



Smart-Building Installer Brief

Lumi Nails & Med Spa — work order for hardware + LumiOS hookup

The control software (LumiOS) is already built and running. This brief is the hardware to install and how to connect it. LumiOS uses open standards (Matter / Zigbee / Z-Wave / ONVIF), so the owner is not tied to any one brand or installer. Please quote **install + integration**. Product suggestions are examples — equivalent reputable models are fine if they meet the "must support" note.

1 · THE HUB (INSTALL FIRST)

Home Assistant Green (~\$99) — recommended, because LumiOS’s hardware driver is already written for Home Assistant. It runs **locally** (doors & lights keep working if the internet drops) and speaks Matter/Thread, Zigbee and (with a USB stick) Z-Wave. Alternatives: Hubitat Elevation C-8 Pro (~\$179) or Homey Pro. Put it on wired Ethernet.

LumiOS itself runs on its own small always-on device (a ~\$100–150 mini-PC or Raspberry Pi) on the same network — *not* on the hub appliance. Both stay on-site.

Site notes (per plans — Wallin Gomez A10 / A40, 2111 S Wabash Ave): Mount the **hub, UPS & LumiOS PC** by the existing electric panel (corridor side). **One HVAC zone** — the smart thermostat replaces the existing thermostat (center of suite). **3 keyless doors** per door schedule A40: **Door 01** glass entry (Reception), **Doors 02 & 03** (Treatment 104 & 105) — all "coordinate hardware with tenant." **8 shades** on the Reception/Pedicure glazed partitions. **No cameras** in Treatment 104/105 or Restrooms 107/109.

2 · HARDWARE SHOPPING LIST

WHAT	SUGGESTED (OR EQUIVALENT)	QTY	~ EACH	MUST SUPPORT
On-site hub	Home Assistant Green	1	\$99	Local API, Matter/Zigbee/Z-Wave
LumiOS host	Small always-on mini-PC or Raspberry Pi (runs the LumiOS app)	1	\$100–150	Runs Node.js, wired Ethernet
Entry smart locks (front & back)	Schlage or Yale (Z-Wave) — or electric strike + Z-Wave relay for a glass/commercial door	2	\$200–300	Physical key override , defined fail-safe
Room-access locks + door sensors	Electronic strike or smart lock + contact sensor on each treatment room	2	\$120–250	Per-room lock + open/closed status
Smart lighting (per zone)	Tunable-white + color (RGB) bulbs — Philips Hue; or Lutron switches + Hue in color rooms	~8 zones	\$50–90	Color temp (Kelvin) + RGB + dimming

Motion / occupancy sensors	Aqara or Hue motion sensors (bathrooms, break room, back)	~4	\$25–80	Occupancy events for auto-lighting
Thermostat	Honeywell T6 Pro Z-Wave (replaces the existing thermostat)	1	\$90–170	Local; single HVAC zone per plans
Motorized shades	Hunter Douglas PowerView Gen 3 (owner orders through an HD dealer; dealer measures & installs)	~8	\$350–600 ea	Gen 3 motorization
PowerView Gen 3 Gateway	Required for LumiOS shade control — exposes the local API. Reserve its IP in the router.	1	~\$200	Gen 3 API only (not Gen 2)
Multi-room audio (sound zones)	Sonos speakers per area, or Sonos Amp + in-ceiling speakers for grouped zones	by area	\$250–700	Grouped zones, per-zone volume, API
AI cameras + NVR	Reolink or Amcrest AI PoE cameras (person detection) + ONVIF NVR	7 + NVR	\$500–800 kit	ONVIF + RTSP, AI person detection , local rec
Exterior signage	Smart relay/plug for the lit sign + programmable LED "Open/Closed" sign (or small digital display for promos)	1–2	\$60–300	On/off + message control via API/relay
Autoclave monitor	Smart plug with energy monitoring (senses on/off & cycles)	1	\$20–40	Reports uptime to LumiOS
Front-desk tablet	iPad / Android on wall mount	1	\$200–400	Salon Wi-Fi
Network & power	PoE switch + UPS battery backup (APC/CyberPower)	1 ea	\$100–200	UPS carries hub+locks+network
Keyless entry — 3 zones	Yale Assure Lock 2 Touchscreen/keypad (Z-Wave) or Schlage Encode keypad	3	\$200–260	Keypad codes + key override
Video intercom	Reolink or 2N video doorbell at the entrance (2-way audio)	1	\$100–300	ONVIF/local, 2-way audio
Alarm sirens	Aeotec Siren 6 (Z-Wave) — indoor + outdoor	2	\$65 ea	Triggered by LumiOS security panel
Smoke + CO detectors	First Alert ZCOMBO (Z-Wave) — supplements the code system	2–3	\$40 ea	Alerts to LumiOS + auto-unlock egress
Phone system	Ooma Office (VoIP) or Grandstream/Yealink + SIP service (<i>monthly fee</i>)	1 + phones	\$100 + svc	Salon phone — separate from LumiOS

Prices approximate (mid-2026) — verify at purchase. Rooms at Lumi: Reception, Pedicure, Manicure, Treatment Room 1 & 2, Bathroom 1 & 2, Break Room. Cameras cover common areas + entrances only (none in treatment rooms or bathrooms).

Phased option (recommended): start with **Hub + entry locks + smart lighting** (~\$1,200–2,000 installed), confirm it all works in LumiOS, then add thermostat, shades, audio, AI cameras, room-access locks, signage and the autoclave monitor. A full build of *everything* typically lands ~\$4,500–9,000 in hardware depending on speaker, shade and camera count.

3 · INSTALLER SCOPE OF WORK

What we're asking you to quote. The owner supplies the gear and handles the DIY/handyman items — **please quote the licensed-pro work + the integration only**, itemized:

- **Owner / handyman (not in your quote):** hub, bulbs, sensors, Sonos, plugs, tablet; mounting the WiFi cameras + NVR, the battery/plug-in shades, and the video doorbell.
- **Licensed pro — your quote:** the **glass-door electric strike + keypad** (Door 01), the two treatment-room locks (Doors 02/03), the **thermostat** wiring, **sirens/alarm tie-in**, and the **exterior-sign relay wiring** — all to fire/egress code.
- **Integration:** pair everything to Home Assistant, create the access token, confirm camera RTSP, and the small automations that feed sensors/AI to LumiOS.

1. Install/terminate the **licensed-pro** items above (electrician / low-voltage / locksmith as required).
2. Pair every device to the Home Assistant hub; confirm each responds in the hub's own app.
3. Record each device's **entity ID** in the worksheet below (LumiOS needs these).
4. Create a Home Assistant **Long-Lived Access Token** for LumiOS.
5. Confirm camera **RTSP URLs** and that the NVR records locally.

Cameras need one extra piece for in-app live view. LumiOS controls everything else directly, but to show real camera video *inside* the app you also need a small RTSP→WebRTC/HLS relay (e.g. `go2rtc` or Frigate, both run on the hub/host). Without it, recording and ONVIF motion still work — you just view footage in the NVR/camera app, not the LumiOS tiles.

4 · CONNECT LUMIOS (DEVELOPER STEP — ~A FEW HOURS)

Who does this: this step edits a Node.js file, so it needs someone comfortable with code — many device installers pair hardware but don't program. Use a technical integrator, or have the LumiOS provider pre-fill `realDriver.js` so the installer only pastes IDs.

1. Open `src/devices/drivers/realDriver.js` — the code for each action is pre-written (commented).
2. Paste the entity IDs from the worksheet into the `MAP`, uncomment the `hub()` calls, remove the `NOT_WIRED` guards.
3. Launch with `LUMIOS_DRIVER=real`, `LUMIOS_HUB_URL`, `LUMIOS_HUB_TOKEN` set (see `docs/SETUP.md`).
4. **Test one light first**, then doors. The app, voice and scenes do not change.

5 · DEVICE-ID WORKSHEET (INSTALLER FILLS IN)

LUMIOS DEVICE	TYPE	HUB ENTITY ID (FILL IN)
Front Entrance	entry lock	
Back Door	entry lock	
Reception	light (tunable+RGB) / shade / thermostat / speaker	
Pedicure	light (tunable+RGB) / shade / thermostat / speaker	
Manicure	light (tunable+RGB) / shade / thermostat / speaker	
Treatment Room 1	light / shade / thermostat / speaker / room lock + sensor	
Treatment Room 2	light / shade / thermostat / speaker / room lock + sensor	
Bathroom 1 & 2	light / motion sensor	
Break Room	light / shade / thermostat / motion sensor / camera	
7 AI cameras	RTSP URL + AI person-detection per cam (entry, reception, retail, pedicure, manicure, back, break)	
Exterior Sign / Open-Closed / Promo	relay-switch + sign/display	
Autoclave	smart plug (energy monitor)	
3 keyless-entry doors	keypad lock entity per door	
Alarm siren	switch/relay entity	
Smoke + CO detectors	binary_sensor per detector → automation to LumiOS <code>/api/safety/test</code>	
Video intercom	doorbell entity + RTSP	

6 · SAFETY MUST-HAVES (SIGN OFF BEFORE GO-LIVE)

 **Door locks are a fire-code / life-safety matter — not just a gadget.** On a commercial building, exit doors must let people **out** during an emergency, and electric strikes/maglocks typically must **release automatically on a fire alarm** (fail-safe egress). This must be designed and signed off by a **licensed locksmith/electrician** to be legal and insurable. Confirm your **insurance** and local **fire/building codes** before automating any entrance or exit. Do not improvise locking on egress doors.

- ☐ Exit/egress doors comply with **fire code** (release on alarm) — signed off by a licensed pro.
- ☐ Every smart lock has a working **physical key override**.
- ☐ Defined **fail-safe** on power/network loss (doors must not leave the salon unsecured or staff trapped).

- ☐ **UPS** backs up hub, network and door controllers.
- ☐ LumiOS served over **HTTPS**; owner **2-factor** sign-in enabled; demo PINs/passwords changed.
- ☐ Camera footage stored **locally** (no forced cloud subscription).
- ☐ **Smoke/CO**: code-required hardwired/monitored system installed by a licensed pro — the smart detectors are **supplemental alerts only**, not a replacement.
- ☐ Someone owns **upkeep**: keep the LumiOS host on, apply updates, and **back up the data/ folder** (users, PINs, scenes, alert keys).

Note on cost: the shopping list is **hardware only**. Installation labor (electrician + integrator) and the LumiOS connection step are separate — get them quoted too.

Owner: Lumi Nails & Med Spa · Control software: LumiOS (already provided) · Installer: _____ · Date: _____



Hardware Shopping Checklist

Lumi Nails & Med Spa · 2111 S Wabash · staged by priority, all Home-Assistant compatible

Who installs what: **DIY** you/staff plug & pair · **HANDY** a handyman (mounting, brackets — no license) · **PRO** licensed electrician / low-voltage / locksmith · † needs a small one-time HA automation. **DEALER** Hunter Douglas dealer measures & installs.

Money-saver baked in: WiFi cameras (handyman mounts, no cabling contractor). Prices are mid-2026 — verify at checkout.

Per your plans (Wallin Gomez A10/A40): 1 HVAC zone → 1 thermostat · **3 keyless doors** (Door 01 glass entry + Treatment 104/105) · **8 Hunter Douglas PowerView Gen 3 shades** (+ Gen 3 Gateway, reserve its IP) on reception/pedicure glazing · hub + UPS + LumiOS PC **by the existing electric panel**. **What still needs a licensed pro no matter what:** the thermostat, the glass-door electric strike, the door locks, sirens/alarm tie-in, and the exterior-sign wiring.

STAGE 1 · FOUNDATION

Do first — nothing works without the brain. ~\$750–950 · almost all DIY.

ITEM	MODEL	QTY	~\$	BUY
☐ On-site hub DIY	Home Assistant Green	1	\$99	Amazon
☐ Radio sticks DIY	HA Connect ZBT-1 + Zooz ZST39 (Z-Wave)	1 ea	\$60	ZBT-1 · Zooz
☐ LumiOS mini-PC DIY	Beelink / GMKtec N100	1	\$130	Amazon
☐ Battery backup DIY	CyberPower CP1500PFCLCD	1	\$170	Amazon
☐ Front-desk tablet + mount DIY HANDY	iPad/Android + wall mount (handyman hangs it)	1	\$200–400	Amazon

STAGE 2 · LIGHTING & CLIMATE

The daily experience — Open/Close, dimming, tone. ~\$1,000–1,600. Bulbs are DIY (screw-in), so no electrician.

ITEM	MODEL	QTY	~\$	BUY
☐ Lighting hub DIY	Philips Hue Bridge	1	\$60	Amazon
☐ Smart bulbs (tunable + color) DIY	Philips Hue White & Color Ambiance	~20	\$45 ea	Amazon
☐ Thermostat PRO (<i>C-wire</i>)	Honeywell T6 Pro Z-Wave (TH6320ZW) — replaces existing	1	\$90	Amazon

STAGE 3 · SECURITY & SAFETY

Protects the business + insurance + fire code — do before you open. ~\$1,800–2,300.

ITEM	MODEL	QTY	~\$	BUY
☐ AI cameras (4K WiFi) HANDY †	Reolink RLC-811WA (WiFi) Premium: Hanwha/Axis	7	\$80–100 ea	Amazon
☐ Camera recorder HANDY DIY	Reolink NVR (local, no sub)	1	\$230	Amazon
☐ Front entry lock PRO	Door 01 (glass) → electric strike + keypad/reader	1	\$250–450	Amazon
☐ Smoke + CO PRO (<i>supplements code system</i>)	First Alert ZCOMBO (Z-Wave)	2–3	\$40 ea	Amazon
☐ Alarm sirens PRO	Aeotec Siren 6 (Z-Wave)	2	\$65 ea	Amazon

STAGE 4 · AMBIANCE EXTRAS

Biggest comfort/vibe payoff — can follow a beat later. ~\$3,000–4,500.

ITEM	MODEL	QTY	~\$	BUY
☐ Motorized shades DEALER	Hunter Douglas — PowerView Gen 3 motorization (order through a HD dealer)	8	\$350–600 ea	hunterdouglas.com
☐ PowerView Gen 3 Gateway REQUIRED	The one piece that exposes the network API LumiOS calls — add it at order time; reserve its IP in the router	1	~\$200	hunterdouglas.com
☐ Audio (sound zones) DIY	Sonos Era 100 (per area)	~4–6	\$249 ea	sonos.com · Amazon

STAGE 5 · AUTOMATION POLISH

Convenience layer — add last. ~\$600–900, mostly DIY.

ITEM	MODEL	QTY	~\$	BUY
☐ Motion sensors DIY †	Aqara Motion Sensor P1	~4	\$20 ea	Amazon
☐ Door contact sensors DIY †	Aqara sensor on each treatment-room door	2	\$15 ea	Amazon
☐ Treatment-room locks PRO	Doors 02/03 → keypad lock or strike + Zooz ZEN16	2	\$120–250 ea	Amazon
☐ Exterior sign control PRO (<i>wiring</i>)	Shelly Plus 1 relay + Shelly Plug	2–3	\$20 ea	Amazon
☐ Video intercom HANDY †	Reolink WiFi video doorbell (2-way audio)	1	\$100	Amazon
☐ Autoclave monitor DIY	Shelly Plug US (energy monitoring)	1	\$20	Amazon

☐	Phone system DIY (<i>monthly service fee</i>)	Ooma Office (VoIP) + handsets	1	\$100 + svc	Amazon
☐	Camera video relay DIY (<i>free</i>)	go2rtc or Frigate (runs on the hub)	—	\$0	go2rtc

PHASE 5 · SPA HEALTH & EXPERIENCE

ITEM	MODEL	QTY	~\$	BUY
☐ Medical-fridge temp sensor DIY †	SensorPush HT.w (with probe) or Aqara temp sensor — logs fridge temp	1	\$20–60	Amazon
☐ Aromatherapy diffusers HANDY	Nebulizing diffuser + Shelly smart plug (per area: reception, nail-tech, treatment)	3	\$40–80 ea	Amazon
☐ Reception welcome display HANDY	Small wall screen or spare tablet (shows the welcome message)	1	\$150–250	Amazon

Room turnover board, opening/closing checklist, energy-cost tracking and the owner digest are **software only** — no hardware needed (turnover uses the door sensors above).

WHO DOES WHAT — THREE TIERS

TIER	WHO	HANDLES
DIY	You / staff	Hub, radios, mini-PC, UPS, Hue bulbs + Bridge, Aqara sensors, Sonos, Shelly plugs, tablet setup, the LumiOS app
HANDY	Handyman (~\$40–75/hr, no license)	Hang the wall tablet, mount the WiFi cameras + NVR, mount the video doorbell, place/rack the hub & UPS by the panel, mount Sonos brackets
DEALER	Hunter Douglas dealer	Measure, order & install the PowerView Gen 3 shades + Gateway (reserve the Gateway's IP)
PRO	Licensed electrician / low-voltage / locksmith (~\$100–175/hr)	Thermostat wiring, the glass-door electric strike + treatment-room locks (to egress/fire code), sirens/alarm tie-in , exterior-sign wiring, any new circuit or line-voltage work

Totals (equipment only): Standard ≈ **\$7,000–11,000** · with Hanwha commercial cameras ≈ **\$9,000–14,000**. Shades are **Hunter Douglas PowerView Gen 3** (dealer measure + install). You then pay **labor** — handyman for the mounting, the HD dealer for shades, and a licensed pro only for the short list above.

Lumi Nails & Med Spa · LumiOS · Open standards + Home Assistant. Links are model searches — confirm model & price before buying. In Chicago, electrical / alarm / egress-door work must be done by a licensed pro.

LumiOS · Device Placement Plan (2111 S Wabash)

