

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: P387770

Luminaire Tested: **22CZ2-24VHE-SQR-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: P387770
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24VHE-SQR-UNV-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1981.8 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

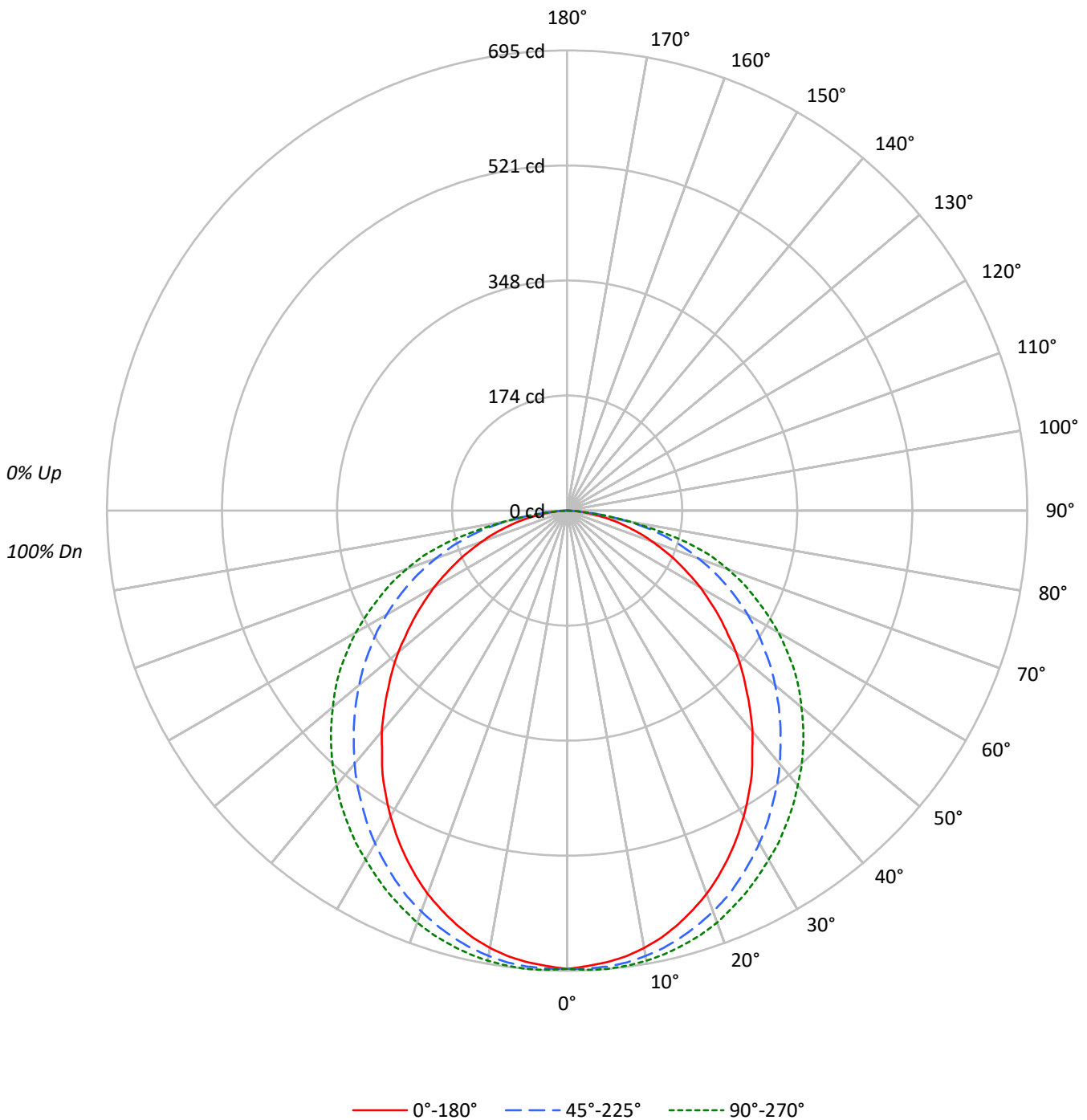
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1863	1863	1863
5°	1850	1867	1878
10°	1833	1866	1887
15°	1803	1858	1892
20°	1764	1845	1896
25°	1715	1827	1893
30°	1657	1803	1891
35°	1598	1777	1897
40°	1530	1755	1903
45°	1457	1733	1919
50°	1394	1717	1933
55°	1319	1704	1964
60°	1250	1696	1984
65°	1168	1683	2001
70°	1073	1658	2028
75°	968	1614	1956
80°	831	1429	1472
85°	667	843	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.6	3.3
10°-20°	187.6	9.5
20°-30°	281.8	14.2
30°-40°	336.1	17.0
40°-50°	347.5	17.5
50°-60°	319.5	16.1
60°-70°	254.4	12.8
70°-80°	155.4	7.8
80°-90°	33.8	1.7
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°	535.1	27.0
0°-40°	871.2	44.0
0°-60°	1538.3	77.6
0°-90°	1981.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1981.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	692	692	692	692	692	
5°	685	687	691	694	695	65
15°	647	655	667	676	679	182
25°	578	592	615	632	638	266
35°	486	507	541	569	578	303
45°	383	410	455	492	504	296
55°	281	312	363	404	419	252
65°	183	214	264	301	314	182
75°	93	120	155	182	188	99
85°	22	26	27	24	22	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	692.3	692.3	692.3	692.3	692.3
2.5°	688.5	689.5	692.3	694.2	694.2
5°	684.8	686.6	691.3	694.2	695.1
7.5°	679.1	681.9	688.5	692.3	693.2
10°	670.7	674.4	682.9	688.5	690.4
12.5°	660.3	666.0	676.3	683.8	685.7
15°	647.1	654.7	666.9	676.3	679.1
17.5°	632.1	641.5	656.5	667.8	671.6
20°	616.1	625.5	644.3	657.5	662.2
22.5°	597.3	609.5	631.2	646.2	650.0
25°	577.5	591.6	615.2	632.1	637.7
27.5°	555.9	572.8	598.2	618.9	623.6
30°	533.3	551.2	580.4	602.9	608.6
32.5°	509.8	530.5	561.5	586.9	594.5
35°	486.3	507.0	540.9	569.1	577.5
37.5°	459.0	483.5	521.1	550.3	560.6
40°	435.5	459.0	499.5	531.4	541.8
42.5°	409.2	434.6	476.9	511.7	523.9
45°	382.8	410.1	455.3	491.9	504.2
47.5°	358.4	385.7	432.7	471.2	483.5
50°	333.0	361.2	410.1	449.6	461.8
52.5°	305.7	336.7	387.5	427.0	441.1
55°	281.2	312.3	363.1	404.5	418.6
57.5°	255.8	287.8	340.5	380.0	393.2
60°	232.3	263.4	315.1	353.7	368.7
62.5°	206.9	238.9	289.7	327.3	341.4
65°	183.4	214.5	264.3	301.0	314.2
67.5°	159.9	190.9	238.0	272.8	287.8
70°	136.4	167.4	210.7	244.6	257.7
72.5°	115.7	143.0	184.4	215.4	227.6
75°	93.1	120.4	155.2	182.5	188.1
77.5°	72.4	96.9	126.0	138.3	140.2
80°	53.6	72.4	92.2	95.0	95.0
82.5°	35.7	49.9	57.4	58.3	57.4
85°	21.6	26.3	27.3	23.5	21.6
87.5°	7.5	7.5	4.7	2.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)