

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: P387480

Luminaire Tested: **14CZ2-39-SQR-UNV-L930-CD1-SDWPD1-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: P387480  
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-L930-CD1-SDWPD1-U  
Description: 1x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3039.1 lumens  
Efficiency: N/A  
Efficacy: 94.1 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

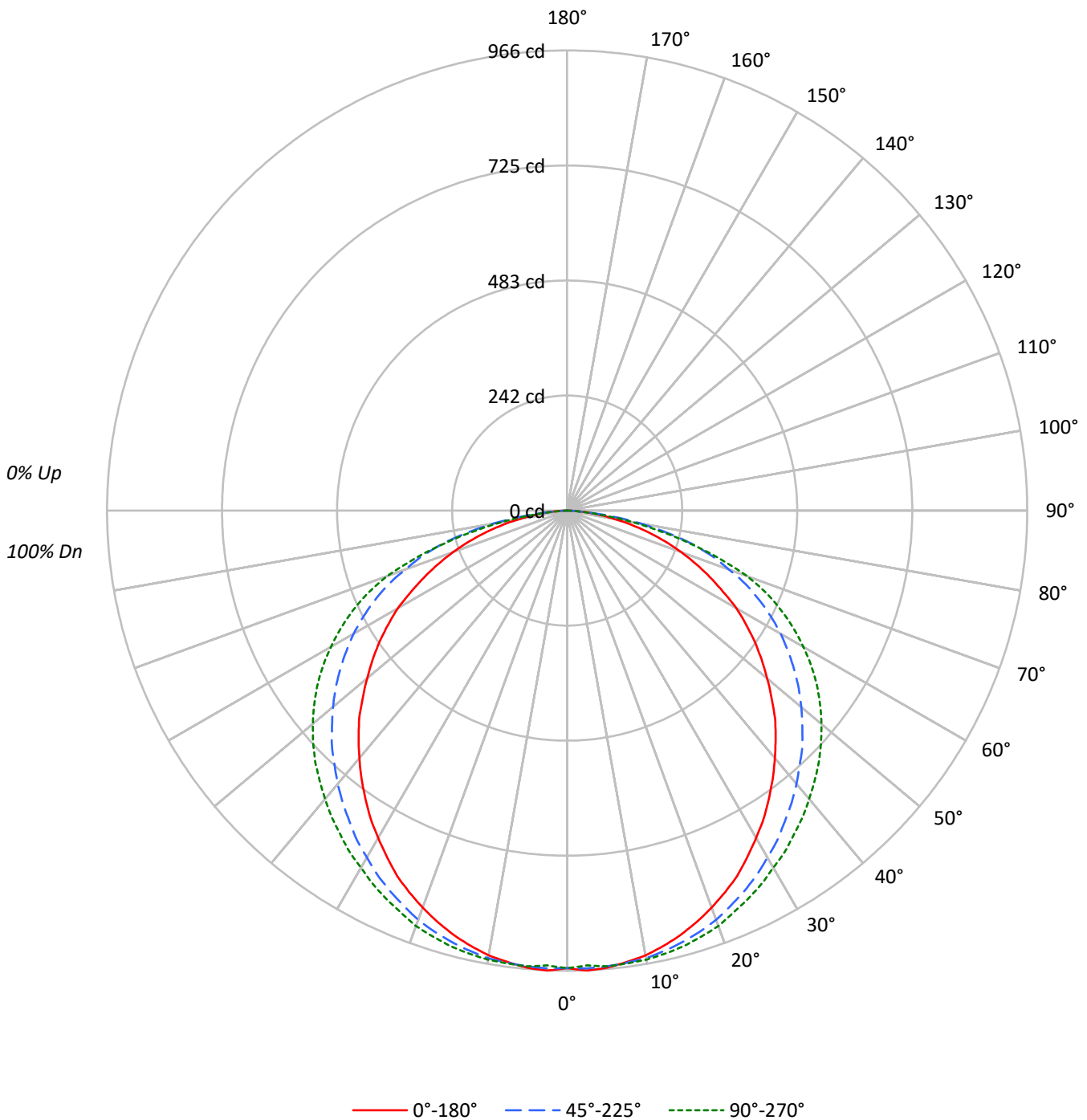
Input Watts (W): 32.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2584	2584	2584
5°	2602	2594	2594
10°	2591	2608	2616
15°	2569	2612	2637
20°	2540	2619	2658
25°	2510	2615	2670
30°	2465	2613	2689
35°	2425	2617	2727
40°	2383	2631	2777
45°	2349	2658	2845
50°	2296	2687	2918
55°	2257	2730	3004
60°	2209	2786	3083
65°	2106	2838	3160
70°	2001	2844	3157
75°	1831	2834	2786
80°	1567	2421	2160
85°	1229	1371	803



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.3	3.0
10°-20°	263.6	8.7
20°-30°	403.2	13.3
30°-40°	494.2	16.3
40°-50°	531.5	17.5
50°-60°	510.8	16.8
60°-70°	425.3	14.0
70°-80°	261.0	8.6
80°-90°	58.1	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°	758.1	24.9
0°-40°	1252.3	41.2
0°-60°	2294.6	75.5
0°-90°	3039.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3039.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	963	954	960	960	960	91
15°	922	919	937	944	947	260
25°	846	853	881	892	899	389
35°	738	757	796	818	830	462
45°	617	645	698	731	748	475
55°	481	522	582	622	640	430
65°	331	381	446	482	496	328
75°	176	230	273	271	268	187
85°	40	60	44	31	26	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	960.4	960.4	960.4	960.4	960.4
2.5°	966.5	957.3	961.9	960.4	955.8
5°	963.4	954.3	960.4	960.4	960.4
7.5°	955.8	948.1	957.3	958.9	958.9
10°	948.1	942.0	954.3	955.8	957.3
12.5°	935.9	931.3	946.6	949.7	952.7
15°	922.1	919.0	937.4	943.5	946.6
17.5°	905.2	906.8	926.7	934.3	937.4
20°	886.9	891.5	914.4	922.1	928.2
22.5°	866.9	873.1	897.6	906.8	912.9
25°	845.5	853.2	880.7	891.5	899.1
27.5°	819.5	831.7	862.4	876.1	883.8
30°	793.4	807.2	840.9	857.8	865.4
32.5°	767.4	782.7	821.0	837.8	850.1
35°	738.3	756.7	796.5	817.9	830.2
37.5°	709.2	730.6	773.5	798.0	811.8
40°	678.5	701.5	749.0	776.6	790.4
42.5°	647.9	674.0	723.0	753.6	768.9
45°	617.3	644.8	698.5	730.6	747.5
47.5°	582.0	615.7	669.4	706.1	723.0
50°	548.4	585.1	641.8	680.1	696.9
52.5°	514.7	552.9	612.7	652.5	669.4
55°	481.0	522.3	582.0	621.9	640.3
57.5°	445.7	488.6	549.9	591.2	608.1
60°	410.5	454.9	517.7	556.0	572.9
62.5°	369.1	421.2	482.5	520.8	536.1
65°	330.8	381.4	445.7	482.5	496.3
67.5°	292.6	344.6	407.4	441.1	453.4
70°	254.3	306.3	361.5	393.6	401.3
72.5°	216.0	268.0	320.1	338.5	335.4
75°	176.1	229.8	272.6	271.1	268.0
77.5°	137.9	189.9	216.0	205.2	200.7
80°	101.1	151.6	156.2	145.5	139.4
82.5°	68.9	108.8	98.0	85.8	79.6
85°	39.8	59.7	44.4	30.6	26.0
87.5°	16.8	15.3	4.6	4.6	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)