

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: P387913

Luminaire Tested: **22CZ2-39-SQR-UNV-L930-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: P387913  
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-SWPD1-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: 3085.6 lumens  
Efficiency: N/A  
Efficacy: 89.4 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

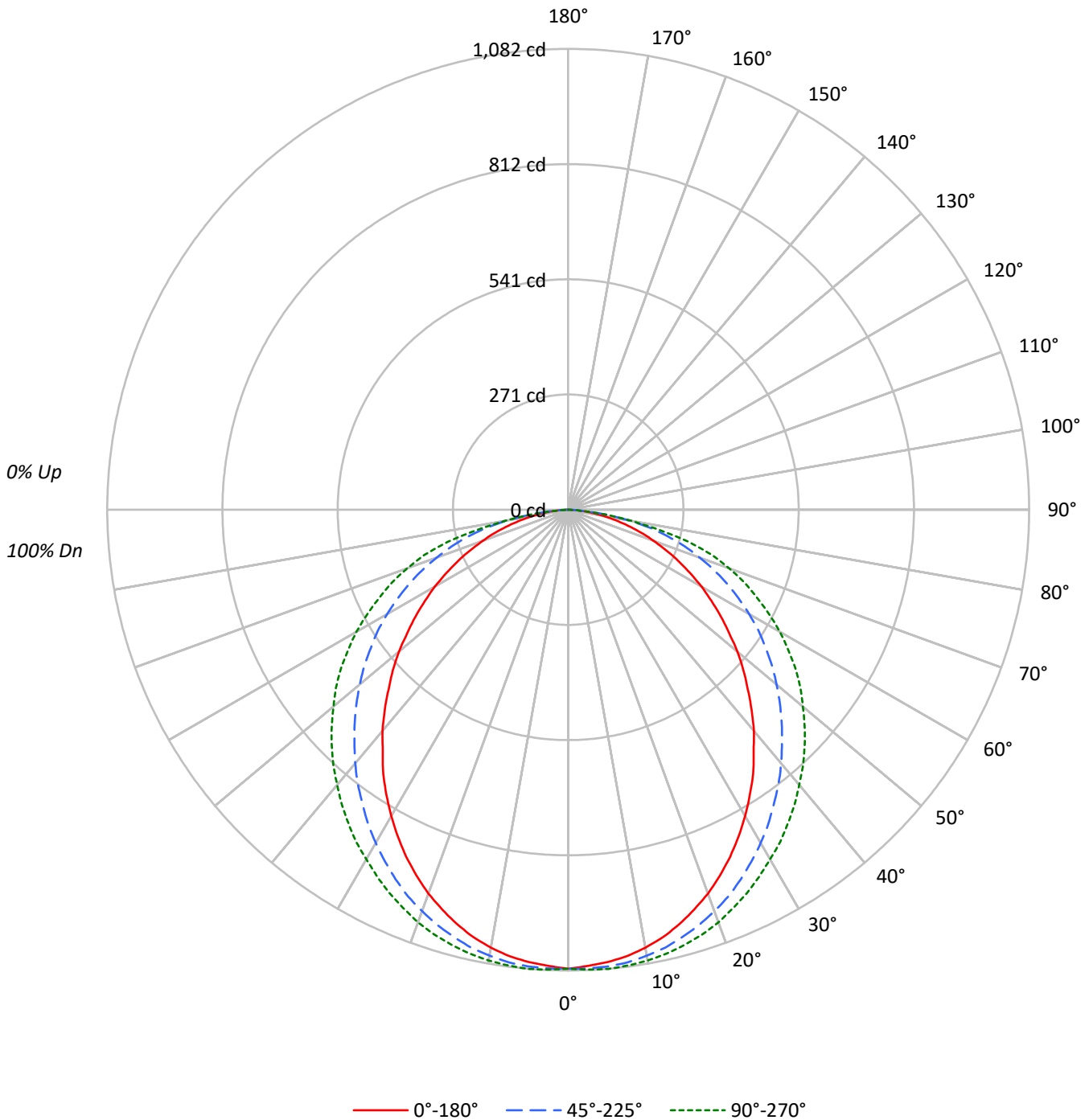
Input Watts (W): 34.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2901	2901	2901
5°	2880	2908	2924
10°	2853	2905	2937
15°	2807	2893	2946
20°	2747	2873	2952
25°	2670	2844	2948
30°	2580	2808	2944
35°	2487	2766	2954
40°	2382	2732	2963
45°	2269	2697	2987
50°	2170	2673	3010
55°	2054	2652	3058
60°	1947	2640	3090
65°	1819	2620	3114
70°	1671	2581	3157
75°	1508	2512	3045
80°	1294	2224	2292
85°	1041	1312	1041



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.2	3.3
10°-20°	292.2	9.5
20°-30°	438.8	14.2
30°-40°	523.3	17.0
40°-50°	541.1	17.5
50°-60°	497.5	16.1
60°-70°	396.0	12.8
70°-80°	241.9	7.8
80°-90°	52.6	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°	833.1	27.0
0°-40°	1356.5	44.0
0°-60°	2395.0	77.6
0°-90°	3085.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3085.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1078	1078	1078	1078	1078	
5°	1066	1069	1076	1081	1082	101
15°	1008	1019	1038	1053	1057	284
25°	899	921	958	984	993	414
35°	757	789	842	886	899	472
45°	596	638	709	766	785	461
55°	438	486	565	630	652	392
65°	286	334	412	469	489	283
75°	145	188	242	284	293	154
85°	34	41	42	37	34	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1077.9	1077.9	1077.9	1077.9	1077.9
2.5°	1072.0	1073.5	1077.9	1080.8	1080.8
5°	1066.2	1069.1	1076.4	1080.8	1082.3
7.5°	1057.4	1061.8	1072.0	1077.9	1079.3
10°	1044.2	1050.0	1063.2	1072.0	1074.9
12.5°	1028.1	1036.9	1053.0	1064.7	1067.6
15°	1007.6	1019.3	1038.3	1053.0	1057.4
17.5°	984.1	998.8	1022.2	1039.8	1045.7
20°	959.2	973.9	1003.2	1023.7	1031.0
22.5°	930.0	949.0	982.7	1006.1	1012.0
25°	899.2	921.2	957.8	984.1	992.9
27.5°	865.5	891.9	931.4	963.6	971.0
30°	830.4	858.2	903.6	938.7	947.5
32.5°	793.8	826.0	874.3	913.9	925.6
35°	757.1	789.4	842.1	886.0	899.2
37.5°	714.7	752.8	811.3	856.7	872.8
40°	678.1	714.7	777.7	827.4	843.6
42.5°	637.1	676.6	742.5	796.7	815.7
45°	596.1	638.5	708.8	765.9	785.0
47.5°	558.0	600.4	673.7	733.7	752.8
50°	518.4	562.4	638.5	700.0	719.1
52.5°	476.0	524.3	603.4	664.9	686.9
55°	437.9	486.2	565.3	629.7	651.7
57.5°	398.3	448.1	530.2	591.7	612.2
60°	361.7	410.1	490.6	550.7	574.1
62.5°	322.2	372.0	451.1	509.6	531.6
65°	285.6	333.9	411.5	468.6	489.1
67.5°	249.0	297.3	370.5	424.7	448.1
70°	212.4	260.7	328.0	380.8	401.3
72.5°	180.1	222.6	287.0	335.4	354.4
75°	145.0	187.5	241.6	284.1	292.9
77.5°	112.8	150.8	196.2	215.3	218.2
80°	83.5	112.8	143.5	147.9	147.9
82.5°	55.7	77.6	89.3	90.8	89.3
85°	33.7	41.0	42.5	36.6	33.7
87.5°	11.7	11.7	7.3	4.4	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)