



Let's talk
SMART DIMMING
by RED Horticulture

What is
SMART DIMMING



Real-time, dynamic LED optimization



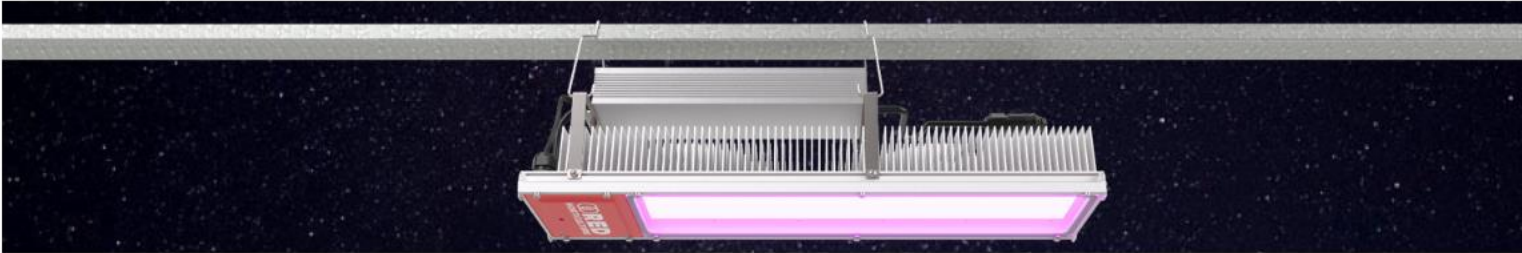
Why **SMART DIMMING**



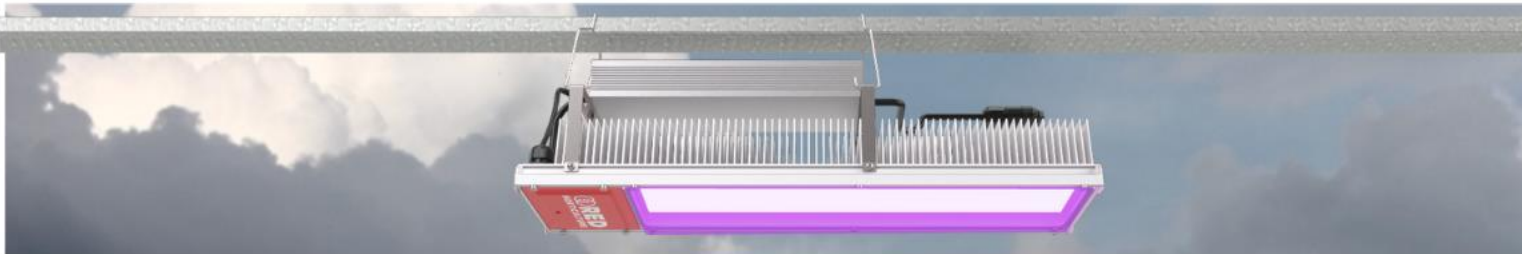
Providing growers with unparalleled control over energy consumption and crop development.



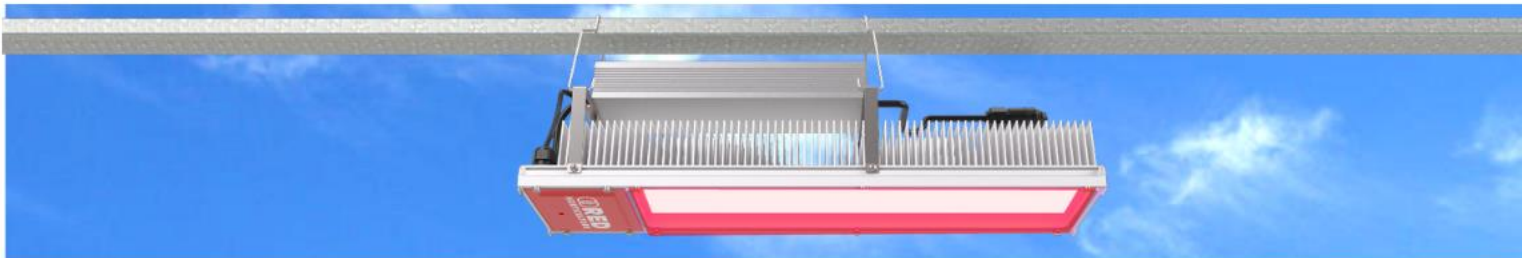
Explaining **SMART DIMMING**



Agronomic efficiency
Under low light conditions



Overall efficiency
Under medium light conditions

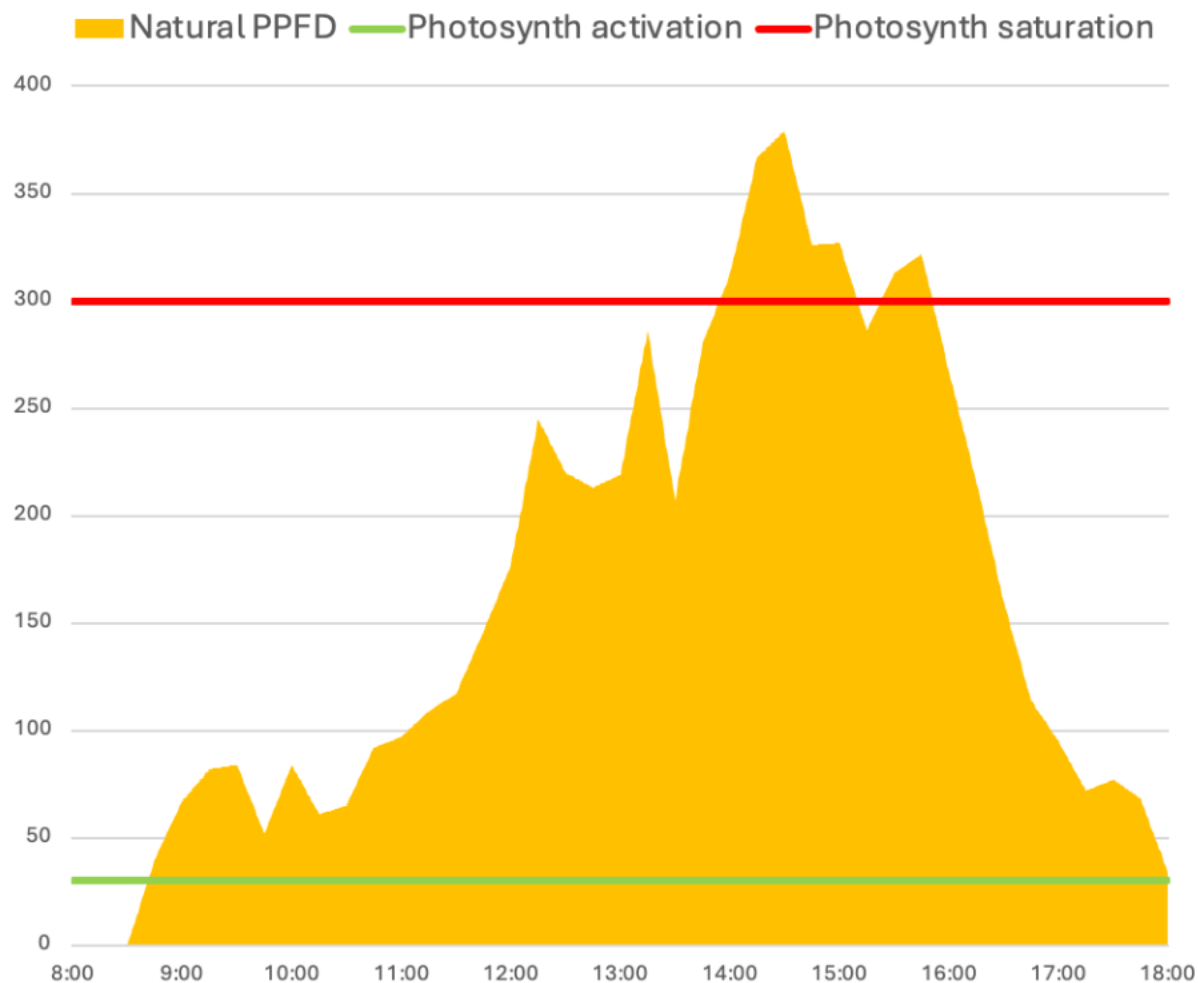


Best efficiency
Under high light conditions

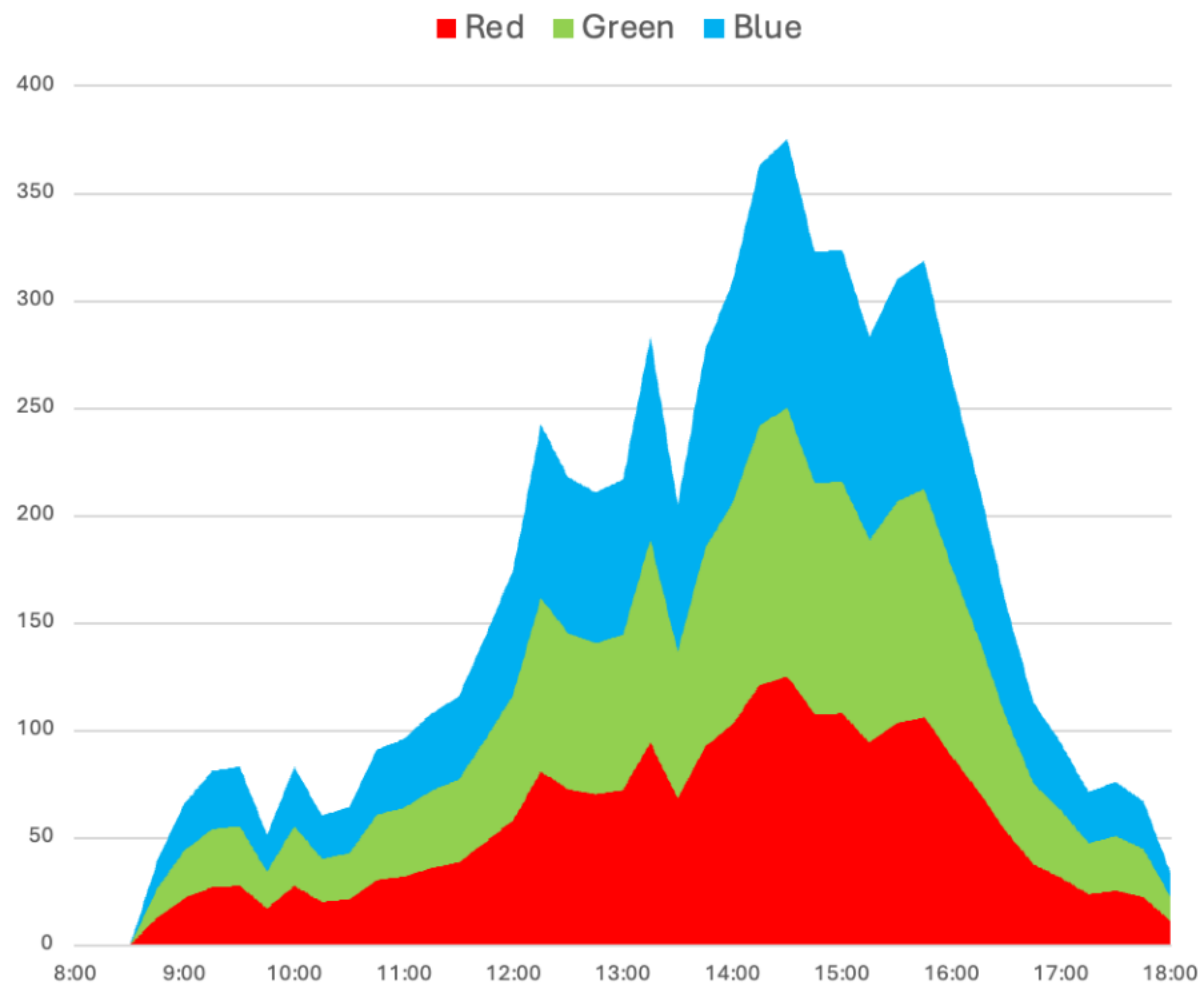
Sunlight over a day

A DAY ($\mu\text{MOL}/\text{M}^2/\text{S}$)

Sunlight intensity

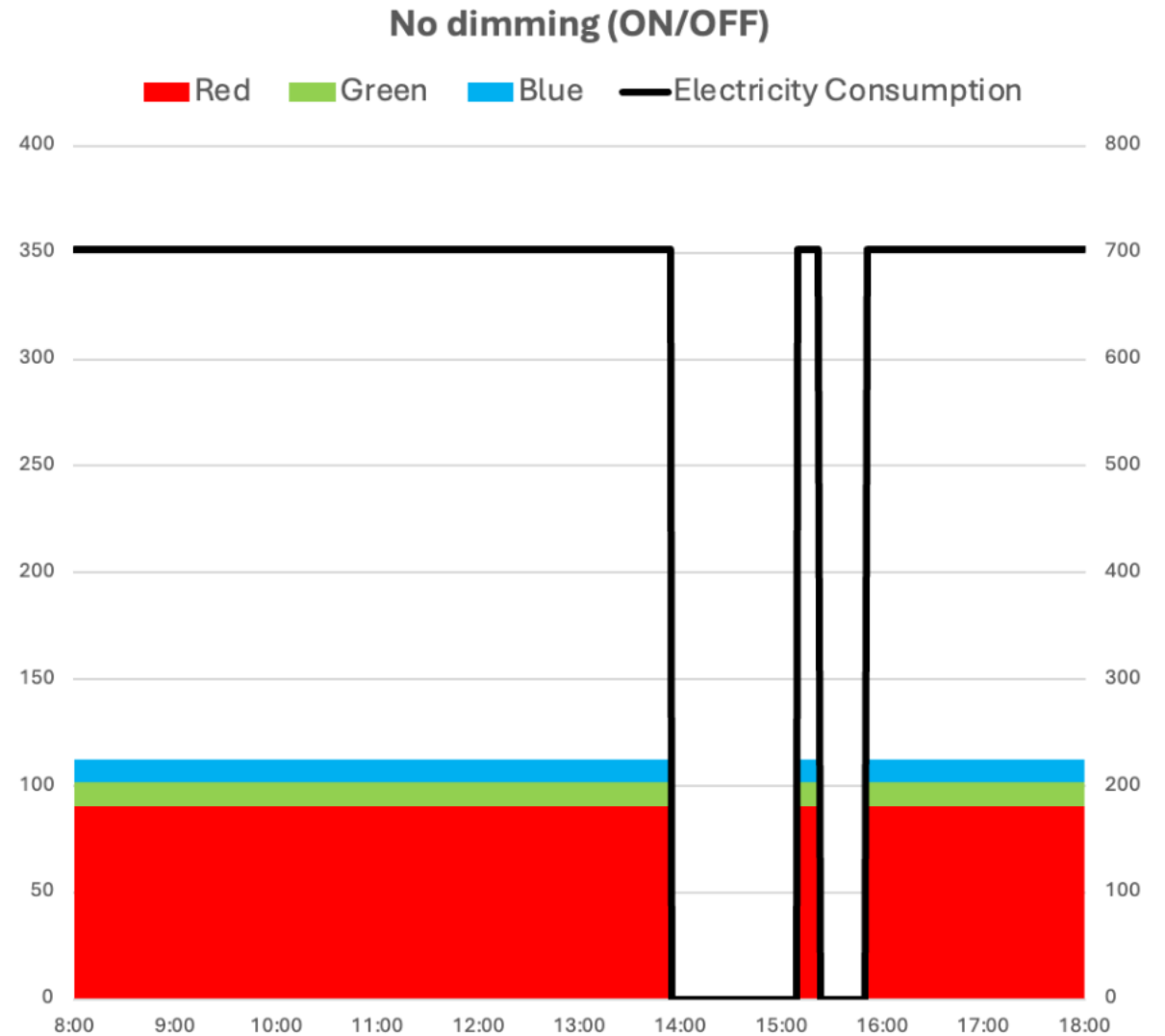
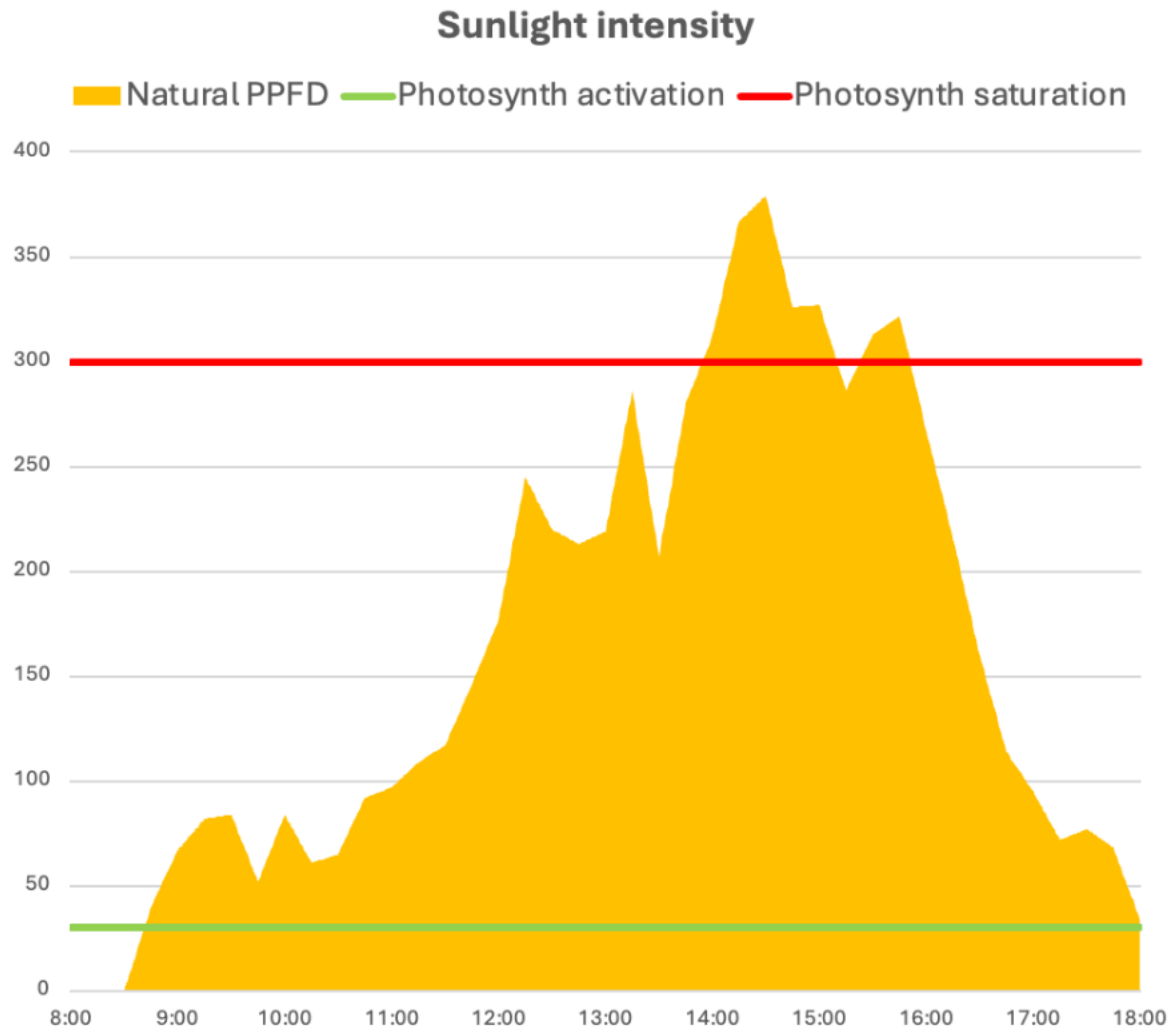


Sunlight spectral distribution



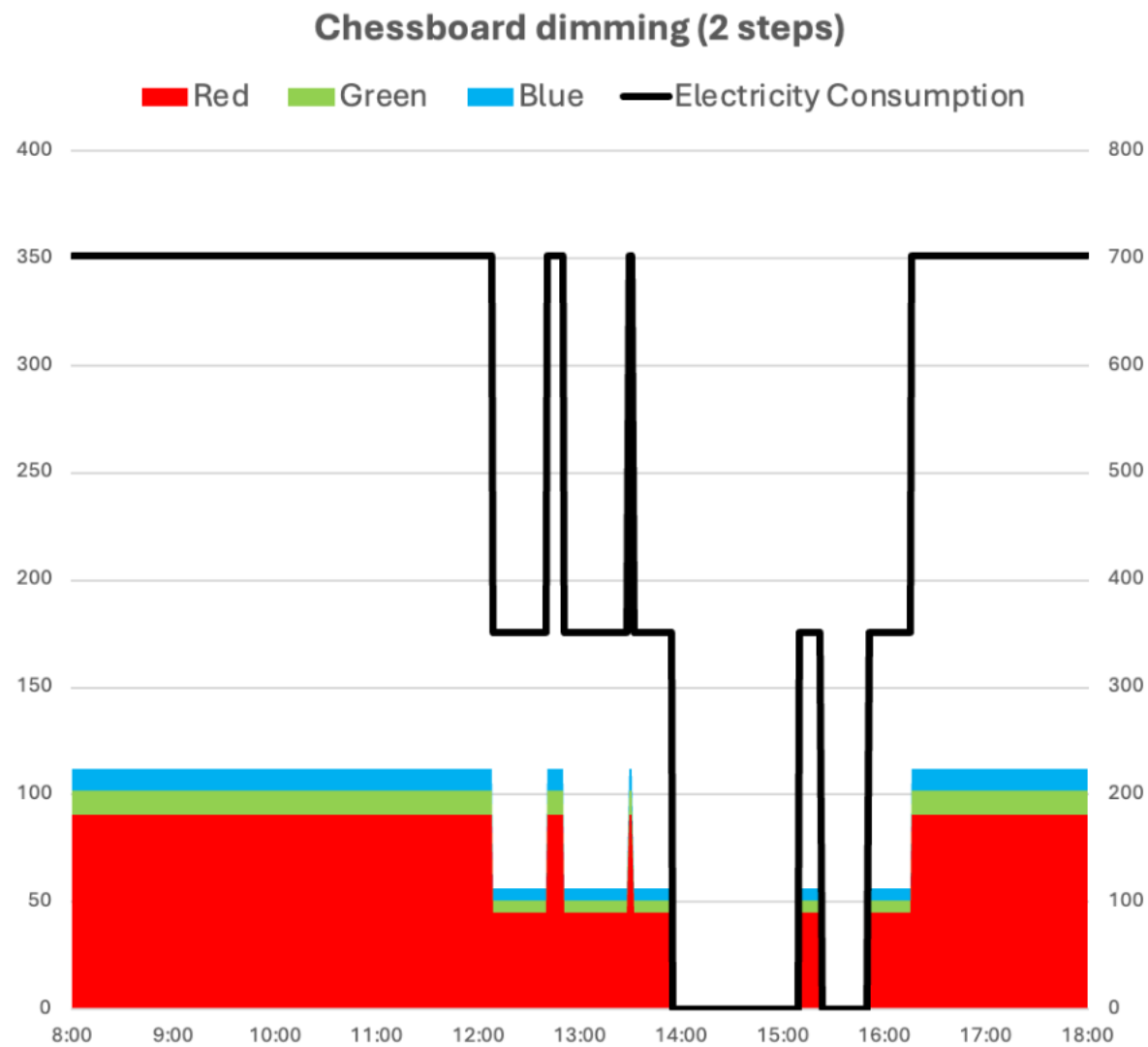
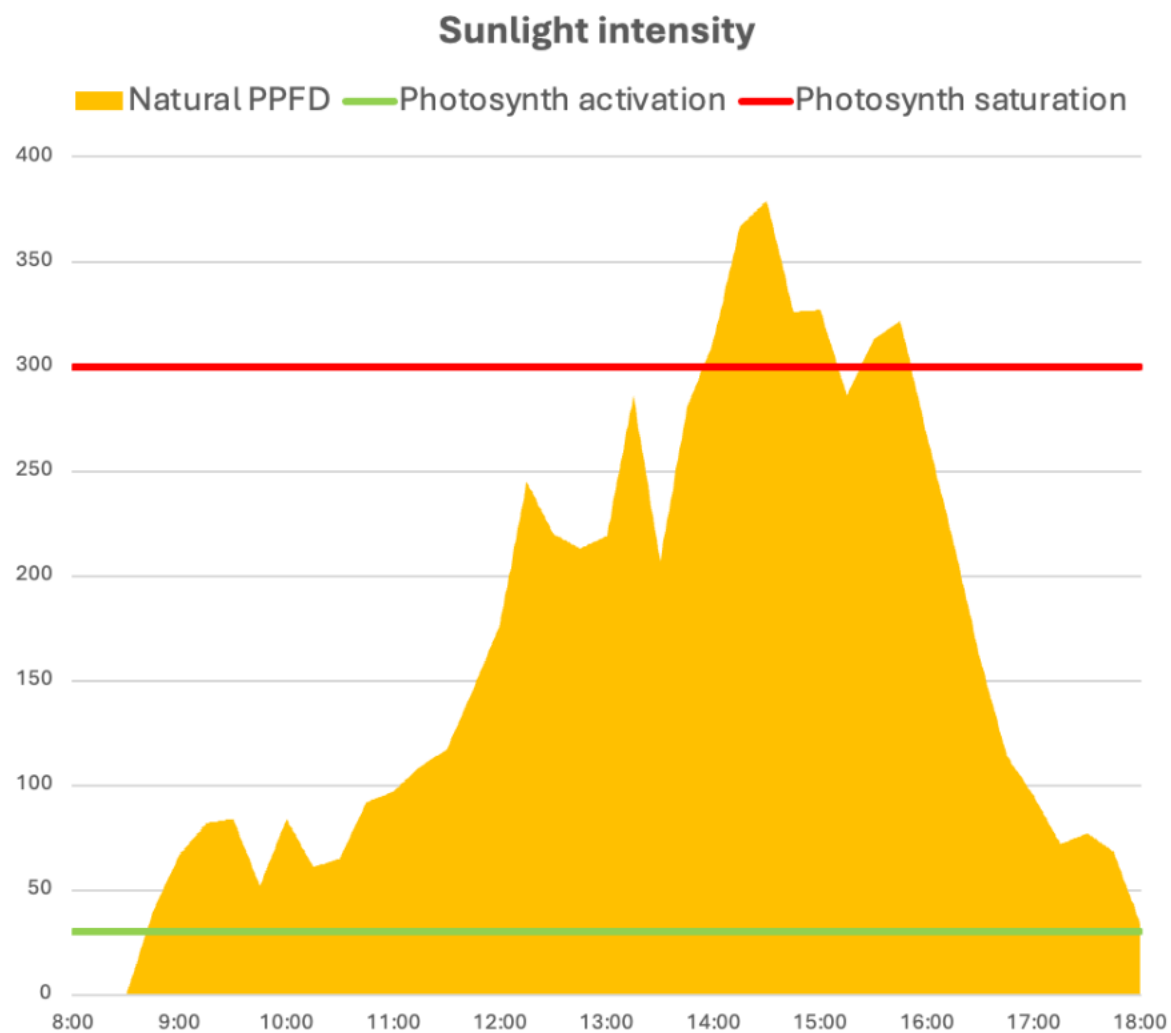
Lighting control

WITHOUT DIMMING

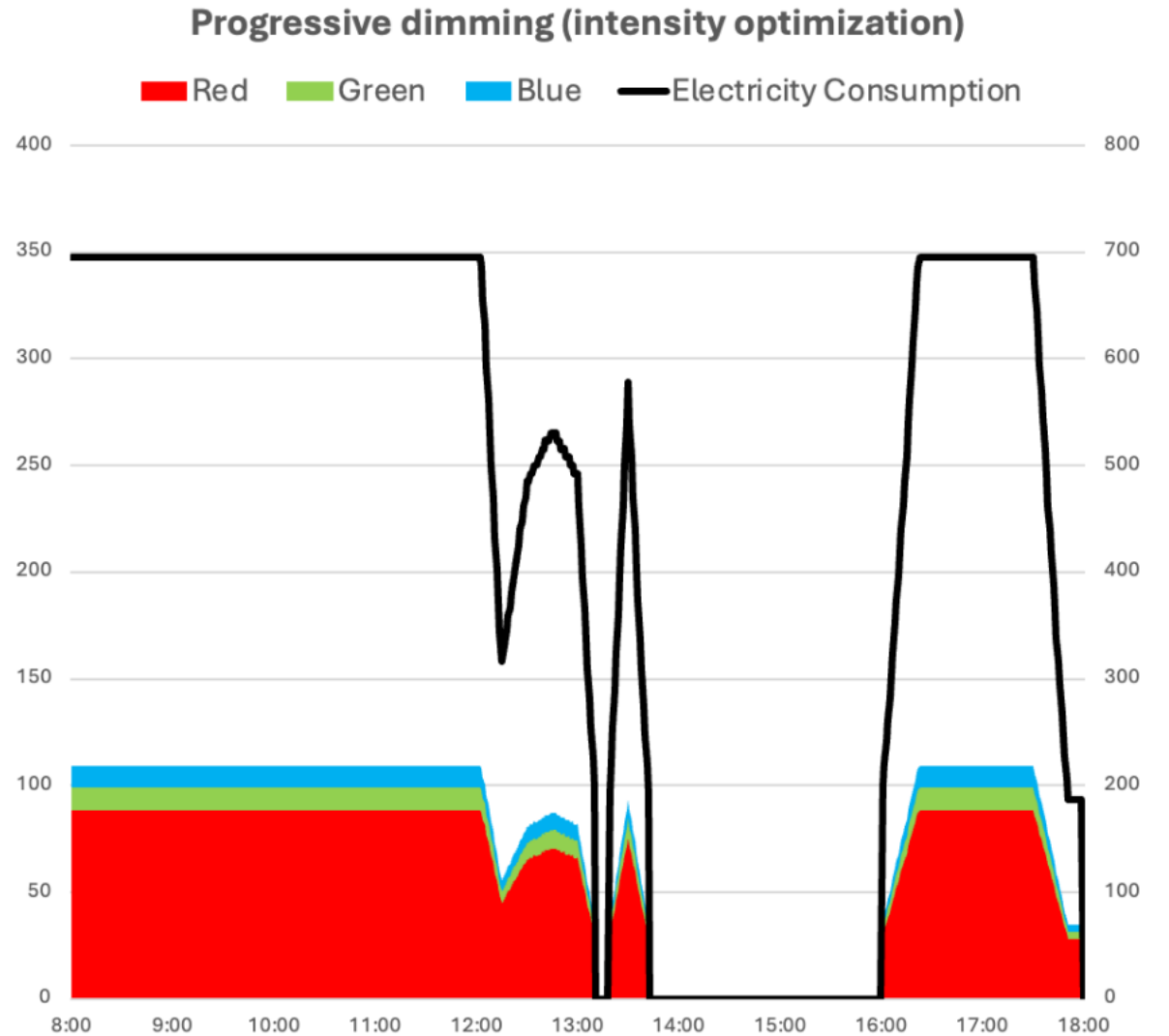
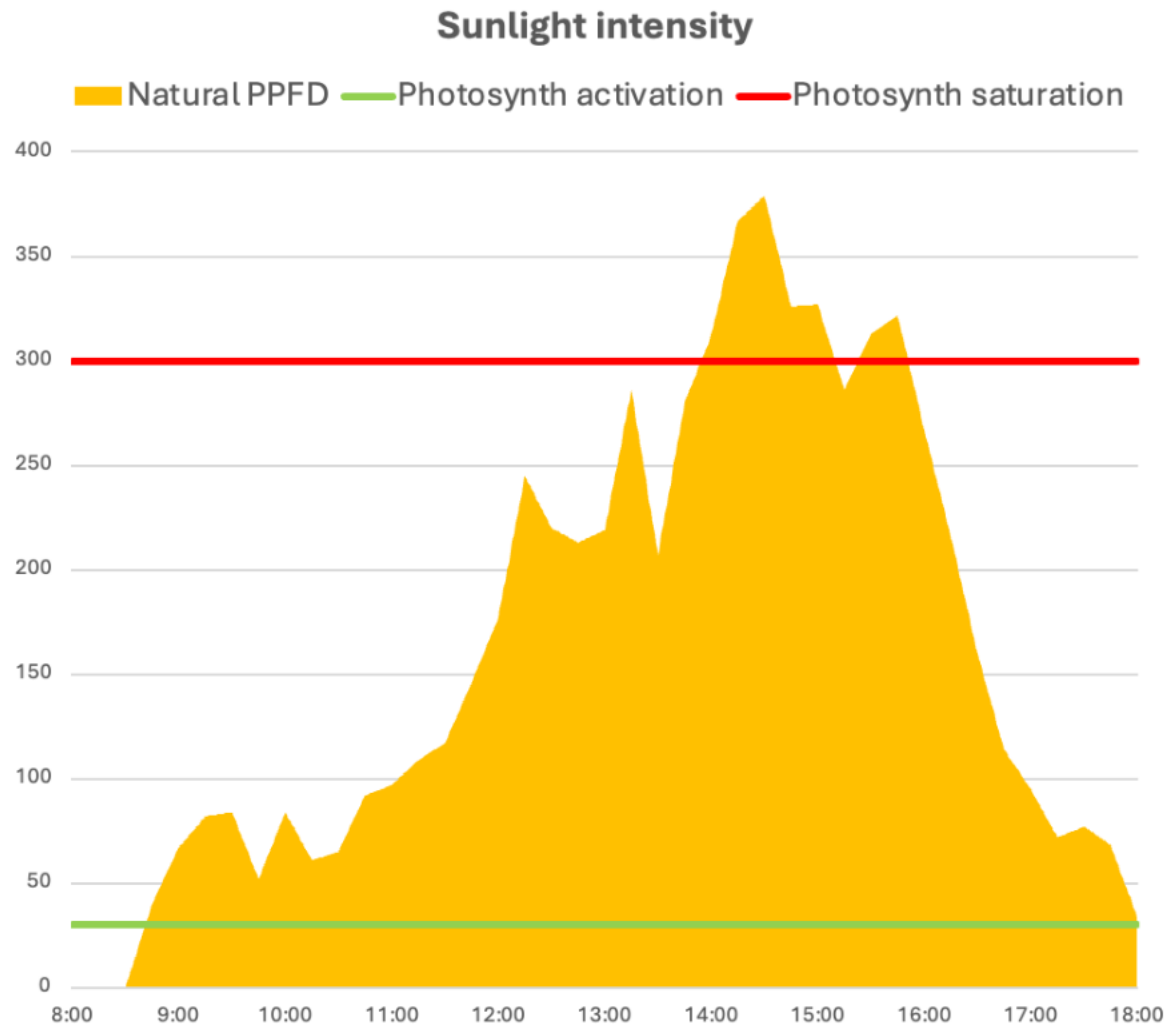


Lighting control

WITH BASIC DIMMING



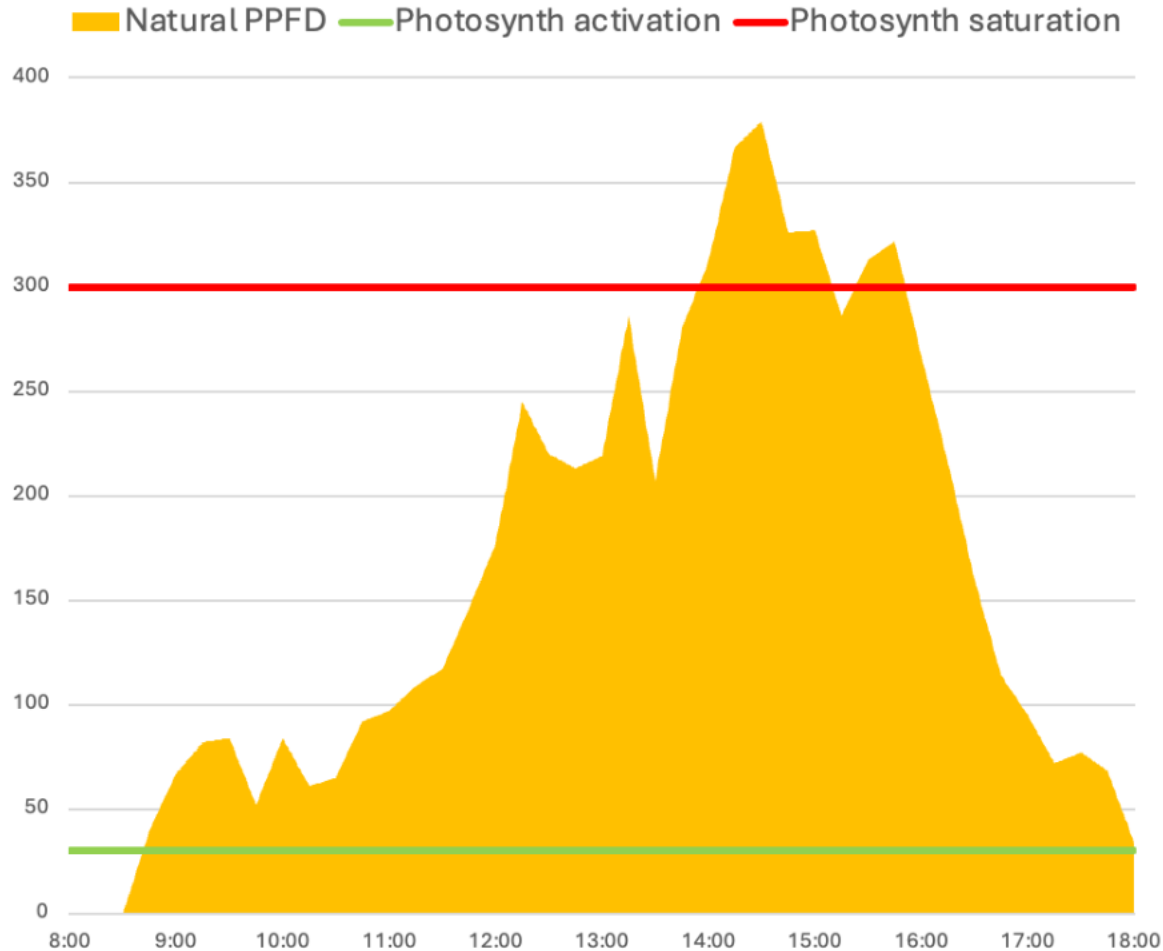
Lighting control WITH ADVANCED DIMMING



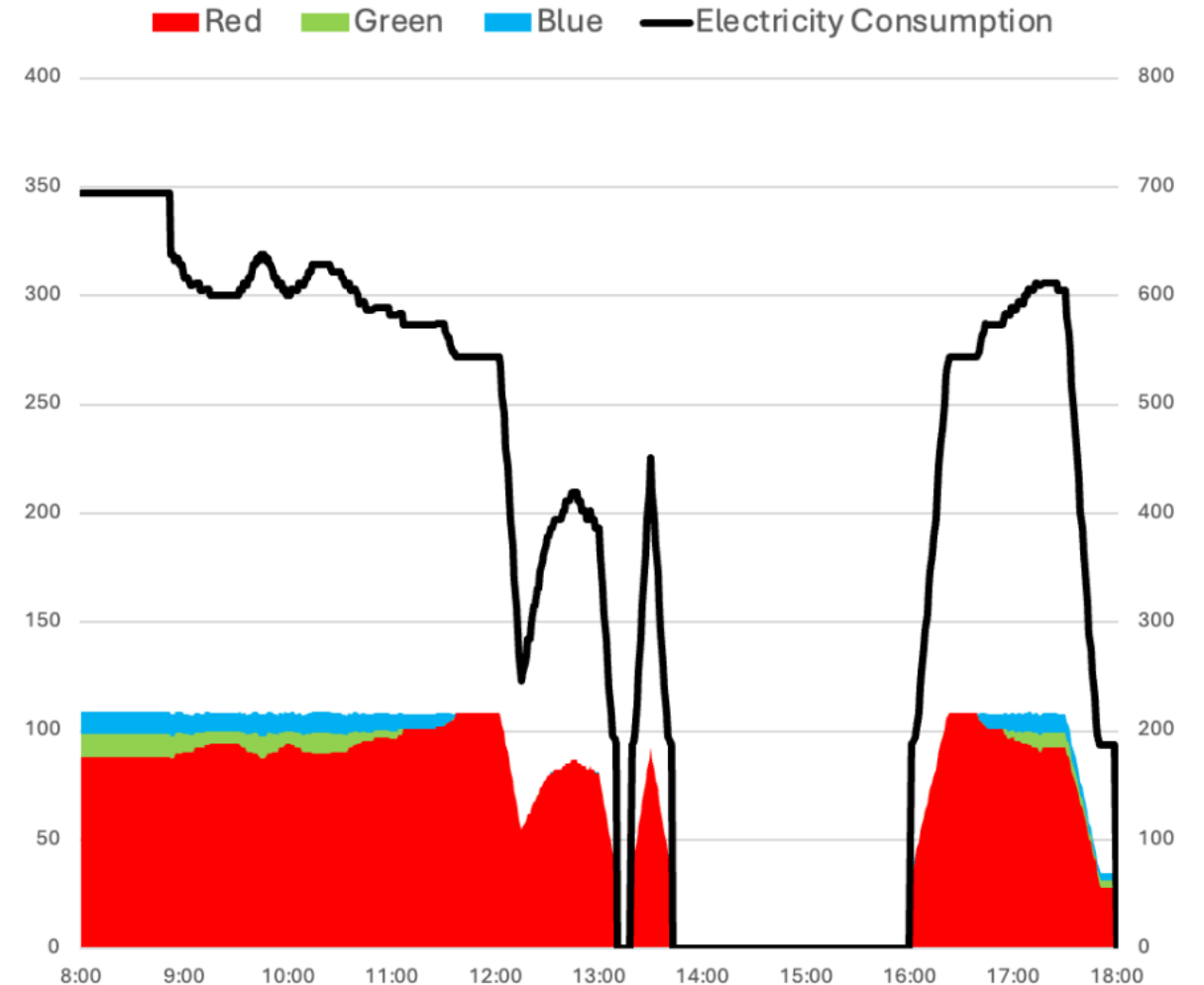
Lighting control WITH SMART DIMMING



Sunlight intensity



Smart dimming™ (spectrum optimization)

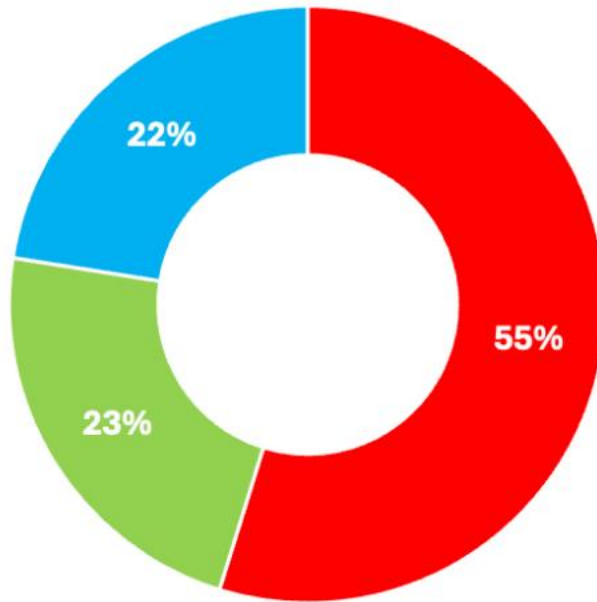


Over a day

Global light distribution

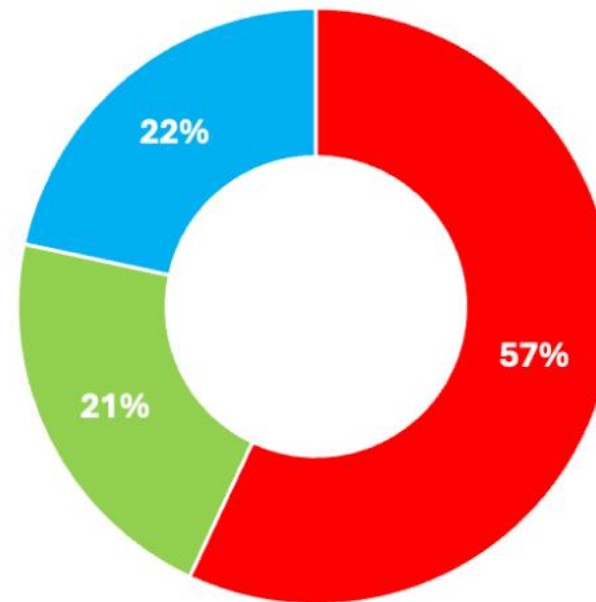
Progressive dimming

■ Red ■ Green ■ Blue



Smart dimming™

■ Red ■ Green ■ Blue



Groundbreaking **PERFORMANCE**

Daily energy savings up to :

-36%

Vs.
ON/OFF

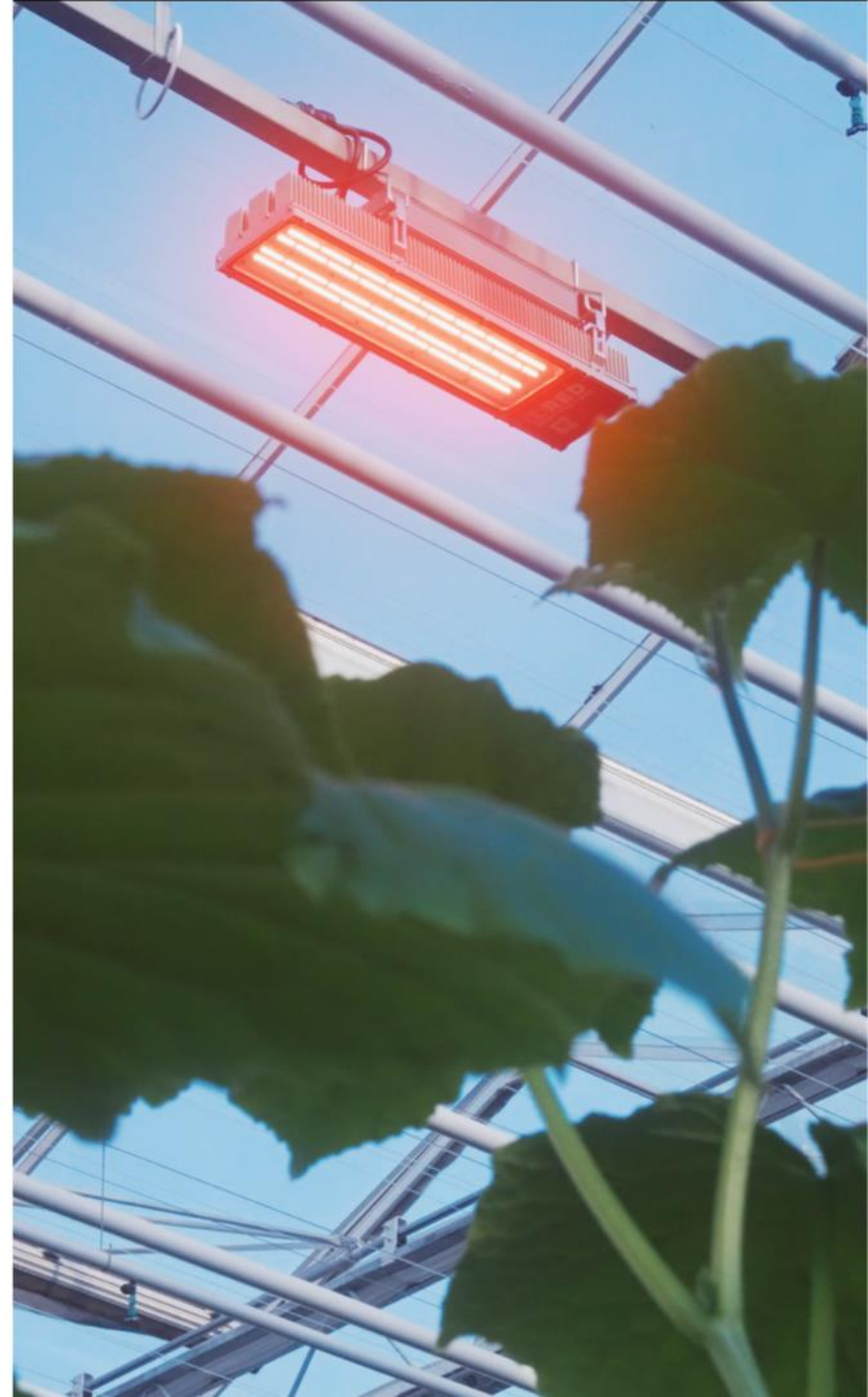
-27%

Vs.
Chessboard
dimming

-18%

Vs.
Progressive
dimming

Everyday, **SMART DIMMING™**
significantly out-performs
other dimming mechanisms



Measured annual performance

A year in retrospect



High red based spectrum

Tomato – Cut Flowers

-11%

**Vs.
Chessboard
dimming**

Broad band base spectrum

Cucumbers – Young Plants

-17%

**Vs.
Chessboard
dimming**



Let us help you to boost your
**CROP PERFORMANCE
& ENERGY EFFICIENCY**



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