

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: P387848

Luminaire Tested: **22CZ2-32-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: P387848  
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: 22CZ2-32-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: 2690.9 lumens  
Efficiency: N/A  
Efficacy: 100.8 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

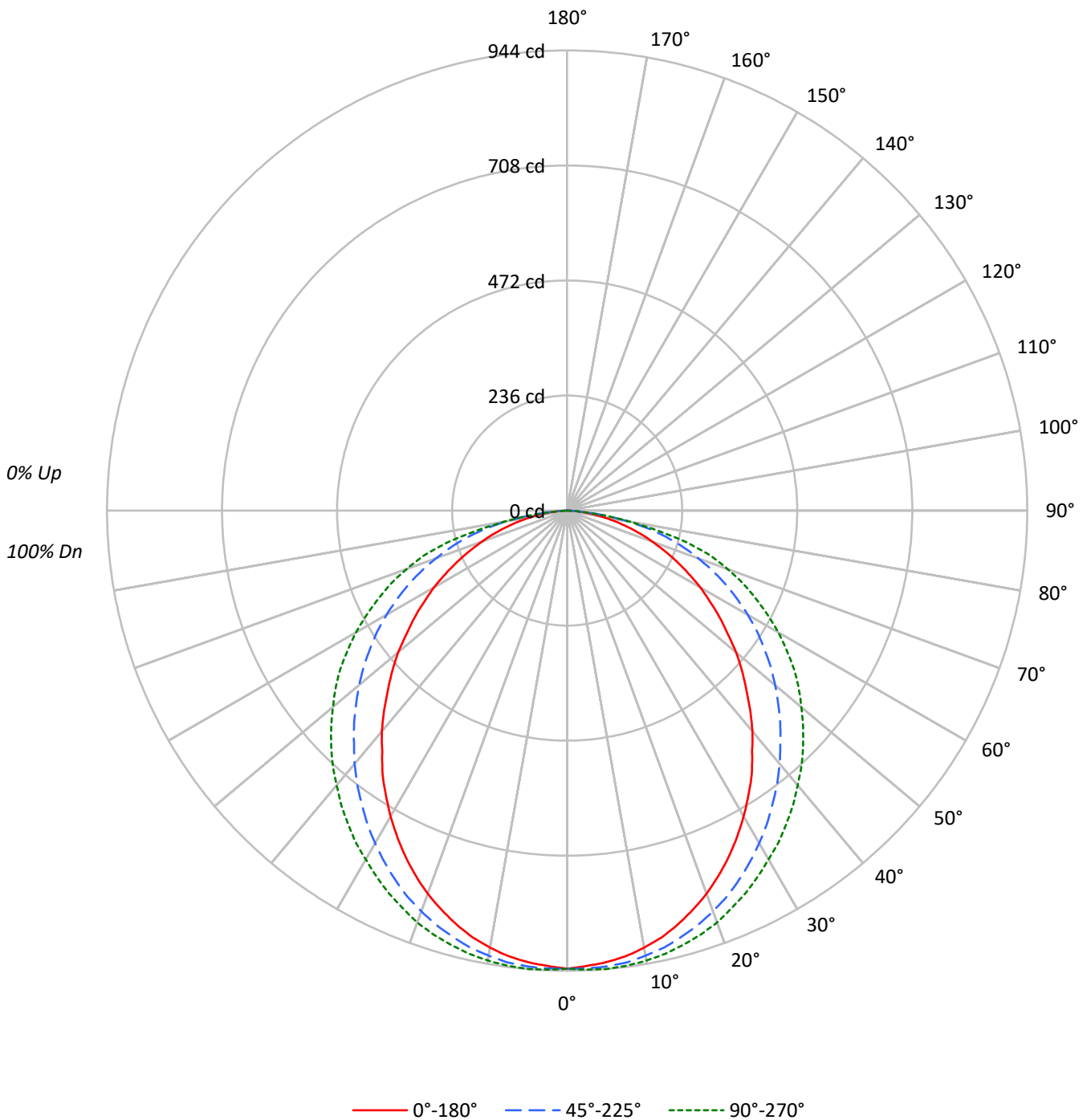
Input Watts (W): 26.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2530	2530	2530
5°	2512	2536	2549
10°	2488	2534	2561
15°	2448	2523	2569
20°	2395	2505	2575
25°	2328	2480	2571
30°	2250	2449	2568
35°	2169	2413	2576
40°	2077	2382	2584
45°	1978	2352	2605
50°	1893	2331	2625
55°	1792	2313	2666
60°	1698	2303	2695
65°	1585	2285	2716
70°	1457	2251	2753
75°	1314	2191	2655
80°	1128	1940	1999
85°	908	1142	908



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.1	3.3
10°-20°	254.8	9.5
20°-30°	382.7	14.2
30°-40°	456.4	17.0
40°-50°	471.9	17.5
50°-60°	433.8	16.1
60°-70°	345.4	12.8
70°-80°	211.0	7.8
80°-90°	45.9	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°	726.6	27.0
0°-40°	1183.0	44.0
0°-60°	2088.7	77.6
0°-90°	2690.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2690.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	930	932	939	943	944	88
15°	879	889	906	918	922	247
25°	784	803	835	858	866	361
35°	660	688	734	773	784	412
45°	520	557	618	668	685	402
55°	382	424	493	549	568	342
65°	249	291	359	409	427	247
75°	126	164	211	248	255	135
85°	29	36	37	32	29	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	940.0	940.0	940.0	940.0	940.0
2.5°	934.9	936.2	940.0	942.6	942.6
5°	929.8	932.3	938.7	942.6	943.8
7.5°	922.1	925.9	934.9	940.0	941.3
10°	910.6	915.7	927.2	934.9	937.4
12.5°	896.6	904.2	918.3	928.5	931.1
15°	878.7	888.9	905.5	918.3	922.1
17.5°	858.3	871.0	891.5	906.8	911.9
20°	836.5	849.3	874.9	892.7	899.1
22.5°	811.0	827.6	857.0	877.4	882.5
25°	784.2	803.3	835.3	858.3	865.9
27.5°	754.8	777.8	812.3	840.4	846.8
30°	724.2	748.4	788.0	818.7	826.3
32.5°	692.2	720.3	762.5	797.0	807.2
35°	660.3	688.4	734.4	772.7	784.2
37.5°	623.3	656.5	707.6	747.1	761.2
40°	591.3	623.3	678.2	721.6	735.6
42.5°	555.6	590.1	647.5	694.8	711.4
45°	519.8	556.8	618.1	668.0	684.6
47.5°	486.6	523.6	587.5	639.9	656.5
50°	452.1	490.4	556.8	610.5	627.1
52.5°	415.1	457.2	526.2	579.8	599.0
55°	381.9	424.0	493.0	549.2	568.3
57.5°	347.4	390.8	462.3	516.0	533.9
60°	315.5	357.6	427.9	480.2	500.7
62.5°	281.0	324.4	393.4	444.5	463.6
65°	249.0	291.2	358.9	408.7	426.6
67.5°	217.1	259.3	323.1	370.4	390.8
70°	185.2	227.3	286.1	332.1	349.9
72.5°	157.1	194.1	250.3	292.5	309.1
75°	126.4	163.5	210.7	247.8	255.4
77.5°	98.3	131.5	171.1	187.7	190.3
80°	72.8	98.3	125.2	129.0	129.0
82.5°	48.5	67.7	77.9	79.2	77.9
85°	29.4	35.8	37.0	31.9	29.4
87.5°	10.2	10.2	6.4	3.8	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)