

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: P685542

Luminaire Tested: **4CZL-12-UNV-FL-L835-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685542  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CZL-12-UNV-FL-L835-CD-U  
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @80 CRI and 3500K  
Light Source: (588) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

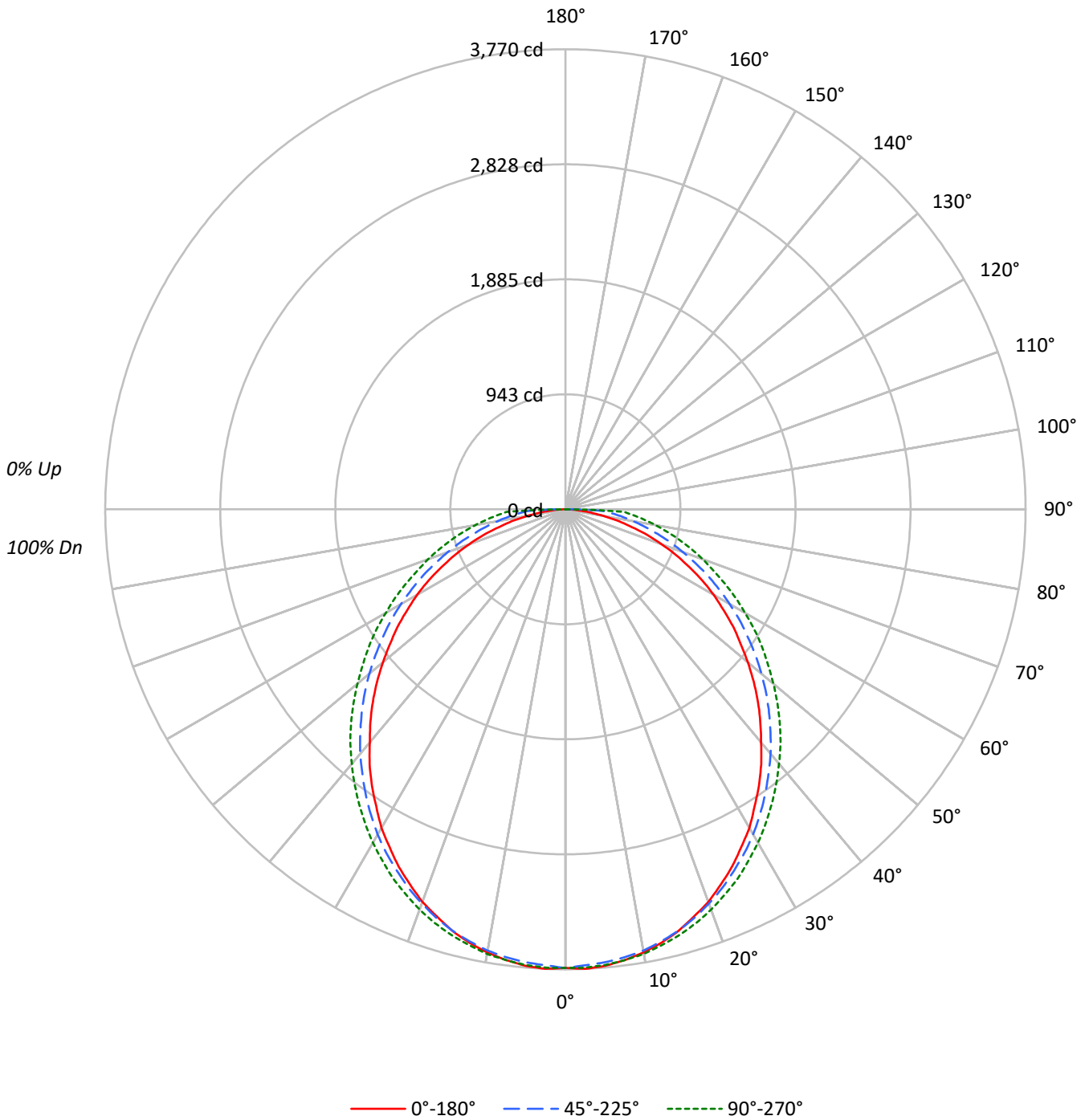
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10587.7 lumens  
Efficiency: N/A  
Efficacy: 137.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.83' x L: 4' x H: 0.08')  
CIE Type: Direct

Input Watts (W): 77  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82	82	82	82
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	78	74	70	68	68	68	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57	57	57	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49	49	49	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42	42	42	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37	37	37	37
7	64	51	42	36	63	50	41	36	48	41	35	47	40	35	46	39	35	33	33	33	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29	29	29	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26	26	26	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24	24	24	24

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

	0°	45°	90°
0°	12138	12138	12138
5°	12150	11990	12044
10°	12049	11863	11923
15°	11893	11685	11761
20°	11682	11458	11577
25°	11403	11195	11368
30°	11106	10932	11122
35°	10740	10611	10858
40°	10331	10288	10589
45°	9982	9929	10311
50°	9561	9558	9983
55°	9172	9152	9690
60°	8742	8746	9353
65°	8173	8309	9057
70°	7510	7823	8880
75°	6534	7401	8777
80°	5275	7097	8894
85°	3379	7151	9635



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	355.6	3.4
10°-20°	1011.7	9.6
20°-30°	1511.0	14.3
30°-40°	1787.1	16.9
40°-50°	1820.9	17.2
50°-60°	1631.7	15.4
60°-70°	1270.9	12.0
70°-80°	822.8	7.8
80°-90°	376.0	3.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2878.3	27.2
0°-40°	4665.4	44.1
0°-60°	8118.0	76.7
0°-90°	10587.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10587.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3759	3759	3759	3759	3759	
5°	3755	3749	3727	3749	3748	356
15°	3577	3577	3575	3609	3612	1007
25°	3232	3243	3267	3325	3339	1487
35°	2764	2791	2853	2930	2947	1727
45°	2231	2271	2360	2450	2484	1719
55°	1678	1725	1824	1929	1967	1498
65°	1117	1166	1287	1395	1440	1110
75°	564	637	782	912	966	606
85°	113	218	382	519	557	145
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3758.8	3758.8	3758.8	3758.8	3758.8
2.5°	3769.5	3763.1	3740.2	3760.2	3759.5
5°	3755.2	3748.8	3726.6	3748.8	3748.1
7.5°	3725.9	3723.8	3703.8	3728.1	3725.9
10°	3688.0	3685.2	3672.3	3696.6	3700.2
12.5°	3638.0	3636.6	3626.6	3655.2	3657.3
15°	3577.3	3577.3	3575.2	3608.7	3612.3
17.5°	3499.4	3509.4	3511.6	3548.0	3555.9
20°	3425.1	3428.0	3438.0	3482.3	3491.6
22.5°	3327.2	3339.4	3359.4	3408.0	3415.8
25°	3231.5	3242.9	3267.2	3325.1	3339.4
27.5°	3120.0	3142.2	3175.8	3233.6	3247.9
30°	3014.3	3032.9	3076.5	3140.8	3155.1
32.5°	2885.0	2916.4	2966.4	3034.3	3053.6
35°	2764.2	2790.7	2852.8	2930.0	2947.1
37.5°	2634.9	2666.4	2732.1	2814.3	2837.8
40°	2493.5	2539.2	2615.6	2697.8	2722.8
42.5°	2364.1	2406.3	2487.0	2579.9	2608.5
45°	2231.3	2271.3	2359.9	2449.9	2483.5
47.5°	2092.7	2134.1	2230.5	2326.3	2356.3
50°	1950.5	1999.8	2096.2	2197.0	2224.1
52.5°	1809.0	1858.3	1960.5	2061.2	2091.9
55°	1677.6	1724.7	1824.0	1929.0	1966.9
57.5°	1534.7	1584.7	1694.0	1795.4	1836.2
60°	1402.5	1438.9	1554.7	1659.7	1699.0
62.5°	1266.0	1305.3	1418.2	1526.1	1572.5
65°	1117.4	1166.0	1286.7	1394.6	1439.6
67.5°	981.7	1028.1	1152.4	1273.9	1310.3
70°	840.9	894.5	1023.1	1147.4	1198.9
72.5°	706.6	762.3	903.8	1027.4	1079.5
75°	564.4	636.6	782.3	912.4	966.0
77.5°	447.3	518.7	668.0	803.8	855.2
80°	317.2	405.1	566.6	703.7	749.5
82.5°	211.5	300.8	470.1	603.7	653.0
85°	112.9	217.9	381.5	519.4	557.3
87.5°	49.3	152.2	309.4	432.2	477.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)