

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: P387487

Luminaire Tested: **14CZ2-39-SQR-UNV-L940-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: P387487  
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-SWPD1-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: 3184.9 lumens  
Efficiency: N/A  
Efficacy: 98.6 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

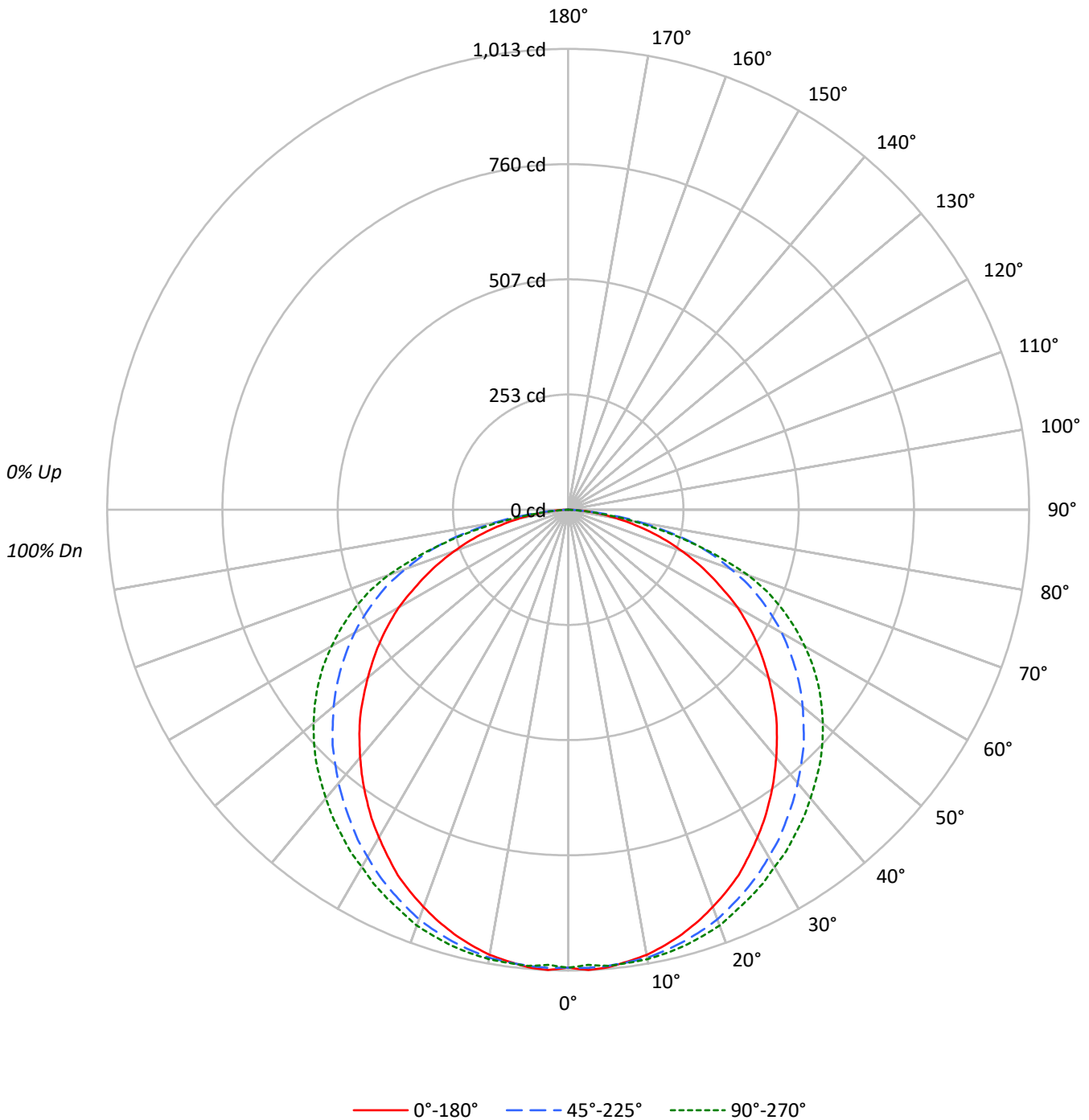
Input Watts (W): 32.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2708	2708	2708
5°	2727	2719	2719
10°	2715	2732	2741
15°	2692	2737	2764
20°	2662	2744	2786
25°	2631	2741	2798
30°	2584	2738	2818
35°	2542	2742	2858
40°	2498	2757	2910
45°	2462	2786	2981
50°	2406	2816	3058
55°	2365	2862	3148
60°	2315	2920	3231
65°	2208	2974	3312
70°	2097	2980	3309
75°	1919	2970	2921
80°	1641	2537	2264
85°	1288	1439	843



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.7	3.0
10°-20°	276.3	8.7
20°-30°	422.5	13.3
30°-40°	517.9	16.3
40°-50°	557.0	17.5
50°-60°	535.3	16.8
60°-70°	445.7	14.0
70°-80°	273.5	8.6
80°-90°	60.9	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°	794.5	24.9
0°-40°	1312.4	41.2
0°-60°	2404.7	75.5
0°-90°	3184.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3184.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	1010	1000	1006	1006	1006	96
15°	966	963	982	989	992	272
25°	886	894	923	934	942	408
35°	774	793	835	857	870	484
45°	647	676	732	766	783	498
55°	504	547	610	652	671	450
65°	347	400	467	506	520	344
75°	185	241	286	284	281	196
85°	42	63	47	32	27	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1006.5	1006.5	1006.5	1006.5	1006.5
2.5°	1012.9	1003.2	1008.1	1006.5	1001.6
5°	1009.7	1000.0	1006.5	1006.5	1006.5
7.5°	1001.6	993.6	1003.2	1004.9	1004.9
10°	993.6	987.2	1000.0	1001.6	1003.2
12.5°	980.8	976.0	992.0	995.2	998.4
15°	966.3	963.1	982.4	988.8	992.0
17.5°	948.7	950.3	971.1	979.2	982.4
20°	929.4	934.2	958.3	966.3	972.7
22.5°	908.5	915.0	940.6	950.3	956.7
25°	886.1	894.1	923.0	934.2	942.2
27.5°	858.8	871.6	903.7	918.2	926.2
30°	831.5	845.9	881.3	898.9	906.9
32.5°	804.2	820.3	860.4	878.0	890.9
35°	773.7	793.0	834.7	857.2	870.0
37.5°	743.2	765.7	810.6	836.3	850.8
40°	711.1	735.2	784.9	813.8	828.3
42.5°	679.0	706.3	757.7	789.8	805.8
45°	646.9	675.8	732.0	765.7	783.3
47.5°	610.0	645.3	701.5	740.0	757.7
50°	574.7	613.2	672.6	712.7	730.4
52.5°	539.3	579.5	642.1	683.8	701.5
55°	504.0	547.4	610.0	651.7	671.0
57.5°	467.1	512.1	576.3	619.6	637.3
60°	430.2	476.7	542.6	582.7	600.3
62.5°	386.9	441.4	505.6	545.8	561.8
65°	346.7	399.7	467.1	505.6	520.1
67.5°	306.6	361.2	427.0	462.3	475.1
70°	266.5	321.0	378.8	412.5	420.6
72.5°	226.3	280.9	335.5	354.7	351.5
75°	184.6	240.8	285.7	284.1	280.9
77.5°	144.5	199.0	226.3	215.1	210.3
80°	105.9	158.9	163.7	152.5	146.1
82.5°	72.2	114.0	102.7	89.9	83.5
85°	41.7	62.6	46.6	32.1	27.3
87.5°	17.7	16.1	4.8	4.8	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)