

## **FWC APPROVED SEA TURTLE LIGHTING**

**All exterior lighting for the entire project area including structural and landscape lighting must be reviewed and approved by FWC regardless of whether or not the area is seaward of the CCCL**

### **ACCEPTABLE FIXTURES**

All exterior fixtures on the seaward and the shore perpendicular sides of the building (and on the landward side of the building if they are visible from the beach) should be well shielded, full cut-off, downward directed type fixtures. All exterior fixtures on the landward side of the building should be downward directed only.

### **ACCEPTABLE LAMPS / BULBS AND OTHER LIGHT SOURCES**

Long wave length lights, e.g. those that produce light that measures greater than 560 nanometers on a spectroscope, are necessary for all construction visible from and adjacent to marine turtle nesting beaches. Bright white light, such as metal halide, halogen, fluorescent, mercury vapor and incandescent lamps will not be approved. Filters are unreliable and not allowed. Limited use of shorter wavelength lights may be approved in areas where direct and indirect light or glow could not possibly be visible from the beach upon approval by FWC.

### **ACCEPTABLE LAMPS**

- Low Pressure Sodium (LPS) 18w, 35w
- Red, orange or amber LED (true red, orange or amber diodes, NOT filters)
- True red neon
- Other lighting sources that produce light of 560 nm or longer

\*\*\*\* FWC approved lighting may be found at <http://www.myfwc.com/wildlifehabitats/managed/sea-turtles/turtles-lights/> \*\*\*\*




### **STATEMENT ABOUT TURTLE GLASS ON LIGHTING PLAN**





The plan shall reflect that tinted glass or film with a visible light transmittance value of forty-five (45) percent or less shall be applied to all windows and doors within line of sight of the beach. This includes the seaward and shore-perpendicular sides of the structure. This may be specified in the notes section on the Lighting Plan architectural drawing and should be included in the FDEP Permit Conditions.


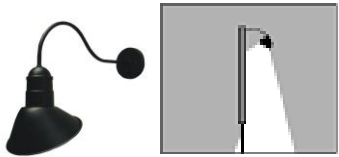

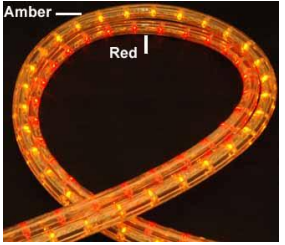
### **THE FOLLOWING ARE NOT ALLOWED**


- Private balcony lights
- Up lights
- Tree strap downlights
- Decorative lighting, not necessary for human safety or security
- Pond lights
- Dune walkover lighting
- Fountain lights on beach or shore perpendicular side of structure

## EXAMPLES OF TURTLE FRIENDLY FIXTURES

FIXTURE	LAMP & WATTAGE	MOUNTING TYPE & HEIGHT	LOCATION	COMMENTS and/or ADDITIONAL REQUIREMENT
<p><b>Ceiling Mount Cylinder</b> (with interior black baffles)</p> 	<p>Red/orange/amber LED</p>	<p>Ceiling Surface</p>	<p>if located on shore perpendicular or beach side of structure allow on <u>ground floor</u> only</p>	<p>Interior Black Baffles</p>
<p><b>Wall Mount Cylinder Down Light</b> (with interior black baffles)</p> 	<p>Red/orange/amber LED</p>	<p>Wall Mount Downward Directed 8 ft from floor</p>	<p>If located on shore perpendicular or beach side of structure allow on <u>first habitable floor</u> only</p>	<p>Interior Black Baffles  Hex cell louvers may be required to decrease wall wash</p>
<p><b>Recessed Ceiling Canister</b></p> 	<p>Red/orange/amber LED</p> <p><u>The following short wavelength lamps may only be used for covered driveway entry on landward side of structures</u></p> <ul style="list-style-type: none"> <li>• Halogen lamp</li> <li>• PAR spot lamps</li> <li>• LED lamps</li> <li>• HPS lamps</li> <li>• Compact Fluorescent</li> </ul>	<p>Recessed Ceiling</p>	<p>If located on shore perpendicular or beach side of structure allow on <u>ground floor</u> only</p>	<p>Interior black baffles Hex cell (honeycomb) louver</p>

<p><b>Recessed and Wall Mounted Step Lights</b> (louvered or downward directed)</p> 	<p>Red/orange/amber LED</p>	<p>Wall Mount  Maximum height 24 inches on Ground Floor only  Above Ground Floor Max height 12 inches</p>	<p>Ground Floor and Second level, and pool Deck</p>	<p>If on perimeter of pool deck, must be mounted directed away from beach.</p>
<p><b>Bollard</b> (with downward directed louvers)</p> 	<p>18w LPS  Red/orange/amber LED</p>	<p>Maximum height 42 in</p>	<p>Parking areas, commercial walkway, landscape, pathway and pool Deck</p>	<p>180° to 270° beach side shields on any fixture on perimeter of pool deck or immediately adjacent to beach.</p>
<p><b>High Intensity Full Cut Off Pole Lights</b></p> 	<p>18-35 w LPS (if twin head, maximum of 36w total)  Orange/amber LED</p>	<p>Pole - maximum height 12 feet</p>	<p>Parking Area  Landward side of structure only.</p>	<p>Beach Side shields and/or louvers for any fixture within line of sight of beach.</p>
<p><b>Paver Lights</b></p> 	<p>Red/orange/amber LED</p>	<p>In Ground mount</p>	<p>Parking areas, driveways, pathways, pool decks</p>	

<p><b>Landscape/Pathway Lighting</b></p> 	<p>Red/orange/amber LED</p>	<p>Ground mount Maximum height 12 inches</p>	<p>Ground Level, landscape</p>	
<p><b>Signage</b></p> 	<p>Red/orange/amber LED</p>	<p>Must be mounted with light directed <u>down</u> on to sign. NOT UP</p>	<p>Sign should be on landward side of structure when possible and mounted perpendicular to the beach.</p>	
<p><b>Garage Lighting</b>  (Phoenix)</p> 	<p>35w LPS  Amber/Orange/Red LED</p>	<p>Garage Ceiling</p>	<p>Garage</p>	<p>If a parking garage is not fully enclosed with solid walls, without windows, louvers, or screens so that the interior is not visible from any section of beach, only LPS or amber/orange LED lamps shall be used. Additional shields may be necessary if parking is above ground level.</p>
<p><b>Channel / Rope Lighting</b></p> 	<p>Red/orange/amber LED</p> <p><u>NOT colored plastic tubing with white lights</u></p> <p><u>No White LED</u></p>	<p>Must be mounted recessed under steps, bar, etc. and directed <u>down</u> to assure that light source or reflected light is not visible from beach</p>	<p>Pool deck, steps, pool bars.</p>	

<p><b>Water Feature Lighting</b></p>	<p>Red/orange/amber LED</p>	<p>Light must be downward or horizontally directed</p> <p><u>DO NOT direct light up</u></p>	<p>Submerged lights are only allowed on landward side of structure and only if fully shielded from beach by structure</p>	
<p><b>Underwater Swimming Pool Lighting</b></p>	<p>Red/orange/amber LED</p>			
<p><b>Emergency Egress Lighting</b></p> 	<p>Red LED Exit signs</p> <p>Full cut off downward directed Emergency egress fixtures may use short wavelength lamps</p>			<p>Short wavelength lamped emergency egress fixtures must be specified on fixture schedule and plans to be on separate circuit that will only illuminate fixtures during power outage</p>

Revised 4/26/11