

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: P387731

Luminaire Tested: **22CZ2-24-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: P387731  
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: 22CZ2-24-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: 2133.4 lumens  
Efficiency: N/A  
Efficacy: 97.4 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

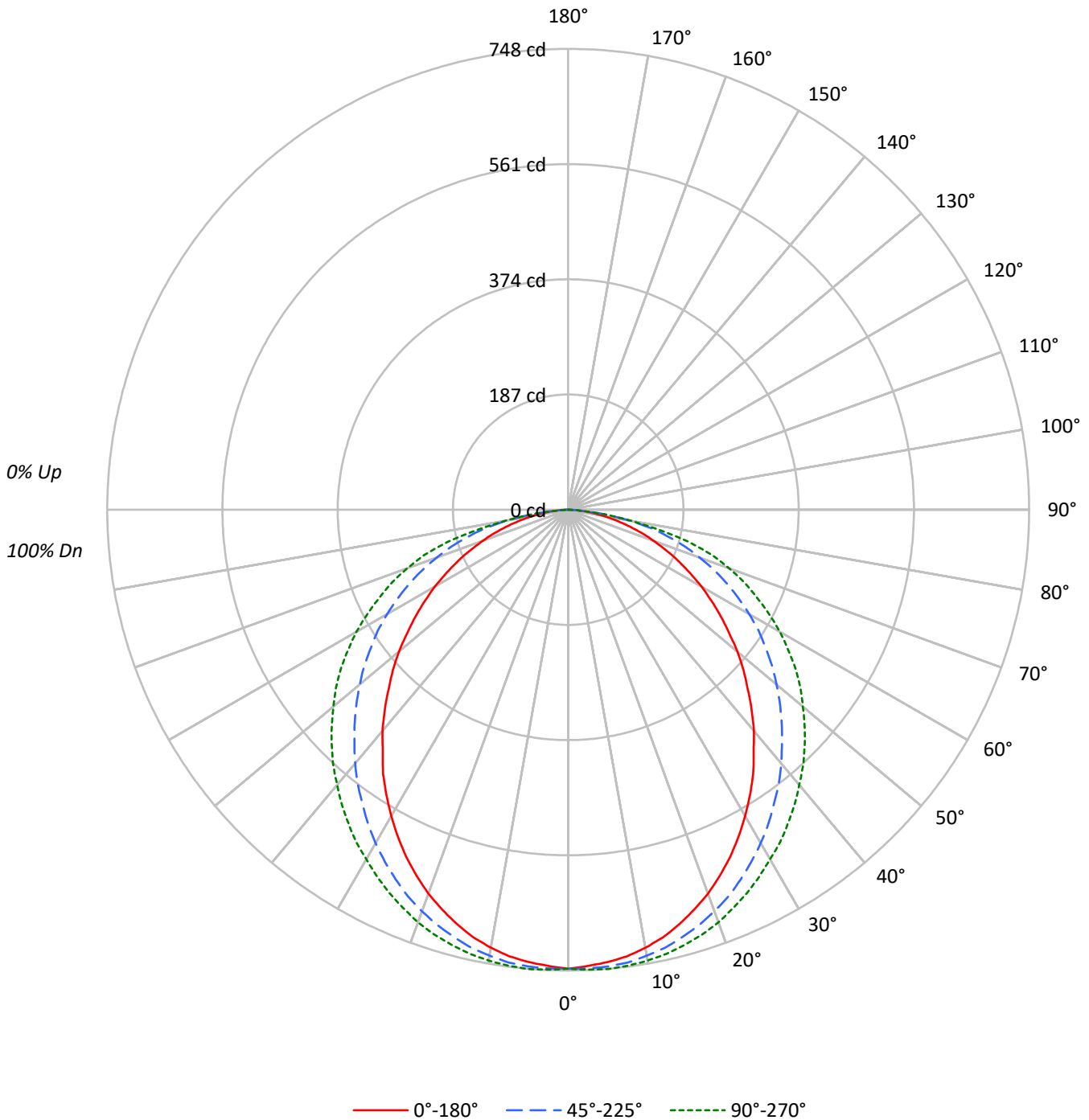
Input Watts (W): 21.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P387731

CATALOG NUMBER: 22CZ2-24-SQR-UNV-L950-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P387731

CATALOG NUMBER: 22CZ2-24-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°	2005	2005	2005
5°	1991	2010	2021
10°	1973	2009	2031
15°	1941	2000	2037
20°	1899	1986	2041
25°	1846	1966	2038
30°	1784	1941	2036
35°	1720	1913	2042
40°	1647	1889	2049
45°	1568	1865	2065
50°	1500	1848	2081
55°	1421	1834	2114
60°	1346	1826	2136
65°	1258	1812	2153
70°	1155	1784	2183
75°	1042	1737	2105
80°	894	1537	1585
85°	719	908	719



TEST NUMBER: P387731

CATALOG NUMBER: 22CZ2-24-SQR-UNV-L950-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.7	3.3
10°-20°	202.0	9.5
20°-30°	303.4	14.2
30°-40°	361.8	17.0
40°-50°	374.1	17.5
50°-60°	344.0	16.1
60°-70°	273.8	12.8
70°-80°	167.3	7.8
80°-90°	36.4	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°	576.0	27.0
0°-40°	937.9	44.0
0°-60°	1655.9	77.6
0°-90°	2133.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2133.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	745	745	745	745	745	
5°	737	739	744	747	748	70
15°	697	705	718	728	731	196
25°	622	637	662	680	686	286
35°	524	546	582	613	622	327
45°	412	442	490	530	543	319
55°	303	336	391	435	451	271
65°	198	231	284	324	338	196
75°	100	130	167	196	202	107
85°	23	28	29	25	23	27
90°	0	0	0	0	0	



TEST NUMBER: P387731

CATALOG NUMBER: 22CZ2-24-SQR-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	745.2	745.2	745.2	745.2	745.2
2.5°	741.2	742.2	745.2	747.3	747.3
5°	737.1	739.2	744.2	747.3	748.3
7.5°	731.1	734.1	741.2	745.2	746.3
10°	722.0	726.0	735.1	741.2	743.2
12.5°	710.8	716.9	728.0	736.1	738.2
15°	696.6	704.7	717.9	728.0	731.1
17.5°	680.4	690.6	706.8	718.9	723.0
20°	663.2	673.4	693.6	707.8	712.8
22.5°	643.0	656.1	679.4	695.6	699.7
25°	621.7	636.9	662.2	680.4	686.5
27.5°	598.4	616.7	644.0	666.3	671.3
30°	574.1	593.4	624.8	649.1	655.1
32.5°	548.8	571.1	604.5	631.8	639.9
35°	523.5	545.8	582.2	612.6	621.7
37.5°	494.1	520.5	561.0	592.4	603.5
40°	468.8	494.1	537.7	572.1	583.2
42.5°	440.5	467.8	513.4	550.8	564.0
45°	412.1	441.5	490.1	529.6	542.7
47.5°	385.8	415.2	465.8	507.3	520.5
50°	358.4	388.8	441.5	484.0	497.2
52.5°	329.1	362.5	417.2	459.7	474.9
55°	302.8	336.2	390.9	435.4	450.6
57.5°	275.4	309.8	366.5	409.1	423.3
60°	250.1	283.5	339.2	380.7	396.9
62.5°	222.8	257.2	311.9	352.4	367.6
65°	197.5	230.9	284.5	324.0	338.2
67.5°	172.1	205.6	256.2	293.6	309.8
70°	146.8	180.2	226.8	263.3	277.4
72.5°	124.5	153.9	198.5	231.9	245.0
75°	100.2	129.6	167.1	196.4	202.5
77.5°	78.0	104.3	135.7	148.8	150.9
80°	57.7	78.0	99.2	102.3	102.3
82.5°	38.5	53.7	61.8	62.8	61.8
85°	23.3	28.4	29.4	25.3	23.3
87.5°	8.1	8.1	5.1	3.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)