

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: P387962

Luminaire Tested: **22CZ2-39VHE-SQR-UNV-L930-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: P387962
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: 22CZ2-39VHE-SQR-UNV-L930-CD1-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: 3231.3 lumens
Efficiency: N/A
Efficacy: 113.0 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

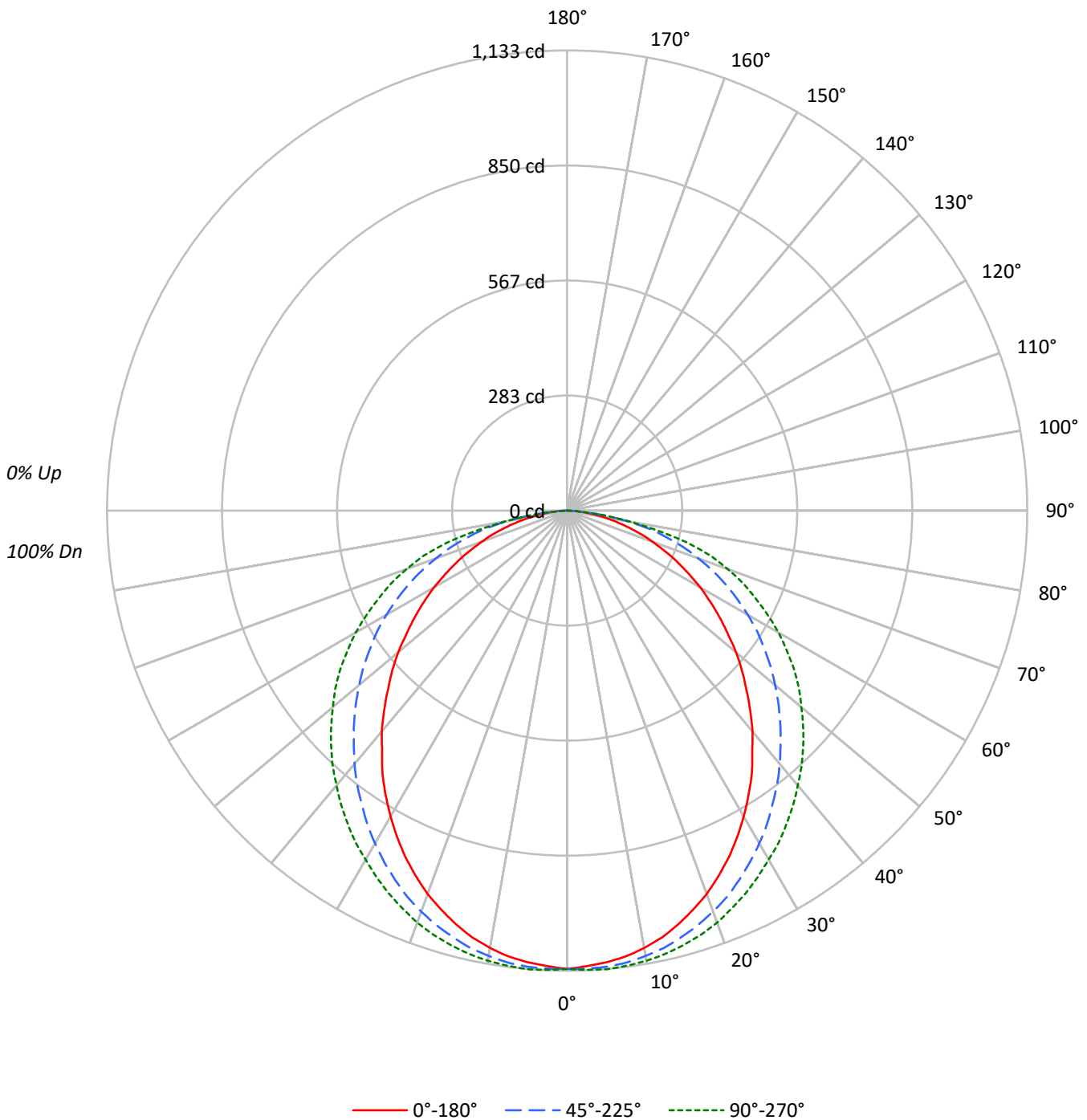
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3038	3038	3038
5°	3016	3045	3062
10°	2988	3042	3076
15°	2940	3029	3085
20°	2877	3009	3092
25°	2796	2978	3087
30°	2702	2940	3083
35°	2605	2897	3094
40°	2494	2861	3103
45°	2375	2825	3128
50°	2273	2799	3152
55°	2152	2777	3202
60°	2039	2765	3236
65°	1904	2744	3261
70°	1750	2703	3306
75°	1578	2632	3189
80°	1354	2329	2400
85°	1090	1374	1090



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.0	3.3
10°-20°	306.0	9.5
20°-30°	459.5	14.2
30°-40°	548.0	17.0
40°-50°	566.6	17.5
50°-60°	521.0	16.1
60°-70°	414.7	12.8
70°-80°	253.4	7.8
80°-90°	55.1	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°	872.5	27.0
0°-40°	1420.5	44.0
0°-60°	2508.1	77.6
0°-90°	3231.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3231.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1129	1129	1129	1129	1129	
5°	1116	1120	1127	1132	1133	106
15°	1055	1067	1087	1103	1107	297
25°	942	965	1003	1031	1040	433
35°	793	827	882	928	942	495
45°	624	669	742	802	822	483
55°	459	509	592	660	682	410
65°	299	350	431	491	512	296
75°	152	196	253	298	307	162
85°	35	43	44	38	35	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1128.8	1128.8	1128.8	1128.8	1128.8
2.5°	1122.6	1124.2	1128.8	1131.8	1131.8
5°	1116.5	1119.6	1127.2	1131.8	1133.4
7.5°	1107.3	1111.9	1122.6	1128.8	1130.3
10°	1093.5	1099.6	1113.4	1122.6	1125.7
12.5°	1076.6	1085.8	1102.7	1115.0	1118.0
15°	1055.2	1067.4	1087.4	1102.7	1107.3
17.5°	1030.6	1046.0	1070.5	1088.9	1095.0
20°	1004.5	1019.9	1050.6	1072.0	1079.7
22.5°	973.9	993.8	1029.1	1053.6	1059.8
25°	941.7	964.7	1003.0	1030.6	1039.8
27.5°	906.4	934.0	975.4	1009.1	1016.8
30°	869.6	898.7	946.3	983.1	992.3
32.5°	831.2	865.0	915.6	957.0	969.3
35°	792.9	826.6	881.9	927.9	941.7
37.5°	748.4	788.3	849.6	897.2	914.1
40°	710.1	748.4	814.4	866.5	883.4
42.5°	667.1	708.5	777.6	834.3	854.2
45°	624.2	668.7	742.3	802.1	822.0
47.5°	584.3	628.8	705.5	768.4	788.3
50°	542.9	588.9	668.7	733.1	753.0
52.5°	498.4	549.0	631.9	696.3	719.3
55°	458.6	509.2	592.0	659.5	682.5
57.5°	417.2	469.3	555.2	619.6	641.1
60°	378.8	429.4	513.8	576.7	601.2
62.5°	337.4	389.5	472.4	533.7	556.7
65°	299.1	349.7	431.0	490.8	512.2
67.5°	260.7	311.3	388.0	444.8	469.3
70°	222.4	273.0	343.5	398.8	420.2
72.5°	188.6	233.1	300.6	351.2	371.1
75°	151.8	196.3	253.1	297.5	306.7
77.5°	118.1	158.0	205.5	225.4	228.5
80°	87.4	118.1	150.3	154.9	154.9
82.5°	58.3	81.3	93.6	95.1	93.6
85°	35.3	42.9	44.5	38.3	35.3
87.5°	12.3	12.3	7.7	4.6	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)