

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: P387969

Luminaire Tested: **22CZ2-39VHE-SQR-UNV-L950-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: P387969  
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-L950-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3464.7 lumens  
Efficiency: N/A  
Efficacy: 121.1 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

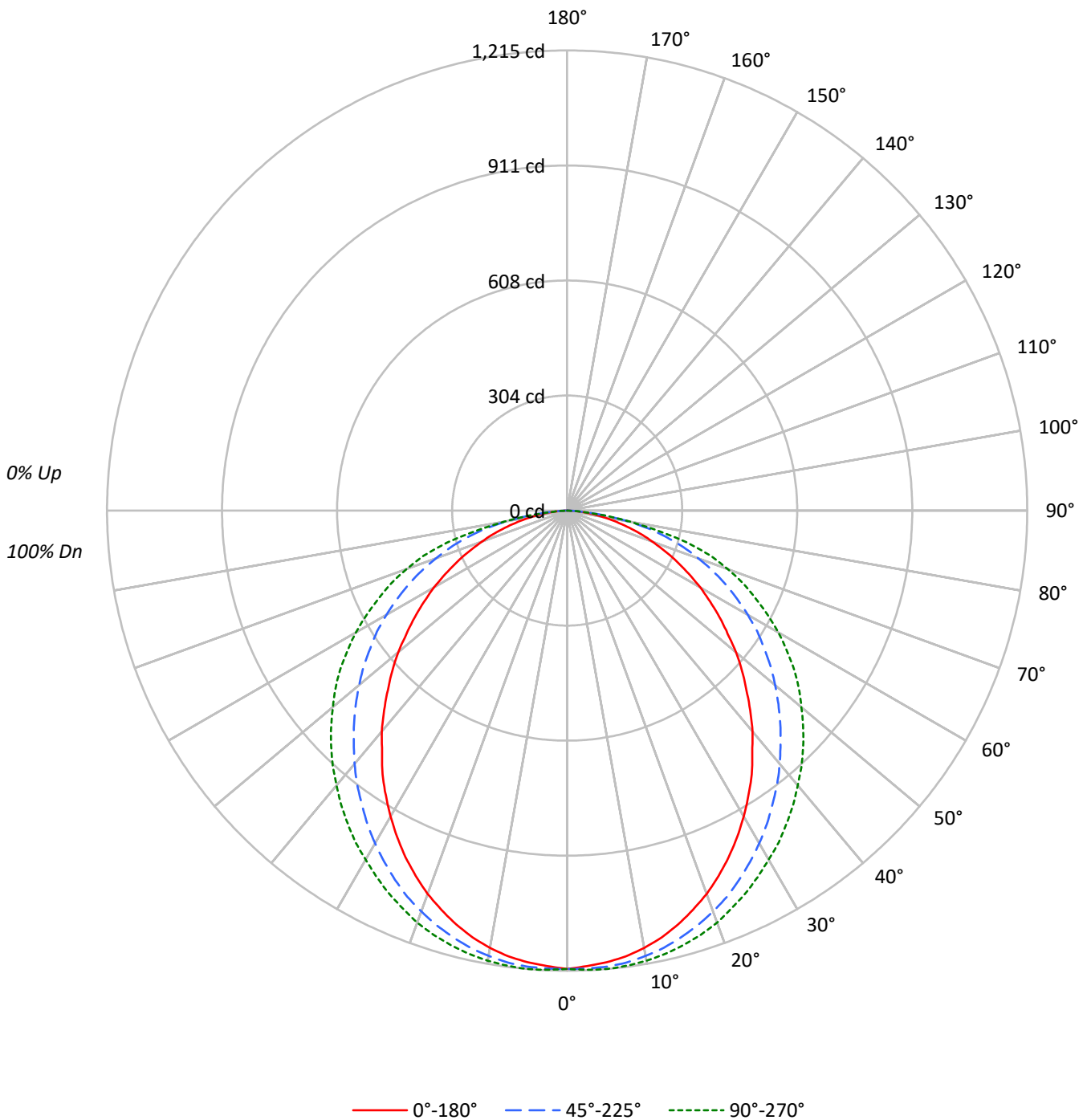
Input Watts (W): 28.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3257	3257	3257
5°	3234	3265	3283
10°	3204	3262	3298
15°	3152	3248	3308
20°	3084	3226	3315
25°	2998	3193	3310
30°	2897	3153	3306
35°	2793	3106	3317
40°	2675	3067	3327
45°	2547	3029	3354
50°	2437	3002	3380
55°	2307	2978	3433
60°	2186	2965	3469
65°	2042	2942	3497
70°	1876	2899	3545
75°	1693	2821	3420
80°	1452	2498	2574
85°	1167	1473	1167



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.7	3.3
10°-20°	328.0	9.5
20°-30°	492.7	14.2
30°-40°	587.6	17.0
40°-50°	607.6	17.5
50°-60°	558.6	16.1
60°-70°	444.7	12.8
70°-80°	271.7	7.8
80°-90°	59.1	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°	935.5	27.0
0°-40°	1523.1	44.0
0°-60°	2689.3	77.6
0°-90°	3464.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3464.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1210	1210	1210	1210	1210	
5°	1197	1200	1209	1214	1215	114
15°	1131	1144	1166	1182	1187	319
25°	1010	1034	1076	1105	1115	464
35°	850	886	946	995	1010	530
45°	669	717	796	860	881	518
55°	492	546	635	707	732	440
65°	321	375	462	526	549	318
75°	163	210	271	319	329	173
85°	38	46	48	41	38	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1210.3	1210.3	1210.3	1210.3	1210.3
2.5°	1203.7	1205.4	1210.3	1213.6	1213.6
5°	1197.1	1200.4	1208.7	1213.6	1215.2
7.5°	1187.3	1192.2	1203.7	1210.3	1211.9
10°	1172.5	1179.1	1193.9	1203.7	1207.0
12.5°	1154.4	1164.3	1182.3	1195.5	1198.8
15°	1131.4	1144.5	1165.9	1182.3	1187.3
17.5°	1105.1	1121.5	1147.8	1167.5	1174.1
20°	1077.1	1093.5	1126.4	1149.5	1157.7
22.5°	1044.2	1065.6	1103.4	1129.7	1136.3
25°	1009.7	1034.3	1075.5	1105.1	1114.9
27.5°	971.9	1001.5	1045.9	1082.0	1090.3
30°	932.4	963.6	1014.6	1054.1	1063.9
32.5°	891.3	927.5	981.7	1026.1	1039.3
35°	850.2	886.3	945.5	994.9	1009.7
37.5°	802.5	845.2	911.0	962.0	980.1
40°	761.4	802.5	873.2	929.1	947.2
42.5°	715.3	759.7	833.7	894.6	915.9
45°	669.3	717.0	795.9	860.0	881.4
47.5°	626.5	674.2	756.4	823.9	845.2
50°	582.1	631.5	717.0	786.0	807.4
52.5°	534.4	588.7	677.5	746.6	771.2
55°	491.7	546.0	634.8	707.1	731.8
57.5°	447.3	503.2	595.3	664.4	687.4
60°	406.2	460.4	550.9	618.3	644.6
62.5°	361.8	417.7	506.5	572.3	596.9
65°	320.7	374.9	462.1	526.2	549.2
67.5°	279.6	333.8	416.0	476.9	503.2
70°	238.4	292.7	368.4	427.6	450.6
72.5°	202.3	250.0	322.3	376.6	398.0
75°	162.8	210.5	271.3	319.0	328.9
77.5°	126.6	169.4	220.4	241.7	245.0
80°	93.7	126.6	161.2	166.1	166.1
82.5°	62.5	87.2	100.3	102.0	100.3
85°	37.8	46.0	47.7	41.1	37.8
87.5°	13.2	13.2	8.2	4.9	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)