

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: P388255

Luminaire Tested: **22CZ2-90VHE-SQR-UNV-L940-CD1-SWPD1-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: P388255
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: 22CZ2-90VHE-SQR-UNV-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7393.1 lumens
Efficiency: N/A
Efficacy: 108.4 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

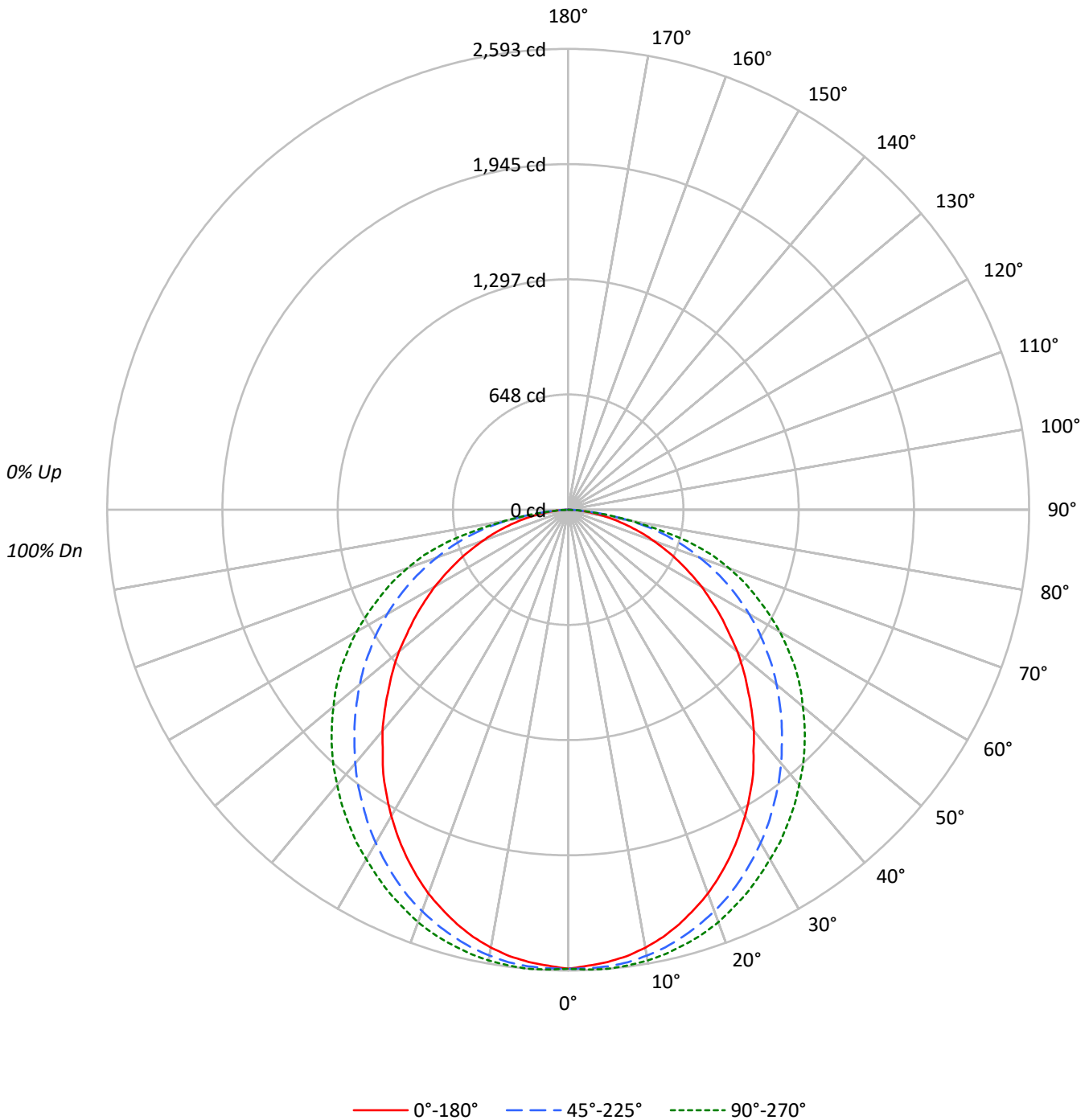
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388255

CATALOG NUMBER: 22CZ2-90VHE-SQR-UNV-L940-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388255

CATALOG NUMBER: 22CZ2-90VHE-SQR-UNV-L940-CD1-SWPD1-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°	6950	6950	6950
5°	6900	6967	7005
10°	6836	6961	7038
15°	6726	6931	7058
20°	6582	6883	7074
25°	6397	6814	7064
30°	6182	6727	7054
35°	5959	6628	7078
40°	5707	6545	7100
45°	5435	6463	7158
50°	5200	6405	7213
55°	4922	6355	7326
60°	4665	6326	7403
65°	4357	6278	7463
70°	4003	6184	7565
75°	3612	6020	7297
80°	3099	5329	5492
85°	2492	3143	2492



TEST NUMBER: P388255

CATALOG NUMBER: 22CZ2-90VHE-SQR-UNV-L940-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.8	3.3
10°-20°	700.0	9.5
20°-30°	1051.4	14.2
30°-40°	1253.9	17.0
40°-50°	1296.4	17.5
50°-60°	1191.9	16.1
60°-70°	948.9	12.8
70°-80°	579.7	7.8
80°-90°	126.0	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°	1996.2	27.0
0°-40°	3250.1	44.0
0°-60°	5738.5	77.6
0°-90°	7393.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7393.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2583	2583	2583	2583	2583	
5°	2554	2562	2579	2590	2593	242
15°	2414	2442	2488	2523	2534	680
25°	2154	2207	2295	2358	2379	991
35°	1814	1891	2018	2123	2154	1132
45°	1428	1530	1698	1835	1881	1104
55°	1049	1165	1354	1509	1562	938
65°	684	800	986	1123	1172	678
75°	347	449	579	681	702	370
85°	81	98	102	88	81	93
90°	0	0	0	0	0	



TEST NUMBER: P388255

CATALOG NUMBER: 22CZ2-90VHE-SQR-UNV-L940-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2582.6	2582.6	2582.6	2582.6	2582.6
2.5°	2568.6	2572.1	2582.6	2589.6	2589.6
5°	2554.5	2561.5	2579.1	2589.6	2593.1
7.5°	2533.5	2544.0	2568.6	2582.6	2586.1
10°	2501.9	2515.9	2547.5	2568.6	2575.6
12.5°	2463.3	2484.3	2522.9	2551.0	2558.0
15°	2414.2	2442.2	2487.8	2522.9	2533.5
17.5°	2358.0	2393.1	2449.2	2491.4	2505.4
20°	2298.4	2333.5	2403.6	2452.8	2470.3
22.5°	2228.2	2273.8	2354.5	2410.6	2424.7
25°	2154.5	2207.1	2294.9	2358.0	2379.1
27.5°	2073.8	2137.0	2231.7	2308.9	2326.4
30°	1989.6	2056.2	2165.0	2249.2	2270.3
32.5°	1901.9	1979.0	2094.8	2189.6	2217.7
35°	1814.1	1891.3	2017.6	2122.9	2154.5
37.5°	1712.4	1803.6	1944.0	2052.7	2091.3
40°	1624.6	1712.4	1863.3	1982.6	2021.2
42.5°	1526.4	1621.1	1779.0	1908.9	1954.5
45°	1428.1	1529.9	1698.3	1835.2	1880.8
47.5°	1336.9	1438.7	1614.1	1758.0	1803.6
50°	1242.2	1347.4	1529.9	1677.3	1722.9
52.5°	1140.4	1256.2	1445.7	1593.1	1645.7
55°	1049.2	1165.0	1354.5	1508.8	1561.5
57.5°	954.4	1073.7	1270.2	1417.6	1466.7
60°	866.7	982.5	1175.5	1319.4	1375.5
62.5°	772.0	891.3	1080.8	1221.1	1273.7
65°	684.2	800.0	986.0	1122.9	1172.0
67.5°	596.5	712.3	887.8	1017.6	1073.7
70°	508.8	624.6	786.0	912.3	961.5
72.5°	431.6	533.4	687.8	803.5	849.2
75°	347.4	449.1	579.0	680.7	701.8
77.5°	270.2	361.4	470.2	515.8	522.8
80°	200.0	270.2	343.9	354.4	354.4
82.5°	133.3	186.0	214.0	217.6	214.0
85°	80.7	98.3	101.8	87.7	80.7
87.5°	28.1	28.1	17.5	10.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)