

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: P387627

Luminaire Tested: **22CZ2-110VHE-SQR-UNV-L935-CD2-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: P387627
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-SDWPD1-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: 8766.1 lumens
Efficiency: N/A
Efficacy: 100.0 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

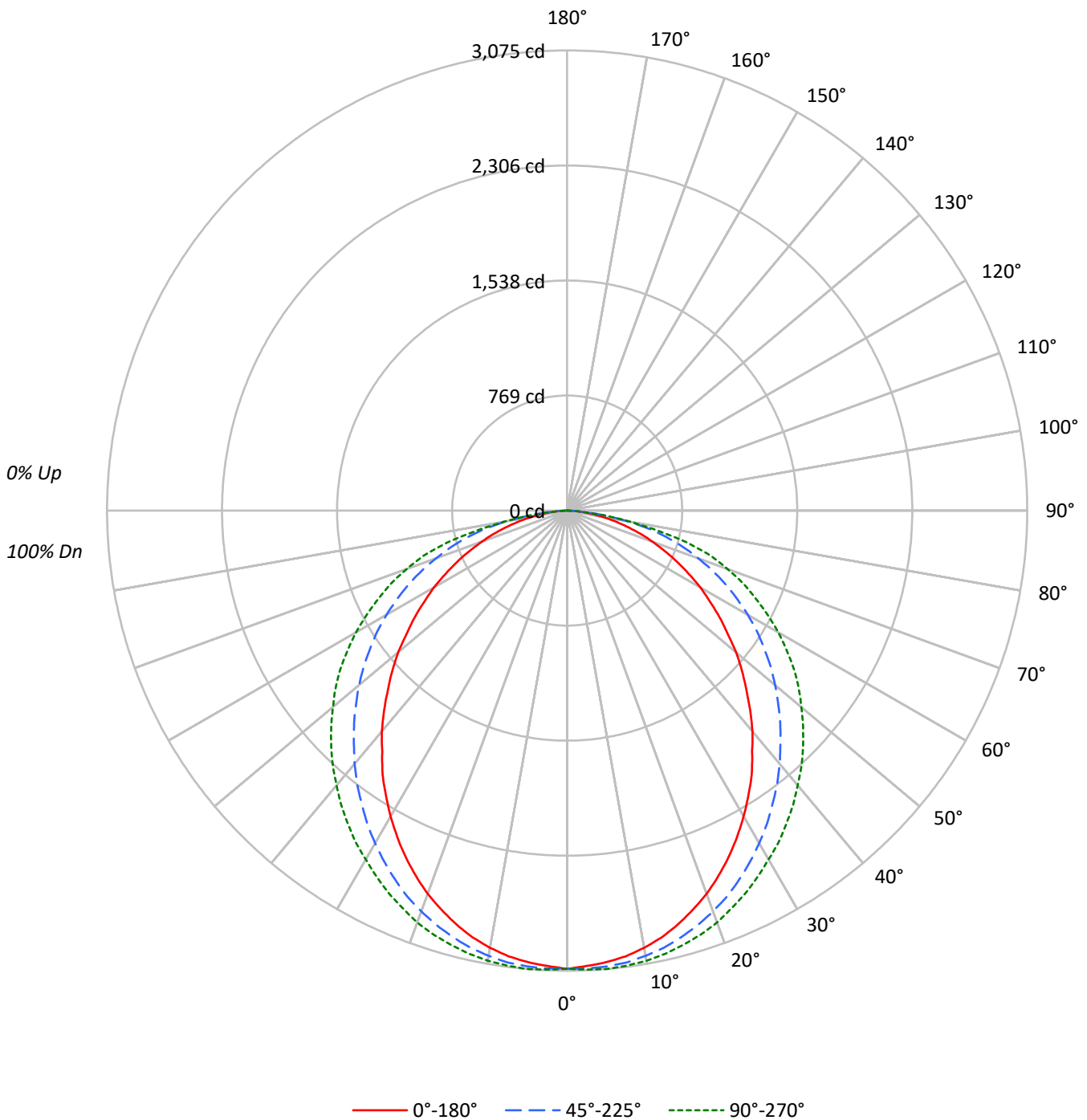
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P387627

CATALOG NUMBER: 22CZ2-110VHE-SQR-UNV-L935-CD2-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P387627

CATALOG NUMBER: 22CZ2-110VHE-SQR-UNV-L935-CD2-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	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°	8240	8240	8240
5°	8182	8260	8306
10°	8106	8254	8345
15°	7975	8218	8369
20°	7804	8161	8388
25°	7585	8079	8376
30°	7330	7977	8364
35°	7066	7859	8392
40°	6767	7761	8418
45°	6444	7663	8487
50°	6166	7594	8552
55°	5836	7535	8686
60°	5531	7501	8778
65°	5166	7444	8848
70°	4747	7333	8969
75°	4283	7138	8651
80°	3676	6318	6512
85°	2955	3727	2955



TEST NUMBER: P387627

CATALOG NUMBER: 22CZ2-110VHE-SQR-UNV-L935-CD2-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.3	3.3
10°-20°	830.0	9.5
20°-30°	1246.6	14.2
30°-40°	1486.8	17.0
40°-50°	1537.2	17.5
50°-60°	1413.3	16.1
60°-70°	1125.1	12.8
70°-80°	687.4	7.8
80°-90°	149.4	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°	2366.9	27.0
0°-40°	3853.7	44.0
0°-60°	6804.2	77.6
0°-90°	8766.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8766.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3062	3062	3062	3062	3062	
5°	3029	3037	3058	3070	3075	287
15°	2862	2896	2950	2992	3004	806
25°	2555	2617	2721	2796	2821	1175
35°	2151	2243	2392	2517	2555	1342
45°	1693	1814	2014	2176	2230	1309
55°	1244	1381	1606	1789	1852	1113
65°	811	949	1169	1331	1390	804
75°	412	533	686	807	832	439
85°	96	116	121	104	96	110
90°	0	0	0	0	0	



TEST NUMBER: P387627

CATALOG NUMBER: 22CZ2-110VHE-SQR-UNV-L935-CD2-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3062.2	3062.2	3062.2	3062.2	3062.2
2.5°	3045.6	3049.7	3062.2	3070.5	3070.5
5°	3028.9	3037.2	3058.0	3070.5	3074.7
7.5°	3004.0	3016.4	3045.6	3062.2	3066.4
10°	2966.5	2983.2	3020.6	3045.6	3053.9
12.5°	2920.7	2945.7	2991.5	3024.8	3033.1
15°	2862.5	2895.8	2949.9	2991.5	3004.0
17.5°	2795.9	2837.5	2904.1	2954.0	2970.7
20°	2725.2	2766.8	2850.0	2908.3	2929.1
22.5°	2642.0	2696.1	2791.8	2858.3	2875.0
25°	2554.6	2617.0	2721.0	2795.9	2820.9
27.5°	2458.9	2533.8	2646.1	2737.7	2758.5
30°	2359.1	2438.1	2567.1	2667.0	2691.9
32.5°	2255.1	2346.6	2483.9	2596.2	2629.5
35°	2151.0	2242.6	2392.4	2517.2	2554.6
37.5°	2030.4	2138.6	2305.0	2434.0	2479.7
40°	1926.4	2030.4	2209.3	2350.7	2396.5
42.5°	1809.9	1922.2	2109.4	2263.4	2317.5
45°	1693.4	1814.0	2013.7	2176.0	2230.1
47.5°	1585.2	1705.9	1913.9	2084.5	2138.6
50°	1472.9	1597.7	1814.0	1988.8	2042.9
52.5°	1352.2	1489.5	1714.2	1888.9	1951.3
55°	1244.0	1381.3	1606.0	1789.1	1851.5
57.5°	1131.7	1273.1	1506.1	1680.9	1739.1
60°	1027.7	1165.0	1393.8	1564.4	1631.0
62.5°	915.3	1056.8	1281.5	1447.9	1510.3
65°	811.3	948.6	1169.1	1331.4	1389.6
67.5°	707.3	844.6	1052.6	1206.6	1273.1
70°	603.3	740.6	932.0	1081.8	1140.0
72.5°	511.8	632.4	815.5	952.8	1006.9
75°	411.9	532.6	686.5	807.2	832.1
77.5°	320.4	428.5	557.5	611.6	619.9
80°	237.2	320.4	407.7	420.2	420.2
82.5°	158.1	220.5	253.8	258.0	253.8
85°	95.7	116.5	120.7	104.0	95.7
87.5°	33.3	33.3	20.8	12.5	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)