

Application notes  
motion and presence detectors

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# 1 Choice guide

Location	Automatic light	Automatic light + HVAC	Presence detection	Presence detection + light regulation			
House access control (perimeter lighting)	<p>Outdoor detectors</p>  	Not applicable					
House facades surveillance							
Security lighting							
Covered parking area							
Corridors, hall ways	<p>WA or ceiling detector or pres</p> 						
Lavatories							
Cellar	 						
Laundry	 						
Office	<p>WA or ceiling detector or pres</p> 				<p>Only presence detectors</p>	<p>Only presence detectors</p>	<p>Only presence detectors</p>
Open plan offices							
Meeting room							
Training room							

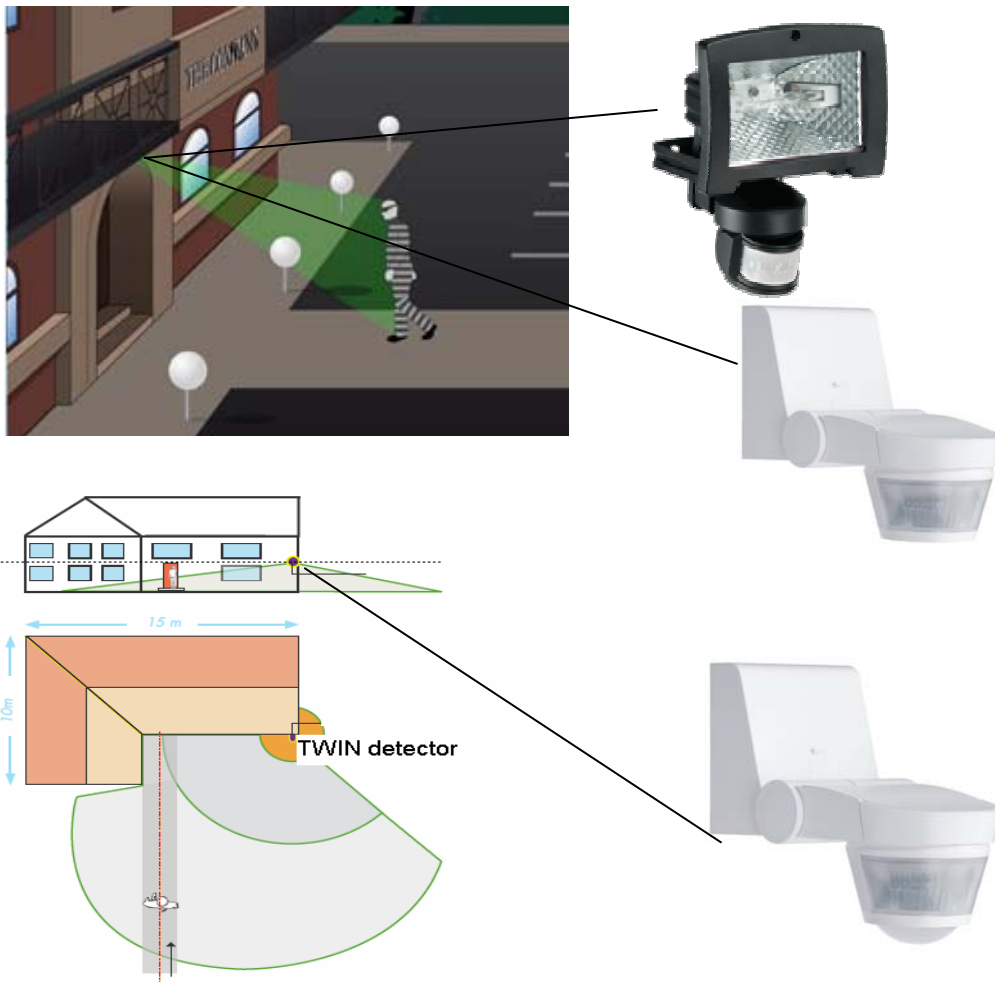
## 2 Application notes

### 2.1 Outdoor light control

In residential projects, the motion detectors are often used to bring comfort «switch ON/switch OFF light» and for security reasons.

The detectors are installed outside to survey the house access. They control the outdoor lighting when there is a need for light and when there is somebody in their detection area.

The detectors that have to be used here are waterproof. The detection angle and detection range will depend on the application case (access control, house façade, two facades surveillance).



Solutions	Used products/settings
Take waterproof standalone detectors	New IP range  Lux: 5 lux Time : 3 min

**2.2 Automatic light in corridors (or hallway or corridor)**

The objective is to control the light in the passage areas (like a corridor) according to passage in the area and light conditions.

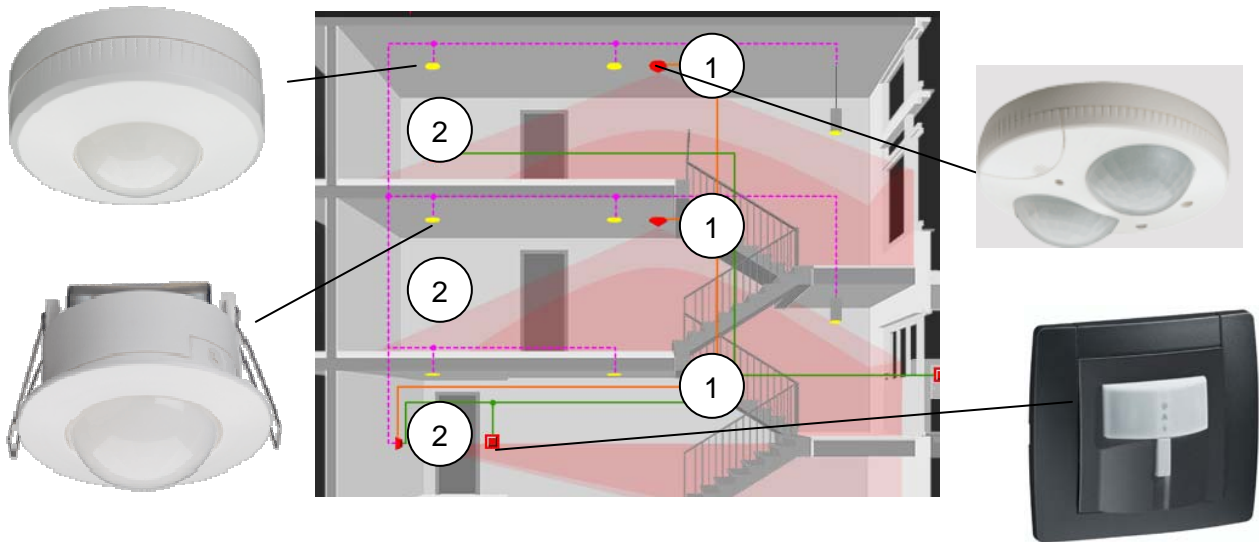


Solutions	Used products/settings
Take ceiling motion detectors to survey the areas.	EE804 or EE810  Lux: 200 lux Time : 3 min
Put WA Motion detectors.	Hager WA detectors  Lux: 200 lux Time: 3 min
Take surface mounted detectors to cover the areas. Those products are mostly installed at 2.5 m height.	Enhanced detectors: EE85x, EE86x, EE87x  Lux: 200 lux Time: 3 min

**2.3 Automatic light in a staircase**

For this project, the customer requires the light to be automatically switched ON/OFF when there is somebody in the staircase.

In addition, there may be also a need for a manual control.



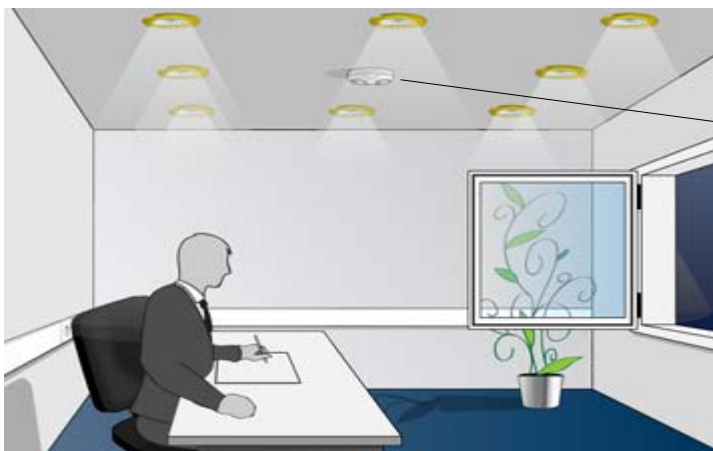
Solutions	Used products/settings
1) Put ceiling detectors at each floor.	EE804 or EE805  Lux : 200 lux Timer : 3 min
1') Alternative  Put a time lag switch that controls the light for each level. In addition, ceiling detector trigger the time lag when there is somebody	EE804/EE805 or EE810  Or TWIN detector  EM001N  Lux : 200 lux Timer : 3 min
2) WA detectors Put a WA motion detector at each floor.	Lux : 200 lux Timer : 3 min

**2.4 Automatic light in a office**

In offices, it is more and more common to install occupancy sensors (presence detectors). Such detectors register slight movement and switch the light ON/OFF according to office occupancy and to daylight illumination.

For more energy savings and more comfort, these products are often used with dimmers and/or dimmable ballasts. In this case, they set a constant light level in the work place (for example: 500 lux).

In some projects, these detectors are used in a semi-automatic mode. With this mode, the light is switched on manually via a push button and switch OFF automatically.



Solutions	Used products/settings
1) Put presence detectors over each desk In addition to that detector, you may also find a push button to override the detector	EE810 or TX510  Settings: time 15 min, lux 400
2) Install presence detectors that controls the light level A push button may also be used here to change the defined lux level.	EE812 or TX510  Settings : time 2 min, lux 200  + Dimmers EV102 or electronic ballasts (1/10V)  Settings : time 15 min, lux 400
3) Semi-automatic mode For that mode, you have to add a push button to switch ON the light, the switching OFF is automatically achieved thru the detector.	EE811 or TX510  Settings: time 15 min, lux 400

## 2.5 Automatic light in a meeting room/training room

In a meeting or training room, the objective is to control the light when the room is really occupied (in fact when there is a meeting). In addition, it is also important in this case to foresee override possibilities (for example: switch OFF during a presentation). A meeting/training room is often equipped with a white board and light circuit has to be controlled individually (dedicated ON/OFF output)

In a meeting room it is quite common to implement the semi-automatic mode. The first person that enters into the meeting room pushes the button to get light; the detector switches OFF when there is enough light.

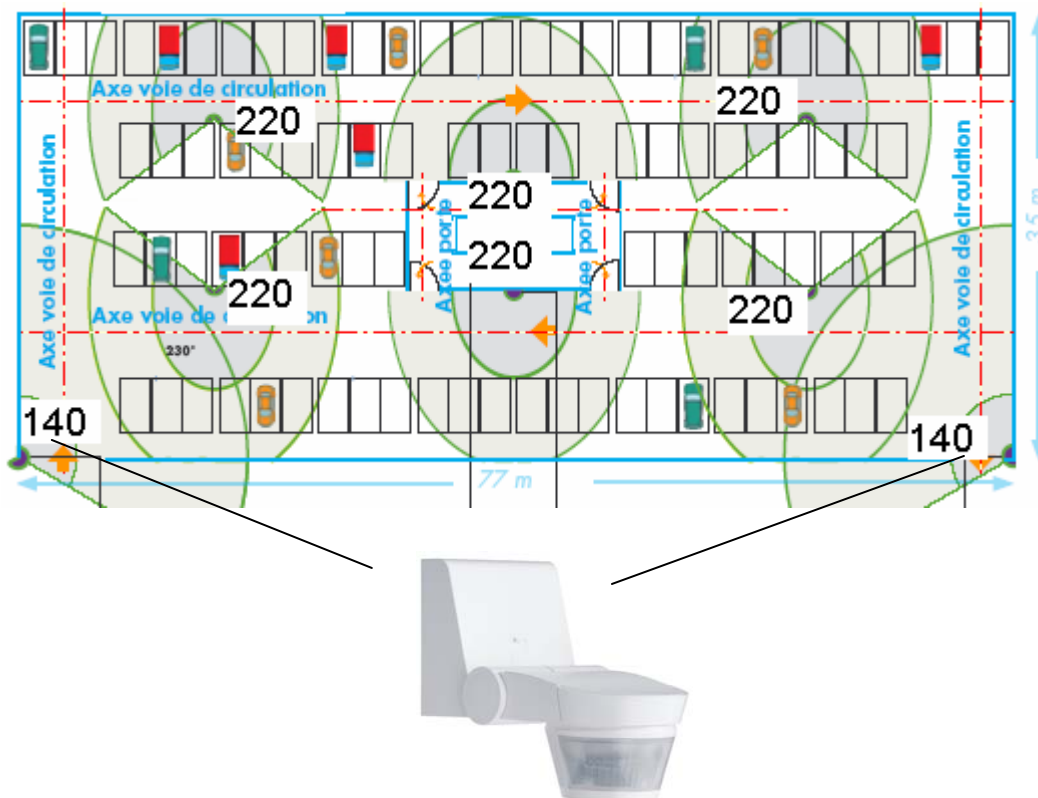


Solutions	Used products/settings
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3) Semi-automatic mode For that mode, you have to add a push button to switch ON the light, the switching OFF is automatically achieved thru the detector.	EE811 or TX510  Settings: timer 15 min, lux 400

## 2.6 Automatic light in a car park

Automatic lighting control in a car park is quite common. Here it is important to check that the detectors are not obstructed and that there is no blind spot.

The detector should be mounted on the ceiling and it has to survey all the access points.



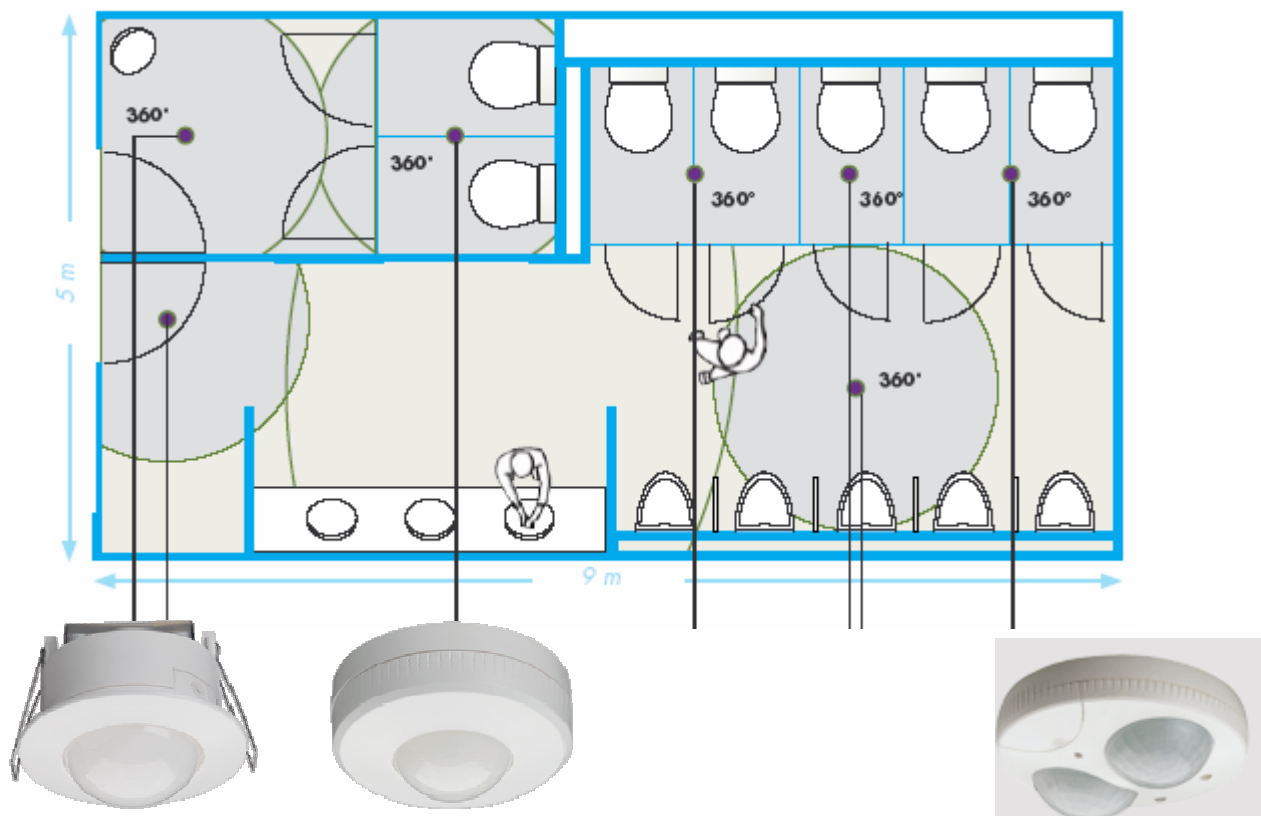
Solution	Used products/settings
Put waterproof detectors (to survey the circulation areas and car park accesses).	Basic detectors: 140° Enhanced detectors: 220°  Settings : timer 3 min, lux 200



**2.7 Automatic light in lavatories**

Automatic lighting control is used in public lavatories, in companies, hospitals, etc.

The detector should be mounted on the ceiling in order to survey the access points and the presence of people in order to save energy.



Solution	Used products/settings
Put ceiling detectors to survey the areas	EE804 or EE805 or EE810  Settings : timer 3 min, lux 200