

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: P387937

Luminaire Tested: **22CZ2-39HE-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: P387937  
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: 22CZ2-39HE-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: 3075.4 lumens  
Efficiency: N/A  
Efficacy: 101.5 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

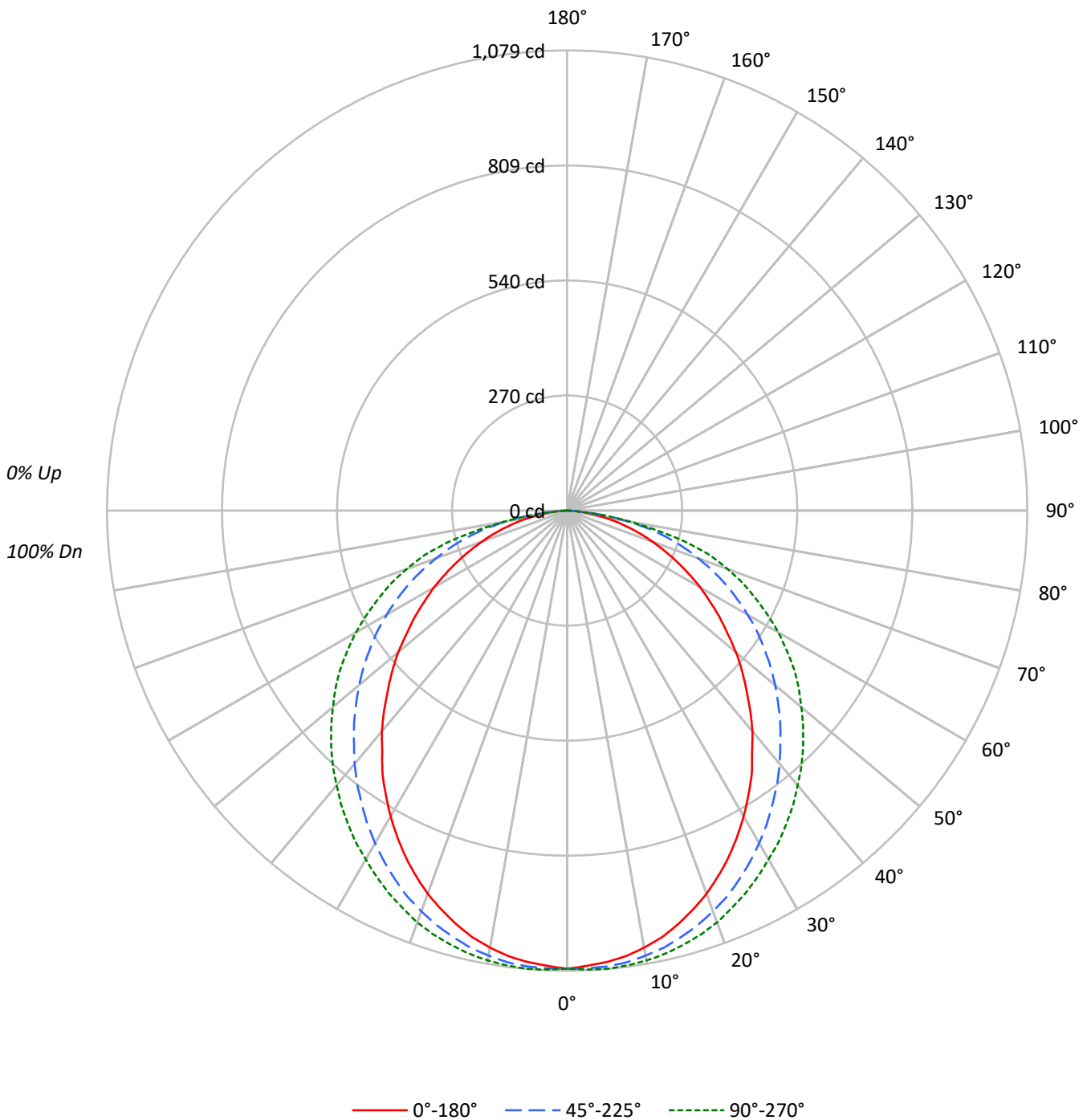
Input Watts (W): 30.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2891	2891	2891
5°	2870	2898	2914
10°	2844	2896	2928
15°	2798	2883	2936
20°	2738	2863	2943
25°	2661	2834	2939
30°	2572	2798	2935
35°	2479	2757	2944
40°	2374	2723	2954
45°	2261	2689	2978
50°	2163	2664	3000
55°	2047	2643	3047
60°	1940	2632	3080
65°	1812	2612	3104
70°	1666	2573	3146
75°	1502	2504	3035
80°	1289	2216	2284
85°	1037	1306	1037



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.8	3.3
10°-20°	291.2	9.5
20°-30°	437.4	14.2
30°-40°	521.6	17.0
40°-50°	539.3	17.5
50°-60°	495.8	16.1
60°-70°	394.7	12.8
70°-80°	241.1	7.8
80°-90°	52.4	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°	830.4	27.0
0°-40°	1352.0	44.0
0°-60°	2387.1	77.6
0°-90°	3075.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3075.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1074	1074	1074	1074	1074	
5°	1063	1066	1073	1077	1079	101
15°	1004	1016	1035	1050	1054	283
25°	896	918	955	981	990	412
35°	755	787	839	883	896	471
45°	594	636	706	763	782	459
55°	436	485	563	628	650	390
65°	285	333	410	467	488	282
75°	144	187	241	283	292	154
85°	34	41	42	36	34	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1074.3	1074.3	1074.3	1074.3	1074.3
2.5°	1068.5	1069.9	1074.3	1077.2	1077.2
5°	1062.6	1065.6	1072.9	1077.2	1078.7
7.5°	1053.9	1058.3	1068.5	1074.3	1075.8
10°	1040.7	1046.6	1059.7	1068.5	1071.4
12.5°	1024.7	1033.4	1049.5	1061.2	1064.1
15°	1004.2	1015.9	1034.9	1049.5	1053.9
17.5°	980.9	995.5	1018.8	1036.4	1042.2
20°	956.1	970.7	999.9	1020.3	1027.6
22.5°	926.9	945.9	979.4	1002.8	1008.6
25°	896.2	918.1	954.6	980.9	989.7
27.5°	862.7	888.9	928.3	960.5	967.8
30°	827.6	855.4	900.6	935.6	944.4
32.5°	791.1	823.2	871.4	910.8	922.5
35°	754.6	786.8	839.3	883.1	896.2
37.5°	712.3	750.3	808.7	853.9	870.0
40°	675.8	712.3	775.1	824.7	840.8
42.5°	635.0	674.4	740.0	794.1	813.0
45°	594.1	636.4	706.5	763.4	782.4
47.5°	556.1	598.5	671.4	731.3	750.3
50°	516.7	560.5	636.4	697.7	716.7
52.5°	474.4	522.6	601.4	662.7	684.6
55°	436.4	484.6	563.4	627.7	649.5
57.5°	397.0	446.7	528.4	589.7	610.1
60°	360.5	408.7	489.0	548.8	572.2
62.5°	321.1	370.8	449.6	508.0	529.9
65°	284.6	332.8	410.2	467.1	487.5
67.5°	248.1	296.3	369.3	423.3	446.7
70°	211.7	259.8	327.0	379.5	399.9
72.5°	179.5	221.9	286.1	334.3	353.2
75°	144.5	186.8	240.8	283.2	291.9
77.5°	112.4	150.3	195.6	214.6	217.5
80°	83.2	112.4	143.0	147.4	147.4
82.5°	55.5	77.4	89.0	90.5	89.0
85°	33.6	40.9	42.3	36.5	33.6
87.5°	11.7	11.7	7.3	4.4	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)