

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: P389112

Luminaire Tested: **22CZ2-110VHE-S-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: P389112
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-110VHE-S-UNV-L935-CD2-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9590.8 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

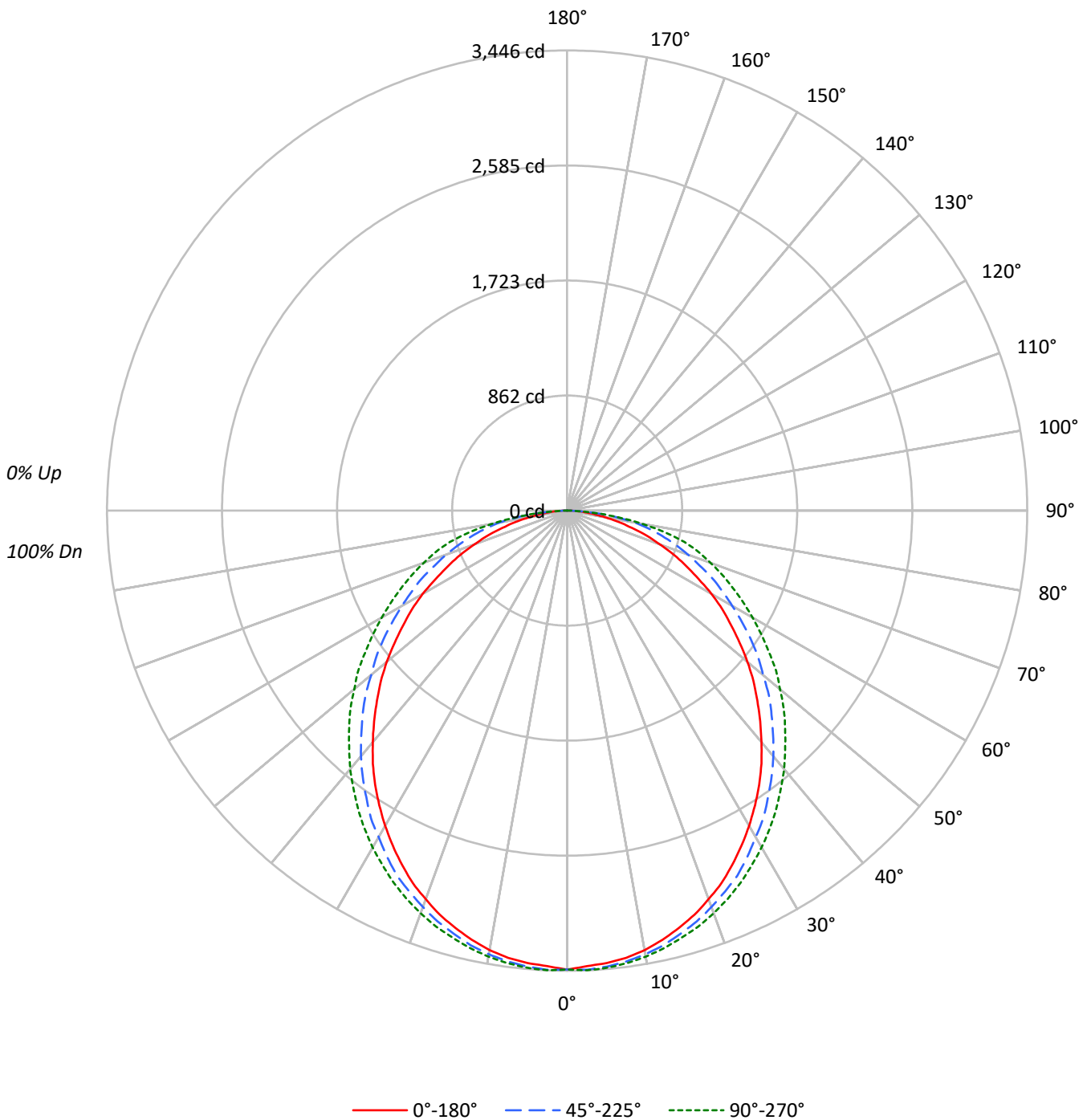
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9248	9248	9248
5°	9187	9259	9283
10°	9134	9219	9268
15°	9013	9138	9225
20°	8868	9047	9188
25°	8690	8955	9128
30°	8468	8774	9052
35°	8232	8614	8967
40°	7954	8441	8881
45°	7663	8242	8787
50°	7381	8018	8711
55°	7033	7873	8649
60°	6719	7683	8622
65°	6269	7636	8719
70°	5774	7570	8978
75°	5211	7676	9445
80°	4508	7905	8877
85°	3730	6632	6632



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	325.0	3.4
10°-20°	924.9	9.6
20°-30°	1383.9	14.4
30°-40°	1638.9	17.1
40°-50°	1670.2	17.4
50°-60°	1497.0	15.6
60°-70°	1172.0	12.2
70°-80°	755.7	7.9
80°-90°	223.3	2.3
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°	2633.8	27.5
0°-40°	4272.6	44.5
0°-60°	7439.8	77.6
0°-90°	9590.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9590.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3437	3437	3437	3437	3437	
5°	3401	3410	3428	3432	3437	323
15°	3235	3253	3280	3307	3311	912
25°	2927	2953	3016	3056	3074	1347
35°	2506	2537	2622	2703	2730	1566
45°	2014	2058	2166	2278	2309	1555
55°	1499	1548	1678	1794	1844	1344
65°	984	1043	1199	1316	1369	978
75°	501	577	738	864	908	537
85°	121	166	215	215	215	142
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3436.7	3436.7	3436.7	3436.7	3436.7
2.5°	3414.3	3423.3	3441.2	3445.6	3445.6
5°	3400.9	3409.8	3427.7	3432.2	3436.7
7.5°	3378.5	3383.0	3405.4	3414.3	3418.8
10°	3342.7	3351.7	3374.0	3387.5	3391.9
12.5°	3293.5	3306.9	3333.8	3351.7	3356.1
15°	3235.3	3253.2	3280.1	3306.9	3311.4
17.5°	3172.7	3190.6	3226.4	3257.7	3266.6
20°	3096.6	3119.0	3159.2	3195.0	3208.5
22.5°	3020.5	3038.4	3087.6	3132.4	3145.8
25°	2926.6	2953.4	3016.0	3056.3	3074.2
27.5°	2828.1	2859.4	2922.1	2975.8	2993.7
30°	2725.2	2756.5	2823.6	2890.8	2913.1
32.5°	2617.8	2653.6	2734.1	2801.3	2823.6
35°	2505.9	2537.2	2622.3	2702.8	2729.7
37.5°	2389.6	2416.4	2514.9	2599.9	2626.7
40°	2264.3	2300.1	2403.0	2501.4	2528.3
42.5°	2139.0	2179.3	2282.2	2389.6	2416.4
45°	2013.7	2058.4	2165.8	2277.7	2309.0
47.5°	1892.9	1928.7	2049.5	2156.9	2201.6
50°	1763.1	1798.9	1915.2	2036.1	2080.8
52.5°	1628.8	1678.1	1803.4	1919.7	1973.4
55°	1499.1	1548.3	1678.1	1794.4	1843.6
57.5°	1378.3	1418.5	1552.8	1673.6	1722.8
60°	1248.5	1284.3	1427.5	1557.2	1602.0
62.5°	1109.8	1163.5	1311.1	1432.0	1485.6
65°	984.5	1042.6	1199.3	1315.6	1369.3
67.5°	868.1	921.8	1074.0	1199.3	1257.4
70°	733.9	805.5	962.1	1087.4	1141.1
72.5°	626.5	689.1	850.2	975.5	1033.7
75°	501.2	577.3	738.3	863.6	908.4
77.5°	398.3	474.3	626.5	724.9	747.3
80°	290.9	366.9	510.1	559.4	572.8
82.5°	196.9	268.5	366.9	380.4	384.8
85°	120.8	165.6	214.8	214.8	214.8
87.5°	58.2	67.1	76.1	71.6	71.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)