

Creation of an illumination run with the help of the Light Composer

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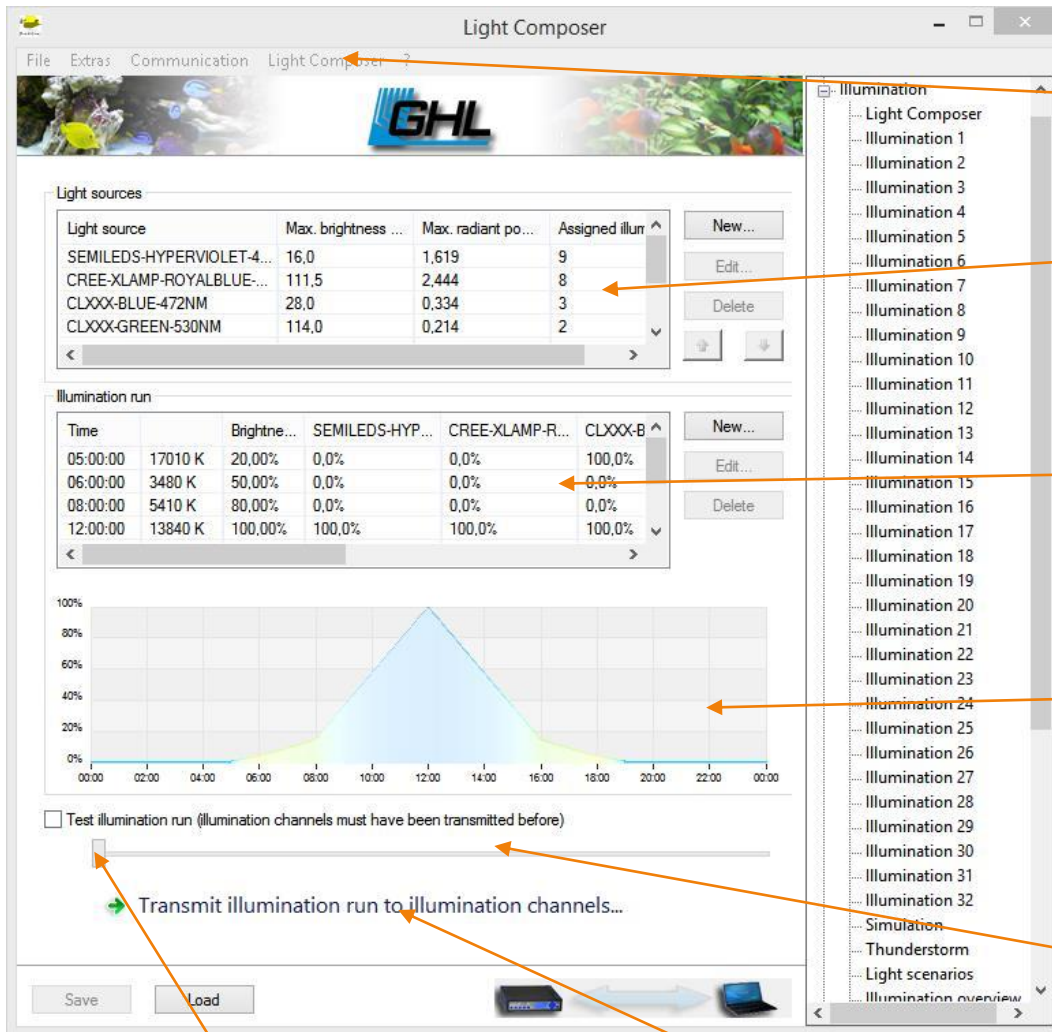
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2 GENERAL

The Light Composer provides the possibility to configure the illumination run over the whole day in an easy and elegant way.

Instead of configuring the dimming curve of the different channels manually, you choose the spectrum for a specific time and the Light Composer transfers it to the separate channels.

The Illumination run can be divided in 24 points and to each single point you can assign a light spectrum. The Light Composer calculates then the course between the single points.



The screenshot shows the 'Light Composer' window with the following components and annotations:

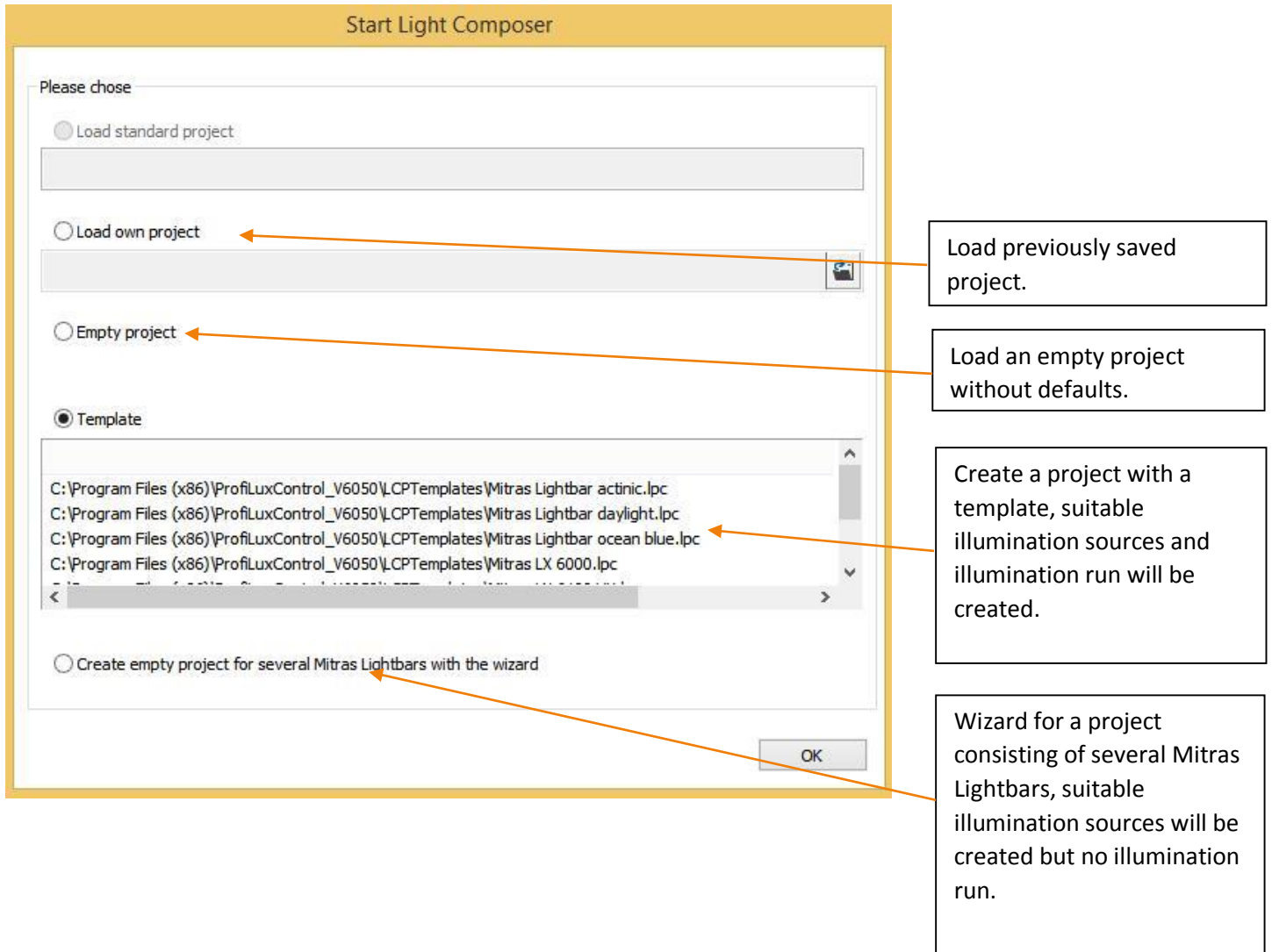
- Light sources table:**

Light source	Max. brightness ...	Max. radiant po...	Assigned illun
SEMILEDs-HYPERVIOLET-4...	16,0	1,619	9
CREE-XLAMP-ROYALBLUE...	111,5	2,444	8
CLXXX-BLUE-472NM	28,0	0,334	3
CLXXX-GREEN-530NM	114,0	0,214	2
- Illumination run table:**

Time	Brightne...	SEMILEDs-HYP...	CREE-XLAMP-R...	CLXXX-B
05:00:00	17010 K	20,00%	0,0%	100,0%
06:00:00	3480 K	50,00%	0,0%	0,0%
08:00:00	5410 K	80,00%	0,0%	0,0%
12:00:00	13840 K	100,00%	100,0%	100,0%
- Graph:** A line graph showing the illumination run over a 24-hour period (00:00 to 00:00). The y-axis represents percentage (0% to 100%). The graph shows a peak at 12:00:00.
- Annotations:**
 - Light Composer:** A Light Composer project can be saved or opened here.
 - Light sources:** The light sources are defined here.
 - Illumination run:** Definition of the single points of the illumination run.
 - Graph:** Here you see the illumination run that results from the single points. The spectrum run between the single points is calculated.
 - Transmit illumination run to illumination channels...:** Here the illumination run can be tested directly at the connected lamp.
 - Slider:** With the slider you can select the time whose spectrum is output for testing at the lamp.
 - Transmit button:** With this button you can transfer the illumination run to the illumination channels and save the settings into the lamp.

2.1 PROCEEDING

After connecting with the ProfiLux Controller you open the Light Composer and see the following options:



The screenshot shows the 'Start Light Composer' dialog box with the following options and annotations:

- Load standard project:** An empty text field.
- Load own project:** An empty text field with a file icon button. An arrow points to this option with the annotation: "Load previously saved project."
- Empty project:** An empty text field. An arrow points to this option with the annotation: "Load an empty project without defaults."
- Template:** A list box containing several template files. An arrow points to this option with the annotation: "Create a project with a template, suitable illumination sources and illumination run will be created."
- Create empty project for several Mitras Lightbars with the wizard:** An empty text field. An arrow points to this option with the annotation: "Wizard for a project consisting of several Mitras Lightbars, suitable illumination sources will be created but no illumination run."

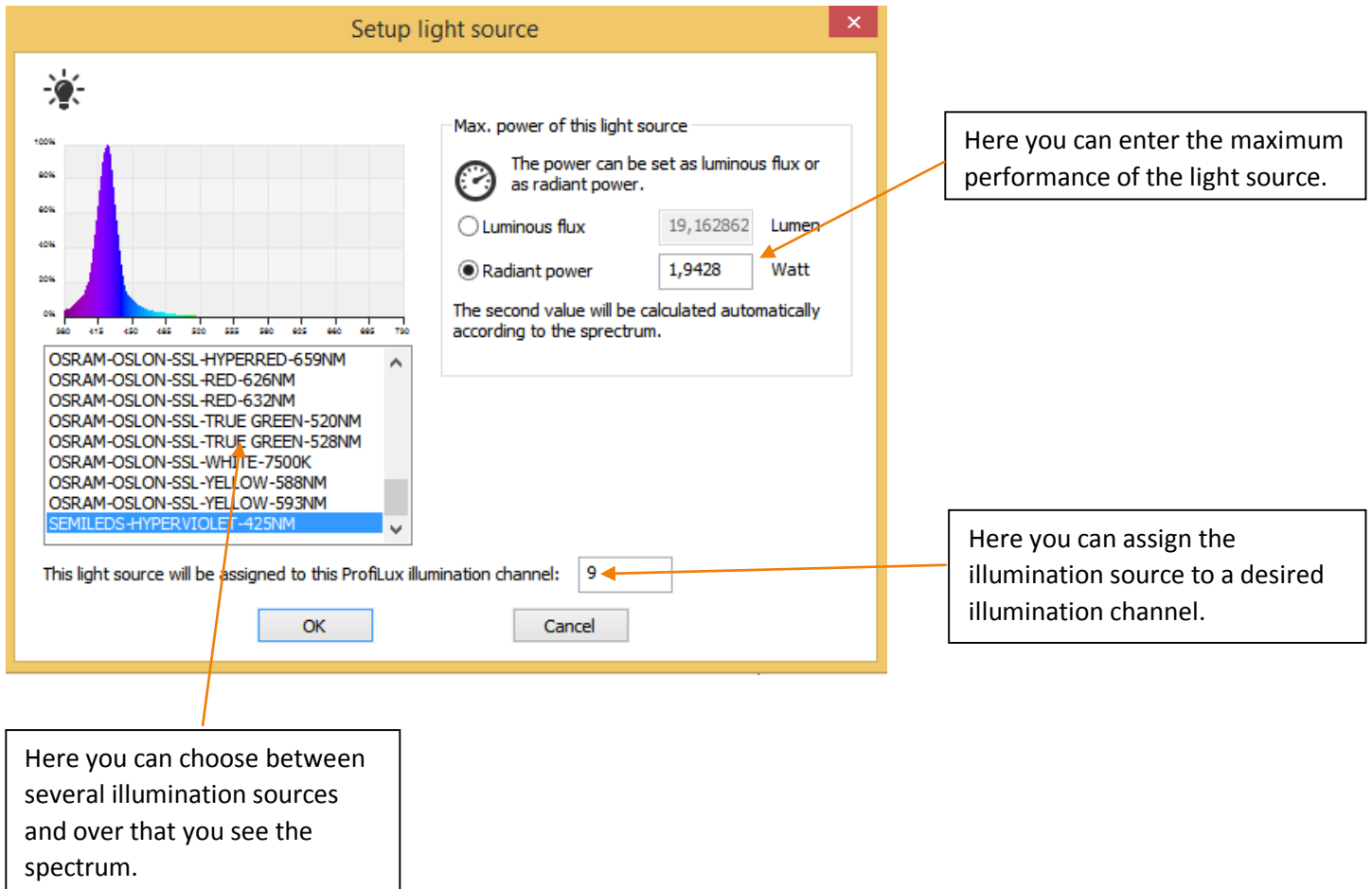
The 'Template' option is selected, and the 'OK' button is visible at the bottom right.

After creating a suitable project, proceed as follows:

- If you have created an empty project, so you have to configure the needed illumination sources. If the project has been created with a template or the wizard, you can skip this step or if required you can edit the predefined illumination sources.
- Then you define the single points of the illumination run. If the project has been created with a template, you can edit the predefined points just as you wish.
- When you are satisfied with the result you have to transfer the illumination run with the button "Transmit illumination run to illumination channels". Afterwards you have to save the changes in the ProfiLux Controller.

3 CREATE/EDIT ILLUMINATION SOURCES

When you have created an empty project, you have to add the needed illumination sources. If the project has been created with a template or the wizard, the illumination sources are predefined and if necessary you can change them just as you wish. To do this, click the “New...” respectively “Edit...” button in the area “Light sources” and the following window appears:



The screenshot shows the "Setup light source" dialog box. It features a spectrum graph on the left, a list of light sources, and a power configuration section on the right. Annotations with arrows point to specific elements:

- Here you can choose between several illumination sources and over that you see the spectrum.** (Points to the list of light sources and the spectrum graph)
- Here you can enter the maximum performance of the light source.** (Points to the "Max. power of this light source" section, specifically the "Radiant power" input field showing 1,9428 Watt)
- Here you can assign the illumination source to a desired illumination channel.** (Points to the "This light source will be assigned to this ProfiLux illumination channel:" dropdown menu showing the value 9)

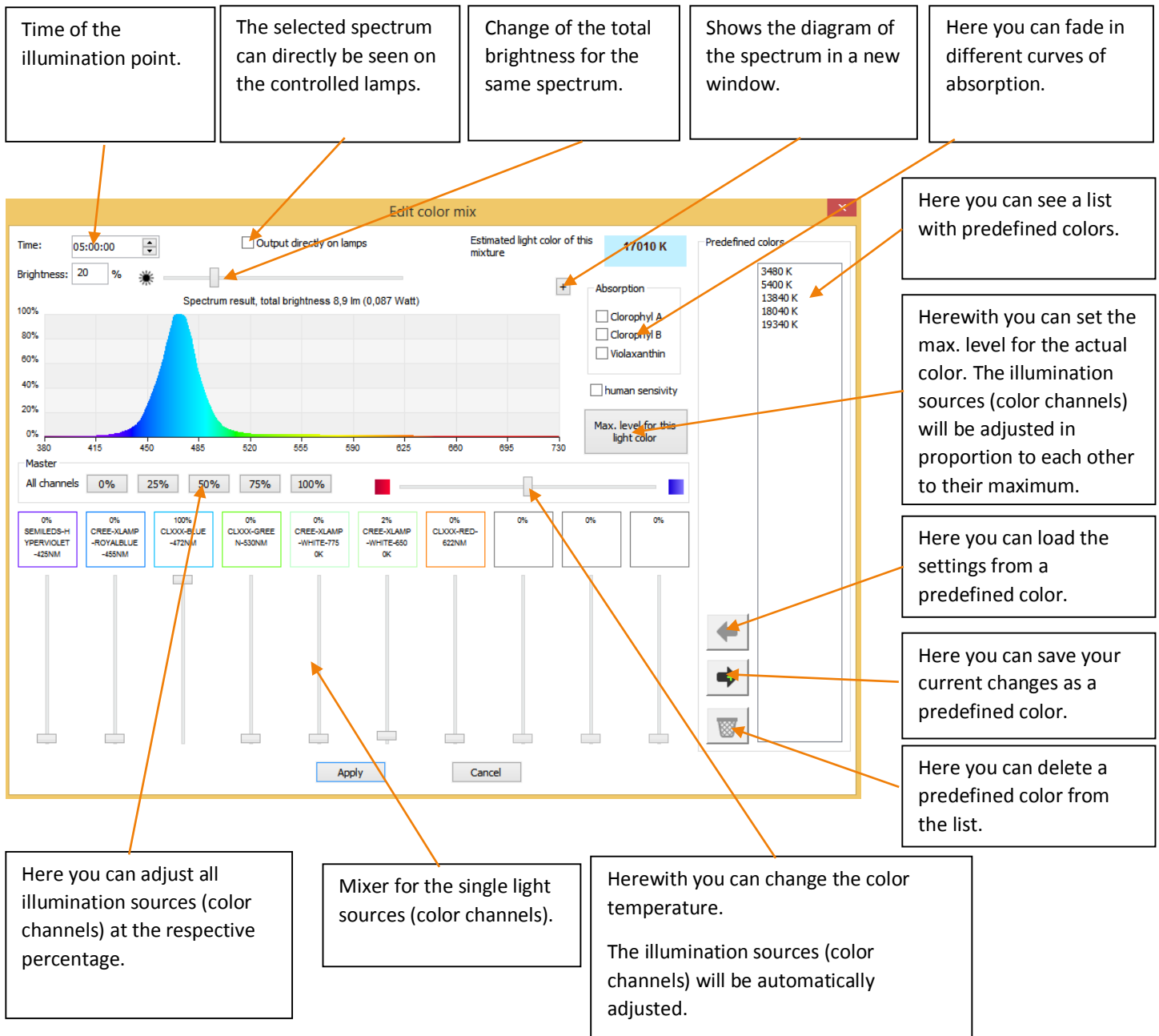
The "Setup light source" dialog box contains the following elements:

- Spectrum Graph:** A line graph showing the spectral power distribution of the selected light source. The x-axis represents wavelength in nanometers (nm) from 380 to 780, and the y-axis represents relative intensity from 0% to 100%.
- Light Source List:** A scrollable list of predefined light sources. The selected source is "SEMILEDs-HYPERVIOLET-425NM".
- Max. power of this light source:** A section with two radio buttons: "Luminous flux" (selected) and "Radiant power". The "Luminous flux" input field shows 19,162862 Lumen, and the "Radiant power" input field shows 1,9428 Watt.
- Assignment:** A dropdown menu labeled "This light source will be assigned to this ProfiLux illumination channel:" with the value 9 selected.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

First you choose the suitable illumination source from the left list, enter the maximum performance, enter the desired illumination channel and confirm it with “OK”.

4 CREATE/EDIT POINTS FOR ILLUMINATION RUN

After you have defined the illumination sources you can create the points for the illumination run. If you have used a template for the project before, example points are created and if necessary you can edit the points. The Light Composers generates the illumination run with the created points and calculates automatically the run between the single points. In order to create a point you have to click the button “New...” respectively “Edit...” in the area “illumination run” and the following window appears:



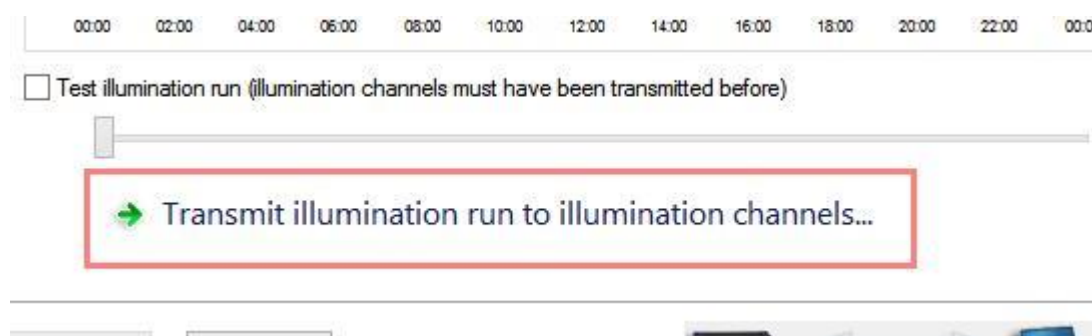
The screenshot shows the 'Edit color mix' window with the following callouts:

- Time of the illumination point.** Points to the 'Time' field showing '05:00:00'.
- The selected spectrum can directly be seen on the controlled lamps.** Points to the 'Spectrum result, total brightness 8,9 lm (0,087 Watt)' graph.
- Change of the total brightness for the same spectrum.** Points to the 'Brightness: 20 %' slider.
- Shows the diagram of the spectrum in a new window.** Points to the 'Spectrum result' graph.
- Here you can fade in different curves of absorption.** Points to the 'Absorption' checkboxes for Chlorophyll A, Chlorophyll B, and Violaxanthin.
- Here you can see a list with predefined colors.** Points to the 'Predefined colors' list showing temperatures like 3480 K, 5400 K, etc.
- Herewith you can set the max. level for the actual color. The illumination sources (color channels) will be adjusted in proportion to each other to their maximum.** Points to the 'Max. level for this light color' slider.
- Here you can load the settings from a predefined color.** Points to the 'Load' button (arrow icon) in the predefined colors section.
- Here you can save your current changes as a predefined color.** Points to the 'Save' button (star icon) in the predefined colors section.
- Here you can delete a predefined color from the list.** Points to the 'Delete' button (trash icon) in the predefined colors section.
- Here you can adjust all illumination sources (color channels) at the respective percentage.** Points to the 'All channels' percentage sliders (0%, 25%, 50%, 75%, 100%).
- Mixer for the single light sources (color channels).** Points to the individual color channel sliders for various lamp types like SEMILED-S-H, CREE-XLAMP, etc.
- Herewith you can change the color temperature. The illumination sources (color channels) will be automatically adjusted.** Points to the 'Estimated light color of this mixture' field showing '17010 K'.

First you enter the time for the illumination run point and adjust the total brightness. Then you can adjust the desired spectrum with the mixer or the slider for color temperature. If you use the slider for color temperature, you should adjust all illumination sources (color channels) to 50 %. When you are satisfied with the result, you can save your settings as predefined color for a later usage. At the end you confirm your settings with “Apply”.

5 TRANSFER AND SAVE ILLUMINATION RUN

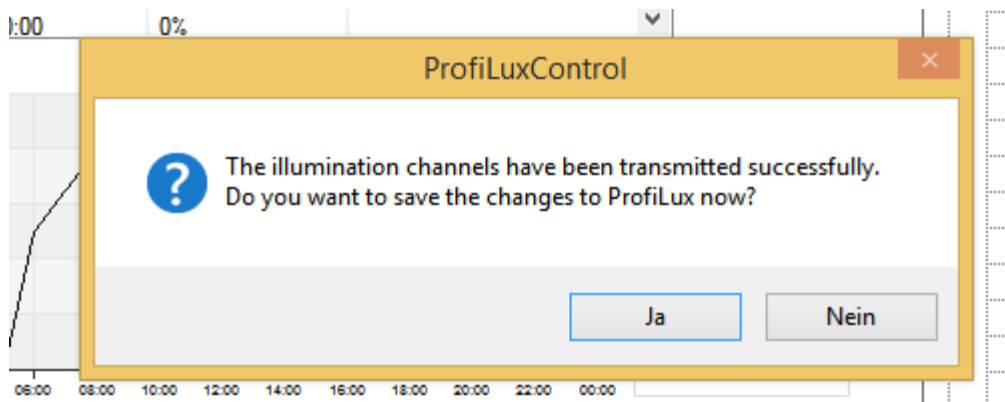
When you have defined the illumination sources and several points, you can transfer the illumination run to the single illumination channels and save the settings in the ProfiLux Controller afterwards.



To do this you have to click „Transmit illumination run to illumination channels...”



A window appears and you confirm it with “Yes”, thus the illumination run will be transferred to the single illumination channels, but nothing will be saved yet.



With the next window you save the changes to the ProfiLux Controller.