

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: P389469

Luminaire Tested: **22CZ2-90VHE-S-UNV-L930-CD1-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: P389469
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-SDWPD1-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: 7718.4 lumens
Efficiency: N/A
Efficacy: 113.2 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

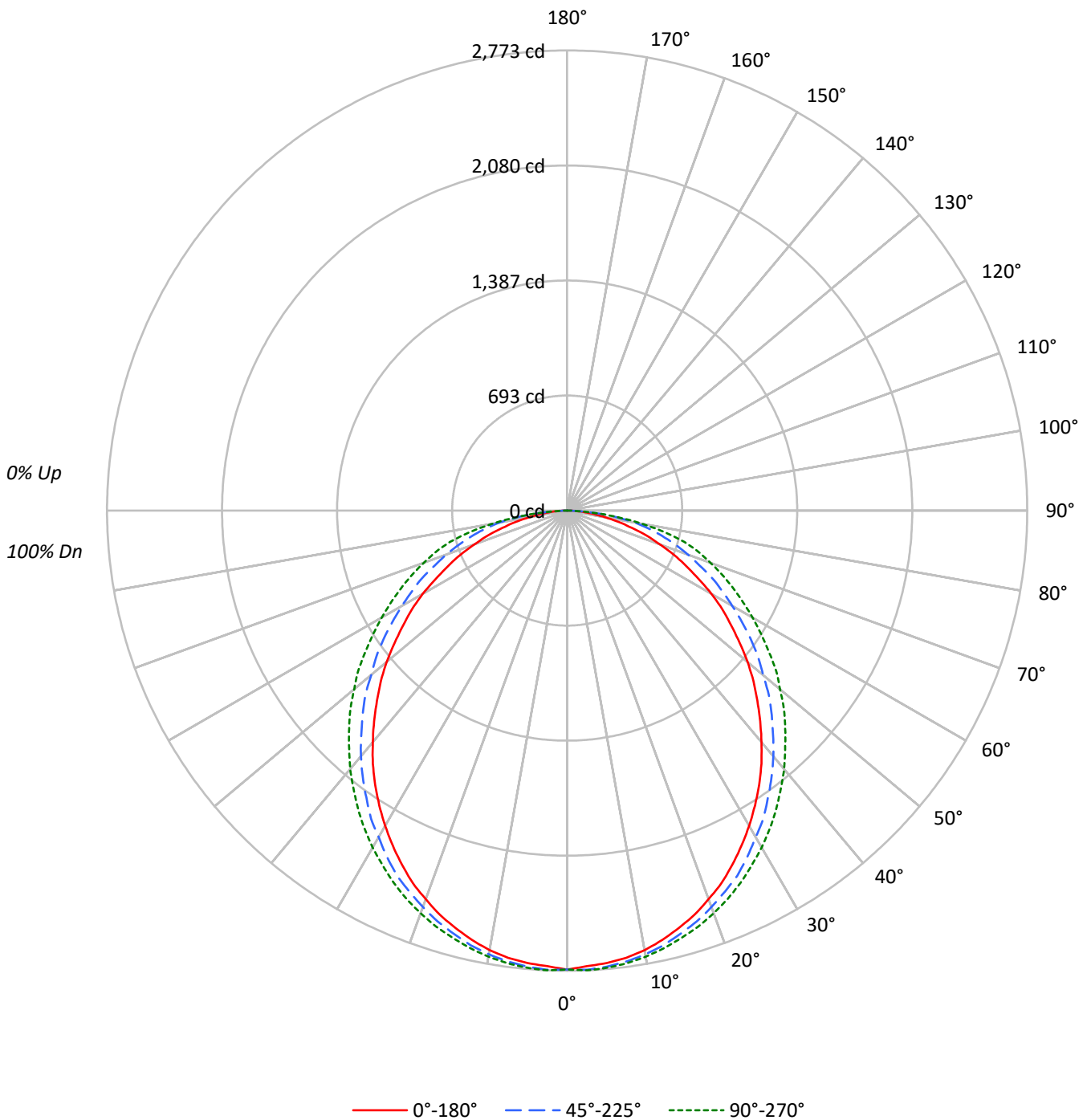
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7442	7442	7442
5°	7393	7451	7471
10°	7351	7420	7459
15°	7254	7354	7424
20°	7136	7281	7394
25°	6993	7207	7346
30°	6815	7061	7285
35°	6625	6933	7216
40°	6401	6793	7148
45°	6167	6633	7072
50°	5940	6453	7011
55°	5660	6336	6961
60°	5407	6183	6938
65°	5045	6145	7017
70°	4647	6092	7225
75°	4193	6178	7600
80°	3628	6361	7144
85°	3001	5338	5338



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.5	3.4
10°-20°	744.3	9.6
20°-30°	1113.7	14.4
30°-40°	1318.9	17.1
40°-50°	1344.1	17.4
50°-60°	1204.7	15.6
60°-70°	943.2	12.2
70°-80°	608.2	7.9
80°-90°	179.7	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°	2119.6	27.5
0°-40°	3438.5	44.5
0°-60°	5987.3	77.6
0°-90°	7718.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7718.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2766	2766	2766	2766	2766	
5°	2737	2744	2758	2762	2766	260
15°	2604	2618	2640	2661	2665	734
25°	2355	2377	2427	2460	2474	1084
35°	2017	2042	2110	2175	2197	1260
45°	1621	1657	1743	1833	1858	1252
55°	1206	1246	1350	1444	1484	1082
65°	792	839	965	1059	1102	787
75°	403	465	594	695	731	432
85°	97	133	173	173	173	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2765.7	2765.7	2765.7	2765.7	2765.7
2.5°	2747.7	2754.9	2769.3	2772.9	2772.9
5°	2736.9	2744.1	2758.5	2762.1	2765.7
7.5°	2718.9	2722.5	2740.5	2747.7	2751.3
10°	2690.1	2697.3	2715.3	2726.1	2729.7
12.5°	2650.5	2661.3	2682.9	2697.3	2700.9
15°	2603.7	2618.1	2639.7	2661.3	2664.9
17.5°	2553.3	2567.7	2596.5	2621.7	2628.9
20°	2492.0	2510.1	2542.5	2571.3	2582.1
22.5°	2430.8	2445.2	2484.8	2520.9	2531.7
25°	2355.2	2376.8	2427.2	2459.6	2474.0
27.5°	2276.0	2301.2	2351.6	2394.8	2409.2
30°	2193.1	2218.4	2272.4	2326.4	2344.4
32.5°	2106.7	2135.5	2200.4	2254.4	2272.4
35°	2016.7	2041.9	2110.3	2175.1	2196.7
37.5°	1923.1	1944.7	2023.9	2092.3	2113.9
40°	1822.2	1851.0	1933.9	2013.1	2034.7
42.5°	1721.4	1753.8	1836.6	1923.1	1944.7
45°	1620.6	1656.6	1743.0	1833.0	1858.2
47.5°	1523.3	1552.1	1649.4	1735.8	1771.8
50°	1418.9	1447.7	1541.3	1638.6	1674.6
52.5°	1310.8	1350.5	1451.3	1544.9	1588.1
55°	1206.4	1246.0	1350.5	1444.1	1483.7
57.5°	1109.2	1141.6	1249.6	1346.9	1386.5
60°	1004.7	1033.6	1148.8	1253.2	1289.2
62.5°	893.1	936.3	1055.2	1152.4	1195.6
65°	792.3	839.1	965.1	1058.8	1102.0
67.5°	698.6	741.9	864.3	965.1	1011.9
70°	590.6	648.2	774.3	875.1	918.3
72.5°	504.2	554.6	684.2	785.1	831.9
75°	403.3	464.6	594.2	695.0	731.0
77.5°	320.5	381.7	504.2	583.4	601.4
80°	234.1	295.3	410.5	450.2	461.0
82.5°	158.5	216.1	295.3	306.1	309.7
85°	97.2	133.2	172.9	172.9	172.9
87.5°	46.8	54.0	61.2	57.6	57.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)