

# Using Lingua IR calculator tool

## 1. Introduction

This application note explains how to use the Lingua IR calculator tool

The Lingua IR calculator is an important tool to determine what are of the room is covered by each RAD, this is the so called footprint

The area covered , will be depending on position and mounting angles of the RAD , related to the position of the people in the room , amount of channels and RADs

## 2. Parameters and footprint

The tool is webbased and called “IR lingua\_footprint\_calculator\_20180711\_003\_base\_sens\_0-00035.html” and is available on our partner domain , <https://televic.sharefile.com/d-s571b88d55544d309>

To determine the footprint it has to be known where the people are seated and in what direction they look +/- , then it can be checked if those positions have proper coverage

The colored dots indicate where the RADs are positioned and the colored beam indicates in what direction the RAD is transmitting

The green zone indicates the footprint

The height , length and width of the room is to be entered

The amount of channels is important as this influences the max IR power available for each channel

After changing the configuration parameters , click “apply” + “Calculate coverage”

**Wizard**

**Room**

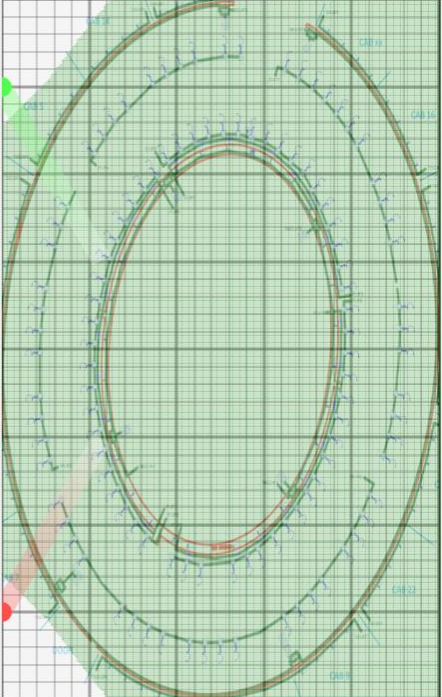
Width [m]  Length [m]

Canvas

**Configuration**

# Channels  # Radiators

| # | X [m]                          | Y [m]                           | H [m]                          | Azimuth [deg]                    | Tilting [deg]                   | Color |
|---|--------------------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|-------|
| 1 | <input type="text" value="0"/> | <input type="text" value="35"/> | <input type="text" value="7"/> | <input type="text" value="-60"/> | <input type="text" value="20"/> |       |
| 2 | <input type="text" value="0"/> | <input type="text" value="5"/>  | <input type="text" value="7"/> | <input type="text" value="60"/>  | <input type="text" value="20"/> |       |



### 3. Guidelines

Horizontally there is a 270° angle sensitivity for the receivers, so the people need to be +/- facing the RADs in front of them (blue arrow in example below), and RADs should not be all the way to the side of them or behind them (red arrow in example below), to have good reception

If people are seated in a circle, then there will be also RADs needed on the other wall(s) to be sure that every person has a good reception; therefore it is also a good idea to check once with one RAD at the time to see what area each RAD covers individually

