

CoreLine waterproof

WT120C G3

Scan me!

Scan me!

Triangle hook 2x
Gland cable ring 2x
Bolt M3x40 2x
Nut M3 2x
Screw plug 2x
Gland PG13.5 1x

Service tag

	Power	Lumen	Energy efficiency class of Light source	Emergency unit (optional)	Max. interconnected number
--	-------	-------	---	---------------------------	----------------------------

WT120C G3 20S/840 PSR MDUPHW L600	14	2170	C	No	0.87	*
WT120C G3 27S/840 PSR MDUPHW L1200	17	2700	C	Yes	1.34	*
WT120C G3 40S/840 PSR MDUPHW L1200	25	4000	C	Yes	1.34	*
WT120C G3 34S/840 PSR MDUPHW L1500	21.5	3400	C	Yes	1.70	*
WT120C G3 60S/840 PSR MDUPHW L1500	37.5	6000	C	Yes	1.70	*
WT120C G3 80S/840 PSR MDUPHW L1500	50	8000	C	Yes	1.70	*
WT120C G3 27S/840 PSR MDUPHW TW3 L1200	17	2700	C	Yes	1.49	73
WT120C G3 40S/840 PSR MDUPHW TW3 L1200	25	4000	C	Yes	1.49	53
WT120C G3 34S/840 PSR MDUPHW TW3 L1500	21.5	3400	C	Yes	1.90	61
WT120C G3 60S/840 PSR MDUPHW TW3 L1500	37.5	6000	C	Yes	1.90	35

*Refer to the datasheet for detailed information on through wiring options.

PSR

Type	Dimension (mm)						Nr of clips
	A	B	C	D	E min	E max	
WT120C G3 L600	76	665	80	38	308	512	6
WT120C G3 L1200	76	1215	80	38	538	1062	10
WT120C G3 L1500	76	1515	80	38	838	1362	12

PSR TW3

Type	Dimension (mm)						Nr of clips
	A	B	C	D	E min	E max	
WT120C G3 TW3 L1200	76	1235	80	38	538	1062	10
WT120C G3 TW3 L1500	76	1535	80	38	838	1362	12

1

1a

1b

1c

a) b) c) d) d1) e) e1) f) f1)

Vertical installation

Horizontal installation

2a

2b

Through wiring (optional)

(-) NYM cable is suitable for TW

Through wiring with TW accessory (optional)

Additional Through wiring options:

12NC	Description	EOC
911401816687	WT120Z TW-Sx2 5-L600 10PCS	872016975516199
911401816687	WT120Z TW-Sx2 5-L1200 10PCS	872016975518599
911401817087	WT120Z TW-Sx2 5-L1500 10PCS	872016975520899

a) b) c)

Mid-side-entry (optional)
Knock out for cable entry

d) e) f) g) h)

Only Safety Protection

3

4

5

1 Labels

2 Connection

3 Log book

4 Set test mode

Emergency wiring

LED Driver

a) b) c) d) e) f) g) h)

Emergency unit

MDUPHW motion detection unit with wireless grouping

Rated lumen output in emergency mode when using EL kit EM300V: min 400lm

MDUPHW motion detection unit with wireless grouping

Rated lumen output in emergency mode when using EL kit EM300V: min 400lm

The MDUPHW motion detection unit is suitable for both applications where individual luminaire sensing is sufficient, and for applications where luminaires are combined in a wireless group such that motion detected by one of the luminaires will dim-up all the luminaires in the group to full output. The sensor supports motion sensing, daylight sensing, 3-level dimming light control, and wireless grouping functionalities.

The MDUPHW light-control, sensing and wireless grouping functionalities can be configured by either dip-switches and rotary dials, or by an IR-remote control as described in next pages. The default setting of the luminaire is motion sensing enabled (75% detection area) with 3-level dimming (3 min hold-time, 1 min standby level of 30%), daylight sensing disabled, and wireless grouping disabled.

Configuration note:

- All sensing and wireless grouping parameters can be set with remote control but number of options per parameter is less.
- Parameters changed with remote control overrule the dip-switch or rotary dial setting for the same parameter. After a power-cycle the changes made with remote control remain.
- Remote control (911401887688 WT120Z G3 MDUPHW RF Remote Controller) can be ordered as a separate accessory. Please follow remote installation instruction for more details.
- All parameters set by remote control will be overruled by the corresponding dip switch or rotary dial setting when any dip-switch or rotary dial parameter is changed!

Sensor configuration by dip-switches & rotary dials

Sensor configuration by dip-switches & rotary dials

Sensor configuration by dip-switches & rotary dials

Dipswitch settings

Default setting is 75% and is recommended for most applications. Increase the setting to enlarge detection sensitivity or coverage area; decrease the setting when too many false triggers occur or when motion is unwantedly detected in an adjacent area.

Hold time
Refers to the time period where the luminaire remains at 100% illumination after no motion is detected.
Default setting is 3 minutes. Increase the setting when persons are expected to remain for longer than 3 minutes in the area without making walking steps / major movements.

Stand-by period
Time period of keeping dimmed levels before the luminaire is completely switched off when there is no motion. Default setting is 1 minute. The setting "∞" may be used to keep the luminaire at the dimmed standby level for as long as no motion is detected; this will ensure the space will never become completely dark.

Daylight sensor
The sensor can be set to not switch on the luminaire upon motion detection when ambient light levels are above the threshold set by the dipswitch. Default setting is "Disable". When additional energy savings are needed in areas illuminated by sunlight, this setting can be set to 100 or 50lux. Lower settings are not recommended.

Daylight sensor Mode
The Daylight Sensor mode set "ON" to normal mode. This is default. The daylight priority mode "OFF" is not recommended.

Frequency hopping Mode
This setting relates to the wireless grouping (see next page). The default setting is "OFF", which means the luminaire is only a receiver of the group with number set by Rx dial; when FH is "ON" it is also receiver of the groups with number Rx+1 and Rx-1.

Stand-by dimming level
Dimming % level when there is no motion (after the hold time) to save energy.
The default value is 30%. Optionally decrease the value to 10% to save energy when a longer standby period is set, e.g. "∞".

Rotary dials settings for wireless grouping

Rotary dials settings for wireless grouping

Rotary dials settings for wireless grouping

Transmitter setting: Rotate the Tx dial to set the number of the group of which the luminaire will become a transmitter. A transmitter luminaire will send, receive and forward the wireless messages for that group. It means that if a transmitter luminaire detects motion, it will send a wireless message to all transmitter and receiver luminaires in the same group such that they all go to 100% light output.

Receiver setting: Rotate the Rx dial to set the number of the group of which the luminaire will become a receiver. A receiver luminaire will receive and forward the wireless messages for that group, but when it detects motion, it will not send a wireless message to other luminaires in that group. When the frequency hopping dip-switch is set to "ON" the luminaire will become a receiver of 3 groups: Rx-1, Rx, Rx+1.

Wireless grouping note:

- Default settings for Tx and Rx is 0, meaning wireless grouping function disabled.
- To ensure stable wireless networking, the straight-line distance between luminaires should not exceed 15 meters, and there must be no obstructions between them.
- Max number of luminaires in a group is 32, which includes sum of transmitters and receivers.
- A luminaire can be a transmitter for 1 group, and a receiver for max 4 groups (only with remote control).
- Max number of groups is 15 using rotary dials, and 8 using remote control.
- When using the same group number for groups that should not act as one group ensure sufficient distance between such groups, i.e. >60m in open outdoor space, >50m in indoor open area, >30m with additional brick wall or concrete ceiling, or at least 3 floors above or below in a parking garage or multi-floor building.

Application guidelines for wireless grouping

Tip-1: For bigger projects like a multi-level parking garage, make larger groups (max 32 luminaires) and limit number of groups per level to 1 or 2. When needing to reuse a group number ensure sufficient distance or walls / ceilings between groups with same number.

Tip-2: Use Rx setting to make the luminaire a receiver of the group of an adjacent area. Referring to below example, this will ensure that when a person or car is moving from area A to area B, the luminaires with Rx=4 will already be at 100% when entering area B. Similarly, a luminaire can be made receiver of multiple groups when it is adjacent to multiple areas.

Area A: all luminaires Tx = 4

Rx = 5

Rx = 4

Area B: all luminaires Tx = 5

Recommended commissioning workflow:

- Create commissioning plan defining the wireless groups and sensor settings
- Set the luminaire dip-switches and rotary dials at the location of the luminaire but before mounting the luminaire to the ceiling and making the electrical connections.
- Verify the wireless grouping by waiting until all luminaires for a certain group number are off, and triggering a sensor in the Tx-group and check that all luminaires with same Tx or Rx will light-up.
- Verify the sensor settings by creating a single motion-trigger, and check if all luminaires go to standby level after hold time, and go to off after standby period.

Power on behavior - initialization
After power on, the sensor runs an initialization procedure in which it will keep light output at 100%. After the initialization procedure the luminaire will dim to off (or to standby level when standby period is set to "∞") and it will subsequently behave as defined by the sensor dipswitch settings and rotary dial settings (see next pages). During the initialization the sensor will not detect any daylight, motion nor respond to remote IR or wireless group signal.

Sensor detection area

Below diagrams show the detection area of the sensor for a walking person (0.3m/s and 1m/s) at different sensitivity (detection area) settings and for both ceiling-mounted at 2.4m, 3m and 6m height and wall-mounted at 1.5m, 2m height. Also, diagrams are included for driving car detection with ceiling mounted luminaire at 100% sensitivity for car speed 5km/h and 10km/h.

Ceiling mounting
Ceiling mounted height: 3m
Sensitivity: 100%/75%/50%/25%

Ceiling mounting

Ceiling mounting

Ceiling mounting

Ceiling mounting

Ceiling mounting

Ceiling mounting

Ceiling mounting

Ceiling mounting

Ceiling mounting

Ceiling mounting

Ceiling mounting

Ceiling mounting

Ceiling mounting

Ceiling mounted height: 6m
Sensitivity: 100%/75%

Ceiling mounted height: 6m

Ceiling mounted height: 6m

Ceiling mounted height: 6m

Ceiling mounted height: 6m

Ceiling mounted height: 6m

Ceiling mounted height: 6m

Ceiling mounted height: 6m

Ceiling mounted height: 6m

Ceiling mounted height: 6m

Ceiling mounted height: 6m

Ceiling mounted height: 6m

Ceiling mounted height: 2.4m
Sensitivity: 100%/75%/50%/25%

Ceiling mounted height: 2.4m

Ceiling mounted height: 2.4m

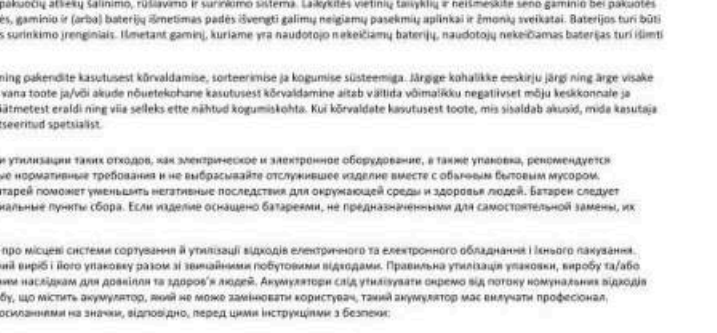
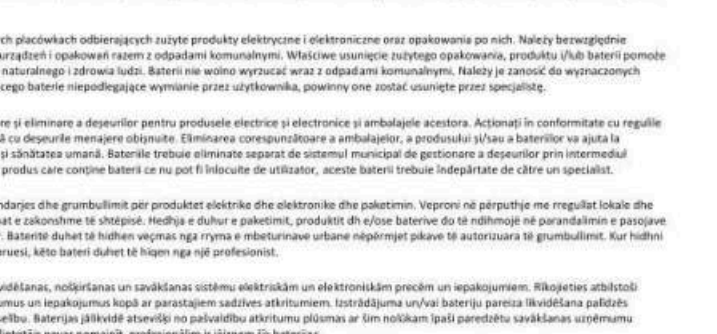
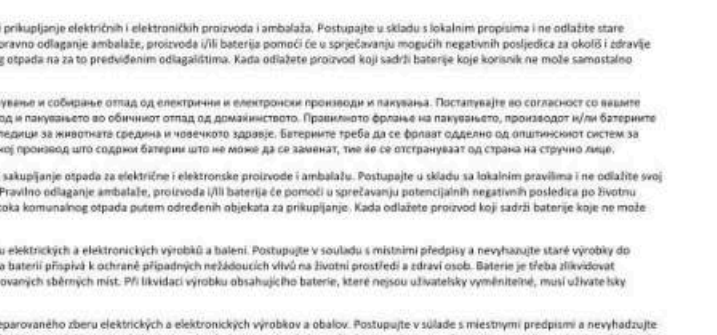
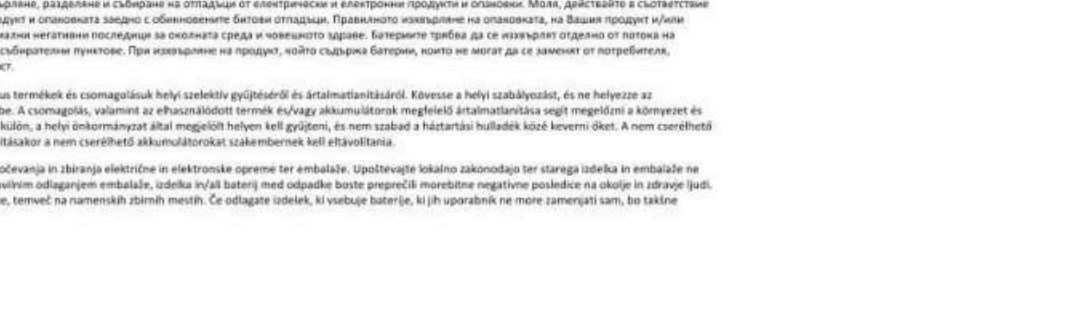
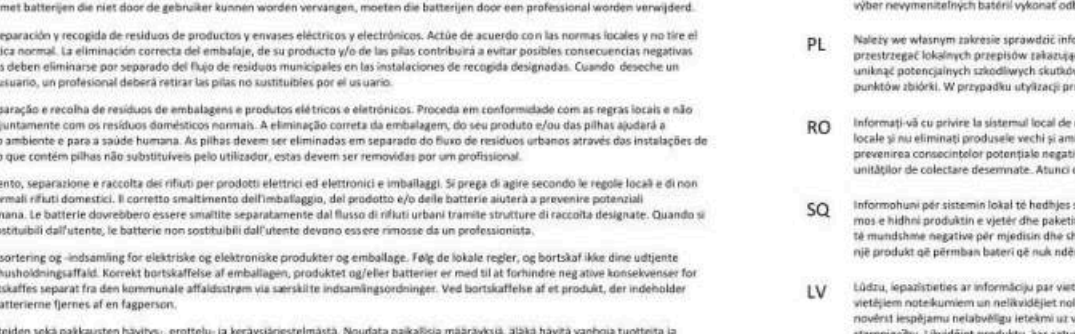
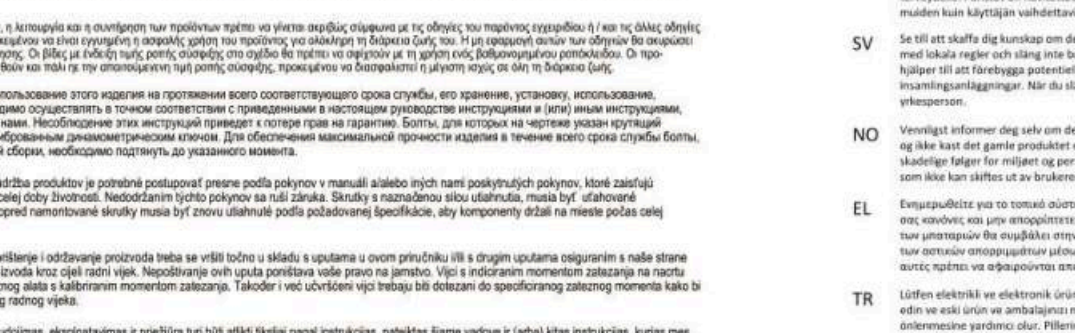
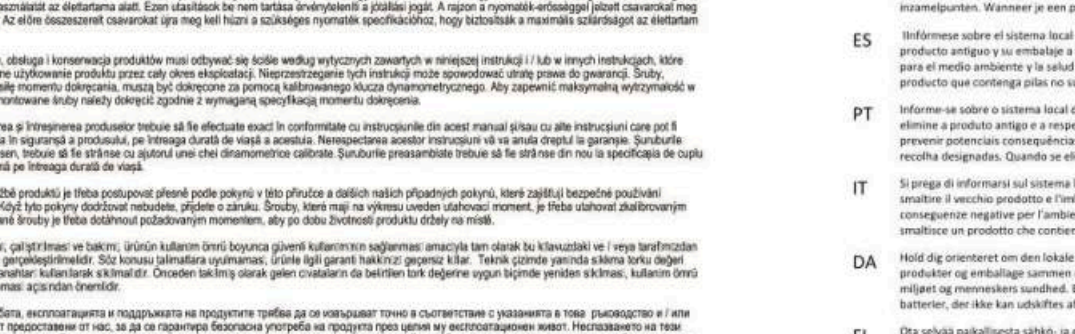
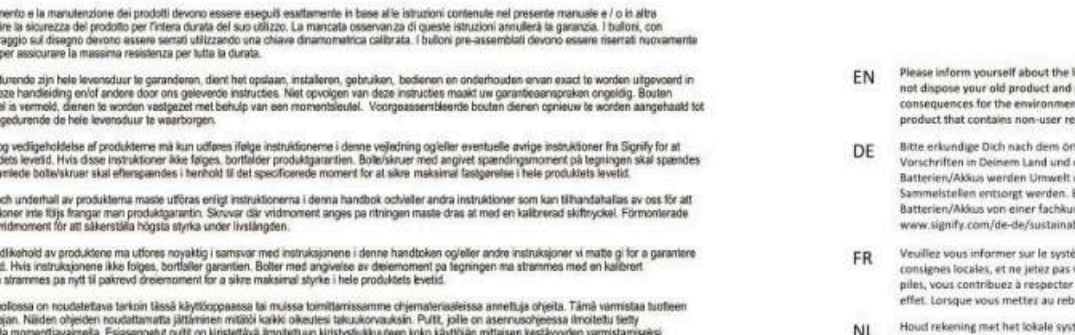
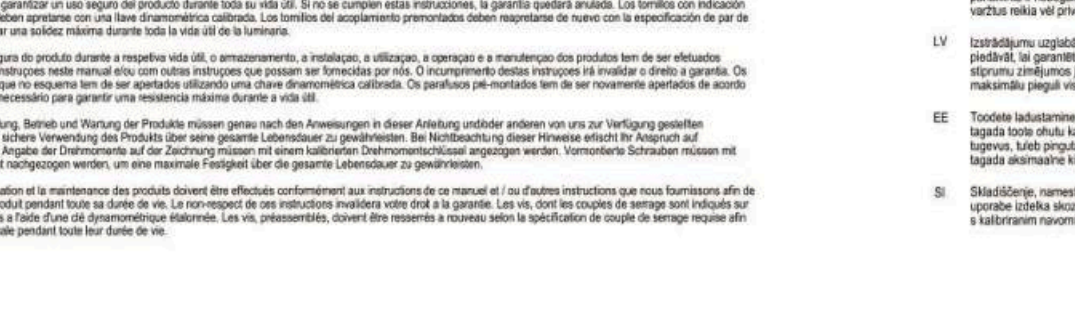
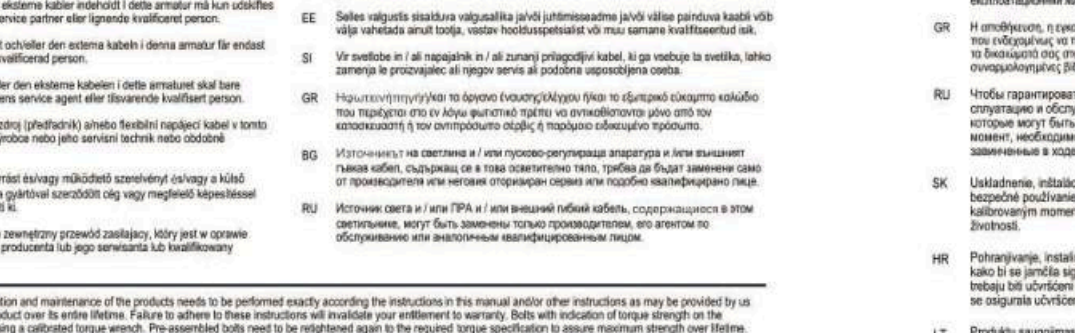
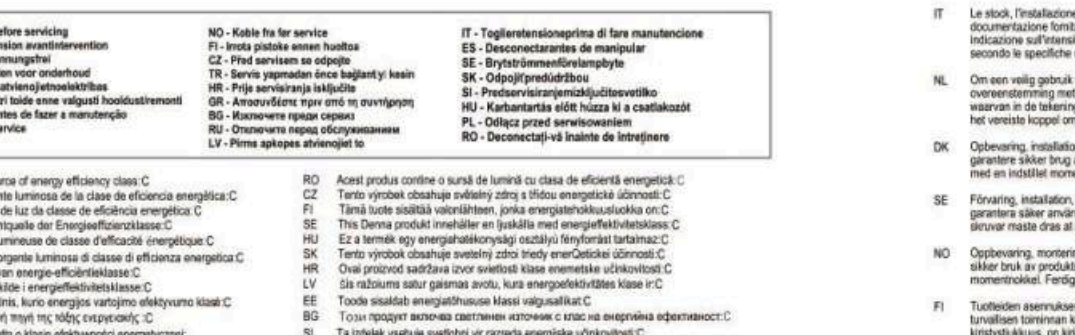
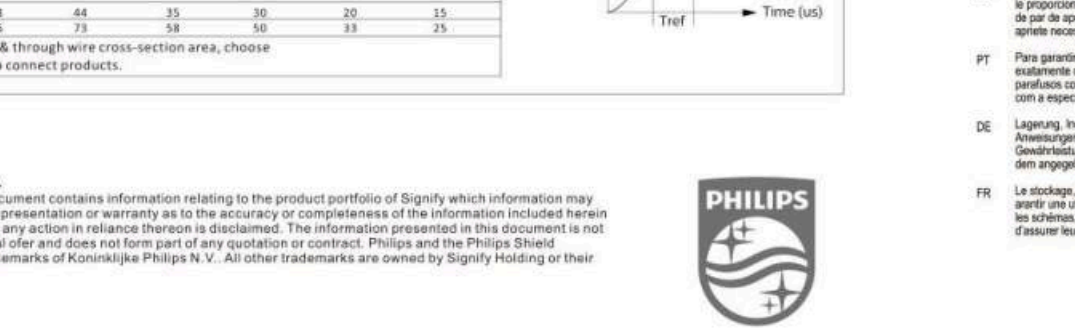
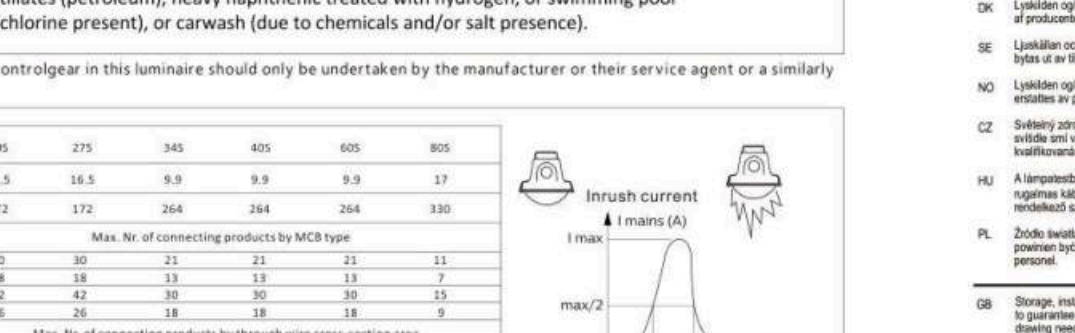
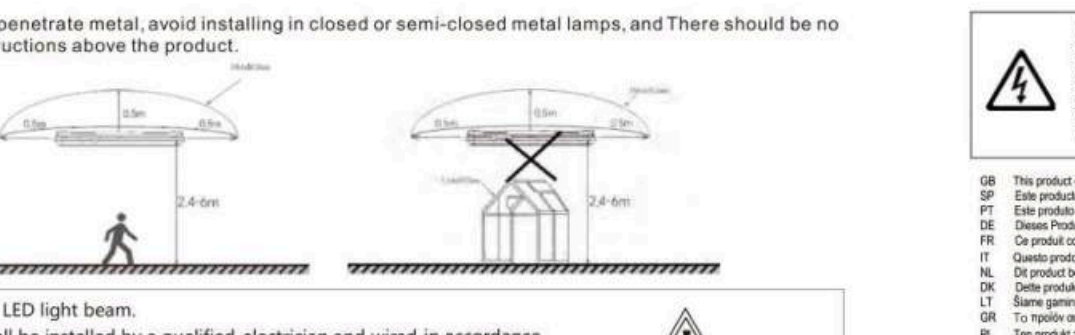
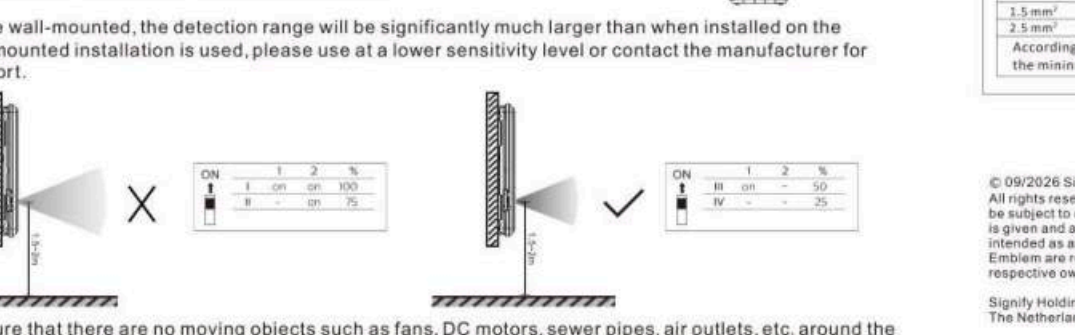
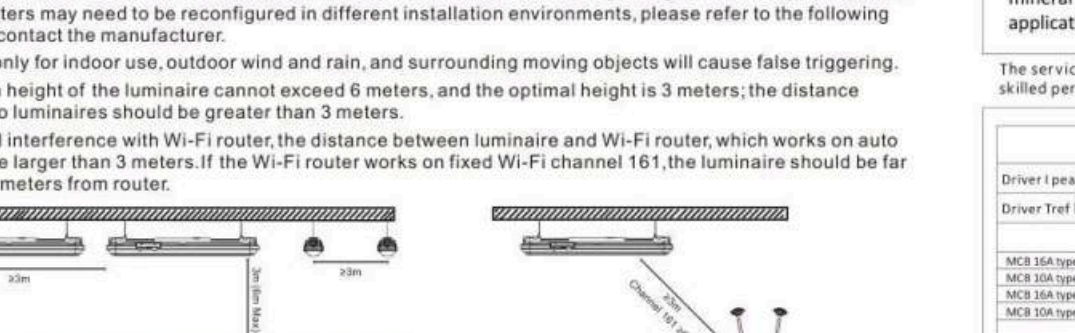
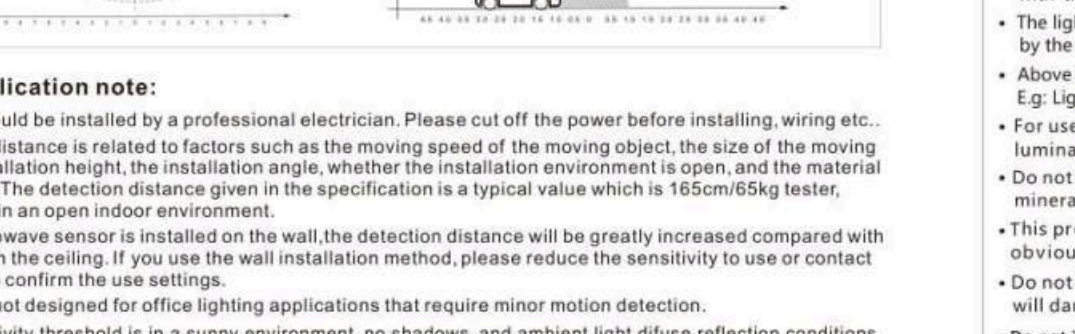
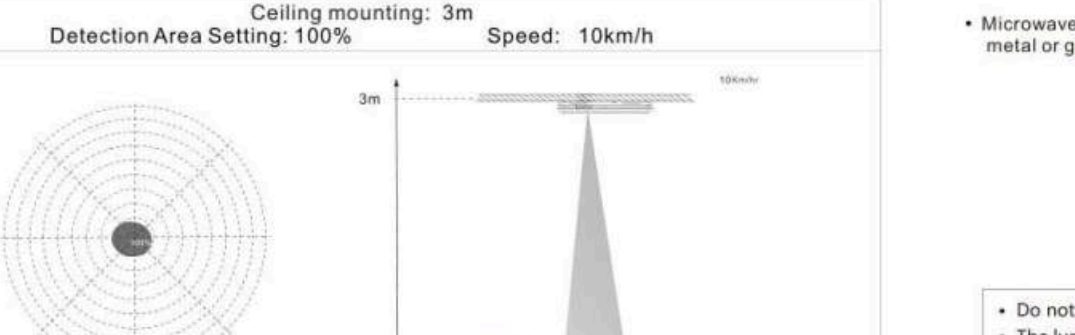
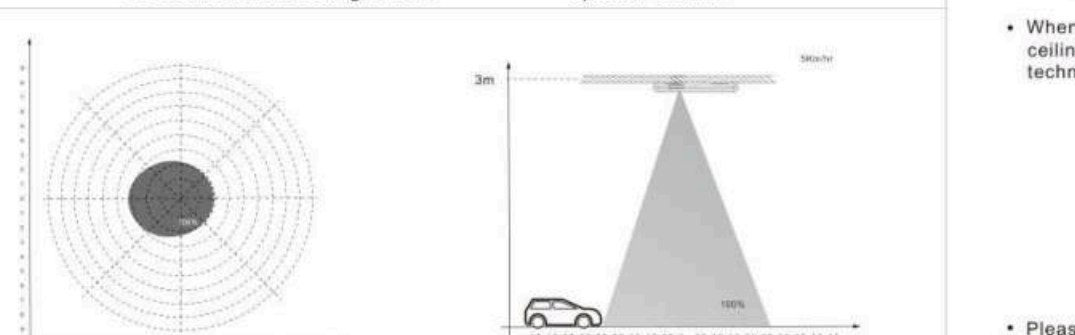
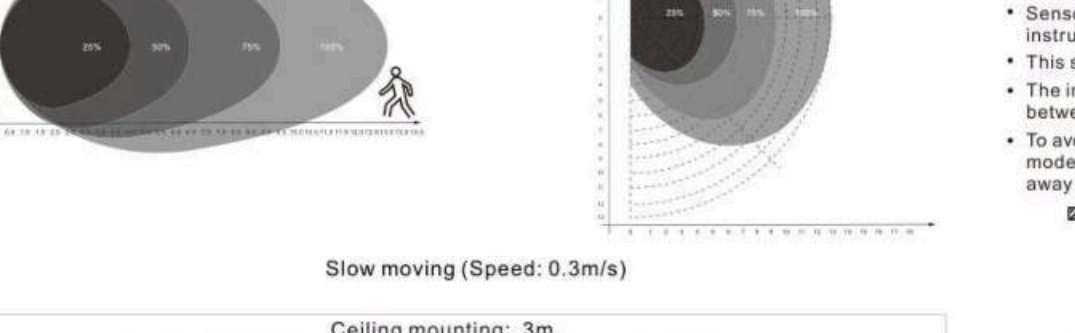
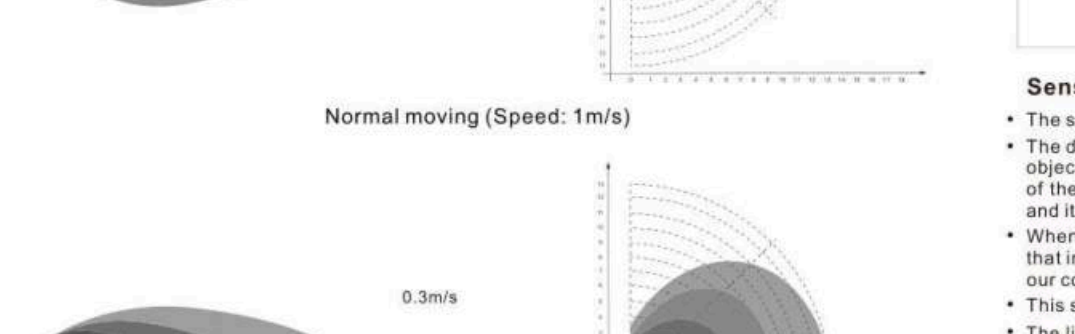
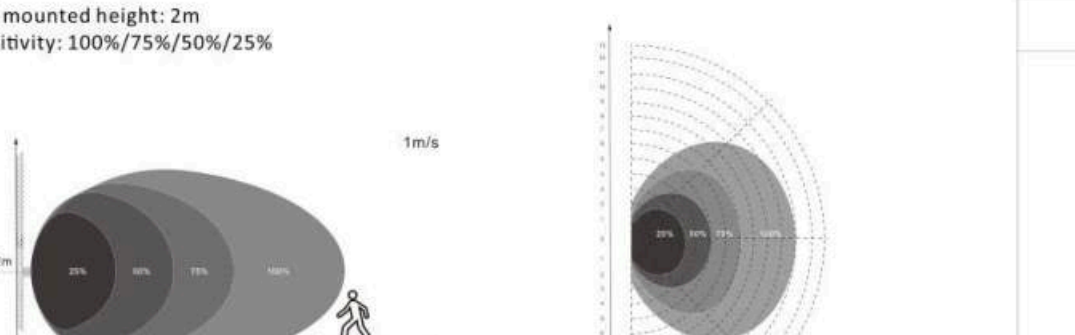
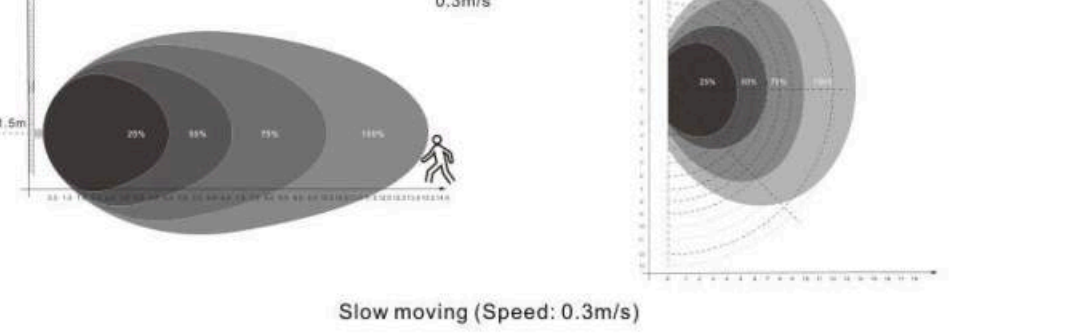
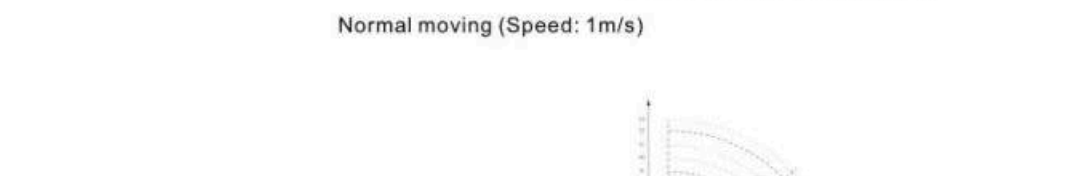
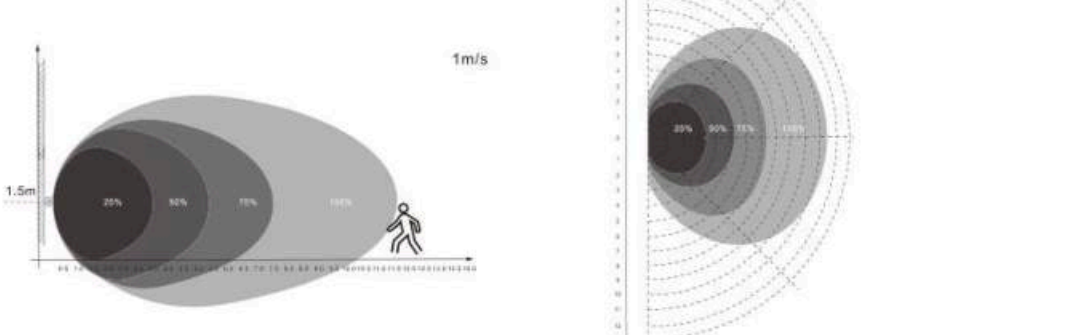
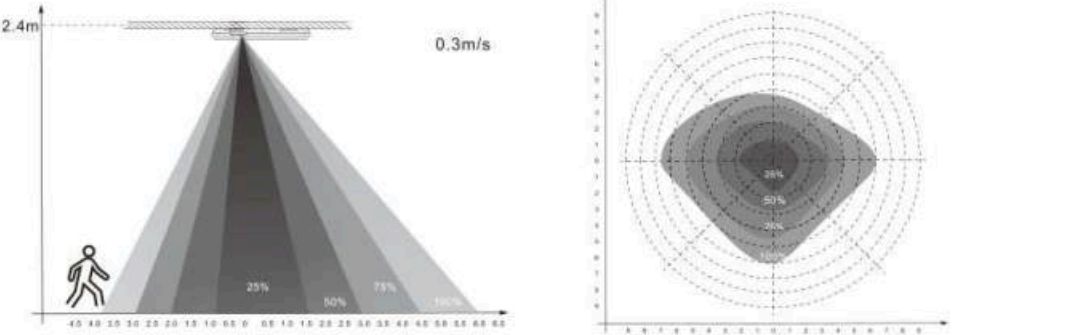
Ceiling mounted height: 2.4m

Ceiling mounted height: 2.4m

Ceiling mounted height: 2.4m

Ceiling mounted height: 2.4m

Ceiling mounted height: 2.4m



Slow moving (Speed: 0.3m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Slow moving (Speed: 0.3m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Slow moving (Speed: 0.3m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)

Normal moving (Speed: 1m/s)