

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: P389159

Luminaire Tested: **22CZ2-24VHE-S-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: P389159
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-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: 2168.2 lumens
Efficiency: N/A
Efficacy: 123.9 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

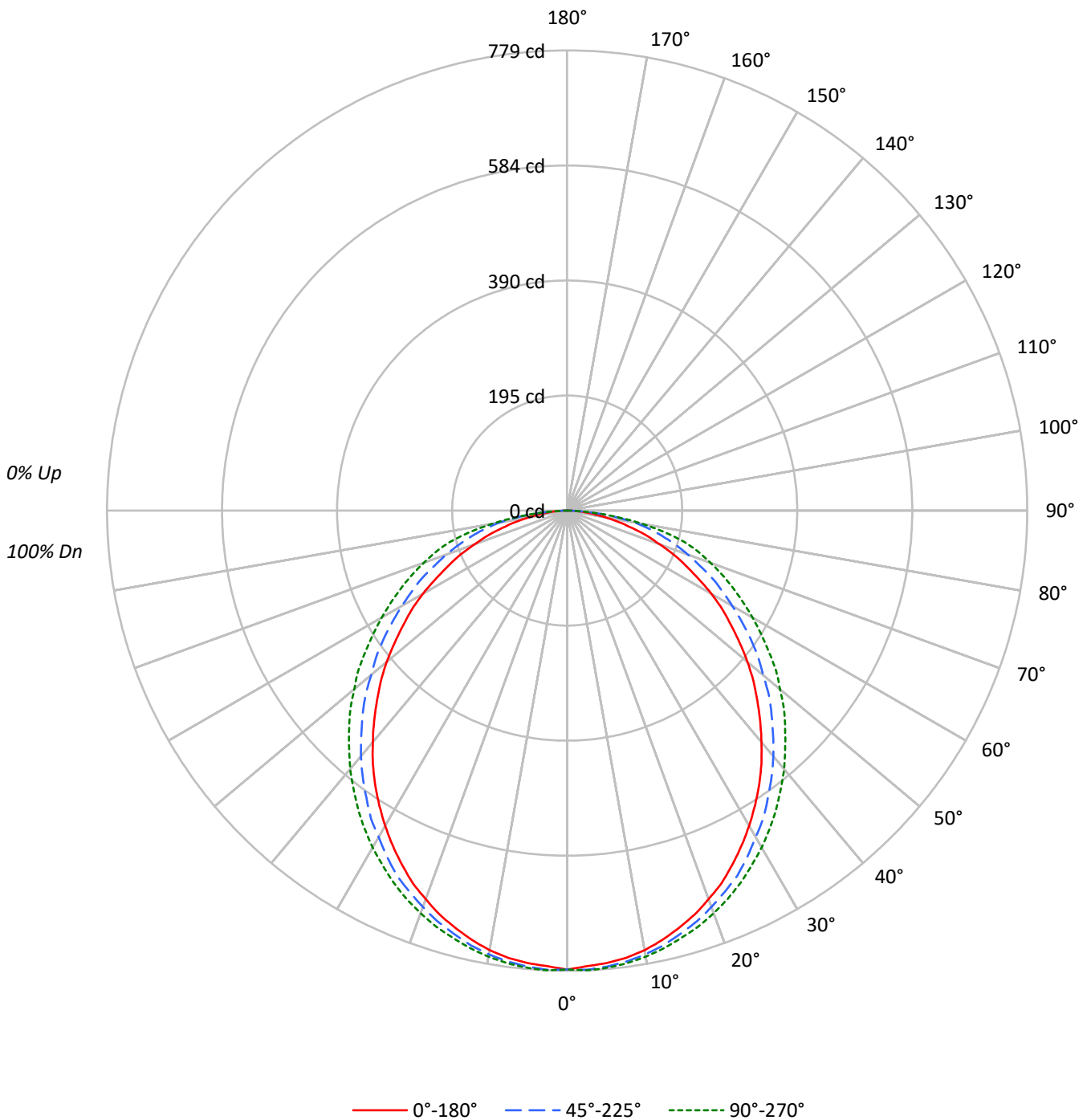
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2091	2091	2091
5°	2077	2093	2099
10°	2065	2084	2095
15°	2038	2066	2086
20°	2005	2045	2077
25°	1964	2024	2064
30°	1914	1983	2046
35°	1861	1947	2027
40°	1798	1908	2008
45°	1732	1863	1987
50°	1669	1813	1969
55°	1590	1780	1955
60°	1519	1737	1949
65°	1417	1726	1971
70°	1305	1711	2030
75°	1178	1735	2136
80°	1020	1787	2007
85°	843	1501	1501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.5	3.4
10°-20°	209.1	9.6
20°-30°	312.9	14.4
30°-40°	370.5	17.1
40°-50°	377.6	17.4
50°-60°	338.4	15.6
60°-70°	265.0	12.2
70°-80°	170.8	7.9
80°-90°	50.5	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°	595.4	27.5
0°-40°	965.9	44.5
0°-60°	1681.9	77.6
0°-90°	2168.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2168.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	777	777	777	777	777	
5°	769	771	775	776	777	73
15°	731	736	742	748	749	206
25°	662	668	682	691	695	305
35°	566	574	593	611	617	354
45°	455	465	490	515	522	352
55°	339	350	379	406	417	304
65°	223	236	271	297	310	221
75°	113	130	167	195	205	121
85°	27	37	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°	776.9	776.9	776.9	776.9	776.9
2.5°	771.9	773.9	777.9	779.0	779.0
5°	768.8	770.9	774.9	775.9	776.9
7.5°	763.8	764.8	769.9	771.9	772.9
10°	755.7	757.7	762.8	765.8	766.8
12.5°	744.6	747.6	753.7	757.7	758.7
15°	731.4	735.5	741.5	747.6	748.6
17.5°	717.2	721.3	729.4	736.5	738.5
20°	700.0	705.1	714.2	722.3	725.3
22.5°	682.9	686.9	698.0	708.1	711.2
25°	661.6	667.7	681.8	690.9	695.0
27.5°	639.4	646.4	660.6	672.7	676.8
30°	616.1	623.2	638.3	653.5	658.6
32.5°	591.8	599.9	618.1	633.3	638.3
35°	566.5	573.6	592.8	611.0	617.1
37.5°	540.2	546.3	568.5	587.8	593.8
40°	511.9	520.0	543.2	565.5	571.6
42.5°	483.6	492.7	515.9	540.2	546.3
45°	455.2	465.4	489.6	514.9	522.0
47.5°	427.9	436.0	463.3	487.6	497.7
50°	398.6	406.7	433.0	460.3	470.4
52.5°	368.2	379.4	407.7	434.0	446.1
55°	338.9	350.0	379.4	405.7	416.8
57.5°	311.6	320.7	351.0	378.4	389.5
60°	282.2	290.3	322.7	352.0	362.2
62.5°	250.9	263.0	296.4	323.7	335.9
65°	222.6	235.7	271.1	297.4	309.6
67.5°	196.3	208.4	242.8	271.1	284.3
70°	165.9	182.1	217.5	245.8	258.0
72.5°	141.6	155.8	192.2	220.5	233.7
75°	113.3	130.5	166.9	195.2	205.4
77.5°	90.0	107.2	141.6	163.9	168.9
80°	65.8	83.0	115.3	126.5	129.5
82.5°	44.5	60.7	83.0	86.0	87.0
85°	27.3	37.4	48.6	48.6	48.6
87.5°	13.2	15.2	17.2	16.2	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)