

PROJECT PRESENTATION

Unity Gym Delhi

Lighting lux verification and design for a gym floor ·
2025

Jainsons Lights · since 1978

Design visual — calculated in DIALux

The project at a glance

Project card

CLIENT	Unity Gym (Unity Group)
LOCATION	Delhi
SPACE	One open gym floor of 119.26 m ² (about 1,284 sq ft), with a 6.1 m high ceiling
SCOPE	Lux verification and lighting design
YEAR	2025
THE QUESTION	Will the lights already chosen give the gym the light it needs? Checked before the order was placed.

687 lx

Average 0.8 m above the floor, against a 500 lx target

661 lx

Average on the floor itself

500 lx

The target average for the gym floor

6.1 m

Ceiling height, with the lights in the ceiling

3000 K

Warm white

CRI 90

Colour rendering of the chosen Eliante light

All values in this document are calculated in DIALux (report of 29 October 2025), with a maintenance factor of 0.80.

The question: will these lights be enough?

Unity Group's interior team had already chosen the lights and drawn a layout for the gym. They did not ask us for a new design. They asked a sharper question: will the lights we have chosen give a gym the light it needs?

The target

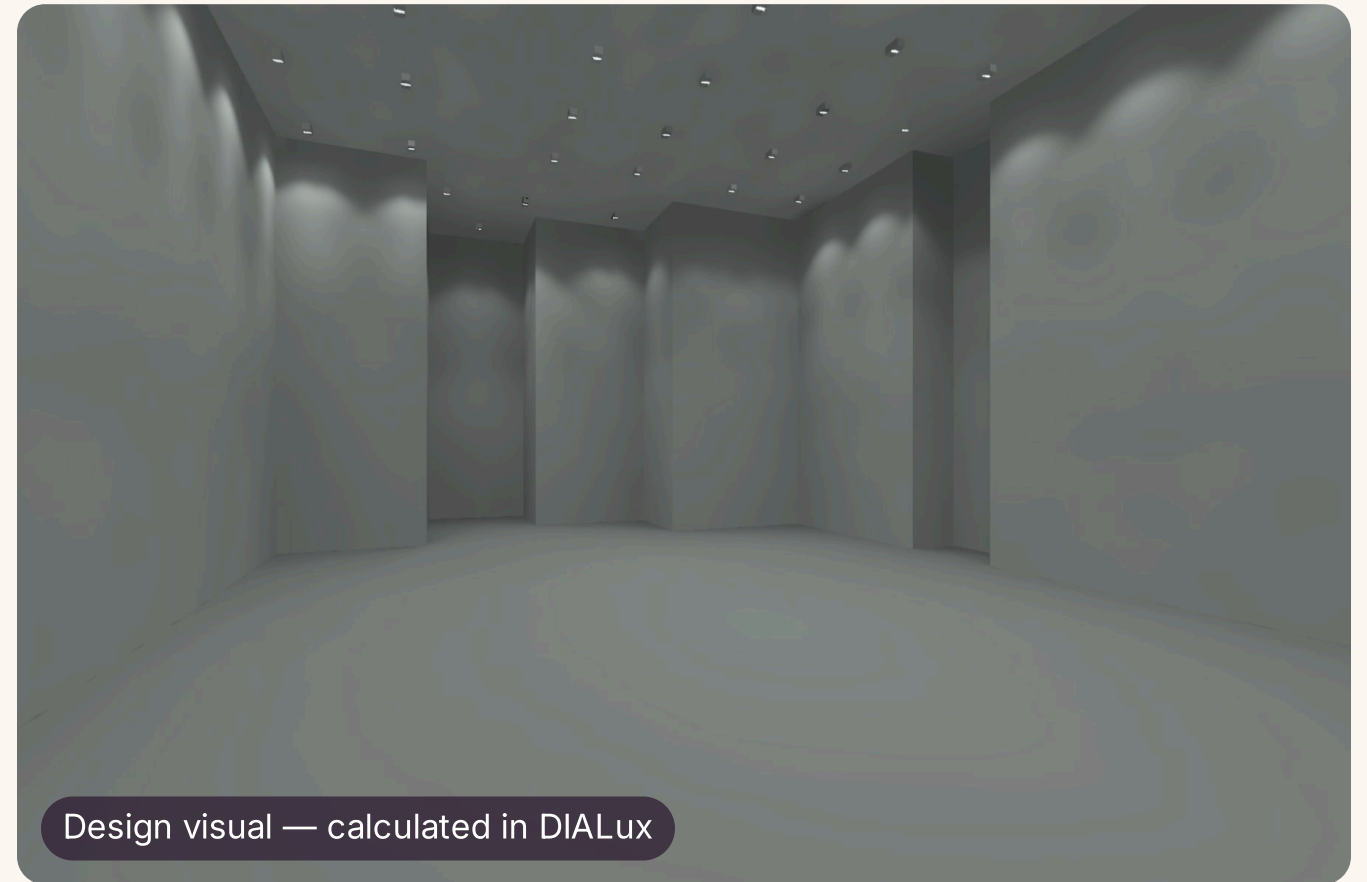
An average of at least 500 lux on the workout floor.

The timing

Checked before the order was placed.

The method

The same check an independent lighting auditor would run: the room and the chosen light, calculated in DIALux.



The gym in our DIALux model: the open floor, with the planned lights in the ceiling.

How we checked it

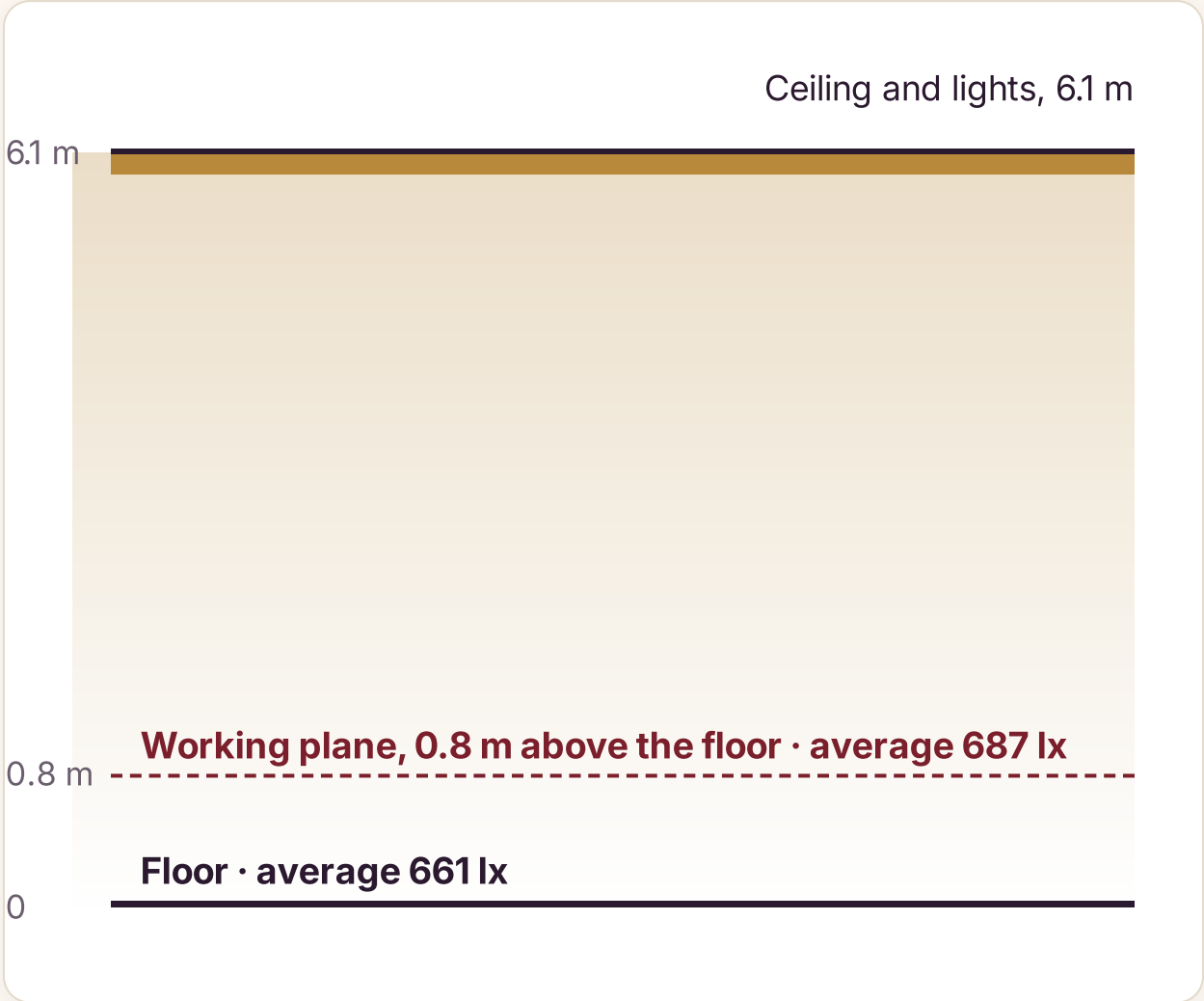
- 1

Model the room
The gym floor, 119.26 m², with its 6.1 m ceiling, and how much light the ceiling, walls and floor reflect (70 %, 50 % and 20 %).
- 2

Load the chosen light
The photometric data of the Eliante light the client had chosen: 3000 K, CRI 90, 40° beam.
- 3

Calculate at two heights
On a working plane 0.8 m above the floor, and on the floor itself.
- 4

Adjust the placement
Where the first spacing left darker patches or uneven light, we moved lights. The light itself stayed the same.



Our simplified section of the calculation (not to scale).

Every value uses a maintenance factor of 0.80, so it already allows for light lost to age and dust.

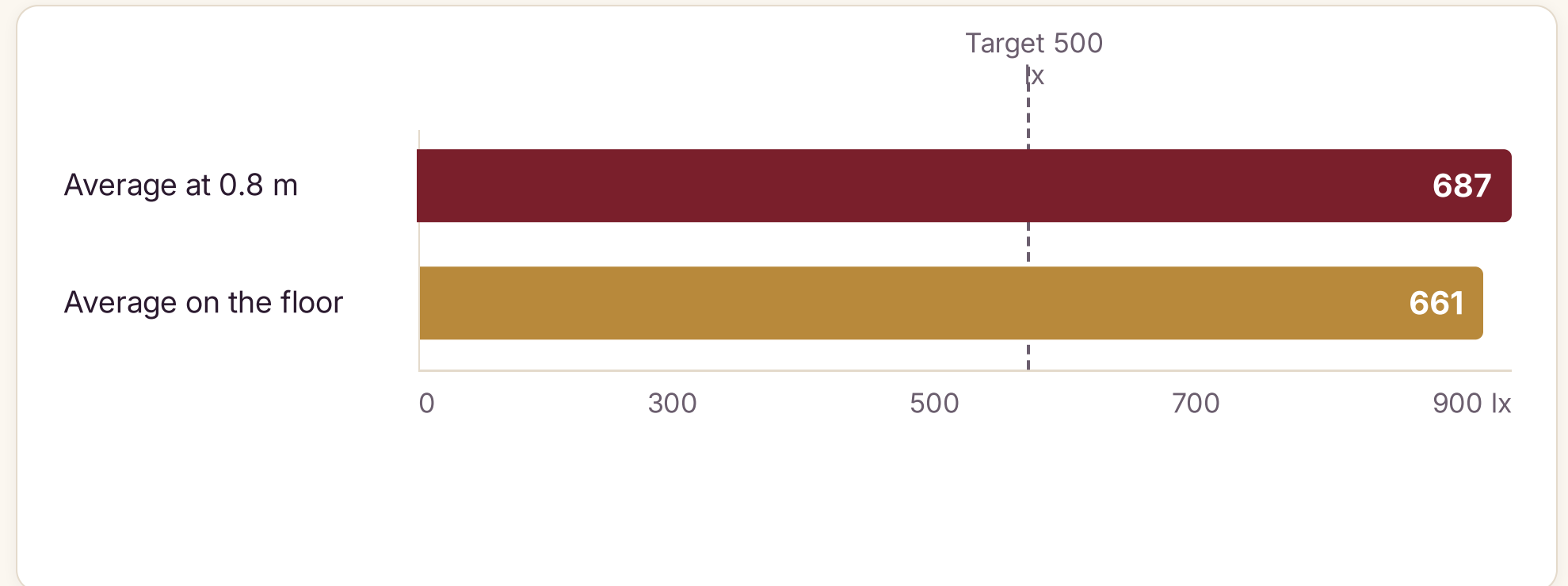
THE RESULTS

The answer: 687 lux, against a 500 lux target

687 lx

calculated average, 0.8 m above the floor

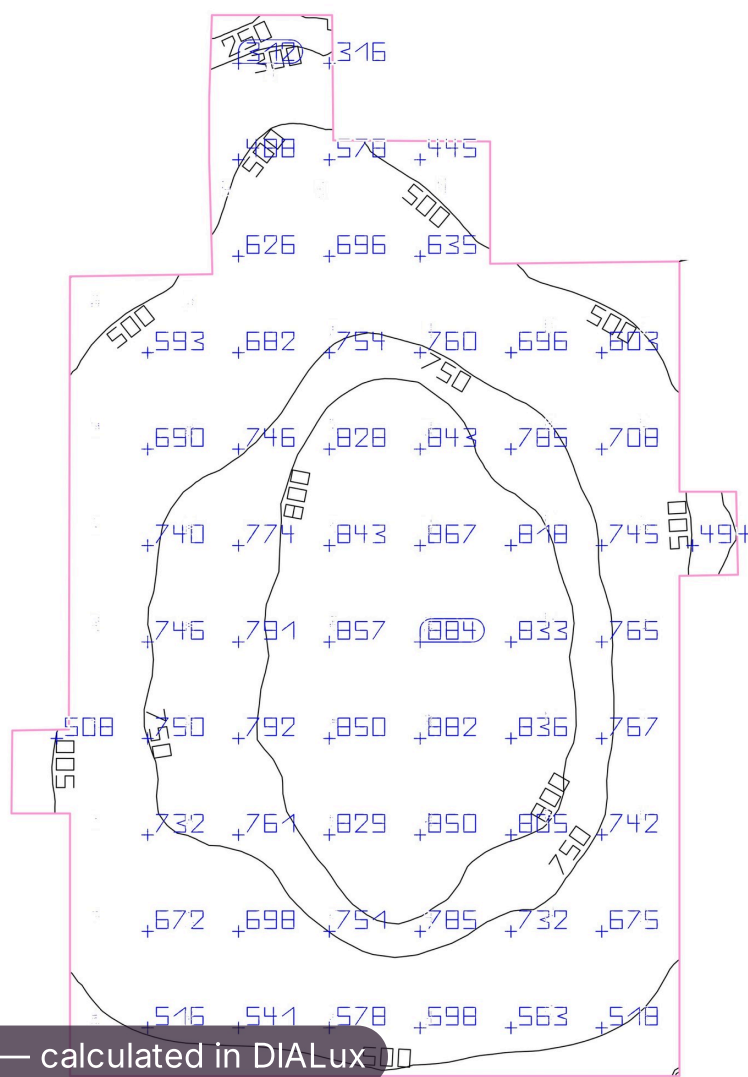
✓ Target: 500 lx or more



Both averages are well above the 500 lx target. The client could approve the plan and place the order with confidence.

THE RESULTS

Light at 0.8 m above the floor



The gym from above. Each number is the calculated lux at that point; the lines join points of equal light.

How to read it

The plan shows the gym from above. Each number is the calculated lux at that point. The lines join points of equal light, from 250 to 800 lux.

687 lx
average

891 lx
highest

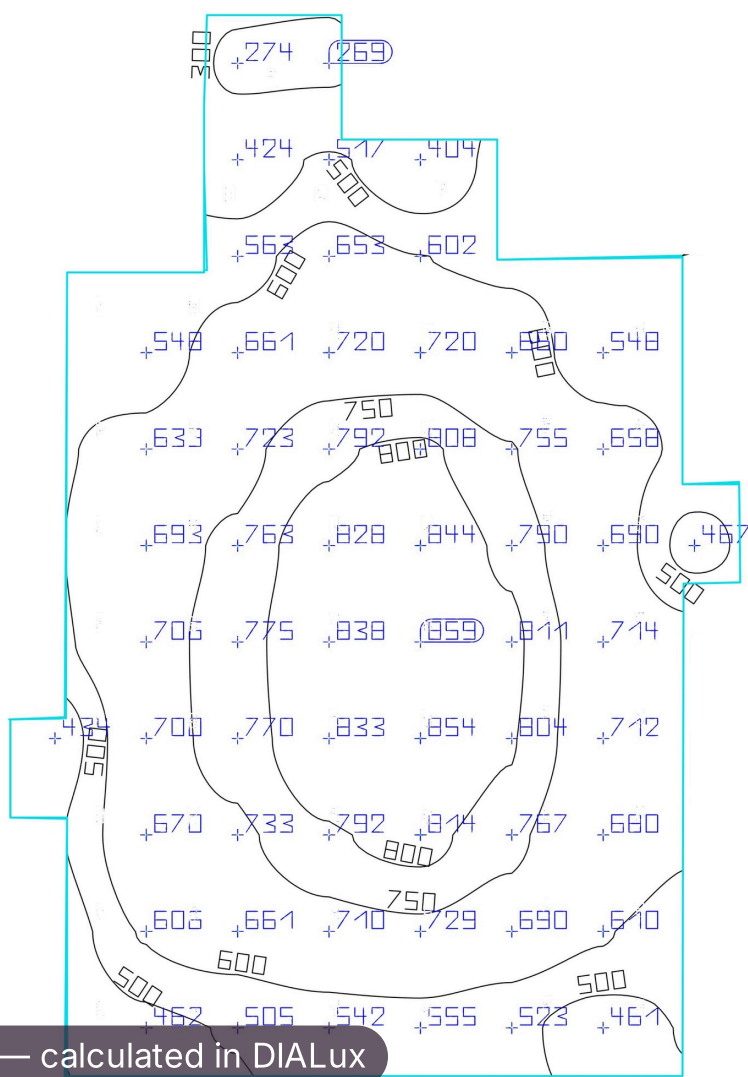
233 lx
lowest

The light is strongest in the middle of the hall and softens towards the walls. The darkest spot is in the narrow strip between the changing room and the stairs.

Working plane 0.8 m above the floor; a 0.121 m strip along the walls is left out, as usual.

THE RESULTS

Light on the floor



661 lx

average

859 lx

highest

269 lx

lowest

The floor shows the same pattern: brightest in the middle of the hall, softer at the walls, and lowest in the narrow strip by the changing room.

The 750 and 800 lux lines wrap the centre of the hall.

The same view, calculated on the floor itself. The circled numbers are the highest and lowest points on the grid.

THE RESULTS

All results, side by side

What we calculated	Average	Target (average)		Lowest	Highest	Uniformity (Uo)
Working plane, 0.8 m above the floor	687 lx	500 lx or more	✓	233 lx	891 lx	0.34
Floor	661 lx	—		269 lx	859 lx	0.41

Reading the table

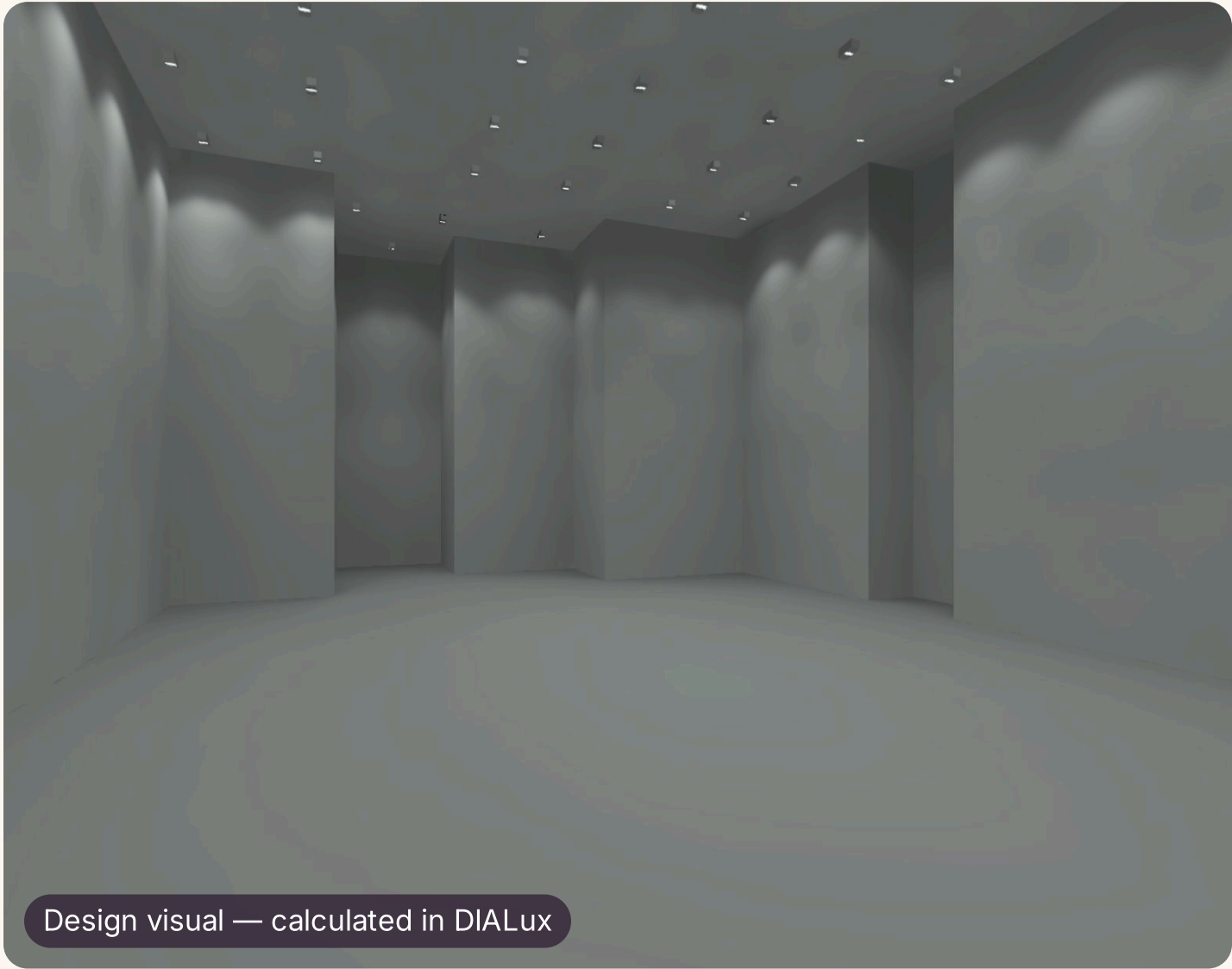
Average: the mean light over the whole surface. Lowest and highest: the darkest and brightest calculated points. Uniformity (Uo): lowest ÷ average; 1.0 would be perfectly even.

Where the low points are

The lowest values sit in the narrow strip between the changing room and the stairs. It is the only part of the room below 300 lux on either plan, and it pulls the uniformity figure down.

Calculated in DIALux, maintenance factor 0.80. The working plane leaves out a 0.121 m strip along the walls.

The light stayed. The placement changed.



The planned lights in the 6.1 m ceiling, in our DIALux model.

The client's team had chosen the light: the Eliante Retail Multiple Light, with two light modules in one housing. We kept it.

What we checked, and changed where needed, was where each light sits. Where the original spacing showed darker patches or uneven light, we re-positioned the lights.

A gym layout can look fine on paper and still fall short on the floor. The placement is usually where it goes wrong, so that is what we checked.

3000 K

warm white

CRI 90

colour rendering

40°

beam

6.1 m

mounting height

DELIVERED

What we delivered

- ✓ A DIALux calculation report for the gym floor
- ✓ Results 0.8 m above the floor and on the floor: average, lowest and highest lux, and uniformity
- ✓ Isolux plans showing how the light spreads across the room
- ✓ A lighting layout plan with the position of every light
- ✓ A clear answer before the order: the 500 lx average target is met

Building or renovating a gym, studio or sports hall?

Send us your floor plan, your ceiling height and the lights you plan to use on WhatsApp. Our team will check the layout in DIALux and help you with the lighting design before you order.

Message us on WhatsApp

WhatsApp +91 98991 88821
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