

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: P389471

Luminaire Tested: **22CZ2-90VHE-S-UNV-L930-CD1-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: P389471
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: 22CZ2-90VHE-S-UNV-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7910.8 lumens
Efficiency: N/A
Efficacy: 116.0 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

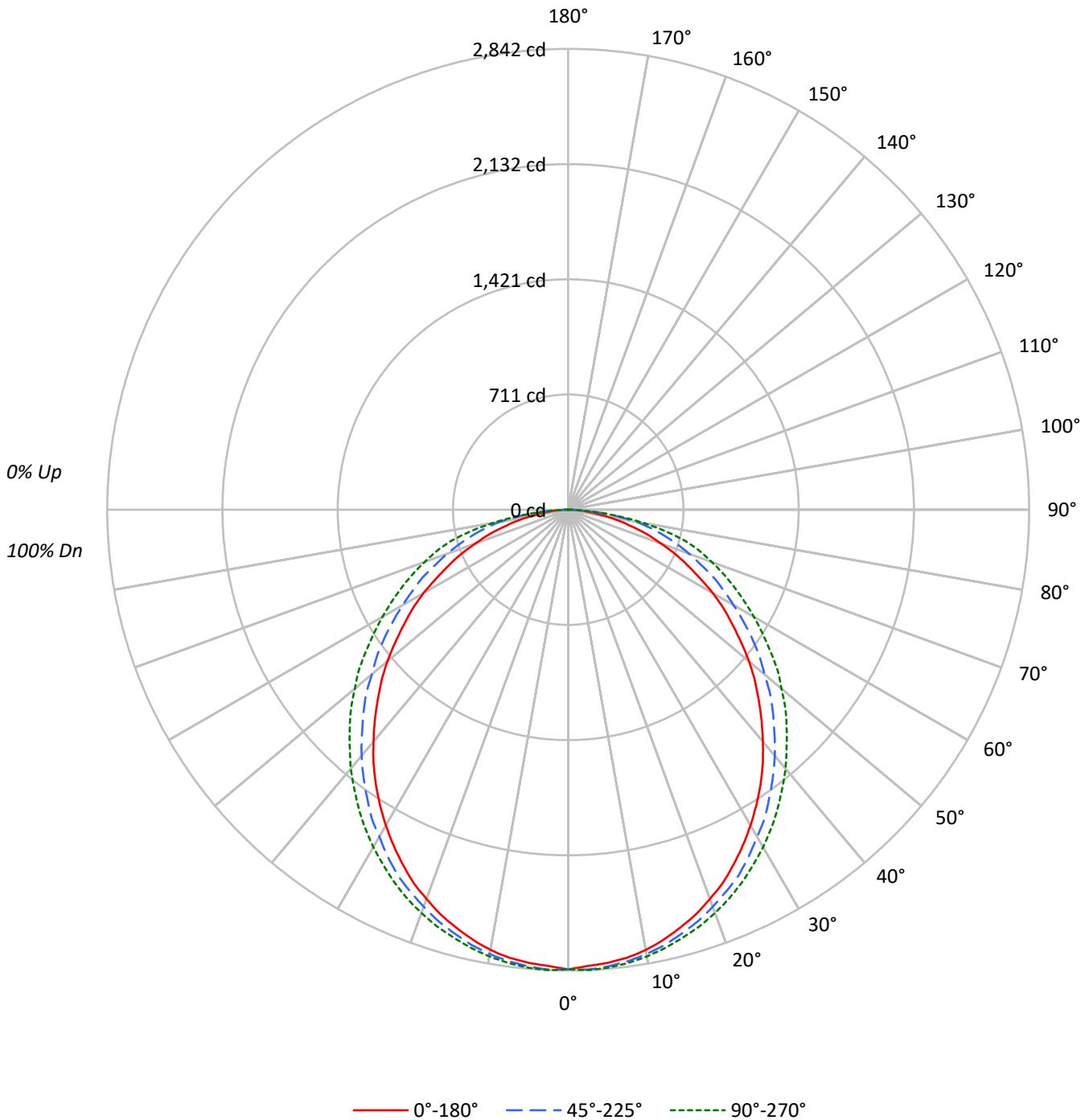
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7628	7628	7628
5°	7578	7637	7657
10°	7534	7605	7645
15°	7434	7537	7609
20°	7314	7462	7578
25°	7167	7386	7529
30°	6985	7237	7466
35°	6790	7105	7396
40°	6561	6963	7326
45°	6321	6798	7248
50°	6088	6613	7185
55°	5801	6494	7134
60°	5542	6337	7112
65°	5170	6299	7191
70°	4762	6244	7405
75°	4298	6332	7791
80°	3718	6521	7321
85°	3078	5471	5471



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.1	3.4
10°-20°	762.9	9.6
20°-30°	1141.5	14.4
30°-40°	1351.8	17.1
40°-50°	1377.6	17.4
50°-60°	1234.7	15.6
60°-70°	966.7	12.2
70°-80°	623.4	7.9
80°-90°	184.2	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°	2172.4	27.5
0°-40°	3524.2	44.5
0°-60°	6136.6	77.6
0°-90°	7910.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7910.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2835	2835	2835	2835	2835	
5°	2805	2812	2827	2831	2835	266
15°	2669	2683	2706	2728	2731	752
25°	2414	2436	2488	2521	2536	1111
35°	2067	2093	2163	2229	2252	1292
45°	1661	1698	1786	1879	1905	1283
55°	1236	1277	1384	1480	1521	1109
65°	812	860	989	1085	1129	807
75°	413	476	609	712	749	443
85°	100	137	177	177	177	117
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2834.7	2834.7	2834.7	2834.7	2834.7
2.5°	2816.2	2823.6	2838.4	2842.1	2842.1
5°	2805.2	2812.5	2827.3	2831.0	2834.7
7.5°	2786.7	2790.4	2808.8	2816.2	2819.9
10°	2757.2	2764.6	2783.0	2794.1	2797.8
12.5°	2716.6	2727.6	2749.8	2764.6	2768.2
15°	2668.6	2683.4	2705.5	2727.6	2731.3
17.5°	2616.9	2631.7	2661.2	2687.0	2694.4
20°	2554.2	2572.6	2605.8	2635.4	2646.4
22.5°	2491.4	2506.2	2546.8	2583.7	2594.8
25°	2413.9	2436.1	2487.7	2521.0	2535.7
27.5°	2332.7	2358.5	2410.2	2454.5	2469.3
30°	2247.8	2273.7	2329.0	2384.4	2402.8
32.5°	2159.2	2188.8	2255.2	2310.6	2329.0
35°	2067.0	2092.8	2162.9	2229.4	2251.5
37.5°	1971.0	1993.1	2074.3	2144.5	2166.6
40°	1867.6	1897.2	1982.1	2063.3	2085.4
42.5°	1764.3	1797.5	1882.4	1971.0	1993.1
45°	1660.9	1697.9	1786.4	1878.7	1904.6
47.5°	1561.3	1590.8	1690.5	1779.1	1816.0
50°	1454.3	1483.8	1579.7	1679.4	1716.3
52.5°	1343.5	1384.1	1487.5	1583.4	1627.7
55°	1236.5	1277.1	1384.1	1480.1	1520.7
57.5°	1136.8	1170.0	1280.8	1380.4	1421.0
60°	1029.8	1059.3	1177.4	1284.5	1321.4
62.5°	915.4	959.7	1081.5	1181.1	1225.4
65°	812.0	860.0	989.2	1085.2	1129.4
67.5°	716.1	760.3	885.8	989.2	1037.2
70°	605.3	664.4	793.6	896.9	941.2
72.5°	516.7	568.4	701.3	804.6	852.6
75°	413.4	476.1	609.0	712.4	749.3
77.5°	328.5	391.2	516.7	597.9	616.4
80°	239.9	302.7	420.8	461.4	472.4
82.5°	162.4	221.5	302.7	313.7	317.4
85°	99.7	136.6	177.2	177.2	177.2
87.5°	48.0	55.4	62.7	59.1	59.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)