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U.S. ARMY INSTALLATION MANAGEMENT COMMAND
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AMIM-HUG-ZA (800c-5)

1 October 2025

MEMORANDUM FOR United States Army Fort Huachuca Installation

SUBJECT: POLICY 25-81, Fort Huachuca Outdoor Lighting Policy

1. REFERENCES.

- a. The International Dark-Sky Association (IDA), www.darksky.org, 10 June 2025.
- b. Unified Facilities Criteria (UFC) 3-530-01 (Interior and Exterior Lighting Systems), 15 December 2023.
- c. Illuminating Engineering Society of North America's (IESNA) Lighting Handbook Reference and Application, 10th Edition, 1 January 2011.
- d. UFC 3-530-01 Highlights, www.energy.gov, 10 June 2025.

2. APPLICABILITY. This policy applies to all outdoor lighting on USAG Fort Huachuca.

3. PURPOSE. This policy specifies pragmatic and constructive light requirements for the purpose of mitigating and reducing the obstructive characteristics of artificial light and light pollution. The objectives of these requirements is to protect installation personnel from the deleterious health effects of various types of artificial light, decrease the energy footprint and resource consumption, safeguard components of a natural dark sky for military nighttime training, enhance the comfort of Fort Huachuca residents, and preserve nighttime habitat requirements for threatened, endangered and sensitive species, all while promoting good neighbor relations by reducing the Fort's night sky glow.

4. POLICY. All outdoor lighting shall be installed in conformance with the provisions of this policy and the Unified Facilities Criteria (UFC) 3-530-01 *Design: Interior and Exterior Lighting and Controls*. The UFC provides guidance for the design of exterior lighting systems based on the Illuminating Engineering Society of North America's (IESNA) *Lighting Handbook Reference and Application* and other recommended practices. The UFC is a minimum requirement and will be used for all projects on Fort Huachuca where appropriate; however, the UFC does not address the effects of lighting on sensitive resources, nor does it address the issue of glare and night sky glow on these resources. For this reason, the UFC shall be superseded where required by the practices identified herein to meet the International Dark-Sky Association (IDA) recommendations and Dark-Sky goals.

a. The use of outdoor lighting is often necessary for adequate nighttime safety and utility, but common lighting practices can also interfere with other legitimate public concerns and human health and wellbeing. Principal among these concerns are:

(1) The degradation of the nighttime visual environment by production of unsightly and dangerous glare.

(2) Lighting practices that produce excessive glare and brightness that interfere with the health and safety of residents, personnel, and visitors on the installation.

(3) Unnecessary waste of energy and resources in the production of too much light or wasted light.

(4) Interference in the use or enjoyment of property that is not intended to be illuminated at night by light trespass and the loss of the scenic view of the night sky and realistic military nighttime training due to increased urban sky-glow; and

(5) The impact of inappropriately designed outdoor lighting that disrupts nocturnal animal behavior, particularly species migration, predator-avoidance and reproduction.

(6) The deterioration of the view of the night sky that is our common universal heritage.

b. The concerns regarding safety, utility, dark-sky protection, and aesthetic appearance need not compete. Implementation of thoughtful and targeted modern lighting practices can provide adequate light for safety and utility without excessive glare or light pollution. Manageable actions in light practices can produce significant differences. Careful attention to when, where, and how much and what type of night-time lighting is needed results in better lighting practices, darker skies and reduced energy use and costs. Examining the light's usefulness, color, intensity, and direction can alleviate the competition between dark skies and lighting requirements.

5. PROCEDURES.

a. This policy applies to all light emitted from outdoor lighting sources including:

(1) All unshielded or partially shielded fixtures, regardless of location.

(2) All light fixtures installed on poles (such as parking lot light fixtures).

(3) All light fixtures installed on the side of buildings or other structures.

(4) All light fixtures installed within open parking garages or under canopies, building overhangs, or roof eaves that are not fully shielded or are fully shielded.

b. All new facilities or facilities undergoing more than 25 percent site renovation shall have a full-site lighting design plan that the Fort Huachuca Directorate of Public Works (DPW) will review and approve to ensure that lighting conforms to all Army and Installation specific policies. The lighting plan shall be designed to ensure that only the area that needs to be lit is illuminated, the fewest lumens and number of lights are used to effectively and safely illuminate the area, and no areas of glare or shadows exist.

(1) Lighting Source Low – Pressure Sodium (LPS) lamps and Narrow-Spectrum Amber LEDs are the preferred illumination source encouraged whenever their use would not be detrimental to the use of the site. This should be the sole source for lighting outside the Cantonment in or near natural habitat. In all applications where this lighting cannot fulfill the required use, an acceptable alternative is warm white LEDs in approved color temperatures only.

(2) Color Temperature – All lighting shall be warm, non-blue, in color. Approved correlated color temperature (CCT) is between 2,000 to 2,700 Kelvin (K) and shall not exceed 3,000K. Warm light produces less glare and sky glow, while cool light (greater than 3,000K) has been shown to affect the health and wellbeing of both people and wildlife. *NOTE:* color temperature must be clarified to vendor.

(3) Scotopic and Photopic (S/P) ratio – All lighting shall have an S/P of ≤ 1.2 . Lamps/light sources are assigned an S/P ratio which is a calculation of the Scotopic lumens the lamp produces divided by the Photopic lumens. If the ratio is 1 the light source performs just as good under Scotopic conditions as Photopic. Lower S/P ratios cause less sky glow light pollution.

(4) Directionality – All light fixtures shall be downward lighting. Upward and outward-directed lighting is prohibited.

(5) Shielding – All light fixtures shall be fully shielded and shall be installed and maintained in a fashion that maintains this character throughout the entire period of use. If lights are retrofitted with shielding, shielding shall be installed in such a manner that all light is projected down and no light is projected above the horizontal. If the lamp or tube, any reflective surface, or lens cover (clear or prismatic) is visible when viewed from above or directly from the side, from any angle around the fixture or tube, the fixture or tube is not fully shielded and shall be brought into compliance.

(6) Lumen Output – All lighting shall use the lowest illumination level possible. When replacing lighting with LED's, use fewer lumen than the fixture being replaced (see S/P ratio requirement). Fixtures should be selected that use as few lights/LEDs as possible to obtain the required brightness.

(7) Light Trespass Standard – All light fixtures, including security lighting, shall be located, aimed, and shielded so that the direct illumination from the fixture shall be confined to the property boundaries of the source.

(8) Use the fewest number of light fixtures as possible to meet lighting requirements.

(9) Only light areas when a full assessment of costs (both fiscal and environmental) and benefits, including fiscal, environmental, and safety, results in overall benefits.

(10) Ensure lighting is turned on only when in use and it is turned off during times of sufficient day lighting (use motion sensor lighting, daytime sensory, or off when not in use). Site lighting design shall incorporate LED dimming technologies such as dimmers, timers, motion sensors, and networking. Motion sensing fixtures provide an alert to after-hours activity that dusk to dawn fixtures do not. These technologies, especially motion sensing fixtures, should be used for illumination outside the Cantonment or in areas within or close to natural areas.

(11) Lighting outside of the Cantonment shall employ a standby lighting design using motion sensing light fixtures or manually ensure all lights are turned off when the facility/training area is not in current use. Continuous lighting of facilities in natural areas not only highlights the presence of a facility that may be used or monitored infrequently, but also reduces the potential of detecting suspicious activity, unnecessarily increases the mission footprint, and increases energy costs. A standby system can effectively identify when an area is in use, serving as a highly effective deterrent, while achieving energy conservation, and reducing the mission footprint on natural habitat and wildlife.

(12) All light fixtures shall be IDA approved and can easily be identified by the IDA seal of approval. Approved fixtures must also meet all other specifications identified in this policy. IDA approved fixtures can be found at:

<https://darksky.org/what-we-do/darksky-approved/darksky-approved-luminaires-program/luminaires/>

c. Special Use Lighting:

(1) Airport Lighting – Required navigational lighting systems at airports for the safe and efficient movement of aircraft during flight, take off, landing and taxiing is exempt from the provisions of this policy. All other outdoor lighting at airport facilities shall comply with the provisions of this policy.

AMIM-HUG-ZA (800c-5)

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(2) Outdoor Recreation Fields – Lighting for outdoor athletic fields, courts or tracks shall be designed to achieve no greater than the minimal lighting levels for the activity as recommended by the IESNA for the *Sports Class*. Recreational field lighting shall be closely coordinated with Fort Huachuca's DPW Environmental and Natural Resource Division (ENRD) to ensure state of the art Dark-Sky compliant lighting is employed.

(a) Time Limit – All field lighting shall be extinguished within 30 minutes of cessation of play.

(b) Lighting Fixtures – Lighting for recreation fields shall use fully shielded lighting fixtures. Where fully shielded fixtures are not available for purchase, lighting fixtures using external louvers or shields that, in the final installed configuration, extend to within 3 inches on the lowest portion of the light fixture opening are required. The fixtures shall be installed and maintained with aiming angles that permit no greater than 5 percent of the light emitted by each fixture to project above the horizontal.

(c) Pole Height – Pole heights should not exceed the maximum of 50 feet in the infield and 30 feet in the outfield; however, the lowest possible height to achieve the required coverage shall be used.

6. This memorandum supersedes FH Policy 24-81, USAG Fort Huachuca Outdoor Lighting Policy, dated 27 August 2024.

7. The proponent for this Policy Memorandum is DPW/ENRD, AMIM-HUP-E, at 533-2724.



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