

CHOOSING DARK SKY COMPLIANT LIGHT BULBS

THE UPDATED KAIKŌURA LIGHTING REGULATIONS PROMOTE THE USE OF **WARM LIGHTING** FOR NIGHT TIME ILLUMINATION

WHY USE WARM LIGHTING?

At night the body's day/night cycle needs warm light (3000K, 2700K, 2200K) because cool light interferes with the body's hormonal control of sleep.

- Warm light allows night vision.
- Warm light reduces ecological interference, including fallout of seabirds (Hutton's shearwater).
- Warm light scatters less in the atmosphere and reduces light pollution.

UNDERSTANDING TERMS YOU WILL SEE ON LIGHT BULB BOXES

WATTS (W)

Measures electrical power used by bulbs

LED lights use about 1/10 of the wattage and they last up to 25 X longer than incandescent (tungsten filament) bulbs. The total yearly electricity cost of using 1 LED bulb is \$1.83 compared to \$10.95 for using 1 incandescent bulb.

LUMENS (lm)

Measures the brightness of light

To provide the same brightness (1500 lm) an LED bulb uses 5 times less electricity than an incandescent bulb.

This is because LED bulbs give higher lumens per watt than incandescent bulbs.

KELVINS (K)

Measures the colour temperature of light in degrees K

Warm light (yellow-white to amber-white) is from 3000K to 2200K, whereas cool light (blue white) is up to 6500K.

All new buildings & upgrades in the Kaikōura District must have outdoor lights at 3000K or lower.

KELVIN RATINGS FOR LIGHTING



FOR NIGHT TIME LIGHTING - INDOORS AND OUTDOORS

- Choose warm bulbs with 3000K, 2700K or 2200K.
- Use LED bulbs to lower your electricity bill.
- Cost between LED, compact fluorescent (CFL) and incandescent (INC) light bulbs each giving similar brightness (850 lm).



BULB	PRICE \$	WATTS (W)	LIFESPAN (hours)	20 YEAR ELECTRICITY COST (\$0.37/K/Wh)
LED	\$4.00-10.00	8	15,000-25,000	\$64 (1 bulb used)
CFL	\$9.19	14	8,000	\$128 (2-3 bulbs used)
INC	\$2.35	60	1,200	\$550 (12-21 bulbs used)

