

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: P685480

Luminaire Tested: **4CZL-7-UNV-W-L835-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685480  
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-L835-CD-U  
Description: METALUX CRUZE LINEAR 4FT WIDE LENS MODEL @80 CRI and 3500K  
Light Source: (392) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

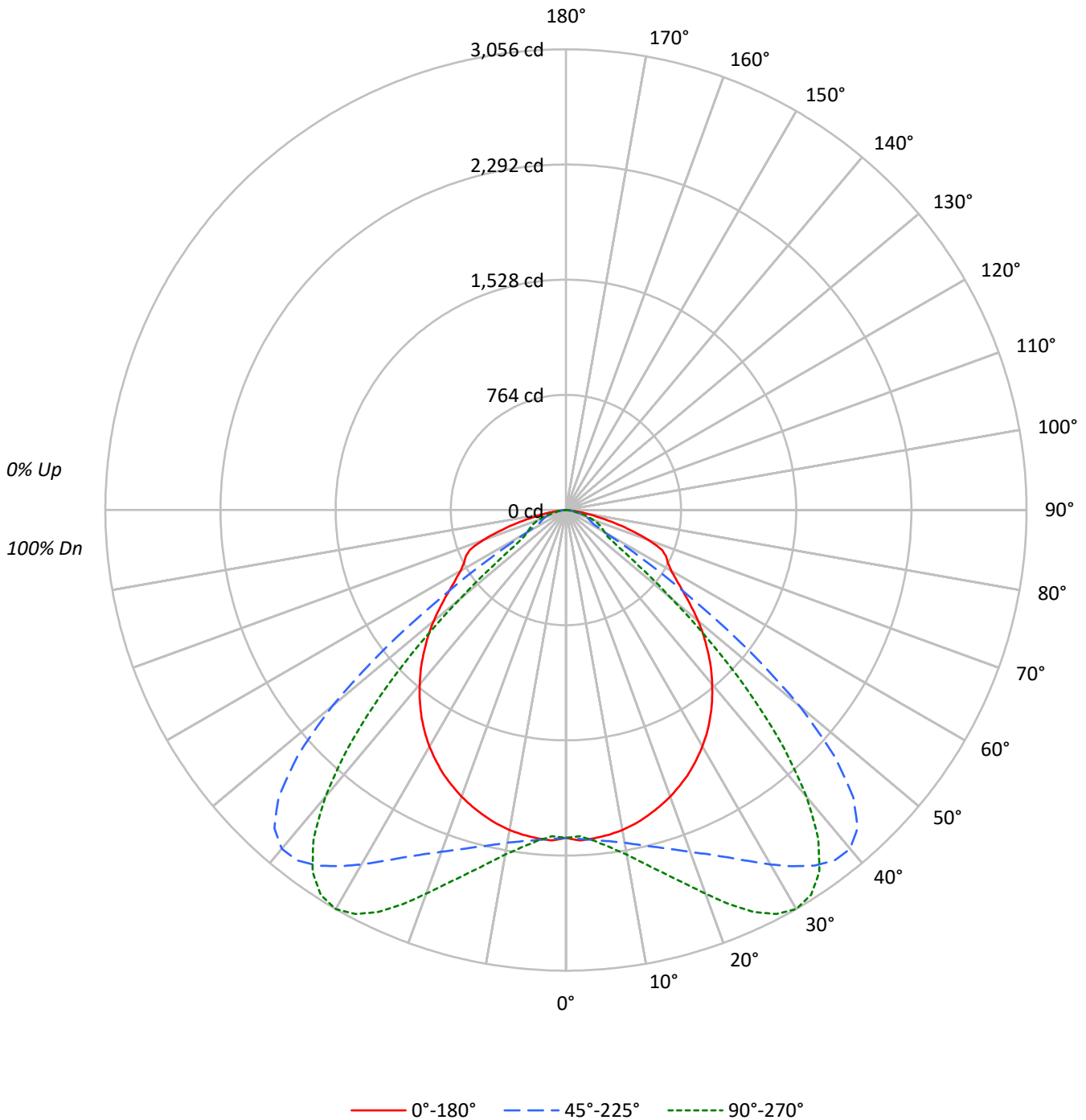
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6955.7 lumens  
Efficiency: N/A  
Efficacy: 158.1 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): 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	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°	7023	7023	7023
5°	7084	7121	7143
10°	7067	7350	7608
15°	7015	7739	8328
20°	6954	8290	9303
25°	6871	9059	10478
30°	6753	10123	11394
35°	6588	11346	11552
40°	6359	12362	10465
45°	6085	12315	7943
50°	5756	10178	4578
55°	5364	5598	2354
60°	5206	1954	1919
65°	5611	1421	1924
70°	5540	1457	1856
75°	4190	1274	1491
80°	2531	1041	1054
85°	1260	534	222



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.5	3.0
10°-20°	654.5	9.4
20°-30°	1149.8	16.5
30°-40°	1597.3	23.0
40°-50°	1619.9	23.3
50°-60°	1039.5	14.9
60°-70°	486.2	7.0
70°-80°	168.6	2.4
80°-90°	29.4	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°	2014.8	29.0
0°-40°	3612.1	51.9
0°-60°	6271.5	90.2
0°-90°	6955.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6955.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2175	2175	2175	2175	2175	
5°	2185	2170	2197	2204	2204	208
15°	2098	2148	2315	2439	2491	592
25°	1928	2126	2542	2840	2941	888
35°	1671	2144	2878	2977	2930	1044
45°	1332	2295	2697	2011	1739	1027
55°	953	2370	994	479	418	860
65°	734	757	186	233	252	714
75°	336	116	102	118	120	363
85°	34	31	14	8	6	51
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°	2174.9	2174.9	2174.9	2174.9	2174.9	2174.9	2174.9	2174.9	2174.9	2174.9	2174.9
2.5°	2193.8	2187.0	2175.6	2171.1	2173.3	2184.7	2188.5	2180.2	2177.9	2171.8	2165.8
5°	2185.4	2179.4	2171.1	2169.6	2177.9	2196.8	2205.1	2202.8	2206.6	2207.4	2203.6
7.5°	2173.3	2168.1	2161.3	2168.1	2185.4	2215.7	2234.6	2240.7	2254.3	2257.3	2256.5
10°	2155.2	2150.7	2148.4	2165.8	2196.0	2241.4	2274.7	2291.3	2311.0	2317.8	2320.1
12.5°	2131.0	2126.5	2132.5	2162.8	2210.4	2275.4	2324.6	2354.1	2382.1	2396.4	2401.0
15°	2098.5	2097.0	2112.1	2160.5	2228.6	2314.8	2382.8	2428.9	2469.0	2484.9	2491.0
17.5°	2062.9	2063.7	2090.9	2159.7	2250.5	2360.9	2447.9	2513.6	2562.8	2585.5	2592.3
20°	2023.6	2025.9	2066.7	2159.0	2277.7	2412.3	2519.7	2605.9	2667.2	2697.4	2707.2
22.5°	1977.5	1982.0	2040.3	2159.7	2306.4	2471.3	2604.4	2707.2	2780.6	2816.9	2829.0
25°	1928.3	1935.1	2013.0	2163.5	2342.7	2542.4	2701.2	2821.4	2895.5	2927.3	2940.9
27.5°	1871.6	1883.0	1983.5	2168.8	2385.8	2624.8	2800.2	2915.9	2984.8	3009.0	3021.1
30°	1811.1	1824.0	1954.8	2179.4	2441.8	2714.8	2891.7	2989.3	3035.4	3049.0	3055.8
32.5°	1744.6	1765.8	1926.1	2196.8	2507.6	2801.8	2959.1	3017.3	3028.6	3024.1	3026.4
35°	1671.2	1693.9	1898.8	2225.5	2582.5	2878.1	2985.5	2985.5	2952.2	2931.8	2930.3
37.5°	1593.3	1622.1	1871.6	2258.8	2669.4	2928.8	2956.8	2881.9	2801.0	2757.1	2750.3
40°	1508.6	1547.2	1852.7	2304.2	2748.1	2932.6	2853.9	2699.7	2562.0	2491.0	2482.6
42.5°	1424.7	1472.3	1844.4	2363.2	2807.1	2863.0	2660.3	2422.1	2235.4	2151.4	2142.3
45°	1332.4	1395.2	1847.4	2444.1	2822.9	2696.6	2372.2	2063.7	1854.2	1748.4	1739.3
47.5°	1240.9	1318.8	1855.0	2535.6	2753.4	2414.6	1988.8	1631.9	1423.9	1312.8	1311.3
50°	1145.7	1247.0	1873.1	2610.4	2565.1	2025.9	1517.7	1169.1	1002.7	918.0	911.2
52.5°	1046.6	1184.2	1912.5	2624.1	2230.1	1526.8	1030.0	780.4	672.3	618.6	608.0
55°	952.8	1131.3	1976.7	2501.5	1748.4	994.4	648.8	492.3	437.8	415.9	418.2
57.5°	871.9	1092.0	2051.6	2181.7	1135.1	585.3	375.8	327.4	325.9	328.2	329.0
60°	806.1	1067.8	2084.9	1636.4	623.1	302.5	262.4	273.0	287.4	295.7	297.2
62.5°	763.0	1054.9	1983.5	948.3	276.8	211.0	229.1	248.8	265.4	273.0	273.7
65°	734.3	1020.9	1622.8	468.9	169.4	186.0	208.7	229.1	244.3	250.3	251.8
67.5°	689.7	924.8	1112.4	194.3	149.0	167.9	189.8	209.5	222.3	226.9	227.6
70°	586.8	774.4	646.6	129.3	134.6	154.3	171.7	186.8	195.1	197.4	196.6
72.5°	458.3	613.3	326.7	117.2	124.8	135.4	145.2	153.5	158.0	160.3	160.3
75°	335.8	448.4	153.5	103.6	93.0	102.1	111.9	117.2	118.7	119.5	119.5
77.5°	225.4	309.3	91.5	80.2	71.8	79.4	83.2	80.9	79.4	80.9	80.9
80°	136.1	190.6	80.2	58.2	55.2	56.0	52.9	52.9	56.0	57.5	56.7
82.5°	73.4	108.1	70.3	42.3	37.1	34.0	33.3	31.8	30.2	29.5	29.5
85°	34.0	55.2	45.4	25.7	19.7	14.4	11.3	8.3	7.6	6.0	6.0
87.5°	13.6	21.2	13.6	8.3	4.5	3.0	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)