LEDucation

Designers Lighting Forum

Simplifying Systems with Smart Lighting

Murrill Oakes

March 16, 2022

CONTINUING EDUCATION AIA

leducation.org

LEDucation

Credit(s) earned on completion of this course will be reported to AIA CES for AIA members. Certificates of Completion for both AIA members and non-AIA members are available upon request.

This course is registered with AIA CES for continuing professional education. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the AIA of any material of construction or any method or manner of handling, using, distributing, or dealing in any material or product.

Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

Learning Objectives

At the end of the this course, participants will be able to:

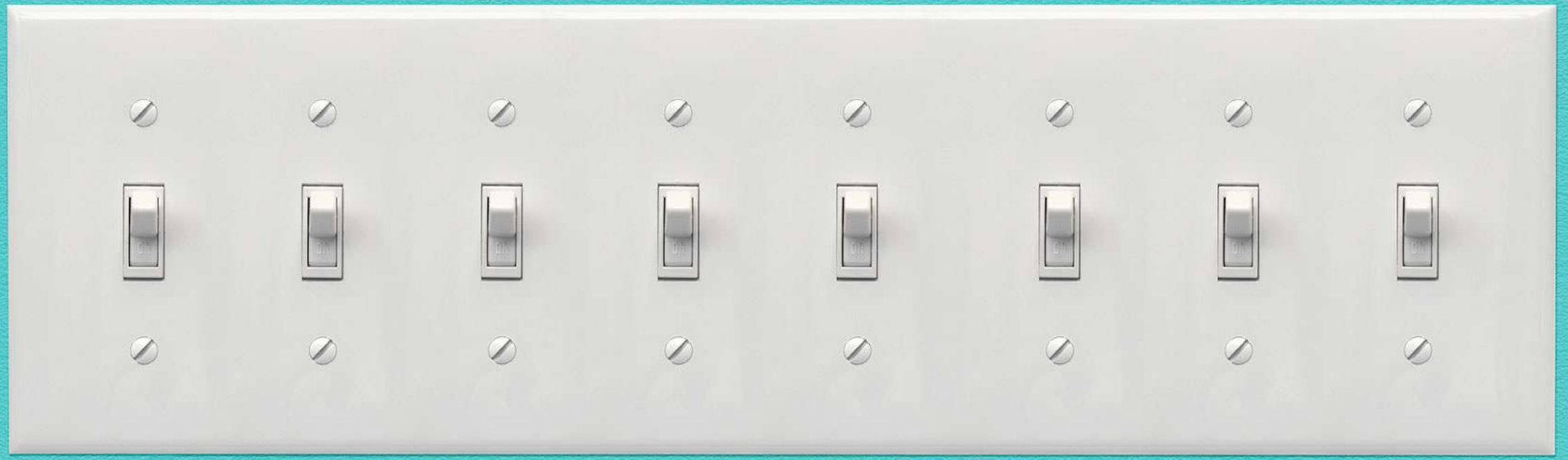
1. Lighting Zoning: Review infrastructure requirements for localized lighting and basic control systems versus whole home smart lighting, analyzing labor and energy consumption in each scenario.

2. LED Infrastructure: Explore how smart lights help overcome many of the obstacles associated with other, more traditional LED technologies such as 0-10V and phase control.

3. Dimming Smarter: Learn the ease of compatibility allowing for this “flicker free” reality. Can smart lights eliminate the need for countless interfaces and control devices?

4. Simple Control: Understand the importance for simple controls amid myriad options presented by keypad design, voice control, and full spectrum lighting technologies.

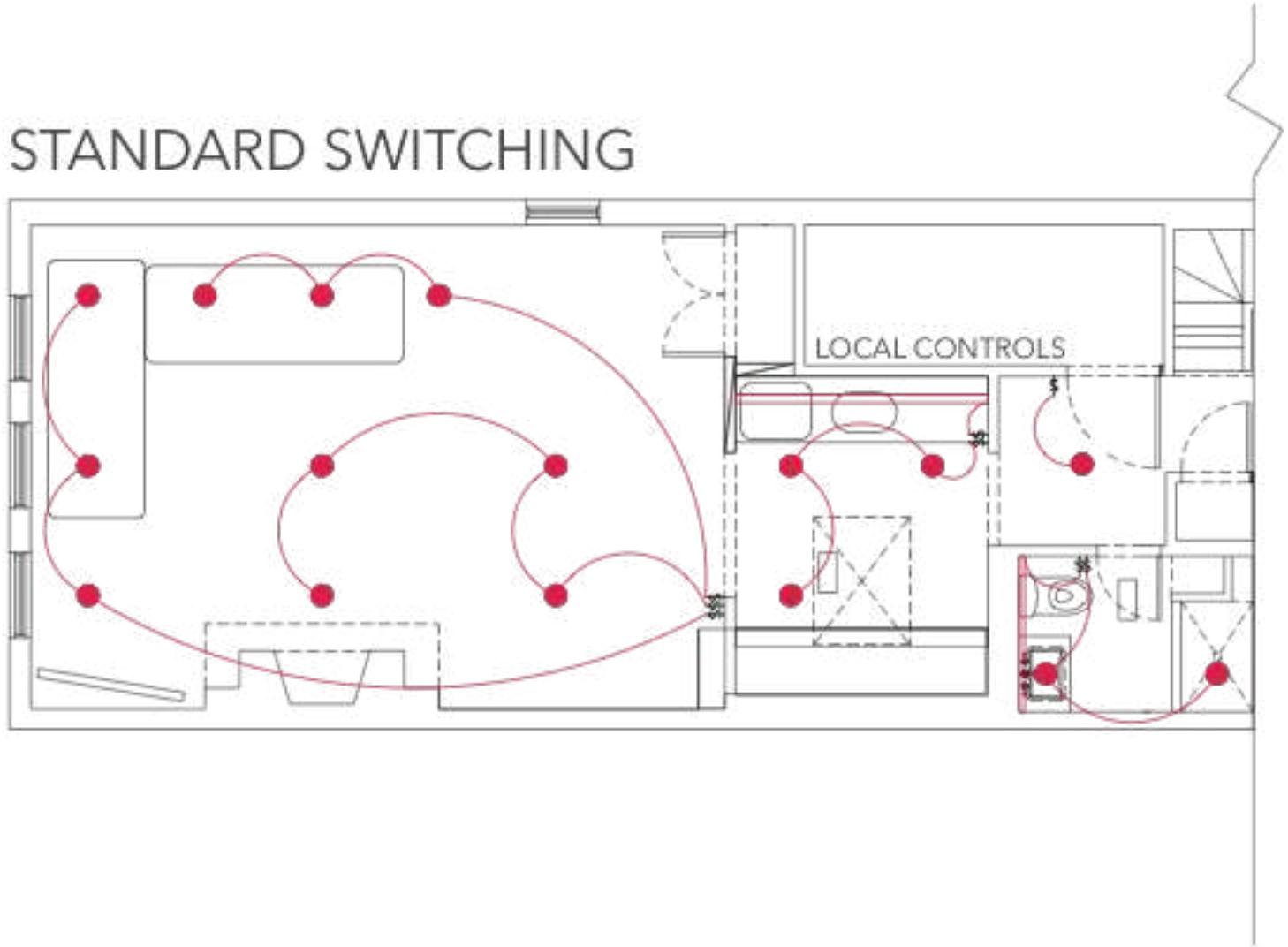
LEDucation



LIGHTING ZONING

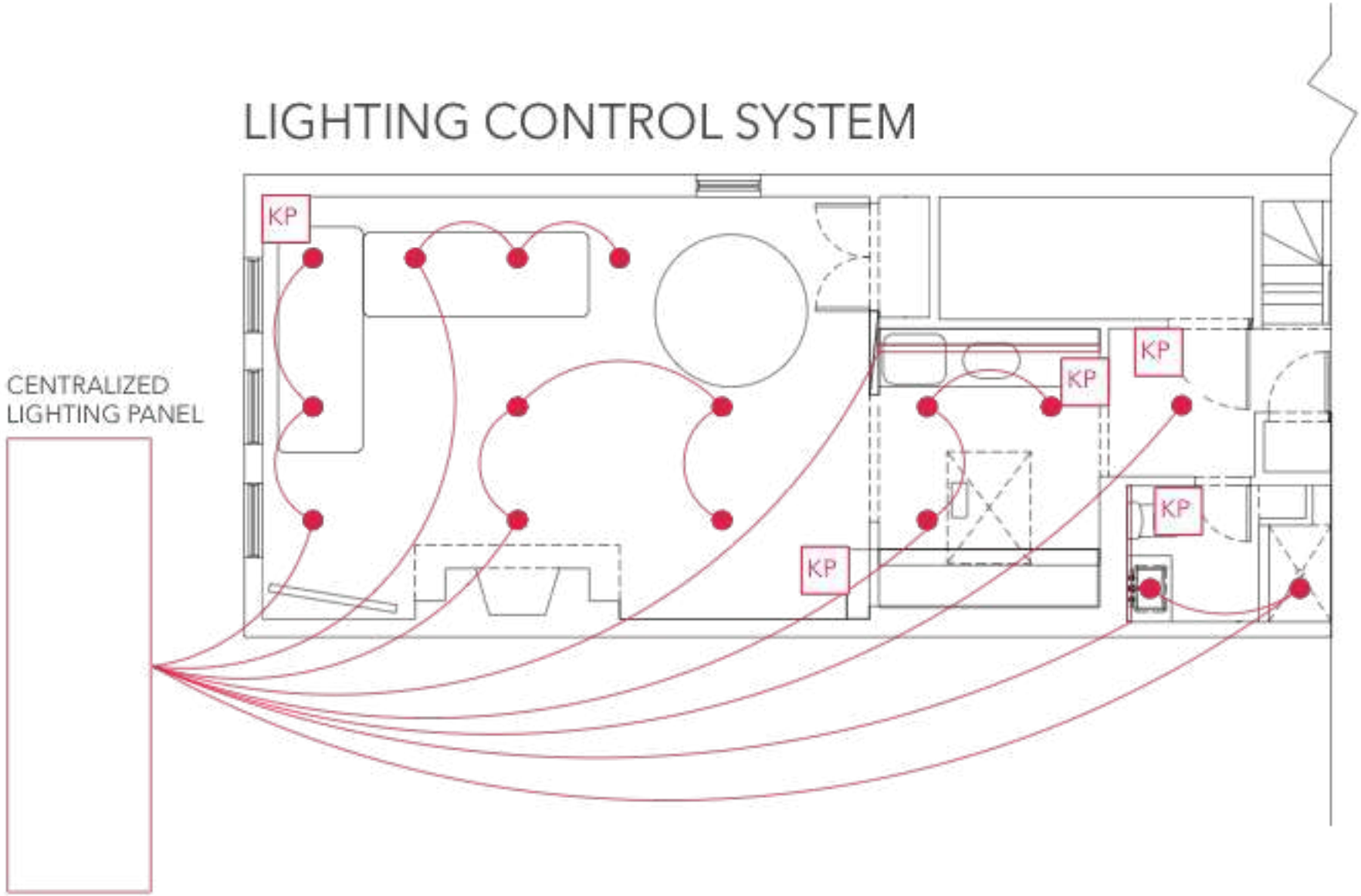
LEDucation

STANDARD SWITCHING



LEDucation

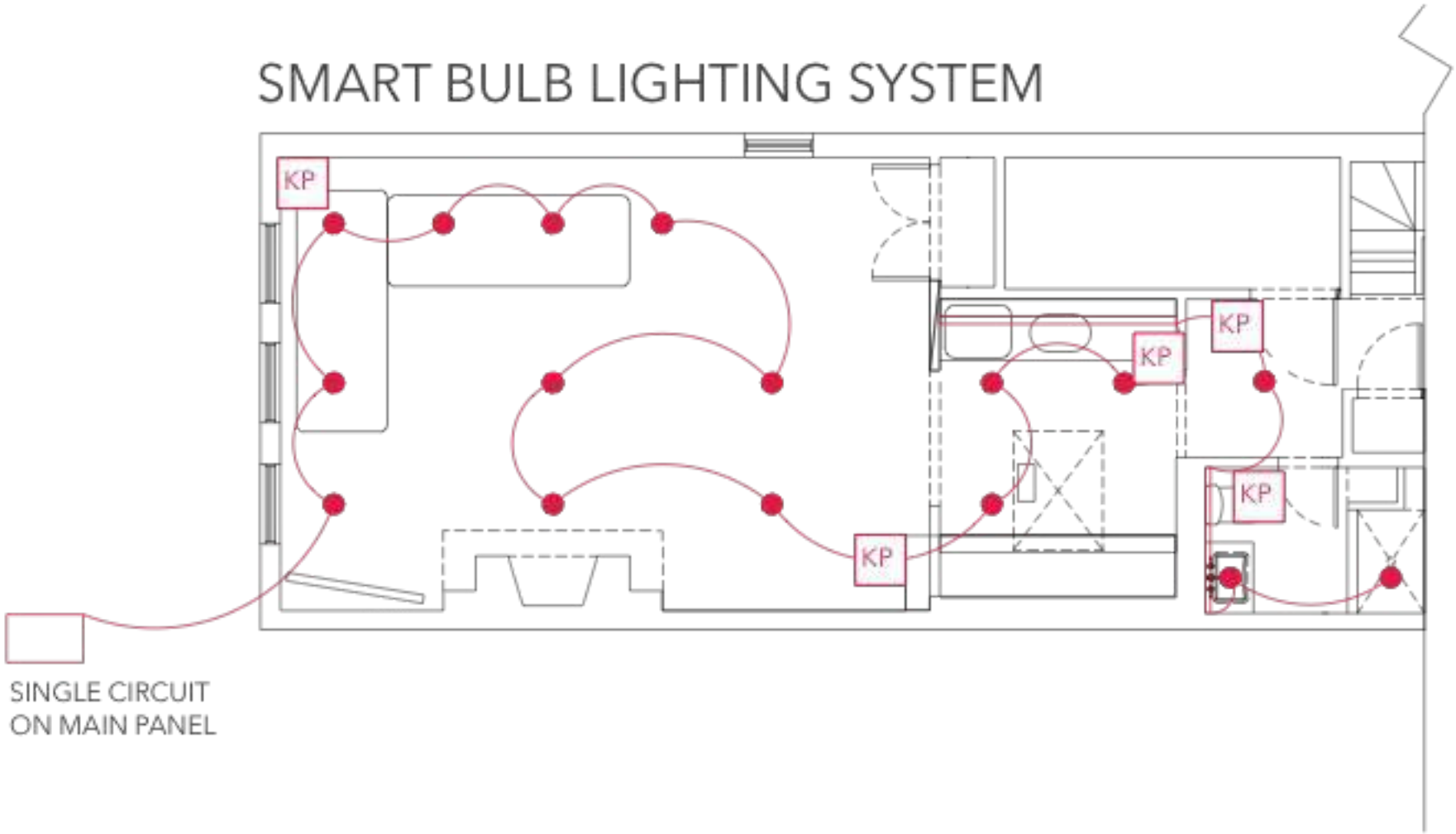
LIGHTING CONTROL SYSTEM



leducation.org

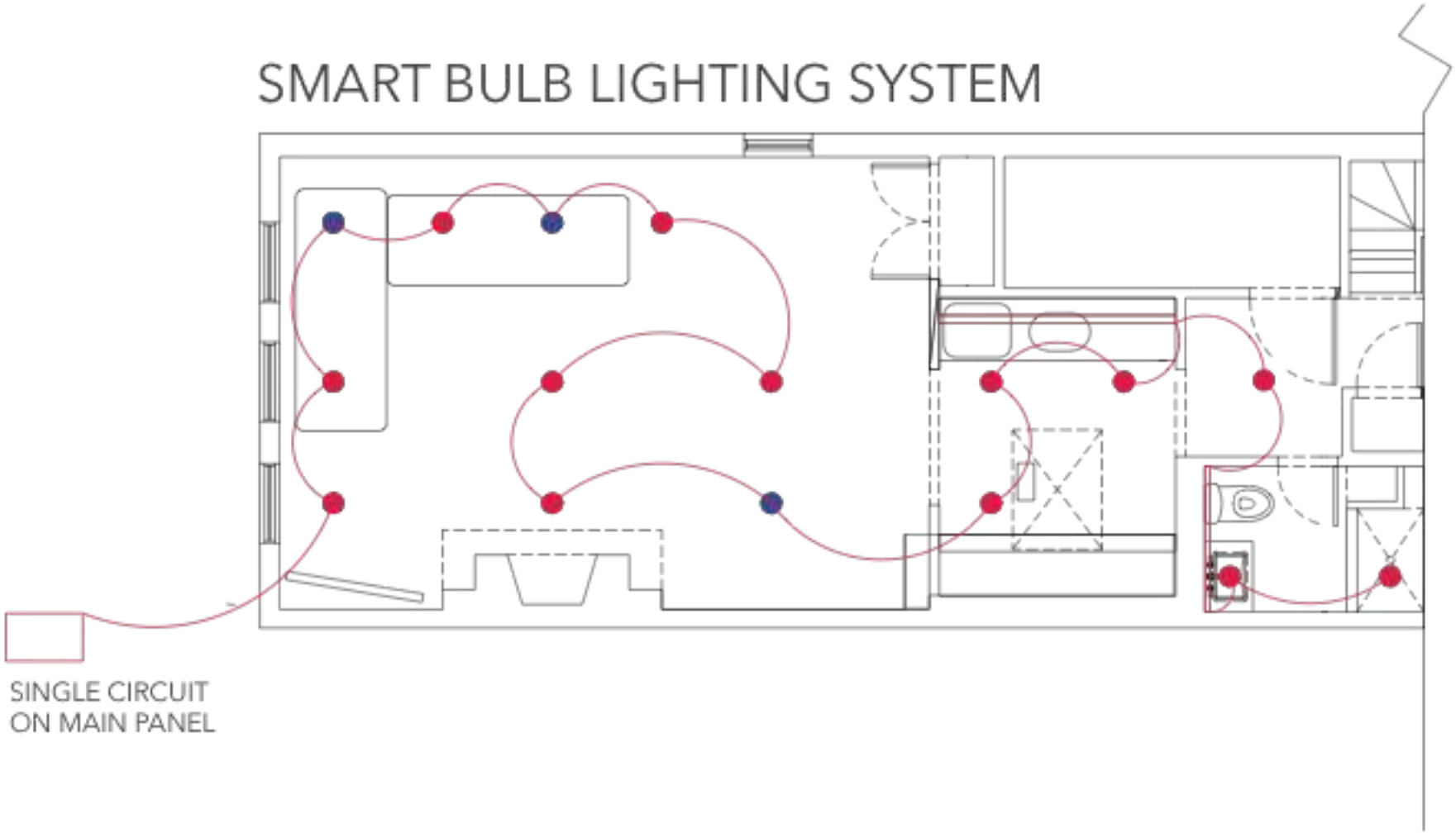
LEDucation

SMART BULB LIGHTING SYSTEM



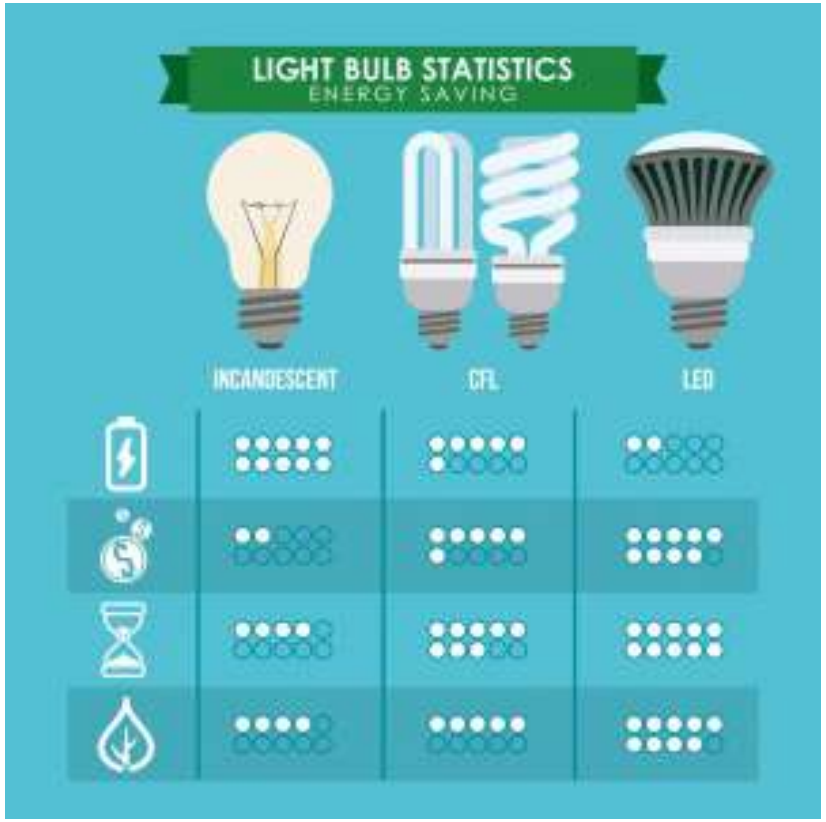
LEDucation

SMART BULB LIGHTING SYSTEM



LED INFRASTRUCTURE

LEDucation



Annual Energy Use (kWh) = Annual Energy Cost

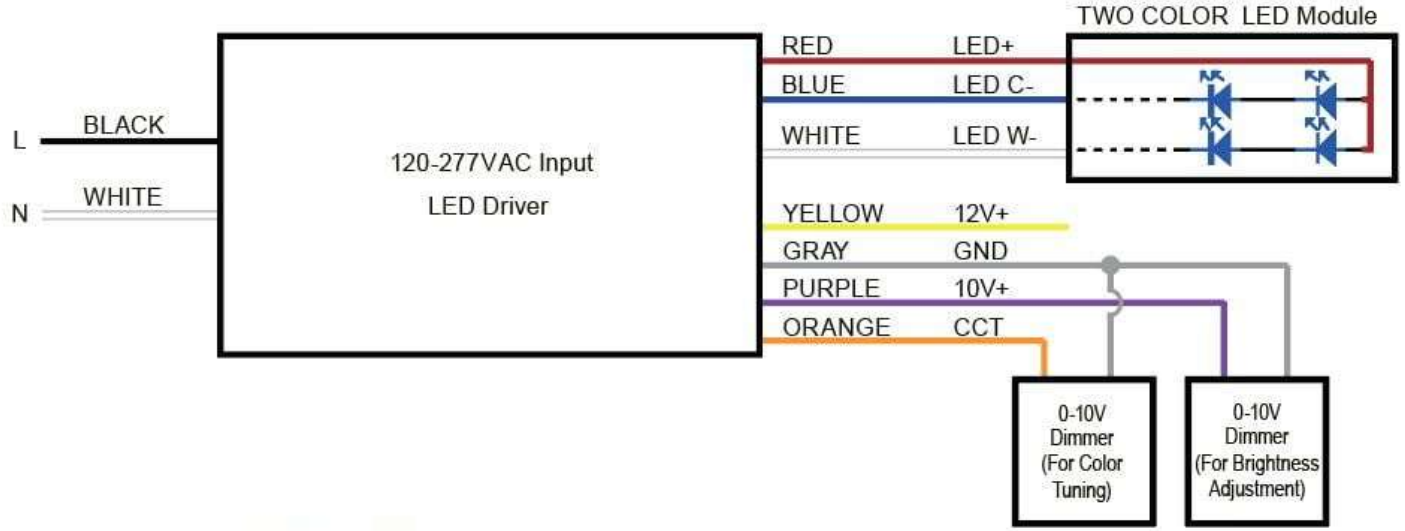
USALIGHTING.COM

Incandescent	436.8	= $52.42
Halogen	327.6	= $39.31
Compact Fluorescent	183.5	= $22.01
Metal Halide	170.4	= $20.44
LED	87.4	= $10.48

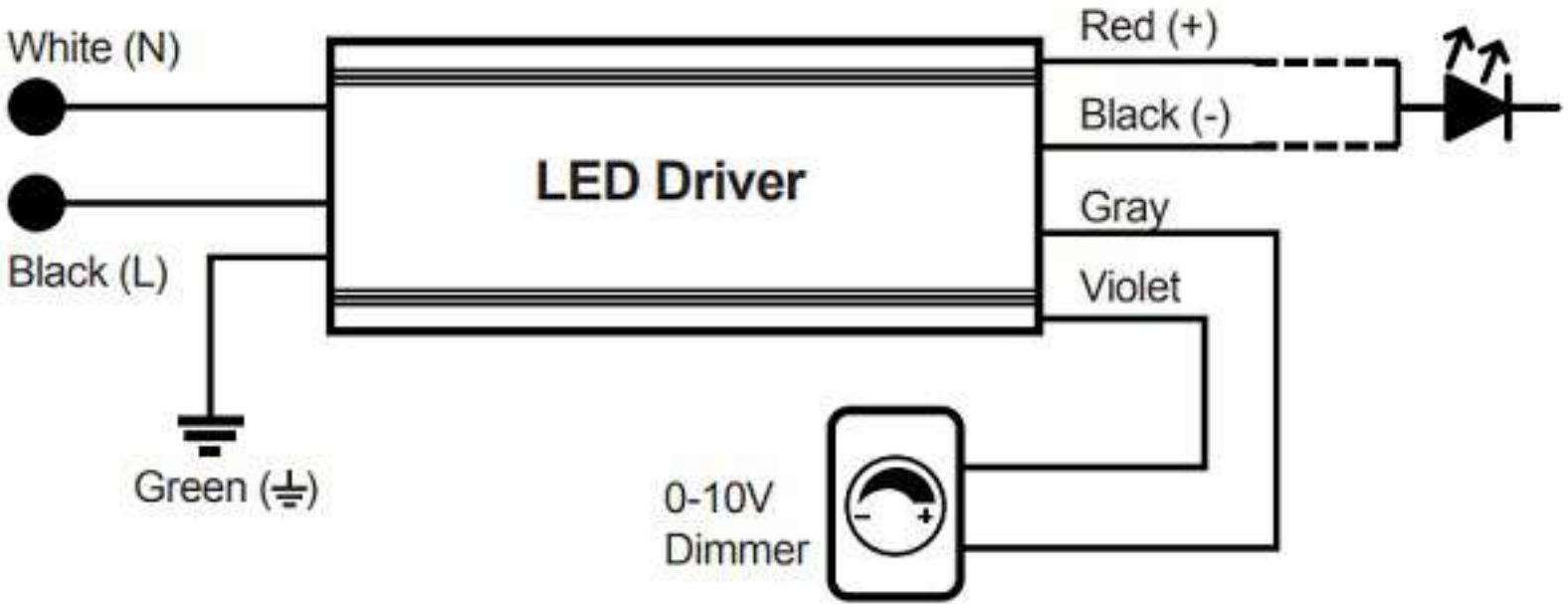
leducation.org

WASHQ.COM

LEDucation



WIRING DIAGRAM



leducation.org

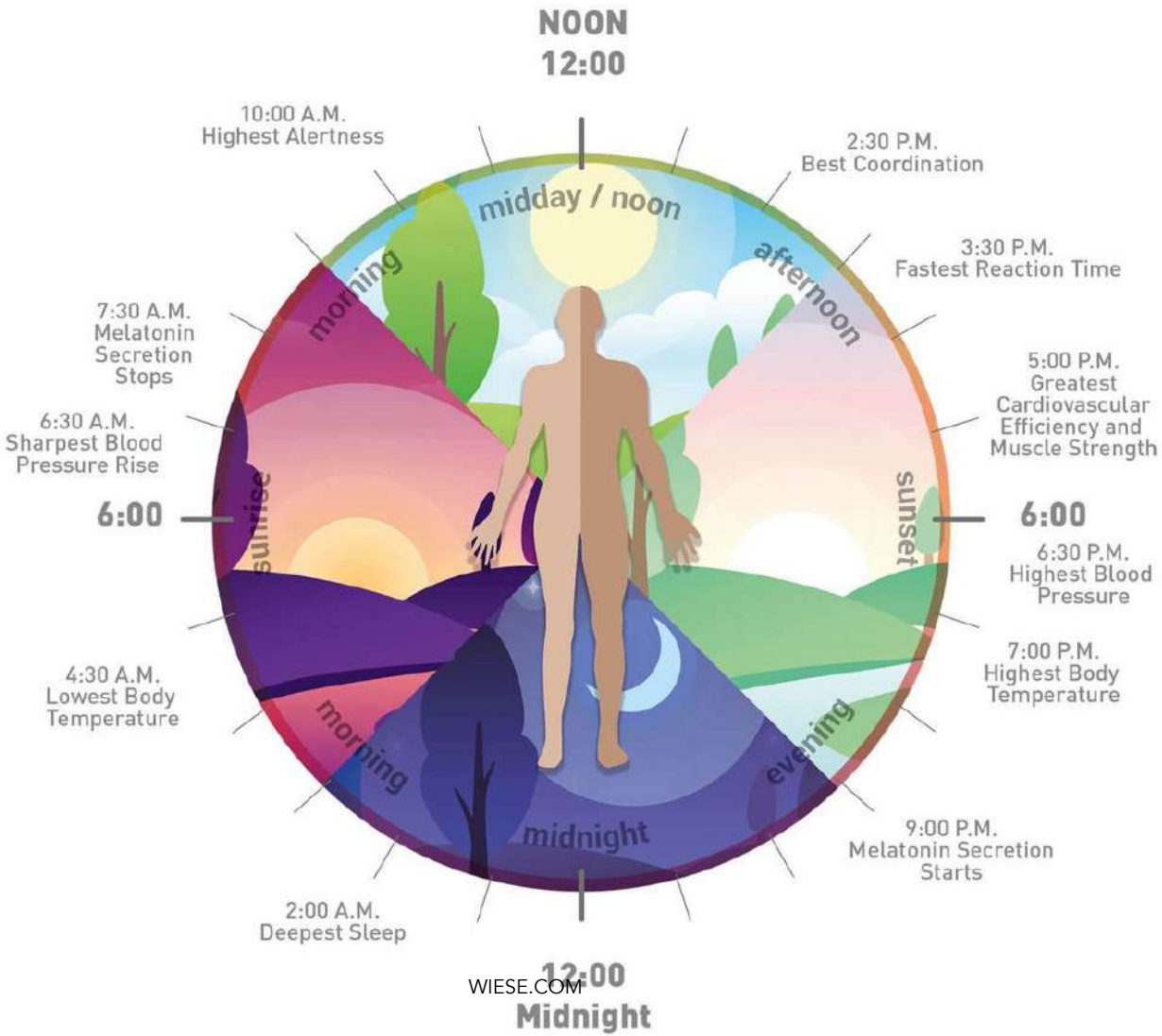
LEDucation

DIMMING SMARTER

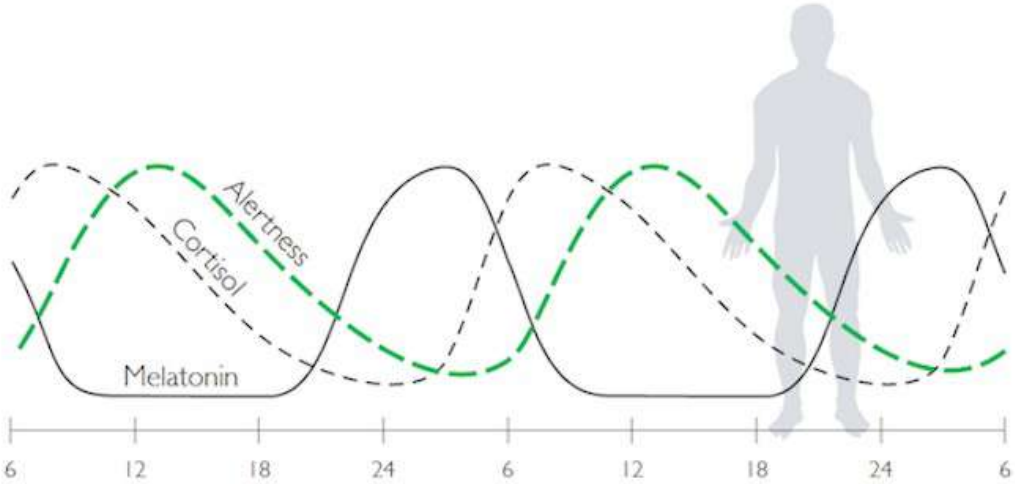
LEDucation

AXIOMDEALS.COM

LEDucation



WIESE.COM



PARANS.COM

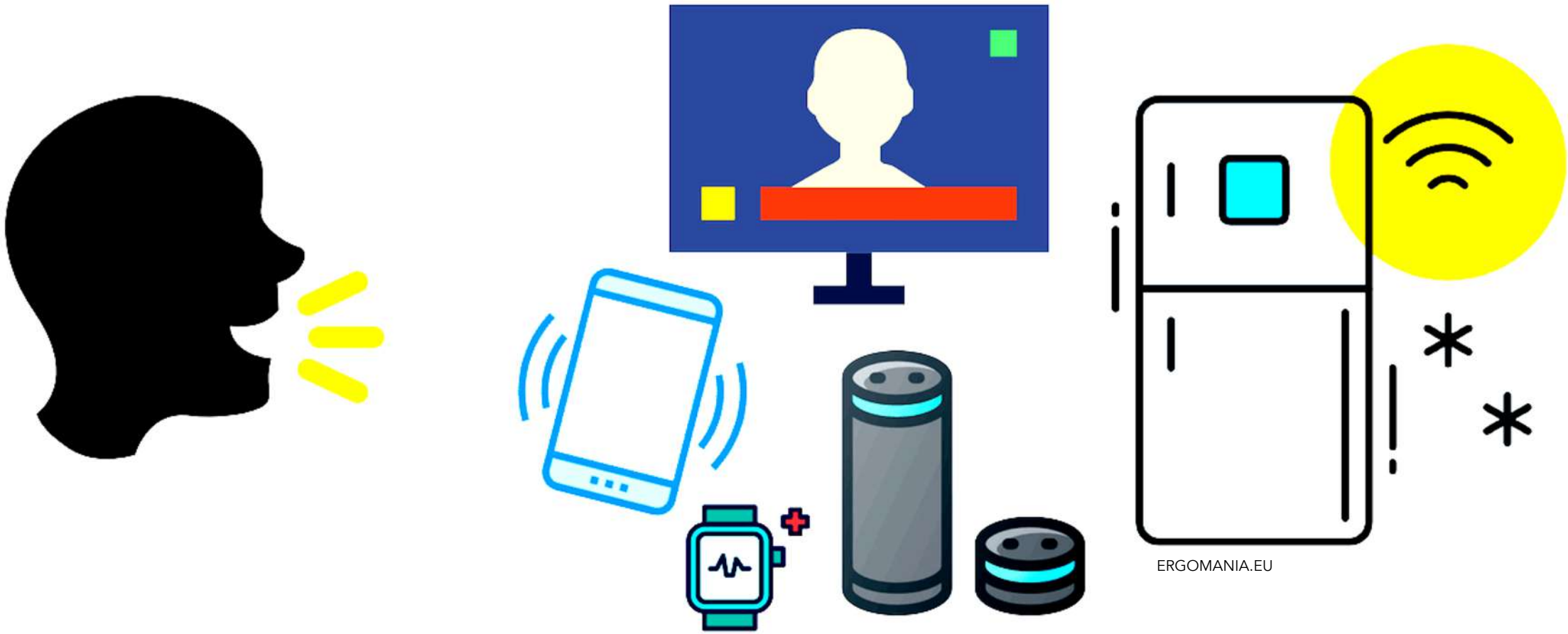
leducation.org

LEDucation

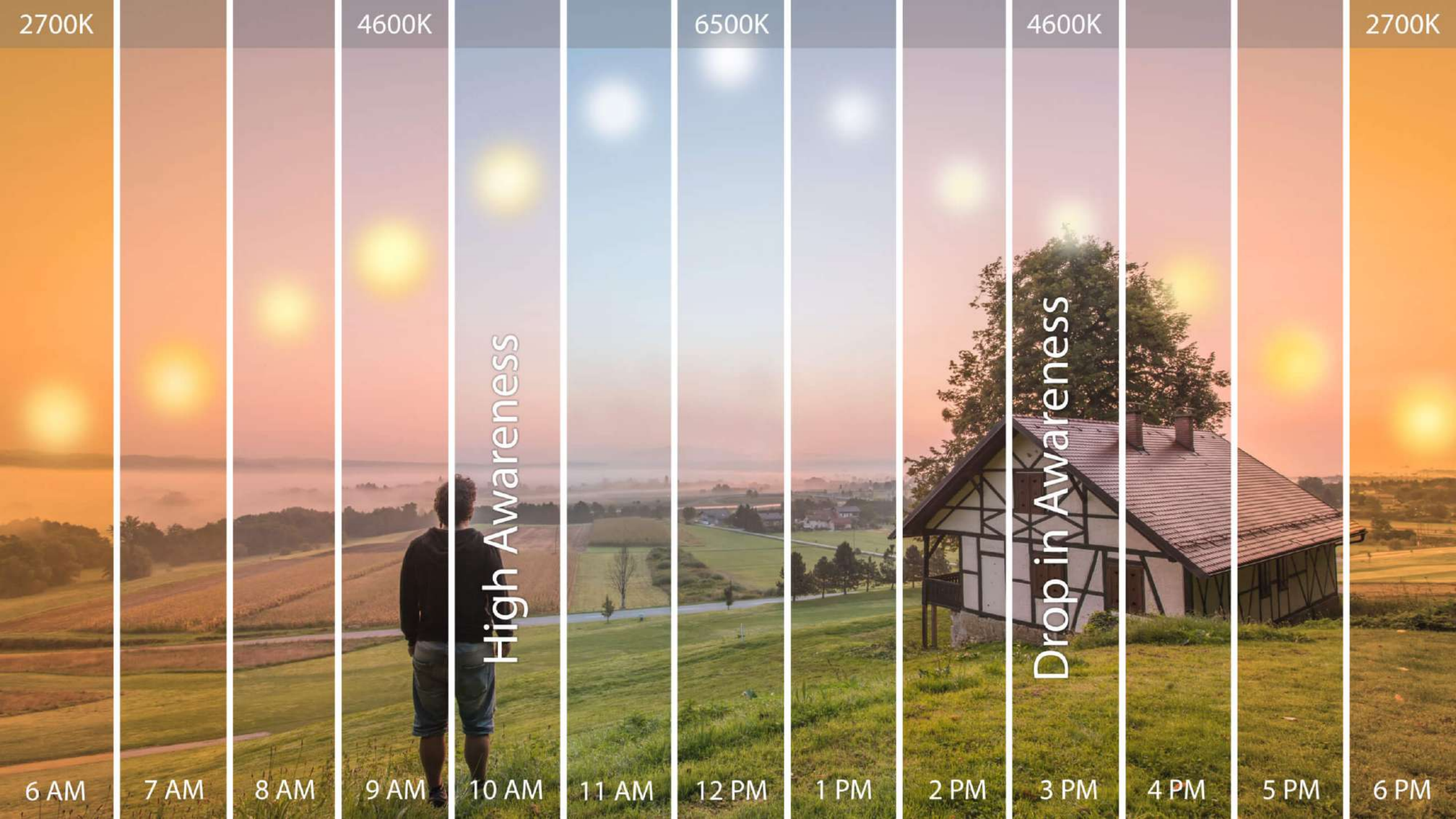
SIMPLE CONTROLS

LEDucation

PAGE
ZONES
Master
Select
Save
Menu
Cancel
Clear
Page
Zones
SCENES
MAX
OFF



ERGOMANIA.EU


2700K
4600K
6500K
4600K
2700K
High Awareness
Drop in Awareness
6 AM
7 AM
8 AM
9 AM
10 AM
11 AM
12 PM
1 PM
2 PM
3 PM
4 PM
5 PM
6 PM

LEDucation

FEWER WIRES. FEWER BUTTONS. BETTER USER EXPERIENCE

This concludes The American Institute of Architects Continuing Education Systems Course

leducation.org