 A digital version of this document is available to download and submit online at [www.thorlux.com/commissioning](http://www.thorlux.com/commissioning)

To secure your preferred commissioning date please complete this form and email to [siteservices@thorlux.co.uk](mailto:siteservices@thorlux.co.uk)

Alternatively fax it to the Site Services Department on **01527 584177**

**CANCELLATIONS**  
If the commissioning date is cancelled at under five working days notice a charge of £250 will be made

## SITE DETAILS

PROJECT	<input type="text"/>		
COMPANY	<input type="text"/>	ADDRESS	<input type="text"/>
TELEPHONE	<input type="text"/>		
E-MAIL	<input type="text"/>	POST CODE	<input type="text"/>

## SITE CONTACT

NAME	<input type="text"/>	TELEPHONE	<input type="text"/>
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## DETAILS OF WHO IS REQUESTING COMMISSIONING

This information is important so that we know who to contact to advise visit dates, give progress reports/report issues to and successful completion of our visit. Please complete all sections. Failure to do so will result in a delay booking your visit.

NAME	<input type="text"/>	ADDRESS	<input type="text"/>
JOB TITLE	<input type="text"/>		
COMPANY	<input type="text"/>	POST CODE	<input type="text"/>
TELEPHONE	<input type="text"/>		
MOBILE	<input type="text"/>		
E-MAIL	<input type="text"/>		



## COMMISSIONING PRE-REQUISITES

- All SmartScan luminaires must be powered at least 24 hours before the date of commissioning
- It will be necessary to vacate the areas with SmartScan luminaires to allow the movement detection function to be tested *(If this is not possible during normal working hours and an out of hours visit is required, this will be chargeable)*
- In order to commission the maintained illuminance feature, the final floor coverings and furnishings must be fitted and must not be covered with any protective material *(If floor coverings are not fitted then daylight sensors will be set to a high illumination level reducing efficiency and increasing energy consumption)*
- Curtains or blinds may be used to reduce the amount of daylight entering the room, ensuring daylight sensors can be set during normal working hours. If the daylight contribution cannot be reduced to an acceptable level, then a chargeable out of hours visit may be required.
- As fitted drawings must be available denoting grouping of luminaires.
- Please provide CAD (.dwg) files to siteservices@thorlux.co.uk. These are required 14 days prior to your commissioning date. Failure could result in a delay on uploaded commissioning drawings to the SmartScan website.

## SITE INFORMATION

Preferred commissioning date

Are the final floor coverings and furnishings fitted?

YES  NO

Are blinds/curtains fitted in the areas to be commissioned?

YES  NO

What is the floor to ceiling height?

FROM  TO

What are the site working hours?

FROM  TO

Is special permission to work beyond these hours required?

YES  NO

If YES, how is this authorised?

Have lighting layout drawings been supplied by Thorlux?

YES  NO

*If NO, a clean copy of the as-installed drawings will be required by the Commissioning Engineer for notation and record keeping purposes*

Is parking available on site?

What is the site handover date?

Is a site safety induction briefing required?

YES  NO

If YES, how is this arranged?

## PERSONAL PROTECTION EQUIPMENT REQUIRED ON SITE

Hard hat

Ear defenders

High visibility jacket

Safety boots

Eye protection

Gloves

Other



## INTERNAL BASIC PARAMETERS

PARAMETER	DESCRIPTION	RANGE OF SETTINGS	FACTORY DEFAULT SETTINGS
LIGHT LEVEL	Enter the required illumination level for the room/ area. If no value is recorded, the level will be set in accordance with the CIBSE Lighting Guide.	Range 1-100 (dimming for maintained illuminance) or MAX (no dimming)	70 (circa. 500 lux depending on luminaire output, spacing and room finishes)
TIME DELAY	Sets the period the luminaires will remain on after the last detected movement before dimming down and switching off.	30s to 10hrs or continuous	10 minutes
SECURITY LEVEL	This allows the user to set a level that the luminaire dims to, following the time delay period (dependent upon ballast dimming range capability)	1-100%	10%
IF VACANT	Switches the luminaires off when the TIME DELAY (see above) expires. If set to any other value, luminaires go to the SECURITY LEVEL setting (see above) for the programmed period.	Off or at minimum for between 30s and 10hrs or continuous	OFF
PIR	Provides conventional PIR control (i.e. luminaires dim/switch off when area is vacated and raises light level/switch on when area is re-occupied).	<p>ABSENCE DETECTION/OFF ONLY = Luminaires are dimmed/switched off but NOT switched on again when area is re-occupied. A 'push-to-make' switch or scene plate will be required to switch luminaires on.</p> <p>PRESENCE DETECTION = Luminaires are dimmed and switch off and switched on again when area is re-occupied.</p> <p>INACTIVE = PIR functions are deactivated.</p>	Active
PIR SENSITIVITY	The PIR sensitivity can be adjusted to suit each area.	Min / 1 to 5 / Max	4
BRIGHT-OUT	Defines what happens when the daylight level is high and the luminaire has dimmed to its minimum setting.	<p>YES/NO</p> <p>YES: When the illuminance level exceeds the maintained illuminance level by 50% for 10 minutes the luminaires will switch off. When the illuminance level falls below the maintained illuminance setting the luminaires will switch on.</p> <p>NO: When bright-out is set to NO, the luminaires will dim but not switch off.</p>	Yes
POWER UP	Switches luminaires back on after power is restored due to a mains power interruption. Luminaires then switch off as per PIR programming.	<p>ON</p> <p>May be set to OFF but the luminaires will only switch on only when presence is detected after power restoration.</p>	ON
HOLD OVERRIDE	After the time delay has expired and new presence is detected the luminaire will revert to automatic mode and ignore any manual override that had been set (using Smart Remote or SmartScan scene plate).	<p>YES: If changed to YES, manual override settings will be retained permanently.</p> <p>NO</p>	NO
MIN LAMP	Sets the minimum dim level for the Smart Luminaire.	1-100% (dependent upon ballast/ driver range capability)	10%





## SMARTSCAN TOUCH AND SMARTSCAN SCENE OPTIONS

For each programmable scene, individual luminaires may be set to go to any fixed lamp power level from off through 1 to 100%, or to adjust their commissioned (working plane) maintained lux level from 10 to 200% of its setting.

For example, in a classroom, upon activating scene 1 the luminaires closest to a teaching wall may be turned off or dimmed to a low level, whilst the rest of the room remains at a higher level to allow the pupils to take notes. Alternatively, scene 1 may adjust the luminaires nearest the whiteboard to maintain 50 lux whilst those further away continue at their setting of 300 lux.

Smart Sensor factory pre-set scenes are set to:

Scene 1 = fixed 50% / 2 = fixed 25% / 3 = off

Smart Hub factory pre-set scenes are set to:

Scene 1 = ON / 2 = ON / 3 = OFF

When a particular scene is no longer required another scene can be selected, or by pressing the ECO (automatic) button the system will revert to automatic mode. Alternatively, the system reverts to automatic mode when presence is no longer detected and the time delay has elapsed.

The diagram illustrates three scene configurations for Thorlux luminaires:

- REGULAR:** Scene 1 (1) is selected. The touch panel shows buttons for MAX, 1, 2, ECO, DIM, and OFF.
- TEACHING:** Scene 1 (1) is selected. The touch panel shows buttons for MAX, ECO +, WHITE BOARD, ECO, DIM, and OFF.
- MEETING:** Scene 1 (1) is selected. The touch panel shows buttons for HIGH, SCREEN, LOW, ECO, DIM, and OFF.

Legend:

- 1 SCENE 1
- 2 SCENE 2
- 3 SCENE 3

## SCENE PARAMETERS

### SCENE TYPES

In rooms equipped with scene plates, each luminaire can be set to respond in a unique way to create a specific lighting scene. Two types of scene are available, and each has its own range of levels.

### FIXED SCENE

Each luminaire is set to give a fixed output relative to full output (100%). For example - a luminaire set to 50% will go to half-power, and the output will not change.

### AUTOMATIC SCENE

The set point for maintained illuminance is altered and the luminaire will alter its output to maintain that level. The base line (100%) is the normal maintained light level, and a scene can be set between 10% and 200% of the normal level. For example, if the normal level is 300 lux, an automatic scene of 50% will maintain 150 lux.

### WHITEBOARD SCENE

Typically set to fixed 0% at whiteboards, increasing to 100% automatic.





## EXTERNAL BASIC PARAMETERS

PARAMETER	DESCRIPTION	RANGE OF SETTINGS	FACTORY DEFAULT SETTINGS	CANOLUX LED FACTORY PRESET
POWER UP	Switches luminaires back on after power is restored due to a mains power interruption. Luminaires then switch off as per PIR programming.	ON  May be set to OFF but the luminaires will only switch on only when presence is detected after power restoration.	ON	ON
HOLD OVERRIDE	After the time delay has expired and new presence is detected the luminaire will revert to automatic mode and ignore any manual override that had been set.	YES: If changed to YES, manual override settings will be retained permanently.  NO	NO	NO
MIN LAMP	Sets the minimum dim level for the SmartScan Luminaire.	1-100% (dependent upon blast/driver range capability)	10%	10%
MAX LAMP	Can be used to cap the maximum output of the luminaire.	1-100% in increments of 1%.	100%	100%
REFLECTION	Allows the reflectivity of the ground surface to be taken into account.	10/20/30 - 100%	20%	20%
LIGHT LEVEL	Sets the threshold at which the luminaire switches on.	6 - 200 lux	70 lux	200 lux
TIME DELAY	Sets the period the luminaires will remain on after the last detected movement before dimming down and switching off.	30s to 10hrs or continuous	10 min	5 min
SECURITY LEVEL	Sets the DALI level at which the luminaire will remain for the 'If Vacant' period set below.	1 -100% DALI	10%	30%
IF VACANT	Determines what happens at the end of the Time Delay set above. If Vacant luminaire can be set to switch off, remain at the security level for a preset period, or remain on continuously.	Off or at minimum for between 30s and 10hrs or continuous	10 min	Continuous
PIR	Sets the PIR for the luminaire. Normal setting is active. May be set to inactive or Off only to avoid nuisance switching. (Off only needs a Motionline connection to switch the light On).	Active / In-Active / Off only	Active	Active
PIR SENSITIVITY	May be adjusted to suit local conditions, and reduce nuisance switching.	Min / 1 to 5 / Max	5	5
BRIGHT-OUT	Determines whether the luminaires are switched off during the day or operate at all times. If set to Yes, the luminaire will switch off if the measured light level is above the Bright-Out Threshold for more than 10mins. If set to No, the luminaires will never switch off as a result of increased light level.	Yes / No	Yes	Yes
BRIGHT-OUT THRESHOLD	Sets the level at which the luminaires will switch off. It is set as a percentage of the Light Level setting. (Default setting requires there to be greater than 140 lux for more than 10 minutes before the light will switch off).	100% - 400% in increments of 50%	200%	400%



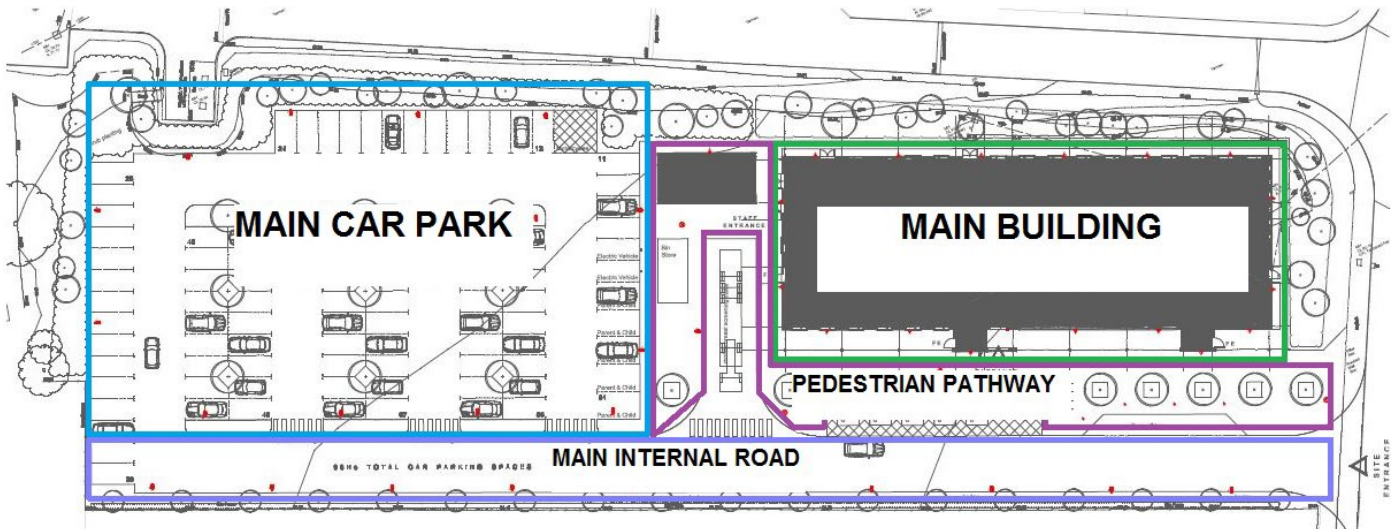




## GROUPING

As fitted drawings must be provided detailing groups of luminaires to trigger together (as below drawing).

If no drawing is provided the commissioning engineers discretion will be used



## EXTERNAL TIME-CLOCK SETTINGS

Parameters requested for time-clock settings. This will override all SmartScan settings.

DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
TIME ON							
TIME OFF							
TIME ON							
TIME OFF							



## GROUPING/ZONE NAMES

As fitted drawings must be provided detailing groups of luminaires to trigger together (as below drawing).

Group names can be amended on the website to be area specific. These should be detailed in the table below.

If no drawing is provided the commissioning engineers discretion will be used



GROUP NUMBER	GROUP NAME (MAXIMUM 30 CHARACTERS)	GROUP NUMBER	GROUP NAME (MAXIMUM 30 CHARACTERS)
e.g. 1	Main Corridor	11	
1		12	
2		13	
3		14	
4		15	
5		16	
6		17	
7		18	
8		19	
9		20	
10		21	



## FAULTY FITTINGS

It is not possible for our engineers to carry spares for every luminaire in our range. Please list below the quantity, catalogue number and the nature of fault (i.e. no operation) so that we can bring the exact spare/items required.

CAT. NO.	<input type="text"/>	CAT. NO.	<input type="text"/>	CAT. NO.	<input type="text"/>
QUANTITY	<input type="text"/>	QUANTITY	<input type="text"/>	QUANTITY	<input type="text"/>
FAULT	<input type="text"/>	FAULT	<input type="text"/>	FAULT	<input type="text"/>

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## DELIVERIES

Please list outstanding items.

CAT. NO.	<input type="text"/>	CAT. NO.	<input type="text"/>	CAT. NO.	<input type="text"/>
QUANTITY	<input type="text"/>	QUANTITY	<input type="text"/>	QUANTITY	<input type="text"/>



## SMART SENSOR & HIGH LEVEL SENSOR INDICATOR

EVENT	DEFAULT BEHAVIOUR
Bright-out	Green LED - fast flash (1 second ON, 1 second OFF)
IR Remote Control receive	Red LED - flashes twice
IR Programmer receive	Red LED - flashes 3 times
Motion detection	-
Motionline short circuit	Red LED - fast flash (1 second ON, 1 second OFF)
100 hour burn in	Red LED - permanent ON

## SMARTSCAN INDICATORS

EVENT	DEFAULT BEHAVIOUR	IF ENABLED BY SMARTSCAN PROGRAMMER
RF transmitted	LEDs OFF	Blue LED - flashes once
RF received	LEDs OFF	LEDs OFF
RF inhibit	LEDs OFF	Yellow LED - flashes once every 8 seconds
Join/leave/ping network request	Blue LED - flashes for a maximum of 60 seconds	Blue LED - flashes for a maximum of 60 seconds
Join/leave/ping network successful response	<b>Smart:</b> Green LED - flashes 10 times	<b>Smart:</b> Green LED - flashes 10 times
	<b>Emergency:</b> Amber LED - flashes 10 times	<b>Emergency:</b> Amber LED - flashes 10 times
	<i>NOTE: If no response is received after 60 seconds, the LED stops flashing, and reverts to normal display (as defined above based on Short Address).</i>	
Join/leave/ping network unsuccessful response	<b>Smart:</b> Red LED - flashes 10 times	<b>Smart:</b> Red LED - flashes 10 times
	<b>Emergency:</b> LEDs OFF	<b>Emergency:</b> LEDs OFF

## SMARTSCAN EMERGENCY MODULES

FAULT	ELP	TRIDONIC	MACKWELL
Normal mode	Green LED - ON	Green LED - ON	Green LED - ON (Pulses every 10 seconds)
Commissioning	Green LED - slow flash	Green LED - ON	Green LED - slow flash
Function test	Green LED - fast flash	Green LED - fast flash	Green LED - fast flash
Duration test	Green LED - slow flash	Green LED - slow flash	Green LED - slow flash
Lamp fault/open circuit/short circuit	Red LED - ON	Red LED - ON	Red LED - fast flash
Battery fault	Red LED - slow flash	Red LED - slow flash	Red LED - slow flash
Charge fault/Circuit fault	Red LED - fast flash	Red LED - fast flash	Red LED - fast flash
Emergency mode	LED OFF	LED OFF	LED OFF
Identification	Red/Green LED - slow flash	Red/Green LED - slow flash	Red/Green LED - slow flash



## SMARTSCAN USER REGISTRATION REQUEST

COMPANY	<input type="text"/>	E-MAIL	<input type="text"/>
TITLE	<input type="text"/>	TELEPHONE	<input type="text"/>
FIRST NAME	<input type="text"/>	ADDRESS	<input type="text"/>
SURNAME	<input type="text"/>		
JOB TITLE	<input type="text"/>		
		POST CODE	<input type="text"/>

E-mail notification if site status green - Healthy

YES  NO

E-mail notification if site status red - Fault

YES  NO

## EMERGENCY TEST REGIME

Default setting: 1st of each month at 00:00 from commissioning date

PREFERRED MONTH

PREFERRED DAY

PREFERRED TIME

SMARTSCAN EMERGENCY FITTINGS MUST BE LEFT POWERED FOR MIN 51 HOUR PERIOD PRIOR TO COMMISSIONING.

- 24 hour charge from power up
- 3 hour recorded duration discharge for all fittings (after 24 hour charge)
- 24 hour recharge

**PLEASE BE ADVISED IF OUR ENGINEERS ATTEND SITE AND ARE UNABLE TO COMPLETE THEIR TASKS DUE TO INCOMPLETE INSTALLATIONS, DAMAGED FITTINGS OR CONTROLS, ALL ADDITIONAL VISITS AND/OR COMPONENTS WILL BE CHARGED FOR**