

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: P389210

Luminaire Tested: **22CZ2-34VHE-S-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: P389210  
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: 22CZ2-34VHE-S-UNV-L935-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3196.4 lumens  
Efficiency: N/A  
Efficacy: 127.3 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

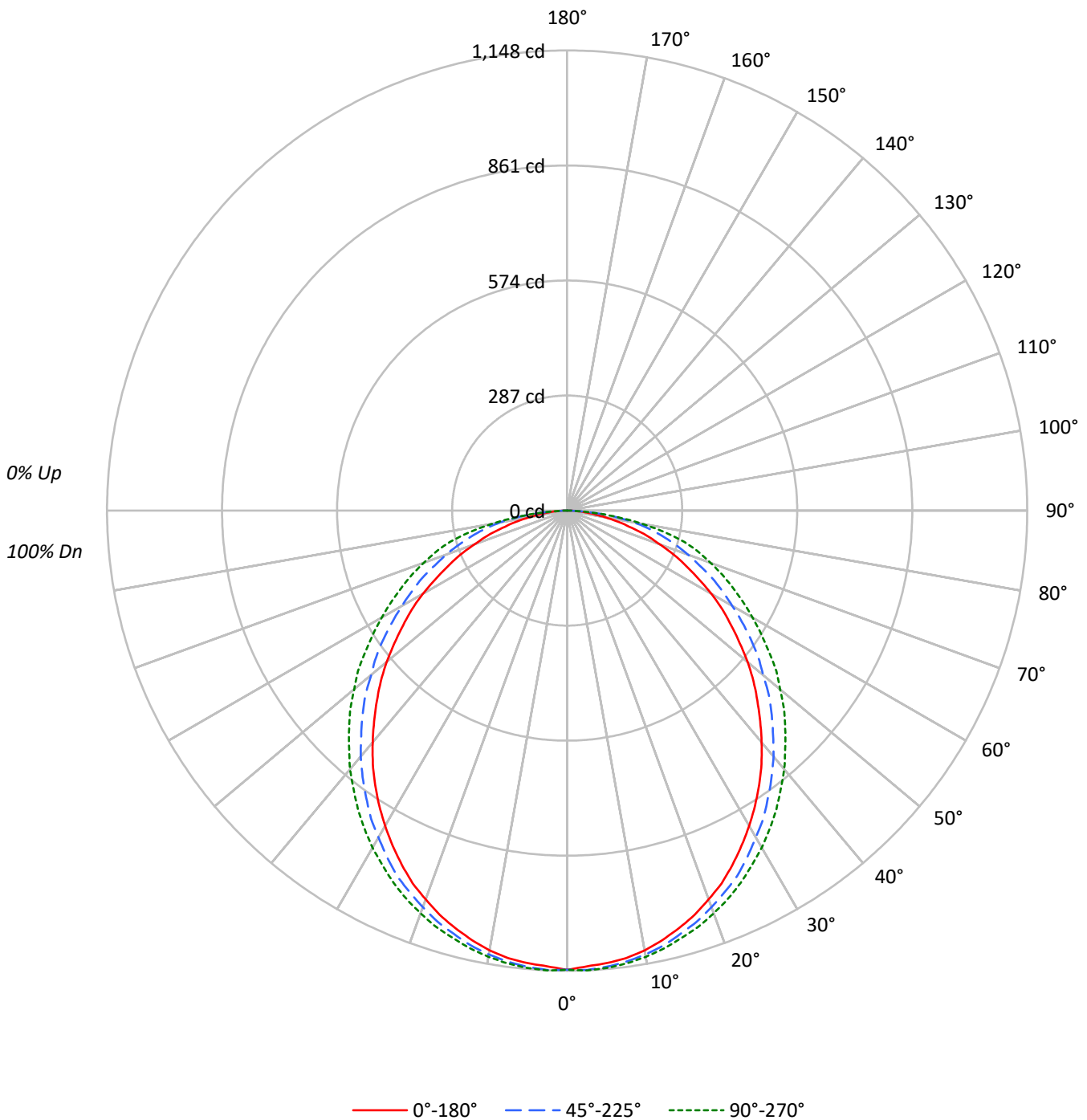
Input Watts (W): 25.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P389210

CATALOG NUMBER: 22CZ2-34VHE-S-UNV-L935-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P389210

CATALOG NUMBER: 22CZ2-34VHE-S-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	108	103	99	95	106	101	97	94	97	94	91		93	90	88		89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		78	74	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	69	60	54	66	59	53		64	57	52		61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46		57	51	45		55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40		52	45	40		50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36		47	40	35		46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26		37	31	26		36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3082	3082	3082
5°	3062	3086	3094
10°	3044	3073	3089
15°	3004	3046	3075
20°	2955	3015	3062
25°	2896	2985	3042
30°	2822	2924	3017
35°	2744	2871	2988
40°	2651	2813	2960
45°	2554	2747	2928
50°	2460	2672	2903
55°	2344	2624	2883
60°	2239	2560	2873
65°	2089	2545	2906
70°	1924	2522	2992
75°	1736	2559	3147
80°	1502	2634	2958
85°	1244	2211	2211



TEST NUMBER: P389210

CATALOG NUMBER: 22CZ2-34VHE-S-UNV-L935-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.3	3.4
10°-20°	308.2	9.6
20°-30°	461.2	14.4
30°-40°	546.2	17.1
40°-50°	556.6	17.4
50°-60°	498.9	15.6
60°-70°	390.6	12.2
70°-80°	251.9	7.9
80°-90°	74.4	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°	877.8	27.5
0°-40°	1424.0	44.5
0°-60°	2479.5	77.6
0°-90°	3196.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3196.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1145	1145	1145	1145	1145	
5°	1133	1136	1142	1144	1145	108
15°	1078	1084	1093	1102	1104	304
25°	975	984	1005	1019	1025	449
35°	835	846	874	901	910	522
45°	671	686	722	759	770	518
55°	500	516	559	598	614	448
65°	328	348	400	438	456	326
75°	167	192	246	288	303	179
85°	40	55	72	72	72	47
90°	0	0	0	0	0	



TEST NUMBER: P389210

CATALOG NUMBER: 22CZ2-34VHE-S-UNV-L935-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1145.4	1145.4	1145.4	1145.4	1145.4
2.5°	1137.9	1140.9	1146.9	1148.4	1148.4
5°	1133.4	1136.4	1142.4	1143.9	1145.4
7.5°	1126.0	1127.5	1134.9	1137.9	1139.4
10°	1114.1	1117.0	1124.5	1129.0	1130.5
12.5°	1097.6	1102.1	1111.1	1117.0	1118.5
15°	1078.3	1084.2	1093.2	1102.1	1103.6
17.5°	1057.4	1063.3	1075.3	1085.7	1088.7
20°	1032.0	1039.5	1052.9	1064.8	1069.3
22.5°	1006.7	1012.6	1029.0	1044.0	1048.4
25°	975.4	984.3	1005.2	1018.6	1024.6
27.5°	942.5	953.0	973.9	991.8	997.7
30°	908.2	918.7	941.1	963.4	970.9
32.5°	872.4	884.4	911.2	933.6	941.1
35°	835.2	845.6	873.9	900.8	909.7
37.5°	796.4	805.3	838.1	866.5	875.4
40°	754.6	766.6	800.9	833.7	842.6
42.5°	712.9	726.3	760.6	796.4	805.3
45°	671.1	686.0	721.8	759.1	769.5
47.5°	630.8	642.8	683.0	718.8	733.8
50°	587.6	599.5	638.3	678.6	693.5
52.5°	542.9	559.3	601.0	639.8	657.7
55°	499.6	516.0	559.3	598.0	614.4
57.5°	459.3	472.8	517.5	557.8	574.2
60°	416.1	428.0	475.7	519.0	533.9
62.5°	369.9	387.8	437.0	477.2	495.1
65°	328.1	347.5	399.7	438.5	456.4
67.5°	289.3	307.2	357.9	399.7	419.1
70°	244.6	268.4	320.6	362.4	380.3
72.5°	208.8	229.7	283.4	325.1	344.5
75°	167.0	192.4	246.1	287.8	302.7
77.5°	132.7	158.1	208.8	241.6	249.1
80°	96.9	122.3	170.0	186.4	190.9
82.5°	65.6	89.5	122.3	126.8	128.3
85°	40.3	55.2	71.6	71.6	71.6
87.5°	19.4	22.4	25.4	23.9	23.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)