LITESTAR 4D v. 4.00

User's Manual
Lisdat – Catalog Data Management

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OxyTech

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Lisdat – Catalog data management

Data structure

LITESTAR 4D is equipped with a single database (Oxydata.MDB), evolution of the LITESTAR 10 catalog database in which the functions for managing the photometric files in the new OxyTech OXL format have been integrated.

The OXL files are obtained by converting the photometric files into international formats (e.g. EUL or IES), by means of the Photoview module, in which the graphs can be visualized individually, or automatically, using the Lisdat module (for a more detailed explanation please refer to the chapter *Automatic product management*).

The MDB database is created by downloading the manufacturers' Plug-ins (unmodifiable data) by means of the Liswin module or by directly inserting the luminaire technical data using Lisdat. Lisdat, by converting the photometric files, also allows the catalog to be created automatically (and the photometries to be attached), extracting the basic information from the available photometric data (for a more detailed explanation please refer to the chapter *Automatic product management*).

The database also allows management of the relative documentation, useful for completing the data sheets, such as images and texts. These files will first have to be inserted in special folders to allow them to be linked to the product as explained below.

The …\DB folder, defined during installation (see paragraph *Program installation and startup*, in the Litecalc manual), contains the data relating to each individual manufacturer, subdivided into subfolders (for a more detailed explanation on creating a manufacturer please see the chapter *Manufacturers window*). If a new manufacturer, not a manufacturer plug-in, is created in the folders of each manufacturer, the following procedure must be followed:

▸ Non language-sensitive data must be entered in the manufacturer folder:
- Product images (in .JPG format)
- Company logo (in .JPG format)

- Drawings (in .DWG or .DXF format)
- @catalog-cover.JPG, i.e. the file for the cover Window, which is visualized by selecting the manufacturer from the list in Liswin

▸ A number of files equal to the number of available languages will have to be created for the connected documents, named with the abbreviation of the language (FRA for French, ING for English, ITA for Italian ….) inside which all language sensitive files are saved:
- Catalog parts, certificates, etc. (in .PDF format)
- Product texts, etc. (in .RTF or .DOC format)

The files of the texts translated into the various languages relative to the same document will have to have the same name so they can be visualized correctly when the product is selected in Liswin in the different languages

▸ A Litepack folder must be created in which to save the .OXL files

The **OXL** file is an XML type file (files used in many applications for data exchange) inside which the following information is found:
- the general lighting device data
- the lamps data, including color
- the dimensions and, if available, 3D file of the luminaire

Each code inserted in the general database must correspond to only one .OXL file.

Oxydata.mdb is found in the program data folder …\Docs\DB. It is a relational Access database which contains:
- data (technical and commercial) related to the individual products
- links to external documents (photometries, images, texts)

It is possible to choose an alternative path in which to insert the manufacturers' folders, using the *Configuration* window, by selecting a new address at D*atabase* and *Media* (for a more detailed explanation see the *Configure Liswin* chapter).

The technical data (catalog and photometries) of the individual manufacturers present as Plug-ins, are updated using the various search options found in the Liswin module (for a more detailed explanation see the chapters concerning data updating and search).

Lisdat – Catalog data management

The OxyData.MDB

The catalog products are entered in a relational database, in the Access format (MDB) of Microsoft, which allows greater flexibility in data management and integration.

In addition, this system allows the modifications made by the user to be activated immediately, visualizing them and making them utilizable in the other modules, without having to go through OxyTech.

It should be underlined that the plug-ins supplied by the companies can never be modified or updated, unless by the company itself, so as to maintain the accuracy of the data.

Updating by means of plug-ins, however, does not prevent individual users from inserting and then modifying the products not found in the database, thus creating their own archives to be added to those of the manufacturing companies.

The catalog name, by default, is OxyData.MDB and is found in the folder …Docs/DB (see the paragraph *Program installation and startup*, in the Litecalc manual). It is advisable to maintain this configuration, although there is no reason why the name or position of the database cannot be changed as deemed necessary.

In this case it will be necessary to configure the new path in the Liswin module, selecting the *File/Configuration* menu. When the configuration window opens, just click on the original description in the *Products Database* section to open the selection window in which to choose the new MDB file.

In the *Documents* section, on the other hand, it will be possible to define the new path for the linked documents (for a more detailed description see the chapter *Configuring Liswin* in the Liswin manual).

If a new database has to be created, the empty .MDB database can be downloaded from the Software – Update – Accessory Files section of the www.oxytech.it site, selecting LITESTAR 4D Empty OxyData. The file can then be saved in the file the user prefers and connected to the program as described above.

There are two different ways of creating a new catalog, or of inserting new data in an existing catalog (OxyData.MDB file):

▶ use the Excel Bridge File (LITESTAR 4D Database Bridge Excel File - Luminaires), complete it and import it into OxyData. In this case it will then be necessary to send the Excel file, together with the accessory files (OXL files, PDF documents, images ….) to OxyTech for import of the data in the OxyData.MDB file

▶ use the Lisdat module and enter the data one by one, without going through Oxytech

The choice of one system rather than the other depends essentially on:

▶ the availability of data that is already organized in another system (database): in this case it will be possible to export the data neatly from the original system to the Excel file

▶ the prowess with Excel: the copy and paste function is very fast for entering the data, but, at the same time, must be handled with extreme care since it is easy to make mistakes

▶ the preference for an entry instrument that guides data definition step by step. In this case the use of Lisdat is convenient because it also offers the enormous advantage of keeping active the data for subsequent entries: for example, if a family of products characterized by identical data apart from the code and color has to be inserted, it will just be necessary to modify the code and color to create a new product, without having to re-insert every single item of data

Lisdat – Catalog data management

Introduction and access

LITESTAR 4D - Lisdat is the program module for the maintenance (entry and modification) of the catalog data (luminaires and lamps) used in the Litecalc and Liswin modules.

Lisdat, in addition to managing the technical catalog data, also allows management of the documents linked to the individual products, i.e.:

▶ Images of products, applications or drawings (up to a maximum of 10 per product)

▶ Photometric files in OXL format, the OxyTech format for measurement data exchange

▶ External documents (instruction leaflets, assembly diagrams, certificates) in various formats (PDF, XLS, DOC, DXF, DWG…)

It is possible to access Lisdat, from the Liswin module, by means of the *Lisdat* icon, situated:

- on the left of the screen, above the list
- in the Links menu

Alternatively you can select the Lisdat program from the window Start/All programs/Oxytech.

When the module opens, one of the following functions can be selected:

▶ Manual product insertion/updating

▶ Automatic Import/management

Manual insertion or automatic import selection keys
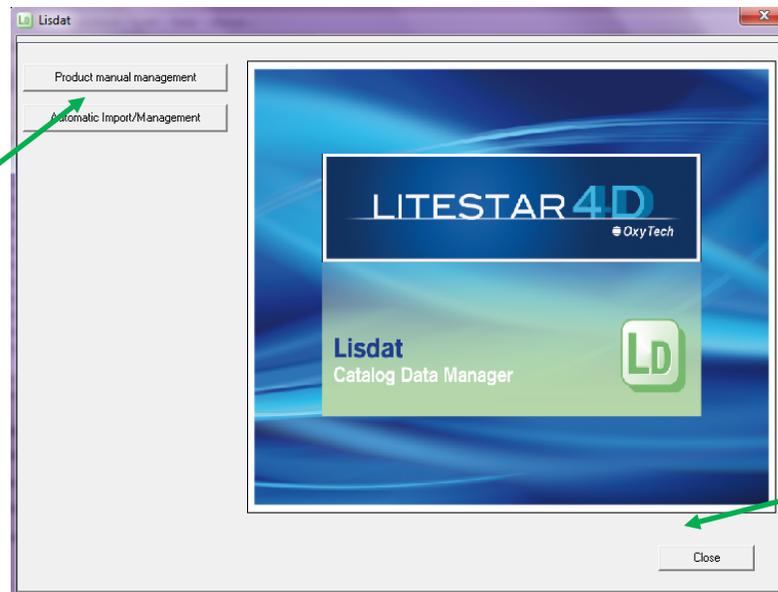
Exit from module

Manufacturer Window

The *Manufacturer* window allows you to visualize the manufacturer's reference data.

Whether products are added automatically or manually, to add a new manufacturer the *Add manufacturer* key must be pressed.

A new manufacturer must be added when the user wants to insert new products that are not available in the manufacturers' plug-ins

This is because the catalogs created using plug-ins and subdivided in the Liswin module in manufacturers' archives cannot be modified by the users, and therefore a new archive has to be created to be able to add new products to the database.

The window relative to the new manufacturer will be editable in all fields (figure below).

It will thus be possible to modify the data, typing in the new values in the individual boxes, or to add a presentation or certification of the company (in .PDF format), using the *Open* key (to link a new file) or *Change* (to change a previously linked file).

By clicking on the *Logo* key, it will also be possible to add the image of the company logo (logo.JPG), which will then be visualized in the box on the top right and then must be positioned in the folder relative to the manufacturer (for a more detailed explanation see chapter *Data structure*).

Finally click on the *Add* key to make the updates effective.

The company presentation, certificate and logo will be inserted in the manufacturer's folder, inside the program data folders. For a more detailed explanation see the *Data structure* chapter.

Once the new manufacturer has been saved, to modify the data just click on the logo in the top right, in the Liswin module.

The fields with a red asterisk are compulsory and must have the same description.

When inserting the new manufacturer, the user must choose the type of inserted products between Lamps and Luminaires. According to the product type chosen, the manual data insertion window will show different entry fields.

For example, by entering lamp data it will be possible to type in the lamp flux, which is not present in the luminaire fields, since it relates to the photometry.

If a file called @catalog-cover.JPG, containing a "cover" image of the manufacturer, is inserted in the manufacturer folder, when the manufacturer is selected in Liswin, this image will be visualized for a few seconds.

Automatic product management

Interface window

Click on the Automatic import/management key, in the module entry window, to access automatic data import management for both catalog and photometries.

The window allows new products to be added to the database, converting and importing the photometries from other formats, or importing an external .MDB database. The window also allows you to check the accuracy of the links between .OXL files and the products in the database to which they are connected, and to carry out certain operations on the .OXL files.

The available functions are:

‣ **Add manufacturer**: to allow the user to add a new manufacturer (for a more detailed explanation see the chapter *Manufacturer Window*)

‣ **Rename added manufacturer**: to rename a previously inserted manufacturer

‣ **Delete manufacturer**: to delete a previously inserted manufacturer

‣ **Litepack (OXL) import**: to insert the data in the .OXL files in the database and link them to the photometries

‣ **OXC import**: to insert the .OXC data in the database (catalog data without photometries)

‣ **LDT/IES import**: to convert the standard photometric formats into OXL, insert in the database and link to the photometries

‣ **LDT/IES > Litepack (OXL) conversion**: to convert standard photometric formats into .OXL files

‣ **DB Import**: to import/export an external .MDB database (advised only for expert users)

‣ **Verify links**: to verify that links between the codes inserted in the database and the .OXL files correspond

‣ **Modify Litepack (OXL) with product data**: to substitute the .OXL file codes with those in the database to which they are linked
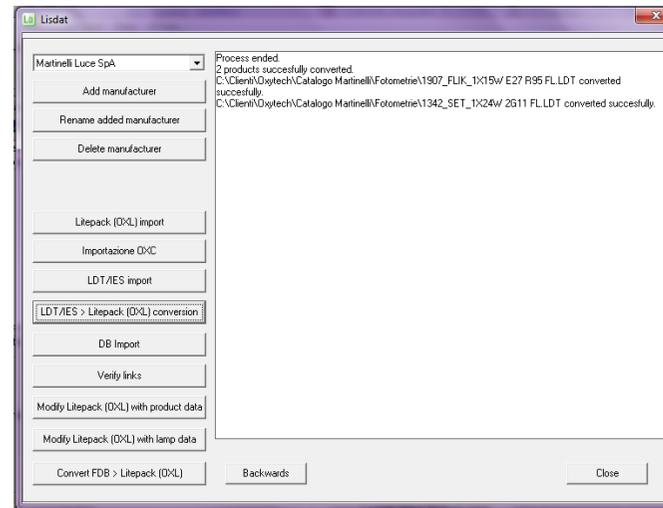
‣ **Modify Litepack (OXL) with lamp data**: to substitute the .OXL file lamps with those in the database to which they are linked

‣ **Convert FDB > Litepack (OXL)**: to convert links from the old Litestar 10 format into the new .OXL format

The keys in the lower part of the window allow:

‣ *Backwards*: to return to the entry window

‣ *Close:* to exit the module

Data import/conversion movements will be visualized on the right of the window.

The converted data will be saved in the folder of the selected manufacturer, as explained in the paragraph *Data structure*.

The .OXL files are unique for each luminaire and are contained in the folder …DB\(manufacturer's name)\ Litepack.

In order to be able to visualize them with the product to which they refer, they must be linked to the code relating to the product in the database.

Should a catalog not be available, but photometries in standard or .OXL formats are, the catalog can be created by importing the codes of the photometric files directly into the database. In this way the photometric files will automatically be linked to the new products created in the database.

Automatic product management

Rename added manufacturer

To rename a manufacturer added by the user just:

▸ select the manufacturer to be renamed from the dropdown list on the top right

▸ select the *Rename added manufacturer* key

▸ type the new name in the window that opens

▸ press *Ok* to confirm or *Cancel* to cancel
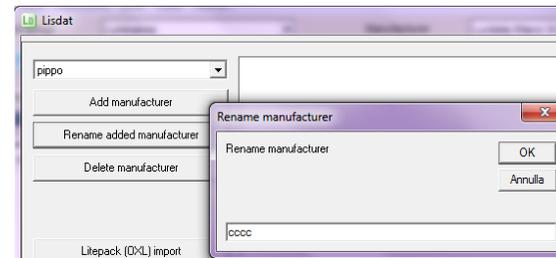
Delete manufacturer

To delete a manufacturer just:

▸ select the manufacturer to be deleted from the dropdown list on the top right

▸ select the *Delete manufacturer* key

▸ confirm deletion
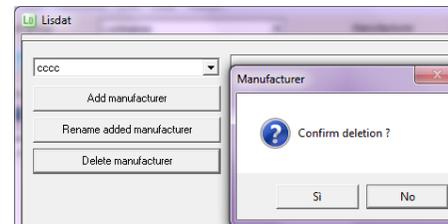
Litepack (OXL) import - OXC Import

This function allows new products to be created in the database, importing the data contained in the photometries in .OXL format (or just the luminaire technical data in the case of OXC) and the photometries to then be linked to the new codes created. To import the data just:

▸ select the manufacturer where you want the data to go from the dropdown list on the top left

▸ select the *Litepack (OXL) import* key

▸ select the files to be imported (to import more than one product press the SHIFT key plus the left mouse button on the first and last product) and click on the *Open* key
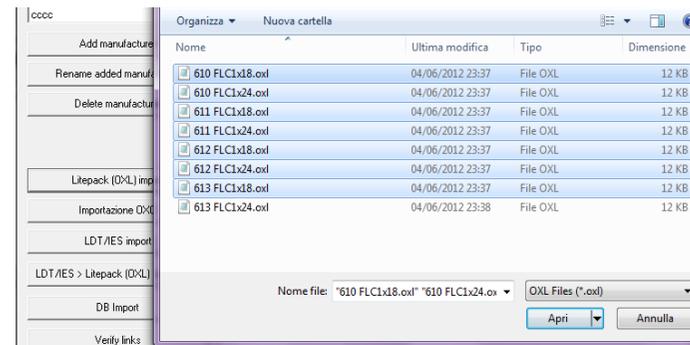
▸ the program will automatically insert the codes in the database and link them to the photometries. The new products can be visualized in Liswin or manually edited to add missing data in Lisdat (*Manual management*)

Notes

Any manufacturer can be deleted, but only the names of manufacturers added by the user and not those downloaded as plug-ins can be changed.

In order to be able to import the new products, a new manufacturer must first be created (for a more detailed explanation see the chapter *Manufacturer window*).

The .OXL files must contain the codes related to the manufacturer, otherwise the program will not allow import. For this reason they will have to come from the conversion of the data from the other photometric formats (after selecting the manufacturer) or from the FOTOM.FDB.

If the files have not previously been inserted in the selected manufacturer's tree in the Litepack folder, the program will automatically proceed to copy them there.

Automatic product management

LDT/IES import

This allows you to convert LDT/IES files into .OXL format, to create new products automatically in the database by importing the data contained in the photometries and to link the photometries to the new codes. To import data just:

▶ select the manufacturer where the data is to be inserted from the dropdown list on the top right

▶ select the *LDT/IES import* key

▶ select the files to be imported (to import more than one product press the SHIFT key plus the left mouse button on the first and last product) and click on the *Open* key

▶ the program will automatically insert the codes in the database and link them to the photometries. The new products can be visualized in Liswin or edited manually to add missing data manualmente in Lisdat (*Manual management*)

LDT/IES > Litepack (OXL) conversion

This allows you to convert the LDT/IES data into .OXL format.

To convert the data just:

▶ select the manufacturer you want to appear in the .OXL file data, from the dropdown list on the top right

▶ select the *LDT/IES > Litepack (OXL) conversion* key

▶ select the files to be imported (to import more than one product press the SHIFT key plus the left mouse button on the first and last product) and click on the *Open* key. The files will automatically be created in the Litepack folder relating to the select manufacturer
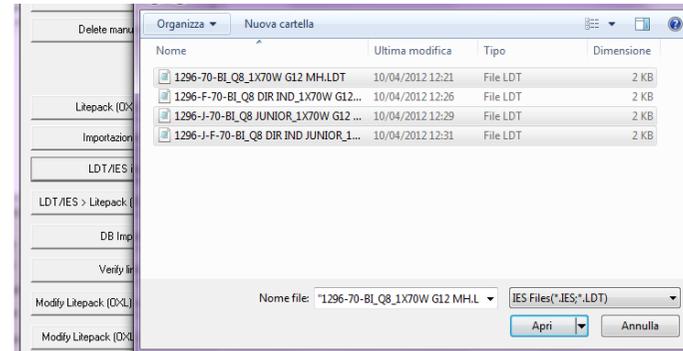
Verify links

This allows you to verify if the .OXL files are correctly linked to the products in the Liswin database. In other words it allows you to check that the .OXL files in the folder relating to the manufacturer correspond in number and name with those linked to each individual code in the database lists.

To carry out the check just:

▶ select a manufacturer that has products linked with .OXL files

▶ select the *Verify links* key

▶ the product codes and relative .OXL linked files will appear on the right of the screen

▶ should there be linked files that are not however inserted in the manufacturer's folder, *NOT FOUND* will appear alongside the code

Automatic product management

Modify Litepack (OXL) with product data

This allows the code and the description of the linked product to be written in the .OXL file, so that the data coincides both in product visualization in Litecalc and in Liswin.

To activate the command just select the manufacturer from the list and click on the *Modify Litepack (OXL) with product data* key. The operations will be shown on the right of the window.
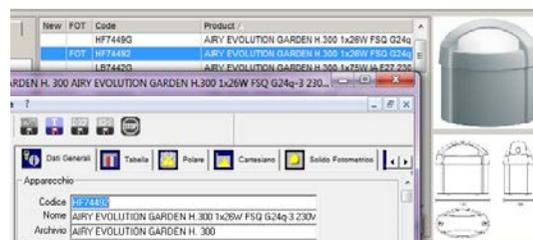
Modify Litepack (OXL) with lamp data

This allows the lamp directly linked with the product in Liswin to be written in the .OXL file.

To activate the command just select the manufacturer from the list and click on the *Modify Litepack (OXL) with lamp data* key. The operations will be shown on the right of the window.
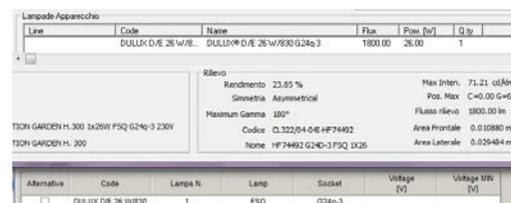
Convert FDB > Litepack (OXL)

This allows you to convert the product-photometries links from the LITESTAR 10 version to the new LITESTAR 4D version.

To perform the operation just select the manufacturer from the list and click on the *Convert FDB > Litepack (OXL)* key. The operations will be shown on the right of the window.

In order for the operation to be successful, the name shown in the link in the old version must correspond with that of the .OXL file. If not, it will be impossible to find the correspondences.

DB Import

This allows two operations:

- to import an external database into the general database
- to export a manufacturer from the general database to an external database

In the first case you must:

- select the manufacturer where the database products are to be inserted and select the *DB Import* key
- select the file path to be inserted and press the *Import* key: the products will thus be imported into that archive

In the second case you must:

- select the manufacturer to be exported and select the *DB Import* key
- select the path of the file in which the products are to be imported and press the *Export* key: the products will thus be exported into the new database
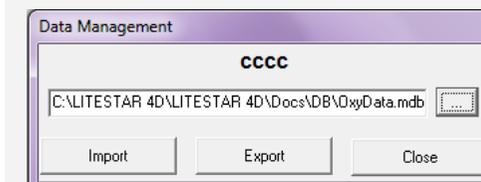
Manual product management
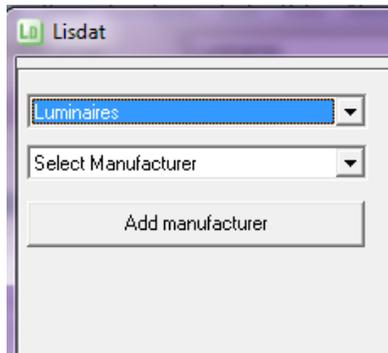
Clicking on the *Manual product management* key in the entry window accesses the function of manual data management.

At this point, from the first dropdown menu choose between:

▸ **Luminaires**: if luminaires are to be inserted

▸ **Lamps**: if lamps are to be inserted

Once the type has been selected, in the second dropdown menu, select the manufacturer whose data is to be updated.

By selecting the *Add manufacturer* key, the user can add a new manufacturer, whose data will always be modifiable (for a more detailed explanation see the chapter *Manufacturer window*).

When both fields have been set, the product data insertion TABS will open automatically.

To find a previously inserted code you can:

▸ Click on the vertical arrow, positioned alongside the code list on the top right, and scroll through the codes

▸ Type the code in the field on the top right and select the Find key

▸ Click on the rt/lf arrows to scroll through the codes one by one

The keys in the lower part of the window allow you:

▸ Backwards: to return to the entry window

▸ Delete: to delete the product shown on the screen

▸ New Product: to clear the fields and enter an new product

▸ Save Product: to save the inserted product

▸ Cancel: to exit the module

Product type selection dropdown menu bar

Function keys for product and database management
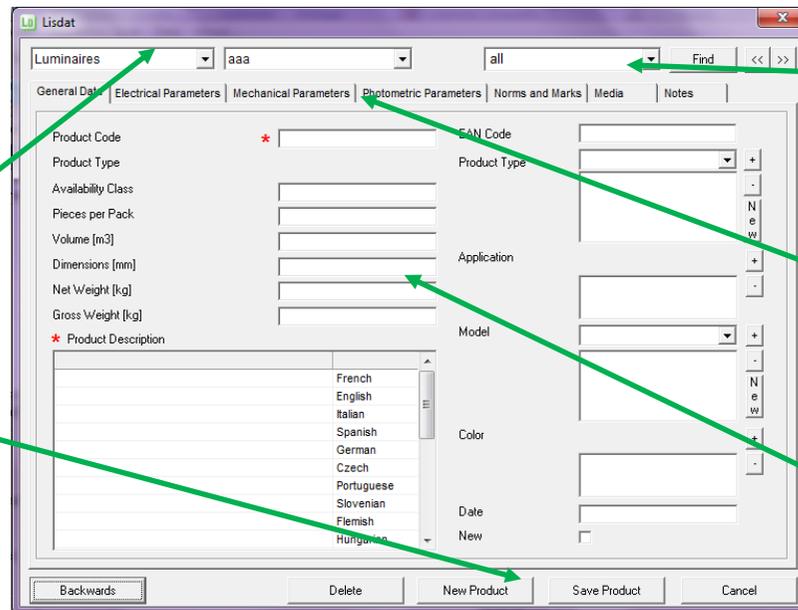
Manufacturer and code selection menu bar

Insertable data TAB

Dropdown editing fields section to be completed

Creating the catalog

Field types

With Lisdat it is possible to insert your own archives, alongside those created by the companies, in a single Oxydata.MDB.

The data can be inserted and modified in several different ways i.e.:

▶ Alphanumerical entry fields (Type A): these are editable alphanumerical (numbers and letters) fields that allow entry of a certain number of letters and/or numbers (the fields with asterisks are required fields)

▶ Predefined Multiple Selection Dropdown Menu (Type B): these are dropdown menus in which it is possible to choose from various available items which cannot be modified

To select a field just click on the description with the left mouse button. In some, (those without the + and - keys) only one selection can be made.

▶ Editable Multiple Selection Dropdown Menu (Type C): these are dropdown menus in which it is possible to choose among the various items previously defined by the user

To enter a new item you must click on *New* and complete the window that opens. To add one of the items present to the list, select it from the dropdown menu and press the + key. On the contrary to remove an item that has already been entered, select it from the list and press the – key.

Notes

New definitions may be implemented in these menus by communicating the new fields to OxyTech.

OxyTech will perform insertion and activation in the DBFilter.

To make the new fields operative it will be necessary to copy the update file, in the folder indicated by Oxytech and enable the items in Liswin (file menu /Enable Filter).

To enter a new item you must press the NEW key, and this opens a window in which to type the new descriptions, in the various languages.

Should it not be necessary to perform translation for each language, it is possible to click on the description with the right mouse button and confirm to obtain the automatic insertion of the description in the other languages.

Creating the catalog

▸ Flag Activation Fields (Type D): these are fields that allow definition of whether the option is active or not. To activate or deactivate the flag just click on the relative box

▸ Fixed Multiple Selection Fields (Type E): these are fields in which predefined items can be selected by clicking on them with the left mouse button. The selection is highlighted in the window below, and more than one of the available options may be selected

New ☑

```
---
94/9/CE ATEX
CEI 34-15
CEI 34-17
CEI 34-17 (EN60570)
CEI 34-21
CEI 34-21 (EN60598-1:93+A1)
CEI 34-22
CEI 34-23
CEI 34-23 (EN60598-2-2:96)
CEI 34-30
CEI 34-31 (EN60598-2-2)
CEI 34-33
```

Norms

```
CEI 34-31 (EN60598-2-2)
```
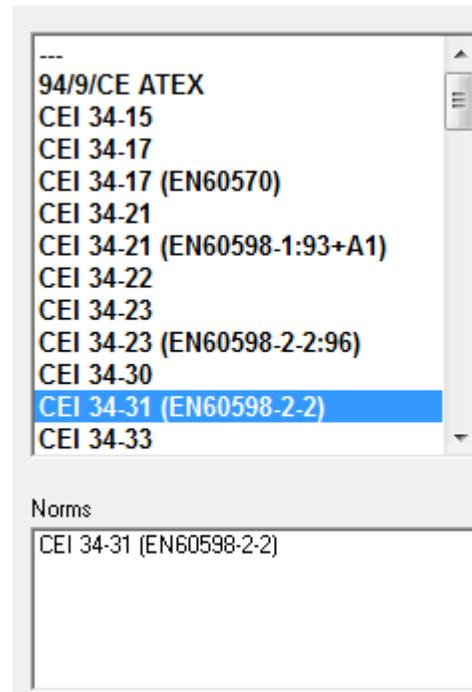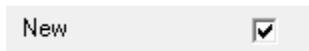
Creating the catalog

General Data TAB

In the General Data section the following product characteristics can be inserted:

▶ **Product Code** (Type A field – Alphanumerical – Max 30 characters – Required): here the product code according to the manufacturer's price list can be inserted. This field is required and must be unequivocal

▶ **Product type** (Type B field): this allows selection among the various types of product (e.g. Exteriors, Interiors – Wall, Interiors – Ceiling etc…). This field is unequivocal

▶ **Availability Class** (Type A field – Alphabetical – Max 1 character): this refers to the supply availability of the product according to the following classes:

- A = immediate delivery
- B = within 7 days
- C = within 15 days
- D = within 30 days

▶ **Pieces per Pack** (Type A field – Numerical – Max 3 characters)

▶ **Volume** [m³] (Type A field – Numerical)

▶ **Dimensions** [mm] (Type A field – Numerical)

▶ **Net Weight** [kg] (Type A field – Numerical)

▶ **Gross Weight** [kg] (Type A field – Numerical)

▶ **EAN Code** (Type A field – Numerical – Max 25 characters) – this is the reference bar code of the product

▶ **Product type** (Type C field): here it is possible to insert the product type defined by the manufacturer on the basis of the company catalogs

▶ **Application** (Type B field): this allows selection between the possible fields of product utilization (e.g. medical environments, public areas, commercial areas etc...)

▶ **Model** (Type C field – Alphanumerical – Max 20 characters): this allows selection among the various items inserted previously by the user or insertion of a new item

▶ **Color** (Type B field): this allows the choice among the possible colors of the product

▶ **Date**: this is a non-editable field in which the program enters the date the modification is carried out

▶ **New** (Type D field): this is the flag with which to indicate if the product is new

Creating the catalog

Electrical Parameters TAB

In the Electrical Parameters section the following product characteristics can be inserted:

▸ **Insulation Class** (Type B field): this allows you to choose among --- (no class), I, II and III

To insert a new ballast just select the source from the dropdown menu and click on the + button.

▸ **Ballast type** (Type B field): this allows the luminaire feed type to be selected (e.g. dimmerable, electronic, etc.)

▸ **LED luminaire** (Type D field): this indicates if the luminaire is classified as LED

▸ **Source voltage** (Type A field - Numerical): this allows the luminaire source voltage to be inserted (e.g. 230)

▸ **Source current** (Type A field - Numerical): in the case of LED luminaires, it allows the source current to be entered, if the luminaire is not equipped with ballast

▸ **Emergency Flag** (Type D field): this indicates whether or not the luminaire is classified as an emergency device

▸ **Battery** (Type A field – Alphanumerical – Max 20 characters): this allows insertion of battery description

▸ **Battery Life** [h] (Type A field – Numerical – Max 5 characters): here it is possible to enter the life of the battery

Mechanical Parameters TAB

In the Mechanical Parameters section it is possible to insert the following product characteristics:

▸ **Luminaire IP Grade** (Type A field – Numerical – Max 4 characters): this indicates the general IP Grade, when this is not divided into Optical Box and Auxiliary Box (as for example may happen with road lights or floodlights). By typing for instance 64, the IP64 in Liswin will be visualized

▸ **Optical Box IP Grade** (Type A field – Numerical – Max 4 characters)

▸ **Auxiliary Box IP Grade** (Type A field – Numerical – Max 4 characters)

▸ **Shock Resistance IK** (Type A field – Numerical – Max 3 characters): here the shock resistance index can be entered. By typing for instance 10, the IK10 in Liswin will be visualized

▸ **Fire Resistance °T** [°C] (Type A field – Numerical – Max 5 characters): this represents the fire resistance of the luminaire

▸ **Superficial T°** [°C] (Type A field – Numerical – Max 5 characters): this represents the maximum surface temperature (of the glass) of the luminaire

▸ **Wind-Exposed Surfaces** (Type A field – Numerical – Max 5 characters): this represents the luminaire surfaces exposed to the wind, useful for calculating mast dimensions, generally for sports or roads installations

▸ **Materials** (Type B field): here it is possible to select one or more materials characterizing the product

Creating the catalog

Photometric Parameters TAB

In the Links section, it is possible to link the photometric files to the luminaire.

The window consists of two sections: Linked Measurements and Linked Lamps:

▸ **Linked Measurements**: the table shows the references (Product Code and Product Description) of the linked measurements. On selection of the linked measurement, with the left mouse button, the program shows the photometric curve of the measurement in the lower left-hand area.

Another two fields are also available, i.e.:

- **Optics** to indicate the type of optics of the luminaire
- **Optics Name**: to give a specific name, on the part of the manufacturer, to the optical system of the luminaire
- **Cut-off Angle** to indicate the value of the cut-off angle
- **Beam opening:** to indicate the beam opening angle

To manage and link the measurements, it is necessary to use the five keys in the right-hand part of the section. These have the following functions:

- **Add Measurement**: when selected, this opens the window in which to select the file you wish to link with the product
- **Substitute Measurement**: this allows you to substitute a previously selected measurement
- **Delete** (Measurement): this allows you to delete the selected measurement
- **Other Data**: this allows access to the Photoview module visualizing the data of the selected measurement
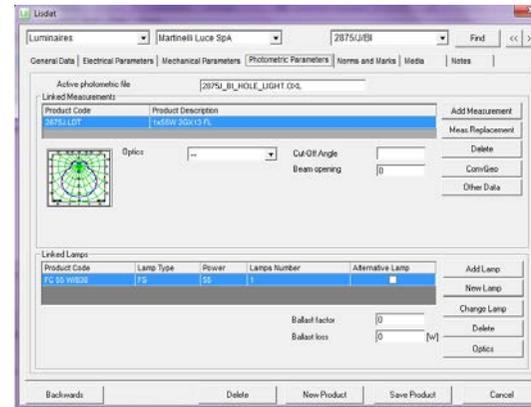
▸ **Linked Lamps**: the table shows the references (Product Code, Lamp Type, Power, Lamps Number, Alternative Lamp) of the lamps linked with the measurements or the product.

There are another two fields available, i.e.:

- **Ballast Factor**: to indicate the BF value
- **Power Loss**: to show the loss of power supply

To manage and link the lamps, it is necessary to use the five keys in the right-hand part of the section. These have the following functions:

- **Add Lamp**: to link a lamp to the product using the Liswin lamps archive (by clicking inside the number of lamps field, the lamps number can be changed by typing in the new number)
- **New Lamp**: to add a new lamp in the Liswin database
- **Change lamp**: to change the selected lamp
- **Delete** (Lamp): this allows you to delete the selected lamp

It is possible to directly link a photometry to the product in a different format from OXL, such as for example Eulumdat or IESNA.

In this case, by selecting the file in the folder where it is situated, the program will automatically proceed to convert the format into .OXL, and to copy the new file in the Litepack folder of the manufacturer (if the archive has been created by the user, the name of the folder will be that defined by the user).

Creating the catalog

Energy Parameters TAB

In the Energy Parameters sheet the energy evaluation and energy class can be assigned to the luminaire.

The window is made up of two fields:

▶ **IPEA Value**: enter here in numerical terms the energy efficiency value, calculated by opening the photometry in Photoview and visualizing the values in the *IPEA Energy efficiency evaluation* TAB.

▶ **IPEA Energy Class**: this represents the reference energy class, to be applied to the luminaire on the basis of the calculated IPEA values. The classes available in the drop down menu go from A+ to G, and represent the range of values according to the table shown alongside the field.
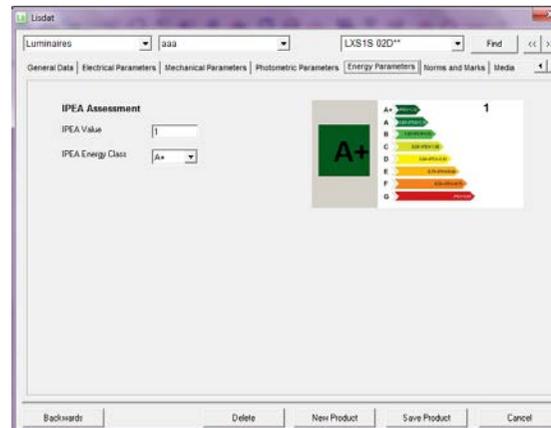
When inserting a lamp it is possible instead to enter the energy class in accordance with the UE 874/2012 norm.

Also in this case the window is made up of two fields:

▶ **EEI**: where the value relative to the kWh/1000h of the individual lamp is entered.

▶ **Energy Class**: this represents the reference energy class to be applied to the lamp. The classes available in the dropdown menu range from A++ to E, and represent the range of values as seen in the table shown alongside the field.
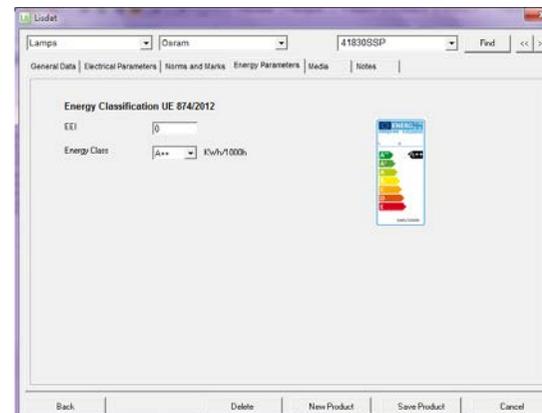
Creating the catalog

Norms and Marks TAB

In the Norms and Marks section it is possible to select the reference norms and marks of the product.

The screen shows the following elements:

▸ marks selection menu

▸ the list of the marks linked with the product, situated immediately below

▸ norms selection menu

▸ the list of the norms linked with the product, situated immediately below

Each of the two sections shows the *Delete* key in the lower area with which previously linked marks and norms can be deleted.

On the operative level, to **link** a mark or norm click with the left mouse button on one of the available options. At this point the mark or norm will be added to the list of marks and norms linked with the product.

To **delete** a previously linked mark or norm from the list, just select a mark or norm and press the *Delete* key. Only one mark/norm can be deleted at a time.
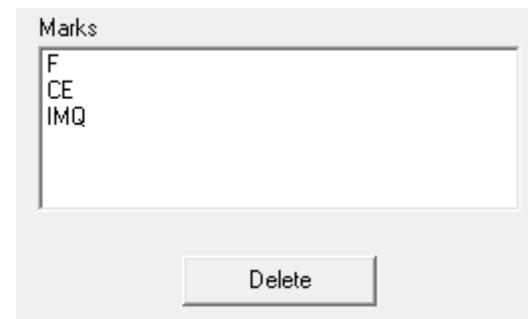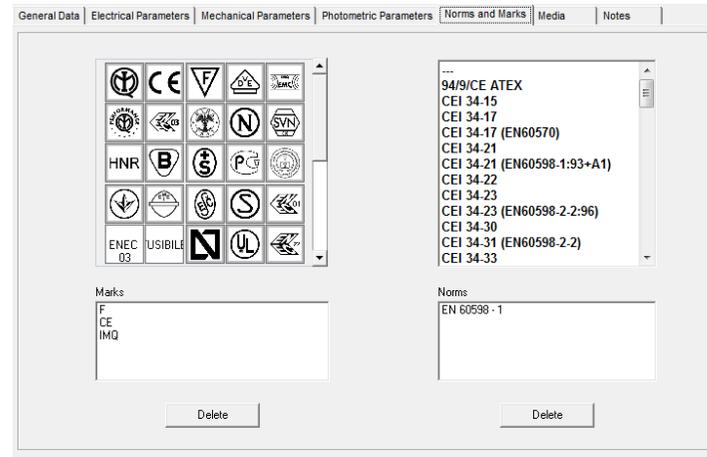
Creating the catalog

Media TAB (linked products)

In the Media section it is possible to select external files to link to the product such as images, texts and accessory documents.

The possible choices are

▶ **Type**: indicates the type of association of the file. Here you can choose from:

- **Technical Sheet**: all the files linked to the product in this way will be visualized directly in the product Technical Data sheet in Liswin, according to the various page displays available

- **Linked Documents**: all the files linked to the product in this way will be viewable in Liswin as "external" documents, and will be printed independently. This option allows different types of file to be linked to the product, so as to make the information regarding it more complete

▶ **File Type**: indicates the types (extensions) of file that can be linked to the product. The types of files that can be linked differ according to whether *Technical Sheet or Linked Documents* have previously been selected

By selecting *Data Sheet* (for a more detailed explanation on the data sheet see chapter *Creating and Managing a data sheet*, in the Liswin manual), in the *File Type* column, selection can be made among:

- **JPG and BMP Files**: to link images in JPG or BMP format to the product. The advantage of JPG format is that of reducing the file dimensions, whereas the advantage of BMP format is that of improving the resolution of the image

- **Product Sheet**: to link texts in RTF format to the product. The text will be visualized in the Texts TAB of Liswin and will have as a title the selected description

- **Characteristics Description, Assembly Instructions**: to link texts to the product as external documents
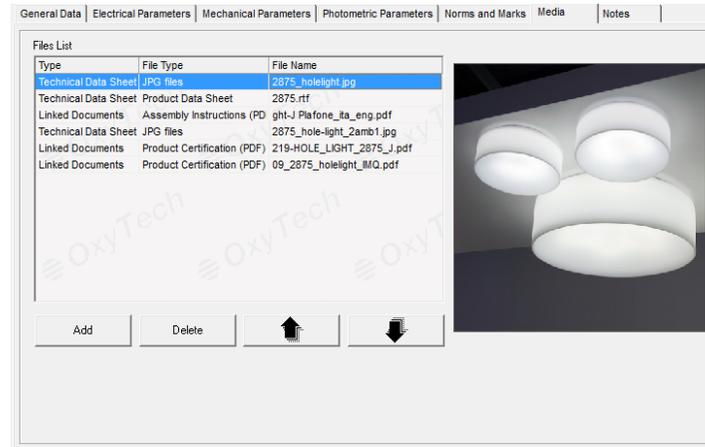
By selecting *Documents* (for a more detailed explanation on the visualization of linked documents see the chapter *Icon Bars*, in the Liswin manual), in the *File Type* column, selection can be made among:

- WAV, TXT, DOC, XLS, RTF, PDF, DFX, DWG File

- Product Certification (PDF)

- Assembly Instructions (PDF)

- Catalog Page (PDF)

▶ **File Name**: with this field the file to be loaded and linked to the product can be searched and selected.

The previously set parameters can be modified by clicking on them twice.

Notes

The keys situated on the bottom left allow you to:

▶ **Add**: to add a new file to the list

▶ **Remove**: to remove the selected file from the list

▶ to put in order the files on the list

By selecting an element and clicking on the arrows, the product line will be moved respectively upwards or downwards through the list. This operation allows you to put in order the visualization of the elements in the Liswin window. If a photo and a drawing are linked to the product, it is advisable to always place the image in the first position, so that it will be the first element to be visualized in the Liswin window.

Creating the catalog

Media TAB – how to link a file

The steps for adding a file to the list are as follows:
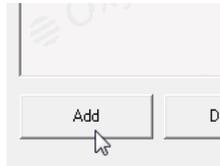
▶ press the *Add* key. In this way a line highlighted in blue will appear in the window
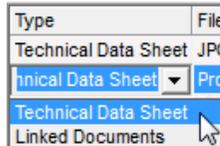
▶ select the *Type* of association, from the dropdown menu that appears automatically, by clicking on the arrow and scrolling the available elements with the pointer. To select the item just click with the left mouse button on the line highlighted in blue
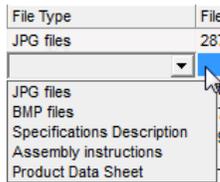
▶ select the *File Type* from the relative dropdown menu.

To activate the menu it is necessary to click twice with the left mouse button on the field and then scroll the available formats with the pointer, clicking on the required one

▶ Finally, to select the file to be linked, click twice with the left mouse button in the *File Name* field.

At this point the dialog window opens where you can search and select the file in the computer folders (the predefined search folder is that of the program DataBase). Should the file be in a different folder from the destination folder, the program will automatically copy it there (unless the MakeCopy field in the Liswin settings is deactivated).

Should it be necessary to link the same image or text to a number of codes, it is advisable to insert the file directly into the destination folders. If not the program will duplicate the file (adding a number), at each association.

The default folder is defined in the Liswin configurations (for a more detailed description see the chapter *Configure Liswin*, in the Liswin manual). Generally this folder is contained in the …DB/name archive for images and the DB/name archive/language name for texts.
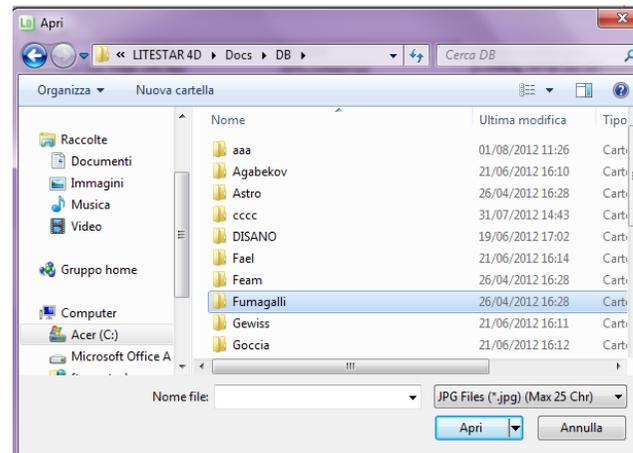
Notes

All the files linked with a product inserted using the modules of LITESTAR 4D, are automatically copied in the default folders of the program (DB).

The DB folder is found in the LITESTAR 4D/Docs folder and is in turn divided into subfolders: one for each manufacturer. Inside the manufacturers' folders, the files are divided as follows:

▶ Files independent of the language
 • the photometries are saved in the sub-folder Litepack
 • the images are saved in the main folder of the manufacturer

▶ Files dependent on the language
 • the text files are saved in the sub-folders divided according to the language; this means that, for example, opening the ITA folder all the files referring to the Italian language will be viewable

Creating the catalog

Notes TAB

In the Notes section it is possible to insert any notes required relating to the product according to the relative reference language.

The sheet is divided into four sections:

- Note 1
- Note 2
- Note 3
- Note 4

It is possible to enter a maximum of 4 lines of notes that can be managed via the technical sheet of the product and in the Texts TAB of Liswin.

To insert a note, just click on the language reference line and type the description.

The procedure has to be performed for each language if you choose to translate the description into all the available languages.

If instead a single language is selected, just type the description in a line, select it with the right mouse button and select *Copy Values Below*.

It will however always be possible to modify the string of an single line by clicking on it.
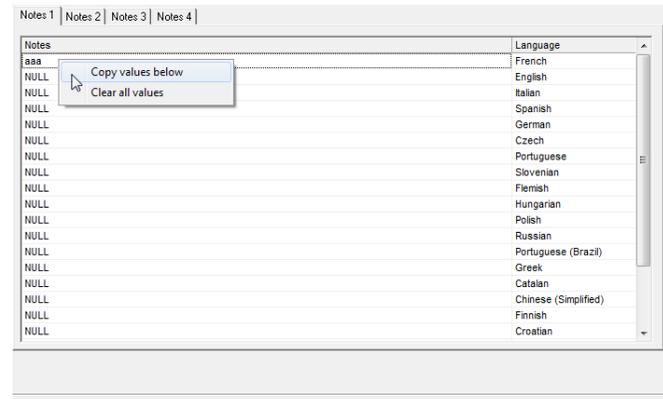
Notes

The Bridge Excel file

There are two types of Excel Bridge file: one for inserting lamp archives and one for luminaire archives.

In both cases the file is organized in the same way as the OxyData.MDB database and in particular as regards the sections (for Excel luminaires):

▶ Commercial Parameters in which to enter the commercial data of the product such as code, description, price list reference etc.

▶ Mechanical Parameters in which to enter the mechanical parameters such as weight, insulation class, IP etc.

▶ Electrical Parameters in which to enter the electrical parameters such as lamp code (by inserting the lamp code shown in the Liswin lamps catalog, the program automatically links all the electrical parameters to the product), etc.

▶ Norms and Marks in which to enter the Norms the product complies with and the Marks of conformity

▶ Images (JPG or BMP) and Texts (RTF) in which to enter the name and extension of the image or text file to link to the product

▶ Photometric Data with which to define the name and extension of the file or photometric files to link with the product

▶ Accessory Files with which to define the name and extension of the accessory files or file (instruction leaflets, assembly diagrams …) to link to the product. The files may be in different formats

Notes

Each field (column) of the Bridge Excel file shows both the description of the field and the comment of the field itself where the following are defined::

▶ description of field

▶ type

▶ format (number characters)

▶ an example

▶ the field name (variable) as defined in the OxyData.MDB database

Multiple Entries

There may be cases in which the product has a number of different values for the same field: in this case just insert as many columns as values to be inserted.

Example: if the product has two colors, it will be necessary to have two color columns and, on the same line as the product, to enter the two color references.

Texts in Various Languages

The system allows management of files in different languages. To link these, just enter the name of the file (the same in all languages) in the Excel Bridge file and save the file in the language, in a folder with the language name (for example: ITA for Italian, ENG for English etc.).

Accessory Files and Images

Save the file in a folder with the same name as the archive to be inserted and type the full name in the Excel file.

Conversion Excel >> Oxydata.MDB

The conversion of the Bridge Excel file into OxyData.MDB is the responsibility of OxyTech and is included in the license conditions of the program Maintenance Contract, if in force.
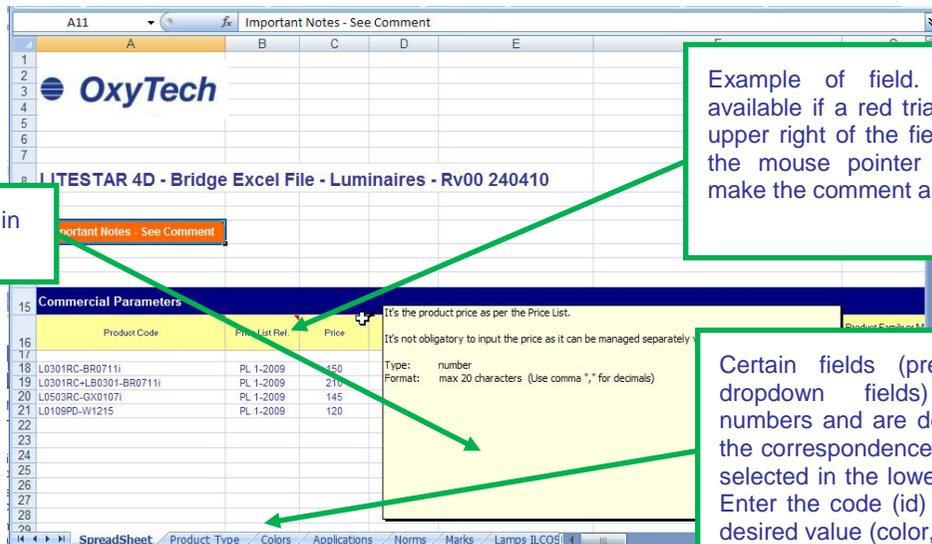
Example of comment in the field.

Example of field. The comment is available if a red triangle appears in the upper right of the field itself. Just place the mouse pointer on the triangle to make the comment appear.

Certain fields (present in Lisdat as dropdown fields) have reference numbers and are definable by means of the correspondence tables, which can be selected in the lower part of the window. Enter the code (id) corresponding to the desired value (color, type, etc.).