

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: P388228

Luminaire Tested: **22CZ2-24VHE-UNV-L940-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: P388228
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-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2109.9 lumens
Efficiency: N/A
Efficacy: 120.6 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

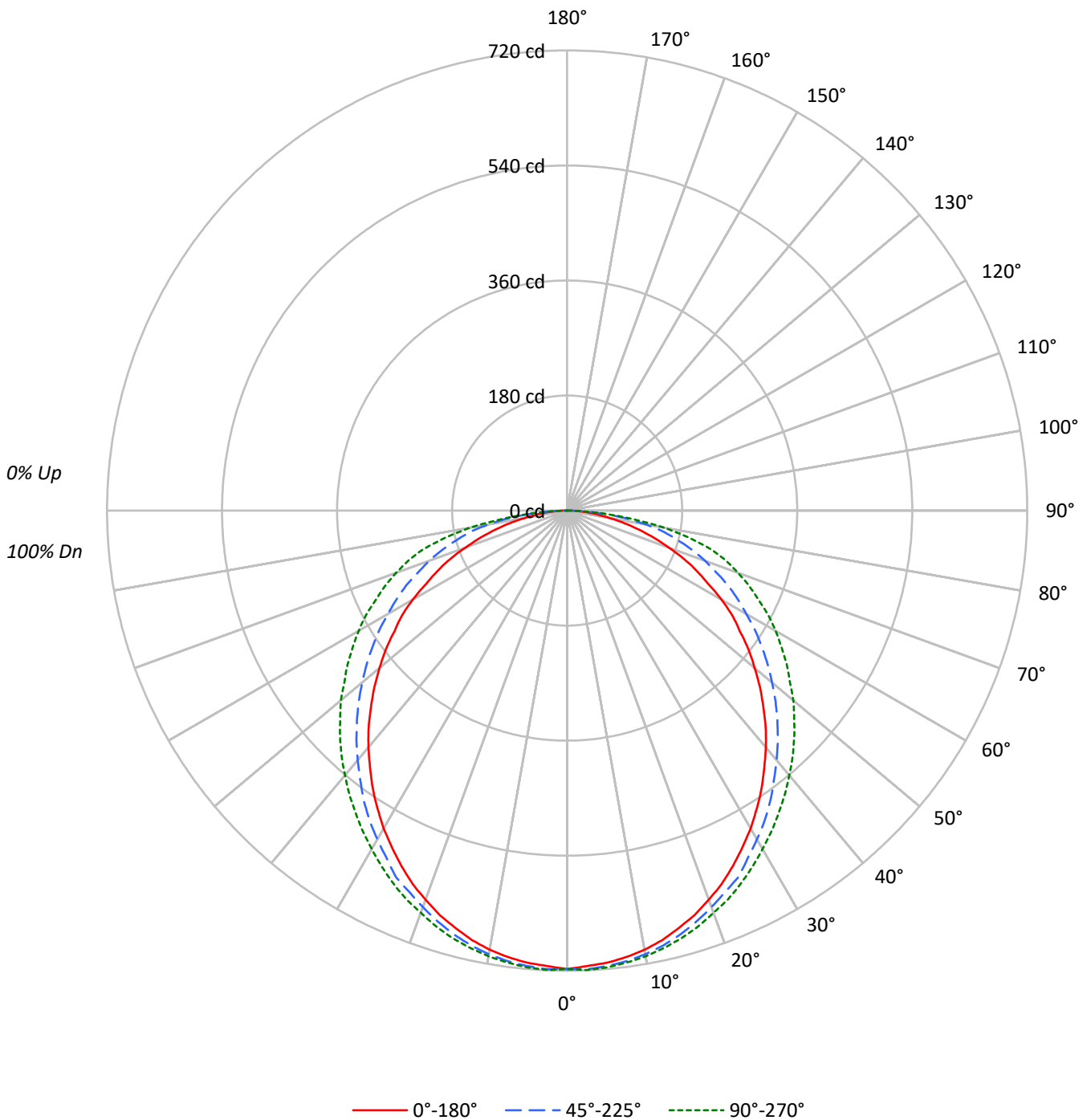
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1931	1931	1931
5°	1918	1932	1938
10°	1906	1926	1935
15°	1883	1912	1929
20°	1855	1891	1918
25°	1822	1880	1911
30°	1784	1845	1900
35°	1743	1821	1896
40°	1700	1791	1900
45°	1652	1770	1912
50°	1604	1752	1934
55°	1549	1744	1968
60°	1503	1743	2028
65°	1428	1771	2103
70°	1331	1805	2238
75°	1220	1867	2418
80°	1062	1946	2382
85°	929	1732	1893



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.8	3.2
10°-20°	193.2	9.2
20°-30°	290.1	13.7
30°-40°	346.7	16.4
40°-50°	360.5	17.1
50°-60°	334.1	15.8
60°-70°	274.0	13.0
70°-80°	185.2	8.8
80°-90°	58.2	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°	551.2	26.1
0°-40°	897.8	42.6
0°-60°	1592.4	75.5
0°-90°	2109.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2109.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	717	717	717	717	717	
5°	710	711	715	716	717	67
15°	676	679	686	690	692	191
25°	614	619	633	641	644	283
35°	530	538	554	571	577	332
45°	434	442	465	492	502	335
55°	330	340	372	405	419	297
65°	224	237	278	315	330	222
75°	117	137	180	216	233	124
85°	30	42	56	62	61	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	717.4	717.4	717.4	717.4	717.4
2.5°	713.3	715.3	718.4	719.5	719.5
5°	710.1	711.2	715.3	716.4	717.4
7.5°	704.9	707.0	711.2	712.2	713.3
10°	697.7	699.8	704.9	707.0	708.1
12.5°	688.3	690.4	696.6	699.8	700.8
15°	675.9	679.0	686.3	690.4	692.5
17.5°	663.4	666.5	673.8	680.0	682.1
20°	647.8	655.1	660.3	668.6	669.6
22.5°	632.3	636.4	645.8	654.1	658.2
25°	613.6	618.8	633.3	640.6	643.7
27.5°	593.9	601.1	612.5	624.0	628.1
30°	574.1	579.3	593.9	607.4	611.5
32.5°	552.3	559.6	575.2	588.7	594.9
35°	530.5	537.8	554.4	571.0	577.2
37.5°	506.6	515.0	531.6	551.3	559.6
40°	483.8	490.0	509.8	533.6	540.9
42.5°	459.9	467.2	488.0	513.9	522.2
45°	434.0	442.3	465.1	492.1	502.5
47.5°	409.1	417.4	442.3	469.3	481.7
50°	383.1	393.5	418.4	449.5	462.0
52.5°	358.2	367.5	395.6	427.7	439.2
55°	330.2	340.5	371.7	404.9	419.4
57.5°	307.3	314.6	348.8	383.1	397.6
60°	279.3	288.6	323.9	360.3	376.9
62.5°	249.2	264.7	301.1	338.5	355.1
65°	224.3	236.7	278.2	314.6	330.2
67.5°	198.3	211.8	252.3	290.7	308.3
70°	169.2	186.9	229.4	267.9	284.5
72.5°	143.3	162.0	205.6	242.9	260.6
75°	117.3	137.0	179.6	215.9	232.6
77.5°	92.4	114.2	155.7	183.8	194.1
80°	68.5	89.3	125.6	145.3	153.7
82.5°	47.8	65.4	92.4	102.8	104.9
85°	30.1	41.5	56.1	62.3	61.3
87.5°	13.5	16.6	20.8	22.8	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)