Drop Data

RFP Guide:
Procuring Smart Lighting & Security Infrastructure

For Public Spaces, Commercial Properties, and Ports

This guide is designed to help experienced U.S. municipal and commercial buyers create clear, outcome-driven RFPs for modern smart lighting and security infrastructure. It reflects current best practices in public procurement, risk management, and infrastructure modernization.

The goal is not to prescribe a vendor, but to help buyers ask better questions, evaluate proposals more effectively, and avoid common pitfalls that lead to fragmented systems or underperforming investments.

1. Clearly Define the Operational Problems You Are Solving

Why this matters:
Traditional lighting RFPs often focus on fixture specifications rather than the operational problems lighting is meant to address. Modern lighting systems affect safety, energy spend, risk exposure, and daily operations. Defining the problem upfront ensures proposals are evaluated on outcomes, not just hardware.

Common challenges across public and commercial spaces:

- High energy and maintenance costs from legacy lighting
- Poor nighttime visibility contributes to accidents or crime
- Limited ability to detect or respond to incidents
- Rising insurance premiums and liability exposure
- Disconnected lighting and security systems managed by different vendors

Sample RFP language:

> *The objective of this RFP is to address rising energy and maintenance costs, improve nighttime visibility and safety, enhance situational awareness in outdoor spaces, and support risk and liability reduction through modern lighting and integrated security capabilities.*

2. Establish Outcome-Based Performance Objectives

Why this matters:
Outcome-based objectives allow vendors to propose innovative, integrated solutions rather than forcing buyers into outdated one-size-fits-all designs.

Recommended objectives (select as appropriate):

- Reduce outdoor lighting energy consumption by at least 40–60%
- Improve uniformity and quality of illumination in public areas
- Enable faster awareness of safety or security incidents
- Reduce routine maintenance and inspection labor
- Support documentation and evidence collection for incident review
- Redcue fradulent slip and fall outcomes, and reduce insurance claims

Sample RFP language:

> *Proposals should clearly quantify expected improvements in energy efficiency, operational savings, safety outcomes, and system manageability, including assumptions used to calculate these improvements.*

3. Require an Integrated Lighting and Security Architecture

Why this matters:
Separating lighting and security systems increases cost, complexity, and blind spots. Integrated architectures reduce infrastructure duplication and improve coverage.

Best-practice requirements:

- LED lighting with optional embedded or integrated security cameras
- Lighting and security managed through a unified platform
- Ability to deploy cameras selectively by location or risk profile
- Ability to manage devices and see maintenance needs and status
- Ability to utilize alerts and AI assistance
- No requirement for additional poles solely for surveillance

Sample RFP language:

> *The proposed solution should support an integrated lighting and security architecture, allowing illumination and optional security monitoring to be deployed through a unified system and managed from a centralized interface.*

4. Evaluate Total Cost of Ownership (Not Just Purchase Price)

Why this matters:
The lowest upfront cost often results in higher long-term operating expenses. Buyers should evaluate **near-term operational value**, especially within the first two years.

Require vendors to address:

- Estimated energy savings during the first 24 months
- Expected maintenance and service reductions
- Reduction of insurance premiums
- Staffing or operational efficiencies gained through remote monitoring
- Any recurring software or service costs

Sample RFP language:

> *Vendors shall provide a total cost of ownership analysis focused on the first 24 months of operation, including energy, maintenance, and operational impacts.*

5. Address Safety, Risk, and Insurance Considerations

Why this matters:
Outdoor lighting directly impacts accident rates, crime deterrence, and liability exposure. Procurement teams should explicitly evaluate how solutions support risk reduction.

Key considerations:

- Improved visibility to reduce incidents
- Ability to detect motion or unusual activity
- Access to recorded video for incident review
- Support for insurance and risk management discussions

Sample RFP language:

> *Proposals should describe how the solution improves safety outcomes and supports risk mitigation, including incident detection, documentation, and operational response capabilities.*

6. Require Centralized Monitoring, Alerts, and Reporting

Why this matters:
Distributed assets are difficult to manage without centralized visibility. Modern systems should reduce the need for site visits and manual inspections.

Recommended capabilities:

- Centralized dashboard for lighting and security status

- Alerts for outages, failures, or detected activity
- Energy usage and performance reporting
- Role-based access for operations and management teams

Sample RFP language:

> *The solution must provide centralized monitoring and alerting capabilities that reduce manual inspections and enable proactive operational management.*

7. Address Data Governance, Privacy, and Cybersecurity

Why this matters (often missing):
Public agencies and commercial operators must ensure systems comply with privacy expectations and cybersecurity standards.

Include requirements for:

- Data ownership and control
- Secure access and authentication
- Configurable retention policies
- Compliance with applicable local and state privacy regulations

Sample RFP language:

> *Vendors must describe data governance practices, cybersecurity controls, and privacy protections applicable to video, sensor, and operational data.*

8. Deployment, Scalability, and Phased Rollouts

Why this matters:
Many buyers begin with pilots or phased deployments. Systems should scale without redesign.

Recommended criteria:

- Support for pilot programs
- Ability to expand by zone, site, or facility
- Consistent management across multiple locations

Sample RFP language:

> *The proposed system should support phased deployment and scalable expansion without requiring replacement of previously installed equipment.*

9. Vendor Qualifications and Support Model

Why this matters:
Buyers should evaluate vendor capability without requiring long-term performance claims beyond reasonable early operational evidence.

Appropriate requirements:

- Relevant municipal or commercial deployments
- U.S.-based support and implementation resources
- Clear escalation and support processes

Sample RFP language:

> *Vendors should provide examples of comparable deployments and describe their support, implementation, and customer success model.*

10. Recommended Evaluation Criteria

Balanced scoring avoids overemphasis on price.

Category	Suggested Weight
Energy & Operational Savings	25%
Safety & Risk Reduction	25%
Technical Architecture	20%
Total Cost of Ownership (24 months)	15%
Vendor Qualifications & Support	15%

Final Guidance for Experienced Buyers

The most successful smart lighting RFPs:

- Treat lighting as infrastructure, not commodities
- Emphasize near-term, measurable outcomes
- Integrate safety, energy, and operations into one system
- Address privacy and cybersecurity early
- Allow room for phased adoption and innovation

This approach leads to safer environments, lower operating costs, and better long-term flexibility—without locking buyers into outdated assumptions.

About Drop Data

Drop Data provides intelligent lighting and security infrastructure for public and commercial spaces, integrating high-efficiency LED lighting, optional embedded cameras, and AI-powered alerts to improve safety, reduce operational costs, and support smarter infrastructure decisions. https://www.dropdata.ai/