

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: P389476

Luminaire Tested: **22CZ2-90VHE-S-UNV-L940-CD1-SWPD1-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: P389476
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-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8088.7 lumens
Efficiency: N/A
Efficacy: 118.6 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

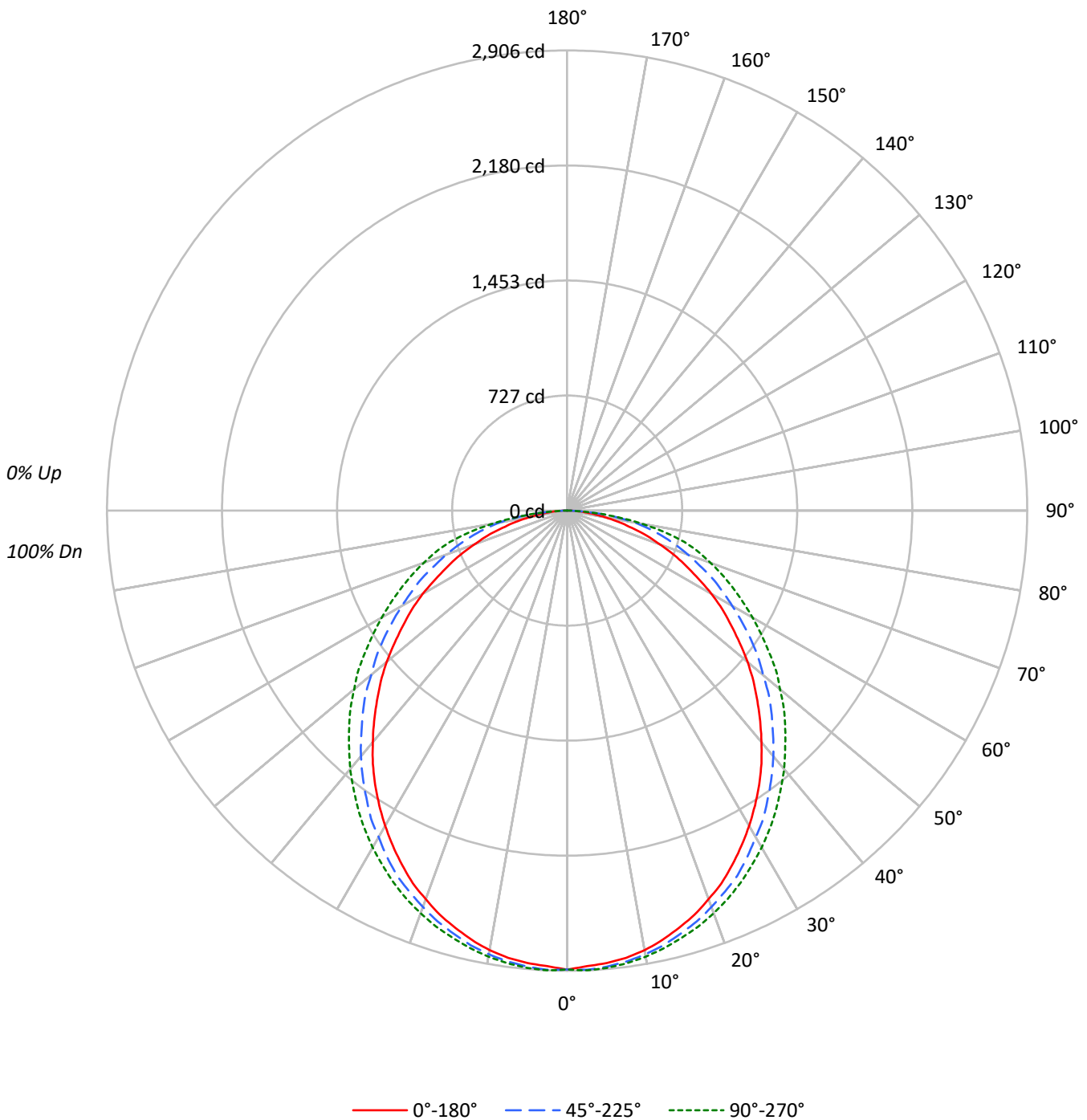
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7800	7800	7800
5°	7748	7809	7829
10°	7703	7776	7817
15°	7602	7707	7780
20°	7479	7630	7749
25°	7328	7553	7698
30°	7142	7400	7634
35°	6943	7265	7563
40°	6708	7119	7490
45°	6463	6951	7411
50°	6225	6762	7347
55°	5932	6640	7295
60°	5667	6479	7272
65°	5287	6440	7353
70°	4869	6384	7572
75°	4395	6474	7965
80°	3801	6667	7486
85°	3146	5595	5595



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.1	3.4
10°-20°	780.0	9.6
20°-30°	1167.1	14.4
30°-40°	1382.2	17.1
40°-50°	1408.6	17.4
50°-60°	1262.5	15.6
60°-70°	988.4	12.2
70°-80°	637.4	7.9
80°-90°	188.3	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°	2221.3	27.5
0°-40°	3603.5	44.5
0°-60°	6274.6	77.6
0°-90°	8088.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8088.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2898	2898	2898	2898	2898	
5°	2868	2876	2891	2895	2898	272
15°	2729	2744	2766	2789	2793	769
25°	2468	2491	2544	2578	2593	1136
35°	2113	2140	2212	2280	2302	1321
45°	1698	1736	1827	1921	1947	1312
55°	1264	1306	1415	1513	1555	1134
65°	830	879	1011	1110	1155	825
75°	423	487	623	728	766	453
85°	102	140	181	181	181	120
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2898.4	2898.4	2898.4	2898.4	2898.4
2.5°	2879.6	2887.1	2902.2	2906.0	2906.0
5°	2868.2	2875.8	2890.9	2894.7	2898.4
7.5°	2849.4	2853.1	2872.0	2879.6	2883.3
10°	2819.2	2826.7	2845.6	2856.9	2860.7
12.5°	2777.7	2789.0	2811.6	2826.7	2830.5
15°	2728.6	2743.7	2766.3	2789.0	2792.8
17.5°	2675.8	2690.9	2721.1	2747.5	2755.0
20°	2611.6	2630.5	2664.4	2694.6	2706.0
22.5°	2547.5	2562.5	2604.1	2641.8	2653.1
25°	2468.2	2490.8	2543.7	2577.6	2592.7
27.5°	2385.2	2411.6	2464.4	2509.7	2524.8
30°	2298.4	2324.8	2381.4	2438.0	2456.9
32.5°	2207.8	2238.0	2305.9	2362.5	2381.4
35°	2113.4	2139.9	2211.6	2279.5	2302.1
37.5°	2015.3	2038.0	2121.0	2192.7	2215.3
40°	1909.6	1939.8	2026.6	2109.7	2132.3
42.5°	1804.0	1837.9	1924.7	2015.3	2038.0
45°	1698.3	1736.0	1826.6	1921.0	1947.4
47.5°	1596.4	1626.6	1728.5	1819.1	1856.8
50°	1487.0	1517.1	1615.3	1717.2	1754.9
52.5°	1373.7	1415.3	1520.9	1619.0	1664.3
55°	1264.3	1305.8	1415.3	1513.4	1554.9
57.5°	1162.4	1196.4	1309.6	1411.5	1453.0
60°	1052.9	1083.1	1203.9	1313.4	1351.1
62.5°	936.0	981.2	1105.8	1207.7	1253.0
65°	830.3	879.3	1011.4	1109.6	1154.8
67.5°	732.2	777.4	905.8	1011.4	1060.5
70°	618.9	679.3	811.4	917.1	962.4
72.5°	528.4	581.2	717.1	822.7	871.8
75°	422.7	486.8	622.7	728.4	766.1
77.5°	335.9	400.0	528.4	611.4	630.3
80°	245.3	309.5	430.2	471.8	483.1
82.5°	166.1	226.4	309.5	320.8	324.6
85°	101.9	139.6	181.2	181.2	181.2
87.5°	49.1	56.6	64.2	60.4	60.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)