# Interfaces

## LPF File

Detailed on Google Docs

## Indicator LEDs

Three LEDs are to be present in a plate device for status indication:

* ON (recommended: green): Indicates proper function in the plate device. Blinking with a one-second period indicates that the device is running.
* END: Indicates that the execution of the light program specified in the LPF has concluded.
* ERR: Indicates some error in the execution of the LPF. Common error situations are described below.

# Errors

Error situations are irreversible, and the system should be restarted in order to go back to a functioning state.

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| --- | --- | --- | --- | --- |
| Name | Description | Solution | Detected at | LEDs |
| SD card not recognized | No SD card has been detected. | Insert or replace the SD card. | Initialization | ON: off  END: off  ERR: on |
| File not found | Even though the SD card was detected, a file called “program.lpf” wasn’t found. | Include a light program file in the SD card. | Initialization | ON: off  END: on  ERR: on |
| Incorrect file format | Headers indicate potentially incorrect information, or indicate incompatibility with this device. | Make sure your file is correct, and that you got it from a verified source. | Initialization | ON: on  END: off  ERR: on |
| Timeout | The device has not been able to maintain the specified resolution. | Try increasing the time step for light intensity update. | Runtime | ON: blink  END: off  ERR: blink |
| File unavailable | The file has become unavailable in the middle of the run. | Verify that your SD card is properly inserted in the SD card slot. | Runtime | ON: off  END: off  ERR: blink |