#### **CHAPTER 14**

## **EXTERIOR LIGHTING REGULATION**

14.01 <u>Scope</u>, <u>Purpose</u> and <u>Intent</u>. This regulation is established to address light pollution and to maintain the "dark sky" of the community as defined by the San Diego County, and to minimize outdoor lighting nuisances to private properties and public spaces. This includes the maintenance of a predominantly rural darkness characterized by limited and controlled emissions of light that distinctly differ from more intrusive suburban lighting patterns. The provisions of this regulation apply to exterior lighting associated with any property within the jurisdiction of the Protective Covenant. This regulation is established pursuant to the authority established in the Governing Documents including: The Preamble; and Article III, Section 1 [Paragraph 46 through 50] of the Protective Covenant.

The San Diego County Light Pollution Code states that "The Light Pollution Code (LPC), also known as the Dark Sky Ordinance, was adopted "to minimize light pollution for the enjoyment and use of property and the night environment by the citizens of San Diego County and to protect the Palomar and Mount Laguna observatories from the effects of light pollution that have a detrimental effect on astronomical research by restricting the permitted use of outdoor light fixtures on private property" (Sec. 59.101).

The intent of this Regulation is to permit the use of outdoor lighting that does not exceed the minimum levels specified in the IESNA (Illumination Engineering Society of North America) for night-time safety, utility, security, productivity, enjoyment, and commerce. Furthermore, the intent is to minimize adverse offsite impacts of lighting such as light trespass and obtrusive light as well as to curtail light pollution, reduce skyglow, and improve the nighttime dark sky and rural environment. Lastly, the intent is to protect the natural environment and rural character of the community from the adverse effects of night lighting from gas or electric sources, and to encourage the conservation of energy and resources.

#### 14.02 <u>Definitions.</u>

14.0201 <u>Light Source</u>. The central mechanism(s) that produce and/or refract light, including but not limited to mirrors, light-directing refractors, filaments of incandescent bulbs, and the entire light-emitting surface of bulbs which produce light.

14.0202 <u>Uplighting</u>. Exterior lighting directed at or above the horizontal plane of the light source.

14.0203 <u>Downlighting</u>. Exterior lighting that is directed below the horizontal plane of the light source.

14.0204 Exterior Lighting. All outdoor lighting including, but not limited to, permanent or portable decorative wall mounted or hanging lights, spot or flood lights, security lights, or other lighting for the outside of buildings or structures, outside recreational area lighting, and all types of landscape lighting including but not limited to lighting for entry gates, driveways, pathways, trees, plants, gardens, fountains, art, walkways, plazas, or other outdoor lighting.

14.0205 <u>Permanent Lighting</u>. Any structural, landscape, recreational, or security lighting affixed to a building, structure, tree, or in ground stake/pole. Permanent lighting may be directly wired for electrical power, or powered by a plug and receptacle, or solar powered. Permanent lighting shall be approved by the Art Jury.

14.0206 <u>Temporary Lighting</u>. Any lighting that is affixed to a removable support and receives electrical power from a plug and receptacle, that does not persist beyond 5 consecutive days or more than 20 days per year.

14.0207 <u>Structural Lighting</u>. Any exterior lighting that is affixed to a building or structure and is directly wired for electrical power. Note: this definition includes hanging or wall mounted lights in outdoor covered spaces such as patios, corridors, and loggias, but excludes lights recessed into the ceiling in these outdoor covered spaces.

14.0208 <u>Landscape Lighting</u>. Any permanently installed lighting that is directly wired for electrical power, or solar powered. Landscape lighting includes, but is not limited to, the lighting of entry gates, driveways, pathways, patios, trees, shrubs, gardens, fountains, and pools.

14.0209 Residential <u>Recreational Lighting</u>. Any exterior lighting of residential tennis courts, sports courts, sports fields, animal keeping facilities, or horse arenas.

14.0210 Tree Lighting. A type of Downlighting, with luminaire placed in a tree with shielded from above and pointed down. It is also known as Moon Lighting.

14.0211 <u>Security Lighting</u>. Spot or flood lights (typically motion sensor-activated) and intended to provide light for a brief period of time.

14.0212 <u>Automated Teller Machine (ATM).</u> An electronic information processing device which accepts or dispenses cash in connection with a credit, deposit, or convenience account.

14.0213 Facilities Lighting. Any exterior lighting of Rancho Santa Fe Association membership facilities and other outdoor Association spaces utilized by the Association membership.

14.03 <u>Permitting Requirements.</u> No Exterior Lighting that is appurtenant to the construction or alteration of any building or structure or considered Major Construction under Protective Covenant Article III, Section 2 [Paragraphs 47-50] or Chapter 31 of this Regulatory Code shall be permitted without first obtaining Art Jury approval and an RSF Association Building Permit, in accordance with the Lighting Plan Submission Requirements in 14.07 below. All other Exterior Lighting, that complies with the other provisions of this regulation, is presumed to constitute Minor Construction under Protective Covenant Article III, Section 2 [Paragraphs 48], and therefore may be installed without Art Jury review or approval or an RSF Association Building Permit. However, the Association retains jurisdiction, upon receiving complaints or otherwise, to review and inspect Exterior Lighting that is presumptively Minor Construction prior to or after installation, and to determine whether such Exterior Lighting is Major Construction

subject to Art Jury review and approval. All Exterior Lighting, whether considered Major Construction or Minor Construction, is subject to the provisions in 14.04, 14.05 and 14.06.

## 14.04 General Requirements Applicable to All Properties.

14.0401 <u>Conformance with Applicable Codes.</u> All exterior lighting shall be installed in conformance with these guidelines, applicable State of California Title 24 Energy Efficiency Standards, applicable sections of the State of California Green Building Code, and applicable sections of the San Diego County Light Pollution Code (aka Dark Sky Ordinance). If a conflict between these regulations arises, that which produces the least glare (intensity of light) shall apply.

14.0402 <u>Lighting Control Requirements</u>. Controls shall be provided that automatically extinguish all outdoor lighting after 11pm and using a control device.

14.0403 <u>Luminaire Shielding Requirements.</u> Luminaires shall be so designed and shielded by horizontal cutoff to eliminate all light directed above the horizontal plane. The lower edge of the luminaire's housing shall extend below the entire light source and all glassware so that any light emitted above the horizontal plane is eliminated and the light source is not visible. Light-directing refractors shall be considered to be light sources and shall not be visible. Where occurring, exterior light fixture glass shall be obscured glass (textured, frosted, seeded, or other) and shall not be transparent or clear glass.

14.0404 <u>Downlighting.</u> All exterior lighting shall be fully cut off and/or fully shielded per section 14.0403 (Figure 1) to maintain the "dark sky" standard of the community. Exterior Lighting not meeting this criterion, including lighting installed on swivels and pivots that allow the fixture to be directed above the horizontal plane or that the light source is visible, are prohibited.

14.040401 <u>Downlight Tree Lighting.</u> (Moon Lighting) Except within the immediate 25 feet of the structure of the residence, all Tree Lighting is prohibited. Such Tree Lighting is limited to 5 trees throughout the site and must not be visible from neighboring property or public roads.

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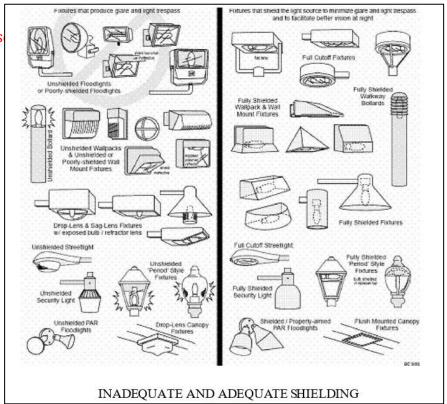
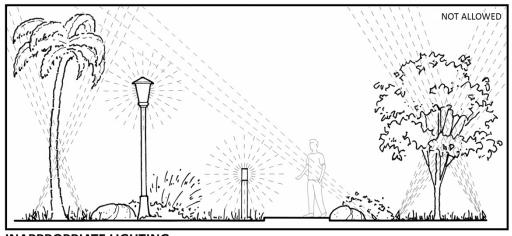


Figure 1

14.0404.02 <u>Uplighting</u>. Uplighting is generally prohibited including landscape lighting (Figure 2). Address markers per 14.0506 may be uplighted if completely shielded from the sky by a wall, pillar, rock, or other solid object, and are less than one half (1/2) of a foot candle or 100 lumens.



**INAPPROPRIATE LIGHTING** (Unshielded lights, non-cutoff fixtures, uplights)

Figure 2

14.0404.03 <u>Entry Pillar Lights.</u> Lights on the tops of pillars or monuments at the property entrance or other areas of the property shall be prohibited.

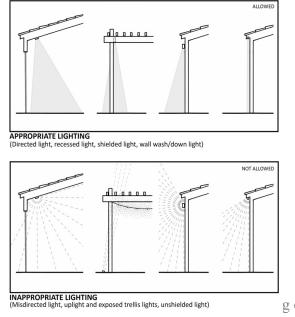
14.0404.04 <u>Prohibited Lights.</u> Lighting that flashes, flickers, blinks, changes color, or changes intensity is prohibited. String lights, bistro lights and café lights that are unshielded shall be prohibited. Colored and neon lights shall be prohibited. Lights strung around tree trunks and/or in tree branches shall be prohibited. Lights used for temporary

seasonal or holiday decoration in 14.0411 are exempt from this provision. All Residential Recreational Lighting as described in 14.02.09 is prohibited.

14.0404.05 Security and Safety Lighting. Limited use of flood or spotlights may be permitted, provided that the lights are motion-activated and equipped with an automatic timing device that turns the lights off automatically after 10 minutes. Light systems shall be controlled by a lighting transformer with a controller unit that can turn lights off and on by diming and transitions. Most major lighting manufacturers allow the resident to control all lights by way of a smartphone. Security lighting shall allow for gradual illumination upon activation. The activation control shall allow for a at least 5 second transition from dark to maximum light. The device shall also use the 5 second transition to turn off the light. The security light sources shall be shielded from public roads, public spaces, and neighboring properties or as determined by the Art Jury. Uplighting or light distribution above horizontal is not allowed. The quality of light shall be limited to that described in 14.0406.

14.0405 <u>Luminaire Backlight</u>, <u>Uplights</u>, <u>and Glare</u>. No light or glare shall be transmitted or reflected in such concentrated quantities or intensities as to be detrimental or harmful to or interfere with other properties, streets, or public spaces, or to otherwise degrade the "dark sky" character of the community (Figures 1 through 5). All exterior light fixtures shall comply with B.U.G. ratings as published by State of California Title 24 Energy Efficiency Standards and State of California Green Building Code in addition to the applicable codes herein.

14.040501 Outdoor Chandeliers Outdoor chandeliers may only be used in fully covered patios, shielded by the sloping roof overhang or other architectural elements such as brows, soffits or beams. These lights are limited to a 25° (degrees) maximum light spread, where the light source is not visible. The chandelier must be placed above the roof line edge, brows, soffits or beams such that they would contain the side emitting light to less than a horizontal spread from the source of the light. In all cases the combined light lumen of all chandeliers in any given elevation shall not exceed 3000 lumens and is subject to Art Jury assessment Figure 5 shows the typical spread of lighting for the two allowed narrow beam lighting types.



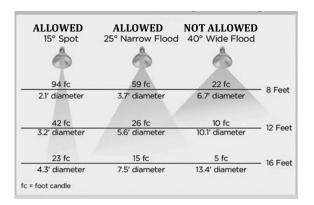


Figure 4

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Figure 3

14.0406 <u>Correlated Color Temperature</u>. All exterior lighting must be between 2700 and 3000 Kelvin. As it relates to the mixture of light color temperature on a property, design harmony would suggest that this temperature be matched on all lighting sources (Figure 5).

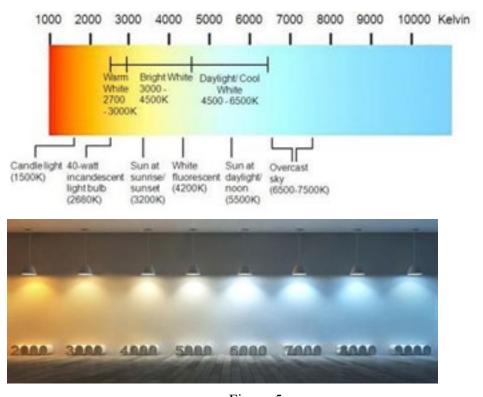


Figure 5

14.0407 <u>Hours of Exterior Lighting Operation</u>. Exterior lighting except for security and safety lighting and address markers shall be turned off by11:00 p.m. Exceptions may be allowed for specific occasional events. Commercial properties in the Village Commercial District must meet Title 24 mandates for minimal illumination of the property after hours of operation for safety and security purposes.

14.0408 <u>Searchlights Prohibited.</u> The operation of outdoor searchlights for any purpose is prohibited.

14.0409 Temporary Residential <u>Recreational Lighting</u>. Permanent exterior lighting for residential recreational facilities such as tennis courts, sports courts, fields, and horse arenas is prohibited. The RSF Association may issue a permit for Temporary Lighting of recreational facilities if the lighting does not adversely affect neighbors or the community in general. Any temporary recreational lighting shall be turned off by 11:00 p.m. and shall be removed immediately after the event for which the temporary lighting was used.

14.0410 <u>Temporary Lighting Prohibited</u>. Temporary lighting for all public and private properties is prohibited. The RSF Association may issue a permit for certain applications of temporary lighting for a specific event if the lights do not adversely

affect the neighbors or the community in general. The operation of any temporary lighting will be subject to an 11:00 pm curfew. Temporary lighting shall be erected for no more than a 5-day period and shall be operated only for the specific event for which it was approved.

14.0411 <u>Seasonal and Holiday Lighting.</u> Temporary seasonal or holiday exterior lighting shall be turned off from 11:00 pm to sunrise and shall be in operation for a maximum of six (6) consecutive weeks per year. Temporary seasonal or holiday exterior lighting is to be removed after the event has occurred.

14.0412 <u>Construction Lighting.</u> During construction limited use of flood or spotlights may be permitted for safety and security purposes provided that the lights are motion activated and equipped with an automatic timing device that turns the lights off automatically after 10 minutes. The light source shall be shielded from public roads, public spaces, and neighboring properties.

14.0413 <u>Transparent Roof Structures</u>. Lighting contained in greenhouses, sunrooms, or other covered building areas that have ceiling or roof structures composed of transparent glass or other see through materials is prohibited.

14.0414 <u>Facilities Lighting</u>. Subject to recommendation by the Art Jury and final approval by the Board of Directors, certain Rancho Santa Fe Association facilities may provide outdoor lighting for security purposes in active use areas such as walkways, equipment yards, and parking lots the lighting equipment must be dark sky compliant and must demonstrate effective glare control. All outdoor security lighting operation is subject to the State and County Health and Safety Code requirements.

14.0415 <u>Interior Lighting</u>. The Exterior lighting regulations do not restrict interior lighting. However, interior lighting that is near or aimed at window openings from the inside of the residence, shall not directly wash the window opening, including glass, window frames and casements or sill areas. Excessive interior lighting that creates exterior lighting nuisance for other properties and compromises the rural dark environment is subject to Association Corrective action.

14.0416 <u>Pre-Existing Exterior Lighting.</u> Pursuant to Code §1.17, earlier versions of this and other regulations shall regulate all Exterior Lighting installed prior to the effective date of this

regulation. Notwithstanding anything in this paragraph to the contrary, this regulation does apply to any proposed or actual modifications or alterations to, or increases in lighting intensity of, Exterior Lighting installed before the effective date of this regulation.

### 14.05 Residential Lighting.

14.0501 <u>Light Trespass</u>. Exterior lighting on Class Use Districts A, B, C and L properties shall be designed and adjusted such that light sources and light-directing refractors shall not be visible from public roads, public spaces and streets, and from any other properties. All outdoor lighting shall be designed and installed so that no light shall be spilled onto adjacent properties with 0.0 foot-candles (zero light

trespass) extending beyond the property line. Rancho Santa Fe Association may use photometer on site to verify compliance.

14.0502 <u>Maximum Lumen Output for Permanent Exterior Lighting.</u> Except as provided in Code 14.0503, no building site or combination of contiguous building sites subject to a single ownership, which is used for residential purposes, nor any site in the use Class L, shall exceed 25,000 lumens for Permanent Exterior Lighting. This lumen allocation is a discretionary allowance which may be reduced, dependent upon site-specific conditions contained on each individual property, as determined by the Art Jury. This lumen allocation includes structural lighting, landscape lighting, front gate and entry lighting, and security lighting.

14.0503 Addition to Maximum Lumen Output Limitation. On sites larger than 2.0 acres, up to 10,000 additional lumens may be allowed to accommodate long driveways (greater than 350 feet), enclosed courtyards, hardscape areas in excess of 10,000 sq. ft., accessory buildings, or other site-specific factors at the discretion of the Art Jury and only if the site accommodates the additional lighting without degrading the "dark sky" standard of the community and without adversely affecting neighbors or the community in general.

14.0504 <u>Lumen Equivalent</u>. Lumen equivalency shall be used ONLY in the case of a fixture where the lumens output is not available from the manufacturer. In this case, the lumens output for the fixture will equal the manufacturer's wattage rating for the fixture multiplied by the listed Equivalency Factor for the source type of the light.

Note: This Table provides <u>approximate</u> lumen equivalences. Consult the Association Building Department for updates to this table.

LUMEN EQUIVALENCE	
SOURCE TYPE	EQUIVALENCY FACTOR
Incandescent	1W = 16 Lumens
Halogen	1W = 22 Lumens
LED	1W = 90 Lumens
Fluorescent	1W = 75 Lumens
Metal Halide	1W = 100 Lumens
High Pressure Sodium	1W = 150 Lumens
Low Pressure Sodium	1W = 180 Lumens
Mercury Vapor	1W = 60 Lumens

14.0505 <u>Maximum Lumen Output for Individual Residential Exterior Lights.</u> All exterior lights shall have a maximum of 500 lumens per fixture except motion activated security lights defined in 14.0404.05 shall have a maximum of 4050 lumens per fixture.

14.0506 <u>Address Marker Lighting</u>. Address markers may be illuminated by a light source placed near the address and shall be controlled by a photoelectric device which allows the address marker to be illuminated automatically during all hours of darkness. All address marker lighting must comply with the current RSF Fire Protection District requirements.

## 14.06 Commercial Lighting.

14.0601 <u>Limitations</u>. Lighting of commercial buildings, structures and parking lots within Rancho Santa Fe shall be limited to that necessary for use purpose, safety and security, and identification, as established by the IESNA (Illuminating Engineering Society of North America), and shall be subject to recommendation by the Art Jury and approval by the Board of Directors.

14.0602 <u>Maximum Lumen Output for Individual Commercial Exterior Lights.</u> The maximum lumen output of an individual fixture shall be 2500 lumens. The maximum lumen output for security lights shall be 4050 lumens.

14.0603 <u>Sign Lighting</u>. Lighting of commercial signs within Rancho Santa Fe Class D, E, F, G, H, J, K, and L properties shall be limited to that necessary for identification and must be separately recommended for approval by the Art Jury and approved by the Association Board of Directors. Pursuant to Chapter 46 of this Regulatory Code and to the Protective Covenant Article II, Section 1 [Paragraph 19].

14.0604 <u>Light Directed out of Commercial Building Windows.</u> Interior lighting, lighting on product displays and lighting in windows of Class D, E, F, G, H, J, K, and L properties shall be designed and adjusted to point away from the windows such that light does not spill out into the public space through the window and such that light sources shall not be visible from public roads, public spaces and streets, and from any other property. Backlit signs, window light boxes, LED displays, iPads or similar devices are prohibited in the windows of commercial buildings. All such lighting is only permitted during normal business hours.

14.0605 <u>Automated Teller Machines (ATM)</u>. The provisions of 14.0601 above notwithstanding, ATM lighting shall be permitted pursuant to California Financial Code 13000 et. seq. (and any successor statute) on the condition that the submittal and subsequent approval by the Association of a lighting plan, prepared by a lighting professional, which is certified as representing the minimum level of illumination to comply with Financial Code 13000 et. seq.; and AB244.

# 14.07 <u>Lighting Plan Submission Requirements.</u>

14.0701 <u>Lighting Plans.</u> A lighting plan depicting all existing and proposed Exterior Lighting is required for all Major Construction Applications including, but not limited to, all new or remodels of existing residential or commercial buildings or other

structures, submitted to the Association for approval. Exterior Lighting plans must be in conformance with these regulations.

14.0702 <u>Independent Lighting Plans</u>. Lighting plans may be submitted, independent of any other site improvement or construction plans, for the purpose of establishing permitted lighting installations or as a voluntary remedy for complaints.

14.0703 Requirements. All exterior lighting applications shall include:

- (A)A complete list of all light fixtures specifying the quantity, the manufacturer, manufacturer cut sheet, model number, size (h x l x w), descriptive material/finish, light source type (incandescent, LED or other), number wattage, and lumens of each light source, and total Lumens per fixture;
- (B) Site plan(s) and landscape plan(s) indicating each fixture location on the property, height above ground; and
- (C) Total Lumens calculations and summary chart conforming to 14.0704; and
- (D) A photometric analysis that conforms with the IESNA (Illuminating Engineering Society of North America) recommended practices for required light levels may be required at the discretion of the Art Jury or the Association to fully assess the lighting plans. Plan shall include all existing and proposed exterior lighting. All uplighting, and tree lighting must be specifically and clearly identified on the plans and conform to 14.0401.01 and 14.0401.02.

14.0704 <u>Lumens Calculations</u>. For all properties, the total lumens of all external lighting shall be provided for review and approval. For residential properties the sum of lumens for structural lighting, landscape lighting, front gate / entry lighting, and security lighting shall be provided. Total allocation shall not exceed the maximum per 14.0502, 14.0503for residential properties and 14.0602 for commercial properties.

TOTAL LUMEN CALCULATIONS		
Structural Lighting	Sum of Lumens	
Landscape Lighting (except front gate/entry)	Sum of Lumens	
Front Gate / Entry Lighting	Sum of Lumens	
Security Lighting	Sum of Lumens	
Total	Total Lumens	

14.0705 <u>Continuing Jurisdiction</u>. Lighting plans submitted and approved under this regulation shall be subject to the continuing jurisdiction of the Association. Additions or alterations to the installations depicted on approved lighting plans, if found

significant or contrary to the original approval, will be subject to removal or correction by the Association.

14.08 Effective Date. The effective date of this regulation is January 6, 1994.

14.09 <u>Amended Date.</u> This regulation was amended at 14.0211, 14.0404.02, 14.0501, and 14.0702 on May 2, 1996. This regulation was amended at 14.0204 on January 15, 1998. This regulation was replaced in its entirety effective ------