

Datasheet BinaryLight

BinaryLight Lamp

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Note: This is a simplified version of device DimmerLight!

This document shows technical characteristics of the simulated device BinaryLight.

VERSION

Version	Date	Description
V1.0	15/02/13	File creation
V1.1	18/02/13	Minor format correction
V1.2	20/02/13	Update sections : <ul style="list-style-type: none">- Device properties- Electro-optical considerations- BinaryLight outline
V1.3	12/03/13	Add interface name
V1.4	18/03/2013	Minor change on sentences Major change on properties table

General Description

BinaryLight can supply only one model of lamp which is a 100 Watts incandescent. The radiation color is white monochromatic emission type.

The lamp power is fixed at 100 Watts. We describe in section BinaryLight Lamp Outline methods linked to this device.

Device properties

Name	Value	Default Value	Type	Modifiable
power_status	True/False	False	Boolean	Yes
max_power	100.0	100.0	Double	No

Note: The max_power is fixed for the moment!

Electro-optical considerations

Here we describe the global functioning of the simulated device BinaryLight. We take into account physical consideration to compute the illuminance (expressed in Lux unit) returned by the device. We have considered that:

$$1 \text{ Watt} = 680.0 \text{ lumens at } 555\text{nm}$$

This conversion is only applicable at wavelength of 555 nm (maximum of sensibility for human vision).

Through the simple formula beside, we then compute the illuminance, function of the lamp power level:

$$\text{Illuminance} = \frac{\text{power_level} * \text{max_power} * 680.0}{\text{surface}}$$

With:

- Illuminance [Lux]
- Power_level [percentage]
- Max_power [Watts]
- Surface [m²]

BinaryLight Lamp Outline

Hereafter we explain methods that can be useful for the user to control a BinaryLight lamp.

Interface: **fr.liglab.adele.icasa.device.light.BinaryLight**

getSerialNumber()	Get the device ID
getPowerStatus()	Get the power status of the lamp: - switched On:true - switched Off: false
setPowerStatus(Boolean state)	Set the power status of the lamp: - switched On:true - switched Off: false
getMaxPowerLevel()	Get the max power level of the lamp in Watts