

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: P389501

Luminaire Tested: **22CZ2-95VHE-S-UNV-L940-CD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P389501  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-95VHE-S-UNV-L940-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8625.6 lumens  
Efficiency: N/A  
Efficacy: 118.6 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

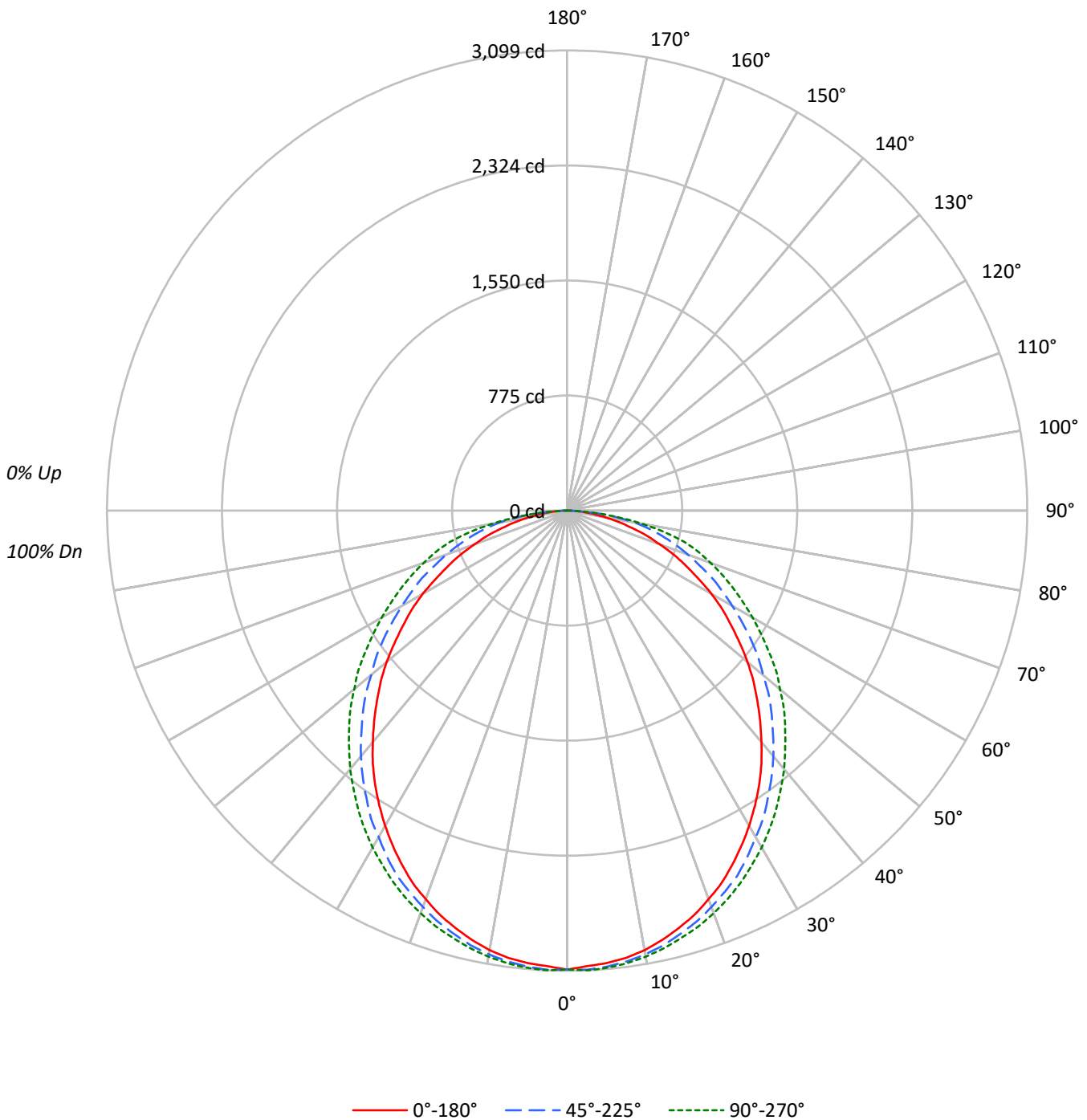
Input Watts (W): 72.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	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	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	8317	8317	8317
5°	8262	8327	8349
10°	8215	8292	8336
15°	8106	8218	8297
20°	7975	8137	8263
25°	7815	8054	8209
30°	7616	7891	8141
35°	7404	7748	8065
40°	7154	7592	7987
45°	6892	7413	7903
50°	6638	7211	7834
55°	6325	7081	7779
60°	6043	6909	7754
65°	5638	6868	7841
70°	5193	6808	8074
75°	4686	6904	8494
80°	4054	7110	7982
85°	3356	5965	5965



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	292.3	3.4
10°-20°	831.8	9.6
20°-30°	1244.6	14.4
30°-40°	1473.9	17.1
40°-50°	1502.1	17.4
50°-60°	1346.3	15.6
60°-70°	1054.1	12.2
70°-80°	679.7	7.9
80°-90°	200.8	2.3
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°	2368.7	27.5
0°-40°	3842.6	44.5
0°-60°	6691.1	77.6
0°-90°	8625.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8625.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3091	3091	3091	3091	3091	
5°	3059	3067	3083	3087	3091	290
15°	2910	2926	2950	2974	2978	820
25°	2632	2656	2712	2749	2765	1212
35°	2254	2282	2358	2431	2455	1409
45°	1811	1851	1948	2048	2077	1399
55°	1348	1392	1509	1614	1658	1209
65°	885	938	1079	1183	1232	880
75°	451	519	664	777	817	483
85°	109	149	193	193	193	128
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3090.8	3090.8	3090.8	3090.8	3090.8
2.5°	3070.7	3078.7	3094.8	3098.9	3098.9
5°	3058.6	3066.7	3082.8	3086.8	3090.8
7.5°	3038.5	3042.5	3062.6	3070.7	3074.7
10°	3006.3	3014.4	3034.5	3046.6	3050.6
12.5°	2962.0	2974.1	2998.3	3014.4	3018.4
15°	2909.7	2925.8	2950.0	2974.1	2978.1
17.5°	2853.4	2869.5	2901.7	2929.8	2937.9
20°	2785.0	2805.1	2841.3	2873.5	2885.6
22.5°	2716.5	2732.6	2776.9	2817.2	2829.2
25°	2632.0	2656.2	2712.5	2748.7	2764.8
27.5°	2543.5	2571.7	2628.0	2676.3	2692.4
30°	2450.9	2479.1	2539.5	2599.8	2620.0
32.5°	2354.3	2386.5	2459.0	2519.3	2539.5
35°	2253.7	2281.9	2358.4	2430.8	2454.9
37.5°	2149.1	2173.2	2261.8	2338.2	2362.4
40°	2036.4	2068.6	2161.2	2249.7	2273.8
42.5°	1923.7	1959.9	2052.5	2149.1	2173.2
45°	1811.0	1851.3	1947.9	2048.5	2076.6
47.5°	1702.4	1734.6	1843.2	1939.8	1980.1
50°	1585.7	1617.9	1722.5	1831.2	1871.4
52.5°	1464.9	1509.2	1621.9	1726.5	1774.8
55°	1348.2	1392.5	1509.2	1613.8	1658.1
57.5°	1239.5	1275.8	1396.5	1505.2	1549.4
60°	1122.8	1155.0	1283.8	1400.5	1440.8
62.5°	998.1	1046.4	1179.2	1287.8	1336.1
65°	885.4	937.7	1078.6	1183.2	1231.5
67.5°	780.8	829.0	965.9	1078.6	1130.9
70°	660.0	724.4	865.3	978.0	1026.2
72.5°	563.4	619.8	764.7	877.3	929.7
75°	450.7	519.2	664.0	776.7	817.0
77.5°	358.2	426.6	563.4	652.0	672.1
80°	261.6	330.0	458.8	503.1	515.1
82.5°	177.1	241.5	330.0	342.1	346.1
85°	108.7	148.9	193.2	193.2	193.2
87.5°	52.3	60.4	68.4	64.4	64.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)