

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: P387532

Luminaire Tested: **14CZ2-44-SQR-UNV-L935-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: P387532  
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-L935-CD1-SWPD1-U  
Description: 1x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3617.4 lumens  
Efficiency: N/A  
Efficacy: 94.4 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

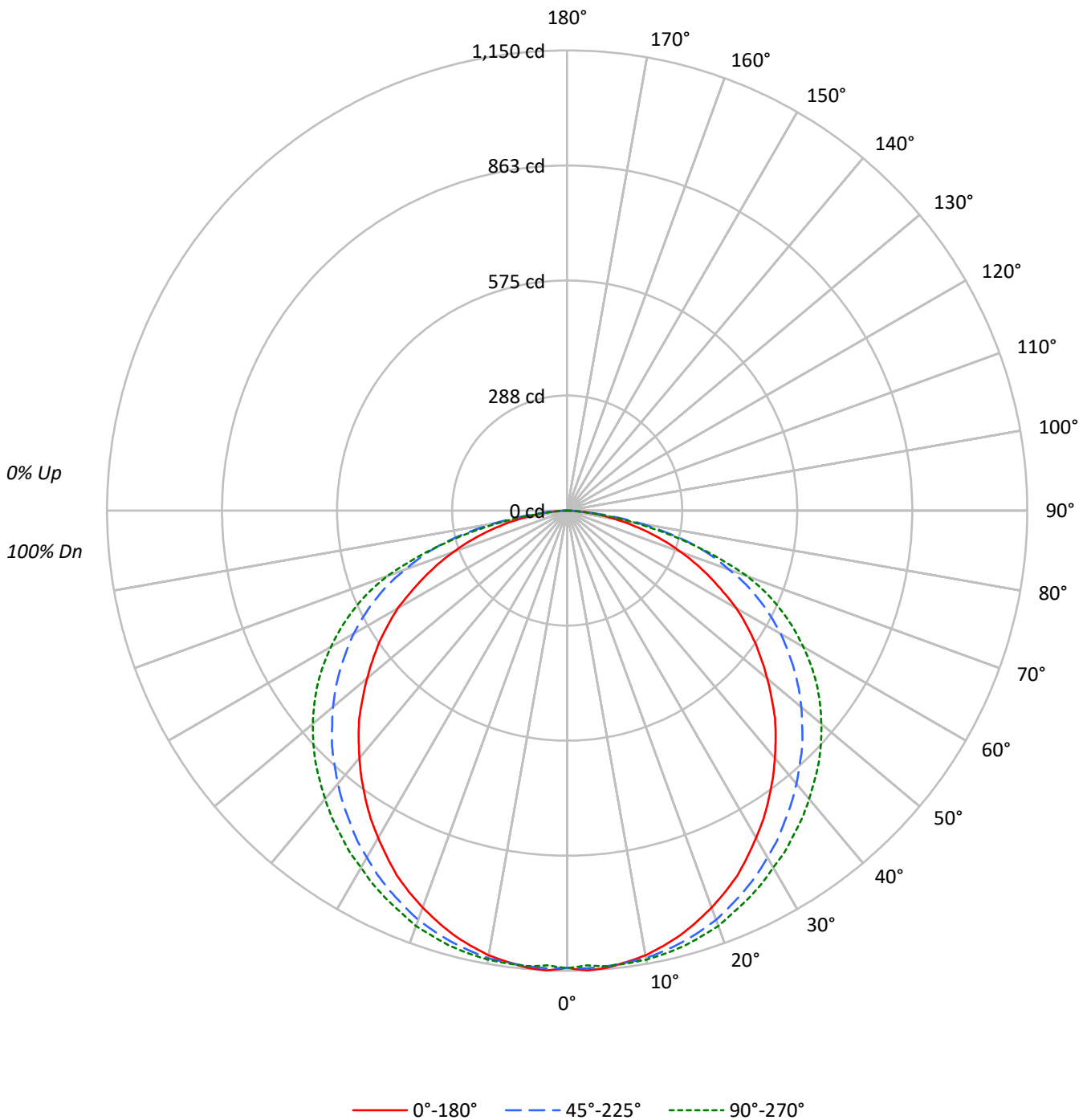
Input Watts (W): 38.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P387532

CATALOG NUMBER: 14CZ2-44-SQR-UNV-L935-CD1-SWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P387532

CATALOG NUMBER: 14CZ2-44-SQR-UNV-L935-CD1-SWPD1-U

**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°	3076	3076	3076
5°	3098	3088	3088
10°	3084	3104	3114
15°	3058	3109	3139
20°	3023	3117	3164
25°	2988	3113	3178
30°	2935	3110	3201
35°	2887	3115	3246
40°	2837	3132	3305
45°	2796	3164	3386
50°	2732	3198	3473
55°	2686	3250	3575
60°	2630	3316	3670
65°	2507	3378	3761
70°	2381	3386	3758
75°	2180	3374	3318
80°	1864	2882	2571
85°	1463	1633	957



TEST NUMBER: P387532

CATALOG NUMBER: 14CZ2-44-SQR-UNV-L935-CD1-SWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.6	3.0
10°-20°	313.8	8.7
20°-30°	479.9	13.3
30°-40°	588.3	16.3
40°-50°	632.7	17.5
50°-60°	608.0	16.8
60°-70°	506.2	14.0
70°-80°	310.7	8.6
80°-90°	69.2	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°	902.4	24.9
0°-40°	1490.6	41.2
0°-60°	2731.3	75.5
0°-90°	3617.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3617.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1143	1143	1143	1143	1143	
5°	1147	1136	1143	1143	1143	109
15°	1098	1094	1116	1123	1127	309
25°	1006	1016	1048	1061	1070	463
35°	879	901	948	974	988	550
45°	735	768	831	870	890	565
55°	572	622	693	740	762	511
65°	394	454	530	574	591	390
75°	210	274	324	323	319	222
85°	47	71	53	36	31	57
90°	0	0	0	0	0	



TEST NUMBER: P387532

CATALOG NUMBER: 14CZ2-44-SQR-UNV-L935-CD1-SWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1143.1	1143.1	1143.1	1143.1	1143.1
2.5°	1150.4	1139.5	1145.0	1143.1	1137.7
5°	1146.8	1135.8	1143.1	1143.1	1143.1
7.5°	1137.7	1128.5	1139.5	1141.3	1141.3
10°	1128.5	1121.3	1135.8	1137.7	1139.5
12.5°	1114.0	1108.5	1126.7	1130.4	1134.0
15°	1097.6	1093.9	1115.8	1123.1	1126.7
17.5°	1077.5	1079.3	1103.0	1112.1	1115.8
20°	1055.6	1061.1	1088.4	1097.6	1104.8
22.5°	1031.9	1039.2	1068.4	1079.3	1086.6
25°	1006.4	1015.5	1048.3	1061.1	1070.2
27.5°	975.4	990.0	1026.4	1042.9	1052.0
30°	944.4	960.8	1000.9	1021.0	1030.1
32.5°	913.4	931.6	977.2	997.3	1011.9
35°	878.8	900.6	948.1	973.6	988.2
37.5°	844.1	869.7	920.7	949.9	966.3
40°	807.7	835.0	891.5	924.3	940.8
42.5°	771.2	802.2	860.5	897.0	915.2
45°	734.7	767.6	831.4	869.7	889.7
47.5°	692.8	732.9	796.7	840.5	860.5
50°	652.7	696.5	763.9	809.5	829.5
52.5°	612.6	658.2	729.3	776.7	796.7
55°	572.5	621.7	692.8	740.2	762.1
57.5°	530.5	581.6	654.5	703.7	723.8
60°	488.6	541.5	616.2	661.8	681.9
62.5°	439.4	501.4	574.3	619.9	638.1
65°	393.8	454.0	530.5	574.3	590.7
67.5°	348.2	410.2	485.0	525.1	539.7
70°	302.6	364.6	430.3	468.6	477.7
72.5°	257.1	319.1	381.0	402.9	399.3
75°	209.7	273.5	324.5	322.7	319.1
77.5°	164.1	226.1	257.1	244.3	238.8
80°	120.3	180.5	186.0	173.2	165.9
82.5°	82.0	129.4	116.7	102.1	94.8
85°	47.4	71.1	52.9	36.5	31.0
87.5°	20.1	18.2	5.5	5.5	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)