

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: P387891

Luminaire Tested: **22CZ2-34VHE-SQR-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: P387891  
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: 22CZ2-34VHE-SQR-UNV-L935-CD1-SDWPD1-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: 2850.5 lumens  
Efficiency: N/A  
Efficacy: 113.6 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

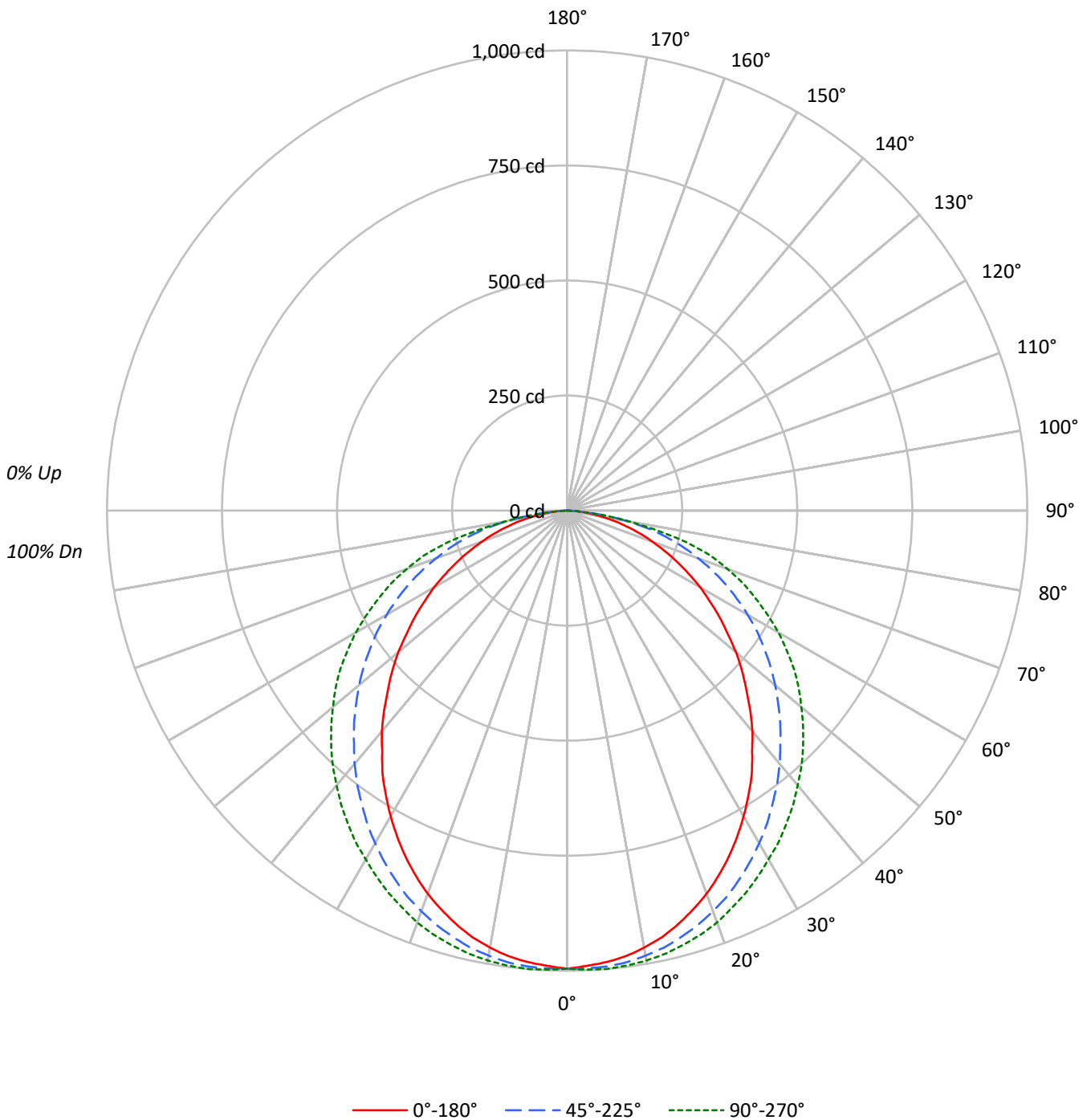
Input Watts (W): 25.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P387891

CATALOG NUMBER: 22CZ2-34VHE-SQR-UNV-L935-CD1-SDWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P387891

CATALOG NUMBER: 22CZ2-34VHE-SQR-UNV-L935-CD1-SDWPD1-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°	2679	2679	2679
5°	2660	2686	2701
10°	2636	2684	2713
15°	2593	2672	2721
20°	2538	2654	2728
25°	2466	2627	2724
30°	2384	2594	2720
35°	2298	2555	2729
40°	2200	2524	2738
45°	2095	2492	2760
50°	2005	2470	2781
55°	1898	2450	2824
60°	1799	2439	2854
65°	1680	2421	2877
70°	1544	2385	2917
75°	1392	2321	2813
80°	1195	2055	2117
85°	960	1210	960



TEST NUMBER: P387891

CATALOG NUMBER: 22CZ2-34VHE-SQR-UNV-L935-CD1-SDWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.4	3.3
10°-20°	269.9	9.5
20°-30°	405.4	14.2
30°-40°	483.5	17.0
40°-50°	499.9	17.5
50°-60°	459.6	16.1
60°-70°	365.8	12.8
70°-80°	223.5	7.8
80°-90°	48.6	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°	769.7	27.0
0°-40°	1253.1	44.0
0°-60°	2212.5	77.6
0°-90°	2850.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2850.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	996	996	996	996	996	
5°	985	988	994	998	1000	93
15°	931	942	959	973	977	262
25°	831	851	885	909	917	382
35°	700	729	778	818	831	436
45°	551	590	655	708	725	426
55°	404	449	522	582	602	362
65°	264	308	380	433	452	261
75°	134	173	223	262	271	143
85°	31	38	39	34	31	36
90°	0	0	0	0	0	



TEST NUMBER: P387891

CATALOG NUMBER: 22CZ2-34VHE-SQR-UNV-L935-CD1-SDWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	995.7	995.7	995.7	995.7	995.7
2.5°	990.3	991.7	995.7	998.5	998.5
5°	984.9	987.6	994.4	998.5	999.8
7.5°	976.8	980.9	990.3	995.7	997.1
10°	964.6	970.0	982.2	990.3	993.0
12.5°	949.7	957.9	972.7	983.6	986.3
15°	930.8	941.6	959.2	972.7	976.8
17.5°	909.2	922.7	944.3	960.6	966.0
20°	886.2	899.7	926.7	945.7	952.5
22.5°	859.1	876.7	907.8	929.5	934.9
25°	830.7	851.0	884.8	909.2	917.3
27.5°	799.6	823.9	860.5	890.2	897.0
30°	767.1	792.8	834.8	867.2	875.3
32.5°	733.3	763.0	807.7	844.2	855.0
35°	699.5	729.2	777.9	818.5	830.7
37.5°	660.2	695.4	749.5	791.5	806.3
40°	626.4	660.2	718.4	764.4	779.3
42.5°	588.5	625.0	685.9	736.0	753.6
45°	550.6	589.9	654.8	707.6	725.2
47.5°	515.5	554.7	622.3	677.8	695.4
50°	478.9	519.5	589.9	646.7	664.3
52.5°	439.7	484.3	557.4	614.2	634.5
55°	404.5	449.2	522.2	581.8	602.0
57.5°	368.0	414.0	489.8	546.6	565.5
60°	334.2	378.8	453.2	508.7	530.3
62.5°	297.6	343.6	416.7	470.8	491.1
65°	263.8	308.5	380.2	432.9	451.9
67.5°	230.0	274.6	342.3	392.3	414.0
70°	196.2	240.8	303.1	351.8	370.7
72.5°	166.4	205.6	265.2	309.8	327.4
75°	133.9	173.2	223.2	262.5	270.6
77.5°	104.2	139.4	181.3	198.9	201.6
80°	77.1	104.2	132.6	136.6	136.6
82.5°	51.4	71.7	82.5	83.9	82.5
85°	31.1	37.9	39.2	33.8	31.1
87.5°	10.8	10.8	6.8	4.1	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)