

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: P387990

Luminaire Tested: **22CZ2-44-SQR-UNV-L940-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: P387990  
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-SDWPD1-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: 3541.1 lumens  
Efficiency: N/A  
Efficacy: 82.9 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

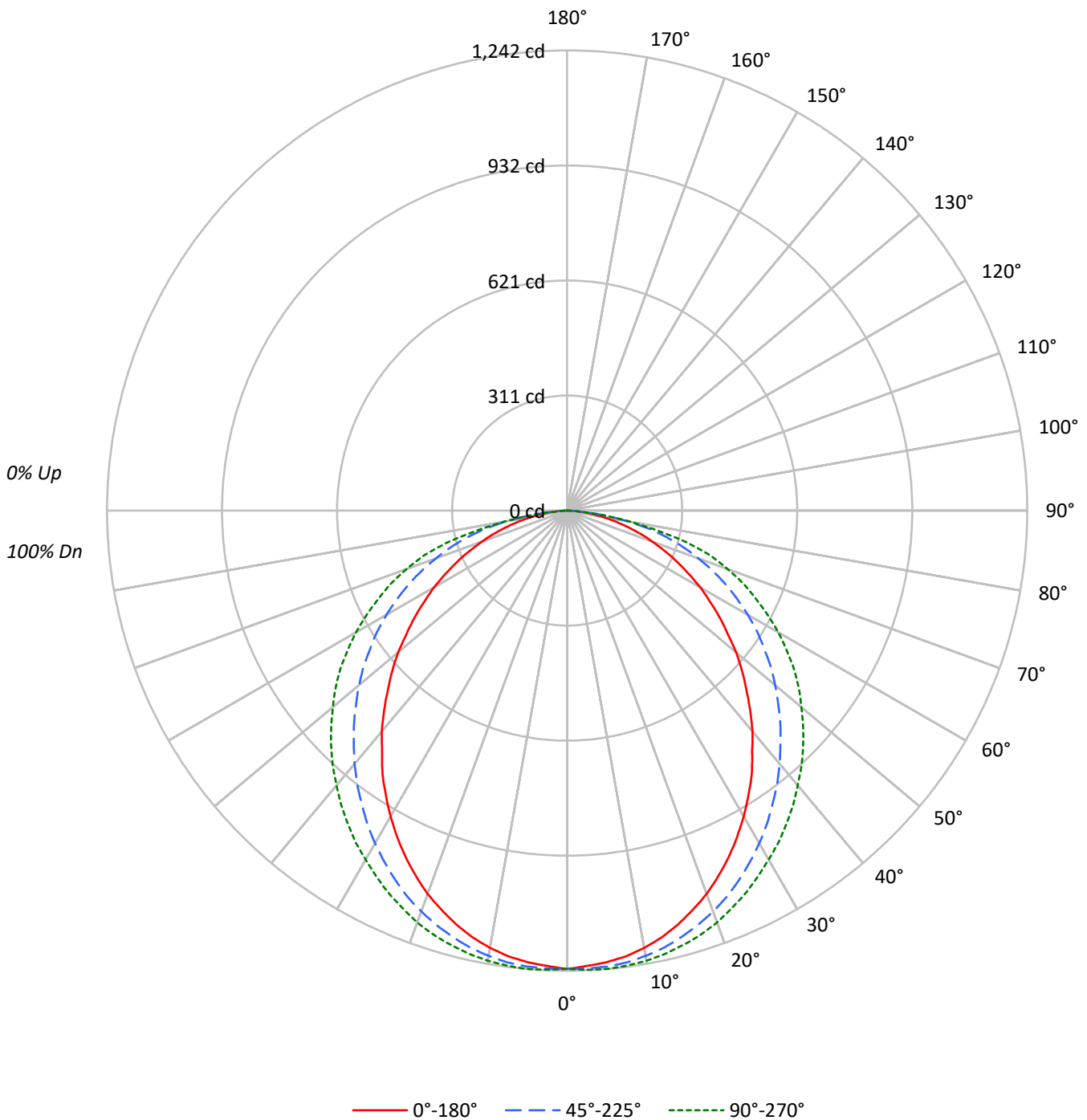
Input Watts (W): 42.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P387990

CATALOG NUMBER: 22CZ2-44-SQR-UNV-L940-CD1-SDWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P387990

CATALOG NUMBER: 22CZ2-44-SQR-UNV-L940-CD1-SDWPD1-U

**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°	3329	3329	3329
5°	3305	3337	3355
10°	3274	3334	3371
15°	3221	3320	3381
20°	3153	3297	3388
25°	3064	3264	3383
30°	2961	3222	3379
35°	2854	3175	3390
40°	2734	3135	3401
45°	2603	3096	3428
50°	2491	3068	3455
55°	2358	3043	3509
60°	2234	3030	3546
65°	2087	3007	3575
70°	1917	2962	3623
75°	1730	2883	3494
80°	1485	2552	2631
85°	1195	1504	1195



TEST NUMBER: P387990

CATALOG NUMBER: 22CZ2-44-SQR-UNV-L940-CD1-SDWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.3	3.3
10°-20°	335.3	9.5
20°-30°	503.6	14.2
30°-40°	600.6	17.0
40°-50°	621.0	17.5
50°-60°	570.9	16.1
60°-70°	454.5	12.8
70°-80°	277.7	7.8
80°-90°	60.4	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°	956.1	27.0
0°-40°	1556.7	44.0
0°-60°	2748.6	77.6
0°-90°	3541.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3541.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1224	1227	1235	1240	1242	116
15°	1156	1170	1192	1208	1214	326
25°	1032	1057	1099	1129	1140	475
35°	869	906	966	1017	1032	542
45°	684	733	814	879	901	529
55°	502	558	649	723	748	449
65°	328	383	472	538	561	325
75°	166	215	277	326	336	177
85°	39	47	49	42	39	45
90°	0	0	0	0	0	



TEST NUMBER: P387990

CATALOG NUMBER: 22CZ2-44-SQR-UNV-L940-CD1-SDWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1237.0	1237.0	1237.0	1237.0	1237.0
2.5°	1230.3	1231.9	1237.0	1240.4	1240.4
5°	1223.5	1226.9	1235.3	1240.4	1242.0
7.5°	1213.5	1218.5	1230.3	1237.0	1238.7
10°	1198.3	1205.1	1220.2	1230.3	1233.6
12.5°	1179.8	1189.9	1208.4	1221.9	1225.2
15°	1156.3	1169.8	1191.6	1208.4	1213.5
17.5°	1129.4	1146.2	1173.1	1193.3	1200.0
20°	1100.9	1117.7	1151.3	1174.8	1183.2
22.5°	1067.2	1089.1	1127.7	1154.6	1161.4
25°	1031.9	1057.2	1099.2	1129.4	1139.5
27.5°	993.3	1023.5	1068.9	1105.9	1114.3
30°	953.0	984.9	1037.0	1077.3	1087.4
32.5°	910.9	947.9	1003.4	1048.8	1062.2
35°	868.9	905.9	966.4	1016.8	1031.9
37.5°	820.2	863.9	931.1	983.2	1001.7
40°	778.2	820.2	892.4	949.6	968.1
42.5°	731.1	776.5	852.1	914.3	936.1
45°	684.0	732.8	813.5	879.0	900.9
47.5°	640.3	689.1	773.1	842.0	863.9
50°	595.0	645.4	732.8	803.4	825.2
52.5°	546.2	601.7	692.4	763.0	788.2
55°	502.5	558.0	648.7	722.7	747.9
57.5°	457.1	514.3	608.4	679.0	702.5
60°	415.1	470.6	563.0	631.9	658.8
62.5°	369.8	426.9	517.7	584.9	610.1
65°	327.7	383.2	472.3	537.8	561.4
67.5°	285.7	341.2	425.2	487.4	514.3
70°	243.7	299.2	376.5	437.0	460.5
72.5°	206.7	255.5	329.4	384.9	406.7
75°	166.4	215.1	277.3	326.1	336.1
77.5°	129.4	173.1	225.2	247.1	250.4
80°	95.8	129.4	164.7	169.8	169.8
82.5°	63.9	89.1	102.5	104.2	102.5
85°	38.7	47.1	48.7	42.0	38.7
87.5°	13.4	13.4	8.4	5.0	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)