

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: P387918

Luminaire Tested: **22CZ2-39-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: P387918
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-L940-CD1-SDWPD1-U
Description: 2x2 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: 3156.1 lumens
Efficiency: N/A
Efficacy: 91.5 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

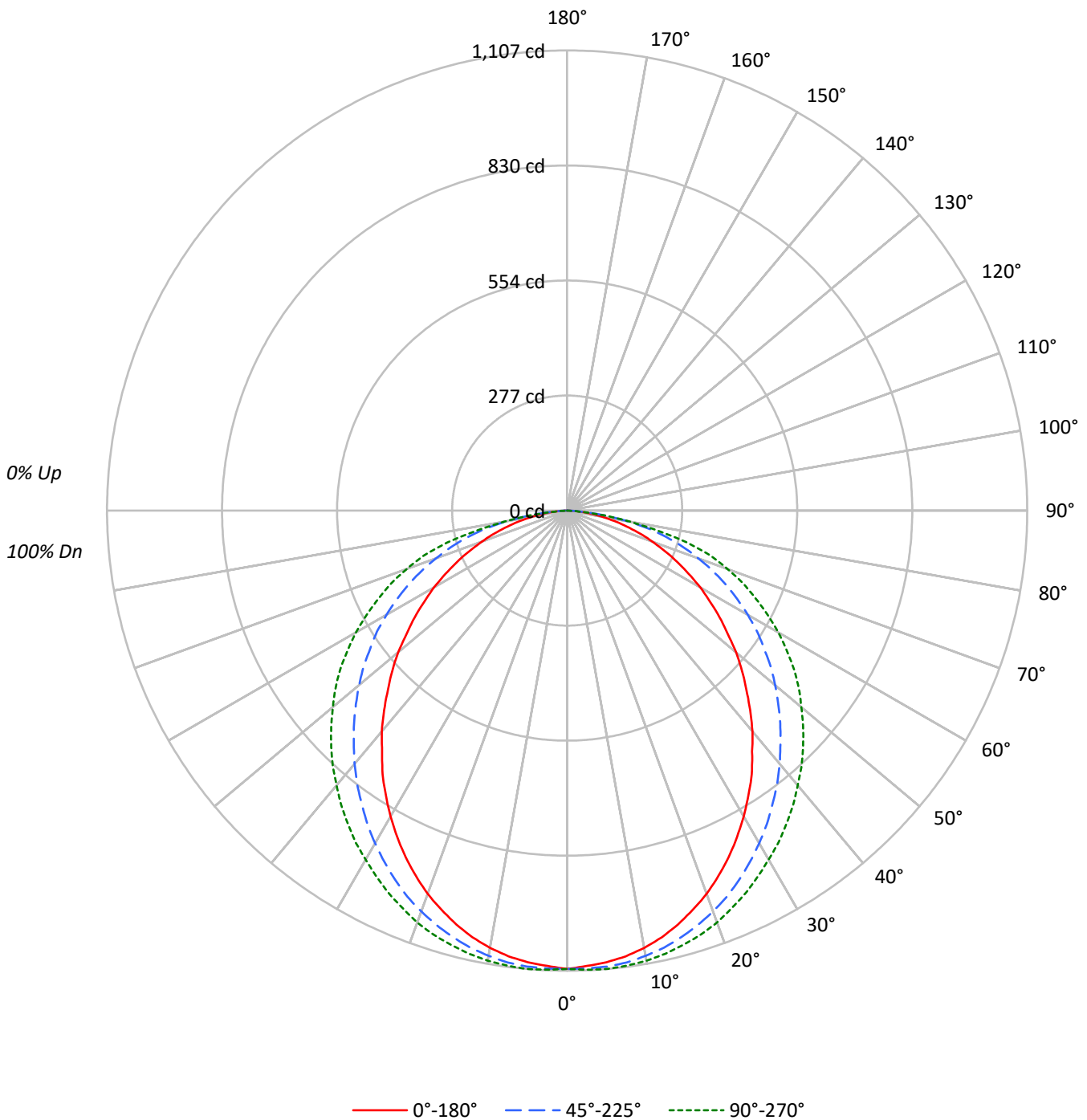
Input Watts (W): 34.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P387918

CATALOG NUMBER: 22CZ2-39-SQR-UNV-L940-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P387918

CATALOG NUMBER: 22CZ2-39-SQR-UNV-L940-CD1-SDWPD1-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	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°	2967	2967	2967
5°	2946	2974	2990
10°	2918	2972	3004
15°	2871	2959	3013
20°	2810	2938	3020
25°	2731	2909	3015
30°	2639	2872	3012
35°	2544	2829	3022
40°	2436	2794	3031
45°	2320	2759	3056
50°	2220	2734	3079
55°	2101	2713	3127
60°	1991	2701	3160
65°	1860	2680	3186
70°	1709	2640	3229
75°	1542	2570	3115
80°	1323	2275	2345
85°	1065	1340	1065



TEST NUMBER: P387918

CATALOG NUMBER: 22CZ2-39-SQR-UNV-L940-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.5	3.3
10°-20°	298.8	9.5
20°-30°	448.8	14.2
30°-40°	535.3	17.0
40°-50°	553.5	17.5
50°-60°	508.8	16.1
60°-70°	405.1	12.8
70°-80°	247.5	7.8
80°-90°	53.8	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°	852.2	27.0
0°-40°	1387.5	44.0
0°-60°	2449.8	77.6
0°-90°	3156.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3156.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1090	1094	1101	1106	1107	103
15°	1031	1043	1062	1077	1082	290
25°	920	942	980	1007	1016	423
35°	774	807	861	906	920	483
45°	610	653	725	783	803	471
55°	448	497	578	644	667	401
65°	292	342	421	479	500	289
75°	148	192	247	291	300	158
85°	34	42	43	37	34	40
90°	0	0	0	0	0	



TEST NUMBER: P387918

CATALOG NUMBER: 22CZ2-39-SQR-UNV-L940-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1102.5	1102.5	1102.5	1102.5	1102.5
2.5°	1096.5	1098.0	1102.5	1105.5	1105.5
5°	1090.5	1093.5	1101.0	1105.5	1107.0
7.5°	1081.5	1086.0	1096.5	1102.5	1104.0
10°	1068.0	1074.0	1087.5	1096.5	1099.5
12.5°	1051.6	1060.6	1077.0	1089.0	1092.0
15°	1030.6	1042.6	1062.1	1077.0	1081.5
17.5°	1006.6	1021.6	1045.6	1063.6	1069.5
20°	981.2	996.1	1026.1	1047.1	1054.6
22.5°	951.2	970.7	1005.1	1029.1	1035.1
25°	919.8	942.2	979.7	1006.6	1015.6
27.5°	885.3	912.3	952.7	985.7	993.2
30°	849.3	877.8	924.2	960.2	969.2
32.5°	811.9	844.9	894.3	934.7	946.7
35°	774.4	807.4	861.3	906.3	919.8
37.5°	731.0	770.0	829.9	876.3	892.8
40°	693.6	731.0	795.4	846.3	862.8
42.5°	651.6	692.1	759.5	814.9	834.4
45°	609.7	653.1	725.0	783.4	802.9
47.5°	570.7	614.2	689.1	750.5	770.0
50°	530.3	575.2	653.1	716.0	735.5
52.5°	486.8	536.3	617.2	680.1	702.5
55°	447.9	497.3	578.2	644.1	666.6
57.5°	407.4	458.4	542.3	605.2	626.1
60°	370.0	419.4	501.8	563.2	587.2
62.5°	329.6	380.5	461.4	521.3	543.8
65°	292.1	341.5	420.9	479.3	500.3
67.5°	254.7	304.1	379.0	434.4	458.4
70°	217.2	266.6	335.5	389.5	410.4
72.5°	184.2	227.7	293.6	343.0	362.5
75°	148.3	191.7	247.2	290.6	299.6
77.5°	115.3	154.3	200.7	220.2	223.2
80°	85.4	115.3	146.8	151.3	151.3
82.5°	56.9	79.4	91.4	92.9	91.4
85°	34.5	41.9	43.4	37.4	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)