



LRC Wine Room Calculation Cheatsheet

First, get as much info as possible!!! To truly get the right size of the room you can't calculate it only by cubic feet. It does not take into consideration all the other things going on with the room. For example, a 10x10x10 room with R-30 insulation with a conditioned space around it will be about 2500 BTUH. While a 10x10x10 room with 4 walls single pan glass can be around 21,400 BTUH. You always want to go to the worst-case scenario. If it could happen it will and we want to be prepared for that when it does. Below are the questions to ask when trying to size a wine room.

1. **Does it have a Vapor Barrier** (first and most important question):
2. **Width (ft)**(this needs to be where the door is and is considered wall 1 then go clockwise from there):
3. **Depth (ft):**
4. **Height (ft):**
5. **Desired room temp** (usually 55°):
6. **Ambient temperature around the room** (unless they tell you it will never get above a certain temp it's better to error on the side of caution and stick with 80°):
7. **How many watts of lighting and how long will it be on:**
8. **Any other loads in the room i**(Fans, Fountains, white wine fridges, forklifts, etc):
9. **Is it in a conditioned area surrounding the wine room walls:**
10. **R-Value of each wall** (R-11, R-19, R-30, or concrete) or is it a glass wall (single pane or double):
11. **Wall 1:**
12. **Wall 2:**
13. **Wall 3:**
14. **Wall 4:**

15. **R-Value of the ceiling:**
16. **R-Value of floor or concrete** (if tile use concrete for calculating):
17. **Are any of the walls exterior walls and which ones:**
18. **What is the max temperature outside if the wall is exterior:**
19. **Any direct sunlight on the wall:**
20. **Is the ceiling connected to the attic:**
21. **What kind of door** (glass, solid, hollow, or insulated):
22. **How many doors:**
23. **Do the walls have windows** (if the majority of the wall is window consider it a glass wall):
24. **Is it being used for Storage only** (this is to see if there will be racks in the room you need to get air around):
25. **Will they be entertaining in the room, how many people and for how long:**
26. **In a house, restaurant, or warehouse** (this is to see if the doors are being opened a lot and how much the lights will be on):