

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: P387534

Luminaire Tested: **14CZ2-44-SQR-UNV-L940-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: P387534  
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-SDWPD1-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: 3610.8 lumens  
Efficiency: N/A  
Efficacy: 94.3 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

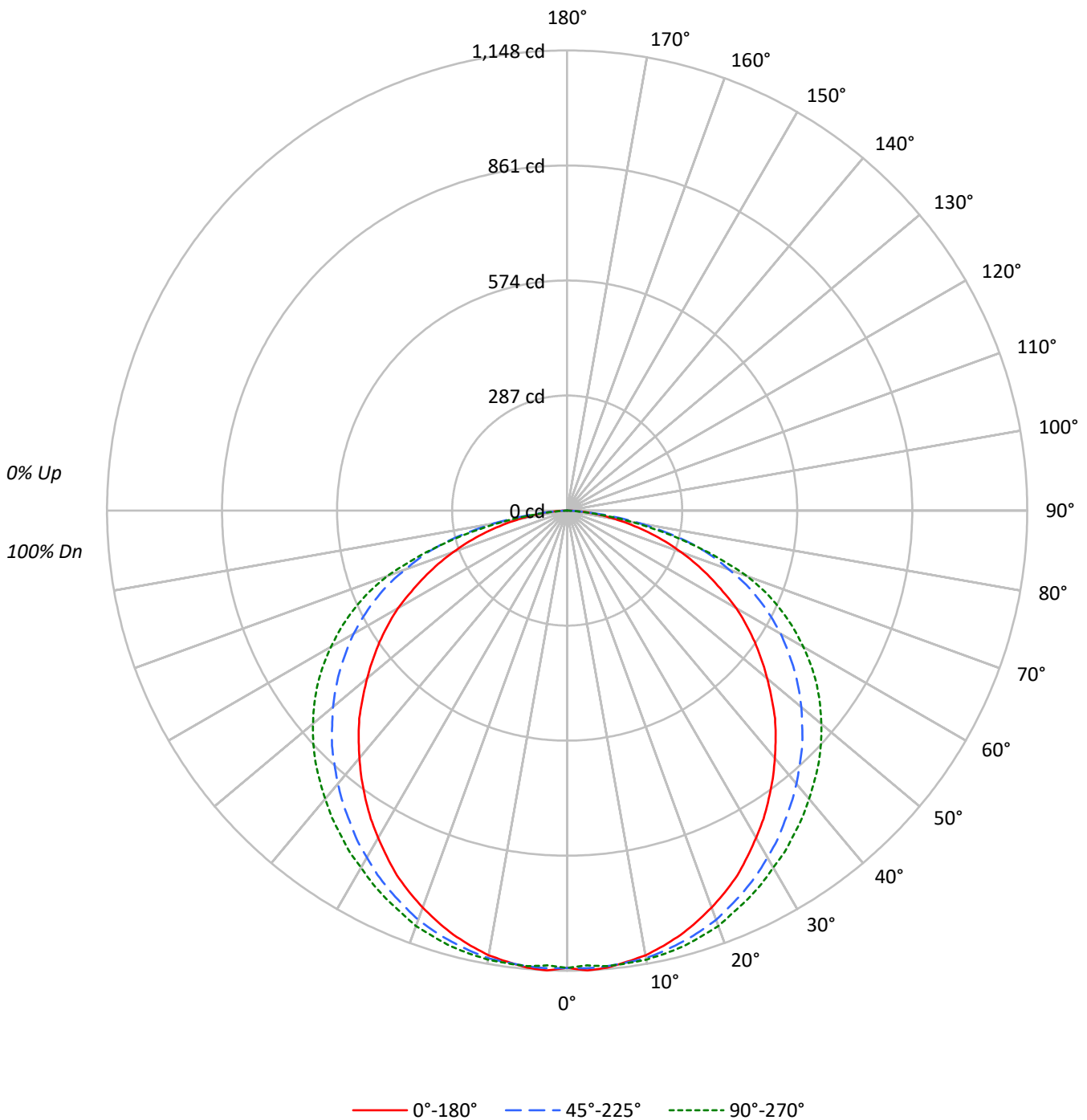
Input Watts (W): 38.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3070	3070	3070
5°	3092	3082	3082
10°	3078	3098	3108
15°	3052	3103	3133
20°	3017	3111	3158
25°	2983	3107	3172
30°	2929	3104	3195
35°	2882	3109	3240
40°	2832	3126	3299
45°	2791	3158	3380
50°	2727	3192	3466
55°	2681	3244	3569
60°	2625	3310	3663
65°	2503	3372	3754
70°	2377	3379	3751
75°	2176	3368	3311
80°	1861	2876	2566
85°	1460	1630	954



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.4	3.0
10°-20°	313.2	8.7
20°-30°	479.1	13.3
30°-40°	587.2	16.3
40°-50°	631.5	17.5
50°-60°	606.9	16.8
60°-70°	505.3	14.0
70°-80°	310.1	8.6
80°-90°	69.1	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°	900.7	24.9
0°-40°	1487.9	41.2
0°-60°	2726.3	75.5
0°-90°	3610.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3610.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1141	1141	1141	1141	1141	
5°	1145	1134	1141	1141	1141	109
15°	1096	1092	1114	1121	1125	309
25°	1005	1014	1046	1059	1068	462
35°	877	899	946	972	986	549
45°	733	766	830	868	888	564
55°	571	621	692	739	761	510
65°	393	453	530	573	590	389
75°	209	273	324	322	318	222
85°	47	71	53	36	31	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1141.0	1141.0	1141.0	1141.0	1141.0
2.5°	1148.3	1137.4	1142.9	1141.0	1135.6
5°	1144.7	1133.8	1141.0	1141.0	1141.0
7.5°	1135.6	1126.5	1137.4	1139.2	1139.2
10°	1126.5	1119.2	1133.8	1135.6	1137.4
12.5°	1111.9	1106.5	1124.7	1128.3	1131.9
15°	1095.5	1091.9	1113.7	1121.0	1124.7
17.5°	1075.5	1077.3	1101.0	1110.1	1113.7
20°	1053.7	1059.2	1086.4	1095.5	1102.8
22.5°	1030.0	1037.3	1066.4	1077.3	1084.6
25°	1004.6	1013.7	1046.4	1059.2	1068.3
27.5°	973.6	988.2	1024.6	1041.0	1050.1
30°	942.7	959.1	999.1	1019.1	1028.2
32.5°	911.7	929.9	975.4	995.5	1010.0
35°	877.2	899.0	946.3	971.8	986.4
37.5°	842.6	868.1	919.0	948.1	964.5
40°	806.2	833.5	889.9	922.7	939.0
42.5°	769.8	800.7	859.0	895.4	913.6
45°	733.4	766.2	829.9	868.1	888.1
47.5°	691.5	731.6	795.3	838.9	859.0
50°	651.5	695.2	762.5	808.0	828.0
52.5°	611.5	657.0	727.9	775.3	795.3
55°	571.4	620.6	691.5	738.9	760.7
57.5°	529.6	580.5	653.3	702.5	722.5
60°	487.7	540.5	615.1	660.6	680.6
62.5°	438.6	500.5	573.3	618.7	636.9
65°	393.1	453.1	529.6	573.3	589.6
67.5°	347.6	409.5	484.1	524.1	538.7
70°	302.1	364.0	429.5	467.7	476.8
72.5°	256.6	318.5	380.3	402.2	398.5
75°	209.3	273.0	323.9	322.1	318.5
77.5°	163.8	225.7	256.6	243.9	238.4
80°	120.1	180.2	185.6	172.9	165.6
82.5°	81.9	129.2	116.5	101.9	94.6
85°	47.3	71.0	52.8	36.4	30.9
87.5°	20.0	18.2	5.5	5.5	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)