



 illumiga

human centric
lighting solutions
LIGHTING THAT CARES

A man and a woman in business attire are looking at a laptop in an office setting. The man is wearing a blue suit and the woman is wearing a beige blazer. They are both looking intently at the laptop screen. The background is a blurred office environment with glass partitions and ceiling lights.

**We spend
90^{*}%
of our time
indoors**

**which is why it's important to
light up our lives the right way.**

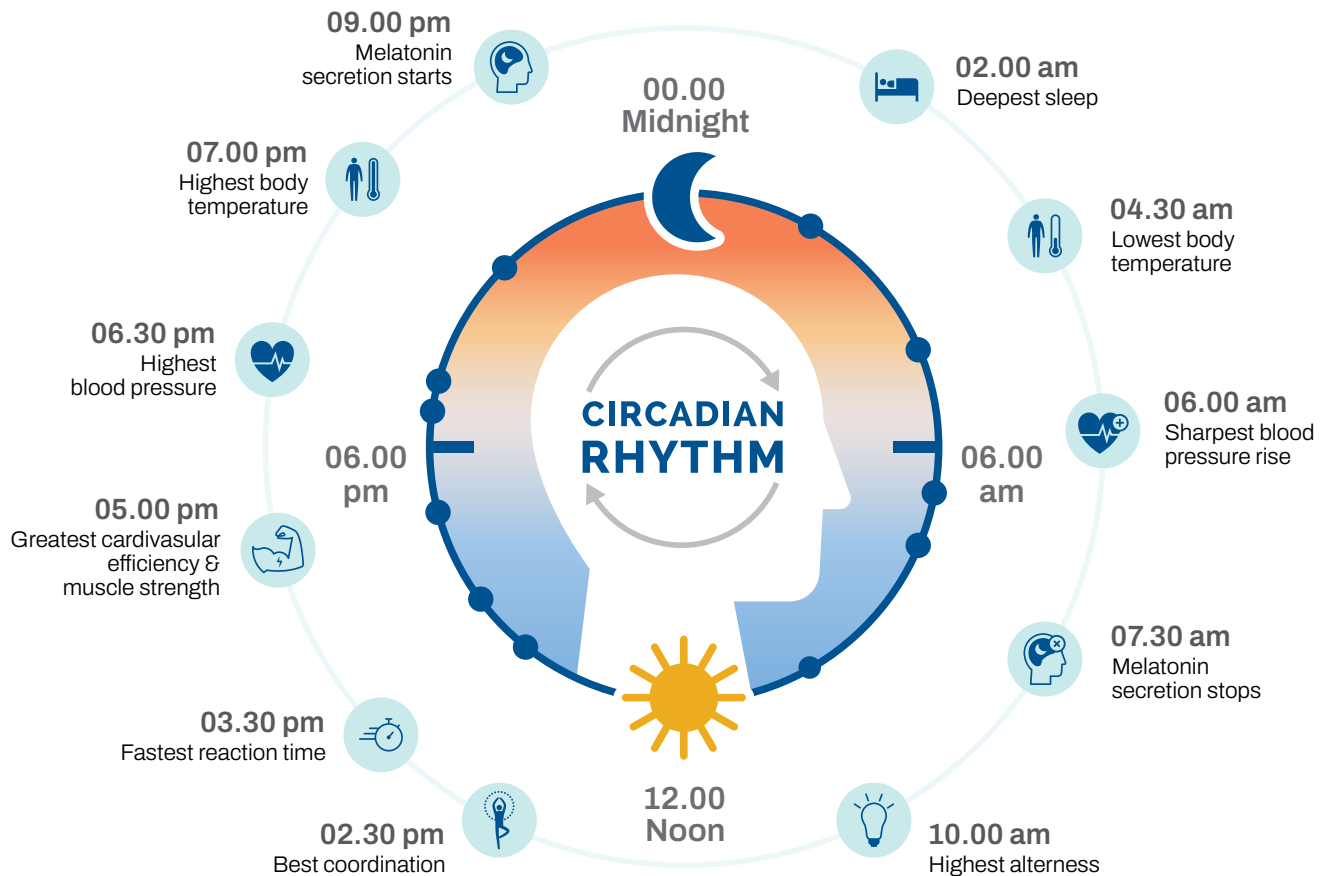


68%* of all employees aren't satisfied with the lighting at their workplace.

Circadian rhythms are physical, mental and behavioural changes that follow a 24-hour cycle. Lighting has a huge impact in regulating our circadian rhythms with the natural day/night cycles. That's why it's crucial to design workspaces that are agile in their potential for lighting and empowering in the possibilities for illumination. Workspaces are evolving rapidly, significantly and dynamically, and our lighting solutions need to keep up with this. What we need is **intelligent and intuitive lighting that cares.**

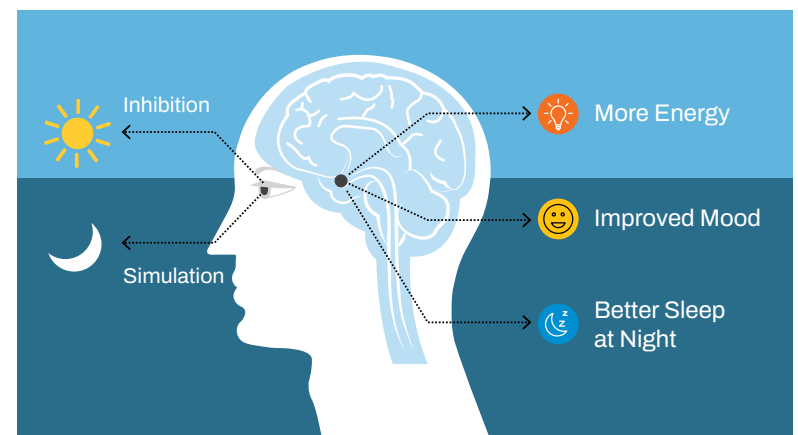
* Based on independent study

DESIGN PRINCIPLES



LIGHTING THAT ADAPTS

Our physical, mental and behavioural changes - including our sleep cycle - follow a circadian rhythm. This rhythm is synchronised with our internal 24-hour body clock, and it is influenced by our surrounding natural light. Generally speaking, the human body is the most productive during the day. It displays higher alertness, better motor coordination, greater cardiovascular efficiency, increased muscle strength and swifter reaction time. Further, following the circadian rhythm is linked to improvement in mood and energy levels.



DESIGN METRICS



THE INTERPLAY BETWEEN
DAY & NIGHT
IS THE BASIC CONTROL OF THE
CIRCADIAN RYTHM

BRAIN PRODUCES
CORTISOL
HORMONES
AT DAWN

BRAIN PRODUCES
MELATONIN
HORMONES
DURING NIGHT

LIGHT HAS EFFECTS ON



VISION

SIGHT



LEARNING

ALERTNESS,
COGNITIVE PERFORMANCE



EMOTIONS

MOOD, ENERGIZE
AND RELAXATION

PROBLEMS

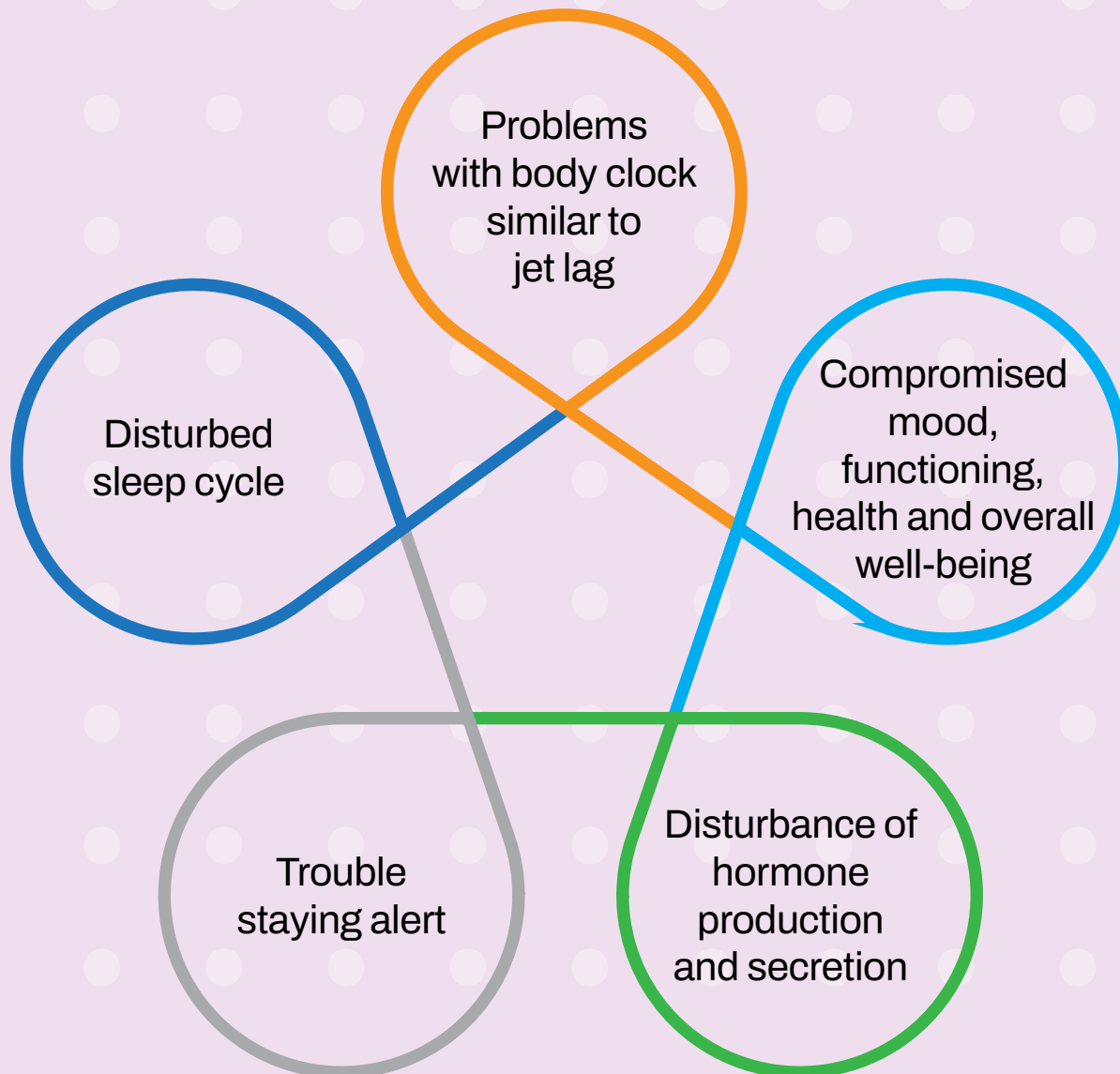
A man in profile, looking thoughtful, with a textured, painterly background. The man is wearing a dark blue sweater and has his hand resting on his chin. The background is a mix of purple, blue, and red tones with visible brushstrokes.

The circadian rhythm responds proportionately to light and dark. Too much or too little exposure to certain types of light can affect the production and secretion of mood-related hormones like melatonin and cortisol.

Today, there is a growing disconnect between natural light and artificial light in terms of intensity and colours. This in turn can negatively affect our physical, mental and emotional well-being.

CONSEQUENCES

Disruptions or abnormalities in the production of melatonin and cortisol can cause:




 **BAJAJ** Presents



illumiga

HUMAN CENTRIC LIGHTING SOLUTIONS



A composite image featuring a woman's profile on the right side, looking upwards. Her hair is dark and long. Overlaid on her head is a glowing, golden brain with a bright light source in the center, emitting rays of light. The background is a blurred cityscape at night, with lights from buildings and streets. A grid of semi-transparent dots is overlaid on the right side of the image, extending from the woman's face towards the right edge.

brain.
soul.
light.

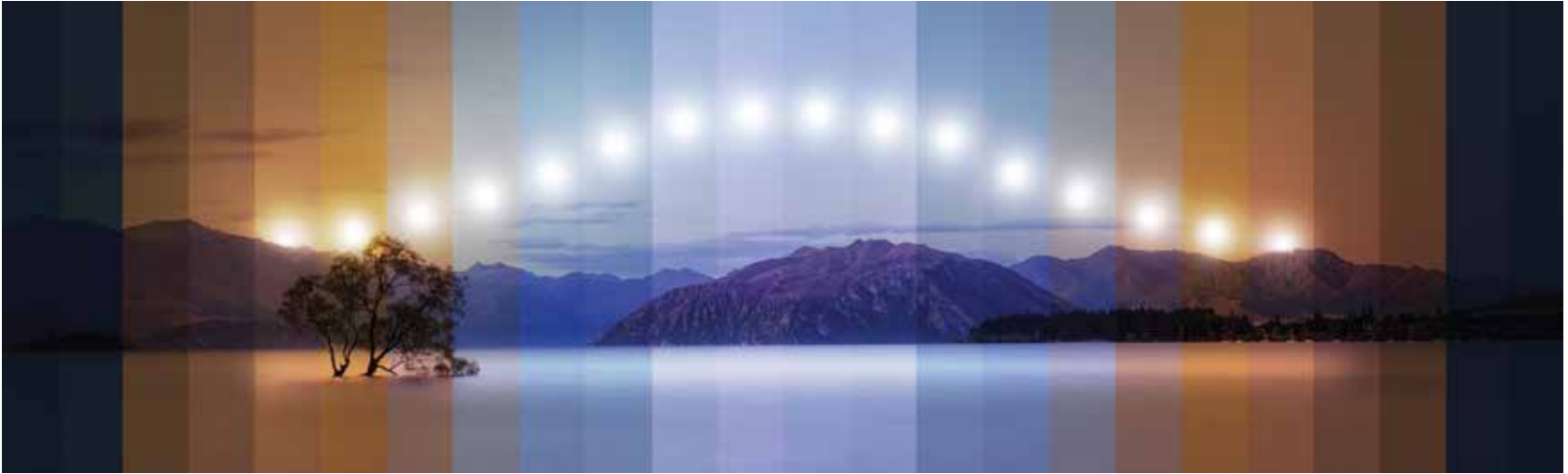


Human Centric Light. *You* centric light.

We at Bajaj have engineered lighting solutions that attempt to achieve a perfect synchrony of brain, soul, and light. **Bajaj Illumiga's Human Centric Lighting Solutions** provide adaptive, versatile and intelligent lighting systems that can illuminate everything from workspaces to healthcare facilities and educational spaces.

However varied your needs may be, Bajaj Illumiga's Human Centric Lighting (HCL) Solutions consistently provide a **'user-centric'** lighting experience. Our HCL technology adjusts its light profiles throughout the day to adapt to the surroundings and match the natural lighting outside. This creates an environment that reproduces naturally lit settings as closely as possible, thus improving user **wellbeing, welfare and productivity.**

HOW DOES IT WORK



Natural Light is dynamic from sunrise to sunset

Humans have evolved and adapted to this steady cycle of dark and light

Over the course of evolution, humans have adapted to the day's natural light. The modern world requires people to spend a significant amount of time indoors with artificial lighting. The illuminances emitted by such artificial lighting fall short by a large margin when compared with natural outdoor illuminances. Without the optimum lighting conditions, we are more prone to reduced productivity, less efficient cognitive functioning and general health issues.

To counter the negative effects of artificial light, we at Bajaj have developed highly sophisticated Human Centric Lighting (HCL) solutions. **Bajaj Illumiga's Human Centric Lighting Solutions** create a working environment that perfectly simulates changes in natural daylight. Our illumination technology mimics earth's natural lighting cycle by using luminaires that are controlled by intelligent technology with appropriate light profiles. This aids in restoring the ideal visual, biological and emotional effects on the human body.



LIGHT LEVELS



On a sunny day
1,00,000 lux



On a clear day
10,000 lux



In offices
500 lux



In schools
300 lux



illumiga Benefits



VISUAL

It makes for a comfortable and relaxing environment, thus influencing the way one works.



BIOLOGICAL

It adapts to the required lighting according to the time of the day, helping the user to perform better at work, manage day-to-day activities and complete tasks effectively.



EMOTIONAL

By virtue of following a circadian cycle, this light affects one's mood, well-being and even perception of space.

APPLICATION AREAS

Single rooms in hospitals, office spaces, meeting rooms and classrooms can be lit in three different styles with the system and same set of luminaires.



OFFICES

Reduces stress levels

Enhances vitality

Improves productivity and concentration

HOSPITALS

Improves patients' and medical staff's feelings of satisfaction

Aids in longer sleep duration for patients

Reduces time required to fall asleep



SCHOOLS

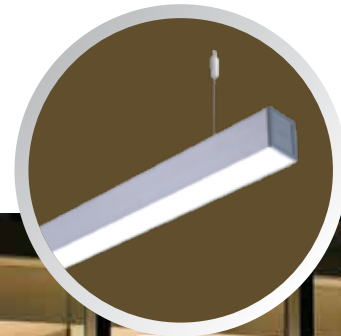
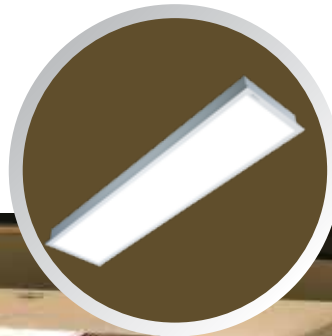
Helps students concentrate better

Improves alertness

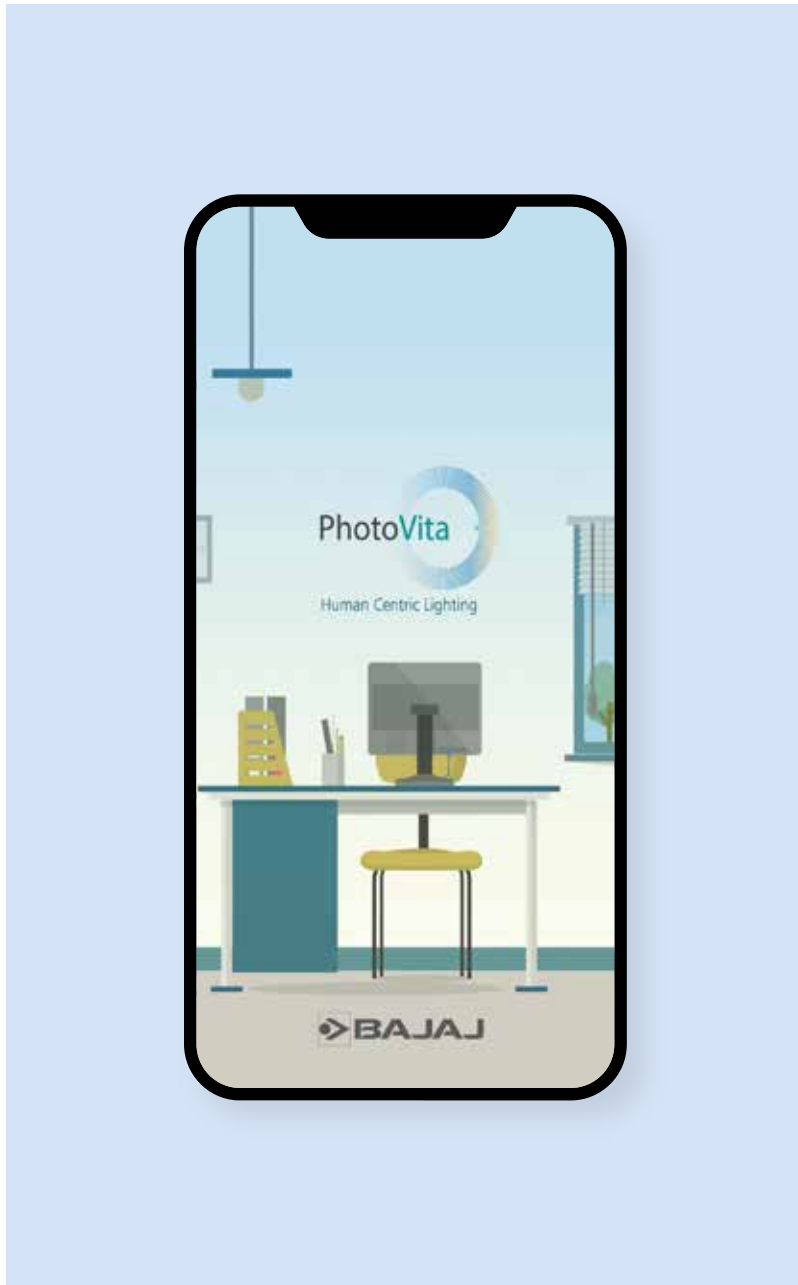
Enhances learning ability

OUR OFFERING

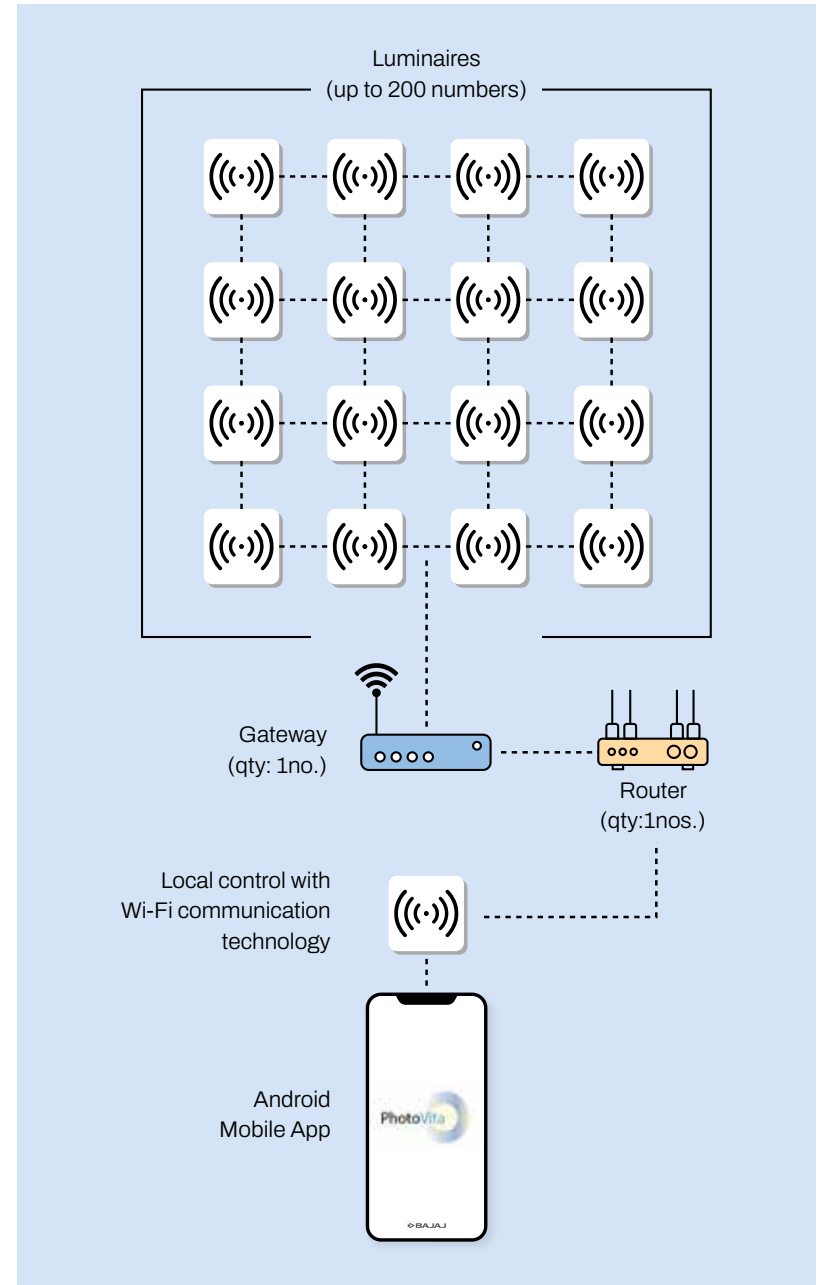
PRODUCTS



MOBILE APP



ARCHITECTURE



'Bajaj ILLUMIGA' provides lighting solutions based on recommended design practices for biologically and visually effective lighting (Reference standard: DIN SPEC 67600:2013-04). These products are not meant to be used as part of any medical treatment.

MOBILE APPLICATION



PhotoVita Solution is a mobile application that lets one easily control and adjust the lighting to their liking. It has been specially designed to address the functional, emotional and biological needs of the user. It does so, by adapting to the natural light using an intelligent networked system. It is best suited for application in hospitals, schools and offices.

APPLICATION FEATURES

AUTO-TRANSITION MODE

Mimics natural transitions in lighting

PRE-DEFINED FUNCTIONALITIES

One touch facilities for user

CUSTOM MODE

Supports personalized lighting

Dimmability Operation

Auto (as per sequence)

Manual (individual or in group)



TYPICAL INSTALLATION

General lighting with Tunable White

Color temperature and intensity changing feature, in-line with outside environment to create dynamic lighting ambience, over existing practice of static color climate for interior application

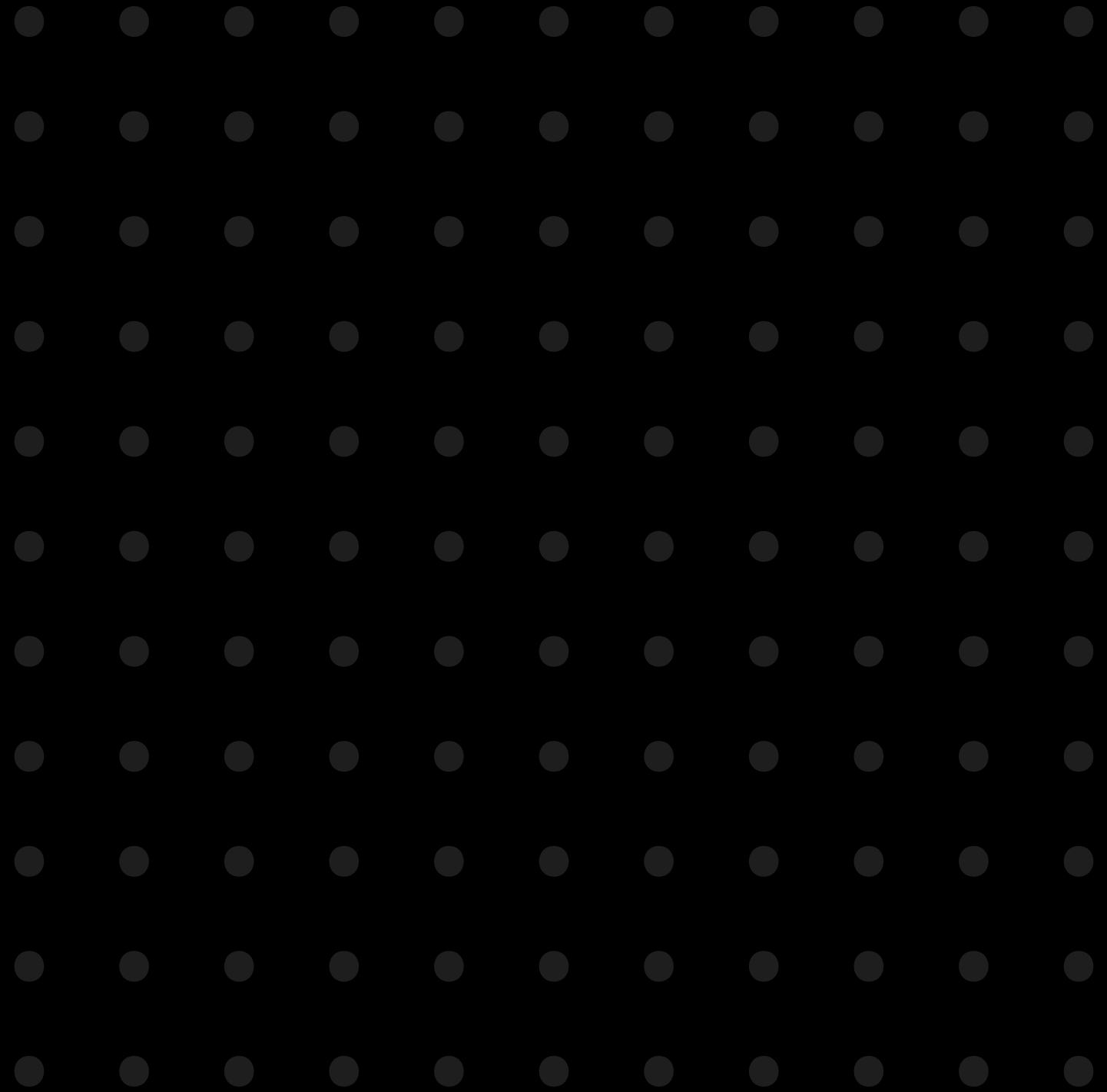
**Voltage:
220-240VAC**

Provide individual
electrical connections
for each luminaire

Router

Gateway





801, Rustomjee Aspiree, Bhanu Shankar Yagnik Marg, Off Eastern Express Highway, Sion (E),
Mumbai - 400 022 | Tel.: 022-2406 4400 | E-mail: illumination@bajajelectricals.com | www.bajajelectricals.com

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