

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: P387889

Luminaire Tested: **22CZ2-34VHE-SQR-UNV-L930-CD1-SWPD1-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: P387889  
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: 22CZ2-34VHE-SQR-UNV-L930-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2815.6 lumens  
Efficiency: N/A  
Efficacy: 112.2 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

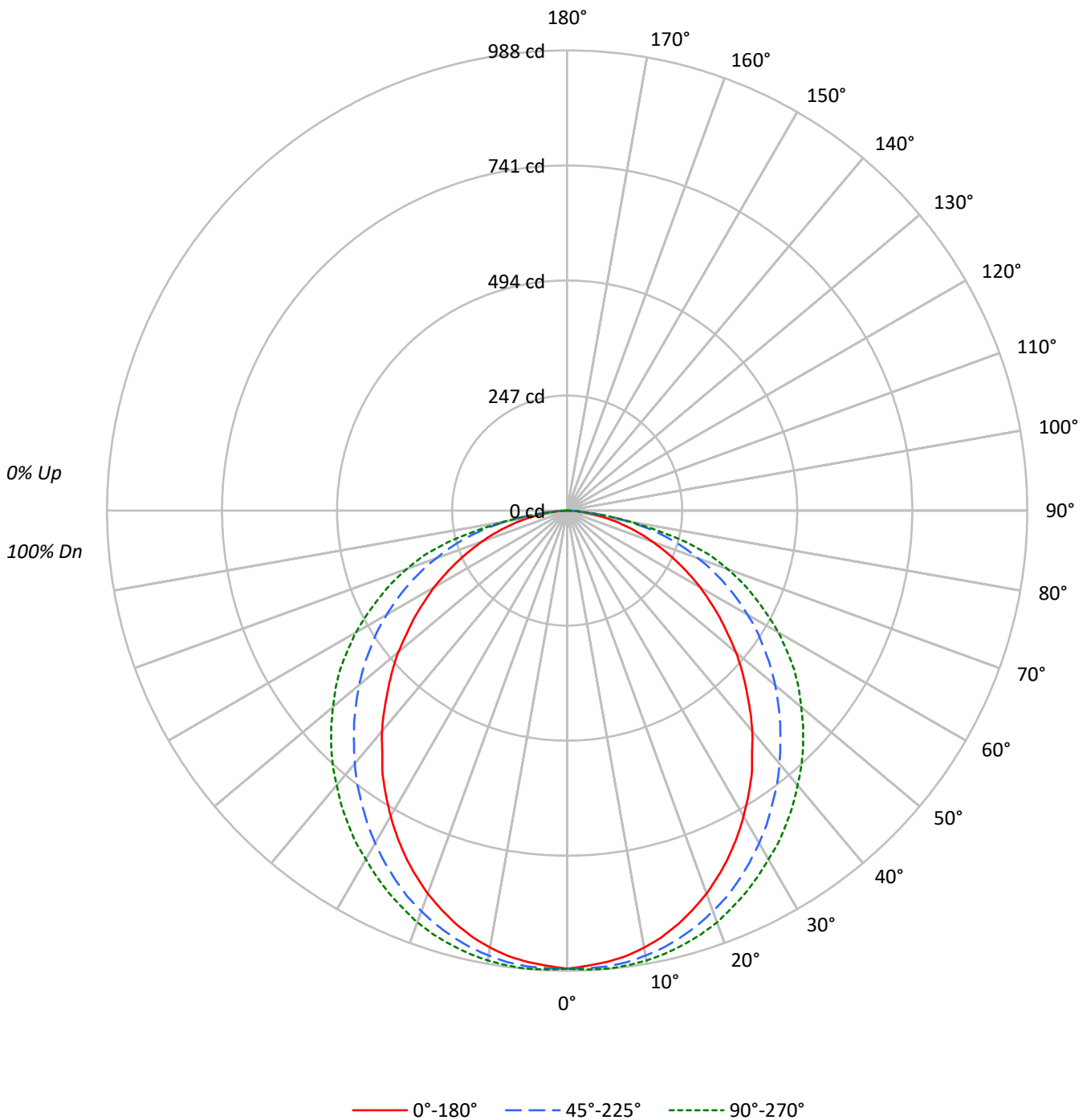
Input Watts (W): 25.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P387889

CATALOG NUMBER: 22CZ2-34VHE-SQR-UNV-L930-CD1-SWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P387889

CATALOG NUMBER: 22CZ2-34VHE-SQR-UNV-L930-CD1-SWPD1-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°	2647	2647	2647
5°	2628	2653	2668
10°	2604	2651	2680
15°	2561	2640	2688
20°	2507	2621	2694
25°	2436	2595	2690
30°	2354	2562	2687
35°	2270	2524	2695
40°	2173	2493	2704
45°	2070	2461	2726
50°	1981	2439	2747
55°	1875	2420	2790
60°	1777	2410	2820
65°	1659	2391	2842
70°	1525	2355	2881
75°	1376	2293	2779
80°	1181	2030	2092
85°	948	1198	948



TEST NUMBER: P387889

CATALOG NUMBER: 22CZ2-34VHE-SQR-UNV-L930-CD1-SWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.2	3.3
10°-20°	266.6	9.5
20°-30°	400.4	14.2
30°-40°	477.5	17.0
40°-50°	493.7	17.5
50°-60°	453.9	16.1
60°-70°	361.4	12.8
70°-80°	220.8	7.8
80°-90°	48.0	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°	760.2	27.0
0°-40°	1237.8	44.0
0°-60°	2185.5	77.6
0°-90°	2815.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2815.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	984	984	984	984	984	
5°	973	976	982	986	988	92
15°	919	930	948	961	965	259
25°	820	841	874	898	906	377
35°	691	720	768	808	820	431
45°	544	583	647	699	716	421
55°	400	444	516	575	595	357
65°	261	305	376	428	446	258
75°	132	171	220	259	267	141
85°	31	37	39	33	31	35
90°	0	0	0	0	0	



TEST NUMBER: P387889

CATALOG NUMBER: 22CZ2-34VHE-SQR-UNV-L930-CD1-SWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	983.6	983.6	983.6	983.6	983.6
2.5°	978.2	979.5	983.6	986.2	986.2
5°	972.9	975.5	982.2	986.2	987.6
7.5°	964.8	968.9	978.2	983.6	984.9
10°	952.8	958.2	970.2	978.2	980.9
12.5°	938.1	946.1	960.8	971.5	974.2
15°	919.4	930.1	947.5	960.8	964.8
17.5°	898.0	911.4	932.8	948.8	954.2
20°	875.3	888.7	915.4	934.1	940.8
22.5°	848.6	866.0	896.7	918.1	923.4
25°	820.5	840.6	874.0	898.0	906.0
27.5°	789.8	813.8	849.9	879.3	886.0
30°	757.7	783.1	824.5	856.6	864.6
32.5°	724.3	753.7	797.8	833.9	844.6
35°	690.9	720.3	768.4	808.5	820.5
37.5°	652.1	686.9	740.3	781.8	796.5
40°	618.7	652.1	709.6	755.0	769.7
42.5°	581.3	617.4	677.5	727.0	744.3
45°	543.9	582.7	646.8	698.9	716.3
47.5°	509.2	547.9	614.7	669.5	686.9
50°	473.1	513.2	582.7	638.8	656.2
52.5°	434.3	478.4	550.6	606.7	626.8
55°	399.6	443.7	515.8	574.6	594.7
57.5°	363.5	408.9	483.8	539.9	558.6
60°	330.1	374.2	447.7	502.5	523.9
62.5°	294.0	339.4	411.6	465.1	485.1
65°	260.6	304.7	375.5	427.6	446.3
67.5°	227.2	271.3	338.1	387.5	408.9
70°	193.8	237.9	299.3	347.5	366.2
72.5°	164.4	203.1	261.9	306.0	323.4
75°	132.3	171.1	220.5	259.3	267.3
77.5°	102.9	137.6	179.1	196.4	199.1
80°	76.2	102.9	131.0	135.0	135.0
82.5°	50.8	70.8	81.5	82.9	81.5
85°	30.7	37.4	38.8	33.4	30.7
87.5°	10.7	10.7	6.7	4.0	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)