

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: P388176

Luminaire Tested: **22CZ2-110VHE-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: P388176
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-110VHE-UNV-L935-CD2-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9127.8 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

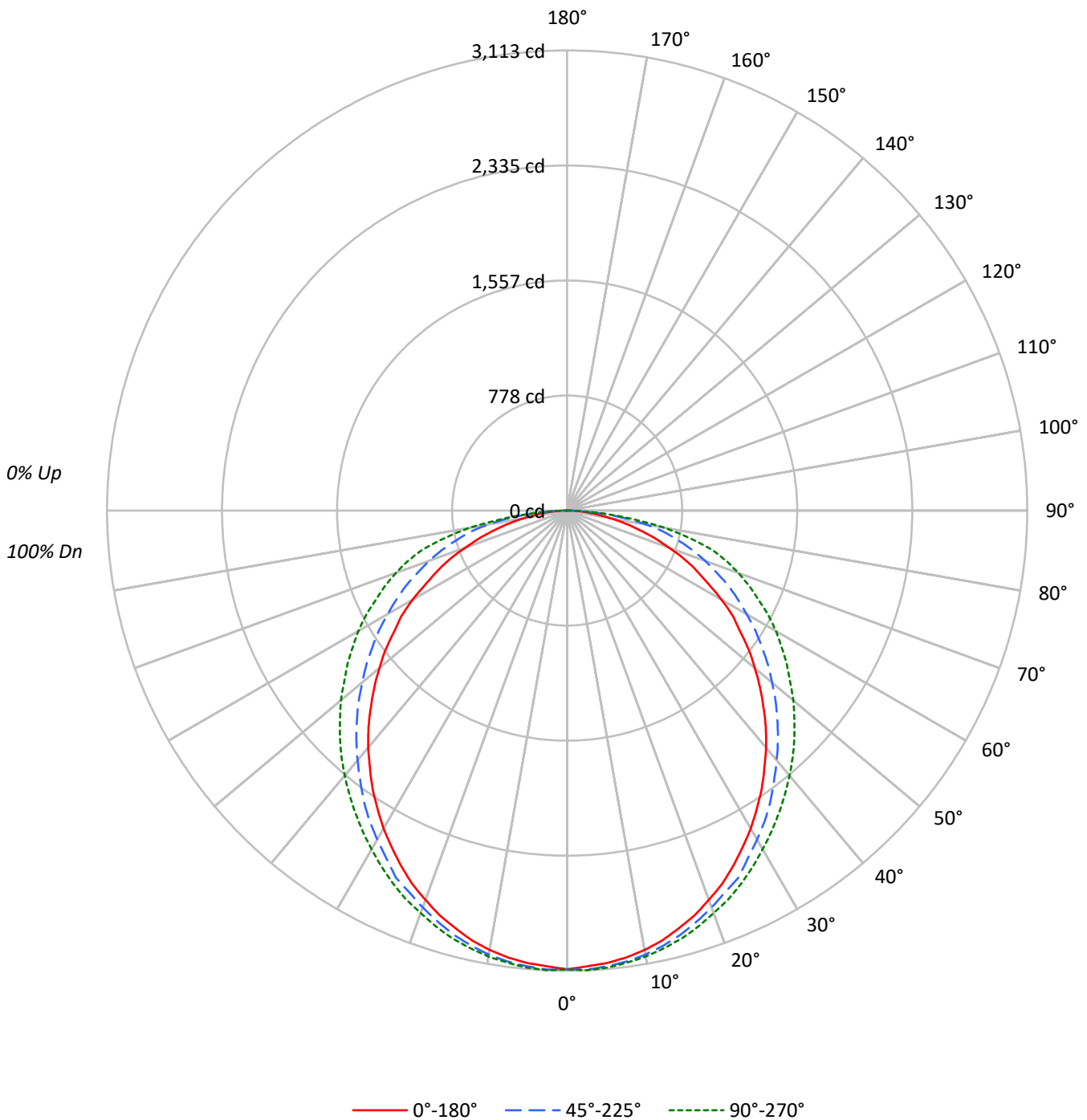
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8352	8352	8352
5°	8299	8359	8384
10°	8247	8333	8370
15°	8146	8271	8346
20°	8026	8180	8296
25°	7882	8135	8268
30°	7718	7983	8220
35°	7540	7879	8204
40°	7352	7747	8220
45°	7145	7658	8273
50°	6939	7578	8367
55°	6701	7544	8513
60°	6502	7542	8775
65°	6178	7664	9095
70°	5760	7810	9683
75°	5277	8079	10461
80°	4593	8422	10301
85°	4023	7487	8182



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.5	3.2
10°-20°	836.0	9.2
20°-30°	1255.0	13.7
30°-40°	1499.7	16.4
40°-50°	1559.4	17.1
50°-60°	1445.4	15.8
60°-70°	1185.5	13.0
70°-80°	801.4	8.8
80°-90°	251.8	2.8
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°	2384.6	26.1
0°-40°	3884.2	42.6
0°-60°	6889.0	75.5
0°-90°	9127.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9127.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3104	3104	3104	3104	3104	
5°	3072	3077	3095	3099	3104	292
15°	2924	2937	2969	2987	2996	825
25°	2654	2677	2740	2771	2785	1222
35°	2295	2327	2398	2470	2497	1435
45°	1877	1913	2012	2129	2174	1450
55°	1428	1473	1608	1752	1815	1284
65°	970	1024	1204	1361	1428	959
75°	508	593	777	934	1006	538
85°	130	180	242	270	265	148
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3103.6	3103.6	3103.6	3103.6	3103.6
2.5°	3085.7	3094.6	3108.1	3112.6	3112.6
5°	3072.2	3076.7	3094.6	3099.1	3103.6
7.5°	3049.7	3058.7	3076.7	3081.2	3085.7
10°	3018.3	3027.3	3049.7	3058.7	3063.2
12.5°	2977.9	2986.8	3013.8	3027.3	3031.8
15°	2924.0	2937.4	2968.9	2986.8	2995.8
17.5°	2870.1	2883.5	2915.0	2941.9	2950.9
20°	2802.7	2834.1	2856.6	2892.5	2897.0
22.5°	2735.3	2753.3	2793.7	2829.6	2847.6
25°	2654.5	2676.9	2739.8	2771.2	2784.7
27.5°	2569.1	2600.6	2650.0	2699.4	2717.4
30°	2483.8	2506.3	2569.1	2627.5	2645.5
32.5°	2389.5	2420.9	2488.3	2546.7	2573.6
35°	2295.2	2326.6	2398.5	2470.3	2497.3
37.5°	2191.8	2227.8	2299.6	2385.0	2420.9
40°	2093.0	2120.0	2205.3	2308.6	2340.1
42.5°	1989.7	2021.2	2111.0	2223.3	2259.2
45°	1877.4	1913.4	2012.2	2129.0	2173.9
47.5°	1769.6	1805.6	1913.4	2030.2	2084.1
50°	1657.4	1702.3	1810.1	1944.8	1998.7
52.5°	1549.6	1590.0	1711.3	1850.5	1899.9
55°	1428.3	1473.2	1608.0	1751.7	1814.6
57.5°	1329.5	1360.9	1509.1	1657.4	1720.2
60°	1208.2	1248.6	1401.3	1558.5	1630.4
62.5°	1078.0	1145.3	1302.5	1464.2	1536.1
65°	970.2	1024.1	1203.7	1360.9	1428.3
67.5°	857.9	916.3	1091.4	1257.6	1334.0
70°	732.1	808.5	992.6	1158.8	1230.7
72.5°	619.8	700.7	889.3	1051.0	1127.4
75°	507.5	592.9	777.0	934.2	1006.1
77.5°	399.7	494.1	673.7	795.0	839.9
80°	296.4	386.3	543.5	628.8	664.7
82.5°	206.6	283.0	399.7	444.7	453.6
85°	130.3	179.7	242.5	269.5	265.0
87.5°	58.4	71.9	89.8	98.8	94.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)