

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: P387488

Luminaire Tested: **14CZ2-39-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: P387488  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-39-SQR-UNV-L940-CD1-U  
Description: 1x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

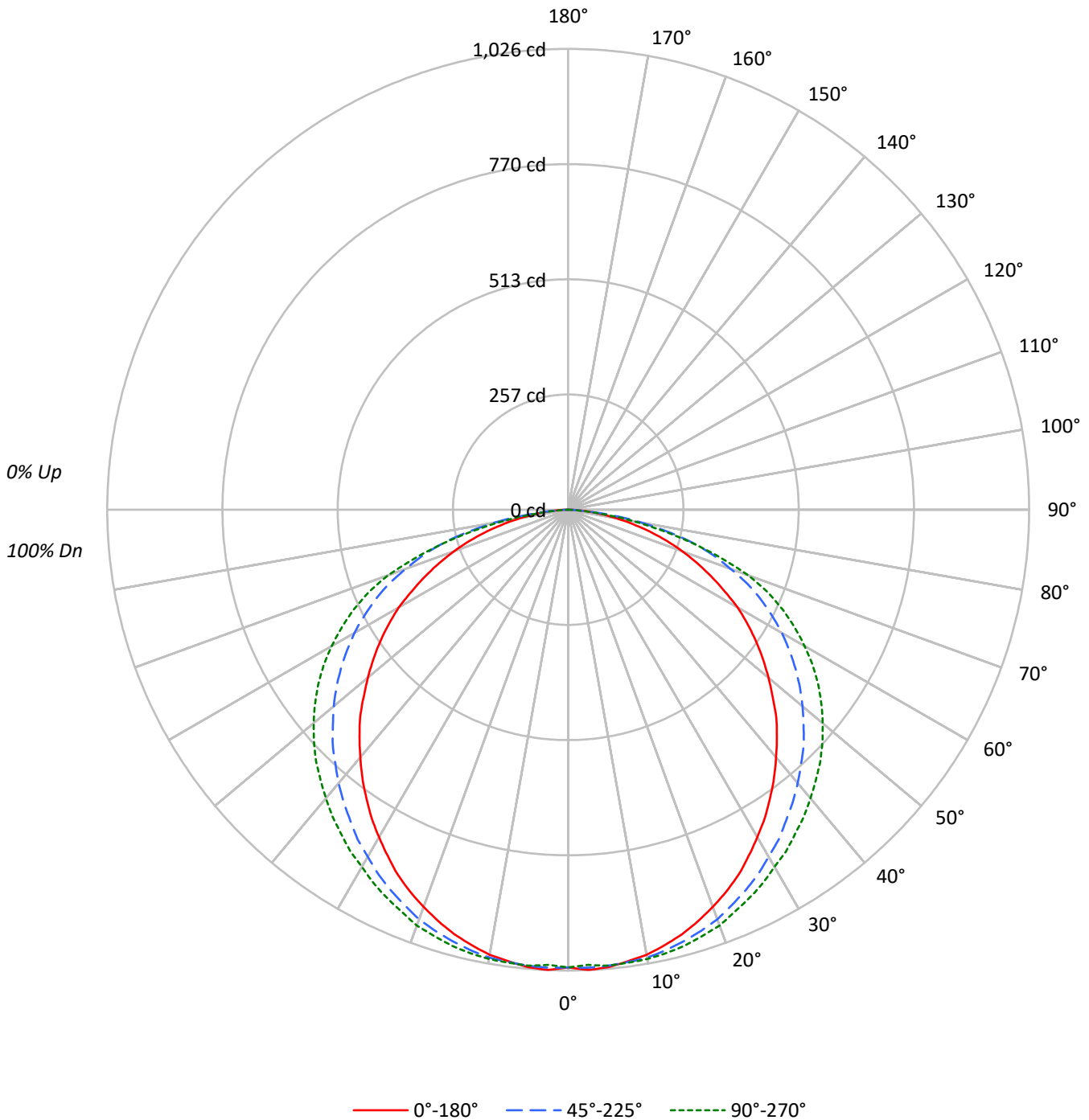
Lumens per Lamp: N/A  
Luminaire Lumens: 3224.9 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 32.3  
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: P387488  
CATALOG NUMBER: 14CZ2-39-SQR-UNV-L940-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P387488

CATALOG NUMBER: 14CZ2-39-SQR-UNV-L940-CD1-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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

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

	0°	45°	90°
0°	2742	2742	2742
5°	2761	2753	2753
10°	2749	2767	2776
15°	2726	2771	2798
20°	2695	2779	2821
25°	2664	2775	2833
30°	2616	2773	2853
35°	2574	2777	2894
40°	2529	2792	2946
45°	2493	2821	3019
50°	2436	2851	3096
55°	2395	2898	3187
60°	2344	2957	3272
65°	2236	3012	3353
70°	2123	3018	3350
75°	1943	3008	2957
80°	1663	2569	2292
85°	1306	1454	852



TEST NUMBER: P387488

CATALOG NUMBER: 14CZ2-39-SQR-UNV-L940-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.9	3.0
10°-20°	279.8	8.7
20°-30°	427.9	13.3
30°-40°	524.4	16.3
40°-50°	564.0	17.5
50°-60°	542.0	16.8
60°-70°	451.3	14.0
70°-80°	277.0	8.6
80°-90°	61.7	1.9
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°	804.5	24.9
0°-40°	1328.9	41.2
0°-60°	2434.9	75.5
0°-90°	3224.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3224.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1022	1013	1019	1019	1019	97
15°	978	975	995	1001	1004	276
25°	897	905	935	946	954	413
35°	783	803	845	868	881	490
45°	655	684	741	775	793	504
55°	510	554	618	660	679	456
65°	351	405	473	512	527	348
75°	187	244	289	288	284	198
85°	42	63	47	32	28	51
90°	0	0	0	0	0	



TEST NUMBER: P387488

CATALOG NUMBER: 14CZ2-39-SQR-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1019.1	1019.1	1019.1	1019.1	1019.1
2.5°	1025.6	1015.8	1020.7	1019.1	1014.2
5°	1022.3	1012.6	1019.1	1019.1	1019.1
7.5°	1014.2	1006.1	1015.8	1017.5	1017.5
10°	1006.1	999.6	1012.6	1014.2	1015.8
12.5°	993.1	988.2	1004.5	1007.7	1011.0
15°	978.5	975.2	994.7	1001.2	1004.5
17.5°	960.6	962.2	983.3	991.5	994.7
20°	941.1	946.0	970.3	978.5	985.0
22.5°	919.9	926.5	952.5	962.2	968.7
25°	897.2	905.3	934.6	946.0	954.1
27.5°	869.6	882.6	915.1	929.7	937.8
30°	841.9	856.6	892.3	910.2	918.3
32.5°	814.3	830.6	871.2	889.1	902.1
35°	783.4	802.9	845.2	867.9	880.9
37.5°	752.5	775.3	820.8	846.8	861.4
40°	720.0	744.4	794.8	824.1	838.7
42.5°	687.5	715.2	767.2	799.7	815.9
45°	655.0	684.3	741.2	775.3	793.2
47.5°	617.6	653.4	710.3	749.3	767.2
50°	581.9	620.9	681.0	721.7	739.5
52.5°	546.1	586.8	650.1	692.4	710.3
55°	510.4	554.2	617.6	659.9	679.4
57.5°	473.0	518.5	583.5	627.4	645.3
60°	435.6	482.7	549.4	590.0	607.9
62.5°	391.7	447.0	512.0	552.6	568.9
65°	351.1	404.7	473.0	512.0	526.6
67.5°	310.4	365.7	432.3	468.1	481.1
70°	269.8	325.1	383.6	417.7	425.8
72.5°	229.2	284.4	339.7	359.2	356.0
75°	186.9	243.8	289.3	287.7	284.4
77.5°	146.3	201.5	229.2	217.8	212.9
80°	107.3	160.9	165.8	154.4	147.9
82.5°	73.1	115.4	104.0	91.0	84.5
85°	42.3	63.4	47.1	32.5	27.6
87.5°	17.9	16.3	4.9	4.9	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)