

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: P387985

Luminaire Tested: **22CZ2-44-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: P387985  
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: 22CZ2-44-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: 3462.0 lumens  
Efficiency: N/A  
Efficacy: 81.1 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

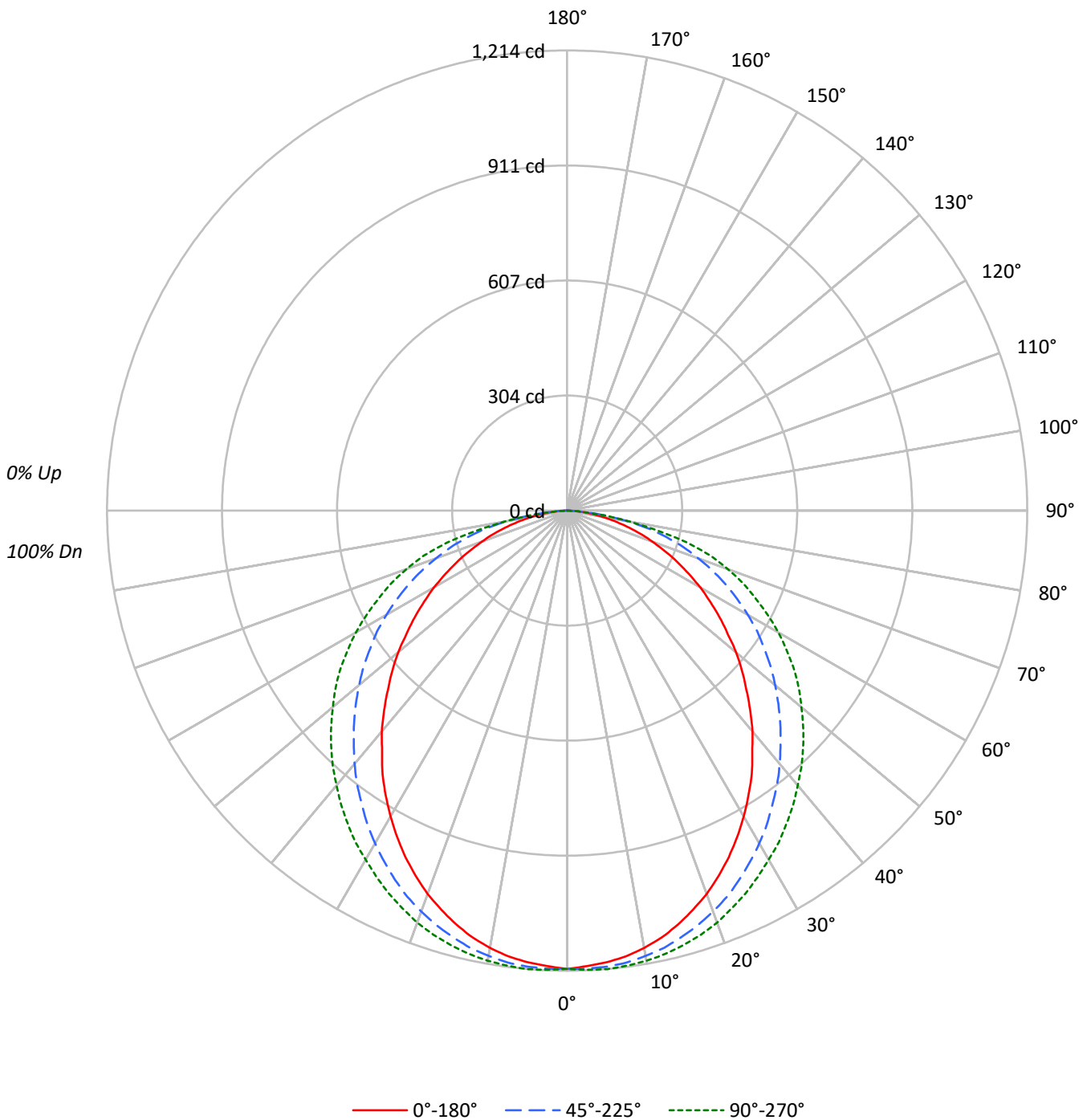
Input Watts (W): 42.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3254	3254	3254
5°	3231	3262	3280
10°	3201	3260	3296
15°	3149	3246	3305
20°	3082	3223	3313
25°	2996	3191	3308
30°	2895	3150	3303
35°	2791	3104	3314
40°	2673	3065	3325
45°	2545	3027	3352
50°	2435	2999	3378
55°	2305	2976	3430
60°	2185	2963	3467
65°	2040	2940	3494
70°	1875	2896	3542
75°	1692	2819	3417
80°	1452	2495	2572
85°	1167	1473	1167



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.7	3.3
10°-20°	327.8	9.5
20°-30°	492.3	14.2
30°-40°	587.2	17.0
40°-50°	607.1	17.5
50°-60°	558.1	16.1
60°-70°	444.3	12.8
70°-80°	271.5	7.8
80°-90°	59.0	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°	934.8	27.0
0°-40°	1522.0	44.0
0°-60°	2687.2	77.6
0°-90°	3462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3462.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1209	1209	1209	1209	1209	
5°	1196	1200	1208	1213	1214	113
15°	1130	1144	1165	1181	1186	318
25°	1009	1034	1075	1104	1114	464
35°	850	886	945	994	1009	530
45°	669	716	795	859	881	517
55°	491	546	634	707	731	439
65°	320	375	462	526	549	317
75°	163	210	271	319	329	173
85°	38	46	48	41	38	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1209.4	1209.4	1209.4	1209.4	1209.4
2.5°	1202.8	1204.4	1209.4	1212.6	1212.6
5°	1196.2	1199.5	1207.7	1212.6	1214.3
7.5°	1186.4	1191.3	1202.8	1209.4	1211.0
10°	1171.6	1178.1	1192.9	1202.8	1206.1
12.5°	1153.5	1163.4	1181.4	1194.6	1197.9
15°	1130.5	1143.6	1165.0	1181.4	1186.4
17.5°	1104.2	1120.6	1146.9	1166.6	1173.2
20°	1076.3	1092.7	1125.6	1148.6	1156.8
22.5°	1043.4	1064.8	1102.6	1128.8	1135.4
25°	1008.9	1033.5	1074.6	1104.2	1114.1
27.5°	971.1	1000.7	1045.0	1081.2	1089.4
30°	931.7	962.9	1013.8	1053.3	1063.1
32.5°	890.6	926.7	981.0	1025.3	1038.5
35°	849.5	885.7	944.8	994.1	1008.9
37.5°	801.9	844.6	910.3	961.2	979.3
40°	760.8	801.9	872.5	928.4	946.5
42.5°	714.8	759.1	833.1	893.9	915.2
45°	668.8	716.4	795.3	859.4	880.7
47.5°	626.0	673.7	755.8	823.2	844.6
50°	581.7	631.0	716.4	785.4	806.8
52.5°	534.0	588.2	677.0	746.0	770.6
55°	491.3	545.5	634.3	706.6	731.2
57.5°	446.9	502.8	594.8	663.8	686.8
60°	405.9	460.1	550.5	617.8	644.1
62.5°	361.5	417.4	506.1	571.8	596.5
65°	320.4	374.6	461.7	525.8	548.8
67.5°	279.3	333.6	415.7	476.5	502.8
70°	238.3	292.5	368.1	427.2	450.2
72.5°	202.1	249.8	322.1	376.3	397.6
75°	162.7	210.3	271.1	318.8	328.6
77.5°	126.5	169.2	220.2	241.5	244.8
80°	93.7	126.5	161.0	166.0	166.0
82.5°	62.4	87.1	100.2	101.9	100.2
85°	37.8	46.0	47.7	41.1	37.8
87.5°	13.1	13.1	8.2	4.9	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)