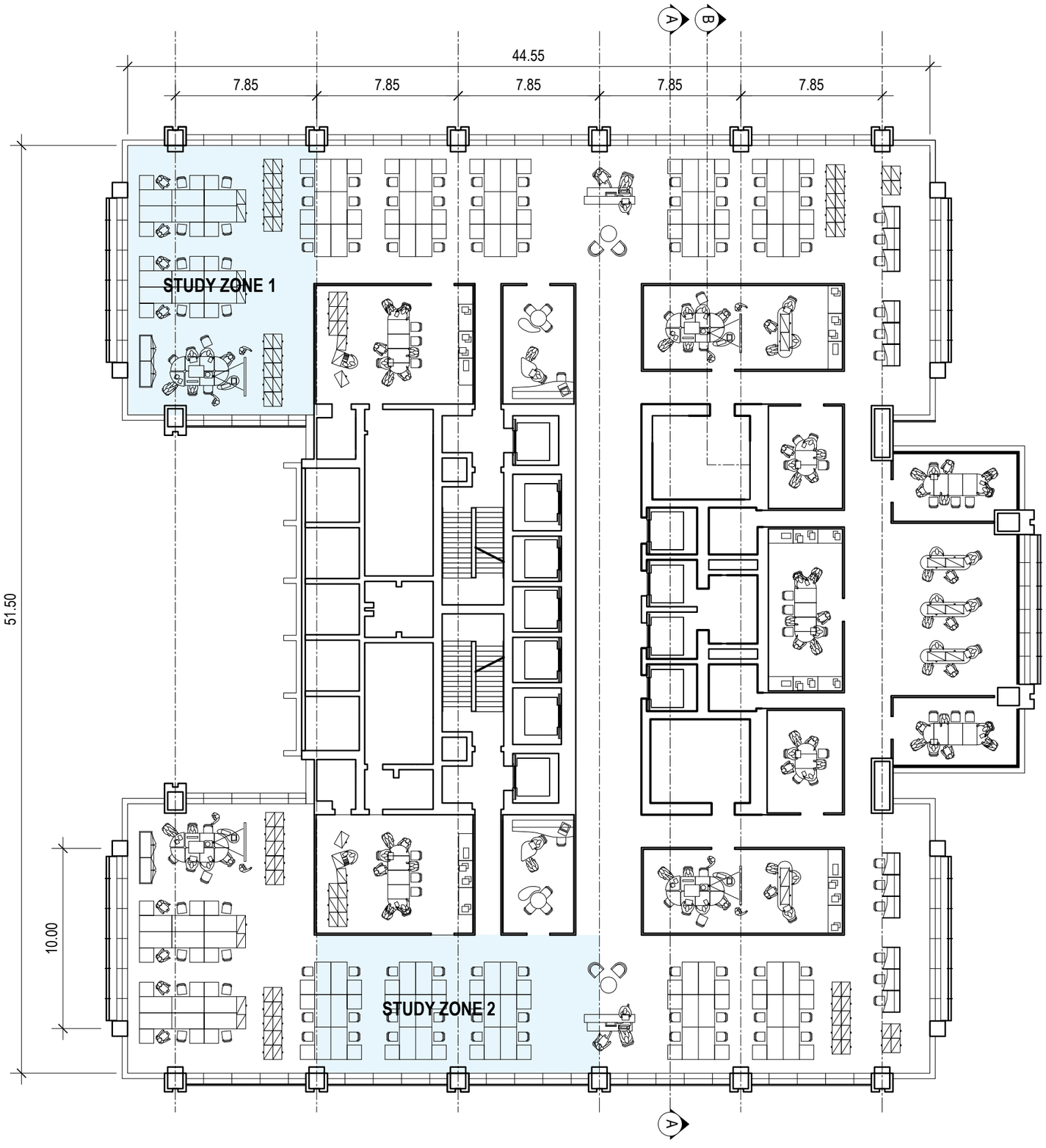
Suhe Centre
DAYLIGHTING AND ELECTRIC LIGHTING REPORT

6538050525 Nawinda Chulchue

Bangkok Site
Lumphini, Pathumwan, Bangkok

Urban Plan
Scale 1 : 2500

1 Central World
2 Intercontinental Bangkok
3 Gaysorn Amarin
4 Mater Dei School
5 Central Chidlom

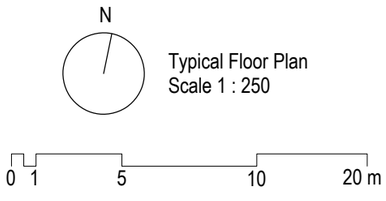


STUDY ZONE 1

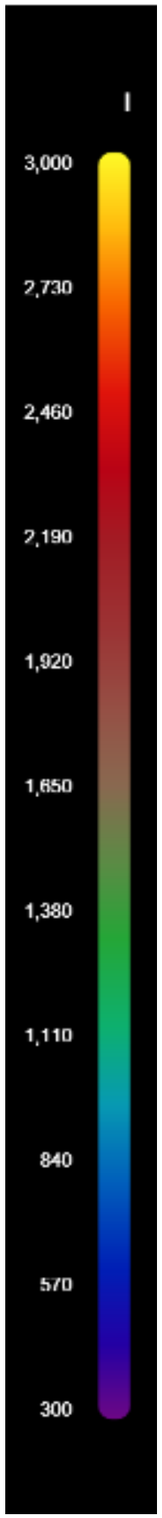
North and West facade
Glazing to wall ratio : 79%

STUDY ZONE 2

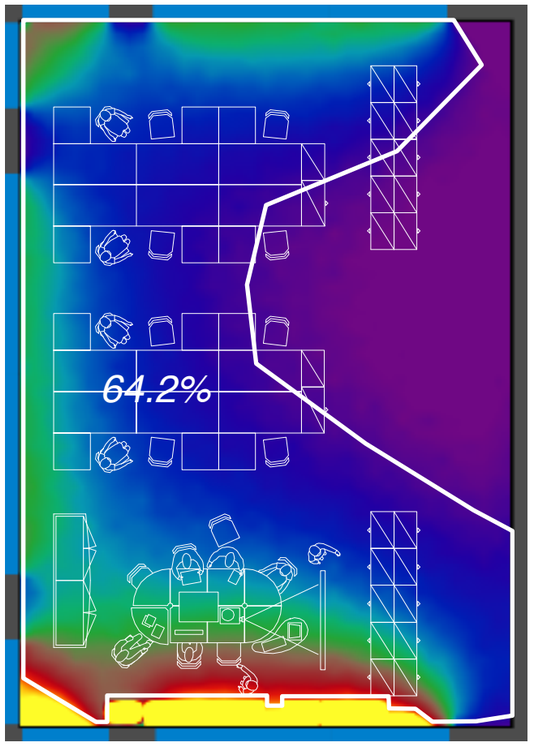
South facade
Glazing to wall ration : 81%



Typical Floor Plan
Scale 1 : 250



9.00 a.m.



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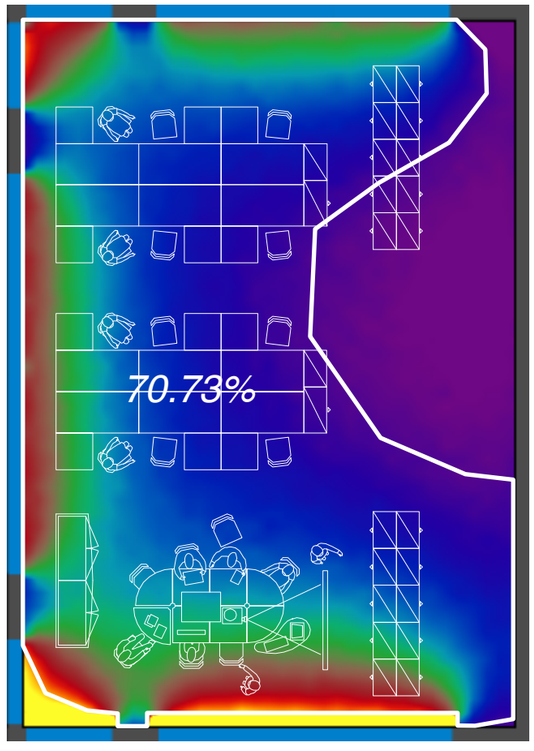

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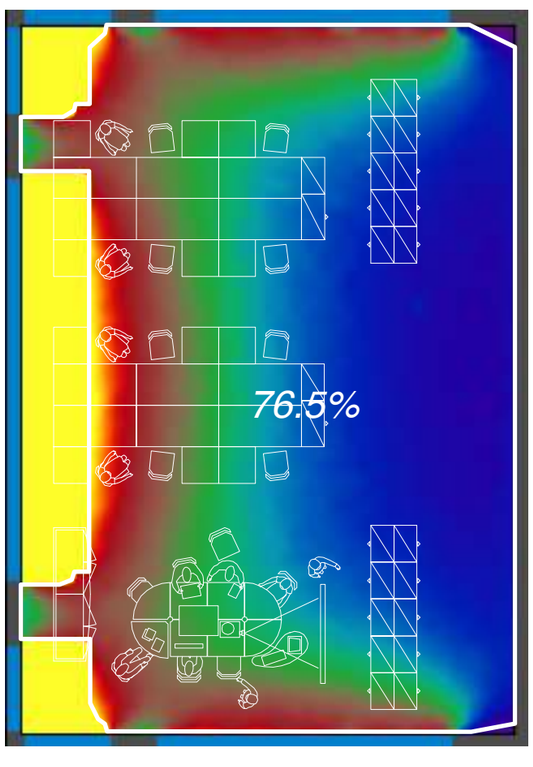

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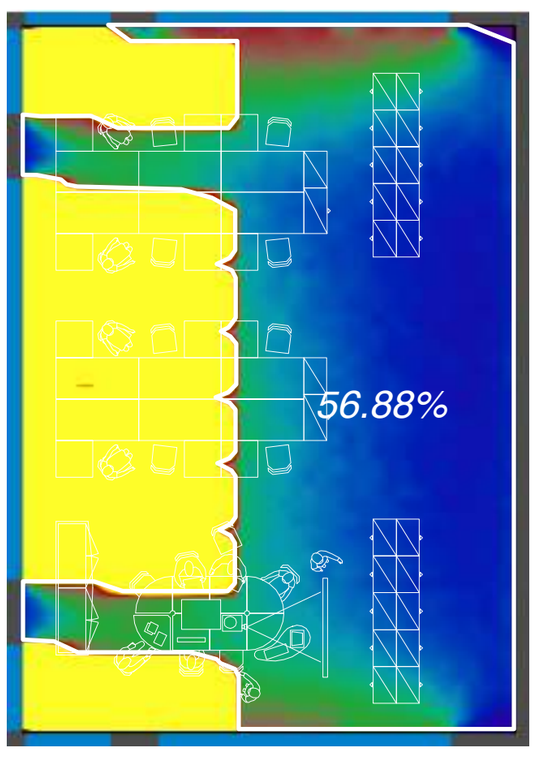


STUDY ZONE 1 DAYLIGHT ACCESS

Date : 21 March
Sky Condition : Sunny
Overhang : -
Window Sizes : W 9000 mm x H 3500 mm / W 1900 mm x H 3500 mm / W 6500 mm x H 3500 mm

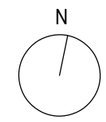
Surface Materials Reflectance

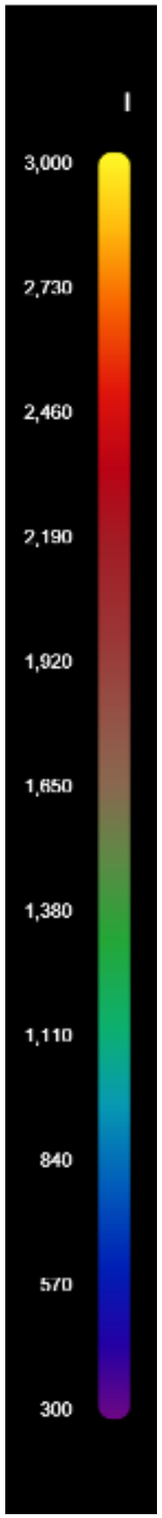
Exterior Ground : Reflectance 0.099
Floor : Reflectance 0.656
Ceiling : Reflectance 0.400
Wall : Reflectance 0.400

Glass Surface Transmittance : 0.510

Concern

Although over 50% of the floor area consistently receives illuminance levels between 300–3000 lux throughout most of the day, the light distribution remains uneven, resulting in areas of excessive brightness near openings and darker zones deeper within the space.





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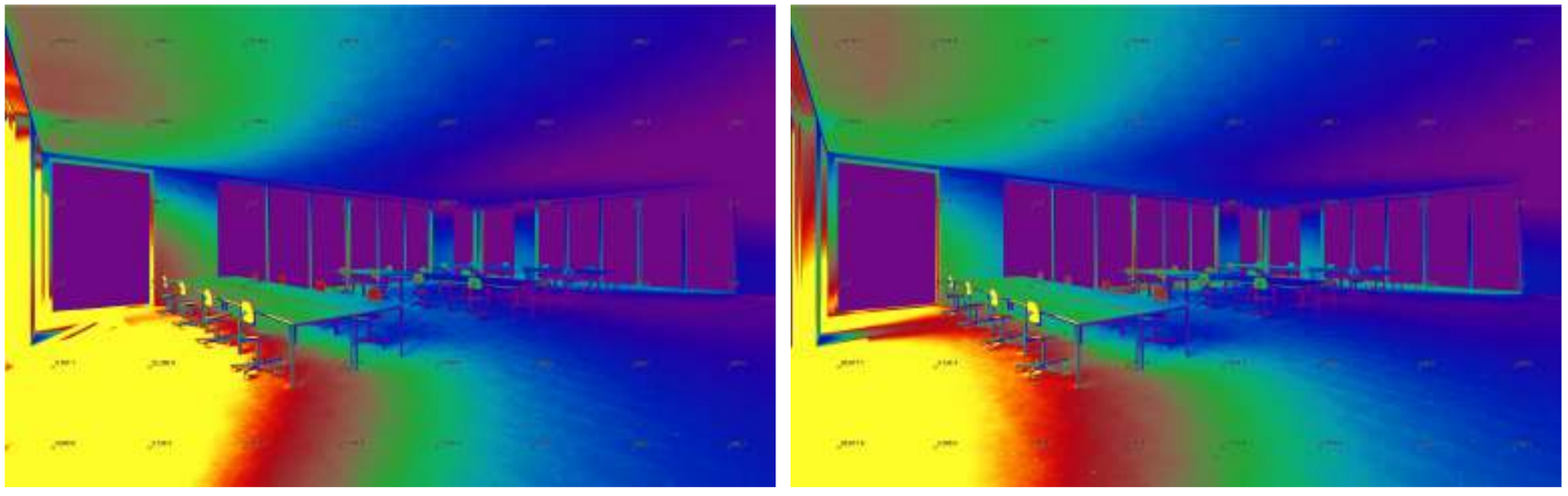

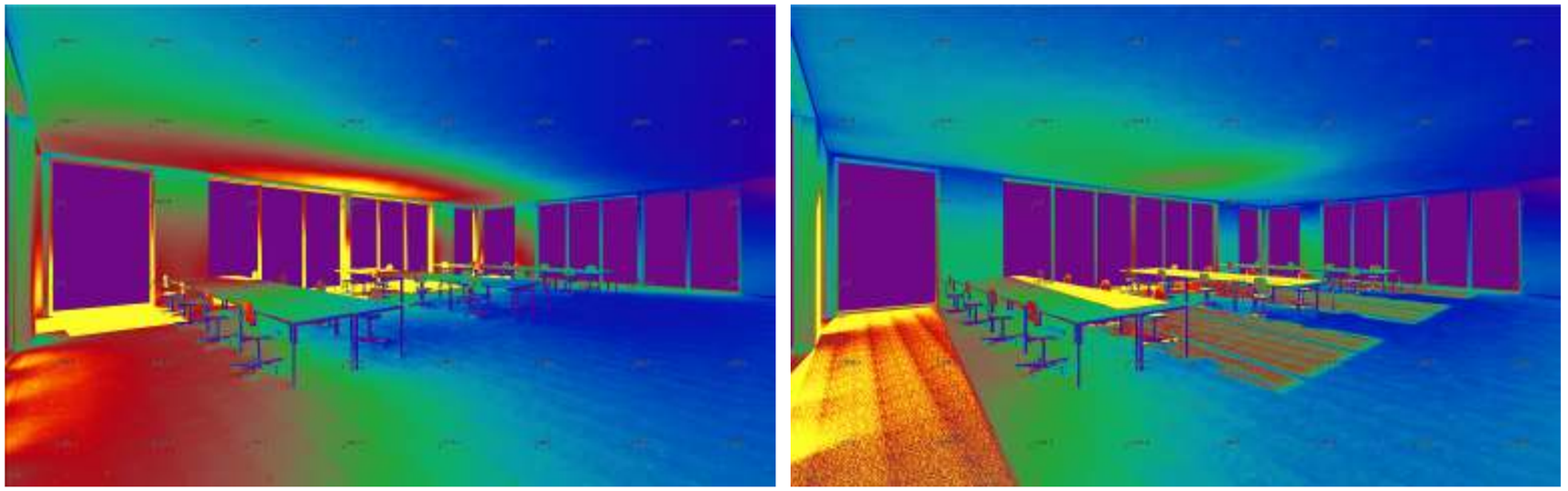

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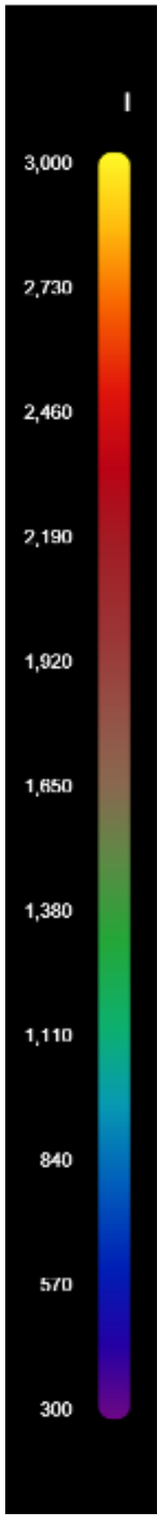

STUDY ZONE 2 DAYLIGHT ACCESS

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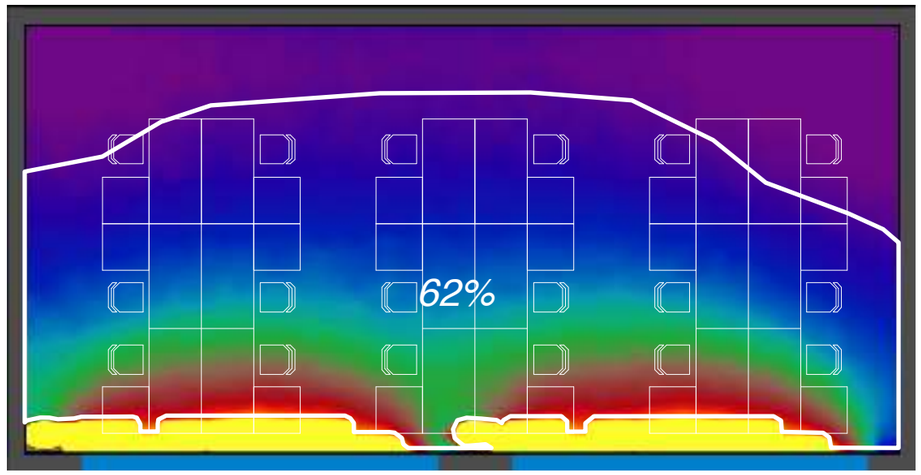

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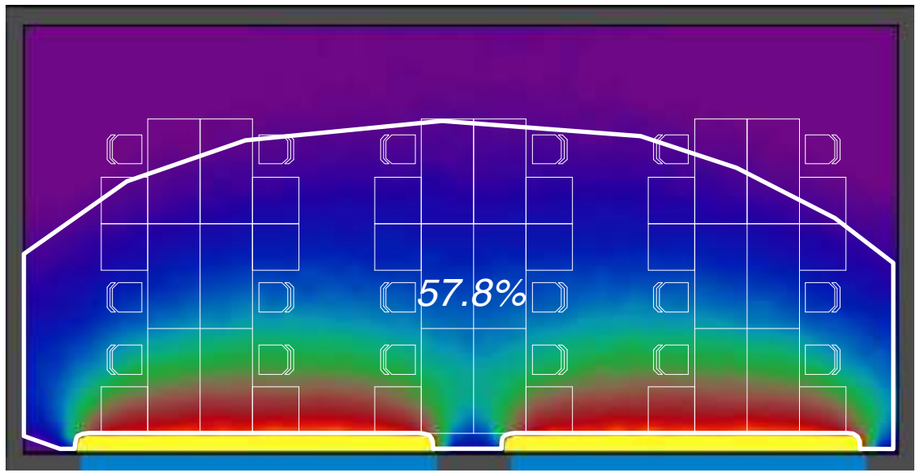

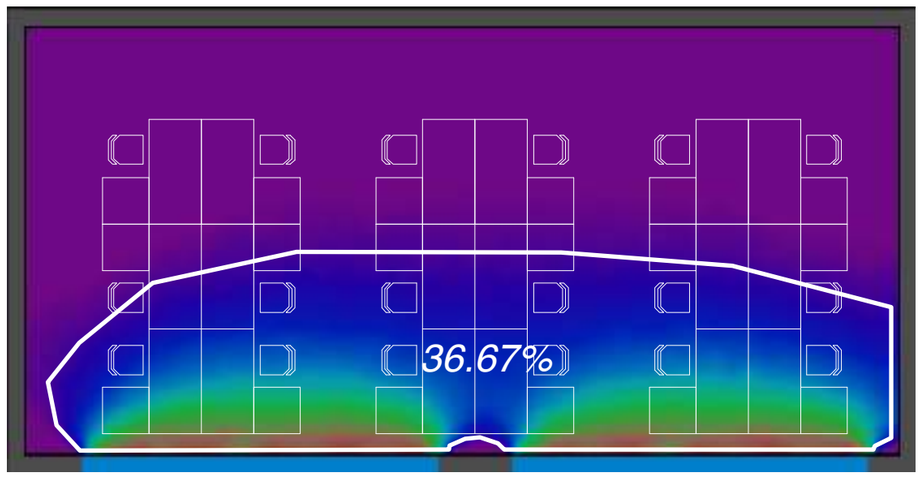

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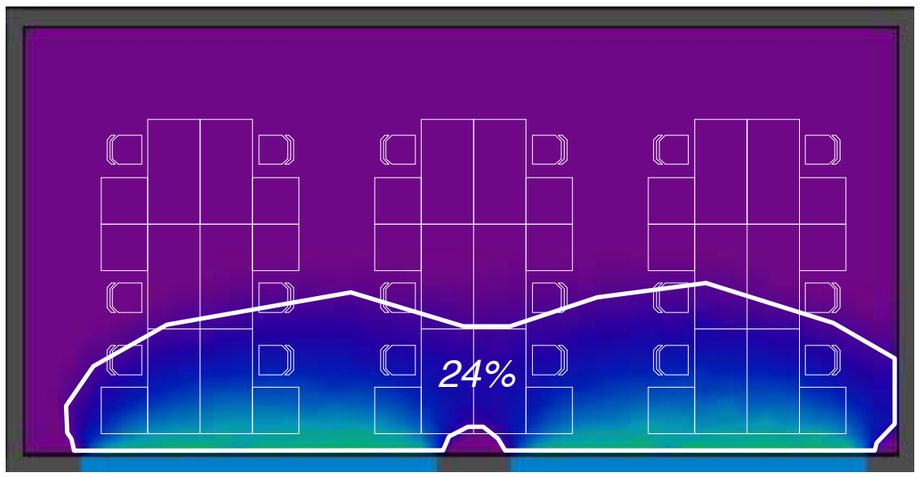

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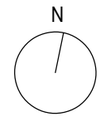

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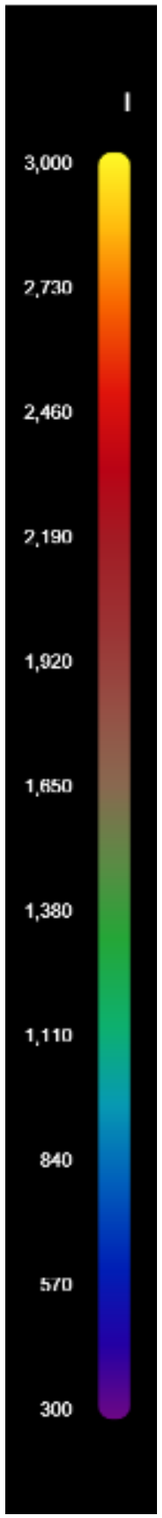

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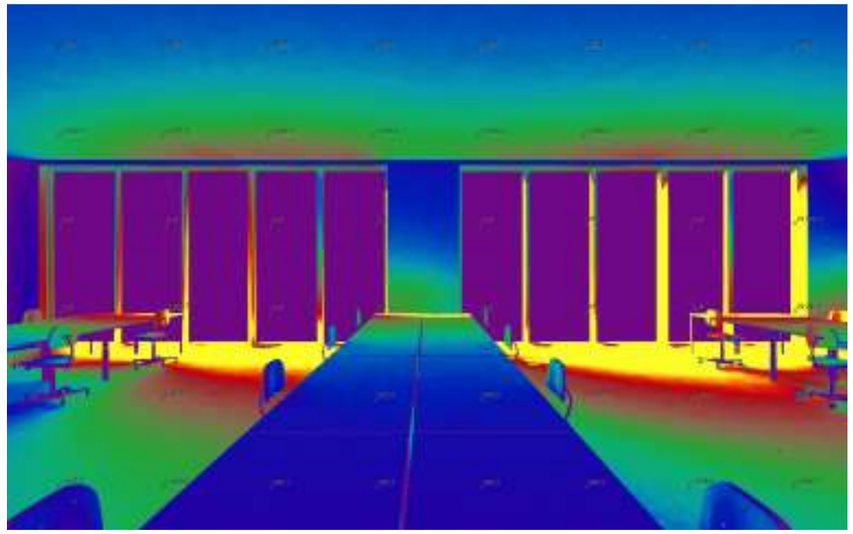

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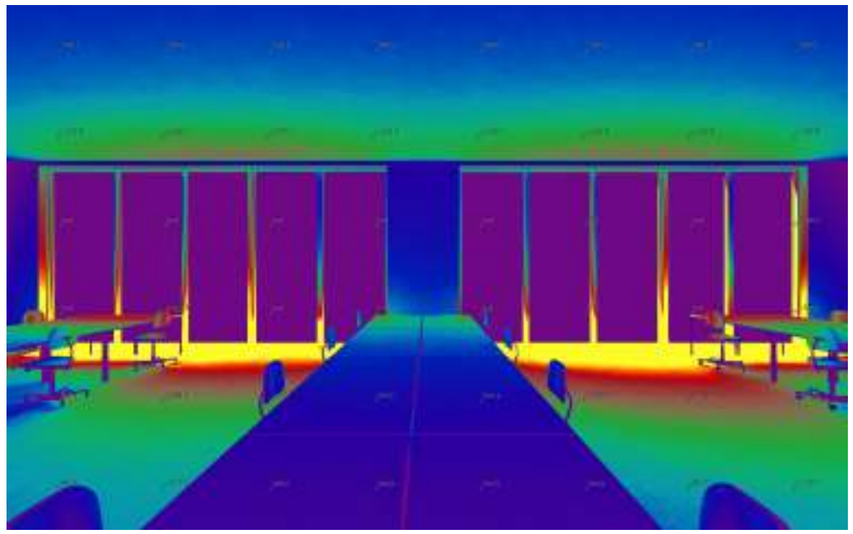

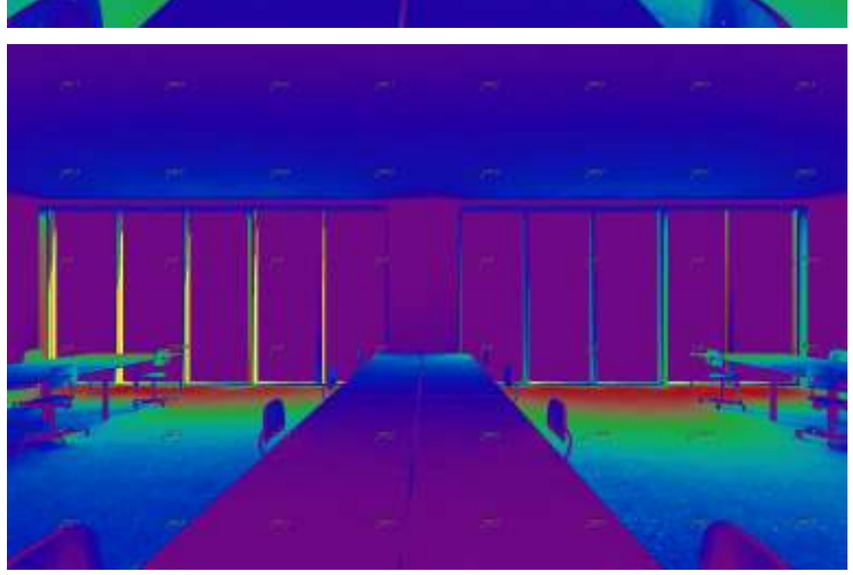

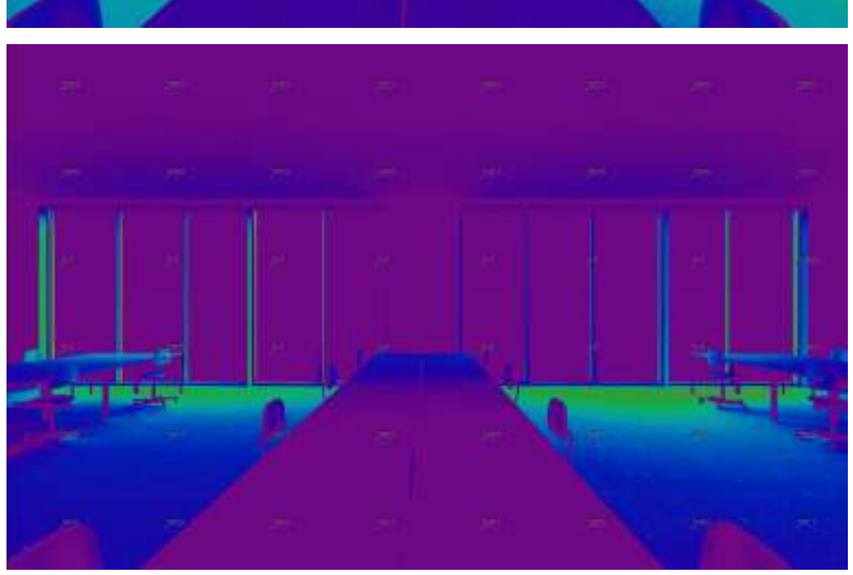

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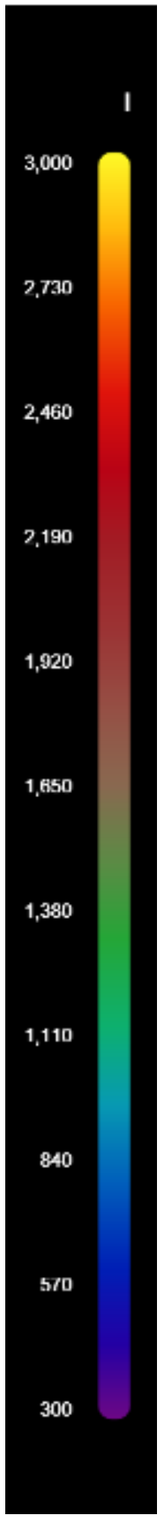

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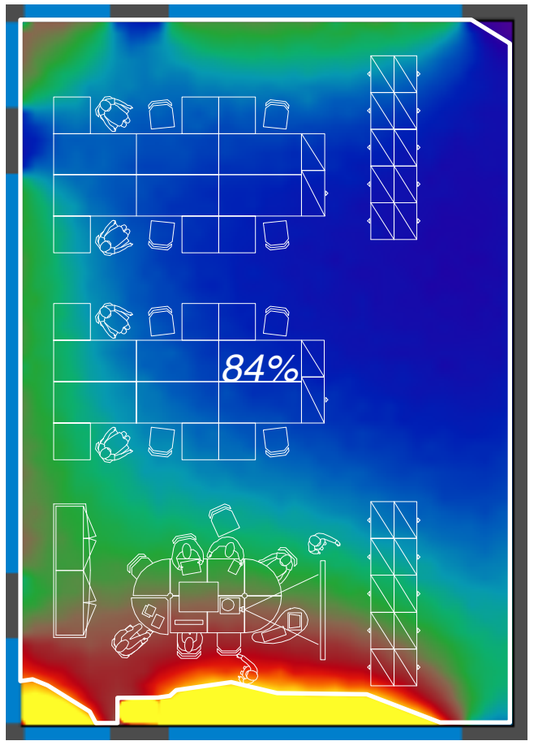

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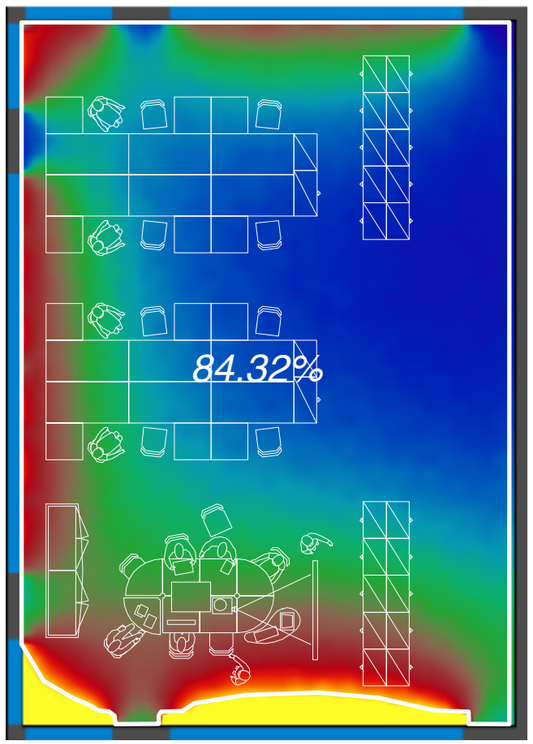

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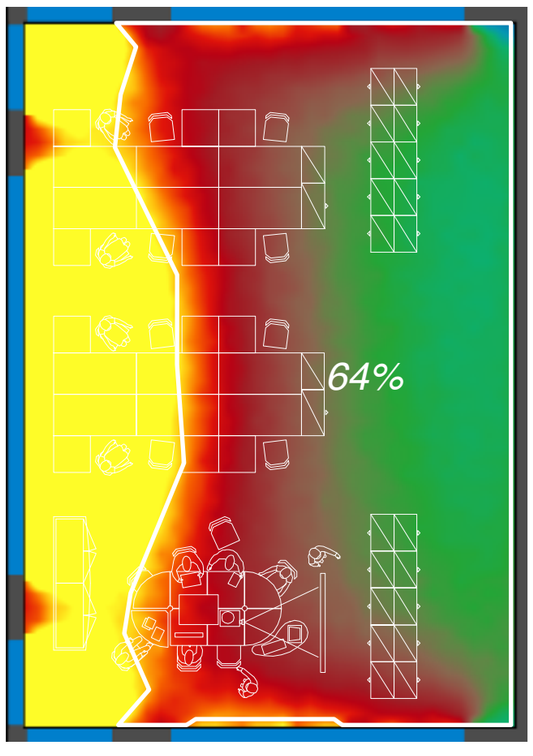

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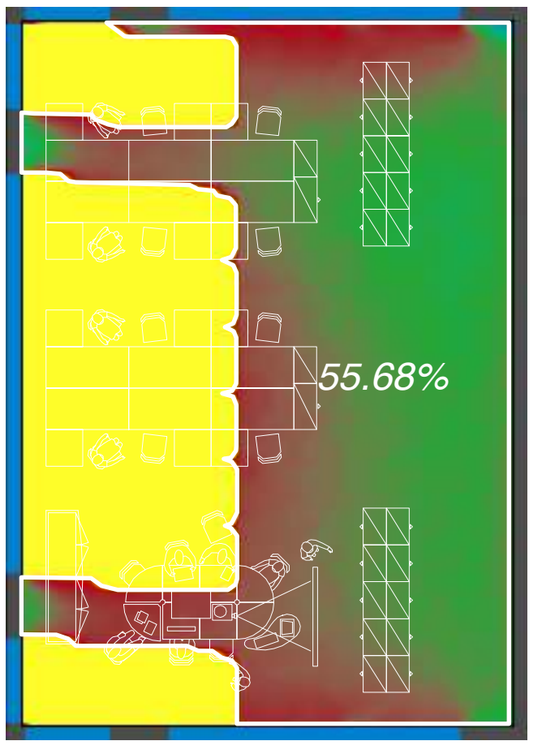

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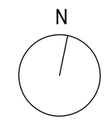
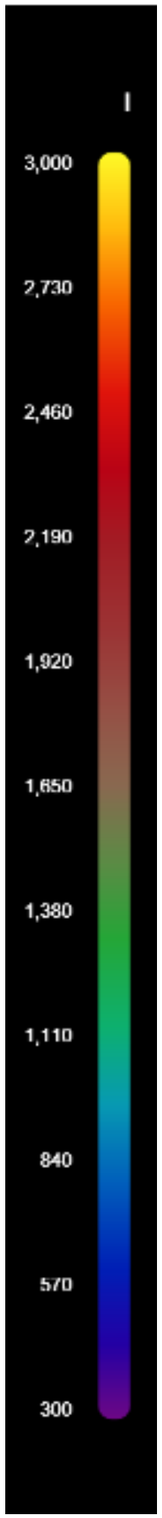
Adding an overhang above the windows helps reduce areas of strong solar exposure. Additionally, changing the surface material to one with a higher reflectance rate improves light reflection deeper into the space, resulting in more even light distribution throughout the floor area.





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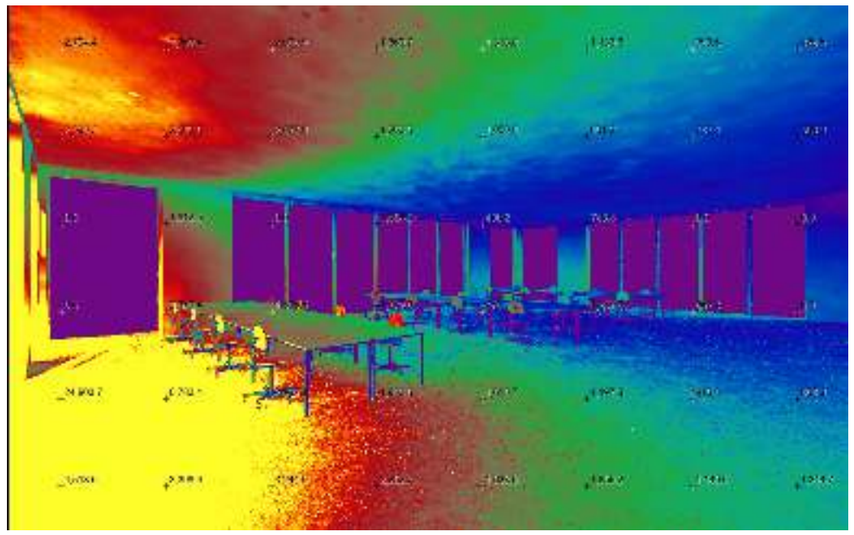

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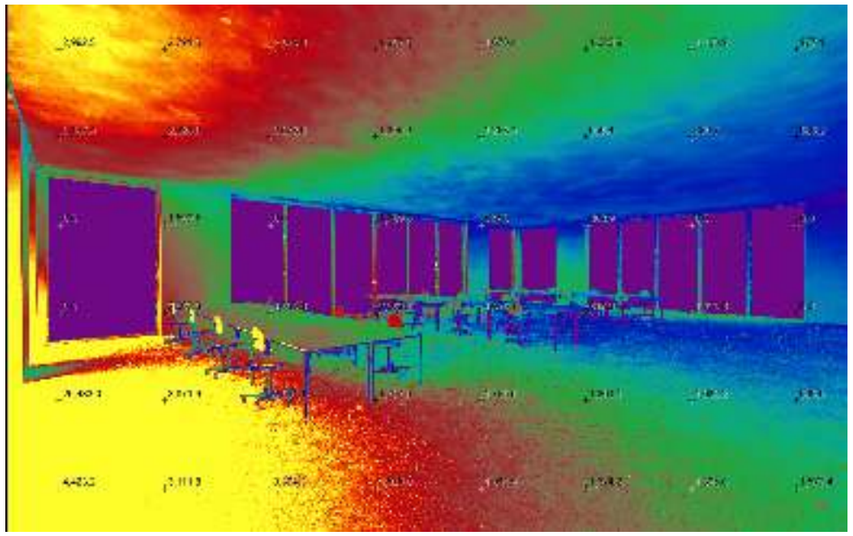

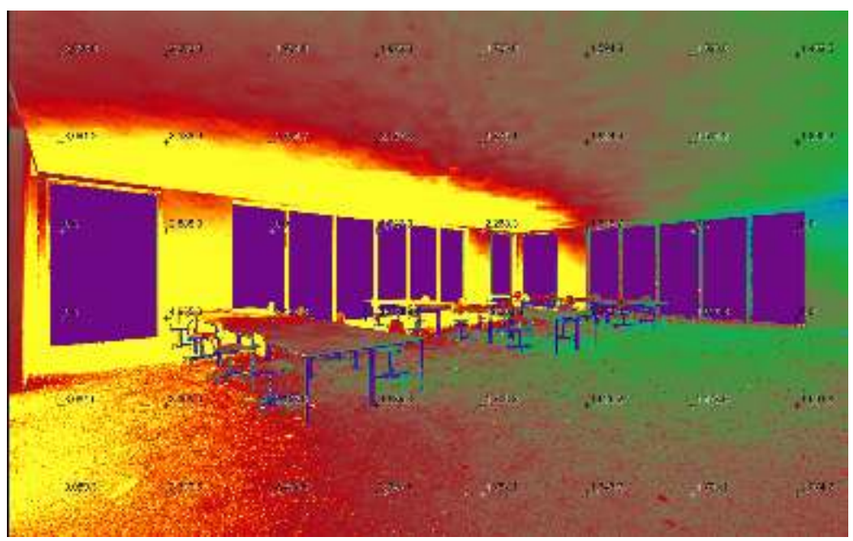

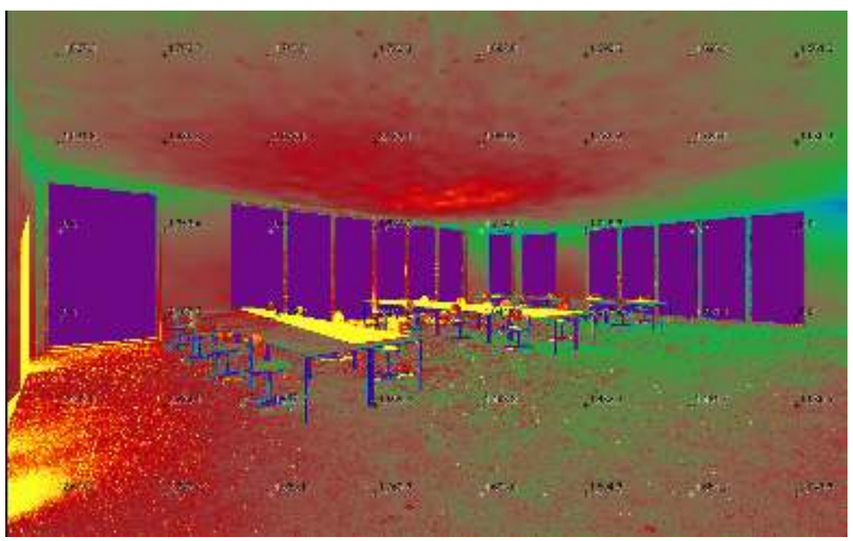

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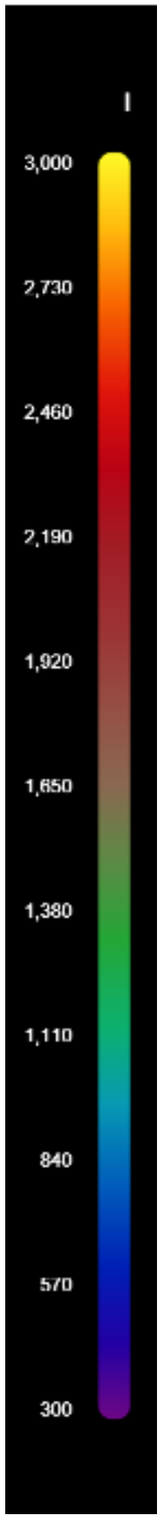

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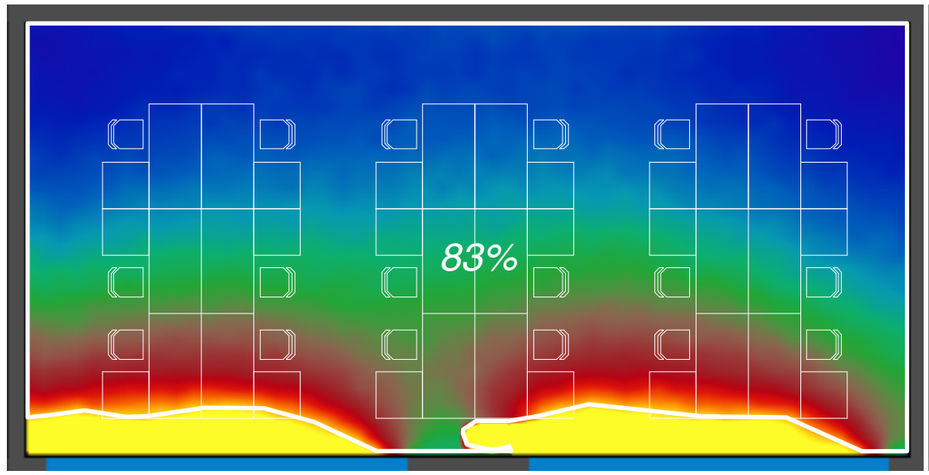

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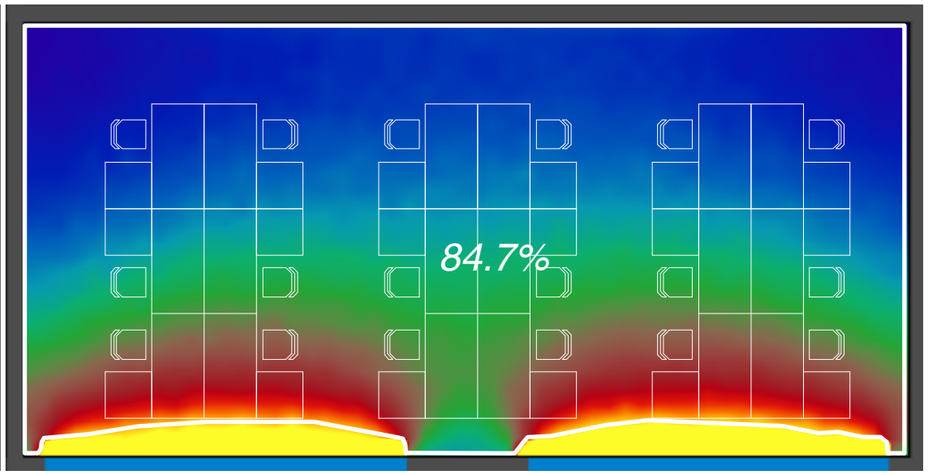

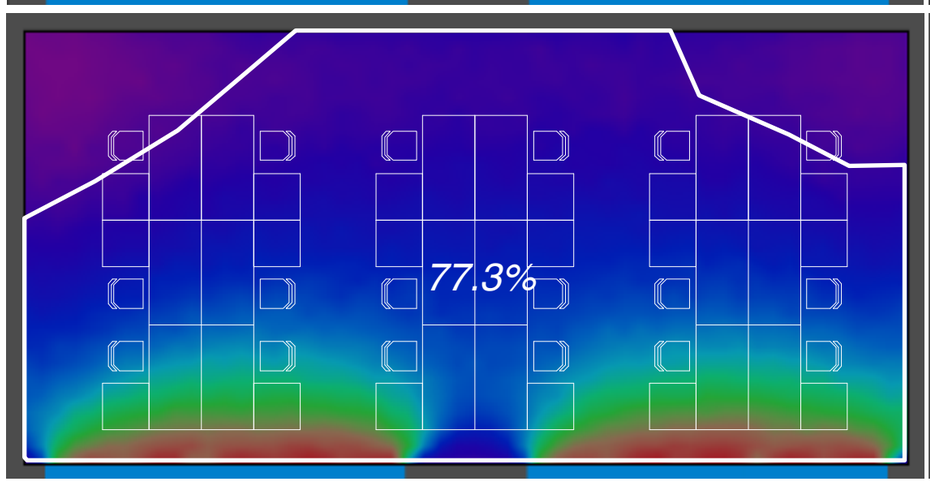

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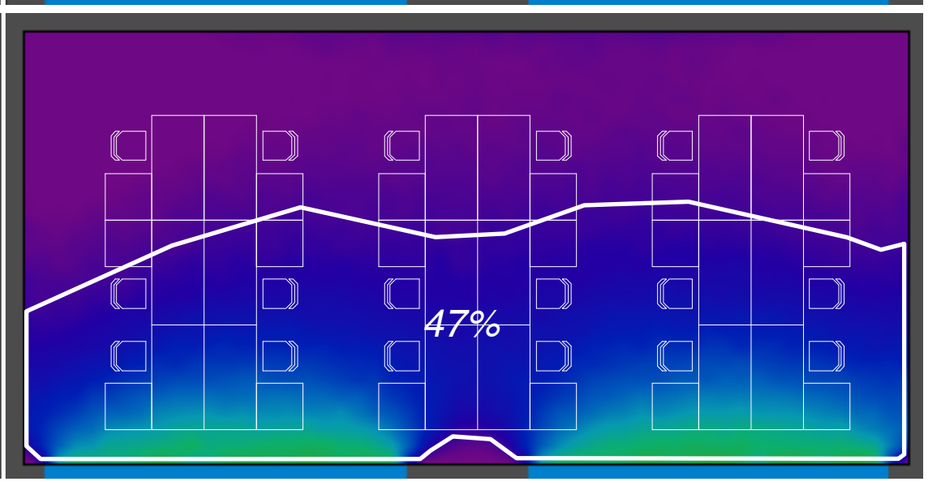

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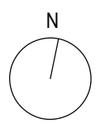

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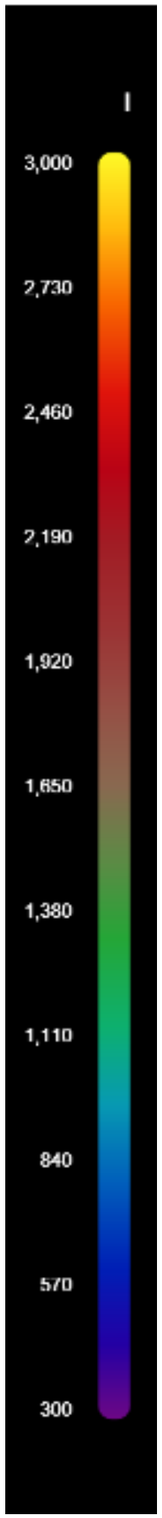

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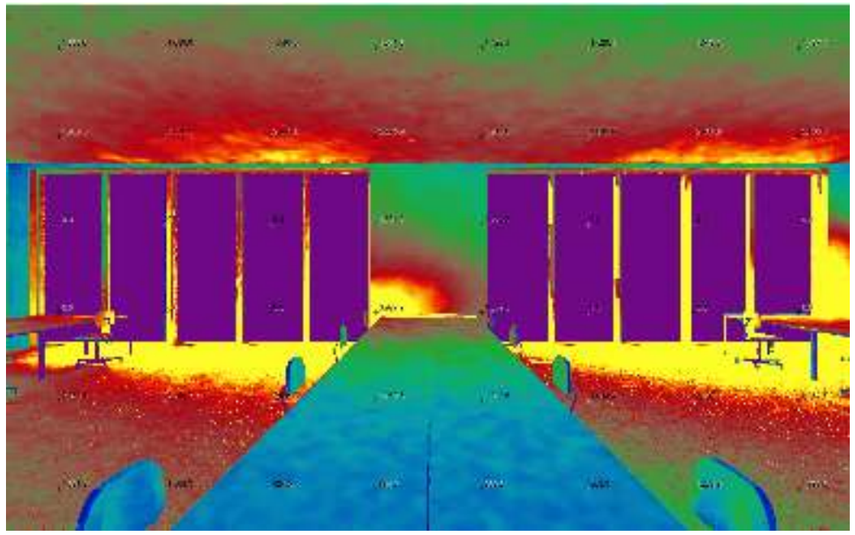

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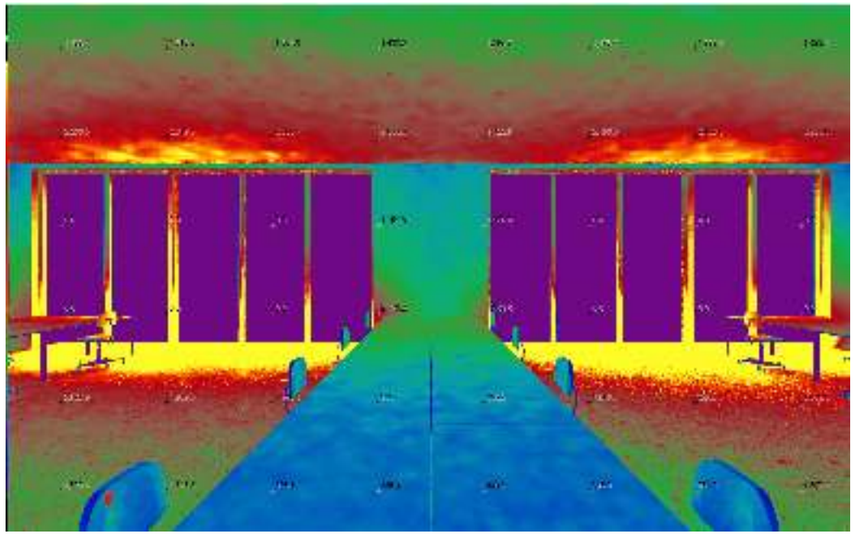

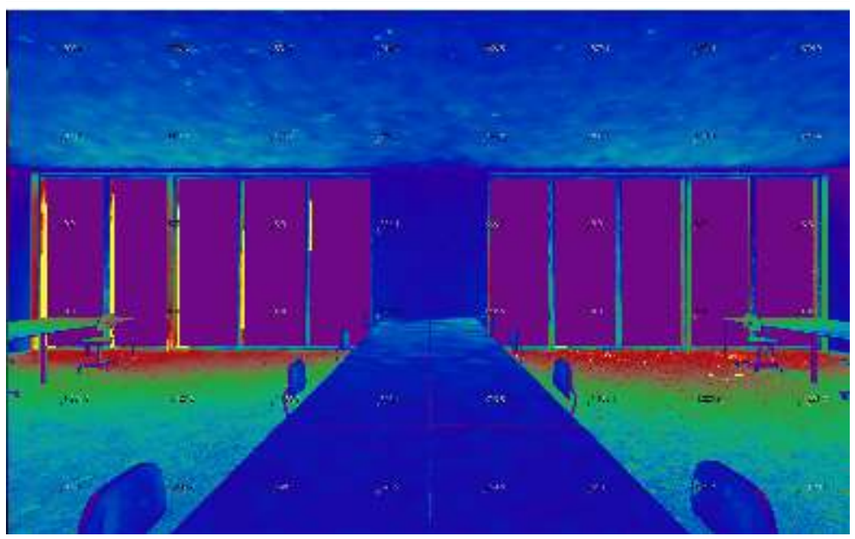

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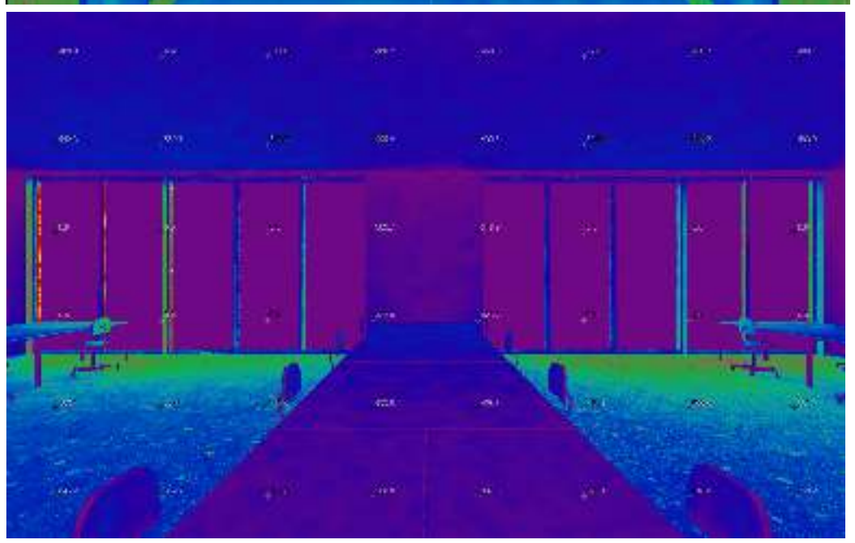

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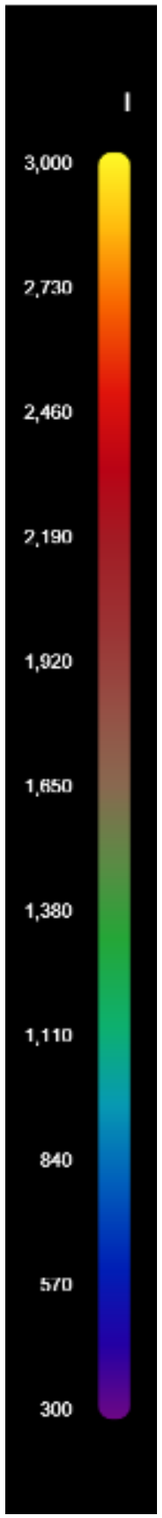
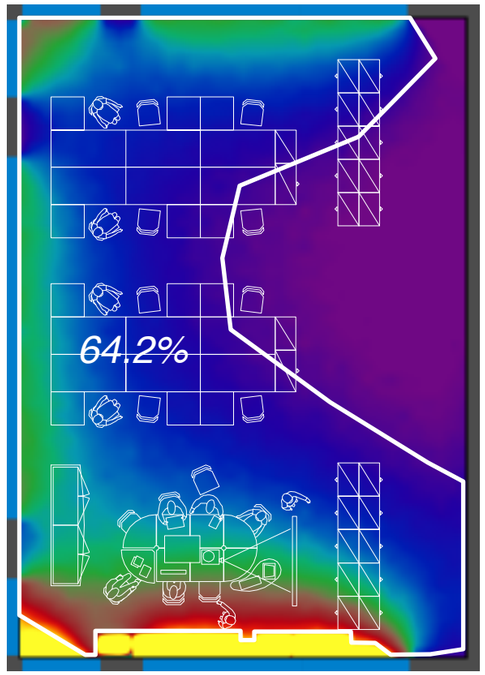


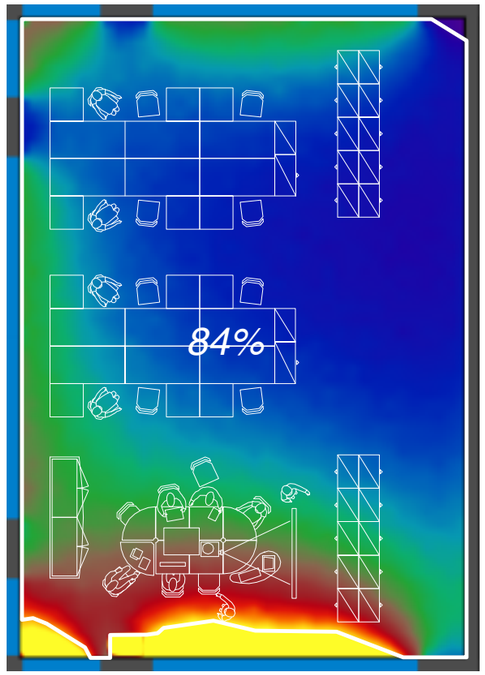
STUDY ZONE 1 DAYLIGHT ACCESS COMPARISON

Initial design

Improvement

9.00 a.m.





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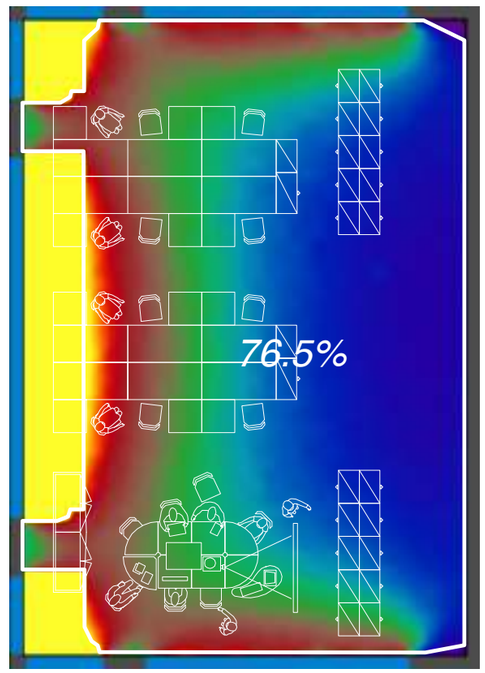

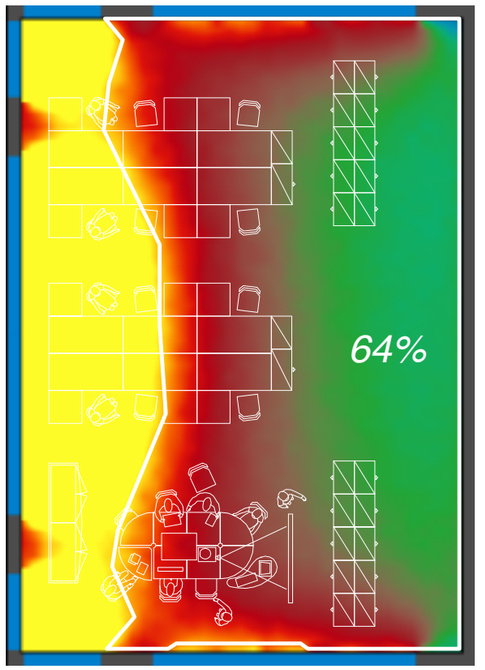

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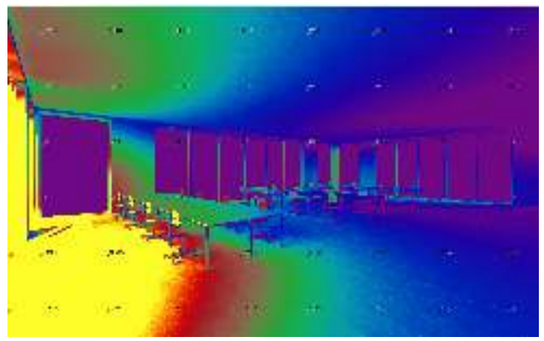

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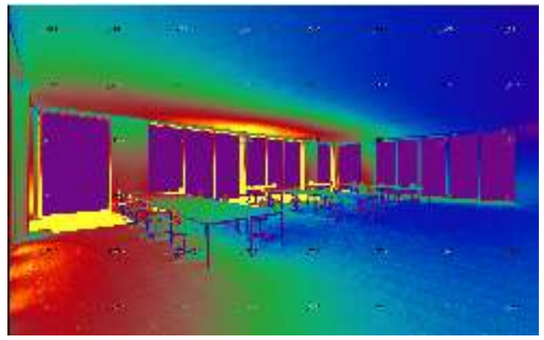
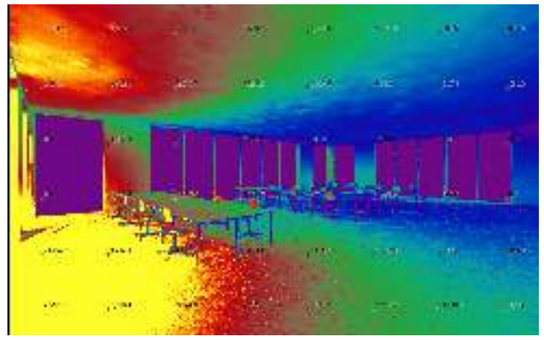


Initial design

9.00 a.m.



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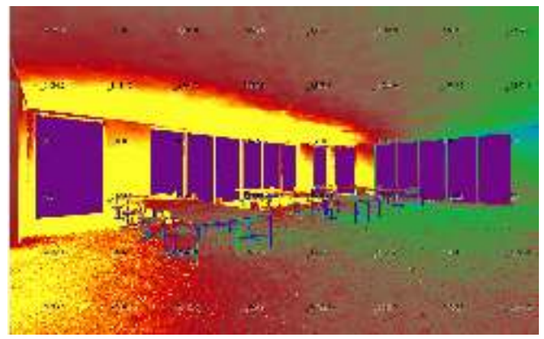
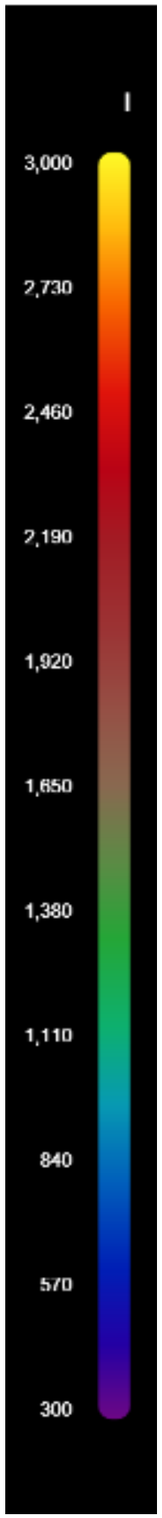


Improvement

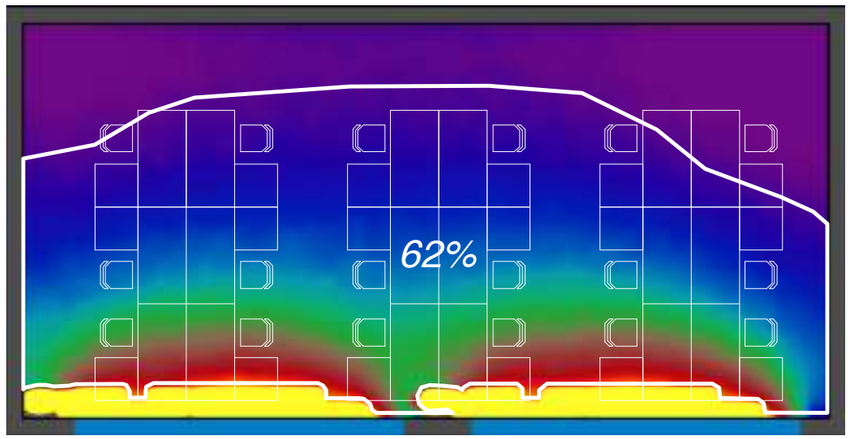
STUDY ZONE 2 DAYLIGHT ACCESS COMPARISON

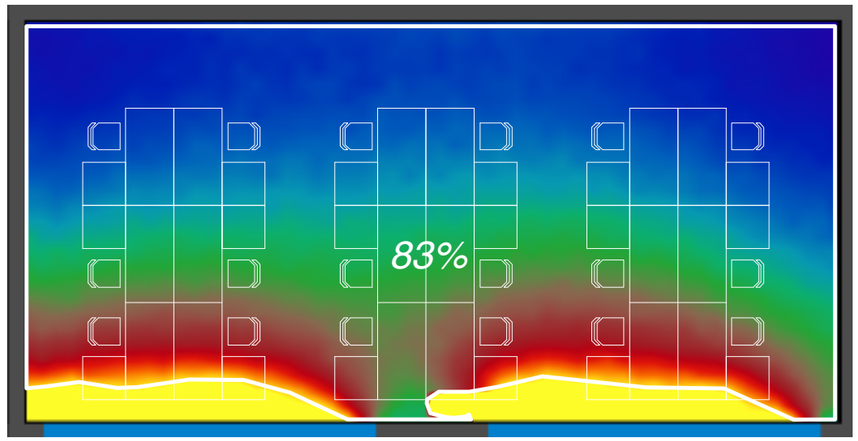


Initial design

Improvement

9.00 a.m.





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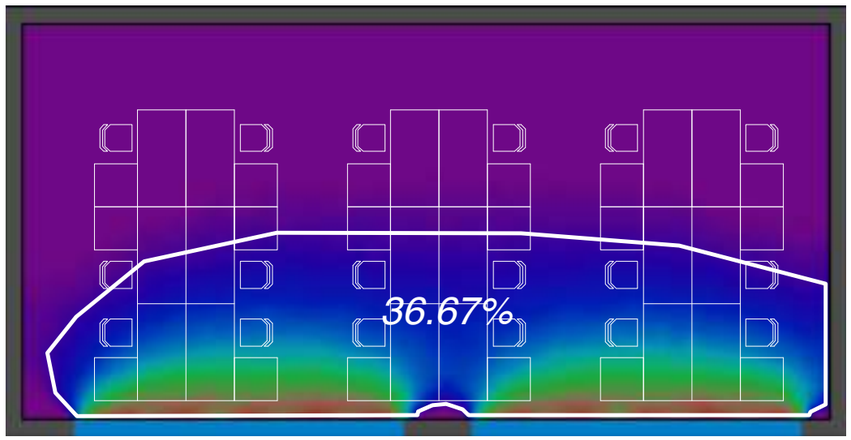
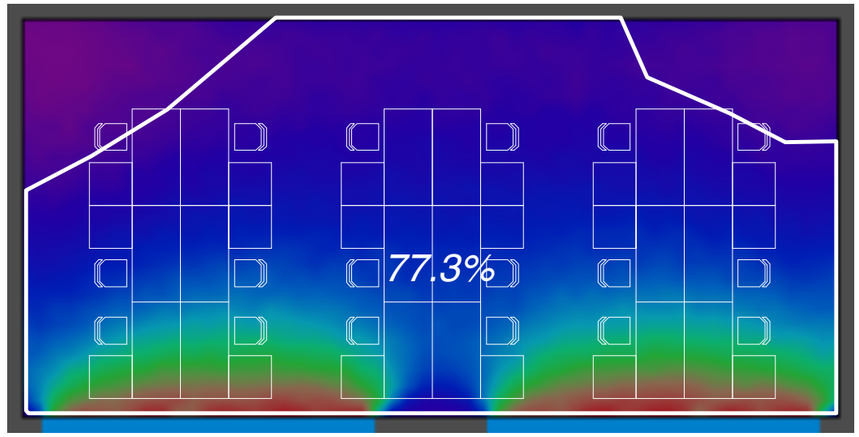
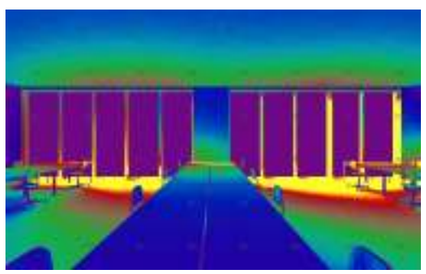




Initial design

Improvement



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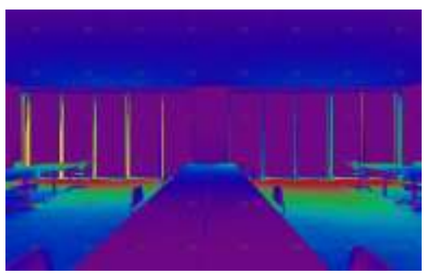

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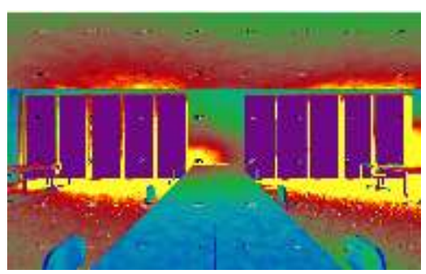

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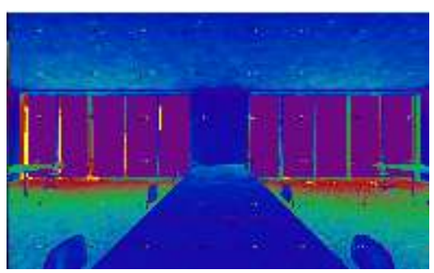

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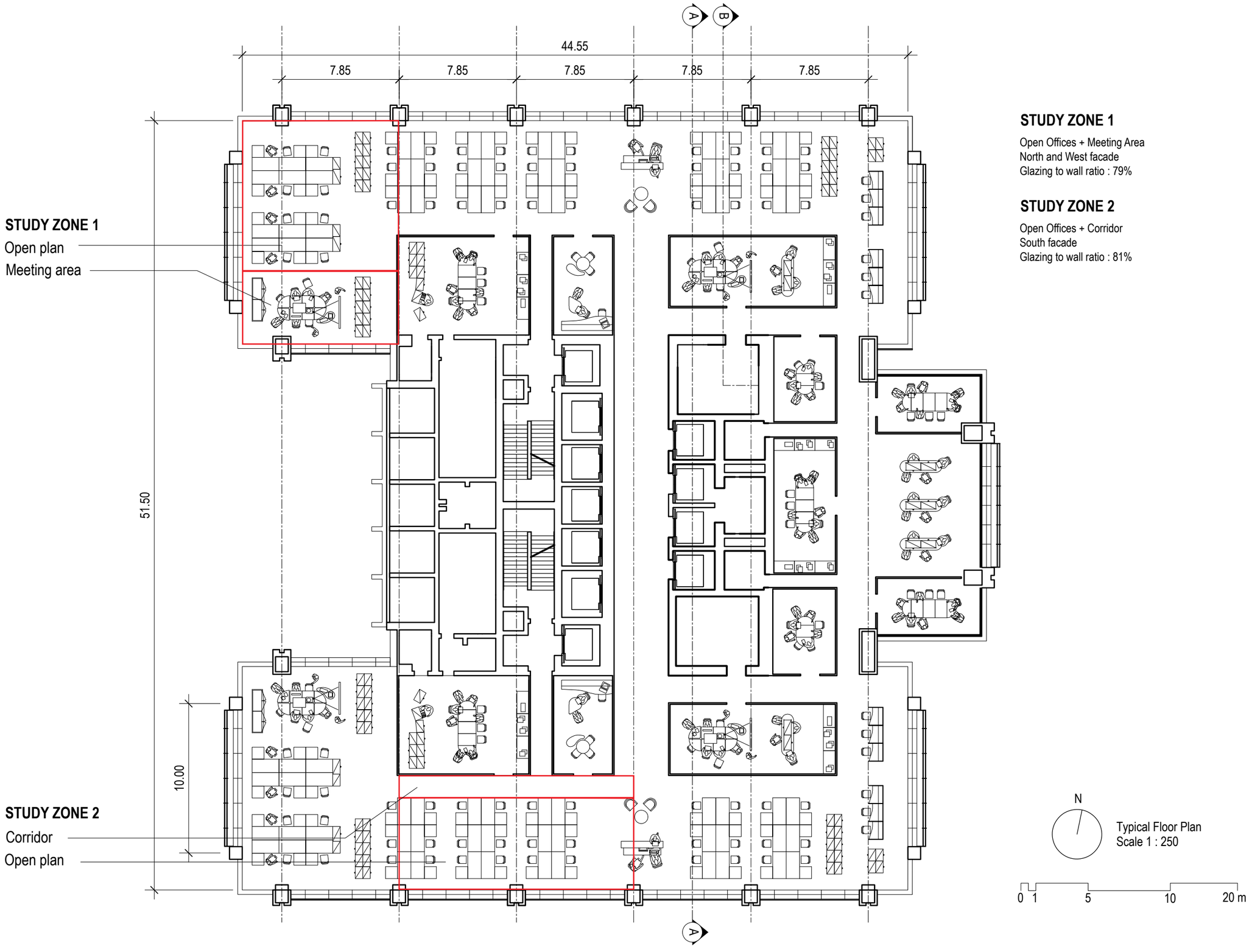


STUDY ZONE 1

Open Offices + Meeting Area
North and West facade
Glazing to wall ratio : 79%

STUDY ZONE 2

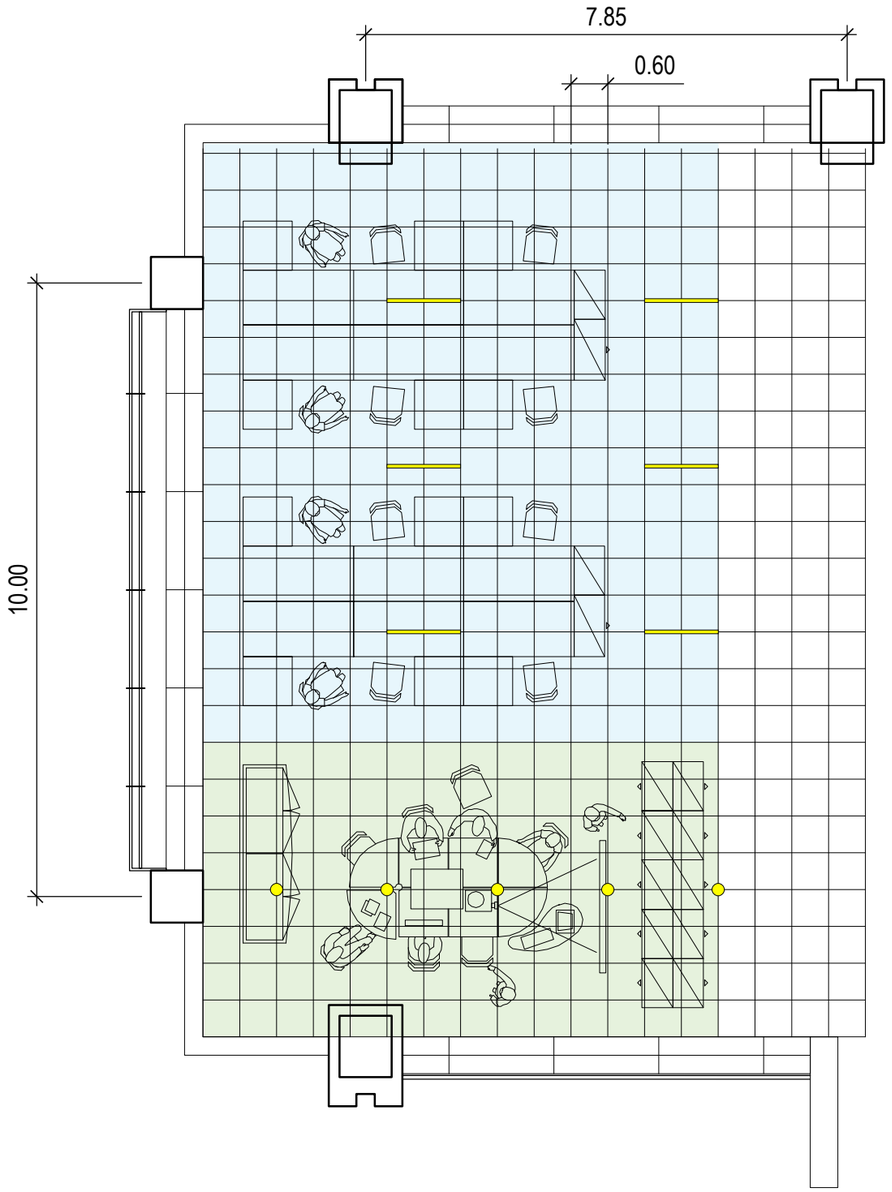
Open Offices + Corridor
South facade
Glazing to wall ratio : 81%

N

Typical Floor Plan
Scale 1 : 250

0 1 5 10 20 m

LIGHTING CONCEPT - STUDY ZONE 1



Area Plan
Scale 1 : 100

0 1 2 3 5 m

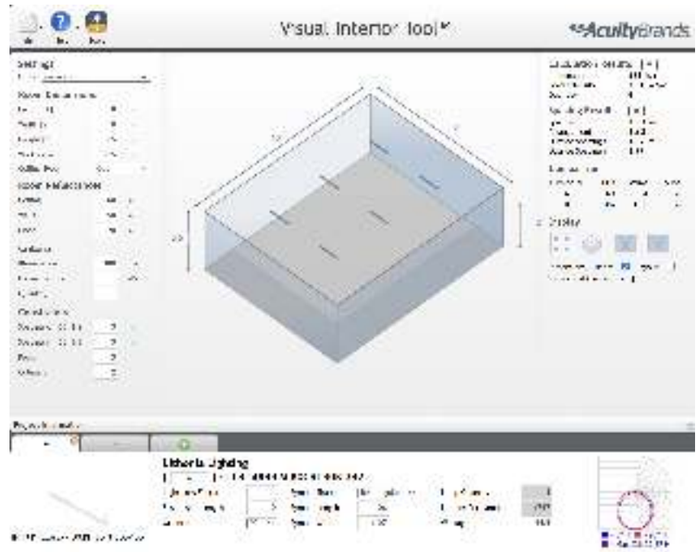
Open Office Strategy

The selection of Lithonia suspended linear lighting for the open office space is based on its ability to deliver uniform, glare-free illumination, thereby enhancing visual comfort and productivity. Additionally, its streamlined design aligns with the overall modern and efficient spatial strategy.

Lithonia suspended linear light
LL4 5000LM W0.6 x L1.2

For lighting specification detail
see appendix A

Open Office Calculation



Illuminance 321 lux
Power Density 3.34 W/m²
Quantity 6

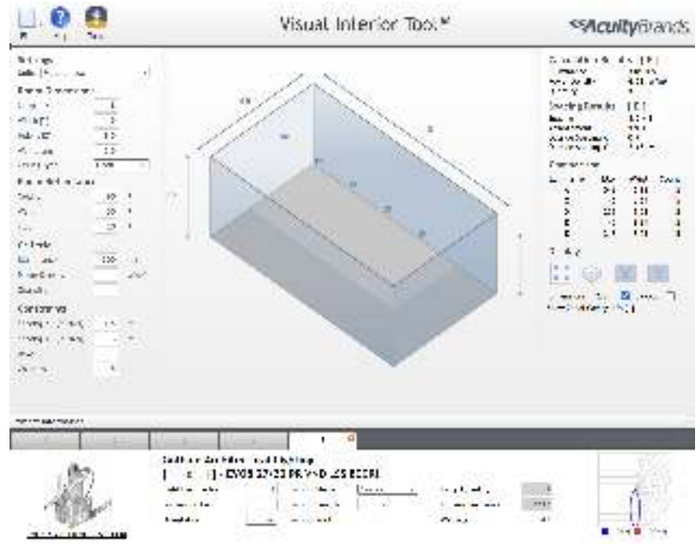
Meeting Area Strategy

The Gotham EVO8 recessed downlight has been selected for the meeting area due to its high-performance optical system, delivering precise, low-glare illumination that supports focused visual tasks and professional presentation settings. Its 80 CRI ensures accurate color rendering, while the sleek architectural finish contributes to a clean and refined ceiling aesthetic.

Gothem Architectural Lighting
EVO8 27-20 PR VND LSS 80CRI

For lighting specification detail
see appendix B

Meeting Area Calculation



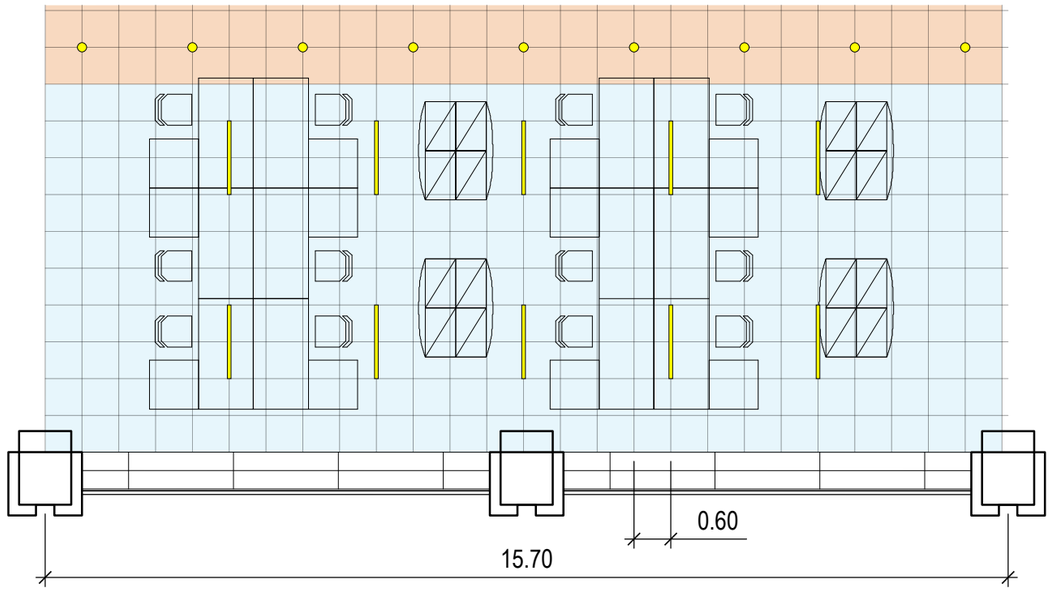
Illuminance 318 lux
Power Density 6.53 W/m²
Quantity 5

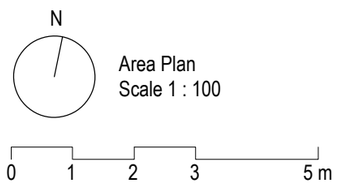
PERSPECTIVE RENDER - STUDY ZONE 1

Lithonia suspended linear light
LL4 5000LM W0.6 x L1.2

Illuminance 344 lux
Power Density 3.48 W/m²

LIGHTING CONCEPT - STUDY ZONE 2





Open Office Strategy

The selection of Lithonia suspended linear lighting for the open office space is based on its ability to deliver uniform, glare-free illumination, thereby enhancing visual comfort and productivity. Additionally, its streamlined design aligns with the overall modern and efficient spatial strategy.

Lithonia suspended linear light
LL4 5000LM W0.6 x L1.2

For lighting specification detail
see appendix A

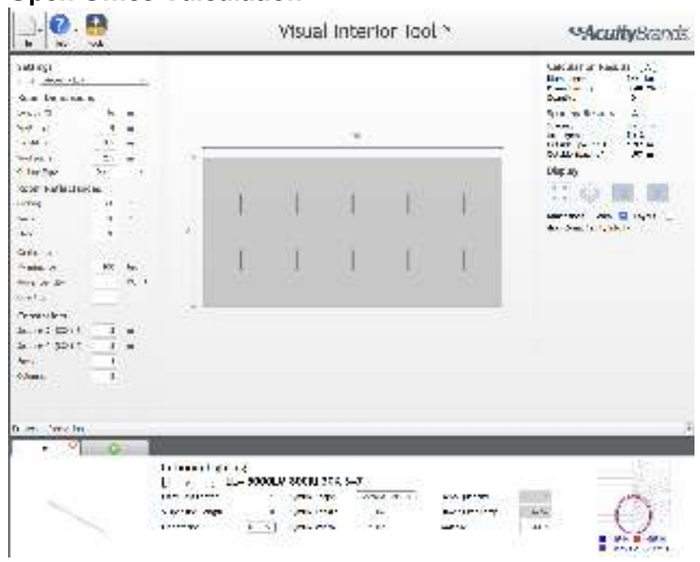
Corridor Strategy

The Juno WF6C 6-inch round LED downlight has been specified for the corridor due to its low-profile design and wide beam distribution, providing seamless and energy-efficient ambient lighting. The 3000K color temperature offers a warm and welcoming atmosphere, while its maintenance-free installation supports long-term operational efficiency

Juno Lighting
WF6C RD TUHM MW M6_3000K

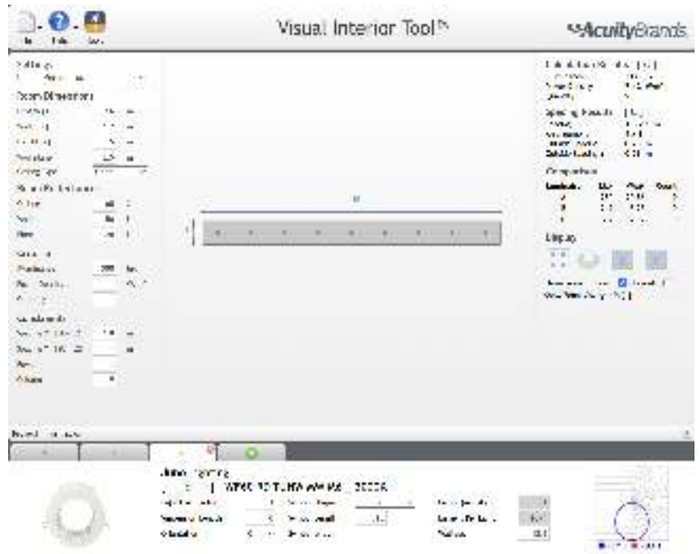
For lighting specification detail
see appendix C

Open Office Calculation



Illuminance 344 lux
Power Density 3.48 W/m²
Quantity 10

Meeting Area Calculation

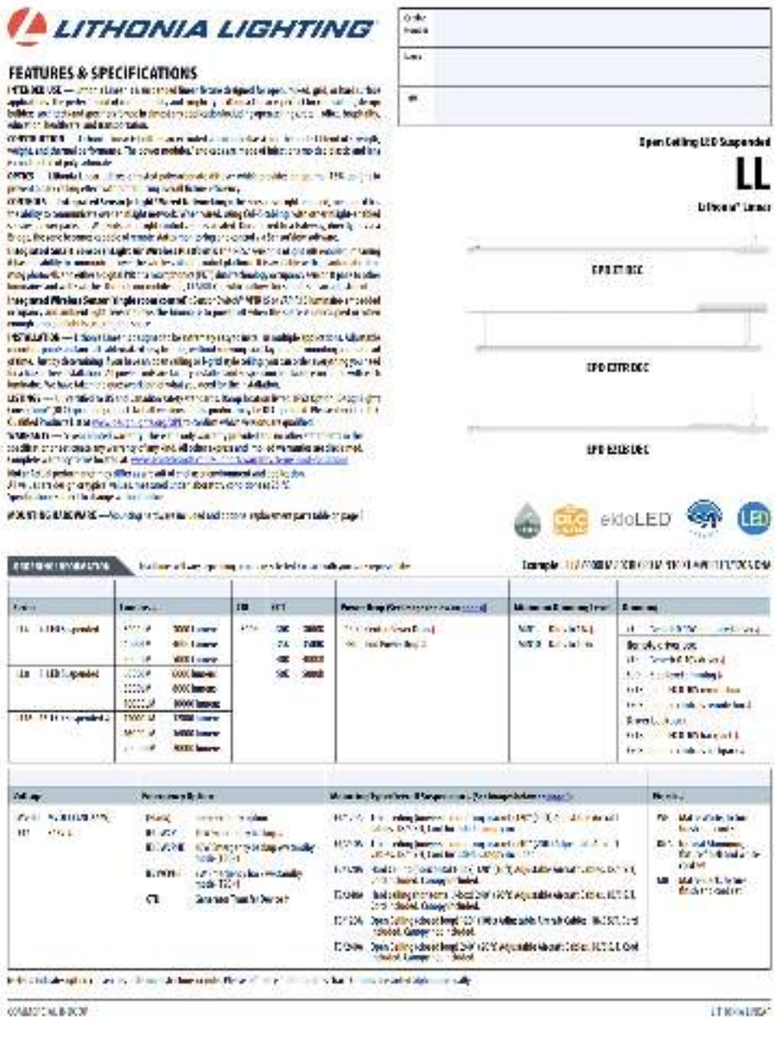


Illuminance 318 lux
Power Density 6.53 W/m²
Quantity 6

PERSPECTIVE RENDER - STUDY ZONE 2

Appendix

A



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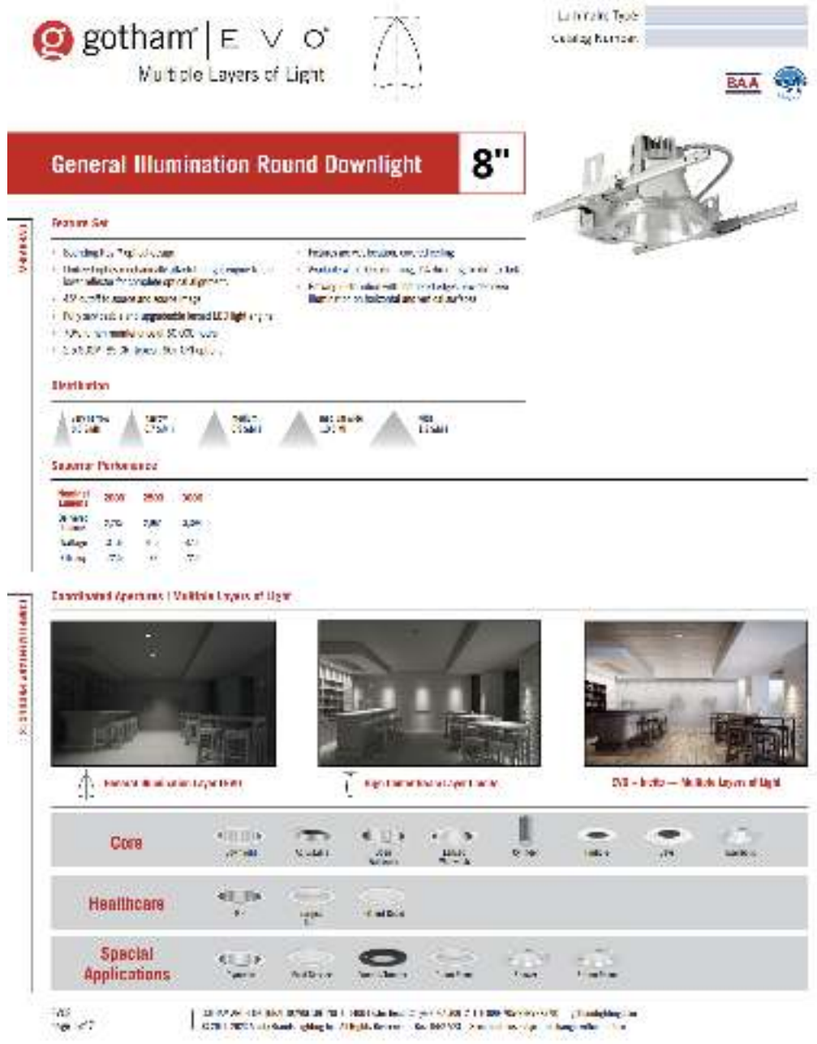

C