LIG – ADELE TEAM

# 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 :<br>- Device properties<br>- Electro-optical considerations<br>- BinaryLight outline |
| V1.3 | 12/03/13 | Add interface name |
| V1.4 | 18/03/2013 | Minor change on sentences |

## 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

| Model | power_status | max_power |
|---|---|---|
| **BinaryLight** | True - False | 100 Watts |

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:

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

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]

## 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:<br>- switched On:true<br>- switched Off: false |
| **setPowerStatus(Boolean state)** | Set the power status of the lamp:<br>- switched On:true<br>- switched Off: false |
| **getMaxPowerLevel()** | Get the max power level of the lamp in Watts |