PIR / PIRBC

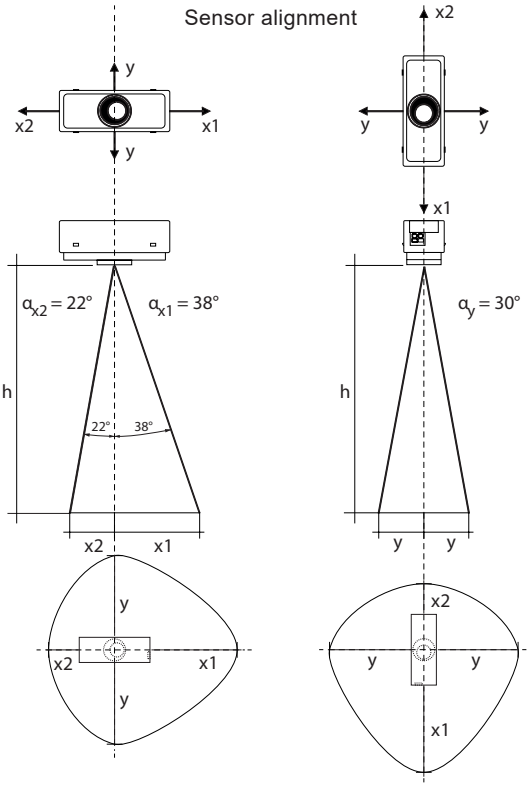
SENSOR FUNCTIONS

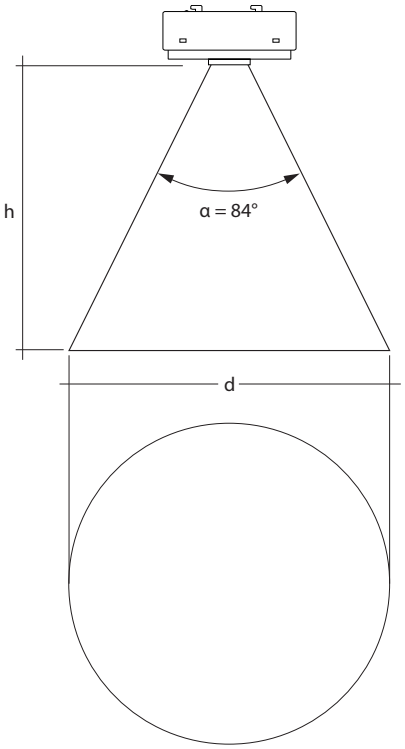
Thorn Lighting Limited
Durhamgate Spennymoor
Co. Durham DL16 6HL UK
www.thornlighting.com

THORN

96433687z

i LIGHT LEVEL RECOGNITION AREA / MOTION DETECTION





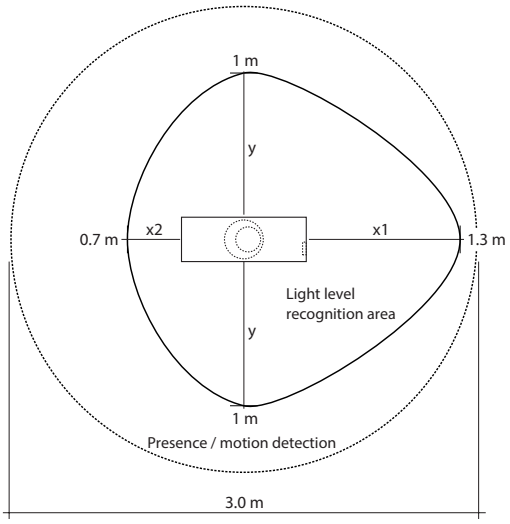
h*	x1	x2	y	d
1.7m	1.3m	0.7m	1.0m	3.0m
2.0m	1.6m	0.8m	1.2m	3.6m
2.3m	1.8m	0.9m	1.3m	4.1m
2.5m	2.0m	1.0m	1.4m	4.5m
2.7m	2.1m	1.1m	1.6m	4.9m
3.0m	2.3m	1.2m	1.7m	5.4m
3.5m	2.7m	1.4m	2.0m	6.3m
4.0m	3.1m	1.6m	2.3m	7.2m

* The recommended maximum room height for office applications is 3 m and for corridor applications for example 4m. Up to 2 m mounting height presence is detected and over 2m motion is detected.

Calculation of the diameter (light area):
$x1 = \tan(\alpha_{x1}) \times h$
$x2 = \tan(\alpha_{x2}) \times h$
$y = \tan(\alpha_y) \times h$

Calculation of the diameter (motion area):
$d = 2 \times \tan(0{,}5 \times \alpha) \times h$

Example for light and motion detection area at height of 1.7m:

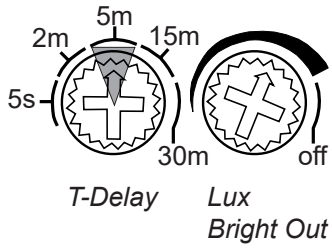


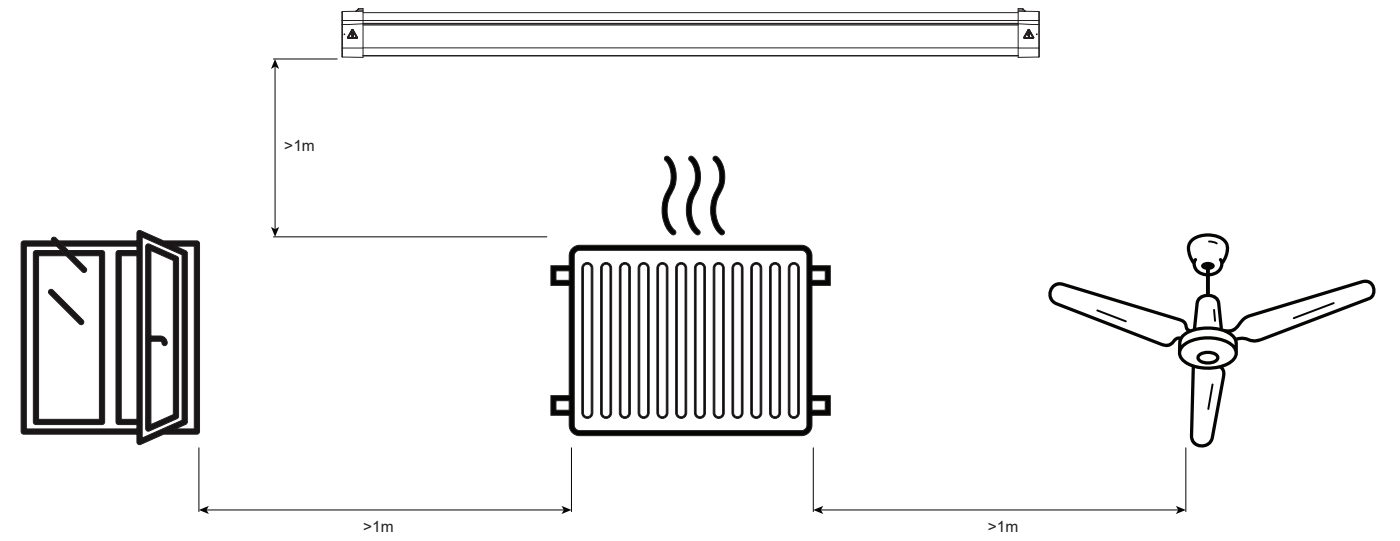
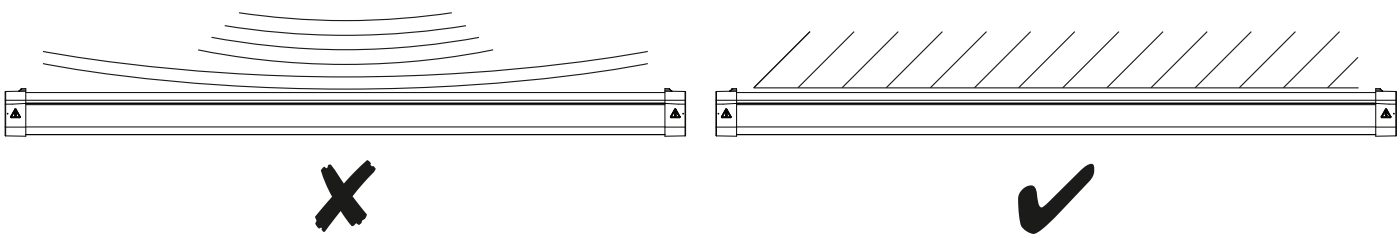
i ADJUSTMENTS

Potentiometer times = 5 s, 2 m, 5 m, 15 m, 30 m, default = 5 s
(Note: Only discrete steps are selectable, no intermediate values)
Potentiometer lux = 50 – 500 lx, default = off

Bright-out:
Bright-out will be activate if position off is not selected.

No adjustable parameters:
Switch OFF light level: 250 % of the adjustable switch ON light level
Bright-out delay time: 10 min.
Power up behavior: When power up, the smartSWITCH will switch ON



T-Delay *Lux*
Bright Out

In the example above the 5 minute range is selected.