

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: P389236

Luminaire Tested: **22CZ2-39VHE-S-UNV-L940-CD1-SWPD1-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: P389236
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-SWPD1-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: 3614.9 lumens
Efficiency: N/A
Efficacy: 126.4 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

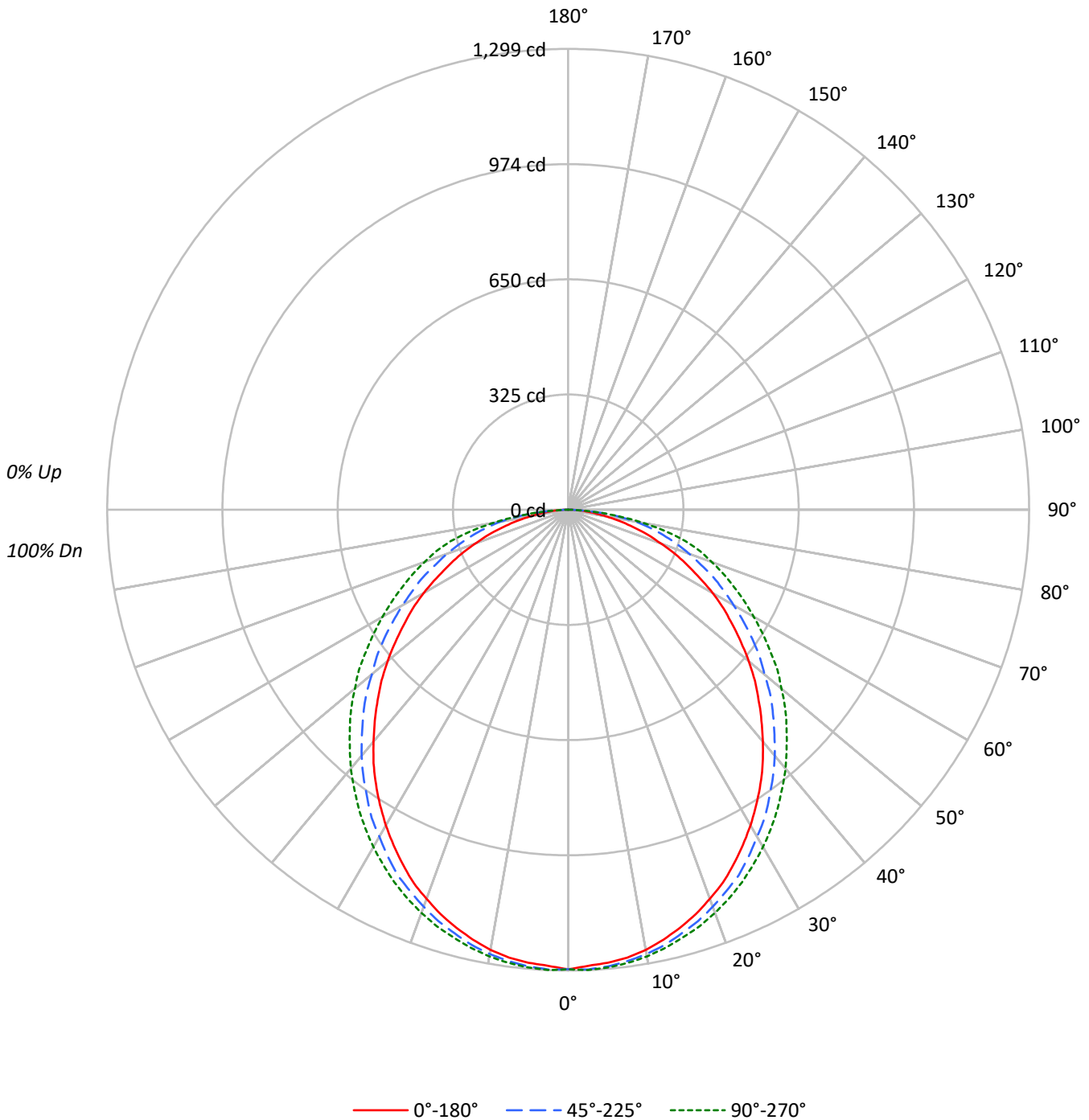
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20				20			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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83	83	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69	69	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58	58	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49	49	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43	43	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37	37	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33	33	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30	30	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27	27	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24	24	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3486	3486	3486
5°	3462	3490	3499
10°	3443	3475	3493
15°	3397	3444	3477
20°	3342	3410	3463
25°	3275	3375	3440
30°	3192	3307	3412
35°	3103	3247	3380
40°	2998	3182	3347
45°	2888	3107	3312
50°	2782	3022	3283
55°	2651	2967	3260
60°	2533	2895	3250
65°	2363	2878	3286
70°	2176	2853	3384
75°	1964	2894	3560
80°	1698	2980	3346
85°	1405	2501	2501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.5	3.4
10°-20°	348.6	9.6
20°-30°	521.6	14.4
30°-40°	617.7	17.1
40°-50°	629.5	17.4
50°-60°	564.2	15.6
60°-70°	441.7	12.2
70°-80°	284.8	7.9
80°-90°	84.2	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°	992.7	27.5
0°-40°	1610.4	44.5
0°-60°	2804.2	77.6
0°-90°	3614.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3614.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1295	1295	1295	1295	1295	
5°	1282	1285	1292	1294	1295	122
15°	1219	1226	1236	1246	1248	344
25°	1103	1113	1137	1152	1159	508
35°	944	956	988	1019	1029	590
45°	759	776	816	858	870	586
55°	565	584	632	676	695	507
65°	371	393	452	496	516	369
75°	189	218	278	326	342	203
85°	46	62	81	81	81	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1295.3	1295.3	1295.3	1295.3	1295.3
2.5°	1286.9	1290.3	1297.0	1298.7	1298.7
5°	1281.8	1285.2	1292.0	1293.6	1295.3
7.5°	1273.4	1275.1	1283.5	1286.9	1288.6
10°	1259.9	1263.3	1271.7	1276.8	1278.5
12.5°	1241.4	1246.4	1256.5	1263.3	1265.0
15°	1219.4	1226.2	1236.3	1246.4	1248.1
17.5°	1195.8	1202.6	1216.1	1227.9	1231.2
20°	1167.1	1175.6	1190.8	1204.3	1209.3
22.5°	1138.5	1145.2	1163.8	1180.6	1185.7
25°	1103.1	1113.2	1136.8	1152.0	1158.7
27.5°	1065.9	1077.8	1101.4	1121.6	1128.4
30°	1027.2	1039.0	1064.3	1089.6	1098.0
32.5°	986.7	1000.2	1030.5	1055.8	1064.3
35°	944.5	956.3	988.4	1018.7	1028.8
37.5°	900.7	910.8	947.9	979.9	990.1
40°	853.4	866.9	905.7	942.8	952.9
42.5°	806.2	821.4	860.2	900.7	910.8
45°	759.0	775.8	816.3	858.5	870.3
47.5°	713.4	726.9	772.5	813.0	829.8
50°	664.5	678.0	721.9	767.4	784.3
52.5°	613.9	632.5	679.7	723.6	743.8
55°	565.0	583.6	632.5	676.3	694.9
57.5°	519.5	534.7	585.3	630.8	649.4
60°	470.6	484.1	538.0	586.9	603.8
62.5°	418.3	438.5	494.2	539.7	560.0
65°	371.1	393.0	452.0	495.9	516.1
67.5°	327.2	347.4	404.8	452.0	473.9
70°	276.6	303.6	362.6	409.9	430.1
72.5°	236.1	259.7	320.5	367.7	389.6
75°	188.9	217.6	278.3	325.5	342.4
77.5°	150.1	178.8	236.1	273.2	281.7
80°	109.6	138.3	192.3	210.8	215.9
82.5°	74.2	101.2	138.3	143.4	145.1
85°	45.5	62.4	81.0	81.0	81.0
87.5°	21.9	25.3	28.7	27.0	27.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)