

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: P389181

Luminaire Tested: **22CZ2-29VHE-S-UNV-L930-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: P389181
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: 22CZ2-29VHE-S-UNV-L930-CD1-SDWPD1-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: 2634.0 lumens
Efficiency: N/A
Efficacy: 121.4 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

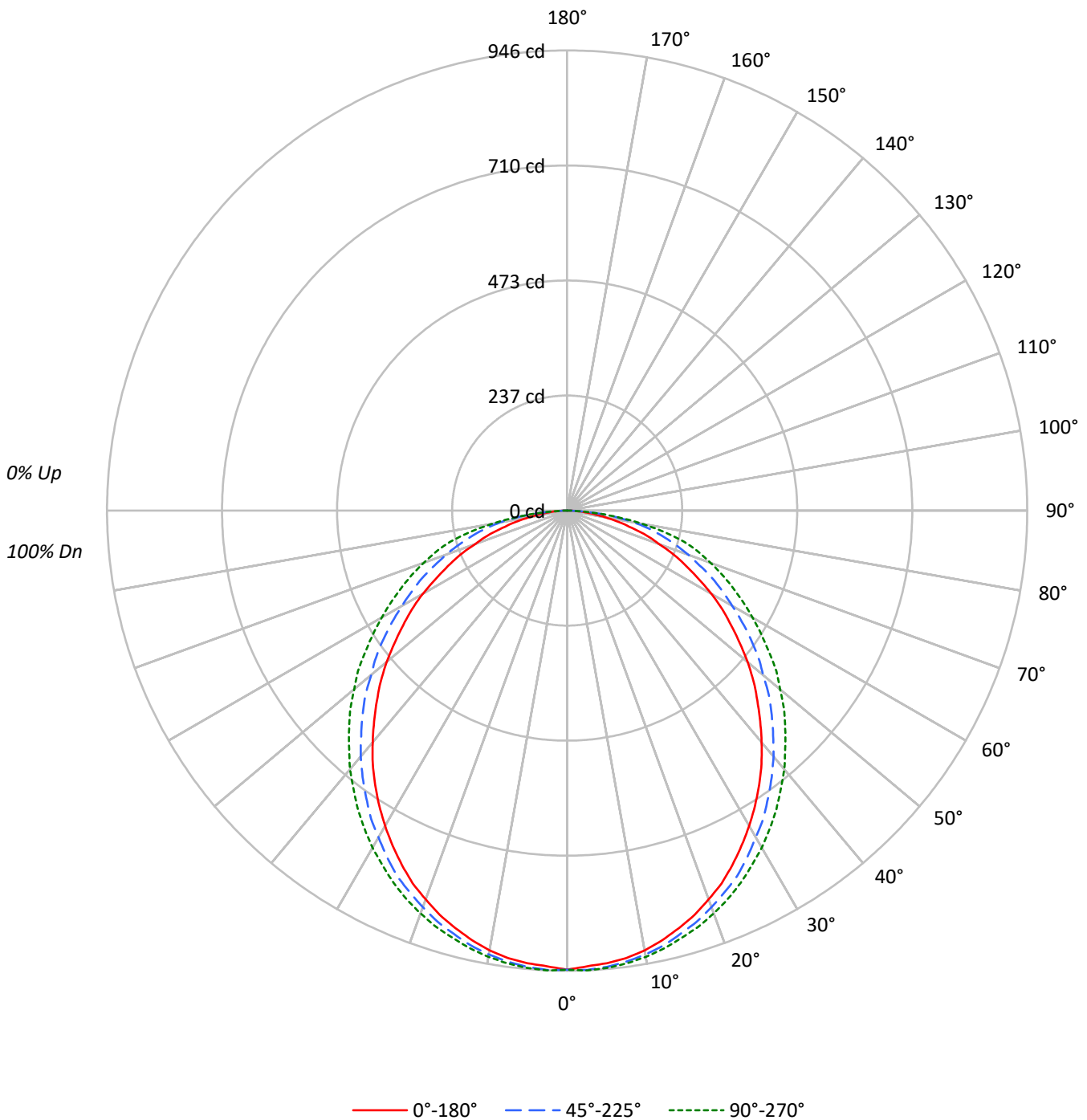
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2540	2540	2540
5°	2523	2543	2549
10°	2508	2532	2546
15°	2475	2510	2534
20°	2435	2485	2523
25°	2386	2459	2507
30°	2325	2410	2486
35°	2261	2366	2463
40°	2185	2318	2439
45°	2105	2264	2413
50°	2027	2202	2393
55°	1932	2162	2375
60°	1845	2110	2368
65°	1722	2097	2395
70°	1586	2079	2466
75°	1431	2109	2594
80°	1238	2171	2438
85°	1025	1822	1822



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.3	3.4
10°-20°	254.0	9.6
20°-30°	380.1	14.4
30°-40°	450.1	17.1
40°-50°	458.7	17.4
50°-60°	411.1	15.6
60°-70°	321.9	12.2
70°-80°	207.6	7.9
80°-90°	61.3	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°	723.3	27.5
0°-40°	1173.4	44.5
0°-60°	2043.3	77.6
0°-90°	2634.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2634.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	944	944	944	944	944	
5°	934	936	941	943	944	89
15°	888	894	901	908	909	251
25°	804	811	828	839	844	370
35°	688	697	720	742	750	430
45°	553	565	595	626	634	427
55°	412	425	461	493	506	369
65°	270	286	329	361	376	269
75°	138	158	203	237	250	148
85°	33	46	59	59	59	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	943.8	943.8	943.8	943.8	943.8
2.5°	937.7	940.2	945.1	946.3	946.3
5°	934.0	936.5	941.4	942.6	943.8
7.5°	927.9	929.1	935.2	937.7	938.9
10°	918.0	920.5	926.6	930.3	931.6
12.5°	904.5	908.2	915.6	920.5	921.7
15°	888.5	893.5	900.8	908.2	909.4
17.5°	871.3	876.3	886.1	894.7	897.1
20°	850.4	856.6	867.6	877.5	881.2
22.5°	829.6	834.5	848.0	860.3	864.0
25°	803.7	811.1	828.3	839.4	844.3
27.5°	776.7	785.3	802.5	817.3	822.2
30°	748.4	757.0	775.5	793.9	800.1
32.5°	718.9	728.8	750.9	769.3	775.5
35°	688.2	696.8	720.2	742.3	749.7
37.5°	656.3	663.6	690.7	714.0	721.4
40°	621.9	631.7	660.0	687.0	694.4
42.5°	587.4	598.5	626.8	656.3	663.6
45°	553.0	565.3	594.8	625.5	634.1
47.5°	519.9	529.7	562.9	592.4	604.7
50°	484.2	494.0	526.0	559.2	571.5
52.5°	447.3	460.9	495.3	527.2	542.0
55°	411.7	425.2	460.9	492.8	506.3
57.5°	378.5	389.6	426.5	459.6	473.2
60°	342.9	352.7	392.0	427.7	440.0
62.5°	304.8	319.5	360.1	393.3	408.0
65°	270.4	286.3	329.4	361.3	376.1
67.5°	238.4	253.2	295.0	329.4	345.3
70°	201.6	221.2	264.2	298.6	313.4
72.5°	172.1	189.3	233.5	267.9	283.9
75°	137.6	158.5	202.8	237.2	249.5
77.5°	109.4	130.3	172.1	199.1	205.2
80°	79.9	100.8	140.1	153.6	157.3
82.5°	54.1	73.7	100.8	104.5	105.7
85°	33.2	45.5	59.0	59.0	59.0
87.5°	16.0	18.4	20.9	19.7	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)