

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: P685562

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

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685562  
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-L850-CD-U  
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @80 CRI and 5000K  
Light Source: (588) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

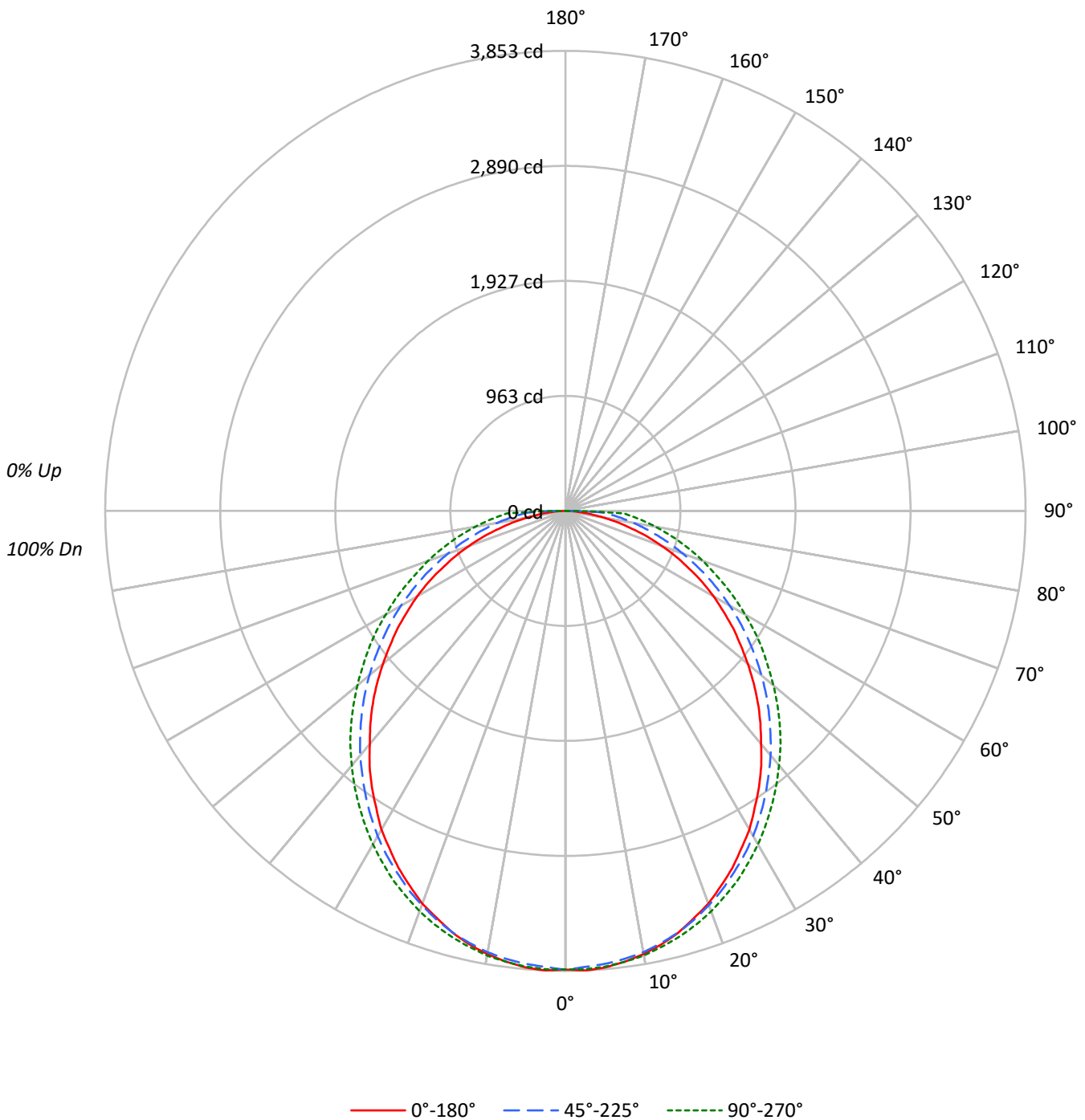
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10821.5 lumens  
Efficiency: N/A  
Efficacy: 140.5 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 (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	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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	84	84	84	82
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	78	74	70	70	70	70	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	59	59	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	51	51	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	44	44	44	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	39	39	39	37
7	64	51	42	36	63	50	41	36	48	41	35	47	40	35	46	39	35	35	35	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	26	24

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

	0°	45°	90°
0°	12406	12406	12406
5°	12419	12255	12310
10°	12315	12125	12186
15°	12156	11943	12021
20°	11940	11711	11833
25°	11655	11442	11619
30°	11351	11173	11368
35°	10978	10846	11097
40°	10558	10516	10823
45°	10202	10148	10538
50°	9773	9769	10204
55°	9374	9354	9904
60°	8936	8939	9559
65°	8353	8493	9258
70°	7676	7996	9075
75°	6679	7564	8970
80°	5392	7254	9090
85°	3453	7309	9848



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	363.4	3.4
10°-20°	1034.0	9.6
20°-30°	1544.4	14.3
30°-40°	1826.6	16.9
40°-50°	1861.1	17.2
50°-60°	1667.7	15.4
60°-70°	1299.0	12.0
70°-80°	841.0	7.8
80°-90°	384.3	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°	2941.9	27.2
0°-40°	4768.4	44.1
0°-60°	8297.3	76.7
0°-90°	10821.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10821.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3842	3842	3842	3842	3842	
5°	3838	3832	3809	3832	3831	364
15°	3656	3656	3654	3688	3692	1030
25°	3303	3315	3339	3398	3413	1520
35°	2825	2852	2916	2995	3012	1765
45°	2280	2321	2412	2504	2538	1757
55°	1715	1763	1864	1972	2010	1531
65°	1142	1192	1315	1425	1471	1134
75°	577	651	800	932	987	619
85°	115	223	390	531	570	148
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3841.8	3841.8	3841.8	3841.8	3841.8
2.5°	3852.7	3846.2	3822.8	3843.3	3842.5
5°	3838.1	3831.6	3808.9	3831.6	3830.8
7.5°	3808.2	3806.0	3785.6	3810.4	3808.2
10°	3769.5	3766.6	3753.4	3778.3	3781.9
12.5°	3718.4	3716.9	3706.7	3735.9	3738.1
15°	3656.3	3656.3	3654.1	3688.4	3692.1
17.5°	3576.7	3586.9	3589.1	3626.4	3634.4
20°	3500.8	3503.7	3513.9	3559.2	3568.7
22.5°	3400.7	3413.1	3433.6	3483.2	3491.3
25°	3302.9	3314.6	3339.4	3398.5	3413.1
27.5°	3189.0	3211.6	3245.9	3305.1	3319.7
30°	3080.9	3099.9	3144.4	3210.1	3224.7
32.5°	2948.7	2980.8	3032.0	3101.3	3121.0
35°	2825.3	2852.3	2915.8	2994.7	3012.2
37.5°	2693.1	2725.3	2792.4	2876.4	2900.5
40°	2548.5	2595.3	2673.4	2757.4	2782.9
42.5°	2416.4	2459.4	2542.0	2636.9	2666.1
45°	2280.5	2321.4	2412.0	2504.0	2538.3
47.5°	2138.9	2181.2	2279.8	2377.7	2408.3
50°	1993.6	2043.9	2142.5	2245.5	2273.2
52.5°	1849.0	1899.4	2003.8	2106.7	2138.1
55°	1714.6	1762.8	1864.3	1971.6	2010.4
57.5°	1568.6	1619.7	1731.4	1835.1	1876.7
60°	1433.5	1470.7	1589.0	1696.3	1736.5
62.5°	1294.0	1334.1	1449.5	1559.8	1607.3
65°	1142.1	1191.8	1315.2	1425.4	1471.4
67.5°	1003.3	1050.8	1177.9	1302.0	1339.3
70°	859.5	914.3	1045.7	1172.8	1225.3
72.5°	722.2	779.2	923.8	1050.1	1103.4
75°	576.9	650.6	799.6	932.5	987.3
77.5°	457.1	530.2	682.8	821.5	874.1
80°	324.2	414.0	579.1	719.3	766.0
82.5°	216.2	307.4	480.5	617.1	667.4
85°	115.4	222.7	389.9	530.9	569.6
87.5°	50.4	155.5	316.2	441.8	487.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)