

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: P390216

Luminaire Tested: **22CZ2-29VHE-HRP-UNV-L935-CD1-SDWPD1-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: P390216
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-L935-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2180.5 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

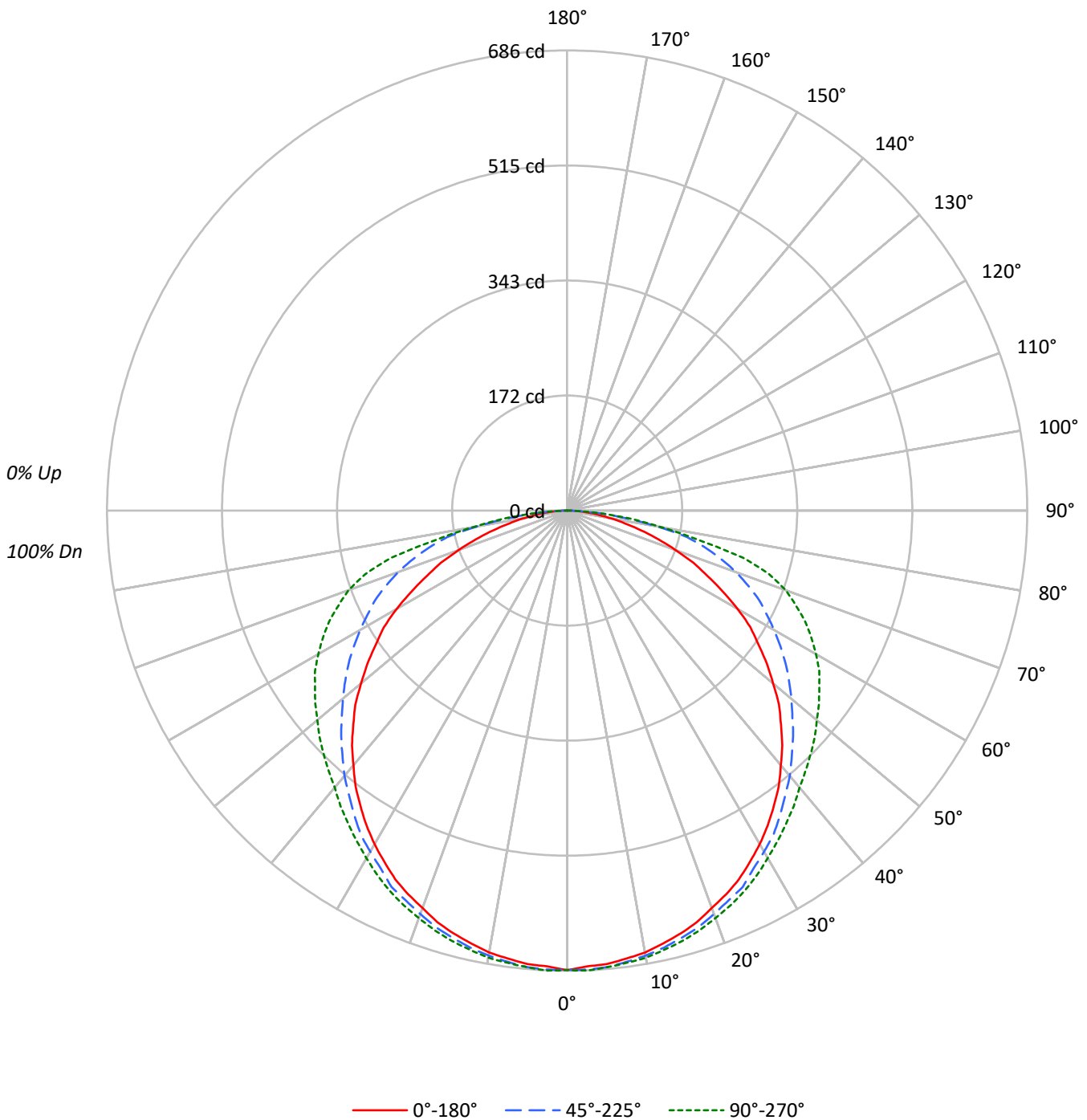
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1843	1843	1843
5°	1833	1846	1846
10°	1828	1841	1850
15°	1819	1837	1850
20°	1805	1833	1851
25°	1800	1839	1858
30°	1785	1824	1859
35°	1765	1818	1871
40°	1741	1814	1893
45°	1715	1813	1953
50°	1679	1827	2035
55°	1633	1866	2152
60°	1580	1917	2305
65°	1471	2012	2492
70°	1350	2108	2726
75°	1184	2218	2819
80°	1020	2112	2213
85°	892	1535	1683



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.8	3.0
10°-20°	186.0	8.5
20°-30°	283.8	13.0
30°-40°	346.5	15.9
40°-50°	370.5	17.0
50°-60°	357.6	16.4
60°-70°	307.9	14.1
70°-80°	208.3	9.6
80°-90°	54.9	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°	534.6	24.5
0°-40°	881.2	40.4
0°-60°	1609.4	73.8
0°-90°	2180.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2180.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	685	685	685	685	685	
5°	678	680	683	683	683	64
15°	653	654	659	662	664	184
25°	606	610	619	622	626	279
35°	537	542	553	565	569	336
45°	451	459	476	500	513	348
55°	348	359	398	438	459	312
65°	231	253	316	366	391	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°	684.9	684.9	684.9	684.9	684.9
2.5°	680.1	681.7	684.9	684.9	686.5
5°	678.5	680.1	683.3	683.3	683.3
7.5°	673.7	675.3	678.5	680.1	680.1
10°	668.9	670.5	673.7	675.3	676.9
12.5°	660.9	662.5	667.3	670.5	670.5
15°	652.9	654.5	659.3	662.5	664.1
17.5°	643.2	646.4	651.2	654.5	656.1
20°	630.4	633.6	640.0	644.8	646.4
22.5°	619.2	622.4	628.8	633.6	636.8
25°	606.3	609.5	619.2	622.4	625.6
27.5°	590.3	593.5	601.5	607.9	612.8
30°	574.3	577.5	587.1	595.1	598.3
32.5°	556.6	561.4	572.6	579.1	583.9
35°	537.4	542.2	553.4	564.6	569.4
37.5°	518.1	522.9	534.2	548.6	555.0
40°	495.7	502.1	516.5	535.8	539.0
42.5°	474.8	482.8	495.7	518.1	526.1
45°	450.7	458.8	476.4	500.5	513.3
47.5°	428.3	436.3	455.6	484.4	500.5
50°	401.0	412.2	436.3	470.0	486.0
52.5°	375.3	385.0	417.1	453.9	473.2
55°	348.1	359.3	397.8	437.9	458.8
57.5°	324.0	333.6	377.0	421.9	445.9
60°	293.5	306.4	356.1	404.2	428.3
62.5°	261.5	280.7	335.2	385.0	410.6
65°	231.0	253.4	316.0	365.7	391.4
67.5°	203.7	227.8	291.9	344.9	368.9
70°	171.6	202.1	267.9	319.2	346.5
72.5°	142.8	176.4	240.6	291.9	316.0
75°	113.9	150.8	213.3	256.6	271.1
77.5°	88.2	123.5	182.9	195.7	197.3
80°	65.8	97.8	136.3	137.9	142.8
82.5°	44.9	69.0	88.2	96.2	97.8
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)