

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: P387797

Luminaire Tested: **22CZ2-29HE-SQR-UNV-L935-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: P387797
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29HE-SQR-UNV-L935-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2388.9 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

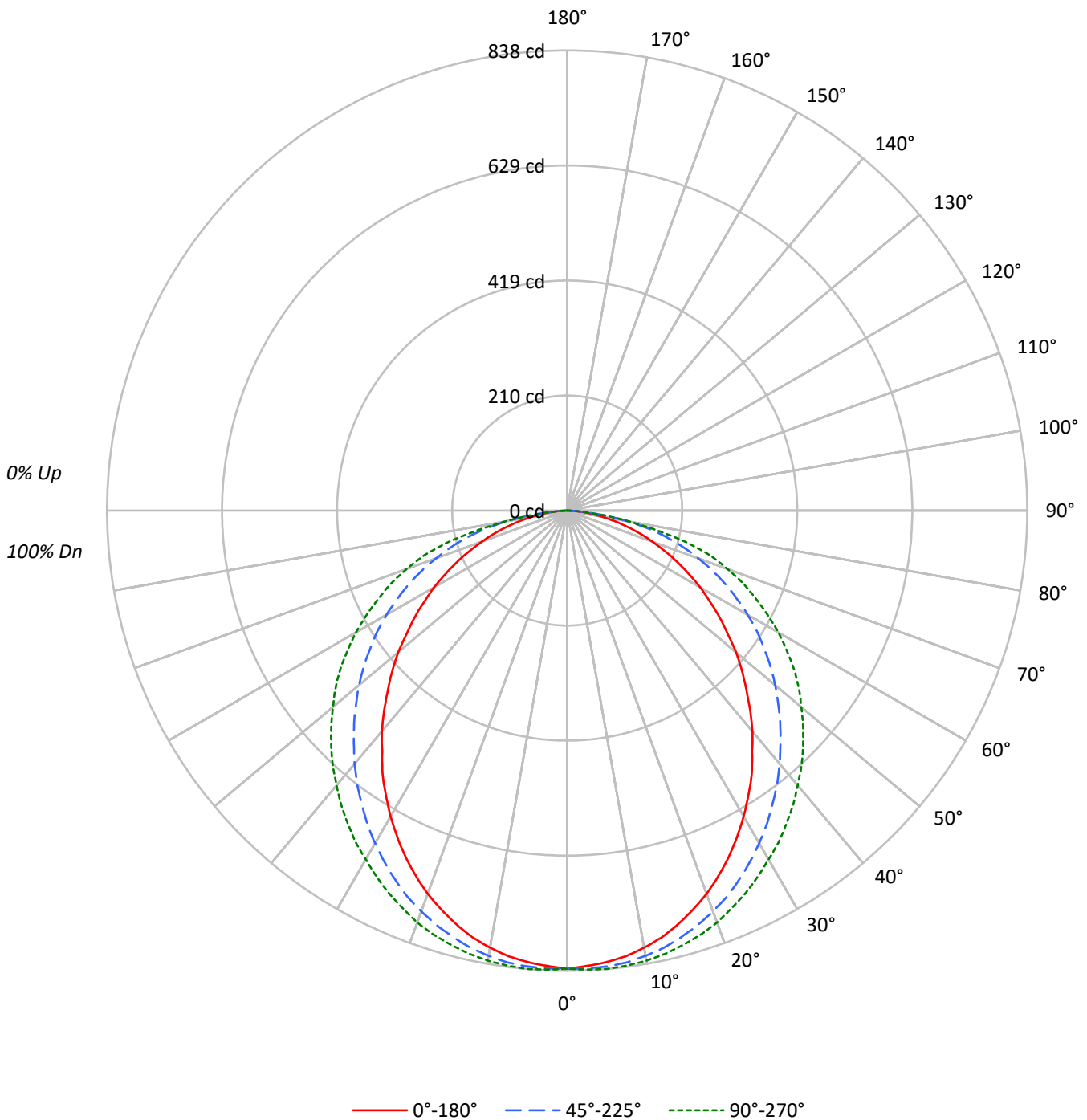
Input Watts (W): 22.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P387797

CATALOG NUMBER: 22CZ2-29HE-SQR-UNV-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P387797

CATALOG NUMBER: 22CZ2-29HE-SQR-UNV-L935-CD1-U

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	109	104	99	95	106	101	97	94	97	94	91		93	91	88		90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75		81	77	73		78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62		72	66	61		69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2246	2246	2246
5°	2230	2251	2263
10°	2209	2249	2274
15°	2173	2240	2281
20°	2127	2224	2286
25°	2067	2202	2282
30°	1998	2174	2279
35°	1926	2142	2287
40°	1844	2115	2294
45°	1756	2089	2313
50°	1680	2070	2331
55°	1590	2054	2367
60°	1507	2044	2392
65°	1408	2029	2411
70°	1293	1998	2445
75°	1167	1945	2358
80°	1001	1722	1774
85°	806	1016	806



TEST NUMBER: P387797

CATALOG NUMBER: 22CZ2-29HE-SQR-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	3.3
10°-20°	226.2	9.5
20°-30°	339.7	14.2
30°-40°	405.2	17.0
40°-50°	418.9	17.5
50°-60°	385.1	16.1
60°-70°	306.6	12.8
70°-80°	187.3	7.8
80°-90°	40.7	1.7
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°	645.0	27.0
0°-40°	1050.2	44.0
0°-60°	1854.3	77.6
0°-90°	2388.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2388.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	834	834	834	834	834	
5°	825	828	833	837	838	78
15°	780	789	804	815	819	220
25°	696	713	742	762	769	320
35°	586	611	652	686	696	366
45°	462	494	549	593	608	357
55°	339	376	438	488	505	303
65°	221	258	319	363	379	219
75°	112	145	187	220	227	120
85°	26	32	33	28	26	30
90°	0	0	0	0	0	



TEST NUMBER: P387797

CATALOG NUMBER: 22CZ2-29HE-SQR-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	834.5	834.5	834.5	834.5	834.5
2.5°	830.0	831.1	834.5	836.8	836.8
5°	825.4	827.7	833.4	836.8	837.9
7.5°	818.6	822.0	830.0	834.5	835.6
10°	808.4	813.0	823.2	830.0	832.2
12.5°	796.0	802.8	815.2	824.3	826.6
15°	780.1	789.1	803.9	815.2	818.6
17.5°	761.9	773.3	791.4	805.0	809.6
20°	742.7	754.0	776.7	792.5	798.2
22.5°	720.0	734.7	760.8	778.9	783.5
25°	696.2	713.2	741.5	761.9	768.7
27.5°	670.1	690.5	721.1	746.1	751.7
30°	642.9	664.4	699.6	726.8	733.6
32.5°	614.5	639.5	676.9	707.5	716.6
35°	586.2	611.1	652.0	686.0	696.2
37.5°	553.3	582.8	628.1	663.3	675.8
40°	525.0	553.3	602.1	640.6	653.1
42.5°	493.2	523.8	574.9	616.8	631.5
45°	461.5	494.4	548.8	593.0	607.7
47.5°	432.0	464.9	521.6	568.0	582.8
50°	401.4	435.4	494.4	542.0	556.7
52.5°	368.5	405.9	467.1	514.8	531.8
55°	339.0	376.4	437.7	487.5	504.6
57.5°	308.4	347.0	410.4	458.1	473.9
60°	280.1	317.5	379.8	426.3	444.5
62.5°	249.4	288.0	349.2	394.6	411.6
65°	221.1	258.5	318.6	362.8	378.7
67.5°	192.8	230.2	286.9	328.8	347.0
70°	164.4	201.8	254.0	294.8	310.7
72.5°	139.5	172.3	222.2	259.6	274.4
75°	112.2	145.1	187.1	220.0	226.8
77.5°	87.3	116.8	151.9	166.7	168.9
80°	64.6	87.3	111.1	114.5	114.5
82.5°	43.1	60.1	69.2	70.3	69.2
85°	26.1	31.7	32.9	28.3	26.1
87.5°	9.1	9.1	5.7	3.4	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)