

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: P389475

Luminaire Tested: **22CZ2-90VHE-S-UNV-L940-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: P389475
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-SDWPD1-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: 7991.1 lumens
Efficiency: N/A
Efficacy: 117.2 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

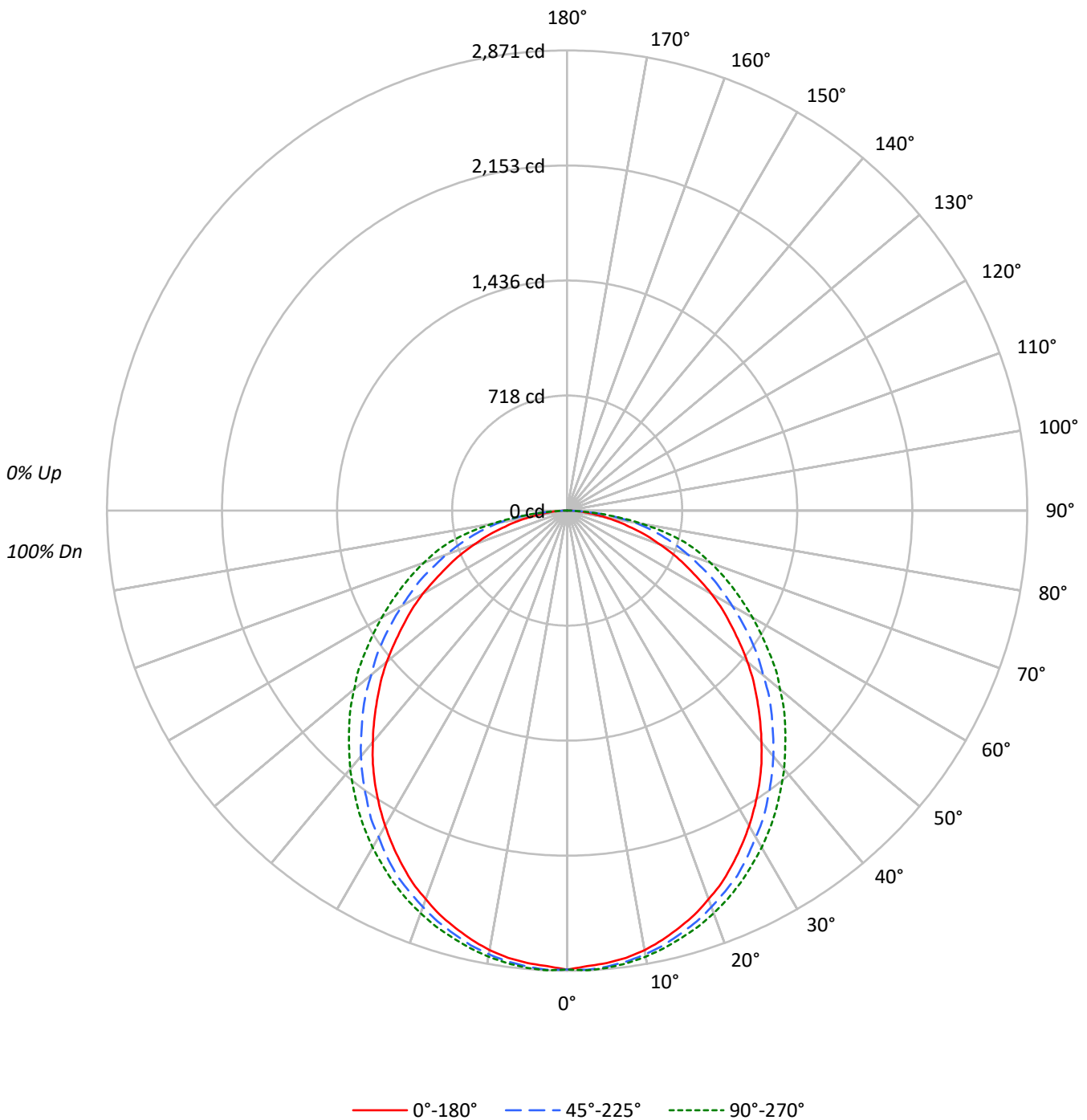
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	7706	7706	7706
5°	7654	7715	7735
10°	7611	7682	7723
15°	7510	7614	7687
20°	7389	7538	7655
25°	7240	7462	7606
30°	7055	7310	7542
35°	6859	7178	7472
40°	6627	7033	7400
45°	6385	6868	7322
50°	6150	6681	7258
55°	5860	6560	7207
60°	5598	6401	7184
65°	5223	6362	7265
70°	4811	6307	7481
75°	4342	6396	7870
80°	3756	6586	7395
85°	3109	5527	5527



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.8	3.4
10°-20°	770.6	9.6
20°-30°	1153.1	14.4
30°-40°	1365.5	17.1
40°-50°	1391.6	17.4
50°-60°	1247.3	15.6
60°-70°	976.5	12.2
70°-80°	629.7	7.9
80°-90°	186.0	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°	2194.5	27.5
0°-40°	3560.0	44.5
0°-60°	6198.9	77.6
0°-90°	7991.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7991.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2864	2864	2864	2864	2864	
5°	2834	2841	2856	2860	2864	269
15°	2696	2711	2733	2755	2759	760
25°	2438	2461	2513	2546	2562	1122
35°	2088	2114	2185	2252	2274	1305
45°	1678	1715	1805	1898	1924	1296
55°	1249	1290	1398	1495	1536	1120
65°	820	869	999	1096	1141	815
75°	418	481	615	720	757	448
85°	101	138	179	179	179	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2863.5	2863.5	2863.5	2863.5	2863.5
2.5°	2844.8	2852.3	2867.2	2870.9	2870.9
5°	2833.6	2841.1	2856.0	2859.7	2863.5
7.5°	2815.0	2818.7	2837.4	2844.8	2848.5
10°	2785.2	2792.6	2811.3	2822.4	2826.2
12.5°	2744.1	2755.3	2777.7	2792.6	2796.3
15°	2695.7	2710.6	2733.0	2755.3	2759.1
17.5°	2643.5	2658.4	2688.2	2714.3	2721.8
20°	2580.1	2598.7	2632.3	2662.1	2673.3
22.5°	2516.7	2531.6	2572.6	2609.9	2621.1
25°	2438.4	2460.8	2513.0	2546.5	2561.5
27.5°	2356.4	2382.5	2434.7	2479.4	2494.3
30°	2270.6	2296.7	2352.7	2408.6	2427.2
32.5°	2181.2	2211.0	2278.1	2334.0	2352.7
35°	2087.9	2114.0	2184.9	2252.0	2274.4
37.5°	1991.0	2013.4	2095.4	2166.2	2188.6
40°	1886.6	1916.4	2002.2	2084.2	2106.6
42.5°	1782.2	1815.8	1901.5	1991.0	2013.4
45°	1677.8	1715.1	1804.6	1897.8	1923.9
47.5°	1577.1	1607.0	1707.6	1797.1	1834.4
50°	1469.0	1498.8	1595.8	1696.5	1733.7
52.5°	1357.2	1398.2	1502.6	1599.5	1644.3
55°	1249.0	1290.0	1398.2	1495.1	1536.1
57.5°	1148.4	1181.9	1293.8	1394.4	1435.5
60°	1040.2	1070.1	1189.4	1297.5	1334.8
62.5°	924.7	969.4	1092.4	1193.1	1237.9
65°	820.3	868.7	999.2	1096.2	1140.9
67.5°	723.3	768.1	894.8	999.2	1047.7
70°	611.5	671.1	801.6	906.0	950.8
72.5°	522.0	574.2	708.4	812.8	861.3
75°	417.6	481.0	615.2	719.6	756.9
77.5°	331.8	395.2	522.0	604.0	622.7
80°	242.4	305.7	425.0	466.1	477.2
82.5°	164.1	223.7	305.7	316.9	320.6
85°	100.7	138.0	179.0	179.0	179.0
87.5°	48.5	55.9	63.4	59.7	59.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)