

KAGAWA PREFECTURAL GOVERNMENT OFFICE



Designed by Kenzo Tange in 1958, the Kagawa Prefectural Government Office in Takamatsu, Japan, reflects the influence of the modernist movement on post-war Japanese architecture.



DAYLIGHTING & ELECTRIC LIGHTING

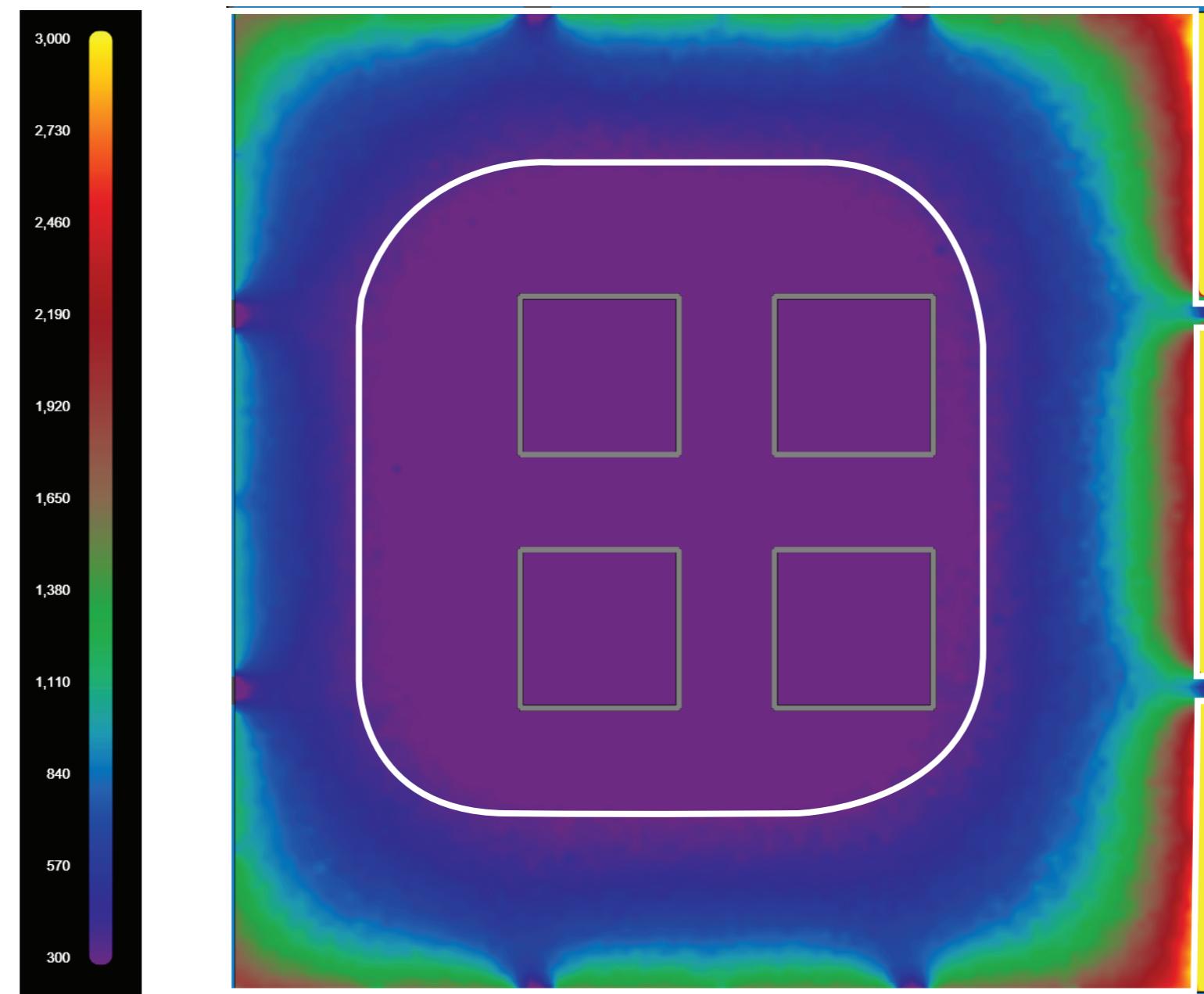


During this period, government buildings embraced a Western aesthetic to symbolize power and culture. Tange blended this with traditional Japanese elements, like the pillar-and-beam structure and veranda railing, using modern materials.



The building's core, centrally located, housed essential services like stairs, elevators, and restrooms within an anti-seismic wall system, while an open-plan office space surrounded it from the second to the eighth floors. This layout maximized functional space and ensured ample natural light with windows on all sides.

DAYLIGHT ACCESS STUDY (9 AM)



Total Floor Area = 961 sq.m

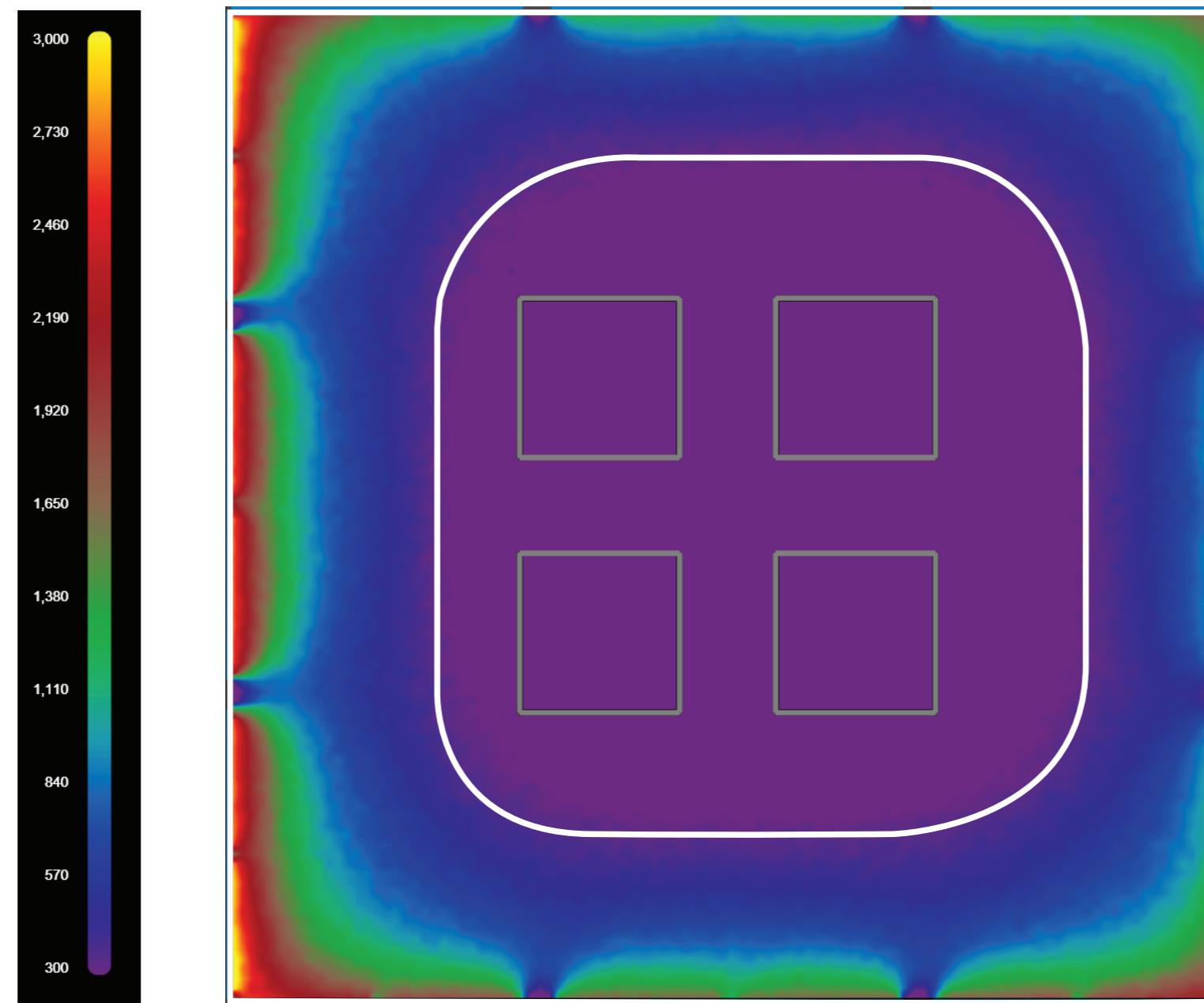
Daylight Access Area = 560 sq.m

Total Percentage:

$$961/560 = \mathbf{58.3 \%}$$

PASS!

DAYLIGHT ACCESS STUDY (3 PM)



Total Floor Area = 961 sq.m

Daylight Access Area = 544 sq.m

Total Percentage:

$$961/544 = \mathbf{56.6\%}$$

PASS!

DAYLIGHT ACCESS PERSPECTIVE (9 AM)



DAYLIGHT ACCESS PERSPECTIVE (3 PM)



PERSPECTIVE RENDER



REFLECTED CEILING PLAN

1: 200

LEGENDS:

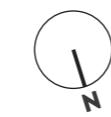
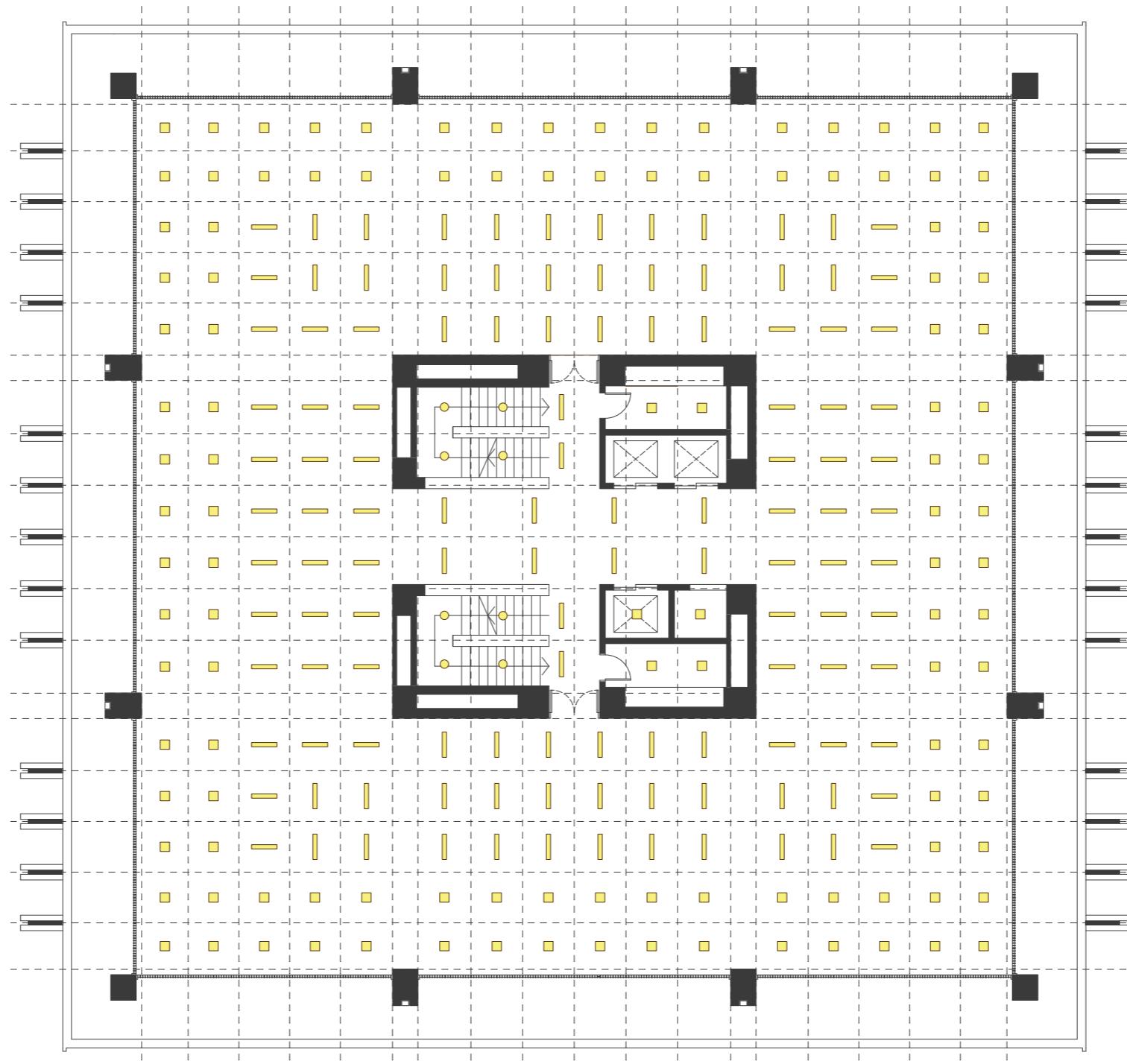
 Mark Architectural Lighting -
VRP 1X1 2500LM 50K 80CRI 120V FPC250
Total: 118 pcs.



 Luminaire LED -
SL6L 3 FLP 80CRI 30K 900LMF
Total: 120 pcs.



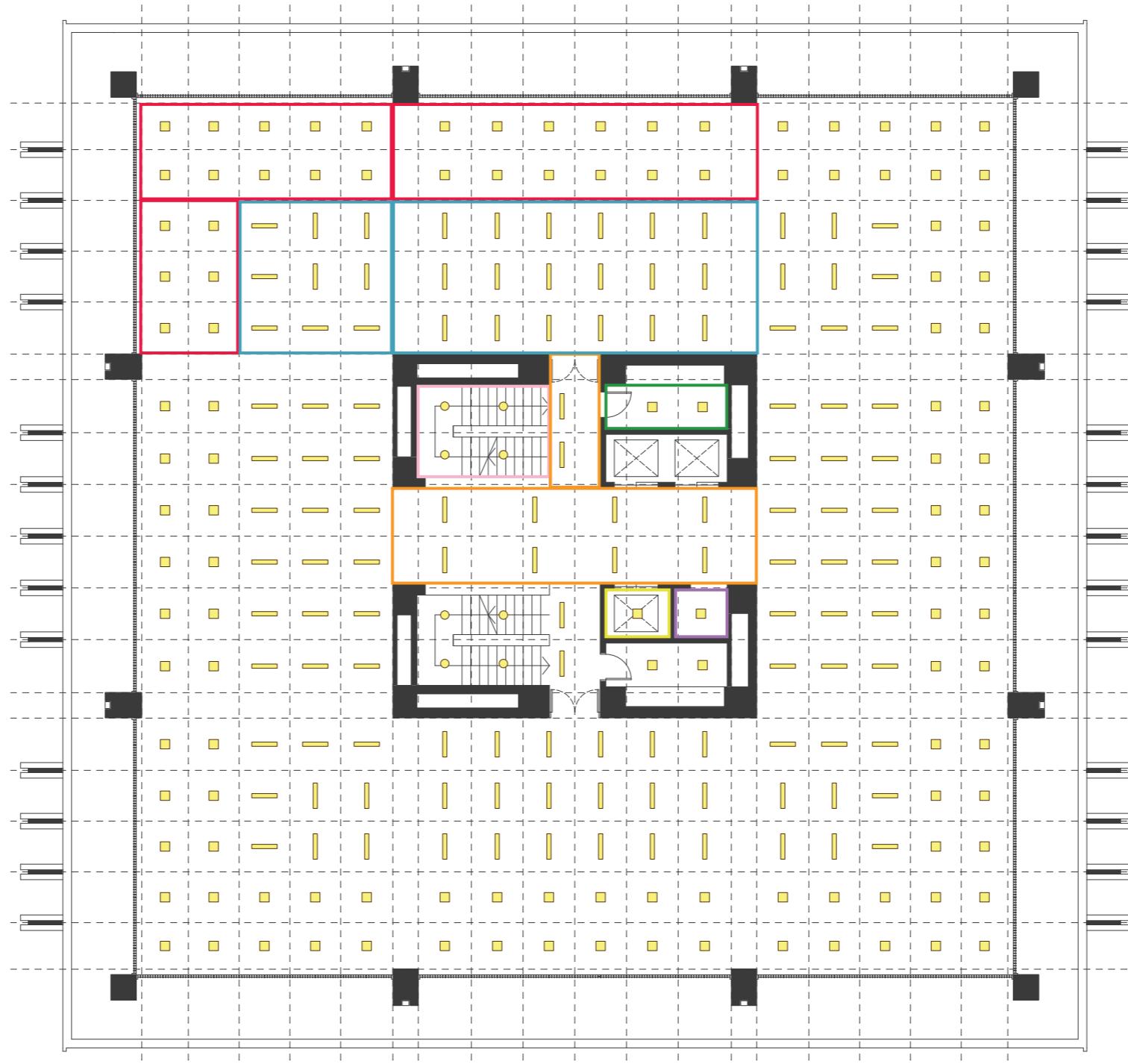
 Healthcare Lighting -
HPCS DRP 12DOA 1000LM 80CRI 27K
Total: 8 pcs.



0 2 5 10 m

ZONING

1: 200



LEGENDS:

- PERIMETER
- OFFICE
- CORRIDOR
- STAIRCASE
- WC
- AHU
- STORAGE



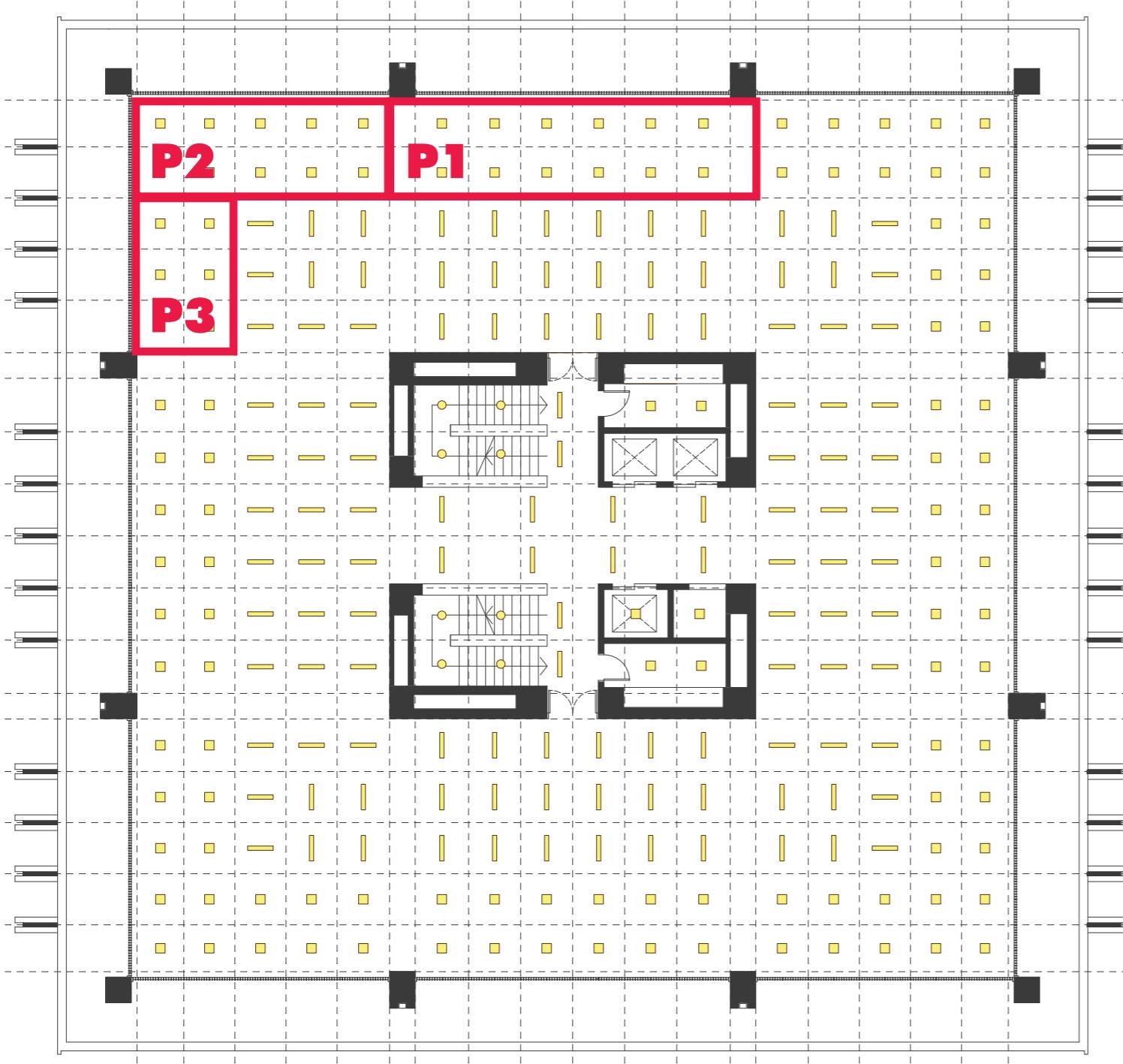
0 2 5 10 m

PERIMETER ZONE

Product Used:
Mark Architectural Lighting -
VRP 1X1 2500LM 50K 80CRI 120V FPC250

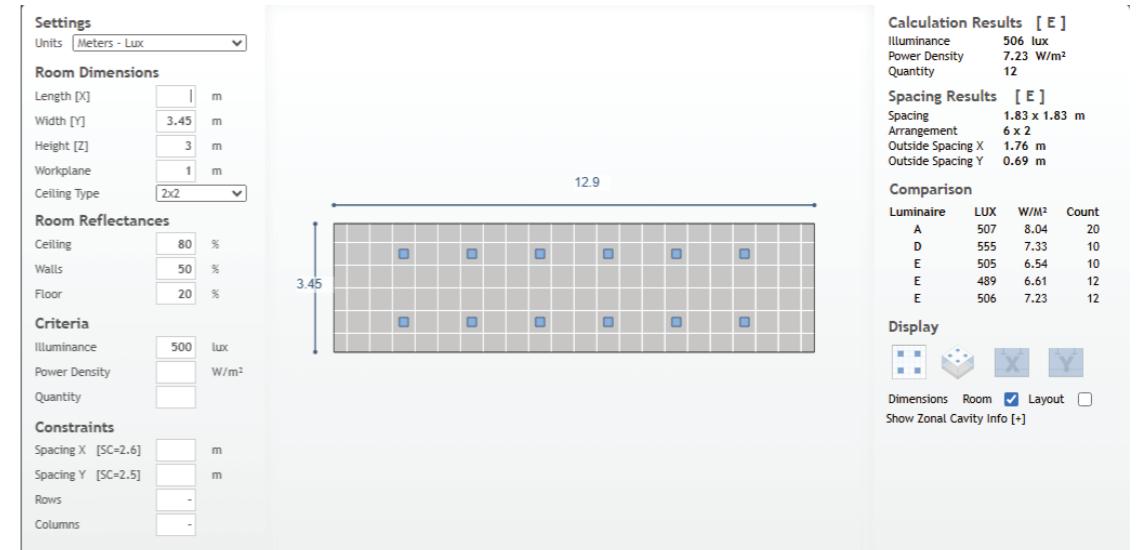
Requirement:

500 lux



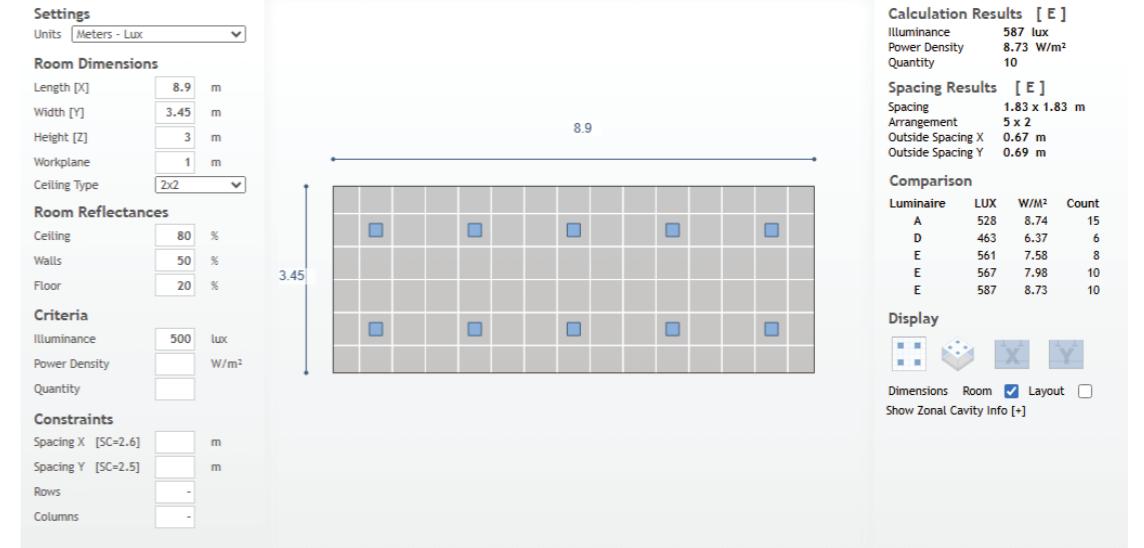
P1

Illuminance: 506 lux Quantity: 12 pcs.



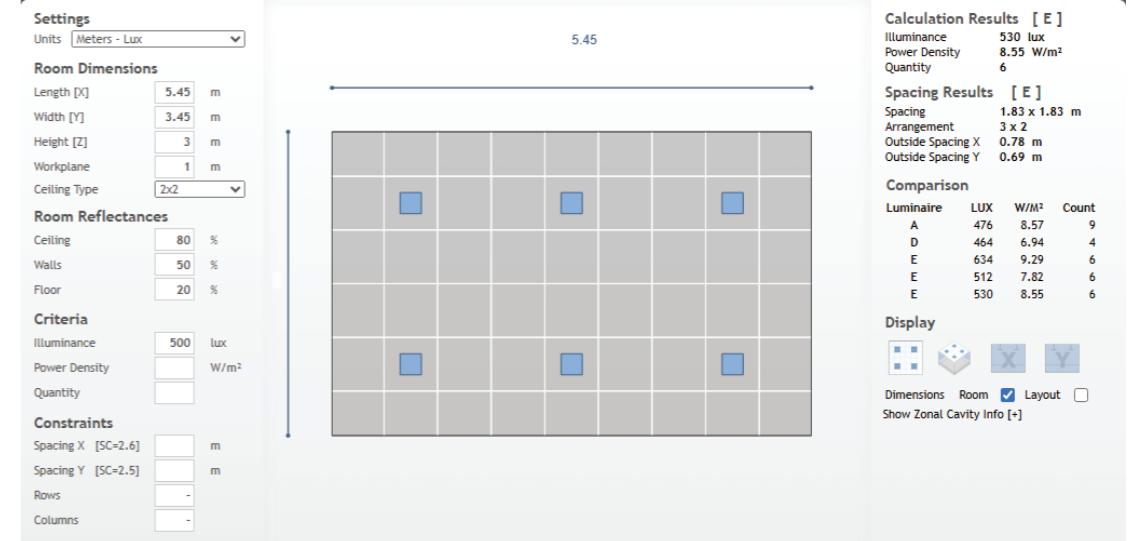
P2

Illuminance: 587 lux Quantity: 10 pcs.



P3

Illuminance: 530 lux Quantity: 6 pcs.



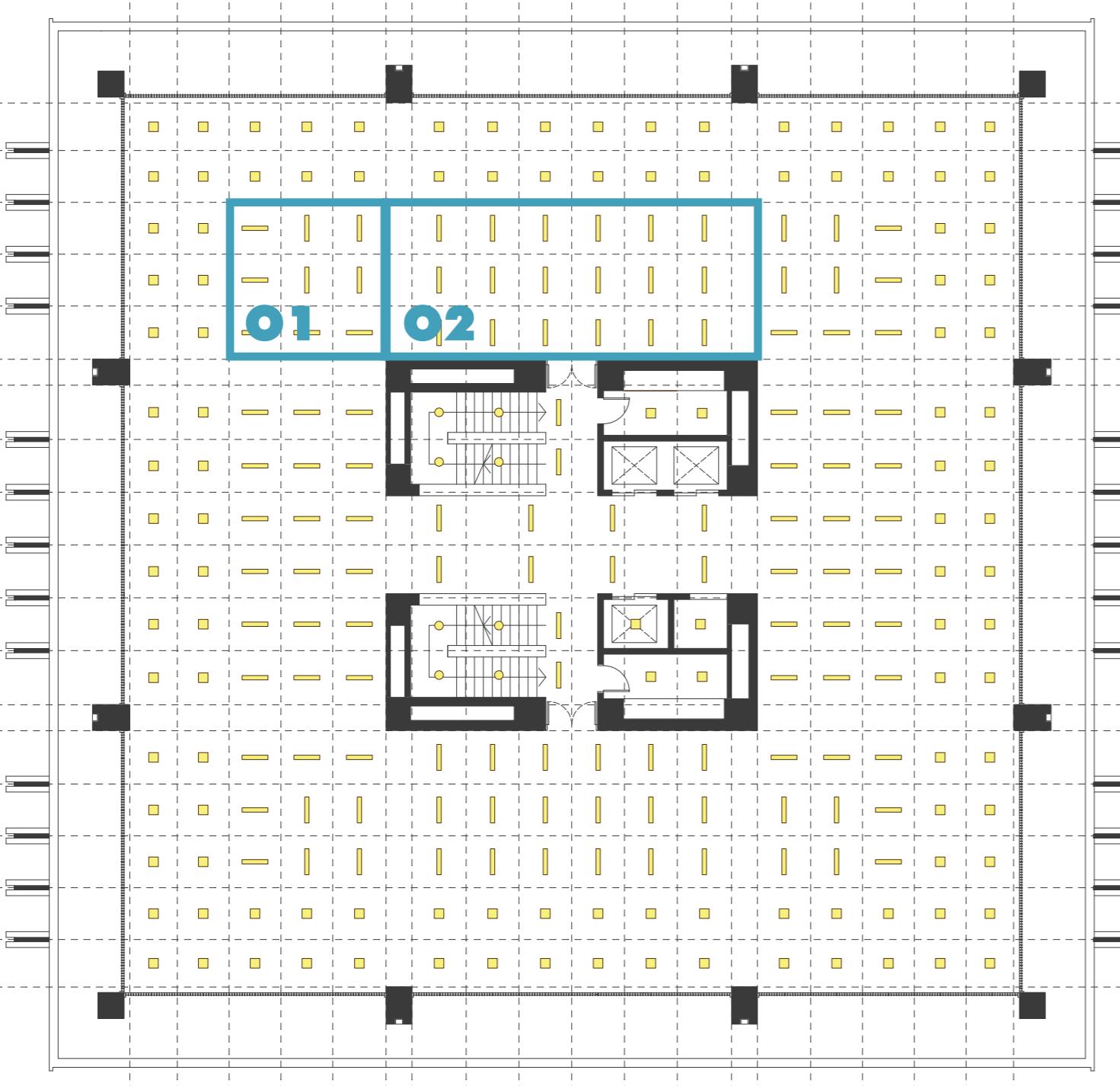
OFFICE

Product Used:

Luminaire LED -
SL6L 3 FLP 80CRI 30K 900LMF

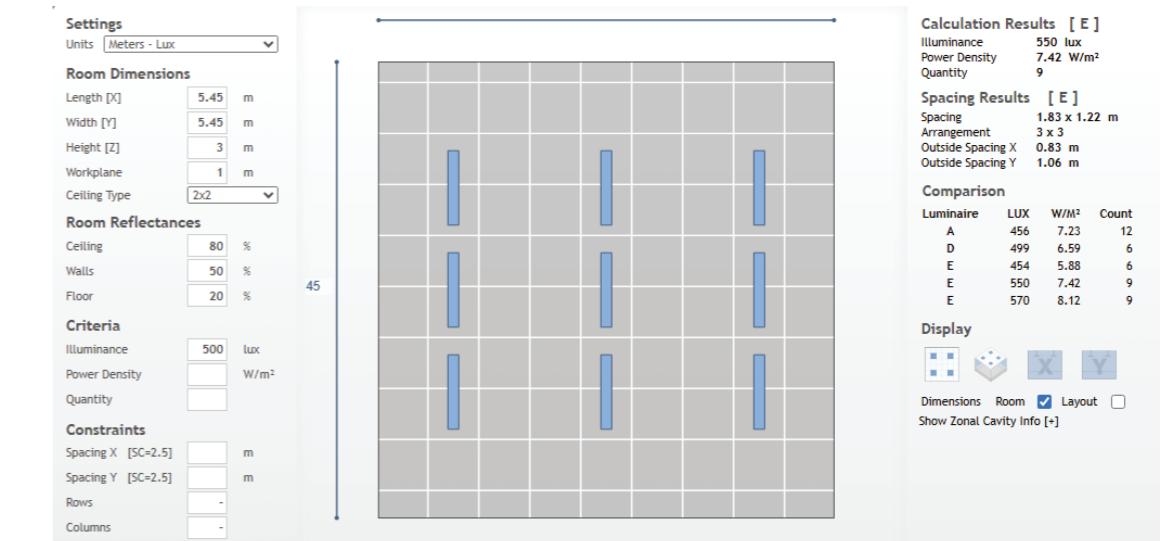
Requirement:

500 lux



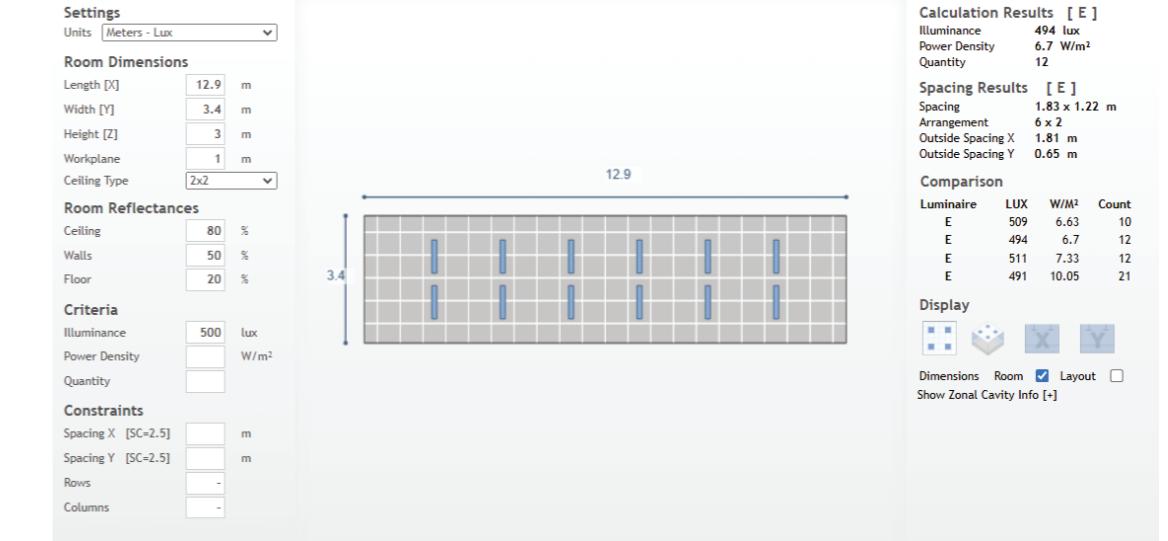
O1

Illuminance: 550 lux Quantity: 9 pcs.



O2

Illuminance: 494 lux Quantity: 12 pcs.



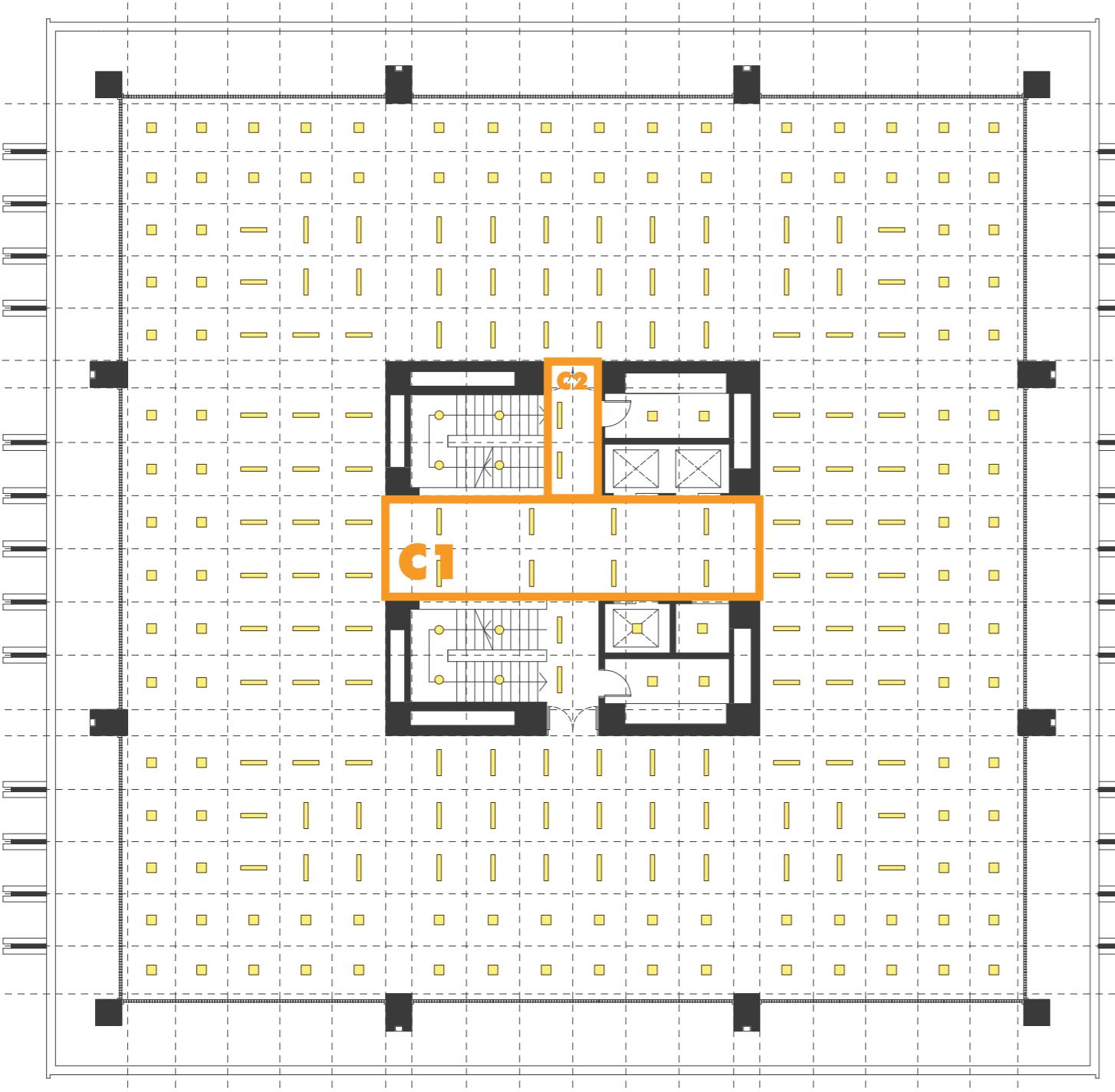
CORRIDOR

Product Used:

Luminaire LED -
SL6L 3 FLP 80CRI 30K 900LMF

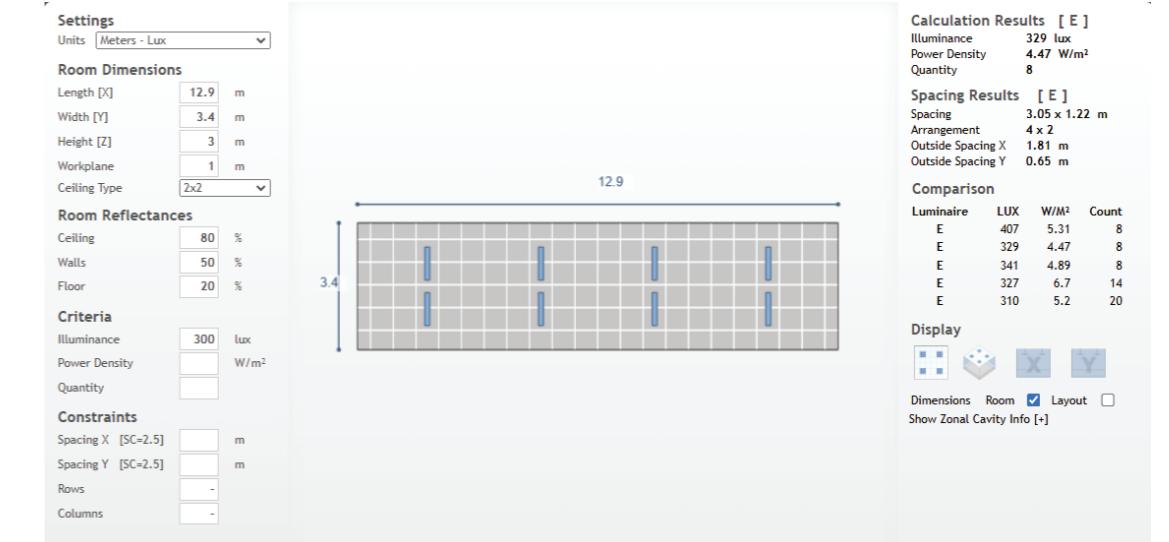
Requirement:

300 lux



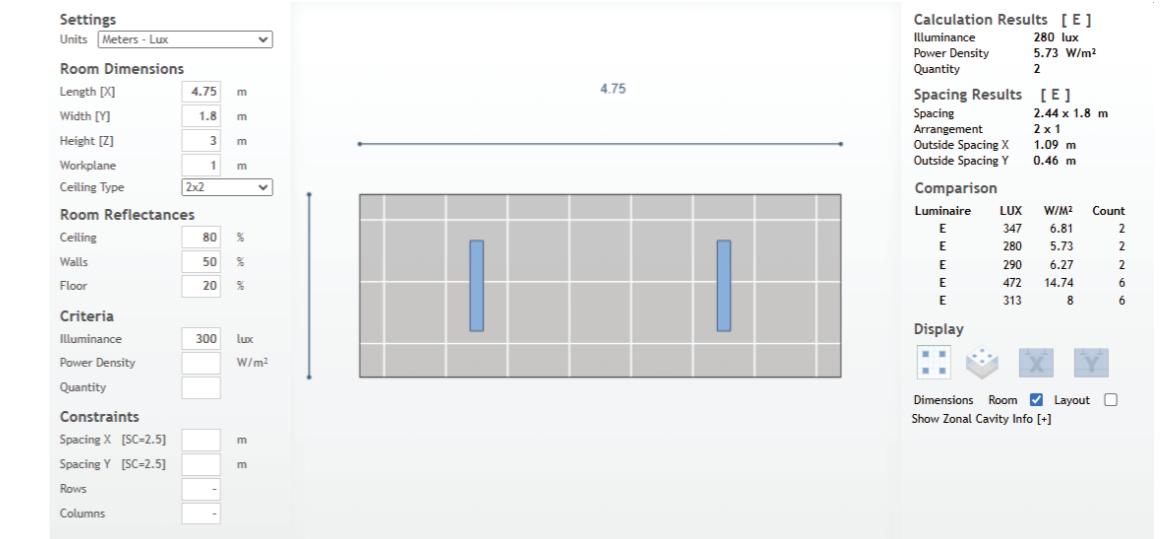
C1

Illuminance: 329 lux Quantity: 8 pcs.



C2

Illuminance: 280 lux Quantity: 2 pcs.

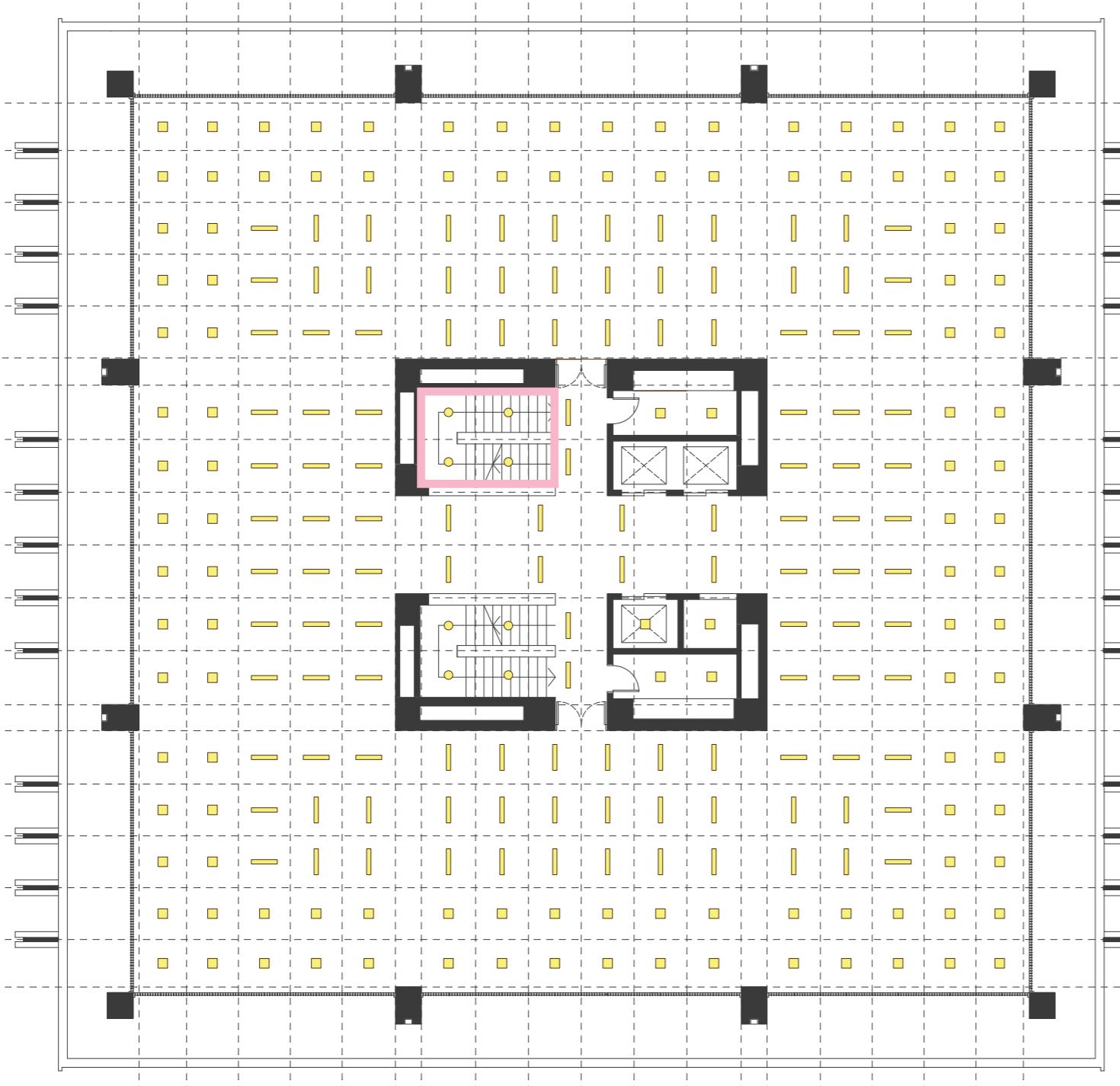


STAIRCASE

Product Used:
**Healthcare Lighting -
 HPCS DRP 12DOA 1000LM 80CRI 27K**

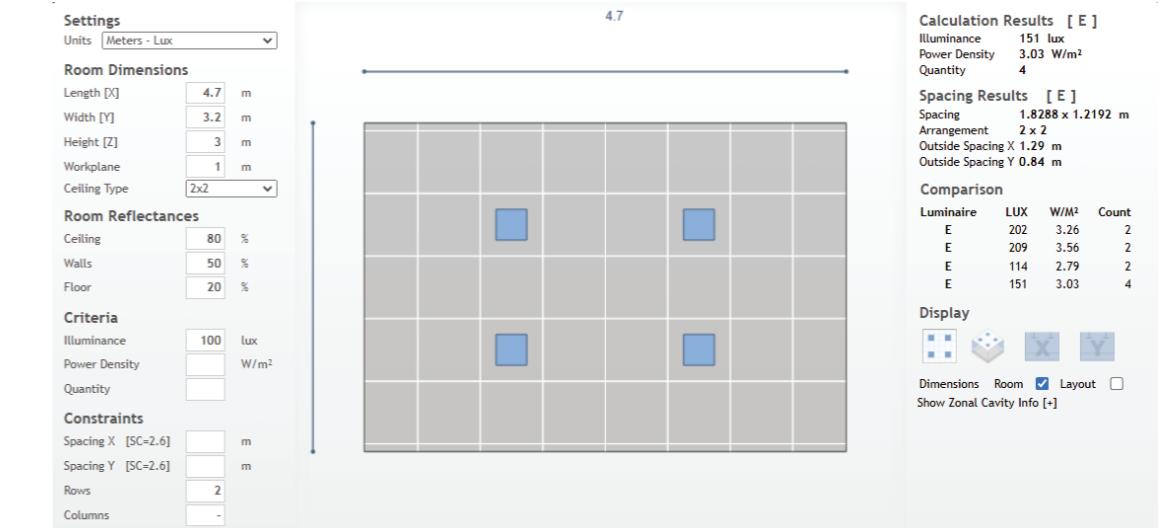
Requirement:

150 lux



STAIRCASE

Illuminance: 151 lux Quantity: 4 pcs.

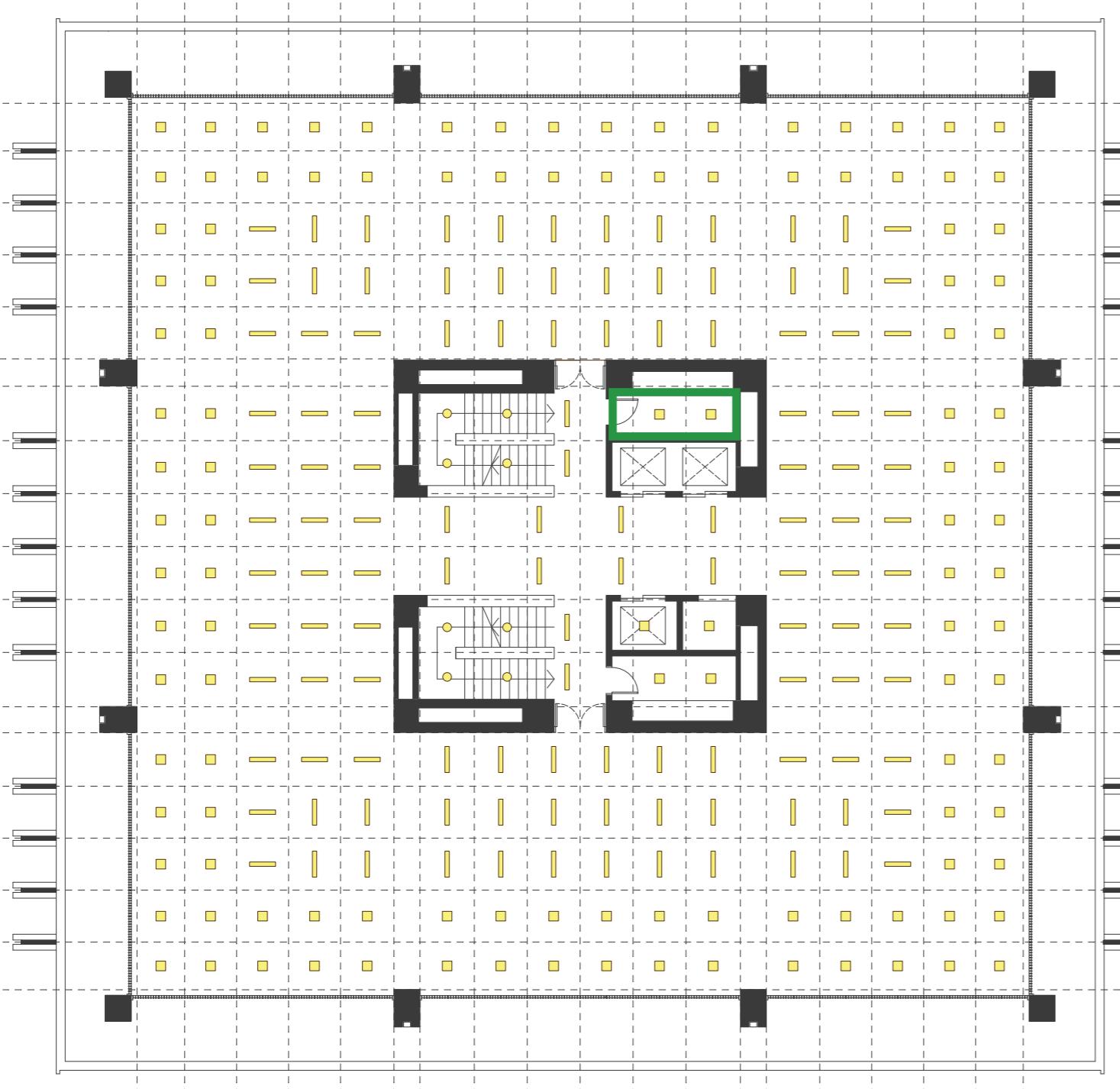


WC

Product Used:
Mark Architectural Lighting -
VRP 1X1 2500LM 50K 80CRI 120V FPC250K

Requirement:

250 lux



WC

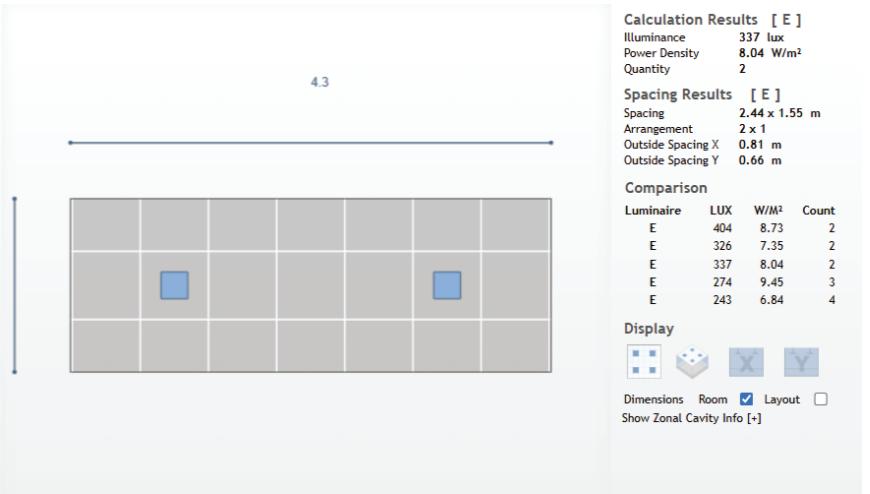
Settings
Units: Meters - Lux

Room Dimensions
Length [X]: 4.3 m
Width [Y]: 1.55 m
Height [Z]: 3 m
Workplane: 1 m
Ceiling Type: 2x2

Room Reflectances
Ceiling: 80 %
Walls: 50 %
Floor: 20 %

Criteria
Illuminance: 250 lux
Power Density: W/m²
Quantity:

Constraints
Spacing X: [SC=2.6] m
Spacing Y: [SC=2.5] m
Rows: -
Columns: -



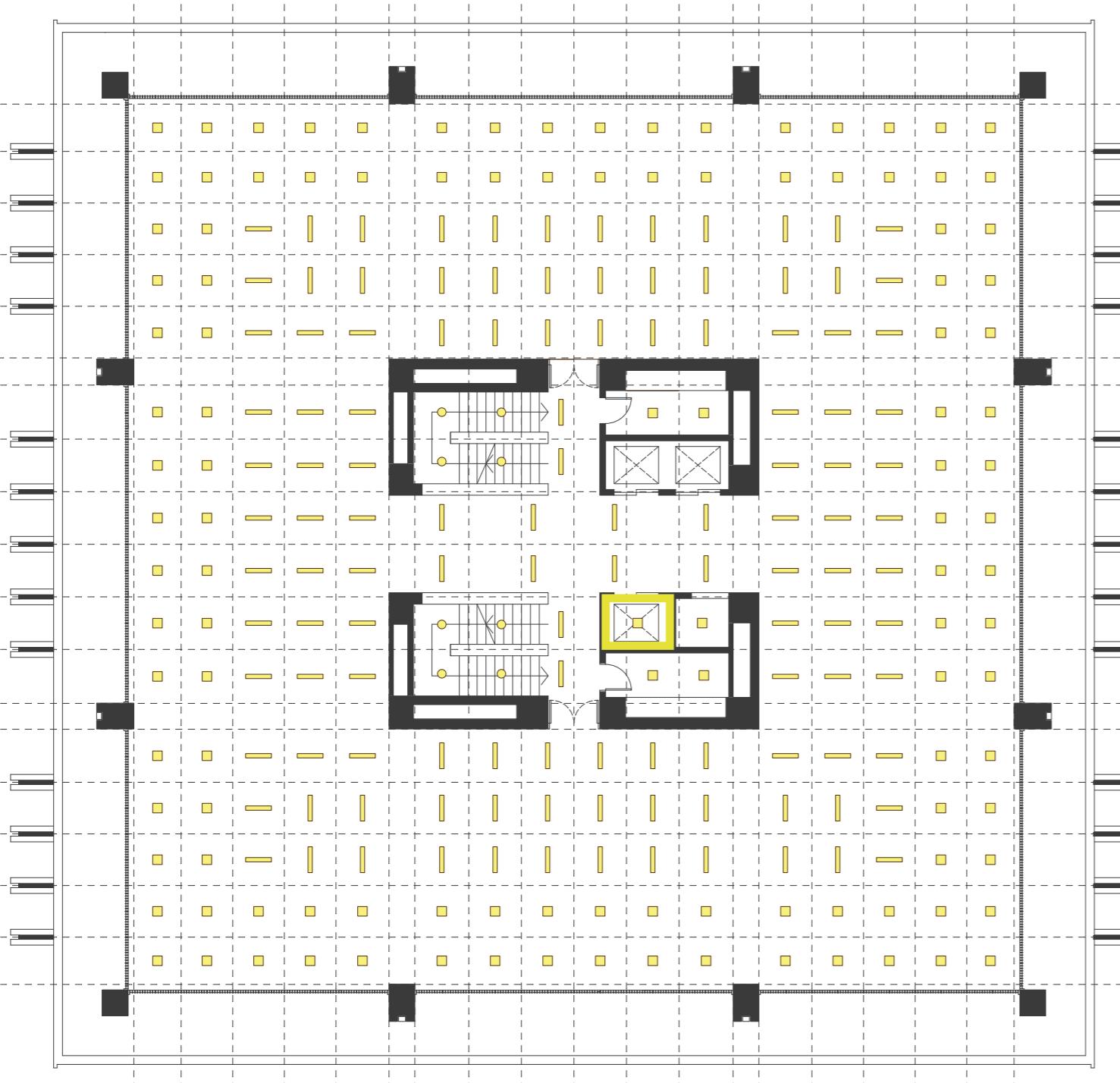
AIR HANDLING UNIT (AHU)

Product Used:

Mark Architectural Lighting -
VRP 1X1 2500LM 50K 80CRI 120V FPC250K

Requirement:

250 lux



AHU

Settings
Units: Meters - Lux

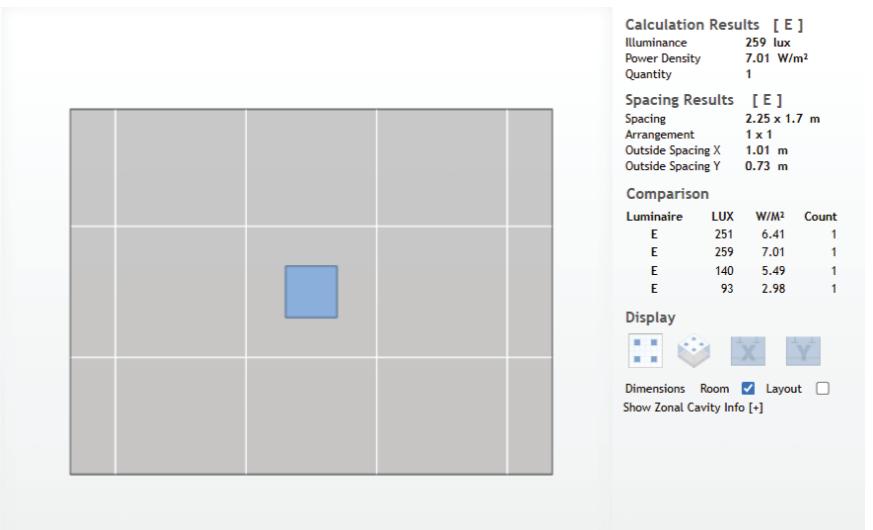
Room Dimensions
Length [X]: 2.25 m
Width [Y]: 1.7 m
Height [Z]: 3 m
Workplane: 1 m
Ceiling Type: 2x2

Room Reflectances
Ceiling: 80 %
Walls: 50 %
Floor: 20 %

Criteria
Illuminance: 100 lux
Power Density: W/m²
Quantity:

Constraints
Spacing X [SC=2.6]: m
Spacing Y [SC=2.5]: m
Rows: -
Columns: -

Illuminance: 259 lux Quantity: 1 pcs.

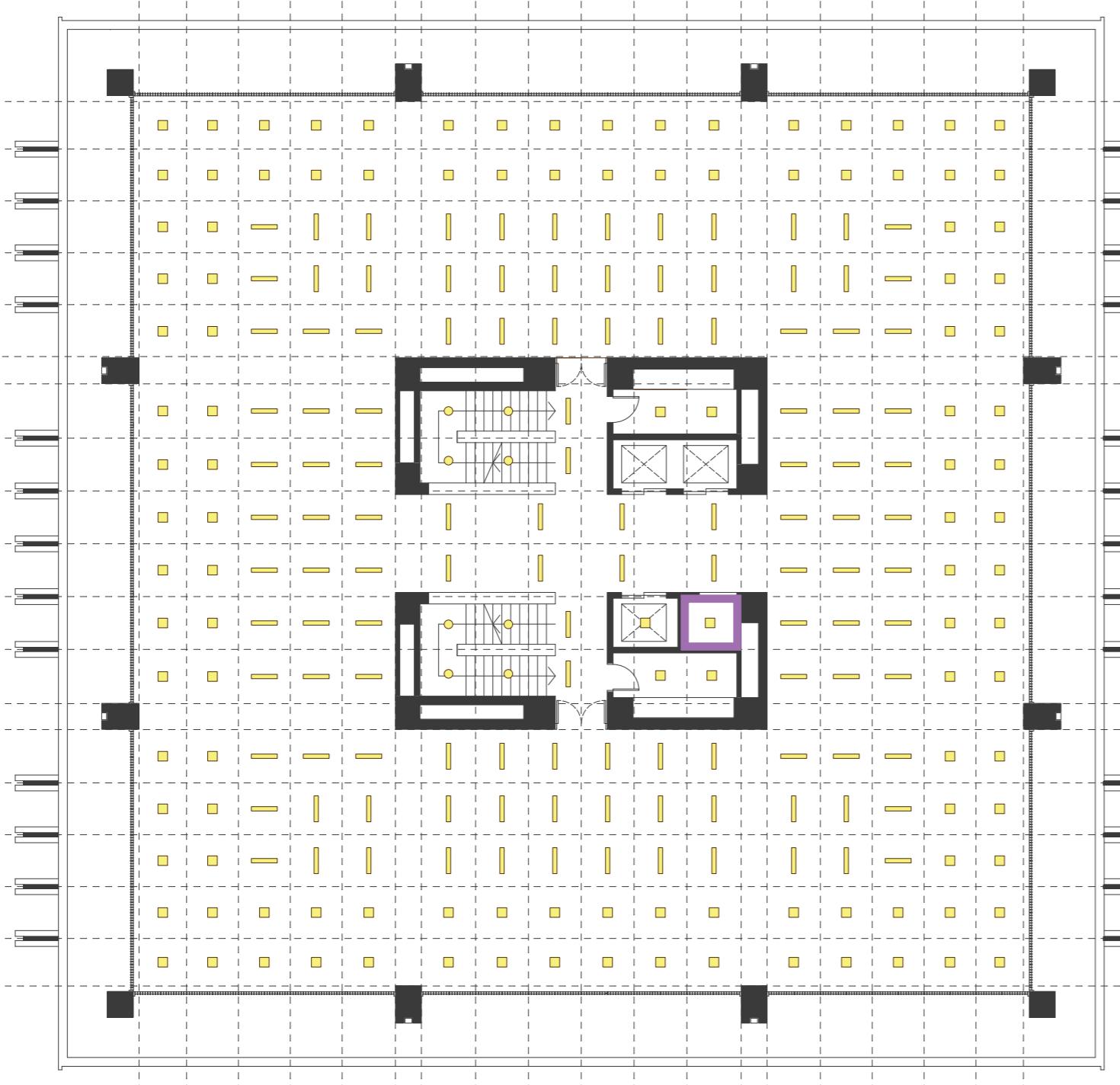


STORAGE

Product Used:
**Mark Architectural Lighting -
 VRP 1X1 2500LM 50K 80CRI 120V FPC250K**

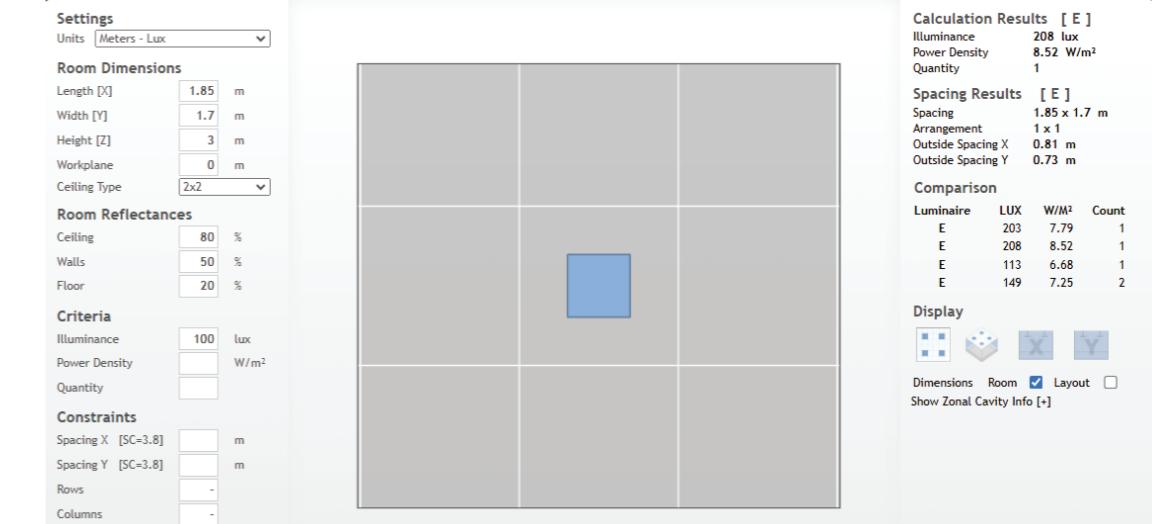
Requirement:

200 lux



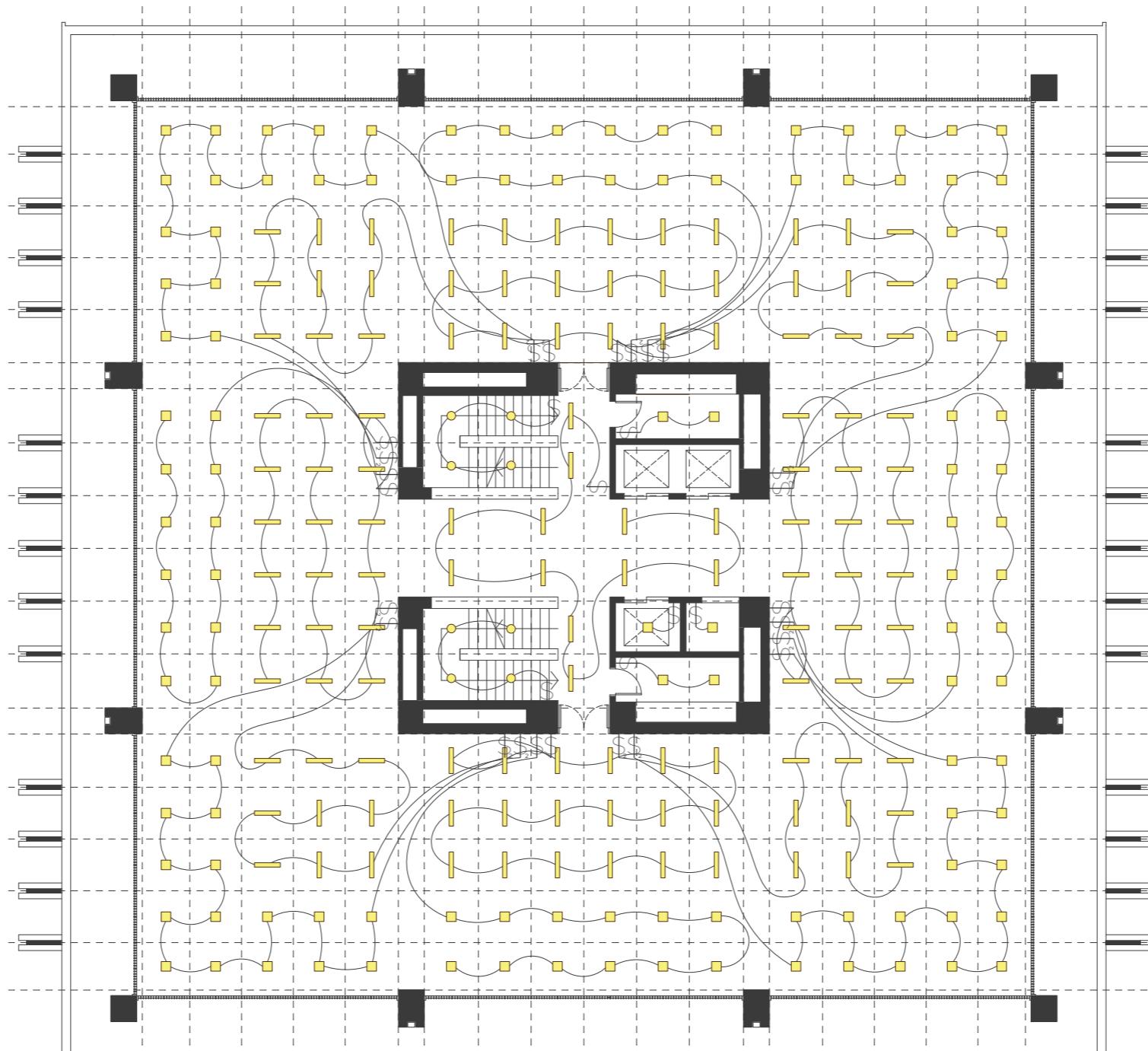
STORAGE

Illuminance: 208 lux Quantity: 1 pcs.



ELECTRIC LIGHTING SWITCHES & CABLES

1: 200



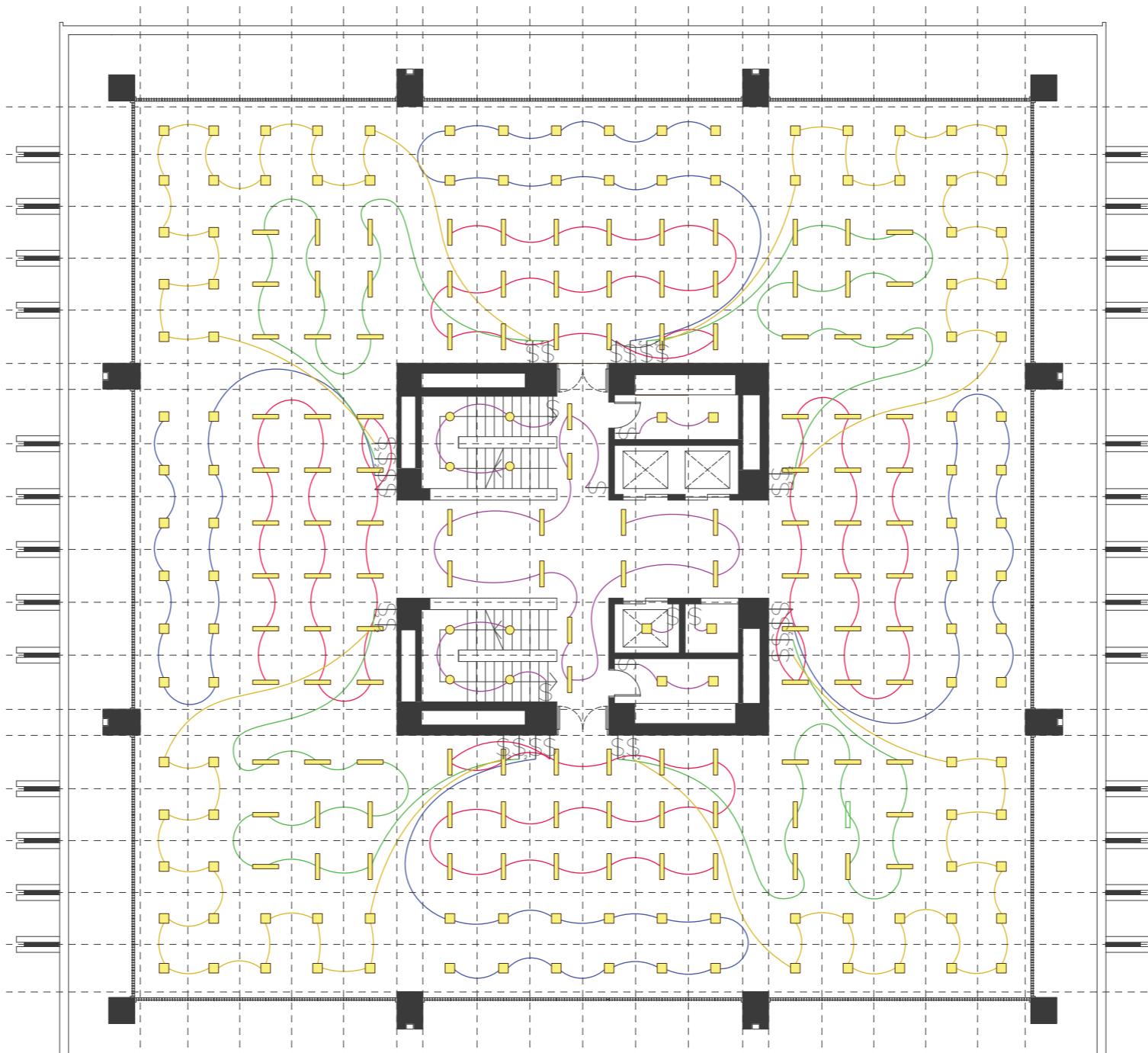
LEGENDS:

- Mark Architectural Lighting - VRP 1X1 2500LM 50K 80CRI 120V FPC25 Total: 118 pcs.
- Luminaire LED - SL6L 3 FLP 80CRI 30K 900LMF Total: 120 pcs.
- Healthcare Lighting - HPCS DRP 12DOA 1000LM 80CRI 27K Total: 8 pcs.
- § Single Switch
- ‡ 2-Way Switch



ELECTRIC LIGHTING SWITCHES & CABLES (COLORIZED)

1: 200



LEGENDS:

- Mark Architectural Lighting - VRP 1X1 2500LM 50K 80CRI 120V FPC25
Total: 118 pcs.
- Luminaire LED - SL6L 3 FLP 80CRI 30K 900LMF
Total: 120 pcs.
- Healthcare Lighting - HPCS DRP 12DOA 1000LM 80CRI 27K
Total: 8 pcs.
- \$ Single Switch
- \$\$ 2-Way Switch

