

Barrier Island Lighting Workshop

Pensacola Beach & Perdido Key

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Agenda

- Introduction & Ordinance Overview
- Wildlife-Friendly Lighting
- Lighting Retrofit 101
- Show & Tell
- Questions & Discussion



Why Do We Need a Lighting Ordinance?

- Protect nocturnal wildlife and their habitats
- Coastal populations are increasing
- Extremely bright and invasive lighting technology is widely available



Small Steps Forward

State of Florida requires “turtle-friendly” lighting for projects south of Coastal Construction Control Line (CCCL)

2013: Escambia County passed Barrier Island Lighting Ordinance which requires turtle-friendly lighting on Pensacola beach. Effective immediately for new construction.

2018: Existing properties required to comply with Lighting Ordinance.

2023: Escambia County amends Barrier Island Lighting Ordinance. Updates language with State Model ordinance and extends wildlife friendly lighting requirements to include Perdido Key



Ordinance Summary: Pensacola Beach

- Requires use of “wildlife-friendly lighting” for **any exterior lighting visible from the marine beach (Gulf of Mexico)**
- Prohibits lighting on dune walkovers seaward of the crest of the primary dune
- Requires all windows, doors, and other glass or semi-transparent surface to use “Turtle Glass”; or glass with a transmittance of 45% or less
- Requires all existing non-confirming lighting to comply with ordinance requirements by **January 1st 2028**



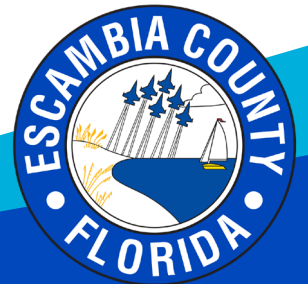
Ordinance Summary: Perdido Key

- Applies to properties **south of Semmes Rd** if Semmes Rd extended East-West across the Key



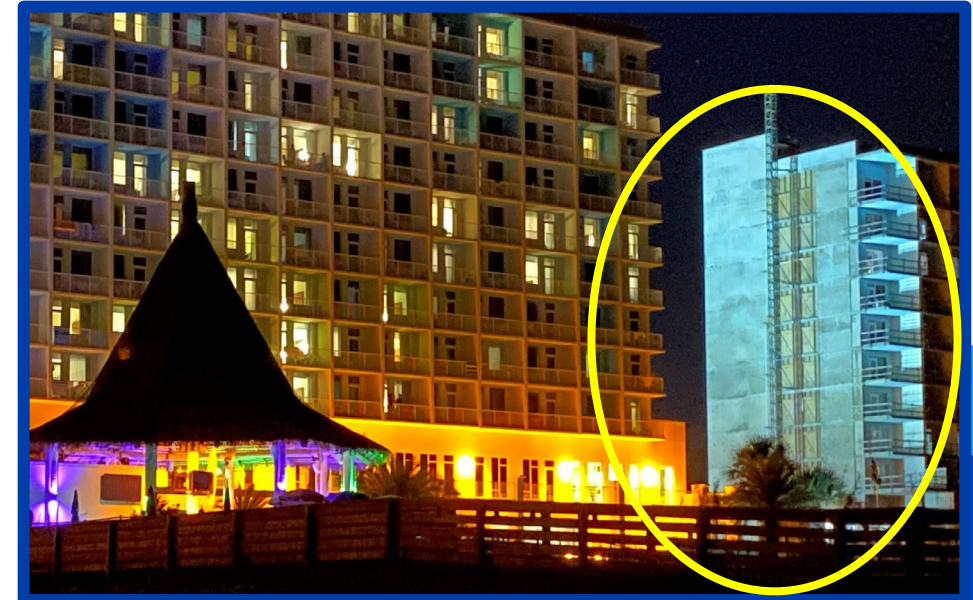
Ordinance Summary: Perdido Key

- Requires use of “wildlife-friendly lighting” for **all exterior lighting**, regardless of orientation to beach or Gulf
- Prohibits lighting on dune walkovers seaward of the crest of the primary dune
- Requires all windows, doors, and other glass or semi-transparent surface to use “Turtle Glass”; or glass with a transmittance of 45% or less
- Requires all existing non-confirming lighting to comply with ordinance requirements by **January 1st 2028**



Ordinance Update: Pensacola Beach

- No significant changes from original ordinance language
- Broader definition of visible: *“For the purposes of these lighting regulations, “within line-of-sight from the beach” means any source of illumination directly or indirectly visible from a marine beach.”*



Wildlife-Friendly Lighting Basics

- Keep it Long
- Keep it Low
- Keep it Shielded



“Wildlife-Friendly” & “Turtle-Friendly”
can be used interchangeably



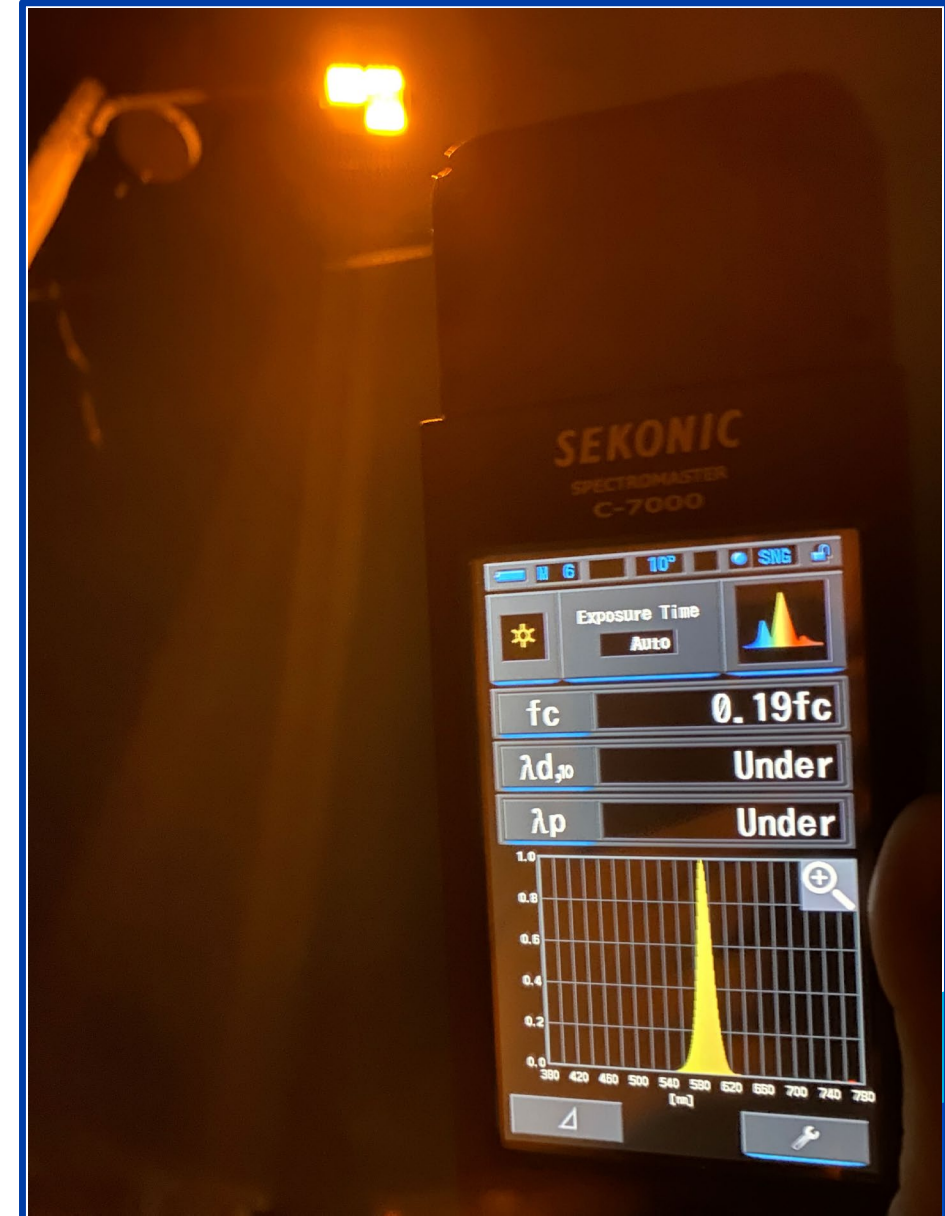
Dark Sky is also used, but applies to a
broader range of fixtures, not all of
which meet the ordinance requirements



Keep it Long




- Long Wavelength: Amber or Red
- Very narrow band of visible color
- Yellow “Bug Bulbs” are NOT considered long wavelength

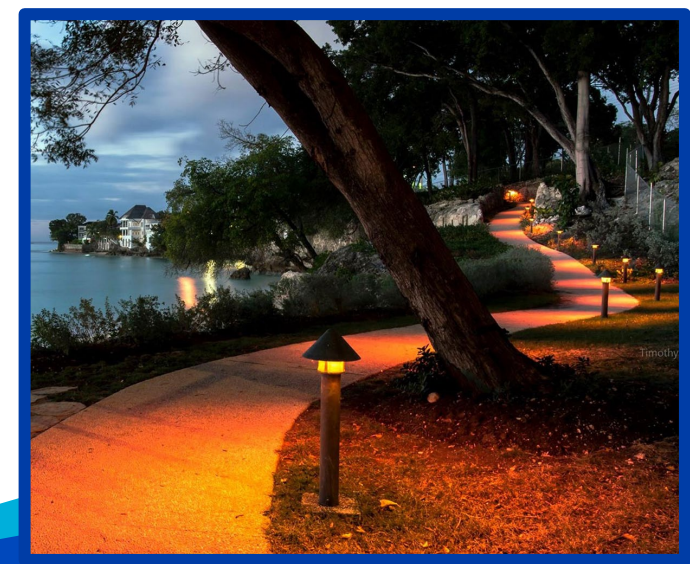
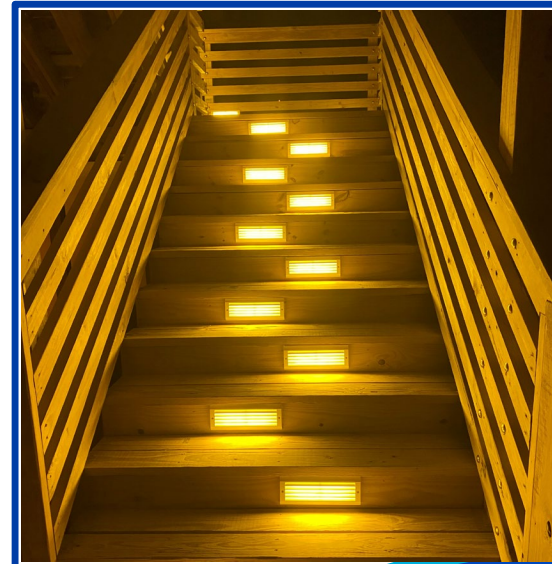
WHY? Longer wavelengths are less disruptive to wildlife; especially sea turtles



Keep it Low

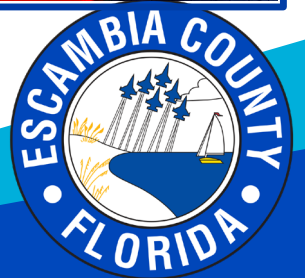
- Low Wattage
 - 10W LED = 75W+ Incandescent
- Low Mounting Height
 - Bollards vs Poles
 - Step Lights vs Wall Mounts

 Traditional Bulb (15 lumens/watt)	 CFL Bulb (50 lumens/watt)	 LED Bulb (100 lumens/watt)
15w 0 - 200 lumens	5-7w	2-3w
25w 200 - 300 lumens	7-10w	3-5w
40w 300 - 500 lumens	11-14w	5-7w
60w 500 - 700 lumens	15-18w	7-9w
75w 700 - 1250 lumens	20-25w	10-14w
100w 1250 - 2300 lumens	25-30w	14-18w



Keep it Shielded

- Full-Cutoff or Fully-Shielded
- No light broadcasted above a horizontal plane
- Light bulb may be recessed within fixtures or shielded by external feature



Safety Concerns

- Bright Light \neq Safe Light
 - Excessive glare can cause blind spots
 - Moving from dark to bright can cause temporary blindness
- Lower intensity allows eyes to adjust
- Longer wavelengths preserves night vision



Picking the Right Fixtures: FWC Certified

- Florida Fish & Wildlife Commission (FWC) certifies fixtures/bulbs that meet wildlife-friendly criteria.
- **Look for the Seal**
- Check Features:
 - Long Wavelength?
 - Fully Shielded?
 - Low Wattage?



Scan to view the full list of certified fixtures

INTER·GLOBAL
COMPOSITE
OUTDOOR LIGHTING

- Available in Incandescent & LED
- Fade & Rust Resistant Composite Construction

- Turtle Safe & Dark Sky Friendly
- UL Listed for Wet Locations
- Standard Pack QTY: 8

TURTLE & DARK SKY FRIENDLY

EXAMPLE # FD134-175-BK-LWE

STYLE #	LIGHT SOURCE	BODY	OPTIONS
FD134	INCANDESCENT, MEDIAN BASE	BK-Black	LED LAMP, 150W, 3 YEAR WARRANTY, DIMMABLE, ENERGY STAR
FD135	175-1 X 75W Max PAR 30	WH-White	LWE-A16E26, 80CRI, 3000K LWE-A16E26, 80CRI, 4000K AMBER LED CORN COB, 150-27V, 5 YEAR WARRANTY, FWC APPROVED LA-E26, 1000K, 500lm

*FLORIDA WILDLIFE APPROVED WHEN ORDERED WITH AMBER LAMP OPTION.

SEE PAGE 112 FOR DIMMER COMPATIBILITY

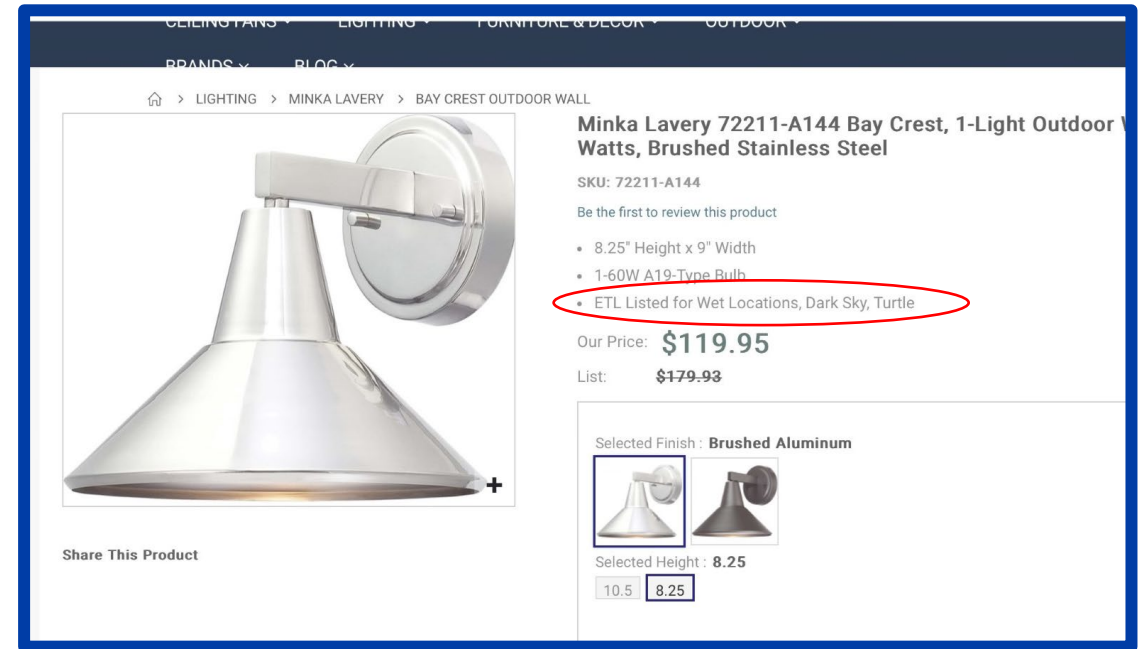
Fixtures available with custom packaging options, assembled or knocked down. MOQs apply.

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For more information contact our sales department at 1-800-325-7364 or visit www.interglobal-inc.com

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Picking the Right Fixtures: FWC Certified

- Not All Fixtures Created Equal
- Avoid mislabeling or misleading descriptions
 - Labelled “Turtle-Friendly” or “Dark Sky” but don’t meet criteria
 - Soft White “Amber”
 - Painted Bulbs marketed as long wavelength or “true-color”



When in Doubt: Ask Staff!



FWC Certified Fixtures

- ✓ Still in production (find on website)?
- ✓ Has Spec Sheet with Seal
- ✓ Is the wavelength listed?
- ✓ Is it the right wattage?

E1



The E1 is an unobtrusive, low-voltage, step/downlight. Its minimalist design brings attention to the lamp's effect, not to the fixture itself.

Construction All brass components. 1/8" [3mm] thick brass housing.

Lens Tempered soda lime glass

Voltage 12 Volts AC/DC with integral driver (9-15V input, dimmable below 9V). Remote transformer required.

Mounting Two (2) hidden stainless steel sheet metal screws secure back plate to the mounting surface. Fixture housing is secured to the back plate by stainless steel set screws.

Custom size canopies available using 0.125" thick brass plate. Consult factory regarding custom canopy size, shape, and thru hole positioning needed to mate with recessed j-box (by others).

Lamps Triac dimmable: MLV >6% typ., ELV >16% typ.

		Beam/Field	Candela	Lumens	Efficacy
Cree XPE2 LED 2 Watt AMBER (1500K)	— 2W-A-SP	10° / 20°	1366	65	29
	— 2W-A-NFL	14° / 31°	587	64	29
	— 2W-A-FL	28° / 60°	108	40	16
	— 2W-A-NO	46° / 114°	15	14	6
Cree XPE2 LED 2 Watt RED-ORANGE (1000K)	— 2W-RO-SP	10° / 18°	2841	123	54
	— 2W-RO-NFL	13° / 28°	1483	119	52
	— 2W-RO-FL	32° / 56°	229	81	35
	— 2W-RO-NO	49° / 114°	32	32	14

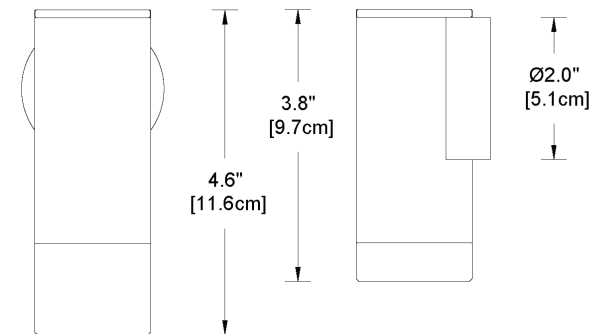
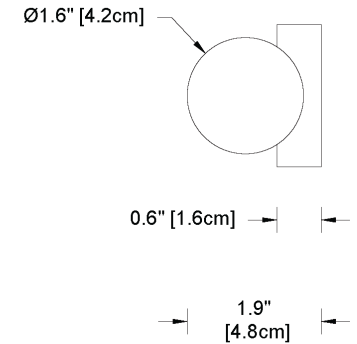
Optical Accessories Fixture can accommodate up to two 1/8" thick optical accessories or one accessory when used in conjunction with the 'NO' lamp optic option.

- FR8 Frosted lens, 1/8" [3mm] thick
- HL8 Honeycomb louver, 1/8" [3mm] thick
- KP Extended snoot
- PR8 Prismatic spread lens, 1/8" [3mm] thick
- RT8 Rectilinear spread lens, 1/8" [3mm] thick
- SL8 Solite (Soft Focus) lens, 1/8" [3mm] thick

Finish: Unfinished is standard; no specification required. The fixture will weather to a natural patina. The patina process is natural with brass and copper. Rate of patina and eventual color is dependent upon climate and proximity to the ocean. Thus, Beachside does not guarantee any specific appearance.

Weight: 1.3 lbs [0.6 kg]

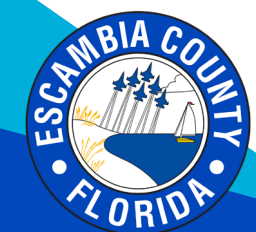
IP 66
CSA Listed, file #190030
10 year fixture warranty
5 year Cree LED module warrantv



E1 with KP accessory



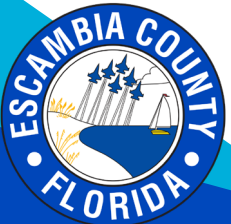
SUITABLE FOR
INDOOR AND
OUTDOOR USE



Non-Certified Fixtures

- ✓ Is the bulb completely hidden from view?
- ✓ Is it closed on the top?
- ✗ Is it long wavelength with wavelength listed?
- ? Is it the right wattage?

When in Doubt: Ask Staff!



The screenshot shows a product page on the Home Depot website. At the top, there's a navigation bar with the Home Depot logo, location 'Pensacol...', time '9PM', and phone number '32506'. A search bar contains the text 'What can we help you find today?'. Below the navigation, the breadcrumb trail reads: '... / Lighting / Outdoor Lighting / Outdoor Wall Lighting / Outdoor Sconces'. The product title is '7.8 in. 1-Light Modern Black LED Outdoor Solar Wall Cylinder Light with Dark Sky Compliance'. The price is '\$29.97'. A promotional banner says 'Pay \$4.97 after \$25 OFF your total qualifying purchase with your Home Depot Consumer Card'. The main image shows a black cylindrical light fixture mounted on a wall, casting a light on a white surface. Below the image is a zoomed-in view of the top of the fixture, which is closed. To the right of the image, there's a 'Delivery' section showing 'Tomorrow 144 available' for 'FREE' delivery. At the bottom, there's a 'Protect This Item' section with options for a '2 Year / \$6.00' protection plan or 'No thanks'.

Lighting Retrofit 101



Identify the Problems

- Conduct a property survey both before and after dark
- Turn on all exterior and interior lights
- Document property visibility from the beach from multiple angles
- Take pictures, **detailed** location and condition notes
- Consider follow up day-time survey for larger properties



Record No	Location	Fixture Type	Qty	Notes
1	Ground Floor Garage	Ceiling Cannisters	5+	White light, poor condition, some missing covers
2	Second Floor Deck	Wall Mounts	5	Good fixtures, bad bulbs
3	West Stairs	Double Flood	1	Shield & change bulbs

Make a Plan

- Quantify number of fixtures and bulbs to be changed
- Progress over Perfection
- Prioritize!
 - Phased Approach → Better on the Budget
 - Consider disabling unused or redundant fixtures

Commercial or Multi-Family: **HIGHLY** recommend working with a lighting specialist or General Contractor to ensure safe light levels post-retrofit



Retrofit Tips

- **Before you Buy:** Confirm the items meet all WF standards
- Consider adding temporary shields if unable to change fixtures for extended time
- Wrap into façade work, unit repairs or other renovation projects



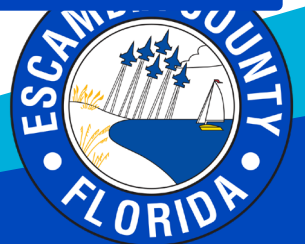
Common Retrofit Scenarios: Condo/ Multi Family Unit

- Uniform fixture/bulb choice → Bulk savings
- Look for integrated fixtures to prevent owners switching bulbs
- Can also be used for exterior walkways/access points



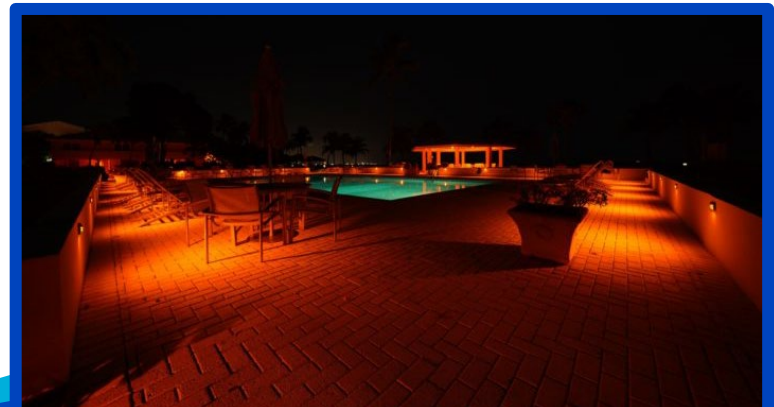
Common Retrofit Scenarios: Stairs & Steps

- Look for brighter bulbs if replacing post/pole mounted fixtures
- Consider step lights or tape/strip lights to light treads
- Can also be used for exterior walkways/access points



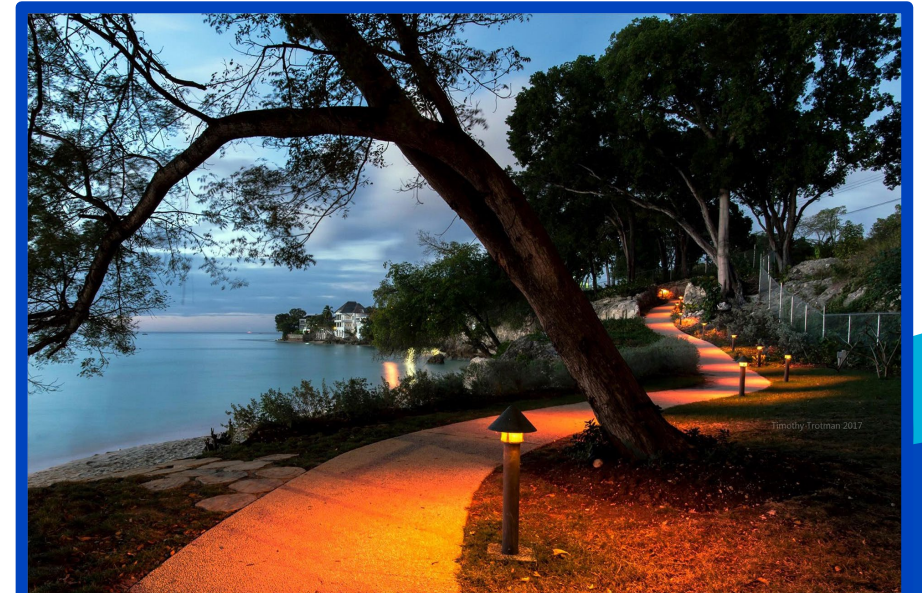
Common Retrofit Scenarios: Pools & Pool Decks

- Lower deck fixtures to focus light on deck/water
- Consider timers for when pool closes
- Ensure accessory lighting is WF (cabanas, tiki bars, etc)
- Remove accent lighting (landscaping, trees, uplights etc)



Common Retrofit Scenarios: Paths & Common Areas

- Consider use of area: are people using it after dark?
- Lower fixture heights with tabletops lights, bollards, steps lights etc
- Consider adding screens or landscaping to help block light



Common Retrofit Scenarios: Tennis Courts

- Use timers/motion sensors to ensure lights are only on when court is being used
- Shielding fixtures to focus light on courts
- Cluster lights in center of courts, use minimal light needed to achieve safe conditions
- Use privacy screens and shrub barriers to help reduce light trespass



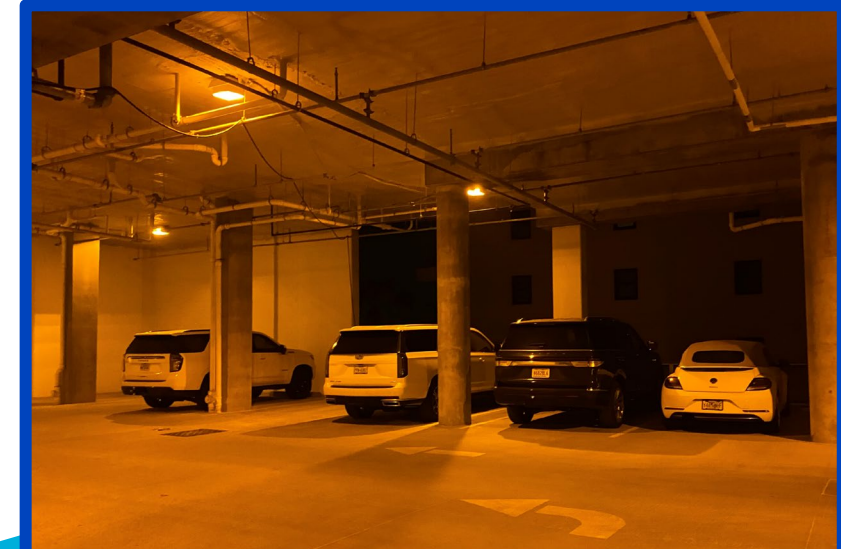
Common Retrofit Scenarios: Drives & Parking Lots

- Use lower-height poles and bollards
- Use shields to prevent light trespass outside parking lot/drive areas
- Reserve light for where you need it most: entrances, exits and pedestrian crossings



Common Retrofit Scenarios: Safety & Security Lighting

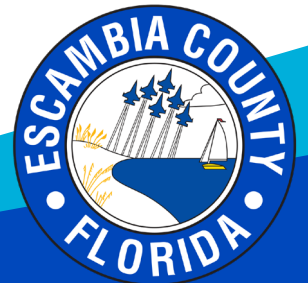
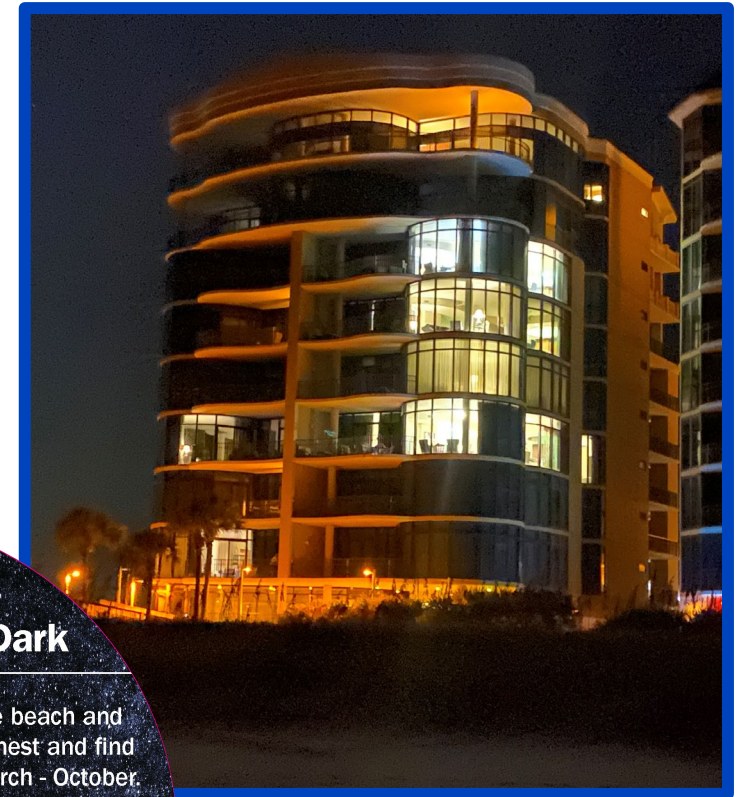
- What purpose is the light serving?
 - Highlight exit/entry ways for safety
 - General lighting for visibility
- Use shields/louvers to focus light where its needed
- Consider low output fixtures to ensure even, steady glow



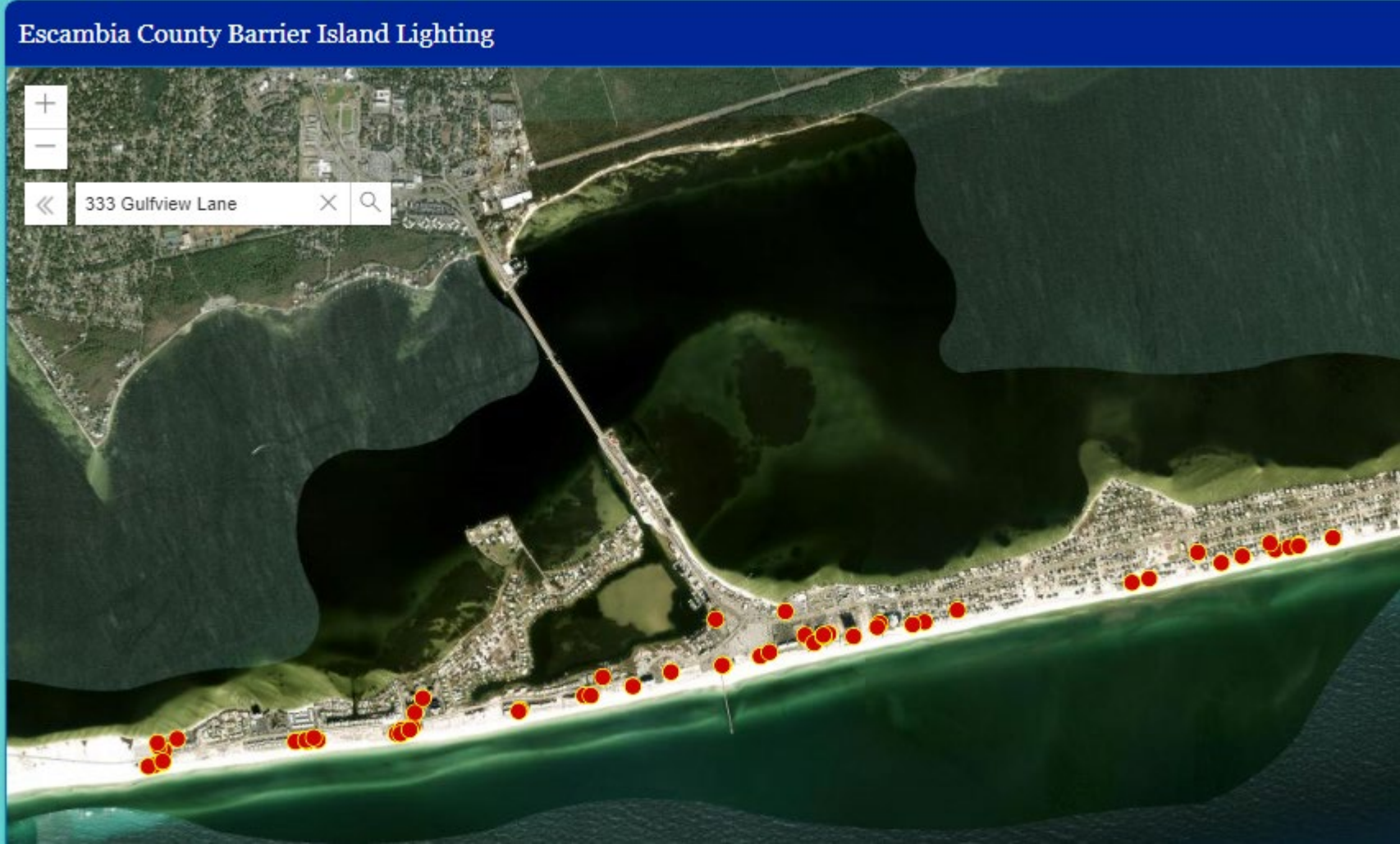
**Emergency Exit/Mandatory signage
is exempt from ordinance**

Common Retrofit Scenarios: Interior Lights

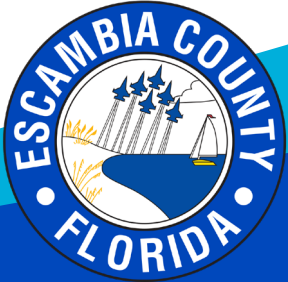
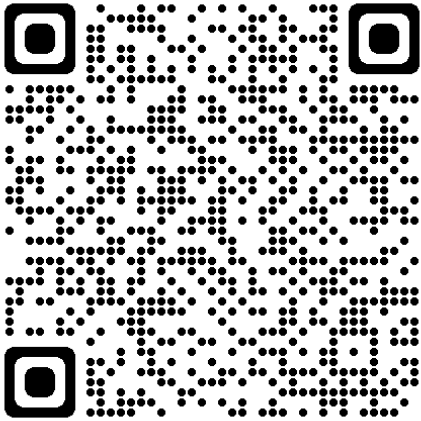
- Shield interiors with curtains, shades or additional tinting
- Consider dimming lobby/common area lighting after 10PM
- Remind owners/renters to cover windows after dark with signs or window clings



Barrier Island Lighting Survey Map (Beta)



Scan to view map



Questions & Discussion



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