

LumaticLAB Relight (POC)

User Guide

Documentation v1-1 | Application v1-6 | 6 October 2026

This guide documents application v1-6. Editing, embedded samples, presets and image export run locally. The optional YouTube link opens externally only when selected.

Workspace and image handling

The centre shows the complete photograph and numbered light pins. The right panel holds light and composition controls. Background, Lighting Presets..., Save Image... and EXIT are below the viewport. The inactive Properties, Adjustments and Layers tabs have been removed. Layers Hierarchy remains a visual explanation, not an editable layer system.

Ronaigh at Kilmartin is the startup image. Engine 40 at Ely and Ecuador Falls at Ecuador are the other supplied samples. Each has independent, uniquely numbered lights. Sample selection resets original retention to 100% and ambient shadow contrast to 0%. The surround remains as selected.

Custom JPEG/PNG files are read locally and retain current lighting. Invalid file type, excessive size or decode failure produces a status message. Import does not overwrite the source file.

Control reference

Control	Range / action	Meaning
Sample Image	Three samples or Upload Custom Image...	Ronaigh at Kilmartin opens first. Engine 40 at Ely and Ecuador Falls at Ecuador are embedded alternatives. Samples reset lights and composition; custom imports retain them.
Light tabs / pins	Select; drag; arrow keys	Choose a light. Drag within 5%-95% of the frame. Arrow keys move 1%; Shift plus arrow moves 5%.
Add Light / Remove	One to three lights	Adds a source near centre or removes the active source. At least one remains.
Color Temperature	1000-10000 K; step 100	Sets an approximate warm/cool RGB colour. K means kelvin.
Light Tint / Hue	Colour picker	Sets colour directly without updating the kelvin label.
Close / Far (Depth)	0%-100%	Changes glow radius; no inferred scene depth.
Intensity	0%-100%	Changes glow strength.
Diffusion (Softness)	0%-100%	Changes glow spread.
Original Lighting Retention	0%-100%; default 100%	Changes source opacity over black. Does not isolate original lighting.
Ambient Shadow Contrast	0%-100%; default 0%	Uniform darkening; no object-aware shadows.
Black / White / 50% Gray	Surround only	Default #808080. Excluded from image export.
Lighting Presets...	Open preset manager	Save settings in a browser list or portable JSON files.
Save Image...	Open image export panel	Choose filename, format, quality and dimensions.

Control	Range / action	Meaning
Walkthrough & Morganti Video Guide	Open built-in help	Video opens YouTube only when selected.
EXIT	Request tab closure	Browser may require you to close the tab manually.

Lighting presets

JSON means JavaScript Object Notation. A lighting preset stores its name, all light colours and temperatures, positions, depth, intensity, diffusion, composition sliders, and viewing surround. It excludes image bytes and does not need an internet service.

Action	How it works
Save to Preset List	Enter a name; save current lighting. Same name, ignoring case, asks before replacement. Maximum 100 saved presets.
Saved preset list	Select a name to show light count, colours, original retention and shadow settings. Selection alone does not apply it.
Load Selected	Applies selected lighting to the current photograph. Does not change the photograph.
Delete Selected	Asks before removing the selected browser-list entry. Exported files remain.
Export Current JSON	Downloads current lighting settings; does not require saving to the list first.
Export Selected JSON	Downloads the selected stored preset, even if different from current lighting.
Import JSON...	Validates a file and adds it to the list. Choose Load Selected afterwards to apply it. Duplicate names ask before replacement.
Close / Escape	Closes the manager.
Storage fallback	If browser storage fails, presets stay in this session. Export JSON for a reliable backup.

Selecting a list entry shows a summary; Load Selected applies it. The current-image preset name is updated when loaded. Existing lighting is replaced. Use Export Current JSON before replacing settings you want to keep.

The browser list is limited to 100 entries. Deletion and same-name replacement request confirmation. If storage is unavailable, the session list still works, with a warning to export backups.

Image export

Setting	Behaviour
Filename	Enter a name without extension. Spaces and other unsupported characters become hyphens; saved base name is limited to 80 characters.
PNG	Lossless pixel encoding; generally larger files.
JPEG	Quality slider 50%-100%, initially 92%. Lossy encoding may change fine detail.
Original dimensions	Exports at the decoded photograph width and height.
1200 px long side	Limits the longer dimension to 1200 pixels; smaller sources are not enlarged.
Custom long side	Whole number from 1 to the original longest dimension. The other dimension is rounded proportionally.

Setting	Behaviour
Preview / size summary	Shows composition preview, dimensions, estimated encoded size and format. Preview is rendered before JPEG compression.
Save Image	Uses a location picker where exposed by the browser; otherwise normal downloads. Cancelling the picker leaves the panel open.
Cancel / Escape	Closes the panel without starting a new export.

Save Image is separate from saving a lighting preset. Image export produces a flattened photograph with lighting. A JSON preset preserves editable settings without the photograph. Neither is a complete project file.

The save summary is based on actual encoded blob size. The small preview displays the rendered composition, not a decoded JPEG proof. Examine the saved JPEG if compression quality matters.

Troubleshooting

Problem	Action
Preset list missing in a new HTML copy	Import your exported JSON backups. Do not assume browser storage follows renamed files.
Invalid preset rejected	Use an exported Relight version-1 JSON file. Unsupported versions, colours or out-of-range settings are rejected.
Save cancelled	The panel remains open. Choose Save Image again or Cancel.
No location picker	Check your browser download settings and download folder.
Image effect looks unrealistic	Reduce intensity and colour saturation; remember this is a gradient simulation.
Large image feels slow	Use a smaller source. Compositing creates additional full-image canvases during export.
EXIT does nothing	Close the browser tab manually.

Limits and privacy

Lighting is a two-dimensional coloured-glow simulation. It does not infer geometry, surface orientation, materials, occlusion or realistic cast shadows.

There is no undo/redo or complete project file. Presets exclude photograph data. Keep the source photograph, exported preset and exported image separately.

Browser storage can be cleared and may behave differently between local HTML paths or versions. Exported JSON files are the portable backup.

PNG/JPEG exports use browser canvas encoding. The application does not explicitly preserve EXIF/IPTC metadata or original embedded colour profiles. EXIF means Exchangeable Image File Format; IPTC means International Press Telecommunications Council metadata.

Custom photograph import checks JPEG/PNG MIME type and a 20 MiB byte limit (20 x 1024 x 1024 bytes); the interface calls this 20 MB. Large decoded dimensions can still use substantial memory.

The browser save-location picker is conditional. If exposed but it fails, the panel reports the error; automatic download fallback is used only when the API is absent.

Keyboard pin movement is implemented. Mouse dragging is implemented; touch dragging is not verified. Saved-preset and image-export panel layouts still need a full browser acceptance run.

No login, remote asset fetch, custom-image upload routine or analytics routine is present in the current HTML. The only external URL is the selectable YouTube link. This is a source assessment, not a browser network audit.

Verification status

The user confirmed that earlier sample images displayed correctly. Logic checks covered sample-light selection/add/remove, valid IDs, JSON round-tripping and rejection, browser-list persistence/replacement/deletion, and export dimensions. Native canvas rendering was checked. Full visual acceptance of v1-6 dialogs and browser download behaviour remains pending.