

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: P388175

Luminaire Tested: **22CZ2-110VHE-UNV-L930-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: P388175
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-L930-CD2-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

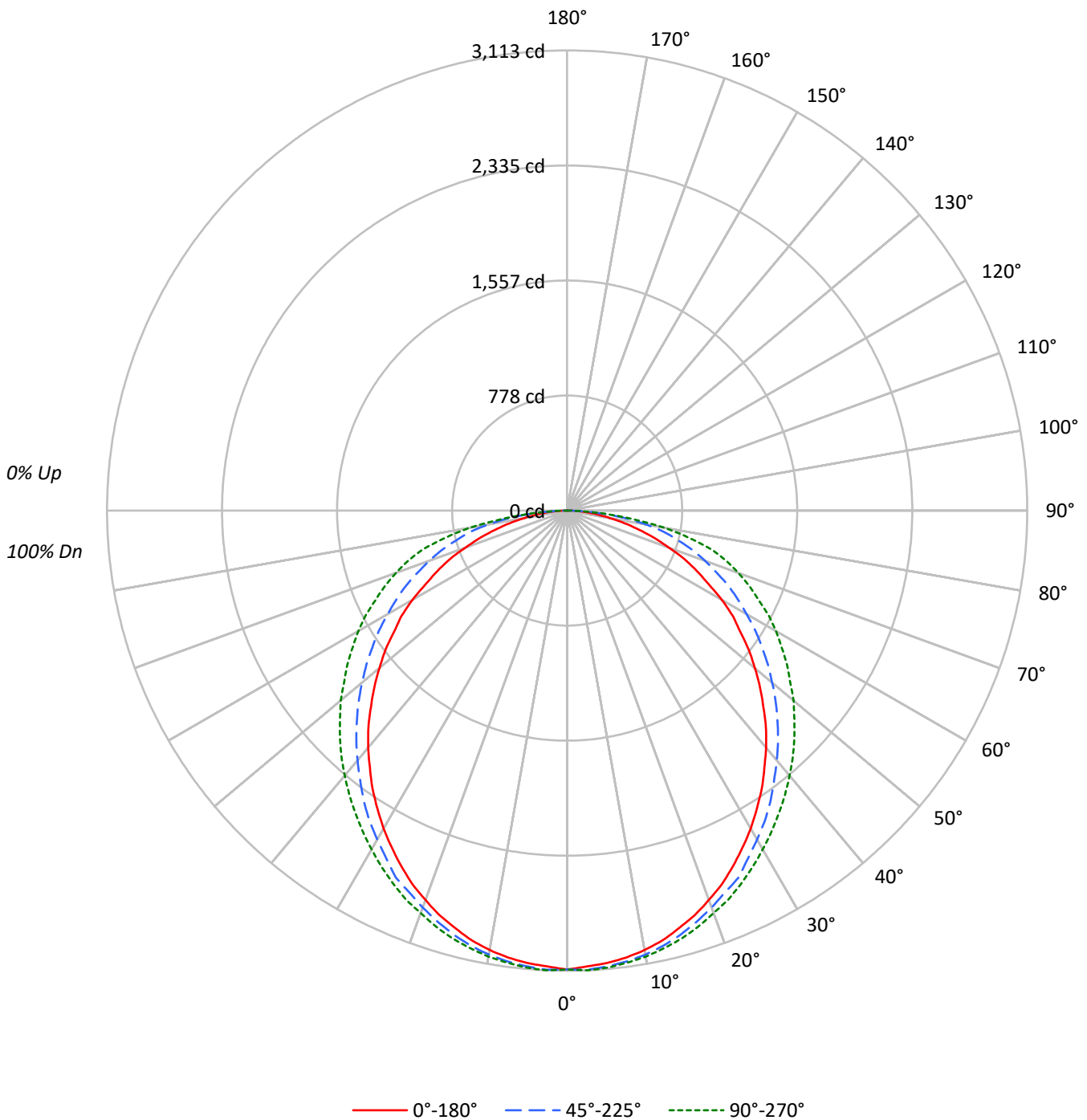
Lumens per Lamp: N/A
Luminaire Lumens: 9129.4 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	8353	8353	8353
5°	8300	8361	8385
10°	8249	8335	8372
15°	8147	8272	8347
20°	8027	8182	8298
25°	7883	8136	8270
30°	7719	7984	8222
35°	7541	7881	8205
40°	7354	7748	8222
45°	7146	7659	8275
50°	6940	7579	8369
55°	6702	7545	8515
60°	6504	7543	8776
65°	6178	7666	9096
70°	5761	7811	9685
75°	5278	8081	10463
80°	4595	8424	10304
85°	4023	7490	8182



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.6	3.2
10°-20°	836.2	9.2
20°-30°	1255.3	13.7
30°-40°	1499.9	16.4
40°-50°	1559.7	17.1
50°-60°	1445.6	15.8
60°-70°	1185.7	13.0
70°-80°	801.6	8.8
80°-90°	251.9	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°	2385.0	26.1
0°-40°	3884.9	42.6
0°-60°	6890.2	75.5
0°-90°	9129.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9129.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3104	3104	3104	3104	3104	
5°	3073	3077	3095	3100	3104	292
15°	2924	2938	2969	2987	2996	825
25°	2655	2677	2740	2772	2785	1223
35°	2296	2327	2399	2471	2498	1435
45°	1878	1914	2012	2129	2174	1450
55°	1428	1474	1608	1752	1815	1284
65°	970	1024	1204	1361	1428	959
75°	508	593	777	934	1006	538
85°	130	180	243	270	265	148
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3104.2	3104.2	3104.2	3104.2	3104.2
2.5°	3086.2	3095.2	3108.7	3113.1	3113.1
5°	3072.7	3077.2	3095.2	3099.7	3104.2
7.5°	3050.3	3059.2	3077.2	3081.7	3086.2
10°	3018.8	3027.8	3050.3	3059.2	3063.7
12.5°	2978.4	2987.4	3014.3	3027.8	3032.3
15°	2924.5	2937.9	2969.4	2987.4	2996.3
17.5°	2870.6	2884.0	2915.5	2942.4	2951.4
20°	2803.2	2834.6	2857.1	2893.0	2897.5
22.5°	2735.8	2753.8	2794.2	2830.1	2848.1
25°	2654.9	2677.4	2740.3	2771.7	2785.2
27.5°	2569.6	2601.0	2650.4	2699.9	2717.8
30°	2484.2	2506.7	2569.6	2628.0	2646.0
32.5°	2389.9	2421.3	2488.7	2547.1	2574.1
35°	2295.6	2327.0	2398.9	2470.8	2497.7
37.5°	2192.2	2228.2	2300.0	2385.4	2421.3
40°	2093.4	2120.4	2205.7	2309.0	2340.5
42.5°	1990.1	2021.5	2111.4	2223.7	2259.6
45°	1877.8	1913.7	2012.5	2129.3	2174.3
47.5°	1770.0	1805.9	1913.7	2030.5	2084.4
50°	1657.7	1702.6	1810.4	1945.2	1999.1
52.5°	1549.8	1590.3	1711.6	1850.8	1900.2
55°	1428.5	1473.5	1608.2	1752.0	1814.9
57.5°	1329.7	1361.2	1509.4	1657.7	1720.5
60°	1208.4	1248.9	1401.6	1558.8	1630.7
62.5°	1078.1	1145.5	1302.8	1464.5	1536.4
65°	970.3	1024.2	1203.9	1361.2	1428.5
67.5°	858.0	916.4	1091.6	1257.8	1334.2
70°	732.2	808.6	992.8	1159.0	1230.9
72.5°	619.9	700.8	889.5	1051.2	1127.6
75°	507.6	593.0	777.2	934.4	1006.3
77.5°	399.8	494.2	673.8	795.1	840.1
80°	296.5	386.3	543.6	628.9	664.9
82.5°	206.6	283.0	399.8	444.7	453.7
85°	130.3	179.7	242.6	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)