Street Light Supplier Red-Flag Checklist

Purpose: A procurement-friendly checklist for EPC teams and municipal buyers to verify roadway lighting claims using test evidence (not marketing charts).

How to use:

- Use during pre-qualification, tender comparison, and submittal review.
- Prefer **luminaire-level** evidence (measured output + distribution) over LED package claims.
- If a supplier cannot provide basic photometry and test conditions, treat performance claims as **unverified**.

Section A. Required Evidence (Ask for these before comparing price)

Evidence (must provide)	What to verify (minimum)	Why it matters / basis
LM-79 photometric report (luminaire-level)	Total lumens, input watts, luminaire efficacy (lm/W), CCT/CRI, full test conditions, report number, lab identity. Prefer ISO/IEC 17025 accredited lab.	Confirms **real luminaire output**, not LED package marketing. Basis: ANSI/IES LM-79; lab competence: ISO/IEC 17025.
IES photometric file (LM-63 format)	IES file matches the tested luminaire (same model, optics, wattage). Confirm distribution intent (Type II/III/IV or project-specific).	Enables DIALux/AGi32 validation for **uniformity, glare control, and spacing**. Basis: ANSI/IES LM-63; road criteria: EN 13201 / IES RP-8 / CIE 115.
Optical description + cutoff strategy	Lens/reflector type, cutoff geometry, and intended roadway distribution (forward throw vs wide distribution).	Glare and uniformity are primarily **optical + geometric** issues. Must be verifiable via IES and road criteria.
Drive current + thermal assumptions	Drive current, ambient design temperature, thermal limits used for rating, and any derating strategy at high ambient.	Thermal design affects lifetime and lumen maintenance in hot climates. Basis: IEC 62722-2-1 (performance) + IEC 60598-1 (general luminaire tests).
Warranty + spares + maintenance plan	Warranty term and scope, exclusions, spare parts policy, and maintenance method (modules, drivers, optics).	Lifecycle cost is dominated by maintenance and parts availability. Warranty should align with tested configuration and drive current.

Section B. High-Risk Red Flags (Common claim patterns that hide missing evidence)

- Lifetime claims like "200,000 hours" without LM-80 data and TM-21 projection conditions.
- Only LED chip/package lm/W is shown; no LM-79 luminaire report (watts, lumens, distribution).
- No IES file, or IES does not match the quoted model/optics/wattage.
- No test conditions listed (ambient temperature, drive current, measurement method, lab identity).
- Unrealistic lumen numbers with no thermal limits or derating strategy (especially in high-ambient regions).
- Warranty is vague (no scope, exclusions, or spare/repair method).
- Photometry is a marketing chart (no lab, no file, no report number).
- Optics language is generic ("wide beam") without distribution type or cutoff explanation.

Section C. Quick Score (Pass / Risk / Reject)

Use this scoring for fast comparison. One "Reject" item typically outweighs multiple "Pass" items.

Check item	Pass	Risk	Reject
LM-79 report matches quoted configuration	Full report; lab identified; key metrics listed	Partial data; unclear configuration	No LM-79; only chip claims
IES file matches model/optics/wattage	LM-63 IES file + optics type stated	File exists but mismatch suspected	No IES; only beam picture
Thermal + drive current assumptions disclosed	Drive current + ambient assumptions stated	Some notes; no limits or derating	No thermal assumptions; unrealistic claims
Warranty + spares + maintenance plan	Clear scope + spare policy + service path	Warranty vague; spares unclear	No warranty details / no service path

Section D. EPC Notes (Fill during review)

Project road class / target criteria (EN 13201 / RP-8):

_____

Road width, lanes: _____ Pole height: _____ Spacing: _____

Selected optics direction (Type II/III/IV or forward-throw): _____

Items to clarify with supplier:

_____

Decision: PASS / RISK / REJECT Reviewer: _____ Date: _____

Standards referenced (non-exhaustive)

- ANSI/IES LM-79 (luminaire photometric and electrical measurements)
- ANSI/IES LM-63 (IES photometric file format)
- IES LM-80 + IES TM-21 (lumen maintenance testing and projection for LED sources)
- EN 13201 / IES RP-8 / CIE 115 (road lighting design and performance criteria)
- IEC 62722-2-1 / IEC 60598-1 (LED luminaire performance and general tests)
- IEC 60529 (IP code) / IEC 62262 (IK code) as applicable to project specs
- ISO/IEC 17025 (testing laboratory competence)