

# ENERGY SAVING LIGHTS

Moooi fixtures developed before 2008 have been specifically designed for use with incandescent light sources. Due to the new European regulations these will not be available in the European Union in the near future. The EU's objective is to save energy and help the market push more efficient CFL & LED light bulbs. With this information sheet we want to help Moooi customers adapting their lamp to meet these new circumstances.

## ENERGY SAVING BULBS

Most common Energy saving bulbs in the market are CFL type lamps, which is short for Compact Fluorescent Lightbulb. Basically CFL technology is similar to TL type lamps, but smaller. Moooi fixtures can be used which each available self-ballasted CFL for Edison type lampholders (E12, E14, E26 or E27) and below the maximum power rating of the fixture. Most important difference in use between incandescent and CFL, is that CFL is up to 5x more efficient which means that out of the absorbed power 5x more energy is being converted into the actual output of light.

When purchasing Energy saving replacements please make sure the light temperature (the "colour" of light expressed in degrees Kelvin, or K) is around 2700K.

To replace your existing lightbulb you can use the following conversion to find the correct replacing wattage;

INCANDESCENT	CFL
15W	3W
25W	5W
40W	8W
60W	12W
75W	15W
100W	20W

There is a big difference between older and newer CFL and LED bulbs, and between low and high quality types. We advise to purchase bulbs from well known brands and specialized retailers. Make sure you purchase a similar type of bulb (globe, candle, etcetera).

To be assured that the lightbulb has enough light output please check the efficiency of the bulb expressed in lm/W (lumen per watt) which should be around 50lm/W. Generally speaking the following can be said on efficiency for different light sources;

TYPE OF LAMP	EFFICIENCY
Incandescent	10-12 lm/W
Halogen	25-40 lm/W
CFL	30-50 lm/W
LED retrofit	30-70 lm/W

## RETROFIT GUIDELINE

When purchasing LED or CFL retrofit globes please make sure you have checked efficiency (lm/W), or at least total light output (Lumen) and colour temperature to find out if it can match your previous incandescent light source. Currently (2009) LED retrofit only replaces Incandescent up to 60W.

To roughly convert the power of the Energy saving bulb, you should divide the given amount of Lumen (refer to the packaging of the bulb) by 10. This gives you the wattage of a comparable Incandescent globe with similar output.

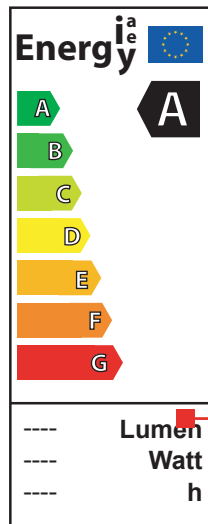
For example;

a retrofit LED bulb of **3W** with a total output of 90 Lumen can be translated to its incandescent equivalent by;  $90/10 = 9$ ; In this example the LED bulb could replace a 9W incandescent bulb.

If efficiency is given in Lumen per WATT, you can multiply the rated wattage (W) x the lm/W (value) to know the total Lumen. You can then divide the total Lumen by 10 to find the equivalent wattage for an incandescent bulb.

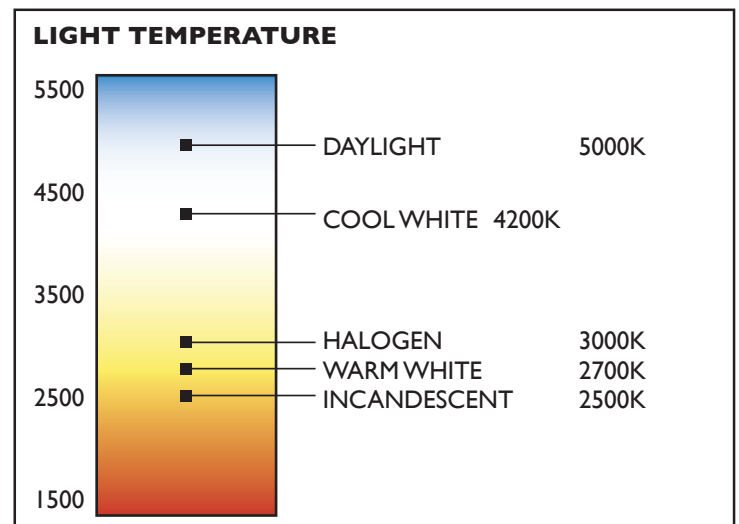
For example;

a retrofit LED bulb of **3W** with an efficiency of **48lm/W** can be translated to its incandescent equivalent by;  $3 \times 48 = 144 \text{ lm}$ ;  $144/10 = 14.4\text{W}$ . In this example the LED bulb could replace a 15W incandescent bulb



This label can be found on the packaging of each energy saving light bulb.

The value in Lumen indicates the light output. On the packaging you should also find the light temperature expressed in K (Kelvin).



## PHASING OUT OF INCANDESCENT LIGHT BULBS IN THE EU

SEPTEMBER 1, 2009	ALL MATT INCANDESCENT + CLEAR 100W (ALL FROM 80W>)
SEPTEMBER 1, 2010	CLEAR 75W (ALL FROM 65W>)
SEPTEMBER 1, 2011	CLEAR 60W (ALL FROM 45W>)
SEPTEMBER 1, 2012	CLEAR 40W, 25W, 15W (ALL FROM 7W >)
SEPTEMBER 1, 2016	ALL INCANDESCENT > ENERGY CLASS C*

\* EXCEPT FOR SPECIAL APPLICATION INCANDESCENT SUCH AS OVEN LAMPS, REFRIGERATOR LAMPS, INFRARED AND TRAFFIC LIGHTS



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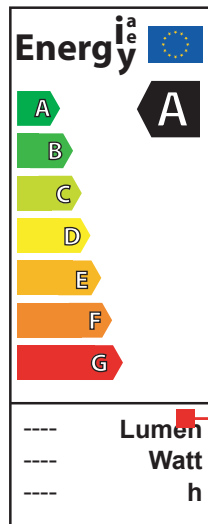
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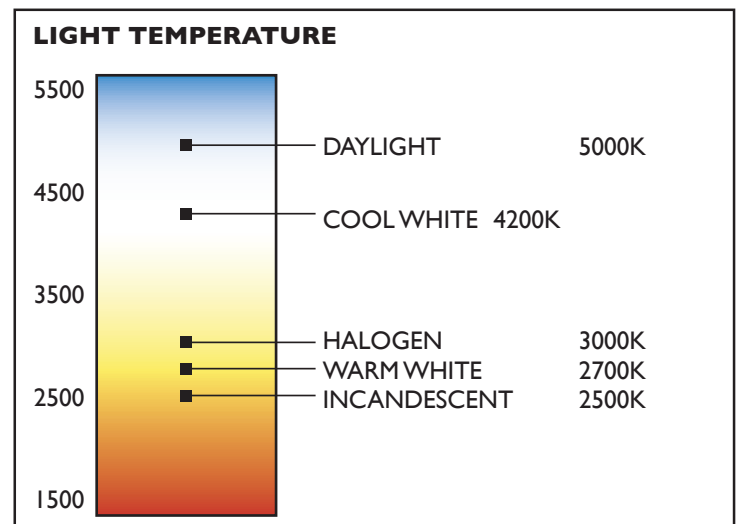
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## Random Light LED

In this new version of the product a LED pendant becomes part of the Random Light, creating a long-lasting energy saving light output. Combining a playful design with an environmentally friendly technology. A killer combination. The Random Light is the ideal 'light' solution to furnish any space.

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<b>Designer</b>	Bertjan Pot
<b>Year of design</b>	2010
<b>Material</b>	Epoxy and fibre glass, matt chromed steel pendant
<b>Additional</b>	For indoor use only

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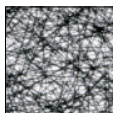
## Detailing



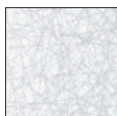
The Random light has a small opening to place the LED pendant.

Please refer to the manual for more information

## Colour



Black



White

## Technical



### Small

Power consumption 10,3W (30lm/W)  
Colour temperature (degrees Kelvin, K) 2600K  
(warm white)  
Luminous flux ( Lumen, lm) 300lm

### Medium

Power consumption 11,3W (35lm/W)  
Colour temperature (degrees Kelvin, K) 2600K  
(warm white)  
Luminous flux ( Lumen, lm) 390lm

### General

Input voltage of 240V ~ 50Hz/ 60 Hz AC

Power supply included in canopy

Cable length 4M (black)

10M cable available on request

Plastic white canopy (white shade)

Plastic black canopy (black shade)

The average service life of Random light LED is 50,000 hours, while maintaining +70% of the light output.

### Compatible dimmers

Manufacturer	Dimmertype	Minimum dim percentage
BERKER	286710	20%
BUSCH JAEGER	6513U-102	20%
ELARI	ATD 315	20%
ELARI	ATD 600R	20%
EPV	PAB 315	20%
INSTA	51190	20%
INSTA	51040	20%
JUNG	225TDE	20%
LUTRON	LPRPM-4A	15%
LUTRON	GRAFIK INTEGRAL XGI	15%
OPUS	852395	30%
PEHA	433HAB	20%
SCHNEIDER	ATD 315	20%
SCHNEIDER	600R	20%
SIEMENS	5 TC8 284	15%

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## Random Light Small

H 53 cm | 20.9"  
W 59 cm | 23.2"  
D 59 cm | 23.2"

Colli 1/1

Product weight:

1,2 KG | 2,6 lb

With packaging:

2,7 KG | 6 lb

## Random Light Medium

H 85 cm | 33.5"  
W 85 cm | 33.5"  
D 85 cm | 33.5"

Colli 1/1

Product weight:

1,8 KG | 4 lb

With packaging:

6,2 KG | 13,7 lb

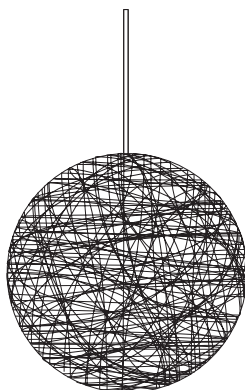
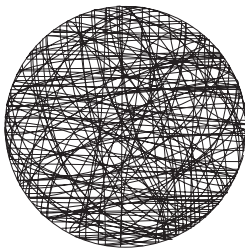
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## Cleaning Instructions

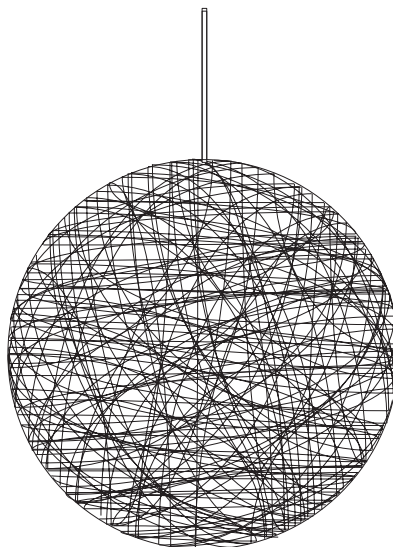
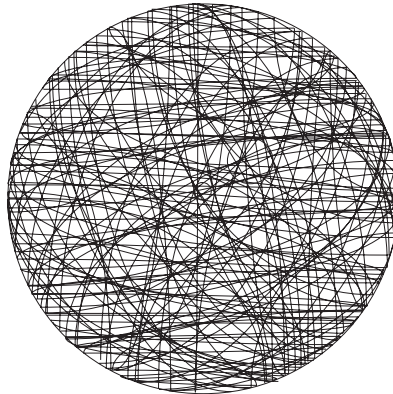
Due to the intricacy of the Random light it is advised to regularly use a feather duster to remove dust particles.

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## Main dimensions



50cm | 19.7"



80cm | 31.5"



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## Random Light

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A resin drained yarn is randomly coiled around an inflatable mould creating a magic translucent 3D fabric. The Random Light is the lighter way to occupy a space.

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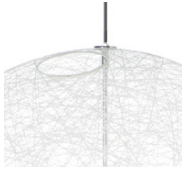
<b>Designer</b>	Bertjan Pot
<b>Year of design</b>	2001
<b>Material</b>	Epoxy & Fibreglass
<b>Additional</b>	For indoor use only

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## Detailing

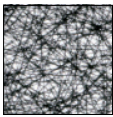


The Random light has a small opening to help with changing the light bulb.

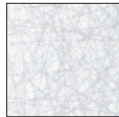
Please refer to the manual for more information

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## Colour



Black



White

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## Technical



E27 x I

60 W MAX type G

Cable length 4M (black)



10M cable available on request

Plastic white canopy (white shade)

Plastic black canopy (black shade)



E26 x I

100 W MAX type G

Cable length 4M (black)

10M cable available on request

Chrome canopy

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## Packaging

### Random Light Small

H 53 cm | 20.9"

W 51 cm | 20.1"

D 51 cm | 20.1"

Colli 1/1

Product weight:

1,2 KG | 2,6 lb

With packaging:

2,7 KG | 6 lb

### Random Light Medium

H 88 cm | 34.6"

W 87 cm | 34.3"

D 87 cm | 34.3"

Colli 1/1

Product weight:

1,8 KG | 4 lb

With packaging:

6,2 KG | 13,7 lb

### Random Light Large

H 110 cm | 43.3"

W 110 cm | 43.3"

D 110 cm | 43.3"

Colli 1/1

Product weight:

2,5 KG | 5,5 lb

With packaging:

13 KG | 28,7 lb

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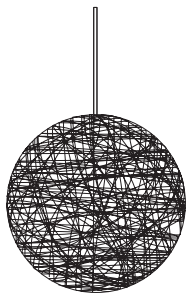
## Cleaning Instructions

Due to the intricacy of the Random light it is advised to regularly use a feather duster to remove dust particles.

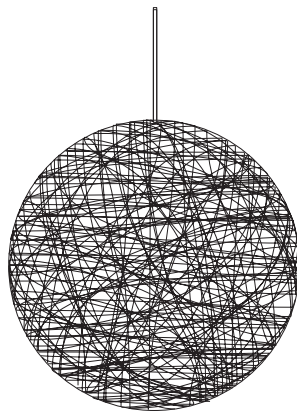
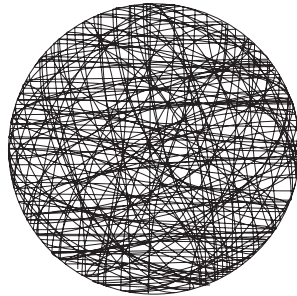
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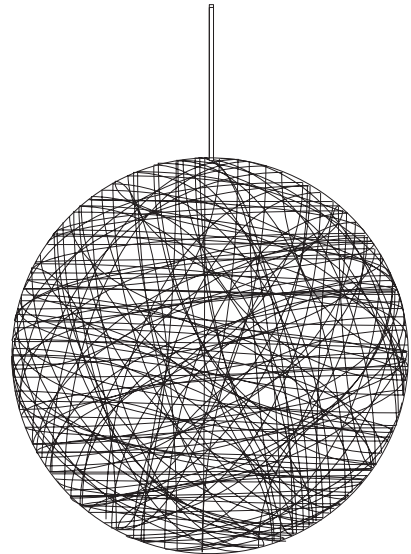
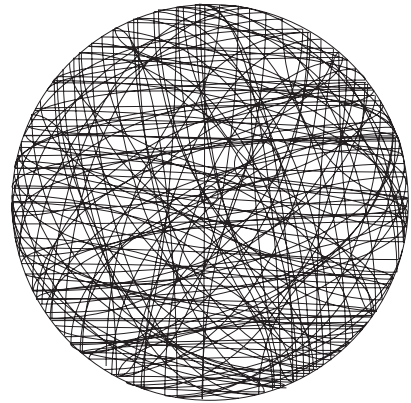
## Main dimensions



50cm | 19.7"



80cm | 31.5"



105cm | 41.3"



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## Random Light LED Floorlamp

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For the first time the Random Light stops drifting and comes down to earth...literally! Random Light LED floor lamp is the first floor lamp available from the Random light family.

In this version of the product a LED lamp becomes part of the Random Light, creating a long-lasting energy saving light output. Combining a playful design with an environmentally friendly technology. A killer combination. The Random Light is the ideal 'light' solution to furnish any space.

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<b>Designer</b>	Bertjan Pot
<b>Year of design</b>	2010
<b>Material</b>	Epoxy and fibre glass, matt chromed steel pendant, white or black floorlamp base
<b>Additional</b>	For indoor use only

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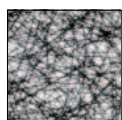
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## Detailing

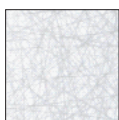


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## Colour



Black shade



White shade



Black base



White base

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## Technical



### Small

Power consumption 10,3W (30lm/W)

Colour temperature (degrees Kelvin, K) 2600K  
(warm white)

Luminous flux ( Lumen, lm) 300lm

### Medium

Power consumption 11,3W (35lm/W)

Colour temperature (degrees Kelvin, K) 2600K  
(warm white)

Luminous flux ( Lumen, lm) 390lm

### General

Input voltage of 240V ~ 50Hz/ 60 Hz AC

Power supply included in Base

The average service life of Random light LED is 50,000 hours, while maintaining +70% of the light output.

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## Packaging

### Small - base

H 195 cm | 76.8"  
W 40 cm | 15.7"  
D 40 cm | 15.7"

Colli 1/2

Product weight:  
4,6 KG | 10,1 lb  
With packaging:  
7 KG | 15,4 lb

### Medium - base

H 214 cm | 84.3"  
W 40 cm | 15.7"  
D 40 cm | 15.7"

Colli 1/2

Product weight:  
4,8 KG | 10,6 lb  
With packaging:  
7,2 KG | 15,9 lb

### Small - shade

H 53 cm | 20.9"  
W 51 cm | 20.1"  
D 51 cm | 20.1"

Colli 2/2

Product weight:  
1,2 KG | 2,6 lb  
With packaging:  
2,7 KG | 6 lb

### Medium - shade

H 88 cm | 34.6"  
W 87 cm | 34.3"  
D 87 cm | 34.3"

Colli 2/2

Product weight:  
1,8 KG | 4 lb  
With packaging:  
6,2 KG | 13,7 lb

## Cleaning Instructions

Due to the intricacy of the Random light it is advised to regularly use a feather duster to remove dust particles.

## Main dimensions

