

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: P387914

Luminaire Tested: **22CZ2-39-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: P387914
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: 22CZ2-39-SQR-UNV-L930-CD1-U
Description: 2x2 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: 3124.4 lumens
Efficiency: N/A
Efficacy: 90.6 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

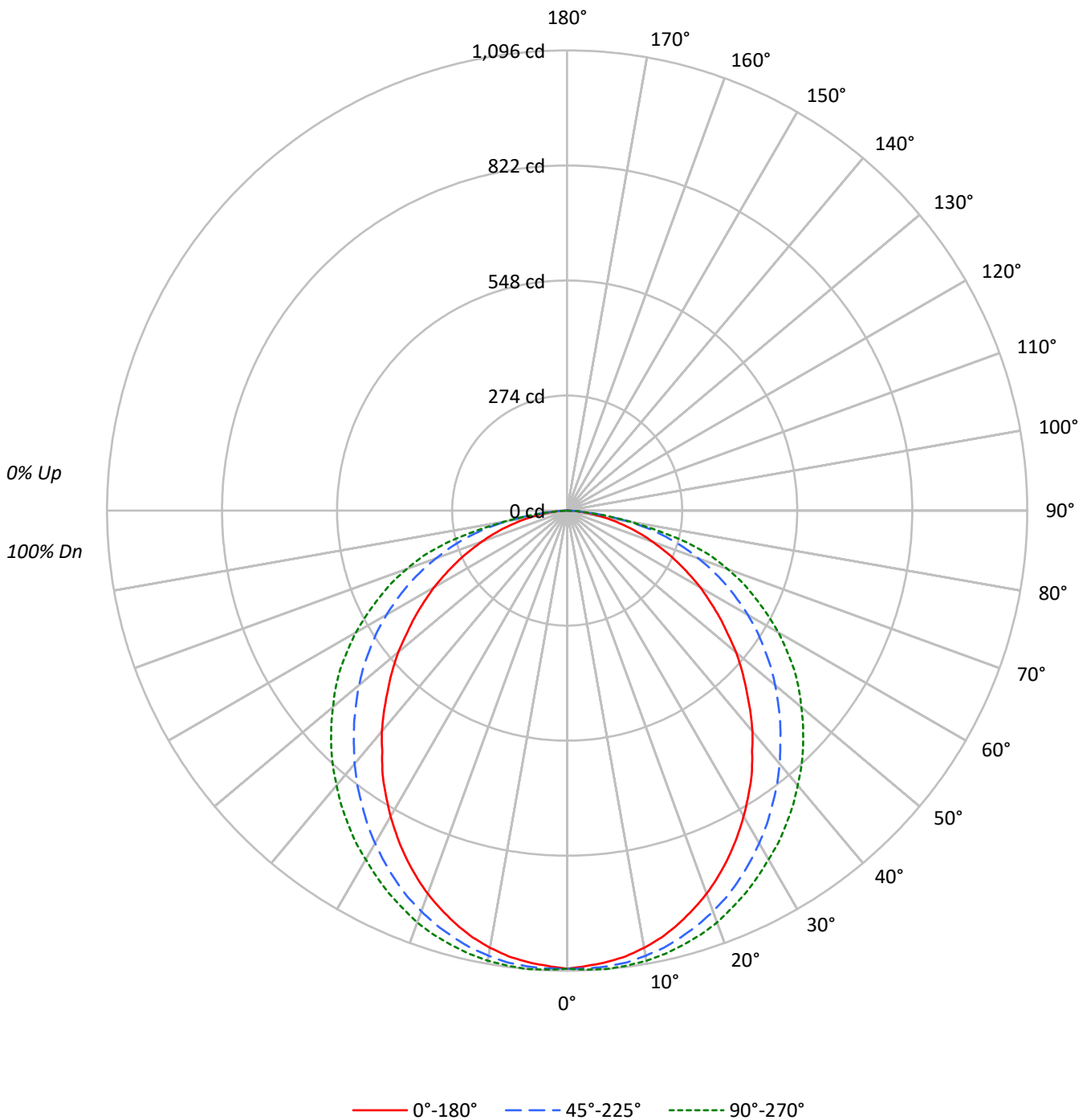
Input Watts (W): 34.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2937	2937	2937
5°	2916	2944	2960
10°	2889	2942	2974
15°	2842	2929	2983
20°	2781	2909	2990
25°	2703	2879	2985
30°	2613	2843	2981
35°	2519	2801	2991
40°	2412	2766	3001
45°	2297	2731	3025
50°	2198	2707	3048
55°	2080	2685	3096
60°	1971	2674	3129
65°	1841	2653	3154
70°	1692	2614	3197
75°	1526	2544	3084
80°	1309	2252	2321
85°	1053	1328	1053



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.5	3.3
10°-20°	295.8	9.5
20°-30°	444.3	14.2
30°-40°	529.9	17.0
40°-50°	547.9	17.5
50°-60°	503.7	16.1
60°-70°	401.0	12.8
70°-80°	245.0	7.8
80°-90°	53.3	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°	843.6	27.0
0°-40°	1373.5	44.0
0°-60°	2425.1	77.6
0°-90°	3124.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3124.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1080	1082	1090	1094	1096	102
15°	1020	1032	1051	1066	1071	287
25°	910	933	970	996	1005	419
35°	767	799	853	897	910	478
45°	604	647	718	776	795	467
55°	443	492	572	638	660	397
65°	289	338	417	474	495	286
75°	147	190	245	288	297	156
85°	34	42	43	37	34	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1091.4	1091.4	1091.4	1091.4	1091.4
2.5°	1085.5	1087.0	1091.4	1094.4	1094.4
5°	1079.6	1082.5	1089.9	1094.4	1095.9
7.5°	1070.7	1075.1	1085.5	1091.4	1092.9
10°	1057.3	1063.3	1076.6	1085.5	1088.5
12.5°	1041.0	1049.9	1066.2	1078.1	1081.0
15°	1020.2	1032.1	1051.4	1066.2	1070.7
17.5°	996.5	1011.4	1035.1	1052.9	1058.8
20°	971.3	986.1	1015.8	1036.6	1044.0
22.5°	941.7	960.9	995.0	1018.8	1024.7
25°	910.5	932.8	969.8	996.5	1005.4
27.5°	876.4	903.1	943.1	975.8	983.2
30°	840.8	869.0	915.0	950.6	959.4
32.5°	803.7	836.4	885.3	925.3	937.2
35°	766.7	799.3	852.7	897.2	910.5
37.5°	723.7	762.2	821.5	867.5	883.8
40°	686.6	723.7	787.4	837.8	854.2
42.5°	645.1	685.1	751.8	806.7	826.0
45°	603.5	646.6	717.7	775.6	794.8
47.5°	565.0	608.0	682.1	742.9	762.2
50°	525.0	569.4	646.6	708.8	728.1
52.5°	481.9	530.9	611.0	673.2	695.5
55°	443.4	492.3	572.4	637.7	659.9
57.5°	403.4	453.8	536.8	599.1	619.9
60°	366.3	415.2	496.8	557.6	581.3
62.5°	326.2	376.7	456.7	516.1	538.3
65°	289.2	338.1	416.7	474.5	495.3
67.5°	252.1	301.0	375.2	430.0	453.8
70°	215.0	264.0	332.2	385.6	406.3
72.5°	182.4	225.4	290.7	339.6	358.9
75°	146.8	189.8	244.7	287.7	296.6
77.5°	114.2	152.7	198.7	218.0	221.0
80°	84.5	114.2	145.3	149.8	149.8
82.5°	56.4	78.6	90.5	91.9	90.5
85°	34.1	41.5	43.0	37.1	34.1
87.5°	11.9	11.9	7.4	4.4	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)