

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: P390215

Luminaire Tested: **22CZ2-29VHE-HRP-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: P390215
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-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2180.9 lumens
Efficiency: N/A
Efficacy: 100.5 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

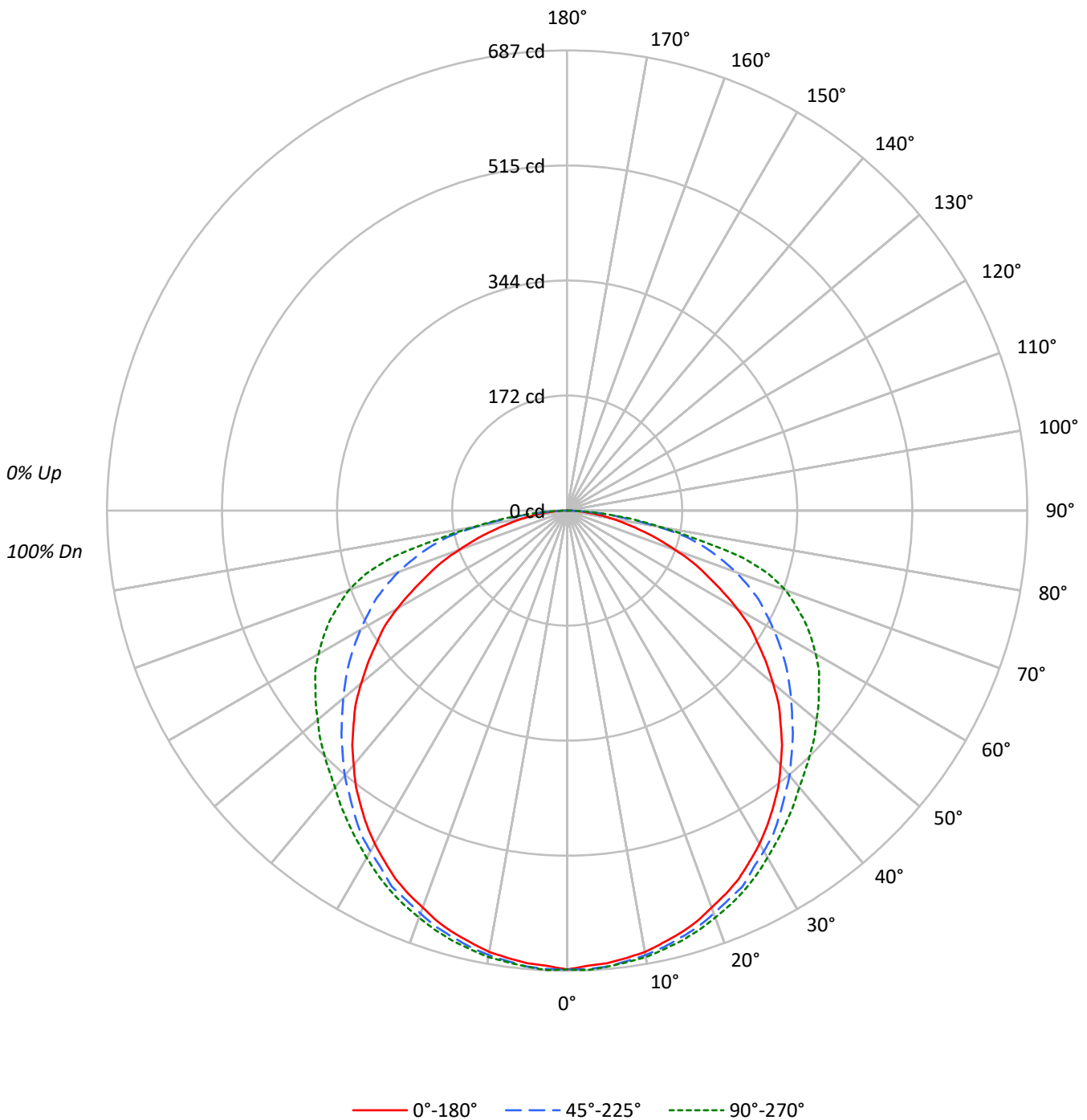
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1844	1844	1844
5°	1833	1846	1846
10°	1828	1841	1850
15°	1819	1837	1850
20°	1806	1833	1852
25°	1801	1839	1858
30°	1785	1825	1859
35°	1766	1818	1871
40°	1741	1815	1894
45°	1716	1813	1954
50°	1679	1827	2035
55°	1633	1867	2152
60°	1580	1917	2306
65°	1471	2013	2493
70°	1351	2108	2726
75°	1184	2219	2819
80°	1020	2114	2213
85°	892	1535	1683



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.8	3.0
10°-20°	186.1	8.5
20°-30°	283.9	13.0
30°-40°	346.6	15.9
40°-50°	370.6	17.0
50°-60°	357.7	16.4
60°-70°	307.9	14.1
70°-80°	208.3	9.6
80°-90°	55.0	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°	534.7	24.5
0°-40°	881.3	40.4
0°-60°	1609.6	73.8
0°-90°	2180.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2180.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	685	685	685	685	685	
5°	679	680	684	684	684	64
15°	653	655	659	663	664	184
25°	606	610	619	622	626	279
35°	538	542	554	565	570	336
45°	451	459	476	501	513	348
55°	348	359	398	438	459	312
65°	231	254	316	366	392	230
75°	114	151	213	257	271	122
85°	29	40	50	51	54	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	685.1	685.1	685.1	685.1	685.1
2.5°	680.2	681.8	685.1	685.1	686.7
5°	678.6	680.2	683.5	683.5	683.5
7.5°	673.8	675.4	678.6	680.2	680.2
10°	669.0	670.6	673.8	675.4	677.0
12.5°	661.0	662.6	667.4	670.6	670.6
15°	653.0	654.6	659.4	662.6	664.2
17.5°	643.3	646.6	651.4	654.6	656.2
20°	630.5	633.7	640.1	644.9	646.6
22.5°	619.3	622.5	628.9	633.7	636.9
25°	606.4	609.7	619.3	622.5	625.7
27.5°	590.4	593.6	601.6	608.0	612.9
30°	574.4	577.6	587.2	595.2	598.4
32.5°	556.7	561.5	572.8	579.2	584.0
35°	537.5	542.3	553.5	564.7	569.5
37.5°	518.2	523.0	534.2	548.7	555.1
40°	495.7	502.2	516.6	535.9	539.1
42.5°	474.9	482.9	495.7	518.2	526.2
45°	450.8	458.8	476.5	500.6	513.4
47.5°	428.4	436.4	455.6	484.5	500.6
50°	401.1	412.3	436.4	470.1	486.1
52.5°	375.4	385.0	417.1	454.0	473.3
55°	348.1	359.4	397.9	438.0	458.8
57.5°	324.1	333.7	377.0	421.9	446.0
60°	293.6	306.4	356.2	404.3	428.4
62.5°	261.5	280.8	335.3	385.0	410.7
65°	231.0	253.5	316.1	365.8	391.5
67.5°	203.8	227.8	292.0	344.9	369.0
70°	171.7	202.1	267.9	319.3	346.5
72.5°	142.8	176.5	240.7	292.0	316.1
75°	113.9	150.8	213.4	256.7	271.1
77.5°	88.2	123.5	182.9	195.7	197.3
80°	65.8	97.9	136.4	138.0	142.8
82.5°	44.9	69.0	88.2	96.3	97.9
85°	28.9	40.1	49.7	51.3	54.5
87.5°	12.8	14.4	17.6	16.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)