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INTRO

SCOPE

METHODOLOGY &
INSPIRATION

DESIGN CONCEPTS

FIXTURES, MOUNTING &
CONTROLS

BUDGET PLANS

NEXT STEPS



Oedipus Brewery
Craft Space

Architectural Lighting Design Concepts

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SCOPE

PHASE 1

RESEARCH

How can the architectural lights provide intimacy without taking up space?

How can they be modular to provide focused lighting for different events (regular seating, futsal tournament, gallery space, etc.)?

PHASE 2

DESIGN

Provide three layers of lighting: indirect, wash, and focus.

All lights suspended from ceiling or steel beams, or table mounted

Installation plan and guidelines for electrician

PHASE 3

LUMINAIRE SELECTION

Choose simple RGB + CCT LED luminaires, providing all the color possibilities: colors and warm to cold white.

Basic LED fixtures that are easy to control on one platform, by anyone at anytime.

All fixtures can be simply maintained or replaced if necessary.

PHASE 4

ADJUST & INSTALL

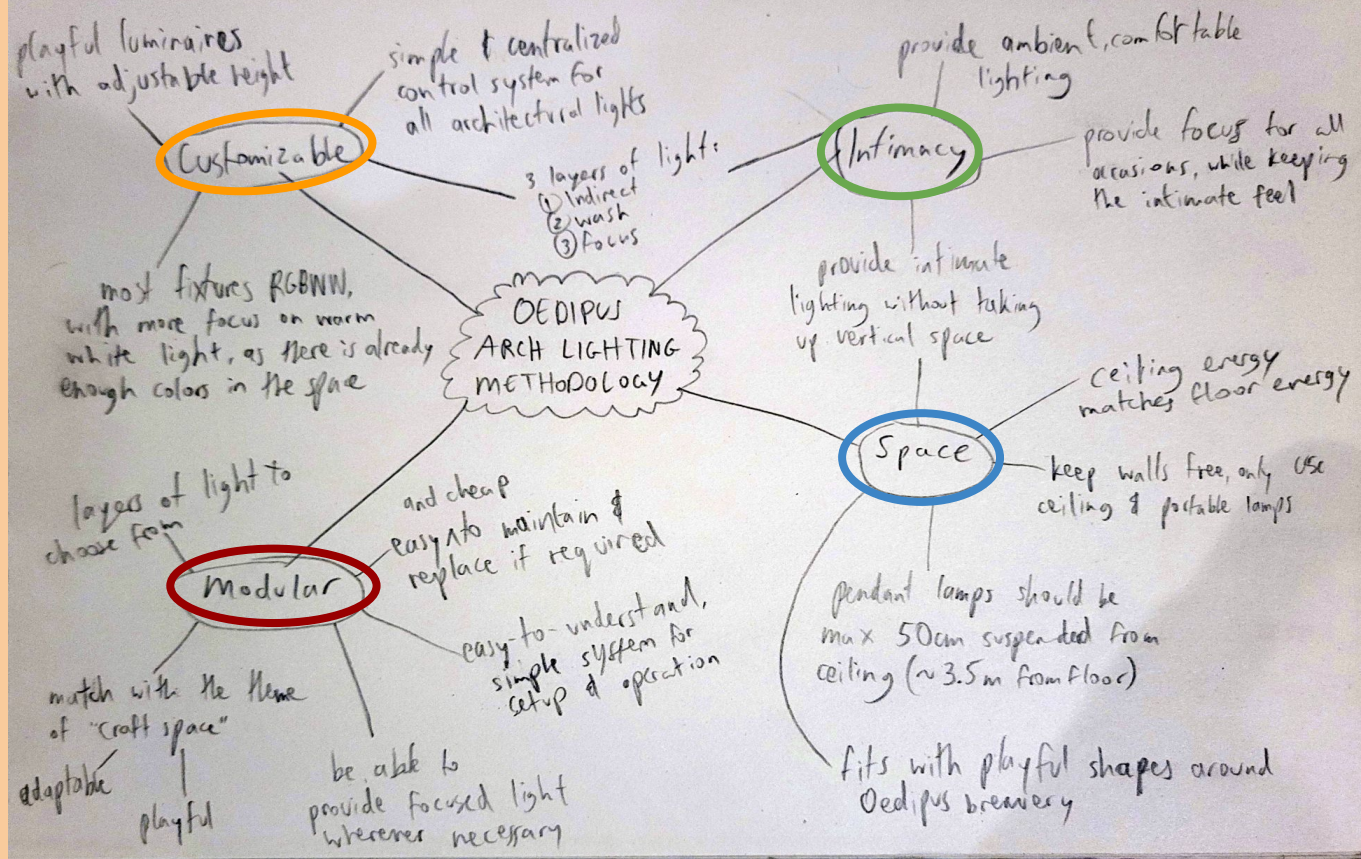
Choose final design, then:

Assemble light fixtures only.

Complete installation of fixtures to electricity and space by electrician, along with all required wiring: to meet Oedipus safety guidelines, as mentioned and agreed upon in the Lighting Design Proposal ([link](#))

Test, Adjust, Finito!

METHODOLOGY



METHODOLOGY

INTIMACY

Intimate lighting is usually suspended low from the ceiling and focused, taking up a lot of vertical space. Can get in the way of a moving, multi-use craft space.

Alternative intimate lighting – 3 layers:

1. Indirect
2. Wash
3. Focus

SPACE

Keep walls empty, only use ceiling: to leave necessary space for artists/event organizers to use the walls and visible, reachable surfaces.

Pendant luminaires should be suspended maximum 115cm from ceiling, leaving 3 meters from the floor free.

Lights play with shapes, similar to brewery space

MODULAR

Modular in three features:

1. Intensity – can be as bright or dim as possible)
2. Focus – lights can provide focus to any space whenever necessary (futsal tournament, DJ, etc.)
3. Maintenance: easy and cheap to maintain and replace if necessary.

Essentially, everything is adaptable

CUSTOMIZ- ABLE

Most fixtures RGBWW, to give full capabilities of color.

Some fixtures color temperature adjustable – between warm and cold white: 2700K to 6500K, to provide warmth and intimacy, as well as neutral/cold task lighting.

Simple & centralized control system for all architectural lights

INSPIRATIONS

Exoskeleton

Craft Space is full of exposed pipes and beams. What if we did the same to a bottle of beer?

How can we illuminate the inside (skeleton) of beer

Funky shapes

Taking a step outside craft space into the brewery, how many funky shapes can you see?

DESIGN INSPIRATIONS



The Pendry, NYC



FIXTURE INSPIRATIONS



DESIGN CONCEPTS

Two architectural lighting design concepts.

An extra fixture option for both concepts: Track lighting.

OPT1: Bottle cap pendant

OPT1+track: Option 1 with track system

OPT2: Beer bottle pendant

OPT2+track: Option 2 with track system



OPT1



OPT1+track

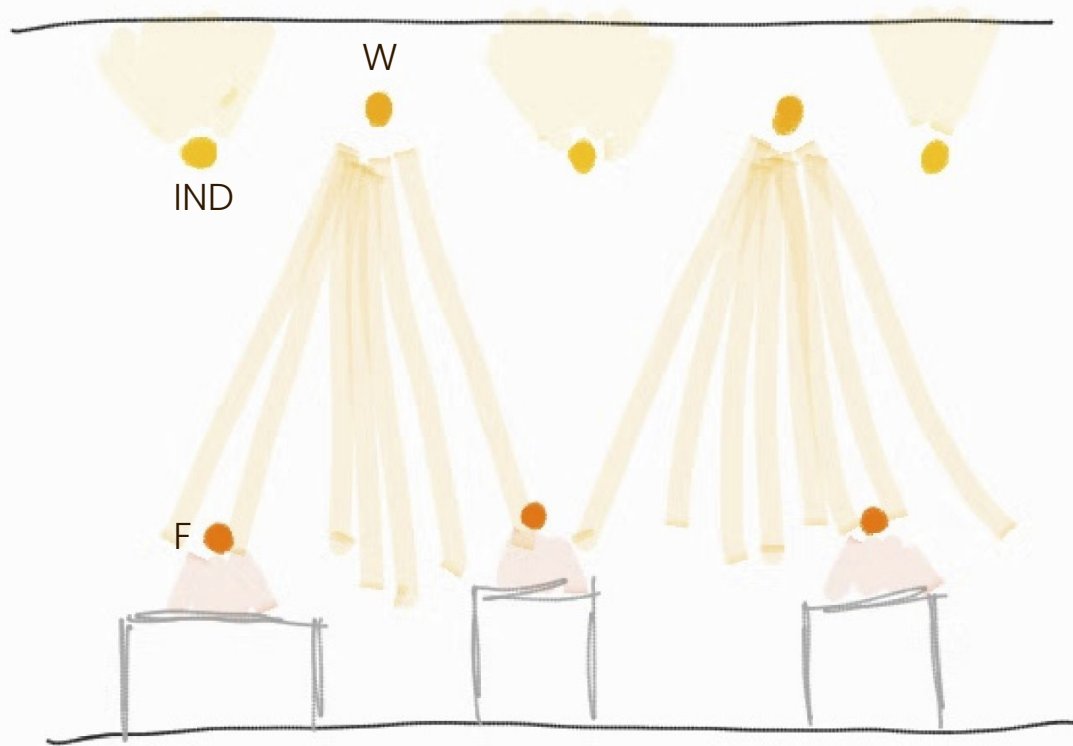


OPT2



OPT2+track

3 LAYERS OF LIGHT



- W - Wash
- IND - Indirect
- F - Focus

OPT1

Inspirations:

Opening a bottle of beer, the warm, golden shine of the liquid beer illuminated onto the ceiling

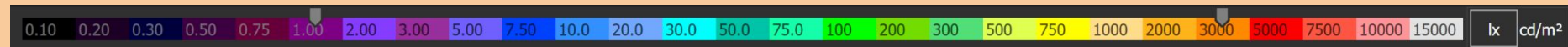
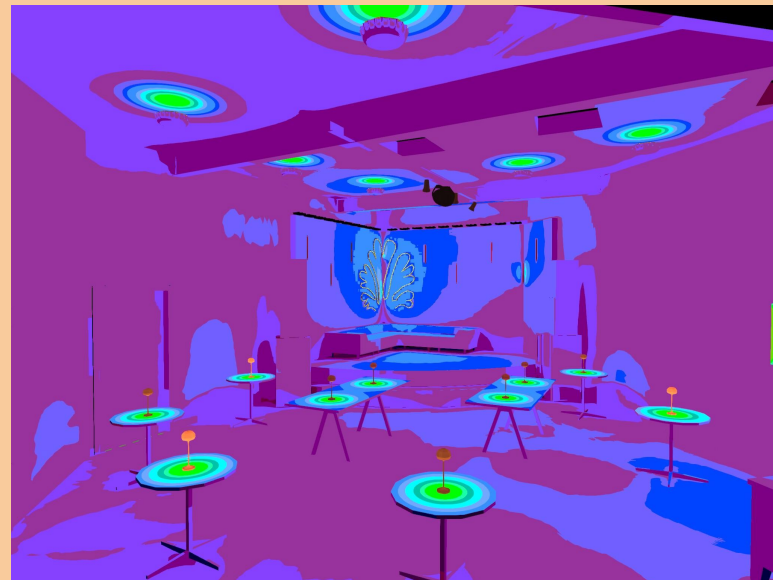
Providing Ambient, intimate, playful, and focused lighting without direct downlight luminaires and glare

Craft Spaceship! - Oedipus future dreams

Layers of light:
IND, F

Fixtures:
CS-BC
CS-TL01/02



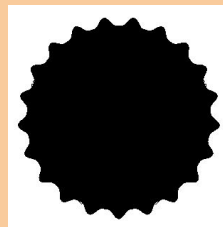
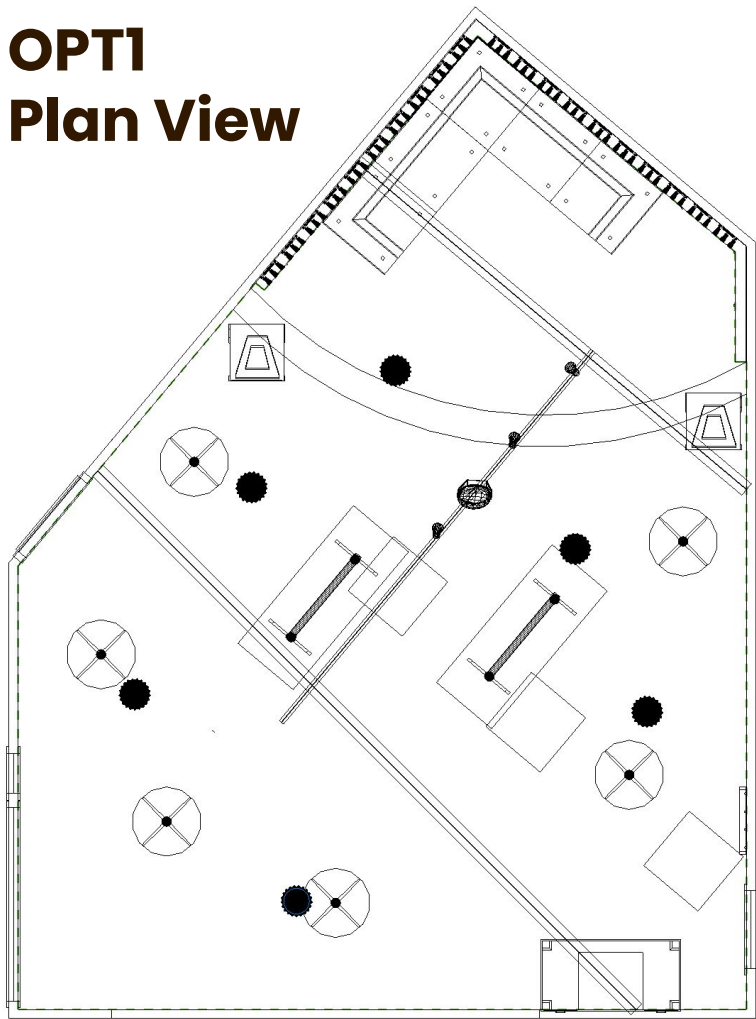




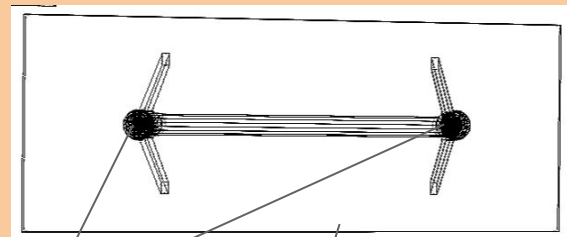
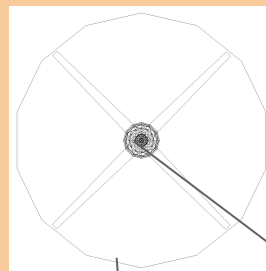




OPT1 Plan View



CS-BC



CS-TL01/02

Table/flat surface

OPT1+track

Inspirations

Modular system, can be placed and focused anywhere in the space.

Fusbal tournament, provide focused wash on specific areas (tables, DJ, artwork on walls, etc.)

Can be a general dim wash around the area if extra light necessary

Layers of Light

IND, F, W

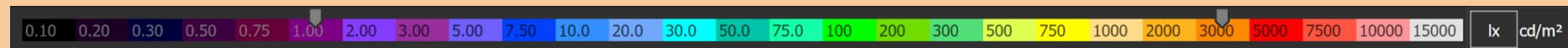
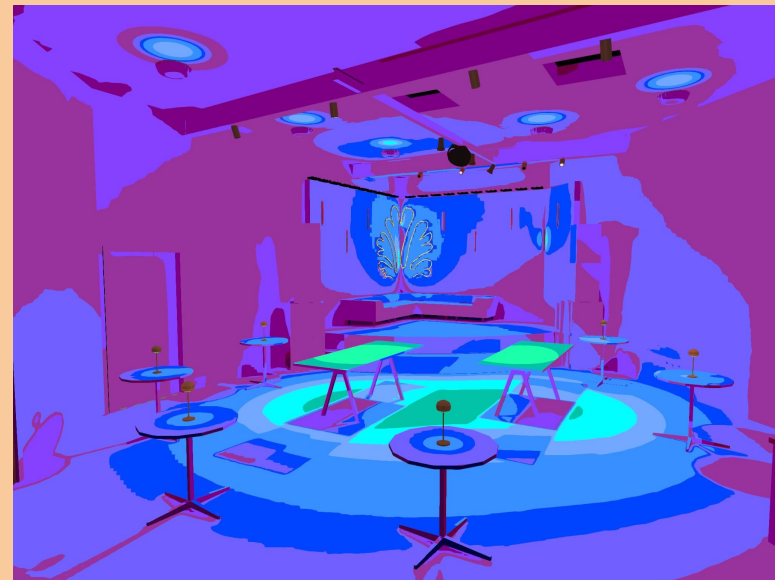
Fixtures

CS-BC

CS-TL01/02

CS-TR

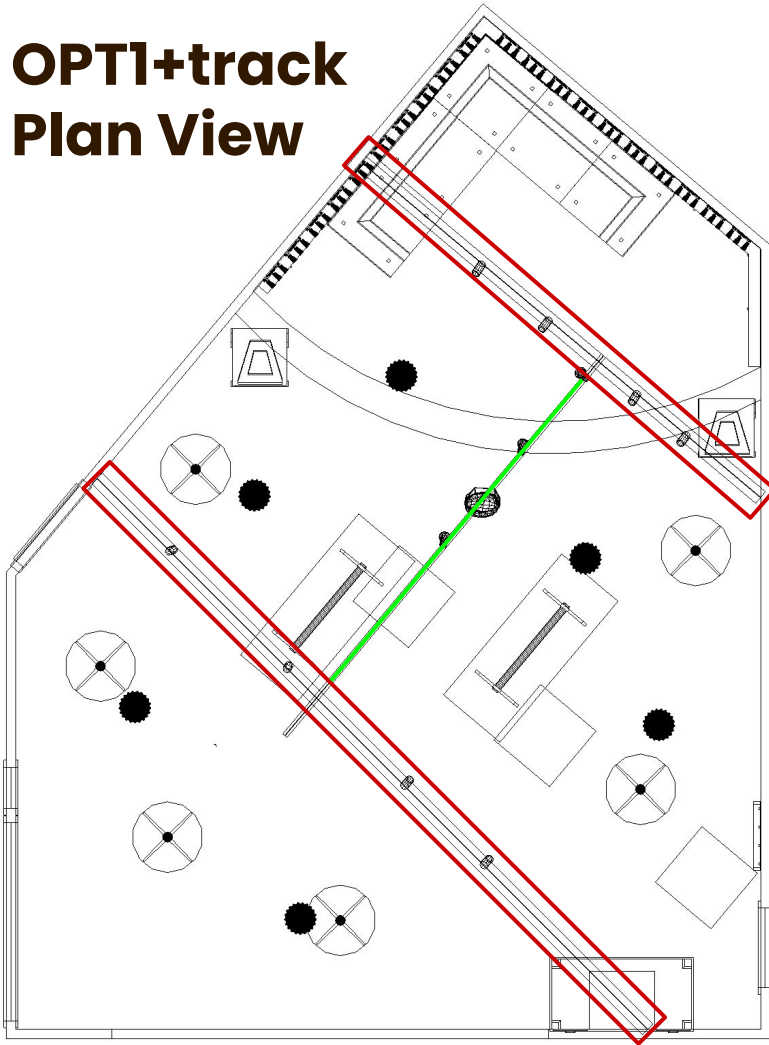








OPT1+track Plan View



Proposed Track Rail Locations:

suspended from thick steel beams (red zones)

If truss system is achieved for stage lights (moving heads + LED washes/pars), I propose to have another rail suspended from thin steel beam (green line)

OPT2

Inspiration

Beer chandelier,
illuminating the
Oedipus bottle.

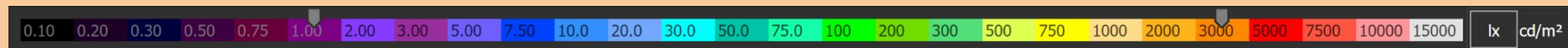
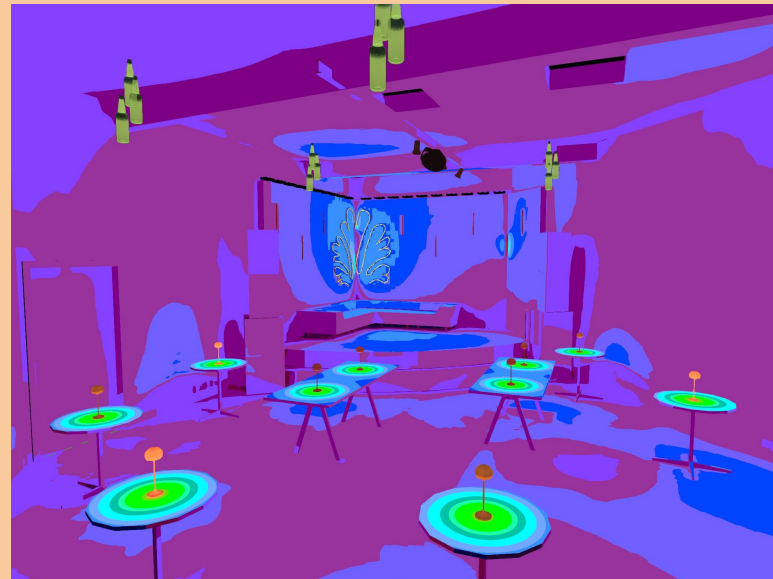
Modifiable, bottles can
be changed for
promotion purposes

Fun (unexpected)
pattern projections of
beer bottle on floor and
table surfaces

LAYERS OF LIGHT
W, F

FIXTURES
CS-BB
CS-TL01/02

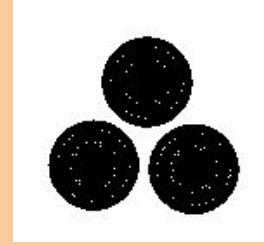




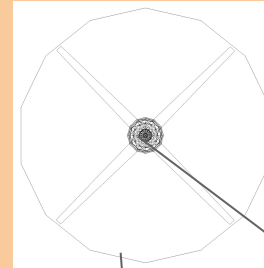




OPT2 Plan View

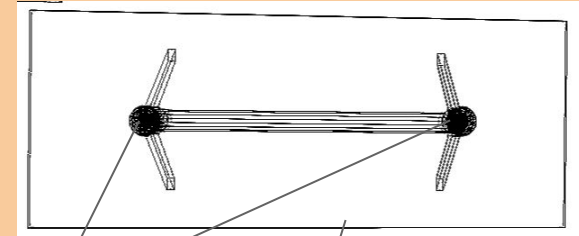


CS-BB



CS-TL01/02

Table/flat surface



OPT2+track

Inspirations

Modular system, can be placed and focused anywhere in the space.

Fusbal tournament, provide focused wash on specific areas (tables, DJ, artwork on walls, etc.)

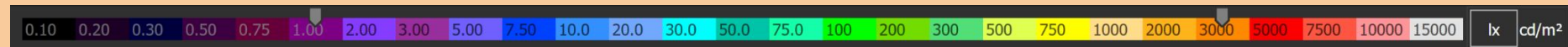
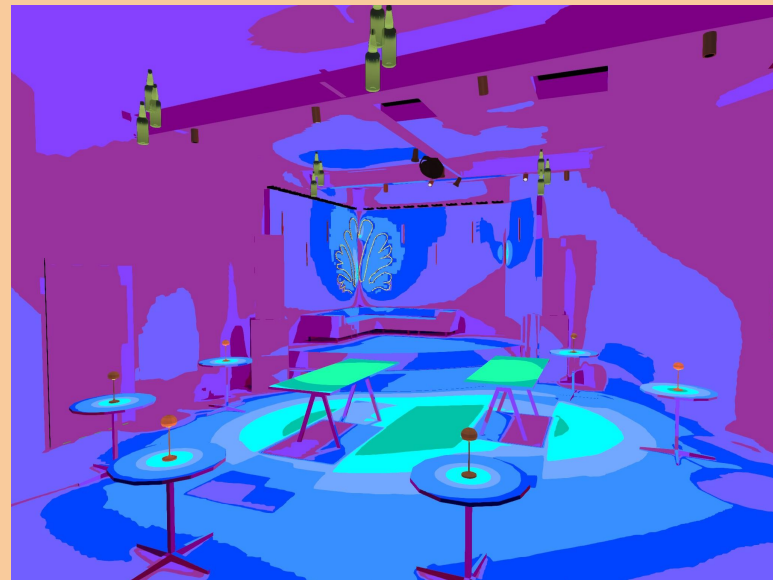
Can be a general dim wash around the area if extra light necessary

Layers of Light F, W

Fixtures

CS-BB
CS-TL01/02
CS-TR

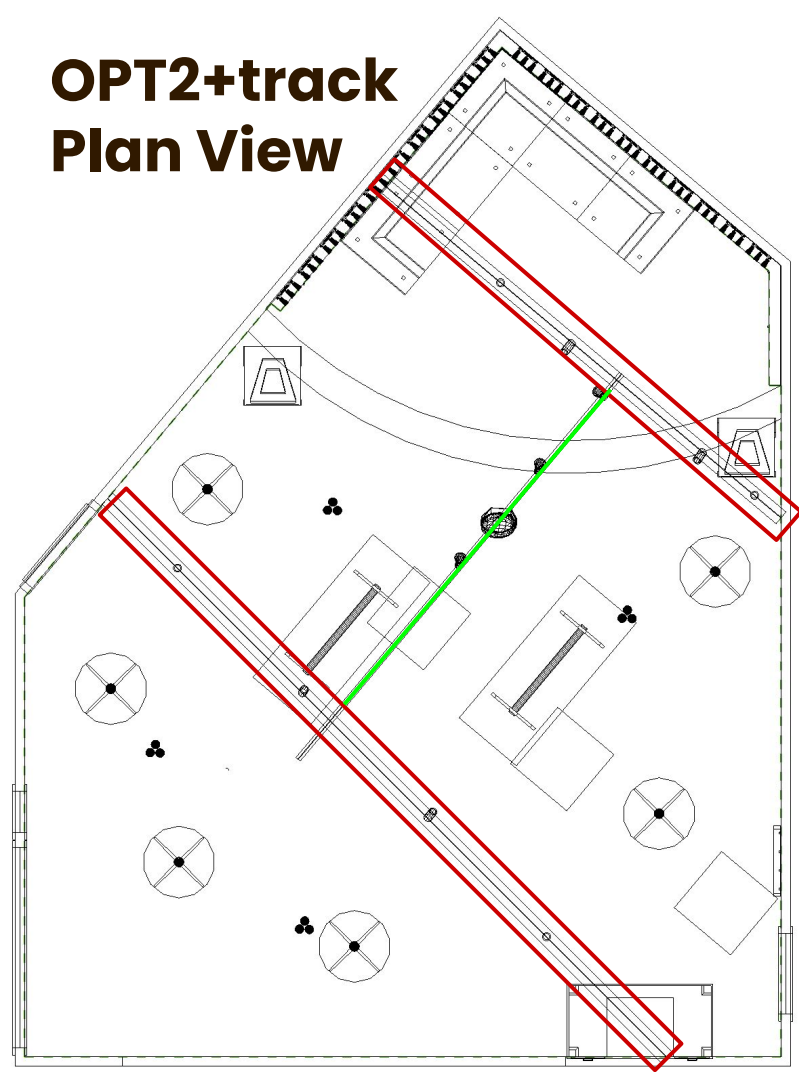








OPT2+track Plan View



Proposed Track Rail Locations:

suspended from thick steel beams (red zones)

If truss system is achieved for stage lights (moving heads + LED washes/pars), I propose to have another rail suspended from thin steel beam (green line)

Light Level Calculations

Light Condition	Typical Lux Level
British summer sunshine	50,000
Ambient Daylight	10,000 to 25,000
Overcast Daylight	1,000 to 5,000
Well-lit office	500
Sunset & Sunrise	400
Family Living Room	120
Lifts	100
Street Lighting	15
Moonlight (Full moon)	1
Night (No moon)	<0.01

Lux = Lumens per square meter

Average lux Opt1 = 30 lux

Average lux Opt2 = 10

Average lux +track (@ the illuminated surface only) = 30

Note: for all calculations, all architectural luminaires are at 100% intensity

FIXTURES...

CS-BC

- Bottle Cap
- Custom Luminaire constructed by me
- Indirect
- LED strip facing upwards, along inside perimeter of tart mould (see mounting details)
- RGBWW, all color and warm-cold white possibility



CS-BB

- Beer Bottle
- Custom Luminaire constructed by me
- Mini LED spotlight fits inside bottle opening
- One color (warm white 3000K), remote control
- Bottles hung by strong rope!



CS = Craft Space

CS-TL01

- Table Lamp - Standalone
- Dimmable and color temp. adjustable
- Long battery life, USB-C charger



CS-TL02

- Table Lamp - Bottle-attachable
- You have many empty bottles to light up!
- Dimmable and color temp. adjustable
- Long battery life, USB-C charger



CS-TR

- Track system
- GU10 bulb (adjustable white)
- 36 degree beam angle
- Modular: place track rail anywhere, however long/short. Any track fixture, anywhere, can be focused wherever you like
- Anti-glare Honeycomb Louver
- Replaceable bulb

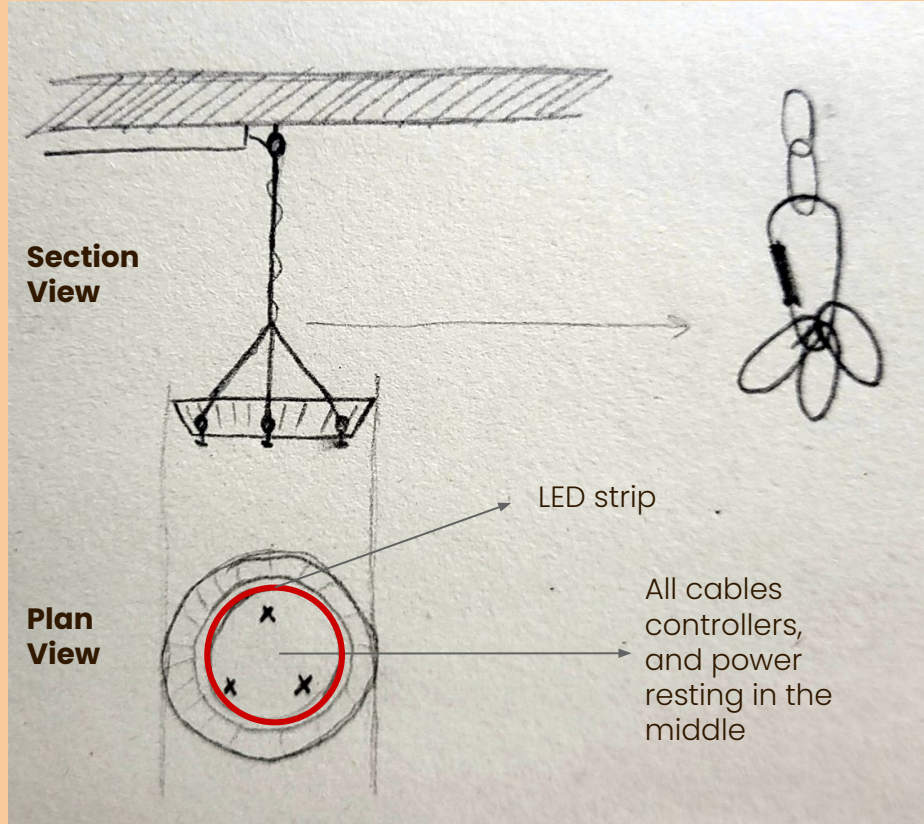


...MOUNTING...

CS-BC

Luminaire composition

1. **Tart Mould** aluminium 30cm diameter
2. **Thin stainless steel chain** (to hang luminaire from ceiling, at fixed or alternating suspending lengths)
3. **3 eye nuts and bolts** (tart mould connection)
4. **1 eye screw** (ceiling connection)
5. **5 Carabeneers**
 - a. three to connect to the tart mould eye nuts
 - b. one to connect three chains from pan to one chain,
 - c. one to connect chain to ceiling
6. **RGBWW LED strip 1m**, facing the ceiling, stuck along the outside base lining of tart mould.
7. **LED Controller & Cable**
8. **Power cable** running through chain
9. **Cable tray** to send cable to electricity point

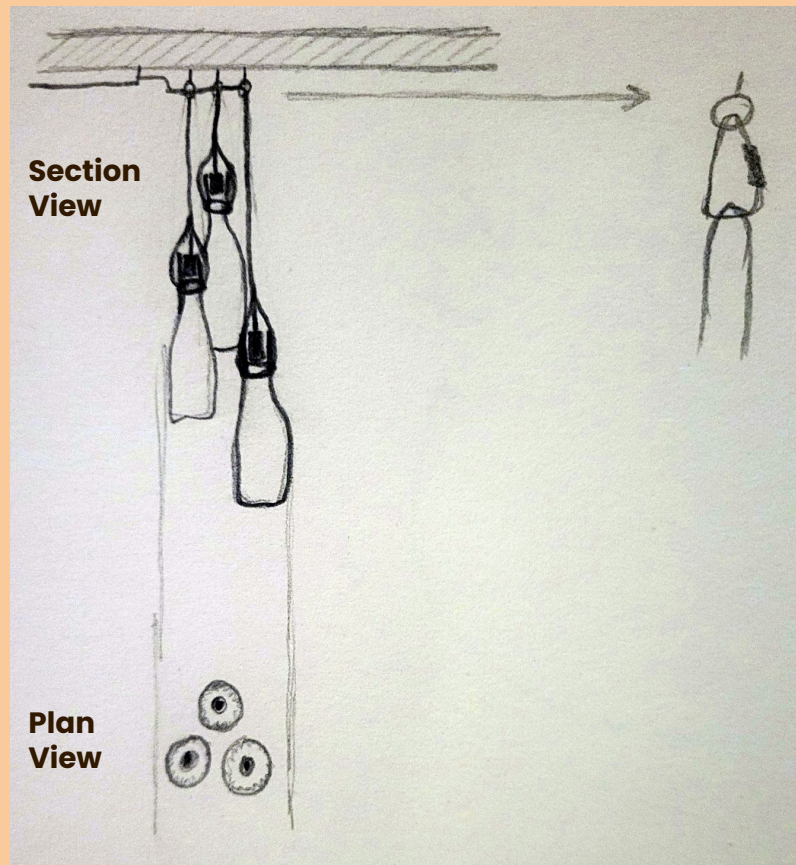


...MOUNTING...

CS-BB

Luminaire composition

1. **3 beer bottles**
2. **3 ropes** to hang bottles from neck
3. **3 eye screws** to secure to ceiling
4. **3 carabiners** to connect bottle rope to ceiling eye screw
5. **3 mini LED spots**, warm white 3000K (diameter 20mm, small enough to fit inside bottle)
6. **LED dimmer** with remote control
7. **Power cable**
8. **Cable tray**



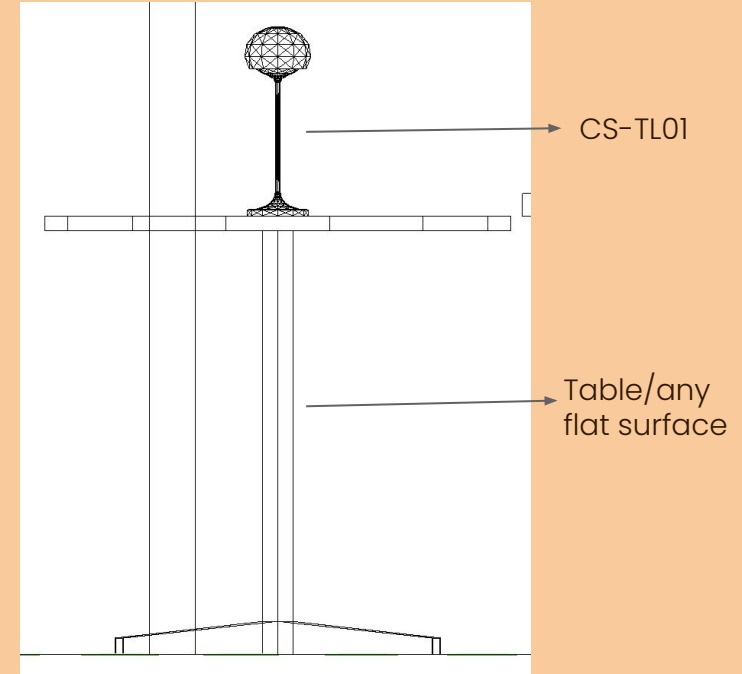
...MOUNTING...

CS-TL01/02

1. CS-TL01
 - a. Can be placed on any flat surface, for focused accent intimate/task lighting.
 - b. Sturdy polished metal, can withstand constant portability
 - c. Easily cleanable

2. CS-TL02
 - a. Can be attached onto any open bottle (a cone-shaped metal cork attached to a lamp)
 - i. For example, promote your seasonal or new beers with this lamp type!
 - b. Provides accent focused task + intimate lighting
 - c. I recommend to secure the bottom of bottle used onto a wide base (~15cm diameter) with simple adhesive, to provide stability on any surface and maintain portability

Section View

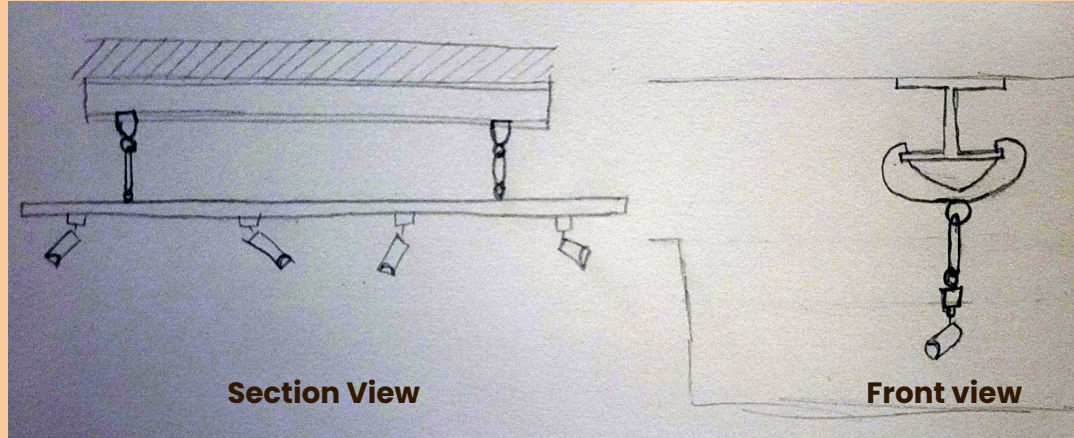


...MOUNTING...

CS-TR

Luminaire composition

1. **2 beam clamps per meter**, to clip the track rail to
2. **2 short safety cables per meter**, to attach track rail to beam clamp
3. **2 eye nuts and bolts per meter** to connect track rail to safety cable
4. **1 Power cable per continuous rail track**, to connect track to power.
5. **Cable tray**



...& CONTROLS

Recommended: Zigbee 3.0

Connection

Mesh network (bluetooth)

Speed & Reliability

Requires gateway hub to connect to phone/tablet

Compatibility

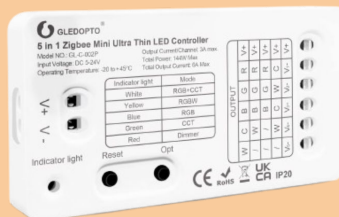
Less WiFi consumption

Range

Less latency (faster)

Setup Complexity

Works with most manufacturers and smart home applications



Alternative: Tuya

WiFi network

No hub necessary

Heavy Wifi Consumption

Latency (depends on WiFi)

Works with Tuya ecosystem
Easier Setup



...MAINTENANCE...

CS-BC

1. Use transparent tape to secure LED strip to tart mould, instead of 3m adhesive on LED back, in order to replace it if necessary
2. Many carabiners used to be able to detach the tart mould section easily, without disrupting the power lines or fixture connection
3. Every part of luminaire, including driver and power is easily accessible, maintainable and replaceable if necessary.

CS-BB

1. Carabiners used to easily detach bottles from ceiling without mechanical support.
2. Mini LED spots a little more difficult to maintain and replace, due to cabling.
3. Although it is a beautiful luminaire, can cause safety hazards as it is only secured by a rope (not mechanically), and overtime, knots can loosen.

CS-TR

1. Safety cable used to easily detach track, and move it to a different place (modularity)
2. Each part, including light bulb is very easily accessible, maintainable, and replaceable.
3. Track rails and spot housing are very affordable and easily maintainable and replaceable.

BUDGET PLANS

€OPT1

€OPT2

€+track

Three budget plans:

1. OPT1
2. OPT2
3. +track

If you want the track option added, just add its budget to the option you prefer

Each option is within the €500 range, track extra option will be slightly over the range.

As such, stage lighting budget will be reduced slightly (max. 250 euros) depending on what option you choose

Each budget plan includes everything required for that specific option, including attic stock

Each budget plan includes the price per unit (PPU), how many units are required, and the total.

If you see an item (e.g. steel chain for CS-BC), and know a better price/option, go for it! This budget is just to provide basic info on the specifications of each item

The budget plans focus on what light fixtures and controls are available from the fixture selection in the budget range

If you already have certain items (such as nuts, bolts, screws, power cables & trays) in your inventory, then you save some costs!

Each budget plan is under the impression of a 10% contingency, due to the possibility of sales, negotiation, and unavailability of products from now until you purchasing time

OPT1

CS-BC	LINK	PPU (€)	UNITS	TOTAL	Notes
Tart Mould	~	10.99	6	65.94	
Thin stainless steel chain	~	1.16	10	11.6	Price p/m
RGBWW LED strip 10m	~	45.99	1	45.99	10m strip
LED Controller (Zigbee)	~	19.95	6	119.7	
Power cable	~	1	30	30	Price p/m
Cable tray	~	1.13	30	34	Price p/m
Eye nuts	~	3.19	18	57.42	
Bolts	~	3.99	3	11.97	
Eye screws	~	3.79	1	3.79	
Carabiners	~	2.89	30	86.7	
			Total	307.13	

CS-TL	LINK	PPU (€)	UNITS	TOTAL	Notes
TL01	~	9.5	10	95	Choose either this option...
TL02	~	9.5	10	95	... or this option!

OPT2

CS-BB	LINK	PPU (€)	UNITS	TOTAL	Notes
Power cable	~	1	30	30	Price per meter
Cable tray	~	1.13	30	34	Price per meter
Eye screws	~	3.79	12	45.48	
Carabiners	~	2.89	12	34.68	
Mini LED Spots	~	3.04	12	36.48	
Ropes	~	8.95	1	8.95	
LED Dimmer	~	8.8	4	35	
			Total	224.69	

CS-TL	LINK	PPU (€)	UNITS	TOTAL	Notes
TL01	~	9.5	10	95	Choose either this option...
TL02	~	9.5	10	95	... or this option!

+track

CS-TR	LINK	PPU (€)	UNITS	TOTAL	Notes
Power cable	~	1	30	30	Price per meter
Cable tray	~	1.13	30	34	Price per meter
Trail system with spots & bulbs	~	64.95	2	129.9	each unit includes: - 2x1 meter track rail (2m total) - 4 spot housings - 4 bulbs
Beam clamp	~	42.15	2	84.3	Price per meter
Carabiners	~	2.89	16	46.24	
			Total	324.34	

BUDGET PLANS DIFFERENCE

	<i>OP1</i>	<i>OP2</i>	<i>+track</i>
<i>Layers of Light</i>	IND, F	W, F	W
<i>Intimacy</i>	Intimate, indirect lighting	Intimate wash	Intimate wash/focus
<i>Customizability</i>	RGBWW LED strip	Warm white	Tunable white
<i>Modularity</i>	Adjust suspension height	-	Ultra modular!
<i>Space</i>	Matches the funky shapes	Beers everywhere!	Provides focus where necessary

NEXT STEPS

01	02	03	04
MEETING & FEEDBACK Let me know your feedback, based on your expectations.	ADJUSTMENTS & FINALIZE DESIGN CHOICE Let me know which design concept you prefer, and if you would want any adjustments in the design concept.	PURCHASING FIXTURES: STAGE & ARCHITECTURAL I will provide a complete purchasing plan for you to follow, to buy all required lights, equipment, and setup for stage and architectural lighting. Based on your choice of architectural lighting, I will submit the detailed Reflected Ceiling Plan drawings for electrician to follow for construction	CONSTRUCT! Construction time! I will be on site, constructing the stage lighting + supervising architectural lighting by electrician. Hopefully, we can start construction by the mid-March, by the time everything arrives. Total construction should take maximum one work-week.

Thank You!

Oedipus Brewery Craft Space

03-02-2025

