

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: P389158

Luminaire Tested: **22CZ2-24VHE-S-UNV-L930-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: P389158
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: 22CZ2-24VHE-S-UNV-L930-CD1-SWPD1-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: 2141.3 lumens
Efficiency: N/A
Efficacy: 122.4 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

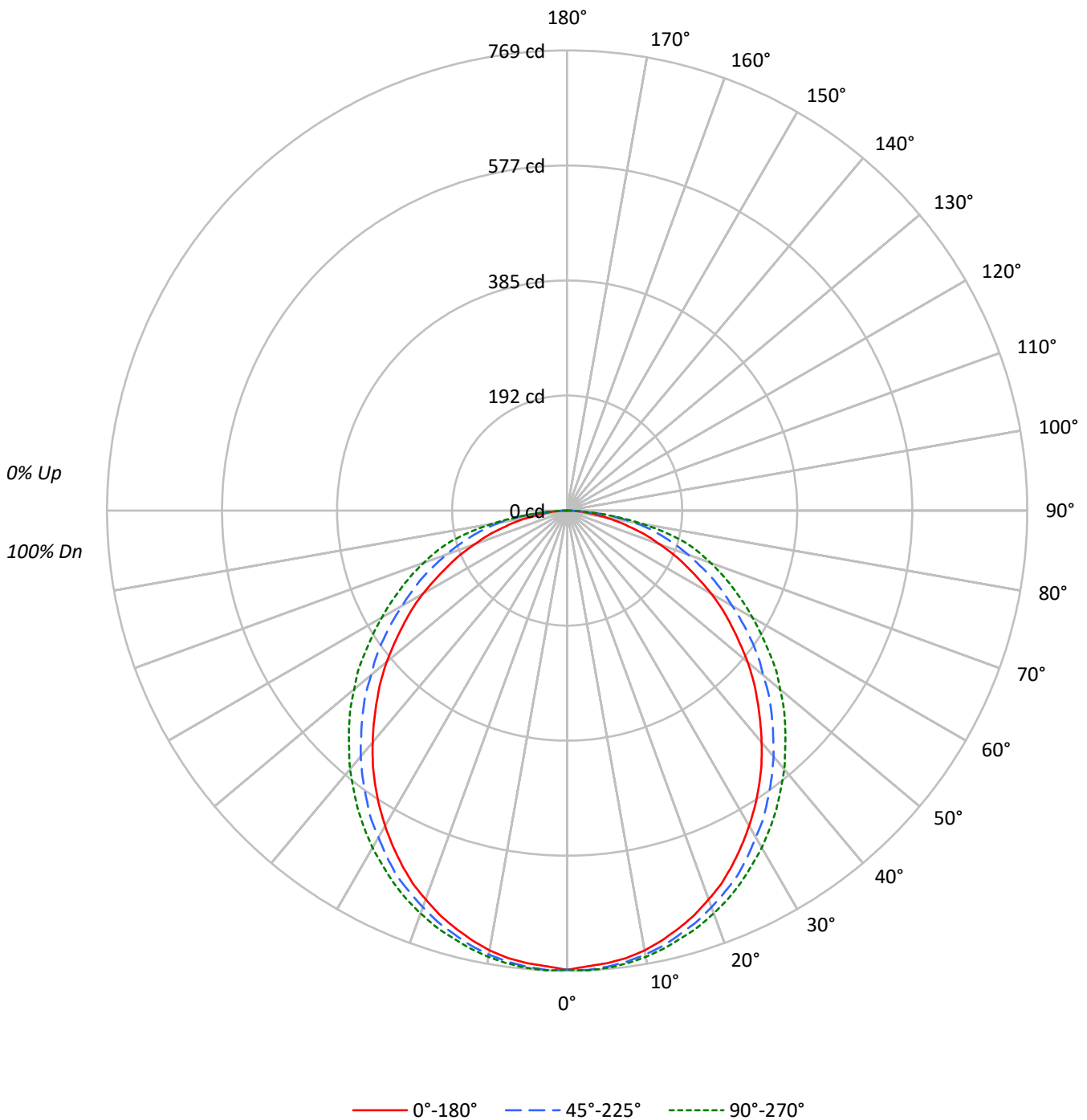
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P389158

CATALOG NUMBER: 22CZ2-24VHE-S-UNV-L930-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P389158

CATALOG NUMBER: 22CZ2-24VHE-S-UNV-L930-CD1-SWPD1-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	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°	2065	2065	2065
5°	2051	2067	2073
10°	2039	2058	2069
15°	2012	2040	2060
20°	1980	2020	2051
25°	1940	1999	2038
30°	1890	1959	2021
35°	1838	1923	2002
40°	1776	1885	1983
45°	1711	1840	1962
50°	1648	1790	1945
55°	1570	1758	1931
60°	1500	1715	1925
65°	1400	1705	1947
70°	1289	1690	2005
75°	1163	1713	2109
80°	1006	1765	1982
85°	834	1482	1482



TEST NUMBER: P389158

CATALOG NUMBER: 22CZ2-24VHE-S-UNV-L930-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.6	3.4
10°-20°	206.5	9.6
20°-30°	309.0	14.4
30°-40°	365.9	17.1
40°-50°	372.9	17.4
50°-60°	334.2	15.6
60°-70°	261.7	12.2
70°-80°	168.7	7.9
80°-90°	49.9	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°	588.0	27.5
0°-40°	953.9	44.5
0°-60°	1661.1	77.6
0°-90°	2141.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2141.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	767	767	767	767	767	
5°	759	761	765	766	767	72
15°	722	726	732	738	739	204
25°	653	659	673	682	686	301
35°	560	566	586	603	609	350
45°	450	460	484	508	516	347
55°	335	346	375	401	412	300
65°	220	233	268	294	306	218
75°	112	129	165	193	203	120
85°	27	37	48	48	48	32
90°	0	0	0	0	0	



TEST NUMBER: P389158

CATALOG NUMBER: 22CZ2-24VHE-S-UNV-L930-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	767.3	767.3	767.3	767.3	767.3
2.5°	762.3	764.3	768.3	769.3	769.3
5°	759.3	761.3	765.3	766.3	767.3
7.5°	754.3	755.3	760.3	762.3	763.3
10°	746.3	748.3	753.3	756.3	757.3
12.5°	735.3	738.3	744.3	748.3	749.3
15°	722.3	726.3	732.3	738.3	739.3
17.5°	708.3	712.3	720.3	727.3	729.3
20°	691.4	696.4	705.4	713.3	716.3
22.5°	674.4	678.4	689.4	699.4	702.4
25°	653.4	659.4	673.4	682.4	686.4
27.5°	631.4	638.4	652.4	664.4	668.4
30°	608.4	615.4	630.4	645.4	650.4
32.5°	584.5	592.5	610.4	625.4	630.4
35°	559.5	566.5	585.5	603.4	609.4
37.5°	533.5	539.5	561.5	580.5	586.5
40°	505.5	513.5	536.5	558.5	564.5
42.5°	477.6	486.6	509.5	533.5	539.5
45°	449.6	459.6	483.6	508.5	515.5
47.5°	422.6	430.6	457.6	481.6	491.5
50°	393.6	401.6	427.6	454.6	464.6
52.5°	363.7	374.7	402.6	428.6	440.6
55°	334.7	345.7	374.7	400.6	411.6
57.5°	307.7	316.7	346.7	373.7	384.6
60°	278.7	286.7	318.7	347.7	357.7
62.5°	247.8	259.8	292.7	319.7	331.7
65°	219.8	232.8	267.8	293.7	305.7
67.5°	193.8	205.8	239.8	267.8	280.7
70°	163.8	179.8	214.8	242.8	254.8
72.5°	139.9	153.9	189.8	217.8	230.8
75°	111.9	128.9	164.8	192.8	202.8
77.5°	88.9	105.9	139.9	161.9	166.8
80°	64.9	81.9	113.9	124.9	127.9
82.5°	44.0	59.9	81.9	84.9	85.9
85°	27.0	37.0	48.0	48.0	48.0
87.5°	13.0	15.0	17.0	16.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)