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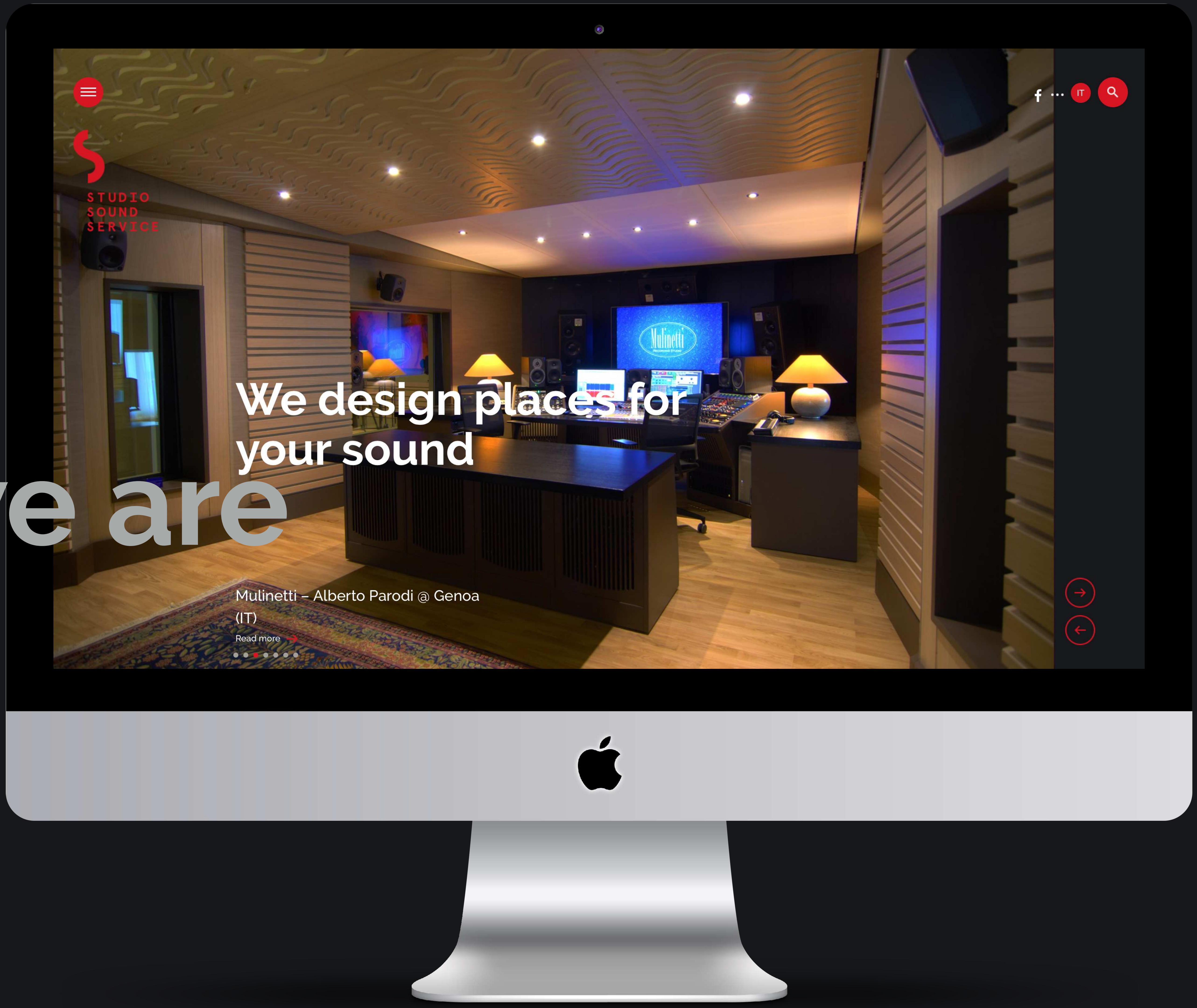
Donato Masci
Acoustic Designer

Dante by design

Studi in Dolby Atmos per la produzione audiovisiva

Who we are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IT
We design places for your sound
Mulinetti – Alberto Parodi @ Genoa (IT)
Read more

Studio Sound Service is a well-established design and consultancy company that specialises in every aspect of acoustics and sound systems.

Founded in 1983
SSS has built an enviable reputation for the production of world class performance and recording spaces, from personal studios to large scale film, broadcast and corporate facilities.

By combining aesthetic and technical skills with decades for experience SSS strives to make every project successful, both sonically and visually.

Donato Masci
Physicist & Acoustic Designer - CEO

Cecilia Torracchi
Acoustic & Civil Engineer - Partner

Giulia Bondielli
Acoustic & Building Engineer – Partner

Elena Rossi
Acoustic & Building – Architectural Engineer

Niccolò Pizzamano
Architect & Acoustic Designer

Chantal Valdambrini
Communication Manager

ADR, Post & Broadcast. Cinema Mixing studios. Gaming Studios.
- Iyuno (ex SDI Media) Acoustic Designers (more than 15 countries)
- Cinecittà Studios (Postproduction Facility 2020 Renewal) @ Rome
- Dubbing Brothers (Italy, USA)
- 3Cycle postproduction Facility @ Rome
- FOX Dolby Atmos Studios @ Rome (IT), Münich (DE), London (UK)
- Netflix Facility @ Rome
- Disney Facility @ Warsaw (PO), Milan
- inHouse (Oscar winner Sorrentino) @ Roma

Music Studios (400+)
- Cicaleto Recording – Francesco Ponticelli @ Arezzo
- Aemme Recording Studio – Salvatore Addeo @ Lecco
- D:POT Recording Arts @ Prato – Fabrizio Simoncioni
- Mulinetti Studio @ Genova – Alberto Parodi
  Resolution Award 2015 Best Audio Facility
- The Garage @ Civitella v.d.C. (AR)
  Resolution Award 2014 Best Audio Facility
- House of Glass @ Viareggio (LU) – Gianni Bini
  Resolution Award 2013 Best Audio Facility
- SonicFab Studio @ Pioltello (MI)
- Waves Music @ Genova
- Marco Borsatti Studio @ Bologna
- Pop Fiction – Janie Price @ Firenze
- Sugarmusic @ Milano
- Experimental Studios @ Torino

Dolby Atmos Music Studios: 50+ rooms
Dolby Atmos Home Entertainment Studios: 80+ rooms
Dolby Atmos Theatrical Studios: 10+ Theatres

Personal Studios:
- Andrea Bocelli, Asaf Avidan, Biagio Antonacci, Daniele Silvestri, Damian Lazarus, Diego Calvetti, Enrico Cremonesi (Fiorello), Enrico Melozzi, Fabio Rovazzi, Federica Vincenti (Michele Placido), Gabry Ponte, Giorgia Angiuli, Irko (Kanye West sound engineer), Luca Agnelli, Marco Masini, Marco Messina (99 Posse), Merk & Kremont, Nari&Milani, Paolo Sandrini, Petra Magoni, Piero Pelù, Pino Iodice, Renato Zero, Vinai.

- Barys Arena (ice hockey) @ Astana, Kazakhstan
- Chorus Life (arena e cittadella) @ Bergamo
- Stadio Tardini @ Parma

- Hospitals: Nuovo Ruggi @ Salerno, Cesena

- George Lucas Home Theater, Italy
- Cinema Barberini @ Roma

- Chiesa Santa Maria Nuova (Arch. M. Botta) @ Terranuova B. (AR)
- Duomo di Siena new audio system

- Prada Auditorium and Conference Room via Orobia @ Milano
- Presentation room Ferrari HQ @ Maranello (MO)
- Siemens HQ @ Milano
- Heineken HQ @ Milano
- Leonardo Elicotteri @ Milano

- Four Seasons Hotel @ Firenze
- Portrait Milano – Ferragamo @ Milano
- Caffè dell'Oro – Ferragamo @ Firenze
- Hotel Veronesi (Calzedonia) @ Verona

- EVAC Dubai Metro
- EVAC Bahrain and Islamabad airport (THALES)
- EVAC Scuola di Magistratura Castelpulci @ Scandicci Firenze

- Teatro del Popolo @ Castelfiorentino (FI)
- Teatro del Popolo @ Colle di Val d'Elsa
- Teatro del Popolo @ Poggibonsi
- Teatro il Ferruccio @ Empoli
- Teatro Marconi @ Pistoia
- Teatro Nazionale @ Firenze

Studio Sound Service is the only Italian Dolby CSP.

We can provide design, commissioning and consultancy services worldwide with Dolby's certified quality standards.

Dolby
Certified service partner

Time Parameters

1890 Sabine:
- Sabine's law
- Reverberation Time RT60

Energetic Parameters

1962 Beranek:
- Music, Acoustics and Architecture, questionnaire in concert halls
- New acoustic parameters (ITDG, Loudness, RT (EDT, reverberation frequency characteristics, etc.)
- C80, C50, D50)

Spaciousness and enveloping Intelligibility

1971 Houtgast & Steeneken:
- Speech Intelligibility
- STI (RaSTI, STIPA)

1971 Barron:
- Spatial feeling;
- Enveloping
- SCC

1977 Ando & Kageyama:
- subjective preferences in relation to physical binaural factors
- IACC, ITDG

1972 Damaske & Ando:
- subjectivity of the diffusion and direction of the sound source
- IACC, τ_{IACC}

1983-1997 Sato, Mori, Ando, Cocchi, Farina & Rocco:
- subjective preference with respect to 4 "orthogonal" parameters of the acoustic field
- listening level, ITDG. IACC, τIACC

1890 — 1960 — 1970 — 1980 — 1990 — 2000

AM Radio
Electrical Phonographs

1886 Tainter & Bell:
Invention of the gramophone (recording on disk)

1901 First transatlantic radio transmission

1914 Ford "T"
First car audio system

1904 Marconi:
Radio Patent

1926 John Logie Baird
Invention of Television

1933 Armstrong
Invention of FM

1936 Magnetophone
First magnetic tape recorder

Reel to Reel

1948 12'' Vinyl introduction

1949 AMPEX 300

1954 First portable transistor radio

1952 8-tracks recorder

1956 STEREO tape recordings

1958 First STEREO LP

First stereo
AM/FM/Phono

Dolby Cassettes

1962 Philips
Compact Cassette Tape

1967 TV Color in UK

1969 Dolby-B noise reduction

1971 CPU microprocessor

1978 Sony
Walkman

44.1/16 Digital CD
Dolby Surround, THX
70mm & IMAX

1982 Commodore
Commodore 64

1982 Sony & Philips
Compact Disc (CD)

1985 IXI
First digital audio player

MP3, AC3, DTS 96/24
DVD-A, SACD
5.1 compressed digital system

1992 Sony
MiniDisc (MD)

1995 DVD

1997 MP3
Popularity of MP3 compressed format

1999 Napster
mp3 peer-to-peer sharing

2001 Apple
iPod

Dolby Atmos

What is Dolby Atmos?


Encompassing Sound
Precise Placement
Lifelike Nuance
Breathtaking Sound Quality

24 bit
48/96 KHz

Objects + Beds

Mentre l'uso di oggetti audio fornisce il controllo desiderato per effetti discreti, altri aspetti della colonna sonora di un film funzionano in modo efficace in un ambiente basato sui canali.

A. i "beds" sono submix o stems basati sui canali (5.1, 7.1 o 9.1)

B. gli effetti ambientali e i riverberi traggono effettivamente vantaggio dall'essere inviati a matrici di altoparlanti -> canali invece che oggetti.

Figure 2.2 Object and Bed Combination

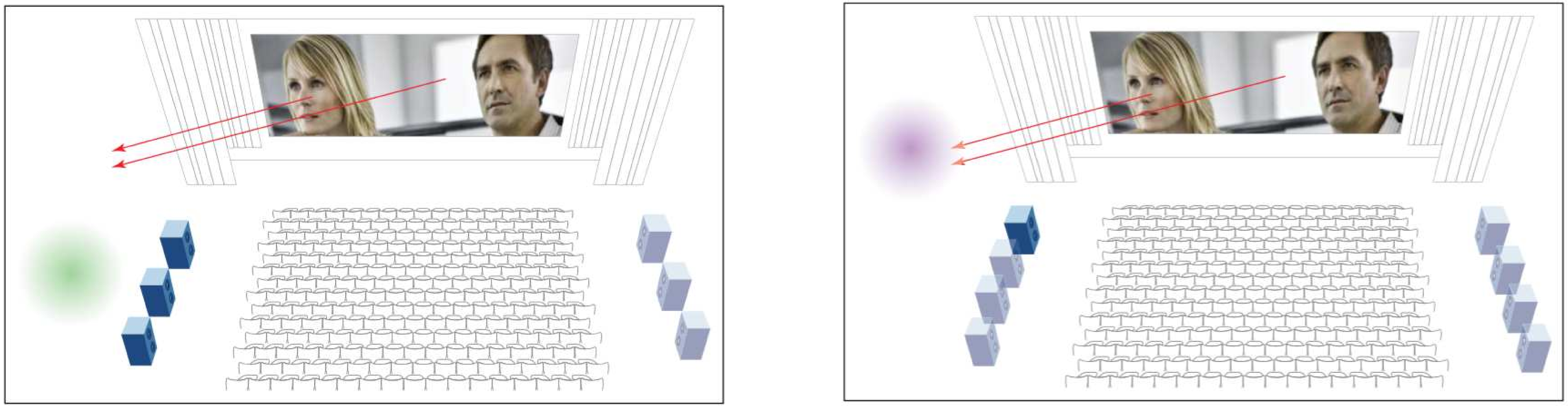

Figure 2.1 Benefits of Increased Surround Resolution for Audio/Visual Coherence

Audio Objects:
elementi sonori (singoli o gruppi) che condividono la stessa posizione fisica nell'auditorium

A. Possono essere statici o in movimento.

B. Controllati da metadati che dettagliano la posizione del suono in un dato momento.

C. Quando gli oggetti vengono monitorati o riprodotti in una sala, vengono renderizzati in base ai metadati posizionali utilizzando gli altoparlanti presenti, anziché essere necessariamente emessi su un canale fisico.

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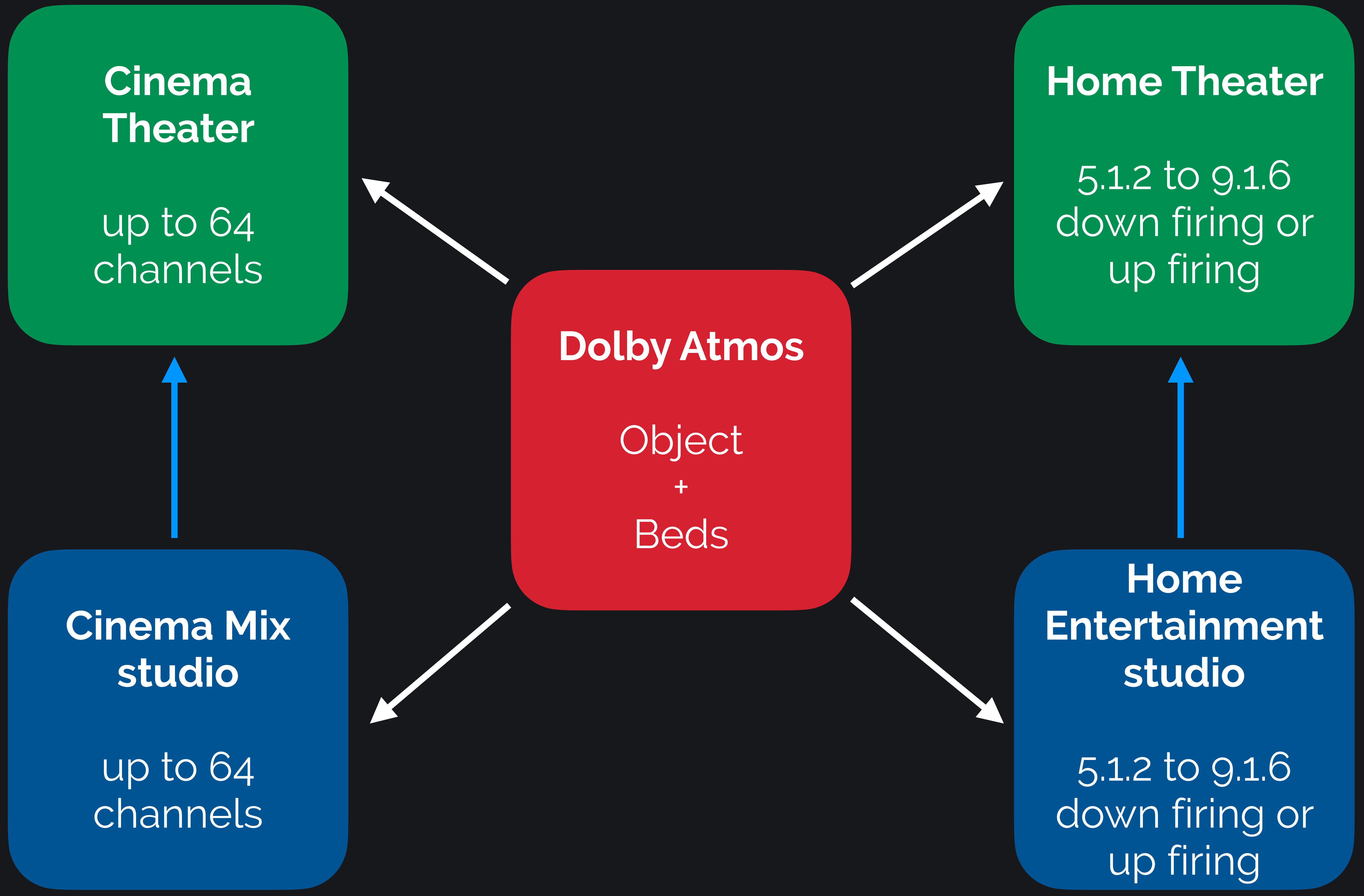
Interaction between Dolby Atmos configs.



A. Different speaker locations can differ in effectiveness depending on the theatre design.

B. Dolby Atmos is adaptable and able to playback accurately in a variety of auditoria *(highly flexible configurations)*.

C. The speakers layout remains compatible with previous cinema systems.

D. In contrast to using all 64 output channels available, the Dolby Atmos format can be accurately rendered in the cinema to other speaker configurations such as 7.1, allowing the format to be used in existing theatres with no change to amplifiers or speakers.

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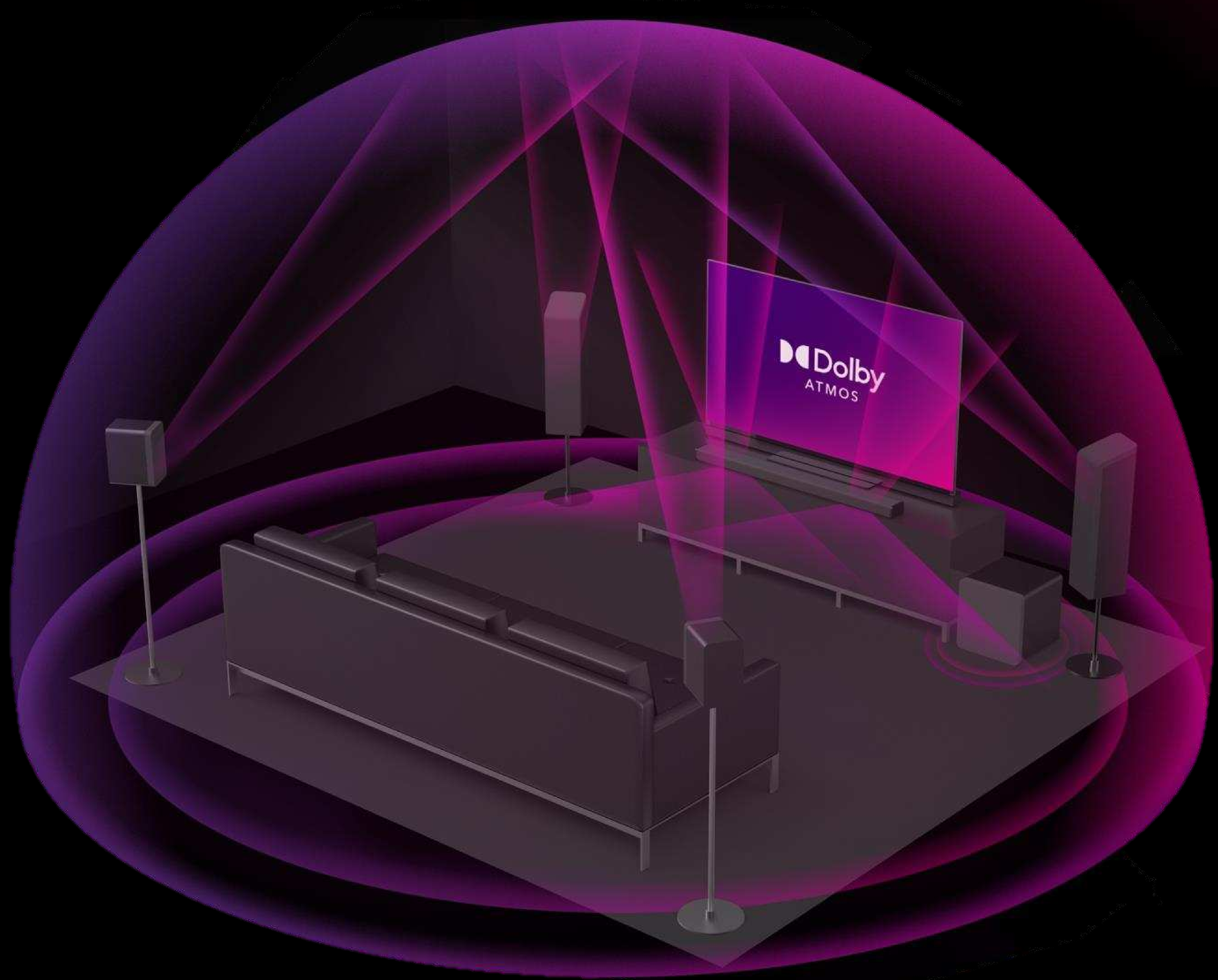
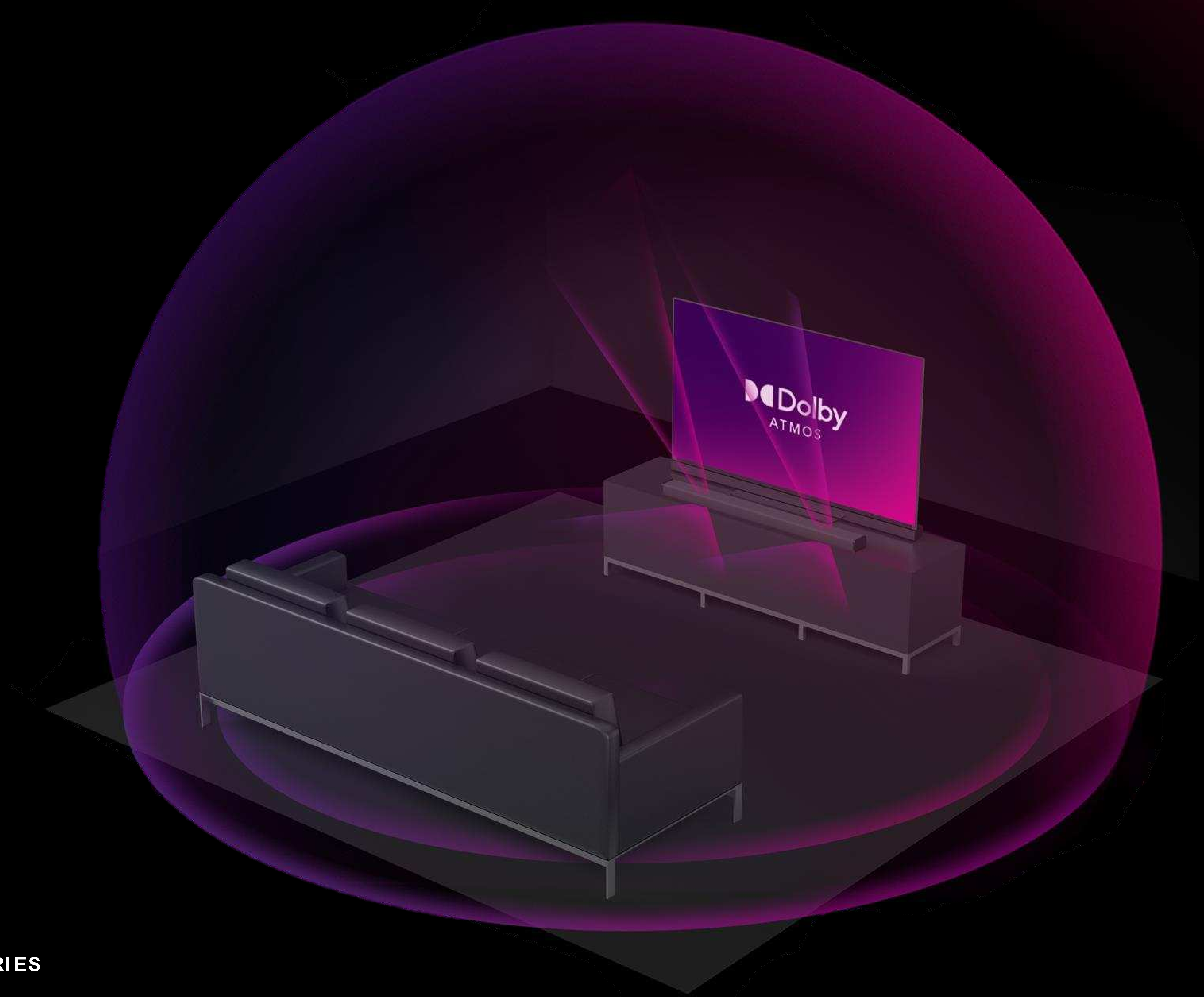
Come ascoltare la musica in Dolby Atmos?

Dolby Atmos at Home

Dolby Atmos at Home



Dolby Atmos at Home



Dolby Atmos for Headphones

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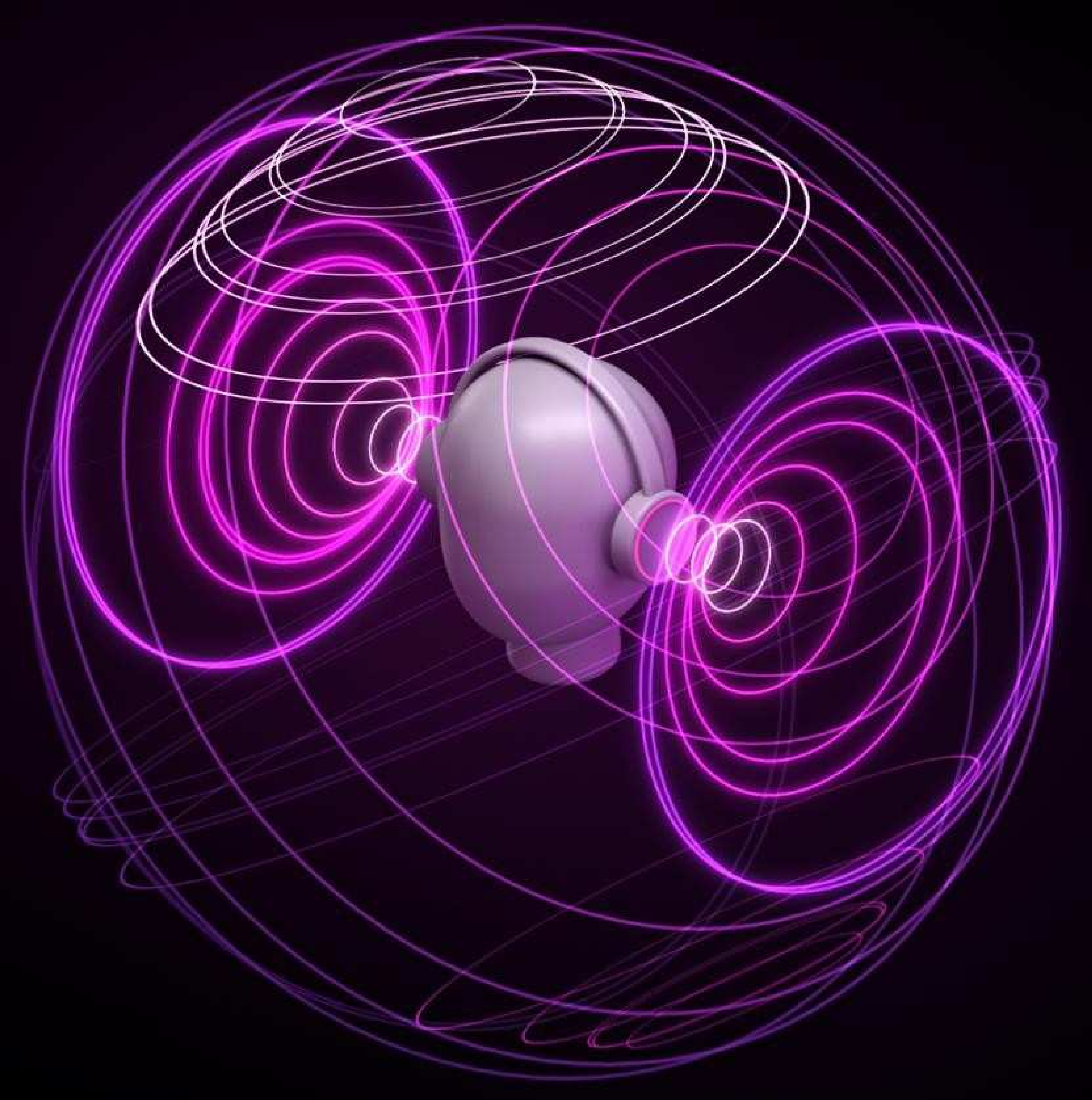
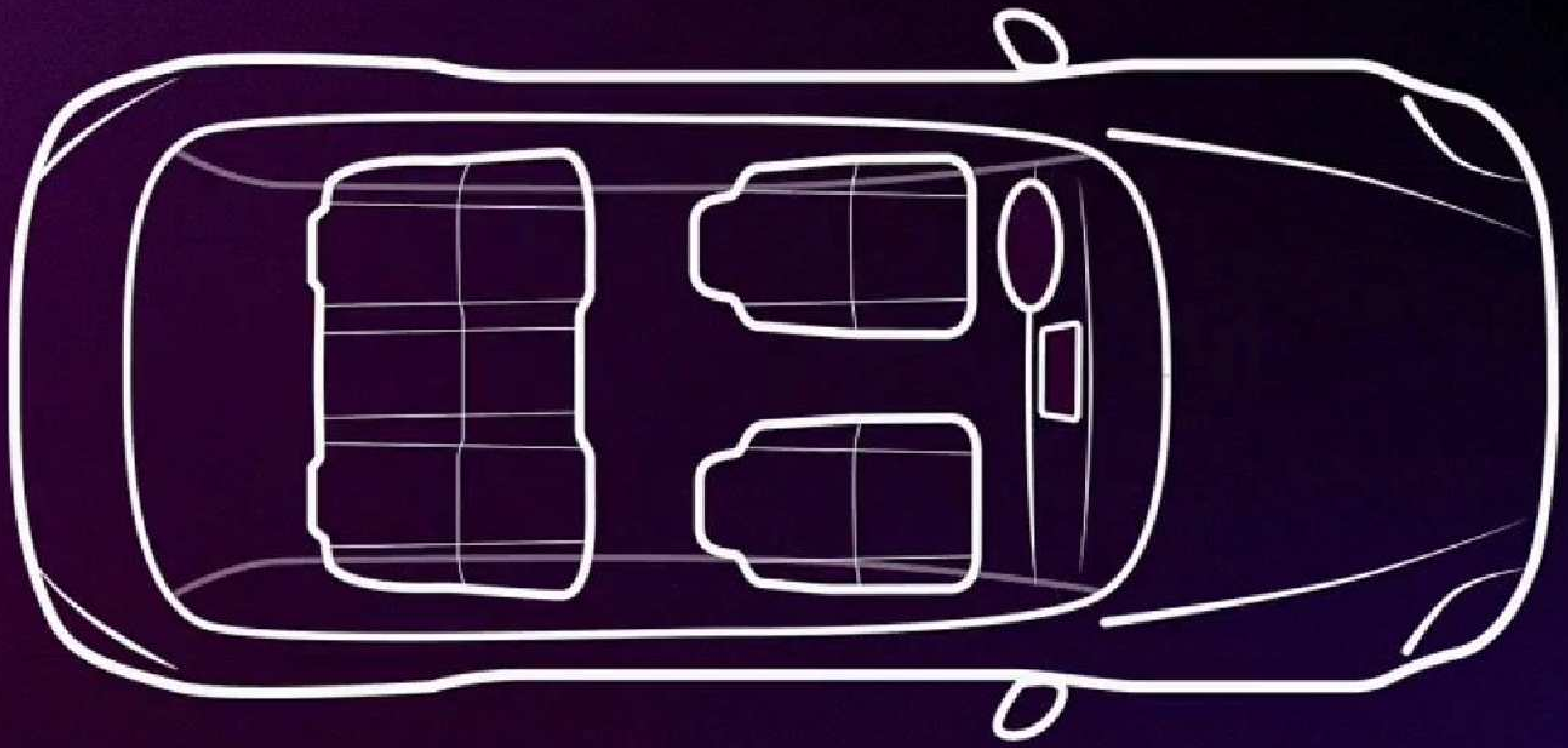


...and in Cars



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92% of Billboard's Top 100 artists have been released in Dolby Atmos


Taylor Swift

New Jeans

SZA

Doja Cat

Bad Bunny

The Weeknd

Rihanna

Post Malone

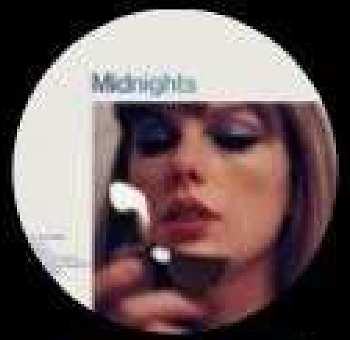
Miley Cyrus

Harry Styles

84% of Billboard's Hot 100 songs have been released in Dolby Atmos


Morgan Wallen
Last Night

Miley Cyrus
Flowers

SZA
Kill Bill

Taylor Swift
Anti-Hero

Metro Boomin
Creepin'

Rema
Calm Down

The Weeknd
Die For You

Luke Combs
Fast Car

SZA
Snooze

David Guetta
I'm Good

2024 Dolby Atmos Music content ecosystem

ISLAND
Interscope Records
ATLANTIC
Glassnote
Capitol Records
EMI
Parlophone
BEGGARS
MAD DECENT
COOKING VINYL
FUELED BY RAMEN
SM ENTERTAINMENT
REPRISE RECORDS
DECCA RECORDS
armada
Mercury Records
HOSPITAL
300
EMPIRE
MATADOR
republic records
WARNER RECORDS
NINJA TUNE
Transgressive

KONTOR NEW MEDIA
tuneCORE
AWAL
HORUS MUSIC
FLUXUS
AUDIO SALAD
FUGA
ada

Music
amazon music
TIDAL
Melon
oppo

Dolby
ATMOS

WARNER MUSIC
SONY MUSIC
UNIVERSAL
UNIVERSAL MUSIC GROUP
NAXOS
Polydor
Def Jam recordings
RHINO
AFTERMATH ENTERTAINMENT
ROADRUNNER RECORDS
SIRE
A&M RECORDS
Virgin MUSIC
MINISTRY OF SOUND
nonesuch
88↑
[PIAS]
BLUE NOTE
Domino
BMG
mau5trap
believe.

believe.
Bitmax
!K7MUSIC
AVID
cdbaby
The Orchard
VYDIA
INGROOVES MUSIC GROUP
iDOL
DISTROKID
REBEAT Music Enterprise Services
Golden Dynamic

anghami
丹拿之声
酷狗音乐
NIO MUSIC
潮汐
gaana
hungama Music
网易云音乐
genie

Over 3B Dolby Atmos products are in the market

SONOS
JBL
SAMSUNG
LG
BOSE

NVIDIA
VIZIO
SONY
PHILIPS

Home
Sound Bar, TV, Gaming, Home Theater, DMA

Microsoft
SAMSUNG
Lenovo
DELL
ASUS
xiaomi

PC

SAMSUNG
SONY
oppo
Lenovo

Mobile

SONOS
amazon
JBL

Smart Speaker

Mercedes-Benz
LUCID
NIO
VOLVO
Polestar

Automotive

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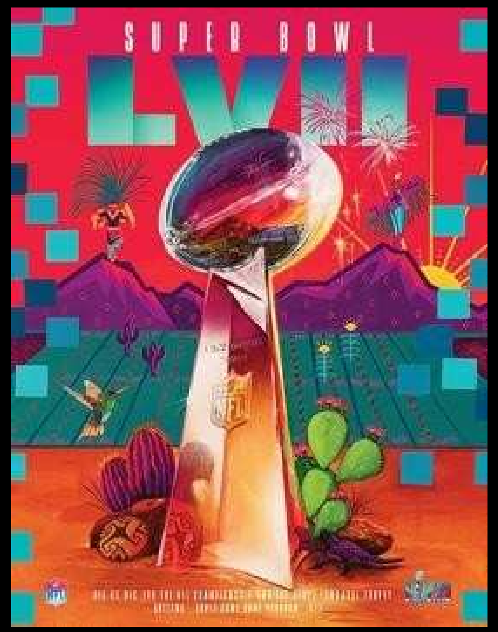
Create

Dolby enhances content across myriad categories and genres, with more emerging all the time

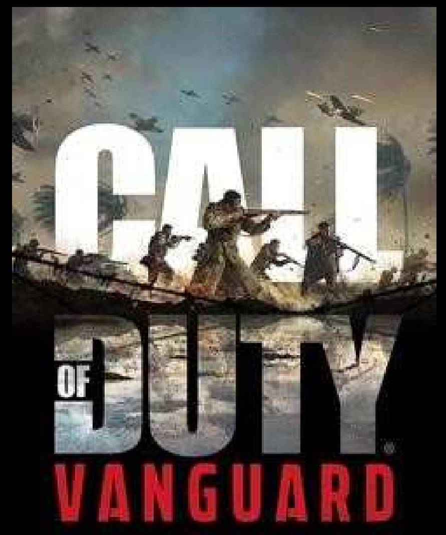
TV + 17,300 | + 7,000

Movies + 3,000 | + 1,900

Sports



Games + 160 | + 100



Music



Podcasts

■ Dolby Vision ■ Dolby Atmos

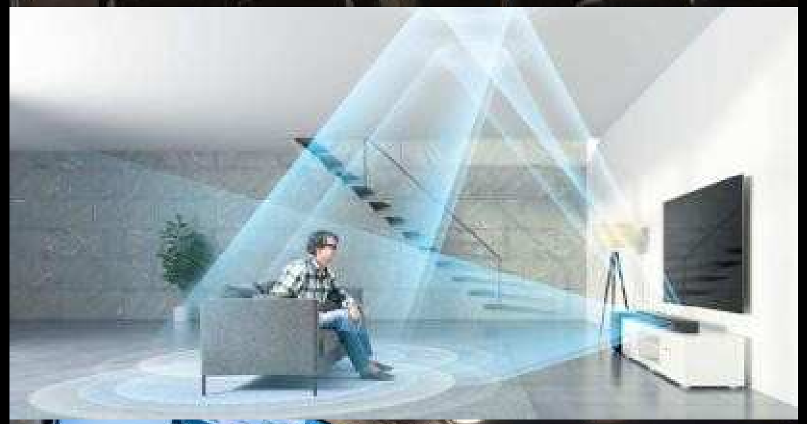
… and is distributed by leading global and regional streaming services

Distribute

Dolby Atmos Content Categories

Cinema

Home Entertainment



Live-Broadcast

Games

Music

TIDAL

audible

amazon music

Podcast

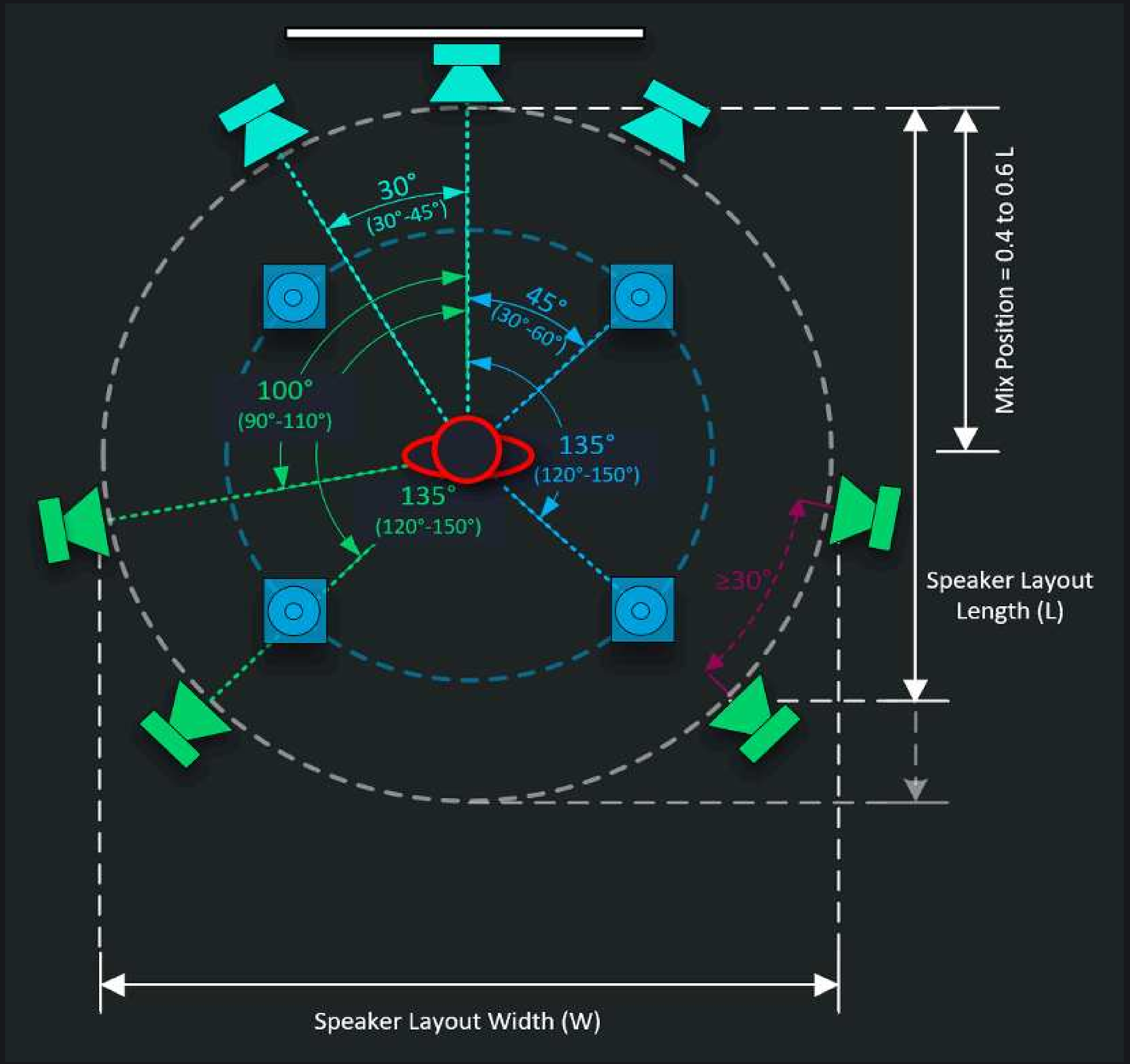
Dolby Atmos Music (HE) Studio

Requirement generali

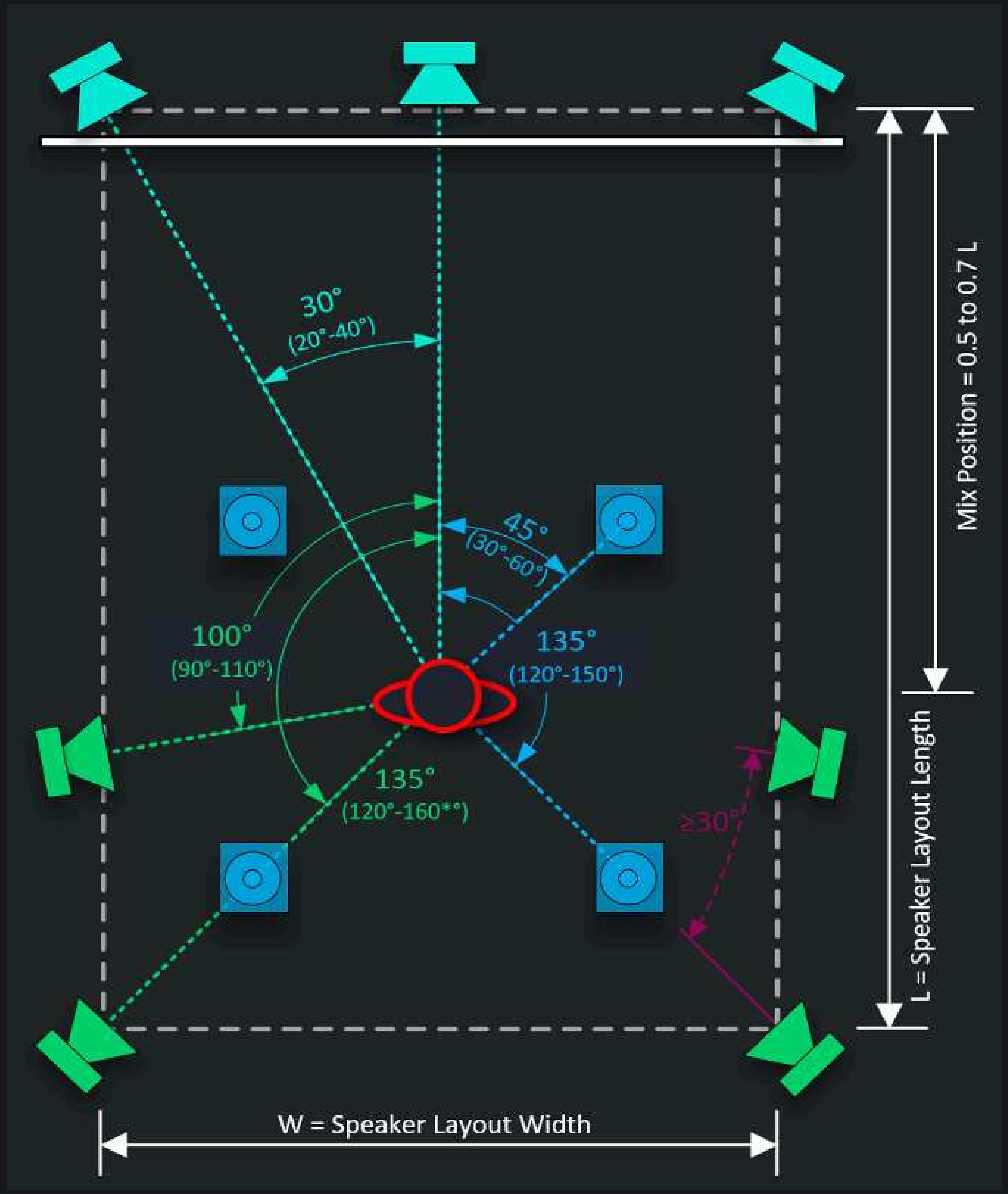
1. Dimensioni studio
2. Caratteristiche acustiche dello studio
3. Sistema audio (7.1.4 +)
   (con angolazioni precise)
4. SPL impianto audio > 85 dB(C)
   (+20 dB headroom!!!)
5. Dolby software authoring tools
   DAR
6. Sistema di Calibrazione per commissioning

per assicurare una compatibilita' d'ascolto fra studi diversi, e' opportuno calibrare gli studio Atmos Music seguendo un approccio specifico in termini di SPL e curva di risposta – che dara' comunque flessibilita' operativa.

3. Sistema Audio
(Angolazioni precise!)

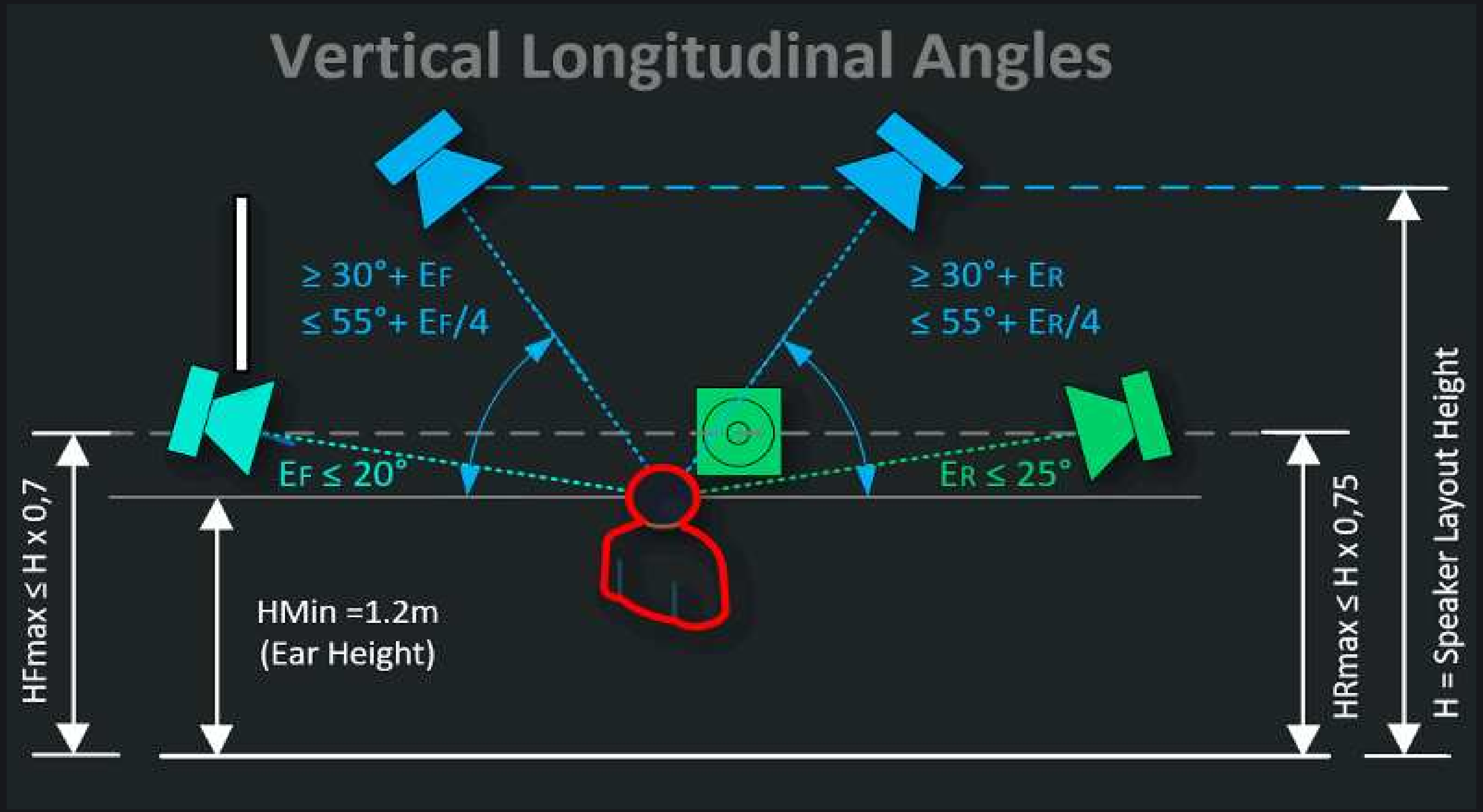


Layout Equidistante

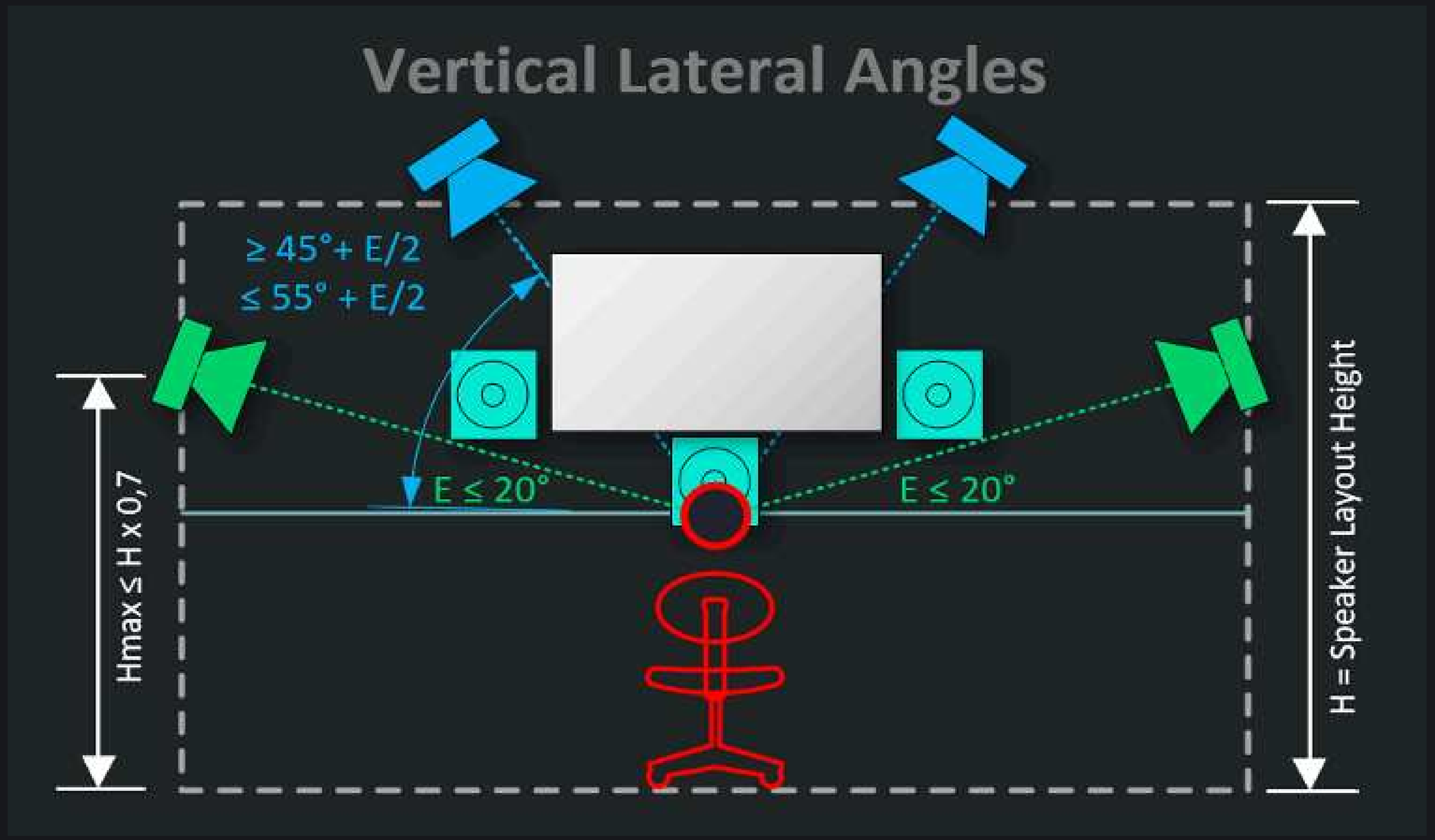


Layout Ortogonale

3. Sistema Audio
(Sezioni laterali)



Sezione frontale, angoli e tolleranze

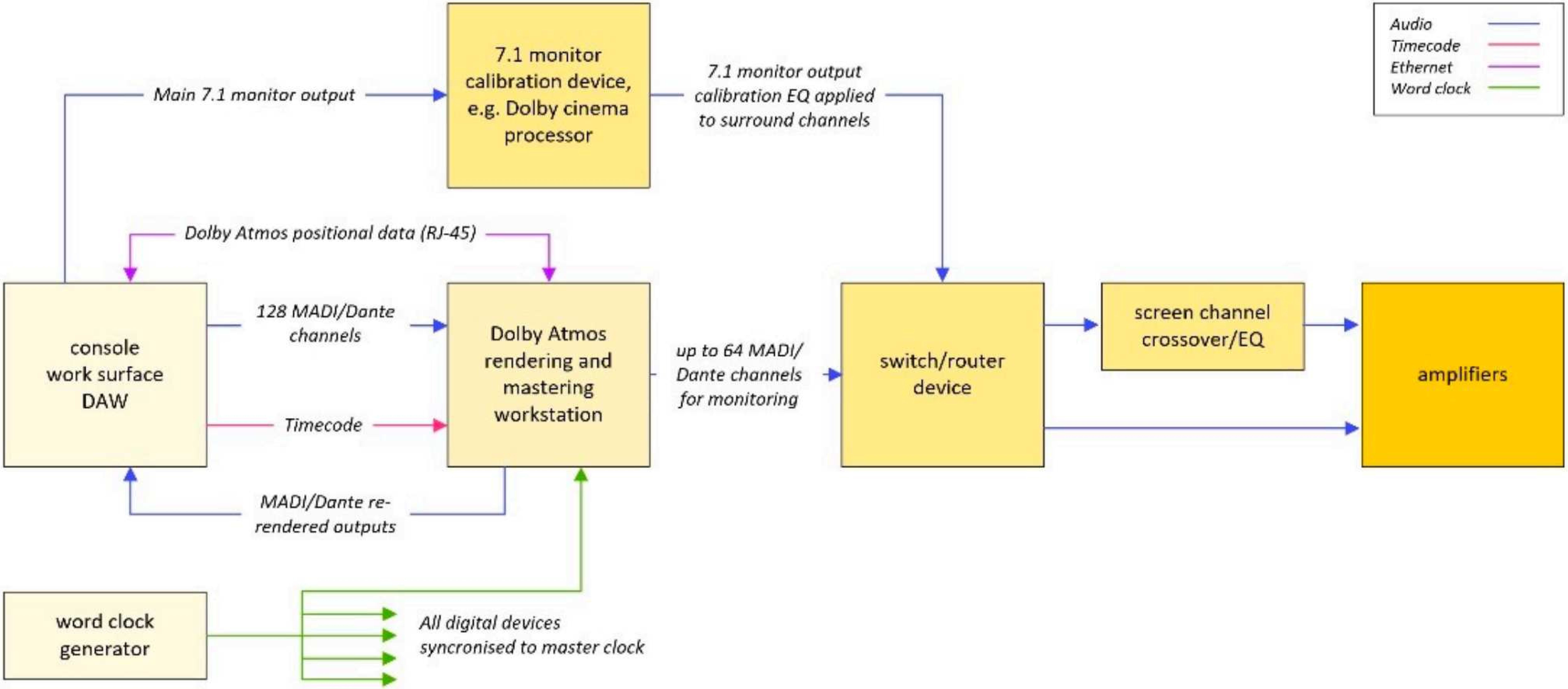


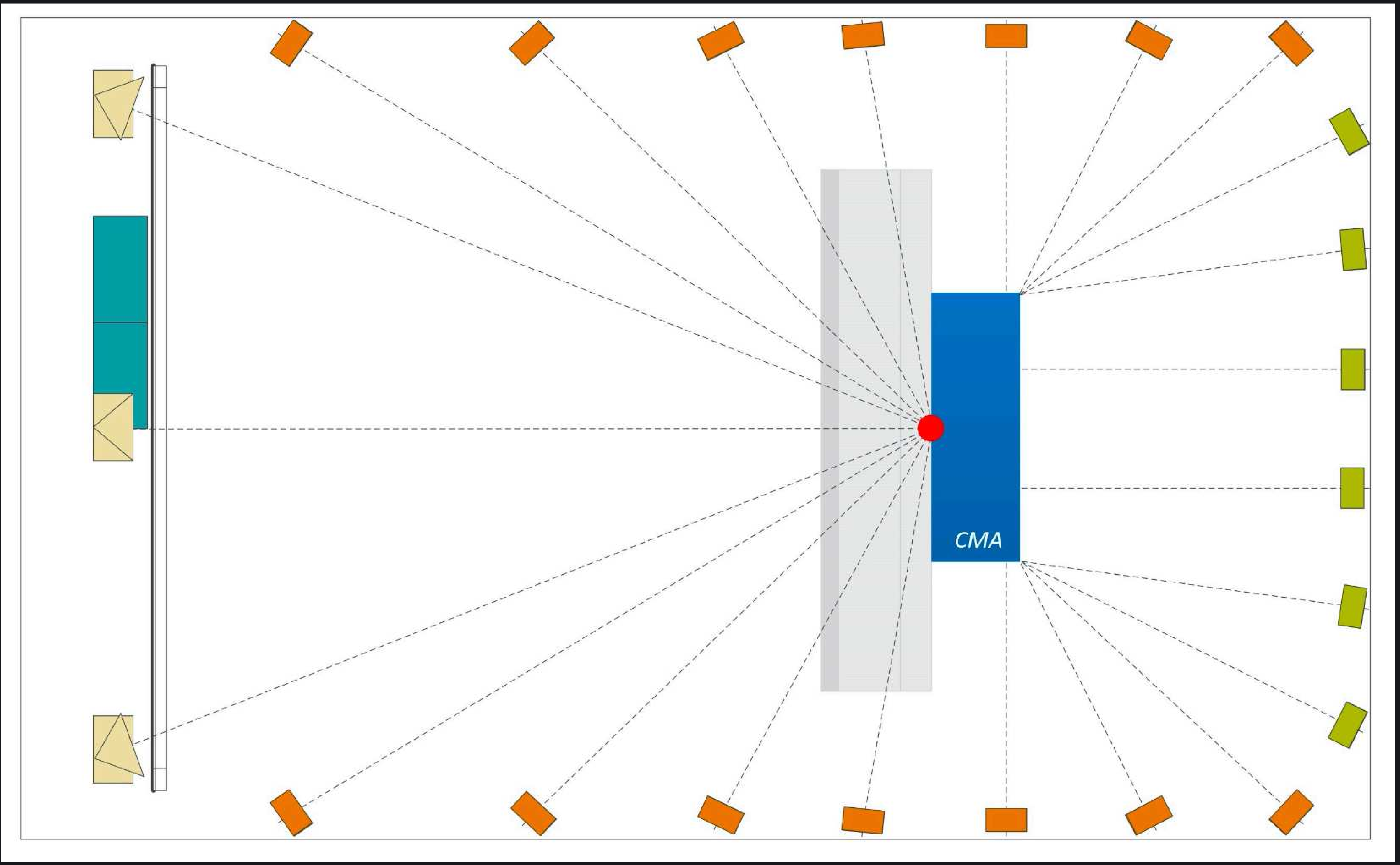
Sezione laterale, angoli e tolleranze

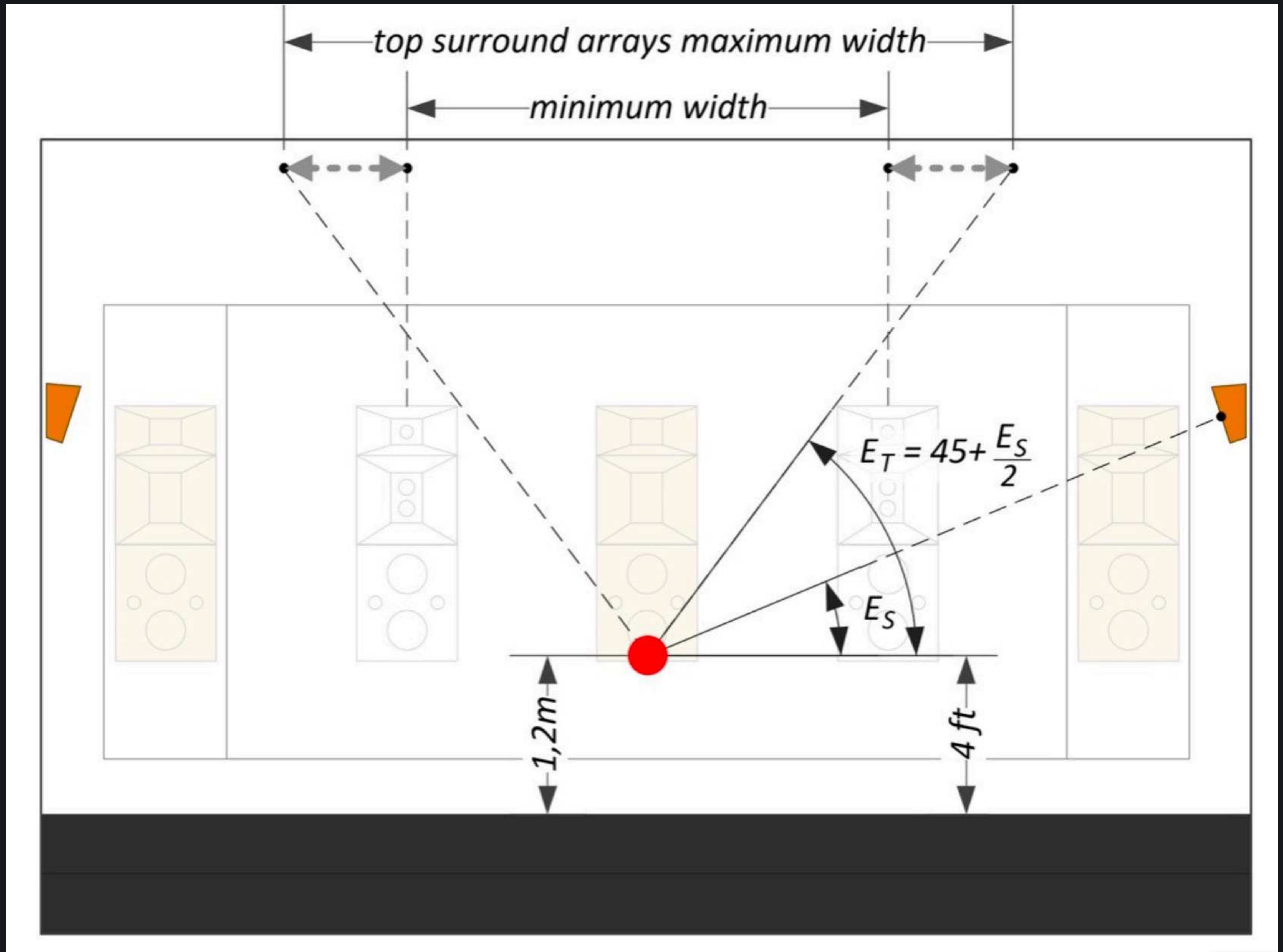
Dolby Atmos Theatrical

Requirement generali

1. Dimensioni studio > 45m² ; 150m³
   Distanza minima mix/screen > 5m
   L > 8m; W > 5.5m; H > 3m
   Room ratio
2. Caratteristiche acustiche dello studio
3. Sistema audio theatrical
   (con angolazioni precise)
4. SPL impianto audio > 85 dB(C)
   (+20 dB headroom!!!)
5. Dolby Cinema Processor
   routing del segnale digitale complesso


Audio
Timecode
Ethernet
Word clock
7.1 monitor calibration device, e.g. Dolby cinema processor
Main 7.1 monitor output
7.1 monitor output calibration EQ applied to surround channels
Dolby Atmos positional data (RJ-45)
console work surface DAW
128 MADI/Dante channels
Timecode
Dolby Atmos rendering and mastering workstation
up to 64 MADI/ Dante channels for monitoring
switch/router device
screen channel crossover/EQ
amplifiers
MADI/Dante re-rendered outputs
word clock generator
All digital devices syncronised to master clock


CMA


top surround arrays maximum width
minimum width
$E_T = 45 + \frac{E_S}{2}$
E_S
1,2m
4 ft

DARDT
Dolby Atmos Room Design Tool

È il file excel con macro sviluppato da Dolby per configurare una sala in Dolby Atmos, ce ne sono di diversi tipi (theatrical Home Entertainment e Music)

A. Configurazione layout monitor, dimensioni, angoli e delay rappresenta velocemente il layout

B. Configurazione e verifica SPL

C. Configurazione equipment

D. Analisi e linea guida per il tempo di riverberazione ottimale

E. Strumento di analisi acustica (room modes, boundary induced cancellation Analysis, Room dimensions ratio analysis)

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Dolby Atmos Music – DARDT

Dolby Atmos Studio | Music - Advanced Features

Units
metric

Working Space Dimensions (m)			
Length	Width	Height	Mix Position
5	4,07	2,85	1,96

DARDT Help Guides
- click cell and scroll list to see guides -

Monitoring Level
85 dB

Speaker Layout
7.1.4

Speaker Positions — Switch to x-y-z entry — Reset

		x (m) *Distance left/right from center line*	y (m) *Distance from front of working space*	z (m) *Height from floor*	Angles from Mix Position to Speakers: Horizontal (lateral)	Up Forwards/ Backwards	Up Left/ Right
Center		0,00	0,30	1,20	0°	0°	
Left/Right		0,96	0,30	1,20	30°	0°	
LFE *Subwoofers clustered*	2 units	0,48	0,30	0,30			
Left/Right Surround		1,74	2,27	1,35	100°		5°
Left/Right Rear Surround		1,74	4,70	1,44	148°	5°	
Left/Right Top Front		1,13	0,83	2,55	45°	50°	50°
Left/Right Top Rear		1,13	3,09	2,55	135°	50°	50°
BM Sub							

Speaker Model — *To select speakers, open dropdown lists below* — Reset

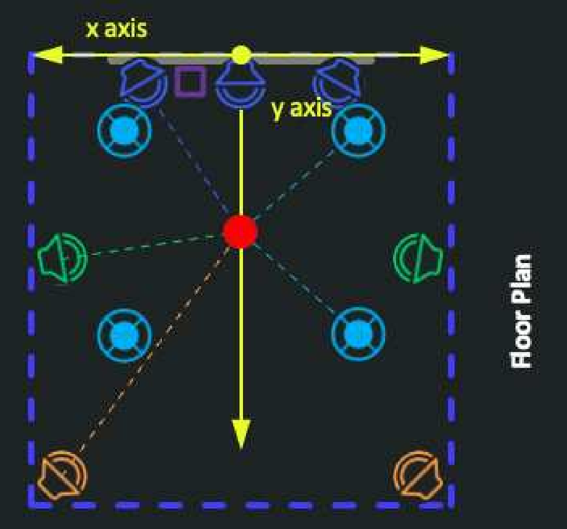
	Manufacturer Filtering: - All - (*Uncheck below checkboxes for passive speakers*)	Watts	Sensitivity	Ω	Watts required	Active Speaker Max Peak SPL	Headroom above Target SPL
Center	PMC 6-2					118,0 dB	4,6 dB
Left/Right	PMC 6-2					118,0 dB	3,3 dB
LFE	PMC 8-2 SUB					124,0 dB	3,2 dB
Left/Right Surround	PMC Ci65	150 W	84,0 dB	4	125 W		0,8 dB
Left/Right Rear Surround	PMC Ci65	150 W	84,0 dB	4	422 W		-4,5 dB
Left/Right Top Front	PMC Ci45	110 W	84,0 dB	8	175 W		-2,0 dB
Left/Right Top Rear	PMC Ci45	110 W	84,0 dB	8	175 W		-2,0 dB
BM Sub							

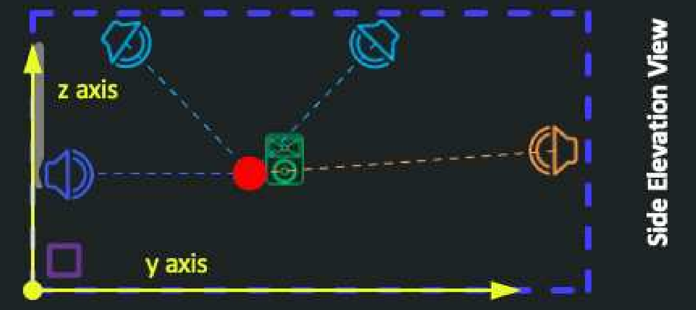
Amplifier Model — Reset

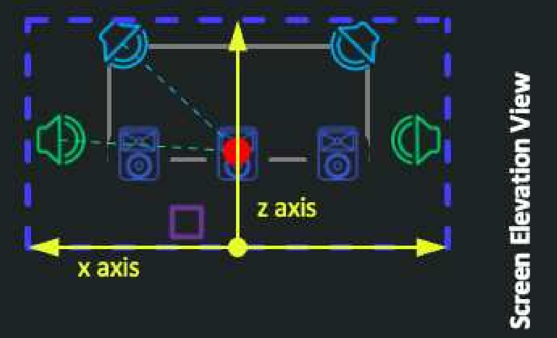
	Amplifier Model	Amplifier Mode	Watts available	Amplifier Headroom	Delay (*Visualize*)
Center					4,6 ms
Left/Right					3,9 ms
LFE					3,8 ms
Left/Right Surround		individual			4,3 ms
Left/Right Rear Surround		individual			0,0 ms
Left/Right Top Front		individual			3,4 ms
Left/Right Top Rear		individual			3,4 ms
BM Sub					

Resulting Distances between Speakers

C to Lrs/Rrs line distance (baffle to baffle) 4,4 m
Ls to Rs distance (baffle to baffle) 3,48 m
Floor to overhead distance (floor to baffle) 2,55 m
mix position ratio 0,38







View Options

- [ ] Check to switch off hover over images
- [x] Enable Extra Equipment Entry sheet
- [x] Enable Acoustic Analysis sheet
- [x] Enable Commissioning sheet
- [x] Enable Design Review sheet

Go to Design Printout sheet

Design Feedback Messages: All

See Help Guide dropdown for instructions on how to make suggested changes, and hover over images to understand the required entry for each Speaker Position cell.
Note, where design feedback messages refer to left side only, they equally apply to the right side.

Left/Right Rear Surround

- Using the manufacturer's data, the chosen speaker is not suitable for the chosen monitoring level. Consider lowering the monitoring level or selecting a more powerful speaker.

Left/Right Top Front

- Speaker headroom is less than the recommended value. A more powerful speaker model may be beneficial.

Left/Right Top Rear

- Speaker headroom is less than the recommended value. A more powerful speaker model may be beneficial.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Case studies

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Cinecittà Sala A

Roma

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Cinecittà Sala A

Roma

Cinecittà Sala A

Roma

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Cinecittà Sala A

Roma

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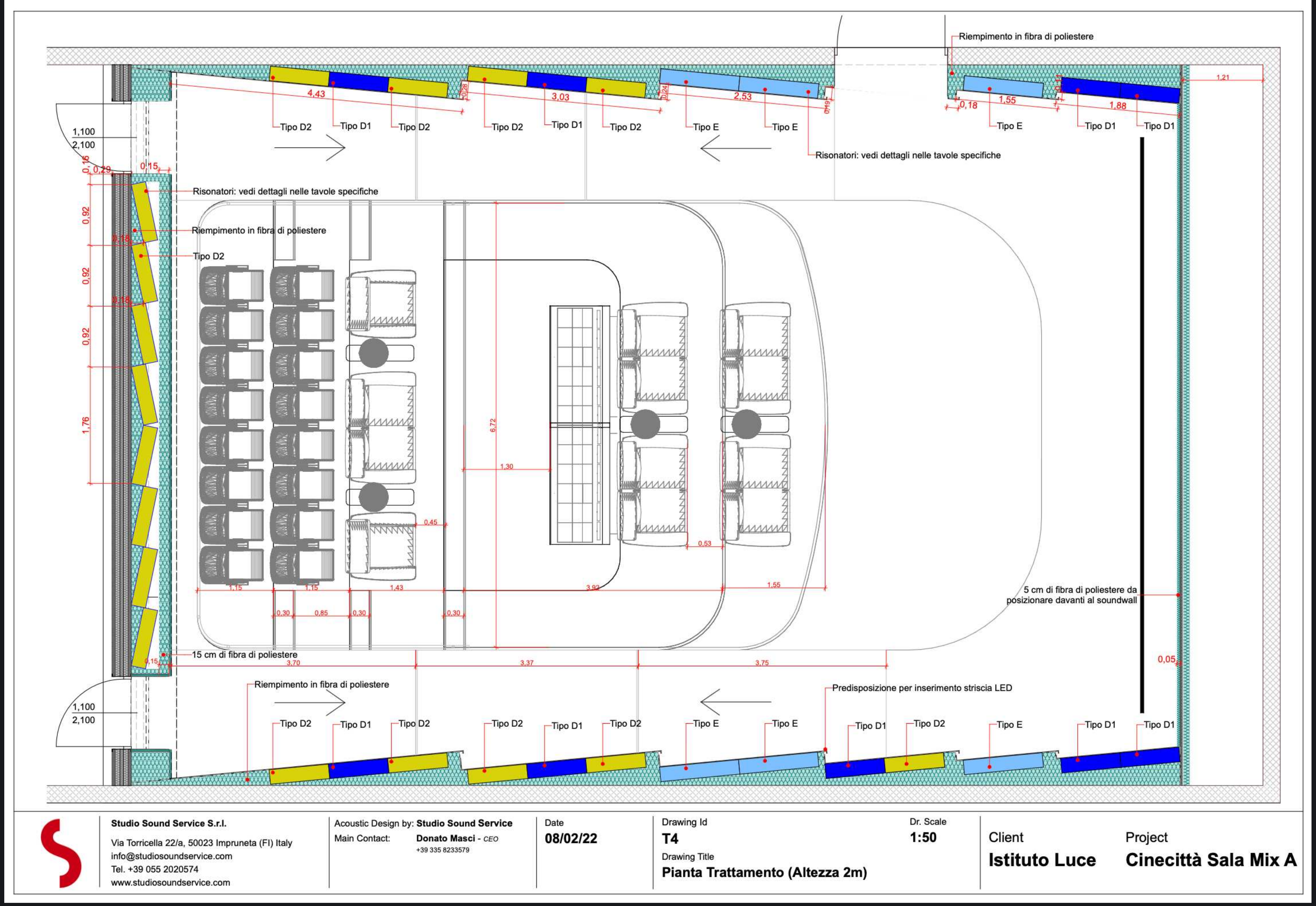

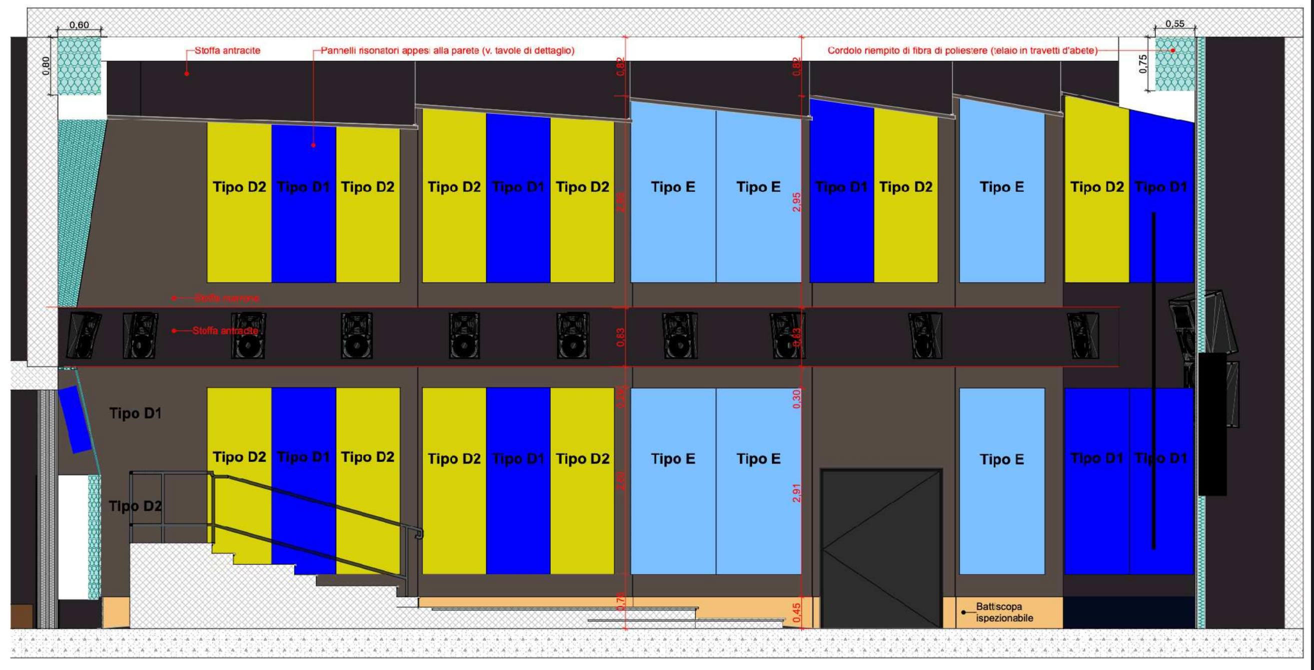

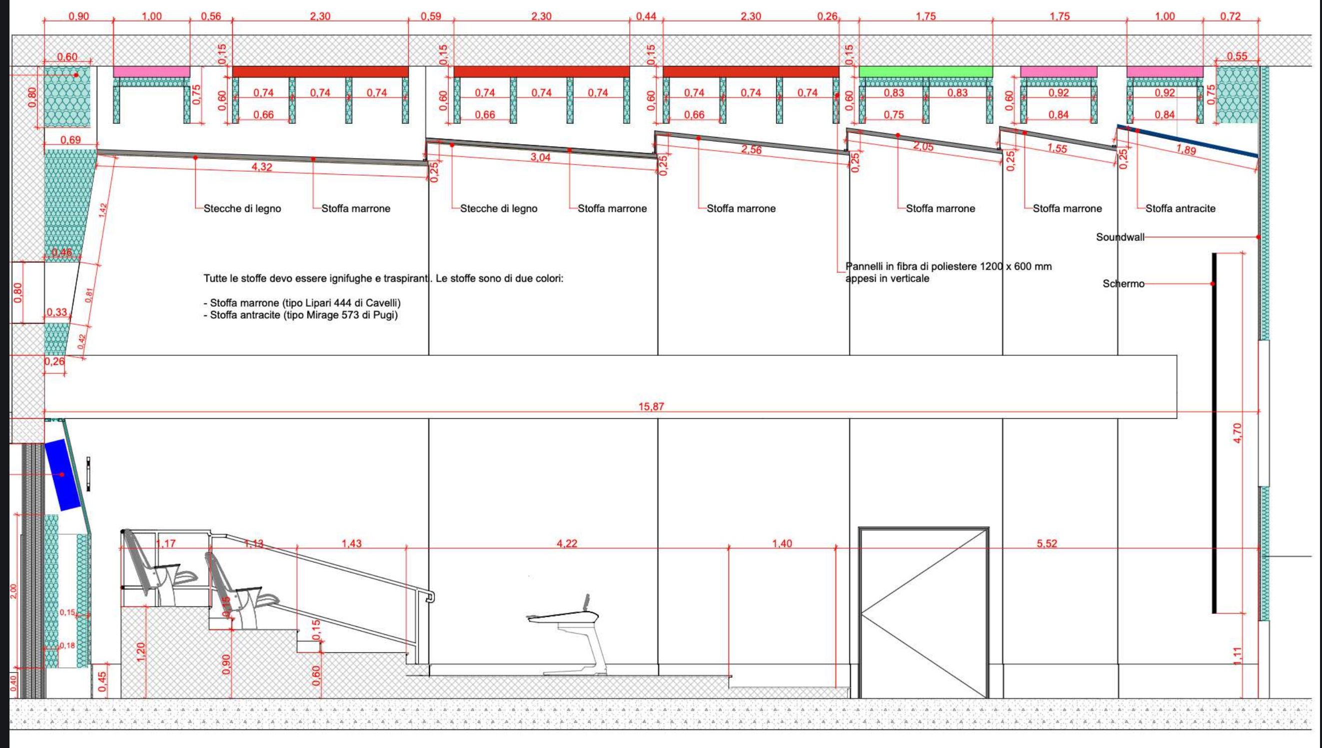

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Acoustic Treatment

Low Frequency Absorption

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Cinecittà Sala E

Roma

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Cinecittà Sala E

Roma

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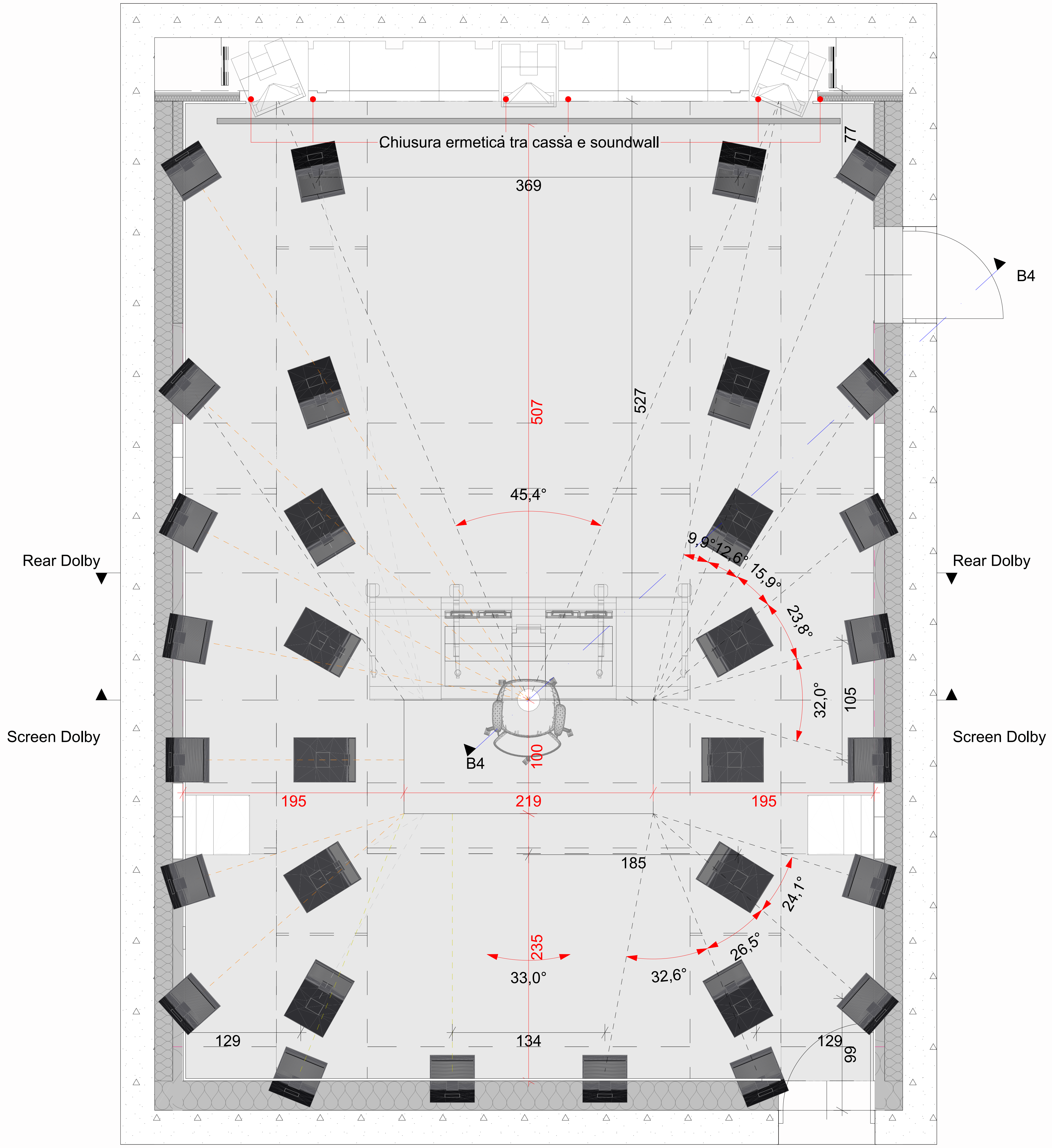
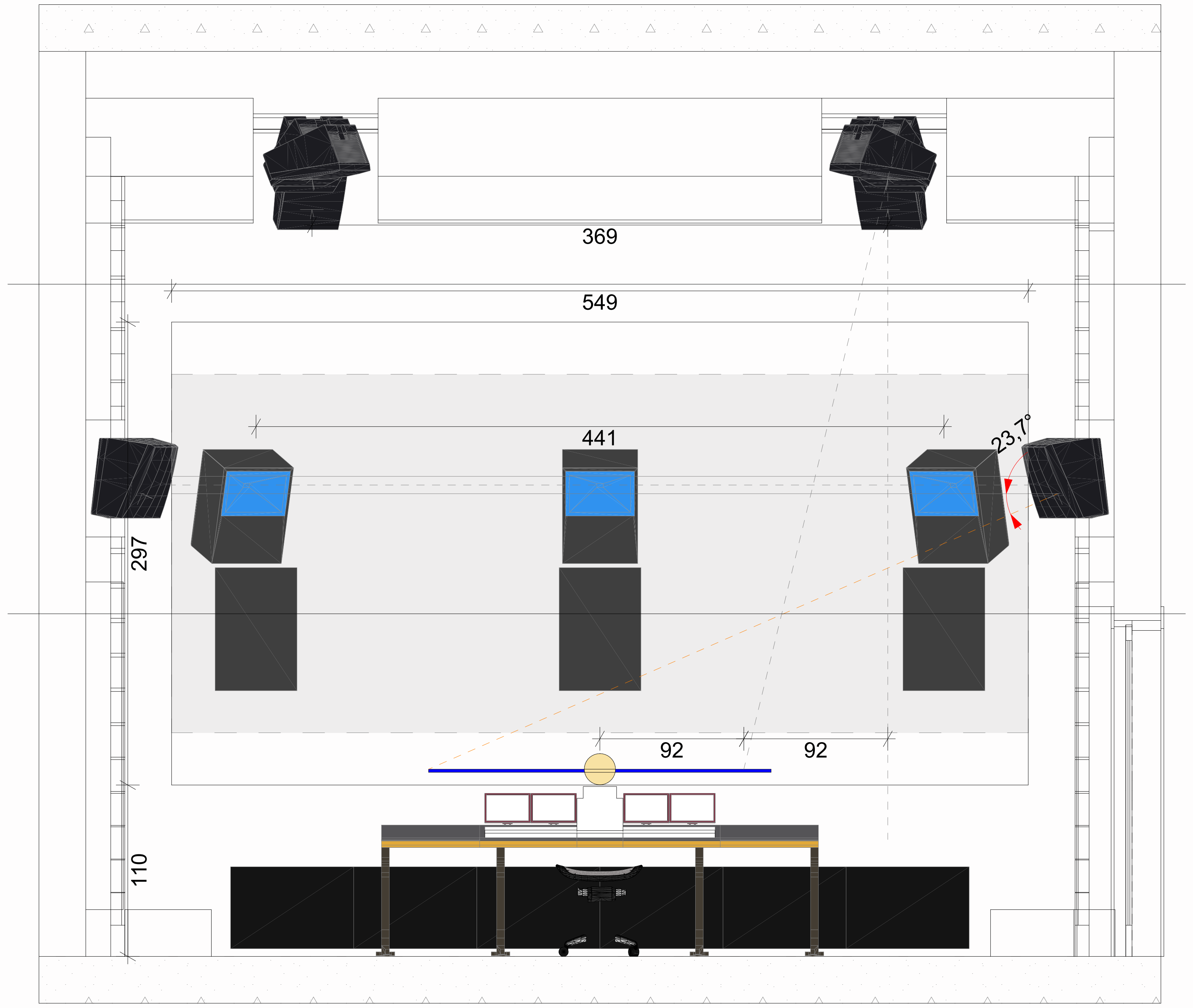
Cinecittà Sala E

Roma



Layout

1:50



Screen elevation

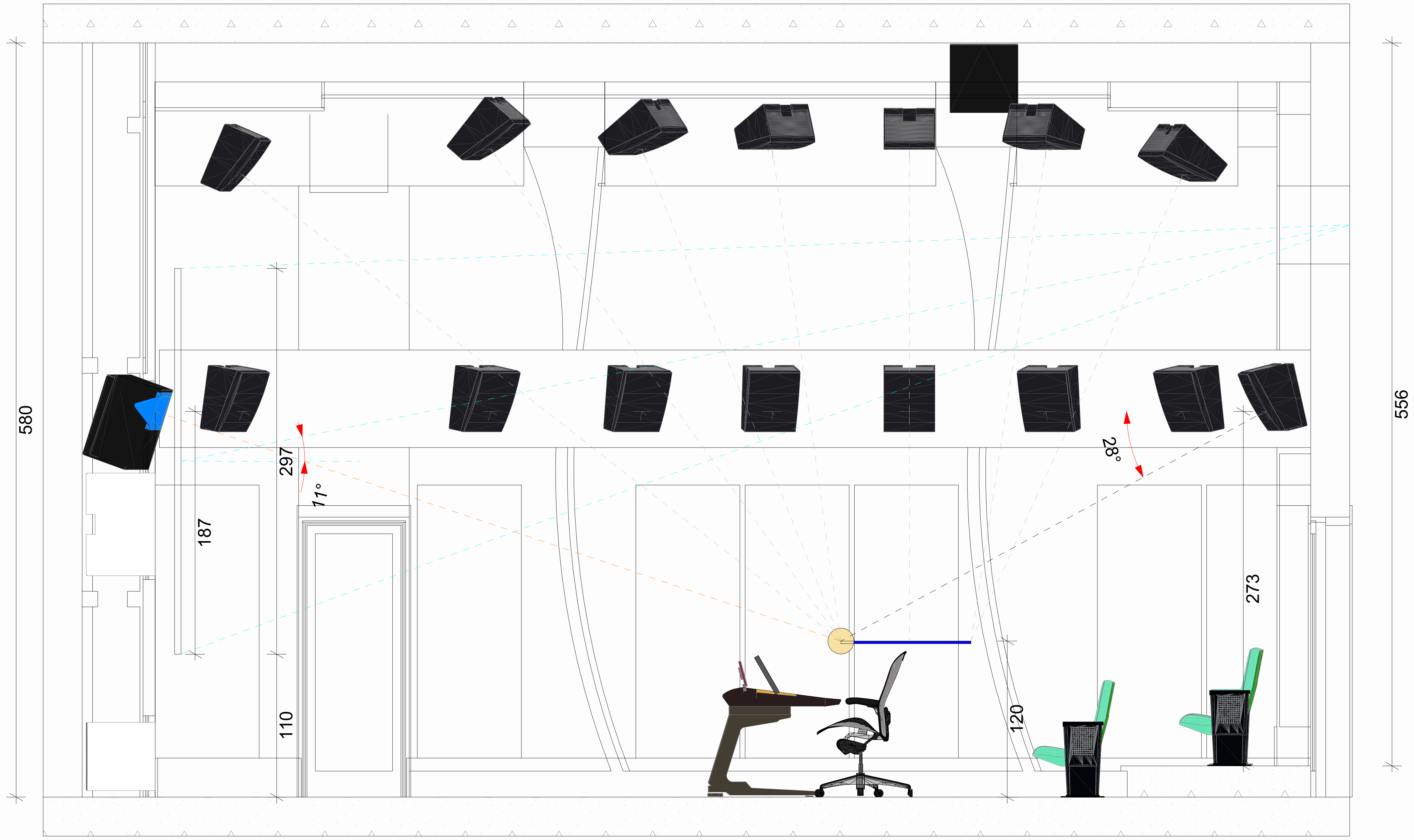
1:50

Studio Sound Service S.r.l.

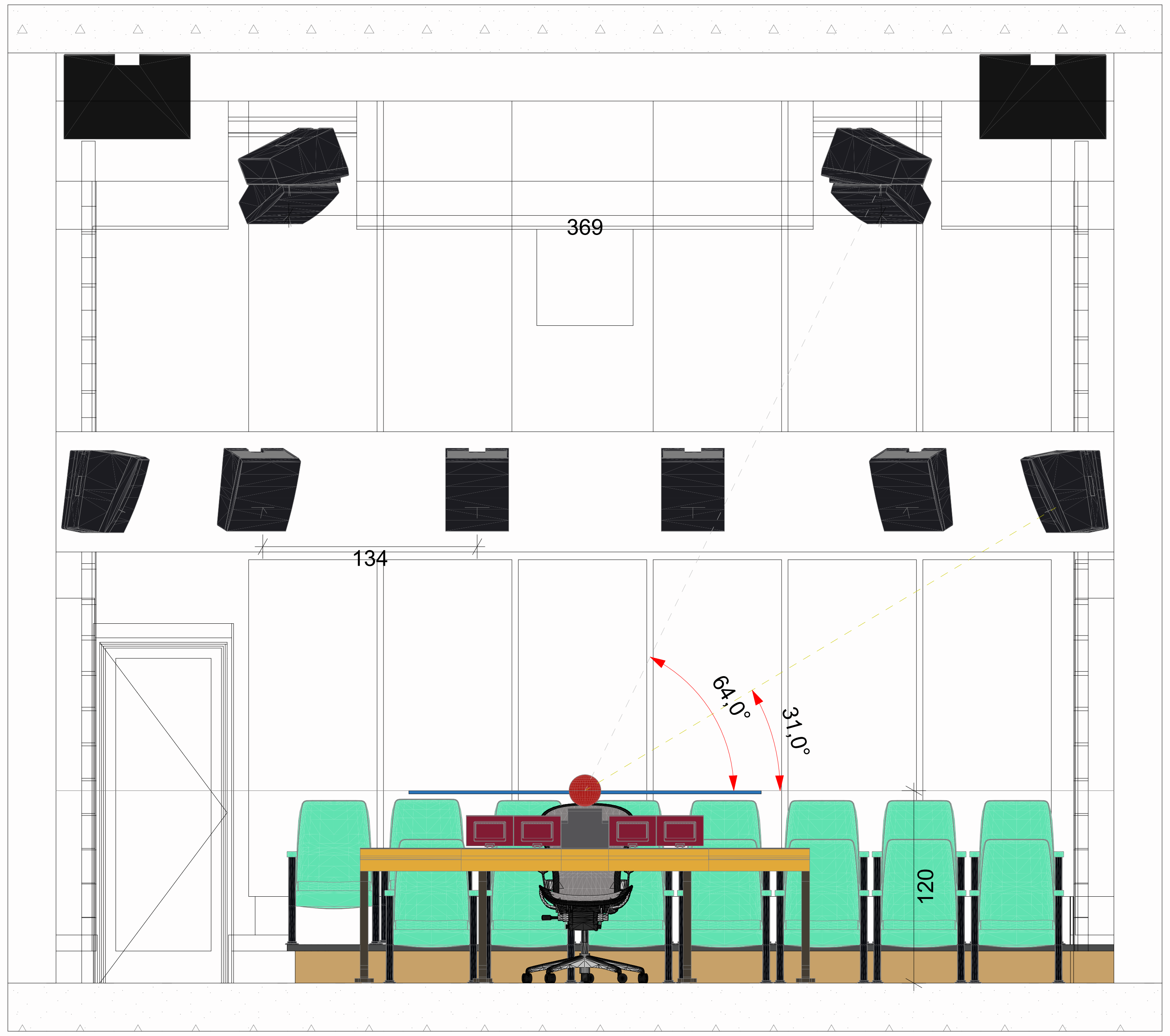
Via Torricella 22/a, 50023 Impruneta (FI) Italy
info@studiosoundservice.com
Tel. +39 055 2020574
www.studiosoundservice.com

Acoustic Design: **Studio Sound Service**

Date	Drawing Number	Title	Dr. Scale	Client	Project
11/12/2023	**19 / 21**	**Dolby** Layout and sections	**1:50**	**Cinecittà**	**Sala E**
Revision **Definitive**					



Side elevation 1:50



Rear elevation 1:50

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Acoustic Design: **Studio Sound Service**

Date	Drawing Number	Title	Dr. Scale	Client	Project
11/12/2023	**20 / 21**	**Dolby** Sections	**1:50**	**Cinecittà**	**Sala E**
Revision **Definitive**					

Dolby Audio Room Design Tool

DARDT Version 5.3.11

This tool is intended to help with the selection of monitoring equipment for use in cinemas and studios, for correct replay of the Dolby Atmos theatrical sound format. The tool does not ensure full approval of the selected equipment.

The equipment needs to be approved in conjunction with Dolby Atmos loudspeaker configuration plans by our team of Dolby Atmos design approvers. Please contact your regional Dolby sales manager for more information.

Click here for **Dolby Cinema Support Training Videos**

Show Measurements Guide

1 **Measure the Room and enter the Data***

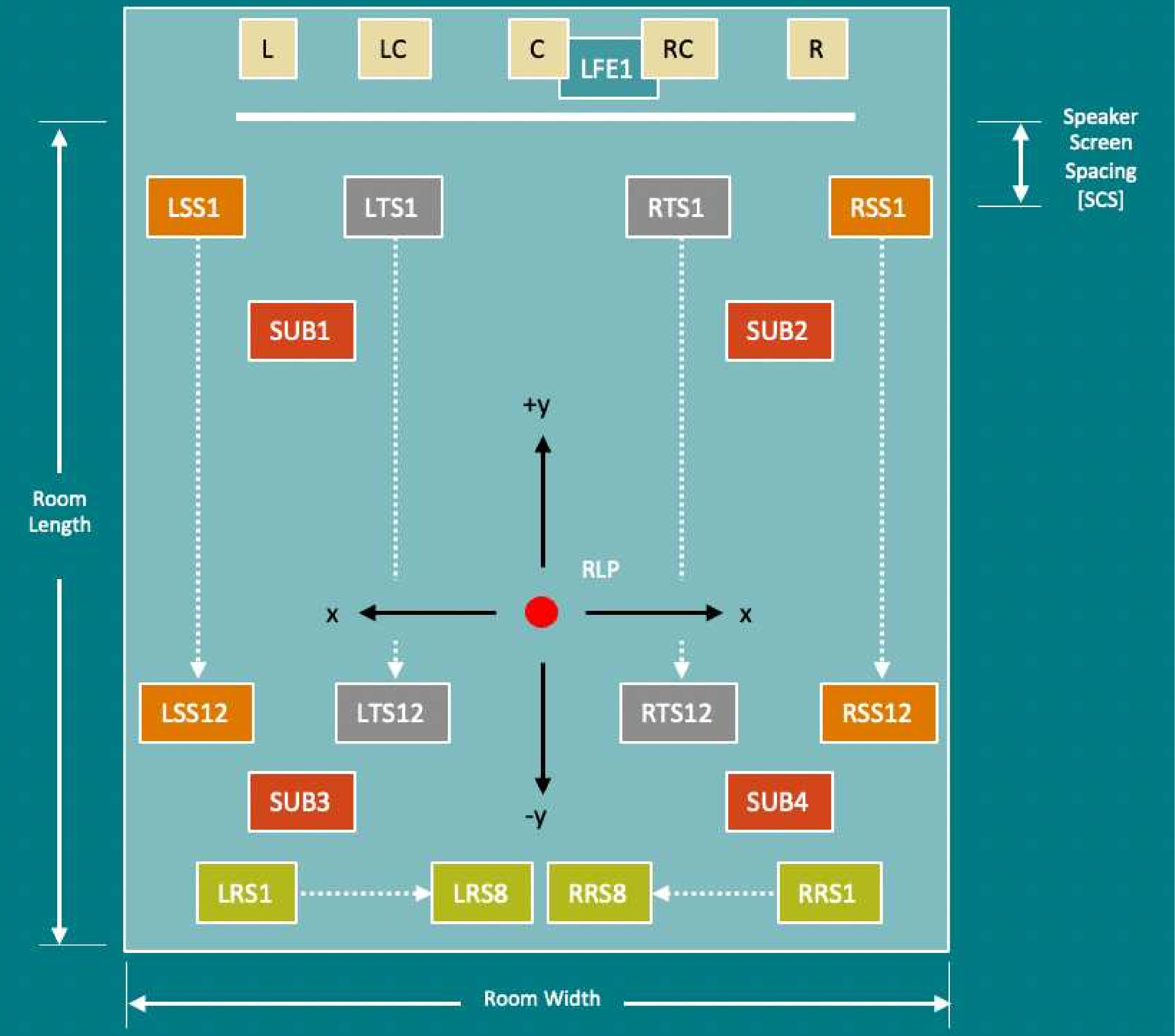
Measurements	Metric	Select Imperial or Metric
Room Length Screen Edge	8,9 m	Distance from screen edge to rear corner — Curved Screen
Mix Distance from Screen Center	5,9 m	*Rear surround maximum linear spacing distance = 1,05m*
Room Width at Rear Wall	6,6 m	
Room Width at RLP*	6,6 m	*Side surround maximum linear spacing distance = 1,18m*
Length first Row to last Row	6,7 m	
Room Height at Screen	5,8 m	
Room Height at Booth	5,6 m	
Screen Width *(click for Reset)*	5,6 m	Viewing surface only
Screen Ratio *(click for Reset)*	Flat	
Screen Bottom to Floor	1,1 m	Elevation from floor (DARDT 0.00 reference) up to viewing surface
Screen Height (Flat)	3,0 m	
Height of Mix Position	1,2 m	Listener ear height 1,2 m
Height Front of CLA+	1,2 m	Listener ear height 1,2 m
Height Rear of CLA+	1,2 m	Listener ear height 1,2 m

* *Hashed cells indicate auto-populated data that can be overwritten with actual measurements.*

\+ *Please refer to Dolby Atmos specifications document for full explanation of terms.*

2 **Select *MainEntrySheet***

- Choose the number of screen loudspeakers and the amping of screen loudspeakers.
- Work through the check boxes and minimum configuration options. The minimum configuration macro button can be optionally used.
- From the cinema or studio plans, please check the triangulated loudspeaker throw distances, more information on this below.
- Use the loudspeaker model and amplifier model drop-down menus to find the equipment to be used for each location.
- If the equipment to be used is not listed, please enter the equipment data in the ExtraEquipmenEntry sheet. The equipment will then appear in the drop-down menus on the MainEntrySheet.
- Cell colour threshold changes (traffic light colour indicator) are used to guide the equipment choice. Please reference the key in the MainEntrySheet for the definitions of colours being used.
- If an active loudspeaker is going to be used for any position, tick the check box in the speaker model line. A new column *Max Peak SPL* and new equipment selection choice will appear.
- Click on the Dolby logo for screen re-fresh (Mac)



DARDT Status

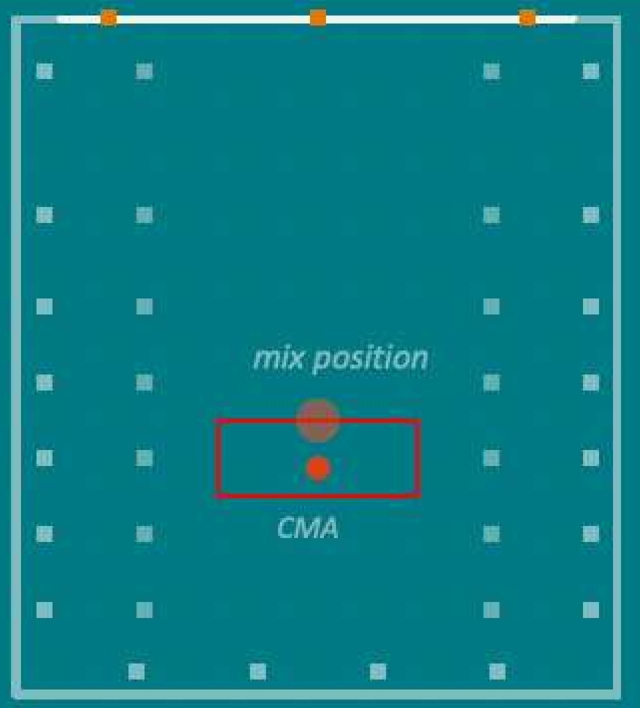
The tool does not ensure full approval of the selected equipment and displayed speaker positions. The design and equipment needs to be approved in conjunction with loudspeaker configuration plans by Dolby Atmos design approvers.

Room Data	(Metric)	Length (m)	Width (m)	Length of raked staging (m)	Room Height at Screen (m)	Room Height at Booth (m)	
Show Label Guide		8,9	6,6	6,7	5,8	5,6	
Application		Speakers per Side Wall (7 recommended)		Speakers Booth Wall (6 recommended)	Surround Subwoofers	3/5 Screen Speakers	Amping Screen Speakers
Dolby Atmos Feature Studio		7		4	2	3	bi-amped

Screen Width (m)	Screen Ratio	Screen Bottom to Floor (m)
5,6	Flat	1,1
Speaker-Screen-Spacing	Linear Spacing Distance	ISS Rear (m)
1,3	1,0	1,3

Auditorium Configuration Options

Amplifier Channels Side	7		Screen subwoofers, LFE clustered	✓
Amplifier Channels Top	7		Screen subwoofers, LFE floor mounted	✓
Top Speakers *Checkbox for equidistant spacing*	7	☐	Surround subwoofers behind screen	☐
Rear Surround Pairing	☐		Surround subwoofers mounted in joint of floor/wall or wall/ceiling	✓



Full linear spacing selected

Location	Speaker Channel	Loudspeaker Throw Distance Coordinates referenced from Mix Position				Speaker *Click here for screen speaker target SPL´s*				Active Speaker	Required Power Rating for Speaker selected				Amplifier						Cables	
		X (m)	Y (m)	Z (m)	3D distance from mix pos (m)	Speaker Model *Checkbox only for active loudspeakers*	Speaker Watts (Cont.)	dB SPL 1W@1m	Ω	Maximum Peak SPL (dB)	Watts required 102dB	Watts required for target SPL	Watts required per speaker 115dB	Headroom above target SPL (dB)	Amplifier Model	stereo/ bridged	Ω	Watts available *Single Channel driven*	Amp headroom over target (dB)	Notes	Length (m)	ø (mm2)
Screen Left	L (LF)	2,3	5,3	1,8	6,2	Meyer Bluehorn System ✓				132,1				5,3					0		25,0	
	L (HF)																		0		25,0	
Screen Center	C (LF)		5,3	1,8	5,7	Meyer Bluehorn System				132,1				5,9					0		25,0	
	C (HF)																		0		25,0	
Screen Right	R (LF)	2,3	5,3	1,8	6,2	Meyer Bluehorn System				132,1				5,3					0		25,0	
	R (HF)																		0		25,0	
LFE	LFE		5,3	-0,9	5,3	Meyer X-400C ✓				123,0	6 unit			5,0					0		25,0	
Surr. Subw.	SUB 1	3,0	-1,1	4,6	5,6	Meyer X-400C ✓				128,6	1 unit			4,6				W	0		15,0	
	SUB 2	3,0	-1,1	4,6	5,6	Meyer X-400C				128,6	1 unit			4,6				W	0		15,0	
Side Surround	LSS 1	3,0	4,6	1,8	5,8	Meyer HMS-10 ✓				126,6				3,4					0		20,0	
	LSS 2	3,0	2,7	1,8	4,4	Meyer HMS-10 ✓				126,6				5,7					0		20,0	
	LSS 3	3,0	1,5	1,8	3,8	Meyer HMS-10 ✓				126,6				7,0					0		15,0	
	LSS 4	3,0	0,5	1,8	3,5	Meyer HMS-10 ✓				126,6				7,6					0		15,0	
	LSS 5	3,0	-0,5	1,8	3,5	Meyer HMS-10 ✓				126,6				7,6					0		15,0	
	LSS 6	3,0	-1,5	1,8	3,8	Meyer HMS-10 ✓				126,6				7,0					0		15,0	
	LSS 7	3,0	-2,5	1,8	4,3	Meyer HMS-10 ✓				126,6				5,9					0		15,0	
	LSS 8					✓													0			
	LSS 9					✓													0			
	LSS 10					✓													0			
	LSS 11					✓													0			
	LSS 12					✓													0			
	RSS 1	3,0	4,6	1,8	5,8	Meyer HMS-10 ✓				126,6				3,4					0		20,0	
	RSS 2	3,0	2,7	1,8	4,4	Meyer HMS-10 ✓				126,6				5,7					0		20,0	
	RSS 3	3,0	1,5	1,8	3,8	Meyer HMS-10 ✓				126,6				7,0					0		15,0	
	RSS 4	3,0	0,5	1,8	3,5	Meyer HMS-10 ✓				126,6				7,6					0		15,0	
	RSS 5	3,0	-0,5	1,8	3,5	Meyer HMS-10 ✓				126,6				7,6					0		15,0	
	RSS 6	3,0	-1,5	1,8	3,8	Meyer HMS-10 ✓				126,6				7,0					0		15,0	
	RSS 7	3,0	-2,5	1,8	4,3	Meyer HMS-10 ✓				126,6				5,9					0		15,0	
	RSS 8					✓													0			

Sala E_v5.3.11_2.xlsb

Speaker Aiming Guidance

Speaker´s cabinet tilt not taken into account. Angles shown are referenced to front baffle of speaker.

Rounding Precision	5°

Height Front Corner CMA (m)	1,2
Height Mix Position (m)	1,2
Height Back Corner CMA (m)	1,2

Distance Front Edge CMA to Mix Position (m)	
Distance Rear Edge CMA to Mix Position (m)	1,0

Screen	Horizontal Angle A	Vertical Angle B
Left	25	15
Left Center		
Center	0	15
Right Center		
Right	-25	15

Asymetrical vert coverage horns in-built down tilt	0°

☐ *Include in-built tilt in vert angle B calculations*

☐ *Include in-built tilt in vert angle D calculations* [1]

Side	Horizontal Angle C	Vertical Angle D
LSS/RSS 1	55	15
LSS/RSS 2	40	15
LSS/RSS 3	25	20
LSS/RSS 4	5	20
LSS/RSS 5	0	20
LSS/RSS 6	-15	20
LSS/RSS 7	-35	20

○ *Pan & Tilt Type*
● *U-Bracket Type (Rotate & Tilt)*

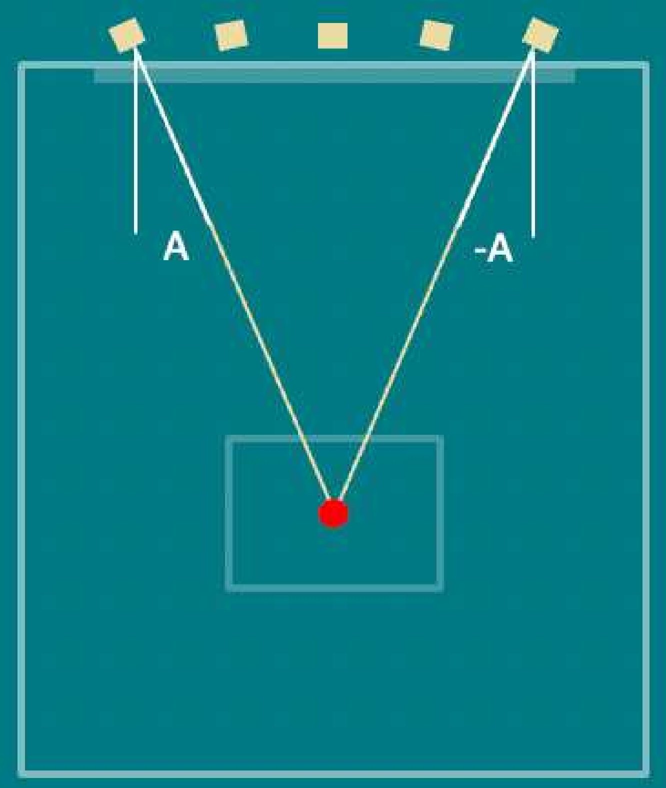
Ceiling (U-Bracket)	Horizontal Angle G	Vertical Angle D
LTS/RTS 1	10	50
LTS/RTS 2	20	35
LTS/RTS 3	30	25
LTS/RTS 4	60	15
LTS/RTS 5	90	10
LTS/RTS 6	-60	-15
LTS/RTS 7	-30	-25

☐ *Include in-built tilt in vert angle D calculations* [1]

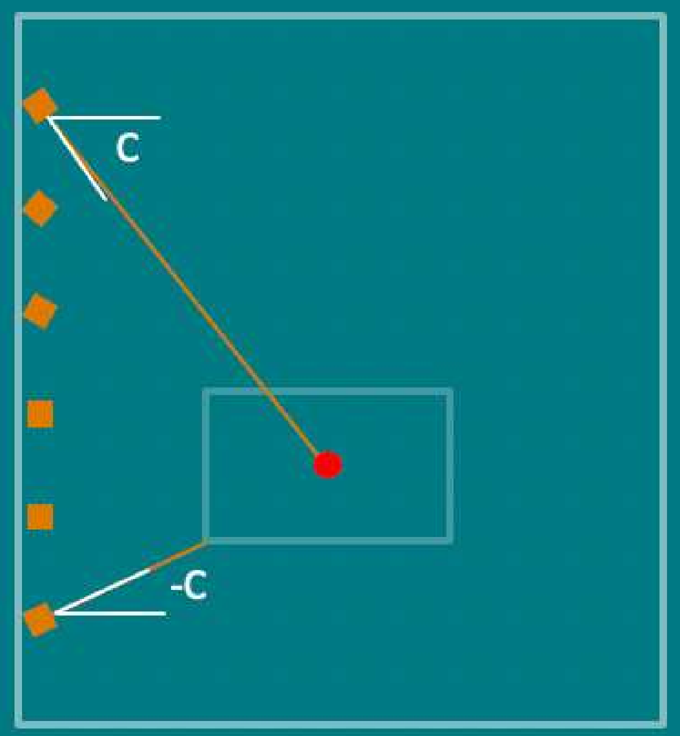
Rear Left	Horizontal Angle C	Vertical Angle D
LRS 1	10	0
LRS 2	0	0

Rear Right	Horizontal Angle C	Vertical Angle D
RRS 1	-10	0
RRS 2	0	0

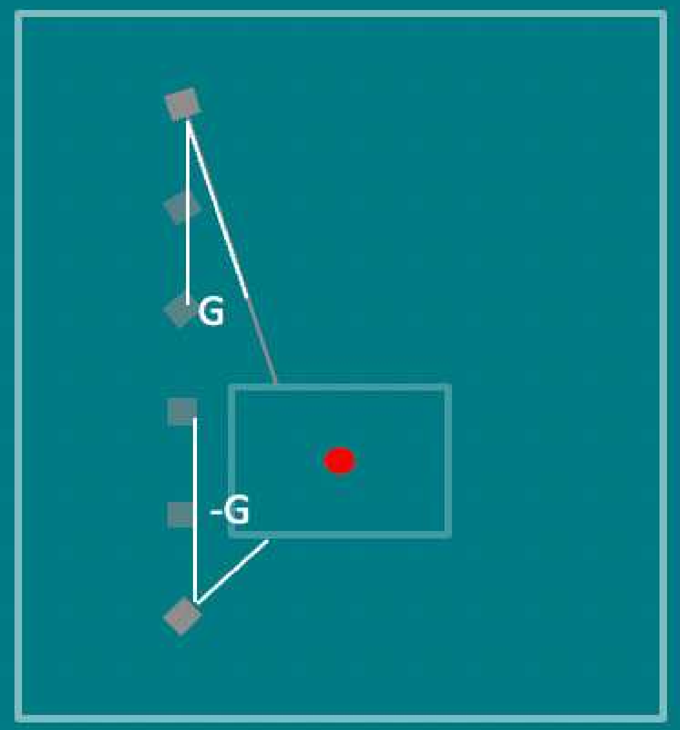
[1] *Please aim surround speakers relative to top of the unit rather than perpendicular to tilted baffle*



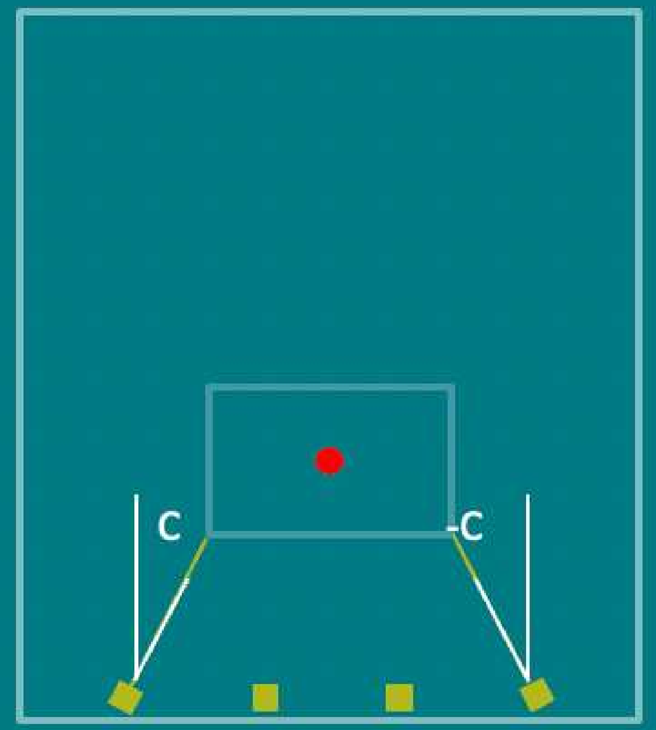
Plan Diagram



Plan Diagram



Plan Diagram

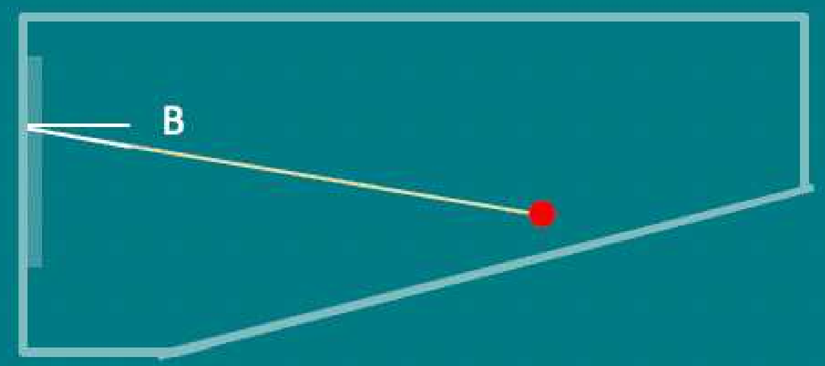


Plan Diagram

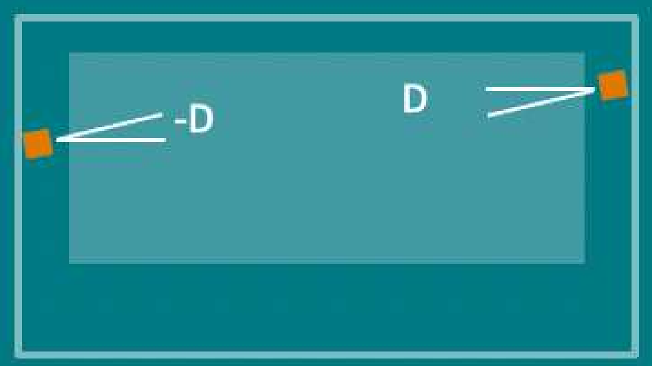
Please note that speaker throws and dimensions on MainEntrySheet need to be entered as accurately as possible for the angle calculations to conform to the rounding precision selected.

Usage of this sheet:

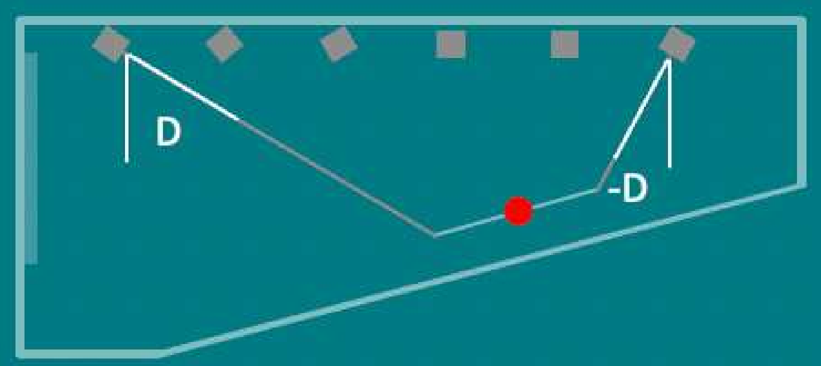
- aiming guidance when creating a drawing
- resource for installation (when the additional CLA & RLP data cells are completed)
- not meant to replace a set of accurately drawn plans, these are still needed



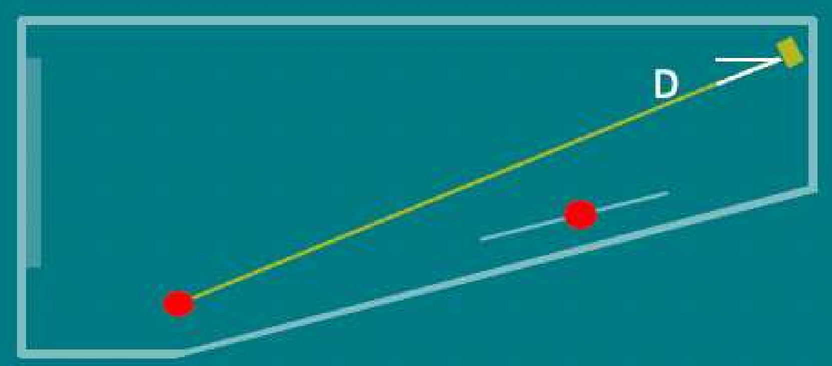
Side Elevation Diagram



Screen Elevation Diagram



Side Elevation Diagram



Side Elevation Diagram

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Cinecittà Sala Color Blu

Roma

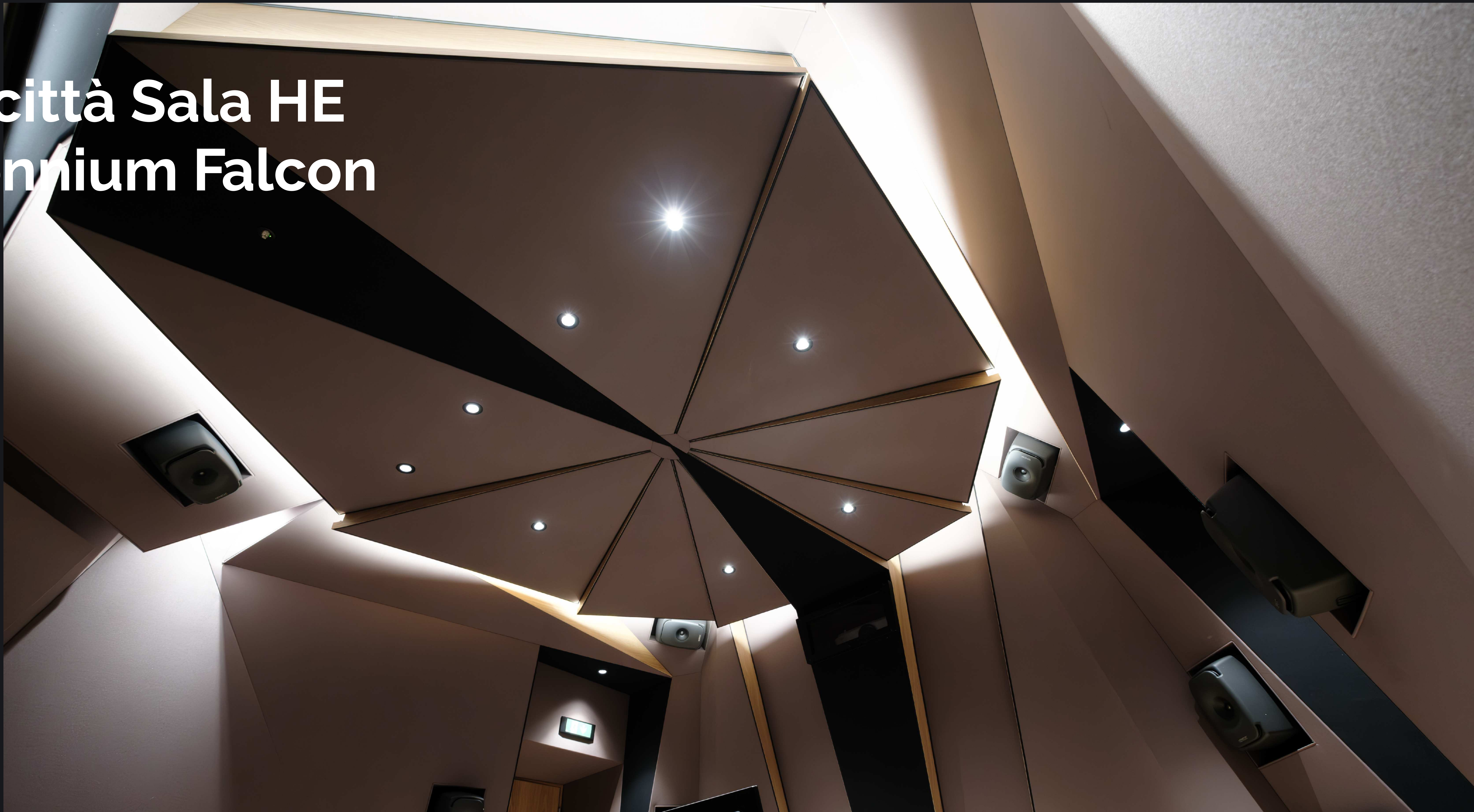
STUDIO
SOUND
SERVICE

Cinecittà Sala Color Blu

Roma

Cinecittà Sala HE Millennium Falcon

Roma



STUDIO
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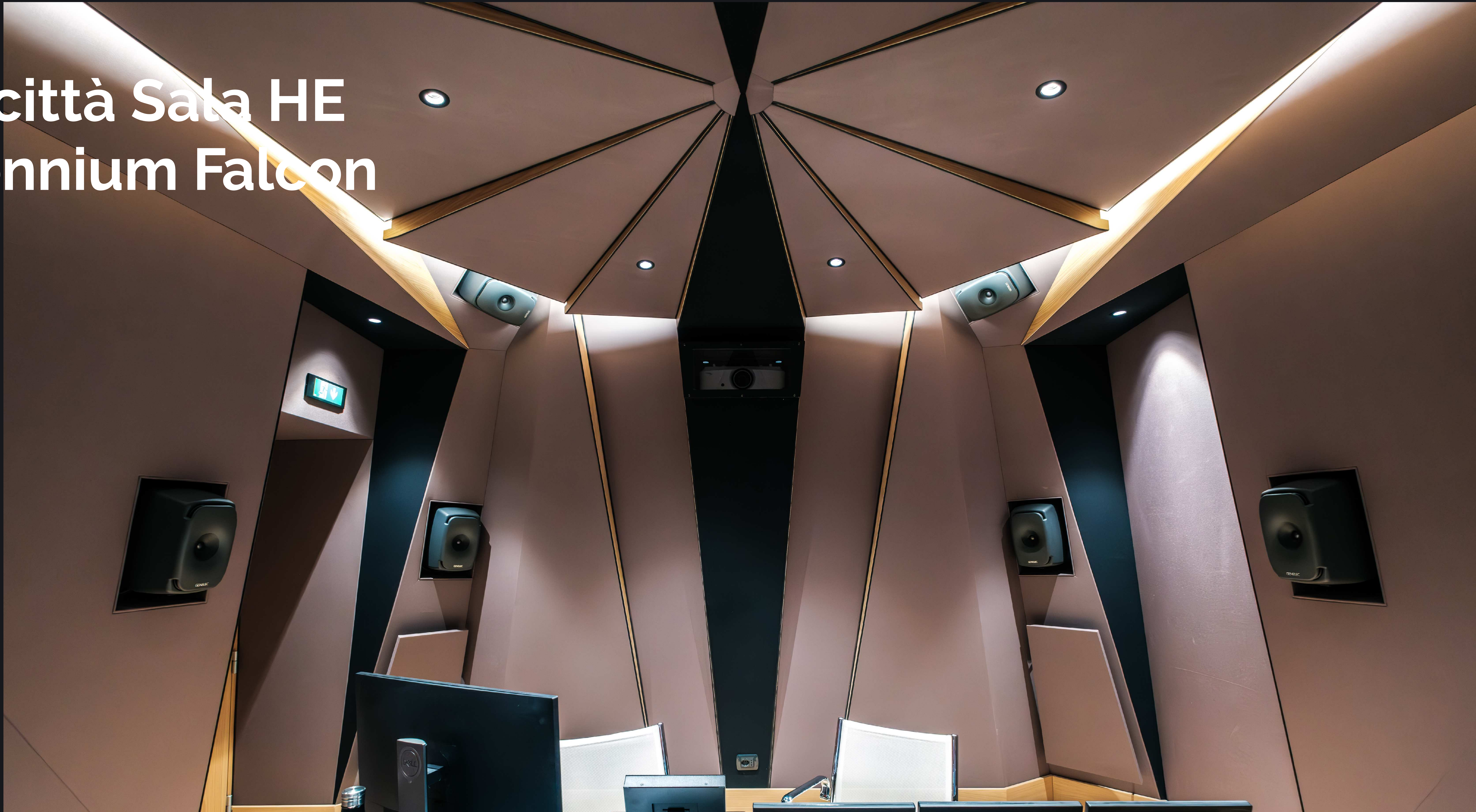
Cinecittà Sala HE
Millennium Falcon

Roma



Marco Borsatti Studio

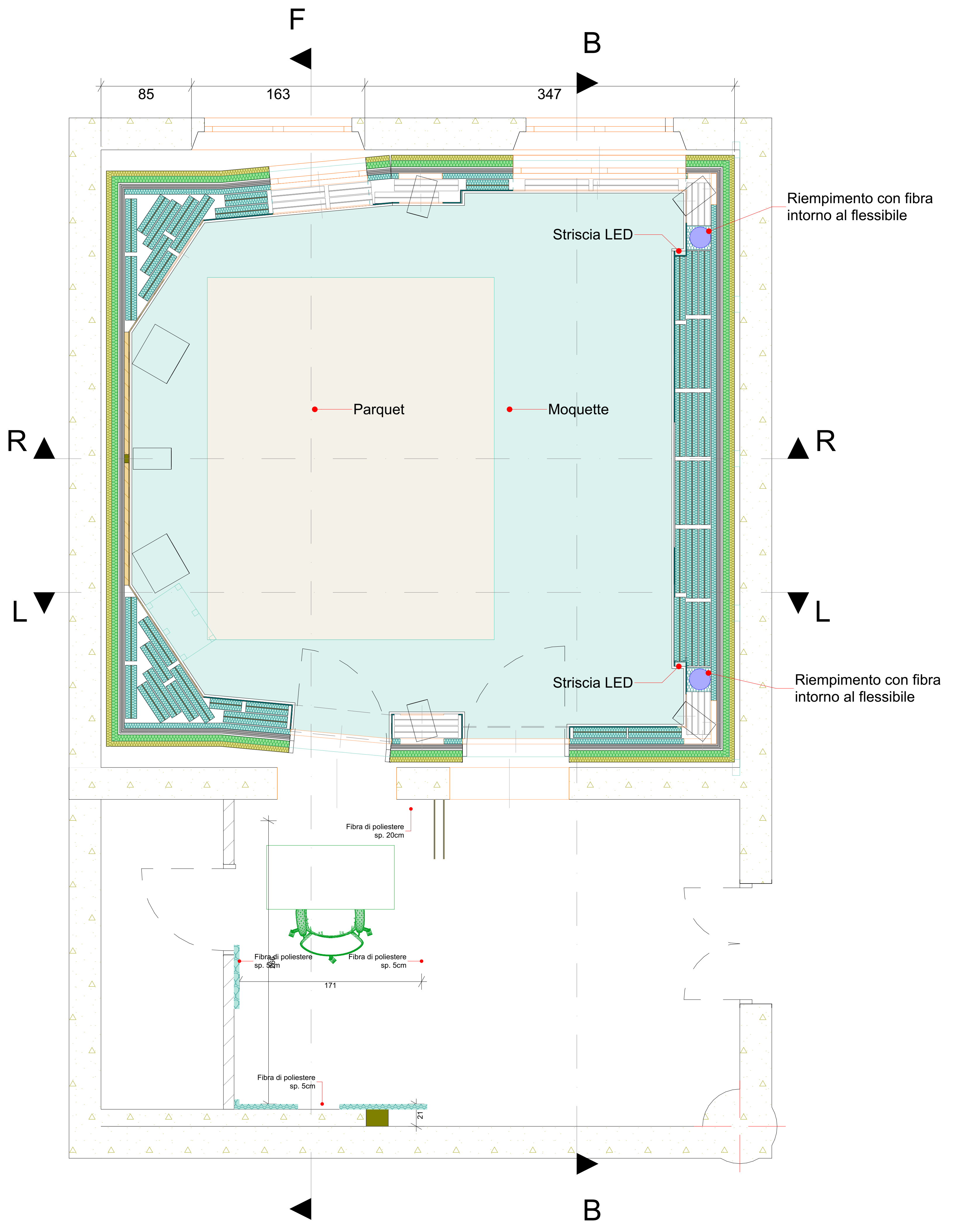
Bologna

Marco Borsatti Studio

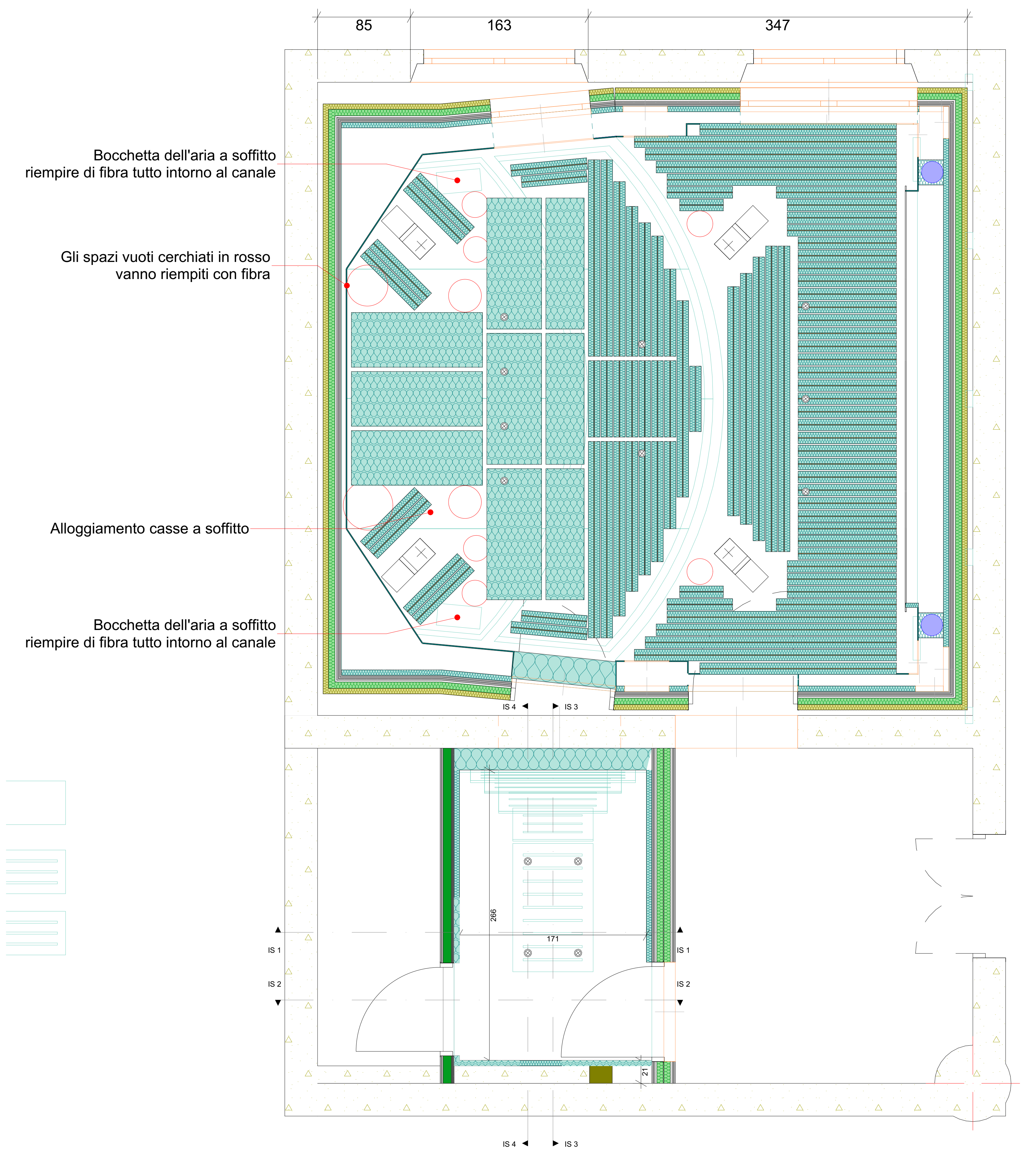
Bologna

Donato Masci

Acoustic Treatment with suspended panels



Treatment Layout 1:50



Treatment Ceiling 1:50

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Acoustic Design: **Studio Sound Service**

Date	Drawing Number	Title	Dr. Scale	Client	Project
08/06/2023	**9 /4**	**Treatment** Layout	**1:50**	**Marco Borsatti**	**Studio Borsatti**
Revision **Definitive**					

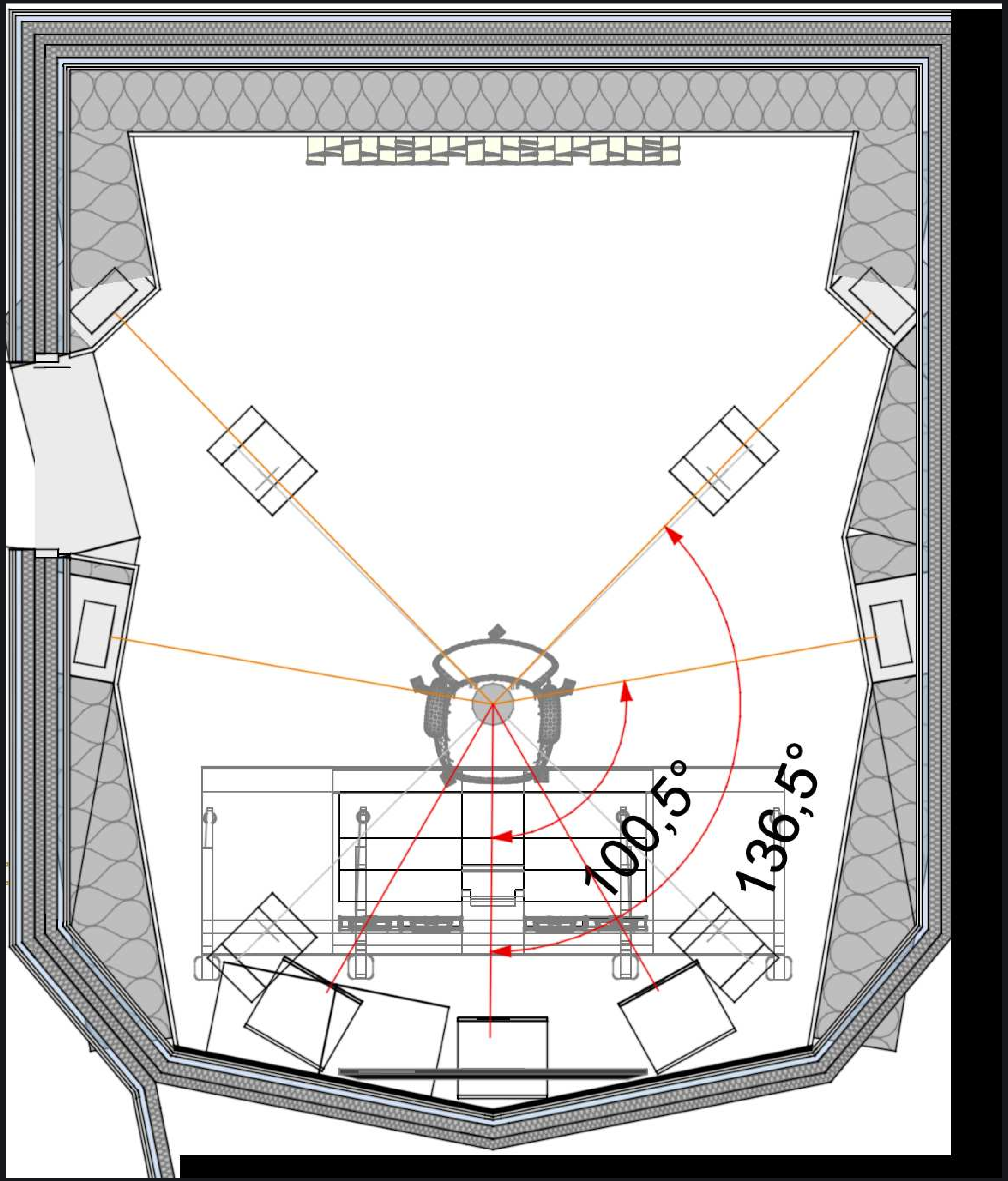
Milk
Alberto Rossetto

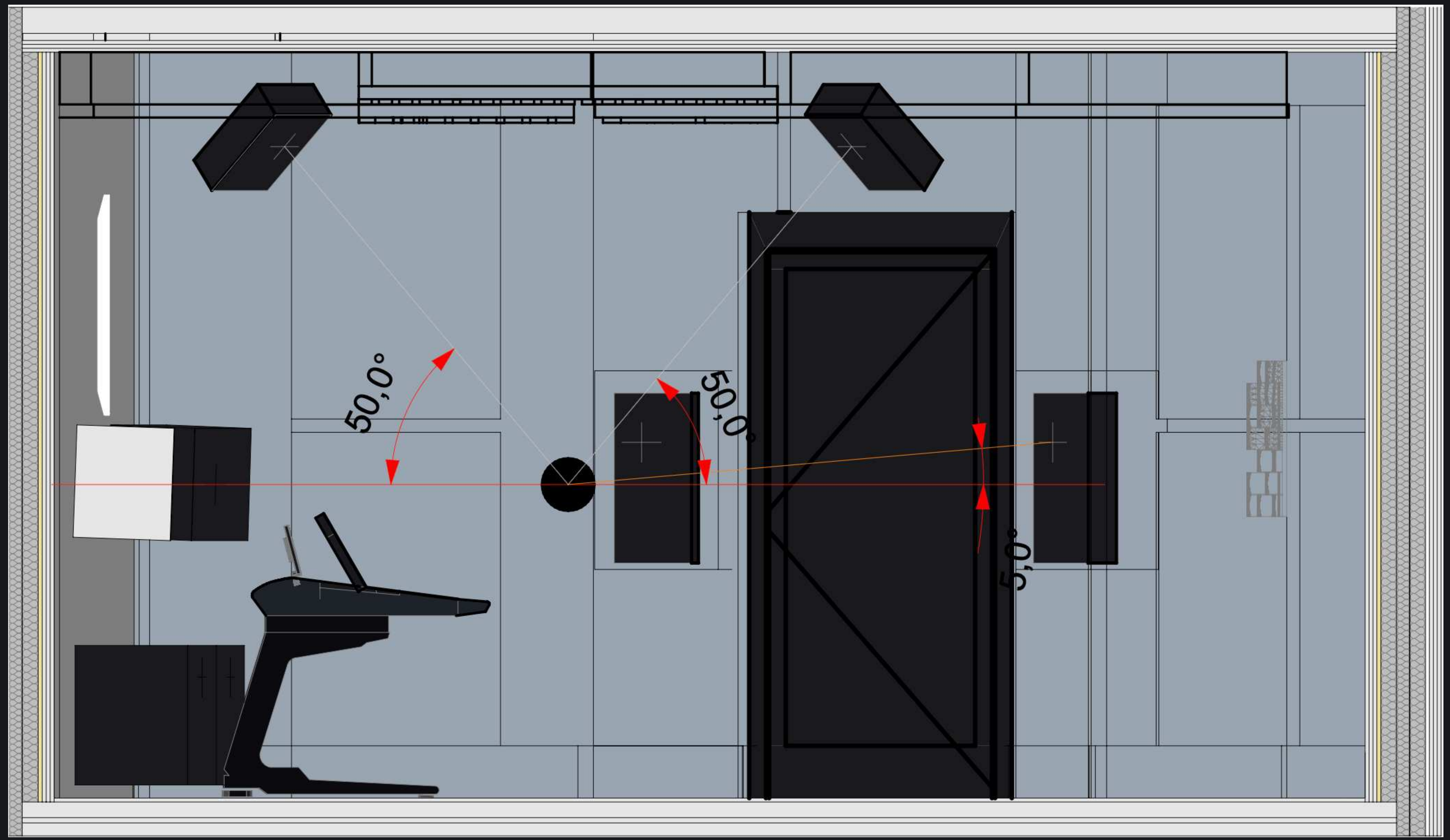
Roma

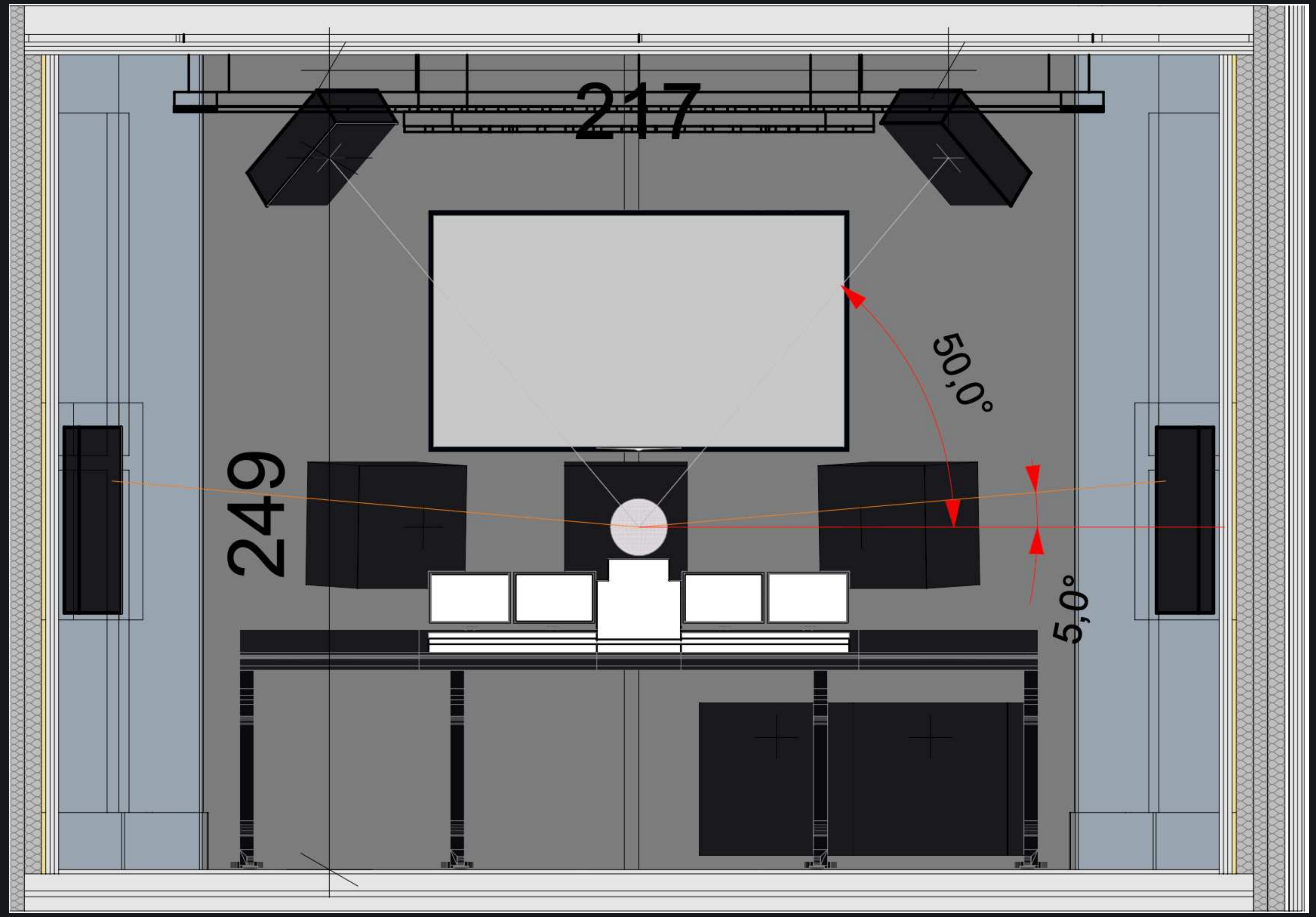
STUDIO SOUND SERVICE

Donato Masci

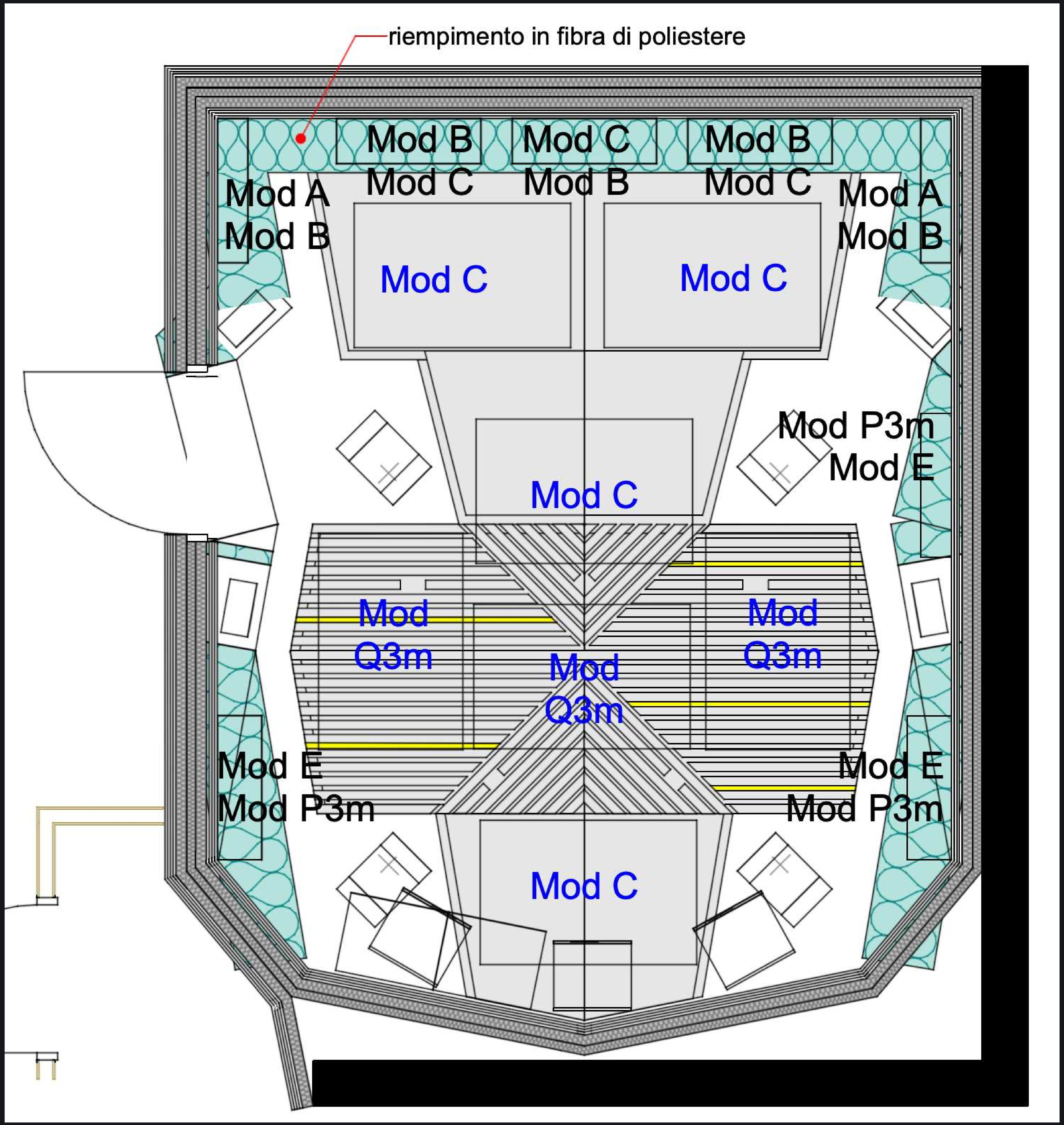
Casi studio







Risonatori a Membrana
Broadband Absorbers
Slat Absorbers

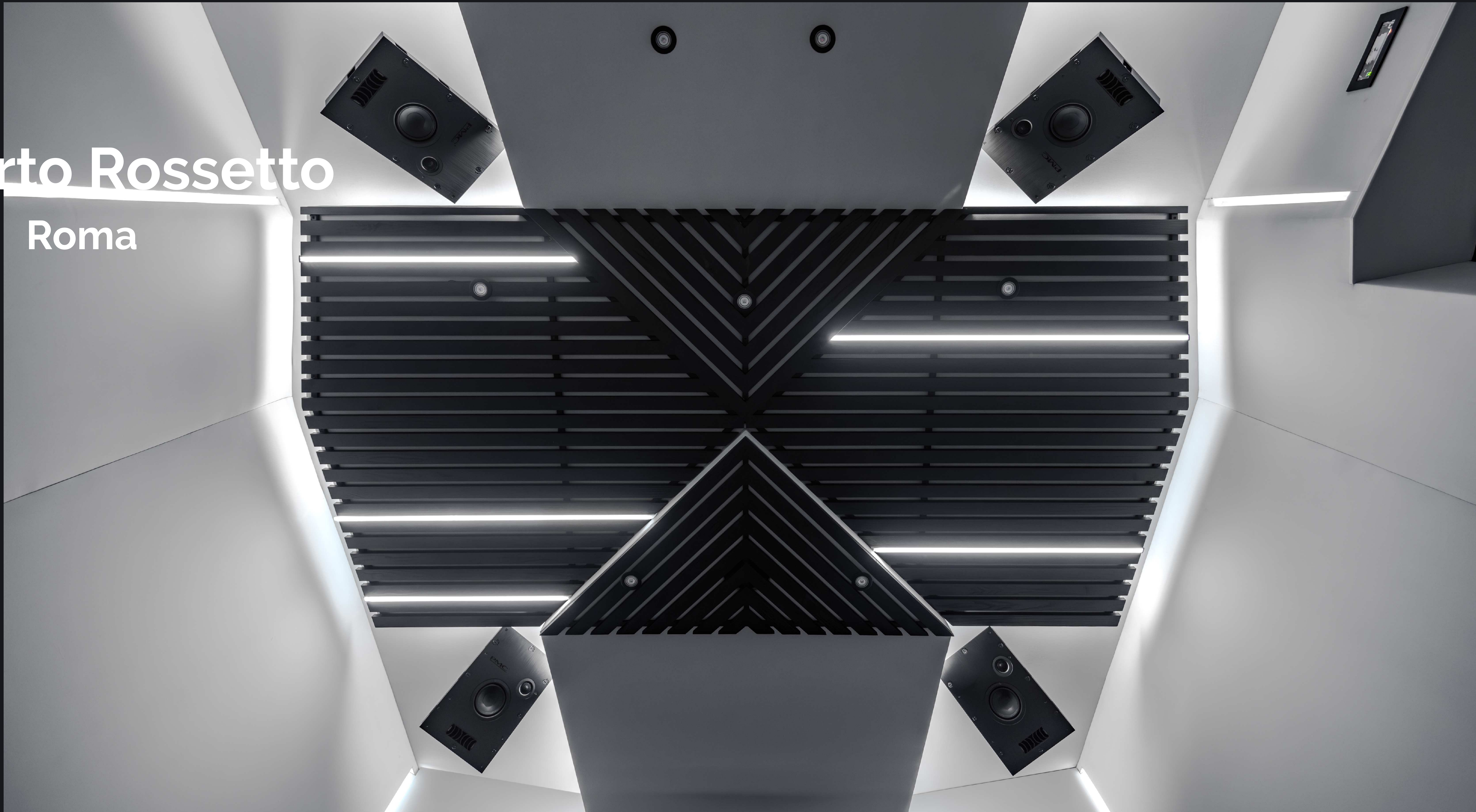


Milk
Alberto Rossetto
Roma

Milk
Alberto Rossetto
Roma

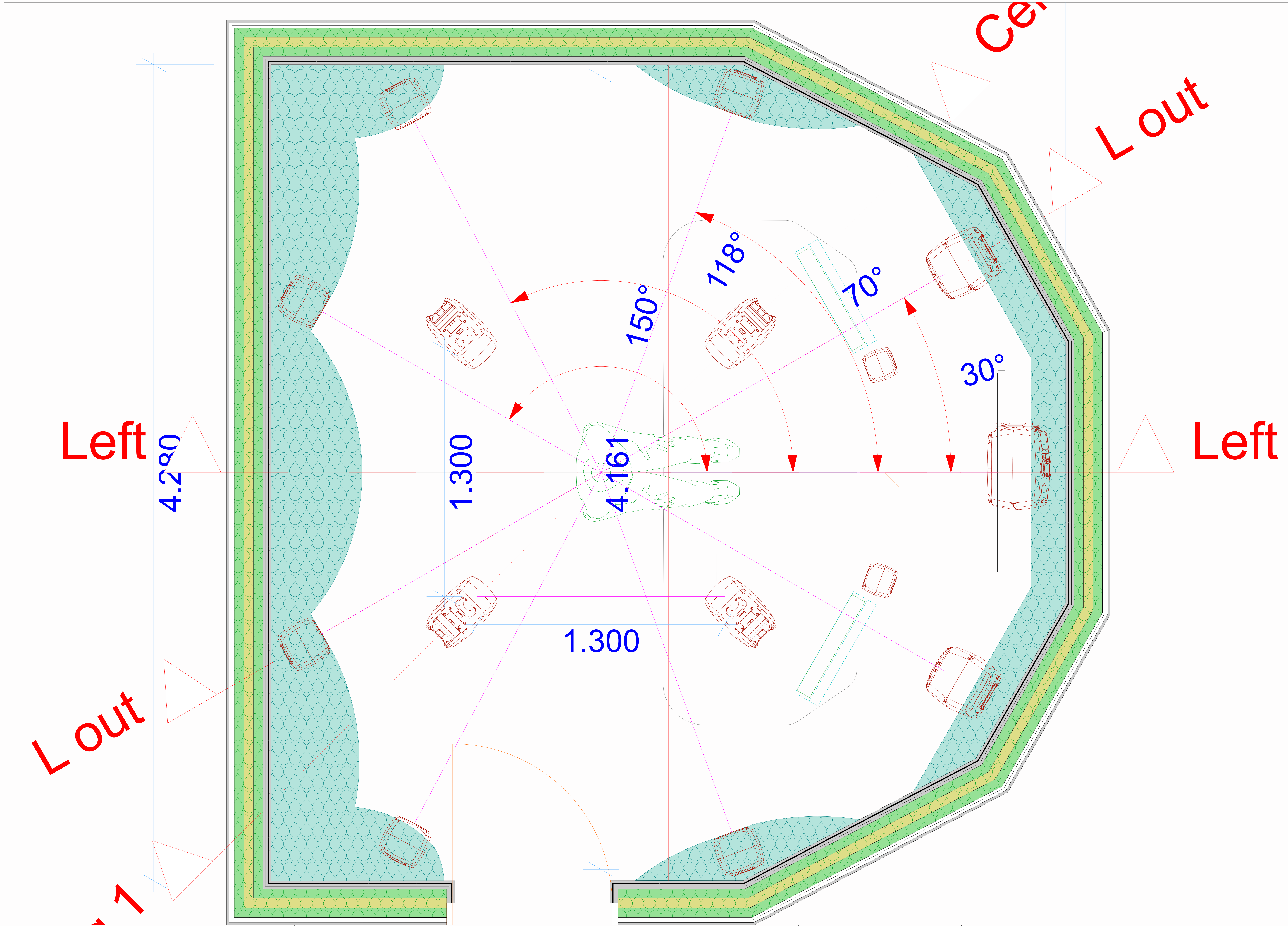
Milk
Alberto Rossetto
Roma

Milk
Alberto Rossetto
Roma



FOX Studio

Roma



Please note that any drawing or information about this project is to be considered strictly **confidential** and no drawing or information can be shared with any third-party without authorisation.
Thank you very much for understanding.

9.1.4

2018
Fox Networks IT

9.1.4 Dolby Atmos
Home Entertainment

Fox Networks Group Italia FOX international Channels Via Salaria 1021, Roma - Italy	**Acoustic Design by:** **dott. Donato Masci** *Via Torricella 22/a, Impruneta (FI) - 50023 Italy* +39 335 8233579, donatomasci@gmail.com T.C.A.A. 447/95 n.184 (FI) **ing. Cecilia Torracchi** +39.333.8628738 c.torracchi@gmail.com	Drawing Name Floor Drawing Status	Drawing Scale 1:20 Layout ID Tav.00	Polyester Fiber 40 kg/m³ Mineral wool 50 kg/m³ Mineral wool 90 kg/m³ Wood Concrete	**Proaudio Consulting Srl** *Via IV Giugno 36 – 47899 Serravalle - RSM* Project Manager: Francesca Bianco Tel. +378 0549 941536 +39 333 7020564 info@proaudioconsulting.it www.proaudioconsulting.it

FOX Studio

FOX - NatGeo DE

München, DE

FOX - NatGeo UK

Hammersmith, London UK

3Cycle

Roma

STUDIO
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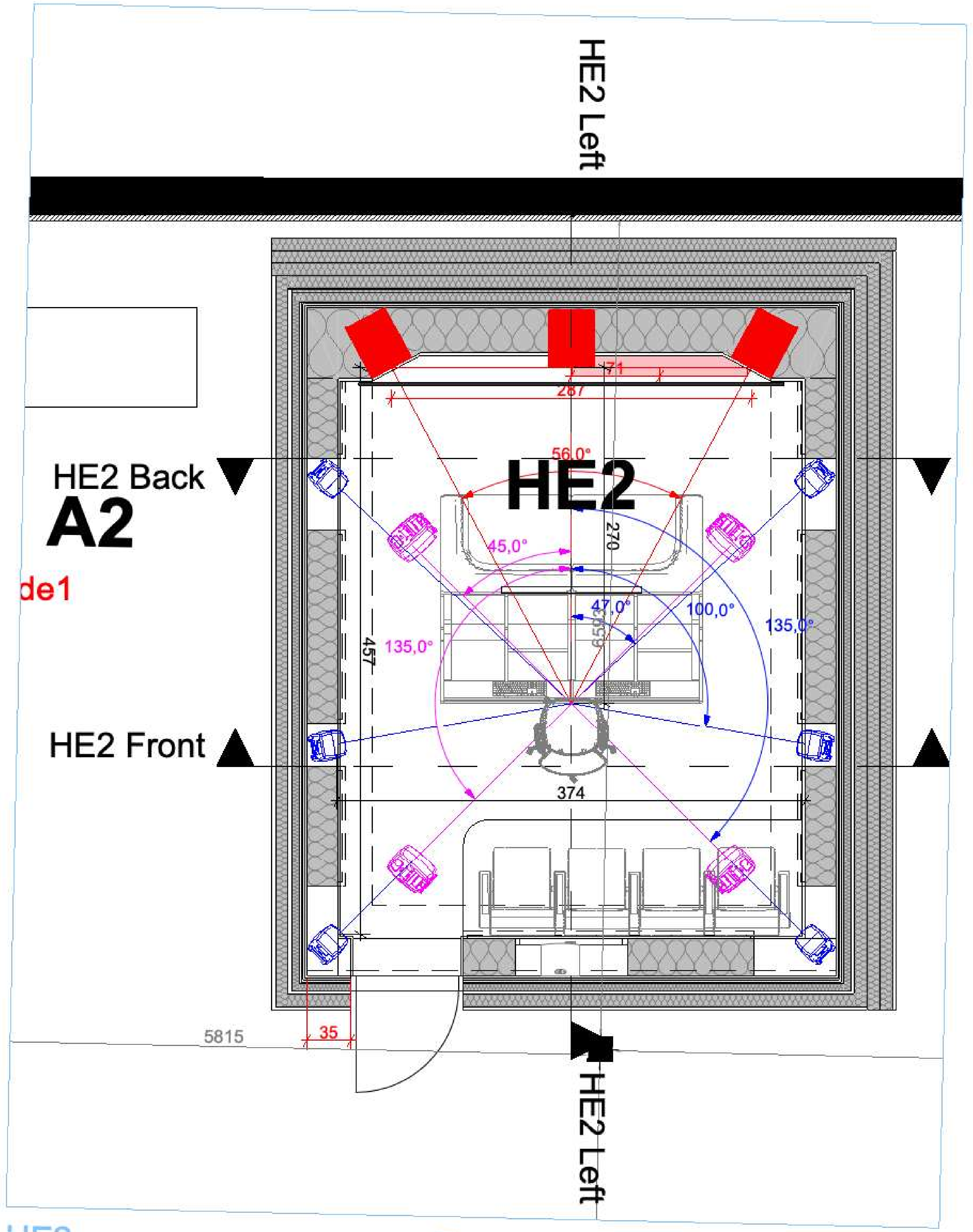
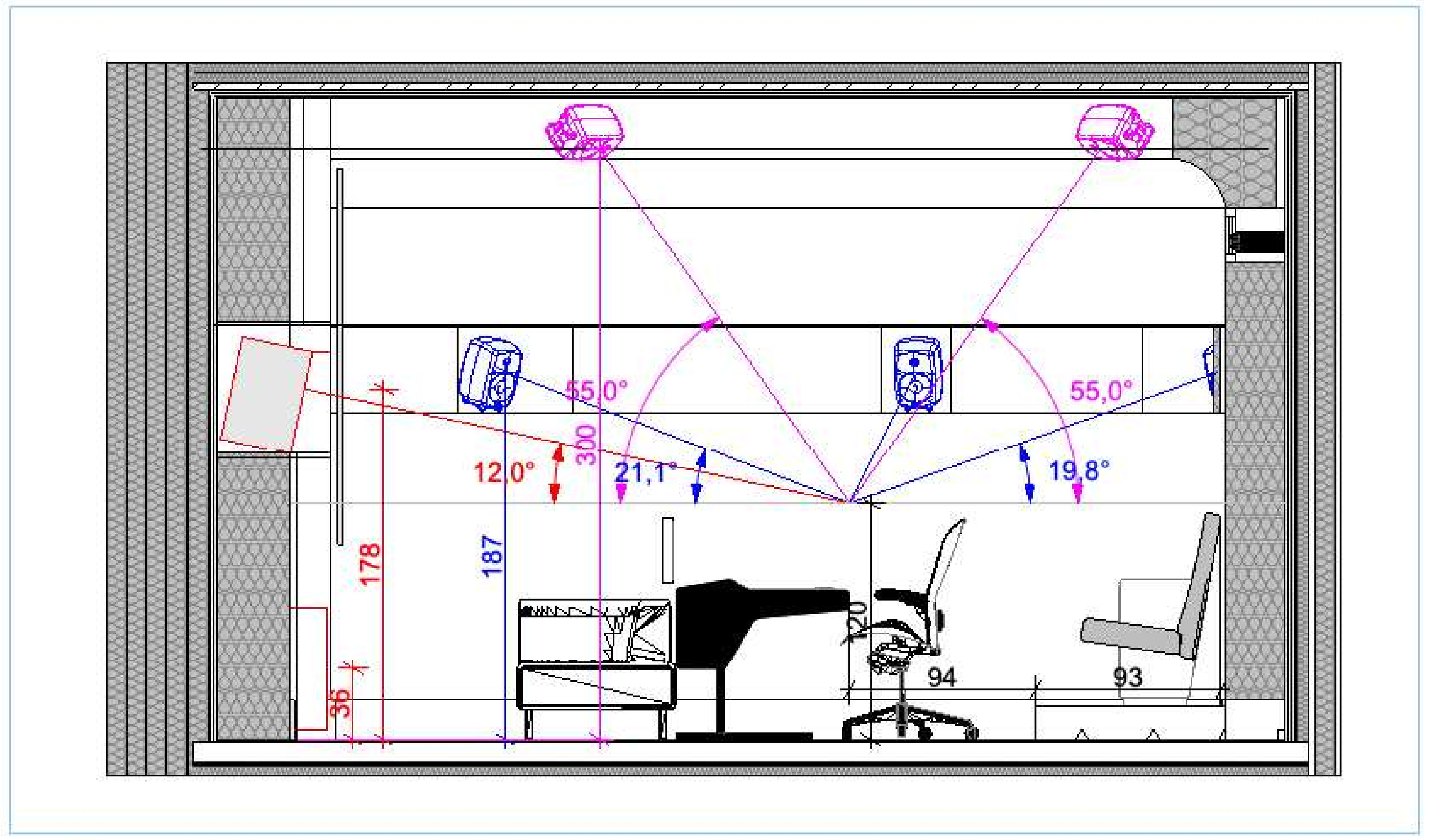
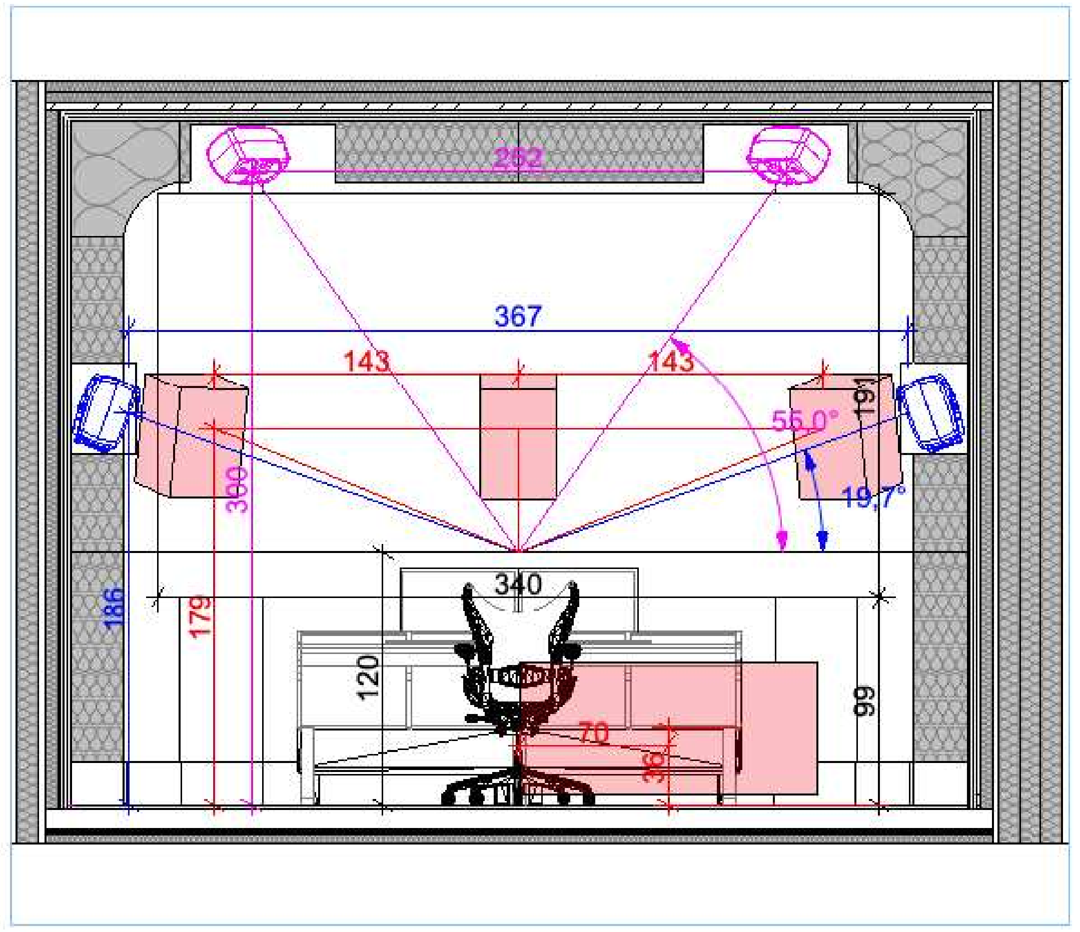


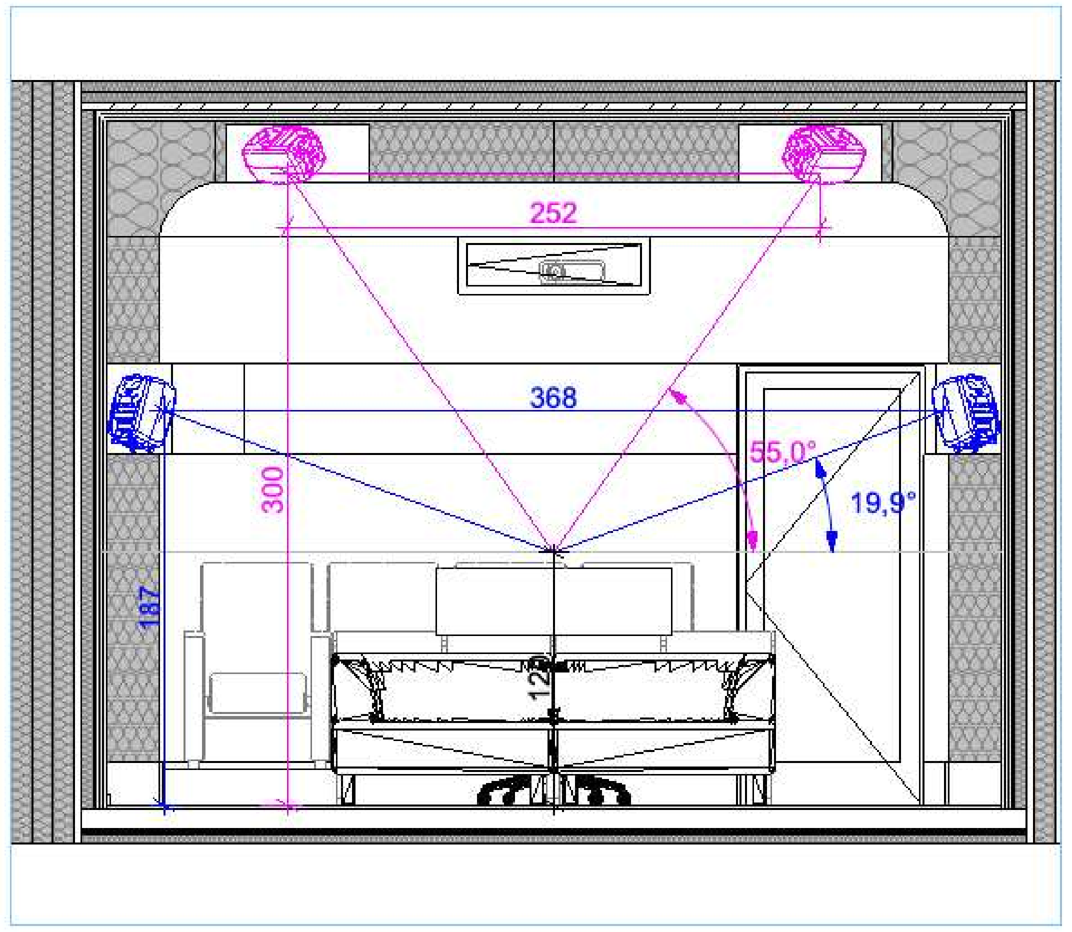
HE2 Floor 1:50



HE2 Left Building Section 1:50



HE2 Front Building Section 1:50



HE2 Back Building Section 1:50

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Acoustic Design by: **Studio Sound Service**
Designer Contact: **Donato Masci**
CEO – Physicist
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Date	Revision	Drawing Number	Title	Dr. Scale	Client	Project
10/03/2020	**Rev. B**	**A.08.1**	**Layout**	**1:50**	**3Cycle srl**	**Horizon**

3Cycle

Roma

3Cycle

Roma

Experimental Studios

Torino

House of Glass
Gianni Bini

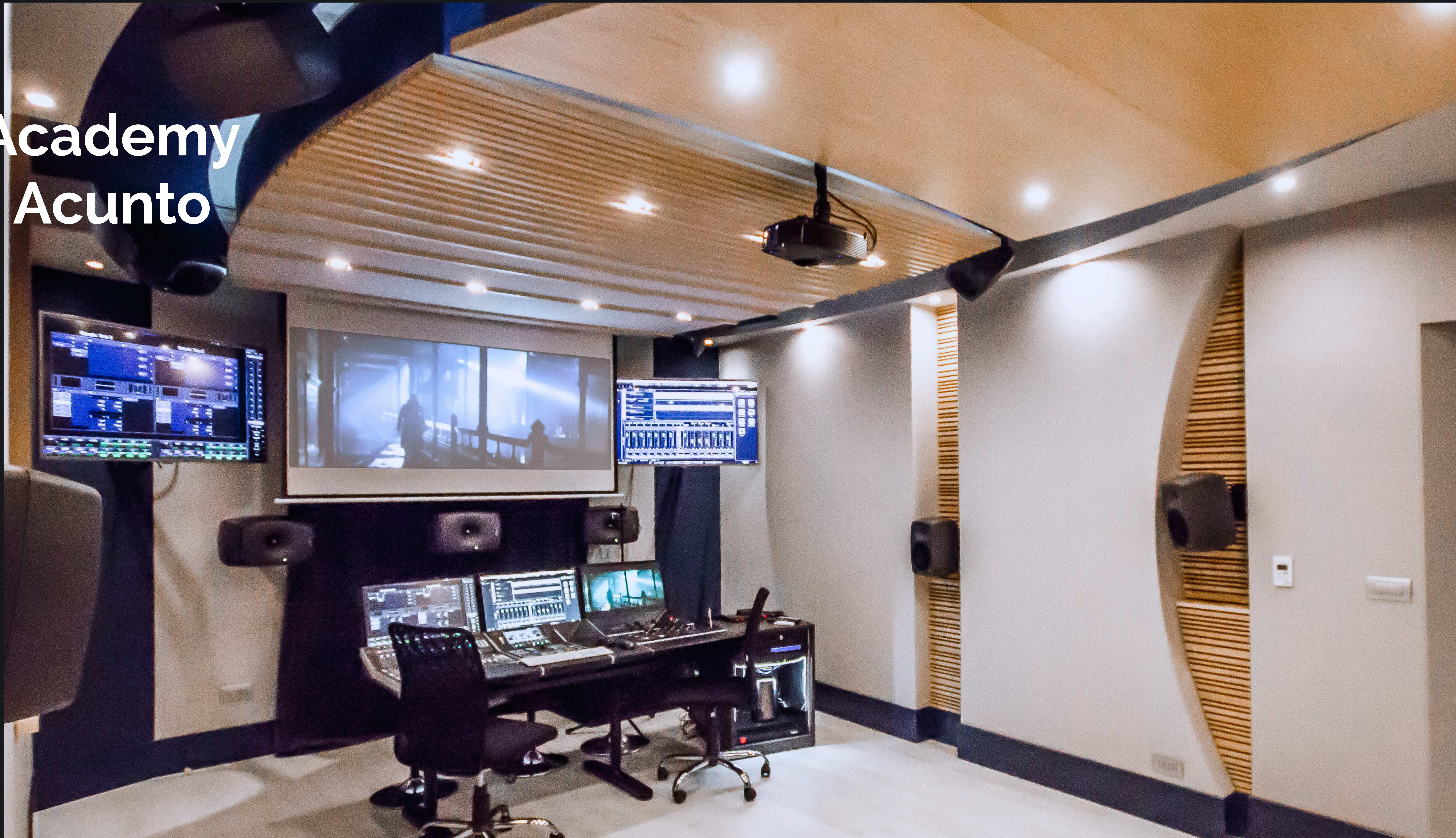
Viareggio

Mulinetti
Alberto Parodi

Genoa

Nut Academy
Vinci Acunto

Napoli



Goldenart Studio
Federica Vincenti

Roma

STUDIO
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Q&A

Consigli per l’ascolto

1. St Vincent – “All Born Screaming” & “Daddy's Home”
2. Nilüfer Yanya – “WWAY HEALTH ™”
3. Billie Eilish – “Happier Than Ever”
4. Pink Floyd – “The Great Gig In The Sky”
5. Maggie Rogers – “Surrender”
6. Art Blakey – “Close your Eyes”
7. The Beatles – “Oh! Darling” (2019 mix)
8. The Doors – “Riders on the Storm”
9. Jacob Collier – “All I Need”
10. Jack Harlow – “Way Out”
11. Kodak Black – “Feeling Peachy”
12. J. Brahms - Simphony #3 in F major (conducted by Ben Gernon / w. London Philarmonic Orchestra)
13. Jack Savoretti – “Too much History”
14. Sitrekin – “Open Chest”
15. Ariana Grande – “Dangerous Woman”
16. Kraftwerk – “Tour de France” + “Robots”
17. Rush – “Tom Sawyer”
18. Briston Maroney – “Rollercoaster”
19. Kanye West – “Black Skinhead”
20. Gregory Porter – “Mona Lisa”

21. Celso Valli - “Sette canzoni al piano”
22. Pooh - “Parsifal”

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Link per il training e per conoscere meglio il discorso Dolby Atmos e l'idea per la musica

A. Partire da qui: https://professional.dolby.com/music/support-faq/

B. Approfondire: https://learning.dolby.com/hc/en-us/sections/360010367372-Dolby-Atmos-Post-and-Music-Production-Learning

C. parte "creativa": https://professional.dolby.com/content-creation/dolby-atmos-tutorial-series/

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