

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: P259220

Luminaire Tested: **22CZ-LD5-29-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259220  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-LD5-29-UNV-L83050-W2A1-U-4000K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2993.0 lumens  
Efficiency: N/A  
Efficacy: 140.5 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

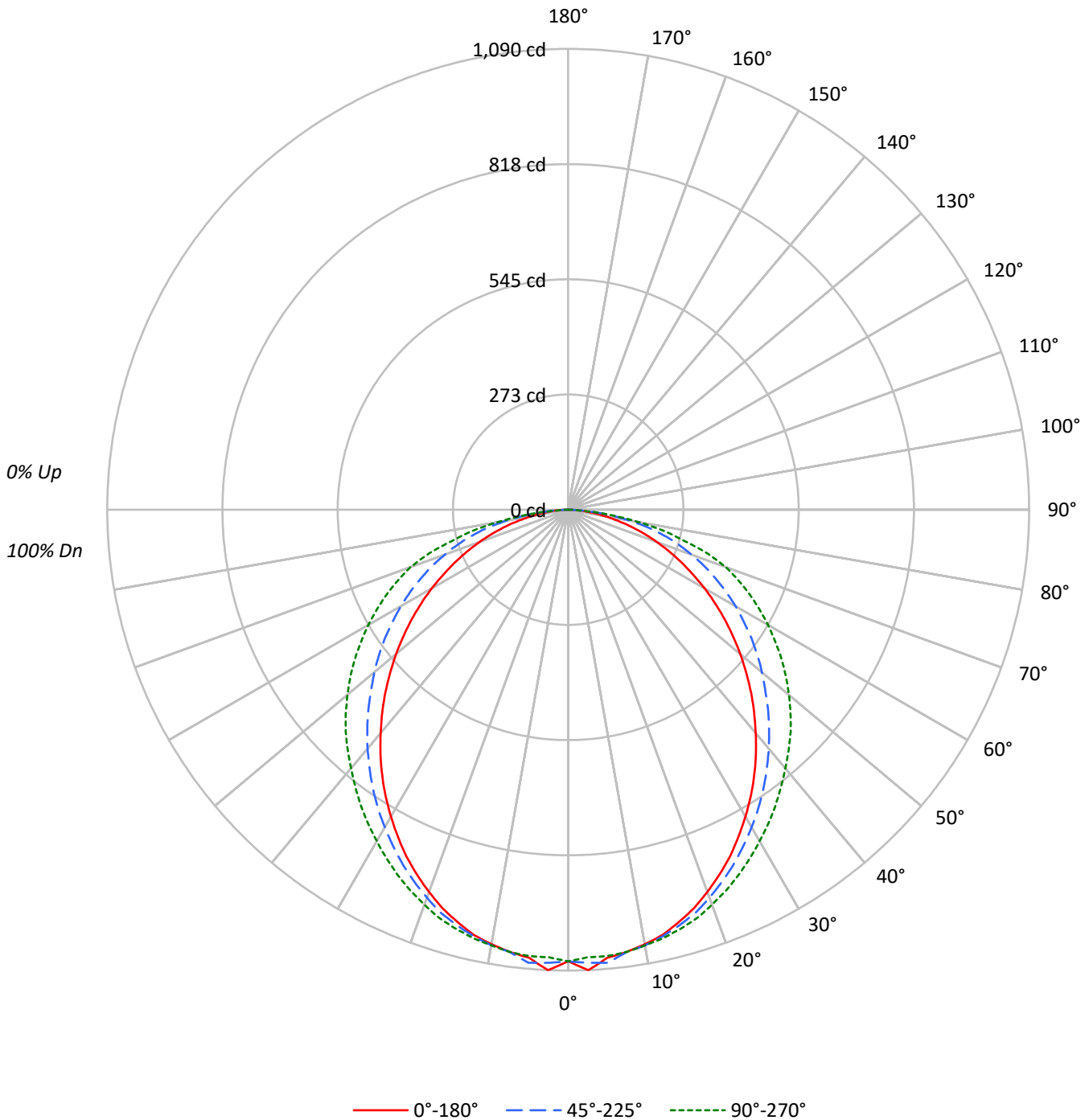
Input Watts (W): 21.297  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P259220

CATALOG NUMBER: 22CZ-LD5-29-UNV-L83050-W2A1-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P259220

CATALOG NUMBER: 22CZ-LD5-29-UNV-L83050-W2A1-U-4000K

**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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2875	2875	2875
5°	2874	2905	2862
10°	2852	2860	2860
15°	2814	2834	2859
20°	2755	2797	2847
25°	2688	2749	2831
30°	2605	2696	2813
35°	2520	2644	2807
40°	2423	2592	2807
45°	2326	2543	2830
50°	2224	2504	2852
55°	2117	2479	2889
60°	2005	2460	2937
65°	1882	2446	3012
70°	1752	2439	3115
75°	1589	2436	2951
80°	1376	2255	2616
85°	1167	1707	1664



TEST NUMBER: P259220

CATALOG NUMBER: 22CZ-LD5-29-UNV-L83050-W2A1-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.3	3.4
10°-20°	287.0	9.6
20°-30°	427.0	14.3
30°-40°	505.0	16.9
40°-50°	519.0	17.3
50°-60°	474.2	15.8
60°-70°	379.4	12.7
70°-80°	238.1	8.0
80°-90°	62.0	2.1
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°	815.3	27.2
0°-40°	1320.3	44.1
0°-60°	2313.5	77.3
0°-90°	2993.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2993.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1068	1068	1068	1068	1068	
5°	1064	1064	1076	1068	1060	101
15°	1010	1012	1017	1023	1026	285
25°	905	911	926	942	953	416
35°	767	777	805	835	854	479
45°	611	627	668	718	744	471
55°	451	473	528	586	616	404
65°	296	322	384	442	473	293
75°	153	182	234	269	284	162
85°	38	48	55	54	54	44
90°	0	0	0	0	0	



TEST NUMBER: P259220

CATALOG NUMBER: 22CZ-LD5-29-UNV-L83050-W2A1-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1068.3	1068.3	1068.3	1068.3	1068.3
2.5°	1090.1	1085.8	1072.7	1063.9	1059.6
5°	1063.9	1063.9	1075.6	1068.3	1059.6
7.5°	1055.2	1055.2	1055.2	1077.0	1055.2
10°	1043.6	1045.0	1046.5	1055.2	1046.5
12.5°	1030.5	1030.5	1033.4	1036.3	1037.7
15°	1010.1	1011.5	1017.4	1023.2	1026.1
17.5°	988.3	992.6	999.9	1007.2	1013.0
20°	962.1	967.9	976.6	988.3	994.1
22.5°	934.4	940.2	951.9	965.0	975.2
25°	905.3	911.1	925.7	941.7	953.3
27.5°	871.8	879.1	896.6	918.4	930.0
30°	838.3	847.1	867.5	892.2	905.3
32.5°	803.4	813.6	836.9	864.5	880.5
35°	767.0	777.2	804.9	835.4	854.4
37.5°	729.2	740.8	771.4	806.3	826.7
40°	689.9	703.0	737.9	775.8	799.0
42.5°	650.6	665.1	703.0	748.1	771.4
45°	611.3	627.3	668.1	717.5	743.7
47.5°	570.5	589.5	631.7	687.0	713.2
50°	531.2	550.2	598.2	655.0	681.2
52.5°	490.5	512.3	563.3	621.5	649.1
55°	451.2	473.0	528.3	586.5	615.7
57.5°	411.9	433.7	491.9	551.6	580.7
60°	372.6	395.9	457.0	515.2	545.8
62.5°	333.3	358.0	420.6	480.3	509.4
65°	295.5	321.7	384.2	442.5	473.0
67.5°	259.1	286.7	347.9	404.6	435.2
70°	222.7	250.3	310.0	365.3	395.9
72.5°	187.8	215.4	273.6	323.1	346.4
75°	152.8	181.9	234.3	269.3	283.8
77.5°	119.3	148.5	193.6	216.9	232.9
80°	88.8	113.5	145.5	163.0	168.8
82.5°	61.1	81.5	101.9	106.2	109.2
85°	37.8	48.0	55.3	53.9	53.9
87.5°	17.5	18.9	16.0	11.6	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)