LIG – ADELE TEAM

Datasheet BinaryLight

BinaryLight Lamp

Jeremy SAVONET

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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 : - 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
V1.5	15/04/2013	Homogenize properties names

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

Property name	Constant name	Value	Default Value	Type	Modifiable
binaryLight.powerStatus	BINARY_LIGHT_POWER_STATUS	True/False	False	Boolean	Yes
binaryLight.maxPowerLevel	BINARY_LIGHT_MAX_POWER_LEVEL	100.0	100.0	Double	No

Note: The max power level 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:

$$1\ Watt = 680.0\ lumens\ at\ 555nm$$

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:

$$Illuminance = \frac{power\_level * \max\_power * 680.0}{surface}$$

With:

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

Note: This calculus is part of the simulator and it is not computed and returned by the device itself.

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