

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: P685636

Luminaire Tested: **8CZL-18-UNV-FUL-L935-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685636  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-18-UNV-FUL-L935-CD-U  
Description: METALUX CRUZE LINEAR 8FT FROSTED LENS MODEL WITH UPLIGHT @90 CRI and 3500K  
Light Source: (1176) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

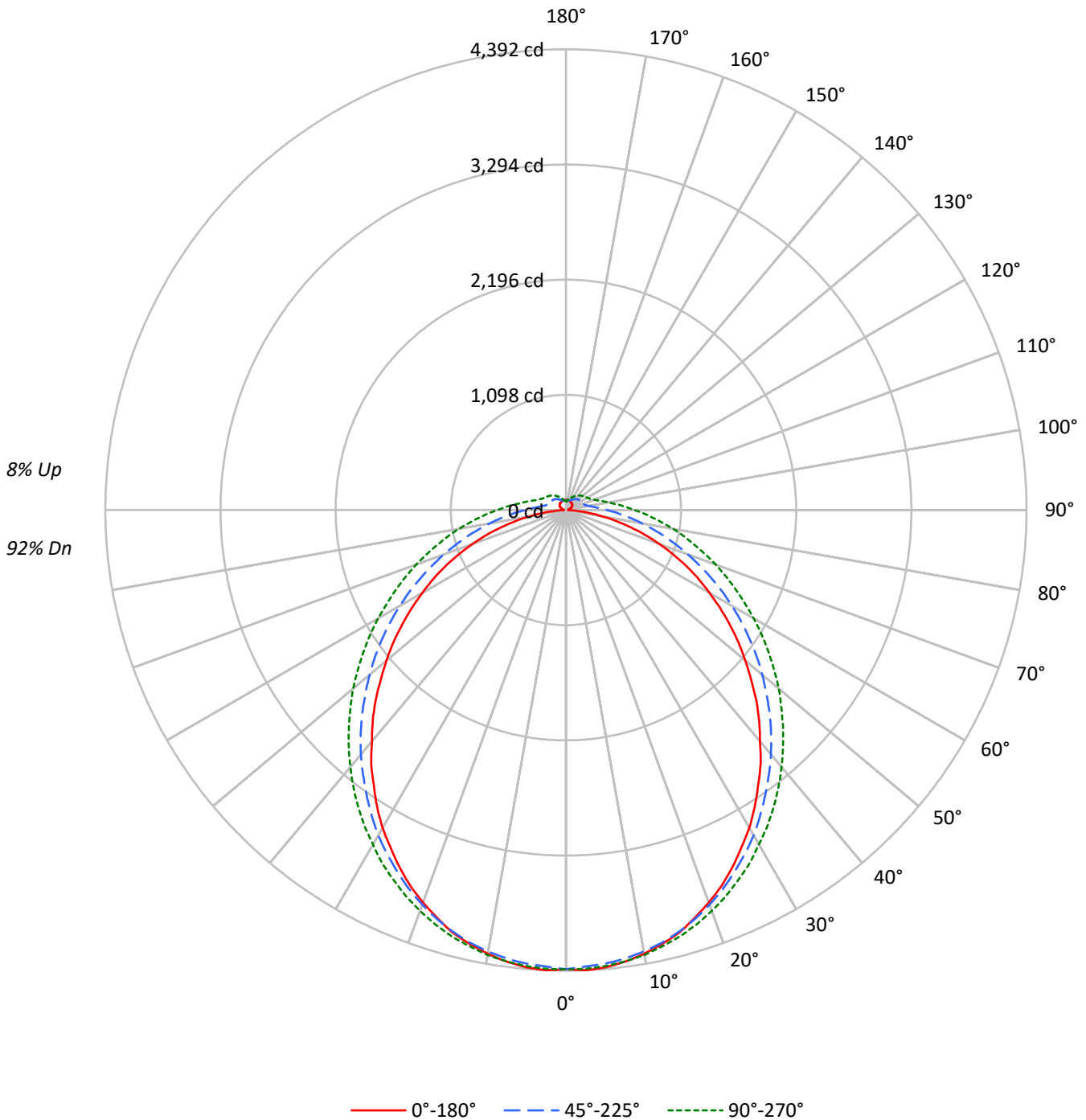
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13657.2 lumens  
Efficiency: N/A  
Efficacy: 125.3 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): 109  
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°	7068	7068	7068
5°	7078	6941	6951
10°	7016	6819	6822
15°	6936	6679	6675
20°	6790	6511	6514
25°	6627	6318	6340
30°	6444	6122	6152
35°	6209	5889	5971
40°	5963	5668	5772
45°	5741	5425	5569
50°	5474	5176	5374
55°	5215	4918	5159
60°	4925	4646	4958
65°	4642	4364	4769
70°	4229	4092	4627
75°	3720	3840	4500
80°	2985	3653	4532
85°	1878	3603	4667



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	414.1	3.0
10°-20°	1178.2	8.6
20°-30°	1759.3	12.9
30°-40°	2079.8	15.2
40°-50°	2119.3	15.5
50°-60°	1911.0	14.0
60°-70°	1512.1	11.1
70°-80°	1021.9	7.5
80°-90°	571.5	4.2
90°-100°	311.0	2.3
100°-110°	204.0	1.5
110°-120°	161.8	1.2
120°-130°	137.6	1.0
130°-140°	110.1	0.8
140°-150°	78.8	0.6
150°-160°	50.8	0.4
160°-170°	27.4	0.2
170°-180°	8.6	0.1
0°-30°	3351.7	24.5
0°-40°	5431.4	39.8
0°-60°	9461.7	69.3
0°-90°	12567.1	92.0
90°-120°	676.7	5.0
90°-150°	1003.3	7.3
90°-180°	1090.0	8.0
0°-180°	13657.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4378	4378	4378	4378	4378	
5°	4375	4368	4341	4366	4364	415
15°	4172	4167	4163	4199	4208	1174
25°	3756	3774	3805	3876	3891	1729
35°	3196	3240	3315	3420	3453	2001
45°	2567	2618	2747	2875	2927	1977
55°	1908	1979	2137	2298	2356	1706
65°	1269	1333	1525	1713	1784	1253
75°	643	731	974	1190	1260	683
85°	126	282	542	752	828	154
90°	19	155	390	582	654	15
95°	21	102	286	457	521	18
105°	36	90	187	295	339	38
115°	56	97	167	228	254	56
125°	75	101	159	205	222	66
135°	82	99	148	184	196	64
145°	86	95	124	156	165	54
155°	92	93	103	129	133	42
165°	96	94	92	97	104	27
175°	97	95	91	80	81	9
180°	90	90	90	90	90	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4377.8	4377.8	4377.8	4377.8	4377.8
2.5°	4391.9	4384.8	4355.9	4378.7	4377.8
5°	4375.2	4368.2	4341.0	4365.5	4363.8
7.5°	4342.7	4338.3	4312.9	4340.1	4339.2
10°	4295.3	4295.3	4273.4	4305.0	4307.6
12.5°	4238.2	4237.4	4226.0	4258.4	4258.4
15°	4172.4	4167.1	4162.7	4198.7	4207.5
17.5°	4078.5	4082.0	4089.9	4132.9	4141.7
20°	3981.9	3989.8	4004.7	4055.7	4067.1
22.5°	3878.3	3887.1	3910.8	3966.1	3984.5
25°	3756.3	3773.9	3804.6	3875.7	3890.6
27.5°	3624.6	3655.4	3694.9	3770.4	3795.8
30°	3498.2	3522.8	3579.9	3658.9	3680.8
32.5°	3352.5	3382.3	3449.1	3543.9	3573.7
35°	3196.2	3240.1	3314.7	3420.1	3453.4
37.5°	3050.5	3085.6	3177.8	3290.2	3329.7
40°	2878.5	2935.5	3041.7	3152.3	3198.0
42.5°	2727.5	2776.6	2896.0	3018.0	3065.4
45°	2566.8	2617.7	2746.8	2874.9	2926.7
47.5°	2394.8	2455.3	2593.2	2736.2	2784.5
50°	2233.2	2296.4	2443.9	2588.8	2649.3
52.5°	2074.4	2140.2	2292.9	2445.7	2501.9
55°	1907.6	1978.7	2136.7	2298.2	2356.1
57.5°	1744.3	1815.4	1983.9	2150.7	2213.1
60°	1580.1	1646.8	1827.7	1998.9	2067.3
62.5°	1426.5	1491.5	1677.6	1861.9	1921.6
65°	1269.4	1333.4	1524.8	1712.7	1783.8
67.5°	1107.0	1184.2	1376.5	1573.1	1648.6
70°	947.2	1026.2	1238.6	1443.2	1518.7
72.5°	796.2	885.7	1099.9	1308.9	1386.1
75°	642.6	731.2	974.4	1190.4	1259.7
77.5°	497.7	601.3	851.5	1069.2	1150.9
80°	359.0	476.7	740.9	954.2	1040.2
82.5°	236.1	370.5	638.2	849.8	927.0
85°	125.5	281.8	541.6	752.3	827.8
87.5°	49.2	208.9	460.9	663.7	739.1
90°	19.3	155.4	389.8	582.0	654.0
92.5°	19.3	121.1	331.8	516.2	583.8
95°	21.1	101.8	286.2	457.4	521.4
97.5°	22.8	92.2	250.2	405.6	462.6
100°	26.3	88.7	223.0	363.4	415.2
102.5°	30.7	88.7	201.0	324.8	374.0
105°	36.0	90.4	187.0	295.0	338.8
107.5°	40.4	92.2	177.3	270.4	309.9
110°	45.6	94.8	172.1	251.9	286.2

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	50.9	96.6	168.5	238.8	268.6
115°	56.2	97.4	166.8	228.2	253.7
117.5°	61.4	99.2	165.0	221.2	243.2
120°	66.7	100.1	163.3	216.0	235.3
122.5°	71.1	100.1	161.5	210.7	228.2
125°	74.6	101.0	158.9	205.4	222.1
127.5°	77.3	101.8	157.1	200.1	215.1
130°	79.9	101.0	154.5	194.9	208.9
132.5°	81.6	100.1	151.0	189.6	202.8
135°	82.5	99.2	147.5	183.5	195.8
137.5°	83.4	98.3	142.2	177.3	188.7
140°	83.4	97.4	136.1	170.3	180.8
142.5°	84.3	95.7	129.9	163.3	172.9
145°	86.0	94.8	123.8	156.3	165.0
147.5°	87.8	93.1	118.5	148.4	156.3
150°	89.5	93.1	113.2	141.3	148.4
152.5°	90.4	93.1	108.0	135.2	140.5
155°	92.2	93.1	102.7	129.0	132.6
157.5°	93.1	93.1	99.2	121.1	124.7
160°	93.9	93.9	95.7	112.4	117.6
162.5°	95.7	93.9	93.9	103.6	110.6
165°	95.7	93.9	92.2	96.6	104.5
167.5°	96.6	94.8	91.3	91.3	99.2
170°	96.6	94.8	91.3	86.9	91.3
172.5°	96.6	94.8	91.3	83.4	85.2
175°	96.6	94.8	91.3	79.9	80.8
177.5°	96.6	94.8	90.4	77.3	80.8
180°	89.5	89.5	89.5	89.5	89.5

(END OF REPORT)