



LITECOM

BLIND CONTROL

Legal information

Copyright

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1 How to use these instructions

We are pleased that you have chosen this *Zumtobel Lighting GmbH* product. So that you can get the most from these instructions, this section provides the following information:

- Signs and icons in these instructions
- Further information
- Target audience of these instructions
- Software version

Signs and icons in these instructions

The following signs and icons are used in these instructions:


Sign/icon	Explanation								
1.	Individual steps in the instructions are numbered.								
▷	Single-step instructions are indicated by the ▷ icon at the beginning of the line.								
➡	After a step has been described, a description of the expected results will follow. These results are indicated by the ➡ icon at the beginning of the line.								
—	Requirements which need to be checked before carrying out a step are indicated by —.								
i	Notes can be recognised by the i icon. In addition, notes are identified by the word Note .								
[Bold text]	Bold text indicates words that are shown on a device display or software user interface.								
	<p>Danger and safety instructions are indicated by this icon. Safety and warning information is labelled and classified using the following words:</p> <table> <tr> <td>DANGER</td><td>indicates an immediate danger. This could lead to death or severe injury if not avoided.</td></tr> <tr> <td>WARNING</td><td>indicates a potentially dangerous situation. This could lead to death or severe injury if not avoided.</td></tr> <tr> <td>CAUTION</td><td>indicates a potentially dangerous situation. This could lead to minor injury or damage to property if not avoided.</td></tr> <tr> <td>Attention</td><td>indicates a situation involving potential damage. If it is not avoided, the product or something in the vicinity may be damaged.</td></tr> </table>	DANGER	indicates an immediate danger. This could lead to death or severe injury if not avoided.	WARNING	indicates a potentially dangerous situation. This could lead to death or severe injury if not avoided.	CAUTION	indicates a potentially dangerous situation. This could lead to minor injury or damage to property if not avoided.	Attention	indicates a situation involving potential damage. If it is not avoided, the product or something in the vicinity may be damaged.
DANGER	indicates an immediate danger. This could lead to death or severe injury if not avoided.								
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Attention	indicates a situation involving potential damage. If it is not avoided, the product or something in the vicinity may be damaged.								

Table 1: Signs and icons in these instructions

Further information

Further information on the setup and function of your *LITECOM* system can be found in our product and system documentation.

If you should have any further questions, please contact your sales partner.

General information on our products can be found on our website:

www.zumtobel.com

Target audience of these instructions

These instructions are intended for electricians without any special product training who would like to commission and configure blind control.

Software version

These instructions are based on software version *LITECOM 3.0.0*.



Note

In software version 2.16.6 or lower, blind control is only available in Infinity mode.



Note

This manual contains path information which can be used to access the configuration options. The path always starts from the app overview.

Example: “Path: app overview > **Basic settings** > **Date and time**” means that you should go to the app overview, tap on **Basic settings** and then tap the **Date and time** button.

2 Other available documents

All *LITECOM* manuals can be downloaded from the website:

<http://www.zumtobel.com/gb-en/products/litecom.html>

Manual	Description
Commissioning and maintenance	This manual is aimed at electricians without any special <i>Zumtobel</i> product training and describes how the basic functions can be commissioned. It also describes general maintenance functions.
Shows	This manual is aimed at electricians without any special <i>Zumtobel</i> product training and describes how shows can be commissioned and configured.
Special luminaires	This manual is aimed at electricians without any special <i>Zumtobel</i> product training and describes how special luminaires (e.g. RGB luminaires, TW luminaires, <i>SEQUENCE infinity</i>) can be commissioned and configured.
Daylight linking	This manual is aimed at electricians without any special <i>Zumtobel</i> product training and describes how daylight linking with sky scanner or with one or more light sensors can be commissioned and configured.
Self-contained emergency luminaires	This manual is aimed at electricians without specific <i>Zumtobel</i> product training and describes how emergency lighting functions for self-contained emergency luminaires can be commissioned, configured and monitored in a <i>LITECOM</i> system that itself has already been commissioned.
BACnet	This manual is aimed at electricians and system integrators without any special <i>Zumtobel</i> product training and describes how BACnet can be commissioned and configured.
REST API & MQTT	This manual is aimed at system integrators without any special <i>Zumtobel</i> product training and describes how REST API and MQTT can be commissioned and configured.

Table 2: Other available documents – *LITECOM*

3 Safety instructions



Attention

- The *LITECOM* system may only be used for the application area specified.
- Relevant health and safety regulations must be observed.
- Assembly, installation and commissioning may only be carried out by qualified personnel.
- The *LITECOM* system and connected devices can only be operated when in complete working order.
- The manufacturer is neither liable nor does it accept any guarantee for consequential damage that may occur if these instructions are not followed.

4 Navigation principles

There are different buttons in the web application for commissioning, configuring and operating the system. If a button is tapped, its colour changes briefly.












Button	Description
	<p>Set value (e.g. on the start page)</p> <p>You can enter a specific value in the click area so that all devices have the same control value.</p> <p>If, for example, different control values (80%, 60%) are set for the luminaires and you tap on 50%, all luminaires switch to the control value of 50%.</p> <p>If you tap on the left or right click area, the value you are setting decreases or increases respectively in the entire effective range by one unit. If different control values are saved for the luminaires (80%, 60%, 20%) and you tap on the  button, these control values are increased by one unit (81%, 61%, 21%). This function is not available for all setting options.</p>
	<p>Set value (e.g. fade time)</p> <p>Tap these buttons to increase or decrease the value being set. Tap the button to change the value by one unit. Tap and hold the button to change the value, and release when the desired value has been reached. The longer the button is held, the faster the value is changed.</p>
	<p>Special feature: set the time</p> <p>If the time is tapped, the Set time view appears. The hours and minutes can be set separately here.</p>
	<p>Expand – collapse</p> <p>The arrow indicates that additional information or selection options can be displayed (e.g. devices in a group).</p> <p>Tap the arrow pointing right to expand the information or selection options. The arrow changes so that it is pointing down.</p> <p>Tap the arrow pointing down to collapse the information or selection options. The arrow changes so that it is pointing right again.</p>
	<p>Save or confirm</p> <p>Tap this button to save the settings or confirm a message.</p>
	<p>Option not selected – option selected (single choice)</p> <p>This button marks multiple options that are available (e.g. different types of date groups), from which only one can be selected. As soon as an option for a switch is selected, all other switches change to the other option accordingly.</p>
	<p>Option not selected – option selected (multiple choice)</p> <p>This button marks multiple options that are available, from which multiple options can be selected. As soon as an option is selected, it is highlighted.</p>
	<p>Setting not selected – setting selected</p> <p>If an empty button is tapped (e.g. blind position at device level), the button is filled in with colour. One or more control elements (such as sliders) appear below.</p>
	<p>Switch between individual pages of the app overview</p> <p>The number of points corresponds to the number of the pages in the app overview. The point filled in with colour indicates the page currently being displayed. Tap an empty point to go to the corresponding page.</p>
	<p>Tap the logo to access the Information view. This page contains manufacturer information, the reference number and version of the web application and information on the licences used.</p>

Table 3: Navigation principles

5 LITECOM and blind control

Optimum use can be made of daylight by controlling the blinds, without people in the building being dazzled by the sun. A sky scanner is needed to use the **Blind control** app. The sky scanner detects daylight by measuring the light values horizontally and vertically at the same time from all four directions by means of eight light sensors. The sensor values from the sky scanner are used to calculate the glare values.

The use of protective functions is recommended to make sure that the blinds are protected against environmental damage (such as from storms, rain and ice). Input contacts or the rain or wind speed sensors of the weather station can be used as trigger. The weather station consists of at least one sensor that records and forwards information about the current weather situation. A weather station can include the following sensors: Rain sensor, outdoor temperature sensor, wind direction sensor and wind speed sensor.

Integrating blind control in LITECOM



Note

In software version 2.16.6 or lower, blind control is only available in Infinity mode.

The following steps are required:

- Step 1: Activate **Blind control** app.
Path: App overview > **LITECOM Store**
For more information see Section [Licensing](#) ⁹
- Step 2: Complete preparatory measures.
For more information see Section [Preparatory measures](#) ¹⁰
- Step 3: Create a facade and assign blinds.
Path: App overview > **Blind control** > button for displaying the facade overview (top left)
For more information see Section [Facade overview](#) ¹⁵
- Step 4: Configure facade parameters (facade alignment and glare range).
Path: App overview > **Blind control** > **Facade parameters**
For more information see Section [Facade parameters](#) ¹⁷
- Step 5: Create and configure a blind model.
Path: App overview > **Blind control** > button for configuring the blind model (bottom right)
For more information see Section [Blind model](#) ²¹
- Step 6: Configure global settings.
Path: App overview > **Blind control** > **Global settings**
For more information see Section [Global settings](#) ²³
- Step 7: Enable glare protection.
Path: App overview > **Scenes**
For more information see Section [Scenes and blind control](#) ²⁴

6 Licensing

The blind control can only be put into operation and configured if a licence has been activated. You must first activate the licence before you can use the **Blind Control** app.



Note

In software version 2.16.6 or lower, blind control is only available in Infinity mode.

Path: App overview > **LITECOM Store** > **Blind control**

The following steps are required:

- Step 1: Request licence.
Path: App overview > **LITECOM Store** > **Licensing information**
- Step 2: Activate licence.
Path: App overview > **LITECOM Store** > **Activate licence**

Figure 1: Overview of licensing

	Function	Brief description
(1)	Licensing information	<p>This page provides information about your licence (article number of the app and reference number or Infinity ID). You need this information to request a licence from your sales partner. You can also see whether the licence has been activated or not.</p> <div> <p>Note If several licences have been activated, the number of enabled devices will be added together.</p> </div>
(2)	Activate licence	<p>You can activate the licence with a licence number here.</p> <div> <p>Note</p> <ul style="list-style-type: none"> • To access the ordered licence numbers, go to the website litecom.zumtobel.com and enter the reference number (HW-ID) for the <i>LITECOM CCD</i> or enter the Infinity ID. • Multiple licences can be activated. • The licence number, number of activated devices and the validity period are shown for each activated licence. </div>

Table 4: Overview of licensing

7 Preparatory measures

This section explains which preparation actions are necessary before the configuration of the blind control.

7.1 Sky scanner and weather station



Note

When installing the sky scanner *LM-TLM*, ensure that the mark (north arrow) on the sky scanner base is aligned with north.

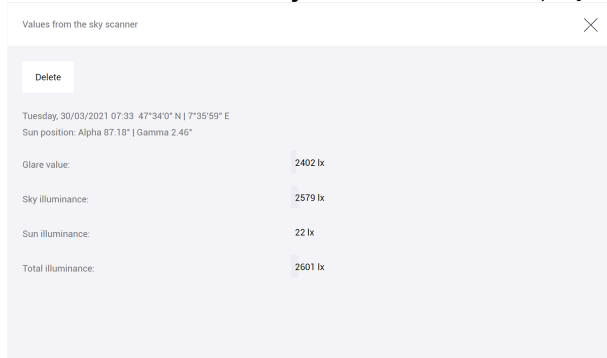
The sky scanner and the weather station are automatically added to the system image after a restart of the *LITECOM CCD*. Therefore, they do not have to be addressed. Check the respective values so that the correct operation of the blind control and as required the protection functions with the weather station as trigger is ensured.

Check values from the sky scanner

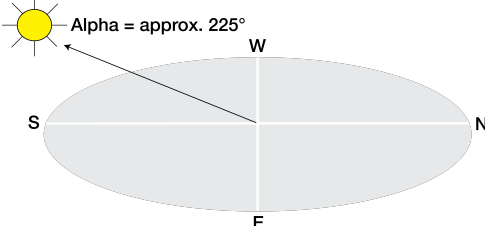
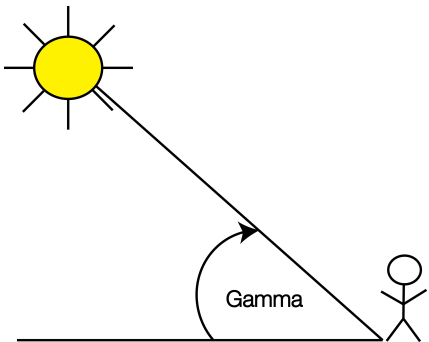
Path: App overview > **System image** >

▷ Navigate to the path.

➡ The **Values from the sky scanner** view is displayed.



An overview of the displayed values can be found in the following table:

Parameter	Description
Date, time, geographic coordinates	Specifies the current date, current time and the geographic coordinates.
Sun position	<p>Specifies the current sun position using alpha and gamma:</p> <ul style="list-style-type: none"> Alpha specifies the direction (e.g. 90° correspond to East and 180° correspond to South). 
Sun position	<ul style="list-style-type: none"> Gamma specifies the elevation angle – i.e. the angle between the horizon of the observer and the sun (e.g. at sunrise the elevation angle is 0° as the sun is on the horizon of the observer; if the sun is directly above the observer (at its zenith), the elevation angle is 90°). 

Parameter	Description
Glare value	Specifies the value of the current glare. The glare value is calculated from the sensor values of the sky scanner.
Sky illuminance	Portion of the total illuminance from outdoors scattered by the atmosphere from space that occurs at the measuring location.
Sun illuminance	Portion of the total illuminance outdoors that occurs directly at the measuring location.
Total illuminance	Specifies the total illuminance. This parameter is composed from the values of the Sky illuminance and Sun illuminance .

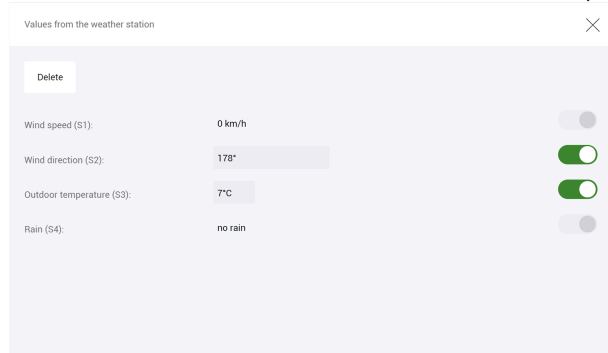
Table 5: Values of the sky scanner

Checking values from the weather station LM-4WZS

Path: App overview > **System image** > ☼


▷ Navigate to the path.

➡ The **Values from the weather station** view is displayed.



Note

Sx stands for sensor input and relates to the marking on the housing label of the *LM-4WZS*.

Depending on the sensors used, information about the wind speed, wind direction, outdoor temperature and rain can be obtained. Individual sensors can be disabled using the following button on the right-hand side: 

7.2 Protective functions

Protective functions can be used to protect the building services installed in your *LITECOM* system from environmental damage (such as from storms, rain or ice).

A protective function is triggered by a sensor of the weather station or by an input contact. You can define whether the protective function is enabled, e.g. from a specific wind speed or when the input contact is open or closed. As soon as the protective function is enabled, the building services are locked and depending on the configuration, can either no longer be operated or have limited operation.

Path: App overview > **Protective functions**

Integrating protective function

The following steps are required:

- Step 1: Create new protective function.
Path: App overview > **Protective functions** > +
- Step 2: Use protective function.
Path: App overview > **Protective functions** > **Configure** > tick mark is enabled as default



Note

- If the tick mark is disabled, the protective function is also not enabled if the input contact triggers.
- Once the tick mark has been removed, all blinds and/or windows are unlocked in the effective range.

- Step 3: Select and configure the trigger.
Path: App overview > **Protective functions** > **Configure** > **Trigger**



Note

- You can select the following triggers:
 - Wind speed sensor (**Wind**) of weather station
 - Rain sensor (**Rain**) of weather station
 - Input contact which has been configured for wind or rain (**Input contact**)
- In the case of a wind speed sensor of the weather station, configure the wind speed starting from which the protective function is active.
- In the case of an input contact, select whether the protective function should be triggered for open or closed contact.

- Step 4: Select effective range (individual or multiple rooms and groups).
Path: App overview > **Protective functions** > **Configure** > **Effective range**
- Step 5: Configure protective function.
Path: App overview > **Protective functions** > **Configure**

Configuration options

Path: App overview > **Protective functions** > **Configure**

The following table provides a description of the individual configuration options:

Parameter	Description
Mode of operation	Mode of operation locked by the protective function.
Lower limit of the movement range	<p>The movement range defines the capabilities of blinds or a window to move between the end positions if the blinds/window has an actuator which is able to measure the distance covered and send feedback about the current position of the blinds/window. Setting a lower and upper limit of the movement range can limit the range further.</p> <div> <div>i</div> <div> Note If the same values are selected for both the lower and the upper limit of the movement range, the blinds or the window are locked at this value and can no longer be moved. </div> </div>
Upper limit of the movement range	
Priority (15 = highest priority)	If multiple protective functions are active at the same time, the priority setting can be used to define the order in which the protective functions take precedence. A protective function with priority 15 is implemented before (i.e. takes precedence over) a protective function with priority 14 .
Delay time	Time in which the condition must be met in order for the protective function to become enabled, e.g. the input contact must be closed or open depending on the configuration; the wind speed sensor must measure a certain wind speed.
Run-on time	Time that starts as soon as a weather station sensor is triggered or the input contact closes/opens again (depending on the configuration) and after which the protective function is disabled. If during the run-on time a weather station sensor or the input contact is triggered again, the run-on time starts from the beginning again.

Table 6: Configuration options – Protective functions

8 Configuration

This section explains how to configure blind control.

8.1 Overview of the “Blind control” app

The following contains an overview of the functions in the **Blind control** app.

Path: App overview > **Blind control**

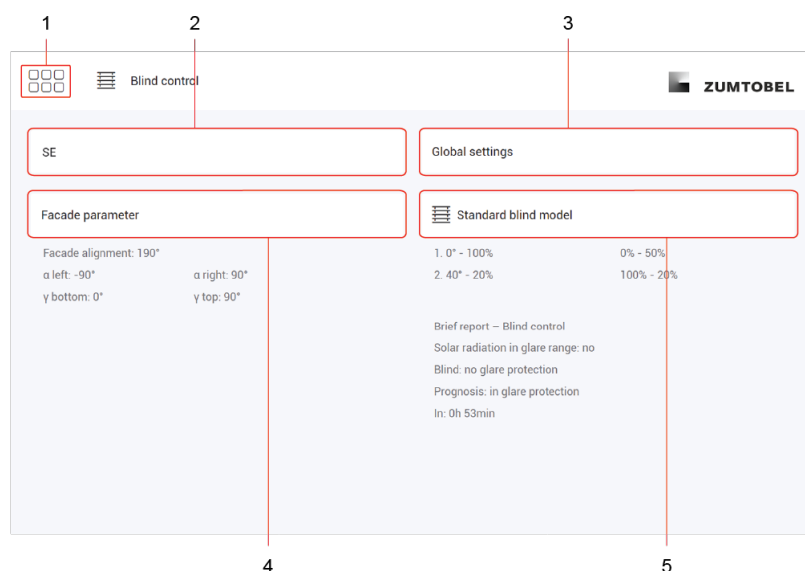


Figure 2: “Blind control” app view

	Function	Brief description
(1)	Return to app overview	The app overview can be accessed via this button.
(2)	Access facade overview	<p>The Facade overview view can be accessed via this button. You can create a facade here and assign blinds to the facade.</p> <div> <p>i Note</p> <p>For more information see Section Facade overview ¹⁵⁾</p> </div>
(3)	Configuring global settings	<p>Some settings can be applied for all blind controls, for example the Glare threshold.</p> <div> <p>i Note</p> <p>For more information see Section Global settings ²³⁾</p> </div>
(4)	Define facade parameters	<p>Define the facade alignment and glare range for the facade. The values set for the facade parameters are shown directly below this button.</p> <div> <p>i Note</p> <p>For more information see Section Facade parameters ¹⁷⁾</p> </div>


	Function	Brief description
(5)	Configure blind model	<p>The Configure blind model view can be accessed via this button. This is where you can create a new blind model and set the glare protection position and transmission. The values set for the glare protection position and transmission are shown directly below this button.</p> <div> <p>i Note</p> <p>For more information see Section Blind model </p> </div>

Table 7: Functions in the “Blind control” app

8.1.1 Facade overview

A facade is a group of blinds or windows that point in the same direction. The following contains an overview of the functions in the **Facade overview** view.

Path: App overview > **Blind control** > button for displaying the facade overview (top left)

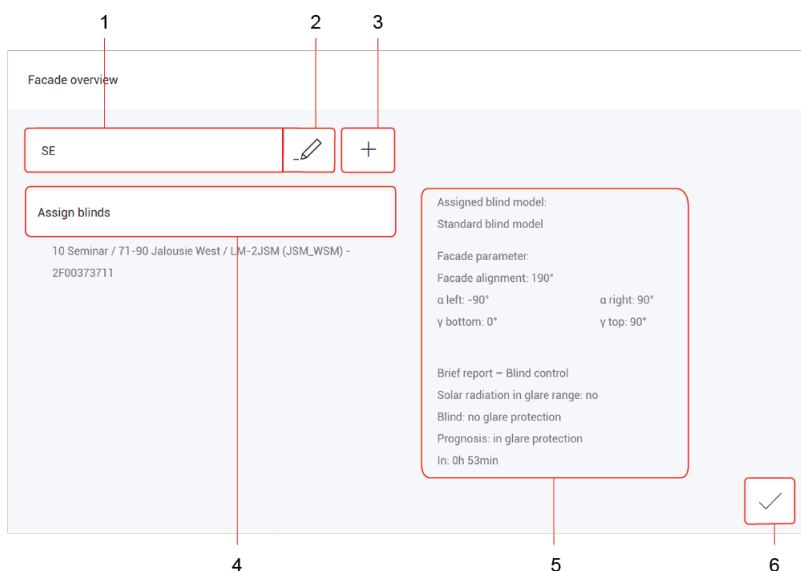


Figure 3: “Facade overview” view

	Function	Description
(1)	Select facade	Select an existing facade to then assign blinds to this.
(2)	Rename facade	Change the name of an existing facade.
	Delete facade	When a facade is deleted all settings for the facade are deleted.
(3)	Create new facade	Create a new facade.
(4)	Assign blinds	Assign blinds that point in the same direction to the facade.
(5)	Information on blind control	The most important information about the blind control is shown as soon as you have assigned blinds to the facade. A description of the information can be found in the next table.
(6)	Return to the Blind control view	If you tap the tick mark, the changes are saved and the Blind control view is called up.

Table 8: Functions in the “Facade overview” view

The following table provides an overview of the information that is shown as soon as a facade is created and blinds have been assigned to the facade.






Information	Description
Assigned blind model	<p>Specifies which blind model is assigned to the facade. The facade is assigned the standard blind model by default.</p> <div>  Note You can change the blind model by selecting a different blind model in the Configure blind model view or by creating a new blind model. For more information see Section Blind model  </div>
Facade parameters	<ul style="list-style-type: none"> • Facade alignment: Specifies the direction in which the facade is aligned (e.g. East corresponds to 90°). • α left, α right, γ bottom and γ top: Together define the glare range. <div>  Note For more information see Section Facade parameters  </div>
Brief report – Blind control	<ul style="list-style-type: none"> • Solar radiation in glare range: Specifies whether there is currently solar radiation in the glare range, i.e. whether a glare can currently occur on the facade. • Blinds: Specifies whether glare protection is enabled. <ul style="list-style-type: none"> ◦ If glare occurs at a facade and the glare value measured by the sky scanner exceeds the set glare threshold, glare protection is enabled and the blind is closed. ◦ If there is solar radiation in the glare range but the glare threshold is not exceeded, the glare protection is not enabled and the blind remains open. • Prognosis: Specifies a forecast for the future status of the blind control, e.g. no glare protection. • In: Specifies in how many hours and minutes the forecast will occur.

Table 9: Information shown on blind control

	Note The Brief report – Blind control is also shown in the Blind control view as soon as blinds are assigned to the facade.
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8.1.2 Facade parameters

In this section, you can find a description of the facade parameters that consist of the facade alignment and the glare range. Finally, the setting of the facade parameters is described using an example.

Facade alignment

In the **Set the facade alignment** view you can set the alignment of the facade using the **+** and **-** buttons. The currently set value is shown in the middle of the circle. The facade alignment specifies in which direction the facade is aligned.

Path: App overview > **Blind control** > **Facade parameters** > button below 

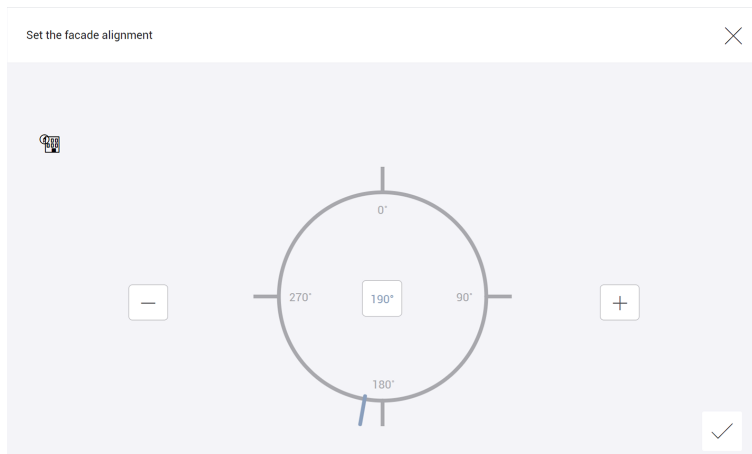


Figure 4: "Set the facade alignment" view

A selection of values and their meaning can be found in the following table:

Value	Description
0°	North
90°	East
180°	South
270°	West

Table 10: Facade alignment – Values

Glare range

In the **Define glare range** view you can define when glare can occur at a facade.

Path: App overview > **Blind control** > **Facade parameters**

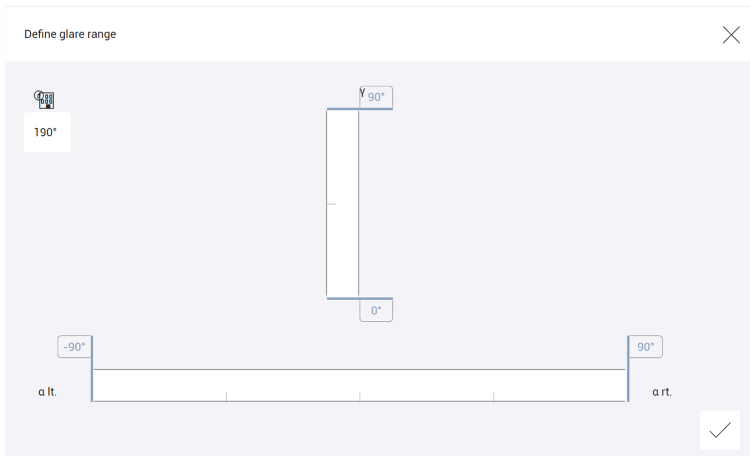


Figure 5: "Define glare range" view

Whether any glare for a facade occurs is dependent, for example on the following points:

- Facade alignment
- Neighbouring building in the sun's path
- Weather

For example, glare can occur for an east-facing facade from sunrise until midday whereby a neighbouring building can shade the facade if this is in the sun's path. If the sun is then in the defined glare range and the glare value is exceeded, the glare protection is enabled and the blind is closed.

The glare range must be defined to specify when any glare for a facade can occur. The following table provides a description of the individual glare range parameters:

Parameter	Description
α left	Alpha refers to the direction relative to the specified facade alignment. The adjustable value range is between -90° and 90° .
α right	
γ bottom	Gamma refers to the elevation angle of the sun, i.e. the angle between the horizon of the observer and the sun. The adjustable value range is between 0° and 90° .
γ top	

Table 11: Glare range parameters

Example

Using an example, this section describes how you set the facade alignment and define the glare range.


The following steps are required:

Requirement:

— Facade has been created and blinds have been assigned to the facade.

Path: App overview > **Blind control** > button for displaying the facade overview (top left)

- Step 1: Set facade alignment.

Path: App overview > **Blind control** > **Facade parameters** > button below 


- Step 2: Define alpha left and alpha right of the glare range.

Path: App overview > **Blind control** > **Facade parameters**

- Step 3: Define gamma top and gamma bottom of the glare range.

Path: App overview > **Blind control** > **Facade parameters**

Step 1: Setting the facade alignment

Path: App overview > **Blind control** > **Facade parameters** > button below 

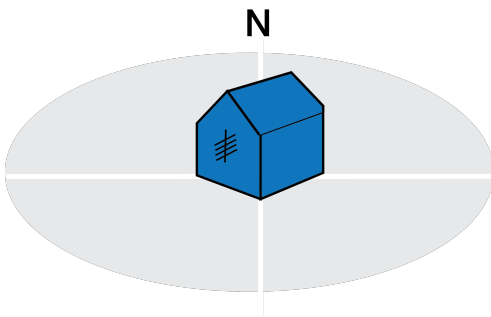


Figure 6: Example of facade alignment

The facade alignment specifies in which direction the facade is aligned. In this example, the facade of the building – as shown in the picture on the left – is aligned south-east at 140°.

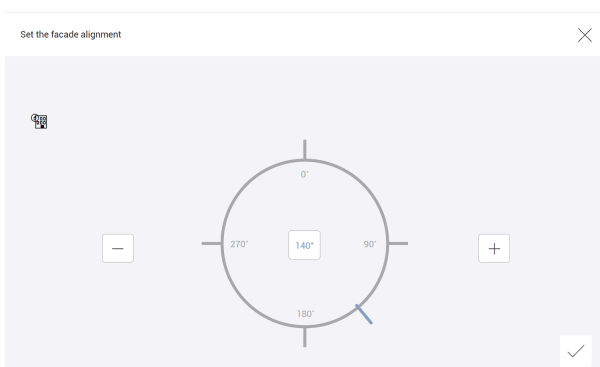


Figure 7: Set the facade alignment

The following steps are needed to set the facade alignment:

1. Recall path.
➡ The **Set the facade alignment** view is displayed.
2. Set value of 140°.

Step 2: Defining alpha left and alpha right of the glare range

Path: App overview > **Blind control** > **Facade parameters**

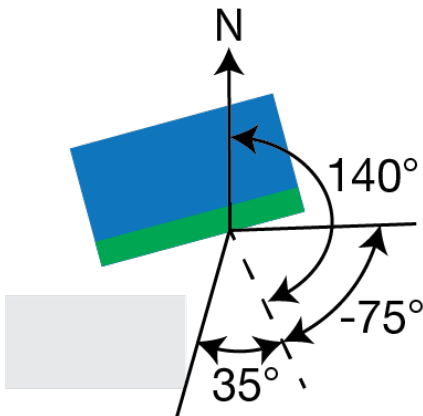


Figure 8: Define glare range – alpha

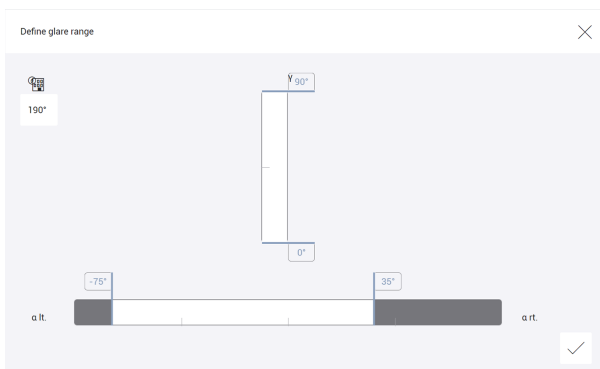


Figure 9: Define glare range – alpha

The glare range specifies when glare can occur for a facade. Alpha refers to the direction relative to the previously set facade alignment (green).

There is another building (grey) – as shown in the picture on the left – in the immediate vicinity of the building (blue) that shades the facade somewhat. In this example, **Alpha left** is -75° and **Alpha right** is 35° .

The following steps are needed to define **Alpha left** and **Alpha right** of the glare range:

1. Recall path.
➔ The **Define glare range** view is displayed.
2. Set **alpha left** to value -75° .
3. Set **alpha right** to value 35° .

Step 3: Defining gamma top and gamma bottom of the glare range

Path: App overview > **Blind control** > **Facade parameters**

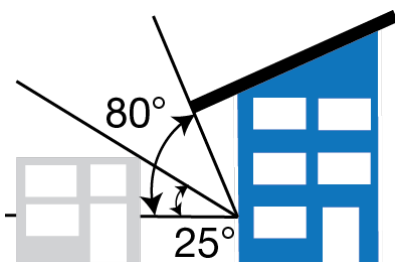


Figure 10: Define glare range – gamma

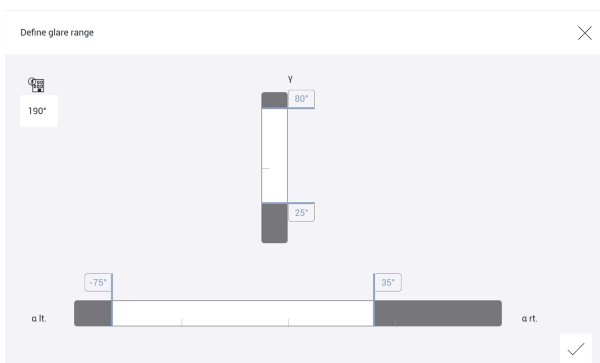


Figure 11: Define glare range – gamma

Gamma refers to the elevation angle of the sun when the glare range is being defined, i.e. the angle between the horizon of the observer and the sun.

As shown in the picture on the left, the facade of the building is shaded by the canopy and partially by the neighbouring building. In this example, **Gamma top** is 80° and **Gamma bottom** is 25° .

The following steps are needed to define **Gamma top** and **Gamma bottom** of the glare range:

1. Recall path.
➔ The **Define glare range** view is displayed.
2. Set **gamma top** to value 80° .
3. Set **gamma bottom** to value 25° .

8.1.3 Blind model

A blind model is a template containing characteristics relevant for control of a blind. These characteristics include the transmission and the glare protection position.

Path: App overview > **Blind control** > button for configuring the blind model (bottom right)

The following table provides a description of the individual configuration options:



Parameter	Description
Transmission	<p>The transmission defines the capability of a blind to let radiation pass through. The transmission consists of the following parameters:</p> <ul style="list-style-type: none"> • Slat position: Specifies how the slats of a blind are tilted. Expressed as a percentage (%). At 100 % the slats are closed, and at 0 % the slats are open. • Transmittance: Specifies the portion of the radiation that is let through by a component. Expressed as a percentage (%). <div>  Note The standard blind model that already contains two entries for the transmission is automatically assigned when creating a facade. </div>
Glare protection position	<p>The glare protection position consists of the following parameters:</p> <ul style="list-style-type: none"> • Elevation angle: Specifies the angle between the horizon of the observer and the sun. Expressed in degrees (°). For example, the elevation angle is 0° if the sun is on the horizon of the observer (e.g. at sunrise). The elevation angle is 90° if the sun is directly above the observer (at its zenith). • Slat position: Specifies how the slats of a blind are tilted. Expressed as a percentage (%). At 100 % the slats are closed, and at 0 % the slats are open. <div>  Note The standard blind model that already contains two entries for the glare protection position is automatically assigned when creating a facade. </div>

Table 12: Configurable properties of a blind model

The following contains an overview of the functions in the **Configure blind model** view.

Path: App overview > **Blind control** > button for configuring the blind model (bottom right)

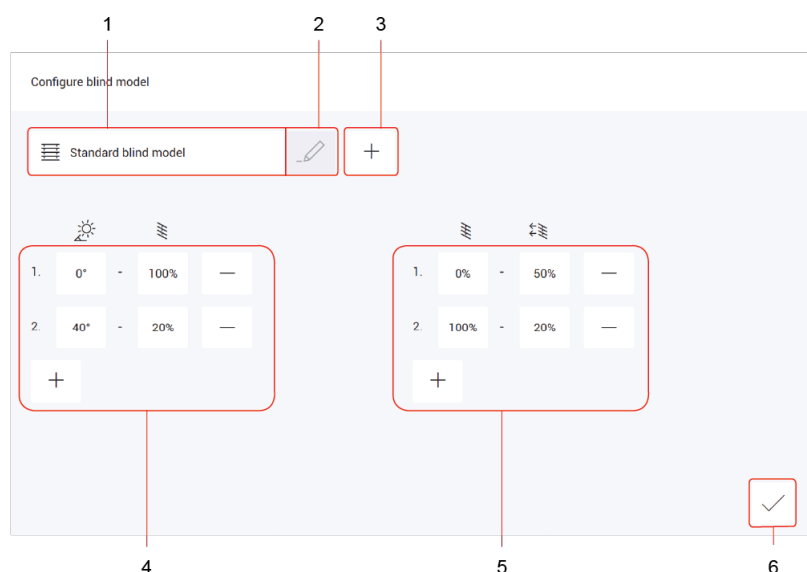




Figure 12: "Configure blind model" view

	Function	Description
(1)	Select the blind model	Select an existing blind model to be able to configure it afterwards.
(2)	Rename blind model	Change the name of an existing blind model. Note The Standard blind model cannot be renamed.
	Delete blind model	All settings for the blind model are deleted when the blind model is deleted. Note The Standard blind model cannot be deleted.
(3)	Create new blind model	Create a new blind model.
(4)	Set glare protection position	Set the Glare protection position parameter that consists of the elevation angle of the sun and the slat position. Note <ul style="list-style-type: none"> When a new blind model is being created, two standard entries are created for the glare protection position. You can create a new entry. Path: App overview > Blind control > button for configuring the blind model (bottom right) > + bottom left You can edit an entry. Path: App overview > Blind control > button for configuring the blind model (bottom right) > button below  or  (left)



	Function	Description
(5)	Set transmission	<p>Set the Transmission that consists of slat position and transmittance.</p> <div> <div>i</div> <div> <p>Note</p> <ul style="list-style-type: none"> When a new blind model is being created, two standard entries are created for the transmission. You can create a new entry. Path: App overview > Blind control > button for configuring the blind model (bottom right) > + bottom right You can edit an entry. Path: App overview > Blind control > button for configuring the blind model (bottom right) > button below  (right) or  </div> </div>
(6)	Return to the Blind control view	If you tap the tick mark, the changes are saved and the Blind control view is called up.

Table 13: Functions in the "Configure blind model" view

8.1.4 Global settings

Some settings can be applied globally for all blind controls.

Path: App overview > **Blind control** > **Global settings**

The following table provides a description of the individual configuration options:

Parameter	Description
Glare threshold	Value above which the glare protection is enabled and the blind is closed. If this value is undercut, the blind leaves the glare protection position after expiry of the defined time (Blinds leave glare protection position after).
Position slats after	Delay time after which the positioning of the slats starts immediately.
Blind leaves glare protection position after	Time after which the blind immediately leaves the glare protection position and therefore the blind is immediately opened again.
Interruption period after manual operation	Time during which the blind control pauses after a manual operation (e.g. moving a blind). The blind control is automatically enabled again after this time has expired.

Table 14: Global settings of the blind control

8.2 Scenes and blind control

After the basic configuration of the blind control has been performed in the **Blind control** app, enable the **Glare protection** option in the **Scenes** app so that the blind control is enabled for individual scenes.

Path: App overview > **Scenes**



1. Navigate to the path.
➡ The **Scenes** view is displayed.
2. Tap the button for selecting the effective range (top left).
➡ The **Select effective range** view is displayed.
3. Select effective range.
➡ The **Scenes** view is displayed.
4. Tap the **Edit** button.
5. Tap the button for selecting the scene (top left).
➡ The **Select scene** view is displayed.
6. Select scene.
7. Tap the button underneath the blind position.
➡ The **Configure scene** view is displayed.
8. Enable **Glare protection** option.
9. Tap the tick mark.
➡ The **Edit scene** view is displayed and refreshed.






Note

- If you enable the glare protection for the blind position, this is also automatically enabled for the slat position.
- **GP** stands for Glare Protection.

9 Appendix

This section contains the following information:

- [Factory settings](#) 
- [Icons](#) 
- [Glossary](#) 

9.1 Factory settings

Standard scenes

As soon as you create a room in your *LITECOM* system, five standard scenes are enabled in the room. The following table contains the defaults for these scenes.






Scene	Absence	Working	Writing	Meeting	Workshop
Icon					
Intensity	0%	100%	40%	16%	7%
Tunable White	3000 K	3000 K	3000 K	3000 K	3000 K
Colour	White	White	White	White	White
Pattern (<i>SEQUENCE infinity</i>)	–	–	–	–	–
Light balance (direct/indirect)	50:50	50:50	50:50	50:50	50:50
Blind position	0%	0%	0%	0%	0%
Slat position	0%	0%	0%	0%	0%
Window position	100%	100%	100%	100%	100%
Screen position	0%	0%	0%	0%	0%

Table 15: Standard scenes and their defaults

Standard pattern

The following values are stored for the 10 standard patterns.























Pattern	Left	Centre	Right	Indirect	Curve
 All off	0%	0%	0%	0%	–
 Direct light	100 %	100 %	100 %	0%	Wave-like
 Informal meeting	0%	0%	0%	100 %	Wave-like
 Conference	0%	100 %	0%	100 %	Wave-like
 Concentrated work	100 %	100 %	100 %	100 %	Wave-like
 Orientation left	100 %	0%	0%	0%	Wave-like
 Orientation right	0%	0%	100 %	0%	Wave-like
 Presentation left	100 %	50%	0%	0%	Wave-like
 Presentation right	0%	50%	100 %	0%	Wave-like
 Tablet PC	100 %	0%	100 %	100 %	Wave-like

Table 16: Standard patterns and their default values

9.2 Icons

This section contains an overview of all icons shown on the web application.

“Scenes” app

Icon	Description
	Intensity
	Colour
	Tunable White
	Light balance
	Blind position
	Slat position
	Window position
	Screen position
	Different settings are stored for this setting at room, group and device level
	Setting is controlled via daylight linking
	A show is stored for this setting; the settings can only be changed in the Shows app
	Configuration unknown






























Icon	Description
	Locate device
	Zone
	Blind position: no movement with scene recall
	Window position: no movement with scene recall
	Slat position: no movement with scene recall
	Screen position: no movement with scene recall

Table 17: Icons in the "Scenes" app

"System image" app

Icon	Description
	Luminaire
	RGB luminaire
	TW luminaire
	Balance luminaire
	Free-standing luminaire
	Relay (luminaire)
	Blinds (type 3, type 3+4)
	Blinds (type 4)
	Window
	Screen
	<i>SEQUENCE infinity</i>
	Momentary-action switch/standard switch
	CIRCLE control unit
	<i>LM-CIRIA</i>
	Remote control
	Presence detector (generic and <i>MSensorG3</i>)
	Light sensor
	CO2 sensor
	Humidity sensor
	Noise sensor (average, maximum and minimum)
	Temperature sensor
	Detection of power consumption
	VOC sensor















Icon	Description
	General contact
	Signalling contact, e.g. <i>LM-4RUKS</i>
	Rain (input contact)
	Wind (input contact)
	Ice (input contact)
	Emergency luminaire/safety sign luminaire
	Emergency luminaire/safety sign luminaire (lighting management)
	Rocker switch (2x)
	Rocker switch (3x)
	Rocker switch (4x)
	<i>ONLITE BRI</i>
	Sky scanner
	Weather station
	DALI-2 master (generic and <i>MSensorG3</i>)

Table 18: Icons in the “System image” app

Blind control” app





Icon	Description
	Glare protection position
	Slat position
	Transmittance
	Facade alignment

Table 19: Icons in the “Blind control” app

9.3 Glossary

Term	Explanation
Absence scene	Scene in an area where absence is detected. Any scene can be defined as an absence scene.
Action timeframe	Time during which a function is enabled (e.g. presence linking). The action timeframe can be defined using timeframes and a dead time.
Balance luminaire	Luminaire consisting of at least two lamps, one for direct lighting and one for indirect lighting. For Balance luminaires, the light balance can be changed in addition to the intensity.
Blinds (type 3)	Blinds which can move to different positions. This type of blinds does not have slats or has slats that cannot be adjusted.
Blinds (type 3+4)	Blinds which can move to different positions and have adjustable slats.
Blinds (type 4)	Blinds with slats – the position of the blinds is fixed, but the slats are adjustable.
Building service	Component of the building's technical equipment which is part of the building's infrastructure. In <i>LUXMATE</i> building management systems, building services are controlled via modes of operation. A building service can be controlled via more than one mode of operation. Examples of building services are lighting and blinds.
Contrast sensor	Sensor that presents the environment as a contrast image
DALI load	Typical power consumption of a subscriber on the <i>DALI</i> control line.
DALI-2	Expansion of the existing interface log for digital communication between control gears for the lighting system – <i>DALI (Digital Addressing Lighting Interface)</i> . Expansion for control devices as per <i>IEC 62386</i> and addition of new commands and functions. More detailed information can be found on the website of the <i>Digital Illumination Interface Alliance (DiiA)</i> .
Delay time	Time during which a specific threshold must be breached in order to trigger a response. The response or the event that follows is only permitted after this time has expired.
Detail control	A way of controlling devices either individually or in groups
Dimming range	A range in which the intensity of the luminaires can be smoothly adjusted. It is restricted to the physical upper and lower limits. Setting a lower and upper dimming limit can limit the dimming range further.
eD device	Sensors, control points, input devices and control units that are used in <i>DALI</i> systems. Each of these devices has its own address (0 to 63) which can be used to operate it individually.

Term	Explanation
End position	Maximum position (e.g. of blinds) defined by a limit switch. There can be an upper and a lower end position.
ExD	Self-contained emergency luminaire with a nominal duration of x hours (e.g. <i>E1D</i> = nominal duration of 1 hour), individual monitoring via DALI, central test and adjustable intensity in emergency operation.
Fade time	<p>The time it takes to change from one value (scene, presence value) to another.</p> <p>Example with a scene as a value: If the fade time is, for example, 0 seconds, the change from one scene to the next is immediate. If the fade time is 20 seconds, the outputs will smoothly adjust to gradually switch to the control values for the next scene within those 20 seconds. All outputs reach the desired value simultaneously (once the fade time has expired).</p>
Ice alarm	The ice alarm should stop blinds from moving when ice has formed on them, preventing them from being damaged. It is triggered when the outdoor temperature drops below a certain threshold and a rain sensor has detected precipitation.
Instance	Sub-category of an input device. Each input device can have up to 32 instance types (e.g. light sensor, presence detector, remote control, momentary-action switch, and many more).
Light balance	Ratio of direct to indirect lighting
Light source	System for generating light in a luminaire (e.g. lamp, LED module)
Location	Process for determining where a network or bus subscriber is located or what its address is. How subscribers are located differs from device to device. There are three methods of locating devices: visual, acoustic and tactile.
Mode of operation	Determines which building service is being controlled. Each building service is controlled by at least one mode of operation. Examples of modes of operation are intensity, blind position and slat position.
Momentary-action switch (MAS)	Control point that upon being operated either closes and/or opens a circuit, depending on its wiring, but without "clicking" into place like a standard switch, i.e. once it is released the affected circuit returns to its original state.
Movement range	Defines the capabilities of blinds or a window to move between the end positions, if the blinds/window have an actuator which is able to measure the distance covered and send feedback about the current position of the blinds/window. Setting a lower and upper limit of the movement range can limit the range further.
Pattern	Preset control values for 3 or 4 <i>DALI</i> short <i>SEQUENCE</i> <i>infinity</i> addresses, through which activity-related light distributions are created (e.g. concentrated work, presentation, conference)

Term	Explanation
Presence linking	A way of controlling luminaires whilst taking into account the presence of people. Presence is usually detected by presence detectors.
Presence scene	Scene in an area where the presence of at least one person is detected. Any scene can be defined as a presence scene.
Production number	Globally unique identification number of a <i>LUXMATE</i> device. The serial number can be determined from the production number.
Rain alarm	The rain alarm should prevent blinds (such as awnings) from being damaged by rain. It is triggered after a rain sensor determines that a defined precipitation level has been exceeded during a specified delay time.
Reference number	Number used to generate and check the licence number.
Required illuminance	Illuminance required at minimum at a specific location (e.g. workspace) so that a person can complete visual tasks effectively and accurately.
RGA address	Address used in <i>LUXMATE</i> systems for communication purposes. The RGA address is based on the following address scheme: room address/group address/individual address.
RGB luminaire	Luminaire consisting of three individual lamps (red, green, blue). Coloured light is generated through additive colour mixing.
Run-on time	Time that starts after a certain event (e.g. the last person leaves the room) and after which an action is triggered (e.g. fade time starts, absence scene is recalled). If an event occurs during the run-on time (e.g. someone re-enters the room), the run-on time starts again. A typical application for run-on time is the stairwell function.
Slat position	Specifies how the slats of blinds tilt. Expressed as a percentage (%).
Special luminaire	Luminaire with multiple light sources (such as lamps, LED modules). The <i>LITECOM</i> web application can be used to combine the light sources into one luminaire so that they can be controlled together.
Standard switch	Control point that upon being operated either closes or opens a circuit and “clicks” into place as it does so (as opposed to a momentary-action switch).
System extension	Process during which new network or bus subscribers are addressed, which are used in an existing and addressed system. Addressing for previously addressed network or bus subscribers will remain unchanged.
Timeframe	Limited time period between two or more events which already have set times. Example: two timeframes are defined for presence linking (07:00–12:00 and 14:00–18:00). Presence linking is enabled during these timeframes.

Term	Explanation
Tunable White	Option of dynamically changing the light of the LED in the white light range. Colour temperatures from 2700 K to 6500 K, for example, can be variably set using a control. The LED luminaires achieve high colour rendering of at least Ra 80 to Ra 90.
TW luminaire	<p>Luminaire that supports Tunable White pursuant to IEC 62386-209. There are two types of TW luminaire:</p> <ul style="list-style-type: none"> • Luminaires that consist of at least two individual lamps, one for warm-white and one for cool-white. • Luminaires that have one individual lamp that supports Tunable White.
Visual location	<p>Type of location in which the address of a network or bus subscriber is used to visually locate this subscriber in the field.</p> <ul style="list-style-type: none"> • A visually located luminaire, for example, responds by switching to the maximum level. • A visually located set of blinds, for example, responds by moving to the lower end position.
Wind alarm	The wind alarm should stop blinds from moving when wind speeds are high, for example, preventing them from being damaged. It is triggered after a wind speed sensor determines that a defined wind speed has been exceeded during a specified delay time.

T H E L I G H T

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