

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: P387611

Luminaire Tested: **22CZ2-100VHE-SQR-UNV-L950-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: P387611  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-100VHE-SQR-UNV-L950-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8801.9 lumens  
Efficiency: N/A  
Efficacy: 113.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

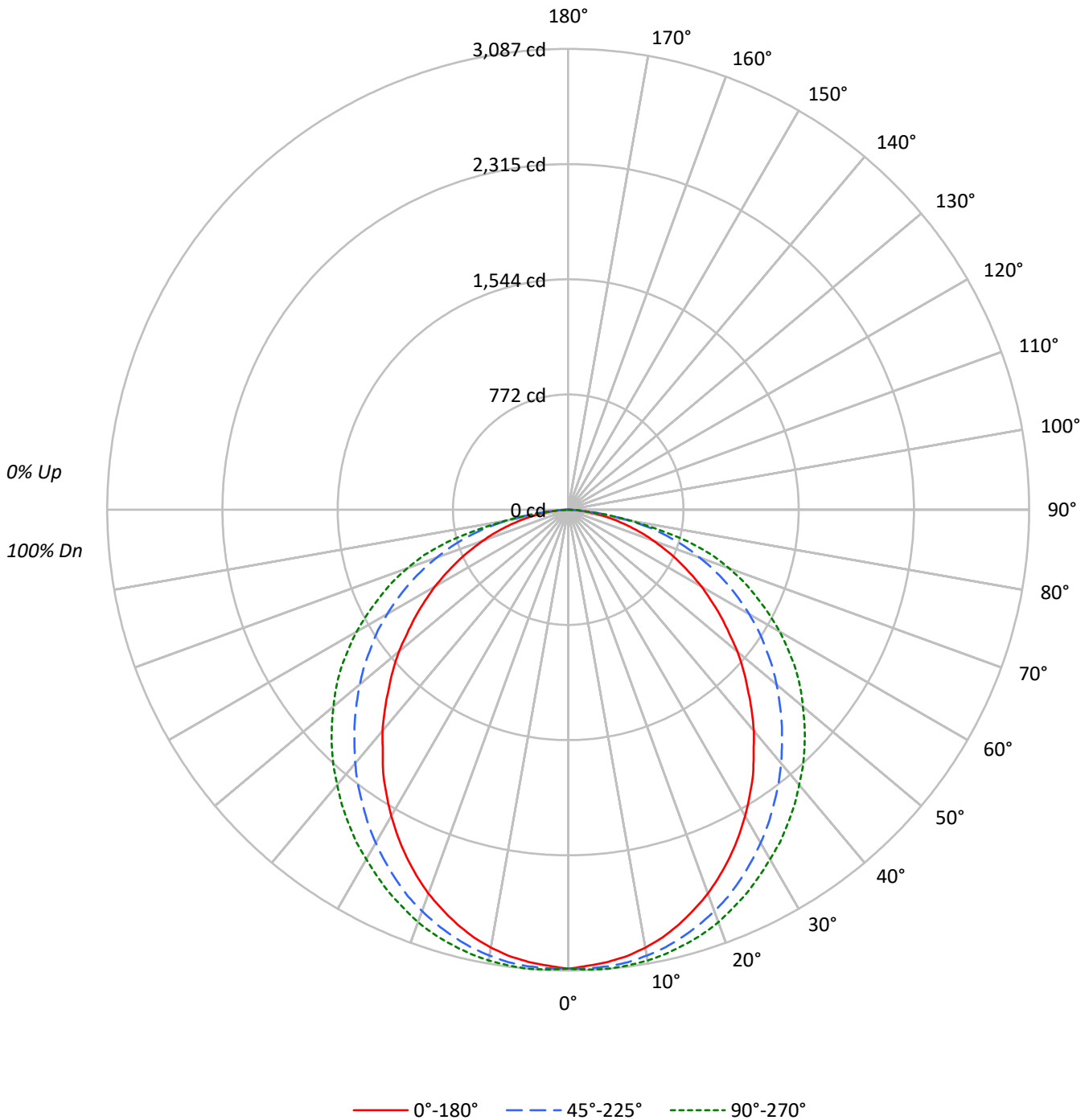
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P387611

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L950-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P387611

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L950-CD1-U

**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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	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	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	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°	8274	8274	8274
5°	8215	8294	8339
10°	8139	8287	8379
15°	8007	8252	8403
20°	7836	8195	8422
25°	7616	8112	8410
30°	7360	8009	8399
35°	7095	7891	8426
40°	6795	7792	8453
45°	6471	7695	8522
50°	6191	7625	8587
55°	5860	7566	8722
60°	5554	7532	8813
65°	5187	7475	8884
70°	4766	7363	9006
75°	4300	7167	8687
80°	3690	6344	6538
85°	2967	3742	2967



TEST NUMBER: P387611

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L950-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	291.5	3.3
10°-20°	833.4	9.5
20°-30°	1251.7	14.2
30°-40°	1492.8	17.0
40°-50°	1543.5	17.5
50°-60°	1419.1	16.1
60°-70°	1129.7	12.8
70°-80°	690.2	7.8
80°-90°	150.0	1.7
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°	2376.6	27.0
0°-40°	3869.5	44.0
0°-60°	6832.0	77.6
0°-90°	8801.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8801.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3075	3075	3075	3075	3075	
5°	3041	3050	3070	3083	3087	288
15°	2874	2908	2962	3004	3016	809
25°	2565	2628	2732	2807	2832	1180
35°	2160	2252	2402	2527	2565	1347
45°	1700	1821	2022	2185	2239	1315
55°	1249	1387	1613	1796	1859	1117
65°	815	952	1174	1337	1395	807
75°	414	535	689	810	836	441
85°	96	117	121	104	96	111
90°	0	0	0	0	0	



TEST NUMBER: P387611

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3074.7	3074.7	3074.7	3074.7	3074.7
2.5°	3058.0	3062.2	3074.7	3083.1	3083.1
5°	3041.3	3049.7	3070.5	3083.1	3087.2
7.5°	3016.2	3028.8	3058.0	3074.7	3078.9
10°	2978.6	2995.3	3032.9	3058.0	3066.4
12.5°	2932.7	2957.7	3003.7	3037.1	3045.5
15°	2874.2	2907.6	2961.9	3003.7	3016.2
17.5°	2807.3	2849.1	2916.0	2966.1	2982.8
20°	2736.3	2778.1	2861.7	2920.1	2941.0
22.5°	2652.8	2707.1	2803.2	2870.0	2886.7
25°	2565.0	2627.7	2732.2	2807.3	2832.4
27.5°	2469.0	2544.2	2657.0	2748.9	2769.8
30°	2368.7	2448.1	2577.6	2677.8	2702.9
32.5°	2264.3	2356.2	2494.0	2606.8	2640.2
35°	2159.8	2251.7	2402.1	2527.4	2565.0
37.5°	2038.7	2147.3	2314.4	2443.9	2489.9
40°	1934.2	2038.7	2218.3	2360.3	2406.3
42.5°	1817.3	1930.1	2118.0	2272.6	2326.9
45°	1700.3	1821.4	2022.0	2184.9	2239.2
47.5°	1591.7	1712.8	1921.7	2093.0	2147.3
50°	1478.9	1604.2	1821.4	1996.9	2051.2
52.5°	1357.7	1495.6	1721.2	1896.6	1959.3
55°	1249.1	1387.0	1612.6	1796.4	1859.0
57.5°	1136.3	1278.3	1512.3	1687.8	1746.2
60°	1031.9	1169.7	1399.5	1570.8	1637.6
62.5°	919.1	1061.1	1286.7	1453.8	1516.5
65°	814.6	952.5	1173.9	1336.8	1395.3
67.5°	710.2	848.1	1056.9	1211.5	1278.3
70°	605.8	743.6	935.8	1086.2	1144.7
72.5°	513.8	635.0	818.8	956.7	1011.0
75°	413.6	534.7	689.3	810.5	835.5
77.5°	321.7	430.3	559.8	614.1	622.5
80°	238.1	321.7	409.4	421.9	421.9
82.5°	158.7	221.4	254.8	259.0	254.8
85°	96.1	117.0	121.2	104.4	96.1
87.5°	33.4	33.4	20.9	12.5	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)