

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: P387628

Luminaire Tested: **22CZ2-110VHE-SQR-UNV-L935-CD2-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: P387628
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-110VHE-SQR-UNV-L935-CD2-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8873.1 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

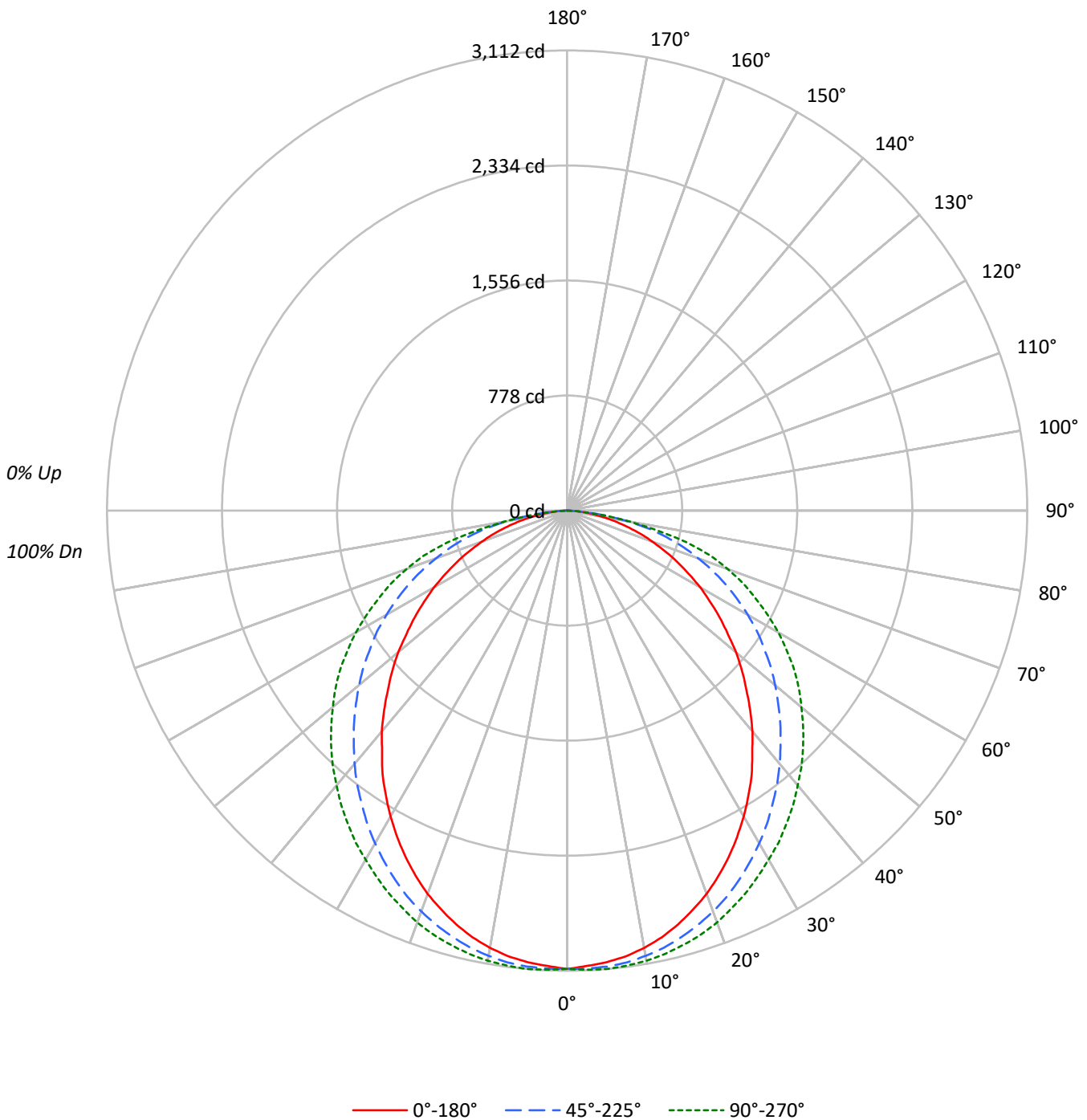
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8341	8341	8341
5°	8282	8361	8407
10°	8205	8355	8447
15°	8072	8318	8471
20°	7899	8261	8490
25°	7678	8178	8478
30°	7420	8074	8467
35°	7153	7955	8495
40°	6850	7856	8521
45°	6523	7757	8590
50°	6241	7687	8657
55°	5908	7627	8792
60°	5598	7593	8885
65°	5229	7535	8956
70°	4805	7423	9079
75°	4335	7225	8758
80°	3719	6396	6592
85°	2992	3770	2992



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.9	3.3
10°-20°	840.1	9.5
20°-30°	1261.8	14.2
30°-40°	1504.9	17.0
40°-50°	1556.0	17.5
50°-60°	1430.5	16.1
60°-70°	1138.8	12.8
70°-80°	695.8	7.8
80°-90°	151.2	1.7
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°	2395.8	27.0
0°-40°	3900.8	44.0
0°-60°	6887.3	77.6
0°-90°	8873.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8873.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3100	3100	3100	3100	3100	
5°	3066	3074	3095	3108	3112	291
15°	2897	2931	2986	3028	3041	816
25°	2586	2649	2754	2830	2855	1189
35°	2177	2270	2422	2548	2586	1358
45°	1714	1836	2038	2203	2257	1325
55°	1259	1398	1626	1811	1874	1126
65°	821	960	1183	1348	1407	813
75°	417	539	695	817	842	444
85°	97	118	122	105	97	112
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3099.6	3099.6	3099.6	3099.6	3099.6
2.5°	3082.7	3087.0	3099.6	3108.0	3108.0
5°	3065.9	3074.3	3095.4	3108.0	3112.2
7.5°	3040.6	3053.3	3082.7	3099.6	3103.8
10°	3002.7	3019.6	3057.5	3082.7	3091.2
12.5°	2956.4	2981.7	3028.0	3061.7	3070.1
15°	2897.4	2931.1	2985.9	3028.0	3040.6
17.5°	2830.1	2872.2	2939.6	2990.1	3006.9
20°	2758.5	2800.6	2884.8	2943.8	2964.8
22.5°	2674.2	2729.0	2825.8	2893.2	2910.1
25°	2585.8	2649.0	2754.3	2830.1	2855.3
27.5°	2488.9	2564.7	2678.4	2771.1	2792.2
30°	2387.9	2467.9	2598.4	2699.5	2724.8
32.5°	2282.6	2375.2	2514.2	2627.9	2661.6
35°	2177.3	2269.9	2421.6	2547.9	2585.8
37.5°	2055.2	2164.7	2333.1	2463.7	2510.0
40°	1949.9	2055.2	2236.3	2379.4	2425.8
42.5°	1832.0	1945.7	2135.2	2291.0	2345.7
45°	1714.0	1836.2	2038.3	2202.6	2257.3
47.5°	1604.5	1726.7	1937.2	2109.9	2164.7
50°	1490.8	1617.2	1836.2	2013.0	2067.8
52.5°	1368.7	1507.7	1735.1	1912.0	1975.1
55°	1259.2	1398.2	1625.6	1810.9	1874.1
57.5°	1145.5	1288.7	1524.5	1701.4	1760.4
60°	1040.2	1179.2	1410.8	1583.5	1650.9
62.5°	926.5	1069.7	1297.1	1465.6	1528.7
65°	821.2	960.2	1183.4	1347.6	1406.6
67.5°	715.9	854.9	1065.5	1221.3	1288.7
70°	610.7	749.6	943.4	1095.0	1153.9
72.5°	518.0	640.1	825.4	964.4	1019.2
75°	416.9	539.1	694.9	817.0	842.3
77.5°	324.3	433.8	564.3	619.1	627.5
80°	240.0	324.3	412.7	425.4	425.4
82.5°	160.0	223.2	256.9	261.1	256.9
85°	96.9	117.9	122.1	105.3	96.9
87.5°	33.7	33.7	21.1	12.6	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)