

# Standards and labelling programme: Efficient lighting component

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PROPOSED MEPS OVERVIEW | 26 OCTOBER 2018



energy

Department:  
Energy  
REPUBLIC OF SOUTH AFRICA

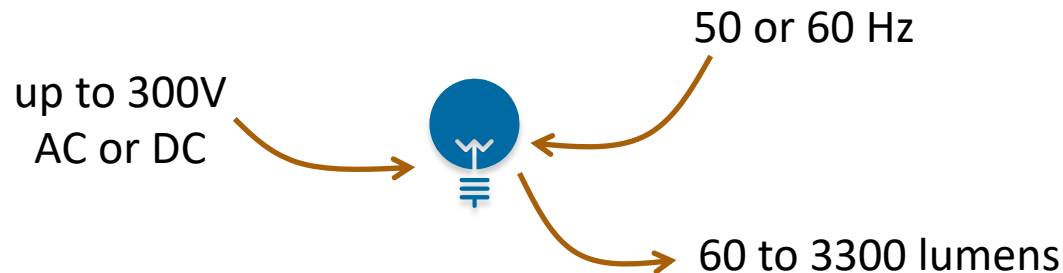


# Scope of technology neutral regulation (...1)

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This regulation applies to **general lighting, directional and non-directional lamps of all shapes and finishes**; using **incandescent, halogen, fluorescent, high-intensity discharge, light emitting diode (LED)**, and other light source technologies; and having:

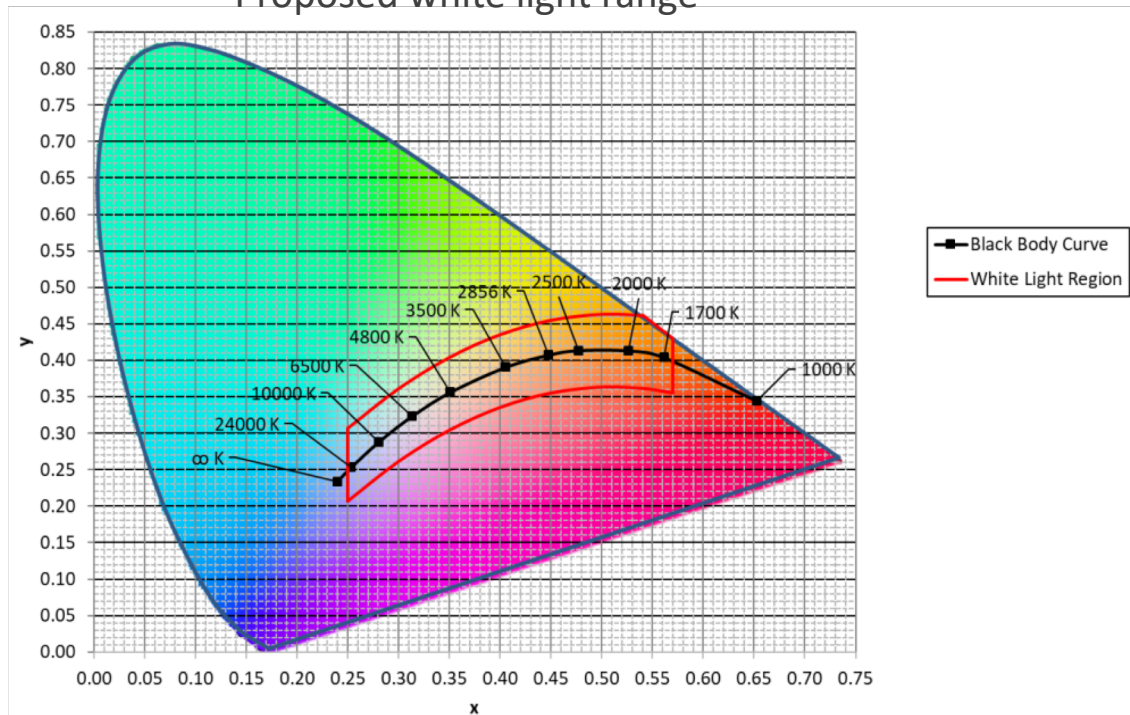
- One or more **input voltages** up to 300V of **direct current** or **alternating current** with **frequency** of 50 or 60 Hz;
- Emitting light with a total **luminous flux** of 60 to 3300 lumens;



# Scope of technology neutral regulation (...2)

- Light emission with the **chromaticity coordinates** (x, y) that are within the range:  $0.25 < x < 0.57$  and  $-2.3172 x^2 + 2.3653 x - 0.2400 < y < -2.3172 x^2 + 2.3653 x - 0.1400$ ;

Proposed white light range



# Scope of technology neutral regulation (...3)

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- A **lamp base** which can be connected to one of the following general service lamp sockets:



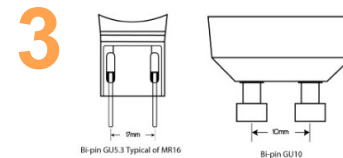
**Screw base type**

E10, E11, E12, E14,  
E17, E26 or E27



**Bayonet base type**

B15d or B22d



**Pin base type**

GX5.3/GU5.3,  
GU10 or GZ10

**and...** **Alternative base types** which can be connected to the above lamp base sockets by using commercially available passive adaptors



# Regulating: Luminous efficacy (lm/watt)

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Minimum efficiency levels will be **phased in over time**. *FOR EXAMPLE:*

Product type	Minimum efficacy 2020	Minimum efficacy 2023
lamp	Min lm/W for 2020	Min lm/W by 2023

With **correction factors** applied for specified lamp characteristics.

*FOR EXAMPLE:*

- - 15% for directional lamps *OR*
- - 20% for CFLs

**Minimum efficacy levels to be informed by the Socio-economic Impact / Cost Benefit Study**



# Regulating also other aspects, including:



1

## Power consumption

Power factor  
Standby power



2

## Longevity

Lumens maintenance  
Lifetime or Survival factor



3

## Lighting quality

Colour rendering index (CRI)  
Colour consistency



4

## Health & safety

Electromagnetic Compatibility (EMC)  
Flicker  
Stroboscopic effect visibility measure (SVM)  
Photobiological risk  
RoHS compliance



# Discussion & Questions

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MOVING EFFICIENT LIGHTING FORWARD (PLEASE  
RAISE ANY ADDITIONAL THOUGHTS OR  
PRIORITIES)