

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: P387632

Luminaire Tested: **22CZ2-110VHE-SQR-UNV-L940-CD2-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: P387632
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-L940-CD2-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9077.5 lumens
Efficiency: N/A
Efficacy: 103.5 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

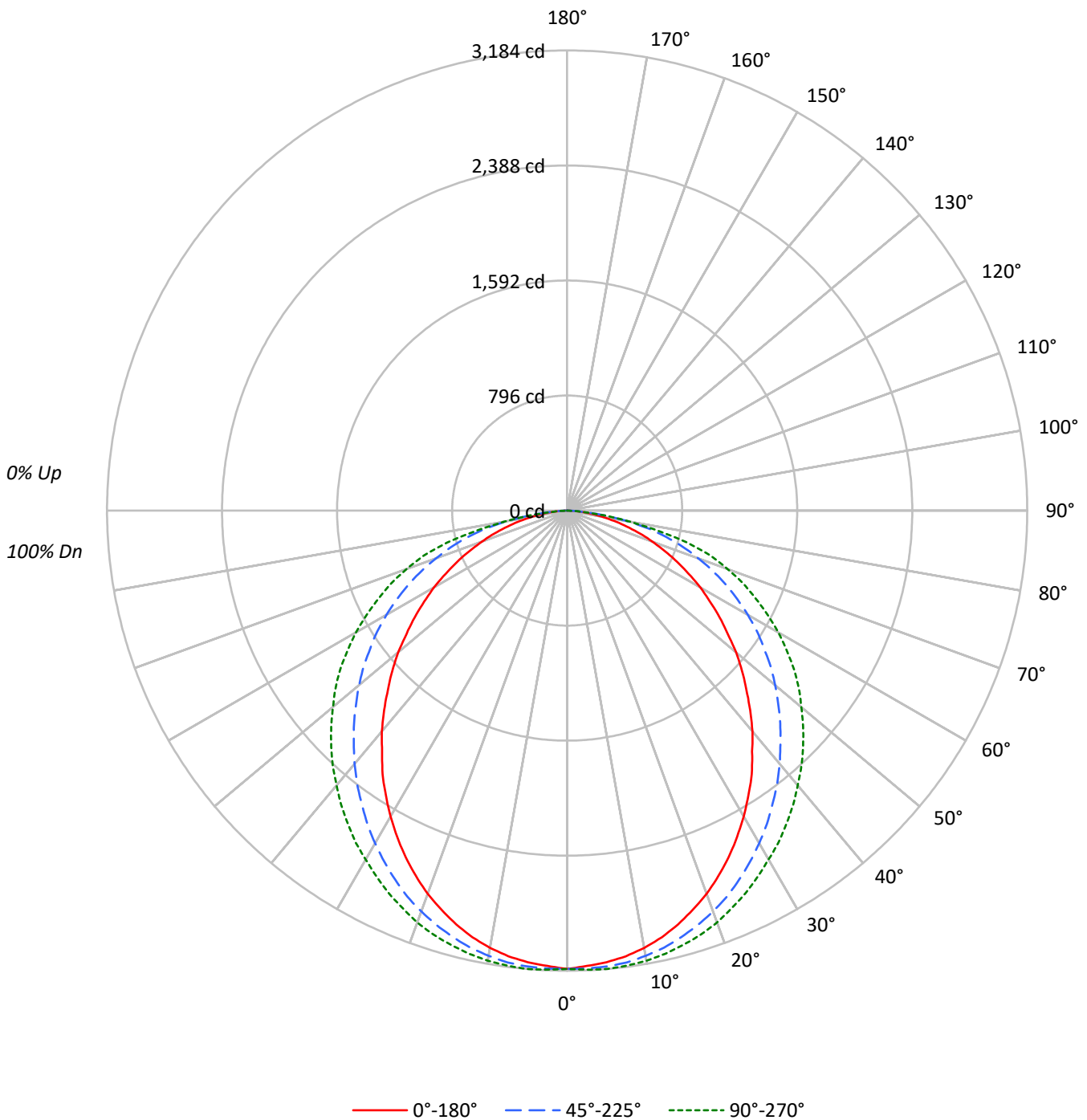
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	8533	8533	8533
5°	8472	8554	8601
10°	8394	8547	8641
15°	8258	8510	8666
20°	8081	8452	8686
25°	7855	8366	8673
30°	7591	8260	8662
35°	7317	8138	8690
40°	7007	8037	8717
45°	6673	7936	8788
50°	6385	7864	8856
55°	6044	7802	8995
60°	5727	7768	9090
65°	5349	7709	9163
70°	4915	7593	9288
75°	4434	7391	8959
80°	3806	6543	6743
85°	3060	3856	3060



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.6	3.3
10°-20°	859.5	9.5
20°-30°	1290.9	14.2
30°-40°	1539.6	17.0
40°-50°	1591.8	17.5
50°-60°	1463.5	16.1
60°-70°	1165.1	12.8
70°-80°	711.8	7.8
80°-90°	154.7	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°	2451.0	27.0
0°-40°	3990.6	44.0
0°-60°	7045.9	77.6
0°-90°	9077.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9077.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3171	3171	3171	3171	3171	
5°	3136	3145	3167	3180	3184	297
15°	2964	2999	3055	3098	3111	835
25°	2645	2710	2818	2895	2921	1217
35°	2227	2322	2477	2607	2645	1390
45°	1754	1878	2085	2253	2309	1356
55°	1288	1430	1663	1853	1917	1152
65°	840	982	1211	1379	1439	832
75°	426	552	711	836	862	454
85°	99	121	125	108	99	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3171.0	3171.0	3171.0	3171.0	3171.0
2.5°	3153.8	3158.1	3171.0	3179.6	3179.6
5°	3136.5	3145.1	3166.7	3179.6	3183.9
7.5°	3110.7	3123.6	3153.8	3171.0	3175.3
10°	3071.9	3089.1	3127.9	3153.8	3162.4
12.5°	3024.5	3050.4	3097.7	3132.2	3140.8
15°	2964.2	2998.7	3054.7	3097.7	3110.7
17.5°	2895.3	2938.3	3007.3	3059.0	3076.2
20°	2822.0	2865.1	2951.3	3011.6	3033.1
22.5°	2735.8	2791.8	2890.9	2959.9	2977.1
25°	2645.4	2710.0	2817.7	2895.3	2921.1
27.5°	2546.3	2623.8	2740.1	2834.9	2856.5
30°	2442.9	2524.7	2658.3	2761.7	2787.5
32.5°	2335.2	2429.9	2572.1	2688.4	2722.9
35°	2227.4	2322.2	2477.3	2606.6	2645.4
37.5°	2102.5	2214.5	2386.9	2520.4	2567.8
40°	1994.8	2102.5	2287.8	2434.3	2481.6
42.5°	1874.2	1990.5	2184.4	2343.8	2399.8
45°	1753.5	1878.5	2085.3	2253.3	2309.3
47.5°	1641.5	1766.4	1981.9	2158.5	2214.5
50°	1525.2	1654.4	1878.5	2059.4	2115.4
52.5°	1400.2	1542.4	1775.1	1956.0	2020.6
55°	1288.2	1430.4	1663.0	1852.6	1917.2
57.5°	1171.9	1318.4	1559.6	1740.6	1800.9
60°	1064.2	1206.4	1443.3	1620.0	1688.9
62.5°	947.9	1094.3	1327.0	1499.3	1564.0
65°	840.1	982.3	1210.7	1378.7	1439.0
67.5°	732.4	874.6	1090.0	1249.4	1318.4
70°	624.7	766.9	965.1	1120.2	1180.5
72.5°	529.9	654.9	844.4	986.6	1042.6
75°	426.5	551.5	710.9	835.8	861.7
77.5°	331.7	443.8	577.3	633.3	642.0
80°	245.6	331.7	422.2	435.1	435.1
82.5°	163.7	228.3	262.8	267.1	262.8
85°	99.1	120.6	124.9	107.7	99.1
87.5°	34.5	34.5	21.5	12.9	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)