

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: P389235

Luminaire Tested: **22CZ2-39VHE-S-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: P389235
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-SDWPD1-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: 3571.3 lumens
Efficiency: N/A
Efficacy: 124.9 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

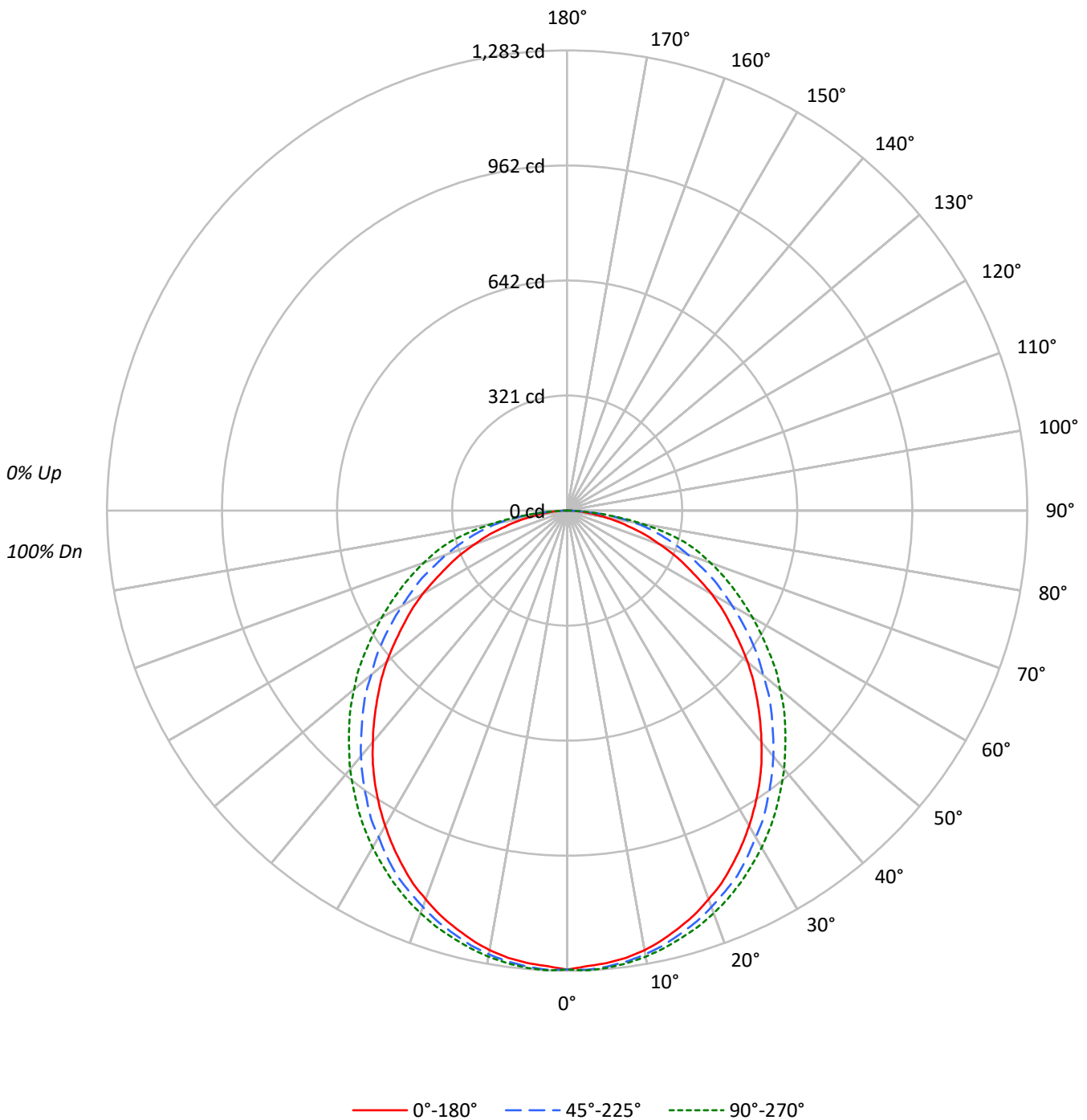
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P389235

CATALOG NUMBER: 22CZ2-39VHE-S-UNV-L940-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P389235

CATALOG NUMBER: 22CZ2-39VHE-S-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	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°	3444	3444	3444
5°	3421	3448	3457
10°	3401	3433	3451
15°	3356	3403	3435
20°	3302	3369	3421
25°	3236	3335	3399
30°	3153	3267	3371
35°	3065	3208	3339
40°	2962	3143	3307
45°	2853	3069	3272
50°	2748	2986	3244
55°	2619	2932	3221
60°	2502	2861	3210
65°	2334	2844	3247
70°	2150	2819	3343
75°	1940	2858	3517
80°	1678	2944	3305
85°	1389	2470	2470



TEST NUMBER: P389235

CATALOG NUMBER: 22CZ2-39VHE-S-UNV-L940-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.0	3.4
10°-20°	344.4	9.6
20°-30°	515.3	14.4
30°-40°	610.3	17.1
40°-50°	621.9	17.4
50°-60°	557.4	15.6
60°-70°	436.4	12.2
70°-80°	281.4	7.9
80°-90°	83.1	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°	980.7	27.5
0°-40°	1591.0	44.5
0°-60°	2770.3	77.6
0°-90°	3571.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3571.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1280	1280	1280	1280	1280	
5°	1266	1270	1276	1278	1280	120
15°	1205	1211	1221	1231	1233	340
25°	1090	1100	1123	1138	1145	502
35°	933	945	976	1006	1016	583
45°	750	766	806	848	860	579
55°	558	576	625	668	686	500
65°	367	388	447	490	510	364
75°	187	215	275	322	338	200
85°	45	62	80	80	80	53
90°	0	0	0	0	0	



TEST NUMBER: P389235

CATALOG NUMBER: 22CZ2-39VHE-S-UNV-L940-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1279.7	1279.7	1279.7	1279.7	1279.7
2.5°	1271.4	1274.7	1281.4	1283.0	1283.0
5°	1266.4	1269.7	1276.4	1278.0	1279.7
7.5°	1258.0	1259.7	1268.0	1271.4	1273.0
10°	1244.7	1248.0	1256.4	1261.4	1263.0
12.5°	1226.4	1231.4	1241.4	1248.0	1249.7
15°	1204.7	1211.4	1221.4	1231.4	1233.1
17.5°	1181.4	1188.1	1201.4	1213.1	1216.4
20°	1153.1	1161.4	1176.4	1189.7	1194.7
22.5°	1124.7	1131.4	1149.7	1166.4	1171.4
25°	1089.8	1099.7	1123.1	1138.1	1144.7
27.5°	1053.1	1064.8	1088.1	1108.1	1114.7
30°	1014.8	1026.4	1051.4	1076.4	1084.8
32.5°	974.8	988.1	1018.1	1043.1	1051.4
35°	933.1	944.8	976.4	1006.4	1016.4
37.5°	889.8	899.8	936.5	968.1	978.1
40°	843.1	856.5	894.8	931.5	941.5
42.5°	796.5	811.5	849.8	889.8	899.8
45°	749.8	766.5	806.5	848.1	859.8
47.5°	704.8	718.2	763.2	803.2	819.8
50°	656.5	669.8	713.2	758.2	774.8
52.5°	606.5	624.9	671.5	714.8	734.8
55°	558.2	576.5	624.9	668.2	686.5
57.5°	513.2	528.2	578.2	623.2	641.5
60°	464.9	478.2	531.5	579.9	596.5
62.5°	413.2	433.2	488.2	533.2	553.2
65°	366.6	388.2	446.6	489.9	509.9
67.5°	323.3	343.3	399.9	446.6	468.2
70°	273.3	299.9	358.3	404.9	424.9
72.5°	233.3	256.6	316.6	363.3	384.9
75°	186.6	215.0	274.9	321.6	338.3
77.5°	148.3	176.6	233.3	269.9	278.3
80°	108.3	136.6	190.0	208.3	213.3
82.5°	73.3	100.0	136.6	141.6	143.3
85°	45.0	61.7	80.0	80.0	80.0
87.5°	21.7	25.0	28.3	26.7	26.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)