

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: P390315

Luminaire Tested: **22CZ2-39VHE-HRP-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: P390315
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39VHE-HRP-UNV-L940-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2885.0 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

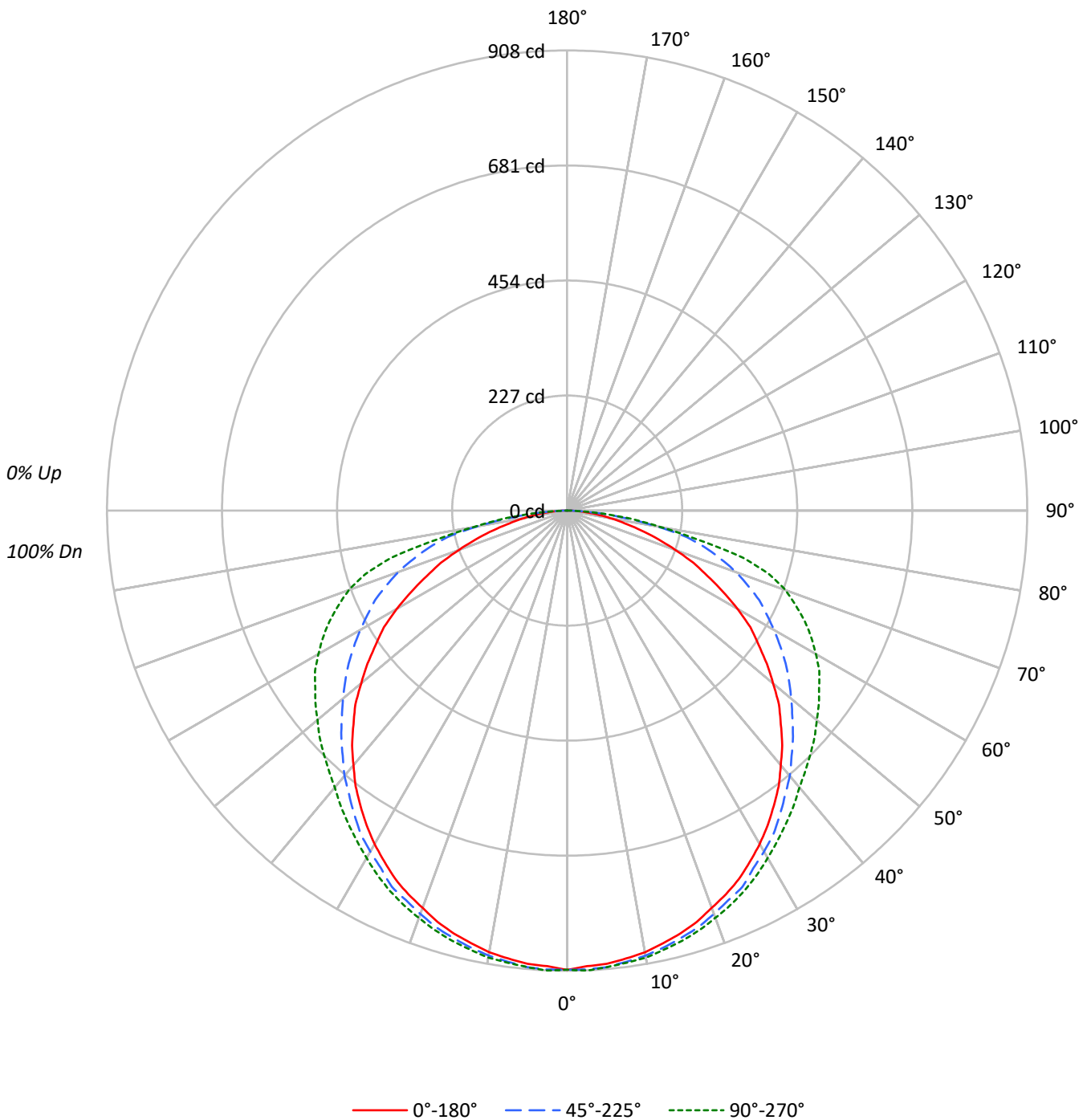
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P390315

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

Luminous Intensity Polar Plot





TEST NUMBER: P390315

CATALOG NUMBER: 22CZ2-39VHE-HRP-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	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2439	2439	2439
5°	2425	2442	2442
10°	2418	2436	2447
15°	2406	2430	2448
20°	2389	2425	2449
25°	2382	2432	2458
30°	2361	2414	2460
35°	2336	2405	2475
40°	2304	2401	2505
45°	2270	2399	2584
50°	2221	2417	2692
55°	2160	2469	2848
60°	2090	2536	3050
65°	1946	2662	3297
70°	1787	2788	3607
75°	1567	2935	3729
80°	1348	2796	2927
85°	1179	2032	2229



TEST NUMBER: P390315

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.7	3.0
10°-20°	246.1	8.5
20°-30°	375.5	13.0
30°-40°	458.5	15.9
40°-50°	490.3	17.0
50°-60°	473.2	16.4
60°-70°	407.3	14.1
70°-80°	275.6	9.6
80°-90°	72.7	2.5
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°	707.4	24.5
0°-40°	1165.9	40.4
0°-60°	2129.3	73.8
0°-90°	2885.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2885.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	898	900	904	904	904	85
15°	864	866	872	876	879	244
25°	802	806	819	824	828	369
35°	711	717	732	747	753	445
45°	596	607	630	662	679	460
55°	460	475	526	579	607	413
65°	306	335	418	484	518	304
75°	151	200	282	340	359	162
85°	38	53	66	68	72	43
90°	0	0	0	0	0	



TEST NUMBER: P390315

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	906.2	906.2	906.2	906.2	906.2
2.5°	899.9	902.0	906.2	906.2	908.4
5°	897.7	899.9	904.1	904.1	904.1
7.5°	891.4	893.5	897.7	899.9	899.9
10°	885.0	887.1	891.4	893.5	895.6
12.5°	874.4	876.5	882.9	887.1	887.1
15°	863.8	865.9	872.3	876.5	878.6
17.5°	851.0	855.3	861.7	865.9	868.0
20°	834.1	838.3	846.8	853.2	855.3
22.5°	819.2	823.5	831.9	838.3	842.6
25°	802.2	806.5	819.2	823.5	827.7
27.5°	781.0	785.3	795.9	804.4	810.7
30°	759.8	764.0	776.8	787.4	791.6
32.5°	736.4	742.8	757.7	766.2	772.5
35°	711.0	717.3	732.2	747.1	753.4
37.5°	685.5	691.9	706.7	725.8	734.3
40°	655.8	664.3	683.4	708.9	713.1
42.5°	628.2	638.8	655.8	685.5	696.1
45°	596.4	607.0	630.3	662.2	679.1
47.5°	566.7	577.3	602.7	640.9	662.2
50°	530.6	545.4	577.3	621.8	643.1
52.5°	496.6	509.4	551.8	600.6	626.1
55°	460.5	475.4	526.3	579.4	607.0
57.5°	428.7	441.4	498.7	558.2	590.0
60°	388.4	405.4	471.2	534.8	566.7
62.5°	345.9	371.4	443.6	509.4	543.3
65°	305.6	335.3	418.1	483.9	517.8
67.5°	269.5	301.4	386.3	456.3	488.1
70°	227.1	267.4	354.4	422.3	458.4
72.5°	188.9	233.5	318.3	386.3	418.1
75°	150.7	199.5	282.3	339.6	358.7
77.5°	116.7	163.4	241.9	258.9	261.0
80°	87.0	129.5	180.4	182.5	188.9
82.5°	59.4	91.3	116.7	127.3	129.5
85°	38.2	53.1	65.8	67.9	72.2
87.5°	17.0	19.1	23.3	21.2	21.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)