

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: P389161

Luminaire Tested: **22CZ2-24VHE-S-UNV-L935-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: P389161
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-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2194.3 lumens
Efficiency: N/A
Efficacy: 125.4 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

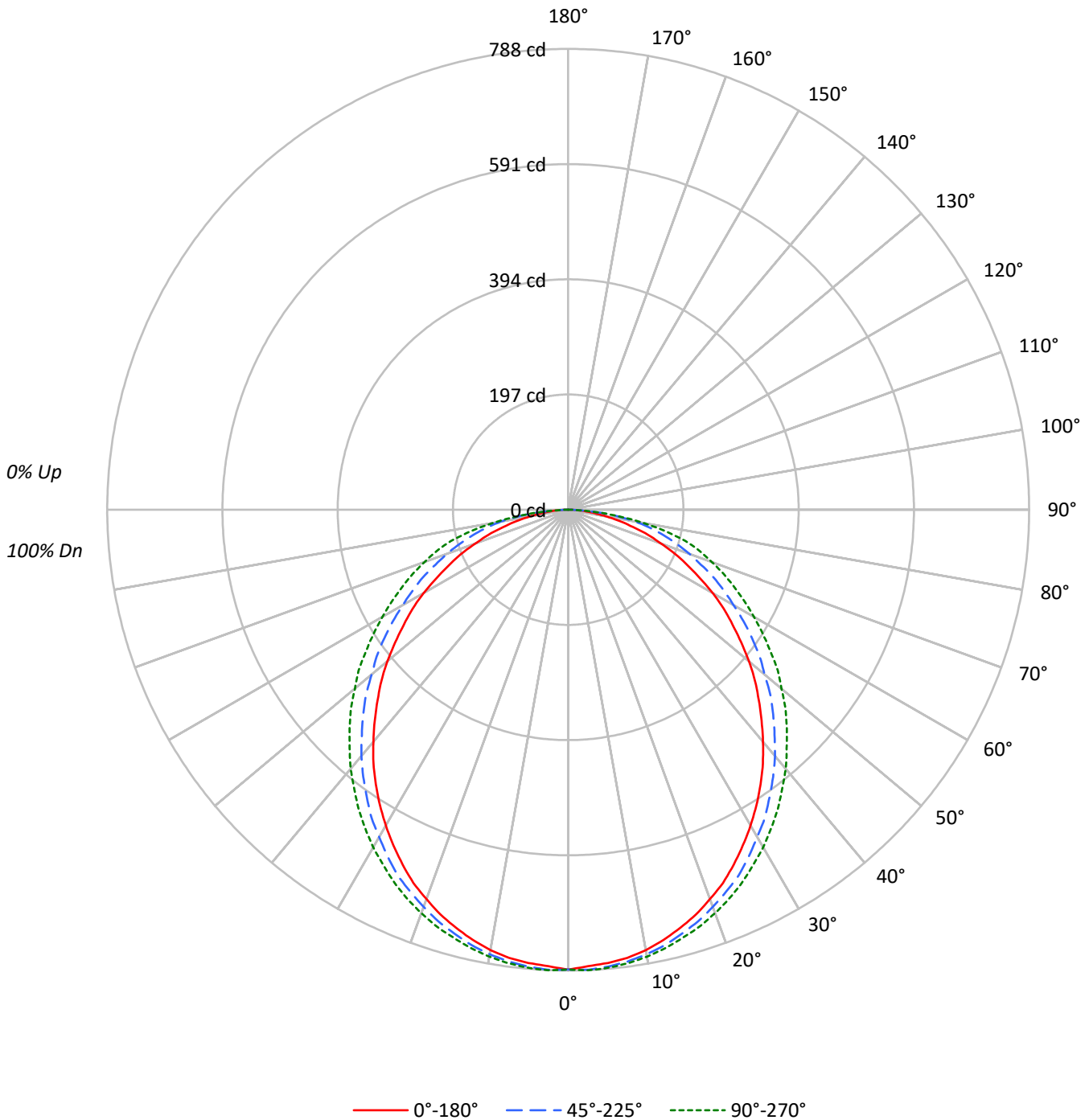
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2116	2116	2116
5°	2102	2118	2124
10°	2090	2109	2120
15°	2062	2091	2111
20°	2029	2070	2102
25°	1988	2049	2089
30°	1937	2007	2071
35°	1883	1971	2052
40°	1820	1931	2032
45°	1753	1886	2011
50°	1689	1834	1993
55°	1609	1801	1979
60°	1537	1758	1972
65°	1434	1747	1995
70°	1321	1732	2054
75°	1193	1756	2161
80°	1031	1808	2030
85°	852	1516	1516



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.4	3.4
10°-20°	211.6	9.6
20°-30°	316.6	14.4
30°-40°	375.0	17.1
40°-50°	382.1	17.4
50°-60°	342.5	15.6
60°-70°	268.1	12.2
70°-80°	172.9	7.9
80°-90°	51.1	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°	602.6	27.5
0°-40°	977.5	44.5
0°-60°	1702.2	77.6
0°-90°	2194.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2194.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	778	780	784	785	786	74
15°	740	744	750	757	758	209
25°	670	676	690	699	703	308
35°	573	580	600	618	624	358
45°	461	471	496	521	528	356
55°	343	354	384	410	422	308
65°	225	238	274	301	313	224
75°	115	132	169	198	208	123
85°	28	38	49	49	49	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	786.3	786.3	786.3	786.3	786.3
2.5°	781.2	783.2	787.3	788.3	788.3
5°	778.1	780.1	784.2	785.3	786.3
7.5°	773.0	774.0	779.1	781.2	782.2
10°	764.8	766.8	772.0	775.0	776.0
12.5°	753.5	756.6	762.7	766.8	767.9
15°	740.2	744.3	750.5	756.6	757.6
17.5°	725.9	730.0	738.2	745.3	747.4
20°	708.5	713.6	722.8	731.0	734.1
22.5°	691.1	695.2	706.4	716.7	719.7
25°	669.6	675.7	690.0	699.3	703.4
27.5°	647.0	654.2	668.5	680.8	684.9
30°	623.5	630.7	646.0	661.4	666.5
32.5°	598.9	607.1	625.5	640.9	646.0
35°	573.3	580.5	600.0	618.4	624.5
37.5°	546.7	552.9	575.4	594.8	601.0
40°	518.0	526.2	549.8	572.3	578.5
42.5°	489.4	498.6	522.1	546.7	552.9
45°	460.7	471.0	495.5	521.1	528.3
47.5°	433.1	441.3	468.9	493.5	503.7
50°	403.4	411.6	438.2	465.8	476.1
52.5°	372.7	383.9	412.6	439.2	451.5
55°	343.0	354.2	383.9	410.5	421.8
57.5°	315.3	324.5	355.3	382.9	394.2
60°	285.6	293.8	326.6	356.3	366.5
62.5°	253.9	266.2	300.0	327.6	339.9
65°	225.2	238.5	274.4	301.0	313.3
67.5°	198.6	210.9	245.7	274.4	287.7
70°	167.9	184.3	220.1	248.8	261.1
72.5°	143.3	157.7	194.5	223.2	236.5
75°	114.7	132.1	168.9	197.6	207.8
77.5°	91.1	108.5	143.3	165.9	171.0
80°	66.5	84.0	116.7	128.0	131.0
82.5°	45.0	61.4	84.0	87.0	88.0
85°	27.6	37.9	49.1	49.1	49.1
87.5°	13.3	15.4	17.4	16.4	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)