

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: P387634

Luminaire Tested: **22CZ2-110VHE-SQR-UNV-L950-CD2-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: P387634  
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: 22CZ2-110VHE-SQR-UNV-L950-CD2-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: 9515.7 lumens  
Efficiency: N/A  
Efficacy: 108.5 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

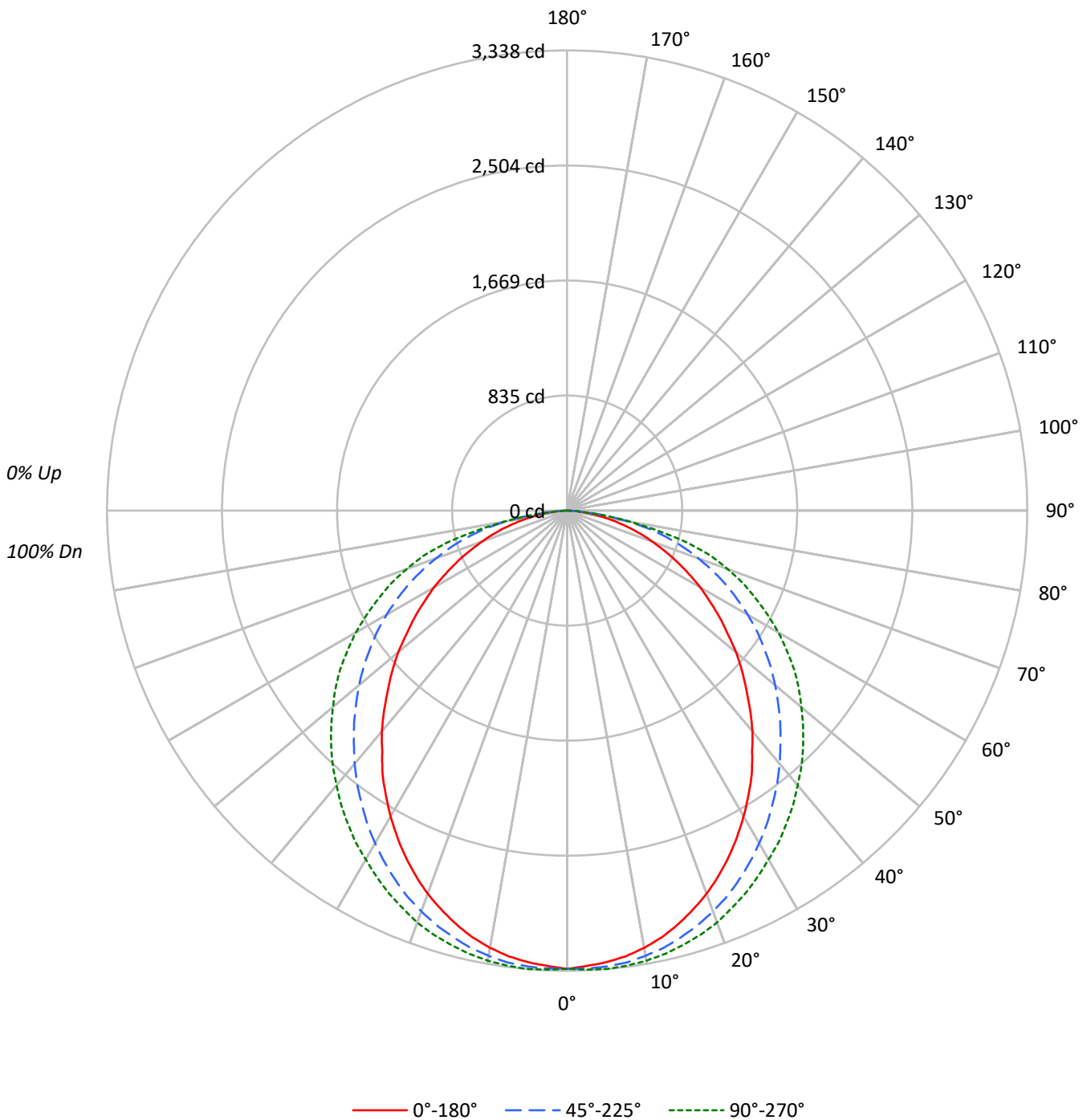
Input Watts (W): 87.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8945	8945	8945
5°	8881	8967	9016
10°	8799	8960	9058
15°	8657	8921	9084
20°	8471	8859	9105
25°	8234	8770	9092
30°	7957	8659	9080
35°	7671	8531	9110
40°	7346	8424	9138
45°	6995	8319	9213
50°	6693	8243	9283
55°	6336	8179	9429
60°	6004	8143	9528
65°	5608	8081	9605
70°	5153	7960	9737
75°	4649	7748	9392
80°	3989	6859	7070
85°	3208	4045	3208



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.1	3.3
10°-20°	901.0	9.5
20°-30°	1353.2	14.2
30°-40°	1613.9	17.0
40°-50°	1668.6	17.5
50°-60°	1534.1	16.1
60°-70°	1221.3	12.8
70°-80°	746.2	7.8
80°-90°	162.2	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°	2569.3	27.0
0°-40°	4183.3	44.0
0°-60°	7386.0	77.6
0°-90°	9515.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9515.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3324	3324	3324	3324	3324	
5°	3288	3297	3320	3333	3338	312
15°	3107	3143	3202	3247	3261	875
25°	2773	2841	2954	3035	3062	1276
35°	2335	2434	2597	2732	2773	1457
45°	1838	1969	2186	2362	2421	1421
55°	1350	1499	1743	1942	2010	1208
65°	881	1030	1269	1445	1508	872
75°	447	578	745	876	903	476
85°	104	126	131	113	104	120
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3324.1	3324.1	3324.1	3324.1	3324.1
2.5°	3306.0	3310.5	3324.1	3333.1	3333.1
5°	3287.9	3297.0	3319.5	3333.1	3337.6
7.5°	3260.8	3274.4	3306.0	3324.1	3328.6
10°	3220.2	3238.3	3278.9	3306.0	3315.0
12.5°	3170.5	3197.6	3247.3	3283.4	3292.4
15°	3107.3	3143.4	3202.1	3247.3	3260.8
17.5°	3035.0	3080.2	3152.4	3206.6	3224.7
20°	2958.2	3003.4	3093.7	3157.0	3179.5
22.5°	2867.9	2926.6	3030.5	3102.8	3120.8
25°	2773.1	2840.8	2953.7	3035.0	3062.1
27.5°	2669.2	2750.5	2872.4	2971.8	2994.4
30°	2560.8	2646.6	2786.6	2895.0	2922.1
32.5°	2447.9	2547.2	2696.3	2818.2	2854.4
35°	2335.0	2434.3	2596.9	2732.4	2773.1
37.5°	2204.0	2321.4	2502.1	2642.1	2691.8
40°	2091.1	2204.0	2398.2	2551.8	2601.4
42.5°	1964.6	2086.6	2289.8	2456.9	2515.6
45°	1838.2	1969.1	2185.9	2362.1	2420.8
47.5°	1720.7	1851.7	2077.5	2262.7	2321.4
50°	1598.8	1734.3	1969.1	2158.8	2217.5
52.5°	1467.8	1616.9	1860.8	2050.4	2118.2
55°	1350.4	1499.4	1743.3	1942.0	2009.8
57.5°	1228.5	1382.0	1634.9	1824.6	1887.9
60°	1115.5	1264.6	1513.0	1698.2	1770.4
62.5°	993.6	1147.2	1391.0	1571.7	1639.4
65°	880.7	1029.7	1269.1	1445.2	1508.5
67.5°	767.8	916.8	1142.6	1309.8	1382.0
70°	654.9	803.9	1011.7	1174.3	1237.5
72.5°	555.5	686.5	885.2	1034.3	1093.0
75°	447.1	578.1	745.2	876.2	903.3
77.5°	347.8	465.2	605.2	663.9	672.9
80°	257.4	347.8	442.6	456.2	456.2
82.5°	171.6	239.4	275.5	280.0	275.5
85°	103.9	126.5	131.0	112.9	103.9
87.5°	36.1	36.1	22.6	13.5	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)