

Company Name	Date	PI/PO No.	Item No.	Failure Quantity	Production Code (printed on the jacket of light)
科利尔企业brook 用户(勿动)	2022-10-27 09:15:39		C-FR-F22	1.2M	C-FR-F22

## 1. Defects Description

1.1 What was the problem?	1.2 Could you describe more about the failure phenomena and send us some pictures or videos?
Appearance defect	Stera反馈订单XS21120287、XS21120288 (硅胶测弯F22B) 在安装了一周后出现了失效。单元内不亮，暗亮，或高亮的情况，视频还有闪烁的情况。客户会去现场搜集失效数量。回复客户，是否方便取灯分析。
1.3 When did the problem/error occur after installation?	1.4 Did you light up to test the products before operation or installation?
1 week ~ 6 months	20220927
	Yes

## 2. Installation Environment

2.1 City of installation	2.2 The min. and max. environment temperature	2.3 Indoor or outdoor installation	2.4 Installation place
BHUTAN	30		

## 3. Product Information

3.1 What connector (s) was (were) used?	3.2 Who assembled the connectors?	3.3 What mounting profile was used?	3.4 What installation way (s) is (are) taken?
Dual injection molded connector	CLEAR	Self-lock aluminum profile Ver 1.0	Vertical installation

Other connector, please describe here

Other installation, please describe here

## 4. Additional Comments

The following is filled by CLEAR

### I Emergent Group Forms

Owner & Due Date :

Emergency Team Leader:  
Emergency Team Members:

### II Interim Containment Actions

Owner & Due Date :

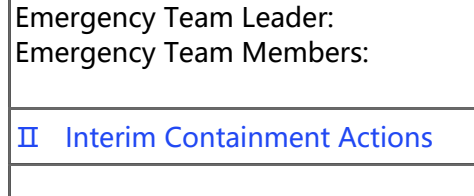
### III Root Cause of Defective

Owner & Due Date :

1. 收到失效样品

2022/10/17客户寄回19条灯身暗码为LC21100603失效样品，灯身长度为2m，如PIC.1；

Pic.1



2. 检查灯带外观

检查灯带外观，每条灯身上在同一位置附近均有型材拼接后卡出痕迹，底部有鼓包，如PIC.2-5；其中一条注塑端部破损，一条网尾处线材有破损，如PIC.6-7；

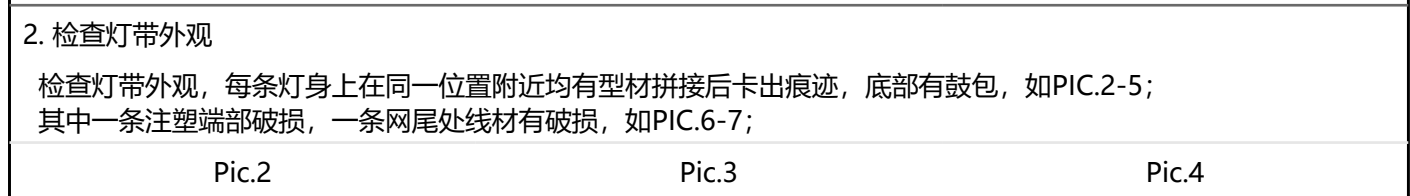
Pic.2



Pic.3



Pic.4



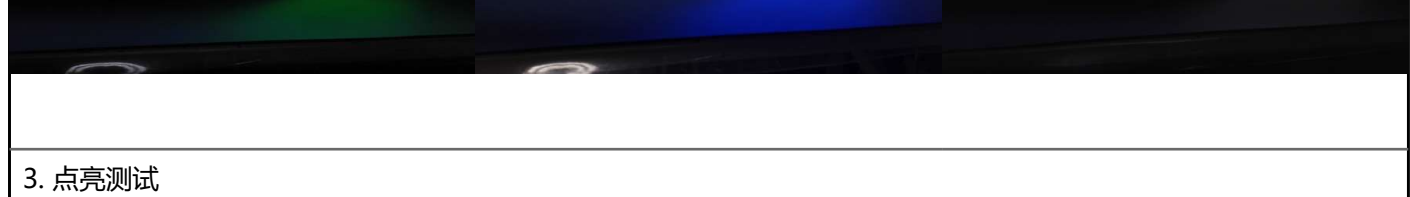
Pic.5



Pic.6



Pic.7



3. 点亮测试

接入控制器通电点亮后，灯带只有一半可受控，一半常亮蓝光，如PIC.8-12；

灯带常亮蓝光位置位于型材拼接卡出痕迹处，如PIC.13-14；

弯曲信号不通处，后续灯带可受控，如PIC.15-16。

备注：点亮过程中有5条点亮及弯曲灯带均无异常，起皱两条为注塑端部有破损、网尾位置线材破损。

Pic.8



Pic.9



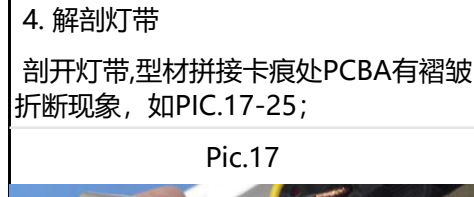
Pic.10



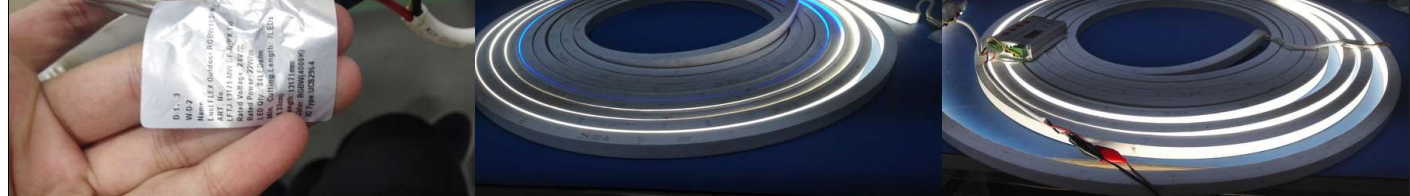
Pic.11



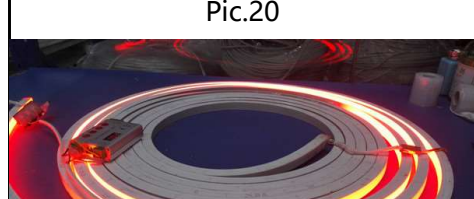
Pic.12



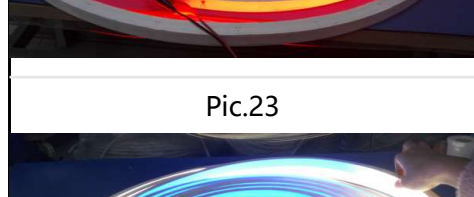
Pic.13



Pic.14



Pic.15



Pic.16



4. 解剖灯带

剖开灯带，型材拼接卡痕处PCBA有褶皱，褶皱处有轻微断裂，铜带褶皱处断裂，元器件未发现明显异常，PCBA有轻微折断现象，如PIC.17-25；

Pic.17



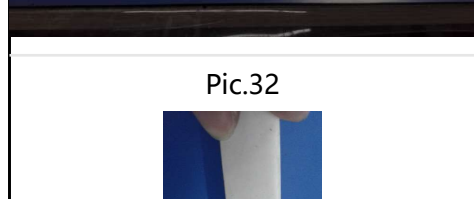
Pic.18



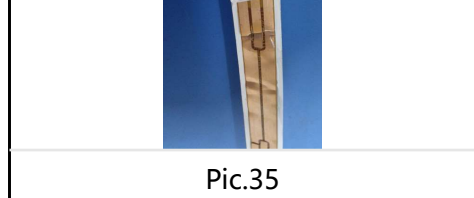
Pic.19



Pic.20



Pic.21



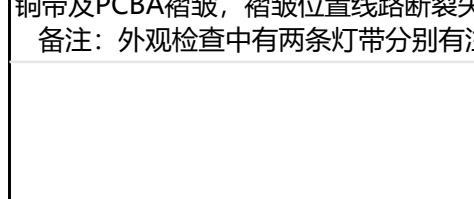
Pic.22



Pic.23



Pic.24



Pic.25



5. 万用表检测线路

万用表通断档检测线路通断情况：

褶皱位置信号，白光等线路有开路现象，如PIC.26-28；

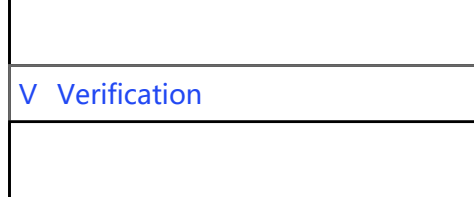
相应位置线路正常状态，如PIC.29-31；

刮开表层白色覆盖膜，PCBA褶皱位置表层线路有断裂，如PIC.32-37；

Pic.26



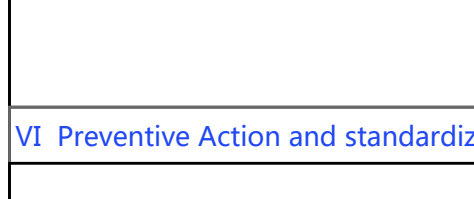
Pic.27



Pic.28



Pic.29



Pic.30



Pic.31



Pic.32



Pic.33



Pic.34



Pic.35



Pic.36



Pic.37



小结

综上所述，我司分析灯带失效原因如下：

灯带失效是因PCBA线路断裂导致，结合外观及解剖分析，PCBA线路断裂位置处于型材拼接卡痕处，铜带褶皱断裂，PCB主线亦有轻微断裂，表层线路断裂，灯带在安装使用过程中，推测型材安装未预留间隔，在后续使用过程中使铜带及PCBA褶皱，褶皱位置线路断裂失效。

备注：外观检查中有两条灯带分别有注塑端部破损及网尾位置线材破损现象，此将会降低灯带的防水等级。

### IV Corrective Action

Owner & Due Date : 营销

营销 2022-10-30

灯带型材安装前请客户仔细阅读我司说明书。



### V Verification

Owner & Due Date : Brook

### VI Preventive Action and standardize

Owner & Due Date : Brook

### VII Communicate Results & Recognize Team

Owner & Due Date : Brook

Close Date

Reviewed by

Approved By