

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: P881116

Luminaire Tested: **22CZ2-39VHE-SQR-UNV-B35**

Issue Date: 10/2/2024

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: P881116  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P475230)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39VHE-SQR-UNV-B35  
Description: 2X2 3900 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3500K CCT AND SQR LENS  
  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

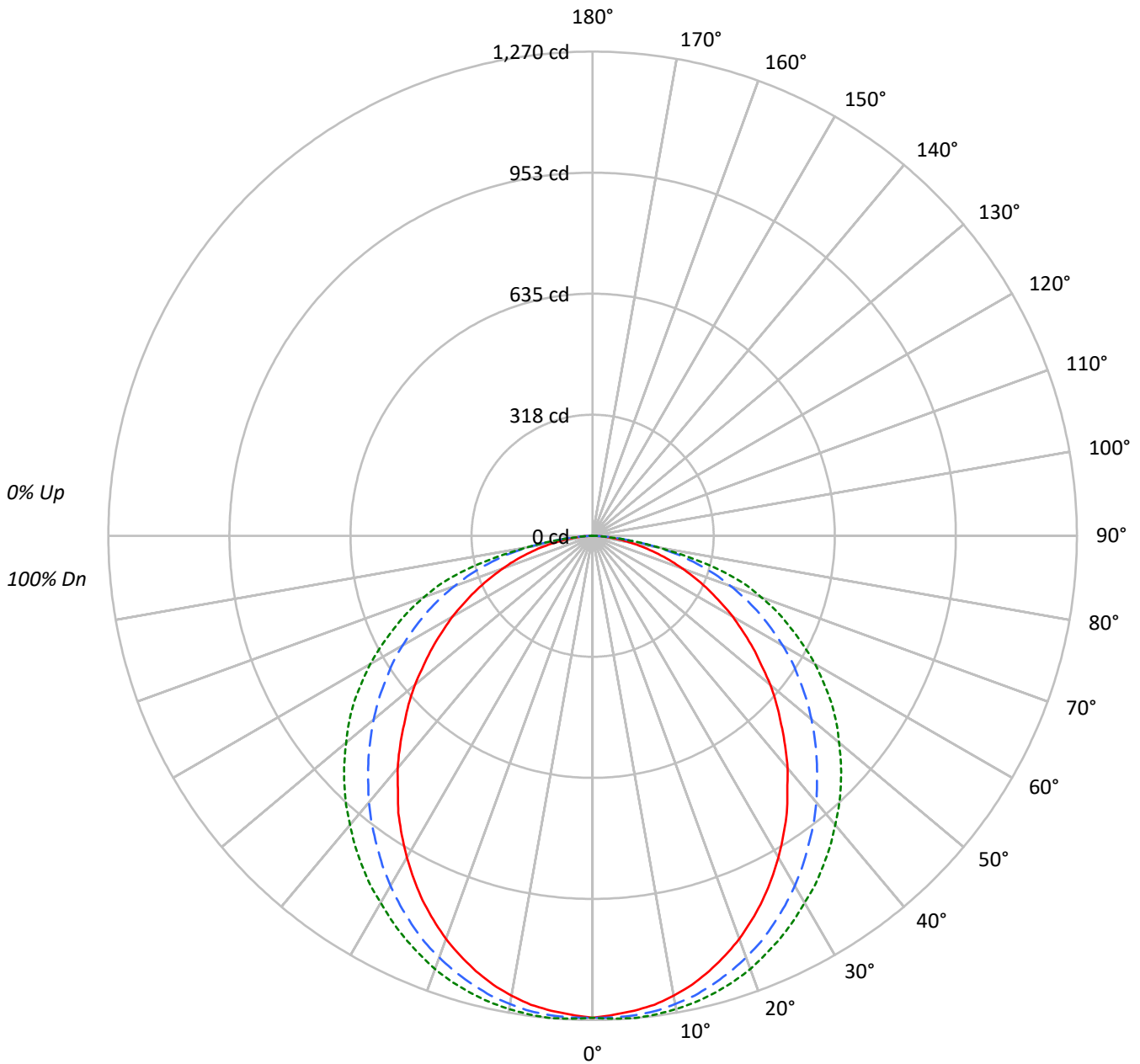
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3620.0 lumens  
Efficiency: N/A  
Efficacy: 113.1 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 1.92' x L: 1.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 32  
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: P881116  
CATALOG NUMBER: 22CZ2-39VHE-SQR-UNV-B35

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	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°	3588	3588	3588
5°	3562	3597	3617
10°	3530	3594	3633
15°	3473	3578	3644
20°	3398	3554	3652
25°	3303	3518	3647
30°	3192	3473	3642
35°	3076	3422	3655
40°	2947	3380	3666
45°	2806	3337	3696
50°	2685	3307	3724
55°	2541	3280	3783
60°	2409	3268	3823
65°	2249	3242	3853
70°	2066	3192	3905
75°	1866	3107	3766
80°	1598	2752	2835
85°	1286	1621	1286



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.9	3.3
10°-20°	342.8	9.5
20°-30°	514.8	14.2
30°-40°	614.0	17.0
40°-50°	634.8	17.5
50°-60°	583.6	16.1
60°-70°	464.6	12.8
70°-80°	283.9	7.8
80°-90°	61.7	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°	977.5	27.0
0°-40°	1591.5	44.0
0°-60°	2809.9	77.6
0°-90°	3620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3620.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1264	1264	1264	1264	1264	
5°	1251	1254	1263	1268	1270	119
15°	1182	1196	1218	1235	1241	333
25°	1055	1081	1124	1155	1165	485
35°	888	926	988	1040	1055	554
45°	699	749	832	899	921	541
55°	514	570	663	739	765	459
65°	335	392	483	550	574	332
75°	170	220	283	333	344	181
85°	40	48	50	43	40	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1264.5	1264.5	1264.5	1264.5	1264.5
2.5°	1257.7	1259.3	1264.5	1268.0	1268.0
5°	1250.7	1254.2	1262.8	1268.0	1269.8
7.5°	1240.6	1245.7	1257.7	1264.5	1266.5
10°	1225.0	1232.0	1247.4	1257.7	1261.0
12.5°	1206.2	1216.5	1235.4	1249.2	1252.5
15°	1182.2	1195.9	1218.0	1235.4	1240.6
17.5°	1154.6	1171.7	1199.4	1220.0	1226.8
20°	1125.3	1142.6	1177.0	1200.9	1209.5
22.5°	1091.0	1113.4	1152.9	1180.5	1187.3
25°	1055.0	1080.7	1123.7	1154.6	1164.9
27.5°	1015.4	1046.5	1092.8	1130.7	1139.3
30°	974.1	1006.8	1060.1	1101.3	1111.6
32.5°	931.1	969.1	1025.7	1072.2	1086.0
35°	888.1	926.1	987.9	1039.7	1055.0
37.5°	838.3	883.1	951.9	1005.2	1023.9
40°	795.6	838.3	912.5	970.8	989.7
42.5°	747.3	793.8	871.2	934.6	957.0
45°	699.3	749.1	831.5	898.6	921.0
47.5°	654.5	704.3	790.3	860.9	883.1
50°	608.2	659.8	749.1	821.2	843.6
52.5°	558.4	615.0	707.8	780.0	805.9
55°	513.7	570.3	663.1	738.8	764.6
57.5°	467.2	525.8	622.1	694.2	718.3
60°	424.4	481.0	575.8	646.0	673.6
62.5°	377.9	436.3	529.1	597.9	623.8
65°	335.0	391.7	482.8	549.9	573.8
67.5°	292.0	349.0	434.5	498.3	525.8
70°	249.0	306.0	384.7	446.8	470.7
72.5°	211.4	261.2	336.7	393.5	415.9
75°	170.2	220.0	283.4	333.2	343.5
77.5°	132.3	177.0	230.3	252.5	256.2
80°	97.8	132.3	168.4	173.5	173.5
82.5°	65.2	91.0	104.8	106.4	104.8
85°	39.5	48.0	49.8	43.0	39.5
87.5°	13.6	13.6	8.6	5.1	1.8
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)