

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: P389165

Luminaire Tested: **22CZ2-24VHE-S-UNV-L940-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: P389165
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-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2244.8 lumens
Efficiency: N/A
Efficacy: 128.3 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

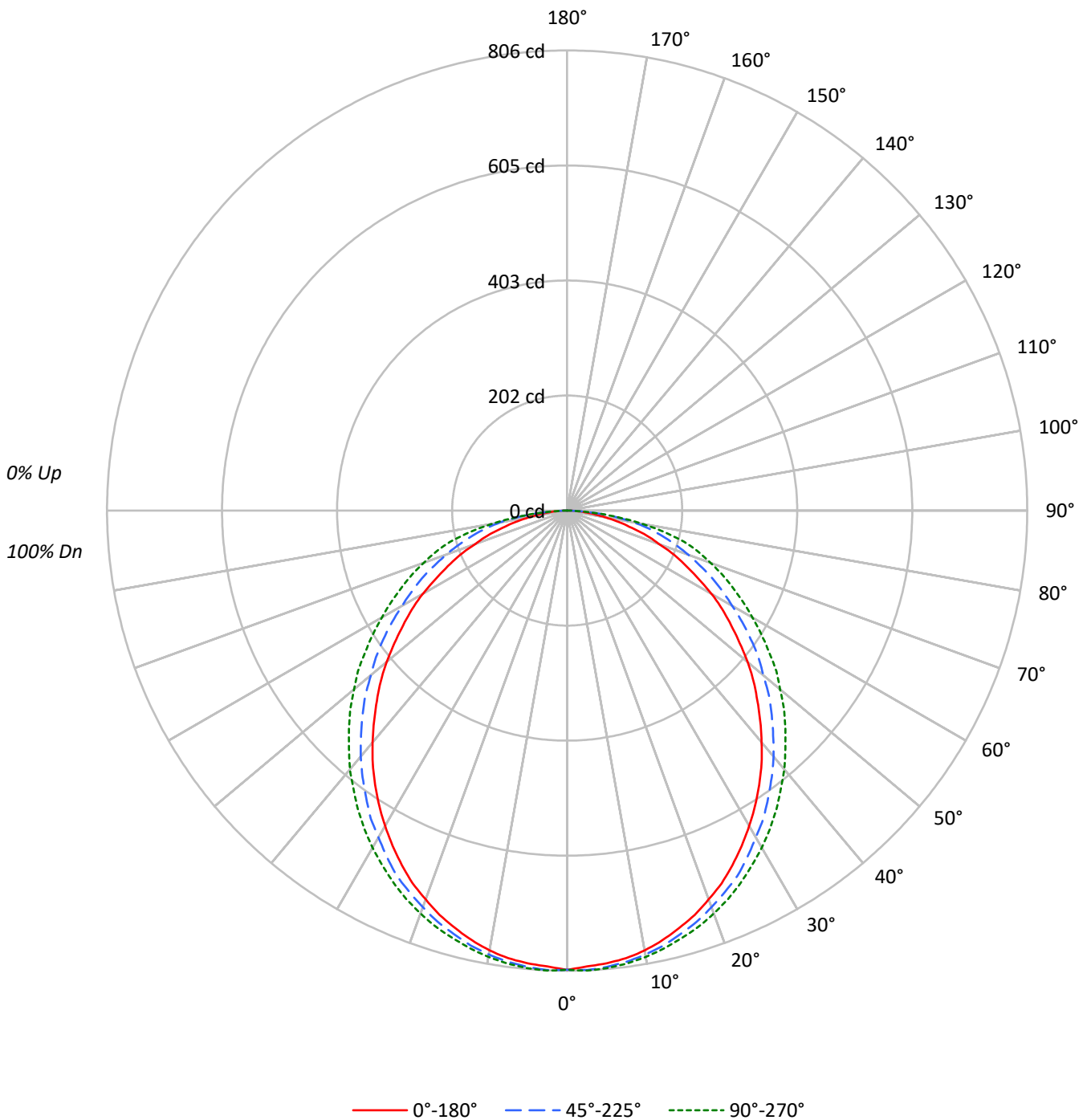
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2165	2165	2165
5°	2150	2167	2173
10°	2138	2158	2169
15°	2110	2139	2159
20°	2076	2117	2151
25°	2034	2096	2136
30°	1982	2054	2119
35°	1927	2016	2099
40°	1862	1976	2079
45°	1794	1929	2057
50°	1728	1877	2039
55°	1646	1843	2024
60°	1573	1798	2018
65°	1467	1787	2041
70°	1352	1772	2102
75°	1220	1797	2210
80°	1055	1850	2078
85°	874	1553	1553



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	3.4
10°-20°	216.5	9.6
20°-30°	323.9	14.4
30°-40°	383.6	17.1
40°-50°	390.9	17.4
50°-60°	350.4	15.6
60°-70°	274.3	12.2
70°-80°	176.9	7.9
80°-90°	52.3	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°	616.5	27.5
0°-40°	1000.0	44.5
0°-60°	1741.3	77.6
0°-90°	2244.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2244.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	804	804	804	804	804	
5°	796	798	802	803	804	76
15°	757	761	768	774	775	214
25°	685	691	706	715	720	315
35°	586	594	614	633	639	367
45°	471	482	507	533	540	364
55°	351	362	393	420	432	315
65°	230	244	281	308	320	229
75°	117	135	173	202	213	126
85°	28	39	50	50	50	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	804.4	804.4	804.4	804.4	804.4
2.5°	799.1	801.2	805.4	806.5	806.5
5°	796.0	798.1	802.3	803.3	804.4
7.5°	790.8	791.8	797.1	799.1	800.2
10°	782.4	784.5	789.7	792.9	793.9
12.5°	770.9	774.0	780.3	784.5	785.5
15°	757.3	761.4	767.7	774.0	775.1
17.5°	742.6	746.8	755.2	762.5	764.6
20°	724.8	730.0	739.4	747.8	751.0
22.5°	707.0	711.2	722.7	733.2	736.3
25°	685.0	691.3	705.9	715.4	719.5
27.5°	661.9	669.3	683.9	696.5	700.7
30°	637.8	645.2	660.9	676.6	681.8
32.5°	612.7	621.1	639.9	655.7	660.9
35°	586.5	593.9	613.8	632.6	638.9
37.5°	559.3	565.6	588.6	608.5	614.8
40°	530.0	538.3	562.4	585.5	591.8
42.5°	500.6	510.1	534.2	559.3	565.6
45°	471.3	481.8	506.9	533.1	540.4
47.5°	443.0	451.4	479.7	504.8	515.3
50°	412.7	421.0	448.3	476.6	487.0
52.5°	381.2	392.8	422.1	449.3	461.9
55°	350.9	362.4	392.8	420.0	431.5
57.5°	322.6	332.0	363.4	391.7	403.2
60°	292.2	300.6	334.1	364.5	375.0
62.5°	259.7	272.3	306.9	335.2	347.7
65°	230.4	244.0	280.7	307.9	320.5
67.5°	203.2	215.8	251.4	280.7	294.3
70°	171.8	188.5	225.2	254.5	267.1
72.5°	146.6	161.3	199.0	228.3	241.9
75°	117.3	135.1	172.8	202.1	212.6
77.5°	93.2	111.0	146.6	169.7	174.9
80°	68.1	85.9	119.4	130.9	134.1
82.5°	46.1	62.8	85.9	89.0	90.1
85°	28.3	38.8	50.3	50.3	50.3
87.5°	13.6	15.7	17.8	16.8	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)