

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: P387608

Luminaire Tested: **22CZ2-100VHE-SQR-UNV-L940-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: P387608
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: 22CZ2-100VHE-SQR-UNV-L940-CD1-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: 8292.4 lumens
Efficiency: N/A
Efficacy: 106.7 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

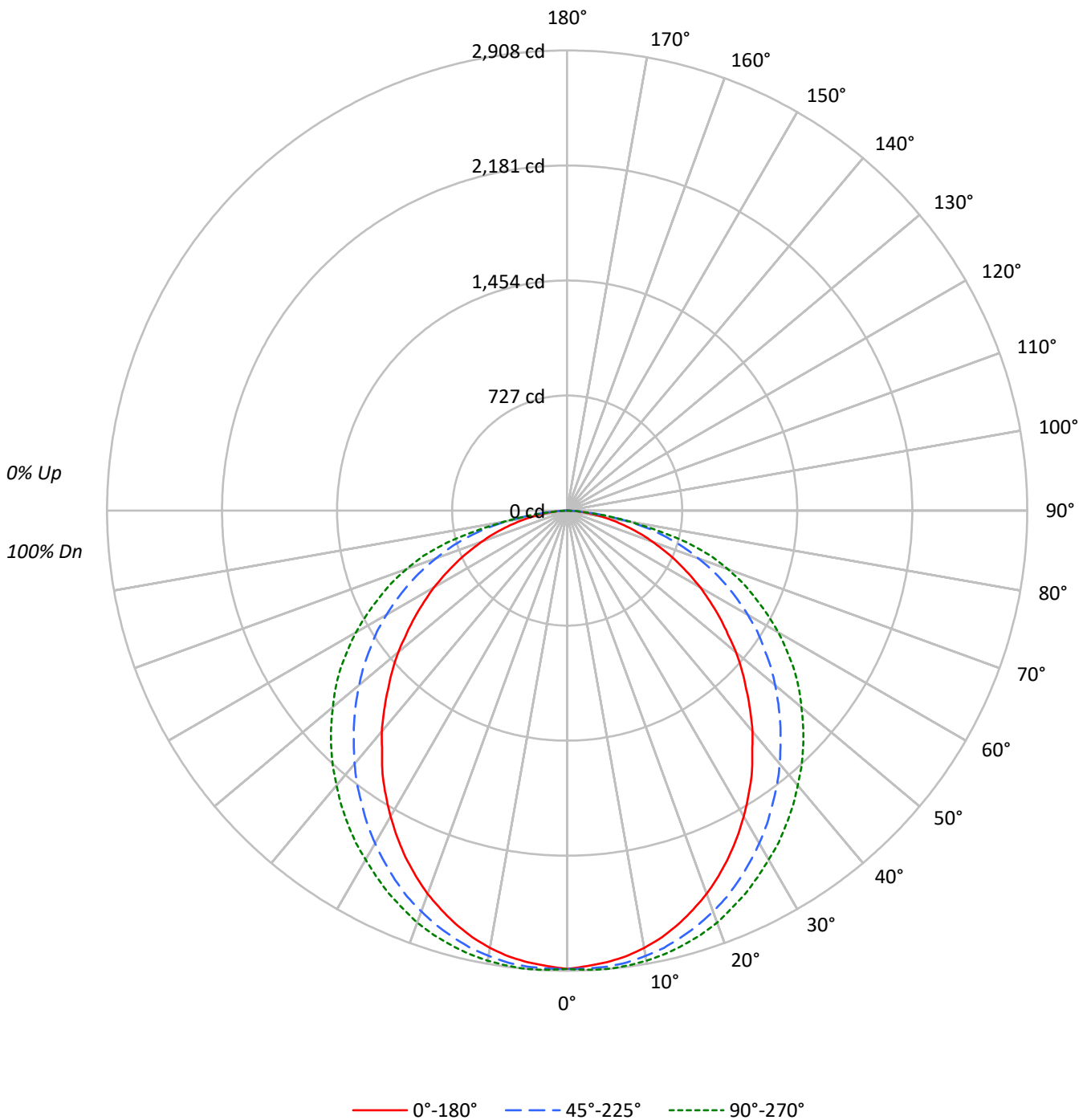
Input Watts (W): 77.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P387608

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P387608

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L940-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°	7795	7795	7795
5°	7740	7814	7857
10°	7668	7808	7894
15°	7544	7774	7916
20°	7382	7720	7935
25°	7175	7643	7923
30°	6934	7546	7913
35°	6684	7434	7939
40°	6401	7341	7964
45°	6096	7249	8028
50°	5833	7184	8090
55°	5521	7127	8217
60°	5232	7096	8303
65°	4887	7042	8371
70°	4490	6936	8485
75°	4051	6752	8185
80°	3476	5977	6160
85°	2794	3523	2794



TEST NUMBER: P387608

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.6	3.3
10°-20°	785.2	9.5
20°-30°	1179.3	14.2
30°-40°	1406.4	17.0
40°-50°	1454.1	17.5
50°-60°	1336.9	16.1
60°-70°	1064.3	12.8
70°-80°	650.2	7.8
80°-90°	141.3	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°	2239.0	27.0
0°-40°	3645.5	44.0
0°-60°	6436.5	77.6
0°-90°	8292.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8292.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2897	2897	2897	2897	2897	
5°	2865	2873	2893	2905	2908	272
15°	2708	2739	2790	2830	2842	763
25°	2417	2476	2574	2645	2668	1112
35°	2035	2121	2263	2381	2417	1269
45°	1602	1716	1905	2058	2110	1239
55°	1177	1307	1519	1692	1751	1053
65°	768	897	1106	1260	1315	760
75°	390	504	649	764	787	415
85°	90	110	114	98	90	104
90°	0	0	0	0	0	



TEST NUMBER: P387608

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2896.7	2896.7	2896.7	2896.7	2896.7
2.5°	2881.0	2884.9	2896.7	2904.6	2904.6
5°	2865.2	2873.1	2892.8	2904.6	2908.5
7.5°	2841.6	2853.4	2881.0	2896.7	2900.7
10°	2806.2	2822.0	2857.4	2881.0	2888.9
12.5°	2762.9	2786.5	2829.8	2861.3	2869.2
15°	2707.8	2739.3	2790.5	2829.8	2841.6
17.5°	2644.8	2684.2	2747.2	2794.4	2810.1
20°	2577.9	2617.3	2696.0	2751.1	2770.8
22.5°	2499.2	2550.4	2640.9	2703.9	2719.6
25°	2416.6	2475.6	2574.0	2644.8	2668.5
27.5°	2326.0	2396.9	2503.2	2589.7	2609.4
30°	2231.6	2306.4	2428.4	2522.8	2546.5
32.5°	2133.2	2219.8	2349.7	2455.9	2487.4
35°	2034.8	2121.4	2263.1	2381.1	2416.6
37.5°	1920.7	2023.0	2180.4	2302.4	2345.7
40°	1822.3	1920.7	2089.9	2223.7	2267.0
42.5°	1712.1	1818.3	1995.4	2141.1	2192.2
45°	1601.9	1716.0	1904.9	2058.4	2109.6
47.5°	1499.5	1613.7	1810.5	1971.8	2023.0
50°	1393.3	1511.3	1716.0	1881.3	1932.5
52.5°	1279.1	1409.0	1621.5	1786.8	1845.9
55°	1176.8	1306.7	1519.2	1692.4	1751.4
57.5°	1070.5	1204.3	1424.8	1590.1	1645.2
60°	972.1	1102.0	1318.5	1479.9	1542.8
62.5°	865.9	999.7	1212.2	1369.7	1428.7
65°	767.5	897.4	1106.0	1259.5	1314.6
67.5°	669.1	799.0	995.8	1141.4	1204.3
70°	570.7	700.6	881.6	1023.3	1078.4
72.5°	484.1	598.2	771.4	901.3	952.5
75°	389.6	503.8	649.4	763.5	787.2
77.5°	303.1	405.4	527.4	578.6	586.4
80°	224.3	303.1	385.7	397.5	397.5
82.5°	149.6	208.6	240.1	244.0	240.1
85°	90.5	110.2	114.1	98.4	90.5
87.5°	31.5	31.5	19.7	11.8	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)