

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: P387530

Luminaire Tested: **14CZ2-44-SQR-UNV-L930-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: P387530  
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-U  
Description: 1x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

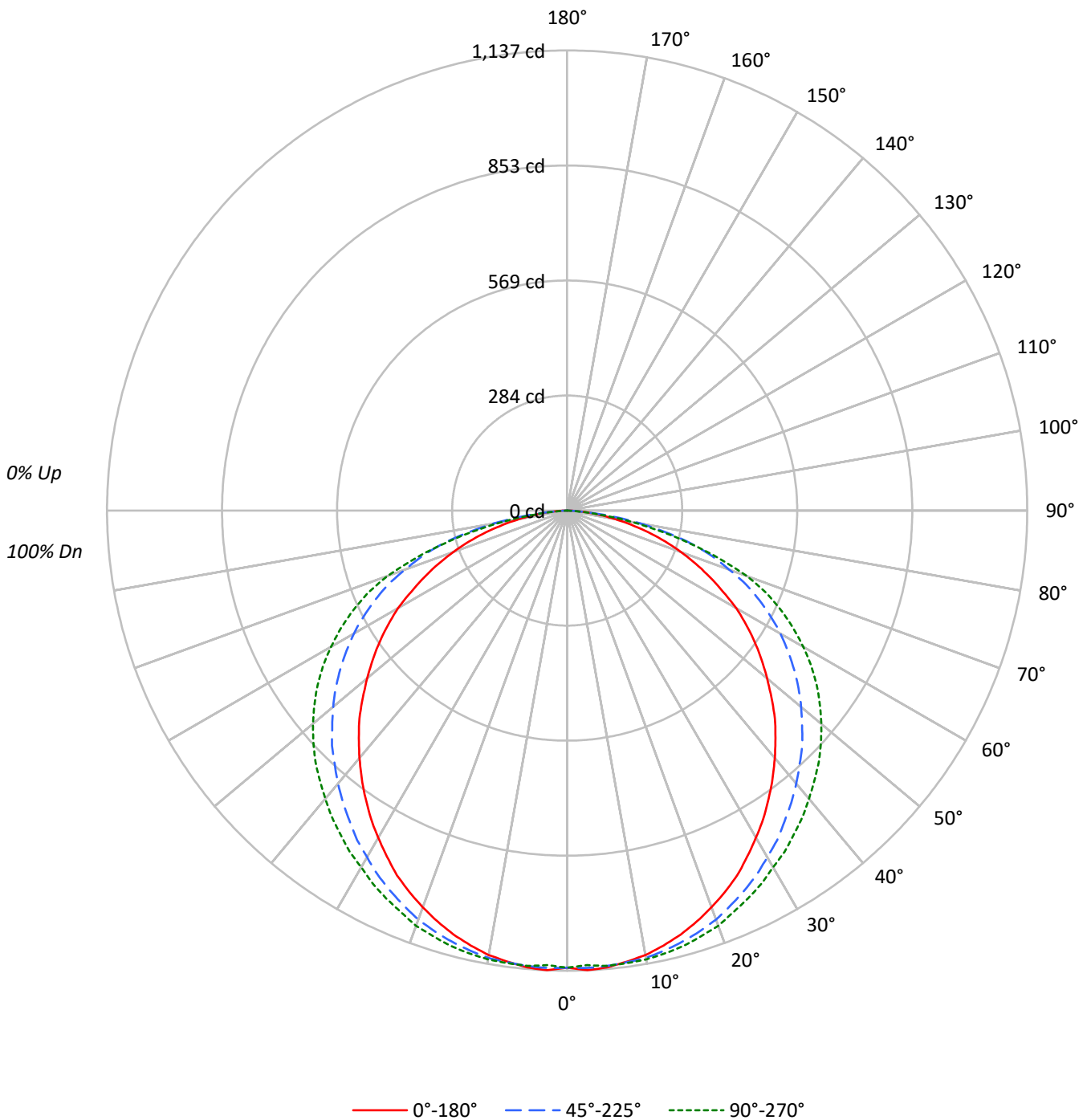
Lumens per Lamp: N/A  
Luminaire Lumens: 3574.4 lumens  
Efficiency: N/A  
Efficacy: 93.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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	
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°	3039	3039	3039
5°	3061	3051	3051
10°	3047	3067	3077
15°	3021	3071	3102
20°	2987	3080	3126
25°	2953	3076	3140
30°	2900	3073	3163
35°	2852	3077	3208
40°	2804	3094	3266
45°	2763	3126	3346
50°	2700	3160	3432
55°	2654	3212	3533
60°	2598	3277	3626
65°	2478	3338	3717
70°	2353	3345	3714
75°	2154	3334	3278
80°	1843	2848	2540
85°	1445	1612	945



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.3	3.0
10°-20°	310.1	8.7
20°-30°	474.2	13.3
30°-40°	581.3	16.3
40°-50°	625.1	17.5
50°-60°	600.7	16.8
60°-70°	500.2	14.0
70°-80°	307.0	8.6
80°-90°	68.4	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°	891.6	24.9
0°-40°	1472.9	41.2
0°-60°	2698.8	75.5
0°-90°	3574.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3574.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1133	1122	1130	1130	1130	107
15°	1084	1081	1102	1110	1113	306
25°	994	1003	1036	1048	1058	457
35°	868	890	937	962	976	543
45°	726	758	822	859	879	559
55°	566	614	685	731	753	505
65°	389	449	524	568	584	386
75°	207	270	321	319	315	219
85°	47	70	52	36	31	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1129.5	1129.5	1129.5	1129.5	1129.5
2.5°	1136.7	1125.9	1131.3	1129.5	1124.1
5°	1133.1	1122.3	1129.5	1129.5	1129.5
7.5°	1124.1	1115.1	1125.9	1127.7	1127.7
10°	1115.1	1107.9	1122.3	1124.1	1125.9
12.5°	1100.7	1095.3	1113.3	1116.9	1120.5
15°	1084.5	1080.9	1102.5	1109.7	1113.3
17.5°	1064.7	1066.5	1089.9	1098.9	1102.5
20°	1043.1	1048.5	1075.5	1084.5	1091.7
22.5°	1019.6	1026.9	1055.7	1066.5	1073.7
25°	994.4	1003.4	1035.9	1048.5	1057.5
27.5°	963.8	978.2	1014.2	1030.5	1039.5
30°	933.2	949.4	989.0	1008.8	1017.8
32.5°	902.6	920.6	965.6	985.4	999.8
35°	868.3	889.9	936.8	962.0	976.4
37.5°	834.1	859.3	909.8	938.6	954.8
40°	798.1	825.1	880.9	913.4	929.6
42.5°	762.0	792.7	850.3	886.3	904.4
45°	726.0	758.4	821.5	859.3	879.1
47.5°	684.6	724.2	787.3	830.5	850.3
50°	644.9	688.2	754.8	799.9	819.7
52.5°	605.3	650.3	720.6	767.4	787.3
55°	565.7	614.3	684.6	731.4	753.0
57.5°	524.2	574.7	646.7	695.4	715.2
60°	482.8	535.0	608.9	653.9	673.8
62.5°	434.2	495.4	567.5	612.5	630.5
65°	389.1	448.6	524.2	567.5	583.7
67.5°	344.1	405.3	479.2	518.8	533.2
70°	299.0	360.3	425.2	463.0	472.0
72.5°	254.0	315.3	376.5	398.1	394.5
75°	207.2	270.2	320.7	318.9	315.3
77.5°	162.1	223.4	254.0	241.4	236.0
80°	118.9	178.3	183.8	171.1	163.9
82.5°	81.1	127.9	115.3	100.9	93.7
85°	46.8	70.3	52.2	36.0	30.6
87.5°	19.8	18.0	5.4	5.4	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)