INDUSTRIAL EMERGENCY LIGHTING AND SAFETY SIGNAGE

X-Lite

Industrial emergency lights, exit lights, acrylic and vinyl safety signage and LTI clocks for plants, hospitals, hotels and infrastructure, sold from Chennai through dealers and direct orders.

Complete | v1.0 | cutoff 2026-09-15 | Session 3 · X-Lite (research subagent) | India · GCC

Validate before selling

Confidence medium

49/100

Keep X-Lite as a self-funding catalogue line, fix its claims, count its historical installed base from invoices, and spend on BIS registration only if a 90-day validation proves existing accounts will pay for a monitored, tested unit.

16 ₹ lakh
X-Lite revenue FY2025-26, 2.0% of audited turnover
Rax-supplied | S1 | S2

190 ₹ Cr
India demand, self-contained emergency lighting, 2026
Estimated | S120 | S21 | S52

2,60,061
Registered factories 2023-24, 15.43% in Tamil Nadu
Verified | S152

5,900 ₹
Rax median unit price vs ₹1,800-2,400 for the BIS leader
Rax-supplied | S2 | S18

2 Aug 2026
End of concurrent running, IS 10322:2013 under BIS CRS
Publicly observed | S13 | S15

AT A GLANCE

1. X-Lite is real and repeat-bought: 336 units to 21 buyers in FY2025-26, about ₹16 lakh, led by Granules India, BARC, Dürr and ten Tamil Nadu dealers. Rax-supplied | S2
2. Rax has sold X-Lite since about 2001 (IndiaMART since 2003, buyer ratings 2019 to 2025), but current revenue is ₹16 lakh and the site's 50,000+ installations, 47 SKUs and CE badge are unsupported; the verified marks are ISO 9001:2015 and ZED Silver. Rax-supplied | S1 | S174 Publicly observed | S6 | S175
3. LED emergency luminaires are a BIS compulsory-registration product, only the 2026 edition of IS 10322 Part 5 Sec 8 is accepted after 2 August 2026, and metro tenders demand the R number; Rax has none. Verified | S13 | S28 | S153
4. The market Rax can reach is about ₹33 Cr a year of non-tender demand in four southern states inside a ₹190 Cr India category; Prolite Autoglo (about ₹54 Cr in FY2024-25) is the only specialist with scale. Estimated | S120 | S152 | S21 Publicly observed | S164
5. Rax's ₹5,900 median unit price is two to three times the marketplace leader's ₹1,800 to ₹2,400; it survives because plants and dealers buy on legends, metal build and warranty, not on the mark. Rax-supplied | S2 Publicly observed | S18
6. The one empty position is a registered, monitored, tested unit sold with a battery-and-test contract to Tamil Nadu plants and pharma groups; a 90-day validation with existing accounts decides whether to fund it. Recommendation

KEY TAKEAWAYS

- Validate before selling: keep X-Lite as a self-funding catalogue line, fix the claims it makes this quarter, and spend on BIS registration only if a 90-day validation with existing pharma and plant accounts proves they will pay for a monitored, tested unit. Recommendation
- The line is real (₹16 lakh, 336 units, 21 buyers in FY2025-26) but its public claims are not: no CE certificate, no BIS mark, no test report, and marketing figures the order book cannot support. Rax-supplied S1 S2 S6
- LED emergency luminaires are a BIS compulsory-registration product; metro tenders require the R number printed on the luminaire; Rax has none. Verified S13 S28
- The market Rax can reach is about ₹33 crore a year in four southern states, inside a ₹190 crore India category where the leader earned about ₹54 crore in FY2024-25 and marketplace units sell at ₹1,800 to ₹2,400 against Rax's ₹5,900. Estimated S152 S21 Publicly observed S18 S164 Rax-supplied S2
- "A lot of X-Lite sales" is true as history and false as a current run rate: the brand has sold on IndiaMART since 2003 and buyers rated X-Lite units from 2019 to 2025, but FY2025-26 revenue was ₹16 lakh and no register supports the site's 50,000+ installations. Rax-supplied S1 S6 S174 Publicly observed S175 S176

- Confidence is medium: the demand and regulatory evidence is primary and strong; Rax's cost, margin and installed base are unknown, and the value of a monitored unit is untested. Unknown

The decision

Rax should not invest in X-Lite on the evidence in this report, and should not neglect it either. Classification: Validate before selling, score 49 of 100. Confidence: medium. Three facts drive it. First, the product sells without any of the proof a buyer could check: twenty-one buyers, including a Department of Atomic Energy unit, bought at ₹5,000 to ₹10,100 a unit in FY2025-26 with no BIS mark, no test report and a CE badge the internal record says is not held. Second, the only route into the larger, specification-led part of the market (metro, airport, PSU packages) is a BIS CRS R number that costs ₹3 to 5 lakh and three to six months per two product families, against a line that earns perhaps ₹6 lakh of gross margin a year on an unknown margin. Third, the one position nobody holds locally, a registered, monitored, tested unit sold with a battery-and-test contract to Tamil Nadu plants and pharma groups, is worth building only if buyers who already pay list will pay for the proof, and no one has asked them. Rax-supplied S1 S2 Verified S13 S28 Estimated S16 S124 Recommendation

The five findings that matter

The demand is real, legal and unglamorous. NBC 2016 clause 3.4.7 requires 10 lux on every escape route, switch-on in 5 seconds and 90 minutes of duration, and BIS carried the same values into clause 3.5.6 of SP 7:2026 when it replaced the code on 30 April 2026, adding periodical inspection and testing; the Tamil Nadu Factories Rules require exits illuminated on failure of supply and marked in the workers' language; Delhi renews fire certificates every three years and Tamil Nadu and Mumbai every year. There are 2,60,061 registered factories in India (2023-24, about 2,13,000 of them operating), 15.43 percent of them in Tamil Nadu, 216,000 branded hotel rooms, 36,626 government hospitals plus about 43,000 private ones, and about 1,077 km of metro, and every one of them must keep exits lit. Nothing subsidises the purchase; it is a compliance cost that spikes after fatal fires (Rajkot 2020 and 2024, Mundka 2022) and settles into a replacement trickle. Verified S10 S26 S100 S119 S152 S155 S159 Publicly observed S30 S32 S52 S60

The mark is the gate and Rax does not have it. BIS lists LED luminaires for emergency lighting under the Compulsory Registration Scheme in the 2013 and 2026 editions of IS 10322 Part 5 Sec 8; BIS's own guidelines of 20 March 2026 end concurrent running on 2 August 2026, after which only the 2026 edition is accepted; DMRC's specification requires "each luminaire and driver" to be BIS certified with the R number printed on it. Prolite Autoglo built its position on being the first registrant. Rax's site source records BIS as "still in progress" and instructs staff to describe products as built to standards, "a conformity statement, not a certification claim". Verified S13 S28 S153 Publicly observed S17 Rax-supplied S6

Rax is priced like a brand and marked like a workshop. Its median realised price for the volume twin-head unit is ₹5,900, and outdoor units go at ₹10,100; the BIS-registered market leader lists LED twin beams at ₹1,800 to ₹2,400 and LED exit lights at ₹1,100 to ₹1,600 with six-month warranties; Tiruppur's Finetech sells regional-language exit lights at ₹4,200 to ₹5,700 with a one-year warranty; a Rax dealer sells its own twin beam at ₹4,050. Rax's premium survives because plants and dealers buy on metal build, legends, warranty and a Chennai address, and because nobody on a plant floor asks for the mark. Rax-supplied S2 Publicly observed S18 S43 S67 S140

The competition is small, local and price-led, except at the top. Thirty-six competitors were profiled: Prolite is the only Indian specialist with scale (about ₹54 crore in FY2024-25, 103 staff on EPFO, a central battery system); the Vasai cluster and the regional makers are sub-₹10 crore workshops; Signify, Legrand, Schneider and Eaton own the self-test, addressable and hazardous-area top of the market through consultants. The government catalogue does not change this: GeM's Emergency Light Unit (V2) category lists 149 products at ₹1,080 to ₹2,300. The empty space is a registered, monitored unit at ₹3,000 to ₹4,500 for southern plants. Publicly observed S17 S38 S69 S77 S162 S164

The buyer's real problem is the test nobody does. Audit checklists open with "emergency exit signs that haven't lit up in months because no one checked"; reviews record backup "just 10 minutes"; distributors tell buyers batteries last four to five years; Delhi's rules oblige occupiers to keep measures "at all times in best repairs"; audits in Odisha and Ghaziabad found the opposite. A unit that proves it was tested, or a contract that tests it, is the product the complaints describe, and Rax already sold one "EML IoT unit" and thirty replacement batteries last year. Publicly observed S57 S58 S59 S61 S62 S149 Verified S100 Rax-supplied S2

The three numbers to remember

₹16 lakh: what X-Lite earned in FY2025-26, 2.0 percent of ₹7.91 crore; it sets the scale of what any investment must be measured against and explains why a ₹3 to 5 lakh registration is a decision, not a formality. ₹190 crore: the estimated India demand for self-contained emergency luminaires, illuminated exit signs and their batteries, of which about ₹33 crore is reachable from Chennai without a tender; it says the market is not the constraint. ₹5,900 against ₹1,800 to ₹2,400: Rax's median price against the registered leader's marketplace price; it says the premium exists and is unprotected. Rax-supplied S1 S174 Estimated S152 S21 Rax-supplied S2 Publicly observed S18

Current revenue against historical volume

Gabriel's statement that Rax has made a lot of X-Lite sales and the site's 50,000+ installations describe cumulative history; the ₹16 lakh describes this year. Both can be true, and the evidence separates them. Current revenue is firm: Rax's monthly sales tracker totals ₹16,01,735 for X-Lite in FY2025-26, which is the 2.0 percent of ₹7.91 crore in the audited vertical split, and the order book shows 336 units that year and about 512 the year before. Rax-supplied S1 S2 S174 History is plausible but unmeasured: Rax has sold X-Lite on IndiaMART since May 2003 (established 2001), lists it on TradeIndia and ExportersIndia, and has dated buyer

ratings for named X-Lite products from Chennai, Surat, Kerala, Hyderabad and Vasai between 2019 and 2025. Publicly observed | S175 | S176 | S177 No tender award, GeM order, case page or photograph of an installed X-Lite fixture was found, the Wayback Machine was offline for the site's earlier versions, and no product-level revenue exists before FY2025-26. Unknown At today's run rate, 50,000 fixtures would take a century; over 25 years it needs an average of 2,000 units a year, about four to six times current volume, which fits only if X-Lite was a much larger share of a smaller Rax before e-surveillance grew. Estimated | S2 | S6 The claim therefore stays Rax-supplied and unverified, and it does not raise the readiness score, but it matters for strategy: if even 10,000 X-Lite units sold in the last decade are still on walls, their batteries alone are a ₹20 lakh a year replacement market that only Rax's invoice history can find. Estimated | S2 | S165 Recommendation

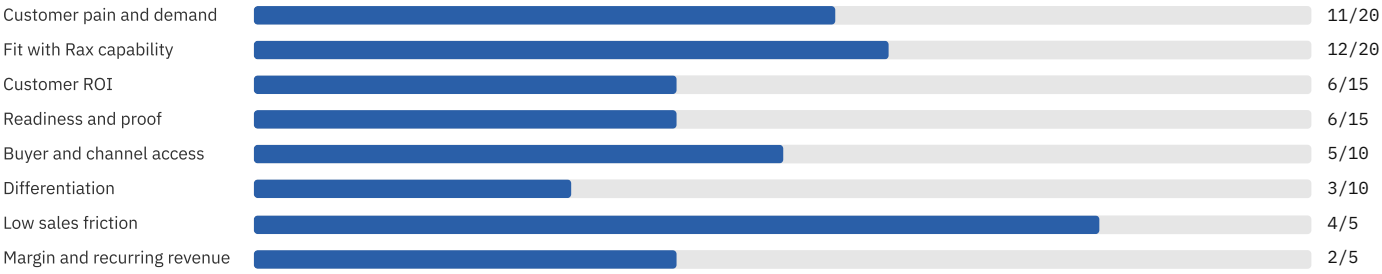
> SO WHAT FOR RAX
>
> Before spending on registration, Rax should mine its own invoices for every X-Lite buyer since 2016 and offer each a battery-and-test contract; that is the cheapest test of how large the historical base really is. Recommendation

What would change the verdict

Up to Pilot first or Sell now: a written commitment from Granules or another pharma group to standardise on a monitored unit across plants; five signed battery-and-test contracts in ninety days; a costed gross margin above 40 percent; an installed-base register from past invoices showing 10,000 or more X-Lite units sold since 2016; or a BIS ruling that halogen units are outside CRS scope, which would remove the enforcement exposure on the volume product. Down to Defer: a BIS notice or marketplace delisting before registration; a costed gross margin under 30 percent (between 30 and 35 percent the validation stops and X-Lite reverts to a clean catalogue line, Option A); or two EHS heads saying they will not pay for a test register, which would leave X-Lite as a commodity with no defensible position. Recommendation

The first ninety days

Marketing removes the CE badge and the stale ISO 9001:2008 and FSAI copy and publishes a conformity sheet quoting NBC 3.4.7 and the Factories Rules, so that no X-Lite page carries a claim a consultant can disprove. Engineering commissions one third-party lux and duration test and builds five monitored units on the FIOT stack. Sales calls every buyer of the last three years with a battery-and-test contract and the LTI clock, signs the ten active dealers to a price list, and places the monitored units at Granules and one Tamil Nadu plant with a 90-day log. Finance builds an installed-base register from every X-Lite invoice since 2016 and costs the line by model. On day ninety the managing director decides, on two written answers from EHS heads and one margin number, whether to spend ₹3 to 5 lakh on registration or to keep X-Lite as a clean catalogue line. Recommendation



Scorecard, 49 of 100

DIMENSION	SCORE	RATIONALE
Customer pain and demand	11/20	Documented, code-driven need in every factory, hospital and hotel, but low ticket, episodic enforcement and a strong 'do nothing' substitute; no scheme money Verified | S10 | S26 | S57 | S120
Fit with Rax capability	12/20	Shipping product made in Chennai at 35 to 50% capacity utilisation, ISO 9001:2015 scope includes fire and safety products, existing accounts and dealers; no BIS CRS, halogen SLA design predates the 2026 standard Rax-supplied | S1 | S2 | S15
Customer ROI	6/15	The buyer's return is a renewed licence and a clean audit, real but unquantified; no case exists where Rax's unit saved a buyer money versus a ₹2,000 alternative Inferred
Readiness and proof	6/15	Repeat orders from 21 buyers in FY2025-26, a brand on IndiaMART since 2003 with dated X-Lite buyer ratings from 2019 to 2025, and one datasheet-grade product (LTI clock); but no test report, no BIS registration, an unsupported CE claim, inconsistent specs, no service offer, and no installed-base register behind the claimed 50,000+ installations, so the larger historical base cannot yet be counted as references Rax-supplied | S1 | S2 | S5 | S6 | S46 | S175 | S176
Buyer and channel access	5/10	Ten dealers, IndiaMART and Amazon convert inbound; GeM has an open Emergency Light Unit (V2) category but prices at ₹1,080 to ₹2,300; metro, PSU and railway tenders need the R number or RDSO approval; two salespeople Rax-supplied | S1 | S2 | S28 | S162 | S163
Differentiation	3/10	Regional-language legends, metal build and a Chennai address; otherwise a commodity two to four times the marketplace price; a monitored unit would change this but exists only as one order line Publicly observed | S18 | S46 | S140 | S2
Low sales friction	4/5	Short cycle, purchase-order sale, simple wall-mount installation, no integration Rax-supplied | S2
Margin and recurring revenue	2/5	No cost or margin data exists; nothing recurs except batteries sold as spares Unknown

01 Product truth

KEY TAKEAWAYS

- X-Lite is a real, shipping range: halogen and LED twin-head emergency lights, exit lights, acrylic and vinyl exit signs, and an LTI clock, sold at ₹1,900 to ₹10,100 a unit to 21 distinct buyers in FY2025-26. Rax-supplied S2 S6
- Current revenue is about ₹16 lakh and 336 units a year; the site's 50,000+ installations and Gabriel's "a lot of X-Lite sales" describe cumulative history since about 2001, which public marketplace records make plausible but nothing measures. Rax-supplied S1 S2 S6 S174 Publicly observed S175 S176
- The CE badge on the site is not backed by a certificate; the internal record says CE is not held. The only verified marks are ISO 9001:2015 (first cycle from September 2025) and ZED Silver. Rax-supplied S1 Publicly observed S6
- LED emergency luminaires sit under BIS compulsory registration (IS 10322 Part 5 Sec 8); Rax has no registration and Delhi Metro tenders require the R number on every luminaire. This is the readiness gap that matters. Verified S13 S28 Rax-supplied S1
- The LTI clock and the "EML IoT unit" already in one order are the parts of the range that connect to Rax's HSE and IoT story; the lights themselves are commodity hardware. Rax-supplied S2 S4

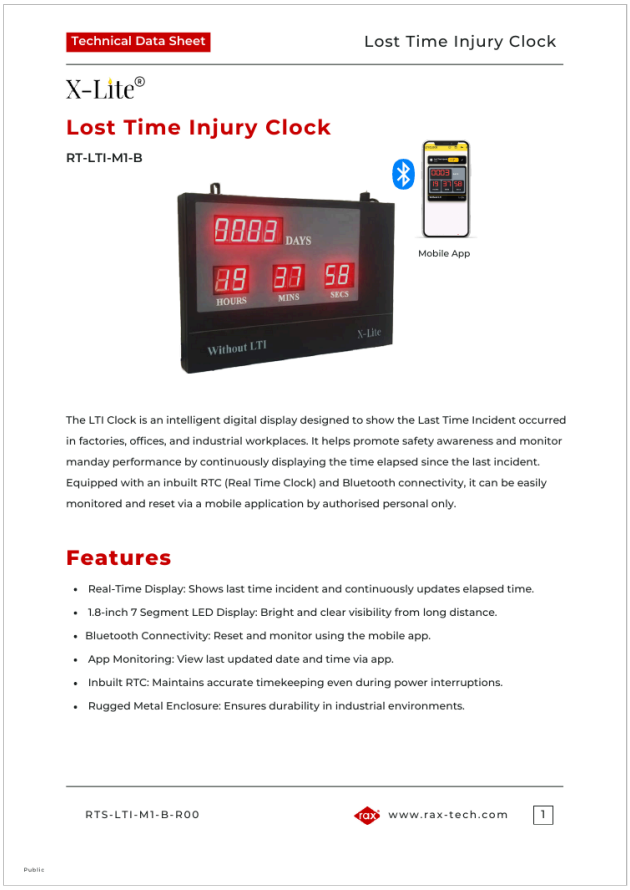
What ships today

The public range on xlite-india.com has thirteen product cards in four groups. The EML series carries six: a halogen twin-head emergency light with a yellow diffuser (6 V 4.5 Ah lead-acid battery, three-hour runtime, "IS 11944" quoted as the standard), a halogen exit light with a green EXIT legend "compliant with NBC 2016", an indoor LED exit light (SMD 2835, 3 W, four hours), an outdoor LED exit light (IP65, powder-coated steel, minus 10 to 55 degrees C), a non-metallic LED emergency light in flame-retardant ABS (0.8 kg, three hours), and a halogen exit-plus-emergency combination on a 6 V 7 Ah battery. Acrylic signage has four cards (6 mm cast acrylic edge-lit, 8 mm slim edge-lit on 12 V DC, backlit panels up to 1,200 by 600 mm, and 5 mm PVC foam board with vinyl overlay). Vinyl signs have two cards (self-adhesive UV-cured vinyl with a claimed ten-year outdoor life "compliant with IS 9457", and laminated chemical-resistant vinyl). The single special unit is the LTI clock: a seven-segment LED display "visible from 50+ metres", 230 V AC, remote reset, tagged "Patented Tech". Publicly observed S6

The IndiaMART storefront under rax-tech.in is older and more specific. It lists ten industrial emergency light variants with approximate prices from ₹4,400 (2 x 10 W LED flood with exit signage) to ₹8,500 (non-metallic LED outdoor with exit, IP65), describes a 7 Ah sealed maintenance-free battery, twin 180-degree rotatable heads, 2 x 20 W halogen lamps, IP54 metal housings, a test switch and charging indicator, a fuse, a one-year carry-in warranty, and regional-language exit legends in Tamil, Kannada, Telugu, Hindi and Malayalam. It still carries "ISO 9001:2008, FSAI and CE certification" copy, which is stale on at least two counts. Publicly observed S46

The internal datasheets add two models the site does not describe properly. The Exit/Signage Lighting Vinyl datasheet (RT-ESLV-00, revision R01) defines an RT-EXT-V0 family without backup and an RT-EXT-V1 family with a 3.7 V 2,800 mAh lithium-ion cell giving two hours, eight hours on request, across eighteen standard legends plus custom, with wall, ceiling, chain and bracket mounting and a 230 V or 120 V input. The LTI clock datasheet (RT-LTI-M1-B) specifies a 1.8-inch red seven-segment display showing four digits of man-days and six of elapsed time, an inbuilt RTC with battery backup, Bluetooth reset and monitoring from an Android app, a 12 V 3 A SMPS, a 445 by 300 by 50 mm metal cabinet and 4 kg. The product master files the LTI clock under the HSE group as RT-LTI-G0 next to the THAPS and THOPS environment sensors, the SOS device, the WiFi audio clock and the assembly-area people-count software. Rax-supplied S3 S4 S5

The halogen twin-head EML is the volume product: 21 order lines for the 210-SLI variant in two financial years. Source S6 S2



Technical Data Sheet

Lost Time Injury Clock

X-Lite®

Lost Time Injury Clock

RT-LTI-M1-B

Mobile App

The LTI Clock is an intelligent digital display designed to show the Last Time Incident occurred in factories, offices, and industrial workplaces. It helps promote safety awareness and monitor manday performance by continuously displaying the time elapsed since the last incident. Equipped with an inbuilt RTC (Real Time Clock) and Bluetooth connectivity, it can be easily monitored and reset via a mobile application by authorised personal only.

Features

- Real-Time Display: Shows last time incident and continuously updates elapsed time.
- 1.8-inch 7 Segment LED Display: Bright and clear visibility from long distance.
- Bluetooth Connectivity: Reset and monitor using the mobile app.
- App Monitoring: View last updated date and time via app.
- Inbuilt RTC: Maintains accurate timekeeping even during power interruptions.
- Rugged Metal Enclosure: Ensures durability in industrial environments.

RTS-LTI-M1-B-R00 www.rax-tech.com 1

The LTI clock is the only X-Lite product with a current technical datasheet, an app and a model number in the HSE group. Source S4

What the order book says

Ninety-two unique X-Lite order lines appear across the two financial years in the internal order book. FY2024-25 carried about ₹26.4 lakh across roughly 512 units; FY2025-26 carried about ₹16.2 lakh across 336 units, which reconciles with the 2.0 percent share of ₹7.91 crore in the audited vertical split and with the ₹16,01,735 Rax's monthly sales tracker records for X-Lite that year (peaking at ₹3.46 lakh in April 2025 and falling to ₹11,861 in March 2026). The model mix is dominated by emergency lights: 228 EML units in FY2025-26 against 77 exit and acrylic signs, thirty replacement batteries and one LTI-class andon unit. Median unit prices were ₹5,900 for the halogen indoor RT-EML-210-SLI-LXX, about ₹7,000 for the 220-SLI, ₹5,700 for the 220-SHI, ₹10,100 for the outdoor 220-SHO, and ₹2,300 to ₹3,250 for exit signs. Rax-supplied | S1 | S2 | S174

Twenty-one distinct buyers appear in FY2025-26 once spelling variants are merged. Roughly half are electrical dealers and small contractors (Tejaslite, P7 Enterprises, Shakti Electricals, Shree Electricals, Sparkle Engineering, Royal Lite, Excel Engineers, Creative Enterprises, Prayaga, MRS) and half are end users: Granules India (pharma, 89 units across the year), BARC Visakhapatnam (25 units at ₹6,950, a Department of Atomic Energy purchase order), Durr India, Wheels India, Thirumalai Chemicals, Trans Global, Panoply, KOB Medical, plus two Amazon marketplace orders. The single largest historical line is 145 units of the 210-SLI to Shakti Electricals at ₹5,900 on a 2023 order, worth ₹8.6 lakh, delivered in tranches through 2025. Rax-supplied | S2 | S7

Two buyers deserve a note. P7 Enterprises of Tiruvallur buys Rax exit signs and emergency lights, paid Rax ₹20,000 in December 2025 to service twenty exit signs, and at the same time lists its own-brand LED twin-beam emergency light on IndiaMART at ₹4,050 with an "ISI" claim. A dealer that is also a brand is a channel and a competitor at once. MRS bought one "EML IoT unit" at ₹5,000 in November 2025, the only evidence that a monitored emergency light exists in the range. Rax-supplied | S2 | S8 Publicly observed | S43

Current revenue against historical volume

Three kinds of number describe X-Lite and they must not be mixed. Current annual revenue is ₹16 lakh (FY2025-26), taken from Rax's audited vertical split and its sales tracker; Rax's internal record marks it as verified, and this report labels it Rax-supplied because the accounts themselves were not opened. Rax-supplied | S1 | S174 Recent volume is 336 units in FY2025-26 and about 512 in FY2024-25 from 92 order lines, roughly 850 units in two years. Rax-supplied | S2 Historical cumulative volume is claimed, not measured: the site says 50,000+ installations, 50+ active clients and sector counts (800+ manufacturing installations, 120+ power plants), and Gabriel stated on 15 September 2026 that Rax has made a lot of X-Lite sales. Rax-supplied | S1 | S6

Public evidence supports a long history but not its size. Rax-Tech International has been an IndiaMART member since May 2003 and gives 2001 as its year of establishment; X-Lite halogen, LED, outdoor and exit-sign models are listed there and on TradeIndia and ExportersIndia; and the storefront carries dated buyer ratings for named X-Lite products from Chennai (July 2019, August 2023, October 2025), Surat (June 2020), Talipparamba in Kerala (a non-metallic outdoor halogen model, July 2021) and Vasai (March 2024). Publicly observed | S175 | S176 | S177 Searches for tender awards to Rax for emergency lights, GeM orders, client case pages and photographs of installed X-Lite fixtures returned nothing, and the Wayback Machine was offline when the site's earlier versions were checked. Unknown

The arithmetic bounds the claim. 50,000 fixtures over 25 years is 2,000 a year, four to six times the current run rate and about ₹1 crore a year at today's prices; non-e-surveillance revenue across all lines was ₹1.66 to ₹1.95 crore a year from FY2023-24 to FY2025-26, so the claim fits only if X-Lite was far larger before FY2023-24, which no record shows. Estimated | S1 | S2 | S6 The honest reading is that X-Lite has a real, multi-decade installed base of unknown size, most of it probably past the ten-year life of a luminaire, and a current business of ₹16 lakh. The first is a replacement and service opportunity; only the second is revenue. Inferred

SO WHAT FOR RAX

Rax's invoice and dispatch history is the only source that can turn "a lot of sales" into an installed-base register; building it is a week of finance work and the precondition for every battery, AMC or reference claim. Recommendation

Verified against claimed

CLAIM ON THE SITE OR STOREFRONT	STATUS	EVIDENCE
CE certified (badge on every product card)	Not held per the internal record; no certificate or notified-body reference found	Rax-supplied S1; Publicly observed S6
RoHS compliant	Claimed; no test report seen	Rax-supplied S1
ZED certified	ZED Silver held	Rax-supplied S1
ISO 9001:2015	Held, Bureau Veritas, first cycle 22 September 2025 to 21 September 2028, scope includes fire and safety products	Rax-supplied S1
"IS 11944" on the EML cards	No emergency-lighting standard with this number could be identified; the legacy unit standard is IS 9583:1981 and the current luminaire standard is IS 10322 Part 5 Sec 8	Verified S12 S65; Unknown
"NBC 2016" compliance	A self-declaration; NBC 3.4.7 (carried into SP 7:2026 clause 3.5.6 from 30 April 2026) sets 10 lux, 5 s, 90 min and siting rules that a 2 to 3 h unit can meet, but no lux test report exists	Verified S10 S159; Rax-supplied S1
"IS 9457" vinyl signs	IS 9457 is a design code for colours and pictograms, not a product certification; plausible but untested	Verified S11
BIS	Not claimed on the site; the site source records BIS as "still in progress as of 2026-08-12" and instructs that products are "built to" IS/NBC standards, "a conformity statement, not a certification claim"	Publicly observed S6; Rax-supplied S1
50,000+ installations, 47 SKUs, 50+ active clients, 15+ airport terminals, 6 metro networks, 120+ power plants	Cumulative claims, unmeasured; a long history is corroborated (IndiaMART since 2003, X-Lite buyer ratings 2019 to 2025) but the two-year order book shows 336 to 512 units a year and 21 to 30 buyers	Rax-supplied S2 S6; Publicly observed S175 S176
"Patented Tech" on the LTI clock	No patent number given; no search of the patent register was possible in this pass	Unknown

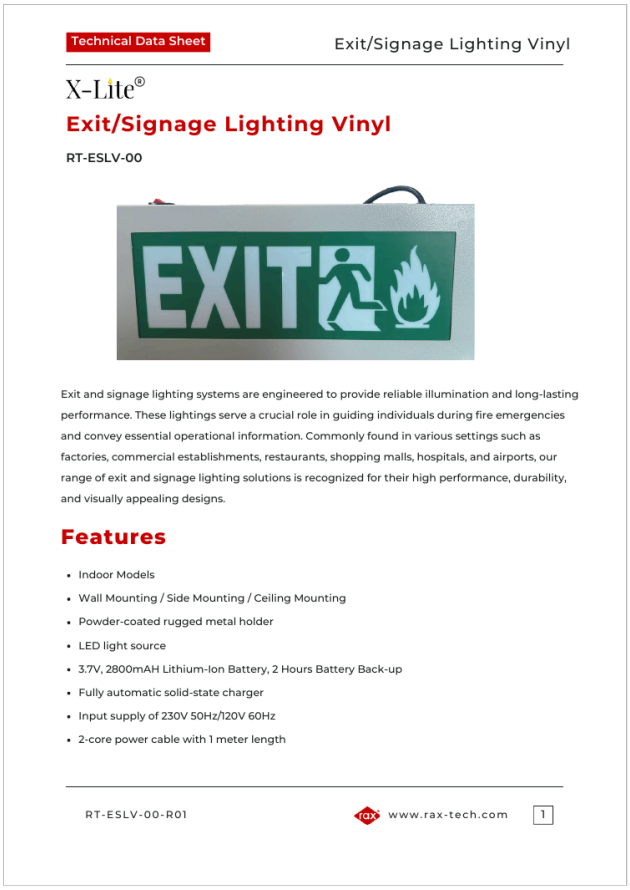
The BIS point is the one that changes decisions. BIS lists "LED Luminaires for Emergency Lighting" to IS 10322 (Part 5/Sec 8) under the MeitY Compulsory Registration Scheme, in both the 2013 and 2026 editions. A 2018 Lok Sabha reply dates the mandate for this phase of LED products to 23 May 2018, and BIS's guidelines of 20 March 2026 end concurrent running of the 2013 edition on 2 August 2026; consultants add that the revision brings lithium-battery requirements. Delhi Metro's E&M specification for underground stations requires that "each luminaire and driver should be BIS certified and related 'R' Number of BIS should be printed on the luminaire / driver". Rax holds no CRS registration. The LED variants in the X-Lite range therefore appear to be sold without the registration the scheme requires, and cannot be offered on any tender that asks for an R number. Whether the halogen twin-head units fall outside the "LED luminaires" wording of the order is unresolved and is logged as a gap. Verified S13 S28 S153 S154; Publicly observed S14 S15; Rax-supplied S1; Inferred

Installed base and references that can be named

The site's client marquee shows eighteen logos: Ace Energies, Ashok Leyland, Bhushan PS, Celebrity Fashion, Delphi TVS, Dürr, Farida Group, Hero, Hyundai Steel, MG Motor, Nilkamal Plastics, PowerGear, RGPPL, Safe Technologies, Salcomp, Tata International, TNPL and WIL. Three of these are corroborated by purchase orders in the two-year book (Dürr India, Wheels India, Powergear); the rest are Rax-supplied and undated, and may be historical buyers from the longer record the IndiaMART ratings point to. Buyers that appear in the order book but not on the site include Granules India, BARC, Thirumalai Chemicals, Daebu Automotive, NTN and JTEKT-linked names, which are stronger references than several of the logos because they are recent and priced. Rax has not supplied an installed-base register, failure data, or a list of sites by sector; the "120+ power plants" and "6 metro networks" figures should not be used in front of a buyer until a site list exists. Rax-supplied S2 S6 S7; Publicly observed S175; Unknown

Service model and quality record

The storefront states a one-year carry-in warranty. There is no AMC product, no battery-replacement contract and no test-and-tag service, although batteries are the wear item: sealed lead-acid cells of this class are sold at ₹260 to ₹850 and retailers describe a three-to-five-year shelf life. The service log shows exactly one X-Lite service event in two years (twenty exit signs for P7 Enterprises), and the order book shows thirty replacement 12 V 7 Ah batteries and ten charger cards sold as spares, which suggests dealers service units themselves. The company-wide quality record described in the internal context (frequent support calls, sample-based QC, component-driven delivery slips) is documented for e-surveillance, not for X-Lite; no X-Lite-specific complaint is on file. Rax-supplied S1 S2 S8; Publicly observed S42 S46



Technical Data Sheet

Exit/Signage Lighting Vinyl

X-Lite®

Exit/Signage Lighting Vinyl

RT-ESLV-00

Exit and signage lighting systems are engineered to provide reliable illumination and long-lasting performance. These lightings serve a crucial role in guiding individuals during fire emergencies and convey essential operational information. Commonly found in various settings such as factories, commercial establishments, restaurants, shopping malls, hospitals, and airports, our range of exit and signage lighting solutions is recognized for their high performance, durability, and visually appealing designs.

Features

- Indoor Models
- Wall Mounting / Side Mounting / Ceiling Mounting
- Powder-coated rugged metal holder
- LED light source
- 3.7V, 2800mAH Lithium-Ion Battery, 2 Hours Battery Back-up
- Fully automatic solid-state charger
- Input supply of 230V 50Hz/120V 60Hz
- 2-core power cable with 1 meter length

RT-ESLV-00-R01 www.rax-tech.com 1

The vinyl exit family already runs on lithium-ion, the direction the 2026 revision of IS 10322 pushes; the twin-head range is still on sealed lead-acid. Source S5 S15

Readiness gaps ranked by commercial impact

1. No BIS CRS R number for the LED emergency luminaires. It blocks metro, airport and most PSU tenders outright and exposes marketplace sales to enforcement. Government fees are modest (about ₹53,000 per new application, covering the ₹1,000 application fee and two years of processing and registration fees, plus ₹20,000 per additional test report), and BIS's laboratory register lists testing charges for IS 10322 (Part 5/Sec 8) of ₹63,600 at the BIS Bengaluru laboratory, ₹75,000 at Conformity Testing Labs and ₹1,00,000 at Bharat Test House, before taxes. Verified S13 S28 S158 Publicly observed S16 Recommendation
2. The CE badge. It is displayed on thirteen product cards and on the storefront without a certificate. Either remove it or obtain a declaration with test reports. It is the kind of claim a fire consultant checks first. Rax-supplied S1 Publicly observed S6 Recommendation
3. No photometric or duration test report. NBC 3.4.7 asks for 10 lux on the escape route centreline, switch-on within 5 s and 90 min duration; Rax states 2 to 3 h but has no third-party report. One report from a BIS-recognised lab would serve tenders, consultants and the CRS application at once. Verified S10 Recommendation
4. Inconsistent specifications across the site, the storefront and the datasheets (three hours on the site, two hours on the datasheet and storefront for the same exit family; 6 V 4.5 Ah on the site, 7 Ah on the storefront). A buyer comparing documents will notice. Publicly observed S5 S6 S46
5. Battery chemistry. The twin-head range is sealed lead-acid; the exit family is lithium-ion; the 2026 revision of IS 10322 adds lithium requirements. A decision on chemistry belongs in the CRS plan. Rax-supplied S5 S46 Publicly observed S15
6. The LTI clock is the most finished product on paper (datasheet, app, model code) but has no published reference site or price on the X-Lite site; it is listed at ₹27,400 on IndiaMART. Publicly observed S47 Rax-supplied S4

Adjacent Rax products that bundle naturally

The HSE group is the natural bundle: the LTI clock, THAPS and THOPS temperature and humidity sensors, the SOS device and the assembly-area people-count software all sell to the same plant safety officer who signs off emergency lights. The "EML IoT unit" sold to MRS shows a monitored emergency light is technically possible on Rax's IoT stack, which is the only feature that would separate X-Lite from the ₹1,800 to ₹4,000 twin-beam units on IndiaMART. E-surveillance alarm panels and the ESG panel share the same electrical contractors as a channel but a different buyer inside the plant. Rax-supplied S2 S3 Inferred

What a monitored X-Lite unit would look like on Rax's existing stack

LUMINAIRE

- Twin-head LED or exit sign, Li-ion, 3 h
- Charger card with self-test timer
- Battery and lamp sensing

↓

LINK

- Wi-Fi (RT-*-W family) or GSM (RT-*-G family)
- Bluetooth for local reset (as on the LTI clock)

↓

PLATFORM

- RT-SW-FIOT app and dashboard
- Monthly and annual test log per unit
- Fault alert to safety officer

↓

OUTPUTS

- Audit-ready test register
- Battery replacement schedule
- Fire licence renewal file

The one 'EML IoT unit' in the order book implies a luminaire that reports charge, test and lamp status to the FIOT platform; this is the only feature that separates X-Lite from ₹2,000 marketplace units. ● Inferred | S2 | S3 | S57

02 Market definition

KEY TAKEAWAYS

- The category is self-contained emergency luminaires and illuminated exit signs for non-domestic buildings, defined by NBC 2016 Part 4 (now SP 7:2026 Part F) and the BIS luminaire standard, plus two adjacent lines Rax sells under the same brand: non-illuminated safety signage and LTI display boards. Verified | S10 | S12 | S159
- It is fragmented and low-ticket: the largest Indian specialist, Prolite Autoglo, reported about ₹54 crore revenue in FY2024-25, and the Vasai and Mumbai cluster sells LED twin-beam units from ₹1,100 to ₹2,500 through IndiaMART. Publicly observed | S18 | S67 | S164
- Margin sits with whoever holds the specification and the site relationship (MEP consultant, fire licensee, electrical contractor), not with the luminaire maker. Inferred
- Buyers search in product words ("twin beam light", "exit light", "photoluminescent signage") and tender in works words ("supplying and fixing of exit sign board"), rarely in standard numbers, except metros and PSUs that ask for the BIS R number. Publicly observed | S28 | S43 | S45
- The ten-year story is regulation catching up with a commodity: NBC 2016 set 90 minutes and 10 lux, CRS captured LED emergency luminaires in May 2018, the 2026 revision of IS 10322 became the only accepted edition on 2 August 2026, and SP 7:2026 replaced the code in April 2026 with a testing duty added. Verified | S10 | S13 | S153 | S154 | S159

What is in and what is out

NBC 2016 Part 4 defines the objects precisely. "Emergency lighting" is lighting provided for use when the normal lighting supply fails; an "emergency lighting system" is a complete, discrete installation fed from a standby source, for example a self-contained emergency luminaire or a central battery circuit feeding several escape luminaires; "escape lighting" is the part that keeps the escape route lit at all material times. Clause 3.4.6.2 lists "exit signage lighting" and "emergency lighting" separately among the systems that must be on emergency power, and clause 3.4.7.4 requires exit signs at every exit, emergency exit and change of direction, illuminated and wired to an independent circuit, with colours and graphics to IS 9457 and IS 12349. Verified | S10 | S11

For this study the category is therefore four things and their consumables: (1) self-contained emergency luminaires, halogen or LED, single or twin head, indoor, outdoor or non-metallic, including flameproof variants for hazardous areas; (2) internally illuminated exit and directional signs with battery backup, in acrylic, vinyl or polycarbonate; (3) non-illuminated safety signage, printed vinyl, foam board or photoluminescent; and (4) replacement batteries, charger cards and service. X-Lite sells all four. A fifth line, LTI clocks and safety-statistics displays, is not emergency lighting at all; it is an industrial display product bought by the same safety officer, and it is treated as an adjacent category with its own competitors and prices. Publicly observed | S6 | S46 Rax-supplied | S2

Out of scope, but relevant as substitutes: central battery and inverter-backed general lighting (the DMRC specification puts 30 percent of station lighting on UPS or DG rather than relying on self-contained units); portable rechargeable emergency lights and inverter bulbs sold by Eveready, Syska, Halonix, Havells and Wipro at ₹164 to ₹2,400 for homes and shops; photoluminescent signs at ₹90 to ₹250 that need no power; and "do nothing", which the fire audit stories show is still common. Verified | S28 Publicly observed | S73 | S79 Inferred

Value chain

STAGE	WHO DOES IT IN INDIA	WHERE MARGIN AND POWER SIT	RAX TODAY
Components	Imported LEDs and drivers, sealed lead-acid cells (6 V 4.5 Ah at ₹260) and lithium cells, sheet metal, ABS and polycarbonate mouldings, acrylic sheet	Thin; commodity	Buys components; in-house PCB and firmware Rax-supplied | S1
Design and manufacture	Prolite (Mumbai), Sunlite, Autolite, Illumination India, Levonix (all Vasai), Finetech (Tiruppur), SKP (Greater Noida), Rax (Chennai), plus global brands importing	Low to moderate; BIS registration and test reports are the barrier	Manufactures in Chennai at 35 to 50 percent capacity Rax-supplied | S1
Specification	MEP consultants, fire consultants, PMCs, PSU and metro engineering departments	High; the specification decides the brand list and the R-number gate	Absent Inferred
Distribution	Electrical dealers, fire-safety dealers, safety-product shops, IndiaMART, TradeIndia, Amazon, Moglix, GeM	Moderate; dealers hold the site relationship and often carry their own brand	Ten small dealers, two Amazon orders Rax-supplied | S2
Installation and testing	Electrical contractors, licensed fire agencies (Maharashtra lists hundreds), MEP contractors such as Sterling and Wilson and Blue Star on large projects	Moderate; bundled with wiring works	None Inferred
Ownership and maintenance	Plant safety officer, facility manager, hotel chief engineer; monthly test and annual duration test per audit checklists	Recurring; batteries every three to five years	One-year carry-in warranty, no AMC Publicly observed | S46

Two features of this chain matter for a small maker. First, the dealer is both channel and competitor: P7 Enterprises buys Rax units and sells its own twin beam at ₹4,050, and KT Automation resells Prolite at ₹3,510. Second, nobody in the chain is paid for the recurring test-and-battery cycle, so it is neglected until an audit; that is the hole a monitored luminaire or a service contract could fill. Publicly observed | S20 | S43 | S57 Inferred

How buyers describe and search for the category

On marketplaces the vocabulary is product-led: "industrial emergency light", "twin beam light", "double dome halogen", "exit light", "egress light", "emergency exit sign board", "fire exit signage", "night glow" or "autoglow" for photoluminescent, and regional-language exit legends (Tamil, Kannada, Telugu, Hindi, Malayalam) as a selling point in the south. IndiaMART category pages for twin beam lights and exit signage each carry dozens of sellers and are updated weekly, which is where Rax's inbound arrives. Publicly observed | S43 | S46 | S87 Rax-supplied | S1

In tenders the vocabulary is works-led: "supplying and fixing of exit sign board", "providing of fire exit sign board and emergency light", or a line inside an electrical BOQ. The metro and PSU end asks for standards: DMRC's E&M specification requires BIS-certified luminaires with the R number printed and fire-survival cabling to emergency lighting circuits, and its lighting must "fully comply with NBC". GeM carries an "Emergency Light Unit (V2)" category of 149 listed products at ₹1,080 to

₹2,300 that PSUs, railways and defence units buy against, but no dedicated industrial twin-head or illuminated exit sign category was found; railway coach emergency lights are bought to RDSO specification RDSO/PE/SPEC/AC/0180-2016. Publicly observed S44 S45 S162 S163 Verified S28

Standards numbers appear in three places: sellers who advertise "BIS 10322 approved" (Sunlite, Prolite), fire-audit checklists that cite NBC clauses, and the rare specifier who names IS 9583 or IEC 60598-2-22. Customs classification falls under HS 9405 (luminaires) with LED display boards coded 94054090 on at least one seller listing; a clean import statistic for emergency luminaires was not obtained. Publicly observed S19 S53 S66 Unknown

Market structure

The market is fragmented, domestic at the industrial end and import-exposed at the consumer end. The largest specialist, Prolite Autoglo, is a 1984 company with about ₹54 crore revenue in FY2024-25 (up 12 percent), 103 employees on EPFO, a claimed 100-plus dealers and 33 export countries, and the first BIS CRS registration for emergency lights in India. Below it sit a Vasai and Mumbai cluster (Sunlite, Autolite, Illumination India, Levonix, Supreme Creation, SR Safety, Glowlight) and regional makers (Finetech in Tiruppur, SKP in Greater Noida, Kamal and Co. in Chennai for displays), most with turnover under ₹10 crore. Global brands (Signify, Legrand, Schneider Exiway, Eaton CEAG, ABB Emergi-Lite) sell through project channels and hazardous-area specifiers rather than marketplaces. Publicly observed S17 S18 S38 S69 S74 S77 S164

Three price tiers are visible in the observed data. Tier one, ₹1,100 to ₹2,800, is polycarbonate LED exit lights and light twin beams from the Vasai cluster with six-month warranties. Tier two, ₹3,000 to ₹6,000, is metal-bodied twin beams, regional-language exit lights and BIS-marked units from Prolite, Finetech, Sunlite and Rax. Tier three, ₹8,500 to ₹24,000, is airport-series signs, flameproof and CMRI-approved units for hazardous areas. Rax's ₹5,000 to ₹10,100 sits in tier two, at the upper edge for a brand without a BIS mark. Publicly observed S18 S20 S43 S67 S72 Rax-supplied S2

Enforcement is patchy. A Wipro executive told ELCOMA's magazine that "a large number of products being sold in India are non-compliant (non-BIS certified) products" and called for "stringent enforcement of the BIS guidelines in practice"; BIS raided e-commerce warehouses in 2025 and confiscated 19,000 LED products in an earlier drive. The share of imports in emergency luminaires specifically is unknown. Publicly observed S112 S113 S114 Unknown

History and inflection points

The Indian product standard for emergency lighting units dates from 1981 (IS 9583, aligned to IEC 598-2-22) and was reaffirmed in 2003 without a compulsory mark. NBC 2005 introduced escape-lighting siting rules; NBC 2016 tightened them to 10 lux on the escape route, switch-on within 5 s and 90 minutes, and ruled that battery packs cannot substitute for a diesel generator. The Compulsory Registration Scheme captured LED emergency luminaires from 23 May 2018, in the third phase of LED products under the MeitY order, which is why Prolite advertises itself as the first registrant; on 20 March 2026 BIS issued guidelines for the 2026 editions of the IS 10322 series and set 2 August 2026 as the end of concurrent running. On 30 April 2026 BIS withdrew NBC 2016 and published SP 7:2026, the National Building Construction Standards, whose Part F keeps the escape-lighting values, adds that the system "should be well maintained by periodical inspections and tests" and recognises central battery systems "with or without monitoring system"; the new standard is guidance until states amend byelaws that still cite NBC 2016. Verified S10 S13 S65 S153 S154 S159 S160 Publicly observed S15 S17 S161

Incidents, not codes, moved procurement. The Rajkot hospital fire and the Supreme Court's December 2020 order for monthly fire audits of COVID hospitals, the May 2022 Mundka fire (27 dead, no NOC) after which Delhi's civic body gave units seven days to produce fire NOCs, and the May 2024 Rajkot game-zone fire (28 dead, no NOC) after which the Gujarat High Court took suo motu cognisance and the state closed every game zone, each produced an inspection wave that reaches exit signs and emergency lights last and cheapest. Municipal audits continue: BMC ran a citywide inspection of malls, hotels and restaurants in June 2026. Verified S34 S35 S36 S60 S63

Technology shifted underneath: halogen to LED (cutting battery size and cost), lead-acid to lithium (longer life, now written into the 2026 standard), and, at the top of the market, self-test and addressable luminaires and central battery systems from Schneider, ABB and now Prolite. The Vasai cluster's ₹1,100 LED exit light is the result of the first two shifts; Rax's halogen twin-head on a 7 Ah lead-acid battery is a pre-shift design. Publicly observed S15 S17 S67 S77 Inferred

> SO WHAT FOR RAX
>
> Rax competes in a category where the code sets the minimum, the mark gates the tenders, and the dealer owns the customer. Without the mark, X-Lite is confined to the dealer-and-marketplace tier where price, not brand, decides. Recommendation

Value chain for self-contained emergency lighting in India

1 **Components**
Imported LEDs and drivers, SLA and lithium cells, sheet metal, ABS, acrylic
Commodity; battery is the wear item

2 **Design and manufacture**
Prolite, Vasai cluster, Finetech, SKP, Rax Chennai; global brands import
BIS CRS and test reports are the barrier

3 **Specification**
MEP and fire consultants, PMCs, metro and PSU engineering
Decides brand list and R-number gate

4 **Distribution**
Electrical and fire-safety dealers, IndiaMART, Amazon, Moglix, GeM
Dealers often carry their own brand

5 **Installation and testing**
Electrical contractors, licensed fire agencies, MEP contractors
Bundled into wiring works

6 **Ownership and maintenance**
Safety officer, facility manager, hotel engineer
Monthly test, annual duration test, battery every 3 to 5 years; rarely done

Rax holds design and manufacture; the specification and the site relationship sit with consultants, licensed fire agencies and dealers, which is where margin and brand choice are made. ● Inferred | S20 | S43 | S81 | S84

03 Market growth, demand drivers and regulation

KEY TAKEAWAYS

- Demand is a compliance replacement cycle, not a growth story: every fire NOC renewal (one to three years depending on the state), every audit after a fire, and every battery that dies at three to five years creates an order. Verified S100 S118 Publicly observed S130
- The stock that needs lighting is large and rising slowly: 2,60,061 registered factories in 2023-24 (about 2,13,000 operating, +3 percent), about 216,000 branded hotel rooms (2025, +7.8 percent), about 1,095 km of metro and RRTS across 26 cities, 162 airports, and 36,626 government hospitals with 8.4 lakh beds. Verified S120 S152 S155 S157 Publicly observed S32 S50 S156
- We estimate the category grew about 5 percent a year from ₹148 crore in 2021 to ₹190 crore in 2026 and grows about 8 percent a year to ₹279 crore in 2031. Estimated S120 S152 S156
- No scheme pays for emergency lighting; the money comes from the occupier's compliance budget or the project's electrical BOQ. Inferred
- Enforcement waves follow deaths: Rajkot 2020, Mundka 2022, Rajkot 2024, and the municipal audit drives of 2025 and 2026. Each one reaches exit signs and emergency lights because they are the cheapest fix on the inspector's list. Verified S34 S36 S60 S63
- The analyst number for India emergency lighting, USD 292 million in 2025 growing 10.5 percent a year, is too broad to use directly; the code-driven self-contained segment Rax sells into is a fraction of it. Estimated S21 S68

Market growth

No official statistic counts emergency luminaires sold in India, so growth has to be read from the stock of buildings that must have them and from analyst estimates. The cleanest primary series is the Annual Survey of Industries count of factories in operation: 1,97,145 in 2018-19, 1,98,628 in 2019-20, 2,00,395 in 2020-21, 2,00,576 in 2021-22 and 2,06,523 in 2022-23, a rise of 2.96 percent after three flat years through the pandemic. ASI 2023-24, released in August 2025, counts 2,60,061 registered factories with Tamil Nadu first at 15.43 percent; its published ratios (fixed capital of ₹46,24,09,035 lakh at ₹2,171 lakh per factory in operation) imply about 2,13,000 operating factories, a further 3.1 percent rise. Tamil Nadu held 15.26 percent of operating factories in 2022-23, more than any other state. About 80 percent of these factories have plant and machinery worth ₹5 crore or less, which sets the buying behaviour: a purchase officer, a local electrical dealer, one or two dozen units at a time. Verified S120 S152

Hospitality is the fastest-moving building stock. Horwath HTL puts branded supply at about 216,000 rooms per day in 2025, up 7.8 percent, with more than 19,000 rooms opened in the year and a pipeline of roughly 144,000 rooms; supply rose by 85,000 rooms between 2015 and 2024 and by 50,000 since 2019, and Horwath's own 2023 review put inventory at over 183,000 rooms. Every new hotel corridor, stair and back-of-house passage is an escape route under NBC 3.4.7. Publicly observed S29 S30 S117

Transport infrastructure grows in steps. Operational metro rose from 248 km in five cities in 2014 to about 1,095 km of metro and RRTS in 26 cities in 2025 (PIB), and MoHUA told Parliament in July 2026 that 1,077 km of metro lines were in commercial operation, with about 1,000 km under construction; Delhi alone has 271 stations. Operational airports numbered 162 in July 2025, six of them in Tamil Nadu. These are specification-led buyers with BIS and NBC clauses in the tender, so they add to the market but only for registered brands. Verified S31 S157 S28 Publicly observed S32 S50

Commercial and industrial real estate is the last leg. Grade A office completions in the top seven cities were about 56.5 million sq ft in 2025 and consultants expect up to 90 million sq ft in 2026; Grade A industrial and warehousing completions were over 28 million sq ft in 2024 (+22 percent) and 41.7 million sq ft in 2025, the highest in recent years, with Oragadam near Chennai and Chakan near Pune among the three busiest micro-markets. Warehouses are long, dark boxes with few windows and are exactly where twin-head emergency lights are specified. Publicly observed S103 S104 S105 S121

Analyst figures give a top-down cross-check but not a direct measure. Grand View Research estimates India emergency lighting at USD 292.4 million in 2025 (about ₹2,450 crore at ₹84 per dollar) rising to USD 636.8 million by 2033, a 10.5 percent CAGR, with hardware the largest component and India 3.7 percent of the global market; IMARC puts the whole India fire and safety equipment market at USD 2.0 billion in 2025 growing 5.1 percent a year. The emergency lighting figure almost certainly includes inverter bulbs, portable lanterns, central battery systems and integrated emergency drivers in general luminaires, which is why the largest Indian specialist's revenue is only about one to two percent of it. Publicly observed S21 S22 Inferred

Hospitals are the stock with the most documented pain. The National Health Profile 2023 counts 36,626 government hospitals with 8,40,455 beds as on 31 December 2022, of which 30,125 are rural with an average of ten beds and 6,501 urban with an average of 82; Tamil Nadu has 2,644 government hospitals and 1,16,733 beds, the most beds of any state. Private hospitals are counted only in secondary compilations, at about 43,486. Verified S155 Publicly observed S52

No official statistic sizes the category itself, so its history below is a back-cast of the bottom-up model in section 04, driven by the stock series above: factory stock grew about 1 to 3 percent a year, branded hotel rooms 5 to 8 percent, warehousing completions over 20 percent in 2024, and replacement demand follows the stock of five to ten years earlier. The outlook uses the 8 percent a year assumed in the sizing; Grand View Research's 10.5 percent CAGR for a broader category is the upper bound. Estimated S120 S152 S156 S21

YEAR	CATEGORY SIZE, ₹ CR	GROWTH	BASIS
2021	148		Back-cast at 5 percent a year; pandemic-flat factory stock (ASI 2,00,395 operating) Estimated S120
2022	155	5%	Mundka fire and Delhi NOC drive; factories 2,00,576 Estimated S120 S36
2023	163	5%	Factories 2,06,523 (+3%); hotel inventory 183,000 rooms Estimated S120 S156
2024	171	5%	Rajkot game-zone fire; factories about 2,13,000; warehousing completions +22% Estimated S152 S35 S104
2025	180	5.5%	Hotel supply +7.8%; record warehousing completions Estimated S156 S103
2026	190	5.5%	Bottom-up base year; SP 7:2026 and IS 10322:2026 Estimated S159 S153
2031 (outlook)	279	8% a year	Section 04 series Estimated S120 S152

The five-year CAGR from 2021 to 2026 is about 5.1 percent; the outlook CAGR to 2031 is 8 percent. Estimated S120 S152 S156

2,60,061

Registered factories in India in 2023-24, 15.43 percent of them in Tamil Nadu; every operating one must keep exits illuminated on failure of normal supply. Verified S152

Regulation and mandates

The National Building Code 2016, Part 4, clause 3.4.7, is the technical root. It requires exits, exit access and exit discharge to be illuminated continuously; emergency lighting from a source independent of normal lighting; a horizontal illuminance of not less than 10 lumen per square metre on the escape route centreline (5 across half the width of routes up to 2 m wide, 2 lux in auditoria during performances); switch-on within 5 s; not less than 90 minutes of duration "even for smaller premises"; luminaires at intersections, exits, changes of direction, stairs, final exits, call points and firefighting equipment, mounted at least 2 m above floor; and a warning that "battery pack emergency lighting, because of its limited duration and reliability, shall not be allowed to be used in lieu of a diesel engine driven emergency power supply." Clause 3.4.7.4 requires exit signs at all exits and changes of direction, illuminated and on an independent circuit, with graphics per IS 9457 and IS 12349. The code names performance (lux, seconds, minutes, siting) but not a product standard or a battery type. On 30 April 2026 BIS withdrew NBC 2016 and published SP 7:2026, the National Building Construction Standards; Part F clause 3.5.6 keeps every value, rewrites "shall" as "should", adds in 3.5.6.3 that the system "should be well maintained by periodical inspections and tests so as to ensure their perfect serviceability at all times", requires that no point in an exit access be more than 30 m from a visible exit sign, and states that the Part is guidance for states, whose byelaws still cite NBC 2016. Verified S10 S11 S159 S160 Publicly observed S161

The code becomes law through state building rules and fire acts. Tamil Nadu's Combined Development and Building Rules 2019 define "Illuminated Exit Signs", require in Rule 53 that "exits shall be clearly visible and the routes to reach exits shall be clearly marked and signs posted" and "all exit ways shall be properly illuminated", and hand the number and arrangement of exits to NBC Part 4. The Tamil Nadu Factories Rules go further for factories: exits "shall be clearly visible and suitably illuminated with suitable arrangement, whatever artificial lighting is to be adopted for this purpose, to maintain the required illumination in case of failure of the normal source of electric supply" and "marked in a language understood by the majority of the workers", which is the legal basis for X-Lite's Tamil, Telugu and Kannada legends. The Factories Act s.38 empowers the Chief Inspector to order additional measures. Verified S25 S26 S118

State fire services turn the rules into a renewal cycle. Delhi's Fire Service Rules 2010 make a Fire Safety Certificate valid for three years for non-residential buildings including hotels, renewable on inspection, and oblige the occupier to keep measures "at all times in best repairs"; Delhi inspects "emergency signage and lighting" at renewal. Mumbai's non-residential fire NOCs are typically valid one year, and Maharashtra's 2006 Act requires licensed agencies and half-yearly Form B compliance. Tamil Nadu issues NOCs, completion certificates and fire licences for multi-storeyed buildings above 18.3 m and renews fire licences annually against a copy of the previous year's licence; TNFRS inspects schools, hospitals, industrial establishments, commercial complexes and high-rises. The Model Fire and Emergency Service Bill 2019 pushes the rest of the states in the same direction. Verified S27 S100 S101 S102 S119 S131 Publicly observed S130

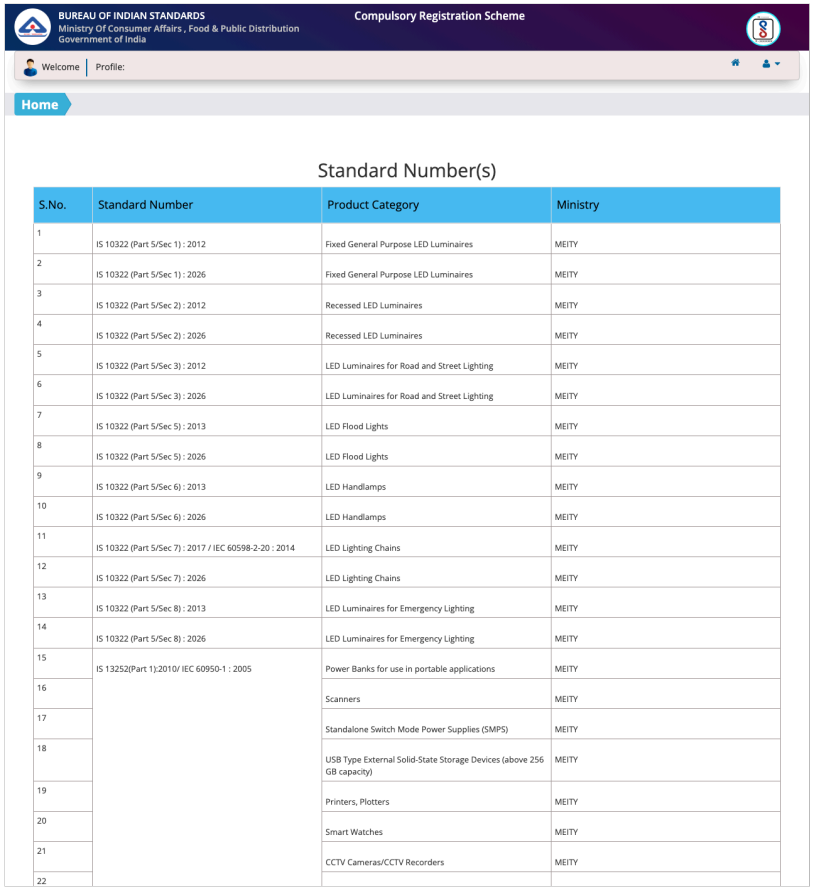
Product law sits with BIS. LED luminaires for emergency lighting to IS 10322 (Part 5/Sec 8) are on the MeitY Compulsory Registration list; a Lok Sabha reply of July 2018 dates this phase of LED products to 23 May 2018 and records that three CRS registrations had been cancelled after failed test reports; BIS issued implementation guidelines for the 2026 editions on 20 March 2026, ending concurrent running on 2 August 2026, and consultants list IPX9, electromagnetic field, PELV and battery provisions among the changes. Non-registered goods "shall not be manufactured, stored for sale, imported, sold or distributed", and the BIS Act 2016 carries penalties of up to two years or ₹2 lakh to ten times the value of goods. Metro specifications convert this into a tender clause by asking for the R number on every luminaire. Verified S13 S28 S153 S154 Publicly observed S14 S113 S126

Sector rules add layers rather than new performance numbers. OISD standards govern fire protection and layouts at refineries, depots and LPG plants and require marked escape routes; NABH's hospital standards (chapter FMS) require fire and non-fire emergency plans and a displayed safe-exit plan on every floor but do not specify luminaires; airports and metros write their own specifications; IGBC and ECBC were not found to reference emergency lighting in a way that adds demand. Insurers appear in audit case studies as a soft driver: a surveyor noting upgraded emergency lighting at renewal, and a lower premium following. Publicly observed S92 S93 S129 Unknown

The instruments, clause by clause, and whether each names product performance:

INSTRUMENT AND CLAUSE	WHAT IT REQUIRES	NAMES PERFORMANCE?	STATUS AND ENFORCEMENT
NBC 2016 Part 4, cl. 3.4.7 Verified S10	Continuous egress lighting; 10 lumen/m2 on route centreline; switch-on in 5 s; 90 min; siting; illuminated exit signs on an independent circuit	Yes: lux, time, duration; no battery type, no test interval	Withdrawn by BIS on 30 April 2026 but still cited by state byelaws and DMRC Verified S159 S28
SP 7:2026 Part F, cl. 3.5.6 Verified S159	Same values as "should"; periodical inspections and tests; exit sign visible within 30 m; green signs	Yes, plus a testing duty without a frequency	Guidance until states adopt it Publicly observed S161
IS 10322 (Part 5/Sec 8):2013 and :2026, under the MeitY CRO Verified S13 S153	Safety of emergency luminaires to IEC 60598-2-22, including changeover, rated duration and marking with the R number	Yes, for the luminaire, not for site lux	Compulsory from 23 May 2018; only the 2026 edition after 2 August 2026 Verified S154 S153
IS 9583:1981 Verified S65	Emergency lighting units	Yes, unit performance	Legacy, never compulsory
IS 9457 and IS 12349 Verified S11	Safety colours, pictograms and fire safety signs	Graphics only	Referenced by NBC and SP 7
Photoluminescent safety signs	No BIS product standard could be confirmed; vendors quote numbers that could not be traced to BIS; ISO 16069 governs way-guidance systems internationally Unknown	Not in India	No mark required
Tamil Nadu Factories Rules, exits rule Verified S26	Exits suitably illuminated on failure of supply; marked in the workers' language	No numbers	Factory inspectors
Tamil Nadu Combined Development and Building Rules 2019, r. 53 Verified S118	Exit ways properly illuminated; number and arrangement per NBC Part 4	No	Planning permission and completion

INSTRUMENT AND CLAUSE	WHAT IT REQUIRES	NAMES PERFORMANCE?	STATUS AND ENFORCEMENT
Delhi Fire Service Rules 2010, rr. 35 to 38 Verified S100	Fire safety certificate for three years; measures kept "at all times in best repairs"	No	Renewal inspection
Tamil Nadu fire licence, multi-storeyed buildings over 18.3 m Verified S119	NOC, completion certificate and annual licence renewal	No	TNFRS
DMRC E&M specification, E07.6.7 and E07.6.8 Verified S28	NBC compliance; BIS R number on each luminaire and driver; fire-survival cabling; 30 percent of station lighting on UPS	Yes, by reference	Tender clause
RDSO/PE/SPEC/AC/0180-2016 (railway coaches) Publicly observed S163	LED emergency light units with 12 V 7 Ah SMF batteries for LHB and conventional coaches	Yes, product specification	RDSO vendor approval
OISD standards for oil and gas installations Publicly observed S92	Fire protection and escape routes; hazardous-area luminaires need IS/IEC 60079 certification	Clause for emergency lighting not confirmed Unknown	OISD audits
NABH FMS-2c and FMS-6b Publicly observed S93 S173	Sign postings in a language patients understand; documented safe-exit plan; CAHO guidance says fire exit signage as per NBC	No	Accreditation assessment
IGBC, ECBC, insurers Unknown	No emergency-lighting credit or insurer checklist found; one audit case records a lower premium Publicly observed S129	No	Voluntary


BUREAU OF INDIAN STANDARDS
Ministry Of Consumer Affairs , Food & Public Distribution
Government of India

Compulsory Registration Scheme

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Standard Number(s)

S.No.	Standard Number	Product Category	Ministry
1	IS 10322 (Part 5/Sec 1) : 2012	Fixed General Purpose LED Luminaires	MEITY
2	IS 10322 (Part 5/Sec 1) : 2026	Fixed General Purpose LED Luminaires	MEITY
3	IS 10322 (Part 5/Sec 2) : 2012	Recessed LED Luminaires	MEITY
4	IS 10322 (Part 5/Sec 2) : 2026	Recessed LED Luminaires	MEITY
5	IS 10322 (Part 5/Sec 3) : 2012	LED Luminaires for Road and Street Lighting	MEITY
6	IS 10322 (Part 5/Sec 3) : 2026	LED Luminaires for Road and Street Lighting	MEITY
7	IS 10322 (Part 5/Sec 5) : 2013	LED Flood Lights	MEITY
8	IS 10322 (Part 5/Sec 5) : 2026	LED Flood Lights	MEITY
9	IS 10322 (Part 5/Sec 6) : 2013	LED Handlamps	MEITY
10	IS 10322 (Part 5/Sec 6) : 2026	LED Handlamps	MEITY
11	IS 10322 (Part 5/Sec 7) : 2017 / IEC 60598-2-20 : 2014	LED Lighting Chains	MEITY
12	IS 10322 (Part 5/Sec 7) : 2026	LED Lighting Chains	MEITY
13	IS 10322 (Part 5/Sec 8) : 2013	LED Luminaires for Emergency Lighting	MEITY
14	IS 10322 (Part 5/Sec 8) : 2026	LED Luminaires for Emergency Lighting	MEITY
15	IS 13252(Part 1):2010/ IEC 60950-1 : 2005	Power Banks for use in portable applications	MEITY
16		Scanners	MEITY
17		Standalone Switch Mode Power Supplies (SMPS)	MEITY
18		USB Type External Solid-State Storage Devices (above 256 GB capacity)	MEITY
19		Printers, Plotters	MEITY
20		Smart Watches	MEITY
21		CCTV Cameras/CCTV Recorders	MEITY
22			

Emergency luminaires are a notified CRS product under MeitY; the R number is the gate to metro and PSU tenders. Source S13

Government schemes and budgets

None pays for emergency lighting. No central or Tamil Nadu scheme subsidises fire-safety equipment for private occupiers; the spend is a compliance cost carried by the occupier or the project. Public money reaches the category only inside capital works: metro and airport E&M packages, hospital and school building contracts, PSU maintenance budgets, GeM purchases by government offices against an Emergency Light Unit (V2) category of 149 listings at ₹1,080 to ₹2,300, and railway coach lights bought to RDSO specification; 171 emergency-lighting tenders were live on 15 September 2026, 144 of them under ₹10 lakh. The BARC order in the Rax book shows the shape of public demand Rax can reach: small, direct, specification-light, paid on a purchase order. Verified S28 Publicly observed S44 S162 S163 Rax-supplied S2 Inferred

Incidents and audits that drive procurement

Every enforcement wave in the last six years followed a fatal fire. The Supreme Court ordered monthly fire audits of COVID hospitals in December 2020 after the Rajkot hospital fire; the Mundka fire of May 2022 killed 27 in a building with no NOC and Delhi's civic body gave every factory unit seven days to produce fire NOCs; the Rajkot TRP game zone fire of May 2024 killed 28 in a facility with no NOC and one entry, and the Gujarat High Court, which told officials "did you fall asleep? Or did you go blind", has since demanded NOC status for every school and hospital in the state. Odisha's fire service inspected 2,215 healthcare facilities in a year and still found most without "foolproof" measures; Ghaziabad served notices on 37 of 324 private hospitals; Mumbai's BMC ran a citywide drive in June 2026. Exit signs and emergency lights are on every one of these checklists and are the cheapest item to close. Verified S34 S36 S60 S61 S62 S63

> *Emergency exit signs that haven't lit up in months because no one checked.*
>
> Singh Isotech, fire safety audit checklist for industrial and commercial buildings in India, June 2026 (Publicly observed | S57)

Technology shifts

Three shifts change what buyers expect. LEDs cut lamp power from 2 x 20 W halogen to 2 x 3 W, which cuts battery size, cost and weight and lets the Vasai cluster sell a three-hour exit light for ₹1,100. Lithium cells replace sealed lead-acid, extending life and shrinking housings; the 2026 standard writes battery provisions in. At the top of the market, self-test luminaires, DALI-addressable emergency control gear and central battery systems with monitoring (Schneider Exiway, ABB Emergi-Lite, Prolite's new central battery system) answer the audit question "when was this last tested" automatically. A Gujarat audit case study installed twelve maintained luminaires with three-hour backup on a central battery "for easier monitoring". Rax's one "EML IoT unit" is a first step in that direction.
(Publicly observed | S15 | S17 | S67 | S77 | S129) (Rax-supplied | S2)

Timing windows and counter-drivers

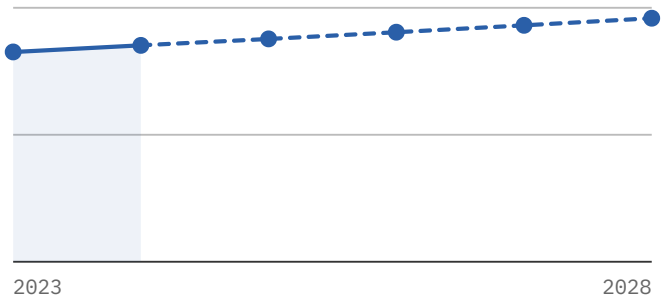
Buying clusters around fire licence renewals (annual in Tamil Nadu and Mumbai, three-yearly in Delhi), around audit drives after incidents, around the pre-monsoon and year-end capital spending windows of plants, and around commissioning of new floors, hotels and stations. Battery replacement runs on its own clock of three to five years. (Verified | S100 | S119) (Publicly observed | S130) (Inferred)

Three things suppress demand. Enforcement is thin and episodic: the same audits that find "brand new accident registers ... kept, that too only before the audits" find exit signs bought and never tested. Substitutes are cheap: a ₹150 photoluminescent sign or an inverter-backed tube lets an occupier tick the box. And in registered-product segments, the CRS revision raises the cost of staying compliant for every small maker, which reduces the number of sellers rather than the number of buyers. (Publicly observed | S15 | S73 | S115) (Inferred)

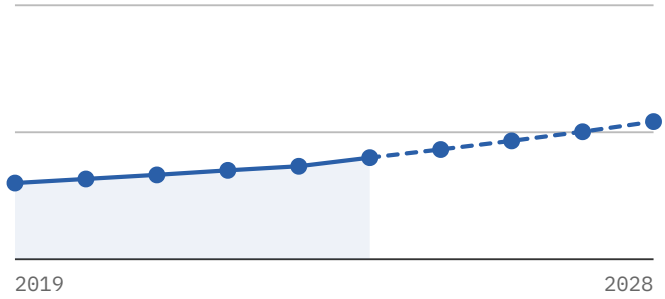
> SO WHAT FOR RAX
>
> The market Rax can reach is the renewal-and-audit market of Tamil Nadu factories, hotels and hospitals, which buys through dealers and electrical contractors without a tender. The larger project market (metro, airport, PSU) is closed until an R number exists. (Recommendation)

Factories in operation, all India (ASI) 2,06,523 in 2023
1,97,145 in 2019 · +1.2% a year

Factories in operation, outlook at 3 percent a year 2,39,725 in 2028
2,06,523 in 2023 · +3.0% a year



Branded hotel rooms, supply per day ('000) 271 in 2028
150 in 2019 · +6.8% a year



India demand indicators for emergency lighting: registered factories in operation and branded hotel room supply, factories in operation (ASI) / branded hotel rooms ('000). Each panel has its own scale. Dashed from 2024 is outlook. Factories in operation are the ASI all-India estimates (financial years shown by their end year); the 2024 point is derived from ASI 2023-24 published ratios (fixed capital divided by fixed capital per factory in operation, about 2,13,000) and later years extend at 3 percent. Hotel rooms are Horwath HTL supply figures: 2019 (about 150k, from +50k since 2019 to 2024), 2023 (183k), 2024 (200k) and 2025 (216k) are reported; 2020 to 2022 are interpolated; 2026 to 2028 extend the 2025 growth rate of 7.8 percent. Outlook points are dashed.

1981-03 REGULATION
IS 9583 Specification for emergency lighting units published (aligned to IEC 598-2-22), reaffirmed 2003
Legacy product standard still cited by some PSU specifiers; no compulsory mark

2005-12 REGULATION
IS 9457 Safety colours and safety signs (first revision) adopts ISO 3864-1 pictograms
Referenced by NBC 2016 for exit sign graphics; a design code, not a product certification

2006 REGULATION
Maharashtra Fire Prevention and Life Safety Measures Act enacted; licensed fire agencies and half-yearly Form B compliance
Template for state fire acts; Gujarat followed in 2013 and MHA issued a revised model bill in 2019

2010 REGULATION
Delhi Fire Service Rules 2010: fire safety certificate valid 3 years for non-residential buildings, renewal on inspection
Creates a three-year re-inspection cycle in Delhi for hotels, offices and factories

2016 REGULATION
National Building Code 2016 Part 4: escape lighting 10 lux, 5 s switch-on, 90 min duration, battery packs not in lieu of DG, exit signs on independent circuits
Clause 3.4.7 and 3.4.7.4; adopted by state building rules such as Tamil Nadu CDBR 2019

2018-05-23 REGULATION
LED luminaires for emergency lighting (IS 10322 Part 5 Sec 8) brought under BIS compulsory registration
Lok Sabha reply of 19 July 2018: MeitY CRO Phase III covered six more LED products from 23 May 2018; the CRS list confirms the emergency-luminaire entry; Prolite claims first registration

2020-12-18 INCIDENT
Supreme Court orders monthly fire safety audits of COVID hospitals after the Rajkot hospital fire
First nationwide audit wave that reached hospital exit and emergency lighting

2022-05-13 INCIDENT
Mundka, Delhi: 27 dead in a commercial building with no fire NOC; civic body orders NOCs within seven days
Enforcement drive across Delhi factory units

2024-05-25 INCIDENT
Rajkot TRP game zone fire: 28 dead, no fire NOC; Gujarat High Court suo motu case, statewide closures
Court asks state for status of fire NOCs in schools and hospitals through 2025

2025-03 REGULATION
BIS raids e-commerce warehouses and seizes non-certified products; platforms told to delist
Signals enforcement risk for marketplace sales of unregistered LED luminaires

2025-08-27 MARKET
ASI 2023-24 released: 2,60,061 factories, Tamil Nadu first with 15.43%
About 2,13,000 factories in operation (derived from published per-factory ratios), up about 3.1% on 2022-23

2025-09-22 RAX
Rax Tech certified to ISO 9001:2015 by Bureau Veritas, scope includes fire and safety products
First certification cycle, valid to 21 September 2028

2025-11-06 RAX
BARC Visakhapatnam orders 25 RT-EML-220-SLI-LXX at ₹6,950: first Department of Atomic Energy purchase in the order book
Shows a government end user buying without a BIS mark

2026-03-20 REGULATION
BIS notifies IS 10322:2026 series (incl. Part 5 Sec 8 emergency luminaires) with lithium battery and marking requirements
Concurrent running of the 2013 edition ends 2 August 2026

2026-04-30 REGULATION
BIS notifies SP 7:2026 National Building Construction Standards; NBC 2016 withdrawn
Escape lighting moves to Part F clause 3.5.6 with the same 10 lux, 5 s and 90 min values, written as "should", plus periodical inspection and testing (3.5.6.3) and a 30 m exit-sign visibility rule; guidance until states amend their byelaws

2026-06-06 INCIDENT
BMC and Mumbai Fire Brigade citywide inspection drive of malls, hotels, banquet halls and restaurants
Recurring municipal audits sustain replacement demand

2026-08-02 REGULATION
End of concurrent running for IS 10322:2013 editions under CRS
Existing licensees must have updated test reports; new applications only under the 2026 edition

Regulation, schemes, incidents and market events that shape demand, in date order.

04 Market sizing

KEY TAKEAWAYS

- Bottom-up, India buys roughly ₹190 crore a year of self-contained emergency luminaires, illuminated exit signs and their batteries for non-domestic buildings (range ₹120 to 300 crore); the analyst figure of ₹2,450 crore counts a much broader category. Estimated | S21 | S120 | S52 | S30
- The serviceable market for a Chennai maker without a mark is about ₹33 crore: the non-tender share of four southern states. Estimated | S120 | S28
- Rax's obtainable share is ₹16 lakh of current revenue today (whatever the size of its historical installed base, which is claimed at 50,000+ but unmeasured) and ₹1.1 crore by 2031 in the base case, which needs the R number, ten dealers on a price list and a battery-and-test contract; without the R number it is ₹30 lakh. Estimated | S1 | S2
- The number that moves SOM most is the registration decision; the second is the dealer count; the third is contract attach. Estimated | S2
- Government demand is a minority of the category and, apart from direct purchase orders like BARC's, closed to Rax; export is nil. Verified | S28 Rax-supplied | S2 | S107

Bottom-up TAM: installed base times replacement times price

The calculation starts from the buildings that must have escape lighting and works down to units and rupees. Every factor is sourced or explicitly assumed. Estimated | S120 | S152 | S155 | S52 | S30 | S104 | S122 | S32

BUILDING STOCK	COUNT	EQUIPPED SHARE	FIXTURES PER SITE	INSTALLED FIXTURES	SOURCE
Factories in operation	2,26,000 (2,06,523 in 2022-23; about 2,13,000 in 2023-24; +3% a year to 2025-26)	60%	12	1.63 M	Verified | S120 | S152
Hospitals, government (NHP 2023) and private	30,125 rural government; 6,501 urban government; about 43,486 private	50% / 80% / 50%	6 / 40 / 20	0.73 M	Verified | S155 Publicly observed | S52
Branded hotel rooms plus unbranded allowance	216,000 rooms; 0.6 fixture per room; plus 0.1 M unbranded	n/a	n/a	0.23 M	Publicly observed | S30
Offices, IT parks, malls	Not sized; 56.5 msf completed in 2025	n/a	n/a	0.50 M (low confidence)	Publicly observed | S104
Warehousing, Grade A and B	290 msf Grade A in 2023 plus Grade B	1 per 5,000 sq ft	n/a	0.12 M	Publicly observed | S122
Metro stations	About 900	100%	200	0.20 M	Publicly observed | S32
Total installed base				3.4 M (range 2.5 to 5 M)	

Annual demand from that base is replacement plus growth. At a ten-year luminaire life the base replaces 340,000 units a year; new build and upgrades add about 150,000 (factories grow 3 percent, hotels 8 percent, warehousing over 20 percent in completions); 490,000 units at a blended ₹3,000 per unit (marketplace and GeM units at ₹1,080 to ₹2,800, Rax and Autolite at ₹4,000 to ₹8,000, a few flameproof units at ₹16,000 plus) is ₹147 crore. Batteries at a four-year life are 850,000 a year at ₹500 (12 V 7 Ah SMF cells list at ₹560 to ₹799), or ₹42.5 crore. The total is about ₹189.5 crore, rounded to ₹190 crore for 2026, with the honest range ₹120 to 300 crore driven by the equipped-share and fixtures-per-site assumptions. Non-illuminated signage (₹96 to ₹2,800 per sign) and LTI displays are excluded because they are different products with different buyers. Estimated | S18 | S20 | S42 | S46 | S149 | S162 | S165 | S167 Inferred

Top-down triangulation

Grand View Research puts India emergency lighting at USD 292.4 million in 2025, about ₹2,450 crore at ₹84 per dollar, growing 10.5 percent a year to USD 636.8 million by 2033; IMARC puts India fire and safety equipment at USD 2.0 billion in 2025 growing 5.1 percent. The bottom-up figure is about 8 percent of the first and 1 percent of the second. The gap is scope, not error: the analyst category includes central battery systems and inverters, emergency drivers built into general luminaires, portable and consumer emergency lights, integrated smart systems and services, and it is priced at global-brand levels; the bottom-up figure is only the self-contained unit a dealer sells to a plant. Two sanity checks support the narrower number: Prolite, the largest specialist, reported about ₹54 crore in FY2024-25 across luminaires and photoluminescent signage, which would be at most 28 percent of a ₹190 crore market and about 2 percent of the analyst market, and the second figure is implausible for a company that claims to be the category leader; and the Vasai cluster's dozens of sub-₹10 crore firms fit a ₹190 crore market better than a ₹2,450 crore one. Publicly observed | S21 | S22 | S164 Inferred

Serviceable market

Two filters turn ₹190 crore into ₹33 crore. Geography: Rax has two salespeople, no field service and every buyer within a day's drive of Chennai; Tamil Nadu holds 15.26 percent of operating factories (15.43 percent of all registered factories in 2023-24) and the most government hospital beds, and with Telangana, Andhra Pradesh and Karnataka roughly a quarter of the installed base. Route: about 30 percent of demand is specification-led (metro, airport, large offices and hospitals designed by MEP consultants) and asks for an R number; the remaining 70 percent is bought by plants, hospitals, hotels and dealers on purchase orders. ₹190 crore times 25 percent times 70 percent is ₹33 crore. Estimated | S120 | S152 | S155 | S28 Rax-supplied | S1

Obtainable share and the five-year series

YEAR	TAM (₹ CR)	SAM (₹ CR)	SOM BASE (₹ CR)	WHAT HAS TO BE TRUE
2026	190	33	0.16	Today: ₹16 lakh current revenue, 21 buyers, 336 units Rax-supplied | S2 | S174
2027	205	36	0.25	Claims fixed, price list, battery contract offered to 40 past buyers

YEAR	TAM (₹ CR)	SAM (₹ CR)	SOM BASE (₹ CR)	WHAT HAS TO BE TRUE
2028	221	39	0.45	First full year of registered sales (R number mid-2027); one pharma group standardised
2029	239	42	0.70	Monitored unit in two groups; 15 dealers
2030	258	45	0.90	Hospital chain reference; 20 dealers
2031	279	49	1.10	About 2,000 units at ₹4,500 blended plus ₹15 lakh of contracts and LTI clocks

TAM grows 8 percent a year (a blend of factory, hotel and warehouse growth); SAM follows. SOM is capacity-limited, not market-limited: two people can serve about sixty accounts and twenty dealers, and ₹1.1 crore by 2031 is 2 percent of SAM. Estimated | S1 | S2 | S103 | S120

₹33 Cr

Annual non-tender demand for self-contained emergency lighting in Tamil Nadu, Telangana, Andhra Pradesh and Karnataka; Rax holds about half a percent of it. Estimated | S120 | S28 Rax-supplied | S2

Sensitivity

DRIVER	LOW	BASE	HIGH	NOTE
BIS CRS registration	₹0.3 Cr	₹1.1 Cr	₹2.5 Cr	Low: no registration, marketplace delisting, drift to dealer brands; high: registration plus a monitored unit specified by a pharma group and a hospital chain Estimated	S13	S28
Active dealers on a price list	₹0.6 Cr	₹1.1 Cr	₹1.8 Cr	5 / 10 / 25 dealers Estimated	S2
Battery-and-test contract attach	₹0.9 Cr	₹1.1 Cr	₹1.6 Cr	0% / 20% / 50% of about 3,000 reachable installed Rax units at ₹800 a year Estimated	S2	S42

Rax's own base: current revenue against historical volume

The SOM starts from current revenue, not from the site's installation count, because only the first is measured. Current revenue is ₹16,01,735 in FY2025-26 in Rax's sales tracker, 2.0 percent of ₹7.91 crore, and the order book shows about 850 units in two years. Historical cumulative volume is Rax-supplied: 50,000+ installations on the site and Gabriel's statement that Rax has made a lot of X-Lite sales; public records confirm a brand selling on IndiaMART since 2003 with dated buyer ratings from 2019 to 2025, but no register, tender award or earlier product revenue exists. Rax-supplied | S1 | S2 | S6 | S174 Publicly observed | S175 | S176

The history matters because every installed X-Lite unit needs a battery every three to five years. The table shows what the base would be worth to a battery-and-test service under three sizes, with a four-year battery life, ₹850 per battery (Rax's realised spare price) and a ₹800 a year contract at 20 percent attach. Estimated | S2 | S165

INSTALLED X-LITE UNITS STILL IN SERVICE	WHAT WOULD MAKE IT TRUE	BATTERY REPLACEMENT A YEAR	CONTRACT REVENUE A YEAR	TOTAL
3,000	Order book units plus earlier dealer and marketplace sales since about 2020	750 x ₹850 = ₹6.4 lakh	600 x ₹800 = ₹4.8 lakh	₹11 lakh
10,000	About 1,000 units a year sold over the last decade	2,500 x ₹850 = ₹21 lakh	2,000 x ₹800 = ₹16 lakh	₹37 lakh
20,000	The site's 50,000 cumulative, with only units of the last ten years still on walls	5,000 x ₹850 = ₹43 lakh	4,000 x ₹800 = ₹32 lakh	₹75 lakh

The base case keeps the smallest row because it is the only one the records support. Estimated | S2 If Rax's invoice history shows the middle row is true, the replacement and AMC business alone would double the line without a single new customer, and the SOM for 2031 should rise by about ₹25 lakh; that is a finance query, not a market study. Estimated | S2 | S6 Recommendation

SO WHAT FOR RAX

The claimed installed base is the cheapest growth X-Lite has, and it is invisible until Rax lists who bought what since 2016. Recommendation

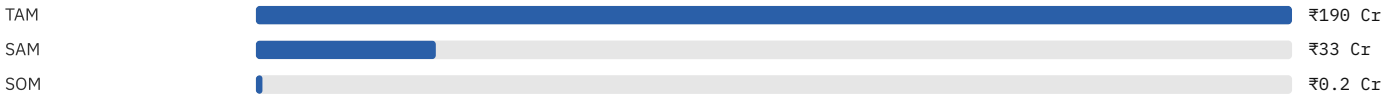
Government versus private, India versus export

Government demand is the metro, airport, PSU and public-hospital share of the base, perhaps a quarter of TAM, and it is bought through E&M packages that require the R number, through GeM bids on a 149-product Emergency Light Unit (V2) category priced at ₹1,080 to ₹2,300, and through railway purchases to RDSO specification; a 15 September 2026 snapshot showed 171 live emergency-lighting tenders, 144 of them under ₹10 lakh. The only government revenue in Rax's book is BARC's direct purchase of 25 units. Private demand is the rest and is where the SAM sits. Export is zero and should stay zero for the horizon: GCC approvals (Civil Defence, SASO or SABER, IEC 60598-2-22 reports) cost more than the line earns and the July 2026 Saudi study did not shortlist X-Lite. Verified | S28 Rax-supplied | S2 | S107 Publicly observed | S89 | S90 | S162 | S163 Inferred

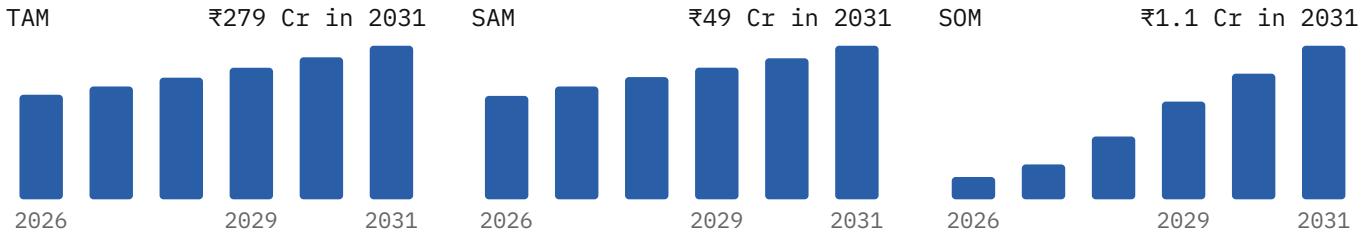
What the sizing does not capture

It does not count non-illuminated signage, which is a ₹96 to ₹2,800 per-sign business with different competitors; it does not count LTI clocks or safety displays; it does not count schools and colleges, whose stock is unknown; it does not count central battery or integrated emergency lighting, which is where the analyst figure's bulk sits; and it assumes an equipped share of 50 to 60 percent that the audit findings suggest may be lower, which would raise the upgrade opportunity and lower the replacement base. It should be read as a range: ₹120 to 300 crore for TAM, ₹20 to 50 crore for SAM, and ₹0.3 to 2.5 crore for SOM in 2031 depending mostly on one decision. Estimated S57 S61 S62 Inferred

> SO WHAT FOR RAX
>
> The market is not the problem; at ₹33 crore serviceable, X-Lite could grow six or seven times without anyone noticing. The constraint is Rax's readiness and sales capacity, which is why the verdict is about validation, not market entry. Recommendation



Addressable, serviceable and obtainable market, 2026. Bars share one scale.



	VALUE	DEFINITION	ASSUMPTIONS
TAM	₹190 Cr	India annual demand for self-contained emergency luminaires, illuminated exit signs and their replacement batteries in non-domestic buildings, 2026 triangulated	• Installed base about 3.4 million fixtures: 2,26,000 factories in operation in 2025-26 (ASI about 2,13,000 in 2023-24 grown 3% a year; 2,06,523 in 2022-23) x 60% equipped x 12 fixtures = 1.63 M [S120, S152]; hospitals 0.73 M = 30,125 rural government hospitals x 50% x 6 + 6,501 urban government hospitals x 80% x 40 (NHP 2023) + 43,486 private hospitals x 50% x 20 [S155, S52]; 216,000 branded hotel rooms x 0.6 plus 0.1 M unbranded = 0.23 M [S30, S156]; offices and malls 0.5 M (low confidence) [S104]; warehousing 290 msf Grade A plus Grade B at one fixture per 5,000 sq ft = 0.12 M [S122]; about 900 metro stations x 200 = 0.2 M [S32, S157] • Luminaire replacement at a ten-year life = 340,000 units a year; new-build and upgrade about 150,000 units a year; 490,000 units at a blended ₹3,000 = ₹147 Cr [S18, S20, S46, S162] • Battery replacement every four years = 850,000 batteries at ₹500 = ₹42.5 Cr [S42, S149, S165] • Total ₹189.5 Cr, rounded to ₹190 Cr; range ₹120 to 300 Cr; non-illuminated signage and LTI displays excluded • Top-down cross-check: Grand View Research India emergency lighting USD 292.4 M (about ₹2,450 Cr) in 2025 includes central battery systems, emergency drivers in general luminaires, portable lights and services; the self-contained dealer-sold slice is about 8% [S21] Estimated S18 S20 S21 S30 S32 S42 S46 S52 S104 S120 S122 S149 S152 S155 S156 S157 S162 S165
SAM	₹33 Cr	Non-tender demand in Tamil Nadu, Telangana, Andhra Pradesh and Karnataka reachable through dealers and direct plant purchase, 2026 bottom-up	• Four southern states hold about 25% of the installed base (Tamil Nadu alone 15.26% of operating factories in 2022-23 and 15.43% of all factories in 2023-24; 1,16,733 government hospital beds, the most of any state) [S120, S152, S155] • About 70% of that demand is bought without a tender or brand specification (plants, hospitals, hotels, dealers); metro, airport and large-office specification work is excluded until an R number exists [S28] • ₹190 Cr x 0.25 x 0.70 = ₹33 Cr Estimated S120 S152 S155 S28 S2
SOM	₹0.2 Cr	X-Lite revenue FY2025-26, the obtainable share today; rising to ₹1.1 Cr by 2031 in the base case bottom-up	• Base case: existing 21 buyers retained, ten dealers on a price list, battery-and-test contract attached to 20% of installed units, CRS filed in early 2027 with the R number by mid-2027 and registered sales from 2028, one pharma group standardised across plants [S2, S7, S153] • Two salespeople and no field service cap the account count at about 60 by 2031 [S1] • About 2,000 units a year at ₹4,500 blended plus ₹15 lakh of contracts and LTI clocks by 2031 Estimated S1 S2 S7 S153

Sensitivity

DRIVER	LOW	BASE	HIGH	NOTE
BIS CRS registration obtained (opens tenders and protects marketplace sales)	0.3	1.1	2.5	Low: no registration, marketplace delisting risk, revenue drifts to dealers' own brands; high: registration plus a monitored unit specified by one pharma group and one hospital chain (SOM 2031, ₹ Cr)
Active dealers on a price list	0.6	1.1	1.8	5 dealers / 10 dealers / 25 dealers across Tamil Nadu, Karnataka and Telangana (SOM 2031, ₹ Cr)
Battery-and-test contract attach rate on installed units	0.9	1.1	1.6	0% / 20% / 50% attach on a reachable installed base of about 3,000 Rax units (848 evidenced in the FY2024-25 and FY2025-26 order book plus earlier dealer and marketplace sales; the site claims 50,000+ but no register exists) at ₹800 a year (SOM 2031, ₹ Cr)

05 Segments and ideal customer

KEY TAKEAWAYS

- Twelve segments scored; the top three are Tamil Nadu manufacturing plants (64), pharma and chemical plants (62) and the electrical and fire-safety dealer channel (60), which together already produce most of X-Lite's revenue. Estimated S2 S120 Rax-supplied S7
- The ideal customer is a Tamil Nadu plant with 200 to 2,000 workers, an annual fire licence, a named EHS officer and a Rax relationship from another product line; it buys 10 to 40 units per event at ₹5,000 to ₹7,000 without a tender. Rax-supplied S2 Verified S26 S119
- Metro, airport and hazardous-area segments score lowest because the R number and flameproof approvals gate them, not because demand is weak. Verified S28 Publicly observed S39
- The LTI clock buyer is a different person (the EHS head) with a different budget (safety week, CSR) and scores fourth on fit and readiness rather than demand. Rax-supplied S3 S4 Publicly observed S53
- Twenty-two named target accounts are listed; inclusion is a research judgement from public evidence and the order book, not a relationship. Rax-supplied S2 S6 Publicly observed S80

Segment ranking

RANK	SEGMENT	TOTAL	DEMAND	FIT	ROI	READINESS	ACCESS	DIFF.	FRICTION	MARGIN
1	Tamil Nadu manufacturing plants	64	14	16	8	8	7	5	4	2
2	Pharma and chemical plants (Hyderabad, Ranipet, Vizag)	62	14	15	8	8	6	5	3	3
3	Electrical and fire-safety dealers	60	12	15	7	9	8	3	5	1
4	LTI clock and safety-display buyers	56	9	15	5	9	5	6	4	3
5	Hospitals and clinical establishments	55	15	12	8	6	5	4	3	2
6	Warehousing and logistics parks	50	13	12	7	6	4	3	3	2
7	Hotels and hospitality	50	13	11	7	6	4	4	3	2
8	Government and PSU direct purchase	50	11	12	6	7	5	4	2	3
9	Schools and colleges	42	10	10	5	6	4	3	3	1
10	Commercial offices, IT parks and malls	41	12	9	6	5	3	2	2	2
11	Metro, airport and infrastructure tenders	39	14	8	7	2	2	2	1	3
12	Petrochemical and hazardous-area sites	30	12	4	6	1	2	1	1	3

Size, buyer, budget and pain by segment

RANK	SEGMENT	SIZE	BUYER	BUDGET SOURCE	PAIN
1	Tamil Nadu manufacturing plants	About 31,500 operating factories (2022-23); 40,000 registered (2023-24) Verified S120 S152	Plant head, EHS officer, purchase officer	Maintenance opex; small capex at new sheds	Dead units found at the fire-licence or audit walk Publicly observed S57
2	Pharma and chemical plants	Pharmaceuticals are the fifth-largest industry by GVA in ASI 2023-24; Granules alone bought 142 units in fifteen months Verified S152 Rax-supplied S2	Corporate EHS and site engineering	Plant opex under audit plans	USFDA, ISO 45001 and insurer audits expect a documented test record Publicly observed S92
3	Electrical and fire-safety dealers	Ten active Rax dealers; hundreds of dealers on IndiaMART in Tamil Nadu Rax-supplied S2 Publicly observed S87	Dealer proprietor	Working capital for stock	Margin against their own or Vasai brands Publicly observed S43
4	LTI clock and safety-display buyers	Large plants and EPC sites; not counted Unknown	EHS head	Safety week, CSR, site setup	A visible safety culture metric at the gate Publicly observed S53
5	Hospitals	36,626 government hospitals (8,40,455 beds) plus about 43,486 private Verified S155 Publicly observed S52	Administrator, facilities engineer, NABH coordinator	Building maintenance; NOC renewal	Court-ordered audits and NABH safe-exit plans Verified S34 Publicly observed S173
6	Warehousing and logistics parks	41.7 msf completed in 2025; Oragadam a top-three micro-market Publicly observed S103	Developer's MEP contractor; tenant facility manager	Fit-out capex	Long dark aisles; tenant compliance at occupation Inferred
7	Hotels	About 216,000 branded rooms (2025) Publicly observed S156	Chief engineer; chain procurement	Pre-opening capex; renewals	Annual fire licence; appearance of corridor signs Verified S119
8	Government and PSU direct purchase	171 live emergency-lighting tenders on 15 September 2026, 144 under ₹10 lakh Publicly observed S163	Stores and electrical maintenance officers	Departmental maintenance budgets; GeM	L1 price on GeM at ₹1,080 to ₹2,300 Publicly observed S162

RANK	SEGMENT	SIZE	BUYER	BUDGET SOURCE	PAIN
9	Schools and colleges	Not sized (Unknown)	Principal, trust engineer	Annual maintenance	Post-Rajkot NOC demands (Verified S60)
10	Offices, IT parks, malls	56.5 msf of office completions in 2025 (Publicly observed S104)	MEP consultant, facility manager	Project BOQ	Specified brands and self-test (Inferred)
11	Metro, airport and infrastructure	About 1,095 km of metro and RRTS in 26 cities; 162 airports (Verified S157) (Publicly observed S50)	E&M contractor under authority specification	Capital project	R number and fire-survival cabling clauses (Verified S28)
12	Petrochemical and hazardous areas	OISD-regulated sites (Publicly observed S92)	Refinery electrical and safety departments	Turnaround budgets	Flameproof certification (Publicly observed S39)

The scores are estimates against the charter's model. Demand reflects documented, budgeted need (fire licence renewals, audits, court orders); fit reflects Rax's existing product, ISO scope, Chennai manufacturing and existing relationships; readiness is penalised everywhere by the missing BIS mark and the unsupported CE claim and raised where the order book already shows repeat purchases; access reflects whether two salespeople and ten dealers can reach the buyer; differentiation is low across the board because the product is a commodity, lifted slightly by regional-language legends and the possibility of a monitored unit; margin is scored low because no cost data exists and nothing recurs. (Estimated S1 S2 S26 S28 S120) (Rax-supplied S7)

Segment detail

Tamil Nadu manufacturing plants. About 31,500 factories operate in the state, more than in any other; the Tamil Nadu Factories Rules oblige every one to keep exits illuminated on failure of normal supply and marked in the workers' language; fire licences renew annually for multi-storeyed premises. The order book shows the pattern: Dürr India (4 to 6 units per order), Wheels India (6), Daebu Automotive (5 to 9), NTN (10 signs), Thirumalai Chemicals at Ranipet (outdoor units), and the dealers that serve the Sriperumbudur and Ambattur belts. Pain is the audit walk and the dead unit found in it; budget is maintenance opex or a small capex line. (Verified S26 S119 S120) (Rax-supplied S2)

Pharma and chemical plants. Granules India bought 89 units across four orders in FY2025-26 and 88 in FY2024-25, the most consistent end-user account in the book; Thirumalai Chemicals bought outdoor SHO units at ₹10,100. These plants live under USFDA, ISO 45001 and insurer audits that expect documented emergency lighting, they buy in repeat lots, and they pay list. The segment extends to Hyderabad, Visakhapatnam and Ranipet within a day of Chennai. (Rax-supplied S2 S7) (Publicly observed S92)

Electrical and fire-safety dealers. Shakti Electricals (145-unit order in 2023, then 20 units in 2025), P7 Enterprises (45 vinyl signs, 42 exit signs, 21 outdoor units, plus a 20-unit service job), Tejaslite (2 units a month on a standing order), Sparkle, Shree, Royal Lite, Excel, Creative, MRS and Prayaga together produced roughly half of X-Lite's FY2025-26 revenue. They buy at ₹5,000 to ₹6,000, hold small stock, install and service, and, as P7's own ₹4,050 twin beam shows, defect to their own brand if the margin is better elsewhere. (Rax-supplied S2 S7) (Publicly observed S43 S134)

LTI clock and safety-display buyers. The EHS head of a large plant or EPC site buys an accident-free-days display for the gate; competitors sell dot-matrix boards at ₹6,000 to ₹42,865, Rax lists a compact Bluetooth-reset clock at ₹27,400 with a proper datasheet. It is a different sale (safety culture, not compliance) to a different person, but the same person signs the emergency-light order. (Rax-supplied S3 S4) (Publicly observed S47 S53 S54)

Hospitals. Fire NOC, NABH's FMS chapter (fire and non-fire emergency plans, a displayed safe-exit plan on every floor), the Supreme Court's 2020 audit order and repeated state audits (Odisha 2,215 facilities; Ghaziabad 37 hospitals served notice) make this the segment with the most documented pain; access is the problem, because hospital purchase runs through biomedical and facilities engineers Rax does not know, and KOB Medical and Indira Medical are the only hospital-type buyers in the book. (Publicly observed S34 S61 S62 S93) (Rax-supplied S2)

Warehousing and logistics parks. Oragadam was one of India's three busiest warehousing micro-markets in 2025 and Chennai took over 8 million sq ft of demand; developers fit out shells through MEP contractors and tenants add units at occupation. Twin-head units are the specified product for long aisles. Access runs through the contractor, not the tenant. (Publicly observed S103 S121 S122)

Hotels. Branded supply is 216,000 rooms and rising 7.8 percent a year, Chennai runs 71 percent occupancy, fire certificates renew annually in Tamil Nadu and Mumbai and every three years in Delhi; edge-lit acrylic signs are the hotel product. Chains buy centrally and specify brands; independents buy from the local electrical dealer. (Publicly observed S29 S30 S100 S119 S130)

Government and PSU direct purchase. BARC Visakhapatnam's 25 units at ₹6,950 show the shape: a research or defence establishment buying on a purchase order below tender thresholds without asking for a mark. The public route is larger than it looked in pass 1: a snapshot of live tenders on 15 September 2026 found 171 emergency-lighting tenders, 41 from railways and 37 from defence, 144 of them under ₹10 lakh, including GeM bids for Emergency Light Unit (V2) from PSUs in Gujarat and Telangana and a ₹95.69 lakh electrical package with emergency lights at FRFCF Kalpakkam, a Department of Atomic Energy site in Tamil Nadu. GeM's V2 category lists 149 products at ₹1,080 to ₹2,300, so GeM rewards price, and railway coach lights need RDSO approval to RDSO/PE/SPEC/AC/0180-2016. The segment is real, countable and price-led; the BARC relationship makes other DAE units the natural first targets. (Rax-supplied S2) (Publicly observed S44 S162 S163)

Schools and colleges, offices and malls, metro and airport tenders, and petrochemical sites complete the list; the last two are gated by the R number and by flameproof approvals respectively, and the first two are price-led or specification-led markets where Rax has neither price nor specification advantage. (Verified S28) (Publicly observed S35 S39 S63)

> **89**
>
> Units of X-Lite bought by Granules India in FY2025-26 across four purchase orders, the largest end-user account and the template for the pharma segment. (Rax-supplied S2)

Ideal customer profile

Firmographics: a manufacturing plant in Tamil Nadu, Telangana or Andhra Pradesh with 200 to 2,000 workers, a multi-storeyed or large-footprint building holding an annual fire licence, a named EHS or safety officer, and a fixed-asset base of ₹5 to 500 crore. Trigger events: fire licence renewal, an insurer or corporate EHS audit, a new shed or line, a failed test during a mock drill, or an incident in the district that sends the inspector round. Current alternative: units bought years ago from a local dealer, half of them with dead batteries; or Prolite and Sunlite units bought on IndiaMART. Budget holder: the plant head through maintenance opex; corporate EHS for multi-site pharma. Decision timeline: two to six weeks from audit finding to purchase order; longer when a consultant is involved. Rax-supplied S2 Verified S26 S119 Publicly observed S57 Inferred

Buying committee

The economic buyer is the plant head, hospital administrator or hotel general manager, who needs the licence renewed at the lowest total cost and is killed by a quotation two to four times a dealer alternative with nothing to justify it. The champion is the EHS or safety officer, who needs units that pass the inspector's walk, legends in the workers' language and a test record, and who is killed by a CE badge that turns out to have no certificate behind it. The technical evaluator is the electrical engineer or MEP consultant, who needs autonomy, lux, IP rating and, on tenders, the R number. Risk and compliance is the fire NOC applicant, the insurer's surveyor and the NABH coordinator, who need documents for the file. Procurement is the purchase officer or the dealer, who needs price, days to deliver, warranty and spares. The end user is the electrician who swaps batteries and presses test switches and who is the person who finds the dead unit at audit. Rax-supplied S2 Verified S26 S100 Publicly observed S57 S129 Inferred

Jobs to be done and willingness to pay

The job is "get the fire licence renewed and pass the audit without a finding", not "light the escape route". Willingness to pay follows the inspector: a plant will pay ₹5,000 to ₹7,000 for a unit that looks industrial and carries a test switch when the dealer says so and the inspector accepts it, which is why Rax's premium survives; it will not pay a premium for a mark nobody asks for, which is why marketplace buyers pay ₹2,000. Hospitals and hotels pay for signs that look right in a corridor (edge-lit acrylic at ₹2,000 to ₹4,500). Pharma pays list because the audit trail matters more than the price. A monitored unit would command ₹1,000 to ₹2,000 over a plain unit only where a corporate EHS function or an NABH coordinator has to produce a test register; there is no evidence yet of anyone in India paying a per-unit subscription for it. Rax-supplied S2 Publicly observed S18 S57 S129 Inferred

Case studies from the evidence

Case 1, a pharma plant (segment 2): Granules India placed purchase orders 3100105022 (18 units, May 2024), 3100110704 (15, August 2024), 4000006996 (10, July 2024), 3100121221 (10, February 2025), 4000008355 (30, March 2025), 3100130190 (40, July 2025) and 3100131857 (19, August 2025) for RT-EML-220-SHI-LXX at ₹5,050 to ₹5,700, a run of 142 units in fifteen months from one plant on SAP-numbered orders. That is what a regulated plant standardising on one unit looks like; the account exists because someone at Granules found Rax, not because Rax found Granules. Rax-supplied S2

Case 2, a Tamil Nadu plant (segment 1): Dürr India, whose logo is on the X-Lite site, placed two orders (926/91049788 and 925/91050087) for ten RT-EML-220-SLI units at ₹6,390 in July and August 2025; Wheels India placed order 4600283896 for six units in June 2025 at ₹5,290 to ₹7,670; Thirumalai Chemicals placed three orders for outdoor SHO units at ₹10,100. Small, repeat, full-price, local, and unadvertised. Rax-supplied S2 Publicly observed S6

Case 3, a dealer (segment 3): Shakti Electricals took order 681(TD) for 145 units of the 210-SLI at ₹5,900 in July 2023 and drew it down in tranches through April 2025, then bought 30 replacement 12 V 7 Ah batteries at ₹850 in November 2025; P7 Enterprises bought 45 vinyl signs, 42 exit signs and 21 outdoor units in 2024 and 2025, paid ₹20,000 to have twenty signs serviced, and lists its own twin beam at ₹4,050. The dealer is the channel, the service arm and the competitor. Rax-supplied S2 S8 Publicly observed S43

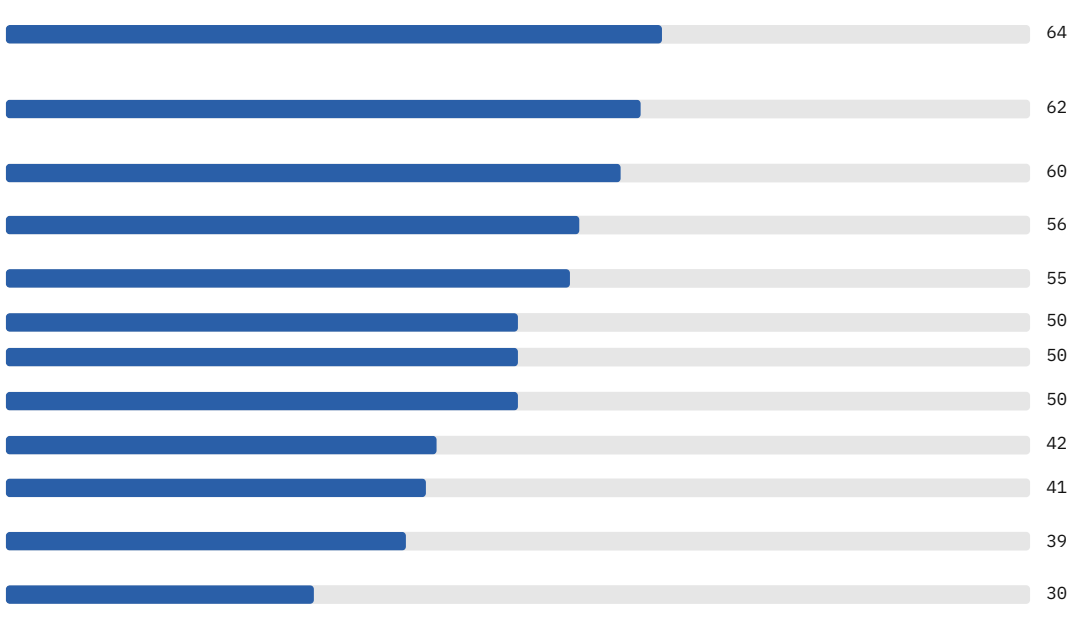
Named target accounts (research targets, not relationships)

ACCOUNT	WHY IT FITS	EVIDENCE
Granules India, Hyderabad and Visakhapatnam plants	Existing 142-unit run; extend to all sites and add battery contract	Rax-supplied S2
BARC Visakhapatnam and other DAE units, including FRFCF Kalpakkam	Existing PO; direct purchase without tender; Kalpakkam tendered emergency lights in September 2026	Rax-supplied S2 Publicly observed S163
Dürr India, Chennai	Existing buyer; German OEM with audit culture	Rax-supplied S2
Wheels India, Chennai and Padi	Existing buyer; site logo on X-Lite	Rax-supplied S2 Publicly observed S6
Thirumalai Chemicals, Ranipet	Existing buyer of outdoor units; chemical plant under OISD-type audits	Rax-supplied S2
Ashok Leyland, Ennore and Hosur	Site logo; multiple Tamil Nadu plants	Publicly observed S6
Hyundai Motor India, Sriperumbudur	SIPCOT anchor; supplier park of dozens of units	Publicly observed S80
Renault-Nissan and its Oragadam supplier park (Cosma, Tenneco, Kosei Minda, POSCO-ICPC)	Named SIPCOT Oragadam occupants	Publicly observed S80
Daimler India Commercial Vehicles, Oragadam	SIPCOT Oragadam anchor	Publicly observed S80
Foxconn and Salcomp, Sriperumbudur	Electronics assemblers with large workforces; Salcomp logo on site	Publicly observed S6 S80
TVS Motor, Titan and Ashok Leyland, Hosur	Krishnagiri district's 150 medium and large units	Publicly observed S109
Daebu Automotive and NTN, Chennai	Past buyers in FY2024-25	Rax-supplied S2
Hero, MG Motor, Hyundai Steel, Tata International, Delphi TVS, TNPL, Nilkamal, Farida Group, RGPPL	Site logos; corroborate before use	Publicly observed S6

ACCOUNT	WHY IT FITS	EVIDENCE
KOB Medical and Indira Medical	Existing hospital-type buyers	Rax-supplied S2
Apollo, Kauvery and MGM hospital groups, Chennai	Multi-site NABH hospitals with fire NOC cycles	Publicly observed S93 S131
ESR and other Oragadam warehousing developers	Top-three micro-market in 2025	Publicly observed S103
Chennai Metro Rail and Chennai airport packages	Closed until CRS; register to bid	Publicly observed S128 Verified S28
Shakti Electricals, P7 Enterprises, Tejaslite, Sparkle Engineering	Existing dealers; formalise with a price list	Rax-supplied S2
Fire Supplies (Bengaluru), Safekit and Idea Fire (Chennai)	Fire-safety distributors carrying competitor brands	Publicly observed S87 S149
Relifire and JS Consultants, Chennai	Fire contractors and MEP consultants who specify	Publicly observed S84 S85
Gulf Connect (Muscat) and iibdaei (Dammam)	Group entities; only after IEC test reports exist	Rax-supplied S1 S107
ZenCampus schools	Cross-sell to the 300 active legacy Smart School Campus users	Rax-supplied S1
Past X-Lite buyers on IndiaMART (Chennai, Surat, Kerala, Hyderabad reviewers since 2019) and Rax's invoice history	Reactivate for batteries and a test contract	Publicly observed S175 Rax-supplied S1

SO WHAT FOR RAX

The first three segments are where the money already is and where two salespeople can work; the plan should deepen them (standardise, contract, cross-sell the LTI clock) before it widens. Hospitals and warehouses are the next ring and need a specifier relationship Rax does not have. Recommendation



Segment priority score, out of 100

#	SEGMENT	BUYER	SIZE	SCORE	EVIDENCE
1	**Tamil Nadu manufacturing plants (auto, engineering, electronics, chemicals)** Factories in the Chennai arc, Hosur, Ranipet and Coimbatore that must keep exits illuminated on supply failure under the Tamil Nadu Factories Rules and renew fire licences annually; buy 10 to 40 units per event through a dealer or on a plant purchase order.	Plant EHS or safety officer specifies; purchase officer orders; electrical contractor installs	About 31,500 factories in operation in Tamil Nadu (15.26% of 2,06,523 in 2022-23) and 40,000 registered (15.43% of 2,60,061 in 2023-24); Rax sells to about 15 of them	64	Estimated S2 S26 S119 S120 S152
2	**Pharmaceutical and chemical plants (Hyderabad, Ranipet, Visakhapatnam)** Regulated plants with USFDA, NABH-style and OISD audit cultures that document emergency lighting; Granules India is the largest end user (89 units in FY2025-26) and Thirumalai Chemicals buys outdoor units.	EHS head and engineering manager; corporate procurement	Pharma and chemicals are among the top employers in ASI; Telangana and Tamil Nadu clusters within a day's reach	62	Estimated S2 S7 S120 S92
3	**Electrical and fire-safety dealers and small contractors** Dealers such as Shakti Electricals, P7 Enterprises, Tejaslite and Sparkle who buy 2 to 145 units at ₹5,000 to ₹6,000 and resell with installation; the channel that produced half of FY2025-26 X-Lite revenue.	Dealer proprietor; buys on price, availability and warranty support	Ten active dealers in the order book; hundreds of fire-safety and electrical dealers in Tamil Nadu; Maharashtra alone lists over 500 licensed fire agencies	60	Estimated S2 S7 S81 S85

#	SEGMENT	BUYER	SIZE	SCORE	EVIDENCE
4	**LTI clock and safety-display buyers (large plants and EPC sites)** EHS heads who display accident-free days at the plant gate; a display product, not a code requirement; competitors sell dot-matrix boards at ₹6,000 to ₹42,865.	EHS head; corporate safety function; CSR or safety-week budgets	Every large plant and construction site is a candidate; no count; Rax has one datasheet and a ₹27,400 list price	56	Estimated S3 S4 S47 S53 S115
5	**Hospitals and clinical establishments** Government and private hospitals under fire NOC, NABH FMS chapter and post-2020 court-ordered audits; buy exit signs and corridor emergency lights in batches at renewal; KOB Medical and Indira Medical are small existing buyers.	Hospital administrator and biomedical or facilities engineer; NABH coordinator	36,626 government hospitals with 8,40,455 beds (NHP 2023, as on 31 December 2022; Tamil Nadu 2,644 hospitals and 1,16,733 beds) plus about 43,486 private hospitals (secondary estimate); Odisha audited 2,215 facilities in a year	55	Estimated S155 S52 S62 S93 S173 S2
6	**Warehousing and logistics parks** Grade A and B warehouses at Oragadam, Sri City, Chakan and NCR; long dark boxes where twin-head units are specified; developers (ESR, IndoSpace) and 3PL tenants buy through MEP contractors at fit-out.	Developer's project manager and MEP contractor; tenant facility manager after handover	41.7 msf completed in 2025 across top eight cities; Grade A stock 290 msf in 2023; Chennai over 8 msf demand in 2025	50	Estimated S103 S121 S122
7	**Hotels and hospitality** Branded and unbranded hotels under annual or three-year fire certificate renewal; corridors, stairs and back-of-house need maintained exit signs and emergency luminaires; acrylic edge-lit signs suit them.	Chief engineer and general manager; chain procurement for brands	About 216,000 branded rooms per day in 2025 with 144,000 in the pipeline; Chennai occupancy 71%	50	Estimated S29 S30 S100 S130 S156
8	**Government and PSU direct purchase (non-tender)** Research centres, defence establishments, universities and PSU plants buying on direct purchase orders below tender thresholds; BARC Visakhapatnam bought 25 units at ₹6,950 in November 2025. GeM carries an Emergency Light Unit (V2) category with 149 products at ₹1,080 to ₹2,300, and a 15 September 2026 snapshot showed 171 live emergency-lighting tenders (Railways 41, Defence 37, 144 under ₹10 lakh), including a ₹95.69 lakh FRFCF Kalpakkam electrical package in Tamil Nadu; railway coach lights need RDSO specification approval.	Maintenance engineer and purchase section; GeM for small values	171 live emergency-lighting tenders on 15 September 2026, 144 of them under ₹10 lakh; GeM V2 category of 149 products; one BARC order in the Rax book	50	Estimated S2 S44 S162 S163
9	**Schools and colleges** Institutions required to hold fire NOCs after Rajkot; Gujarat HC tracks school NOCs; low ticket, price-led; overlaps with ZenCampus accounts.	Principal or trust administrator; state education department for government schools	Every school with a fire NOC obligation; count not sized	42	Estimated S35 S60 S131
10	**Commercial offices, IT parks and malls** Facility managers of Grade A offices and malls under municipal fire audits (BMC June 2026 drive); large sites tend to specify global brands or central battery systems at fit-out.	Facility manager and MEP consultant; developer at fit-out	56.5 msf of office completions in 2025; up to 90 msf expected in 2026	41	Estimated S104 S105 S63 S64
11	**Metro, airport and large infrastructure E&M tenders** Station and terminal packages that demand BIS R numbers, fire-survival cabling and NBC compliance, awarded to contractors who buy from registered brands.	Authority E&M department writes the spec; EPC or E&M contractor buys	1,077 km of metro in 26 cities, about 1,000 km under construction, 162 airports; closed to Rax until CRS	39	Estimated S28 S31 S32 S50 S128
12	**Petrochemical and hazardous-area sites (OISD)** Refineries, depots and LPG plants where flameproof and ATEX or CMRI-approved luminaires are specified; Rax has no flameproof product.	Plant electrical head; OISD audit	Flameproof units sell at ₹16,000 to ₹28,379; Eaton CEAG and Prolite serve it	30	Estimated S39 S43 S92 S149

Buying committee for a plant or hospital emergency-lighting purchase

Economic buyer
Plant head, hospital administrator or hotel GM
NEEDS Fire licence renewed on time at lowest total cost
KILLS THE DEAL A quotation above the dealer's alternative with no proof to justify it

Champion
EHS or safety officer
NEEDS Units that pass the inspector's walk, regional-language legends, a test record
KILLS THE DEAL A CE badge that cannot be backed by a certificate

Technical evaluator
Electrical engineer or MEP consultant
NEEDS Autonomy, lux, IP rating, BIS R number where specified, wiring drawings
KILLS THE DEAL No R number on a tender that asks for one

Risk and compliance
Fire NOC applicant, insurer's surveyor, NABH coordinator
NEEDS Documents for the fire file and the audit
KILLS THE DEAL No test certificate or datasheet

Procurement
Purchase officer or dealer
NEEDS Price, delivery in days, warranty, spares
KILLS THE DEAL Two- to four-times price gap on IndiaMART

End user and maintainer
Electrician, facility team
NEEDS Easy battery swap, test switch, spares
KILLS THE DEAL Dead units found at audit

Six roles observed in the order book, fire rules and audit checklists; the safety officer specifies, procurement decides on price and the auditor decides whether it was worth it. Inferred | S2 | S26 | S57 | S100 | S129

06 Competitive landscape

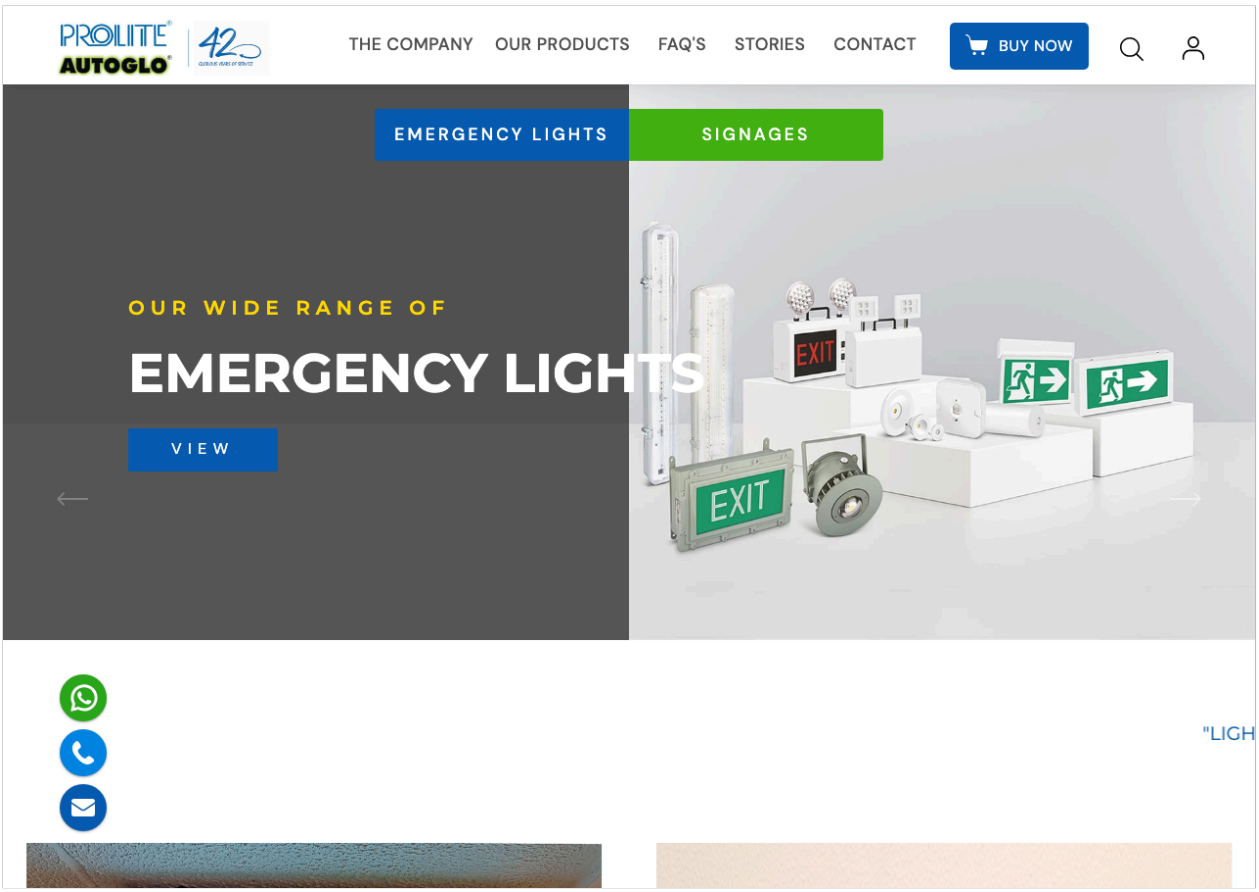
KEY TAKEAWAYS

- Thirty-six competitors are profiled: seventeen direct Indian makers and marketplace brands, five partner-competitors (dealers and fire contractors), eight indirect global, consumer and signage brands, and six substitutes. Publicly observed | S17 | S20 | S138
- Prolite Autoglo is the only Indian specialist with scale (about ₹54 crore in FY2024-25, 103 staff on EPFO, BIS CRS, central battery, airport and metro references); everyone else, including Rax, is a sub-₹10 crore workshop selling on IndiaMART. Publicly observed | S17 | S66 | S69 | S164
- The Vasai cluster sells LED exit lights and twin beams at ₹1,100 to ₹2,800 with six-month warranties; Rax's ₹5,000 to ₹10,100 metal halogen units are two to four times dearer without a BIS mark to justify it. Publicly observed | S18 | S67 | S137 Rax-supplied | S2
- Rax wins on regional-language legends, metal build, three-hour lead-acid autonomy, one-year warranty and a Chennai address; it loses on mark, price, warranty length on the low end, and monitoring on the high end. Publicly observed | S46 | S140 Inferred
- The empty space on the map is a BIS-registered, monitored (self-test or IoT-reporting) luminaire at ₹3,000 to ₹4,500 for Tamil Nadu plants; nobody local occupies it. Inferred

Landscape

The category splits into four rings. The inner ring is Indian specialists who make self-contained luminaires and illuminated signs and sell through dealers and marketplaces: Prolite Autoglo in Mumbai; the Vasai cluster of Sunlite, Autolite, Illumination India and Levonix; Supreme Creation in Kandivali; SKP Automation in Noida; Ashirwad in Ahmedabad; Finetech in Tiruppur and Thirumani in Chennai in the south; and marketplace brands such as PMI, PFL, IEPS and Palex. The second ring is the dealers and fire contractors who carry these brands and sometimes their own: P7 Enterprises in Tiruvallur, KT Automation in Vadodara, Fire Supplies in Bengaluru, Spark Fire in Delhi, Ceasefire's dealer network. The third ring is global lighting and electrical groups whose products reach India through project specification: Signify, Legrand, Schneider Exiway, Eaton CEAG, ABB Emergi-Lite, and Beghelli, plus the Indian consumer majors (Havells, Wipro, Bajaj, Anchor) whose "emergency" products are portable lanterns and inverter bulbs. The outer ring is the substitutes: photoluminescent signage, central battery or inverter-backed general lighting, portable lights, and doing nothing. Publicly observed | S17 | S20 | S38 | S73 | S138 | S148 Inferred

Imports are present but hard to size. Consumer twin-spot and lantern products on Moglix and Flipkart are largely imported or assembled from imported kits; industrial twin-head units are mostly Indian sheet-metal builds; global brands import finished luminaires. A Wipro executive told the industry association that "a large number of products being sold in India are non-compliant (non-BIS certified) products", and BIS raided e-commerce warehouses in 2025. Publicly observed | S112 | S113 | S148 Unknown



Prolite is the benchmark competitor: forty-two years, BIS CRS, a central battery system and a signage brand under one roof. Source S17

Deep-dive 1: Prolite Autoglo Limited, Mumbai

Prolite was established in 1984 and incorporated as a limited company in 2007. Its FY2024 revenue sat in the ₹25 to 50 crore band with 13.6 percent growth and EBITDA more than doubled; FY2025 revenue was ₹53.96 crore, up 12 percent, with paid-up capital now ₹8.8 crore. It has 103 employees on EPFO records (its IndiaMART profile claims 501 to 1,000). It sells two brands: Prolite luminaires (exit lights, egress route lights, twin beam and multi lights, airport series, flameproof and weatherproof units, portable emergency towers) and Autoglo photoluminescent signage (exit signs, directional signs, staircase nosing). It claims to be the first

company in India with BIS certification of emergency lights, lists CRS-certified exit lights and portable emergency lights to IS 10322 Part 5 Sec 8 with production capacities of 30,000 to 40,000 units, has launched a central battery system, and advertises conversion kits that turn existing luminaires into emergency luminaires. Marketplace prices are ₹1,100 for a decorative LED exit light, ₹1,600 for an egress exit light, ₹1,800 for a clustered-plastic twin beam and ₹2,400 for an LED multi light, with six-month warranties on those lines; its flameproof unit sells at ₹28,379 through a Bengaluru distributor. It names metros, airports, hospitality, corporates, expo centres, mines, chemical plants, tunnels and warehouses as sectors, claims 100-plus dealers and 33 export countries, and exhibits at Fire India and the Goa OSH expo. Publicly observed | S17 | S18 | S66 | S67 | S68 | S69 | S142 | S143 | S149 | S164

What it means for Rax: Prolite sets the reference for what a buyer can get for ₹2,000 with an R number. Its weaknesses are a Mumbai-centred dealer base, six-month warranties on the volume lines, and a mixed bag of battery chemistries in its listings. It does not appear to sell a monitored self-contained luminaire; its answer to monitoring is the central battery system. Inferred

Deep-dive 2: Sunlite Industries, Vasai

Sunlite is a small Vasai maker and trader (established 2000 by one listing, 2015 by its own site) of photoluminescent signage, evacuation plans, glow tapes, exit sign lights and industrial emergency lights. Its differentiator is price with a mark: it lists "BIS 10322 approved emergency light" at ₹2,500, an MS twin beam BIS unit at ₹2,000 and an industrial exit light at ₹2,800 on TradeIndia, and it claims a 20 to 30 year indoor life for its photoluminescent signs. Its site carries six Google testimonials that praise glow visibility, pricing and delivery. It is the archetype of the competitor Rax meets on IndiaMART: one supplier for signs and lights, at half Rax's price, with a BIS claim. Publicly observed | S19 | S20 | S141

Deep-dive 3: Finetech Systems, Tiruppur

Finetech has made industrial and domestic emergency lights since 1995 in Avinashi, Tiruppur, and is the closest Tamil Nadu competitor in product terms: halogen 110 W twin beams with sensors at ₹2,900, 18 W LED twin beams with sensor at ₹3,300, single and double dome units, edge-lit acrylic exit lights with two-hour lithium-ion backup, and, critically, exit lights with two- and three-language legends (Tamil, Kannada, Hindi with "man running") at ₹4,200 to ₹5,700. It offers IP65 and IP68 on request, 12 V 7 Ah VRLA or lithium-ion, and a one-year warranty; one listing carries an "ISI" tag without a visible R number. It claims supply throughout India and Asian countries. Finetech sits on top of Rax's own differentiators (regional legends, metal build, one-year warranty) at 20 to 40 percent less.
Publicly observed | S56 | S72 | S140

Deep-dive 4: Autolite Emergency Lighting System LLP, Vasai

Autolite, established 2010 and registered as an LLP, claims ISO and RoHS and lists 87 products on TradeIndia: LED exit signs with Ni-Cd two-hour backup at ₹4,200, ceiling-mounted emergency lights at ₹4,500, maintained luminaires at ₹7,000, edge-lit and airport-series exit signs at ₹4,400 to ₹8,500, and die-cast flameproof maintained lights at ₹24,000, all with one-year warranties. It is the competitor whose price band overlaps Rax's most closely and whose range reaches into airports and hazardous areas where Rax has nothing. Some of its listings still show CFL lamps, which dates part of the range. Publicly observed | S71 | S72 | S139

Deep-dive 5: the global brands (Signify, Legrand, Schneider, Eaton)

Signify's Philips emergency family includes a three-hour LED exit sign with a LiFePO4 battery and self-test, emergency twin spots and downlights, and wireless families; Legrand's URA ONE is a self-contained LED luminaire certified to IEC/EN 60598-2-22 with ENEC and AENOR marks in one- and three-hour versions; Schneider's Exiway range runs from standard self-contained units through self-test (Activa) and addressable (Dicube) versions to the Exiway Power central battery system, with European distributor prices of EUR 86 to 226 per luminaire; Eaton's CEAG line covers ATEX Zone 1 and 21 explosion-protected luminaires with CGLine+ central monitoring. None of these publishes an Indian price list; they sell through MEP consultants, electrical distributors and EPC contractors on projects where the specification names the brand or the standard. They define the top of the market (₹8,000 to ₹25,000 equivalent per point) and the direction of technology (self-test, addressable, lithium). Publicly observed | S37 | S38 | S39 | S77 | S145 | S146

The other profiles, and names searched but not found

Two more direct makers were added in pass 2. Glomake Visual System of Vadodara sells auto-glow signage, tapes and emergency lights and calls itself India's leading BIS-certified maker of both, a claim not matched to an R number here; UNM India of Dahisar sells 111 EL/M(R) exit lights in CRCA bodies at ₹1,700 with a 4.5 rating from 106 IndiaMART reviews, the highest review count seen in the category. Glowtech Sign & Displays of Vasai, founded in 2000, makes LED profiles, direction signage and displays but no self-contained emergency luminaire was found in its listings, so it is an indirect signage competitor. Among consumer brands, Crompton sells a ₹1,500 Portomax lantern and emergency inverter bulbs and Syska sells 7 to 9 W emergency lights at ₹384 to ₹1,111; neither offers an industrial luminaire or exit sign. Publicly observed | S168 | S169 | S170 | S171 | S172

Several names the brief suggested were searched and not found as sellers of this category in India: Signalite and Trueglow (no Indian company of either name selling emergency lights or photoluminescent signs surfaced), Orient Electric (no emergency luminaire listing found) and Siemens (no Indian emergency-lighting range found). Havells, Wipro and Bajaj are profiled together as consumer and modular emergency units. Unknown

The largest seller on the government channel is not a brand at all: GeM's Emergency Light Unit (V2) category holds 149 listings, the cheapest from resellers of Lens Point units at ₹1,080 to ₹2,300 and an OEM, RPS Ramadhiraj Power Systems, at ₹2,050 to ₹2,100. Publicly observed | S162

Recent moves

Prolite launched a central battery system and conversion kits that turn existing luminaires into emergency luminaires, grew revenue 12 percent to about ₹54 crore in FY2024-25, and advertises a BIS-certified exit sign model under IS 10322 (Part 5/Sec 8) with a production capacity of 40,000. Every CRS registrant faced the same move in 2026: BIS's guidelines of 20 March 2026 require existing licensees to implement the 2026 edition by 2 August 2026 or lose the licence, which raises testing cost for small registrants such as Sunlite and favours those with in-house labs. Prolite's and Rax's marketplace listings both still print "CE" in the certificate field, so the unsupported CE badge is a category habit, not a Rax peculiarity. No funding rounds, acquisitions or exits were found for any Indian specialist.
Publicly observed | S17 | S18 | S67 | S164 | S176 Verified | S153 Unknown

Feature and price comparison against Rax

CRITERION BUYERS USE	RAX X-LITE	PROLITE	SUNLITE	FINETECH	AUTOLITE	GLOBAL BRAND
BIS CRS R number	No (Rax-supplied | S1)	Yes, claimed first (Publicly observed | S17 | S66)	Claimed on listings (Publicly observed | S20)	'ISI' tag, unverified (Publicly observed | S140)	Not seen (Publicly observed | S139)	IEC/ENEC, not BI (Publicly obs
Twin-head price	₹5,000 to ₹7,900 (Publicly observed | S46)	₹1,800 to ₹2,400 (Publicly observed | S18)	₹2,000 to ₹2,500 (Publicly observed | S20)	₹2,900 to ₹3,300 (Publicly observed | S140)	₹4,500 to ₹7,000 (Publicly observed | S139)	EUR 86 to 196 (Publicly obs
Exit light price	₹2,300 to ₹3,250 (Rax-supplied | S2)	₹1,100 to ₹1,600 (Publicly observed | S67)	₹2,800 (Publicly observed | S20)	₹4,200 to ₹5,700 (Publicly observed | S140)	₹4,000 to ₹8,500 (Publicly observed | S139)	EUR 148 (Publicly obs
Autonomy	2 to 3 h SLA (Rax-supplied | S5) (Publicly observed | S46)	3 h Li-ion/NiCd (Publicly observed | S18 | S66)	Not stated (Publicly observed | S20)	1 to 8 h (Publicly observed | S140)	2 to 3 h NiCd (Publicly observed | S139)	1 to 3 h (Publicly obs
Warranty	1 year carry-in (Publicly observed | S46)	6 months (listed lines) (Publicly observed | S18)	Not stated (Publicly observed | S20)	1 year (Publicly observed | S140)	1 year (Publicly observed | S139)	1 year (Signify) (Publicly obs
Regional-language legends	Yes, five languages (Publicly observed | S46)	Not seen	Not seen	Yes, three (Publicly observed | S140)	Not seen	No
Monitoring	One 'EML IoT unit' sold (Rax-supplied | S2)	Central battery system (Publicly observed | S17)	No	No	No	Self-test, DALI, ce (Publicly obs
Signage range	Acrylic, vinyl, foam (Rax-supplied | S6)	Autoglo photoluminescent (Publicly observed | S17)	Photoluminescent, plans (Publicly observed | S19)	Acrylic edge-lit (Publicly observed | S56)	Photoluminescent, edge-lit (Publicly observed | S139)	No
Adjacent safety products	LTI clock, sensors, SOS, alarm panels (Rax-supplied | S3)	Site safety towers (Publicly observed | S144)	Tapes, plans (Publicly observed | S19)	No	No	Fire detection (Ea (Publicly obs

The table says what the map shows: Rax is priced like Autolite and marked like SKP. (Inferred)

Positioning map narrative

On price against compliance proof, the crowded quadrant is bottom-left: Vasai and Noida makers at ₹1,100 to ₹3,200 with no mark or an unverified one (Levonix, SKP, Illumination India, marketplace brands). Prolite and Sunlite sit above them with BIS claims at the same price. The top-right, self-test or central monitoring with IEC or BIS proof, belongs to Signify, Legrand, Schneider and Eaton at four to ten times the price, sold on projects. Rax sits alone in the middle-bottom: ₹5,000 to ₹10,100, no mark, no monitoring. The empty space is middle-right: a BIS-registered, monitored, metal-bodied unit at ₹3,000 to ₹4,500 with regional legends, sold by a Tamil Nadu maker with a service address. Nobody occupies it; Finetech is closest on product but has no mark or monitoring, and Prolite has the mark but no local base. (Estimated | S18 | S46 | S66 | S137 | S138 | S140 | S146) (Inferred)

Where Rax wins and loses

Rax wins where the buyer is an existing account or a local dealer who values a Chennai supplier with a one-year warranty, metal housings that survive a plant, three-hour lead-acid autonomy that exceeds the NBC's 90 minutes, and exit legends in Tamil, Telugu, Kannada, Malayalam or Hindi, which the Tamil Nadu Factories Rules effectively require. The order book proves it: Granules, BARC, Dürr, Wheels India, Thirumalai Chemicals and a dozen dealers repeat-buy at ₹5,000 to ₹7,000 without a mark. (Rax-supplied | S2) (Verified | S26)

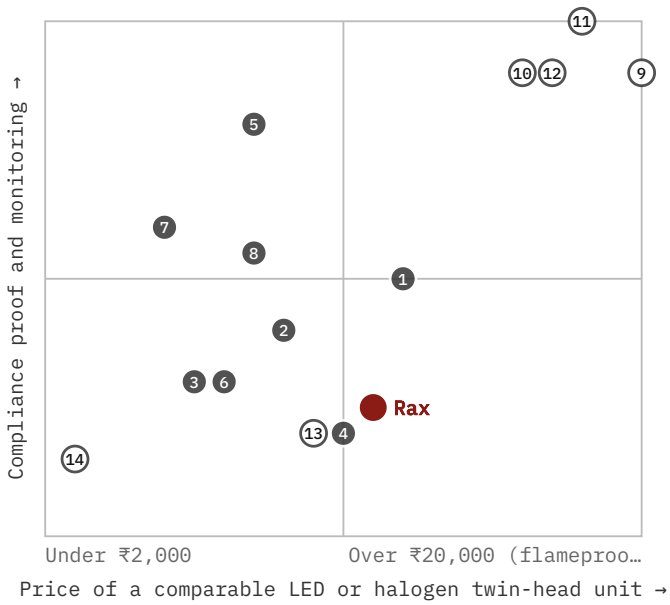
Rax loses when the buyer compares prices on a marketplace (Prolite and Sunlite at half the price with a BIS claim), when a specification asks for an R number (metros, airports, PSU E&M tenders), when a fire consultant checks the CE badge, and when a large site wants monitoring and turns to a central battery or a global brand. It also loses silently when a dealer like P7 sells its own ₹4,050 unit instead of the ₹5,900 Rax unit. (Publicly observed | S18 | S28 | S43) (Rax-supplied | S1) (Inferred)

What buyers say about incumbents is thin because nobody reviews a twin-beam light: Prolite carries 105 IndiaMART ratings at 4.0, Sunlite's site shows six Google testimonials praising glow visibility and price, Supreme Creation has 4.8 from 21, SKP 4.1 from 93, and Rax 3.9 from 10 with named reviewers for "LED Exit Sign Board" and "Emergency Exit Lights" but no written text. The complaints that exist are about the category, not the brand: batteries that fade in months, signs that nobody tests, and audits that find them dark. (Publicly observed | S43 | S46 | S57 | S58 | S138 | S141)

Competitor responses to expect

If Rax registers under CRS and pushes into Tamil Nadu plants, Finetech is the first to respond, probably with its own registration and a Chennai dealer; Prolite would respond through Chennai fire-safety distributors and by matching price on its BIS lines; the Vasai cluster would not respond at all because it does not serve the south directly. If Rax leads with a monitored luminaire, the response comes from above: Signify and Schneider already sell self-test and addressable units and would be specified by consultants for any site large enough to care; Prolite would offer its central battery system. If Rax stays as it is, no one responds, and the dealer's own brand keeps eating the middle. (Inferred)

> SO WHAT FOR RAX
>
> The competitive case for investing is the empty middle-right of the map, and it only exists if Rax pays for the mark and builds the monitored unit; the case for not investing is that every direct competitor is small, price-led and unlikely to attack the fourteen accounts that already buy. Both are true; the choice is a capital decision, not a market one. (Recommendation)



1. Autolite — Direct
2. Finetech Systems — Direct
3. Levonix — Direct
4. Palex (Moglix) — Direct
5. Prolite Autoglo — Direct
6. SKP Automation — Direct
7. Sunlite Industries — Direct
8. Supreme Creation — Direct
9. Eaton CEAG — Indirect
10. Legrand URA — Indirect
11. Schneider Exiway — Indirect
12. Signify (Philips) — Indirect
13. P7 Enterprises (own brand) — Partner-competitor
14. Photoluminescent signage — Substitute

● Rax ● Direct ○ Indirect, substitute or partner

Price of a comparable LED or halogen twin-head unit across, Compliance proof and monitoring up. Positions are judgements on a 0 to 10 scale; see the competitor profiles for the evidence.

COMPETITOR	TYPE	PRODUCTS IN INDIA	PRICE BAND	INDIA PRESENCE	THREAT
Ashirwad Corporation (BlueBeems) Ahmedabad, Gujarat	direct	Industrial emergency exit LED lights, halogen twin beam with exit sign, 5-in-1 units	₹3,300 to ₹6,000	Gujarat and west; 14 years on IndiaMART	low
Autolite Emergency Lighting System LLP Vasai, Maharashtra	direct	LED exit signs (Ni-Cd 2 h), airport series exit signs, edge-lit signs, maintained and non-maintained luminaires, flameproof units, photoluminescent signage	₹4,000 to ₹8,500; ₹24,000 flameproof	National via TradeIndia; airport and flameproof niches	medium
Finetech Systems Tiruppur (Avinashi), Tamil Nadu	direct	Halogen and LED twin beam, single and double dome, edge-lit acrylic exit lights, 2- and 3-language exit signs (Tamil, Kannada, Hindi), IP65/IP68 on request	₹2,400 to ₹5,700	South India; Tiruppur textile belt, Chennai listings	high
Glomake Visual System Vadodara, Gujarat	direct	Photoluminescent (auto glow) signage, glow tapes, posters, LED exit signs with battery backup, emergency lights	Not published on site	Western India; IndiaMART storefront; sectors listed include factories, hospitals, hotels, warehouses, power plants	low
Illumination India Vasai, Maharashtra	direct	LED emergency exit lights, acrylic edge-lit exit signage 3-4 h, theatre step lights, fibre optics	₹1,800 to ₹2,000	National via TradeIndia (19 years); theatre and auditorium niche	low
Kamal and Co. (Fixo Vision) Chennai, Tamil Nadu	direct	LED accident-free days, safe man-days and safety performance display boards, LAN and Wi-Fi	₹17,200 to ₹42,865; ₹2,500 to ₹4,505 per sq ft	Chennai and pan-India via IndiaMART	high
Levonix Lighting Solution Vasai, Maharashtra	direct	Double beam LED emergency lights (Li-ion 6-8 h), exit lights, exit signs, 2 ft emergency battens	₹1,250 to ₹2,550	National via IndiaMART	medium
Palex (Moglix brand) India (marketplace brand)	direct	Emergency light double beam with exit sign, 2 x 20 W halogen	₹4,698 to ₹4,701	Moglix B2B marketplace	medium
PMI / PFL Power Systems / IEPS (marketplace twin-beam brands) Various (TradeIndia and IndiaMART sellers)	direct	Twin beam LED and halogen industrial emergency lights, some with 'BIS certified' or 'ISI' tags	₹3,050 to ₹4,000	National marketplaces	medium
Prolite Autoglo Limited Mumbai (Goregaon West), Maharashtra	direct	Emergency exit lights, twin beam and multi lights, egress route lights, airport series, flameproof and weatherproof units, photoluminescent signage (Autoglo), central battery system, conversion kits	₹1,100 to ₹2,400 for LED exit and twin beam; ₹28,379 flameproof	National; claims 100+ dealers, 25M products installed, 33 export countries; sectors metros, airports, hospitality, chemical plants	high
SKP Automation Systems Greater Noida / Noida, Uttar Pradesh	direct	Twin beam industrial emergency lights (2 x 12 W LED, SMF battery), edge-lit exit signage, halogen and LED models with exit sign	₹1,600 to ₹3,200	North India; 12 years on IndiaMART, 4.1 from 93 reviews	medium
SR Safety Signages Mumbai, Maharashtra	direct	Emergency exit lights, exit lights, photoluminescent signage	Not published	National via own site and IndiaMART	low

COMPETITOR	TYPE	PRODUCTS IN INDIA	PRICE BAND	INDIA PRESENCE	THREAT
Sunlite Industries Vasai (East), Maharashtra	direct	Photoluminescent signage, exit sign lights, 'BIS 10322 approved' industrial emergency lights, twin beam lights, evacuation plans, glow tapes	₹2,000 to ₹2,800	National via IndiaMART and TradeIndia; small Vasai unit	high
Supreme Creation Mumbai (Kandivali East), Maharashtra	direct	Exit lights with battery backup, 'BIS emergency exit light', acrylic ceiling-mounted units, hanging exit lights	₹2,000 to ₹6,500	National via IndiaMART; 4.8 rating from 21 reviews	medium
Team Power / Compucare / KT India / DSK Global / Vertaxis (safety display board makers) Vadodara, Vadodara, Ludhiana, Mumbai, Pune	direct	Accident-free days and safe man-hours display boards, LTI counters, Andon	₹6,000 to ₹52,245	Regional, via IndiaMART and TradeIndia	medium
Thirumani Industry Chennai, Tamil Nadu	direct	Emergency LED exit lights, fire exit lights, flameproof exit lights	Not published	Chennai; hospital and airport exit lights, flameproof exit lights	medium
UNM India Dahisar East, Mumbai	direct	Emergency exit lights (111 EL/M(R) series, CRCA body), industrial emergency lights	₹1,700 for a 1 x 9 W LED exit light	Marketplace seller; 4.5 rating from 106 IndiaMART reviews	low
ABB (Emergi-Lite) Zurich; ABB India	indirect	Central battery systems and emergency luminaires, DALI emergency control gear	Not published	Project channel	low
Beghelli (GEWISS Group) Bologna, Italy	indirect	Emergency luminaires, inverters, control panels	Not published	No India distributor found	low
Eaton Crouse-Hinds (CEAG) Dublin/Cleveland; Eaton India	indirect	CEAG Ex-d explosion-protected emergency luminaires, Zone 1/21 exit signs, CGLine+ central monitoring	Not published	Hazardous-area projects: refineries, petrochemicals	low
Glowtech Sign & Displays Vasai East, Palghar, Maharashtra	indirect	LED aluminium profiles, linear lights, direction signage and displays	Not published	Signage and LED display maker since 2000; IEC holder; exports claimed	low
Havells India / Wipro / Bajaj / Anchor (consumer and modular emergency units) Noida, Bengaluru, Mumbai	indirect	Portable rechargeable emergency lights, inverter bulbs, Anchor modular emergency LED units, Bajaj ELX portable lights	₹164 to ₹3,329	National electrical retail	low
Legrand (URA) Limoges, France; Legrand India	indirect	URA ONE self-contained LED luminaires 1 h and 3 h, maintained and non-maintained, IEC/EN 60598-2-22, ENEC	EU list not published for India	Project channel via electrical distributors	low
Schneider Electric (Exiway) Rueil-Malmaison; Schneider India	indirect	Exiway self-contained, self-test (Activa), addressable (Dicube) luminaires and exit signs; Exiway Power central battery	EUR 86 to 226 per luminaire in Europe	Project channel via distributors	low
Signify (Philips) Eindhoven; India HQ Kolkata	indirect	Philips Emergency Light LED Exit Sign (3 h, LiFePO4, self-test), Emergency Twin Spot, wireless emergency families	Not published for India	National project channel and partner locator; Philips emergency exit signs and twin spots in global catalogue	medium
Central battery and inverter-backed general lighting Various (Schneider, ABB, Prolite; local UPS suppliers)	substitute	30% of station lighting on UPS/DG (DMRC); central battery systems with monitoring	Project-priced	Metros, airports, hospitals, large plants	medium
Crompton Greaves Consumer Electricals Mumbai	substitute	Portomax rechargeable emergency lantern, backup lamps and emergency inverter bulbs	₹1,500 for a 6 W lantern	National consumer electrical brand; e-commerce and retail	low
Do nothing (non-compliance) Everywhere	substitute	No emergency lighting or unmaintained units	₹0	The default in many audited premises	high
Photoluminescent signage (Autoglo, Glowlight, Safetynox, Hydri and others) Mumbai, Thane, Delhi, Chennai	substitute	Glow-in-the-dark exit signs, directional signs, floor tapes	₹90 to ₹250 per sign; ₹120 per sq ft	Everywhere; sold by fire-safety dealers	high
Portable and consumer emergency lights (Eveready, Syska, Halonix, Pick Ur Needs) Kolkata, Pune, Noida, Delhi	substitute	Portable lanterns, twin-spot inverter lights, emergency bulbs	₹395 to ₹3,229	Retail and marketplaces	medium
Syska Pune, Maharashtra	substitute	7 to 9 W smart LED emergency lights	₹384 to ₹1,111	National consumer LED brand	low
Ceasefire Industries Noida, Uttar Pradesh	partner-competitor	Photoluminescent exit signage sold alongside extinguishers and suppression	Not published	National fire-safety brand with dealer network	medium

COMPETITOR	TYPE	PRODUCTS IN INDIA	PRICE BAND	INDIA PRESENCE	THREAT
Fire Supplies (firesupplies.in) Bengaluru, Karnataka	partner-competitor	Prolite flameproof lights, Kheraj emergency battens, exit lights, fire-rated cables	₹28,379 for Prolite flameproof	Online fire-safety distributor for south India	low
KT Automation Private Limited Vadodara, Gujarat	partner-competitor	Resells Prolite PEL LED E M and other emergency lights	₹3,510	Gujarat distributor of Prolite and others	low
P7 Enterprises Tiruvallur, Tamil Nadu	partner-competitor	Own-brand LED twin beam (₹4,050, 'ISI'), exit signage; also resells Rax units	₹4,050	Chennai region; Rax's second-largest X-Lite dealer	medium
Spark Fire New Delhi	partner-competitor	Industrial emergency exit lights bundled with fire systems	₹2,650	Fire protection contractor listing exit lights	low

Competitor profiles

– **Ashirwad Corporation (BlueBeems)** direct · threat low ● Publicly observed | S138

Ahmedabad, Gujarat · Gujarat and west; 14 years on IndiaMART · ₹3,300 to ₹6,000

STRENGTHS

- Local to Gujarat's post-Rajkot enforcement wave
- 4.7 rating

WEAKNESSES

- Regional
- No certification claims seen

– **Autolite Emergency Lighting System LLP** direct · threat medium ● Publicly observed | S71 | S72 | S139

Vasai, Maharashtra · National via TradeIndia; airport and flameproof niches · ₹4,000 to ₹8,500; ₹24,000 flameproof

STRENGTHS

- Est. 2010, ISO and RoHS claimed
- Airport and flameproof range
- 1-year warranty

WEAKNESSES

- LLP scale
- Older CFL-lamp models still listed
- No BIS claim seen

– **Finetech Systems** direct · threat high ● Publicly observed | S56 | S72 | S140

Tiruppur (Avinashi), Tamil Nadu · South India; Tiruppur textile belt, Chennai listings · ₹2,400 to ₹5,700

STRENGTHS

- Manufacturing since 1995 in Tamil Nadu
- Regional-language legends at ₹4,200 to ₹5,700
- Li-ion and VRLA options; 1-year warranty

WEAKNESSES

- 'ISI' claim on one listing without R number visible
- No metro or airport references
- Small footprint outside Tamil Nadu

– **Glomake Visual System** direct · threat low ● Publicly observed | S169

Vadodara, Gujarat · Western India; IndiaMART storefront; sectors listed include factories, hospitals, hotels, warehouses, power plants · Not published on site

STRENGTHS

- Claims BIS-certified auto glow signage and emergency lighting
- Signs and lights from one supplier

WEAKNESSES

- Certification claim not matched to an R number in this research
- Small, regional

– **Illumination India** direct · threat low ● Publicly observed | S136

Vasai, Maharashtra · National via TradeIndia (19 years); theatre and auditorium niche · ₹1,800 to ₹2,000

STRENGTHS

- Low price acrylic signage
- Auditorium and multiplex references

WEAKNESSES

- Proprietorship
- Exit lighting is a sideline to theatre lighting

– **Kamal and Co. (Fixo Vision)** direct · threat high ● Publicly observed | S53

Chennai, Tamil Nadu · Chennai and pan-India via IndiaMART · ₹17,200 to ₹42,865; ₹2,500 to ₹4,505 per sq ft

STRENGTHS

- Local Chennai incumbent for LTI displays
- LAN and Wi-Fi with PC software; large-digit outdoor boards

WEAKNESSES

- Dot-matrix boards, not compact clocks
- MOQ 5 on some lines

– **Levonix Lighting Solution** direct · threat medium Publicly observed | S40 | S137

Vasai, Maharashtra · National via IndiaMART · ₹1,250 to ₹2,550

STRENGTHS

- Lithium-ion at ₹2,350
- 'CE' claimed
- Immediate delivery, capacity 1,000

WEAKNESSES

- No BIS claim
- Marketing copy generic
- Owner-run

– **Palex (Moglix brand)** direct · threat medium Publicly observed | S148

India (marketplace brand) · Moglix B2B marketplace · ₹4,698 to ₹4,701

STRENGTHS

- Available to 1.5 lakh Moglix SME buyers with COD
- Same halogen twin-head format as X-Lite

WEAKNESSES

- Two reviews only
- Unknown manufacturer

– **PMI / PFL Power Systems / IEPS (marketplace twin-beam brands)** direct · threat medium Publicly observed | S20 | S43

Various (TradeIndia and IndiaMART sellers) · National marketplaces · ₹3,050 to ₹4,000

STRENGTHS

- Direct price competition at Rax's tier
- IP44 and 10 h claims

WEAKNESSES

- Brand identity thin; claims unverifiable

– **Prolite Autoglo Limited** direct · threat high Publicly observed | S17 | S18 | S66 | S67 | S68 | S69 | S142 | S164

Mumbai (Goregaon West), Maharashtra · National; claims 100+ dealers, 25M products installed, 33 export countries; sectors metros, airports, hospitality, chemical plants · ₹1,100 to ₹2,400 for LED exit and twin beam; ₹28,379 flameproof

STRENGTHS

- First BIS CRS registration for emergency lights in India
- Est. 1984; revenue about ₹54 Cr in FY2024-25 (+12%), 103 EPFO employees, in-house test facility
- Widest range: signage plus luminaires plus central battery
- Metro and airport references

WEAKNESSES

- 6-month warranty on marketplace lines
- Mumbai-centric dealer network
- Marketplace listings mix Li-ion, NiCd and NiMH claims

– **SKP Automation Systems** direct · threat medium Publicly observed | S138

Greater Noida / Noida, Uttar Pradesh · North India; 12 years on IndiaMART, 4.1 from 93 reviews · ₹1,600 to ₹3,200

STRENGTHS

- NCR location near Manesar and Noida clusters
- Volume marketplace presence

WEAKNESSES

- No BIS or test claims seen
- No southern presence

– **SR Safety Signages** direct · threat low Publicly observed | S75

Mumbai, Maharashtra · National via own site and IndiaMART · Not published

STRENGTHS

- Hospital, hotel and factory positioning

WEAKNESSES

- No prices or certifications published

– **Sunlite Industries** direct · threat high Publicly observed | S19 | S20 | S141

Vasai (East), Maharashtra · National via IndiaMART and TradeIndia; small Vasai unit · ₹2,000 to ₹2,800

STRENGTHS

- Advertises BIS 10322 units at ₹2,000 to ₹2,500
- Signage and lights from one supplier
- Budget positioning

WEAKNESSES

- Small firm (est. 2000 or 2015 depending on listing)
- No visible service network
- Thin documentation

– **Supreme Creation** direct · threat medium Publicly observed | S41 | S138

Mumbai (Kandivali East), Maharashtra · National via IndiaMART; 4.8 rating from 21 reviews · ₹2,000 to ₹6,500

STRENGTHS

- Advertises a BIS-marked exit light
- High marketplace rating

WEAKNESSES

- 9-year small firm
- Prices for BIS unit three times the standard unit

– **Team Power / Compucare / KT India / DSK Global / Vertaxis (safety display board makers)** direct · threat medium Publicly observed S54 S55 S116

Vadodara, Vadodara, Ludhiana, Mumbai, Pune · Regional, via IndiaMART and TradeIndia · ₹6,000 to ₹52,245

STRENGTHS

- Team Power since 1992 at ₹6,000
- Customisable multi-window boards

WEAKNESSES

- Fragmented; no app or Bluetooth reset seen

– **Thirumani Industry** direct · threat medium Publicly observed S133

Chennai, Tamil Nadu · Chennai; hospital and airport exit lights, flameproof exit lights · Not published

STRENGTHS

- Local Chennai competitor for the same accounts

WEAKNESSES

- Small; no certifications visible

– **UNM India** direct · threat low Publicly observed S170

Dahisar East, Mumbai · Marketplace seller; 4.5 rating from 106 IndiaMART reviews · ₹1,700 for a 1 x 9 W LED exit light

STRENGTHS

- Model codes that mirror Prolite and Sunlite series
- High review count for the category

WEAKNESSES

- No certification shown on the listing
- Mumbai-based, no southern presence found

– **ABB (Emergi-Lite)** indirect · threat low Publicly observed S77

Zurich; ABB India · Project channel · Not published

STRENGTHS

- Central power supply systems for large buildings

WEAKNESSES

- Not a self-contained dealer product

– **Beghelli (GEWISS Group)** indirect · threat low Publicly observed S147

Bologna, Italy · No India distributor found · Not published

STRENGTHS

- Global brand present in 60 countries

WEAKNESSES

- No Indian presence evidenced

– **Eaton Crouse-Hinds (CEAG)** indirect · threat low Publicly observed S39

Dublin/Cleveland; Eaton India · Hazardous-area projects: refineries, petrochemicals · Not published

STRENGTHS

- ATEX-certified for Zone 1 and 21
- OISD-governed sites specify it

WEAKNESSES

- Irrelevant below hazardous areas

– **Glowtech Sign & Displays** indirect · threat low Publicly observed S168

Vasai East, Palghar, Maharashtra · Signage and LED display maker since 2000; IEC holder; exports claimed · Not published

STRENGTHS

- Established signage fabricator with extrusion capability

WEAKNESSES

- No self-contained emergency luminaire found in its listings

– **Havells India / Wipro / Bajaj / Anchor (consumer and modular emergency units)** indirect · threat low Publicly observed S78 S79 S148 S151

Noida, Bengaluru, Mumbai · National electrical retail · ₹164 to ₹3,329

STRENGTHS

- Brand reach through 7,500-plus dealers
- Cheap inverter bulbs satisfy home and shop buyers

WEAKNESSES

- No self-contained industrial luminaire or illuminated exit sign for India seen

– **Legrand (URA)** indirect · threat low Publicly observed S37 S145

Limoges, France; Legrand India · Project channel via electrical distributors · EU list not published for India

STRENGTHS

- Certified to IEC 60598-2-22 with ENEC
- Specified by MEP consultants

WEAKNESSES

- Imported; price tier above dealer market

– **Schneider Electric (Exiway)** indirect · threat low Publicly observed | S77 | S146

Rueil-Malmaison; Schneider India · Project channel via distributors · EUR 86 to 226 per luminaire in Europe

STRENGTHS

- Central battery and addressable monitoring
- EN 1838 exit signs 24 to 32 m

WEAKNESSES

- Premium; not a dealer-market product

– **Signify (Philips)** indirect · threat medium Publicly observed | S38

Eindhoven; India HQ Kolkata · National project channel and partner locator; Philips emergency exit signs and twin spots in global catalogue · Not published for India

STRENGTHS

- Brand specifiers trust; self-test and wireless
- Airports, offices, retail applications

WEAKNESSES

- Premium; sold through project distributors, not dealers

– **Central battery and inverter-backed general lighting** substitute · threat medium Verified | S28 | S70 | S77

Various (Schneider, ABB, Prolite; local UPS suppliers) · Metros, airports, hospitals, large plants · Project-priced

STRENGTHS

- Monitored from one panel; no per-luminaire batteries
- Specified in metro and hospital designs

WEAKNESSES

- Single point of failure; fire-survival cabling cost

– **Crompton Greaves Consumer Electricals** substitute · threat low Publicly observed | S171

Mumbai · National consumer electrical brand; e-commerce and retail · ₹1,500 for a 6 W lantern

STRENGTHS

- Brand trust and retail reach for homes and shops

WEAKNESSES

- No industrial self-contained emergency luminaire or exit sign found

– **Do nothing (non-compliance)** substitute · threat high Publicly observed | S57 | S61 | S62 | S63 | S115

Everywhere · The default in many audited premises · ₹0

STRENGTHS

- Enforcement is episodic; audits reach small premises rarely

WEAKNESSES

- Exposed after every fatal fire and municipal drive

– **Photoluminescent signage (Autoglo, Glowlight, Safetynox, Hydri and others)** substitute · threat high Publicly observed | S73 | S74 | S87 | S141

Mumbai, Thane, Delhi, Chennai · Everywhere; sold by fire-safety dealers · ₹90 to ₹250 per sign; ₹120 per sq ft

STRENGTHS

- No power, no battery, 20-30 year claimed life
- Passes many fire NOC checks for signage

WEAKNESSES

- Cannot provide escape-route illuminance; needs ambient charging light

– **Portable and consumer emergency lights (Eveready, Syska, Halonix, Pick Ur Needs)** substitute · threat medium Publicly observed | S79 | S148

Kolkata, Pune, Noida, Delhi · Retail and marketplaces · ₹395 to ₹3,229

STRENGTHS

- Cheap; sold in thousands on Flipkart and Moglix

WEAKNESSES

- Not fixed, not maintained, not compliant with NBC siting

– **Syska** substitute · threat low Publicly observed | S172

Pune, Maharashtra · National consumer LED brand · ₹384 to ₹1,111

STRENGTHS

- Two-year warranty on consumer units
- Very low price

WEAKNESSES

- Consumer product; no exit sign, no industrial housing, no BIS emergency-luminaire registration seen

– **Ceasefire Industries** partner-competitor · threat medium Publicly observed | S150

Noida, Uttar Pradesh · National fire-safety brand with dealer network · Not published

STRENGTHS

- Brand recognition in fire safety; dealer reach

WEAKNESSES

- Signage only, no luminaires seen

– **Fire Supplies (firesupplies.in)** partner-competitor · threat low Publicly observed S149

Bengaluru, Karnataka · Online fire-safety distributor for south India · ₹28,379 for Prolite flameproof

STRENGTHS

- Sells to installers; explains battery life to buyers

WEAKNESSES

- Carries Prolite, not Rax

– **KT Automation Private Limited** partner-competitor · threat low Publicly observed S20

Vadodara, Gujarat · Gujarat distributor of Prolite and others · ₹3,510

STRENGTHS

- Distributor with 16-year TradeIndia tenure
- Could carry a second brand

WEAKNESSES

- Loyal to Prolite

– **P7 Enterprises** partner-competitor · threat medium Publicly observed S43 S134

Tiruvallur, Tamil Nadu · Chennai region; Rax's second-largest X-Lite dealer · ₹4,050

STRENGTHS

- Buys 40 to 60 Rax units a year and services them
- Sells its own brand alongside

WEAKNESSES

- Proprietorship of up to 10 people, est. 2018

– **Spark Fire** partner-competitor · threat low Publicly observed S76

New Delhi · Fire protection contractor listing exit lights · ₹2,650

STRENGTHS

- Contractor sells the luminaire inside the fire-system job

WEAKNESSES

- Delhi only

07 Pricing and unit economics

KEY TAKEAWAYS

- Sixty-six observed price points across six categories: twin-head units ₹1,800 to ₹7,900 (₹16,000 to ₹24,050 flameproof) and GeM emergency light units ₹1,080 to ₹2,200, LED exit lights ₹1,100 to ₹8,500, acrylic signs ₹1,250 to ₹6,000, vinyl and photoluminescent signs ₹96 to ₹2,800, LTI and safety displays ₹6,000 to ₹42,865, batteries ₹260 to ₹850. Publicly observed S18 S20 S53 S67 S72 S73 S162 S165 Rax-supplied S2
- Rax realises ₹5,000 to ₹7,670 per twin-head unit and ₹1,900 to ₹3,250 per sign, which is the top of the dealer tier; its list prices (₹5,000 to ₹8,500) are consistent with the order book but not with the site's silence on price. Rax-supplied S2 Publicly observed S46
- No subsidy touches the price; the buyer pays list less a dealer margin, on credit terms that the order book shows are often "against payment". Rax-supplied S2 Inferred
- Cost of goods, gross margin and service cost are unknown; a ₹16 lakh line cannot fund a ₹3 to 5 lakh registration, let alone an ₹8 to 15 lakh programme, unless margin is well above 40 percent. Unknown Estimated S158 S124
- The only price architecture that changes the game is a battery-inclusive service contract or a monitored unit with a subscription; both need proof Rax does not yet have. Recommendation

Observed price ladder

CATEGORY	LOW	TYPICAL	HIGH	RAX OBSERVED	NOTES
Twin-head emergency light	₹1,800 Prolite clustered plast; ₹1,080 to ₹2,200 GeM Emergency Light Unit (V2), form factor unstated Publicly observed S18 S162	₹2,500 to ₹3,500 (Sunlite, Finetech, IEPS, KT-resold Prolite) Publicly observed S20 S43 S140	₹7,000 Autolite maintained; ₹16,000 to ₹24,050 flameproof Publicly observed S43 S139	₹5,000 to ₹7,670; ₹10,100 outdoor SHO Rax-supplied S2	Rax is the dearest non-flameproof, non-global unit observed
LED exit light with backup	₹1,100 Prolite decorative Publicly observed S67	₹2,000 to ₹2,800 (Supreme Creation, Sunlite, Spark Fire) Publicly observed S20 S41 S76	₹4,100 to ₹8,500 (Finetech, Autolite airport series) Publicly observed S72	₹2,300 to ₹2,920 vinyl exit V1 Rax-supplied S2	Rax sits mid-tier
Acrylic exit sign	₹1,250 Levonix Publicly observed S40	₹2,000 to ₹2,400 (Illumination India, Safekit) Publicly observed S87 S136	₹6,000 to ₹6,500 (Cellus, Supreme 'BIS') Publicly observed S72 S138	₹1,900 to ₹3,250 Rax-supplied S2	Rax competitive
Vinyl and photoluminescent sign	₹96 sunboard Publicly observed S73	₹150 to ₹250 glow signs Publicly observed S73	₹2,800 framed vinyl with backup Rax-supplied S2	₹2,774 to ₹2,800 (with frame and backup) Rax-supplied S2	Not comparable: Rax's vinyl sign is an illuminated unit
LTI clock and safety display	₹6,000 Team Power Publicly observed S54	₹11,138 to ₹24,270 (KT India, Kamal and Co.) Publicly observed S53 S55	₹32,500 to ₹42,865 large boards Publicly observed S53	₹27,400 list; ₹20,000 andon unit Rax-supplied S2 Publicly observed S47	Rax priced like a 6x2 ft LAN board for a 445 mm clock
Replacement battery	₹260 6 V 4.5 Ah Publicly observed S42	₹560 to ₹799 12 V 7 Ah SMF (Exide, Rocket) Publicly observed S165 S166 S167	₹1,970 'emergency lighting batteries' Publicly observed S42	₹850 to dealer Rax-supplied S2	The recurring item

The observed data are list or marketplace prices for the market and realised prices for Rax; dealer discounts on competitor lists are unknown, so the true gap is probably narrower than the table suggests but still real. Publicly observed S20 S43 Rax-supplied S2 Inferred

Prolite Autoglo Limited

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Twin Beam Light

A **Twin Beam Light** is a dual-lamp emergency lighting system designed to provide bright, focused illumination during power failures. Commonly used in commercial buildings, warehouses, and emergency exits, it ensures safety with wide coverage and adjustable beam angles. These lights are typically battery-backed, energy-efficient, and essential for compliance with fire safety regulations.

LED EMERGENCY MULTI LIGHT | REQUEST CALLBACK

Approx. Rs 2,400 / Piece | Get Latest Price

Product Brochure

Product Details:

Beam Type	Moving Head
Form Factor	Twin Beam
Power Rating	230 W
Backup Time	3 hr
Battery Backup	1 hour
LED Color	White
Symbol Type	Exit Text
Battery Type	Li-ion
Usage/Application	FOR EMERGENCY EVACUATION
Light Source	LED
Control Mode	Auto
Application	warehouses, factories & large facilities
Input Voltage	110–240 V AC
Body Material	Metal
Mounting Type	Wall Mount
Lighting Type	LED
Brand	PROLITE
Model	PEL LED LML
Shape	Rectangle
Bulb Type	MULTIPLE LED
Fuse Protection	YES

Get Best Quote

The reference price for a marketplace twin-beam LED unit from the BIS-registered market leader is ₹1,800 to ₹2,400 with a six-month warranty. Source S18

Rax's current pricing and its consistency

The order book gives a clean picture of realised prices over two years. The halogen indoor RT-EML-210-SLI-LXX went out at ₹5,000 to ₹6,390 across 21 lines (median ₹5,900), the 220-SLI at ₹6,390 to ₹8,290 (median about ₹7,000), the 220-SHI at ₹5,050 to ₹6,090 (median ₹5,700), and the outdoor 220-SHO at ₹10,100. Exit and acrylic signs went at ₹1,900 to ₹3,250; the vinyl exit with backup at ₹2,300 to ₹2,920; batteries at ₹698 to ₹850; the EML charger card at ₹1,650; the andon "Stop Call Wait" unit at ₹20,000 to ₹20,812. Dealers (Shakti, Tejaslite, Sparkle, Shanju) pay ₹5,000 to ₹5,980; end users pay ₹5,700 (Granules) to ₹7,670 (Panoply, Wheels India); BARC paid ₹6,950. Amazon sales realised ₹5,762 to ₹5,930 net. Rax-supplied S2

The IndiaMART storefront lists approximate prices of ₹4,400 to ₹8,500 that bracket the realised prices, so list and street are consistent. Two inconsistencies exist elsewhere: the X-Lite site publishes no prices at all and pushes every visitor to an enquiry form, and the LTI clock is listed at ₹27,400 while comparable accident-free-days boards sell from ₹6,000 (small) to ₹17,200 (3 x 2 ft LAN board). Halving the spread between Rax's dealer price and Prolite's marketplace price would need either a lithium LED redesign or acceptance of a lower margin; neither has been costed. Publicly observed S46 S47 S53 S54 | Rax-supplied S2 | Inferred

> **₹5,900**
>
> Median realised price of Rax's volume model, the RT-EML-210-SLI-LXX, against ₹1,800 to ₹2,400 for the BIS-registered market leader's LED twin beams on IndiaMART. Rax-supplied S2 | Publicly observed S18

Price architecture options

Per-unit hardware sale is the only model observed anywhere in the Indian market for this category, from the ₹96 sunboard sign to the ₹28,379 flameproof unit. Four alternatives fit specific segments. (1) Hardware plus a battery-inclusive AMC: every unit needs a ₹260 to ₹850 battery every three to five years and a monthly and annual test that audit checklists demand; a ₹600 to ₹1,000 per unit per year contract covering the test log and the battery would be new in the market and suits plants and hotels with fire licence renewals. (2) Site packages: a fixed price per escape route or per floor (luminaires, signs, installation, test certificate) for the fire NOC file, which is how MEP contractors already bundle it. (3) Monitored unit plus subscription: an IoT-reporting luminaire at a hardware premium with ₹100 to ₹200 per unit per month for the test log, aimed at multi-site occupiers and NABH hospitals; Rax has one such unit in the book at ₹5,000. (4) Dealer price list with tiered discounts and a published MRP, which Rax lacks and Prolite effectively has through its marketplace prices. Rax-supplied S2 | Publicly observed S18 S42 S57 | Recommendation

Cost-to-serve and margin hypotheses

Nothing is known. The internal record contains no cost, margin, receivables or profitability data for any product line. For the plan to work the arithmetic must be as follows: at ₹16 lakh of revenue and a hypothetical 40 percent gross margin, X-Lite contributes about ₹6.4 lakh a year before any sales cost; the government fees for a new CRS application are about ₹53,000 (₹1,000 application, ₹25,000 processing and ₹1,000 registration for each of two years) plus ₹20,000 per additional test report; BIS's laboratory register lists testing charges for an IS 10322 (Part 5/Sec 8) emergency luminaire of ₹63,600 at the BIS Bengaluru laboratory, ₹75,000 at Conformity Testing Labs and ₹1,00,000 at Bharat Test House, before taxes; so two families tested once each cost about ₹2 to 2.7 lakh in fees and tests, and with a

consultant, samples and one retest a two-family registration is plausibly ₹3 to 5 lakh in cash and three to six months, before any redesign to lithium. That is half to three quarters of a year's gross margin, which is why the decision is about whether the line grows, not whether it pays for itself today. Unknown

Estimated | S1 | S16 | S127 | S158

Subsidy and scheme effects

None. No scheme reduces the buyer's price for emergency lighting or exit signage in India; GST at the applicable slab is the only public-policy element of the price.

Inferred | Unknown

Tender pricing dynamics

Where tenders exist they are L1 within a technical gate. Metro and PSU E&M tenders bundle emergency lighting into lighting or electrical packages awarded to contractors (CMRL's 2024 LED lighting package went for ₹57 lakh to an energy-equipment firm), so the luminaire maker prices to the contractor, not the authority, and the R number decides who is even in the bill of quantities. GeM's Emergency Light Unit (V2) category holds 149 listings whose lowest offers run from ₹1,080 to ₹2,300, GeM's rules place an order only if the price discovered is below the marketplace price for identical items, and the buyers bidding on it in September 2026 included PSUs in Gujarat and Telangana and several railway zones; Rax's ₹5,000-plus units cannot win there on price. Railway coach lights are bought against RDSO/PE/SPEC/AC/0180-2016 with 12 V 7 Ah SMF batteries and a 30-month warranty, and a September 2026 snapshot found 144 of 171 live emergency-lighting tenders valued under ₹10 lakh. CPWD's 2025 E&M schedule of rates carries no self-contained emergency light or exit sign item, so there is no schedule rate to anchor state PWD purchases. Rax's only public-sector line, BARC's 25 units at ₹6,950, was a direct purchase order rather than a tender.

Publicly observed | S44 | S94 | S128 | S162 | S163 | Verified | S28 | Rax-supplied | S2

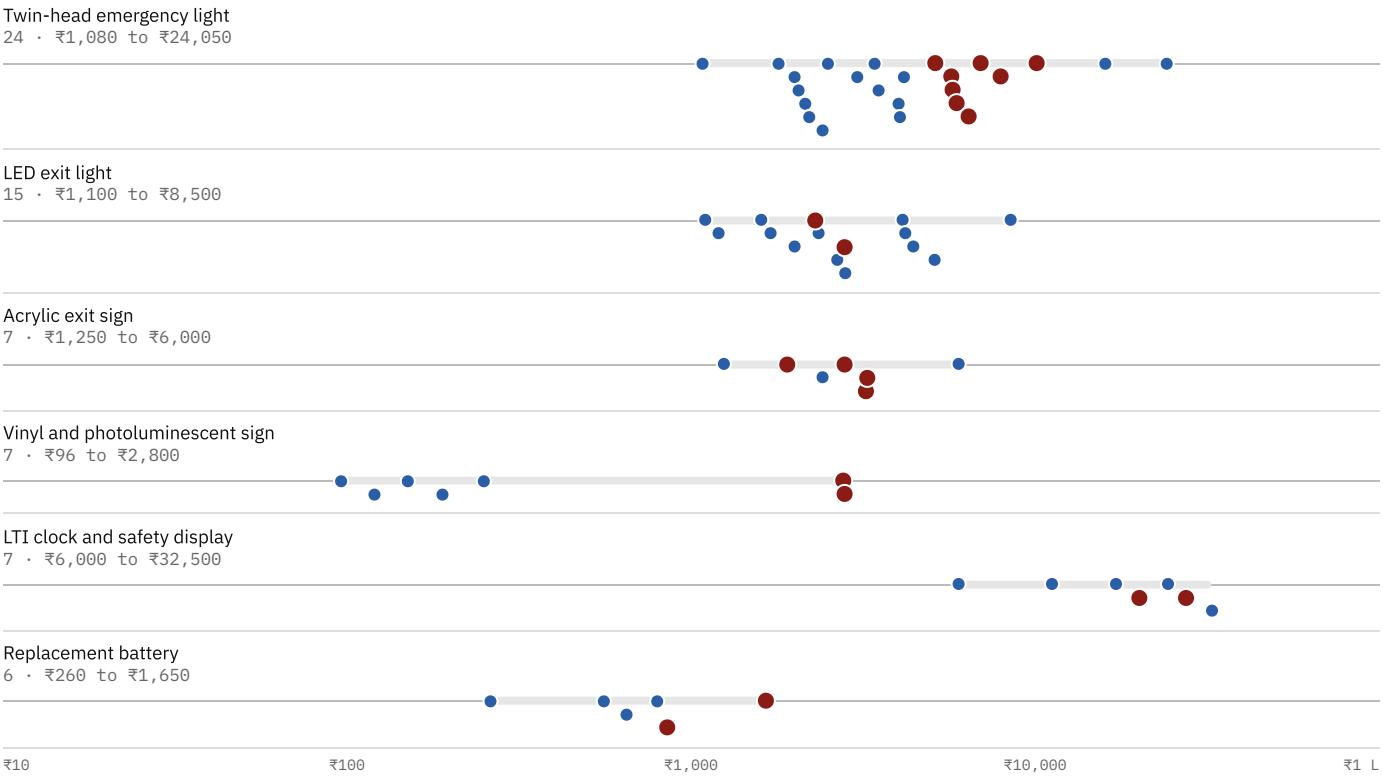
Payment terms and receivable risk

The order book records delivery terms of "against payment", "immediate", "as per client requirement" and dated schedules; dealers tend to buy in small repeat lots and the largest dealer line (145 units to Shakti Electricals) was delivered in tranches over more than a year, which suggests stock or credit being managed by the dealer. Corporate end users (Granules, Dürr, Wheels India) buy on purchase orders with standard credit. Receivable ageing is not in the record. The risk profile is low per invoice (₹5,000 to ₹1.7 lakh) but concentrated: the top three buyers (Granules ₹5.07 lakh, P7 Enterprises ₹2.70 lakh, BARC ₹1.74 lakh) were 59 percent of FY2025-26 X-Lite revenue and the top five, with Shakti and Dürr, about 71 percent. Rax-supplied | S2 | S7 | Unknown

SO WHAT FOR RAX

Rax cannot price down to the marketplace without a lithium LED redesign, and cannot price up without a mark and monitoring. The practical move is to hold price, add the battery-and-test contract that nobody sells, and publish a dealer price list so the existing accounts stop drifting to the dealer's own brand.

Recommendation



Rax · Observed market price · Observed range

Log scale, INR. Hover or tap a point for item, vendor, basis and date; every point is listed in the table below.

CATEGORY	ITEM	PRICE	BASIS	EVIDENCE
Acrylic exit sign	Acrylic emergency exit LED light signage, 220-240 V Levonix Lighting Solution, Vasai	₹1,250 per unit	published 2026-09-15	Publicly observed | S40

CATEGORY	ITEM	PRICE	BASIS	EVIDENCE
Acrylic exit sign	RT-EXT-A0-LXX acrylic exit sign without backup, MRS Rax Tech (X-Lite) to MRS	₹1,900 per unit	observed 2025-11-20	Rax-supplied S2
Acrylic exit sign	Acrylic fire exit signage, non-lit, wall mounted Safekit Equipments, Chennai	₹2,400 per unit	published 2026-09-15	Publicly observed S87
Acrylic exit sign	Acrylic signage, 19 plus 4 units to Sakthi Electricals Rax Tech (X-Lite) to Sakthi Electricals	₹2,800 per unit	observed 2025-02	Rax-supplied S2
Acrylic exit sign	Exit signage acrylic double side, Atlantis Rax Tech (X-Lite) to Atlantis	₹3,210 per unit	observed 2024-10-10	Rax-supplied S2
Acrylic exit sign	Exit signage, 10 units to NTN Rax Tech (X-Lite) to NTN	₹3,250 per unit	observed 2024-04-17	Rax-supplied S2
Acrylic exit sign	Emergency exit light (acrylic and green/white sign), MOQ 100 Cellus Tech India, Alwar	₹6,000 per unit	published 2026-08-26	Publicly observed S72
LED exit light	LED decorative exit egress light PEL-LED-E-NM, 3 h, 6-month warranty Prolite Autoglo	₹1,100 per unit	published 2026-09-15	Publicly observed S67
LED exit light	Green emergency exit LED light AG India, Vadodara (IndiaMART)	₹1,200 per unit	published 2026-09-15	Publicly observed S170
LED exit light	Emergency egress exit light, polycarbonate, 3 h Prolite Autoglo	₹1,600 per unit	published 2026-09-15	Publicly observed S67
LED exit light	Emergency exit light 111 EL/M(R), 1 x 9 W LED, CRCA body UNM India, Mumbai (IndiaMART)	₹1,700 per unit	published 2026-09-15	Publicly observed S170
LED exit light	Emergency exit light sign with battery backup, 185x300 mm Supreme Creation, Mumbai	₹2,000 per unit	published 2026-09-15	Publicly observed S41
LED exit light	RT-EXT-V1-SXX vinyl exit sign with battery backup, 42 units to P7 Enterprises Rax Tech (X-Lite) to P7 Enterprises	₹2,300 per unit	observed 2025-09-18	Rax-supplied S2
LED exit light	Industrial emergency exit light 325 x 120 x 190 mm, 1.5 h backup Aradhya Fire Protection, New Delhi (IndiaMART)	₹2,350 per unit	published 2026-09-15	Publicly observed S170
LED exit light	Industrial emergency exit light, ceiling mount, LED, metal Spark Fire, New Delhi	₹2,650 per unit	published 2026-09-15	Publicly observed S76
LED exit light	Exit signage double side with backup, Va Maiigai Rax Tech (X-Lite)	₹2,800 per unit	observed 2025-02-20	Rax-supplied S2
LED exit light	Industrial emergency exit light, LED Sunlite Industries, Vasai	₹2,800 per unit	published 2025-10-27	Publicly observed S20
LED exit light	Emergency exit light, 6-7 h charging, 1-year warranty Finetech Systems, Tiruppur	₹4,100 per unit	published 2026-08-26	Publicly observed S72
LED exit light	Emergency light with regional-language exit sign, 350x250 mm Idea Fire Safety Equipments Services, Chennai	₹4,200 per unit	published 2026-09-15	Publicly observed S87
LED exit light	Edgelit emergency exit sign, metal sheet 280x350 mm, maintained, IP20 Autolite Emergency Lighting System LLP, Vasai	₹4,400 per unit	published 2026-08-26	Publicly observed S72
LED exit light	Emergency exit light 3-language display TradeIndia seller, Tiruppur	₹5,100 per unit	published 2026-09-15	Publicly observed S86
LED exit light	Airport series emergency exit sign Autolite Emergency Lighting System LLP, Vasai	₹8,500 per unit	published 2026-08-26	Publicly observed S72
LTI clock and safety display	Accident-free safety days display board, aluminium and acrylic Team Power, Vadodara	₹6,000 per unit	published 2026-09-15	Publicly observed S54
LTI clock and safety display	Safety LED display board accident free days 4x4 ft, excl. GST KT India	₹11,137.5 per unit	published 2026-09-15	Publicly observed S55
LTI clock and safety display	Accident-free days LED display board 3x2 ft, MOQ 5 Kamal and Co. (Fixo Vision), Chennai	₹17,200 per unit	published 2026-09-15	Publicly observed S53
LTI clock and safety display	Stop Call Wait andon unit, Esjay Enterprises Rax Tech to Esjay Enterprises	₹20,000 per unit	observed 2025-04-09	Rax-supplied S2
LTI clock and safety display	Safety performance display board 6x2 ft, LAN, MOQ 5 Kamal and Co. (Fixo Vision), Chennai	₹24,270 per unit	published 2026-09-15	Publicly observed S53
LTI clock and safety display	Lost Time Injury Clock, LTI display unit, IndiaMART list price Rax Tech (X-Lite)	₹27,400 per unit	published 2026-09-15	Publicly observed S47

CATEGORY	ITEM	PRICE	BASIS	EVIDENCE
LTI clock and safety display	Accident-free days LED display board 5x3 ft Kamal and Co. (Fixo Vision), Chennai	₹32,500 per unit	published 2026-09-15	Publicly observed S53
Replacement battery	6 V 4.5 Ah sealed lead-acid emergency light battery Kochin Automotive Distributors, Ernakulam	₹260 per unit	published 2026-09-15	Publicly observed S42
Replacement battery	Exide SMF battery 7 Ah, lowest starting price Omaxe Power Services (IndiaMART)	₹560 per unit	published 2026-09-15	Publicly observed S167
Replacement battery	Exide 12 V 7 Ah SMF battery V K Group System, New Delhi (TradeIndia)	₹650 per unit	published 2026-09-15	Publicly observed S165
Replacement battery	Rocket VRLA 12 V 7 Ah, without exchange (MRP ₹1,100) BatteryBhai (online retailer)	₹799 per unit	published 2026-09-15	Publicly observed S166
Replacement battery	12 V 7 Ah replacement battery, 30 units to Sakthi Electricals Rax Tech (X-Lite) to Sakthi Electricals	₹850 per unit	observed 2025-11-18	Rax-supplied S2
Replacement battery	EML card (charger board spare), Tritan Rax Tech (X-Lite) to Tritan	₹1,650 per unit	observed 2025-02	Rax-supplied S2
Twin-head emergency light	GeM Emergency Light Unit (V2), Lens Point 1 W, MOQ 50 per consignee (form factor not stated) Lens Point (reseller on GeM)	₹1,080 per unit	published 2026-09-15	Publicly observed S162
Twin-head emergency light	LED Twin Beam Light clustered plast PEL LED TBL CP Prolite Autoglo	₹1,800 per unit	published 2026-09-15	Publicly observed S18
Twin-head emergency light	MS Twin Beam BIS 10322 Emergency Light Sunlite Industries, Vasai	₹2,000 per unit	published 2025-10-27	Publicly observed S20
Twin-head emergency light	GeM Emergency Light Unit (V2), OEM listing, MOQ 1 RPS Ramadhiraj Power Systems (OEM on GeM)	₹2,050 per unit	published 2026-09-15	Publicly observed S162
Twin-head emergency light	GeM Emergency Light Unit (V2), Lens Point 6 W, MOQ 10 Lens Point (reseller on GeM)	₹2,138 per unit	published 2026-09-15	Publicly observed S162
Twin-head emergency light	GeM Emergency Light Unit (V2), PMI 10 W, MOQ 1 PMI (reseller on GeM)	₹2,200 per unit	published 2026-09-15	Publicly observed S162
Twin-head emergency light	LED Emergency Multi Light PEL-LED-LML, Li-ion, 3 h, 6-month warranty Prolite Autoglo	₹2,400 per unit	published 2026-09-15	Publicly observed S18
Twin-head emergency light	Twin Beam Industrial Emergency Light Sunlite Industries, Vasai	₹2,500 per unit	published 2025-10-27	Publicly observed S20
Twin-head emergency light	Twin beam emergency light with BIS, battery operated PFL Power Systems	₹3,050 per unit	published 2025-10-27	Publicly observed S20
Twin-head emergency light	IEPS industrial twin beam LED emergency light IP44, 10 h IEPS (IndiaMART seller)	₹3,400 per unit	published 2026-09-15	Publicly observed S43
Twin-head emergency light	Prolite PEL LED E M emergency light resold by a distributor, MOQ 1 KT Automation, Vadodara	₹3,510 per unit	published 2025-10-27	Publicly observed S20
Twin-head emergency light	PMI twin beam industrial LED emergency light with exit text PMI (TradeIndia seller)	₹4,000 per unit	published 2025-10-27	Publicly observed S20
Twin-head emergency light	Twin Beam Emergency Light, aluminium, LED, 5 h, 'ISI' (a Rax reseller listing its own brand) P7 Enterprises, Tiruvallur	₹4,050 per unit	published 2026-09-15	Publicly observed S43
Twin-head emergency light	Aluminium body industrial emergency light, Madurai distributor TradeIndia seller, Madurai	₹4,150 per unit	published 2026-09-15	Publicly observed S86
Twin-head emergency light	X-lite Industrial Emergency Light (halogen), IndiaMART list price Rax Tech (X-Lite)	₹5,100 per unit	published 2026-09-15	Publicly observed S46
Twin-head emergency light	RT-EML-220-SHI-LXX, 19 to 40 units per order to Granules India Rax Tech (X-Lite) to Granules	₹5,700 per unit	observed 2025-07 to 2025-08	Rax-supplied S2
Twin-head emergency light	RT-EML-220-SHI sold through Amazon (net of marketplace) Rax Tech (X-Lite) via Amazon	₹5,762.71 per unit	observed 2026-04-08	Rax-supplied S2
Twin-head emergency light	RT-EML-210-SLI-LXX halogen twin-head indoor, median of 21 order lines (₹5,000 to ₹6,390) Rax Tech (X-Lite), dealers and end users	₹5,900 per unit	observed 2024-04 to 2026-02	Rax-supplied S2
Twin-head emergency light	RT-EML-220-SLI, 6 units to Durr India Rax Tech (X-Lite) to Durr India	₹6,390 per unit	observed 2025-07-11	Rax-supplied S2

CATEGORY	ITEM	PRICE	BASIS	EVIDENCE
Twin-head emergency light	RT-EML-220-SLI-LXX, 25 units to BARC Visakhapatnam Rax Tech (X-Lite) to BARC	₹6,950 per unit	observed 2025-11-06	Rax-supplied S2
Twin-head emergency light	Non-Metallic Industrial Emergency Light LED outdoor IP65, IndiaMART list price Rax Tech (X-Lite)	₹7,900 per unit	published 2026-09-15	Publicly observed S46
Twin-head emergency light	RT-EML-220-SHO-LXX outdoor, Thirumalai Chemicals Rax Tech (X-Lite) to Thirumalai Chemicals	₹10,100 per unit	observed 2025-07 to 2025-09	Rax-supplied S2
Twin-head emergency light	Halogen flameproof emergency twin beam, CMRI-approved housing, 3 h Global Business Solutions, Ahmedabad	₹16,000 per unit	published 2026-09-15	Publicly observed S43
Twin-head emergency light	Flameproof twin beam emergency LED light, cast aluminium, 8 h IndiaMART seller (flameproof)	₹24,050 per unit	published 2026-09-15	Publicly observed S43
Vinyl and photoluminescent sign	Rectangular exit signage, sunboard TradeIndia seller (Sunlite range)	₹96 per unit	published 2026-09-15	Publicly observed S73
Vinyl and photoluminescent sign	Night glow fire safety signs for industrial use Hydri Enterprises, Chennai	₹120 per sq ft	published 2026-09-15	Publicly observed S87
Vinyl and photoluminescent sign	Exit glow-in-dark signage, sunboard, MOQ 100 Safetynox India, New Delhi	₹150 per unit	published 2026-09-15	Publicly observed S73
Vinyl and photoluminescent sign	Emergency exit signage (non-lit) Lite Vision, Chennai	₹190 per unit	published 2026-09-15	Publicly observed S87
Vinyl and photoluminescent sign	Night glow fire exit signage, metal 300x150x3 mm, MOQ 100 TradeIndia seller	₹250 per unit	published 2026-09-15	Publicly observed S73
Vinyl and photoluminescent sign	Exit signage vinyl, Atlantis Rax Tech (X-Lite) to Atlantis	₹2,774 per unit	observed 2024-10-10	Rax-supplied S2
Vinyl and photoluminescent sign	Exit signage vinyl in black frame, 45 units to P7 Enterprises Rax Tech (X-Lite) to P7 Enterprises	₹2,800 per unit	observed 2024-04-26	Rax-supplied S2

08 Channels and go-to-market

KEY TAKEAWAYS

- Two routes produce all of X-Lite's revenue today: repeat orders from known plants and small electrical dealers, both arriving by phone, WhatsApp, IndiaMART and Amazon rather than by prospecting. Rax-supplied S1 S2
- Twenty-seven intermediaries are assessed; the ones that can move volume in the next year are the ten existing dealers, three Chennai fire-safety distributors, two MEP and fire consultancies, and Amazon and IndiaMART, which already convert. Rax-supplied S2 Publicly observed S84 S85 S87 S149
- Tenders, GeM and the GCC are not routes for today's product: metro and PSU packages need the R number, GeM's 149-listing emergency light category clears at ₹1,080 to ₹2,300, railway coach lights need RDSO approval, and the GCC needs IEC test reports. Verified S28 Publicly observed S162 S163 Rax-supplied S107
- What Rax tried before (agencies, channel partners with their own sales teams) fails again here unless the partner sells the audit outcome, not the luminaire; a fire-safety distributor or a licensed fire agency is the right partner type, an electrical trader with a sales team is not. Rax-supplied S1 Inferred
- The marketing that matches how buyers find suppliers is a priced IndiaMART and Amazon presence, a downloadable NBC and Factories Rules compliance sheet, and a battery-and-test contract offered to every account that has bought in the last three years. Rax-supplied S1 S2 Recommendation

Every route, assessed

ROUTE	INTERMEDIARIES	ECONOMICS AND CYCLE	WHAT RAX MUST PROVIDE	EVIDENCE IT WORKS IN THIS CATEGORY
Existing-account expansion	Granules, BARC, Dürr, Wheels India, Thirumalai, Daebu, NTN, KOB, Panoply, Trans Global	List price, 2 to 6 week cycle, ₹25,000 to ₹2 lakh per order	Datasheets, test certificate, battery contract offer, LTI clock cross-sell	14 end users repeat-bought in two years Rax-supplied S2
Electrical dealers	Shakti Electricals, Tejaslite, Sparkle Engineering, Shree Electricals, Royal Lite, Excel Engineers, Creative Enterprises, MRS, Prayaga, Shanju	₹5,000 to ₹6,000 per unit to dealer (10 to 20 percent below end user), stock in small lots, standing orders	Dealer price list, spares (batteries, cards), same-week delivery, warranty handling	Half of FY2025-26 X-Lite revenue Rax-supplied S2 S7
Fire-safety dealers and installers	P7 Enterprises, Safekit Equipments, Idea Fire Safety, Lite Vision (Chennai), Fire Supplies (Bengaluru), Relifire	Sell the luminaire inside the NOC job; margin 20 to 30 percent; cycle tied to licence renewal	Compliance sheet, regional legends, one-year warranty, test certificate	P7 buys and services; Chennai listings show fire dealers reselling exit lights at ₹2,400 to ₹4,200 Publicly observed S85 S87 S149 Rax-supplied S2
Fire and MEP consultants	JS Consultants, DCE Consultants, Santec Designs (Chennai), Sterling and Wilson, Blue Star, Voltas on large projects	No purchase; specification influence; months	R number, IES files, datasheets with lux and autonomy, sample units	JS lists emergency lighting placement as a deliverable; large MEP firms buy registered brands Publicly observed S82 S83 S84
Marketplaces	IndiaMART (member since 2003), Amazon (orders at ₹5,762 to ₹5,930), Moglix, TradeIndia	Inbound leads and single-unit orders; marketplace fee; exposed to BIS enforcement without R number	Priced listings, R number, consistent specs	Rax's inbound arrives via Google and IndiaMART; two Amazon orders in the book Rax-supplied S1 S2 Publicly observed S48 S113
Tenders and GeM	CMRL, AAI, PSUs, CPWD, state PWDs; GeM 'Emergency Light Unit (V2)'	L1 within a technical gate; 3 to 9 month cycle; bundled in E&M packages	BIS R number, fire-survival cabling compatibility, test reports, EMD	Closed today on price or mark: DMRC requires the R number; GeM V2 category of 149 listings at ₹1,080 to ₹2,300; 171 live emergency-lighting tenders on 15 September 2026, 144 under ₹10 lakh, 41 from railways to RDSO specification Verified S28 Publicly observed S44 S128 S162 S163
Direct government purchase	BARC and DAE units, defence, universities, PSU maintenance	Purchase order below tender threshold; weeks	Quotation, GST invoice, datasheet	One BARC order of 25 units Rax-supplied S2
OEM and white-label	P7-type dealers, fire-system integrators, MEP contractors wanting a house brand	Volume at ₹4,000 to ₹5,000, Rax invisible	Cost-down LED unit, CRS under the buyer's brand or Rax's	P7 already sells its own brand; no white-label deal exists Publicly observed S43 Unknown
System integrators (e-surveillance customers)	SIS, Securens, Zicom, CMS and other alarm integrators	They fit ATM and bank sites, not plants; low fit	Nothing new	No evidence integrators buy exit lights Inferred
Associations and expos	Fire India, FSIE, OSH India, CII and TNMA plant safety events	Leads and specifier contact; ₹1 to 3 lakh per show	Booth, demo, compliance literature	Prolite and Sunlite exhibit; Rax does not Publicly observed S17
Group entities (export)	Gulf Connect (Muscat), iibdaei (Dammam), RaxTech Europe (Warsaw)	Distributor margin; Civil Defence and SASO approvals first	IEC 60598-2-22 test reports, Civil Defence listing, Arabic and English signage	Not in the IIBDAEI shortlist; CE alone insufficient Rax-supplied S107 Publicly observed S89 S90
Bundle with HSE and e-surveillance	Rax's own sales team	Attach to LTI clock, THAPS sensors, SOS, alarm panels	One safety catalogue and one visit	LTI clock and EML share the buyer; not yet packaged Rax-supplied S3 Inferred

Procurement mechanics

Private plants buy on a purchase order after a quotation, often with a delivery term of "against payment"; the largest dealer order was drawn down over twenty months, so dealer stock finance is effectively Rax's credit. Public tenders bundle emergency lighting into electrical or E&M packages: the authority's specification (DMRC's is explicit) sets the R-number gate, the EPC or E&M contractor prices the package and buys from registered brands, and CMRL's June 2024 LED lighting package (₹57 lakh) went to an energy-equipment contractor, not a luminaire maker. GeM's route is an Emergency Light Unit (V2) category that clears at ₹1,080 to ₹2,300 and suits the cheapest units, not Rax's. Empanelment and rate contracts exist at PSUs and state PWDs but CPWD's 2025 E&M schedule has no emergency light item, so there is no schedule rate to be empanelled against. The pilot-to-scale path in the private sector is standardisation: one plant, then the group's other plants, as Granules shows. Rax-supplied S2 Verified S28 Publicly observed S44 S94 S128 S162

What Rax tried before and why re-proposing it would differ

Digital marketing agencies and channel partners with their own sales teams have both failed for Rax. For X-Lite the first is irrelevant: the buyer does not search for a brand, he searches "industrial emergency light" on IndiaMART or asks his dealer, and Rax already appears in both places; what is missing is prices, an R number and a test certificate on the listing, not more spend. The second fails because an electrical trader's sales team sells whatever pays best that month, as P7's own brand demonstrates. The partner type that would differ is one whose product is the fire licence, not the light: a fire-safety distributor, a licensed fire agency or a fire consultant, who needs a compliant luminaire with paperwork and does not care about the brand. Rax has never approached that type. Rax-supplied S1 Publicly observed S43 S85 S87 Inferred

Sales motion for two people

The motion that fits is account management, not prospecting. Month one: have finance extract every X-Lite invoice since 2016 to turn the claimed historical base into a named buyer list, then list every X-Lite buyer of the last three years (about forty names) at the top of it, call each with two offers, a battery-and-test contract at ₹600 to ₹1,000 per unit per year and the LTI clock, and ask the ten dealers for their current stock and their competing brands. Month two: publish a dealer price list with tiered discounts, fix the CE claim, and put a one-page "NBC 3.4.7 and Tamil Nadu Factories Rules compliance sheet" on every listing. Month three: visit the six largest end users (Granules, BARC, Dürr, Wheels India, Thirumalai, Panoply) with a monitored-unit prototype and ask whether they would pay for a test register. Proof assets needed: a third-party lux and duration test report, a reference letter from one pharma plant, a photo set of installed units, and a written spec sheet consistent across site, storefront and datasheet. The pilot is twenty monitored units at one pharma plant with a 90-day test log; success is the plant's EHS head using the log at an audit and the corporate function asking for a second plant. Reference-building given the quality history: start with X-Lite's own buyers, who have not reported failures, rather than e-surveillance customers, who have. Rax-supplied S1 S2 S8 Recommendation

Marketing that matches how buyers find suppliers

Evidence on how buyers find suppliers in this category is consistent: IndiaMART category pages (updated weekly, with seller ratings), TradeIndia, Amazon and Moglix for the transactional buyer; the dealer and the fire contractor for the plant; the consultant's specification for the project. Rax's own inbound arrives via Google and IndiaMART. The marketing that fits is therefore priced, complete, R-numbered listings; a compliance sheet that quotes the clauses buyers must satisfy; dealer-facing material (price list, spares list, warranty process); one expo a year where fire consultants gather (Fire India, FSIE); and a reference page on xlite-india.com that replaces unverifiable claims (50,000 installations, CE) with verifiable ones (Granules 142 units, BARC, Dürr) once permission is obtained. Rax-supplied S1 S2 Publicly observed S43 S48 S87 Recommendation

> SO WHAT FOR RAX
>
> X-Lite does not need a new channel; it needs the existing channel to be made honest (prices, marks, specs) and sticky (battery contract, dealer list). Everything beyond that waits for the R number. Recommendation

Routes to market for X-Lite

RAX

- Two salespeople, Chennai
- IndiaMART and Amazon listings
- HSE bundle: LTI clock, sensors, SOS

INTERMEDIARIES

- Electrical dealers (Shakti, Tejaslite, Sparkle)
- Fire-safety dealers and installers (P7, Safekit, Idea Fire)
- Electrical and MEP contractors
- Fire and MEP consultants
- Marketplaces (IndiaMART, Amazon, Moglix, GeM)
- Group entities (Gulf Connect, iibdaei)

GATES

- Fire licence renewal cycle
- Audit after incident
- BIS CRS R number (tenders)
- IEC 60598-2-22 and Civil Defence approval (GCC)

BUYERS

- Tamil Nadu plants
- Pharma and chemical plants
- Hospitals
- Hotels
- Warehouses
- PSU direct purchase
- Metro and airport (closed)

Two routes work today (existing accounts and dealers); marketplaces are live but exposed; tenders and GCC are closed until registration and approvals exist.

Inferred | S2 | S28 | S44 | S89 | S107

09 Geographic priorities

KEY TAKEAWAYS

- Tamil Nadu is the market: 15.26 percent of India's operating factories (15.43 percent of all factories in 2023-24), the most government hospital beds (1,16,733), SIPCOT's 3,390 units, Oragadam among the three busiest warehousing micro-markets, six airports and Chennai Metro. Verified S120 S152 S155 Publicly observed S80 S103 S50
- About four fifths of FY2025-26 X-Lite buyers are in Tamil Nadu, but only about 55 to 58 percent of order value: Granules in Telangana took 31 percent and BARC in Andhra Pradesh 11 percent. Rax-supplied S2 S7
- The next ring is what two salespeople can drive to: Hosur and Bengaluru, Sri City and Visakhapatnam (where BARC already buys), and Hyderabad pharma (where Granules already buys). Rax-supplied S2 Inferred
- Maharashtra and Gujarat are large but are the home turf of Prolite and the Vasai cluster, and the fire-licence regime there favours agencies with local licences. Publicly observed S17 S81
- GCC entry needs Civil Defence approvals (UAE ECAS or Civil Defence CoC, Saudi Civil Defense via Salamah) and SASO or SABER conformity; the July 2026 IIBDAEI Saudi study did not shortlist X-Lite and states that CE or RoHS alone does not establish Saudi market access. Publicly observed S88 S89 S90 Rax-supplied S107

India: states and cities ranked

The ranking below scores factory density, construction and infrastructure activity, enforcement intensity and distance from Chennai, because X-Lite has no field service and no dealer network beyond a handful of Tamil Nadu electrical shops. Estimated S120 S103 S50 Rax-supplied S1

RANK	STATE	SCORE	WHAT EARNS THE SCORE
1	Tamil Nadu	95	15.26% of factories in operation (2022-23) and 15.43% of all factories (2023-24); 2,644 government hospitals with 1,16,733 beds, the most beds of any state; SIPCOT 3,390 units across Sriperumbudur, Oragadam, Irungattukottai, Hosur, Ranipet, Cheyyar; Chennai over 8 msf of warehousing demand in 2025 with Oragadam a top-three micro-market; six airports; Chennai Metro Phase 2 under construction; annual fire licence renewal; 21 of 21 FY2025-26 buyers reachable within a day's drive; about four fifths of buyers but 55 to 58% of X-Lite order value Verified S120 S152 S155 Publicly observed S80 S103 S50 S119 Rax-supplied S2
2	Karnataka	70	Hosur-Bengaluru corridor 350 km from Chennai; Bengaluru Metro 96 km; ten airports; Peenya and Bommasandra clusters; Krishnagiri district (Hosur) alone has 150 medium and large units Publicly observed S32 S50 S109
3	Andhra Pradesh	62	BARC Visakhapatnam is a paying customer (11% of FY2025-26 X-Lite value); Sri City and Naidupeta industrial parks on the Chennai side; six airports Rax-supplied S2 Publicly observed S50
4	Telangana	60	Granules India, Hyderabad, is the largest end-user account at 89 units and 31% of X-Lite value in FY2025-26; Hyderabad Metro; pharma cluster with NABH and USFDA audit culture Rax-supplied S2 S7
5	Maharashtra	58	Largest manufacturing GVA; Chakan-Talegaon a top warehousing micro-market; 15 airports; hundreds of licensed fire agencies; but Prolite and the Vasai cluster are local and the fire-licence system rewards local licensees Publicly observed S103 S50 S81 S17
6	Gujarat	52	Second in manufacturing GVA; 13 airports; the most active post-Rajkot enforcement in the country; Ahmedabad and Surat metros; 1,700 km from Chennai Publicly observed S50 S35 S60
7	Delhi	50	374.5 km of metro with an R-number specification; three-year certificate renewal; Mundka enforcement; no Rax presence Verified S28 S100 Publicly observed S32 S36
8	Haryana	45	Manesar-Gurugram auto belt with a documented safety-injury problem; Delhi NCR took about 30% of 2025 warehousing completions Publicly observed S103 S115
9	Uttar Pradesh	42	17 airports, Noida electronics belt, Lucknow, Kanpur and Agra metros Publicly observed S50 S32
10	Kerala	40	Kochi Metro; four airports; two e-surveillance accounts already served from Chennai Publicly observed S32 S50 Rax-supplied S1
11	Puducherry	38	Contiguous with the Tamil Nadu belt; one airport Publicly observed S50
12	West Bengal	30	Kolkata Metro and five airports; distant Publicly observed S32 S50

Within Tamil Nadu the sequence is Chennai's southern and western industrial arc first (Sriperumbudur, Oragadam, Irungattukottai, Maraimalai Nagar, Ambattur, Guindy, Thirumudivakkam), then Hosur, Ranipet and Cheyyar, then Coimbatore and Tiruppur, where Finetech Systems is the local incumbent. The order book already reflects this: Dürr India, Wheels India, Daebu Automotive, NTN and Thirumalai Chemicals (Ranipet) are all within the arc, and the two largest dealer accounts, Shakti Electricals and P7 Enterprises, sit in Chennai and Tiruvallur. Rax-supplied S2 Publicly observed S56 S80

Chennai Metro Phase 2 and the city's airport works are visible but gated. CMRL awarded a ₹57 lakh comprehensive LED lighting contract in June 2024 and lets signage and MEP packages for entry-exit structures regularly; the E&M specifications of Indian metros demand BIS-registered luminaires and fire-survival cabling for emergency circuits. Until X-Lite has an R number, these tenders are a reason to register, not a place to sell. Publicly observed S128 Verified S28

15.26%

Tamil Nadu's share of India's factories in operation in 2022-23, the highest of any state; the addressable base is on Rax's doorstep. Verified S120

Export: GCC, Europe and elsewhere

Emergency lighting is a regulated life-safety product in every GCC state. In the UAE, emergency lighting needs a Civil Defence Certificate of Conformity (BSI is an approved body) and federal ECAS or EQM conformity through MoIAT; in Saudi Arabia the General Directorate of Civil Defense administers approvals through the Salamah portal against NFPA 101 and the Saudi Building Code, inspectors run monthly 30-second and annual 90-minute tests, and the common failures they cite are "dead or weak batteries that do not survive the 90-minute discharge". SASO requires SABER shipment certificates for regulated imports from 1 October 2025. The IIBDAEI Saudi research of July 2026 ranked 35 Rax products for Saudi entry, did not include X-Lite, and records that "CE or RoHS alone does not establish Saudi market access". Without IEC 60598-2-22 test reports and a Civil Defence listing, X-Lite has no GCC route; with them, Gulf Connect (Muscat) and iibdaei (Dammam) could resell into industrial projects, but the local product would compete with Beghelli, Schneider and Chinese OEMs already listed.
Publicly observed | S88 | S89 | S90 | S91 · Rax-supplied | S107 · Inferred

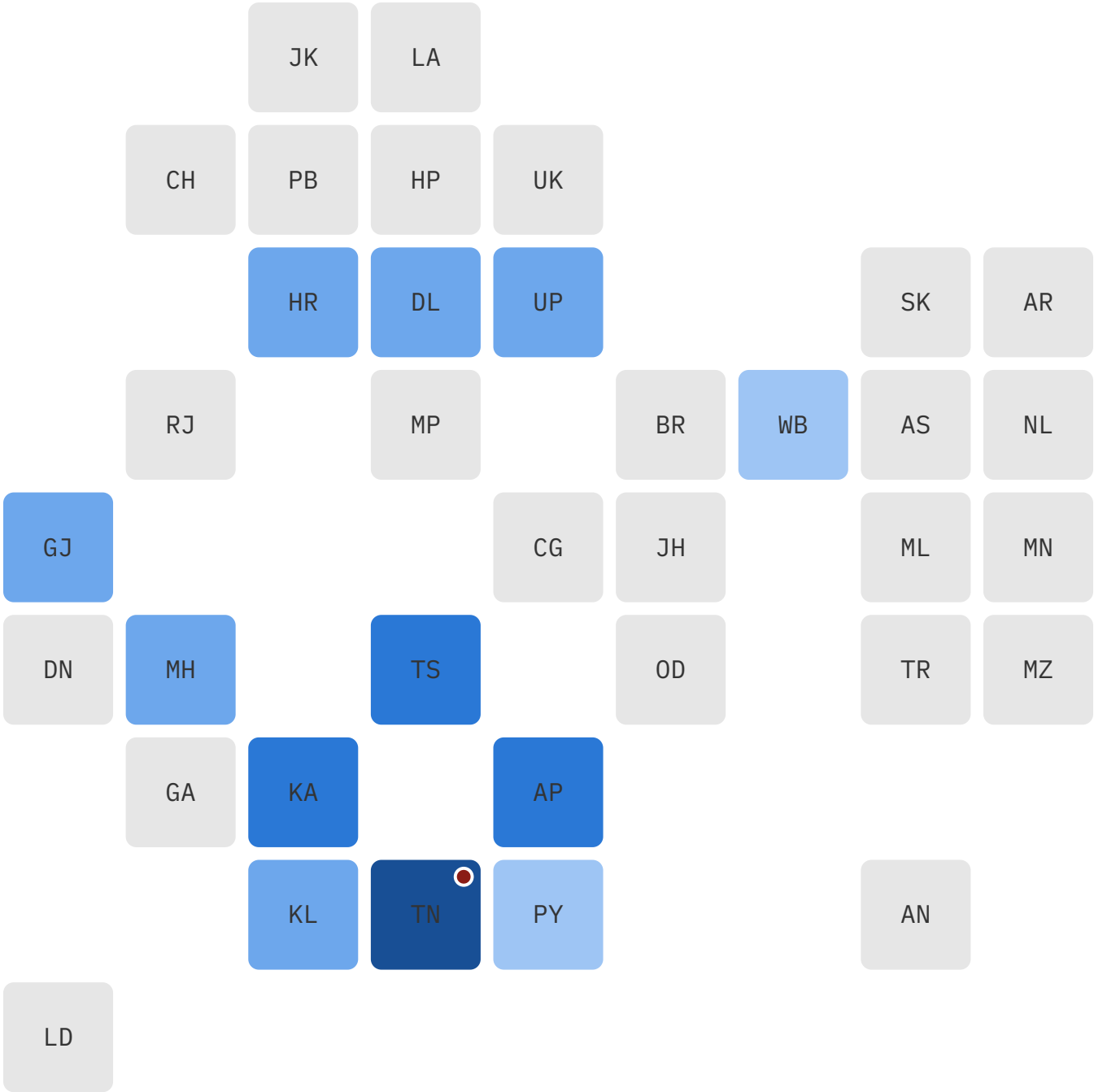
Europe is closed on price and conformity: EN 60598-2-22 with a genuine CE declaration, EN 1838 photometry and, in practice, a local brand or distributor. RaxTech Europe (Warsaw) has no sales and no reason to start with a commodity luminaire. Rax-supplied | S1 · Inferred

Sri Lanka, Bangladesh and East Africa import Indian emergency lights, and Prolite claims 33 export countries, but no demand evidence specific to X-Lite was gathered and none of Rax's group entities covers those markets. Publicly observed | S17 · Unknown

Sequence

First, Tamil Nadu's Chennai arc plus Hosur and Ranipet, sold through the existing dealers and direct to the plant safety officers Rax already knows from e-surveillance and OEM work. Next, Hyderabad pharma and Visakhapatnam via the two accounts that already buy. Expansion beyond that should be triggered by two things only: the R number (which opens metro, airport and PSU tenders in any state) and a dealer with its own fire licence in the target state (which is what Maharashtra's system rewards). Recommendation

> SO WHAT FOR RAX
>
> Rax's X-Lite geography is already wider than Tamil Nadu: 42 percent of FY2025-26 value came from Telangana and Andhra Pradesh through two accounts. Serve those accounts from Chennai; do not open new states until the R number exists. Recommendation



1. TN Tamil Nadu 95
   15.26% of India's operating factories (2022-23) and 15.43% of all factories (2023-24), the most of any state; 1,16,733 government hospital beds, also the most; SIPCOT 3,390 units; Oragadam a top-three warehousing micro-market; six airports; Chennai Metro; home base holding about four fifths of FY2025-26 X-Lite buyers by count but about 55 to 58% of order value
2. KA Karnataka 70
   Hosur-Bengaluru corridor within 350 km of Chennai; Bengaluru Metro 96 km; ten airports; Peenya industrial area
3. AP Andhra Pradesh 62
   BARC Visakhapatnam bought 25 units, 11% of FY2025-26 X-Lite value; Sri City and Visakhapatnam pharma and steel; six airports
4. TS Telangana 60
   Granules India (Hyderabad) is the largest end-user account, 89 units and 31% of FY2025-26 X-Lite value; Hyderabad Metro; pharma cluster
5. MH Maharashtra 58
   Highest manufacturing GVA; Chakan among top warehousing micro-markets; 15 airports; licensed fire-agency regime; but home turf of Prolite and the Vasai cluster
6. GJ Gujarat 52
   Second in manufacturing GVA; 13 airports; post-Rajkot enforcement; Ahmedabad and Surat metro; far from Chennai service reach
7. DL Delhi 50
   Delhi Metro 374.5 km and 271 stations with BIS R-number specification; three-year fire safety certificate renewal cycle; post-Mundka enforcement
8. HR Haryana 45
   Manesar-Gurugram auto cluster and NCR warehousing (Delhi NCR ~30% of 2025 completions); Hisar airport only
9. UP Uttar Pradesh 42

17 operational airports, Noida and Greater Noida industrial belt, Lucknow, Kanpur and Agra metros

.0. KL Kerala 40

Kochi Metro and four airports; two existing e-surveillance accounts give a foothold

Tile cartogram, priority score 0 to 100; darker is higher. The red dot marks Chennai. Scored on factory density (ASI 2022-23 share), industrial and warehousing completions, metro and airport build-out, fire-service enforcement activity, and driving distance from Chennai for a company with two salespeople and no field service network.

10 Voice of customer

KEY TAKEAWAYS

- Thirty-nine sourced signals are logged, including a Lok Sabha question and the testing duty BIS wrote into SP 7:2026; the loudest theme is not the product but its neglect: exit signs that "haven't lit up in months because no one checked", batteries "just 10 minutes", dead units found at audit. Publicly observed | S57 | S58 | S59 | S61
- Buyers do not talk about brands; regulators and auditors do the talking, and they ask for illuminance, duration, a test record and, on tenders, an R number. Verified | S10 | S28 | S100
- The only positive buyer language found praises cheap photoluminescent signage for visibility and price, which is the substitute Rax must sell against. Publicly observed | S141
- Nobody in public says anything about X-Lite; the ten IndiaMART reviews carry names and stars but no words. Rax's own words include a developer note that BIS is "still in progress" and a sales lead's admission that "no one will refer us". Publicly observed | S46 Rax-supplied | S1 | S6
- Requirements in real specifications are clause-level and testable (10 lux, 5 s, 90 min, R number, fire-survival cable, 30 percent of lighting on emergency supply); Rax's documents do not yet answer them. Verified | S10 | S28

What buyers and their regulators say

The code speaks first and sets the floor. NBC 2016 requires that "emergency lighting shall be able to maintain the required illumination level for a period of not less than 90 min in the event of failure of the normal lighting even for smaller premises" and warns that "battery pack emergency lighting, because of its limited duration and reliability, shall not be allowed to be used in lieu of a diesel engine driven emergency power supply". Tamil Nadu's factory rules require exits to be "suitably illuminated with suitable arrangement ... to maintain the required illumination in case of failure of the normal source of electric supply", and its building rules that "all exit ways shall be properly illuminated". These sentences are the buyer's brief, and none of them names a brand or a standard mark. Verified | S10 | S26 | S118

> *Each luminaire and driver should be BIS certified and related "R" Number of BIS should be printed on the Luminaire / driver.*
>
> Delhi Metro Rail Corporation, technical specification of E&M for underground stations, clause E07.6.8, December 2023 Verified | S28

The specification speaks next, and it is where the mark appears. DMRC's clause is the clearest tender gate found; the same document puts "emergency illuminated signs, exits, etc." and "emergency lighting at station and tunnel" on the emergency (UPS) service category, requires fire-survival cables for those circuits, and states that "the emergency lighting installation shall fully comply with NBC or other relevant safety standards". A Gujarat audit close-out record shows what a specifier writes for a factory: "12 maintained emergency luminaires with 3-hour battery backup installed. Lux levels verified at 7–9 lux floor-level ... Central battery system adopted for easier monitoring", followed by "the insurance renewal was completed at a lower premium". Verified | S28 Publicly observed | S129

What buyers complain about

The complaint is neglect. A Gurugram audit firm's checklist opens with "Emergency exit signs that haven't lit up in months because no one checked" and requires "illuminated exit signs with battery backup or photoluminescent material — tested monthly". A consumer buying guide summarises reviews in which "maximum backup time drops significantly after 2 to 3 months"; a certified buyer writes "The battery backup is just 10 minutes". A Bengaluru fire distributor tells its customers that "emergency lights typically last 4–5 years for batteries". Delhi's rules oblige the occupier to keep measures "at all times in best repairs", and audits find the opposite: Ghaziabad's inspectors "found missing fire exits, inadequate firefighting equipment, and insufficient emergency water supply across the 37 hospitals"; Odisha's fire service found that most clinical establishments "do not have 'foolproof' fire safety measures in place". Publicly observed | S57 | S58 | S59 | S61 | S62 | S149 Verified | S100

> *All this was going on for two-and-a-half years, so did you fall asleep? Or did you go blind*
>
> Gujarat High Court bench to Rajkot Municipal Corporation officials after the TRP game zone fire, 27 May 2024 Verified | S60

The second complaint is fake compliance. A Wipro Lighting executive told the industry's own magazine that "a large number of products being sold in India are non-compliant (non-BIS certified) products" and that "the consumer has to pay for low quality products"; the Safe In India Foundation found "brand new accident registers with only the current case written are kept, that too only before the audits" and that "the official count depends on factories reporting their own accidents, and most of them simply don't". A CE badge without a certificate belongs to this family of complaints, and Rax's site carries one. Publicly observed | S112 | S115 Rax-supplied | S1

Parliament and the new building standard say the same thing in their own registers. In July 2018 a member asked the Lok Sabha "whether it is a fact that many LED bulb manufacturing companies are not following the norms and guidelines about consumer safety standards", and the reply recorded that "three Registrations given under the Compulsory Registration Scheme were cancelled by BIS as a result of failure of test report". Eight years later SP 7:2026 turned the audit complaint into text: the emergency lighting system "should be well maintained by periodical inspections and tests so as to ensure their perfect serviceability at all times". An audit firm puts the gap between the certificate and the building in one line: "The Fire NOC got them through the inspection. The audit would have told a different story." Verified | S154 | S159 Publicly observed | S57

> *The emergency lighting system should be well maintained by periodical inspections and tests so as to ensure their perfect serviceability at all times.*
>
> Bureau of Indian Standards, SP 7:2026 National Building Construction Standards, Part F clause 3.5.6.3, April 2026 Verified | S159

Lead times and delivery failures, which the brief expected, did not surface: no public complaint about late delivery of emergency lights or exit signs was found in reviews, forums, news or tender clarifications, and Rax's own listings promise dispatch in three days to two weeks. The absence may reflect where complaints are made (phone calls to dealers) rather than their absence. Publicly observed | S46 | S176 Unknown

SO WHAT FOR RAX

The buyer's own documents now ask for a test record; Rax should sell the record (a battery-and-test contract or a monitored unit), not the fixture. Recommendation

What buyers say they want

Praise, where it exists, is for visibility and price. Sunlite's reproduced Google testimonials read "the visibility during low-light conditions is amazing", "the glow visibility is perfect even during power failures. Great service and budget-friendly pricing", and "the products are durable, professionally designed, and ideal for hospitals, offices, and industrial facilities". Prolite's own copy argues the case for self-contained units: "if the battery backup mechanism is disabled or fails, all the lights that draw from it will become useless". A Chennai auditor's page lists what its clients fear: "blocked exits, low emergency lighting, and confusing signs". The vocabulary buyers use is visibility, glow, backup, budget, durable, tested, and the file for the fire licence. Publicly observed S64 S70 S141

Requirements observed in real specifications

REQUIREMENT	WHERE IT APPEARS	RAX'S CURRENT ANSWER
10 lux on escape-route centreline, 5 lux across half the width	NBC 2016 3.4.7(d) Verified S10	No photometric report Rax-supplied S1
Switch-on within 5 s; not less than 90 min	NBC 2016 3.4.7(f) Verified S10	2 to 3 h claimed on datasheets Rax-supplied S5 S46
Exit signs at every exit and change of direction, illuminated, independent circuit, graphics per IS 9457 and IS 12349	NBC 2016 3.4.7.4 Verified S10 S11	Legends available; no graphics conformity statement Publicly observed S6
Exits illuminated on failure of normal supply, marked in workers' language	Tamil Nadu Factories Rules Verified S26	Five regional legends Publicly observed S46
BIS R number printed on luminaire and driver	DMRC E&M spec E07.6.8 Verified S28	None Rax-supplied S1
Fire-survival cabling to emergency lighting; 30 percent of lighting on emergency source	DMRC E&M spec Verified S28	Not applicable to self-contained units
Measures kept "at all times in best repairs"; monthly and annual tests	Delhi Fire Service Rules; audit checklists Verified S100 Publicly observed S57	One-year carry-in warranty, no test service Publicly observed S46
Periodical inspections and tests of the emergency lighting system	SP 7:2026 Part F 3.5.6.3 Verified S159	No test service or log Publicly observed S46
Displayed safe-exit plan on each floor (hospitals); fire exit signage as per NBC	NABH FMS-6b; CAHO guidance Publicly observed S93 S173	Vinyl and foam-board signage exists Publicly observed S6
Civil Defence approval; SASO or SABER conformity (GCC)	UAE and Saudi rules Publicly observed S88 S89 S90	None Rax-supplied S107

Signals about Rax specifically

Publicly, almost none. The IndiaMART storefront shows 3.9 from ten ratings (50 percent five-star, 30 percent three-star, 10 percent one-star) with named reviewers for "LED Exit Sign Board" (Chennai, October 2025), "Emergency Exit Lights" (Vasai, March 2024) and other products, but no written reviews; IndiaMART reports 100 percent satisfaction on response, quality and delivery from the same ten. The storefront copy says "we are the sole manufacturer of the product and our manufacturing unit is located in Chennai". Internally, the site source instructs that "products are built to IS/NBC standards, which is a conformity statement, not a certification claim; keep that distinction in all copy", which is the right instinct sitting next to a CE badge that is not. The sales lead's line about e-surveillance, "no one will refer us because we have bad names in market", has no X-Lite counterpart on record; the one X-Lite service event in two years was twenty exit signs for a dealer. Publicly observed S46 Rax-supplied S1 S6 S8

Patterns and what they imply

Three patterns run through the 39 signals. First, the buyer's problem is the test he never did, so the product that answers him is one that proves it was tested: a self-test unit, a monitored unit, or a service contract with a log. Second, the mark is asked for by specifiers and by nobody else; without it Rax is locked out of tenders but not out of plants, which explains the order book. Third, cheap photoluminescent signage is winning the praise because it never fails, and Rax's illuminated signs must be sold on the one thing glow signs cannot do, which is light the route. For positioning, the implication is to sell the audit outcome ("your exits will be lit and logged at renewal") rather than the luminaire, and for product, to close the three gaps the specifications name: a lux and duration report, a mark, and a test record. Inferred Recommendation

THEMES Enforcement follows deaths6 Regulation sets the floor4 Maintenance nobody does4 What a specifier actually writes4 The mark is the tender gate3 Batteries fail first3 Non-compliant product floods the market3 Safety records are theatre3 Rax's own words3 Buyers praise cheap signage2 GCC inspectors look for the same failures2 Competitors sell the mark1 Technology choices1

> *Battery pack emergency lighting, because of its limited duration and reliability, shall not be allowed to be used in lieu of a diesel engine driven emergency power supply.*
>
> Bureau of Indian Standards, NBC 2016 Part 4 clause 3.4.7(g) · National Building Code of India 2016 · 2016 · source Verified S10 Regulation sets the floor

Emergency lighting shall be able to maintain the required illumination level for a period of not less than 90 min in the event of failure of the normal lighting even for smaller premises.

Bureau of Indian Standards, NBC 2016 Part 4 clause 3.4.7(f) · National Building Code of India 2016 · 2016 · source Verified S10 `Regulation sets the floor`

The exits shall be clearly visible and suitably illuminated with suitable arrangement, whatever artificial lighting is to be adopted for this purpose, to maintain the required illumination in case of failure of the normal source of electric supply.

Government of Tamil Nadu, Tamil Nadu Factories Rules 1950 · Tamil Nadu Factories Rules, fire and escape provisions · 1950 · source Verified S26
`Regulation sets the floor`

Exits shall be clearly visible and the routes to reach exits shall be clearly marked and signs posted to guide the occupants of floor concerned. All exit ways shall be properly illuminated.

Government of Tamil Nadu, Combined Development and Building Rules 2019, Rule 53(1)(d) and (e) · Tamil Nadu CDBR 2019 · 2019-02-04 · source Verified S118
`Regulation sets the floor`

Each luminaire and driver should be BIS certified and related "R" Number of BIS should be printed on the Luminaire / driver.

Delhi Metro Rail Corporation, E&M specification for underground stations, clause E07.6.8 · DMRC technical specification, Revision 1 · 2023-12 · source Verified S28
`The mark is the tender gate`

The emergency lighting installation shall fully comply with NBC or other relevant safety standards.

Delhi Metro Rail Corporation, E&M specification, clause E07.6.7 · DMRC technical specification, Revision 1 · 2023-12 · source Verified S28
`The mark is the tender gate`

The occupier of the building or premises, as the case may be, shall maintain the fire prevention and fire safety measures provided in the building or premises at all times in best repairs.

Government of NCT of Delhi, Delhi Fire Service Rules 2010, rule 38(1) · Delhi Fire Service Rules 2010 · 2010 · source Verified S100 `Maintenance nobody does`

Emergency exit signs that haven't lit up in months because no one checked.

Singh Isotech, fire safety audit consultancy, Gurugram · Fire safety audit checklist for industrial and commercial buildings in India (2026) · 2026-06-12 · source
Publicly observed S57 `Maintenance nobody does`

Illuminated exit signs with battery backup or photoluminescent material — tested monthly

Singh Isotech, audit checklist item · Fire safety audit checklist for industrial and commercial buildings in India (2026) · 2026-06-12 · source Publicly observed S57
`Maintenance nobody does`

multiple detailed consumer reviews reveal a notable concern regarding long-term battery degradation, with some users reporting that maximum backup time drops significantly after 2 to 3 months of highly frequent drain cycles

Budget Appliances India, buying guide summarising consumer reviews · Best emergency lights in India · 2026-05-27 · source Publicly observed S58
`Batteries fail first`

The battery backup is just 10 minutes

Mahesh Gurung, certified buyer review of an inverter emergency LED bulb · Shopsy (Flipkart) product reviews · undated · source Publicly observed S59
`Batteries fail first`

Emergency lights typically last 4–5 years for batteries and longer for fixtures. However, they should be regularly tested and replaced as needed to maintain safety compliance.

Fire Supplies, Bengaluru fire-safety distributor, FAQ · firesupplies.in emergency lights category · 2026 · source Publicly observed S149 `Batteries fail first`

All this was going on for two-and-a-half years, so did you fall asleep? Or did you go blind

Gujarat High Court bench (Justices Biren Vaishnav and Devan Desai) to Rajkot Municipal Corporation officials · India Today report on the TRP game zone fire hearing · 2024-05-27 · source Verified S60 `Enforcement follows deaths`

Even after four years of our order, if no steps were taken in the matter of fire safety, then how is the RMC not responsible?

Gujarat High Court bench · India Today report on the TRP game zone fire hearing · 2024-05-27 · source Verified S60 `Enforcement follows deaths`

The entire building comes across as illegal

Atul Garg, Delhi Fire Services chief, on the Mundka building · The New Indian Express · 2022-05-15 · source Verified S36 `Enforcement follows deaths`

Inspectors found missing fire exits, inadequate firefighting equipment, and insufficient emergency water supply across the 37 hospitals in Ghaziabad

The Times of India, reporting a district audit · Notices issued to 37 Ghaziabad hospitals after audit flags fire safety violations · 2026 · source Publicly observed S61 `Enforcement follows deaths`

barring a few, most clinical establishments in the state, including the govt-run SCB medical college and hospital ... do not have "foolproof" fire safety measures in place

The Times of India, on the Odisha Fire and Emergency Services audit of 2,215 facilities · SCB, most hospitals lack 'foolproof' fire safety measures: Audit · 2026 · source Publicly observed S62 `Enforcement follows deaths`

It is estimated that a large number of products being sold in India are non-compliant (non-BIS certified) products. ... What pains me the most is the fact that at the end of the day the customer loses out. The consumer has to pay for low quality products.

Wipro Lighting executive, interview · IllumiNation, the ELCOMA lighting magazine, April-June 2024 · 2024-06 · source Publicly observed S112 `Non-compliant product floods the market`

I strongly recommend ELCOMA along with Industry members should take up the issue with the Government aggressively and push for a stringent enforcement of the BIS guidelines in practice.

Wipro Lighting executive, interview · IllumiNation, the ELCOMA lighting magazine, April-June 2024 · 2024-06 · source Publicly observed S112 `Non-compliant product floods the market`

First company in India with BIS Certification of Emergency Lights

Prolite Autoglo Limited, home page banner · prolite.in · 2026 · source Publicly observed S17 `Competitors sell the mark`

The basic flaw with the inverter model is that if the battery backup mechanism is disabled or fails, all the lights that draw from it will become useless.

Prolite Autoglo Limited, company blog · Prolite develops self contained emergency lights for greater safety and security · undated · source Publicly observed S70 `Technology choices`

12 maintained emergency luminaires with 3-hour battery backup installed. Lux levels verified at 7–9 lux floor-level (exceeding 5 lux minimum). Central battery system adopted for easier monitoring.

Elion Technologies, audit close-out record for a Gujarat manufacturing unit · Fire safety audit process for commercial buildings in India: case study · 2026-03-10 · source Publicly observed S129 What a specifier actually writes

The insurance renewal was completed at a lower premium (the insurer's surveyor noted the upgraded suppression and solvent store).

Elion Technologies, audit case study outcome · Fire safety audit process for commercial buildings in India: case study · 2026-03-10 · source Publicly observed S129 What a specifier actually writes

The emergency evacuation process will experience delays when blocked exits, low emergency lighting, and confusing signs hinder evacuation efforts and make it difficult to control the crowd.

NIST Global, fire and life safety auditor, Chennai · Fire and life safety audit for shopping malls in India · 2026 · source Publicly observed S64 What a specifier actually writes

We installed SUNLITE photo luminescent signages across our warehouse and emergency exits. The visibility during low-light conditions is amazing. Their industrial safety signs and emergency lights are definitely worth the investment.

Amit Patel, Google testimonial reproduced by the vendor · sunliteindia.com testimonials · 2026 · source Publicly observed S141 Buyers praise cheap signage

Their UV-cured signage quality is excellent, and the glow visibility is perfect even during power failures. Great service and budget-friendly pricing.

Rajesh Sharma, Google testimonial reproduced by the vendor · sunliteindia.com testimonials · 2026 · source Publicly observed S141 Buyers praise cheap signage

brand new accident registers with only the current case written are kept, that too only before the audits

Safe In India Foundation, 'Crushed 2026' report on automobile supply-chain factories · IndiaSpend via Moneylife · 2026-06-12 · source Publicly observed S115 Safety records are theatre

The official count depends on factories reporting their own accidents, and most of them simply don't, not even the serious ones

Siddharth Raina, senior manager, research and advocacy, Safe In India Foundation · IndiaSpend via Moneylife · 2026-06-12 · source Publicly observed S115 Safety records are theatre

There is no mechanism for having societies conduct electrical audits. We are in communication with the state government to develop a regulatory mechanism for the same. We are also reviewing fire safety in hospitals and in the malls of the city.

Ashwini Bhide, additional municipal commissioner, BMC, to the standing committee · Hindustan Times · 2021 · source Publicly observed S99 Enforcement follows deaths

We are the sole manufacturer of the product and our manufacturing unit is located in Chennai.

Rax Tech International, IndiaMART product listing for X-lite industrial emergency light · rax-tech.in storefront · 2026 · source Publicly observed S46 Rax's own words

Products are built to IS/NBC standards, which is a conformity statement, not a certification claim; keep that distinction in all copy.

Rax Tech, developer comment in the xlite-india.com site source (lib/constants.ts) · xlite-india site source · 2026-08-12 · source Rax-supplied S6 Rax's own words

no one will refer us because we have bad names in market

Rax sales lead, as recorded in the internal ground-truth record · CONTEXT-RAX.md, verified internal context · 2026-08-05 · source Rax-supplied S1 Rax's own words

Dead or weak batteries that do not survive the 90-minute discharge.

BOC Smart, Saudi fire-safety contractor, listing common inspector findings · Emergency lighting standards: NFPA 101 and Saudi Civil Defense compliance · 2026-04-13 · source Publicly observed S88 GCC inspectors look for the same failures

CE or RoHS alone does not establish Saudi market access.

IIBDAEI Saudi market research, compliance framework · IIBDAEI-Saudi-Market-Research-2026, research/cross_cutting/compliance-framework.md · 2026-07-19 · source Rax-supplied S107 GCC inspectors look for the same failures

The emergency lighting system should be well maintained by periodical inspections and tests so as to ensure their perfect serviceability at all times.

Bureau of Indian Standards, SP 7:2026 Part F clause 3.5.6.3 · National Building Construction Standards 2026, Part F Fire and Life Safety · 2026-04-30 · source Verified S159 Maintenance nobody does

whether it is a fact that many LED bulb manufacturing companies are not following the norms and guidelines about consumer safety standards

Shri Abhishek Singh, MP, Lok Sabha Unstarred Question No. 232 · Lok Sabha, answered by the Ministry of Power · 2018-07-19 · source Verified S154 Non-compliant product floods the market

till date, three Registrations given under the Compulsory Registration Scheme were cancelled by BIS as a result of failure of test report.

Minister of State for Power, reply to Lok Sabha Unstarred Question No. 232 · Lok Sabha · 2018-07-19 · source Verified S154 The mark is the tender gate

The Fire NOC got them through the inspection. The audit would have told a different story.

Singh Isotech, fire safety audit firm, Delhi NCR · Fire Safety Audit Checklist India 2026 (blog) · 2026-06-12 · source Publicly observed S57 Safety records are theatre

The organisation has a documented safe-exit plan in case of fire and non-fire emergencies.(The signage of fire exists shall be as per the NBC)

CAHO guidance on NABH standard FMS-6b · Signage and display in hospitals, Consortium of Accredited Healthcare Organisations · 2019-09-05 · source Publicly observed S173 What a specifier actually writes

11 Risks and compliance

KEY TAKEAWAYS

- Seventeen risks are registered; the two that can hurt the whole company, not just the line, are regulatory: selling LED emergency luminaires without a CRS R number, and displaying a CE badge with no certificate behind it. Verified S13 Rax-supplied S1 Publicly observed S113
- The commercial risks are already happening: dealers sell their own brand, marketplace rivals sell at half the price, and five buyers are about 71 percent of the line. Rax-supplied S2 S7 Publicly observed S43
- The compliance map has one hard gate (BIS CRS for LED luminaires), one soft gate (a lux and duration test report) and two export gates (IEC 60598-2-22 and Civil Defence approval) that Rax should not pay for yet. Verified S13 S28 Publicly observed S89 S91
- The e-surveillance reputation problem does not yet touch X-Lite in any public record; it will if the same service habits are carried over. Rax-supplied S1 S8
- Early warnings to watch: a BIS notice or marketplace delisting, a dealer's own-brand listing, a lost Granules reorder, and the first tender lost on the R number. Recommendation

Risk register

RISK	CATEGORY	L	I	MITIGATION	OWNER
BIS enforcement against unregistered LED emergency luminaires (delisting, seizure, penalties)	Regulatory	3	4	Decide on registration in 90 days; restrict marketplace listings to halogen units meanwhile	MD
CE badge challenged by a consultant, buyer or competitor	Reputational	3	3	Remove it now; publish ISO 9001:2015 and ZED Silver	Marketing
Price undercut by Prolite, Sunlite and Vasai at ₹1,100 to ₹2,800 with BIS claims	Competitive	4	3	Hold price in plants; cost a lithium LED dealer unit	Engineering, Sales
Dealers substitute their own brand (P7's ₹4,050 unit)	Competitive	4	3	Dealer price list, spares, co-branded compliance sheet	Sales
Top five buyers about 71 percent of line revenue (Granules 31 percent)	Financial	3	3	Standardisation with Granules and BARC; two new dealers a quarter	Sales
IS 10322:2026 makes the SLA halogen design unregistrable	Regulatory	3	3	Register LED lithium designs only; halogen as legacy	Engineering
Component and battery supply delays	Operational	3	2	Two months of cells and cards; dual source	Operations
Reputation spillover from e-surveillance	Reputational	2	3	Sell to X-Lite's own references first	Sales
Two salespeople, no prospecting habit	Operational	5	3	One person owns the 40-account list for 90 days; weekly metrics	MD
Tender exclusion without the R number	Market	4	2	Accept for twelve months; register on pilot proof	MD
Photoluminescent substitution in signage	Market	3	2	Sell illuminated signs where the code requires illumination; add glow signs	Sales
Episodic, audit-driven demand	Market	3	2	Battery-and-test contract converts it into an annual cycle	Sales
₹3 to 5 lakh certification not recovered on unknown margin	Financial	3	3	Cost the line first; standardisation order as trigger	Finance
Lithium redesign brings cell, transport and firmware risks	Product	2	3	Certified cell packs; test to the 2026 standard	Engineering
'Patented Tech' claim on the LTI clock unevidenced	Reputational	2	2	Publish the number or remove the tag	Marketing
GCC approvals funded without demand evidence	Financial	2	2	Do not fund until a written request exists	MD
NBC 2016 withdrawn for SP 7:2026 while state byelaws still cite NBC 2016	Regulatory	3	2	Quote both clauses (identical values) on every compliance sheet	Marketing

Likelihood and impact are scored 1 to 5 from the evidence cited in the register. Estimated S1 S2 S13 S15 S43 S113

Compliance map

REQUIREMENT	WHO ASKS	STATUS AT RAX	LEAD TIME AND COST	GATES WHICH SEGMENT
BIS CRS registration, IS 10322 (Part 5/Sec 8):2026, LED emergency luminaires	MeitY order; metro and PSU specifications; marketplaces after BIS notices	Not held; "in process" per site source, product unspecified Rax-supplied S1 S6	Government fees about ₹53,000 per application plus ₹20,000 per extra test report; lab tests ₹63,600 (BIS Bengaluru) to ₹1,00,000 (Bharat Test House) per family before taxes; 15 to 60 days after test report; 3 to 6 months overall; after 2 August 2026 only the 2026 edition is accepted Verified S153 S158 Publicly observed S16 S126 S127	Metro, airport, PSU tenders; marketplace safety Verified S28
Photometric and duration test to NBC 3.4.7 (10 lux, 5 s, 90 min)	Fire consultants, corporate EHS, insurers' surveyors	No report Rax-supplied S1	One lab test; weeks	Pharma, hospitals, hotels with consultants Verified S10
ISO 9001:2015	Corporate procurement, PSUs	Held, Bureau Veritas, first cycle to September 2028 Rax-supplied S1	Nil	All corporate buyers

REQUIREMENT	WHO ASKS	STATUS AT RAX	LEAD TIME AND COST	GATES WHICH SEGMENT
CE marking with a declaration and EN 60598-2-22 reports	Export buyers; Indian consultants who check	Claimed on site; not held Rax-supplied S1	Test reports from an accredited lab; months	Europe (not pursued)
RoHS declaration	Corporate procurement	Claimed; no report seen Rax-supplied S1	Component declarations	Corporate buyers
IS 9457 and IS 12349 graphics for exit signs	NBC 3.4.7.4 via state rules	Legends exist; no conformity statement Publicly observed S6	Design check	Every illuminated sign Verified S10 S11
Tamil Nadu Factories Rules language marking	Factory inspectors	Met (five languages) Publicly observed S46	Nil	Tamil Nadu plants Verified S26
Flameproof or ATEX / CMRI approval	OISD sites, refineries, LPG	Not held; no product Rax-supplied S1	New product	Petrochemical (not pursued) Publicly observed S39 S43
UAE Civil Defence CoC, ECAS or EQM; Saudi Civil Defense listing; SASO or SABER	GCC buyers	Not held Rax-supplied S107	Accredited testing plus registration; months and lakhs	GCC (not pursued) Publicly observed S88 S89 S90
GeM seller registration	Government buyers under threshold	Unknown	Days; but the V2 category clears at ₹1,080 to ₹2,300	Direct government purchase Publicly observed S44 S162
SP 7:2026 Part F clause 3.5.6 conformity (replaces NBC 2016 3.4.7)	Consultants and, after adoption, state fire services	Site and datasheets cite NBC 2016 only Publicly observed S6	Copy change; values identical	Every segment Verified S159
RDSO approval to RDSO/PE/SPEC/AC/0180-2016	Railway coach procurement	Not held	Vendor approval, months	Railway coach lights (not pursued) Publicly observed S163

The reputation and quality constraint

The internal record describes frequent support calls, sample-based quality control, missed urgent deliveries and a market in which "no one will refer us". All of it concerns e-surveillance; the X-Lite service log holds one event in two years (twenty exit signs serviced for a dealer), and the ten public ratings average 3.9. The constraint still applies in three ways: the safety officer who buys emergency lights at a plant that also uses Rax alarm panels will hear about the panels; a battery-and-test contract is a promise to show up, which is exactly what the record says Rax has failed at; and a monitored unit that reports faults creates service obligations that a warranty does not. The mitigation is to make every service promise small and kept, and to build references among X-Lite buyers who have not complained rather than among e-surveillance customers who have. Rax-supplied S1 S8 Publicly observed S46 Inferred

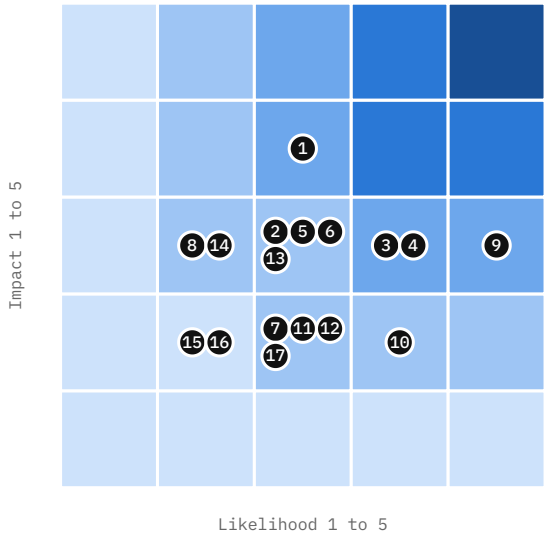
Dependencies

Components: LEDs, drivers and cells are imported and the halogen units depend on sealed lead-acid batteries that the 2026 standard steers away from; charger cards are Rax's own. Connectivity: only the monitored variant depends on Wi-Fi or GSM and on the FIOT platform, which has "large free bandwidth" in software engineering. Partners: ten dealers hold the customer relationships, and one of them competes. Scheme money: none, so no dependency and no upside. Rax-supplied S1 S2 S15 Inferred

Early-warning indicators

A BIS notice, an Amazon or IndiaMART delisting request, or a competitor's complaint about the CE badge. A dealer listing its own twin beam or a Prolite unit. A Granules or BARC reorder that does not come. A tender lost or not bid because of the R number. A dealer asking for lithium units because the inspector queried lead-acid. A rise in battery-only orders, which signals installed units ageing without a service contract. Recommendation

> SO WHAT FOR RAX
>
> The regulatory risks are cheap to remove and expensive to ignore; the commercial risks are structural and the plan must live with them. Fix the claims this quarter regardless of the investment decision. Recommendation



Numbers refer to the register below. Shade deepens with likelihood × impact.

#	RISK	L	I	MITIGATION
1	**BIS enforcement against LED emergency luminaires sold without a CRS R number: marketplace delisting, seizure or penalties under the BIS Act** regulatory · owner Managing Director	3	4	Decide within 90 days whether to register the LED twin-head and exit families; until then restrict marketplace listings to halogen units and state conformity, not certification Publicly observed · S13 · S113 · S14
2	**The CE badge on the site and storefront is challenged by a consultant, buyer or competitor and damages credibility across the Rax range** reputational · owner Marketing	3	3	Remove the CE badge and the 'ISO 9001:2008, FSAI' copy now; replace with ISO 9001:2015 certificate number and ZED Silver Rax-supplied · S1 · S6 · S46
3	**Price undercutting by Prolite, Sunlite and the Vasai cluster at ₹1,100 to ₹2,800 with BIS claims erodes marketplace and dealer sales** competitive · owner Engineering and Sales	4	3	Hold price in plants on service and legends; develop a lithium LED unit costed to ₹3,000 to ₹3,500 for dealers Publicly observed · S18 · S20 · S67
4	**Dealers substitute their own brand (P7's ₹4,050 twin beam) and keep the customer** competitive · owner Sales	4	3	Dealer price list with tiered margin, spares availability and a co-branded compliance sheet; monitor dealer listings quarterly Publicly observed · S43 · S134
5	**Customer concentration: the top five X-Lite buyers were about 71% of FY2025-26 line revenue (Granules 31%, P7 17%, BARC 11%); losing Granules alone removes almost a third of the line** financial · owner Sales	3	3	Standardisation agreements with Granules and BARC; add two dealers per quarter Rax-supplied · S2 · S7
6	**IS 10322:2026 lithium, marking and IPX9 provisions make the sealed lead-acid halogen design obsolete for any future registration** regulatory · owner Engineering	3	3	Register only the LED lithium designs; treat halogen SLA units as a legacy line for existing accounts Publicly observed · S15 · S126
7	**Component and battery supply dependency delays urgent deliveries, as already recorded for other lines** operational · owner Operations	3	2	Hold two months of SLA and lithium cells and charger cards; dual-source batteries Rax-supplied · S1 · S2
8	**Reputation spillover from e-surveillance quality and service failures reaches safety officers who also buy alarm panels** reputational · owner Sales	2	3	Sell X-Lite to X-Lite's own reference accounts first; keep service commitments modest and met Rax-supplied · S1
9	**Sales capacity: two salespeople with no prospecting habit cannot run an account programme and a dealer programme at once** operational · owner Managing Director	5	3	Give one person the forty-account call list for 90 days; measure calls and quotations weekly Rax-supplied · S1
10	**Tender exclusion persists: metro, airport and PSU E&M packages require the R number Rax does not hold** market · owner Managing Director	4	2	Accept exclusion for twelve months; register if the plant pilot proves demand for a monitored unit Verified · S28
11	**Photoluminescent signage at ₹90 to ₹250 substitutes for illuminated exit signs wherever inspectors accept it** market · owner Sales	3	2	Sell illuminated signs where NBC requires illumination (independent circuit) and offer glow signs as an add-on rather than lose the order Publicly observed · S73 · S141
12	**Demand is episodic: audit waves after fatal fires fade within months and orders revert to the replacement trickle** market · owner Sales	3	2	Sell the battery-and-test contract, which converts episodic demand into an annual cycle Publicly observed · S57 · S63
13	**Certification spend of ₹3 to 5 lakh per two families is not recovered because the line's gross margin is unknown and may be under ₹6 lakh a year** financial · owner Finance	3	3	Cost the line before spending; require a signed standardisation order from one pharma group as the trigger for registration Estimated · S1 · S16 · S124 · S158

#	RISK	L	I	MITIGATION
14	**A lithium redesign brings cell safety, transport (UN 38.3) and charger-firmware risks Rax has not handled at volume** product · owner Engineering	2	3	Use certified cell packs from an Indian assembler; test per the 2026 standard before launch Publicly observed | S15 | S126
15	**The 'Patented Tech' claim on the LTI clock cannot be evidenced and invites the same credibility challenge as the CE badge** reputational · owner Marketing	2	2	Publish the patent or application number or remove the tag Unknown
16	**GCC entry through Gulf Connect or iibdaei requires Civil Defence approvals and IEC 60598-2-22 reports with no demand evidence to justify the cost** financial · owner Managing Director	2	2	Do not fund GCC approvals for X-Lite; revisit only if a Saudi or Omani buyer requests it in writing Publicly observed | S88 | S89 | S107
17	**State byelaws still cite NBC 2016 while BIS has withdrawn it for SP 7:2026, so specifiers and inspectors quote different documents for the same escape-lighting rule during a 12 to 24 month adoption gap** regulatory · owner Marketing	3	2	Quote both NBC 2016 clause 3.4.7 and SP 7:2026 clause 3.5.6 on every compliance sheet; values are identical Verified | S10 | S159 | S161

12 Strategy and recommendation

KEY TAKEAWAYS

- Three options: maintain as a catalogue line with no investment; validate a registered, monitored unit with existing accounts before investing; or invest now in CRS, a lithium LED redesign and a dealer programme. The recommendation is the second. Recommendation
- Option one costs nothing and keeps ₹16 lakh a year but leaves a regulatory exposure and an unsupported CE claim in place; those two must be fixed under every option. Rax-supplied S1 Verified S13
- Option three needs ₹8 to 15 lakh and twelve months to reach ₹45 lakh of revenue in 2028 on the base case, a payback the line's unknown margin cannot promise. Estimated S16 S124
- The validation asks two yes-or-no questions of buyers who already pay list: will you pay for a test register, and will you sign a battery-and-test contract. Two yeses fund the registration; two noes end the debate. Recommendation
- Kill criteria: no contract signed by day 90, no EHS head willing to pay for monitoring, or a costed gross margin under 35 percent (under 30 percent the line is classed Defer). Recommendation
- X-Lite's value beyond its ₹16 lakh is its buyer (the plant EHS officer who also buys the LTI clock and sensors), its claimed historical installed base (a battery and AMC pool of ₹11 to 75 lakh a year depending on its real size) and a monitored unit as a FIOT use case; it is not a GeM anchor or an e-surveillance bundle. Estimated S2 S165 Rax-supplied S1 Publicly observed S162

The three options

Option A, maintain as a catalogue line with no investment. Keep selling to the twenty-one buyers and ten dealers that arrive on their own; fix the CE claim and the stale storefront copy because they are liabilities, not investments; restrict marketplace listings to halogen units until the CRS scope question is answered. Investment: nil beyond a day of web edits. Time to revenue: it already exists, about ₹16 lakh a year, declining slowly as dealers drift. What must be true: BIS does not act on LED units, and no buyer checks the CE badge. Trade-off: no growth, no tender access, a slow loss of the middle to dealer brands, but no cash at risk. Rax-supplied S1 S2 Verified S13

Option B, validate before investing (recommended). Spend 90 days and under ₹2 lakh proving two things with buyers who already pay list: that a monitored unit with a test register is worth a premium, and that a battery-and-test contract sells. Build five monitored units on the FIOT stack, place them at Granules and one Tamil Nadu plant, offer the contract to every buyer of the last three years, sign the dealers to a price list, and commission one third-party lux and duration test. If the answers are yes, register the LED twin-head and exit families under CRS (₹3 to 5 lakh, three to six months) and move to Option C's second year; if no, revert to Option A with cleaner claims and a test report. What must be true: at least one pharma or plant EHS head will pay for the register, and five contracts sign. Rax-supplied S2 S3 Publicly observed S16 S124 S127 Recommendation

Option C, invest now. Register two LED families under CRS, redesign the twin-head unit on lithium to hit ₹3,000 to ₹3,500 at dealer level, build the monitored variant, sign twenty dealers across Tamil Nadu, Karnataka and Telangana, exhibit at Fire India, and bid metro and PSU packages through contractors. Investment: ₹8 to 15 lakh in the first year (registration ₹3 to 5 lakh, redesign and tooling ₹3 to 6 lakh, expo and literature ₹1 to 2 lakh, samples and travel ₹1 to 2 lakh), plus one salesperson's time. Time to revenue: registration-dependent sales start in 2028; base case ₹45 lakh in 2028 and ₹1.1 crore in 2031. What must be true: gross margin above 35 percent, the dealers stay loyal once they have a price list, and the two salespeople can carry the programme. Trade-off: the only option that opens tenders and protects marketplace sales, but it spends more than a year's gross margin before the evidence exists. Estimated S16 S124 Rax-supplied S1 Recommendation

Why B beats A and C

A loses because it leaves two liabilities in place and because the drift is real: Shakti's revenue fell from ₹9.2 lakh to ₹1.4 lakh between the two years (spelling variants merged) and P7 now sells its own unit. C loses because the market has already told Rax what it will pay for an unmarked, unmonitored unit (₹5,000 to ₹7,000 from plants, nothing from tenders) and has not yet told Rax what it will pay for a marked, monitored one; spending ₹8 to 15 lakh to find out is the wrong order. B spends a tenth of that to get the answer from the buyers who matter, and it does the two things that are right under any option: it cleans the claims and it converts episodic demand into a contract. Rax-supplied S2 S7 Publicly observed S43 Recommendation

Ninety-day plan

WEEK	ACTION	OWNER	COST	MILESTONE
1 to 2	Remove CE badge, ISO 9001:2008 and FSAI copy; publish ISO 9001:2015 number, ZED Silver, NBC and Factories Rules conformity sheet; reconcile specs across site, storefront, datasheets	Marketing	Staff time	No unsupported claim on any page
1 to 4	List all X-Lite buyers since FY2023-24 (about 40); call each with the battery-and-test contract and the LTI clock; log quotations	Sales	Staff time	40 calls; 10 quotations; 5 contracts
2 to 4	Dealer price list with three tiers, spares list (12 V 7 Ah, charger card), warranty process; sign ten dealers	Sales	Staff time	10 signed dealers; competitor brands recorded per dealer
2 to 6	Commission lux and duration test of 220-SLI and vinyl exit V1 at a BIS-recognised lab	Engineering	₹50,000 to ₹1 lakh	Report in hand; used on every quotation
3 to 8	Build five monitored twin-head units on the FIOT Wi-Fi or GSM card with a monthly self-test and a dashboard log	Engineering	₹50,000	Units bench-tested
6 to 12	Place units at Granules and one Tamil Nadu plant; 90-day log; ask for a written price decision (₹1,500 premium or ₹150 a month)	Sales, Engineering	Travel	Two written answers
1 to 3	Extract every X-Lite invoice since 2016 into an installed-base register (buyer, model, quantity, date, site)	Finance	Staff time	Register that confirms or replaces the 50,000+ claim

WEEK	ACTION	OWNER	COST	MILESTONE
4 to 10	Cost the line: COGS per model, service cost, receivables ageing	Finance	Staff time	Gross margin by model
12	Decision meeting: register or revert	MD		Go or no-go on ₹3 to 5 lakh

Recommendation | Estimated | S16 | S124 | S127

Twelve-month plan if the validation passes

Months 4 to 6: file CRS for the LED twin-head and LED exit families under the 2026 edition; finalise the lithium LED dealer unit at a ₹3,000 to ₹3,500 dealer price; add the monitored variant to the price list. Months 6 to 9: R number received; relist on IndiaMART, Amazon and Moglix with the mark and prices; approach Safekit, Idea Fire, Lite Vision and Fire Supplies as fire-safety distributors; approach JS Consultants and DCE for specification; exhibit at one fire expo. Months 9 to 12: standardisation proposals to Granules (all plants) and to one hospital group; first contractor bid for a Chennai Metro or airport package through an E&M contractor; twenty dealers signed. KPIs: units shipped per month (target 250 by month 12 against 28 today), active dealers (20), contracts (50 units under contract), monitored units in the field (100), quotations won as a share of quotations sent, and battery-only orders as a share of unit orders (falling). Estimated | S2 | S128 Recommendation

Proof pilot design

Target accounts: Granules India (existing, 142 units, corporate EHS) and one Tamil Nadu plant with an annual fire licence (Dürr India or Wheels India). Units: five monitored twin-head LEDs per site on a 90-day log. Success criteria: the log is used at a real audit or licence renewal; the EHS head signs a statement that a test register is worth ₹1,500 per unit or ₹150 per month; no unit fails its monthly self-test without the dashboard reporting it; corporate EHS asks for a second site. What the pilot must demonstrate to unlock scale: that the buyer values proof of testing enough to pay for it, because everything else in the plan (registration, redesign, dealers) is only worth funding if that is true. Rax-supplied | S2 Publicly observed | S57 | S129 Recommendation

Investment and revenue scenario

Option B costs under ₹2 lakh in cash (test report, five prototype units, travel) plus about one salesperson-quarter. If it passes, Option C's first year costs ₹8 to 15 lakh. The revenue it supports is the base case in the sizing: ₹25 lakh in 2027, ₹45 lakh in 2028, ₹70 lakh in 2029, ₹1.1 crore in 2031, with a high case of ₹2.5 crore if a pharma group and a hospital chain specify the monitored unit. Payback has to be measured above Option A's ₹16 lakh a year: the base case adds ₹9 lakh of revenue in 2027, ₹29 lakh in 2028 and ₹54 lakh in 2029. At a 40 percent gross margin that is about ₹15 lakh of extra contribution by 2028 and ₹37 lakh by 2029 against ₹10 to 17 lakh of spend, a payback in the second or third year; at 30 percent it is ₹28 lakh by 2029, a third-year payback before counting the salesperson's time; at 20 percent it barely returns the spend by 2029. The 35 percent kill threshold allows for the sales time this arithmetic leaves out. The margin number is the missing fact. Estimated | S1 | S2 | S158 Unknown

Strategic value beyond revenue

Question: is X-Lite worth more to the group than ₹16 lakh? Four possible values were tested.

POSSIBLE VALUE	EVIDENCE	VERDICT
Door-opener into plants for HSE products (LTI clock, THAPS and THOPS sensors, SOS device)	X-Lite's buyers are EHS-led plants (Granules, Dürr, Wheels India, BARC); the LTI clock lists at ₹27,400 and an andon unit sold at ₹20,000; the same safety officer signs both Rax-supplied	S2	S3 Publicly observed	S47	Real but unproven: no order yet combines an emergency light and an HSE product; test it in the 90-day calls Recommendation
Installed-base annuity (batteries, test contracts, replacement)	Site claims 50,000+ installations and Gabriel states "a lot of X-Lite sales"; IndiaMART shows X-Lite buyers rating products from 2019 to 2025; current revenue ₹16 lakh Rax-supplied	S1	S6	S174 Publicly observed	S175	The largest possible value, worth ₹11 to 75 lakh a year depending on how many units are still installed; sized only by Rax's invoice history Estimated	S2	S165
GeM catalogue anchor	GeM's Emergency Light Unit (V2) category holds 149 listings at ₹1,080 to ₹2,300 Publicly observed	S162	Weak: Rax's ₹5,000-plus units would anchor nothing on price; a GeM listing matters only for a cheaper LED unit Inferred
Bundle with e-surveillance	E-surveillance buyers are ATM and bank integrators; X-Lite buyers are plants and dealers Rax-supplied	S1	S2	No shared buyer; share contractors at most Inferred
FIOT use case (monitored emergency light)	One "EML IoT unit" sold; FIOT is a line Gabriel names as a strategic priority Rax-supplied	S1	S2	Worth building as a FIOT reference, which lowers the effective cost of the monitored-unit pilot Recommendation

The group case for keeping X-Lite is therefore the installed base and the EHS buyer, and both are tested cheaply inside Option B. Recommendation

Dependencies on other Rax lines

The monitored unit rides on the FIOT platform and the RT--*W and RT*--G communication cards; the LTI clock, THAPS and THOPS sensors and the SOS device share the buyer and should travel in one safety catalogue; e-surveillance shares electrical contractors but not the buyer. The ZenCampus school base is a cross-sell list for exit signs after Rajkot, but only once the claims are clean. Nothing in the plan requires the e-surveillance business to recover. Rax-supplied | S1 | S3 Inferred

Kill criteria

Stop the programme and revert to Option A if, by day 90, the invoice history shows fewer than 1,000 X-Lite units sold since 2020 and fewer than five battery-and-test contracts are signed; if neither EHS head will pay for the register; if the costed gross margin is under 35 percent (under 30 percent, reclassify the line as Defer); if BIS confirms halogen SLA units are in CRS scope and the redesign cost exceeds ₹6 lakh; or if the two salespeople cannot log forty calls in four weeks, which would mean the capacity to run any programme does not exist. Stop Option C in year one if the R number has not arrived within nine months of filing, if fewer than ten dealers sign, or if the first monitored units fail in the field. Recommendation

SO WHAT FOR RAX

X-Lite deserves ninety days and ₹2 lakh, not a year and ₹15 lakh. The buyers who already pay list will tell Rax whether the line is a business or a catalogue page; the report cannot. ● Recommendation

13 Evidence gaps

KEY TAKEAWAYS

- The three facts Rax must supply are cost and margin by model, an installed-base register from invoices that tests "50,000+ installations" and Gabriel's "a lot of X-Lite sales" against current revenue of ₹16 lakh, and the exact product and status of the BIS CRS application. Unknown
- The external unknown that matters most is whether halogen sealed-lead-acid units fall inside the CRS order; pass 2 closed the lab-cost question (₹63,600 to ₹1,00,000 per family) and found that NBC 2016 was replaced by SP 7:2026 on 30 April 2026. Unknown Verified S158 S159
- The load-bearing assumptions are the equipped share (60 percent of factories, 50 percent of hospitals) and fixtures per site in the sizing, and the 40 percent gross margin in the payback. Estimated S120 S52
- The next research action is not desk research: it is two conversations with EHS heads who already buy. Recommendation

Internal facts Rax must supply

Cost of goods, gross margin, service cost and receivables ageing by X-Lite model: held by finance; nothing exists in the record, and every payback figure in this report assumes 40 percent. The installed-base register behind "50,000+ installations", "47 SKUs", "50+ active clients", "15+ airport terminals" and "6 metro networks", and behind Gabriel's statement of 15 September 2026 that Rax has made a lot of X-Lite sales: held in the invoice and dispatch history (finance) and by sales; the two-year order book supports 336 to 512 units a year and 21 to 30 buyers, the sales tracker gives ₹16,01,735 for FY2025-26, and no product-level revenue exists for earlier years. The BIS CRS application: which product, which standard edition, which lab, filed when, and the CE and RoHS test reports if any; held by the managing director or engineering. The patent or application number behind the LTI clock's "Patented Tech" tag. The failure and warranty history of X-Lite units, which the service log suggests is near zero but which dealers may be absorbing. Which of the eighteen client logos have bought in the last five years and would give a reference. Rax-supplied S1 S2 S6 S8 S174 Unknown

External unknowns and the searches run

Whether halogen lamp units are inside the CRS order: the CRS list reads "LED Luminaires for Emergency Lighting"; searched the MeitY order text and consultant pages (Parallel, 2026-09-15); no ruling found; a written query to BIS or a consultant closes it. What IS 11944 is: searched "IS 11944 Indian standard"; no emergency-lighting standard by that number found; the site's claim should be replaced with IS 9583 or IS 10322 after a BIS catalogue check. Lab testing cost for IS 10322 Part 5 Sec 8: closed in pass 2 from the BIS laboratory register (₹63,600 to ₹1,00,000 before taxes); a quotation for the 2026 edition's added tests is still open. Factory counts: closed in pass 2 with ASI 2023-24 (2,60,061 factories; operating count derived at about 2,13,000 because the summary-results PDF for 2023-24 returned 404). Hospital counts: government hospitals closed with NHP 2023 (36,626); private hospitals remain a secondary estimate (43,486). Import share of emergency luminaires: HS 9405 trade data sits behind paywalls; unknown. Amazon.in review text for X-Lite or competitor units: search engines returned Amazon.com results; the listing pages were not opened; would need the Browser pane, which this session did not use. Tender award prices for exit signs and emergency lights: GeM listing prices were captured (₹1,080 to ₹2,300) and 171 live tenders counted, but awarded unit rates were not found; eProcure and GeM award documents need a logged-in session. Public evidence of historical X-Lite deployments: searched IndiaMART, TradeIndia, ExportersIndia, xlite-india.com, tender aggregators and the web for Rax emergency-light awards, GeM orders, case pages and installed photographs (Parallel, 2026-09-15); found only marketplace listings and dated buyer ratings from 2019 to 2025; the Wayback Machine was offline, so the site's earlier versions were not checked. Photoluminescent sign standard: no BIS product standard could be confirmed. OISD clause on emergency lighting: not confirmed. Lead-time complaints: none found. Signalite and Trueglow: no Indian companies found. State adoption of SP 7:2026: none reported as of June 2026 per trade press. Insurer requirements: one audit case study mentions a lower premium; no insurer checklist found. IGBC and ECBC: no emergency-lighting credit found; treated as not adding demand.
Publicly observed S13 S14 S49 S52 S125 S129 S162 S163 S175 Verified S152 S155 S158 Unknown

Load-bearing assumptions

The equipped share (60 percent of factories, 50 percent of hospitals) and fixtures per site (12 for factories; 6, 40 and 20 for rural government, urban government and private hospitals) in the TAM; halving either roughly halves the ₹190 crore. The four southern states holding 25 percent of the base and 70 percent of demand being non-tender, which set the ₹33 crore SAM. The 40 percent gross margin that makes the ₹8 to 15 lakh investment pay back in year three. The 8 percent slice of the analyst figure used as a cross-check. The belief that a pharma EHS head will value a test register; supported by audit language, unsupported by any buyer statement.
Estimated S21 S120 S52 S129 Inferred

Recommended next research actions, in order

1. Finance extracts every X-Lite invoice since 2016 into an installed-base register (a week; decides whether the historical base is an AMC business). 2. Two structured conversations with the EHS heads at Granules and one Tamil Nadu plant on the monitored unit and the contract (a week; decides the monitored-unit case). 3. A written scope query to BIS or a CRS consultant on halogen units and a lab quotation for the LED families (two weeks). 4. Finance to cost the line by model (two weeks). 5. Open the Amazon.in listings for X-Lite and the five closest competitors and record review text and sales rank (a day, needs a browser). 6. Obtain five awarded E&M tenders from eProcure that include emergency lights, to price the tender tier (a week). 7. Verify which client logos are live customers and obtain two reference letters (a month). Recommendation

SO WHAT FOR RAX

Every remaining gap that changes the decision sits inside Rax (invoices, margin, the CRS file); none needs more desk research. Recommendation

14 Sources and method

KEY TAKEAWAYS

- Two passes on 15 September 2026: a first draft in five phases, a logged gap audit against the fifteen briefs and the prompt's eleven questions, then a second pass that fixed seven consistency errors, closed the depth gaps and re-verified eleven load-bearing numbers against primary sources. Recommendation
- 177 sources: 41 primary, regulatory or dataset (NBC 2016 and SP 7:2026 opened as PDFs, BIS CRS list, BIS guidelines of 20 March 2026, BIS laboratory charges, DMRC specification, ASI 2022-23 and 2023-24, NHP 2023, Lok Sabha reply, PIB), 69 vendor and marketplace pages, and the rest reference, news, analyst, forum and internal; 163 concern India. Verified | S10 | S13 | S28 | S120 | S152 | S153 | S155 | S158 | S159
- Internal evidence came from the order book, sales tracker, product master, datasheets, client revenue and service logs, the xlite-india site source, and Gabriel's statements of 15 September 2026; all of it is labelled Rax-supplied. Rax-supplied | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 | S174
- Limits: no browser session, so Amazon.in reviews and GeM or eProcure award documents were not opened; the Wayback Machine was offline and MoSPI's 2023-24 summary PDF returned 404. Unknown

Search strategy

Query families were built in the buyer's language and the regulator's: "industrial emergency light", "twin beam light", "exit light", "photoluminescent signage", "BIS 10322 emergency", "NBC 2016 3.4.7", "fire NOC checklist emergency lighting", "IS 9457", "CRS emergency lighting", "LTI clock display board", plus competitor names, state rules (Tamil Nadu Factories Rules, Delhi Fire Service Rules, Maharashtra Act), sector rules (OISD, NABH, DMRC), demand statistics (ASI, Horwath HTL, PIB metro, Lok Sabha airports, Colliers, JLL), incidents (Rajkot, Mundka, Supreme Court audits) and GCC approvals (Civil Defence, ECAS, SASO). Portals used: the Parallel search MCP with several queries per call, web fetch for exact wording, IndiaMART and TradeIndia category pages, the BIS CRS portal, indiacode.nic.in and LegitQuest for statutes, PIB and MoSPI for statistics, the Chennai Metro and DMRC sites, and archive.org and law.resource.org for standards. Date range: standards from 1981, incidents from 2020, market data 2018 to 2026, prices as observed on 15 September 2026. Languages: English; regional-language exit legends were noted as a product feature but no Tamil-language sources were searched. Recommendation

Source mix and confidence

Every source carries a type and a confidence. High confidence was given to statutes, codes and standards opened in full (NBC 2016 Part 4 was downloaded and text-searched for the clause numbers), to the DMRC specification, to MoSPI's ASI summary and to internal files. Medium confidence went to official portals whose pages were only partly extracted, to analyst summaries, to vendor storefronts (prices are real but "approximate"), and to news reports of court proceedings. Low confidence went to consultant blogs, aggregator listings, single-review pages and analyst figures whose scope could not be checked. Rax's own site and storefront are labelled Publicly observed for what they display and Rax-supplied for what the display implies. Recommendation

Limits and workarounds

The Browser pane and Claude in Chrome were reserved for the lead session, so pages that need a rendered or logged-in session (Amazon.in product reviews, GeM bid results and award documents, eProcure awards, LinkedIn posts) were not opened; GeM's public category page and a tender aggregator's live listing were used instead, and the voice-of-customer set relies on audit firms, court reporting, Parliament, vendor testimonials, trade magazines and the codes themselves. The Wayback Machine returned "temporarily offline", so earlier versions of xlite-india.com could not be checked for historical client or installation claims. MoSPI's ASI 2023-24 summary-results PDF returned 404, so the 2023-24 operating-factory count is derived from the published press-note ratios rather than read from Statement 3A. The Labour Bureau's 2022 factory report did not parse cleanly. CPWD's 2025 E&M schedule was downloaded and searched and found to carry no emergency-light item. Analyst reports (Grand View, IMARC) were used only for headline figures visible without purchase. The hero image was generated separately by the lead session with ChatGPT and installed from the programme's hero folder; evidence images were captured with the project's headless script.
Publicly observed | S21 | S22 | S49 | S94 | S162 | S163 Unknown

Changes between the first and second pass

The first pass wrote all fifteen sections and thirteen data files against the charter minimums. The gap audit, logged in gaps.md, found the category history, a clause-level standards table, a per-segment size and pain table, competitor recent moves, GeM and battery prices, lead-time evidence and a direct answer to the group-value question missing, and seven consistency errors: Tamil Nadu described as four fifths of the order book when it is about four fifths of buyers but 55 to 58 percent of value; top-five buyer concentration given as 60 percent when it is about 71 percent; Shakti's decline understated; a payback computed on total rather than incremental contribution; a registration date inconsistent between sizing.json and section 04; kill and Defer margin thresholds stated separately; and the ₹16 lakh revenue figure tagged Verified instead of Rax-supplied. Rax-supplied | S2 | S7 Recommendation

The second pass fixed all seven. It found that BIS replaced NBC 2016 with SP 7:2026 on 30 April 2026 and carried the escape-lighting clause into Part F 3.5.6 with a new testing duty; it replaced the ASI 2022-23 headline with ASI 2023-24, the secondary hospital count with NHP 2023, the consultant CRS date with the Lok Sabha reply and BIS's own guidelines, and the 2016 lamp test fee with the BIS laboratory register; it corrected Prolite's revenue to about ₹54 crore; it added a standards table, a back-cast category history with CAGR, a segment size-buyer-budget-pain table, five competitors and a recent-moves review, ten price points from GeM, IndiaMART and battery sellers, five quotes including a Lok Sabha question, two timeline events, one risk, and a strategic-value table. At the coordinator's request it reconciled Gabriel's statement that Rax has made a lot of X-Lite sales with current revenue: the history is corroborated as long but unmeasured, the ₹16 lakh stands, and the gap became an installed-base register in the 90-day plan and a scenario table in section 04. Verified | S152 | S153 | S154 | S155 | S158 | S159
Publicly observed | S162 | S164 | S175 Rax-supplied | S1 | S174

Load-bearing numbers re-verified in pass 2 against primary or first-hand sources: ₹16 lakh and 2.0 percent (sales tracker ₹16,01,735; S1, S174); 2,06,523 operating factories and 15.26 percent (S120, re-read from the PDF) and 2,60,061 and 15.43 percent for 2023-24 (S152); NBC 3.4.7's 10 lux, 5 s and 90 min (S10, re-read) and the same values in SP 7:2026 (S159); the CRS listing (S13) and 2 August 2026 (S153); 23 May 2018 (S154); DMRC's R-number clause (S28, re-downloaded); Prolite's ₹1,800 to ₹2,400 prices and six-month warranty (S18, re-fetched) and revenue (corrected, S69, S164); 216,000 hotel rooms (S156, Horwath's own page); about 1,095 km of metro and RRTS (S157); and government hospitals (S155). Recommendation

Source list

S1 Rax Tech verified internal context (CONTEXT-RAX.md) landings/rax-market-research/charter/CONTEXT-RAX.md
Rax Tech International (internal) · 2026-09-15 · accessed 2026-09-15 · India · internal · confidence high · Audited turnover, FY2025-26 vertical split (X-Lite 2.0%), certifications held and missing, sales capacity, reputation constraint; statements from Gabriel of 15 September 2026, including "Rax has made a lot of X-Lite sales" (Rax-supplied, to be reconciled)

S2 Rax order book FY2024-25 and FY2025-26 (rax-orderbook.csv) landings/_rax-data/_analysis/rax-orderbook.csv
Rax Tech International (internal extract) · 2026-08-05 · accessed 2026-09-15 · India · internal · confidence high · Line-level X-Lite orders: model codes, unit prices, quantities, customers; XT.n references

S3 Rax product master, 57 models (rax-product-master.csv) landings/_rax-data/_analysis/rax-product-master.csv
Rax Tech International (internal extract) · 2026-08-04 · accessed 2026-09-15 · India · internal · confidence high · HSE group: RT-LTI-G0 X-Lite LTI clock, RT-THAPS-W, RT-THOPS-W, RT-SOS-G, RT-WAC-W-G0, RT-HSE-AAS

S4 Lost Time Injury Clock technical datasheet RT-LTI-M1-B, 2025 landings/_rax-data/114911_Data_Sheets/unz_HSE_Datasheets/HSE Datasheets/Updated Lost Time Injury Clock Technical Datasheet 2025.pdf
Rax Tech International · 2025-11 · accessed 2026-09-15 · India · internal · confidence high · 1.8-inch 7-segment LED, Bluetooth app reset, RTC, metal enclosure, 445x300x50 mm, 4 kg, 110-230 V AC

S5 Exit/Signage Lighting Vinyl technical datasheet RT-ESLV-00 R01 landings/_rax-data/114911_Data_Sheets/unz_Updated_e-Surveillance__Techincal_Data_Sheet/Updated e-Surveillance Techincal Data Sheet/Updated ExitSignage Lighting Vinyl Techincal Datasheet.pdf
Rax Tech International · 2025-08 · accessed 2026-09-15 · India · internal · confidence high · RT-EXT-V0 (no backup) and RT-EXT-V1 (backup) with 18 legends plus custom; 3.7 V 2,800 mAh Li-ion, 2 h backup (8 h on request); 230 V/120 V input

S6 xlite-india.com product pages and site source (lib/products.ts, AboutSection, ClientsSection) https://xlite-india.com/
Rax Tech International · 2026-08 · accessed 2026-09-15 · India · vendor · confidence medium · 13 product cards with specs (IS 11944, NBC 2016, IS 9457 named), stats 25+ years / 50,000+ installations / 47 SKUs / 50+ clients, sector counts, client logos, CE/RoHS/ZED/ISO badges; site source deliberately omits BIS

S7 Rax client revenue, two financial years (rax-client-revenue-2yr.csv) landings/_rax-data/_analysis/rax-client-revenue-2yr.csv
Rax Tech International (internal extract) · 2026-08-05 · accessed 2026-09-15 · India · internal · confidence high · Per-client revenue FY2024-25 and FY2025-26 including X-Lite dealers and end users

S8 Rax service returns log (rax-service-returns.csv) landings/_rax-data/_analysis/rax-service-returns.csv
Rax Tech International (internal extract) · 2026-08-05 · accessed 2026-09-15 · India · internal · confidence high · One X-Lite service line: P7 Enterprises exit signage service, 20 units, December 2025

S9 RAX Group ground truth record (RAX-GROUND-TRUTH.md) landings/_rax-data/_analysis/RAX-GROUND-TRUTH.md
Rax Tech International (internal analysis) · 2026-08-05 · accessed 2026-09-15 · India · internal · confidence high · FY2025-26 vertical split, catalogue of 57 models, HSE group of six

S10 National Building Code of India 2016, Part 4 Fire and Life Safety (clauses 2.12 to 2.14, 3.4.6.2, 3.4.7, 3.4.7.4, Annex J) https://fireandsafetyequipments.com/wp-content/uploads/2018/09/NBC2016-Part-IV.pdf
Bureau of Indian Standards · 2016 · accessed 2026-09-15 · India · regulatory · confidence high · Opened as PDF (116 pages) and text-searched: clause 3.4.7 escape lighting 10 lux, 5 s, 90 min, battery packs not in lieu of DG; 3.4.7.4 exit signage per IS 9457 and IS 12349; 3.4.6.2 emergency power list; pass 2 re-verified clause 3.4.7.1 (d) 10 lumen/m2, (f) 5 s and 90 min, (g) battery pack; withdrawn by BIS on 30 April 2026 and replaced by SP 7:2026 (S159) but still referenced by state byelaws

S11 IS 9457:2005 Safety colours and safety signs, code of practice https://law.resource.org/pub/in/bis/S02/is.9457.2005.pdf
Bureau of Indian Standards (via law.resource.org) · 2005-12 · accessed 2026-09-15 · India · regulatory · confidence high · Design principles for safety signs based on ISO 3864-1; committee CHD 8; referenced by NBC 2016 Part 4 as good practice [4(7)]

S12 IS 10322 (Part 5/Sec 8):2013 Luminaires, particular requirements, emergency lighting https://archive.org/details/gov.in.is.10322.5.8.2013
Bureau of Indian Standards (via archive.org) · 2013 · accessed 2026-09-15 · India · regulatory · confidence high · Product standard for emergency luminaires; revised 2026 edition notified under CRS

S13 BIS Compulsory Registration Scheme, list of standards (MeitY products) https://www.crsbis.in/BIS/publicdashAction.do?hmode=Standard_table
Bureau of Indian Standards · undated · accessed 2026-09-15 · India · regulatory · confidence high · Lists IS 10322 (Part 5/Sec 8):2013 and :2026 'LED Luminaires for Emergency Lighting' under MeitY CRS

S14 BIS registration for emergency lighting IS 10322 (Part 5/Sec 8):2013, consultant note https://alephindia.in/product/emergency-lighting.php
Aleph India · undated · accessed 2026-09-15 · India · reference · confidence medium · States CRS requirement for emergency lighting from 23 May 2018; process steps; 15 to 60 days after test report

S15 BIS LED IS 10322 guidelines 2026: revision and 2 August 2026 concurrent-running deadline https://absoluteveritas.com/bis-led-is-10322-guidelines-2026/
Absolute Veritas · 2026 · accessed 2026-09-15 · India · reference · confidence medium · IS 10322:2026 revision notified March 2026; last date of concurrent running 2 August 2026; lithium battery requirements added

S16 BIS CRS fees for LED luminaires for emergency lighting https://www.elitasrcs.com/products/bis-registration-for-led-luminaires-for-emergency-lighting-is-10322-part-5-section-8
Elitas RCS · undated · accessed 2026-09-15 · India · reference · confidence low · Government fee table: application ₹1,000, processing ₹25,000 x 2; inclusion ₹15,000 x 2; CRS mandated May 2018

S17 Prolite Autoglo Limited corporate site https://prolite.in/
Prolite Autoglo Limited · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · 42 years, 'first company in India with BIS certification of emergency lights', central battery system launch, 100+ dealers, 25M products installed, 33+ export countries, sectors incl. metros, airports, chemical plants

S18 Prolite Autoglo IndiaMART storefront: twin beam lights and company facts https://www.proliteautoglo.in/twin-beam-light.html
Prolite Autoglo Limited via IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · LED Emergency Multi Light approx ₹2,400, LED twin beam clustered plast ₹1,800, 6-month warranty, Li-ion, IP20; company: 501-1000 employees, turnover ₹25-100 Cr, est. 1984

S19 Sunlite Industries, Vasai: products and BIS 10322 emergency lights https://www.indiamart.com/sunliteindustries/about-us.html
Sunlite Industries via IndiaMART and sunliteindia.com · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Photoluminescent signage, exit lights, 'BIS 10322 approved emergency light', twin beam industrial light; established 2000/2015

S20 TradeIndia: industrial emergency light listings and prices https://www.tradeindia.com/manufacturers/industrial-emergency-light.html
TradeIndia · 2025-10-27 · accessed 2026-09-15 · India · vendor · confidence medium · Observed prices: Sunlite twin beam ₹2,500, MS twin beam BIS ₹2,000, Finetech exit ₹5,600 and ₹2,800, KT Automation Prolite PEL LED ₹3,510, PMI twin beam ₹4,000, PFL ₹3,050, Prolite exit ₹4,500

S21 India emergency lighting market size and outlook 2026-2033 https://www.grandviewresearch.com/horizon/outlook/emergency-lighting-market/india
Grand View Research (Horizon) · 2026-02-04 · accessed 2026-09-15 · India · analyst · confidence low · USD 292.4 million in 2025, USD 636.8 million by 2033, 10.5% CAGR 2026-2033; hardware largest; India 3.7% of global

S22 India fire and safety equipment market report https://www.imarcgroup.com/india-fire-safety-equipment-market
IMARC Group · 2026 · accessed 2026-09-15 · India · analyst · confidence low · USD 2.0 billion in 2025 to USD 3.2 billion in 2034, 5.09% CAGR

S23 India fire safety equipment market size and outlook https://www.grandviewresearch.com/horizon/outlook/fire-safety-equipment-market/india
Grand View Research (Horizon) · 2024-10-17 · accessed 2026-09-15 · India · analyst · confidence low · USD 1,179.7 million 2023, USD 1,441.2 million 2025; detection 71% share; 10.3% CAGR to 2030

S24 Emergency lighting market size, global https://www.mordorintelligence.com/industry-reports/emergency-lighting-market
Mordor Intelligence · 2026-07-30 · accessed 2026-09-15 · Global · analyst · confidence low · USD 8.05 billion 2026 to USD 12.98 billion 2031, 10.05% CAGR

S25 Factories Act 1948, Section 38 Precautions in case of fire https://indiankanoon.org/doc/696182
Government of India (via Indian Kanoon) · 1948 · accessed 2026-09-15 · India · regulatory · confidence high · Safe means of escape; state rules under s.38(3); Chief Inspector may order additional measures under s.38(4)

S26 Tamil Nadu Factories Rules 1950, fire and escape provisions https://www.legitquest.com/act/tamil-nadu-factories-rules-1950/a09f
Government of Tamil Nadu (via LegitQuest) · 1950 · accessed 2026-09-15 · India · regulatory · confidence high · Exits shall be clearly visible and suitably illuminated with an arrangement that maintains illumination on failure of the normal source of supply; exits marked in workers' language

S27 Maharashtra Fire Prevention and Life Safety Measures Act, 2006 https://www.indiacode.nic.in/handle/123456789/16067
Government of Maharashtra (India Code) · 2007-02-05 · accessed 2026-09-15 · India · regulatory · confidence high · State act mandating fire prevention and life safety measures and licensed agencies; Form B half-yearly compliance

S28 DMRC technical specification of E&M, ECS, TVS and BMS for underground stations, Revision 1 https://backend.delhimetrorail.com/documents/5420/TECHNICAL_SPECIFICATION_OF_EM_ECS_TVS_AND_BMS_OF_UNDERGROUND_STATIONS.pdf
Delhi Metro Rail Corporation · 2023-12 · accessed 2026-09-15 · India · primary · confidence high · Emergency illuminated signs and emergency lighting on emergency (UPS) services; fire-survival cables for emergency lighting; every luminaire and driver BIS certified with R number printed; 30% of lights on emergency source; pass 2 re-downloaded 2026-09-15: E07.6.7 and E07.6.8 text confirmed

S29 India Hotel Market Review 2024 https://horwathhtl.com/wp-content/uploads/2025/02/India-Hotel-Market-Report-2024.pdf
Horwath HTL · 2025-02 · accessed 2026-09-15 · India · analyst · confidence medium · Supply up 85k rooms 2015-2024; 2024 occupancy 63.9%; Chennai 71.3% occupancy

S30 India hospitality moves from recovery to structural growth in 2025 (Horwath HTL review summary) https://www.hotelierindia.com/operations/indias-hospitality-industry-moves-from-recovery-to-structural-growth-in-2025-horwath-htl
Hotelier India · 2026-02-15 · accessed 2026-09-15 · India · news · confidence medium · 2025: supply ~216,000 rooms per day, 19,000+ rooms opened, ~15,500 net, pipeline ~144,000 rooms, 300,000 rooms realistic by 2030

S31 India's Metro Revolution (backgrounder) https://static.pib.gov.in/WriteReadData/specificdocs/documents/2025/aug/doc2025810604101.pdf
Press Information Bureau, Government of India · 2025-08-09 · accessed 2026-09-15 · India · primary · confidence high · Operational metro 248 km in 5 cities (2014) to 1,013 km in 23 cities by May 2025; ridership 1.12 crore/day

S32 Metro rail projects in India 2026: complete list and status https://metrorailnews.in/metro-rail-projects-in-india/
Metro Rail News · 2026-08-25 · accessed 2026-09-15 · India · news · confidence medium · 1,076.585 km operational in 26 cities (MoHUA Lok Sabha reply July 2026); ~1,000 km under construction; Delhi Metro 374.5 km, 271 stations

S33 Metro rail sector overview https://mohua.gov.in/upload/uploadfiles/files/Metro%20Rail%20_%20MoHUA.pdf
Ministry of Housing and Urban Affairs · undated · accessed 2026-09-15 · India · primary · confidence medium · Operational network growth 248 km (pre-2014) to 733 km (2021) to 1,700 km approved incl. RRTS

S34 Supreme Court orders states to conduct fire safety audit of dedicated COVID hospitals https://thelogicalindian.com/fire-audit-covid-hospitals-25536/
The Logical Indian · 2020-12-18 · accessed 2026-09-15 · India · news · confidence medium · Suo motu order 18 December 2020 after Rajkot hospital fire; monthly audits

S35 TRP game zone fire: Gujarat HC says it does not have faith in state machinery https://www.thehindu.com/news/national/trp-game-zone-fire-gujarat-hc-raps-rajkot-civic-body-says-it-doesnt-have-faith-in-state-machinery/article68221024.ece
The Hindu · 2024-05-27 · accessed 2026-09-15 · India · news · confidence high · 'There was no fire NOC, no structural stability certificate'; officials suspended; statewide game-zone closures

S36 Mundka fire: MCD orders all units to give fire NOCs in 7 days https://www.newindianexpress.com/thesundaystandard/2022/may/15/mundka-fire-mcd-orders-allunits-to-give-fire-nocs-in-7-days-2453619.html
The New Indian Express · 2022-05-15 · accessed 2026-09-15 · India · news · confidence high · 27 dead; building had no fire NOC; North MCD ordered factory licences and fire NOCs within seven days

S37 Legrand URA ONE emergency luminaire 661634 e-catalogue https://www.legrand.com/ecatalogue/661634-emergency-luminaire-ura-one-standard.html
Legrand · undated · accessed 2026-09-15 · Global · vendor · confidence medium · Self-contained LED emergency luminaire, 1 h, 350 lm, maintained/non-maintained, IEC/EN 60598-2-22

S38 Signify professional catalogue: emergency lighting (Philips exit signs, twin spots, wireless) https://www.signify.com/global/prof/indoor-luminaires/emergency-lighting/SMC_EXIT_CA/category
Signify · undated · accessed 2026-09-15 · Global · vendor · confidence medium · Philips Emergency Light LED Exit Sign 3 h with LiFePO4 battery and self-test; twin spot; wireless families; India partner locator on signify.com/en-in

S39 Eaton Crouse-Hinds CEAG explosion-protected emergency light fixtures https://www.eaton.com/us/en-us/catalog/emergency-and-exit/ceag-ex-d-explosion-protected-metallic-emergency-light-fixtures.html
Eaton · 2025-05-08 · accessed 2026-09-15 · Global · vendor · confidence medium · Zone 1/21 self-contained emergency luminaires, IP66/67, CGLine+ central monitoring option

S40 Acrylic emergency exit LED light signage at ₹1,250, Vasai https://www.indiamart.com/proddetail/emergency-exit-led-light-signage-20673689330.html
Levonix Lighting Solution via IndiaMART · undated · accessed 2026-09-15 · India · vendor · confidence medium · Observed price ₹1,250 per piece, 220-240 V

S41 Emergency exit light sign with battery backup at ₹2,000 per piece, Mumbai https://www.indiamart.com/proddetail/emergency-exit-light-sign-with-battery-backup-21716730562.html
Supreme Creation via IndiaMART · undated · accessed 2026-09-15 · India · vendor · confidence medium · 185 x 300 mm sign with battery backup, ₹2,000

S42 6 V 4.5 Ah emergency light battery at ₹260, Ernakulam https://www.indiamart.com/proddetail/6-volt-4-5-ah-emergency-light-battery-23542608812.html
Kochin Automotive Distributors via IndiaMART · undated · accessed 2026-09-15 · India · vendor · confidence medium · Replacement SLA battery ₹250 to ₹260; one-year replacement warranty on 6 V 5.5 Ah

S43 Twin beam light listings and prices, IndiaMART category page https://dir.indiamart.com/impcat/twin-beam-light.html
IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · P7 Enterprises (Tiruvallur) LED twin beam ₹4,050 'ISI'; IEPS ₹3,400; flameproof twin beam ₹16,000 to ₹24,050; Prolight halogen ₹2,450; Global Business Solutions ₹2,900 to ₹3,400

S44 GeM category: Emergency Light Unit (V2) and marketplace listings https://mkp.gem.gov.in/electrical-systems-lighting-components-accessories-supplies-lighting-fixtures-accessories-emergency-lighting-and-accessories-emergency-light-unit
Government e Marketplace · 2026 · accessed 2026-09-15 · India · primary · confidence medium · Category exists with consumer-grade listings (7 W to 30 W units, Eveready, Mr. Light); no industrial twin-head or exit-sign category found in listing names

S45 Exit sign tenders in Delhi 2025 (aggregator listing) https://www.tenderdetail.com/State-tenders/delhi-tenders/exit-sign-tenders
TenderDetail · 2025-02-02 · accessed 2026-09-15 · India · reference · confidence low · 67 exit-sign tenders listed incl. Supreme Court of India E&M 'supplying and fixing of exit sign board' and 'fire exit sign board and emergency light in NPW building'

S46 Rax-Tech International IndiaMART storefront: industrial emergency light range and prices https://www.rax-tech.in/industrial-emergency-lighting.html
Rax Tech International via IndiaMART (rax-tech.in) · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Published approx prices: X-lite halogen ₹5,100, with exit sign ₹6,000, outdoor ₹5,800, X-lite industrial ₹5,000, flood light ₹4,400, LED double dome ₹4,900, non-metallic ₹7,100 to ₹8,500, non-metallic LED outdoor ₹7,900, halogen outdoor ₹5,000; 'sole manufacturer'; 1-year carry-in warranty; 10 reviews, 3.9/5; ISO 9001:2008 and FSAI claims

S47 Rax-Tech IndiaMART: Lost Time Injury Clock, LTI display unit https://www.rax-tech.in/machine-brake-down-alert-system.html
Rax Tech International via IndiaMART (rax-tech.in) · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · LTI clock approx price ₹27,400 per piece

S48 X-lite Industrial Emergency Light at ₹5,000 per piece and Rax-Tech company profile https://www.indiamart.com/proddetail/x-lite-industrial-emergency-light-10710865173.html
Rax Tech International via IndiaMART · undated · accessed 2026-09-15 · India · vendor · confidence medium · IndiaMART member since May 2003; GST turnover band ₹5-25 Cr; 51-100 employees; 7 Ah SLA battery, twin rotatable heads

S49 Report on Statistics of Factories 2022 https://labourbureau.gov.in/uploads/pdf/FA_2022-(1).pdf
Labour Bureau, Ministry of Labour and Employment · 2025-05 · accessed 2026-09-15 · India · dataset · confidence medium · State-wise registered and working factories 2022; 79.75% of reporting factories worked more than 240 days; tables opened via extract, all-India totals not cleanly parsed

S50 Top 10 states with highest number of operational airports (Lok Sabha reply 31 July 2025) https://indianexpress.com/article/india/top-10-indian-states-with-highest-number-of-operational-airports-full-list-10162758/
The Indian Express · 2025-08-01 · accessed 2026-09-15 · India · news · confidence medium · 162 operational airports; Tamil Nadu 6 (Chennai, Coimbatore, Madurai, Salem, Tiruchirappalli, Tuticorin)

S51 Annual Survey of Industries 2022-23 summary: total factories https://www.tnpscthervupettagam.com/articles-detail/annual-survey-of-industries-asi-2022-23
MoSPI via TNPSC Thervupettagam summary · 2024 · accessed 2026-09-15 · India · dataset · confidence medium · 2,53,334 factories in India; Tamil Nadu 15.66% (about 39,700), highest of any state

S52 Number of hospitals in India 2025 https://www.impactguru.com/info/number-of-hospitals-in-india/
ImpactGuru (secondary compilation of MoHFW and WHO data) · 2025-12-30 · accessed 2026-09-15 · India · reference · confidence low · About 26,000 government hospitals and 43,486 private hospitals; private sector 1.18 million beds

S53 LED safety performance and accident-free days display boards, Chennai https://www.factorydisplay.co.in/led-safety-performance-display-boards.html
Kamal and Co. (Fixo Vision) via IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Observed prices: accident-free days board ₹17,200 (3x2 ft), ₹32,500 (5x3 ft), safety performance board ₹24,270 and ₹38,065; ₹2,500 to ₹3,500 per sq ft

S54 Accident free safety days display board at ₹6,000, Vadodara https://www.tradeindia.com/products/accident-free-safety-days-display-board-c8171304.html
Team Power via TradeIndia · undated · accessed 2026-09-15 · India · vendor · confidence medium · ₹6,000 per piece, aluminium and acrylic, MOQ 1; company est. 1992

S55 Safety LED display board accident free days 4 x 4 ft https://ktindia.net/product/Safety-LED-Display-Board-Accident-Free-Days-4-x-4-Feet
KT India · undated · accessed 2026-09-15 · India · vendor · confidence medium · ₹11,137.50 excl. GST; countdown timer ₹52,245

S56 Finetech Systems, Tiruppur: industrial emergency lights and exit lights https://www.finetechsystems.co.in/industrial-emergency-lights.html
Finetech Systems via IndiaMART (finetechsystems.co.in) · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · 110 W halogen twin beam with sensor, 18 W LED twin beam, edge-lit exit with 120 min Li-ion backup, regional-language exit signs, IP65/IP68 on request

S57 Fire safety audit checklist for industrial and commercial buildings in India (2026) https://singhisotech.com/blog/fire-safety-audit-checklist-india-2026/
Singh Isotech · 2026-06-12 · accessed 2026-09-15 · India · reference · confidence low · 'Emergency exit signs that haven't lit up in months because no one checked'; illuminated exit signs with battery backup tested monthly

S58 Best emergency lights in India: buying guide https://budgetappliancesindia.com/best-emergency-lights-in-india/
Budget Appliances India · 2026-05-27 · accessed 2026-09-15 · India · reference · confidence low · Consumer reviews report backup time dropping significantly after 2 to 3 months of frequent drain cycles

S59 Customer reviews of an inverter emergency LED bulb https://www.shopsy.in/prabham-inverter-emergency-led-bulb-battery-backup-self-charging-camping-light/p/itmef65f42c192d7
Shopsy (Flipkart) · undated · accessed 2026-09-15 · India · forum · confidence low · 31 ratings; verbatim: 'The battery backup is just 10 minutes'; '2days working after not working'

S60 Rajkot fire: Gujarat High Court fumes, says 'We don't trust state government now' https://www.indiatoday.in/law/story/gujarat-rajkot-game-zone-fire-high-court-were-you-asleep-we-dont-trust-government-anymore-2544268-2024-05-27
India Today · 2024-05-27 · accessed 2026-09-15 · India · news · confidence high · 28 dead; no fire NOC; single entry-exit; court quotes; DGP ordered inspection of all game zones

S61 Notices issued to 37 Ghaziabad hospitals after audit flags fire safety violations https://timesofindia.indiatimes.com/city/noida/notices-issued-to-37-ghaziabad-hospitals-after-audit-flags-fire-safety-violations/articleshow/131540361.cms
The Times of India · 2026 · accessed 2026-09-15 · India · news · confidence medium · 37 of 324 private hospitals found with missing fire exits and inadequate equipment

S62 SCB, most hospitals lack 'foolproof' fire safety measures: audit https://timesofindia.indiatimes.com/city/bhubaneswar/scb-most-hospitals-lack-foolproof-fire-safety-measures-audit/articleshow/129615650.cms
The Times of India · 2026 · accessed 2026-09-15 · India · news · confidence medium · Odisha fire services inspected 2,215 healthcare facilities over a year; 12 patients died in SCB fire

S63 Fire safety under scanner: BMC launches citywide safety audit https://www.hindustantimes.com/cities/mumbai-news/fire-safety-under-scanner-bmc-launches-citywide-safety-audit-101780682213756.html
Hindustan Times · 2026-06-05 · accessed 2026-09-15 · India · news · confidence medium · Special inspection drive 6 to 20 June 2026 across malls, hotels, banquet halls, pubs, restaurants

S64 Fire and life safety audit for shopping malls in India https://www.nistglobal.com/fire-and-life-safety-audit-for-shopping-malls.php
NIST Global · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Lists 'inadequate emergency lighting' and 'visibility of exit signage' and 'functionality of emergency lighting' as audit items and common findings

S65 IS 9583:1981 Specification for emergency lighting units (reaffirmed 2003) https://law.resource.org/pub/in/bis/S05/is.9583.1981.html
Bureau of Indian Standards (via law.resource.org) · 1981-03 · accessed 2026-09-15 · India · regulatory · confidence high · Legacy product specification, equivalence IEC 598-2-22; defines self-contained emergency luminaire

S66 Prolite Autoglo IndiaMART: BIS certified emergency lights (IS 10322 Part 5 Sec 8) https://www.proliteautoglo.in/bis-emergency-lights.html
Prolite Autoglo Limited via IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · BIS CRS certified exit light and portable emergency light, 3 h backup, Li-ion or NiCd; production capacity 30,000 to 40,000

S67 Prolite Autoglo IndiaMART: emergency exit light prices https://www.proliteautoglo.in/emergency-exit-light.html
Prolite Autoglo Limited via IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Egress exit light approx ₹1,600; surface mount ₹1,600; decorative egress ₹1,800; LED decorative exit ₹1,100; 6-month warranty; 3 h backup

S68 Prolite Autoglo Limited financials (FY2024) https://www.tofler.in/prolite-autoglo-limited/company/U36990MH2007PLC175802
Tofler · 2025 · accessed 2026-09-15 · India · reference · confidence medium · Revenue band ₹25-50 Cr; paid-up capital ₹4.8 Cr; FY2024 revenue growth 13.6%, EBITDA +124.8%; products: conversion kits, exit lights, LED downlighters, emergency lights

S69 Prolite Autoglo Limited FY2026 profile and EPFO headcount https://www.thecompanycheck.com/company/prolite-autoglo-limited/U36990MH2007PLC175802
The Company Check · 2026 · accessed 2026-09-15 · India · reference · confidence medium · Revenue FY2025 ₹53.96 Cr (+12.00% YoY); paid-up capital ₹8.8 Cr; 103 employees on EPFO; incorporated 8 November 2007

S70 Prolite blog: self-contained emergency lights versus central battery (inverter) model https://prolite.in/blog/prolite-develops-self-contained-emergency-lights-for-greater-safety-and-security
Prolite Autoglo Limited · undated · accessed 2026-09-15 · India · vendor · confidence low · 'The basic flaw with the inverter model is that if the battery backup mechanism is disabled or fails, all the lights that draw from it will become useless'; conversion kits for existing luminaires

S71 Autolite Emergency Lighting System LLP registration https://www.zaubacorp.com/AUTOLITE-EMERGENCY-LIGHTING-SYSTEM-LLP-AAD-4957
Zauba Corp · undated · accessed 2026-09-15 · India · reference · confidence medium · LLP registered in Vasai (Nalasopara), Maharashtra

S72 TradeIndia: emergency exit lights manufacturers and prices https://www.tradeindia.com/manufacturers/emergency-exit-lights.html
TradeIndia · 2026-08-26 · accessed 2026-09-15 · India · vendor · confidence medium · Autolite edgelit exit ₹4,400, airport series ₹8,500, portable emergency ₹5,500, sleek edgelit ₹4,500, flameproof exit ₹24,000; Crystal Automation exit ₹2,450 to ₹3,100; Cellus Tech ₹6,000; Finetech exit ₹4,100; 23 'trusted sellers' listed

S73 TradeIndia: glow signage (photoluminescent) manufacturers and prices https://www.tradeindia.com/manufacturers/glow-signage.html
TradeIndia · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Photoluminescent exit signs ₹90 to ₹250 per piece (Safetynox ₹150, night glow metal ₹250, sunboard ₹96); Autolite machine-made photoluminescent signage

S74 Glowlight, Thane: photoluminescent signs and emergency exit lights (trader) https://www.indiamart.com/glowlight/
Glowlight via IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Proprietorship est. 2018, turnover under ₹40 lakh, up to 10 people; resells 'BIS emergency exit light', flame-proof exit lights

S75 SR Safety Signages, Mumbai https://www.srsafetyindia.com/
SR Safety Signages · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Emergency exit lights, exit lights, photoluminescent signage; hospitals, hotels, factories

S76 Spark Fire, New Delhi: industrial emergency exit light at ₹2,650 https://www.sparkfire.in/emergency-exit-light.html
Spark Fire via IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Fire-protection service provider listing exit light ₹2,650 per piece

S77 Schneider Electric Exiway emergency lighting master range and 2025 catalogue https://www.se.com/ww/en/work/products/master-ranges/exiway
Schneider Electric · 2025-10-30 · accessed 2026-09-15 · Global · vendor · confidence medium · Self-contained, self-test (Activa), addressable (Dicube), central battery (Exiway Power); EN 1838 exit signs 24 to 32 m visibility

S78 Havells Lighting (US) emergency and exit sign lighting https://havellslighting.com/products/emergency-and-exit-sign-lighting/
Havells Lighting LLC · 2025-09-01 · accessed 2026-09-15 · USA · vendor · confidence low · Havells sells UL-listed exit signs and bug-eye emergency lights in the US under Krut; not an India catalogue

S79 Havells and Wipro emergency lights price lists (consumer) https://www.smartprix.com/emergency_lights/havells-brand
Smartprix · 2026-05-27 · accessed 2026-09-15 · India · reference · confidence low · Consumer portable emergency lights and inverter bulbs ₹164 to ₹2,400; no industrial self-contained luminaires listed

S80 SIPCOT: State Industries Promotion Corporation of Tamil Nadu https://sipcotweb.tn.gov.in/
SIPCOT, Government of Tamil Nadu · 2026 · accessed 2026-09-15 · India · primary · confidence medium · 3,390 industrial units established in SIPCOT parks; parks at Sriperumbudur, Oragadam, Hosur, Ranipet, Cheyyar and others

S81 List of approved licensed fire agencies, Maharashtra (valid to 3 July 2028) https://mahafireservice.gov.in/license-services.php
Maharashtra Fire and Emergency Services · 2026-07-07 · accessed 2026-09-15 · India · primary · confidence medium · Licensed agencies by class (fire fighting, detection, passive); earlier lists show 536 agencies (Jan 2020) and 588 (Oct 2017)

S82 Sterling and Wilson MEP and firefighting business https://sterlingandwilson.com/businesses/mep/
Sterling and Wilson (Shapoorji Pallonji) · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Self-described India's largest MEP and fire protection system integrator; hotels, hospitals, metros, airports, industrial

S83 Blue Star MEP and engineering projects https://www.bluestarindia.com/projects/mep-and-more/business-overview
Blue Star Limited · 2025 · accessed 2026-09-15 · India · vendor · confidence medium · Turnkey MEP including electrical, firefighting and ELV; Delhi Metro, Hyderabad airport references

S84 JS Consultants, Chennai: fire fighting and life safety design services https://jsconsultant.co.in/services/fire-safety
JS Consultants · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Chennai MEP consultant listing 'emergency lighting and exit sign placement for safe egress' as a design deliverable

S85 Top 10 fire fighting licensed companies in Tamil Nadu https://relifire.com/top-10-fire-fighting-licensed-companies-in-tamil-nadu.html
Relifire · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Fire contractors serving Sriperumbudur, Oragadam, Hosur, Coimbatore, Tiruppur, Salem, Madurai; fire NOC consultancy and AMC

S86 Emergency exit lights in Chennai: prices and suppliers https://www.tradeindia.com/chennai/emergency-exit-lights-city-187278.html
TradeIndia · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · 156 products; Rax (Medavakkam, est. 2000) double dome halogen listed; 3-language exit light ₹5,100 (Tiruppur); Madurai aluminium industrial emergency light ₹4,150; Coimbatore exit lights ₹3,500; LED exit ₹4,000 to ₹5,500

S87 Exit signage in Chennai: IndiaMART category https://dir.indiamart.com/chennai/exit-signs.html
IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Safekit acrylic fire exit signage ₹2,400; emergency light with language exit sign ₹4,200; Lite Vision exit signage ₹190; Hydri night-glow signs ₹120 per sq ft; reflective sign ₹288

S88 Emergency lighting standards: NFPA 101 and Saudi Civil Defense compliance https://www.bocsmart.com/en/article/emergency-lighting-standards
BOC Smart (Saudi fire safety contractor) · 2026-04-13 · accessed 2026-09-15 · Saudi Arabia · reference · confidence low · Salamah portal; monthly 30 s and annual 90 min tests; common failures: dead batteries, low lux, blocked signs

S89 UAE Civil Defence Certificate of Conformity for emergency lighting https://www.bsigroup.com/en-GB/products-and-services/assessment-and-certification/product-testing-certification/uae-civil-defence-certificate-of-conformity/
BSI Group · undated · accessed 2026-09-15 · UAE · vendor · confidence medium · Mandatory Civil Defence CoC covers emergency lighting; BSI is an approved body

S90 Emirates Conformity Assessment Scheme (ECAS) and Emirates Quality Mark https://www.intertek.com/government/product-conformity/ecas
Intertek · undated · accessed 2026-09-15 · UAE · vendor · confidence medium · ECAS certificate proves federal approval via MoIAT; EQM for quality-system-backed products

S91 IEC 60598-2-22:2021 Luminaires, particular requirements, luminaires for emergency lighting https://webstore.iec.ch/en/publication/61770
International Electrotechnical Commission · 2021-12 · accessed 2026-09-15 · Global · regulatory · confidence high · Fifth edition; basis of IS 10322 Part 5 Sec 8 and GCC approvals; exit sign contrast test methods

S92 OISD standards list (OISD-STD-116, 117, 118, 144) https://oisd.gov.in/oisd-standards
Oil Industry Safety Directorate, MoPNG · 2026-06-29 · accessed 2026-09-15 · India · regulatory · confidence medium · Fire protection and layout standards for refineries, depots and LPG installations; clause-level emergency lighting text not opened

S93 NABH accreditation standards for hospitals, 5th edition, chapter FMS https://pdfcoffee.com/nabh-5th-editionnew-pdf-free.html
NABH (copy via PDFCoffee) · 2020 · accessed 2026-09-15 · India · regulatory · confidence medium · FMS.6 fire and non-fire emergency plans; exit plan displayed on each floor; safe-exit plan; no lux or product spec

S94 CPWD Delhi Schedule of Rates (E&M) 2025 https://pub-0eaebe23788c45d09640d811ac674d7a.r2.dev/cpwd-dsr-em-2025.pdf
Central Public Works Department (mirror via InfraLens) · 2025 · accessed 2026-09-15 · India · primary · confidence medium · Opened and text-searched (20,326 lines): no self-contained emergency light or exit sign luminaire item found; only emergency stop switches and exit push buttons

S95 Top MEP consultants in India 2026 https://www.kaarwan.com/blog/engineering/top-mep-consultants-in-india?id=2228
Kaarwan · 2026 · accessed 2026-09-15 · India · reference · confidence low · Names Tata Projects, Blue Star, WSP, Meinhardt, AECOM, Sterling and Wilson, Conserve, JS Consultants (Chennai)

S96 Autolite Emergency Lighting System LLP, Vasai: products https://www.tradeindia.com/autolite-emergency-lighting-system-llp-24239279
Autolite via TradeIndia · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Emergency lighting systems, airport series exit signs, flameproof exit lights, photoluminescent signage

S97 Prolite emergency lights product family page https://www.prolite.in/category/17-emergency-lights
Prolite Autoglo Limited · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Sleek exit light LED E/M (MS), twin beam LED LTBL, PEL LED E M (S), LML (CP) exit

S98 Moglix: Signtech LED fire exit sign board with battery backup https://www.moglix.com/signtech-led-fire-exit-sign-board-with-battery-backup-sign013/mp/msn2vzdurs3pf7
Moglix · undated · accessed 2026-09-15 · India · vendor · confidence low · Marketplace listing of a battery-backed LED exit sign board; price not captured in extract

S99 70% fire incidents due to short circuit; BMC wants societies to conduct electrical audit https://www.hindustantimes.com/cities/mumbai-news/70-fire-incidents-due-to-short-circuit-bmc-wants-housing-societies-to-conduct-electrical-audit-101635343178092.html
Hindustan Times · 2021 · accessed 2026-09-15 · India · news · confidence medium · Quote from BMC additional municipal commissioner on absence of audit mechanism; reviewing hospitals and malls

S100 Delhi Fire Service Rules, 2010 (rules 35 to 38) https://upload.indiacode.nic.in/showfile?actid=AC_DL_64_806_00001_00001_1547013016775&type=rule&filename=dfs_rules_2010.pdf
Government of NCT of Delhi (India Code) · 2010 · accessed 2026-09-15 · India · regulatory · confidence high · Fire Safety Certificate valid 5 years residential, 3 years non-residential incl. hotels; renewal inspection; occupier must maintain measures 'at all times in best repairs'

S101 Tamil Nadu Fire Service Act, 1985 https://www.tnfrs.tn.gov.in/fire-act-1985/
Government of Tamil Nadu (TNFRS) · 1985-08-01 · accessed 2026-09-15 · India · regulatory · confidence high · Section 13 preventive measures by notification; NOC and fire licence process via TNSWP

S102 Revised Model Fire Service Bill 2019 https://dgfscdhg.gov.in/sites/default/files/Revised%20Model%20Fire%20Service%20Bill%202019%20(pdf%20file).pdf
Ministry of Home Affairs, DG Fire Services, Civil Defence and Home Guards · 2019 · accessed 2026-09-15 · India · regulatory · confidence medium · Model state act covering fire prevention and life safety measures in buildings; adoption is state by state

S103 Large deals drive India warehouse leasing in 2025 (Q4 2025 press release) https://www.colliers.com/en-in/news/press-release-industrial-and-warehousing-q4-2025
Colliers India · 2026-01-14 · accessed 2026-09-15 · India · analyst · confidence medium · Grade A industrial and warehousing: 36.9 msf leased 2025 (+16%), 41.7 msf completions 2025 (highest in recent years); Oragadam and Chakan among top micro-markets; Chennai over 8 msf demand

S104 India office leasing crosses 70 million sq ft in 2025 https://realty.economictimes.indiatimes.com/news/commercial/indias-office-leasing-crosses-70-million-sq-ft-in-2025-colliers/126244543
ET Realty citing Colliers · 2025-12-30 · accessed 2026-09-15 · India · news · confidence medium · Grade A office completions ~56.5 msf in 2025 (+5%); leasing 71.5 msf

S105 Fresh office space supply in key cities set to surge https://economictimes.indiatimes.com/industry/services/property-/-cstruction/fresh-office-space-supply-in-key-cities-set-to-surge/articleshow/126447126.cms
The Economic Times · 2026-01-10 · accessed 2026-09-15 · India · news · confidence medium · Up to 90 msf office supply expected in 2026, nearly double recent annual average; CBRE 2025 leasing 82.6 msf

S106 India has 8,60,688 hospital beds in government hospitals: MoS Health (National Health Profile 2023) https://medicaldialogues.in/news/health/hospital-diagnostics/india-has-860688-hospital-beds-in-government-hospitals-mos-health-142997
Medical Dialogues · 2025-02-10 · accessed 2026-09-15 · India · news · confidence medium · Rajya Sabha reply citing NHP 2023: 8,60,688 government hospital beds

S107 IIBDAEI Saudi market research 2026: compliance framework and portfolio ranking landings/IIBDAEI-Saudi-Market-Research-2026/research/cross_cutting/compliance-framework.md
IIBDAEI and Rax Tech (internal) · 2026-07-19 · accessed 2026-09-15 · Saudi Arabia · internal · confidence high · SASO/SABER shipment certificates from 1 October 2025; 'CE or RoHS alone does not establish Saudi market access'; X-Lite products were not in the 35-product Saudi portfolio

S108 Colliers Q1 2025 industrial and warehousing snapshot https://www.colliers.com/en-in/research/q1-2025-india-industrial-and-warehousing-market-snapshot
Colliers India · 2025-05-06 · accessed 2026-09-15 · India · analyst · confidence medium · 9 msf leased, 9.4 msf new supply Q1 2025 across top eight cities

S109 Krishnagiri (Hosur) district industrial profile 2015-16 https://dcmsme.gov.in/dips/2016-17/DIP.KRISHNAGIRI.2015.16.pdf
MSME Development Institute, Chennai · 2016-08-18 · accessed 2026-09-15 · India · dataset · confidence medium · 8,533 registered industrial units, 150 medium and large; SIPCOT Hosur 1,538 acres; Ashok Leyland, TVS, Titan at Hosur

S110 Airlight: NBC 2016 Part 4 requirement summary https://airlight.in/nbc-requirement/
Airlight India (vendor blog) · 2023-08-04 · accessed 2026-09-15 · India · vendor · confidence low · Vendor restatement of clause 3.4.7; used only to cross-check the clause number before the code text was opened

S111 Emergency light HS code for export and import https://www.seair.co.in/emergency-light-hs-code.aspx
Seair Exim Solutions · undated · accessed 2026-09-15 · India · reference · confidence low · Trade-data vendor page; emergency lights classified under HS 9405 family; shipment-level data behind paywall

S112 IllumiNation, April-June 2024 (Wipro Lighting interview; National Lighting Code SP 72 revision with Part 9 Emergency Lighting) https://www.elcomaindia.com/wp-content/uploads/Illumination-April-June-2024-1.pdf
ELCOMA (Electric Lamp and Component Manufacturers Association of India) · 2024-06 · accessed 2026-09-15 · India · reference · confidence medium · Wipro executive: 'a large number of products being sold in India are non-compliant (non-BIS certified) products'; NLC revision draft includes Part 9 Emergency Lighting with levels, duration and placement

S113 E-commerce crackdown: BIS seizes non-certified products https://www.lexology.com/library/detail.aspx?g=90bc9b2b-d2a2-4500-b866-ce3caded1604
Fox Mandal and Associates via Lexology · 2025-03-18 · accessed 2026-09-15 · India · reference · confidence medium · BIS search and seizure at e-commerce warehouses; penalties up to two years or ₹2 lakh to ten times goods value; notices to platforms

S114 ELCOMA industry news: BIS conducts enforcement raids, confiscates 19,000 LED products https://www.elcomaindia.com/?cat=1
ELCOMA · 2020-04 · accessed 2026-09-15 · India · reference · confidence low · Industry association note on BIS enforcement and CRO phases; BIS CARE app for checking compliant products

S115 Safety rules are routinely flouted in India's factories (Safe In India 'Crushed 2026' report) https://moneylife.in/article/safety-rules-routinely-flouted-in-indias-factories/80760.html
IndiaSpend via Moneylife · 2026-06-12 · accessed 2026-09-15 · India · news · confidence medium · DGFASLI recorded 40 non-fatal injuries in Haryana in 2023 while one NGO assisted 1,041 injured workers there; 'brand new accident registers ... kept, that too only before the audits'

S116 Accident free man hours display board https://compucareindia.com/accident-free-man-hours-display-board/
Compucare India (CIPL), Vadodara · 2024-06-05 · accessed 2026-09-15 · India · vendor · confidence low · Customisable safety statistics boards for factories; competitor for the LTI clock

S117 India's branded hotel rooms inventory to cross 300,000 by 2029 (Horwath HTL review summary) https://www.ibef.org/news/india-s-branded-hotel-rooms-inventory-to-cross-3-00-000-by-2029-report
IBEF / Livemint · 2025-02-11 · accessed 2026-09-15 · India · news · confidence medium · Organised hotel industry to add over 100,000 rooms and surpass 300,000 by 2029

S118 Tamil Nadu Combined Development and Building Rules, 2019 (Rule 53 exit requirements; definitions) https://www.legitquest.com/act/tamil-nadu-combined-development-and-building-rules-2019/A077
Government of Tamil Nadu (via LegitQuest) · 2019-02-04 · accessed 2026-09-15 · India · regulatory · confidence high · Rule 53(1)(d) exits clearly visible, routes marked and signs posted; (e) all exit ways properly illuminated; defines 'Illuminated Exit Signs'; exit numbers per NBC Part 4; transformer rooms need emergency lighting with independent supply

S119 MSB procedure to get NOC / fire licence (multi-storeyed buildings 18.3 m and above) https://www.tnfrs.tn.gov.in/msb-procedure-to-get-noc-fire-license/
Tamil Nadu Fire and Rescue Services · undated · accessed 2026-09-15 · India · regulatory · confidence medium · Documents for NOC, completion certificate and fire licence; annual fire licence renewal requires copy of previous year's licence

S120 Annual Survey of Industries 2022-23: summary results for factory sector (Statement 3A) https://www.mospi.gov.in/sites/default/files/asi_results/ASI%20Summary%20Results%202022-23.pdf
Ministry of Statistics and Programme Implementation, National Statistics Office · 2024-10-28 · accessed 2026-09-15 · India · dataset · confidence high · Factories in operation: 197,145 (2018-19), 198,628 (2019-20), 200,395 (2020-21), 200,576 (2021-22), 206,523 (2022-23); Tamil Nadu 15.26% of operating factories; 80.69% have plant and machinery up to ₹5 crore; pass 2 re-verified from the PDF: Statement 3A 2,06,523 operating factories, Tamil Nadu 15.26% (para 5.1.2)

S121 Industrial and warehousing report Q4 2024 (press release) https://www.colliers.com/en-in/news/press-release-industrial-and-warehousing-q4-2024
Colliers India · 2025-01 · accessed 2026-09-15 · India · analyst · confidence medium · 2024 new supply over 28 msf (+22% YoY), Delhi NCR ~10 msf; highest annual supply since 2020

S122 Future of logistics: warehousing market, India https://www.jll.com/en-in/insights/future-of-logistics-warehousing-market-india
JLL India · 2025-05-14 · accessed 2026-09-15 · India · analyst · confidence medium · Grade A warehousing stock 290 msf in 2023, expected 400 msf by 2027; Grade A vacancy 5% in 2023

S123 Urban rail transit in India https://en.wikipedia.org/wiki/Urban_rail_transit_in_India
Wikipedia · 2026 · accessed 2026-09-15 · India · reference · confidence low · Tertiary count of operational metro lines and stations; used only as a cross-check

S124 BIS Bangalore Branch Laboratory: testing charges for LED lamps (IS 16102 Part 1) https://www.crsbis.in/BIS/app_srv/tdc/gl/docs/LED%20Lamp-1.pdf
Bureau of Indian Standards, Laboratory Policy and Planning Department · 2016-12-29 · accessed 2026-09-15 · India · primary · confidence medium · Testing charge ₹29,250 per LED lamp type at the BIS Bangalore lab (2016); the only official lab-fee anchor found; emergency luminaire fee not listed

S125 BIS test report format (TRF) for IS 10322 (Part 5/Sec 8):2013 emergency lighting https://www.bis.gov.in/PDF/UTRFs/TRF_IS_10322_5_8.pdf
Bureau of Indian Standards · undated · accessed 2026-09-15 · India · primary · confidence high · 35-page uniform test report form: marking, construction, wiring, protection against shock, endurance and photometric tests

S126 India BIS issues implementation guidelines for revised IS 10322:2026 series for LED luminaires https://www.csagroup.org/global-certification-regulatory-update/india-bis-issues-implementation-guidelines-for-revised-is-103222026-series-for-led-luminaires
CSA Group (regulatory update) · 2026-04-15 · accessed 2026-09-15 · India · reference · confidence medium · Guidelines issued 20 to 30 March 2026; emergency luminaires in scope; new IPX9, EMF, PELV, battery and EDLC provisions; 2 August 2026 last date of concurrent running; links to the BIS guideline PDF

S127 BIS CRS registration timelines in 2025 https://www.elitasrcs.com/blog/bis-crs-registration-timeline
Elitas RCS · 2025 · accessed 2026-09-15 · India · reference · confidence low · Typical 3 to 6 weeks after testing; test report valid 90 days

S128 CMRL awarded tenders 2024-2026 https://chennaimetrorail.org/awarded-tenders
Chennai Metro Rail Limited · 2026 · accessed 2026-09-15 · India · primary · confidence medium · E&M tender 'Comprehensive LED Lighting Solution for Improved Visibility and Sustainability' awarded to Schnell Energy Equipments at ₹57.03 lakh (June 2024); signage design-supply tenders; property development MEP packages

S129 Fire safety audit process for commercial buildings in India: regulations, checklist and case study https://elion.co.in/fire-safety-audit-process-for-commercial-buildings-in-india-regulations-checklist-case-study
Elion Technologies · 2026-03-10 · accessed 2026-09-15 · India · vendor · confidence low · Case study: 12 maintained emergency luminaires with 3-hour backup installed, 7 to 9 lux measured at floor, central battery adopted 'for easier monitoring'; insurer surveyor noted upgrades and renewal came at lower premium; checklist cites NBC Cl. 4.15

S130 Fire NOC in India: state-wise guide to approval, renewal and compliance (2025) https://www.builtxsdc.com/blog/fire-noc-in-india-state-wise-guide-to-approval-renewal-and-compliance-2025
BuiltX · 2025-10-21 · accessed 2026-09-15 · India · reference · confidence low · Delhi DFS inspects 'emergency signage and lighting'; Mumbai fire NOC typically valid one year for non-residential; hospitals, schools, hotels, malls need NOC regardless of size

S131 Fire and Rescue Service: role and inspections https://www.tnfrs.tn.gov.in/content.php?menu_id=NDM2&dept_id=443&lang=MQ%3D%3D
Government of Tamil Nadu (TNFRS) · 2026-08-23 · accessed 2026-09-15 · India · regulatory · confidence medium · TNFRS conducts fire safety inspections in educational institutions, hospitals, industrial establishments, commercial complexes and high-rises and issues NOC / fire licence

S132 DFRS NOC pending list for multi-storeyed buildings, Chennai https://www.cmdachennai.gov.in/DFRS_NOC_Pending_Reg_MSB.html
Chennai Metropolitan Development Authority · undated · accessed 2026-09-15 · India · primary · confidence low · CMDA publishes a list of MSB planning applications pending fire NOC; count not extracted

S133 Thirumani Industry, Chennai: hospital and airport emergency LED exit lights https://tmindustry.in/hospital-and-airport-exit-lights.html
Thirumani Industry · undated · accessed 2026-09-15 · India · vendor · confidence low · Chennai supplier of emergency LED exit lights, fire exit lights and flameproof exit lights

S134 P7 Enterprises, Tiruvallur: IndiaMART company profile https://www.indiamart.com/p7enterprises/
P7 Enterprises via IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Proprietorship est. 2018, up to 10 people, trader-retailer of industrial emergency lights and exit signage; 4.3 rating from 6 reviews; a Rax buyer that sells its own brand

S135 BIS CRS certification for LED lights https://www.standphillindia.in/bis-certification-for-led-lights.php
Standphill India · 2026-01-19 · accessed 2026-09-15 · India · reference · confidence low · Representative sample per product family tested at BIS-recognised lab; R-number marked on product and packaging; phased notification

S136 Illumination India, Vasai: TradeIndia company profile and emergency exit light price https://www.tradeindia.com/illumination-india-2106532/
Illumination India via TradeIndia and illuminationindia.in · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Proprietorship, 19-year member, theatre and exit lighting; LED emergency exit light ₹1,800; acrylic exit signage ₹2,000 with 3-4 h backup

S137 Levonix Lighting Solution, Vasai: emergency light range and prices https://www.levonixindia.com/emergency-light.html
Levonix Lighting Solution via IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Double beam LED 9 W Li-ion 6-8 h at ₹2,350; 240 V exit light ₹2,550; exit sign ₹1,250; 'CE' claimed

S138 Emergency exit lights: IndiaMART category listing with seller prices https://dir.indiamart.com/impcat/emergency-exit-lights.html
IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · SKP Automation (Noida, 12 yrs, 4.1 from 93 reviews) edge-lit ₹1,600, LED with exit ₹3,200, halogen ₹3,000; Supreme Creation 'BIS emergency exit light' ₹6,500; Ashirwad Corporation (Ahmedabad) ₹3,300 to ₹6,000; Famya (Kolkata) ₹2,500; Prolite sleek exit resold ₹1,350; Finetech Kannada exit ₹4,200

S139 Autolite Emergency Lighting System LLP, Vasai: TradeIndia profile and prices https://www.tradeindia.com/autolite-emergency-lighting-system-llp-24239279
Autolite via TradeIndia · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Established 2010; ISO and RoHS; LED exit sign Ni-Cd 2 h ₹4,200; ceiling mounted ₹4,500; maintained luminaire ₹7,000; flameproof ₹24,000; 87 products; 1-year warranty

S140 Finetech Systems, Tiruppur: industrial emergency light prices and company history https://www.finetechsystems.co.in/industrial-emergency-lights.html
Finetech Systems via IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Manufacturing since 1995; 18 W LED twin beam with sensor ₹3,300; 40 W LED 3-language exit ₹5,700; halogen 110 W ₹2,900; LED dome ₹2,400; 12 V 7 Ah VRLA or Li-ion; 1-year warranty; 'ISI' claimed on one listing

S141 Sunlite Industries corporate site: about and testimonials https://www.sunliteindia.com/
Sunlite Industries · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Established 2015 (IndiaMART says 2000); photoluminescent signage 20-30 year indoor life; six Google testimonials on site; product codes SEL LED TBL, ML, EL

S142 Prolite Autoglo IndiaMART about page and DISH/BIS-approved airport exit lights https://www.indiamart.com/proliteautoglo/about-us.html
Prolite Autoglo Limited via IndiaMART · 2026 · accessed 2026-09-15 · India · vendor · confidence medium · Some products CE certified; 'EROSCU, BIS and DISH-approved' airport emergency exit lights; in-house remotely monitored test facility; 41 to 42 years

S143 Prolite AutoGlo: lighting the future of safety https://www.isrmag.com/prolite-autoglo-shedding-light-on-infinite-safety/
Industrial Fire Safety Review (ISR magazine) · 2026-04-11 · accessed 2026-09-15 · India · news · confidence low · Trade-press profile: emergency lights, photoluminescent signage, wayfinding, public training

S144 Prolite Autoglo Ltd company page https://in.linkedin.com/company/prolite-autoglo-ltd
LinkedIn · 2025-12-10 · accessed 2026-09-15 · India · reference · confidence low · Portfolio: exit lights, photoluminescent, central battery systems, flameproof and weatherproof lighting, smart lighting; sectors high-rise, hospitals, airports, factories; 477 followers

S145 Legrand URA ONE emergency luminaire 661621 datasheet https://www.legrand.com/ecatalogue/en/legrand-ecat/generatepdf/10551
Legrand · 2026-01-01 · accessed 2026-09-15 · Global · vendor · confidence medium · Non-maintained 1 h 100 lm LED; IEC/EN 60598-2-22; IP42 IK07; Ni-Cd or Ni-MH; ENEC and AENOR certificates

S146 Schneider Electric Exiway emergency luminaires: European distributor price list https://bankoflamps.com/schneider-electric-emergency-luminaires
Bank of Lamps (EU distributor) · 2026 · accessed 2026-09-15 · Europe · vendor · confidence low · Exiway Light IP65 EUR 85.68; Smartbeam Activa 3 h EUR 195.78; Smartexit Activa self-diagnostic 24 m 3 h EUR 147.51; indicative of global-brand price tier

S147 Beghelli emergency lighting (part of GEWISS Group since 2025) https://www.beghelli.it/en/products/emergency-lighting
Beghelli S.p.A. · 2026 · accessed 2026-09-15 · Europe · vendor · confidence low · Emergency luminaires, inverters and control panels; no India distributor found

S148 Moglix: Palex emergency light double beam with exit sign and emergency lights under ₹5,000 https://www.moglix.com/palex-emergency-light-double-beam-with-exit-sign/mp/msn2r5rjs3je61
Moglix · 2026-09-15 · accessed 2026-09-15 · India · vendor · confidence medium · Palex 2 x 20 W halogen double beam with exit sign ₹4,698 to ₹4,701 (4.0 from 2 reviews); Bajaj ELX portable ₹2,882 to ₹3,329; Anchor modular emergency LED units ₹3,978 to ₹4,231 per pack of 6

S149 Fire Supplies, Bengaluru: emergency and exit lights category https://www.firesupplies.in/product-category/emergency-exit-lights/emergency-lights/
firesupplies.in · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Prolite PEL LED LML FP flameproof emergency light ₹28,379; FAQ: emergency light batteries 'typically last 4-5 years'

S150 Ceasefire fire emergency exit signage (photoluminescent) https://www.indiamart.com/proddetail/case-fire-emergency-exit-signage-22002129512.html
Ceasefire Industries via IndiaMART · undated · accessed 2026-09-15 · India · vendor · confidence low · National fire-safety brand sells photoluminescent exit signage through its dealer network

S151 Bajaj Electricals professional lighting https://www.bajajelectricals.com/pages/professional-lighting
Bajaj Electricals Limited · 2026 · accessed 2026-09-15 · India · vendor · confidence low · Indoor, outdoor and smart luminaires with installation and commissioning; no dedicated emergency or exit luminaire family visible on the page

S152 Annual Survey of Industries (ASI) Results for 2023-24 (press note, PRID 2161192) https://www.pib.gov.in/PressReleasePage.aspx?PRID=2161192
Press Information Bureau / MoSPI · 2025-08-27 · accessed 2026-09-15 · India · dataset · confidence high · 2,60,061 factories in 2023-24, Tamil Nadu 15.43% (highest); fixed capital ₹46,24,09,035 lakh and ₹2,171 lakh fixed capital per factory in operation, which implies about 2,13,000 factories in operation (derived); persons engaged 1,95,89,131

S153 Guidelines for Implementation of Revised Standards for LED Luminaires, Ref. Reg./IS 10322 Series/Guidelines/01 https://www.crsbis.in/BIS/app_srv/tdc/gl/docs/Guidelines_for_Implementation_of_Revised_Standards_for_LED_Luminaires.pdf
Bureau of Indian Standards, Registration Department · 2026-03-20 · accessed 2026-09-15 · India · regulatory · confidence high · IS 10322 (Part 5/Sec 8):2013 revised to :2026 (IEC 60598-2-22:2022); last date of concurrent running 02 August 2026; beyond it no licence operative without the revised standard

S154 Lok Sabha Unstarred Question No. 232: Flouting of consumer safety standards by LED bulb manufacturing companies https://sansad.in/getFile/loksabhaquestions/annex/15/AU232.pdf?source=pqals
Ministry of Power, Lok Sabha · 2018-07-19 · accessed 2026-09-15 · India · regulatory · confidence high · MeitY CRO Phase III covered six more LED products, in force from 23 May 2018; three CRS registrations cancelled after failed test reports

S155 National Health Profile 2023, Table 6.2.2: State/UT wise number of government hospitals and beds as on 31.12.2022 https://cbhidghs.mohfw.gov.in/sites/default/files/NHP/NHP-2023-Last-Final.pdf
Central Bureau of Health Intelligence, MoHFW · 2024-06-28 · accessed 2026-09-15 · India · dataset · confidence high · 36,626 government hospitals (30,125 rural, 6,501 urban) with 8,40,455 beds; Tamil Nadu 2,644 hospitals and 1,16,733 beds, the most beds of any state

S156 India Hotel Market Review 2025 (publication page and key highlights) https://horwathhtl.com/publication/india-hotel-market-review-2025
Horwath HTL · 2026-02 · accessed 2026-09-15 · India · analyst · confidence medium · Supply about 216k rooms per day in 2025 (+7.8%), openings over 19k, net about 15.5k, pipeline about 144k rooms; 2023 review: inventory over 183,000 rooms

S157 Metro Rail: A Catalyst for Sustainable Urban Growth and Financial Resilience (PIB backgrounder) https://www.pib.gov.in/PressReleasePage.aspx?PRID=2240324
Press Information Bureau · 2026-03-15 · accessed 2026-09-15 · India · primary · confidence high · About 1,095 km of metro and RRTS (including 55 km Delhi-Meerut RRTS) in 26 cities in 2025, up from 248 km in 5 cities in 2014

S158 BIS LIMS: testing charges by laboratory for IS 10322 (Part 5/Sec 8) emergency lighting https://lims.bis.gov.in/home/search_is_number?is_number__doc_no=10322&lab__lab_name__icontains&page=8
Bureau of Indian Standards, Laboratory Information Management System · undated · accessed 2026-09-15 · India · regulatory · confidence high · Testing charges excluding taxes: BIS Bengaluru Branch Laboratory ₹63,600; Conformity Testing Labs ₹75,000; Bharat Test House, Sonipat ₹1,00,000

S159 SP 7:2026 National Building Construction Standards, Part F Fire and Life Safety (clauses 2.12 to 2.14 and 3.5.6) https://dfes.goa.gov.in/wp-content/uploads/2026/05/sp7_2026_nbcs-212-1480.pdf
Bureau of Indian Standards (copy hosted by Goa Directorate of Fire and Emergency Services) · 2026-04 · accessed 2026-09-15 · India · regulatory · confidence high · Escape lighting carried into clause 3.5.6 as 'should': 10 lumen/m2, 5 s, 90 min, siting; 3.5.6.3 periodical inspections and tests; exit signs green, illuminated on independent circuit, no point more than 30 m from a visible exit sign; part is guidance for states

S160 SP 7:2026 National Building Construction Standards 2026, standard details https://standards.bis.gov.in/website/standard-details?standardNumber=SP+7%3A2026
Bureau of Indian Standards · 2026-04-30 · accessed 2026-09-15 · India · regulatory · confidence high · CED 46 National Building Code committee; SP 7:2026 current

S161 National Building Construction Standards 2026 replaces NBC 2016 https://www.drishtiias.com/daily-updates/daily-news-analysis/national-building-construction-standards-2026
Drishti IAS (news summary) · 2026-05-01 · accessed 2026-09-15 · India · news · confidence medium · NBCS 2026 replaces NBC 2016; voluntary guidelines rather than binding regulation; gazette dated 30 April 2026 per other reports

S162 Emergency Light Unit (V2), Q2 category listing https://mkp.gem.gov.in/-electrical-systems-and-lighting-and-components-and-accessories-and-supplies-lighting-fixtures-and-accessories-emergency-lighting-and-accessories-emergency-light-unit-v2-
Government e-Marketplace (GeM) · 2026-09-15 · accessed 2026-09-15 · India · primary · confidence medium · 149 products; lowest listed offer prices ₹1,080 (Lens Point 1 W) to ₹2,300; RPS Ramadhiraj Power Systems ₹2,050 (OEM); PMI 10 W ₹2,200; buyer-side L1 negotiation

S163 171 emergency lighting tenders in India 2026 (live tender listing snapshot) https://www.tenderdetail.com/Indian-tender/emergency-lighting-tenders
TenderDetail · 2026-09-15 · accessed 2026-09-15 · India · reference · confidence medium · 171 live tenders: Railways 41, Defence 37; 144 under ₹10 lakh; GeM Emergency Light Unit (V2) bids by PSUs in Gujarat and Telangana; RDSO spec LED coach emergency lights with 12 V 7 Ah SMF batteries; FRFCF Kalpakkam MCC panels and emergency lights ₹95.69 lakh

S164 Prolite Autoglo Limited company profile and FY2025 revenue https://tracxn.com/d/legal-entities/india/prolite-autoglo-limited/__EGI7Vw-bm_9FL7-OxZR6vXsSSDLx3tB2a3H2HwVuxbM
Tracxn · 2026-08-31 · accessed 2026-09-15 · India · reference · confidence medium · Revenue ₹54 Cr for FY ending 31 March 2025, 12% one-year revenue growth

S165 Exide 12 V 7 Ah SMF battery listings https://www.tradeindia.com/products/smf-12v-7ah-exide-chloride-battery-c10529477.html
TradeIndia (V K Group System, New Delhi) · 2026-09-15 · accessed 2026-09-15 · India · vendor · confidence medium · 12 V 7 Ah Exide SMF at ₹650 and ₹660

S166 Exide SMF 12 V 7 Ah battery price https://www.batterybhai.com/battery-details/Exide-SMF-12V-7Ah-Battery/687/28/7/7/1
BatteryBhai · 2026-09-15 · accessed 2026-09-15 · India · vendor · confidence low · Rocket VRLA 12 V 7 Ah: MRP ₹1,100, ₹799 without old battery, ₹749 with exchange

S167 Exide SMF battery 7 Ah dealers and prices https://dir.indiamart.com/impcat/exide-smf-battery/capacity-7-ah-q82461/
IndiaMART · 2026-09-15 · accessed 2026-09-15 · India · vendor · confidence medium · Starting price ₹560 per piece (Omaxe Power Services)

S168 Glowtech Sign & Displays company profile https://www.indiamart.com/glowtechsigndisplays-mumbai/profile.html
IndiaMART / TradeIndia · 2026-09-15 · accessed 2026-09-15 · India · vendor · confidence medium · Vasai East; founded 2000 by Rajdeep Marwaha; LED profiles, signage and displays; IEC holder

S169 Glomake: BIS-certified auto glow signages and emergency lighting systems https://glomake.in/
Glomake Visual System, Vadodara · 2025-02-12 · accessed 2026-09-15 · India · vendor · confidence low · Claims to be India's leading BIS-certified manufacturer of auto glow signage and emergency lighting; photoluminescent signs, tapes, posters, emergency lights

S170 Emergency exit lights: latest price, manufacturers and suppliers (category page) https://dir.indiamart.com/impcat/emergency-exit-lights.html
IndiaMART · 2026-09-15 · accessed 2026-09-15 · India · vendor · confidence medium · AG India ₹1,200; Sunlite ₹1,400; UNM India 111 EL/M(R) CRCA ₹1,700; Illumination India ₹1,800; S R Safety ₹2,000; Aradhya Fire Protection 1.5 h ₹2,350; Famya ₹2,500; EHS India MS cabinet ₹3,500; Finetech two-language ₹5,600

S171 Crompton Portomax emergency lantern 6 W and emergency inverter bulbs https://www.flipkart.com/crompton-portomax-emgergency-lantern-6w-rechargeable-13-hrs-emergency-light/p/itm50ea12f7cf597
Flipkart / Crompton · 2026-09-15 · accessed 2026-09-15 · India · vendor · confidence medium · Portomax rechargeable lantern ₹1,500; Crompton sells backup lamps and inverter bulbs, no industrial self-contained luminaire found

S172 Syska emergency lights price list https://www.smartprix.com/emergency_lights/syska-brand
Smartprix · 2026-05-29 · accessed 2026-09-15 · India · reference · confidence low · Syska 7 to 9 W smart LED emergency lights ₹384 to ₹1,111, two-year warranty

S173 NABH standards for signage and displays in hospitals (FMS-2c, FMS-6b) https://www.caho.in/files/SIGNAGE%20AND%20DISPLAY%20IN%20HOSPITALS%20.pdf
Consortium of Accredited Healthcare Organisations (CAHO) · 2019-09-05 · accessed 2026-09-15 · India · reference · confidence medium · FMS-2c internal and external sign postings in a language understood by patients; FMS-6b documented safe-exit plan; fire exit signage as per NBC; exit signs shall be illuminated

S174 Rax-Tech monthly sales by vertical, April 2025 to March 2026 (Overall_Sales_Performance.xlsx, sheet Overall) landings/_rax-data/114909_Overall_sales/Overall_Sales_Performance.xlsx
Rax Tech International (internal, business development) · 2026-04-01 · accessed 2026-09-15 · India · internal · confidence high · Xlite ₹16,01,735 for FY2025-26 (April ₹3,46,470 peak; March ₹11,861) of ₹7,88,12,284 total; e-Surveillance ₹5,95,83,719; DDP ₹96,77,929; OEM ₹72,01,877; SSMS ₹7,47,025. No earlier-year vertical split in the record

S175 Client commendations and ratings, Rax-Tech International IndiaMART storefront https://www.indiamart.com/raxtech/testimonial.html
IndiaMART · 2026-09-15 · accessed 2026-09-15 · India · forum · confidence medium · Dated buyer ratings naming X-Lite products: Industrial Emergency Light (Chennai, July 2019; Surat, June 2020), X-Lite Non-Metallic Emergency Light with Exit, halogen outdoor (Talipparamba, Kerala, July 2021), X Lite Industrial Emergency Light (Chennai, August 2023), Emergency Exit Lights (Vasai Virar, March 2024), LED Exit Sign Board (Chennai, October 2025)

S176 X-lite Industrial Emergency Light product page and seller profile https://www.indiamart.com/proddetail/x-lite-industrial-emergency-light-10710865173.html
IndiaMART (Rax-Tech International) · 2026-09-15 · accessed 2026-09-15 · India · vendor · confidence medium · ₹5,000 per piece; IndiaMART member since May 2003; year of establishment 2001; 51 to 100 employees; GST turnover band ₹5 to 25 Cr; halogen model listing states production capacity 1,000 and outdoor model 500 (unit of time not stated); certification listed as CE, RoHS, ISO

S177 Rax-Tech International product listings (X-Lite emergency lights, exit signs) https://www.exportersindia.com/rax-tech-international-company5196339/about-us.htm
ExportersIndia and TradeIndia · 2026-09-15 · accessed 2026-09-15 · India · vendor · confidence low · X-Lite Industrial Emergency Light (Halogen and LED), industrial emergency light with exit, acrylic exit sign and exit signage with power backup listed on a second and third marketplace; firm described as incorporated in 2000

X-Lite · version 1.0 · research cutoff 2026-09-15 · updated 2026-09-15