BUILDING DEPARTMENT

SANTA CRUZ COUNTY
Dan Menefee
Building Official

OUTDOOR LIGHTING REGULATIONS

Because of the wording of Table 2800-1 there has been confusion and inaccuracies on many submitted Exterior Lighting Schedules. Section 2802(N)(4) states that the net acre percentage does not apply for the residential zoning lumen cap. Therefore, when using Option 3 from the table the maximum lumens for lots one acre or larger is 20,000. The maximum lumens for lots less than one acre is 10,000. You do not get the percentage increase for larger lots for shielded or unshielded lights.

Most plans submitted for permitting will require an Exterior Lighting Schedule. A sample Exterior Lighting Schedule is in this package for your reference. If exterior lighting is planned then wall mounted lights must be shown on the electrical plans and pole mounted lights on the site plans. The lighting on the plans shall correspond to the plan key designations on the schedule. Show the following on the Exterior Lighting Schedule. Show the lamp type as IN = incandescent (including quartz-halogen), LPS = low pressure sodium, HPS = high pressure sodium, MH = metal halide and FL = fluorescent. Indicate maximum wattage for each lamp on the schedule. Included in the package is Table 2800-2 which may be used to determine the initial lumens for different lamp types. Show the number of each type of light and indicate if FS = fully shielded or U = unshielded. Note that per Arizona Revised Statute §49-1102 all outdoor light fixtures shall be fully or partially shielded except incandescent fixtures of one hundred fifty watts or less and other sources of seventy watts or less. Table 3 in the package shows the number of lumens allowed on different projects. Show the total exterior lumens proposed for the site. Circle the option that you are using from Table 3 and indicate the square footage of the property.

When submitting plans for additions, plans shall show all existing exterior lighting and these shall be entered on the Exterior Lighting Schedule. The existing lighting lumens shall be added to the proposed lighting lumens to determine if the total site lumens are allowable.

If you have further questions I may be reached at 520-375-7880.

Thank you,

Dan Menefee
BUILDING OFFICIAL

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TABLE 2800 – 1

Table 2800-1: Maximum Total Outdoor Light Output Requirements Per Acre – Lumen Caps *

Options 1- Commercial and Industrial –(1)(2)(5) (Mostly Low Pressure Sodium LPS)	
Total (FS LPS, plus FS non LPS, unshielded	75,000
Limit on non-LPS FS	3,000
Limit on unshielded components, LPS or Non-LPS lighting	3,000
Option 2- Commercial and Industrial – (1)(2)(5)	
Total Lumens (FS, plus unshielded)	60,000
Limit on unshielded components	3,000
Option 3- All Residential zoning (3)(4)	
Total (FS plus unshielded) Lots one acre or larger	20,000 *
Limit on unshielded component	3,000
Total (FS plus unshielded) Lots less than one acre	10,000*
Limit on unshielded component	3,000

Notes to Table 2800-1

1. Use either option 1or 2 for the entire property.
2. This applies to all land-use zoning classifications for multiple family triplexes and larger, commercial, and industrial sites.
3. This applies to all residential land-use zoning, including all densities and types of housing, such as single family detached and duplexes.
4. If LPS is used for residential lighting, then the total lumens in the table can be increased by 50 percent of FS plus unshielded lighting. For example, for lots one acre or larger, the total lumens could be 30000 of FS LPS including 3000 if non-LPS (which could include 3000 of non-FS). The grand total shall not exceed 30000 lumens.
5. Lumens per Net Acre; Unshielded lumen caps shall not increase regardless of acreage.

* THE NET ACRE PERCENTAGE INCREASE DOES NOT APPLY FOR RESIDENTIAL ZONING.

TABLE 2800 -2 Standards values based on manufacturer's data – to be used unless applicant submits other verified lumen values.		
Type	Lamp Wattage	Initial Lumens
Incandescent	25W	150
	40W	460
	60W	890
	75W	1210
	100W	1750
	150W	2880
	300W	6360
	1000W	23800
Compact Florescent	5W	250
	7W	400
	13W	900
	18W	1200
	26W	1800
	32W	2900
Tungsten-Halogen	250W	4700
	500W	10700
	1000W	19000
	1500W	36000
Metal Halide	175W	14000
	250W	20000
	400W	40000
	1000W	115000
PAR (Parabolic Aluminized Floods & Spots)	150W	1740
HPS (High Pressure Sodium)	50W	3300
	70W	5800
	100W	9500
	150W	16000
	200W	22000
	250W	30000
	310W	37000
	400W	50000
	1000W	140000
LPS (Low Pressure Sodium)	18W	1800
	35W	4800
	55W	8000
	90W	13500
	135W	22500
	180W	33000
Fluorescent (Standard Cool White, 1.5- inch tubes)	21W	1190
	30W	2050
	36W	2450
	39W	3000
	50W	3700
	52W	3900
	55W	4600
	70W	5400
	75W	6300

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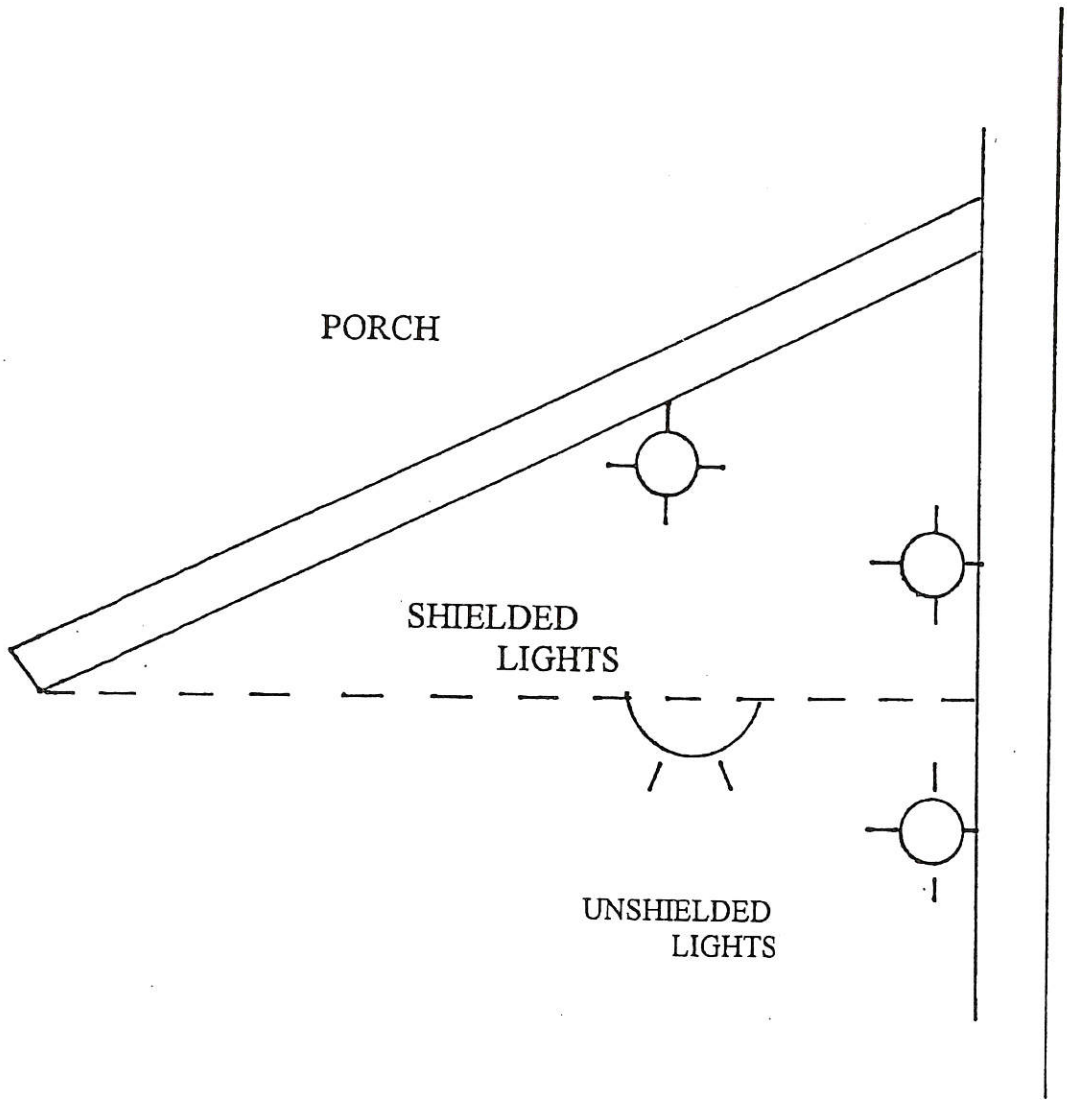

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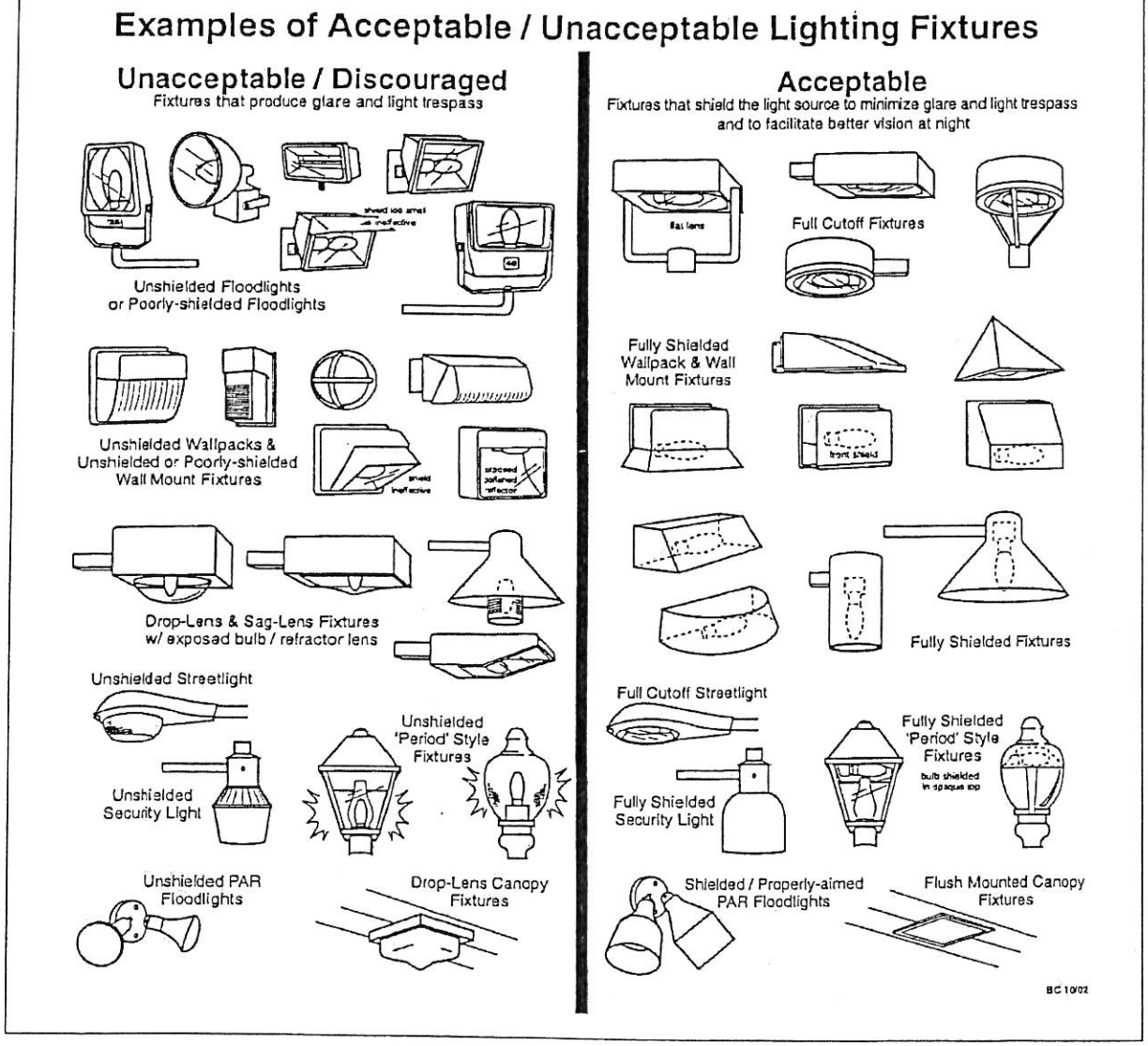
Appendix A

Examples of fixtures that are NOT Fully Shielded (Note: Some of these fixtures may be acceptable provided they don't exceed 1,000 lumens.)	Examples of fixtures that are Fully Shielded (Note: to be fully shielded these fixtures must be closed on top and mounted such that the bottom opening is horizontal)