

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: P387601

Luminaire Tested: **22CZ2-100VHE-SQR-UNV-L930-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: P387601  
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-L930-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7910.0 lumens  
Efficiency: N/A  
Efficacy: 101.8 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

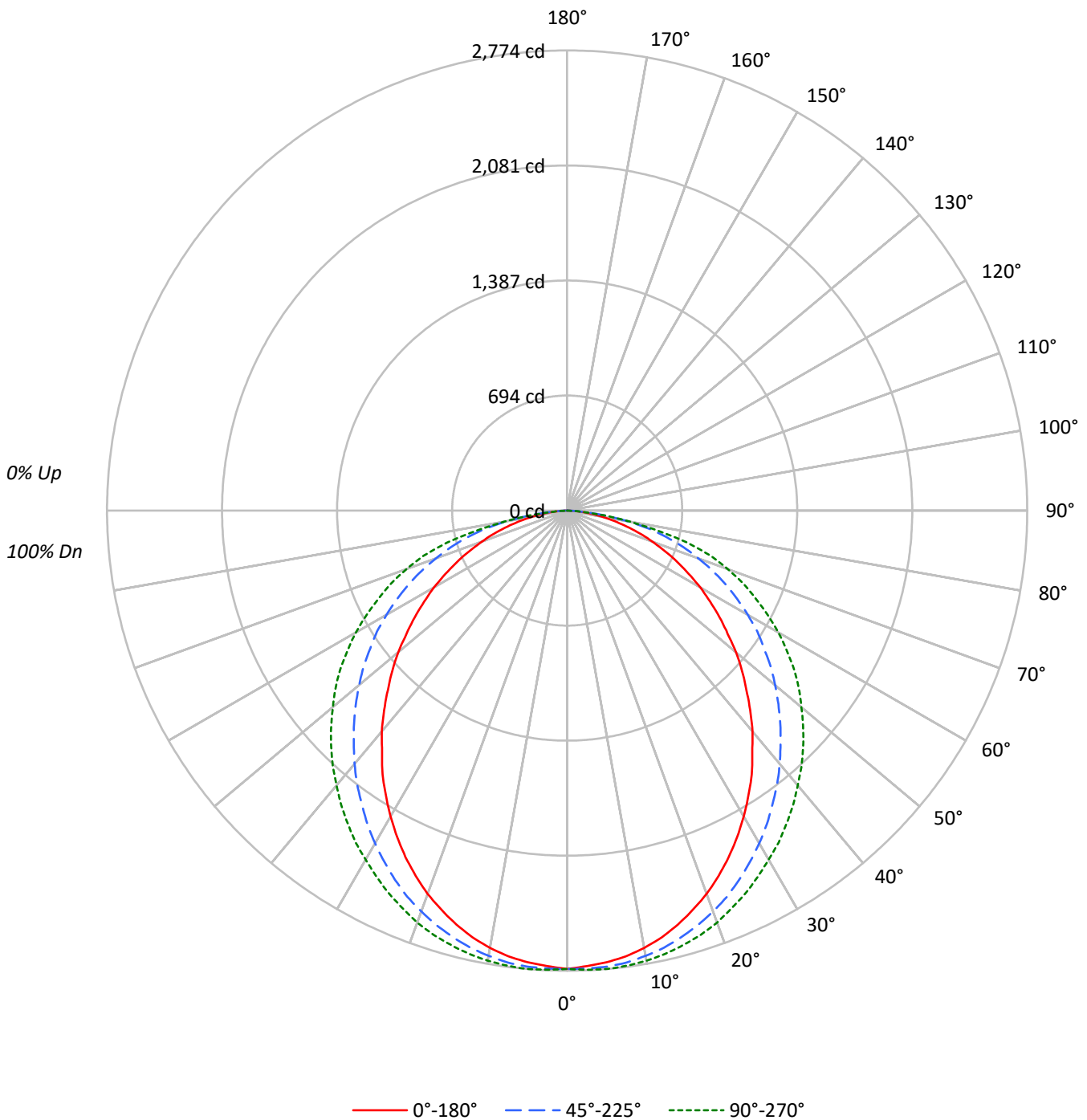
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	7436	7436	7436
5°	7383	7454	7494
10°	7314	7448	7530
15°	7196	7416	7551
20°	7042	7365	7569
25°	6844	7290	7558
30°	6614	7198	7548
35°	6376	7091	7572
40°	6106	7003	7596
45°	5815	6915	7658
50°	5564	6853	7717
55°	5266	6799	7838
60°	4991	6769	7921
65°	4662	6718	7984
70°	4283	6617	8094
75°	3865	6441	7807
80°	3316	5701	5876
85°	2665	3362	2665



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	262.0	3.3
10°-20°	748.9	9.5
20°-30°	1124.9	14.2
30°-40°	1341.6	17.0
40°-50°	1387.1	17.5
50°-60°	1275.3	16.1
60°-70°	1015.2	12.8
70°-80°	620.3	7.8
80°-90°	134.8	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°	2135.8	27.0
0°-40°	3477.4	44.0
0°-60°	6139.7	77.6
0°-90°	7910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7910.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2763	2763	2763	2763	2763	
5°	2733	2741	2759	2771	2774	259
15°	2583	2613	2662	2699	2711	727
25°	2305	2361	2455	2523	2545	1060
35°	1941	2024	2159	2271	2305	1211
45°	1528	1637	1817	1964	2012	1182
55°	1122	1246	1449	1614	1671	1004
65°	732	856	1055	1201	1254	725
75°	372	480	620	728	751	396
85°	86	105	109	94	86	100
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2763.2	2763.2	2763.2	2763.2	2763.2
2.5°	2748.1	2751.9	2763.2	2770.7	2770.7
5°	2733.1	2740.6	2759.4	2770.7	2774.4
7.5°	2710.6	2721.9	2748.1	2763.2	2766.9
10°	2676.8	2691.8	2725.6	2748.1	2755.6
12.5°	2635.5	2658.0	2699.3	2729.4	2736.9
15°	2582.9	2613.0	2661.8	2699.3	2710.6
17.5°	2522.9	2560.4	2620.5	2665.5	2680.6
20°	2459.1	2496.6	2571.7	2624.2	2643.0
22.5°	2384.0	2432.8	2519.1	2579.2	2594.2
25°	2305.1	2361.4	2455.3	2522.9	2545.4
27.5°	2218.8	2286.4	2387.7	2470.3	2489.1
30°	2128.7	2200.0	2316.4	2406.5	2429.0
32.5°	2034.8	2117.4	2241.3	2342.7	2372.7
35°	1941.0	2023.6	2158.7	2271.3	2305.1
37.5°	1832.1	1929.7	2079.9	2196.3	2237.6
40°	1738.2	1832.1	1993.5	2121.2	2162.5
42.5°	1633.1	1734.5	1903.4	2042.3	2091.1
45°	1528.0	1636.9	1817.1	1963.5	2012.3
47.5°	1430.4	1539.3	1727.0	1880.9	1929.7
50°	1329.0	1441.6	1636.9	1794.5	1843.4
52.5°	1220.1	1344.0	1546.8	1704.4	1760.8
55°	1122.5	1246.4	1449.2	1614.3	1670.7
57.5°	1021.2	1148.8	1359.1	1516.7	1569.3
60°	927.3	1051.2	1257.7	1411.6	1471.7
62.5°	825.9	953.6	1156.3	1306.5	1362.8
65°	732.1	856.0	1055.0	1201.4	1253.9
67.5°	638.2	762.1	949.8	1088.7	1148.8
70°	544.4	668.3	841.0	976.1	1028.7
72.5°	461.8	570.7	735.8	859.7	908.5
75°	371.7	480.5	619.5	728.3	750.9
77.5°	289.1	386.7	503.1	551.9	559.4
80°	214.0	289.1	367.9	379.2	379.2
82.5°	142.7	199.0	229.0	232.8	229.0
85°	86.3	105.1	108.9	93.9	86.3
87.5°	30.0	30.0	18.8	11.3	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)