

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: P387529

Luminaire Tested: **14CZ2-44-SQR-UNV-L930-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: P387529  
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: 14CZ2-44-SQR-UNV-L930-CD1-SWPD1-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: 3530.1 lumens  
Efficiency: N/A  
Efficacy: 92.2 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

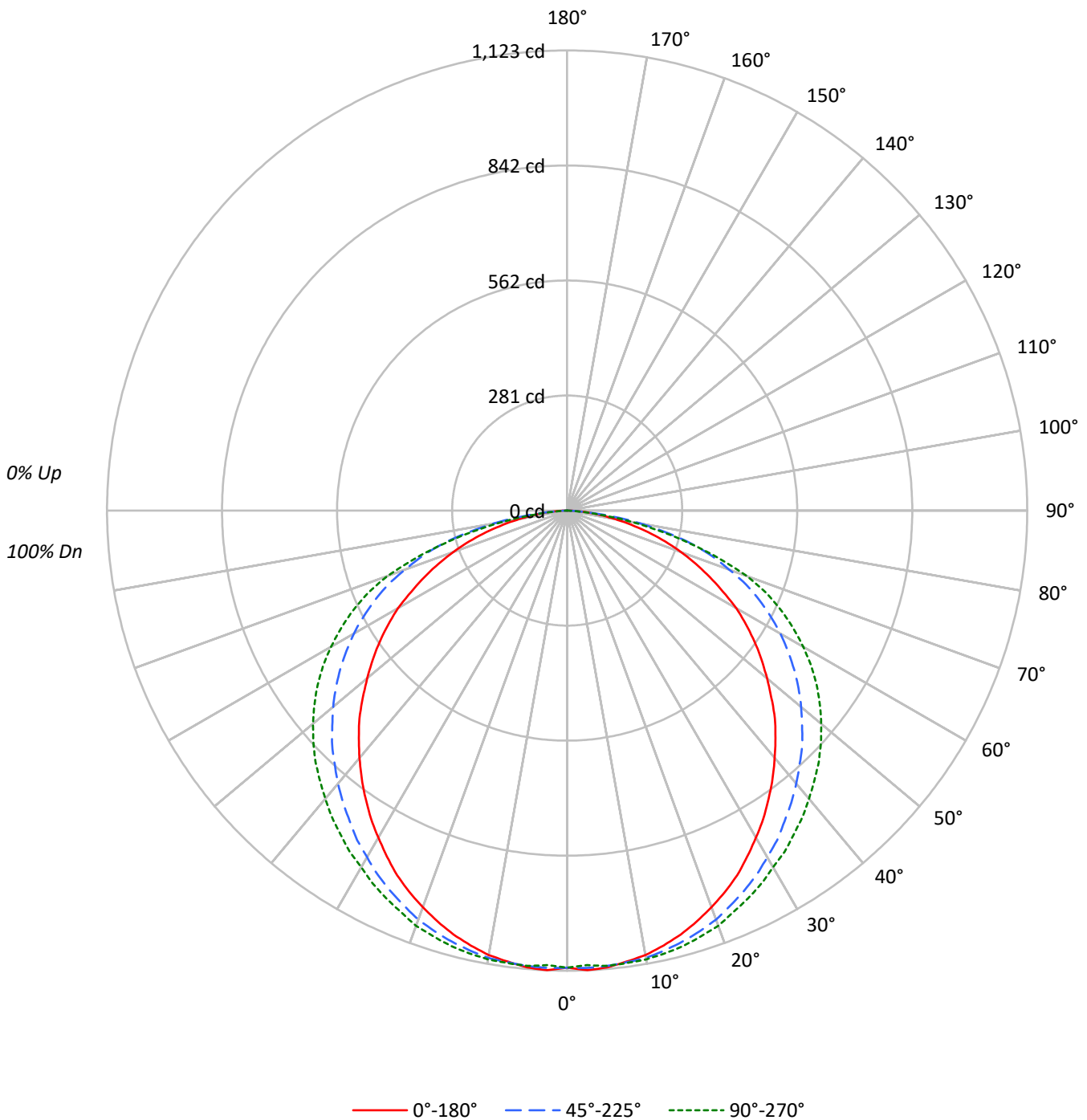
Input Watts (W): 38.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20			20			20			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°	3002	3002	3002
5°	3023	3013	3013
10°	3009	3029	3039
15°	2984	3034	3063
20°	2950	3042	3088
25°	2916	3037	3101
30°	2864	3035	3123
35°	2817	3039	3168
40°	2769	3056	3225
45°	2729	3087	3304
50°	2666	3121	3389
55°	2621	3172	3489
60°	2566	3237	3581
65°	2447	3296	3671
70°	2323	3304	3667
75°	2127	3293	3238
80°	1819	2813	2509
85°	1430	1593	932



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.0	3.0
10°-20°	306.2	8.7
20°-30°	468.3	13.3
30°-40°	574.1	16.3
40°-50°	617.4	17.5
50°-60°	593.3	16.8
60°-70°	494.0	14.0
70°-80°	303.2	8.6
80°-90°	67.5	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°	880.6	24.9
0°-40°	1454.7	41.2
0°-60°	2665.4	75.5
0°-90°	3530.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3530.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1116	1116	1116	1116	1116	
5°	1119	1108	1116	1116	1116	106
15°	1071	1068	1089	1096	1100	302
25°	982	991	1023	1036	1044	452
35°	858	879	925	950	964	537
45°	717	749	811	849	868	552
55°	559	607	676	722	744	499
65°	384	443	518	560	576	381
75°	205	267	317	315	311	217
85°	46	69	52	36	30	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1115.5	1115.5	1115.5	1115.5	1115.5
2.5°	1122.7	1112.0	1117.3	1115.5	1110.2
5°	1119.1	1108.4	1115.5	1115.5	1115.5
7.5°	1110.2	1101.3	1112.0	1113.8	1113.8
10°	1101.3	1094.2	1108.4	1110.2	1112.0
12.5°	1087.1	1081.7	1099.5	1103.1	1106.6
15°	1071.1	1067.5	1088.9	1096.0	1099.5
17.5°	1051.5	1053.3	1076.4	1085.3	1088.9
20°	1030.1	1035.5	1062.2	1071.1	1078.2
22.5°	1007.0	1014.1	1042.6	1053.3	1060.4
25°	982.1	991.0	1023.0	1035.5	1044.4
27.5°	951.9	966.1	1001.7	1017.7	1026.6
30°	921.6	937.6	976.8	996.3	1005.2
32.5°	891.4	909.2	953.6	973.2	987.4
35°	857.6	878.9	925.2	950.1	964.3
37.5°	823.8	848.7	898.5	926.9	943.0
40°	788.2	814.9	870.0	902.0	918.1
42.5°	752.6	782.8	839.8	875.4	893.1
45°	717.0	749.0	811.3	848.7	868.2
47.5°	676.1	715.2	777.5	820.2	839.8
50°	636.9	679.6	745.5	790.0	809.5
52.5°	597.8	642.3	711.7	757.9	777.5
55°	558.7	606.7	676.1	722.3	743.7
57.5°	517.7	567.6	638.7	686.8	706.3
60°	476.8	528.4	601.4	645.8	665.4
62.5°	428.8	489.3	560.4	604.9	622.7
65°	384.3	443.0	517.7	560.4	576.5
67.5°	339.8	400.3	473.3	512.4	526.6
70°	295.3	355.8	419.9	457.2	466.1
72.5°	250.9	311.4	371.8	393.2	389.6
75°	204.6	266.9	316.7	314.9	311.4
77.5°	160.1	220.6	250.9	238.4	233.1
80°	117.4	176.1	181.5	169.0	161.9
82.5°	80.1	126.3	113.9	99.6	92.5
85°	46.3	69.4	51.6	35.6	30.2
87.5°	19.6	17.8	5.3	5.3	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)