

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: P388155

Luminaire Tested: **22CZ2-100VHE-UNV-L940-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: P388155  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-100VHE-UNV-L940-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8424.6 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

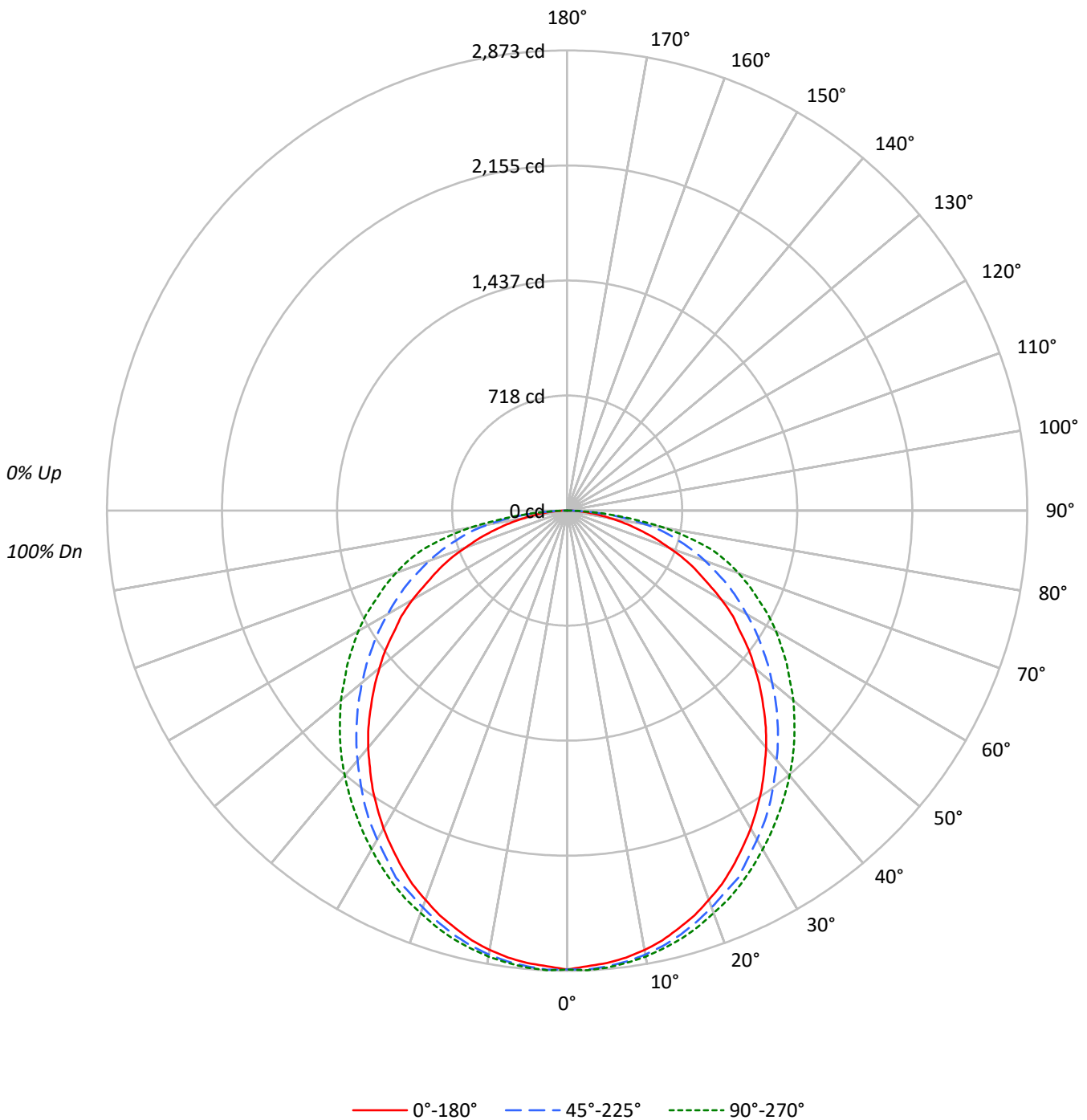
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P388155

CATALOG NUMBER: 22CZ2-100VHE-UNV-L940-CD1-SDWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P388155

CATALOG NUMBER: 22CZ2-100VHE-UNV-L940-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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	7708	7708	7708
5°	7659	7715	7738
10°	7612	7691	7725
15°	7518	7634	7703
20°	7408	7550	7657
25°	7274	7508	7631
30°	7123	7368	7587
35°	6959	7272	7572
40°	6786	7150	7587
45°	6594	7068	7636
50°	6404	6994	7723
55°	6185	6963	7857
60°	6001	6961	8099
65°	5701	7074	8394
70°	5316	7208	8937
75°	4870	7457	9655
80°	4240	7773	9507
85°	3711	6913	7552



TEST NUMBER: P388155

CATALOG NUMBER: 22CZ2-100VHE-UNV-L940-CD1-SDWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	270.9	3.2
10°-20°	771.6	9.2
20°-30°	1158.4	13.7
30°-40°	1384.1	16.4
40°-50°	1439.3	17.1
50°-60°	1334.0	15.8
60°-70°	1094.2	13.0
70°-80°	739.7	8.8
80°-90°	232.4	2.8
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°	2200.9	26.1
0°-40°	3585.0	42.6
0°-60°	6358.3	75.5
0°-90°	8424.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8424.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2864	2864	2864	2864	2864	
5°	2836	2840	2856	2860	2864	269
15°	2699	2711	2740	2757	2765	761
25°	2450	2471	2529	2558	2570	1128
35°	2118	2147	2214	2280	2305	1324
45°	1733	1766	1857	1965	2006	1338
55°	1318	1360	1484	1617	1675	1185
65°	895	945	1111	1256	1318	885
75°	468	547	717	862	929	497
85°	120	166	224	249	245	136
90°	0	0	0	0	0	



TEST NUMBER: P388155

CATALOG NUMBER: 22CZ2-100VHE-UNV-L940-CD1-SDWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2864.5	2864.5	2864.5	2864.5	2864.5
2.5°	2847.9	2856.2	2868.7	2872.8	2872.8
5°	2835.5	2839.6	2856.2	2860.4	2864.5
7.5°	2814.8	2823.1	2839.6	2843.8	2847.9
10°	2785.8	2794.0	2814.8	2823.1	2827.2
12.5°	2748.4	2756.7	2781.6	2794.0	2798.2
15°	2698.7	2711.1	2740.2	2756.7	2765.0
17.5°	2649.0	2661.4	2690.4	2715.3	2723.6
20°	2586.8	2615.8	2636.5	2669.7	2673.8
22.5°	2524.6	2541.2	2578.5	2611.6	2628.2
25°	2450.0	2470.7	2528.7	2557.8	2570.2
27.5°	2371.2	2400.2	2445.8	2491.4	2508.0
30°	2292.4	2313.2	2371.2	2425.1	2441.7
32.5°	2205.4	2234.4	2296.6	2350.5	2375.4
35°	2118.3	2147.4	2213.7	2280.0	2304.9
37.5°	2023.0	2056.2	2122.5	2201.2	2234.4
40°	1931.8	1956.7	2035.4	2130.8	2159.8
42.5°	1836.4	1865.5	1948.4	2052.0	2085.2
45°	1732.8	1766.0	1857.2	1965.0	2006.4
47.5°	1633.3	1666.5	1766.0	1873.8	1923.5
50°	1529.7	1571.1	1670.6	1795.0	1844.7
52.5°	1430.2	1467.5	1579.4	1707.9	1753.5
55°	1318.3	1359.7	1484.1	1616.7	1674.8
57.5°	1227.1	1256.1	1392.9	1529.7	1587.7
60°	1115.1	1152.4	1293.4	1438.5	1504.8
62.5°	994.9	1057.1	1202.2	1351.4	1417.8
65°	895.4	945.2	1111.0	1256.1	1318.3
67.5°	791.8	845.7	1007.3	1160.7	1231.2
70°	675.7	746.2	916.1	1069.5	1135.9
72.5°	572.1	646.7	820.8	970.0	1040.5
75°	468.4	547.2	717.2	862.3	928.6
77.5°	368.9	456.0	621.8	733.7	775.2
80°	273.6	356.5	501.6	580.4	613.5
82.5°	190.7	261.2	368.9	410.4	418.7
85°	120.2	165.8	223.9	248.7	244.6
87.5°	53.9	66.3	82.9	91.2	87.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)