

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: P685470

Luminaire Tested: **4CZL-7-UNV-M-L950-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685470
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-M-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT MEDIUM LENS MODEL @90 CRI and 5000K
Light Source: (392) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

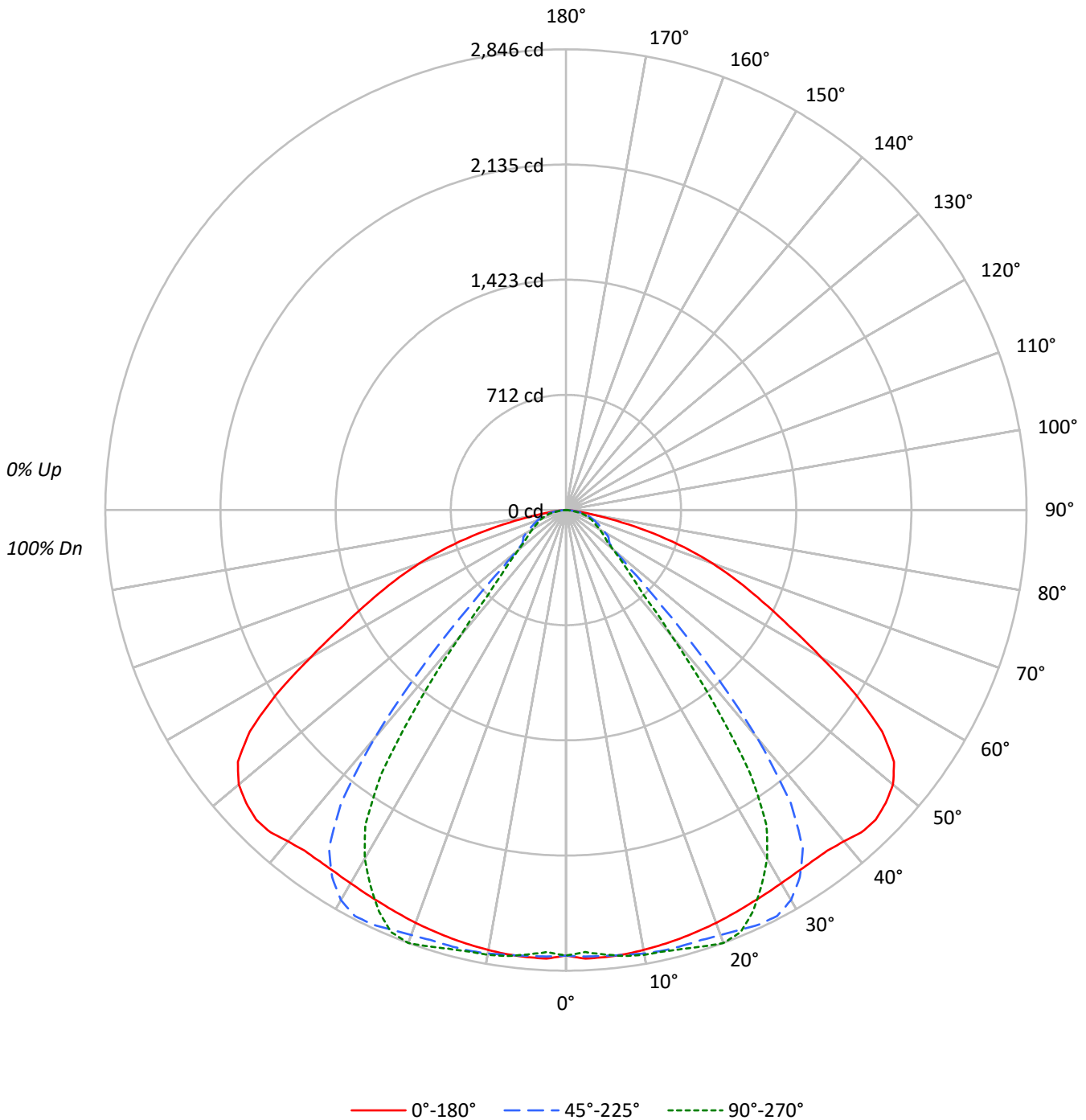
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5945.3 lumens
Efficiency: N/A
Efficacy: 135.1 lumens/watt
Spacing Criteria (0/90/45): 1.48 / 1.28 / 1.22
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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				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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	90	88
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	79	79	79	77
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	70	70	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	62	62	62	60
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	55	55	55	53
6	76	65	57	51	75	64	56	51	62	55	51	61	55	50	59	54	50	50	50	50	48
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	45	45	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	41	41	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	37	37	37	36
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	34	34	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8886	8886	8886
5°	8986	8960	8935
10°	9051	9122	9147
15°	9158	9315	9380
20°	9327	9600	9781
25°	9566	10067	9744
30°	9926	10370	9270
35°	10447	10060	7828
40°	11260	7758	4282
45°	12362	3814	2559
50°	13255	1993	1908
55°	13424	1819	1647
60°	11772	1814	1553
65°	10245	1742	1503
70°	9091	1766	1513
75°	6974	1813	1536
80°	3550	1841	1272
85°	1401	1037	363



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.7	4.4
10°-20°	785.9	13.2
20°-30°	1268.3	21.3
30°-40°	1485.4	25.0
40°-50°	1011.2	17.0
50°-60°	585.5	9.8
60°-70°	334.7	5.6
70°-80°	172.3	2.9
80°-90°	38.4	0.6
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°	2317.8	39.0
0°-40°	3803.2	64.0
0°-60°	5399.9	90.8
0°-90°	5945.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5945.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2752	2752	2752	2752	2752	
5°	2772	2745	2764	2761	2756	264
15°	2740	2735	2786	2794	2806	776
25°	2685	2723	2826	2782	2735	1243
35°	2650	2781	2552	2152	1986	1668
45°	2707	2014	835	563	560	2080
55°	2384	691	323	301	292	2078
65°	1341	247	228	201	197	1344
75°	559	152	145	127	123	594
85°	38	46	28	13	10	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2751.9	2751.9	2751.9	2751.9	2751.9	2751.9	2751.9	2751.9	2751.9	2751.9	2751.9
2.5°	2774.0	2766.2	2750.6	2744.0	2744.0	2761.0	2763.6	2753.2	2751.2	2742.1	2733.6
5°	2772.1	2764.2	2749.3	2743.4	2745.3	2764.2	2768.8	2760.3	2762.9	2760.3	2756.4
7.5°	2768.1	2759.7	2746.0	2742.1	2748.0	2772.1	2779.9	2775.3	2781.2	2779.9	2778.6
10°	2760.3	2753.8	2740.8	2740.1	2751.9	2781.8	2791.6	2785.7	2787.7	2787.0	2789.6
12.5°	2749.9	2744.0	2733.0	2738.8	2755.8	2787.7	2794.2	2785.1	2787.7	2788.3	2792.9
15°	2739.5	2732.3	2725.2	2738.8	2756.4	2786.4	2792.9	2791.6	2799.4	2800.1	2805.9
17.5°	2726.5	2721.9	2719.9	2738.2	2751.9	2785.1	2800.1	2807.9	2818.3	2820.9	2826.8
20°	2714.1	2710.2	2714.7	2734.9	2749.9	2793.6	2814.4	2826.1	2837.2	2840.5	2846.3
22.5°	2699.1	2696.5	2708.9	2730.4	2753.2	2806.6	2830.0	2831.3	2826.8	2818.3	2822.2
25°	2684.8	2684.8	2703.0	2729.1	2762.9	2825.5	2827.4	2790.3	2757.1	2734.9	2734.9
27.5°	2673.0	2675.6	2698.4	2734.9	2781.8	2826.8	2772.7	2699.1	2650.2	2618.3	2616.4
30°	2662.0	2666.5	2698.4	2751.2	2795.5	2781.2	2676.3	2587.0	2519.3	2488.7	2486.1
32.5°	2654.1	2661.3	2710.2	2776.0	2779.2	2689.3	2552.5	2439.8	2359.7	2314.1	2306.2
35°	2650.2	2658.7	2732.3	2797.5	2713.4	2551.9	2357.7	2183.8	2056.7	1998.1	1985.7
37.5°	2652.8	2667.8	2762.9	2779.2	2548.6	2281.5	2002.7	1753.1	1578.5	1523.2	1484.7
40°	2671.1	2696.5	2787.0	2630.7	2202.7	1840.4	1471.0	1202.6	1082.1	1042.4	1015.7
42.5°	2701.7	2727.1	2723.8	2290.6	1720.6	1307.5	947.9	787.0	728.4	721.8	709.5
45°	2706.9	2716.7	2519.3	1845.7	1251.5	835.2	610.4	562.9	561.6	566.1	560.3
47.5°	2679.5	2660.7	2224.2	1411.8	861.9	540.1	459.3	467.1	471.0	467.8	463.2
50°	2638.5	2568.8	1893.2	1037.8	574.6	396.8	400.7	407.8	394.1	385.0	379.8
52.5°	2555.1	2419.6	1525.8	735.5	397.4	338.8	370.0	349.2	329.7	324.4	323.8
55°	2384.4	2198.1	1174.0	530.3	303.6	323.1	329.0	302.3	296.4	293.8	292.5
57.5°	2124.5	1922.5	882.8	383.1	266.5	312.1	286.0	275.6	269.7	267.8	265.8
60°	1822.8	1614.4	658.0	281.4	258.6	280.8	259.3	249.5	243.0	240.4	240.4
62.5°	1555.7	1336.2	486.7	228.7	256.7	253.4	233.9	223.5	219.5	218.2	216.9
65°	1340.8	1074.9	351.1	211.7	239.7	228.0	209.1	202.0	199.4	196.7	196.7
67.5°	1149.2	841.7	258.6	207.8	220.2	205.2	190.9	185.0	181.8	181.1	180.5
70°	962.9	620.2	196.7	203.3	209.1	187.0	173.3	166.1	162.2	160.3	160.3
72.5°	766.8	425.4	157.0	187.0	191.5	165.5	151.8	146.6	143.3	141.4	140.7
75°	559.0	267.1	138.1	157.0	164.8	145.3	131.6	127.0	125.7	123.8	123.1
77.5°	355.7	159.6	117.9	128.3	134.9	122.5	112.1	106.2	105.5	103.6	102.9
80°	190.9	102.3	94.5	101.0	104.9	99.0	86.6	74.9	71.7	69.1	68.4
82.5°	88.6	65.1	70.4	76.2	78.2	63.2	52.1	46.9	43.6	40.4	38.4
85°	37.8	35.2	43.6	46.9	38.4	28.0	18.2	13.7	11.1	10.4	9.8
87.5°	13.7	13.7	16.3	11.1	6.5	5.2	5.2	4.6	3.9	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)