

Highlights



High quality lighting in schools is known to significantly improve the well-being and performance of students and staff. Research has shown that school facility design affects student learning, attendance, and teacher turnover rates¹. In addition, students consider lighting an important design factor in classroom environments². A year-long study conducted by Dr. Michael Schulte-Markwort, Director of the Clinic for Psychosomatics in Children and Juveniles at the University Medical Centre Hamburg-Eppendorf, found that correct lighting in the classroom, in terms of intensity, color temperature, and dynamism, helps to increase reading speed by 35%, and reduces comprehension errors by 45%. It was also shown that warm lighting can reduce hyperactivity in the classroom by up to 76%.

This design guide outlines how the versatility of Casambi wireless lighting control system can serve the diverse needs of educational spaces. Casambi's state-of-the-art technology is aligned with the trends and dynamics of the education sector, bringing further benefits beyond illumination, such as providing visual comfort, air quality, wellbeing, various scenes for different tasks and customizable circadian profiles to enhance students experience and allowing remote access for easier operation and maintenance. To facilitate this new approach to learning, education spaces need to be flexible, multifunctional and easily modifiable. Casambi offers the perfect solution to meet the modern schools' stringent lighting control demands.

¹. D.J. O'Neill, A.D. Oates, The impact of school facilities on student achievement, behavior, attendance, and teacher turnover rate in central Texas middle schools, *Educ. Facil. Plan.*, 36(2001), pp. 14-22
². N. Castilla, C. Linares, J.M. Bravo, V. Blanca, Subjective assessment of university classroom environment, *Build. Environ.*, 122(2017), pp. 72-81

Consultant & Lighting Designer

- Freedom in product choice & design flexibility
- Versatility and flexibility for all applications
- No complex wiring diagrams

Owner / Facilities Manager

- Reduced total cost of ownership
- Energy efficient & cost effective
- Simple reconfiguration without disruption
- Building accreditations
- Quick and easy device replacement – no reprogramming
- Remote access

Installer & Commissioner

- Quick & easy to install
- No control cables needed
- Commission via the free app
- Ease of troubleshooting

Students

- Visual comfort & well-being
- Task tuning and personalization
- Human-centric lighting & customizable circadian profiles
- Various scenes for different tasks

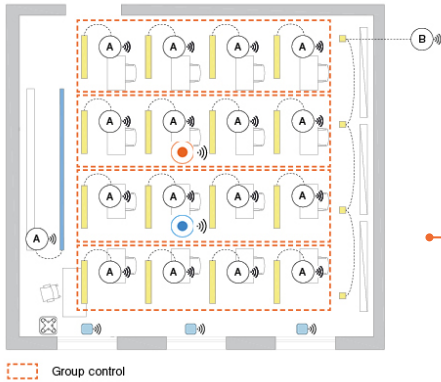
How to read this guide?

Room Type

Solution Type

1. Classroom - Type B

Group Control



- Standard luminaire
- Standard whiteboard luminaire
- Standard ON-OFF luminaire
- Casambi Ready occupancy and light sensor
- Casambi Ready air quality sensor
- Casambi Ready blind controller
- Casambi Ready driver
- Casambi Ready relay
- Casambi wireless Xpress switch

Learn about the products used in the space

Understand how the products are laid out in the space

Devices

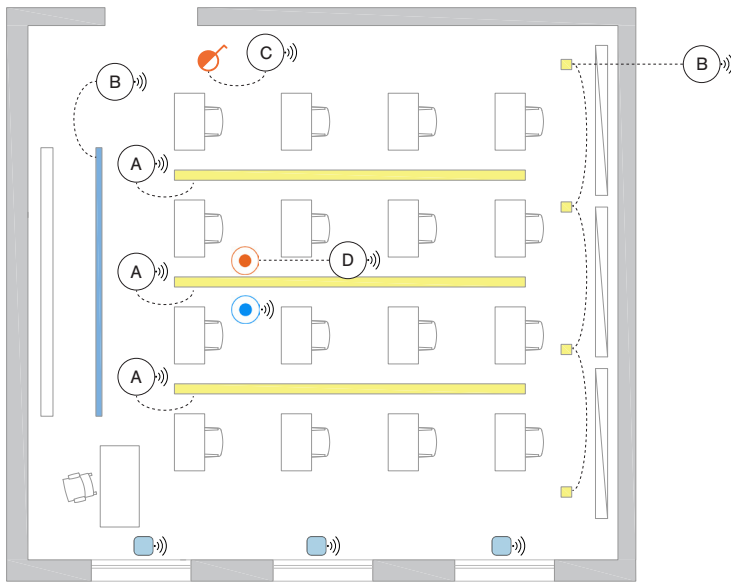
LUMINAIRE	Standard luminaire		16	→	
	Standard whiteboard luminaire		1	→	
	Standard ON-OFF luminaire		1	→	
SWITCH	Casambi wireless Xpress switch		1	→	
SENSOR	Casambi Ready occupancy and light sensor		1	→	
	Casambi Ready air quality sensor		1	→	
OTHER	Casambi Ready blind controller		3	→	












Understand what products would be needed to achieve the strategies

Functionality

Calendar and Timer		Daylight Harvesting	
Scenes		Human Centric Lighting	
Occupancy Detection			

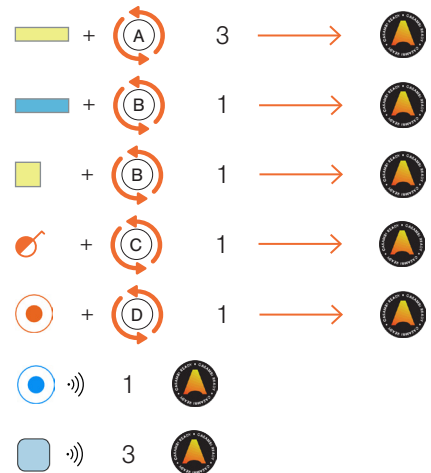
Learn what strategies can be implemented in the space



-  Tunable White LED trunking luminaire
-  Standard whiteboard luminaire DALI
-  Tunable White luminaire DALI
-  Standard occupancy and light sensor
-  Casambi Ready air quality sensor
-  Conventional wired switch
-  Casambi Ready blind controller
-  Casambi Ready driver
-  Casambi wireless controller DALI
-  Casambi Ready Input controller
-  Casambi wireless controller

Devices

LUMINAIRE	Tunable White LED trunking luminaire
	Standard whiteboard luminaire DALI
	Tunable White luminaire DALI
SWITCH	Conventional wired switch
SENSOR	Standard occupancy and light sensor
	Casambi Ready air quality sensor
OTHER	Casambi Ready blind controller



Functionality

Calendar and Timer



Scenes



Occupancy Detection

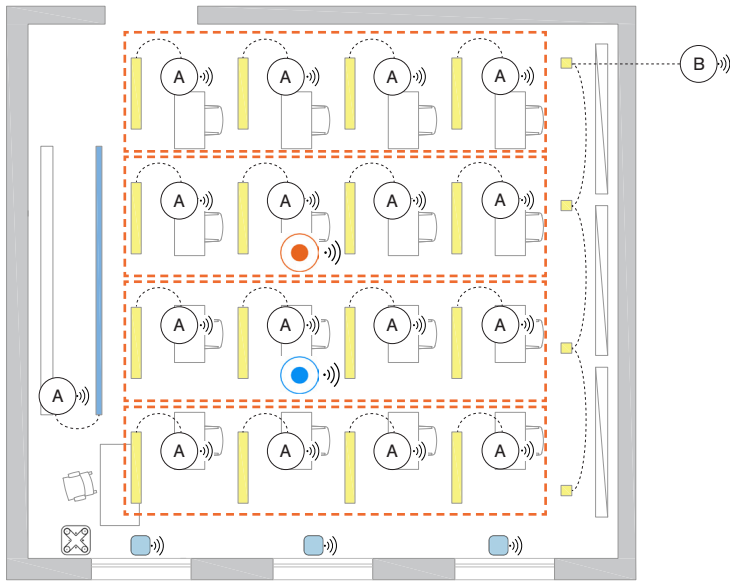


Daylight Harvesting



Human Centric Lighting





Group control

- Standard luminaire
- Standard whiteboard luminaire
- Standard ON-OFF luminaire
- Casambi Ready occupancy and light sensor
- Casambi Ready air quality sensor
- Casambi Ready blind controller
- Casambi Ready driver
- Casambi Ready relay
- Casambi wireless Xpress switch

Devices

LUMINAIRE	Standard luminaire	+	16	→	
	Standard whiteboard luminaire	+	1	→	
	Standard ON-OFF luminaire	+	1	→	
SWITCH	Casambi wireless Xpress switch		1		
SENSOR	Casambi Ready occupancy and light sensor		1		
	Casambi Ready air quality sensor		1		
OTHER	Casambi Ready blind controller		3		

Functionality

Calendar and Timer



Daylight Harvesting



Scenes

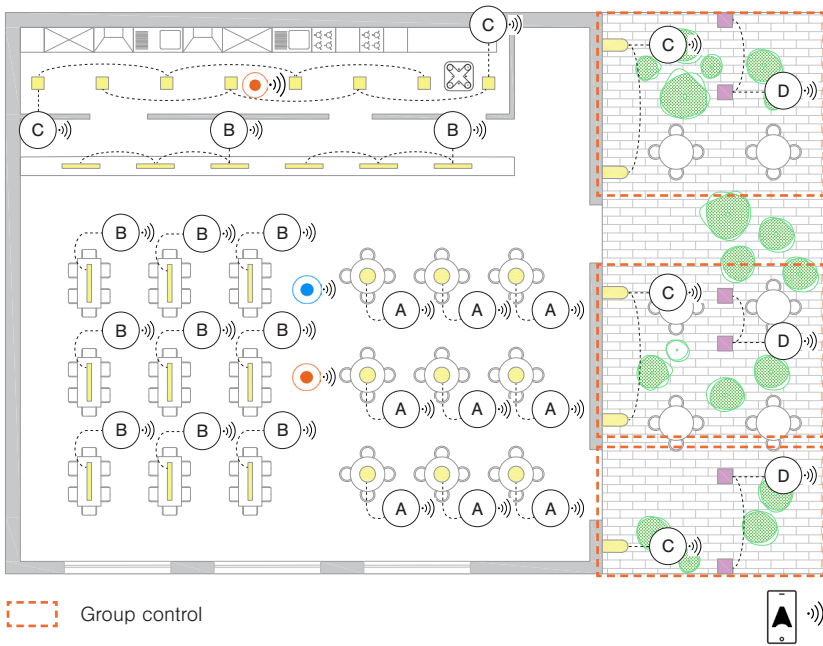


Human Centric Lighting



Occupancy Detection

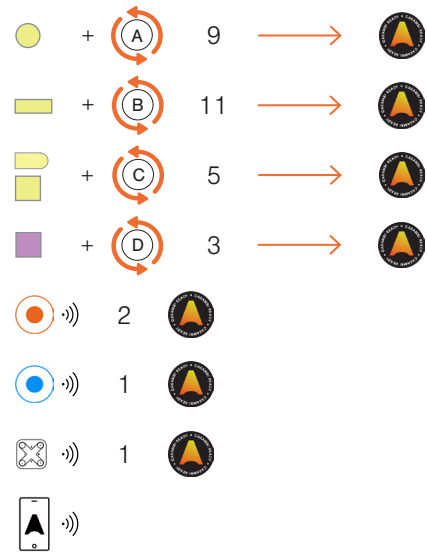




- Decorative luminaire with dimmable LED lamp
- Standard luminaire
- Standard ON-OFF luminaire
- Standard luminaire DALI
- Standard ON-OFF luminaire
- Casambi Ready occupancy and light sensor
- Casambi Ready air quality sensor
- Casambi wireless phasecut dimmer
- Casambi Ready driver
- Casambi Ready relay
- Casambi wireless controller DALI
- Casambi wireless Xpress switch

Devices

LUMINAIRE	Decorative luminaire with dimmable LED lamp
	Standard luminaire
	Standard ON-OFF luminaire
	Standard luminaire DALI
SENSOR	Casambi Ready occupancy and light sensor
	Casambi Ready air quality sensor
SWITCH	Casambi wireless Xpress switch
APPLICATION	Casambi App on a smart mobile device <i>*Not mandatory for daily use.</i>



Functionality

Casambi App on a Smart Mobile Device



Calendar and Timer



Scenes

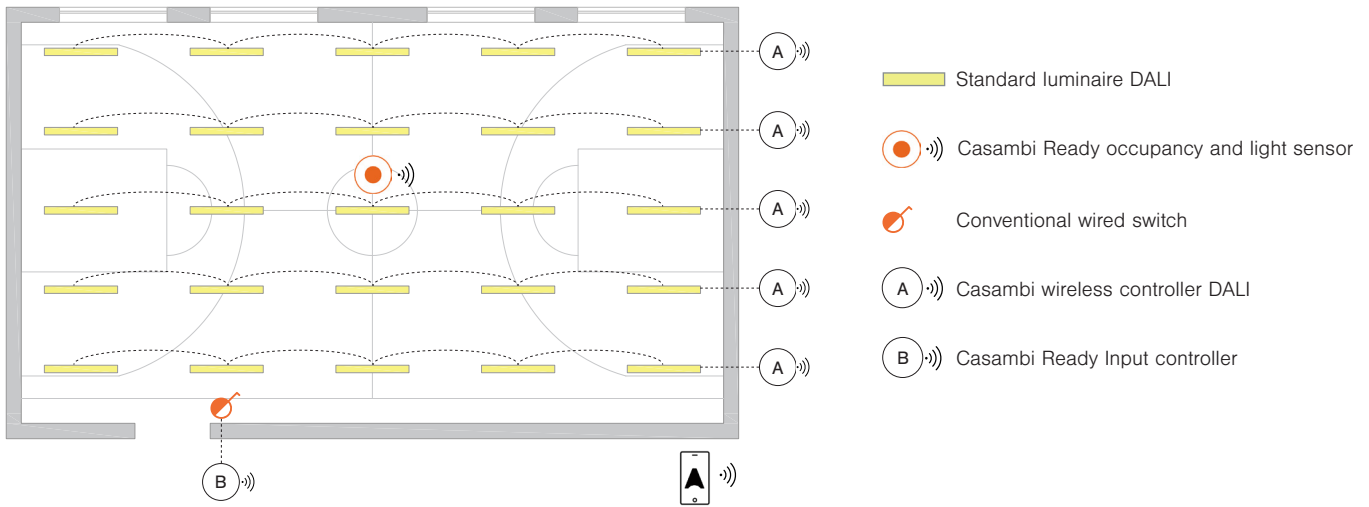


Occupancy Detection



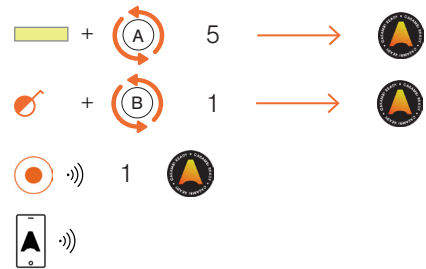
Daylight Harvesting





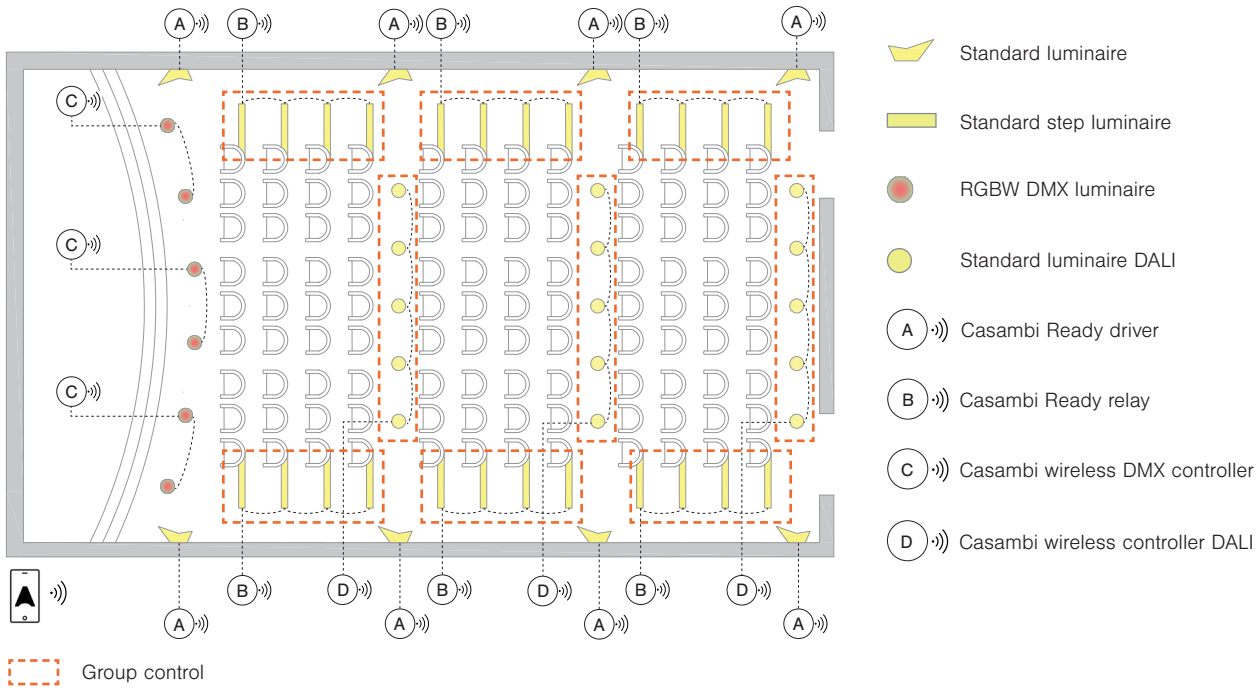
Devices

LUMINAIRE	Standard luminaire DALI
SWITCH	Conventional wired switch
SENSOR	Casambi Ready occupancy and light sensor
APPLICATION	Casambi App on a smart mobile device <i>*Not mandatory for daily use.</i>



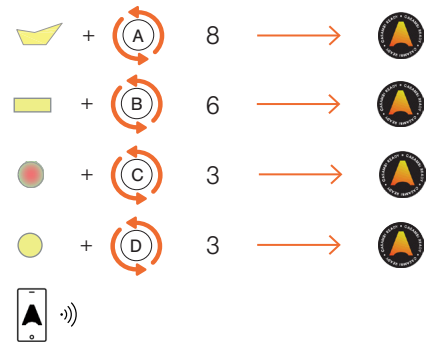
Functionality

Casambi App on a Smart Mobile Device		Occupancy Detection	
Calendar and Timer		Daylight Harvesting	
Scenes			



Devices

LUMINAIRE	Standard luminaire
	Standard step luminaire
	RGBW DMX luminaire
	Standard luminaire DALI
APPLICATION	Casambi App on a smart mobile device <i>*Not mandatory for daily use.</i>



Functionality

Casambi App on a Smart Mobile Device

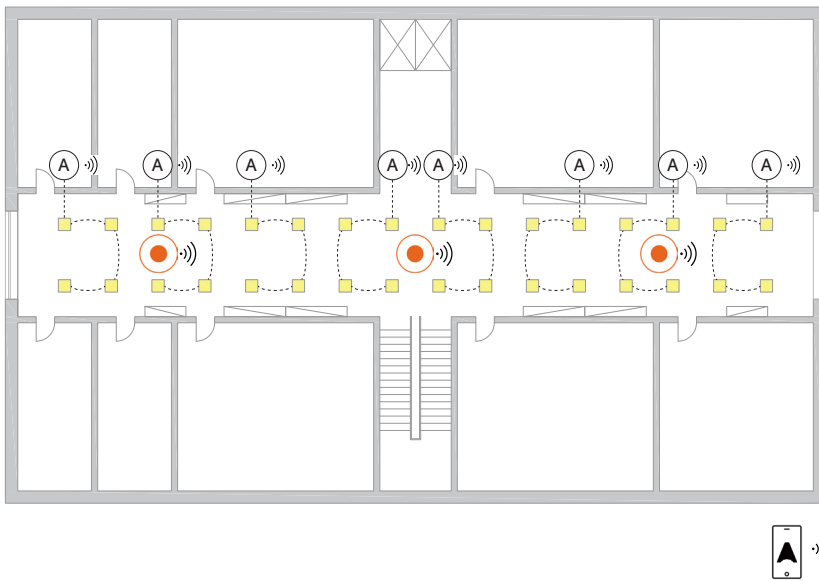





Calendar and Timer



Scenes

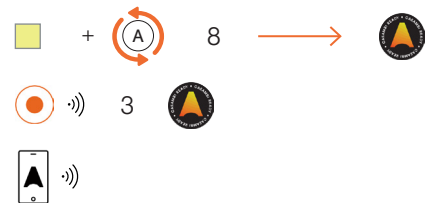




-  Standard luminaire DALI
-  Casambi Ready occupancy and light sensor
-  Casambi wireless controller DALI

Devices

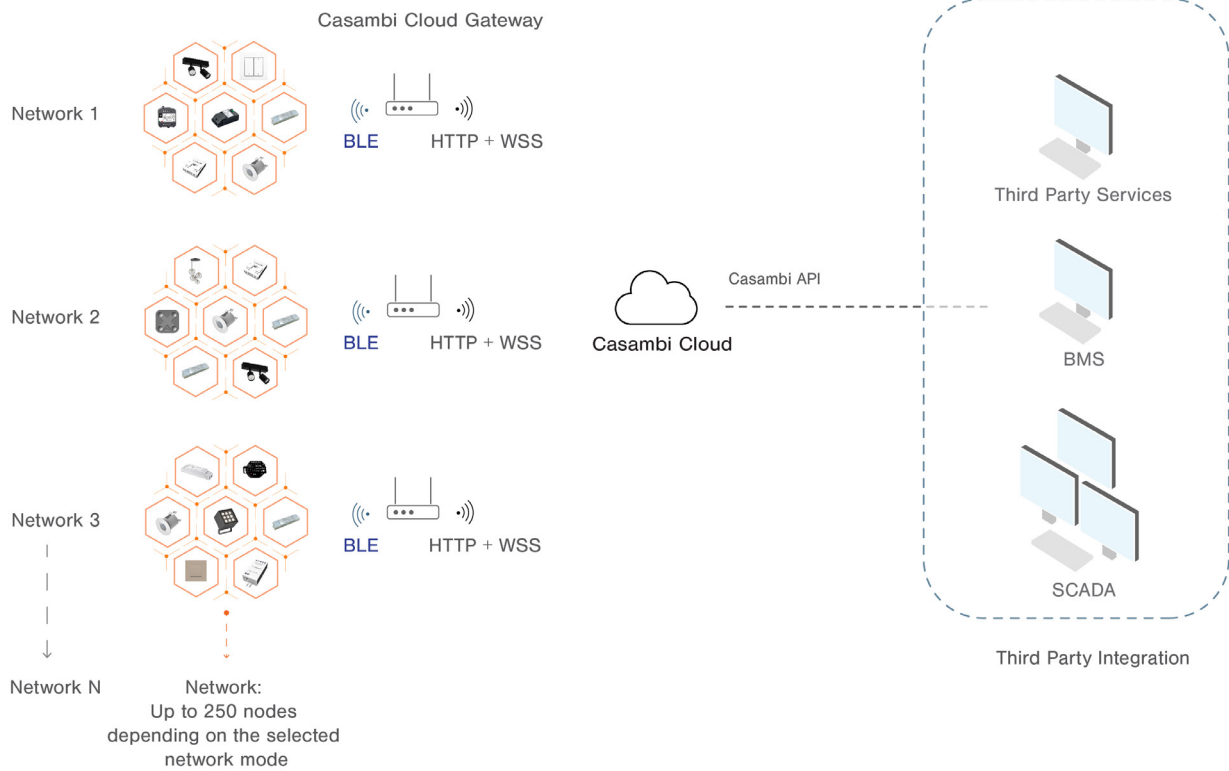
LUMINAIRE	Standard luminaire DALI
SENSOR	Casambi Ready occupancy and light sensor
APPLICATION	Casambi App on a smart mobile device <i>*Not mandatory for daily use.</i>



Functionality

- | | | | |
|--------------------------------------|---|---------------------|---|
| Casambi App on a Smart Mobile Device |  | Occupancy Detection |  |
| Calendar and Timer |  | Daylight Harvesting |  |

Linking multiple networks with Casambi Cloud Gateway



Linking multiple networks locally

