

OLAMLED PROJECT TOOL

School LED Lighting Retrofit RFQ Workbook

Site survey, room criteria, supplier comparison, and commissioning checklist

Built for electrical contractors, lighting designers, school facility teams, distributors, and project buyers.

- 01 Collect the site information needed for a reliable lighting design.
- 02 Turn room needs into a clear RFQ and evidence list.
- 03 Compare quotations on design fit, proof, service, and price.

10-page printable project workbook | Version 1.0

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WORKSHEET 01

Turn a school survey into a usable RFQ

How to Use This Workbook

Use this workbook before a product is chosen. Complete one project profile, then repeat the room survey for each main room type. Attach plans, photographs, calculations, and supplier documents to the final RFQ.

Recommended five-step use

- [] Walk the site with the ceiling plan and room schedule.
- [] Group rooms by use, such as classrooms, laboratories, libraries, corridors, and multipurpose rooms.
- [] Set measurable lighting, control, mounting, and maintenance requirements for each group.
- [] Ask suppliers for the exact model, photometry, driver, evidence, sample, and change-control process.
- [] Test a sample room, record the result, and use the approved sample as the production reference.

Project profile

Project name	Site or campus
Country and applicable standard	Target completion date
Main contact and role	Email and phone
Estimated fixture quantity	Budget status

Use measured data

Write 'TBC' when a value is unknown. Do not replace a missing measurement with an estimate. Record the owner and due date for each open item.

WORKSHEET 02

Record existing conditions before selecting fixtures

Site and Room Survey

Room group	Qty	L x W x H	Ceiling / opening	Existing fitting	Hours	Controls	Main issue

Survey checks

- [] Measure the room and ceiling height; confirm the workplane or task surface.
- [] Record the ceiling system, clear opening, tile thickness, void depth, and fixing points.
- [] Mark ducts, sprinklers, detectors, cable trays, access panels, and blocked ceiling areas.
- [] Record the existing fixture quantity, lamp or driver type, connected load, and circuit arrangement.
- [] Note daylight direction, window area, blinds, dark finishes, and tall furniture or partitions.
- [] Ask users about glare, screen reflections, dark areas, flicker, noise, controls, and maintenance access.
- [] Photograph unusual conditions and give each image a room code and viewing direction.

Open items and owner

Open item	Owner	Due date	Status

WORKSHEET 03

Match the lighting system to the actual activity

Room Type Planning Matrix

Space	Main visual work	Design risk	Check before approval
Classroom	Reading, writing, displays, teacher and board	Screen reflections, bright fixtures in view, weak vertical light	Desk and board light, viewing directions, glare model, dimming
Library	Reading, laptop work, shelf search	Reflections and dark shelf faces	Horizontal and vertical light, daylight zones, quiet controls
Laboratory	Scales, tools, materials, demonstrations	Shadows, weak color quality, services above benches	Bench layout, color data, vertical light, cleanability
Corridor and stairs	Safe movement and wayfinding	Dark junctions, poor stair visibility, wasted operating hours	Uniformity, controls, emergency mode, sensor coverage
Multipurpose room	Exams, presentations, meetings, events	One fixed light level cannot support all uses	Scenes, user interface, screen mode, cleaning mode
Sports hall	Fast movement, ball tracking, events	Glare, impact, high-level access	Optics, impact rating, mounting, maintenance route

Room group decision

Room group	Proposed fixture type	Mounting	Control method	Emergency option

Standardize by room group

A small, planned family of luminaires is often easier to maintain than one fixture forced into every space or a different model in every room.

WORKSHEET 04

Check the room result rather than the product label

Visual and Photometric Review

Complete this page with the lighting designer's calculation and the exact supplier photometric file.

Calculation inputs

Input	Project value	Source or file
Room dimensions and mounting height		
Workplane and task areas		
Ceiling, wall, floor, and furniture reflectance		
Maintenance factor		
Exact luminaire model and IES/LDT revision		
Required maintained illuminance and uniformity		
Required glare limit and observer positions		

Classroom acceptance checks

- ☐ The calculation uses the exact quoted model, optic, output, CCT, and mounting height.
- ☐ Desk and task areas meet the project's maintained illuminance and uniformity criteria.
- ☐ The main teaching wall and teacher's face receive useful vertical light.
- ☐ UGR is checked for the room and relevant viewing directions; it is not treated as a fixed fixture label.
- ☐ Laptop screens, displays, glossy boards, and windows are considered in the visual review.
- ☐ Measured flicker data is supplied for the driver and dimming range used in the project.
- ☐ CCT, CRI, and allowed SDCM are stated as production requirements.

Evidence rule

A catalogue statement such as 'low glare' or 'flicker-free' is not an acceptance result. Ask for the method, model, operating condition, and measured value.

WORKSHEET 05

Define interfaces before the order is placed

Controls Electrical and Emergency

Control choice

Question	Project answer
Control protocol: switch-only, 1-10 V, DALI-2, or approved wireless	
Room zones and user controls	
Occupancy sensor type, coverage, delay, and low level	
Daylight zones and target behavior	
Dimming range and required scenes	
BMS, gateway, addressing, and commissioning responsibility	
Emergency behavior during loss of normal supply	

Driver and wiring checks

- ☐ Input voltage and frequency match the destination market.
- ☐ Driver brand and model are named, or the rules for an approved equivalent are clear.
- ☐ Power factor, harmonic limits, dimming range, and standby power match the project brief.
- ☐ The driver location, service loop, ventilation, and access method are shown on the drawing.
- ☐ Control wiring and mains wiring responsibilities are assigned.
- ☐ Emergency duration, output, test method, indicator, battery access, and maintenance are defined.
- ☐ For DALI-2, the exact control gear is checked in the DALI Alliance product database.

Test quiet occupancy

A classroom sensor must detect real use, including students working quietly while seated. Confirm coverage and time delay in the sample room.

WORKSHEET 06

Approve model-specific documents before the purchase order

Supplier Evidence Pack

Required document	Must identify	Received	Approved
Technical data sheet	Model, dimensions, input, output, efficacy, CCT, CRI, SDCM, IP, limits	☐	☐
Dimensioned drawing	Body, opening, mounting kit, cable entry, driver position	☐	☐
IES or LDT file	Exact optic, output, CCT, and revision	☐	☐
Driver data	Brand, model, input, output, protection, control protocol	☐	☐
Flicker data	Method, metric, load, and dimming condition	☐	☐
Color data	CCT tolerance, CRI, SDCM, and optional TM-30 data	☐	☐
Lifetime basis	LM-80/TM-21 package data and luminaire thermal conditions	☐	☐
Compliance reports	Standard, lab, report number, exact model family, market	☐	☐
Emergency documents	Output, duration, wiring, battery, test and service method	☐	☐
Warranty	Period, scope, exclusions, claim process, replacement route	☐	☐
Approved sample record	Housing, optic, finish, LED, driver, label, visible result	☐	☐
Change-control plan	Parts locked and process for written approval of changes	☐	☐

Document gaps

Missing or unclear item	Supplier action	Due date

Note: LM-80 and TM-21 support an LED package life projection. They do not prove the life of the complete luminaire or driver.

WORKSHEET 07

Compare equal evidence before comparing price

Supplier Comparison Scorecard

Score each supplier from 0 to 5. Multiply the score by the weight. Record a zero when the supplier does not provide the required evidence.

Criterion	Weight	Supplier A	Supplier B	Supplier C
Room and ceiling fit	15			
Photometric and glare evidence	20			
Driver and control match	15			
Color, flicker, and compliance data	15			
Serviceability and spare-parts plan	10			
Sample and change control	10			
Warranty and technical support	5			
Total evaluated price	10			
Weighted total	100			

Commercial comparison

Commercial item	Supplier A	Supplier B	Supplier C
Quoted model and quantity			
Unit and total price			
Sample lead time			
Production lead time			
Incoterm and delivery point			
Warranty and spare-parts offer			
Main exception or risk			

Do not reward missing data

A low price is not comparable when the optic, driver, mounting kit, control gear, or compliance evidence is undefined. Close technical gaps before final commercial scoring.

WORKSHEET 08

Test the design before a campus-wide rollout

Sample Room and Commissioning

Sample room record

Item	Record
Room code and date	
Installed model, optic, driver, and control	
Measured desk or task illuminance	
Measured board or vertical illuminance	
Main observer positions and glare result	
Users present during review	
Changes required before approval	

Commissioning checks

- ☐ Fixture model, finish, optic, driver, and label match the approved sample.
- ☐ Lighting levels and uniformity meet the approved calculation and project criteria.
- ☐ Displays, boards, and normal seated views do not show unexpected glare or reflections.
- ☐ Dimming is smooth through the used range and scenes match the room schedule.
- ☐ Occupancy and daylight sensors respond correctly during real classroom use.
- ☐ Emergency operation, indicators, test controls, and central interfaces are verified.
- ☐ Control addresses, schedules, and user controls are labelled and recorded.
- ☐ Drivers and service parts can be reached without damaging unrelated ceiling work.
- ☐ Facility staff receive drawings, settings, manuals, warranty details, and spare-parts contacts.

Accepted by	Role	Date	Signature

WORKSHEET 09

Give suppliers the same project information

Copy and Paste RFQ Brief

Project and application: [project, room groups, destination market, quantity]
Room and ceiling: [room schedule, ceiling type, clear opening, mounting height, void depth]
Lighting result: [maintained illuminance, uniformity, glare requirement, vertical-light requirement]
Luminaire: [type, mounting, dimensions, output range, optic, finish, IP/impact needs]
Color and flicker: [CCT, CRI, SDCM, flicker metric and operating condition]
Driver and controls: [input, named driver or approval rule, protocol, dimming range, zones, sensors]
Emergency: [system type, output, duration, test method, battery or central interface]
Evidence: [data sheet, drawing, IES/LDT, driver data, tests, compliance, warranty]
Approval: [sample room, approval owner, parts locked, change-notification process]
Commercial: [sample date, delivery date, Incoterm, delivery point, packaging and labels]

Useful technical references

[ANSI/IES RP-3-26 Recommended Practice for Lighting Educational Facilities](#)

[CIE method for calculation and presentation of UGR tables](#)

[DALI Alliance certified product database](#)

Build a project shortlist with OLAMLED

Send the completed workbook with the room schedule, ceiling plans, photographs, and target quantity. OLAMLED can review product families, mounting options, photometric files, drivers, controls, sample needs, and custom project details.

Request a school lighting project review

[Commercial LED panel lights](#) | [Low-glare LED louver lights](#) | [Modular LED panel lights](#)

This workbook supports project planning. The project designer, contractor, and local authority remain responsible for the final design, code compliance, installation, testing, and approval.