

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: P387912

Luminaire Tested: **22CZ2-39-SQR-UNV-L930-CD1-SDWPD1-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: P387912  
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: 22CZ2-39-SQR-UNV-L930-CD1-SDWPD1-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: 3048.4 lumens  
Efficiency: N/A  
Efficacy: 88.4 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

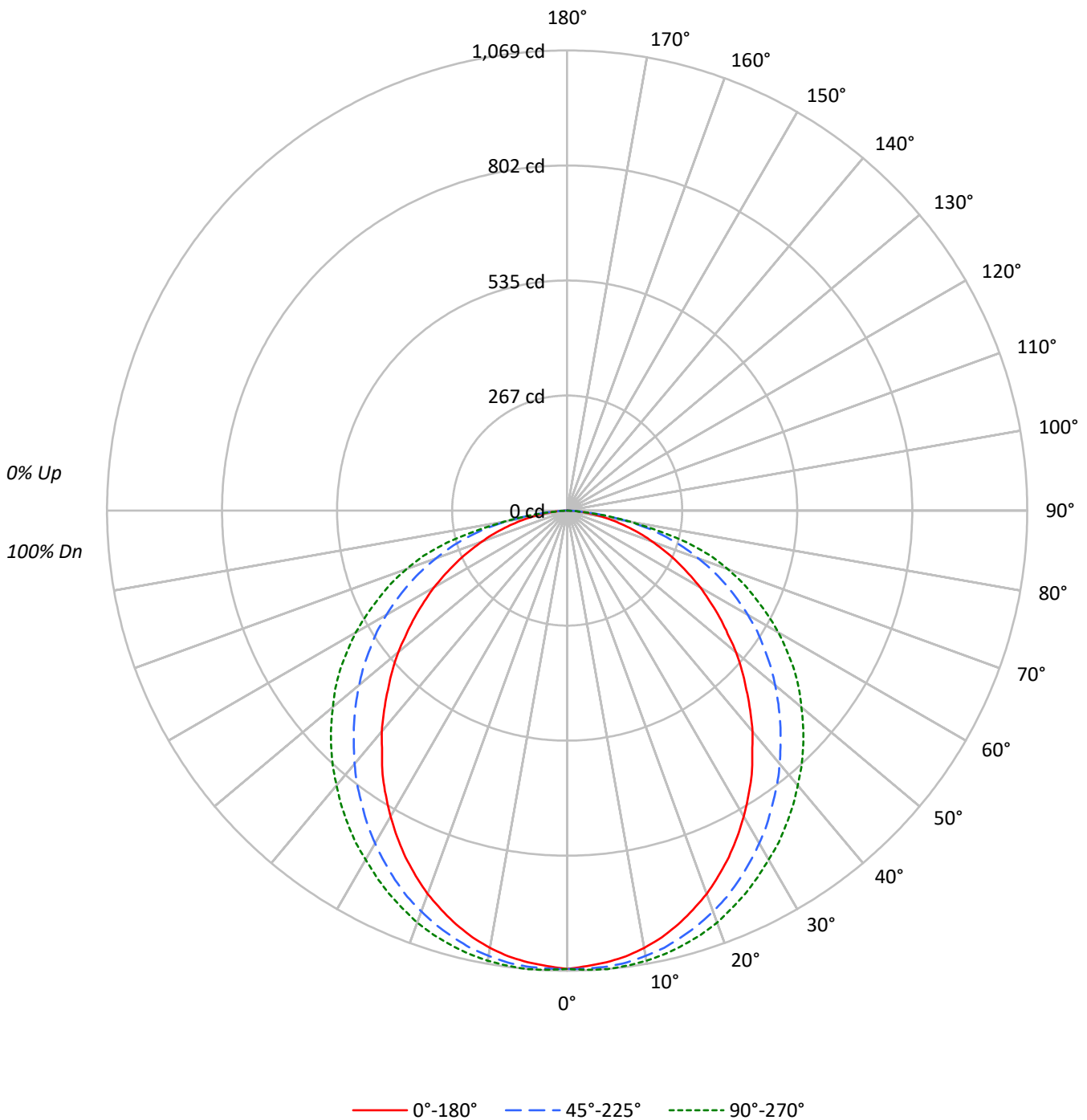
Input Watts (W): 34.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2866	2866	2866
5°	2845	2873	2888
10°	2819	2870	2902
15°	2773	2858	2910
20°	2714	2838	2917
25°	2638	2809	2913
30°	2549	2774	2909
35°	2457	2733	2918
40°	2353	2699	2928
45°	2241	2665	2951
50°	2144	2641	2974
55°	2030	2620	3020
60°	1924	2609	3053
65°	1796	2589	3077
70°	1651	2550	3119
75°	1489	2482	3009
80°	1278	2197	2264
85°	1028	1297	1028



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.0	3.3
10°-20°	288.6	9.5
20°-30°	433.5	14.2
30°-40°	517.0	17.0
40°-50°	534.6	17.5
50°-60°	491.5	16.1
60°-70°	391.3	12.8
70°-80°	239.0	7.8
80°-90°	52.0	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°	823.1	27.0
0°-40°	1340.1	44.0
0°-60°	2366.2	77.6
0°-90°	3048.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3048.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1053	1056	1063	1068	1069	100
15°	995	1007	1026	1040	1045	280
25°	888	910	946	972	981	409
35°	748	780	832	875	888	467
45°	589	631	700	757	776	455
55°	433	480	558	622	644	387
65°	282	330	407	463	483	279
75°	143	185	239	281	289	153
85°	33	40	42	36	33	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1064.9	1064.9	1064.9	1064.9	1064.9
2.5°	1059.1	1060.5	1064.9	1067.8	1067.8
5°	1053.3	1056.2	1063.4	1067.8	1069.2
7.5°	1044.6	1049.0	1059.1	1064.9	1066.3
10°	1031.6	1037.4	1050.4	1059.1	1062.0
12.5°	1015.7	1024.4	1040.3	1051.9	1054.8
15°	995.4	1007.0	1025.8	1040.3	1044.6
17.5°	972.3	986.7	1009.9	1027.3	1033.0
20°	947.7	962.2	991.1	1011.3	1018.6
22.5°	918.7	937.6	970.8	994.0	999.8
25°	888.4	910.1	946.2	972.3	981.0
27.5°	855.1	881.1	920.2	952.0	959.3
30°	820.4	847.9	892.7	927.4	936.1
32.5°	784.2	816.0	863.8	902.8	914.4
35°	748.0	779.9	831.9	875.3	888.4
37.5°	706.1	743.7	801.6	846.4	862.3
40°	669.9	706.1	768.3	817.5	833.4
42.5°	629.4	668.4	733.6	787.1	805.9
45°	588.9	630.8	700.3	756.7	775.5
47.5°	551.2	593.2	665.5	724.9	743.7
50°	512.2	555.6	630.8	691.6	710.4
52.5°	470.2	518.0	596.1	656.9	678.6
55°	432.6	480.4	558.5	622.1	643.8
57.5°	393.5	442.7	523.8	584.5	604.8
60°	357.4	405.1	484.7	544.0	567.2
62.5°	318.3	367.5	445.6	503.5	525.2
65°	282.1	329.9	406.6	463.0	483.2
67.5°	246.0	293.7	366.1	419.6	442.7
70°	209.8	257.5	324.1	376.2	396.4
72.5°	178.0	219.9	283.6	331.3	350.1
75°	143.2	185.2	238.7	280.7	289.4
77.5°	111.4	149.0	193.9	212.7	215.6
80°	82.5	111.4	141.8	146.1	146.1
82.5°	55.0	76.7	88.3	89.7	88.3
85°	33.3	40.5	42.0	36.2	33.3
87.5°	11.6	11.6	7.2	4.3	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)