

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: P387988

Luminaire Tested: **22CZ2-44-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: P387988  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44-SQR-UNV-L935-CD1-SWPD1-U  
Description: 2x2 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: 3547.6 lumens  
Efficiency: N/A  
Efficacy: 83.1 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

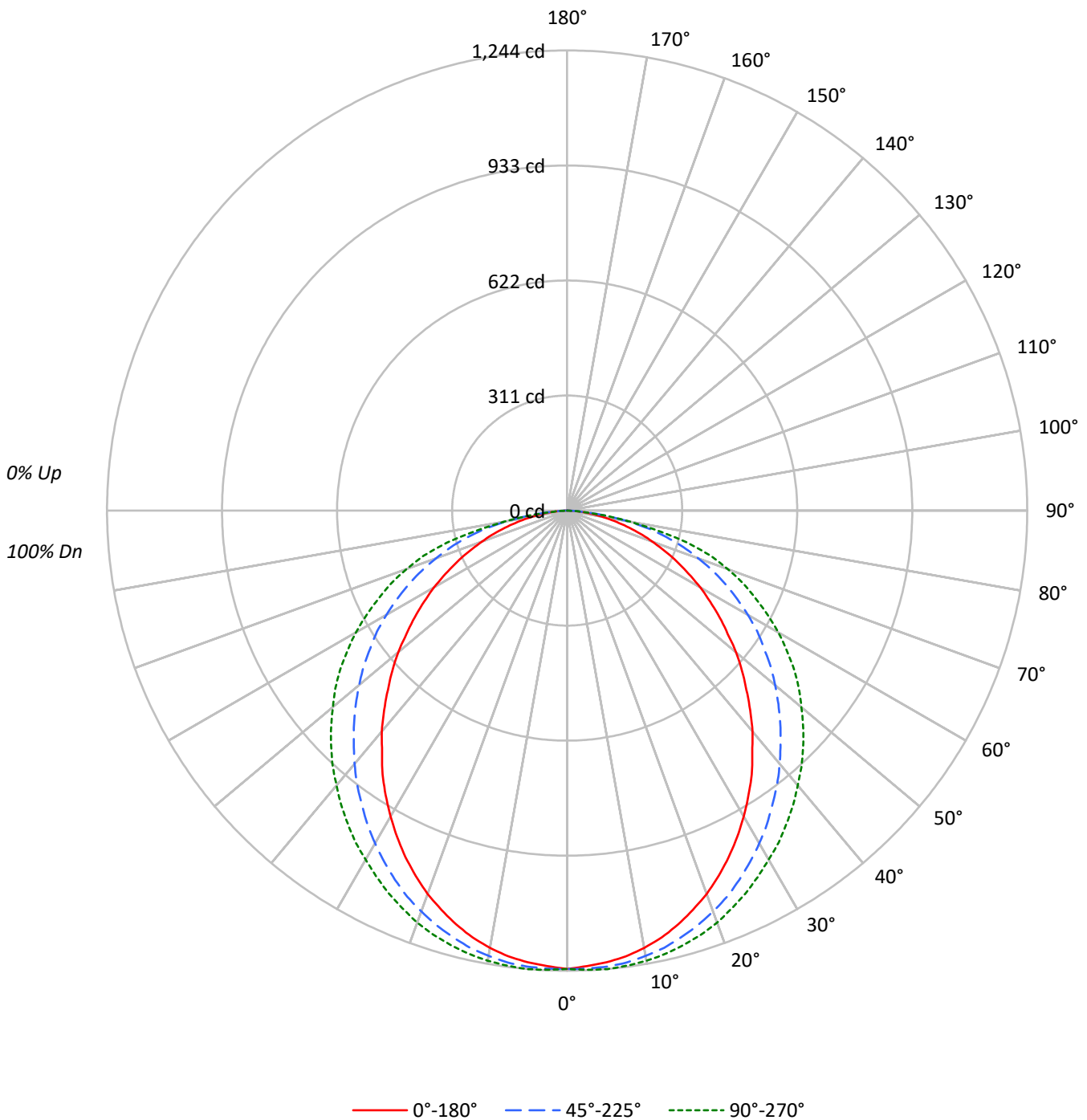
Input Watts (W): 42.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3335	3335	3335
5°	3311	3343	3361
10°	3280	3340	3377
15°	3227	3326	3387
20°	3158	3303	3395
25°	3070	3270	3390
30°	2967	3228	3385
35°	2860	3181	3396
40°	2739	3141	3407
45°	2608	3101	3435
50°	2496	3073	3461
55°	2362	3049	3515
60°	2238	3036	3552
65°	2090	3012	3581
70°	1921	2968	3630
75°	1733	2888	3502
80°	1488	2557	2636
85°	1195	1507	1195



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.5	3.3
10°-20°	335.9	9.5
20°-30°	504.5	14.2
30°-40°	601.7	17.0
40°-50°	622.1	17.5
50°-60°	571.9	16.1
60°-70°	455.3	12.8
70°-80°	278.2	7.8
80°-90°	60.5	1.7
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°	957.9	27.0
0°-40°	1559.6	44.0
0°-60°	2753.6	77.6
0°-90°	3547.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3547.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1239	1239	1239	1239	1239	
5°	1226	1229	1238	1243	1244	116
15°	1158	1172	1194	1211	1216	326
25°	1034	1059	1101	1132	1142	476
35°	870	908	968	1019	1034	543
45°	685	734	815	881	902	530
55°	504	559	650	724	749	450
65°	328	384	473	539	562	325
75°	167	216	278	327	337	178
85°	39	47	49	42	39	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1239.3	1239.3	1239.3	1239.3	1239.3
2.5°	1232.5	1234.2	1239.3	1242.6	1242.6
5°	1225.8	1229.2	1237.6	1242.6	1244.3
7.5°	1215.7	1220.7	1232.5	1239.3	1240.9
10°	1200.5	1207.3	1222.4	1232.5	1235.9
12.5°	1182.0	1192.1	1210.6	1224.1	1227.5
15°	1158.4	1171.9	1193.8	1210.6	1215.7
17.5°	1131.5	1148.3	1175.3	1195.5	1202.2
20°	1102.9	1119.7	1153.4	1177.0	1185.4
22.5°	1069.2	1091.1	1129.8	1156.8	1163.5
25°	1033.8	1059.1	1101.2	1131.5	1141.6
27.5°	995.1	1025.4	1070.9	1107.9	1116.3
30°	954.7	986.7	1038.9	1079.3	1089.4
32.5°	912.6	949.7	1005.2	1050.7	1064.1
35°	870.5	907.6	968.2	1018.7	1033.8
37.5°	821.7	865.5	932.8	985.0	1003.5
40°	779.6	821.7	894.1	951.3	969.9
42.5°	732.4	777.9	853.7	916.0	937.9
45°	685.3	734.1	814.9	880.6	902.5
47.5°	641.5	690.3	774.5	843.6	865.5
50°	596.1	646.6	734.1	804.8	826.7
52.5°	547.2	602.8	693.7	764.4	789.7
55°	503.5	559.0	649.9	724.0	749.3
57.5°	458.0	515.2	609.5	680.2	703.8
60°	415.9	471.5	564.1	633.1	660.0
62.5°	370.4	427.7	518.6	586.0	611.2
65°	328.3	383.9	473.1	538.8	562.4
67.5°	286.2	341.8	426.0	488.3	515.2
70°	244.1	299.7	377.2	437.8	461.4
72.5°	207.1	255.9	330.0	385.6	407.5
75°	166.7	215.5	277.8	326.7	336.8
77.5°	129.7	173.4	225.6	247.5	250.9
80°	96.0	129.7	165.0	170.1	170.1
82.5°	64.0	89.2	102.7	104.4	102.7
85°	38.7	47.1	48.8	42.1	38.7
87.5°	13.5	13.5	8.4	5.1	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)