

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: P387960

Luminaire Tested: **22CZ2-39VHE-SQR-UNV-L930-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: P387960  
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: 22CZ2-39VHE-SQR-UNV-L930-CD1-SDWPD1-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: 3152.8 lumens  
Efficiency: N/A  
Efficacy: 110.2 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

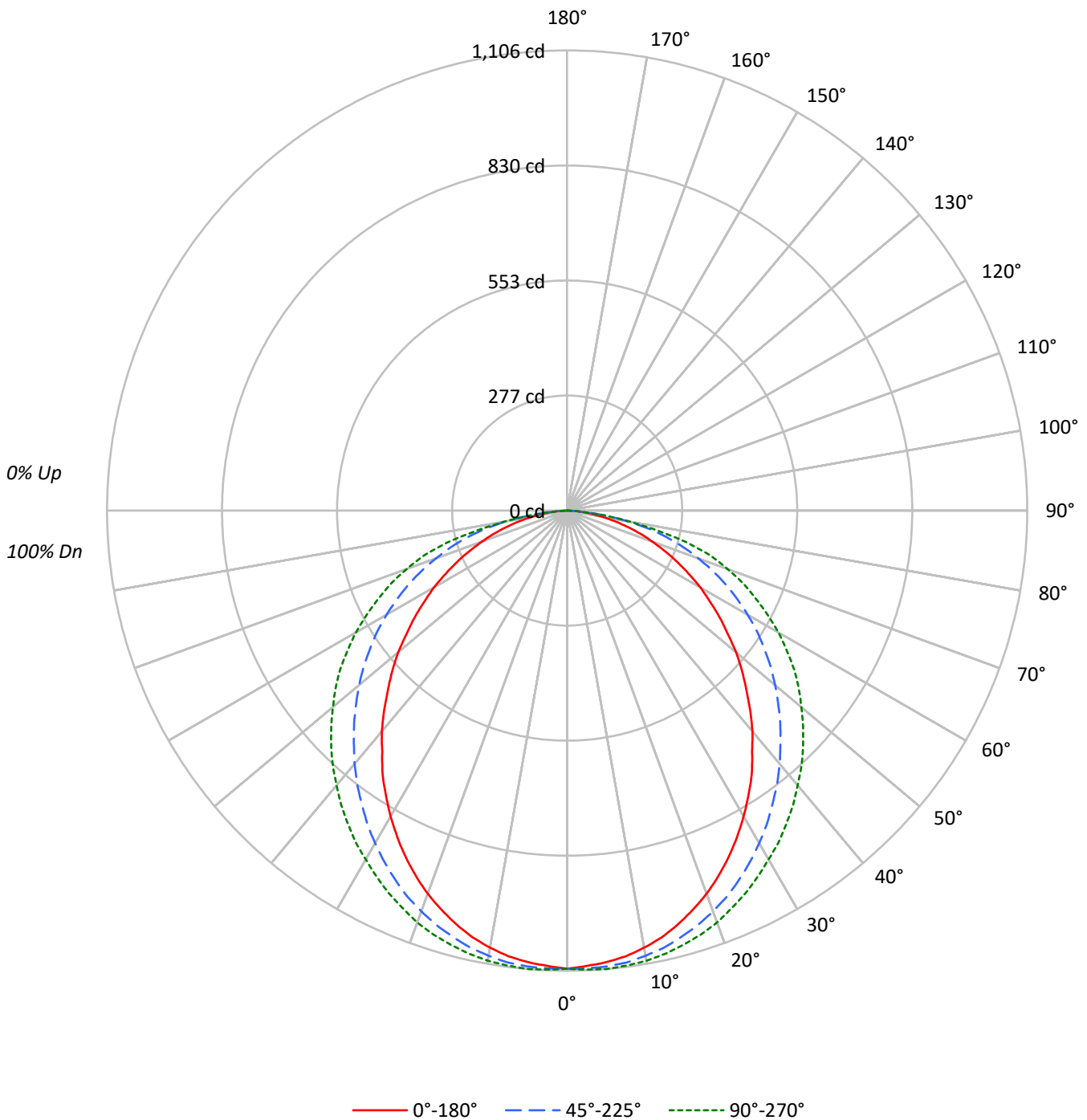
Input Watts (W): 28.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2964	2964	2964
5°	2943	2971	2987
10°	2915	2969	3001
15°	2868	2956	3010
20°	2807	2935	3017
25°	2728	2906	3013
30°	2637	2869	3008
35°	2541	2826	3018
40°	2434	2791	3028
45°	2318	2756	3052
50°	2218	2731	3076
55°	2099	2710	3124
60°	1989	2698	3157
65°	1858	2677	3182
70°	1707	2637	3226
75°	1540	2567	3112
80°	1322	2272	2342
85°	1062	1340	1062



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.4	3.3
10°-20°	298.5	9.5
20°-30°	448.4	14.2
30°-40°	534.7	17.0
40°-50°	552.9	17.5
50°-60°	508.3	16.1
60°-70°	404.7	12.8
70°-80°	247.2	7.8
80°-90°	53.7	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°	851.3	27.0
0°-40°	1386.0	44.0
0°-60°	2447.2	77.6
0°-90°	3152.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3152.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1101	1101	1101	1101	1101	
5°	1089	1092	1100	1104	1106	103
15°	1030	1042	1061	1076	1080	290
25°	919	941	979	1006	1015	423
35°	774	807	860	905	919	483
45°	609	652	724	783	802	471
55°	447	497	578	644	666	400
65°	292	341	420	479	500	289
75°	148	192	247	290	299	158
85°	34	42	43	37	34	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1101.3	1101.3	1101.3	1101.3	1101.3
2.5°	1095.4	1096.9	1101.3	1104.3	1104.3
5°	1089.4	1092.4	1099.9	1104.3	1105.8
7.5°	1080.4	1084.9	1095.4	1101.3	1102.8
10°	1066.9	1072.9	1086.4	1095.4	1098.4
12.5°	1050.5	1059.4	1075.9	1087.9	1090.9
15°	1029.5	1041.5	1060.9	1075.9	1080.4
17.5°	1005.6	1020.5	1044.5	1062.4	1068.4
20°	980.1	995.1	1025.0	1046.0	1053.5
22.5°	950.2	969.7	1004.1	1028.0	1034.0
25°	918.8	941.2	978.6	1005.6	1014.6
27.5°	884.4	911.3	951.7	984.6	992.1
30°	848.5	876.9	923.3	959.2	968.2
32.5°	811.0	844.0	893.3	933.8	945.7
35°	773.6	806.6	860.4	905.3	918.8
37.5°	730.2	769.1	829.0	875.4	891.9
40°	692.8	730.2	794.6	845.5	861.9
42.5°	650.9	691.3	758.7	814.0	833.5
45°	609.0	652.4	724.3	782.6	802.1
47.5°	570.1	613.5	688.3	749.7	769.1
50°	529.7	574.6	652.4	715.3	734.7
52.5°	486.3	535.7	616.5	679.4	701.8
55°	447.4	496.8	577.6	643.5	665.9
57.5°	407.0	457.9	541.7	604.5	625.5
60°	369.6	419.0	501.3	562.6	586.6
62.5°	329.2	380.1	460.9	520.7	543.2
65°	291.8	341.2	420.5	478.8	499.8
67.5°	254.4	303.8	378.6	434.0	457.9
70°	217.0	266.4	335.2	389.1	410.0
72.5°	184.1	227.5	293.3	342.7	362.1
75°	148.1	191.5	246.9	290.3	299.3
77.5°	115.2	154.1	200.5	220.0	223.0
80°	85.3	115.2	146.6	151.1	151.1
82.5°	56.9	79.3	91.3	92.8	91.3
85°	34.4	41.9	43.4	37.4	34.4
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)