

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: P390223

Luminaire Tested: **22CZ2-29VHE-HRP-UNV-L950-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: P390223
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29VHE-HRP-UNV-L950-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2366.9 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

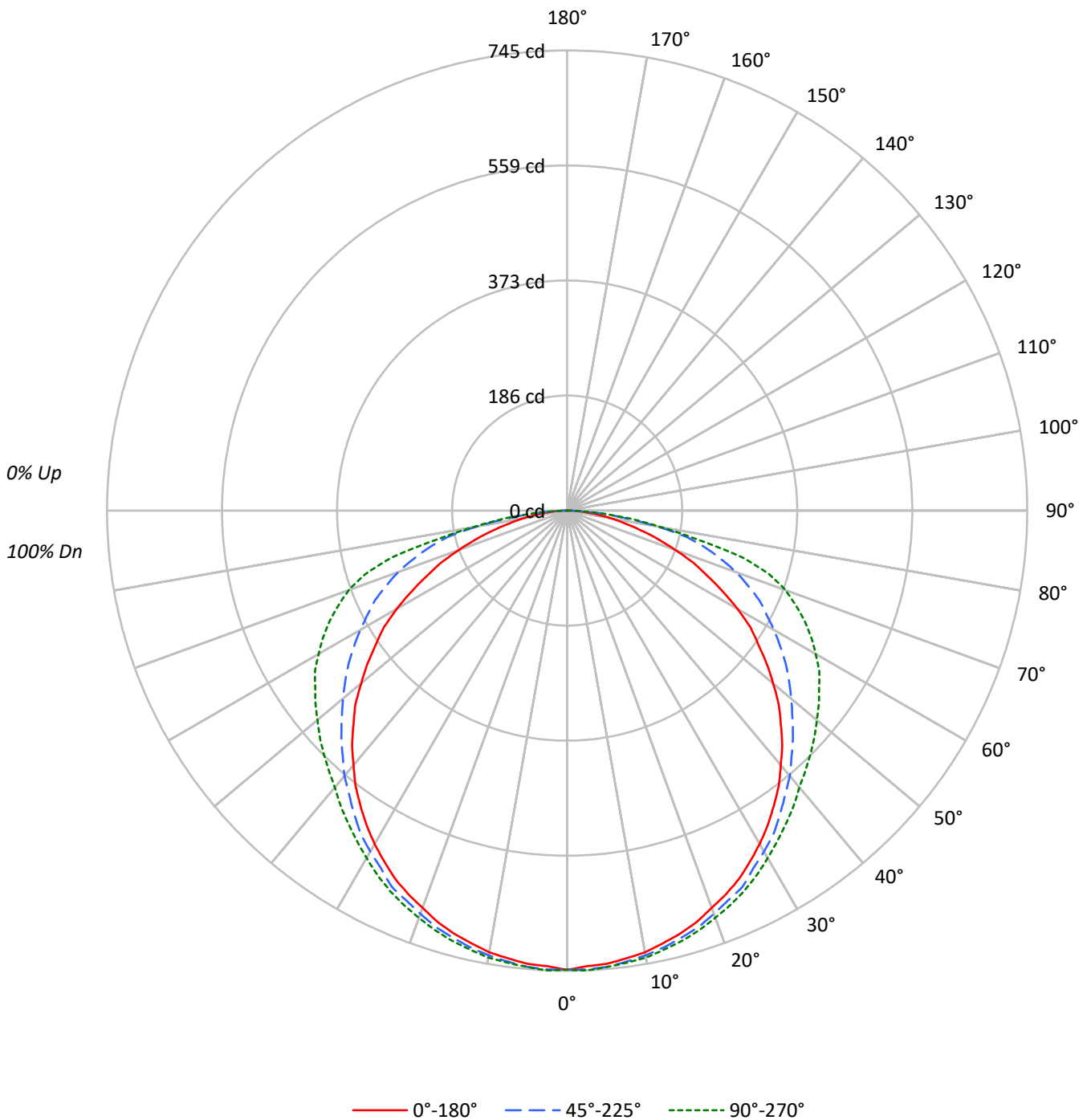
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2001	2001	2001
5°	1989	2004	2004
10°	1984	1998	2008
15°	1974	1994	2008
20°	1960	1989	2009
25°	1954	1996	2016
30°	1937	1980	2018
35°	1916	1973	2031
40°	1890	1970	2055
45°	1862	1968	2120
50°	1822	1983	2209
55°	1772	2026	2336
60°	1715	2080	2502
65°	1596	2184	2705
70°	1466	2288	2959
75°	1285	2408	3060
80°	1106	2294	2402
85°	966	1667	1828



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.3	3.0
10°-20°	201.9	8.5
20°-30°	308.1	13.0
30°-40°	376.2	15.9
40°-50°	402.2	17.0
50°-60°	388.2	16.4
60°-70°	334.2	14.1
70°-80°	226.1	9.6
80°-90°	59.7	2.5
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°	580.3	24.5
0°-40°	956.5	40.4
0°-60°	1746.9	73.8
0°-90°	2366.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2366.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	736	738	742	742	742	70
15°	709	710	716	719	721	200
25°	658	662	672	676	679	303
35°	583	588	601	613	618	365
45°	489	498	517	543	557	378
55°	378	390	432	475	498	339
65°	251	275	343	397	425	249
75°	124	164	232	279	294	133
85°	31	44	54	56	59	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	743.5	743.5	743.5	743.5	743.5
2.5°	738.3	740.0	743.5	743.5	745.2
5°	736.5	738.3	741.7	741.7	741.7
7.5°	731.3	733.0	736.5	738.3	738.3
10°	726.1	727.8	731.3	733.0	734.8
12.5°	717.4	719.1	724.3	727.8	727.8
15°	708.7	710.4	715.6	719.1	720.8
17.5°	698.2	701.7	706.9	710.4	712.1
20°	684.3	687.8	694.7	700.0	701.7
22.5°	672.1	675.6	682.5	687.8	691.2
25°	658.2	661.6	672.1	675.6	679.1
27.5°	640.8	644.2	652.9	659.9	665.1
30°	623.3	626.8	637.3	646.0	649.5
32.5°	604.2	609.4	621.6	628.6	633.8
35°	583.3	588.5	600.7	612.9	618.1
37.5°	562.4	567.6	579.8	595.5	602.4
40°	538.0	545.0	560.7	581.6	585.0
42.5°	515.4	524.1	538.0	562.4	571.1
45°	489.3	498.0	517.1	543.2	557.2
47.5°	464.9	473.6	494.5	525.8	543.2
50°	435.3	447.5	473.6	510.2	527.6
52.5°	407.4	417.9	452.7	492.8	513.6
55°	377.8	390.0	431.8	475.3	498.0
57.5°	351.7	362.2	409.2	457.9	484.0
60°	318.6	332.6	386.5	438.8	464.9
62.5°	283.8	304.7	363.9	417.9	445.7
65°	250.7	275.1	343.0	397.0	424.8
67.5°	221.1	247.2	316.9	374.4	400.5
70°	186.3	219.4	290.8	346.5	376.1
72.5°	155.0	191.5	261.2	316.9	343.0
75°	123.6	163.7	231.6	278.6	294.3
77.5°	95.8	134.1	198.5	212.4	214.2
80°	71.4	106.2	148.0	149.7	155.0
82.5°	48.8	74.9	95.8	104.5	106.2
85°	31.3	43.5	54.0	55.7	59.2
87.5°	13.9	15.7	19.2	17.4	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)