

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: P685352

Luminaire Tested: **4CZL-12-UNV-L950-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685352
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-12-UNV-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT BASE MODEL @90 CRI and 5000K
Light Source: (588) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

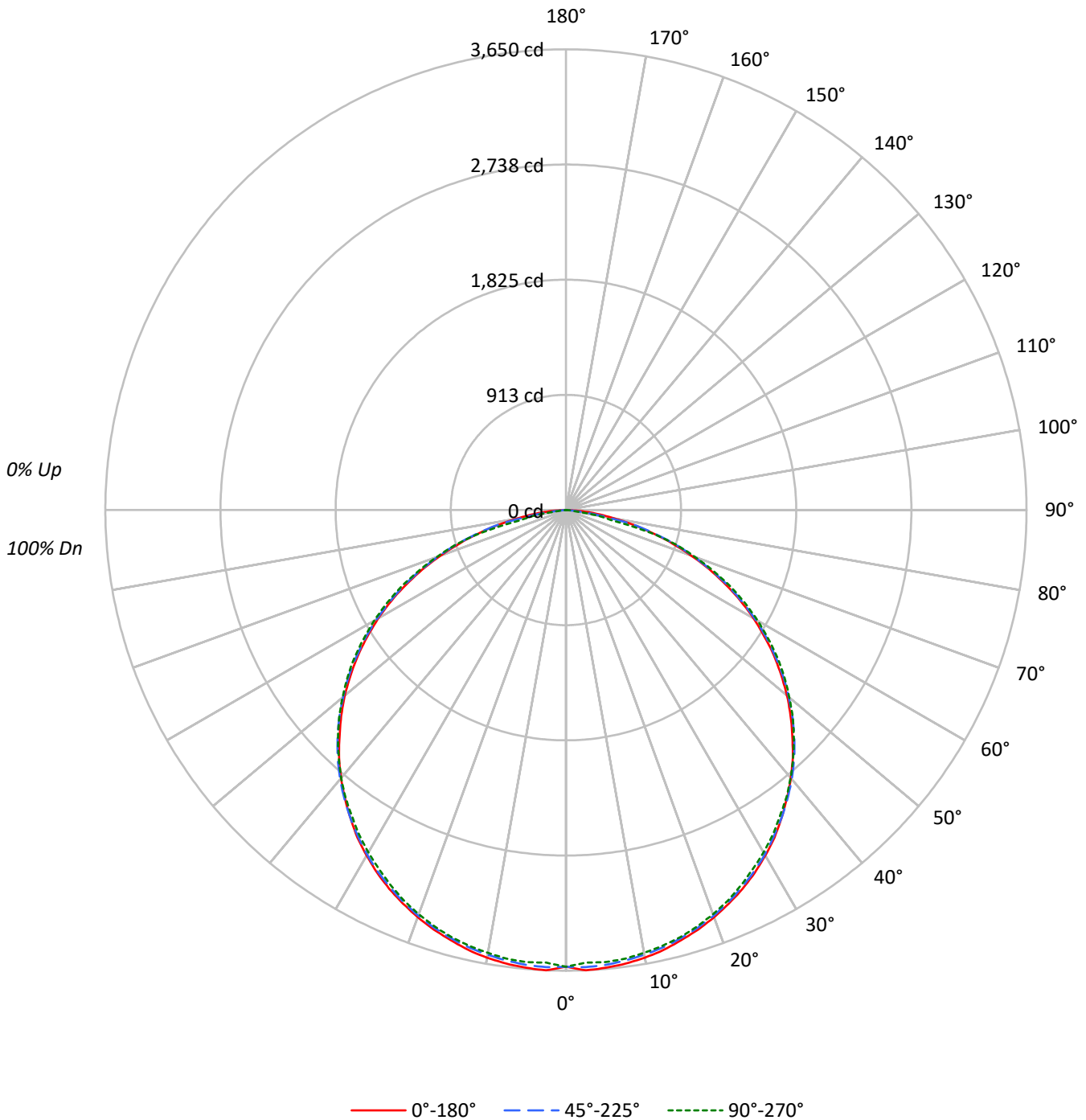
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10733.7 lumens
Efficiency: N/A
Efficacy: 139.4 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.29 / 1.41
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	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	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	52	50
5	76	63	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	45	45	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	39	39	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	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	42	34	29	55	42	34	29	41	33	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	25	25	25	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11684	11684	11684
5°	11800	11726	11654
10°	11810	11731	11680
15°	11794	11746	11710
20°	11798	11756	11710
25°	11800	11753	11694
30°	11785	11753	11678
35°	11742	11742	11660
40°	11687	11734	11678
45°	11589	11690	11664
50°	11491	11574	11612
55°	11338	11418	11530
60°	11090	11189	11325
65°	10677	10828	11014
70°	9985	10184	10277
75°	8984	9150	8682
80°	7505	6111	4759
85°	5598	1471	530



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.3	3.2
10°-20°	989.7	9.2
20°-30°	1515.6	14.1
30°-40°	1855.6	17.3
40°-50°	1963.0	18.3
50°-60°	1810.2	16.9
60°-70°	1396.4	13.0
70°-80°	745.8	6.9
80°-90°	114.1	1.1
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°	2848.6	26.5
0°-40°	4704.1	43.8
0°-60°	8477.4	79.0
0°-90°	10733.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10733.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3618	3618	3618	3618	3618	
5°	3640	3597	3617	3602	3595	346
15°	3528	3490	3514	3502	3503	997
25°	3312	3278	3298	3274	3282	1526
35°	2979	2961	2979	2953	2958	1864
45°	2538	2536	2560	2542	2554	1959
55°	2014	2012	2028	2040	2048	1796
65°	1397	1397	1417	1428	1441	1380
75°	720	719	733	739	696	762
85°	151	108	40	16	14	185
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3618.4	3618.4	3618.4	3618.4	3618.4
2.5°	3650.3	3607.3	3625.0	3611.8	3589.7
5°	3640.4	3597.4	3617.3	3601.8	3595.2
7.5°	3625.0	3580.9	3600.7	3588.6	3586.4
10°	3601.8	3556.6	3577.6	3564.3	3562.1
12.5°	3570.9	3526.8	3550.0	3534.6	3536.8
15°	3527.9	3490.4	3513.6	3501.5	3502.6
17.5°	3484.9	3446.3	3470.6	3458.5	3459.6
20°	3433.1	3395.6	3421.0	3402.2	3407.7
22.5°	3374.6	3341.6	3363.6	3339.4	3350.4
25°	3311.8	3277.6	3298.5	3274.3	3282.0
27.5°	3240.1	3208.1	3229.1	3203.7	3207.0
30°	3160.7	3132.0	3151.9	3126.5	3132.0
32.5°	3075.8	3050.4	3065.9	3042.7	3050.4
35°	2978.7	2961.1	2978.7	2953.4	2957.8
37.5°	2877.3	2859.6	2883.9	2861.8	2869.5
40°	2772.5	2756.0	2783.5	2761.5	2770.3
42.5°	2661.1	2649.0	2676.6	2654.5	2665.5
45°	2537.6	2536.5	2559.7	2542.0	2554.1
47.5°	2415.2	2413.0	2436.1	2424.0	2438.3
50°	2287.3	2285.1	2303.8	2302.7	2311.5
52.5°	2150.5	2153.8	2171.5	2174.8	2184.7
55°	2013.8	2011.6	2028.1	2040.2	2047.9
57.5°	1864.9	1869.3	1882.5	1896.9	1902.4
60°	1717.1	1714.9	1732.5	1744.7	1753.5
62.5°	1560.5	1560.5	1574.8	1592.5	1601.3
65°	1397.3	1397.3	1417.1	1428.2	1441.4
67.5°	1230.8	1227.4	1245.1	1269.4	1267.1
70°	1057.6	1058.7	1078.6	1090.7	1088.5
72.5°	885.6	888.9	909.8	915.3	920.9
75°	720.1	719.0	733.4	738.9	695.9
77.5°	555.8	556.9	565.7	414.7	363.9
80°	403.6	405.8	328.6	255.9	255.9
82.5°	266.9	262.5	168.7	99.3	72.8
85°	151.1	108.1	39.7	16.5	14.3
87.5°	61.8	19.9	11.0	7.7	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)