

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: P387992

Luminaire Tested: **22CZ2-44-SQR-UNV-L940-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: P387992  
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-L940-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3629.4 lumens  
Efficiency: N/A  
Efficacy: 85.0 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

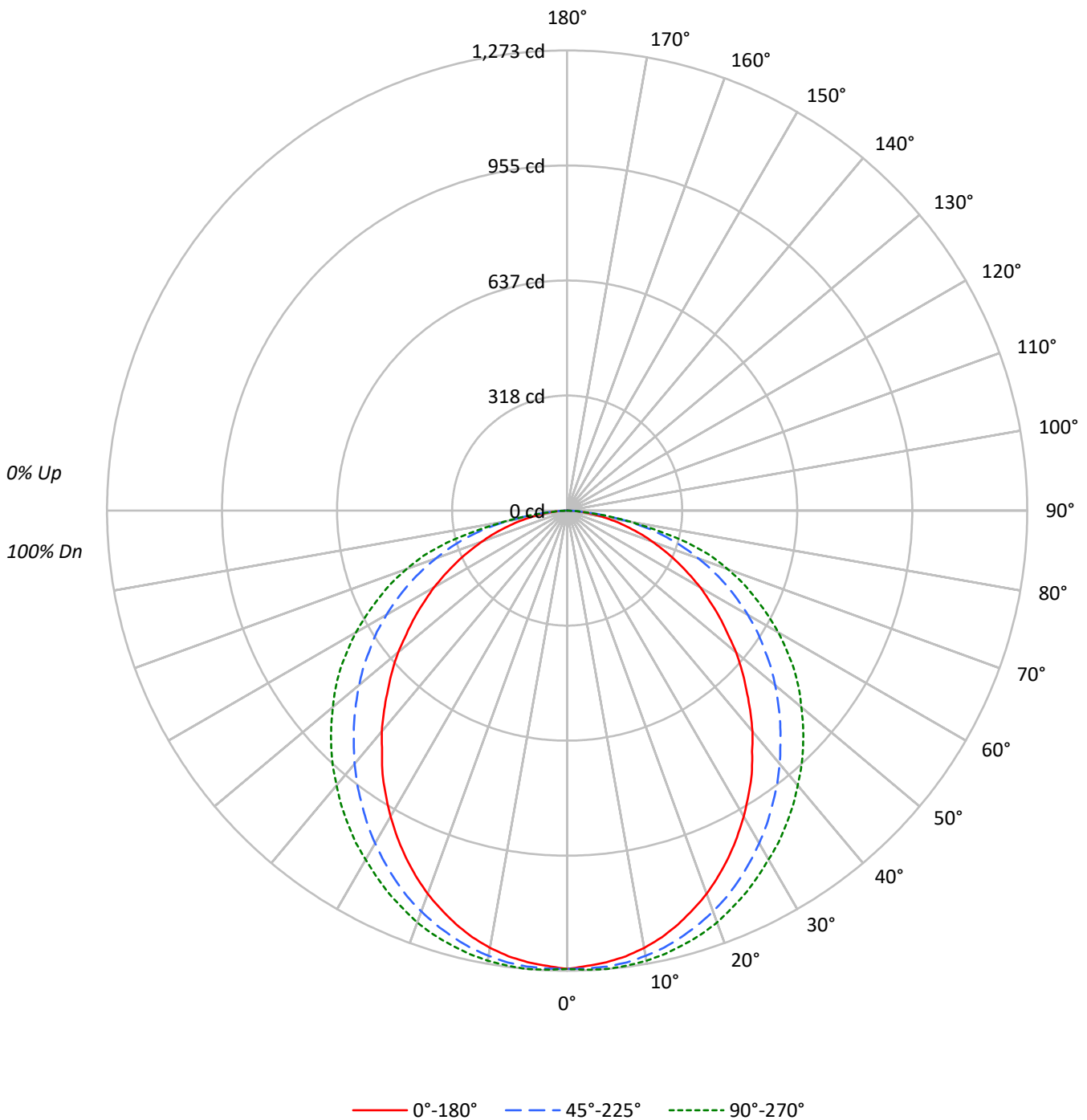
Input Watts (W): 42.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3412	3412	3412
5°	3388	3420	3439
10°	3356	3417	3455
15°	3302	3402	3465
20°	3231	3379	3473
25°	3140	3345	3468
30°	3035	3302	3463
35°	2926	3254	3475
40°	2802	3213	3485
45°	2668	3173	3514
50°	2553	3144	3541
55°	2417	3119	3597
60°	2290	3106	3634
65°	2139	3082	3663
70°	1965	3036	3714
75°	1773	2955	3582
80°	1522	2616	2696
85°	1223	1544	1223



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.2	3.3
10°-20°	343.6	9.5
20°-30°	516.1	14.2
30°-40°	615.6	17.0
40°-50°	636.4	17.5
50°-60°	585.1	16.1
60°-70°	465.8	12.8
70°-80°	284.6	7.8
80°-90°	61.9	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°	980.0	27.0
0°-40°	1595.5	44.0
0°-60°	2817.1	77.6
0°-90°	3629.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3629.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1268	1268	1268	1268	1268	
5°	1254	1258	1266	1271	1273	119
15°	1185	1199	1221	1239	1244	334
25°	1058	1084	1127	1158	1168	487
35°	891	928	990	1042	1058	556
45°	701	751	834	901	923	542
55°	515	572	665	741	767	461
65°	336	393	484	551	575	333
75°	170	220	284	334	344	182
85°	40	48	50	43	40	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1267.8	1267.8	1267.8	1267.8	1267.8
2.5°	1260.9	1262.7	1267.8	1271.3	1271.3
5°	1254.1	1257.5	1266.1	1271.3	1273.0
7.5°	1243.7	1248.9	1260.9	1267.8	1269.6
10°	1228.2	1235.1	1250.6	1260.9	1264.4
12.5°	1209.3	1219.6	1238.6	1252.3	1255.8
15°	1185.2	1198.9	1221.3	1238.6	1243.7
17.5°	1157.6	1174.8	1202.4	1223.0	1229.9
20°	1128.3	1145.5	1180.0	1204.1	1212.7
22.5°	1093.9	1116.2	1155.9	1183.4	1190.3
25°	1057.7	1083.5	1126.6	1157.6	1167.9
27.5°	1018.1	1049.1	1095.6	1133.5	1142.1
30°	976.7	1009.4	1062.8	1104.2	1114.5
32.5°	933.7	971.5	1028.4	1074.9	1088.7
35°	890.6	928.5	990.5	1042.2	1057.7
37.5°	840.6	885.4	954.3	1007.7	1026.7
40°	797.6	840.6	914.7	973.3	992.2
42.5°	749.3	795.8	873.4	937.1	959.5
45°	701.1	751.1	833.7	900.9	923.3
47.5°	656.3	706.3	792.4	863.0	885.4
50°	609.8	661.5	751.1	823.4	845.8
52.5°	559.8	616.7	709.7	782.1	807.9
55°	515.1	571.9	664.9	740.7	766.6
57.5°	468.5	527.1	623.6	695.9	720.0
60°	425.5	482.3	577.1	647.7	675.3
62.5°	379.0	437.5	530.6	599.5	625.3
65°	335.9	392.8	484.1	551.2	575.3
67.5°	292.8	349.7	435.8	499.6	527.1
70°	249.8	306.6	385.9	447.9	472.0
72.5°	211.9	261.8	337.6	394.5	416.9
75°	170.5	220.5	284.2	334.2	344.5
77.5°	132.6	177.4	230.8	253.2	256.7
80°	98.2	132.6	168.8	174.0	174.0
82.5°	65.5	91.3	105.1	106.8	105.1
85°	39.6	48.2	50.0	43.1	39.6
87.5°	13.8	13.8	8.6	5.2	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)