







Est. 1987

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1987 - 2012

in a partnership with
the **SDC** and **NRCS**
to ensure
compliance with the
National Building Regulations
and
a reduction of CO₂ emissions
through
energy efficiency in buildings



Schweizerische Eidgenossenschaft
Confédération suisse
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Federal Department of Foreign Affairs

Swiss Agency for Development and Cooperation SDC
Swiss Cooperation Office Southern Africa



the dti

Department:
Trade and Industry
REPUBLIC OF SOUTH AFRICA

 **NRCS** | national regulator for
compulsory specifications

standards
South Africa
(a division of SABS)

LIGHTING

ENERGY DEMAND:

ALLOWED: 5W/m²

$$5W/m^2 \times 157.23m^2 = 786.15W$$

$$11 \times 13W \text{ lamps} = 143$$

$$3 \times 6W \text{ lamps} = 18$$

$$4 \times 32W \text{ lamps} = \underline{128}$$

289W

or

$$289W / 157.23m^2 = 1.84W/m^2$$

(<5W/m²)



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ENERGY CONSUMPTION:

ALLOWED: 5kWh/m².a or 5kWh/m²
[a = 1 (year)]

$$5\text{kWh/m}^2.\text{a} \times 157.23\text{m}^2 = 786.15\text{kWh.a}$$

Assume lights are on from 17:00 – 22:00 each
day/year , that is 5h/day

$$52 \text{ (weeks)} \times 7 \text{ (days)} \times 5 \text{ (h)} = 1\,820\text{h.a}$$

$$\text{Lamps} = 289\text{W or } 0.289\text{kW}$$

$$0.289\text{kW} \times 1\,820\text{h.a} = 525.98\text{kWh.a}$$

(< 786.15kWh.a ✓)