

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: P388258

Luminaire Tested: **22CZ2-90VHE-SQR-UNV-L950-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: P388258  
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-L950-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7847.3 lumens  
Efficiency: N/A  
Efficacy: 115.1 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

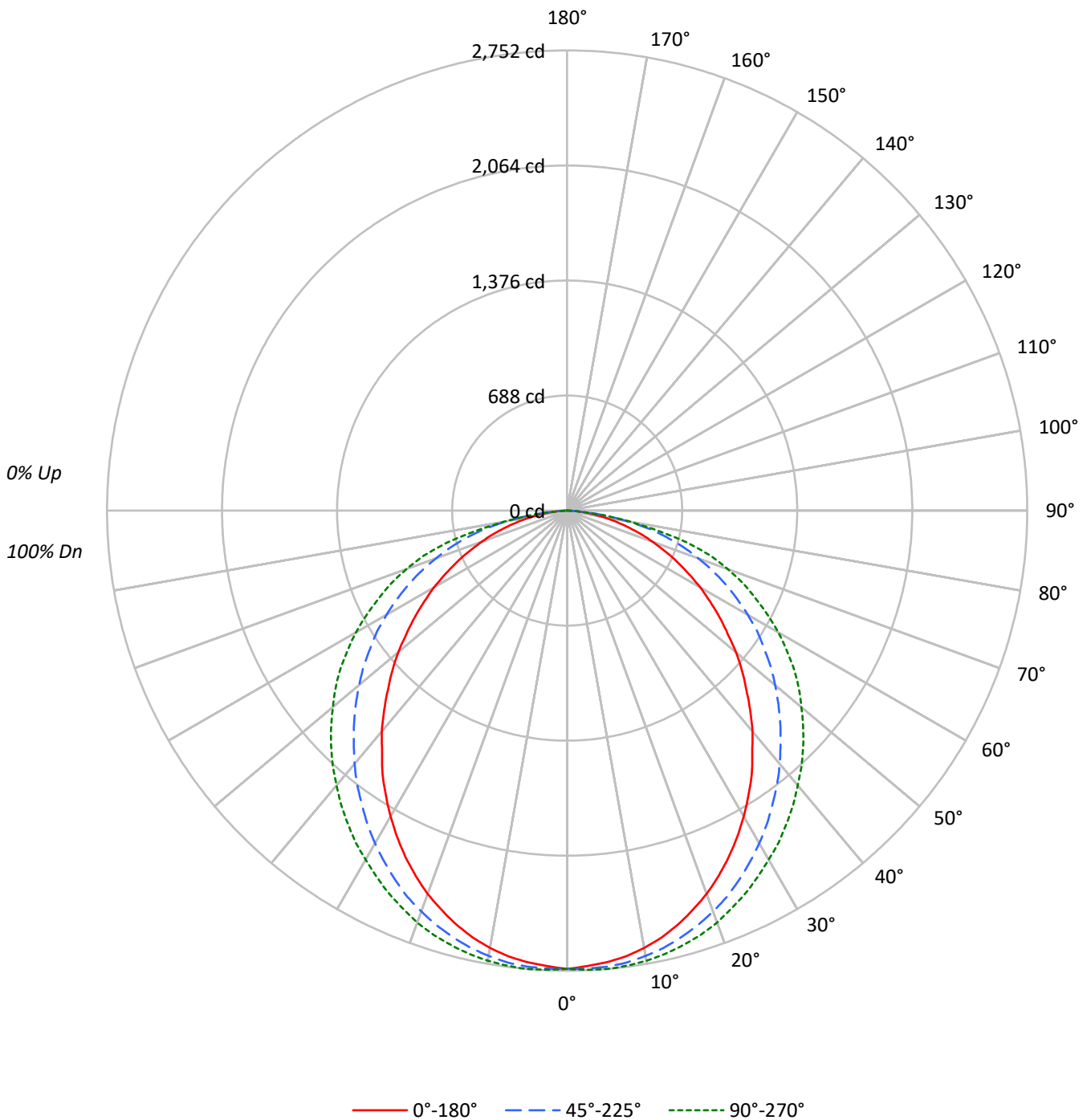
Input Watts (W): 68.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	7377	7377	7377
5°	7324	7395	7435
10°	7256	7389	7470
15°	7139	7357	7492
20°	6986	7306	7509
25°	6790	7232	7498
30°	6562	7141	7488
35°	6326	7035	7513
40°	6058	6947	7536
45°	5769	6860	7597
50°	5520	6798	7656
55°	5225	6745	7776
60°	4951	6715	7858
65°	4625	6664	7921
70°	4249	6564	8029
75°	3833	6389	7745
80°	3290	5656	5830
85°	2646	3335	2646



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	259.9	3.3
10°-20°	743.0	9.5
20°-30°	1116.0	14.2
30°-40°	1330.9	17.0
40°-50°	1376.1	17.5
50°-60°	1265.1	16.1
60°-70°	1007.2	12.8
70°-80°	615.3	7.8
80°-90°	133.8	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°	2118.9	27.0
0°-40°	3449.8	44.0
0°-60°	6091.0	77.6
0°-90°	7847.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7847.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2741	2741	2741	2741	2741	
5°	2712	2719	2738	2749	2752	257
15°	2562	2592	2641	2678	2689	722
25°	2287	2343	2436	2503	2525	1052
35°	1926	2008	2142	2253	2287	1201
45°	1516	1624	1803	1948	1996	1172
55°	1114	1236	1438	1602	1657	996
65°	726	849	1047	1192	1244	719
75°	369	477	614	723	745	393
85°	86	104	108	93	86	99
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2741.3	2741.3	2741.3	2741.3	2741.3
2.5°	2726.4	2730.1	2741.3	2748.7	2748.7
5°	2711.5	2718.9	2737.5	2748.7	2752.4
7.5°	2689.1	2700.3	2726.4	2741.3	2745.0
10°	2655.6	2670.5	2704.0	2726.4	2733.8
12.5°	2614.6	2637.0	2677.9	2707.7	2715.2
15°	2562.5	2592.3	2640.7	2677.9	2689.1
17.5°	2502.9	2540.1	2599.7	2644.4	2659.3
20°	2439.6	2476.8	2551.3	2603.4	2622.1
22.5°	2365.1	2413.5	2499.2	2558.7	2573.6
25°	2286.9	2342.7	2435.8	2502.9	2525.2
27.5°	2201.2	2268.2	2368.8	2450.7	2469.4
30°	2111.8	2182.6	2298.0	2387.4	2409.8
32.5°	2018.7	2100.6	2223.5	2324.1	2353.9
35°	1925.6	2007.5	2141.6	2253.3	2286.9
37.5°	1817.6	1914.4	2063.4	2178.8	2219.8
40°	1724.5	1817.6	1977.7	2104.4	2145.3
42.5°	1620.2	1720.7	1888.3	2026.1	2074.6
45°	1515.9	1623.9	1802.7	1947.9	1996.3
47.5°	1419.0	1527.1	1713.3	1866.0	1914.4
50°	1318.5	1430.2	1623.9	1780.3	1828.7
52.5°	1210.5	1333.4	1534.5	1690.9	1746.8
55°	1113.6	1236.5	1437.7	1601.5	1657.4
57.5°	1013.1	1139.7	1348.3	1504.7	1556.9
60°	920.0	1042.9	1247.7	1400.4	1460.0
62.5°	819.4	946.0	1147.2	1296.1	1352.0
65°	726.3	849.2	1046.6	1191.8	1244.0
67.5°	633.2	756.1	942.3	1080.1	1139.7
70°	540.1	663.0	834.3	968.4	1020.5
72.5°	458.1	566.1	730.0	852.9	901.3
75°	368.7	476.7	614.5	722.6	744.9
77.5°	286.8	383.6	499.1	547.5	555.0
80°	212.3	286.8	365.0	376.2	376.2
82.5°	141.5	197.4	227.2	230.9	227.2
85°	85.7	104.3	108.0	93.1	85.7
87.5°	29.8	29.8	18.6	11.2	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)