

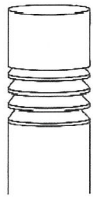


www.hawaii.gov/dlnr/

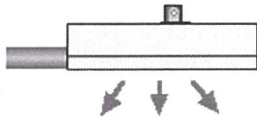


www.dofaw.net

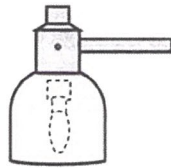
## ACCEPTABLE ONLY WITH PROPER BULB(S)



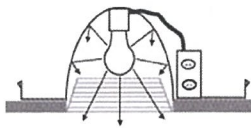
Low Profile Bollards  
with Louvers



Full Cutoff  
Low Pressure Sodium  
Streetlight



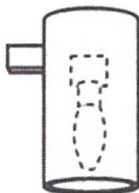
Fully Shielded  
NEMA Light



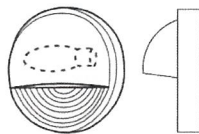
Recessed Can  
w/ baffles



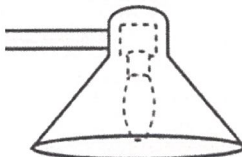
Glare Buster



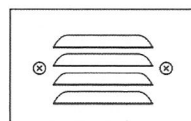
Canister  
Downlight



'Eyelid' Step  
Light



Downlight



Louvered  
Step Light

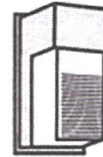
## UNACCEPTABLE



Globe  
Fixture



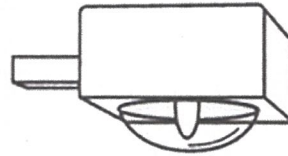
Unshielded  
Carriage



Wallpack



Acorn  
Fixture



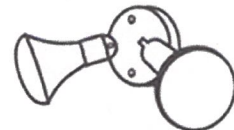
Drop-Lens/Sag-Lens  
w/ exposed bulb



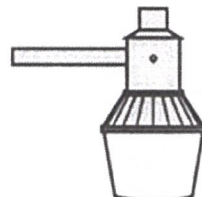
Unshielded  
Streetlight



Nautical  
Wall Sconce



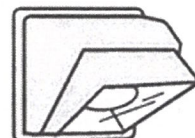
Floodlight



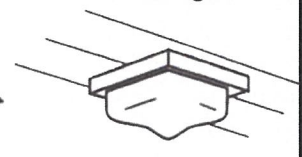
NEMA Security  
Light



Partially Shielded  
Floodlight



Shielded Security  
Light



Drop-Lens  
Canopy Light

Bulbs for all fixtures should be of the Yellow 'Bug' Light variety incandescent or compact fluorescent.

WALKWAY/PATH  
LIGHTING

STREET/PARKING  
LIGHTING

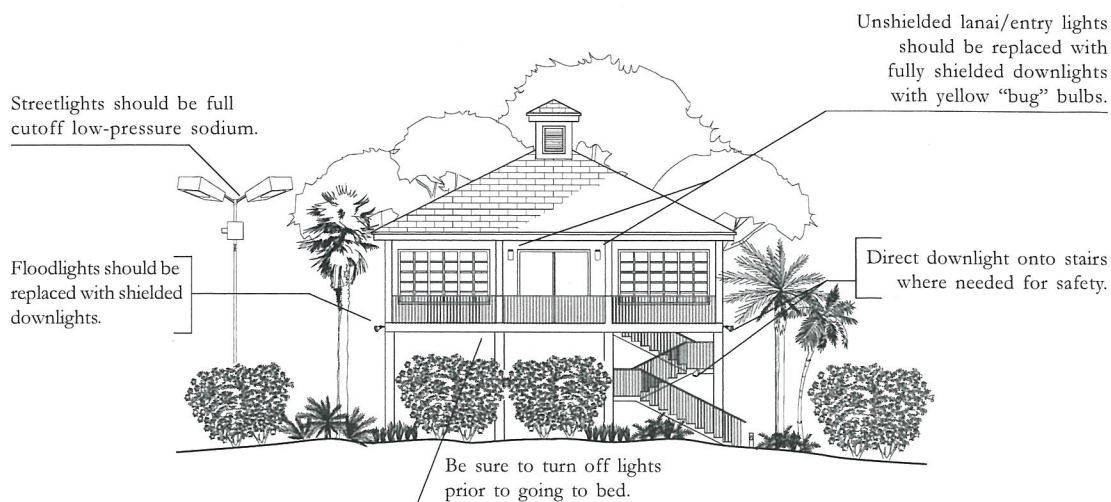
ARCHITECTURAL  
LIGHTING

# A TYPICAL HOME IN HAWAII

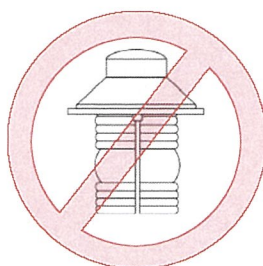
## REPLACE POORLY SHIELDED LIGHTS TO REDUCE LIGHT POLLUTION

## REPLACE FLOODLIGHTS AND UNSHIELDED FIXTURES WITH WALKWAY AND PATH LIGHTING

# REPLACING BAD LIGHT FIXTURES

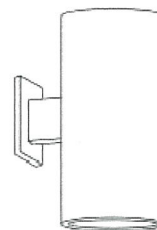


This diagram depicts a typical house with several styles of exterior light fixtures. These fixtures are inappropriate for use and should be replaced with shielded, downward directed lights. When correcting problem light fixtures, don't forget about your interior lights. Try to make it a habit to keep your window blinds closed at night, especially Sept 15-Dec 15 when young Newell's shearwater and Hawaiian petrel fly to the ocean for the first time.



JELLY-JAR LIGHTS

Lights like the one shown above waste 40% to 60% of the light produced in the form of glare. It is not uncommon to see these poorly designed \$3 and \$4 fixtures on homes costing \$500,000 and up.



CANISTER DOWNLIGHTS

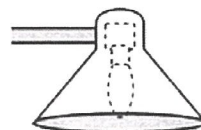
The best light fixture for wildlife is the canister downlight using a 25watt to 40watt yellow bug lamp. Excellent for human safety, minimum glare, almost no light trespass occurs into the night sky or onto your neighbor's property.



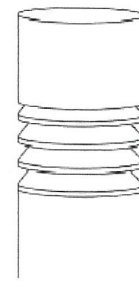
FLOODLIGHTS



CARRIAGE LAMPS



DOWNLIGHT



BOLLARD FIXTURE

These unshielded exterior lights are poorly suited for use in Hawaii. These light fixtures contribute to light trespass onto neighbor's property as well as up into the night sky.

Downlights and bollards are excellent fixtures for providing safety, illuminating pathways and landscaping. Specified with long wavelength "yellow" lamps, these lights actually improve our night vision by reducing glare.

SOURCE FOR GOOD LIGHT FIXTURES: [WWW.DARKSKY.ORG/FIXTURES](http://WWW.DARKSKY.ORG/FIXTURES)



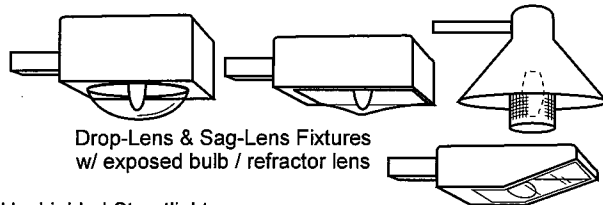
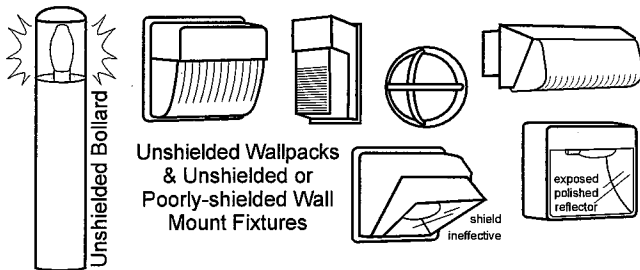
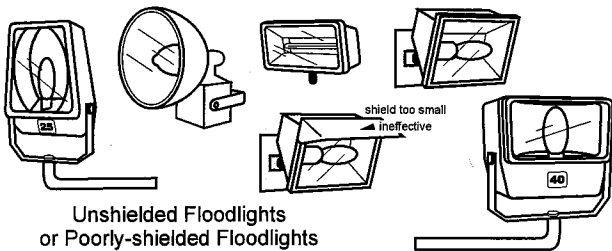
# SEABIRD FRIENDLY LIGHTING SOLUTIONS

Help eliminate seabird light attraction. Select the best fixture for your application using this guide. Avoid uplighting, always shield floodlights, and aim downlights carefully to avoid light trespass. For more information go to [www.kauai-seabirdhcp.info](http://www.kauai-seabirdhcp.info).



## Unacceptable / Discouraged

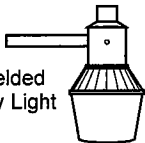
Fixtures that produce glare and light trespass



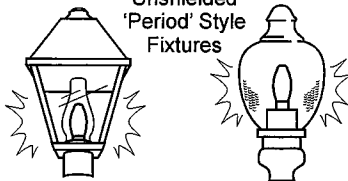
Unshielded Streetlight



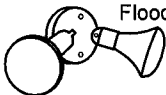
Unshielded Security Light



Unshielded 'Period' Style Fixtures



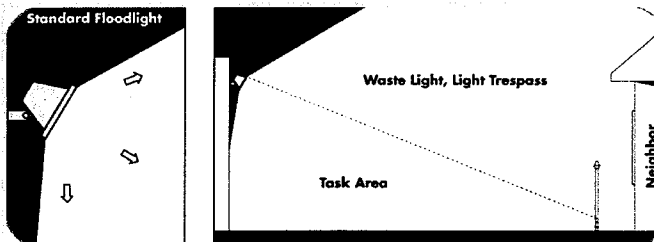
Unshielded PAR Floodlights



Drop-Lens Canopy Fixtures

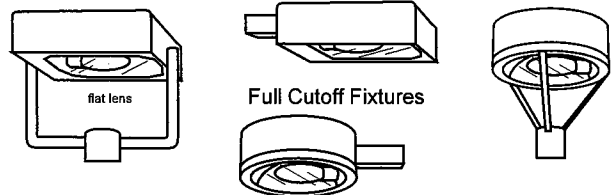


Unshielded floodlight that is angled incorrectly

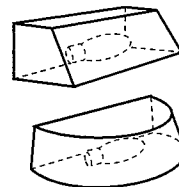
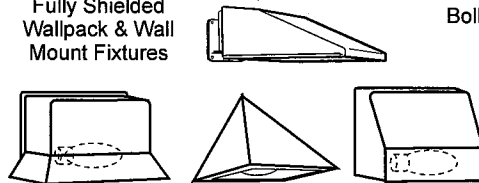


## Acceptable

Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night



Fully Shielded Wallpack & Wall Mount Fixtures

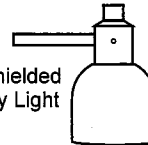


Fully Shielded Fixtures

Full Cutoff Streetlight

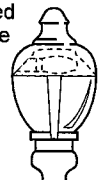


Fully Shielded Security Light



Fully Shielded 'Period' Style Fixtures

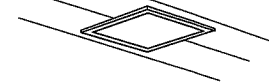
bulb shielded in opaque top



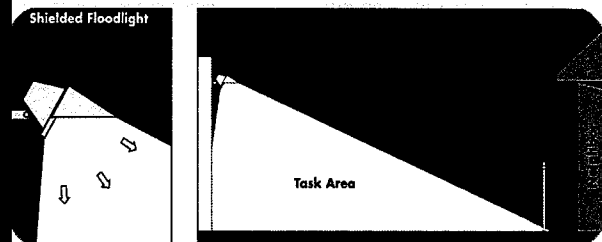
Shielded / Properly-aimed PAR Floodlights



Flush Mounted Canopy Fixtures



Shielded floodlight that is angled correctly



Illustrations from  
[www.darksky.org](http://www.darksky.org) and  
[www.darkskysociety.org](http://www.darkskysociety.org)