

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: P389213

Luminaire Tested: **22CZ2-34VHE-S-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: P389213
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-34VHE-S-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3229.4 lumens
Efficiency: N/A
Efficacy: 128.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

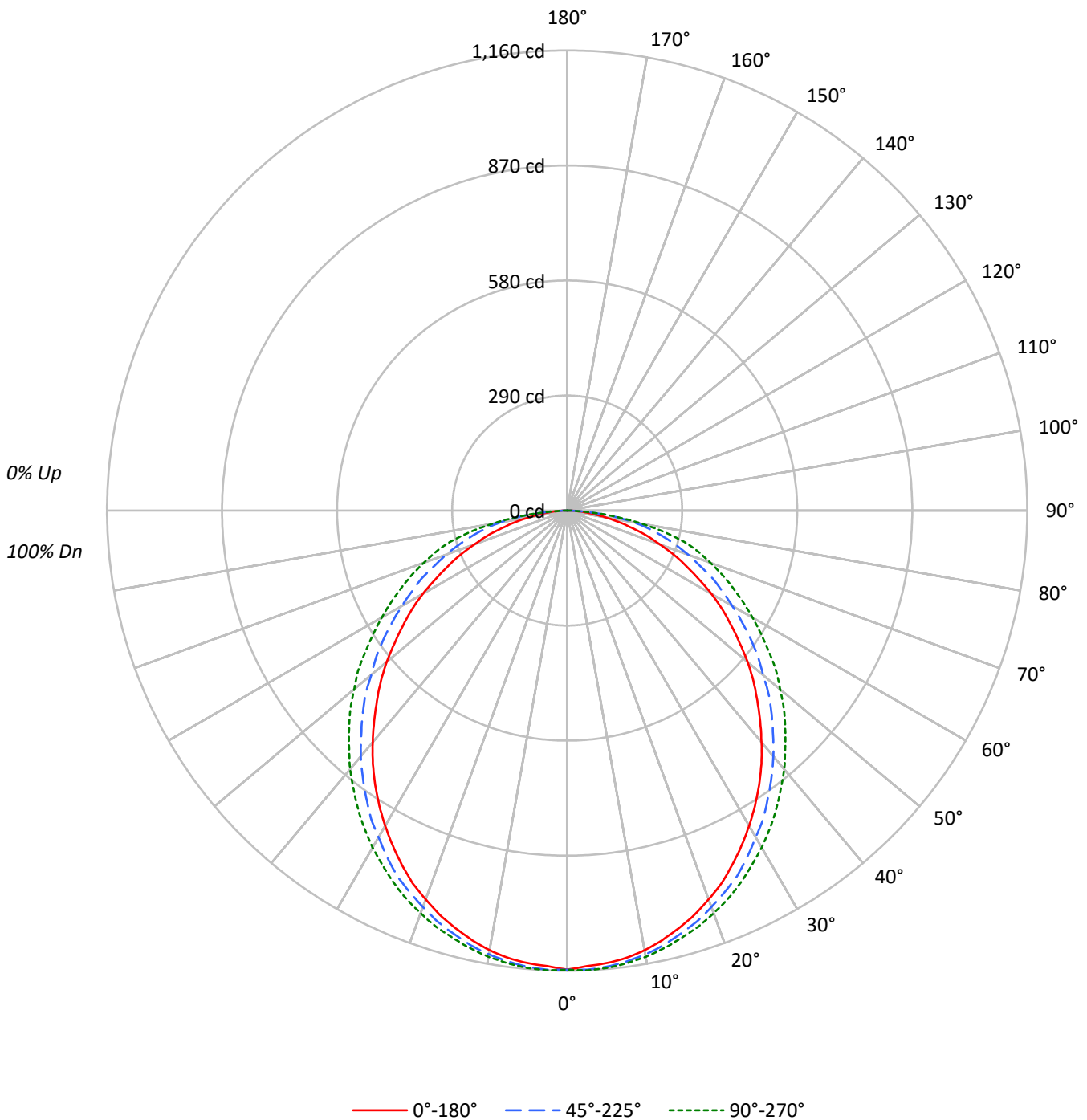
Input Watts (W): 25.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P389213

CATALOG NUMBER: 22CZ2-34VHE-S-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P389213

CATALOG NUMBER: 22CZ2-34VHE-S-UNV-L940-CD1-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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3114	3114	3114
5°	3093	3118	3126
10°	3076	3104	3121
15°	3035	3077	3106
20°	2986	3046	3094
25°	2926	3015	3073
30°	2851	2954	3048
35°	2772	2901	3019
40°	2678	2842	2990
45°	2580	2775	2959
50°	2485	2700	2933
55°	2368	2651	2913
60°	2263	2587	2903
65°	2111	2571	2936
70°	1944	2549	3023
75°	1755	2585	3180
80°	1517	2662	2989
85°	1257	2232	2232



TEST NUMBER: P389213

CATALOG NUMBER: 22CZ2-34VHE-S-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.4	3.4
10°-20°	311.4	9.6
20°-30°	466.0	14.4
30°-40°	551.8	17.1
40°-50°	562.4	17.4
50°-60°	504.0	15.6
60°-70°	394.6	12.2
70°-80°	254.5	7.9
80°-90°	75.2	2.3
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°	886.8	27.5
0°-40°	1438.7	44.5
0°-60°	2505.1	77.6
0°-90°	3229.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3229.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1157	1157	1157	1157	1157	
5°	1145	1148	1154	1156	1157	109
15°	1089	1095	1104	1114	1115	307
25°	985	994	1016	1029	1035	454
35°	844	854	883	910	919	527
45°	678	693	729	767	778	524
55°	505	521	565	604	621	453
65°	332	351	404	443	461	329
75°	169	194	249	291	306	181
85°	41	56	72	72	72	48
90°	0	0	0	0	0	



TEST NUMBER: P389213

CATALOG NUMBER: 22CZ2-34VHE-S-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1157.2	1157.2	1157.2	1157.2	1157.2
2.5°	1149.7	1152.7	1158.7	1160.2	1160.2
5°	1145.1	1148.2	1154.2	1155.7	1157.2
7.5°	1137.6	1139.1	1146.6	1149.7	1151.2
10°	1125.6	1128.6	1136.1	1140.6	1142.1
12.5°	1109.0	1113.5	1122.5	1128.6	1130.1
15°	1089.4	1095.4	1104.5	1113.5	1115.0
17.5°	1068.3	1074.3	1086.4	1096.9	1099.9
20°	1042.7	1050.2	1063.8	1075.8	1080.3
22.5°	1017.1	1023.1	1039.7	1054.7	1059.3
25°	985.4	994.5	1015.6	1029.1	1035.1
27.5°	952.3	962.8	983.9	1002.0	1008.0
30°	917.6	928.2	950.8	973.4	980.9
32.5°	881.5	893.5	920.6	943.2	950.8
35°	843.8	854.3	883.0	910.1	919.1
37.5°	804.6	813.7	846.8	875.4	884.5
40°	762.4	774.5	809.1	842.3	851.3
42.5°	720.2	733.8	768.4	804.6	813.7
45°	678.0	693.1	729.3	766.9	777.5
47.5°	637.4	649.4	690.1	726.3	741.3
50°	593.7	605.7	644.9	685.6	700.6
52.5°	548.5	565.0	607.2	646.4	664.5
55°	504.8	521.3	565.0	604.2	620.8
57.5°	464.1	477.6	522.8	563.5	580.1
60°	420.4	432.4	480.7	524.4	539.4
62.5°	373.7	391.8	441.5	482.2	500.2
65°	331.5	351.1	403.8	443.0	461.1
67.5°	292.3	310.4	361.6	403.8	423.4
70°	247.1	271.2	324.0	366.1	384.2
72.5°	210.9	232.0	286.3	328.5	348.1
75°	168.8	194.4	248.6	290.8	305.9
77.5°	134.1	159.7	210.9	244.1	251.6
80°	97.9	123.6	171.8	188.3	192.9
82.5°	66.3	90.4	123.6	128.1	129.6
85°	40.7	55.8	72.3	72.3	72.3
87.5°	19.6	22.6	25.6	24.1	24.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)