

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: P685682

Luminaire Tested: **4CZL-12-UNV-LVR-L850-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685682
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-12-UNV-LVR-L850-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL @80 CRI and 5000K
Light Source: (588) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

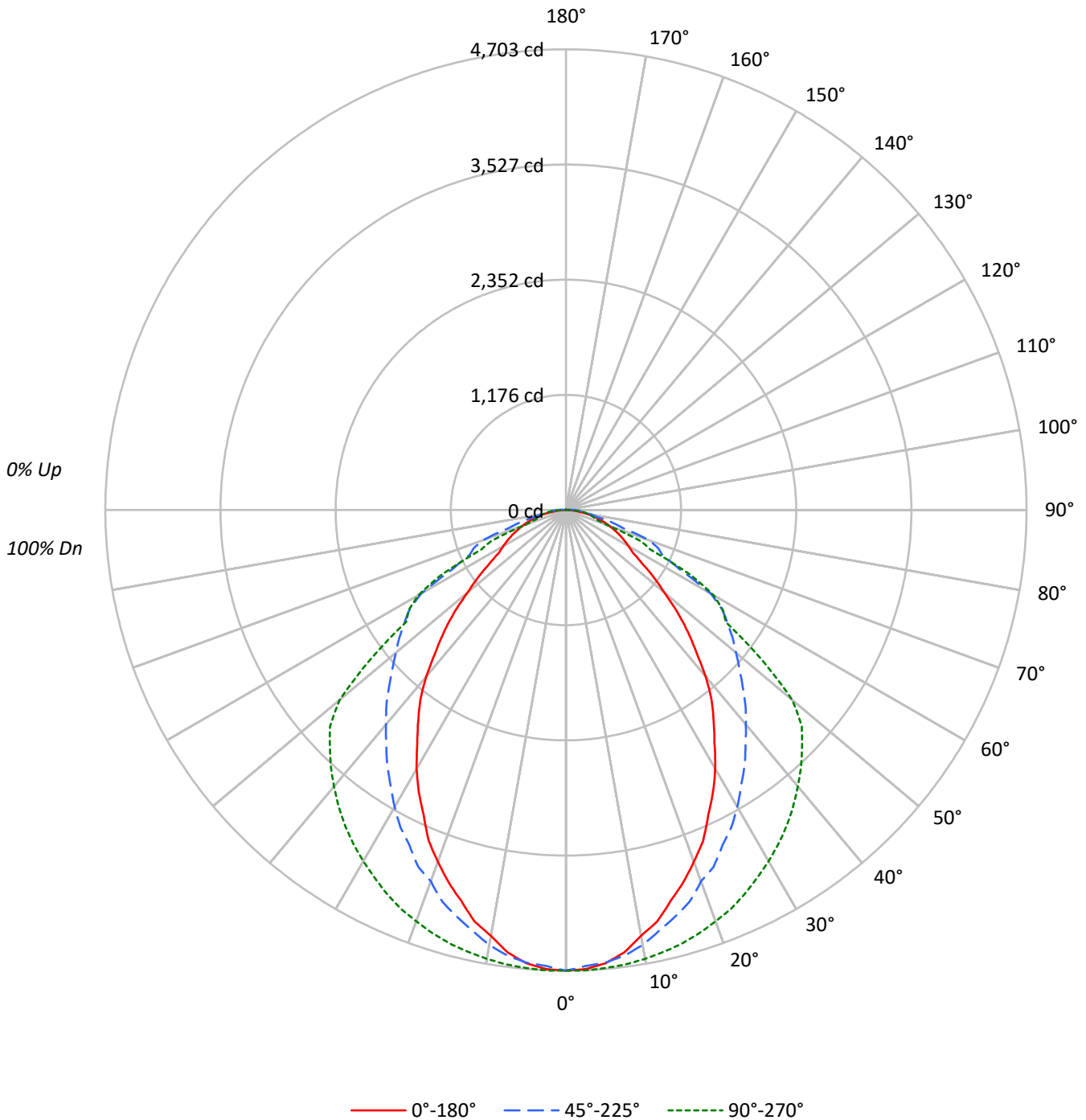
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10649.4 lumens
Efficiency: N/A
Efficacy: 138.3 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1.31 / 1.26
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 77
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

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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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	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	85
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	56	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	49	49	49	47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	44	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	39	39	37
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35	35	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	32	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	29	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15185	15185	15185
5°	15054	15032	15212
10°	14469	14787	15256
15°	13811	14373	15318
20°	13133	13863	15354
25°	12248	13463	15404
30°	11372	13049	15429
35°	10367	12537	15500
40°	9352	12049	15528
45°	8044	11663	15568
50°	6575	11388	15160
55°	5353	11344	11212
60°	4773	11027	11249
65°	4615	8275	7254
70°	4434	8481	4123
75°	4273	5978	3681
80°	3898	4861	4387
85°	3490	6062	5465



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	440.5	4.1
10°-20°	1221.0	11.5
20°-30°	1766.5	16.6
30°-40°	2016.3	18.9
40°-50°	1981.1	18.6
50°-60°	1580.3	14.8
60°-70°	995.4	9.3
70°-80°	441.0	4.1
80°-90°	169.1	1.6
90°-100°	33.5	0.3
100°-110°	2.2	0.0
110°-120°	0.3	0.0
120°-130°	0.3	0.0
130°-140°	0.5	0.0
140°-150°	0.5	0.0
150°-160°	0.4	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	3428.0	32.2
0°-40°	5444.3	51.1
0°-60°	9005.7	84.6
0°-90°	10611.2	99.6
90°-120°	36.0	0.3
90°-150°	37.3	0.4
90°-180°	38.0	0.4
0°-180°	10649.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4702	4702	4702	4702	4702	
5°	4644	4654	4637	4676	4693	436
15°	4131	4172	4299	4501	4582	1163
25°	3438	3548	3779	4125	4323	1584
35°	2630	2789	3180	3649	3932	1644
45°	1762	2018	2554	3126	3409	1354
55°	951	1288	2015	2173	1992	874
65°	604	822	1083	1154	949	598
75°	342	396	479	363	295	359
85°	94	115	164	211	148	99
90°	1	39	86	126	24	5
95°	1	6	36	61	8	1
105°	1	1	1	2	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	1
155°	2	2	1	0	0	1
165°	2	2	2	1	0	1
175°	2	2	2	1	1	0
180°	2	2	2	2	2	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4702.4	4702.4	4702.4	4702.4	4702.4
2.5°	4690.0	4687.0	4658.6	4698.7	4703.1
5°	4644.0	4654.2	4637.4	4676.1	4692.9
7.5°	4555.6	4566.5	4586.3	4657.1	4677.6
10°	4412.5	4440.2	4509.6	4608.9	4652.7
12.5°	4302.9	4337.2	4399.3	4568.0	4618.4
15°	4131.3	4172.2	4299.3	4500.8	4581.9
17.5°	3985.2	4059.7	4194.8	4416.1	4529.3
20°	3821.6	3881.5	4034.2	4332.9	4468.0
22.5°	3658.1	3734.0	3942.1	4221.8	4405.9
25°	3437.5	3548.5	3778.6	4124.7	4323.4
27.5°	3250.6	3390.8	3655.1	4010.1	4231.3
30°	3049.7	3158.5	3499.6	3893.2	4137.9
32.5°	2823.3	2994.2	3331.6	3759.6	4040.0
35°	2629.8	2789.0	3180.4	3649.3	3931.9
37.5°	2442.8	2592.6	3013.2	3524.4	3812.2
40°	2218.6	2415.8	2858.4	3382.0	3683.6
42.5°	1970.3	2212.1	2714.5	3247.6	3552.9
45°	1761.5	2017.8	2553.8	3125.7	3409.0
47.5°	1544.6	1814.8	2403.4	2977.4	3266.6
50°	1308.7	1637.3	2266.8	2840.1	3017.6
52.5°	1136.3	1452.6	2144.2	2591.8	2543.6
55°	950.8	1287.5	2014.9	2172.6	1991.5
57.5°	809.9	1138.5	1893.7	1706.0	1901.0
60°	739.1	1019.5	1707.4	1624.2	1741.8
62.5°	672.6	915.1	1305.8	1523.4	1432.8
65°	604.0	822.3	1083.0	1153.9	949.4
67.5°	537.5	742.0	1021.0	861.8	826.7
70°	469.6	679.9	898.3	734.7	436.7
72.5°	405.3	608.3	614.2	406.8	324.3
75°	342.5	395.8	479.1	363.0	295.0
77.5°	273.9	339.6	320.6	325.0	267.3
80°	209.6	233.7	261.4	290.7	235.9
82.5°	148.3	173.8	211.8	254.1	193.5
85°	94.2	114.7	163.6	211.1	147.5
87.5°	37.2	72.3	122.0	170.2	86.9
90°	0.7	39.4	86.2	125.6	24.1
92.5°	0.7	18.3	57.7	92.0	12.4
95°	0.7	5.8	35.8	61.3	8.0
97.5°	0.7	2.2	19.0	38.0	4.4
100°	0.7	0.7	8.0	20.4	2.2
102.5°	0.7	0.7	2.9	8.0	0.7
105°	0.7	0.7	0.7	2.2	0.0
107.5°	0.7	0.7	0.0	0.0	0.0
110°	0.7	0.7	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	0.7	0.0	0.0	0.0
115°	0.7	0.7	0.0	0.0	0.0
117.5°	0.7	0.7	0.0	0.0	0.0
120°	0.7	0.7	0.0	0.0	0.0
122.5°	0.7	0.7	0.0	0.0	0.0
125°	0.7	1.5	0.0	0.0	0.0
127.5°	0.7	0.7	0.0	0.0	0.0
130°	0.7	1.5	0.7	0.0	0.0
132.5°	0.7	1.5	0.7	0.0	0.0
135°	0.7	1.5	0.7	0.0	0.0
137.5°	0.7	1.5	0.7	0.0	0.0
140°	1.5	1.5	0.7	0.0	0.0
142.5°	1.5	1.5	0.7	0.0	0.0
145°	1.5	1.5	0.7	0.0	0.0
147.5°	1.5	1.5	0.7	0.0	0.0
150°	1.5	1.5	0.7	0.0	0.0
152.5°	1.5	1.5	0.7	0.0	0.0
155°	1.5	1.5	0.7	0.0	0.0
157.5°	1.5	2.2	0.7	0.0	0.0
160°	2.2	2.2	0.7	0.0	0.0
162.5°	2.2	2.2	1.5	0.7	0.0
165°	2.2	2.2	1.5	0.7	0.0
167.5°	2.2	2.2	1.5	0.7	0.0
170°	2.2	2.2	1.5	0.7	0.7
172.5°	2.2	2.2	1.5	0.7	0.7
175°	2.2	2.2	1.5	0.7	0.7
177.5°	2.2	2.2	1.5	0.7	0.7
180°	1.5	1.5	1.5	1.5	1.5

(END OF REPORT)