

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: P387916

Luminaire Tested: **22CZ2-39-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: P387916
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-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: 3161.9 lumens
Efficiency: N/A
Efficacy: 91.6 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

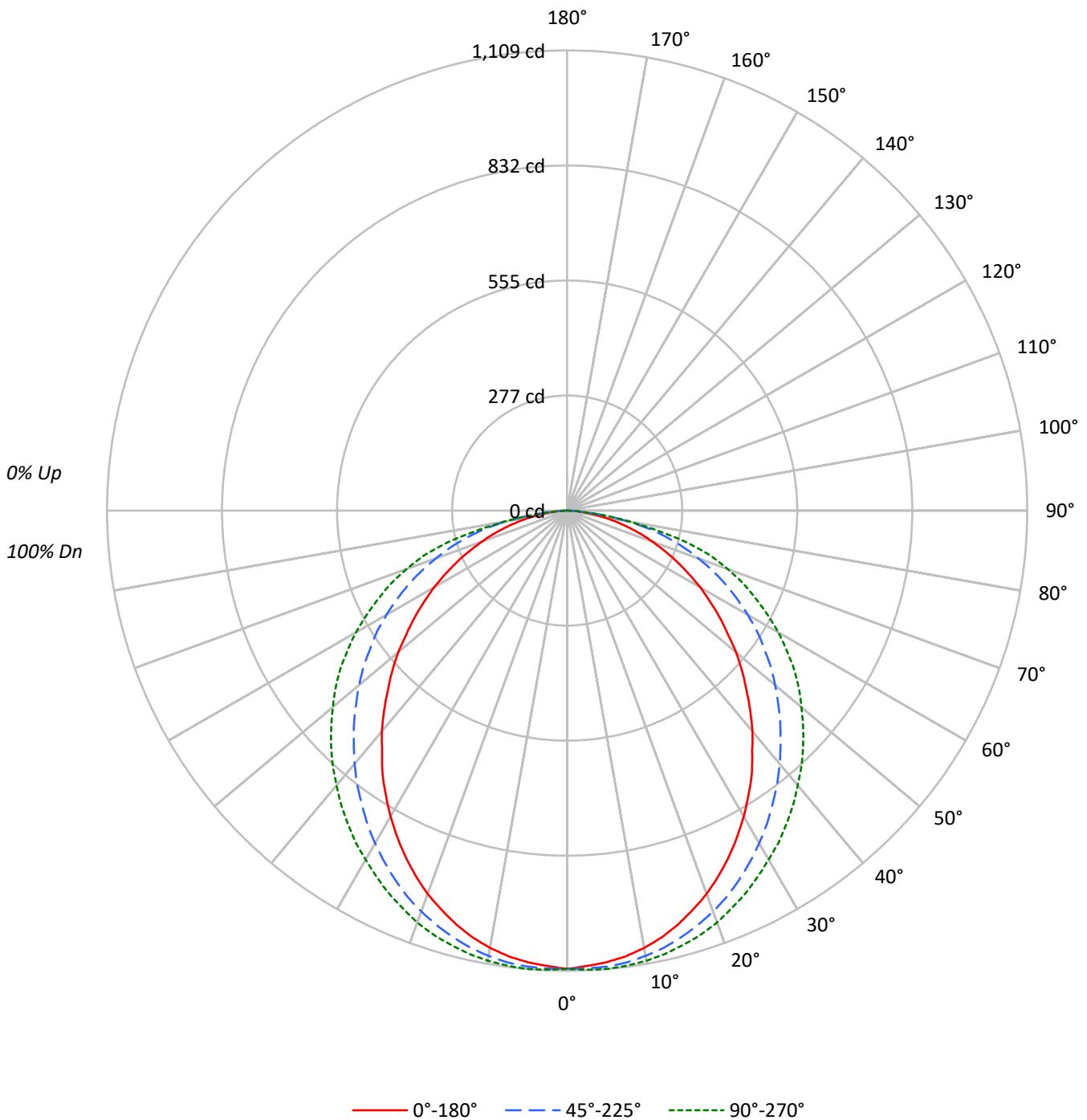
Input Watts (W): 34.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2972	2972	2972
5°	2951	2979	2996
10°	2924	2977	3010
15°	2876	2964	3019
20°	2815	2944	3025
25°	2736	2914	3021
30°	2644	2877	3017
35°	2549	2835	3027
40°	2441	2799	3036
45°	2324	2764	3061
50°	2224	2739	3085
55°	2105	2718	3133
60°	1995	2706	3166
65°	1863	2685	3191
70°	1712	2645	3235
75°	1545	2574	3120
80°	1325	2280	2349
85°	1065	1343	1065



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.7	3.3
10°-20°	299.4	9.5
20°-30°	449.7	14.2
30°-40°	536.3	17.0
40°-50°	554.5	17.5
50°-60°	509.8	16.1
60°-70°	405.8	12.8
70°-80°	247.9	7.8
80°-90°	53.9	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°	853.8	27.0
0°-40°	1390.0	44.0
0°-60°	2454.2	77.6
0°-90°	3161.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3161.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1092	1096	1103	1108	1109	104
15°	1032	1044	1064	1079	1084	291
25°	921	944	982	1008	1018	424
35°	776	809	863	908	921	484
45°	611	654	726	785	804	472
55°	449	498	579	645	668	401
65°	293	342	422	480	501	290
75°	149	192	248	291	300	158
85°	34	42	44	38	34	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1104.5	1104.5	1104.5	1104.5	1104.5
2.5°	1098.5	1100.0	1104.5	1107.5	1107.5
5°	1092.5	1095.5	1103.0	1107.5	1109.0
7.5°	1083.5	1088.0	1098.5	1104.5	1106.0
10°	1070.0	1076.0	1089.5	1098.5	1101.5
12.5°	1053.5	1062.5	1079.0	1091.0	1094.0
15°	1032.5	1044.5	1064.0	1079.0	1083.5
17.5°	1008.5	1023.5	1047.5	1065.5	1071.5
20°	983.0	998.0	1028.0	1049.0	1056.5
22.5°	953.0	972.5	1007.0	1031.0	1037.0
25°	921.4	944.0	981.5	1008.5	1017.5
27.5°	886.9	913.9	954.5	987.5	995.0
30°	850.9	879.4	925.9	962.0	971.0
32.5°	813.4	846.4	895.9	936.4	948.5
35°	775.9	808.9	862.9	907.9	921.4
37.5°	732.3	771.4	831.4	877.9	894.4
40°	694.8	732.3	796.9	847.9	864.4
42.5°	652.8	693.3	760.9	816.4	835.9
45°	610.8	654.3	726.3	784.9	804.4
47.5°	571.8	615.3	690.3	751.9	771.4
50°	531.3	576.3	654.3	717.3	736.9
52.5°	487.7	537.3	618.3	681.3	703.8
55°	448.7	498.2	579.3	645.3	667.8
57.5°	408.2	459.2	543.3	606.3	627.3
60°	370.7	420.2	502.7	564.3	588.3
62.5°	330.2	381.2	462.2	522.2	544.8
65°	292.6	342.2	421.7	480.2	501.2
67.5°	255.1	304.6	379.7	435.2	459.2
70°	217.6	267.1	336.2	390.2	411.2
72.5°	184.6	228.1	294.1	343.7	363.2
75°	148.6	192.1	247.6	291.1	300.1
77.5°	115.6	154.6	201.1	220.6	223.6
80°	85.5	115.6	147.1	151.6	151.6
82.5°	57.0	79.5	91.5	93.0	91.5
85°	34.5	42.0	43.5	37.5	34.5
87.5°	12.0	12.0	7.5	4.5	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)