

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: P387535

Luminaire Tested: **14CZ2-44-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: P387535  
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-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: 3654.8 lumens  
Efficiency: N/A  
Efficacy: 95.4 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

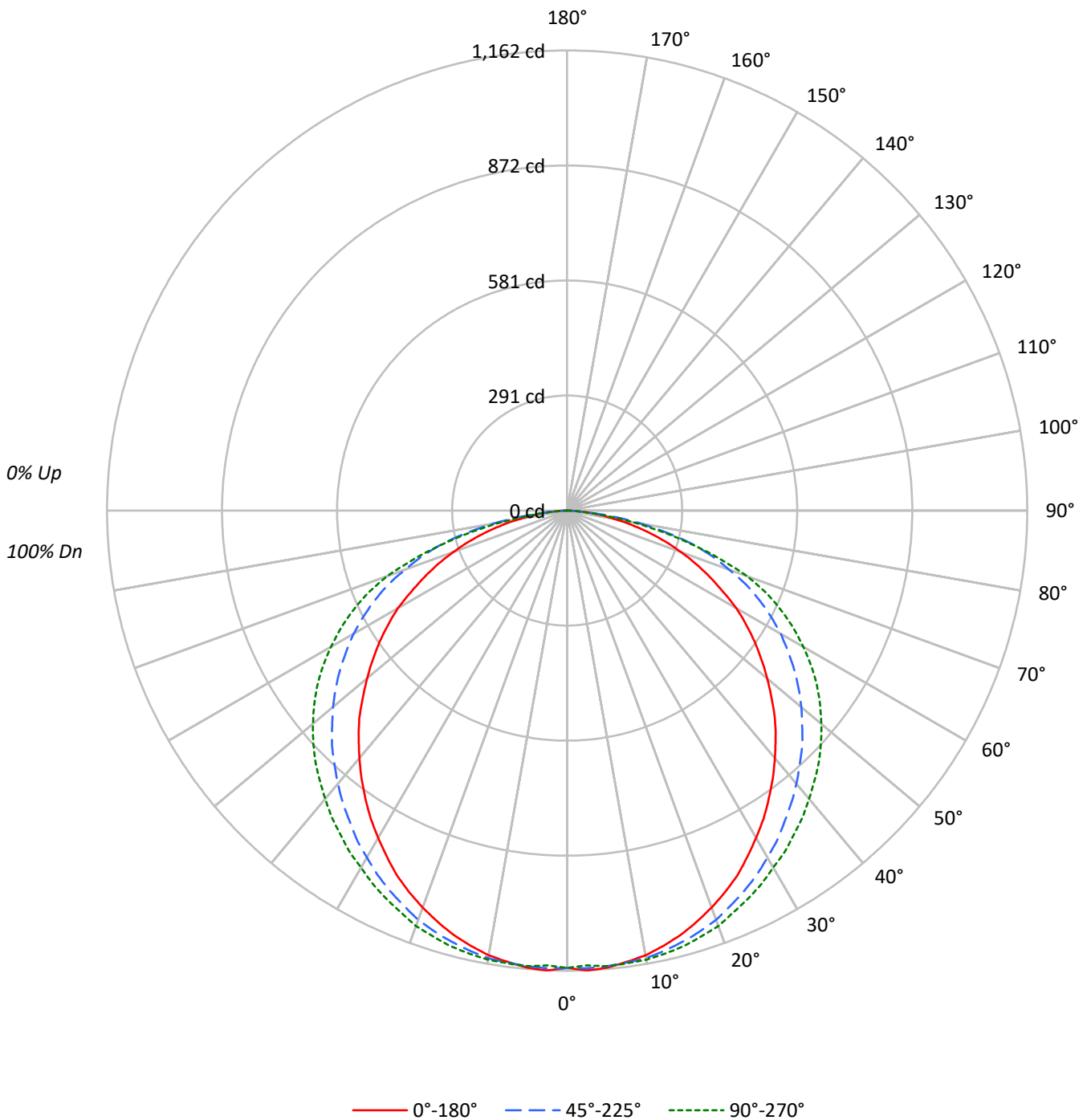
Input Watts (W): 38.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3108	3108	3108
5°	3130	3120	3120
10°	3116	3136	3146
15°	3089	3141	3171
20°	3054	3149	3197
25°	3019	3145	3211
30°	2965	3142	3234
35°	2917	3147	3280
40°	2866	3164	3339
45°	2825	3197	3421
50°	2761	3231	3509
55°	2714	3284	3613
60°	2657	3351	3708
65°	2534	3413	3800
70°	2406	3420	3797
75°	2202	3409	3352
80°	1884	2912	2597
85°	1479	1649	966



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.8	3.0
10°-20°	317.1	8.7
20°-30°	484.9	13.3
30°-40°	594.3	16.3
40°-50°	639.2	17.5
50°-60°	614.3	16.8
60°-70°	511.5	14.0
70°-80°	313.9	8.6
80°-90°	69.9	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°	911.7	24.9
0°-40°	1506.1	41.2
0°-60°	2759.5	75.5
0°-90°	3654.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3654.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1155	1155	1155	1155	1155	
5°	1159	1148	1155	1155	1155	110
15°	1109	1105	1127	1135	1138	313
25°	1017	1026	1059	1072	1081	468
35°	888	910	958	984	998	556
45°	742	776	840	879	899	571
55°	578	628	700	748	770	517
65°	398	459	536	580	597	394
75°	212	276	328	326	322	224
85°	48	72	53	37	31	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1154.9	1154.9	1154.9	1154.9	1154.9
2.5°	1162.3	1151.3	1156.8	1154.9	1149.4
5°	1158.6	1147.6	1154.9	1154.9	1154.9
7.5°	1149.4	1140.2	1151.3	1153.1	1153.1
10°	1140.2	1132.8	1147.6	1149.4	1151.3
12.5°	1125.5	1119.9	1138.4	1142.1	1145.7
15°	1108.9	1105.2	1127.3	1134.7	1138.4
17.5°	1088.6	1090.5	1114.4	1123.6	1127.3
20°	1066.5	1072.1	1099.7	1108.9	1116.3
22.5°	1042.6	1050.0	1079.4	1090.5	1097.8
25°	1016.8	1026.0	1059.2	1072.1	1081.3
27.5°	985.5	1000.2	1037.1	1053.6	1062.8
30°	954.2	970.7	1011.3	1031.5	1040.7
32.5°	922.9	941.3	987.3	1007.6	1022.3
35°	887.9	910.0	957.9	983.6	998.4
37.5°	852.9	878.6	930.2	959.7	976.3
40°	816.0	843.6	900.7	933.9	950.5
42.5°	779.2	810.5	869.4	906.3	924.7
45°	742.3	775.5	840.0	878.6	898.9
47.5°	700.0	740.5	805.0	849.2	869.4
50°	659.4	703.7	771.8	817.9	838.1
52.5°	618.9	665.0	736.8	784.7	805.0
55°	578.4	628.1	700.0	747.9	770.0
57.5°	536.0	587.6	661.3	711.0	731.3
60°	493.7	547.1	622.6	668.7	688.9
62.5°	443.9	506.6	580.2	626.3	644.7
65°	397.9	458.7	536.0	580.2	596.8
67.5°	351.8	414.5	490.0	530.5	545.2
70°	305.8	368.4	434.7	473.4	482.6
72.5°	259.7	322.4	385.0	407.1	403.4
75°	211.8	276.3	327.9	326.0	322.4
77.5°	165.8	228.4	259.7	246.8	241.3
80°	121.6	182.4	187.9	175.0	167.6
82.5°	82.9	130.8	117.9	103.2	95.8
85°	47.9	71.8	53.4	36.8	31.3
87.5°	20.3	18.4	5.5	5.5	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)