

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: P389237

Luminaire Tested: **22CZ2-39VHE-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: P389237
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: 22CZ2-39VHE-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: 3660.3 lumens
Efficiency: N/A
Efficacy: 128.0 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

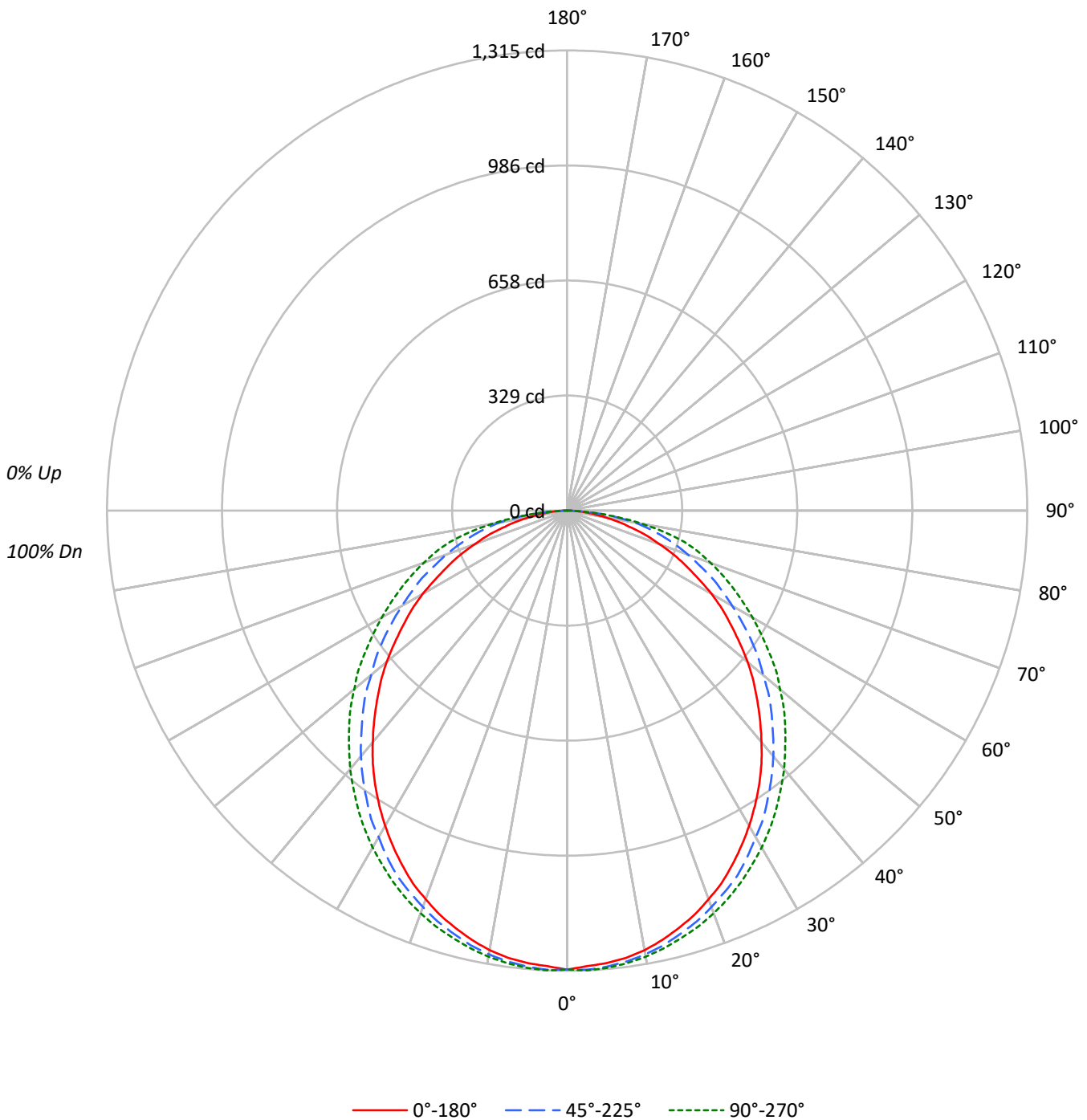
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3529	3529	3529
5°	3506	3534	3543
10°	3486	3519	3537
15°	3440	3487	3521
20°	3384	3453	3507
25°	3316	3418	3484
30°	3232	3348	3455
35°	3142	3288	3422
40°	3036	3222	3390
45°	2925	3146	3354
50°	2817	3060	3324
55°	2684	3004	3301
60°	2565	2932	3291
65°	2392	2914	3328
70°	2204	2889	3426
75°	1989	2930	3605
80°	1720	3017	3388
85°	1423	2532	2532



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.0	3.4
10°-20°	353.0	9.6
20°-30°	528.2	14.4
30°-40°	625.5	17.1
40°-50°	637.4	17.4
50°-60°	571.3	15.6
60°-70°	447.3	12.2
70°-80°	288.4	7.9
80°-90°	85.2	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°	1005.2	27.5
0°-40°	1630.6	44.5
0°-60°	2839.4	77.6
0°-90°	3660.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3660.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1298	1301	1308	1310	1312	123
15°	1235	1242	1252	1262	1264	348
25°	1117	1127	1151	1166	1173	514
35°	956	968	1001	1032	1042	598
45°	768	786	827	869	881	593
55°	572	591	640	685	704	513
65°	376	398	458	502	523	373
75°	191	220	282	330	347	205
85°	46	63	82	82	82	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1311.6	1311.6	1311.6	1311.6	1311.6
2.5°	1303.1	1306.5	1313.3	1315.0	1315.0
5°	1297.9	1301.4	1308.2	1309.9	1311.6
7.5°	1289.4	1291.1	1299.6	1303.1	1304.8
10°	1275.7	1279.2	1287.7	1292.8	1294.5
12.5°	1256.9	1262.1	1272.3	1279.2	1280.9
15°	1234.7	1241.6	1251.8	1262.1	1263.8
17.5°	1210.8	1217.7	1231.3	1243.3	1246.7
20°	1181.8	1190.3	1205.7	1219.4	1224.5
22.5°	1152.8	1159.6	1178.4	1195.5	1200.6
25°	1116.9	1127.2	1151.1	1166.4	1173.3
27.5°	1079.3	1091.3	1115.2	1135.7	1142.5
30°	1040.1	1052.0	1077.6	1103.2	1111.8
32.5°	999.1	1012.7	1043.5	1069.1	1077.6
35°	956.4	968.3	1000.8	1031.5	1041.8
37.5°	912.0	922.2	959.8	992.2	1002.5
40°	864.2	877.8	917.1	954.7	964.9
42.5°	816.3	831.7	871.0	912.0	922.2
45°	768.5	785.6	826.6	869.3	881.2
47.5°	722.4	736.1	782.2	823.2	840.2
50°	672.9	686.5	730.9	777.1	794.1
52.5°	621.6	640.4	688.2	732.7	753.1
55°	572.1	590.9	640.4	684.8	703.6
57.5°	526.0	541.4	592.6	638.7	657.5
60°	476.5	490.1	544.8	594.3	611.4
62.5°	423.5	444.0	500.4	546.5	567.0
65°	375.7	397.9	457.7	502.1	522.6
67.5°	331.3	351.8	409.9	457.7	479.9
70°	280.1	307.4	367.2	415.0	435.5
72.5°	239.1	263.0	324.5	372.3	394.5
75°	191.3	220.3	281.8	329.6	346.7
77.5°	152.0	181.0	239.1	276.7	285.2
80°	111.0	140.0	194.7	213.5	218.6
82.5°	75.1	102.5	140.0	145.2	146.9
85°	46.1	63.2	82.0	82.0	82.0
87.5°	22.2	25.6	29.0	27.3	27.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)