10.5	31.6	6.7
102.5°	1.0	1.9	4.8	15.3	4.8
105°	1.0	1.9	2.9	6.7	2.9
107.5°	1.0	1.9	1.9	2.9	1.9
110°	1.0	1.9	1.9	1.9	1.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.0	1.9	1.9	1.9	1.9
115°	1.0	1.9	1.9	1.9	1.9
117.5°	1.0	1.9	1.9	1.9	1.9
120°	1.0	1.9	1.9	1.9	1.9
122.5°	1.0	1.9	1.9	1.9	1.9
125°	1.0	1.9	1.9	1.9	1.9
127.5°	1.0	1.9	1.9	1.9	1.9
130°	1.0	1.9	1.9	1.9	1.9
132.5°	1.9	1.9	2.9	2.9	2.9
135°	1.9	1.9	2.9	2.9	2.9
137.5°	1.9	2.9	2.9	2.9	2.9
140°	1.9	2.9	2.9	2.9	2.9
142.5°	1.9	2.9	2.9	2.9	2.9
145°	1.9	2.9	2.9	2.9	3.8
147.5°	1.9	2.9	2.9	2.9	3.8
150°	1.9	2.9	2.9	2.9	2.9
152.5°	2.9	2.9	2.9	2.9	2.9
155°	2.9	2.9	2.9	2.9	2.9
157.5°	2.9	2.9	2.9	3.8	3.8
160°	2.9	3.8	3.8	3.8	3.8
162.5°	2.9	3.8	3.8	3.8	3.8
165°	2.9	3.8	3.8	3.8	3.8
167.5°	2.9	3.8	3.8	3.8	4.8
170°	3.8	3.8	3.8	4.8	4.8
172.5°	3.8	3.8	3.8	4.8	4.8
175°	3.8	3.8	3.8	4.8	4.8
177.5°	3.8	4.8	3.8	4.8	5.7
180°	4.8	4.8	4.8	4.8	4.8

(END OF REPORT)