

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: P685490

Luminaire Tested: **4CZL-7-UNV-W-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685490
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-W-L840-CD-U
Description: METALUX CRUZE LINEAR 4FT WIDE LENS MODEL @80 CRI and 4000K
Light Source: (392) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

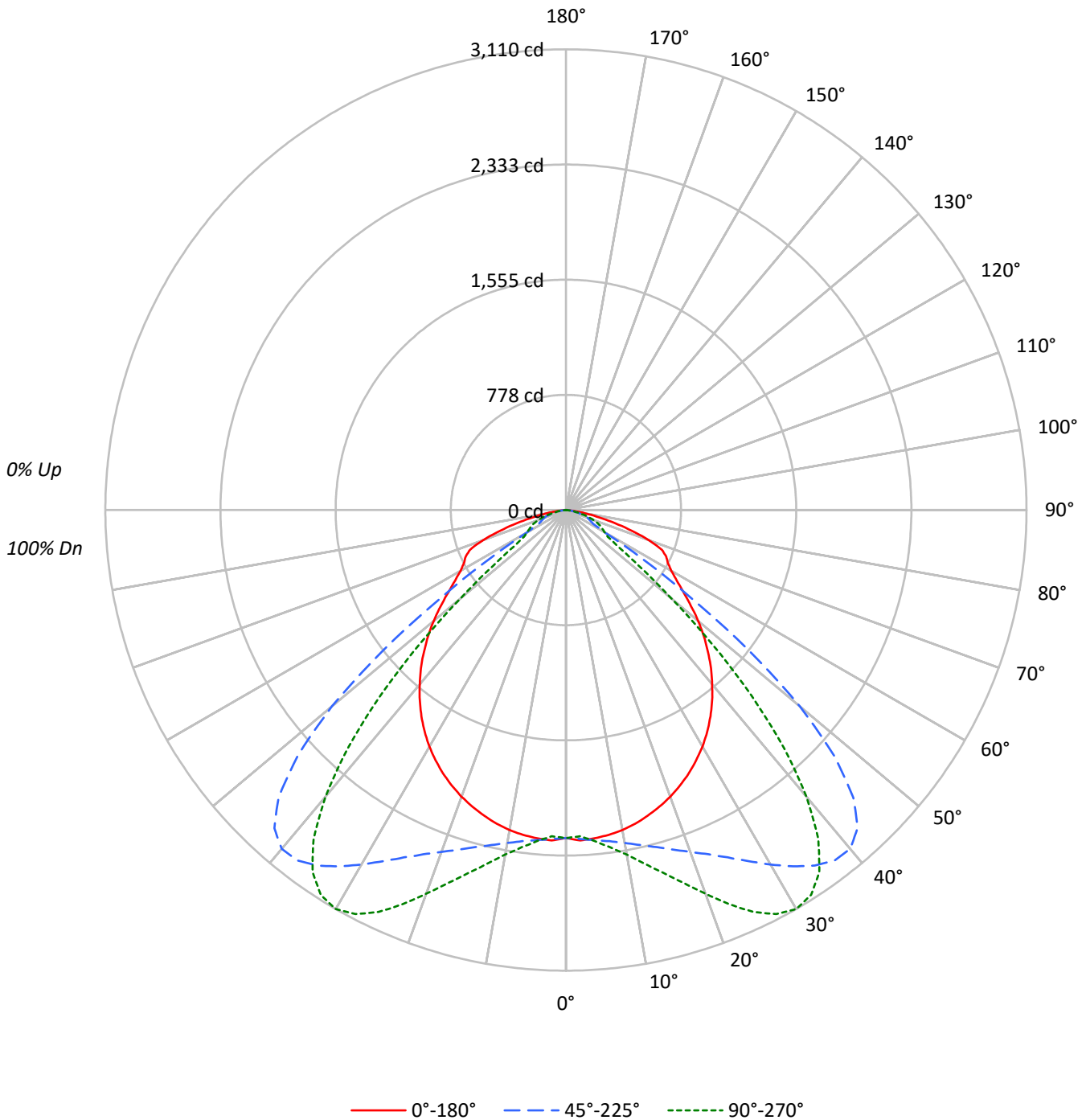
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7079.6 lumens
Efficiency: N/A
Efficacy: 160.9 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): 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	100	100	100	100
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87	87	87	87
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75	75	75	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65
4	86	75	67	61	84	73	66	60	71	65	59	69	63	59	67	62	58	56	56	56	56
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	49	49	49	49
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43	43	43	43
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39	38	38	38	38
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33	33	33	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30	30	30	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27	27	27	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7148	7148	7148
5°	7210	7248	7270
10°	7193	7480	7743
15°	7141	7876	8476
20°	7078	8437	9469
25°	6993	9220	10665
30°	6874	10303	11598
35°	6706	11548	11757
40°	6473	12582	10652
45°	6193	12534	8085
50°	5858	10359	4660
55°	5460	5698	2396
60°	5299	1989	1954
65°	5711	1446	1958
70°	5639	1482	1889
75°	4263	1296	1517
80°	2576	1060	1073
85°	1282	541	230



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.2	3.0
10°-20°	666.2	9.4
20°-30°	1170.3	16.5
30°-40°	1625.8	23.0
40°-50°	1648.7	23.3
50°-60°	1058.0	14.9
60°-70°	494.9	7.0
70°-80°	171.6	2.4
80°-90°	29.9	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°	2050.7	29.0
0°-40°	3676.5	51.9
0°-60°	6383.2	90.2
0°-90°	7079.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7079.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2214	2214	2214	2214	2214	
5°	2224	2209	2236	2243	2243	211
15°	2136	2187	2356	2482	2535	603
25°	1963	2164	2588	2891	2993	903
35°	1701	2182	2929	3030	2982	1062
45°	1356	2336	2745	2047	1770	1045
55°	970	2413	1012	487	426	875
65°	747	771	189	237	256	727
75°	342	118	104	120	122	370
85°	35	31	15	8	6	52
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°	2213.6	2213.6	2213.6	2213.6	2213.6	2213.6	2213.6	2213.6	2213.6	2213.6	2213.6
2.5°	2232.8	2225.9	2214.4	2209.8	2212.1	2223.6	2227.5	2219.0	2216.7	2210.5	2204.4
5°	2224.4	2218.2	2209.8	2208.2	2216.7	2235.9	2244.4	2242.1	2245.9	2246.7	2242.8
7.5°	2212.1	2206.7	2199.7	2206.7	2224.4	2255.2	2274.4	2280.6	2294.4	2297.5	2296.7
10°	2193.6	2189.0	2186.7	2204.4	2235.2	2281.3	2315.2	2332.1	2352.1	2359.1	2361.4
12.5°	2169.0	2164.3	2170.5	2201.3	2249.8	2316.0	2366.0	2396.0	2424.5	2439.1	2443.7
15°	2135.9	2134.3	2149.7	2199.0	2268.2	2356.0	2425.3	2472.2	2513.0	2529.2	2535.3
17.5°	2099.7	2100.5	2128.2	2198.2	2290.6	2402.9	2491.5	2558.4	2608.4	2631.5	2638.5
20°	2059.7	2062.0	2103.5	2197.4	2318.3	2455.3	2564.6	2652.3	2714.7	2745.4	2755.5
22.5°	2012.7	2017.3	2076.6	2198.2	2347.5	2515.3	2650.8	2755.5	2830.1	2867.1	2879.4
25°	1962.7	1969.6	2048.9	2202.1	2384.5	2587.7	2749.3	2871.7	2947.1	2979.4	2993.3
27.5°	1905.0	1916.5	2018.9	2207.4	2428.3	2671.6	2850.1	2967.9	3037.9	3062.6	3074.9
30°	1843.4	1856.5	1989.6	2218.2	2485.3	2763.2	2943.3	3042.5	3089.5	3103.4	3110.3
32.5°	1775.7	1797.2	1960.4	2235.9	2552.3	2851.7	3011.8	3071.0	3082.6	3078.0	3080.3
35°	1701.0	1724.1	1932.7	2265.2	2628.5	2929.4	3038.7	3038.7	3004.8	2984.0	2982.5
37.5°	1621.7	1651.0	1905.0	2299.0	2717.0	2981.0	3009.4	2933.3	2850.9	2806.3	2799.3
40°	1535.5	1574.8	1885.7	2345.2	2797.0	2984.8	2904.8	2747.8	2607.7	2535.3	2526.9
42.5°	1450.1	1498.6	1877.2	2405.3	2857.1	2914.0	2707.7	2465.3	2275.2	2189.7	2180.5
45°	1356.2	1420.1	1880.3	2487.6	2873.2	2744.7	2414.5	2100.5	1887.3	1779.5	1770.3
47.5°	1263.0	1342.3	1888.0	2580.7	2802.4	2457.6	2024.3	1661.0	1449.3	1336.2	1334.6
50°	1166.1	1269.2	1906.5	2656.9	2610.8	2062.0	1544.7	1189.9	1020.6	934.4	927.5
52.5°	1065.2	1205.3	1946.5	2670.8	2269.8	1554.0	1048.3	794.3	684.2	629.6	618.8
55°	969.8	1151.4	2011.9	2546.1	1779.5	1012.1	660.4	501.1	445.6	423.3	425.6
57.5°	887.4	1111.4	2088.1	2220.5	1155.3	595.7	382.5	333.3	331.7	334.0	334.8
60°	820.5	1086.8	2122.0	1665.6	634.2	307.9	267.1	277.9	292.5	300.9	302.5
62.5°	776.6	1073.7	2018.9	965.2	281.7	214.7	233.2	253.2	270.2	277.9	278.6
65°	747.4	1039.1	1651.7	477.2	172.4	189.3	212.4	233.2	248.6	254.8	256.3
67.5°	701.9	941.3	1132.2	197.8	151.6	170.9	193.2	213.2	226.3	230.9	231.7
70°	597.3	788.2	658.1	131.6	137.0	157.0	174.7	190.1	198.6	200.9	200.1
72.5°	466.4	624.2	332.5	119.3	127.0	137.8	147.8	156.2	160.9	163.2	163.2
75°	341.7	456.4	156.2	105.4	94.7	103.9	113.9	119.3	120.8	121.6	121.6
77.5°	229.4	314.8	93.1	81.6	73.1	80.8	84.7	82.4	80.8	82.4	82.4
80°	138.5	194.0	81.6	59.3	56.2	57.0	53.9	53.9	57.0	58.5	57.7
82.5°	74.7	110.1	71.6	43.1	37.7	34.6	33.9	32.3	30.8	30.0	30.0
85°	34.6	56.2	46.2	26.2	20.0	14.6	11.5	8.5	7.7	6.2	6.2
87.5°	13.9	21.6	13.9	8.5	4.6	3.1	2.3	1.5	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)