

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: P388221

Luminaire Tested: **22CZ2-24VHE-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: P388221
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: 22CZ2-24VHE-UNV-L930-CD1-SDWPD1-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: 2013.3 lumens
Efficiency: N/A
Efficacy: 115.0 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

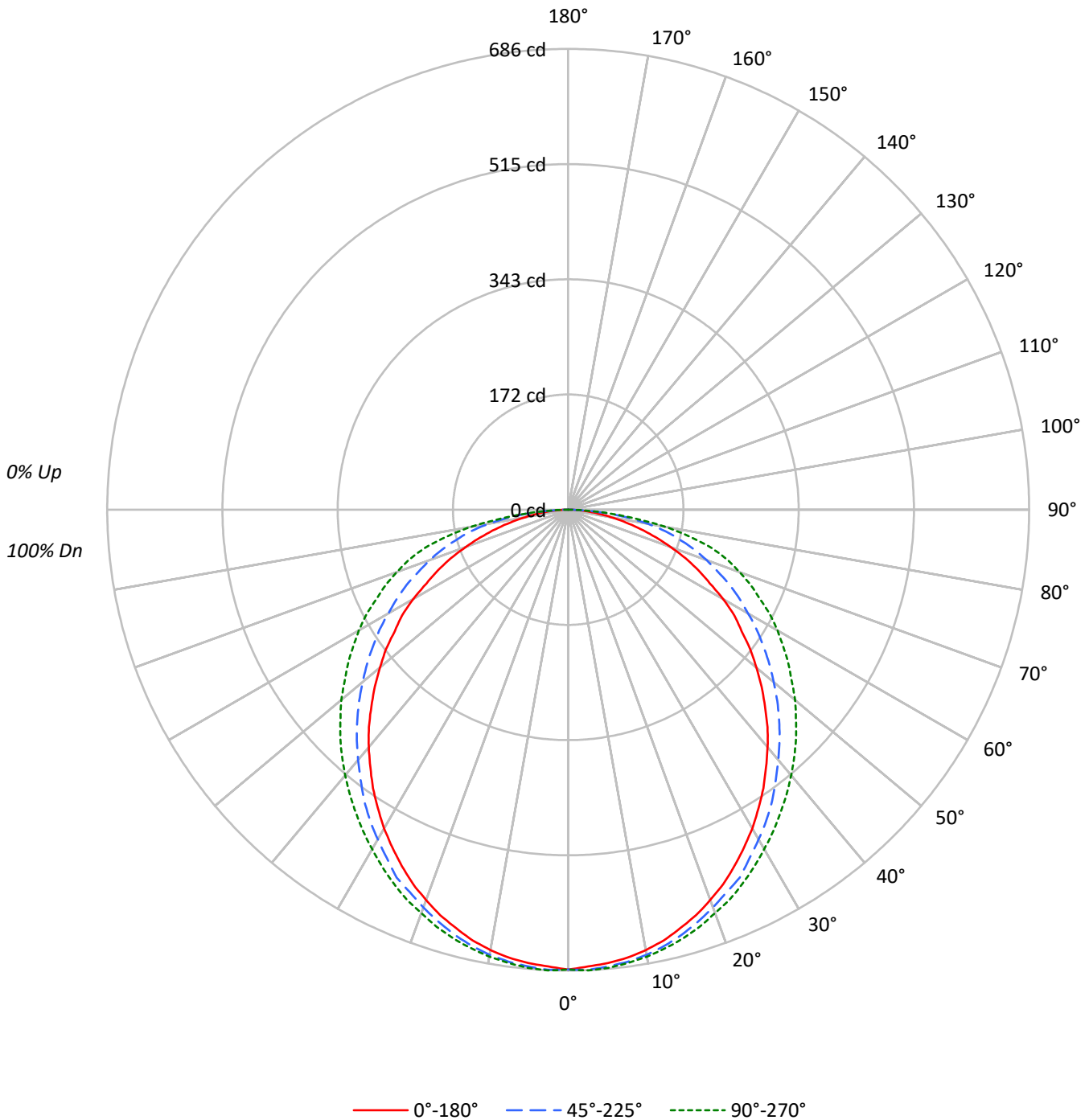
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1842	1842	1842
5°	1830	1844	1849
10°	1819	1838	1846
15°	1797	1824	1841
20°	1770	1804	1830
25°	1738	1794	1824
30°	1702	1761	1813
35°	1663	1738	1809
40°	1622	1709	1813
45°	1576	1689	1825
50°	1531	1671	1846
55°	1478	1664	1878
60°	1434	1664	1935
65°	1363	1691	2006
70°	1271	1722	2135
75°	1163	1782	2307
80°	1013	1858	2272
85°	886	1652	1806



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.7	3.2
10°-20°	184.4	9.2
20°-30°	276.8	13.7
30°-40°	330.8	16.4
40°-50°	344.0	17.1
50°-60°	318.8	15.8
60°-70°	261.5	13.0
70°-80°	176.8	8.8
80°-90°	55.6	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°	526.0	26.1
0°-40°	856.7	42.6
0°-60°	1519.5	75.5
0°-90°	2013.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2013.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	685	685	685	685	685	
5°	678	679	683	684	685	64
15°	645	648	655	659	661	182
25°	586	590	604	611	614	270
35°	506	513	529	545	551	316
45°	414	422	444	470	480	320
55°	315	325	355	386	400	283
65°	214	226	266	300	315	212
75°	112	131	171	206	222	119
85°	29	40	54	59	58	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	684.6	684.6	684.6	684.6	684.6
2.5°	680.6	682.6	685.5	686.5	686.5
5°	677.6	678.6	682.6	683.6	684.6
7.5°	672.7	674.7	678.6	679.6	680.6
10°	665.7	667.7	672.7	674.7	675.6
12.5°	656.8	658.8	664.7	667.7	668.7
15°	644.9	647.9	654.8	658.8	660.8
17.5°	633.0	636.0	643.0	648.9	650.9
20°	618.2	625.1	630.1	638.0	639.0
22.5°	603.3	607.3	616.2	624.1	628.1
25°	585.5	590.4	604.3	611.2	614.2
27.5°	566.7	573.6	584.5	595.4	599.4
30°	547.8	552.8	566.7	579.5	583.5
32.5°	527.0	534.0	548.8	561.7	567.7
35°	506.2	513.2	529.0	544.9	550.8
37.5°	483.5	491.4	507.2	526.1	534.0
40°	461.7	467.6	486.4	509.2	516.1
42.5°	438.9	445.8	465.6	490.4	498.3
45°	414.1	422.0	443.8	469.6	479.5
47.5°	390.3	398.3	422.0	447.8	459.7
50°	365.6	375.5	399.2	429.0	440.9
52.5°	341.8	350.7	377.4	408.2	419.1
55°	315.0	324.9	354.7	386.4	400.2
57.5°	293.2	300.2	332.9	365.6	379.4
60°	266.5	275.4	309.1	343.8	359.6
62.5°	237.8	252.6	287.3	323.0	338.8
65°	214.0	225.9	265.5	300.2	315.0
67.5°	189.2	202.1	240.7	277.4	294.2
70°	161.5	178.3	218.9	255.6	271.4
72.5°	136.7	154.5	196.2	231.8	248.7
75°	111.9	130.8	171.4	206.1	221.9
77.5°	88.2	109.0	148.6	175.4	185.3
80°	65.4	85.2	119.9	138.7	146.6
82.5°	45.6	62.4	88.2	98.1	100.1
85°	28.7	39.6	53.5	59.4	58.5
87.5°	12.9	15.9	19.8	21.8	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)