

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: P685531

Luminaire Tested: **4CZL-9-UNV-W-L950-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685531
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-9-UNV-W-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT WIDE LENS MODEL @90 CRI and 5000K
Light Source: (588) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

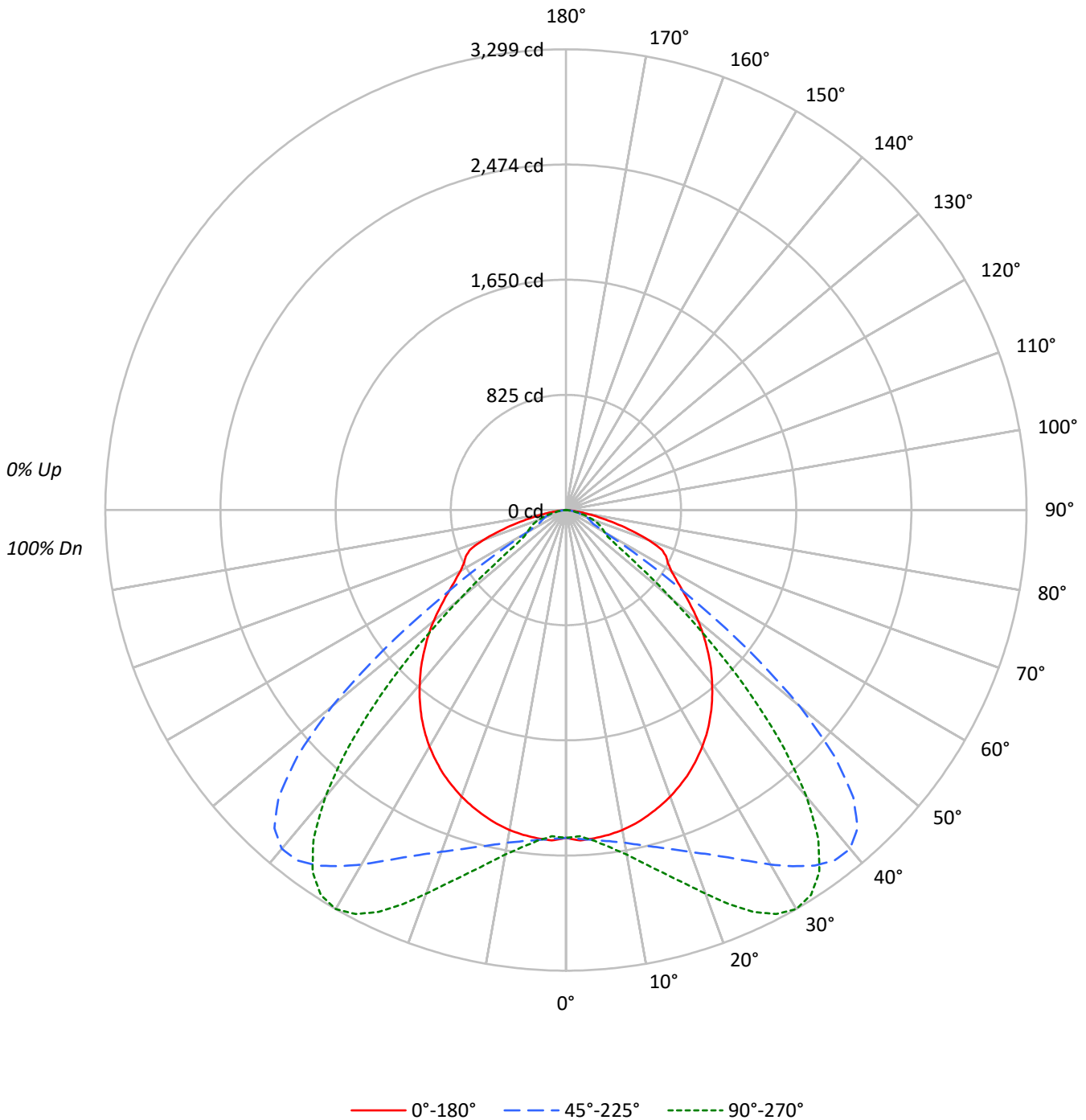
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7508.8 lumens
Efficiency: N/A
Efficacy: 139.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.69 / 1.65
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 54
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	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	89	89	89	87
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	77	77	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	67	67	67	65
4	86	75	67	61	84	73	66	60	71	65	59	69	63	59	67	62	58	58	58	58	56
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	51	51	51	49
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	45	45	45	43
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39	39	39	39	38
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	35	35	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	32	32	32	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	29	29	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7581	7581	7581
5°	7647	7687	7711
10°	7629	7934	8212
15°	7573	8354	8990
20°	7507	8949	10043
25°	7417	9779	11312
30°	7290	10928	12301
35°	7112	12248	12470
40°	6865	13345	11298
45°	6569	13294	8575
50°	6213	10987	4942
55°	5791	6044	2541
60°	5620	2109	2072
65°	6057	1534	2077
70°	5981	1572	2003
75°	4523	1375	1609
80°	2732	1123	1138
85°	1360	574	241



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.2	3.0
10°-20°	706.6	9.4
20°-30°	1241.2	16.5
30°-40°	1724.3	23.0
40°-50°	1748.7	23.3
50°-60°	1122.2	14.9
60°-70°	524.9	7.0
70°-80°	182.0	2.4
80°-90°	31.7	0.4
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°	2175.0	29.0
0°-40°	3899.3	51.9
0°-60°	6770.2	90.2
0°-90°	7508.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7508.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2348	2348	2348	2348	2348	
5°	2359	2342	2372	2379	2379	224
15°	2265	2319	2499	2633	2689	639
25°	2082	2295	2745	3066	3175	958
35°	1804	2314	3107	3214	3163	1127
45°	1438	2477	2911	2171	1878	1109
55°	1029	2559	1074	517	451	928
65°	793	818	201	251	272	771
75°	362	125	110	127	129	392
85°	37	33	16	9	6	55
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°	2347.8	2347.8	2347.8	2347.8	2347.8	2347.8	2347.8	2347.8	2347.8	2347.8	2347.8
2.5°	2368.2	2360.9	2348.6	2343.7	2346.2	2358.4	2362.5	2353.5	2351.1	2344.5	2338.0
5°	2359.2	2352.7	2343.7	2342.1	2351.1	2371.5	2380.5	2378.0	2382.1	2382.9	2378.8
7.5°	2346.2	2340.5	2333.1	2340.5	2359.2	2391.9	2412.3	2418.8	2433.5	2436.8	2436.0
10°	2326.6	2321.7	2319.2	2338.0	2370.7	2419.6	2455.6	2473.5	2494.8	2502.1	2504.5
12.5°	2300.5	2295.6	2302.1	2334.7	2386.2	2456.4	2509.4	2541.3	2571.5	2587.0	2591.9
15°	2265.4	2263.7	2280.1	2332.3	2405.8	2498.8	2572.3	2622.1	2665.4	2682.5	2689.0
17.5°	2227.0	2227.8	2257.2	2331.5	2429.4	2548.6	2642.5	2713.5	2766.6	2791.1	2798.4
20°	2184.5	2187.0	2231.1	2330.7	2458.8	2604.1	2720.1	2813.1	2879.2	2911.9	2922.5
22.5°	2134.7	2139.6	2202.5	2331.5	2489.9	2667.8	2811.5	2922.5	3001.7	3040.9	3053.9
25°	2081.7	2089.0	2173.1	2335.6	2529.0	2744.6	2916.0	3045.8	3125.8	3160.1	3174.8
27.5°	2020.5	2032.7	2141.3	2341.3	2575.6	2833.5	3022.9	3147.8	3222.1	3248.2	3261.3
30°	1955.1	1969.0	2110.3	2352.7	2636.0	2930.7	3121.7	3227.0	3276.8	3291.5	3298.9
32.5°	1883.3	1906.2	2079.2	2371.5	2707.0	3024.6	3194.4	3257.2	3269.5	3264.6	3267.0
35°	1804.1	1828.6	2049.8	2402.5	2787.8	3107.0	3222.9	3222.9	3187.0	3165.0	3163.3
37.5°	1720.0	1751.1	2020.5	2438.4	2881.7	3161.7	3191.9	3111.1	3023.7	2976.4	2969.0
40°	1628.6	1670.2	2000.0	2487.4	2966.6	3165.8	3080.9	2914.4	2765.8	2689.0	2680.1
42.5°	1538.0	1589.4	1991.1	2551.1	3030.3	3090.7	2871.9	2614.8	2413.1	2322.5	2312.7
45°	1438.4	1506.2	1994.3	2638.4	3047.4	2911.1	2560.9	2227.8	2001.7	1887.4	1877.6
47.5°	1339.6	1423.7	2002.5	2737.2	2972.3	2606.6	2147.0	1761.7	1537.2	1417.2	1415.5
50°	1236.8	1346.2	2022.1	2818.0	2769.0	2187.0	1638.4	1262.1	1082.5	991.0	983.7
52.5°	1129.8	1278.4	2064.5	2832.7	2407.4	1648.2	1111.9	842.5	725.7	667.8	656.3
55°	1028.6	1221.3	2133.9	2700.5	1887.4	1073.5	700.4	531.4	472.7	449.0	451.4
57.5°	941.2	1178.8	2214.7	2355.2	1225.3	631.9	405.7	353.5	351.8	354.3	355.1
60°	870.2	1152.7	2250.7	1766.6	672.7	326.5	283.3	294.7	310.2	319.2	320.8
62.5°	823.7	1138.8	2141.3	1023.7	298.8	227.8	247.4	268.6	286.5	294.7	295.5
65°	792.7	1102.1	1751.9	506.1	182.9	200.8	225.3	247.4	263.7	270.2	271.8
67.5°	744.5	998.4	1200.8	209.8	160.8	181.2	204.9	226.1	240.0	244.9	245.7
70°	633.5	835.9	698.0	139.6	145.3	166.5	185.3	201.6	210.6	213.1	212.2
72.5°	494.7	662.1	352.7	126.5	134.7	146.1	156.7	165.7	170.6	173.1	173.1
75°	362.5	484.1	165.7	111.8	100.4	110.2	120.8	126.5	128.2	129.0	129.0
77.5°	243.3	333.9	98.8	86.5	77.6	85.7	89.8	87.3	85.7	87.3	87.3
80°	146.9	205.7	86.5	62.9	59.6	60.4	57.1	57.1	60.4	62.0	61.2
82.5°	79.2	116.7	75.9	45.7	40.0	36.7	35.9	34.3	32.7	31.8	31.8
85°	36.7	59.6	49.0	27.8	21.2	15.5	12.2	9.0	8.2	6.5	6.5
87.5°	14.7	22.9	14.7	9.0	4.9	3.3	2.4	1.6	0.8	0.8	0.8
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)