

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: P388151

Luminaire Tested: **22CZ2-100VHE-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: P388151
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: 22CZ2-100VHE-UNV-L930-CD1-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: 8339.8 lumens
Efficiency: N/A
Efficacy: 107.3 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

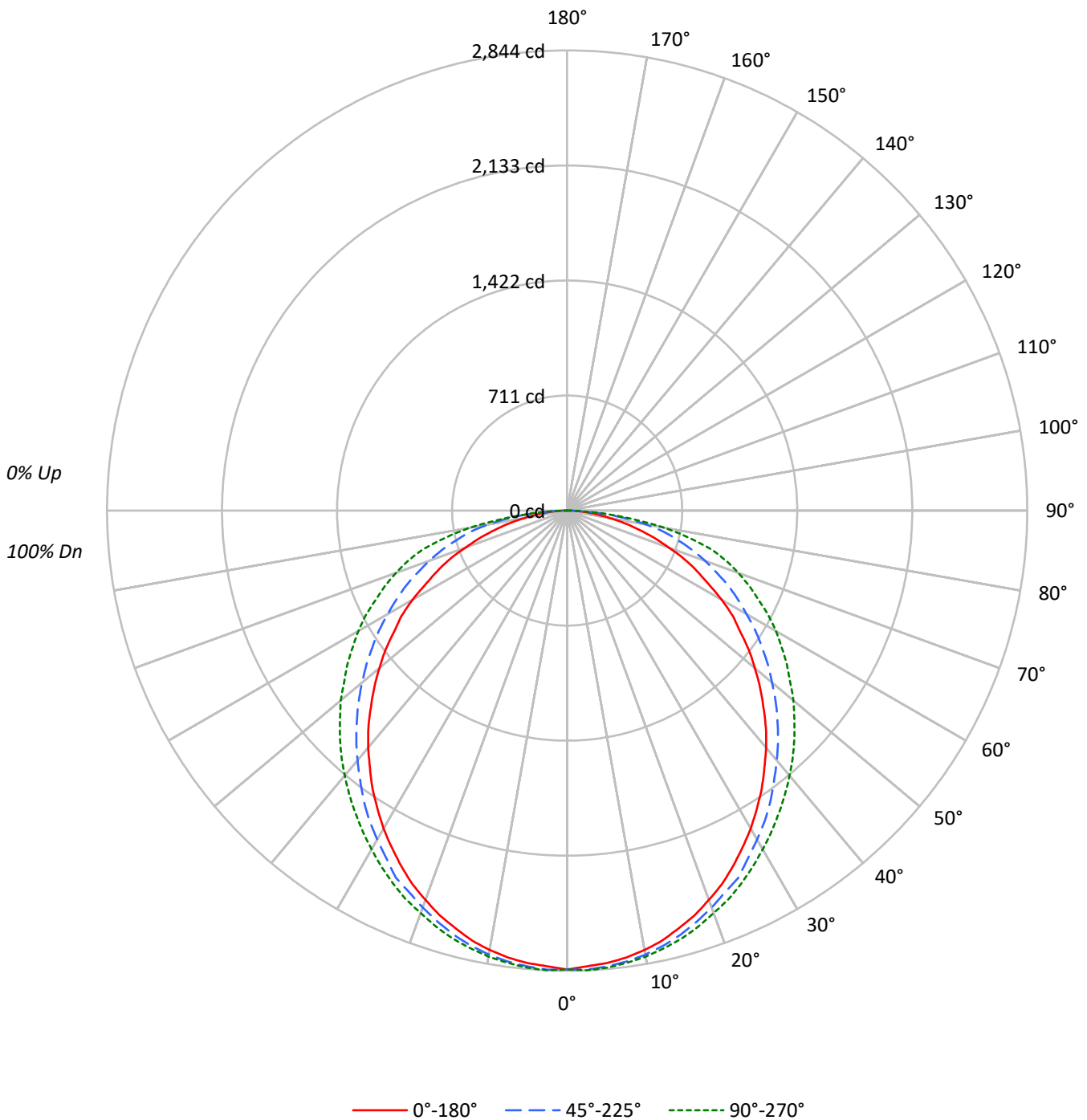
Input Watts (W): 77.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388151

CATALOG NUMBER: 22CZ2-100VHE-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388151

CATALOG NUMBER: 22CZ2-100VHE-UNV-L930-CD1-U

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°	7631	7631	7631
5°	7582	7638	7660
10°	7535	7614	7648
15°	7443	7557	7626
20°	7333	7474	7580
25°	7201	7433	7554
30°	7052	7294	7511
35°	6889	7199	7496
40°	6718	7078	7510
45°	6528	6997	7559
50°	6339	6924	7645
55°	6123	6892	7778
60°	5941	6891	8018
65°	5644	7003	8309
70°	5263	7135	8847
75°	4821	7381	9557
80°	4197	7696	9413
85°	3674	6842	7475



TEST NUMBER: P388151

CATALOG NUMBER: 22CZ2-100VHE-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.2	3.2
10°-20°	763.8	9.2
20°-30°	1146.7	13.7
30°-40°	1370.2	16.4
40°-50°	1424.8	17.1
50°-60°	1320.6	15.8
60°-70°	1083.2	13.0
70°-80°	732.2	8.8
80°-90°	230.1	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°	2178.7	26.1
0°-40°	3548.9	42.6
0°-60°	6294.3	75.5
0°-90°	8339.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8339.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2836	2836	2836	2836	2836	
5°	2807	2811	2828	2832	2836	266
15°	2672	2684	2713	2729	2737	754
25°	2425	2446	2503	2532	2544	1117
35°	2097	2126	2191	2257	2282	1311
45°	1715	1748	1838	1945	1986	1325
55°	1305	1346	1469	1600	1658	1173
65°	886	936	1100	1243	1305	876
75°	464	542	710	854	919	492
85°	119	164	222	246	242	135
90°	0	0	0	0	0	



TEST NUMBER: P388151

CATALOG NUMBER: 22CZ2-100VHE-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2835.7	2835.7	2835.7	2835.7	2835.7
2.5°	2819.3	2827.5	2839.8	2843.9	2843.9
5°	2807.0	2811.1	2827.5	2831.6	2835.7
7.5°	2786.4	2794.6	2811.1	2815.2	2819.3
10°	2757.7	2765.9	2786.4	2794.6	2798.8
12.5°	2720.8	2729.0	2753.6	2765.9	2770.0
15°	2671.5	2683.8	2712.6	2729.0	2737.2
17.5°	2622.3	2634.6	2663.3	2688.0	2696.2
20°	2560.7	2589.5	2610.0	2642.8	2646.9
22.5°	2499.2	2515.6	2552.5	2585.4	2601.8
25°	2425.3	2445.8	2503.3	2532.0	2544.3
27.5°	2347.3	2376.1	2421.2	2466.3	2482.8
30°	2269.4	2289.9	2347.3	2400.7	2417.1
32.5°	2183.2	2211.9	2273.5	2326.8	2351.4
35°	2097.0	2125.7	2191.4	2257.1	2281.7
37.5°	2002.6	2035.5	2101.1	2179.1	2211.9
40°	1912.3	1937.0	2014.9	2109.3	2138.0
42.5°	1818.0	1846.7	1928.8	2031.4	2064.2
45°	1715.4	1748.2	1838.5	1945.2	1986.2
47.5°	1616.9	1649.7	1748.2	1854.9	1904.1
50°	1514.3	1555.3	1653.8	1776.9	1826.2
52.5°	1415.8	1452.7	1563.5	1690.7	1735.9
55°	1305.0	1346.0	1469.1	1600.5	1657.9
57.5°	1214.7	1243.4	1378.9	1514.3	1571.7
60°	1103.9	1140.8	1280.4	1424.0	1489.7
62.5°	984.9	1046.5	1190.1	1337.8	1403.5
65°	886.4	935.7	1099.8	1243.4	1305.0
67.5°	783.8	837.2	997.2	1149.0	1218.8
70°	668.9	738.7	906.9	1058.8	1124.4
72.5°	566.3	640.2	812.5	960.3	1030.0
75°	463.7	541.7	709.9	853.6	919.2
77.5°	365.2	451.4	615.6	726.4	767.4
80°	270.8	352.9	496.6	574.5	607.4
82.5°	188.8	258.5	365.2	406.3	414.5
85°	119.0	164.1	221.6	246.2	242.1
87.5°	53.3	65.7	82.1	90.3	86.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)