

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: P390317

Luminaire Tested: **22CZ2-39VHE-HRP-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: P390317
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-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: 2956.9 lumens
Efficiency: N/A
Efficacy: 103.4 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

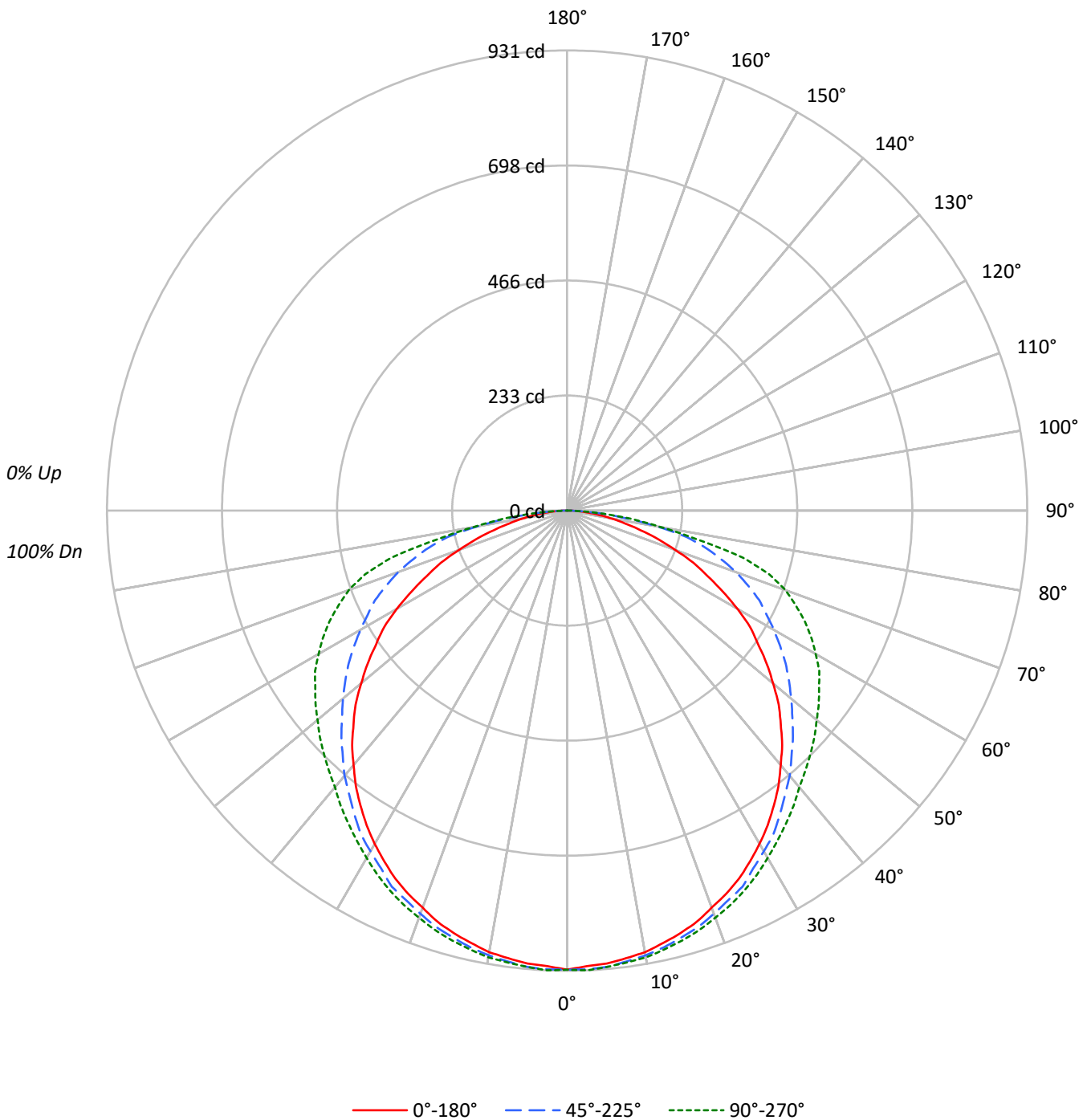
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2499	2499	2499
5°	2485	2503	2503
10°	2479	2496	2508
15°	2466	2491	2509
20°	2448	2485	2510
25°	2441	2493	2519
30°	2420	2474	2521
35°	2394	2465	2537
40°	2361	2460	2568
45°	2326	2458	2649
50°	2277	2477	2759
55°	2214	2531	2919
60°	2143	2599	3126
65°	1994	2728	3380
70°	1831	2858	3696
75°	1605	3008	3822
80°	1382	2865	3000
85°	1210	2081	2285



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.9	3.0
10°-20°	252.3	8.5
20°-30°	384.9	13.0
30°-40°	469.9	15.9
40°-50°	502.5	17.0
50°-60°	485.0	16.4
60°-70°	417.5	14.1
70°-80°	282.5	9.6
80°-90°	74.5	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°	725.0	24.5
0°-40°	1194.9	40.4
0°-60°	2182.4	73.8
0°-90°	2956.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2956.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	920	922	927	927	927	87
15°	885	888	894	898	900	250
25°	822	827	840	844	848	378
35°	729	735	750	766	772	456
45°	611	622	646	679	696	472
55°	472	487	540	594	622	423
65°	313	344	428	496	531	312
75°	154	204	289	348	368	166
85°	39	54	67	70	74	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	928.8	928.8	928.8	928.8	928.8
2.5°	922.3	924.5	928.8	928.8	931.0
5°	920.1	922.3	926.6	926.6	926.6
7.5°	913.6	915.8	920.1	922.3	922.3
10°	907.1	909.2	913.6	915.8	917.9
12.5°	896.2	898.4	904.9	909.2	909.2
15°	885.3	887.5	894.0	898.4	900.5
17.5°	872.3	876.6	883.1	887.5	889.7
20°	854.9	859.2	867.9	874.4	876.6
22.5°	839.6	844.0	852.7	859.2	863.6
25°	822.2	826.6	839.6	844.0	848.3
27.5°	800.5	804.8	815.7	824.4	830.9
30°	778.7	783.1	796.1	807.0	811.4
32.5°	754.8	761.3	776.5	785.3	791.8
35°	728.7	735.2	750.4	765.7	772.2
37.5°	702.6	709.1	724.3	743.9	752.6
40°	672.1	680.8	700.4	726.5	730.9
42.5°	643.9	654.7	672.1	702.6	713.5
45°	611.2	622.1	646.0	678.7	696.1
47.5°	580.8	591.7	617.8	656.9	678.7
50°	543.8	559.0	591.7	637.3	659.1
52.5°	509.0	522.0	565.6	615.6	641.7
55°	472.0	487.2	539.5	593.8	622.1
57.5°	439.4	452.4	511.2	572.1	604.7
60°	398.1	415.5	482.9	548.2	580.8
62.5°	354.6	380.7	454.6	522.0	556.9
65°	313.2	343.7	428.5	495.9	530.8
67.5°	276.3	308.9	395.9	467.7	500.3
70°	232.7	274.1	363.3	432.9	469.8
72.5°	193.6	239.3	326.3	395.9	428.5
75°	154.4	204.5	289.3	348.0	367.6
77.5°	119.6	167.5	248.0	265.4	267.6
80°	89.2	132.7	184.9	187.1	193.6
82.5°	60.9	93.5	119.6	130.5	132.7
85°	39.2	54.4	67.4	69.6	74.0
87.5°	17.4	19.6	23.9	21.8	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)