

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: P685625

Luminaire Tested: **8CZL-14-UNV-FUL-L850-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685625  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-14-UNV-FUL-L850-CD-U  
Description: METALUX CRUZE LINEAR 8FT FROSTED LENS MODEL WITH UPLIGHT @80 CRI and 5000K  
Light Source: (784) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

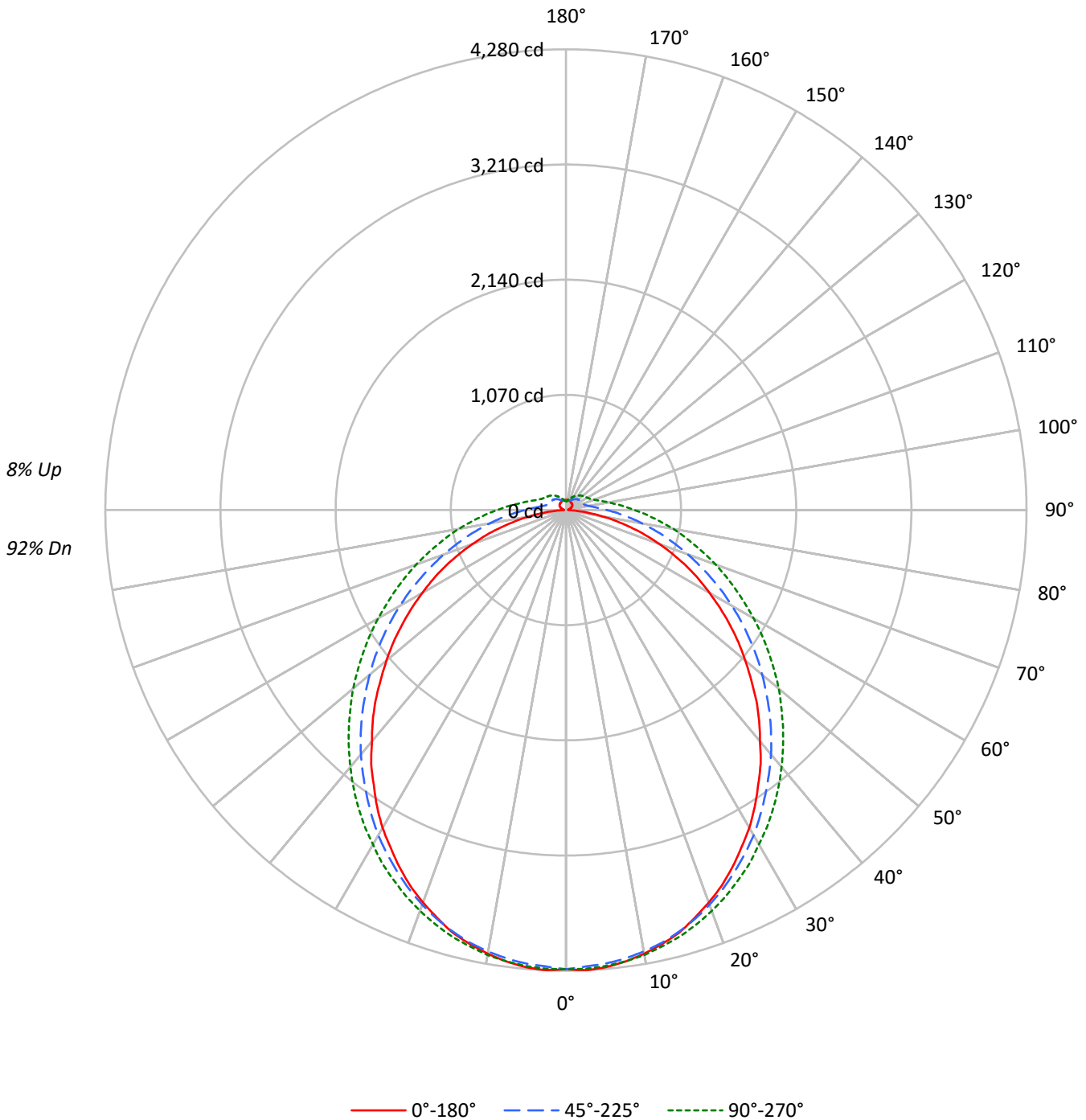
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13308.8 lumens  
Efficiency: N/A  
Efficacy: 149.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.83' x L: 8' x H: 0.17')  
CIE Type: Direct

Input Watts (W): 89  
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

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### Luminous Intensity Polar Plot





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**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	117	117	117	117	113	113	113	113	107	107	107	100	100	100	95	95	95	95	95	95	92
1	106	101	96	92	102	98	93	90	92	88	85	87	84	81	82	79	77	77	77	77	75
2	96	87	80	74	93	85	78	73	80	74	70	75	71	67	71	68	64	64	64	64	62
3	87	77	68	61	84	74	67	60	70	64	58	66	61	56	63	58	54	54	54	54	52
4	80	68	59	52	77	66	58	51	62	55	50	59	53	48	56	51	47	47	47	47	44
5	74	61	51	45	71	59	50	44	56	49	43	53	47	42	50	45	41	41	41	41	38
6	68	54	45	39	65	53	45	38	50	43	38	48	42	37	46	40	36	36	36	36	33
7	63	49	41	34	61	48	40	34	46	39	33	44	37	32	42	36	32	32	32	32	30
8	59	45	37	31	57	44	36	30	42	35	30	40	34	29	38	33	28	28	28	28	26
9	55	41	33	28	53	40	33	27	39	32	27	37	31	26	35	30	26	26	26	26	24
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	23	23	23	22

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

	0°	45°	90°
0°	6888	6888	6888
5°	6898	6764	6774
10°	6837	6645	6648
15°	6759	6508	6505
20°	6617	6345	6348
25°	6458	6157	6178
30°	6280	5966	5995
35°	6051	5739	5819
40°	5811	5524	5625
45°	5595	5286	5427
50°	5334	5044	5237
55°	5082	4793	5027
60°	4799	4527	4832
65°	4524	4253	4648
70°	4121	3987	4509
75°	3625	3743	4385
80°	2910	3560	4416
85°	1830	3511	4548



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	403.5	3.0
10°-20°	1148.2	8.6
20°-30°	1714.4	12.9
30°-40°	2026.7	15.2
40°-50°	2065.3	15.5
50°-60°	1862.2	14.0
60°-70°	1473.5	11.1
70°-80°	995.8	7.5
80°-90°	556.9	4.2
90°-100°	303.0	2.3
100°-110°	198.8	1.5
110°-120°	157.6	1.2
120°-130°	134.1	1.0
130°-140°	107.3	0.8
140°-150°	76.8	0.6
150°-160°	49.5	0.4
160°-170°	26.7	0.2
170°-180°	8.4	0.1
0°-30°	3266.2	24.5
0°-40°	5292.9	39.8
0°-60°	9220.4	69.3
0°-90°	12246.6	92.0
90°-120°	659.5	5.0
90°-150°	977.7	7.3
90°-180°	1062.0	8.0
0°-180°	13308.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4266	4266	4266	4266	4266	
5°	4264	4257	4230	4254	4252	404
15°	4066	4061	4057	4092	4100	1144
25°	3660	3678	3708	3777	3791	1685
35°	3115	3158	3230	3333	3365	1950
45°	2501	2551	2677	2802	2852	1926
55°	1859	1928	2082	2240	2296	1663
65°	1237	1299	1486	1669	1738	1221
75°	626	713	950	1160	1228	665
85°	122	275	528	733	807	150
90°	19	151	380	567	637	14
95°	20	99	279	446	508	18
105°	35	88	182	287	330	37
115°	55	95	162	222	247	54
125°	73	98	155	200	216	65
135°	80	97	144	179	191	62
145°	84	92	121	152	161	53
155°	90	91	100	126	129	41
165°	93	92	90	94	102	26
175°	94	92	89	78	79	9
180°	87	87	87	87	87	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4266.2	4266.2	4266.2	4266.2	4266.2
2.5°	4279.8	4273.0	4244.8	4267.0	4266.2
5°	4263.6	4256.7	4230.2	4254.2	4252.5
7.5°	4231.9	4227.7	4202.9	4229.4	4228.5
10°	4185.7	4185.7	4164.4	4195.2	4197.7
12.5°	4130.1	4129.3	4118.2	4149.8	4149.8
15°	4066.0	4060.8	4056.6	4091.6	4100.2
17.5°	3974.4	3977.9	3985.6	4027.5	4036.0
20°	3880.3	3888.0	3902.6	3952.2	3963.3
22.5°	3779.4	3788.0	3811.1	3864.9	3882.9
25°	3660.5	3677.6	3707.5	3776.8	3791.4
27.5°	3532.2	3562.1	3600.6	3674.2	3699.0
30°	3409.0	3432.9	3488.5	3565.5	3586.9
32.5°	3267.0	3296.1	3361.1	3453.5	3482.6
35°	3114.7	3157.5	3230.2	3332.9	3365.4
37.5°	2972.7	3006.9	3096.7	3206.2	3244.7
40°	2805.0	2860.6	2964.2	3071.9	3116.4
42.5°	2657.9	2705.8	2822.1	2941.1	2987.2
45°	2501.4	2551.0	2676.7	2801.6	2852.1
47.5°	2333.7	2392.7	2527.0	2666.5	2713.5
50°	2176.3	2237.9	2381.6	2522.7	2581.8
52.5°	2021.4	2085.6	2234.4	2383.3	2438.0
55°	1858.9	1928.2	2082.2	2239.6	2296.0
57.5°	1699.8	1769.1	1933.3	2095.9	2156.6
60°	1539.8	1604.8	1781.1	1947.9	2014.6
62.5°	1390.1	1453.4	1634.8	1814.4	1872.6
65°	1237.0	1299.4	1485.9	1669.0	1738.3
67.5°	1078.7	1154.0	1341.4	1533.0	1606.5
70°	923.0	1000.0	1207.0	1406.4	1479.9
72.5°	775.9	863.2	1071.9	1275.5	1350.8
75°	626.2	712.6	949.6	1160.0	1227.6
77.5°	485.0	586.0	829.8	1041.9	1121.5
80°	349.9	464.5	722.0	929.9	1013.7
82.5°	230.1	361.0	621.9	828.1	903.4
85°	122.3	274.6	527.8	733.1	806.7
87.5°	47.9	203.6	449.1	646.7	720.3
90°	18.8	151.4	379.8	567.2	637.3
92.5°	18.8	118.1	323.4	503.0	568.9
95°	20.5	99.2	278.9	445.7	508.1
97.5°	22.2	89.8	243.8	395.2	450.8
100°	25.7	86.4	217.3	354.2	404.6
102.5°	29.9	86.4	195.9	316.5	364.4
105°	35.1	88.1	182.2	287.4	330.2
107.5°	39.4	89.8	172.8	263.5	302.0
110°	44.5	92.4	167.7	245.5	278.9

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	49.6	94.1	164.2	232.7	261.8
115°	54.7	95.0	162.5	222.4	247.2
117.5°	59.9	96.7	160.8	215.6	237.0
120°	65.0	97.5	159.1	210.4	229.3
122.5°	69.3	97.5	157.4	205.3	222.4
125°	72.7	98.4	154.8	200.2	216.4
127.5°	75.3	99.2	153.1	195.0	209.6
130°	77.8	98.4	150.6	189.9	203.6
132.5°	79.6	97.5	147.1	184.8	197.6
135°	80.4	96.7	143.7	178.8	190.8
137.5°	81.3	95.8	138.6	172.8	183.9
140°	81.3	95.0	132.6	166.0	176.2
142.5°	82.1	93.2	126.6	159.1	168.5
145°	83.8	92.4	120.6	152.3	160.8
147.5°	85.5	90.7	115.5	144.6	152.3
150°	87.3	90.7	110.4	137.7	144.6
152.5°	88.1	90.7	105.2	131.7	136.9
155°	89.8	90.7	100.1	125.8	129.2
157.5°	90.7	90.7	96.7	118.1	121.5
160°	91.5	91.5	93.2	109.5	114.6
162.5°	93.2	91.5	91.5	100.9	107.8
165°	93.2	91.5	89.8	94.1	101.8
167.5°	94.1	92.4	89.0	89.0	96.7
170°	94.1	92.4	89.0	84.7	89.0
172.5°	94.1	92.4	89.0	81.3	83.0
175°	94.1	92.4	89.0	77.8	78.7
177.5°	94.1	92.4	88.1	75.3	78.7
180°	87.3	87.3	87.3	87.3	87.3

(END OF REPORT)