

INDEPENDENT RESEARCH | MARCH 30, 2026

MoatPeak Investment Weekly

The Photonics Paradox and the AI Capital Cycle

Lumentum Holdings (\$LITE): The Price of Perfection

Equity Research & Strategic Assessment. Navigating the disconnect between a brilliant AI infrastructure thesis and an unforgiving valuation.

Prepared for Institutional Investors & Advanced Analysts.

Our view is that Lumentum embodies a real AI infrastructure transformation, but the stock is priced for years of near-perfect execution.

1. Executive Summary: The Signal Above the Noise

We believe we are standing at a critical inflection point in the current market architecture, where fascination with Artificial Intelligence infrastructure has morphed from visionary speculation into aggressive – and potentially terminal – capital deployment. At MoatPeak, we see \$LITE (Lumentum Holdings Inc.) as the definitive live case study in Capital Cycle Theory. This framework tells us that when a young sector appears to offer extraordinary returns, capital floods in, funds a rapid supply-side build-out, and eventually drives marginal returns into the ground.

Lumentum now sits at the heart of AI datacenters, supplying the silicon photonics and 1.6T optical interconnects that make GPU clusters viable at scale. Yet even as the company has become a strategic linchpin for hyperscalers, we see valuation drifting into a state of delirium. The market is cheering a 77 percent revenue growth projection for fiscal year 2026 and extrapolating a near-seamless AI build-out, but it is ignoring the capital intensity and the wave of manufacturing capacity now flooding photonics.

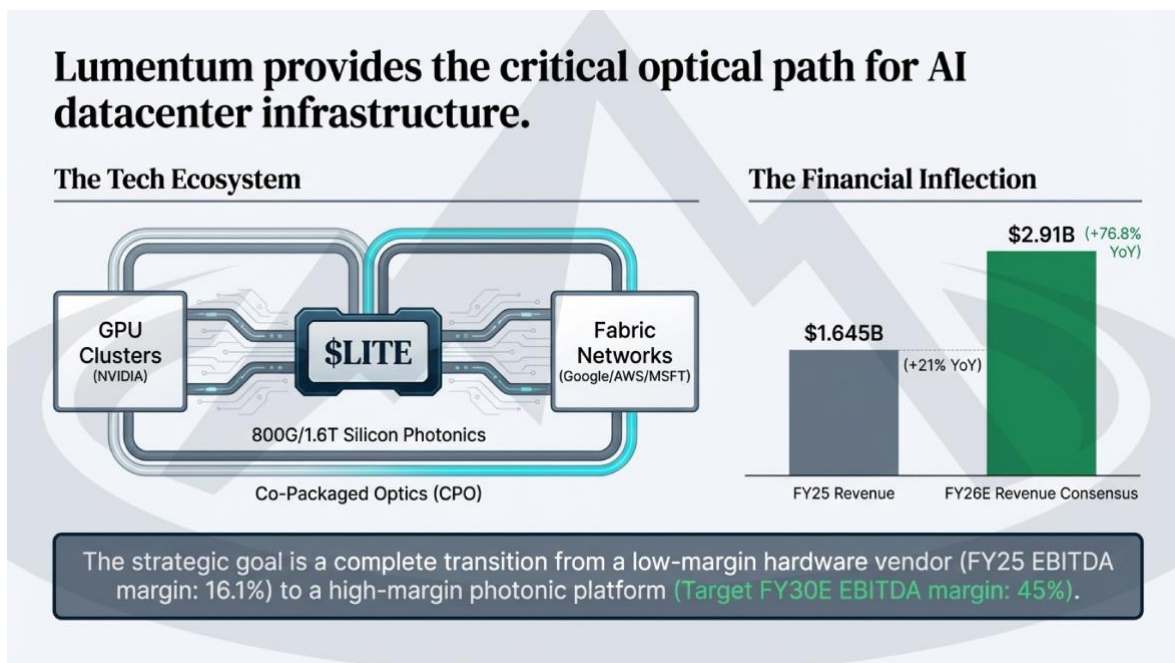


Figure 1. Lumentum’s role in the AI datacenter optical stack.

Key takeaway: Lumentum is a strategic linchpin for hyperscaler AI architecture, connecting GPU clusters to fabric networks through silicon photonics. The optical role is real, but our view is that the market has capitalized it too aggressively.

Our work points to a stark conclusion: \$LITE is 72.9 percent overvalued relative to fundamental fair value. We interpret the quiet re-rating in photonics not as the early innings of a durable structural shift, but as a speculative tax being levied on late arrivals to the AI trade. This micro-level mispricing around a single company is helping to shape broader US equity sentiment, and in our view is signaling a potential peak in the AI infrastructure cycle (see Figure 2).

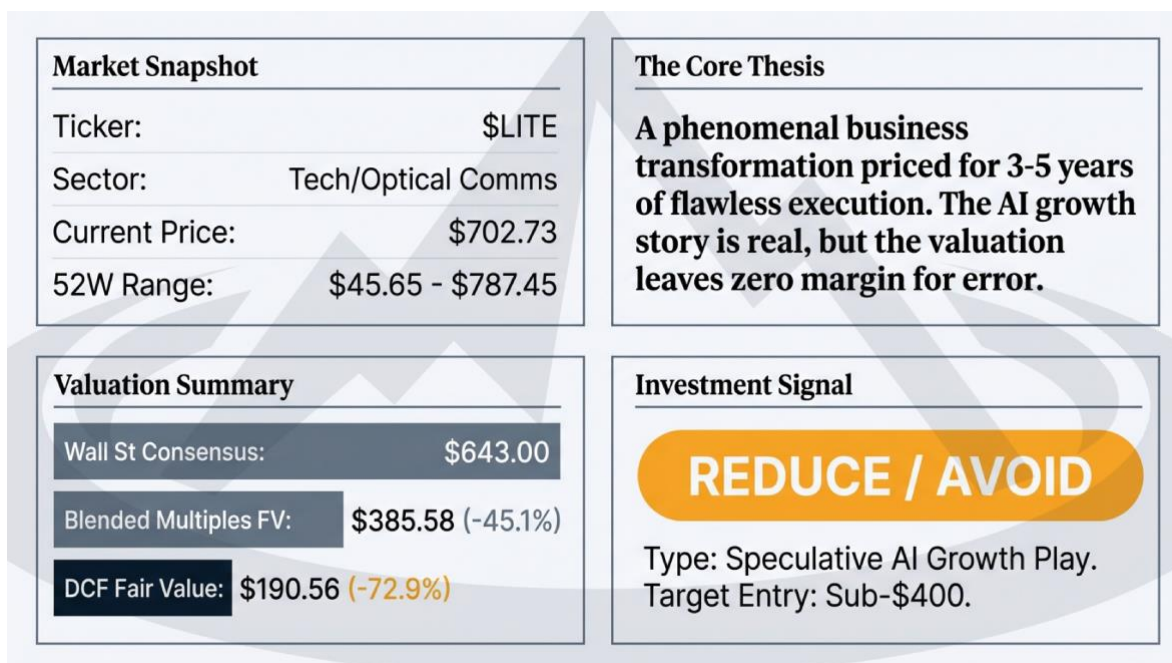


Figure 2. Market snapshot, core thesis, and valuation summary.

Key takeaway: The company sits inside a real AI build-out, but the valuation already discounts years of nearly flawless execution. At current levels, the margin of safety is effectively absent.

2. US Market Impact: Growth Multiples and Rate Sensitivity

We see the S&P 500 and Nasdaq increasingly tethered to the AI Interconnect supercycle. In that ecosystem, companies such as \$LITE function as the circulatory system of data, shuttling bandwidth between the GPUs that drive today's narrative of limitless AI demand. However, the macro backdrop is not aligned with the valuations that growth investors are currently paying.

Using our calculated Weighted Average Cost of Capital (WACC) of 13.26 percent, we see that a higher-for-longer interest rate regime exerts extreme pressure on companies priced at 231.9x Trailing P/E. When the risk-free rate itself sits at 4.3 percent, the implied equity risk premium must do heavy lifting to justify such multiples. We are not seeing that justification in the underlying cash flow profile (see Figure 3).

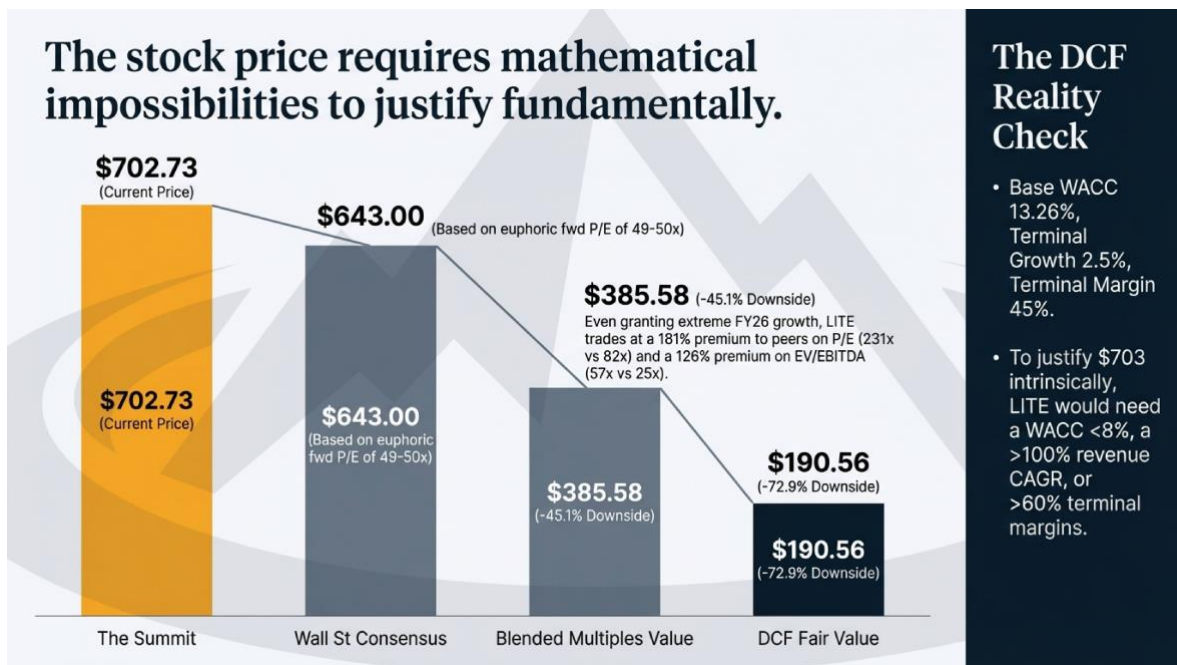


Figure 3. Valuation waterfall and DCF reality check.

Key takeaway: With a WACC of 13.26 percent and a 4.3 percent risk-free rate, we do not see the underlying cash-flow profile supporting the prevailing multiple. Even constructive assumptions still leave the equity far above our fair-value range.

Across sectors, the pattern is becoming clear. Broad technology within the S&P 500 is experiencing moderate expansion, with sentiment best described as optimistic. Optical communications – including \$LITE and \$COHR – are in what we regard as outright hyper-acceleration, paired with a euphoric tone in market psychology. Semiconductor infrastructure is sustaining robust demand, but we already observe the early stages of consolidation. The more stretched valuations become in optical communications, the more sensitive they become to any macro tremor.

As we move from US policy dynamics to the mechanics of global logistics, we remind ourselves that AI demand may be architected in Silicon Valley, but the photonics supply chain is truly global. That supply chain is tightly coupled to the availability of specialized materials and the stability of cross-border trade routes, leaving the entire structure acutely sensitive to material shortages and regional trade shocks.

3. Europe and Global Market Dynamics: The Photonics Supply Chain

We see the race for AI dominance converging onto a very specific bottleneck: materials science. Producing VCSEL (Vertical-Cavity Surface-Emitting Lasers) and silicon photonics at scale requires specialized substrates such as Gallium Arsenide (GaAs) and Indium Phosphide (InP). Any disruption in regional trade corridors reverberates instantly through this chain and directly undermines the Fabless model that \$LITE relies on. Being fabless lowers the burden of owning heavy manufacturing assets, but it increases dependence on global foundry partners, and with it the vulnerability to a reflexive supply chain.

We can see this reflexivity in the price action of \$LITE over the past 52 weeks. The stock has traded in a range from 45.65 dollars to 787.45 dollars, a roughly 17-fold move that we do not interpret as a reflection of domestic business fundamentals. Instead, we see global speculative capital crowding into a perceived hardware bottleneck. When capital flows become that concentrated, they tend to ignore the geopolitical fragilities of a supply chain stretching from European precision optics houses to Asian assembly lines.

At the same time, the global competition for capital within photonics is intensifying. Established peers and newly funded entrants, empowered by today's euphoria, are expanding capacity at a pace that past cycles suggest will end in oversupply. History tells us that such capacity waves rarely resolve gently; they resolve in a glut.

4. Sectoral Movements and the \$LITE Deep Dive

Within this evolving landscape, we rate \$LITE as having a Strong Moderate moat, at 7.5 out of 10. Its intellectual property around 800G and 1.6T adoption is substantial and provides a meaningful competitive barrier. However, that barrier is constantly being tested by \$COHR (Coherent Corp), which we view as a relentless rival in the same lanes.

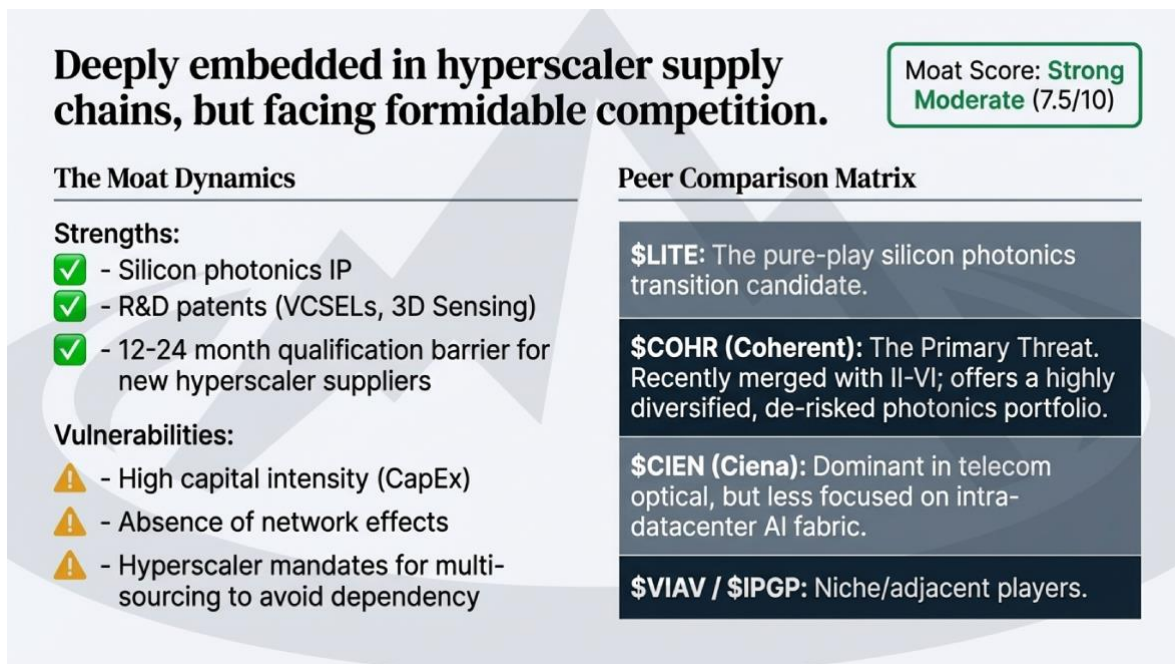


Figure 4. Competitive moat and peer positioning in silicon photonics.

Key takeaway: LITE's IP and qualification barriers matter, but the moat is not impregnable. Coherent remains the clearest competitive threat as hyperscalers push toward multi-sourcing and industry investment accelerates.

The equity market today is awarding \$LITE an 181 percent P/E premium to the sector median. In our eyes, that premium represents an asymmetric bet where the upside is already heavily capitalized, while the entry point carries unfavorable odds. Investors are being paid very little to bear a great deal of execution, competitive, and macro risk.

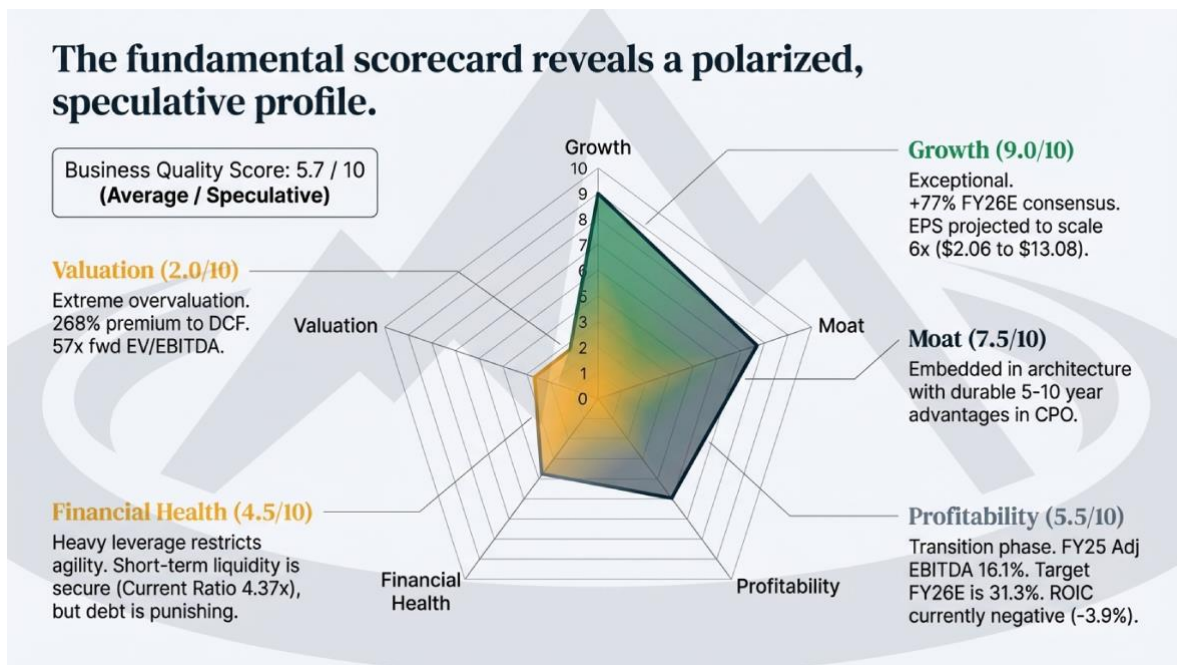


Figure 5. Fundamental scorecard across growth, moat, profitability, health, and valuation.

Key takeaway: Growth and strategic relevance are genuine, but profitability, balance-sheet flexibility, and valuation remain far less compelling. In our view, that mix leaves the stock looking speculative rather than durable at current levels.

We therefore track a set of key tickers as part of the 1.6T adoption story. For \$LITE itself, we are focused on the risk of margin compression as capacity scales. Management is targeting a 31 percent EBITDA margin for FY2026, and we see that as an ambitious mark that will be tested by pricing and competition. For \$COHR, we are monitoring aggressive pricing tactics in the transceiver market, which could erode \$LITE's market share and force painful concessions. \$NVDA (Nvidia) remains the primary demand engine for this ecosystem; any sudden weakness in GPU demand would, in our view, hit the optical sector first and hardest. \$VIAV (Viavi) serves as a bellwether for network testing and validation spend across hyperscalers, offering a leading signal on how aggressively those customers are upgrading their infrastructure.

The current price of \$LITE, in our assessment, bakes in five years of uninterrupted perfection. Under such expectations, even a modest delay in 1.6T adoption could spark a violent re-rating of balance sheets that are currently camouflaged by growth narratives.

5. The Gray Rhinos: Ignored Signals in the AI Boom

We frame \$LITE's key risks through the lens of the Gray Rhino concept: highly probable, high-impact threats that markets choose to ignore. For this company, the primary Gray Rhino is the capital structure. We see 2.56 billion dollars in convertible notes layered on top of a Net Debt/EBITDA ratio of 6.4x. Those are not abstract figures; they define the company's room for error (see Figure 6).

Applying Second-Order Thinking, we confront the 105 million dollar negative adjusted Free Cash Flow alongside a GAAP operating margin of negative 10.9 percent. This gap, driven largely by the amortization of acquisitions, reveals the divide between management's adjusted storytelling and the

colder arithmetic of actual costs. In a booming narrative environment, such discrepancies often get waved away. In a cooling cycle, they return to the foreground.

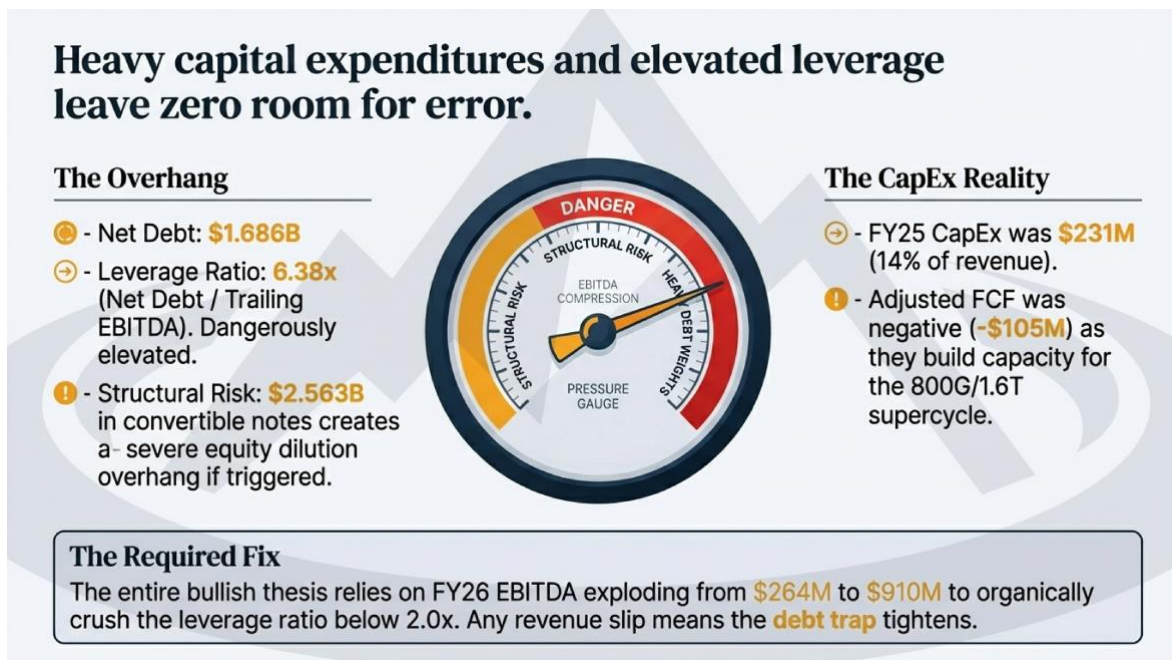


Figure 6. Leverage, convertibles, and capital-intensity overhang.

Key takeaway: The primary Gray Rhino is the balance sheet. High leverage, large convertibles, and negative free cash flow sharply narrow the company's room for error.

The convertible structure of the debt adds another layer of risk. Should the stock price correct toward our 190.56 dollar fair value, we see a scenario where the company faces either a daunting refinancing wall or substantial dilution. High leverage and negative cash flow can be tolerated during an exuberant upcycle, but during a cyclical slowdown they move from inconvenient to potentially terminal. If the enormous AI investments being made today do not translate into rapid, tangible ROI at the enterprise level, we expect a freeze in infrastructure spending that would become what we call a Self-Realized Prophecy, validating the compression of these growth multiples (see Figure 7).

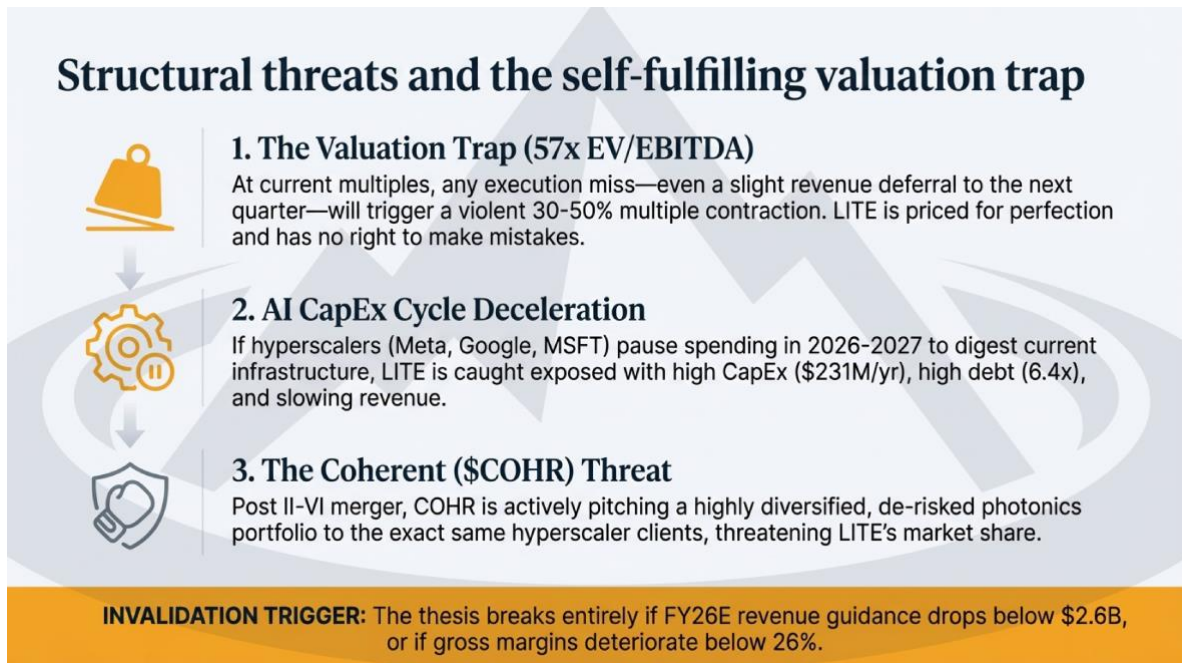


Figure 7. Structural threats and the self-fulfilling valuation trap.

Key takeaway: The threat is not one isolated miss, but a reflexive chain linking valuation, CapEx digestion, and competition. If AI spending slows, the same conditions that enabled euphoria can validate rapid multiple compression.

6. MoatPeak Scenarios and Probabilities

We frame our view of \$LITE through probabilistic scenarios rather than binary calls. For the 2026 horizon, our proprietary models yield three distinct paths (see Figure 8).

Even our most aggressive Bull Case implies a massive 61% downside.

Bull Case (25% Probability)		Base Case (50% Probability)		Bear Case (25% Probability)	
Narrative AI buildout accelerates; LITE dominates 800G/1.6T market share		Narrative Management perfectly meets ambitious Wall St. consensus; margins expand exactly as planned		Narrative Tech CapEx slows slightly in '26/'27 to digest infrastructure; \$COHR takes market share.	
Assumptions		Assumptions		Assumptions	
FY26 Rev	+79.3%	FY26 Rev	+76.8%	FY26 Rev	+72.8%
Y5 Margin	46.5%	Y5 Margin	45.0%	Y5 Margin	42.0%
WACC	12.06%	WACC	13.26%, TGR 2.5%	WACC	14.46%
Implied Fair Value \$269.40 (-61.7%)		Implied Fair Value \$190.56 (-72.9%)		Implied Fair Value \$121.20 (-82.8%)	

Figure 8. Scenario probability matrix for 2026 fair value.

Key takeaway: Across our base, bull, and bear cases, we do not arrive at a fair value remotely close to the current market price. Even the bull case still implies material downside.

In our Base Case, which we assign a 50 percent probability, we arrive at a fair value of 190.56 dollars. Here we assume a standard AI infrastructure ramp-up, \$LITE meeting its FY2026 revenue targets, and a WACC of 13.26 percent. Even in this relatively constructive setup, the stock remains significantly overvalued versus where it trades today.

Our Bull Case, at 25 percent probability, generates a fair value of 269.40 dollars. This is the “perfection” scenario, in which 1.6T adoption outpaces current expectations and market participants reward that visibility with a lower WACC of 12.06 percent, reflecting diminished perceived risk. Yet even under these idealized assumptions, our fair value still sits 60 percent below the prevailing market price.

Our Bear Case, also at 25 percent probability, points to a fair value of 121.20 dollars. In this world, hyperscalers initiate a Capex freeze as they scrutinize the realized returns on AI investments. \$COHR uses this period to aggressively seize market share, squeezing \$LITE’s margins and compounding the burden of servicing its debt.

Looking forward, we see a clear trigger for sorting these scenarios: the Q3 FY2026 earnings report. We will treat any revenue guidance below 2.6 billion dollars as an explicit shift toward the Bear Case path (see Figure 9).

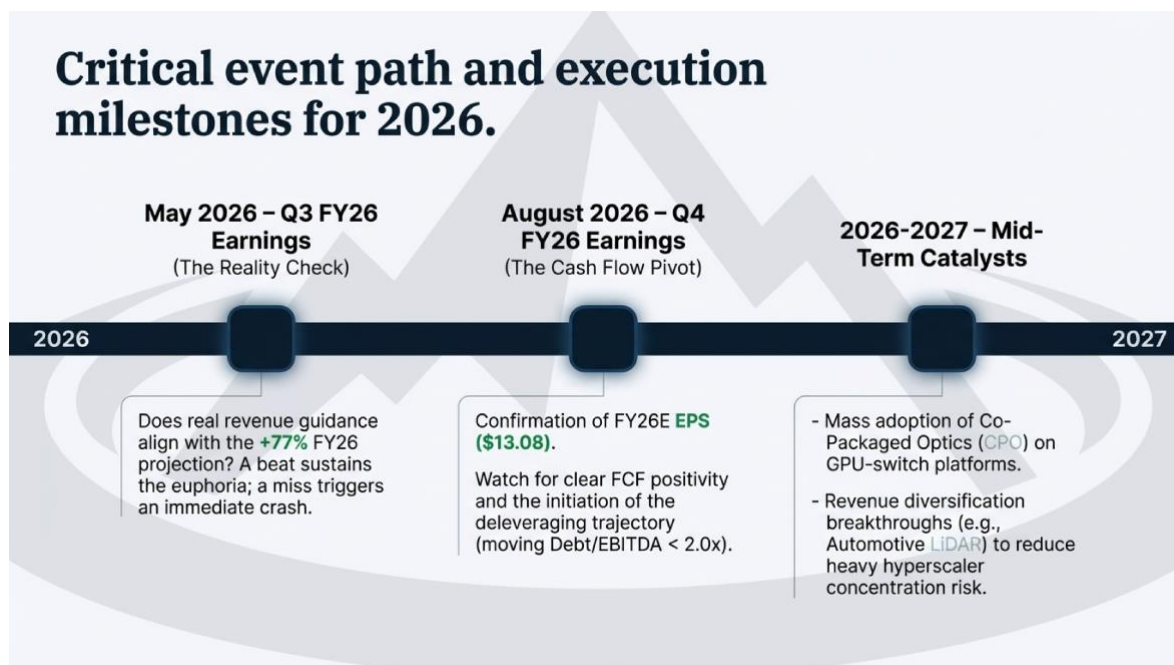


Figure 9. Event path and execution milestones for 2026.

Key takeaway: We view the 2026 earnings path as the first decisive sorting mechanism for the thesis. Revenue guidance below 2.6 billion dollars would, in our framework, push the stock toward the Bear Case trajectory.

7. MoatPeak Insights: The Mentor’s Reflection

To make sense of this environment, we lean on the Inversion Principle. Instead of asking how high \$LITE can climb, we ask a different question: What would have to be true for the current 702.73 dollar price to represent fair value? Our modeling indicates that such a world would require a WACC below 7 percent and a sustained 100 percent Revenue CAGR for the next five years. We see neither of those assumptions as compatible with economic gravity (see Figure 10).

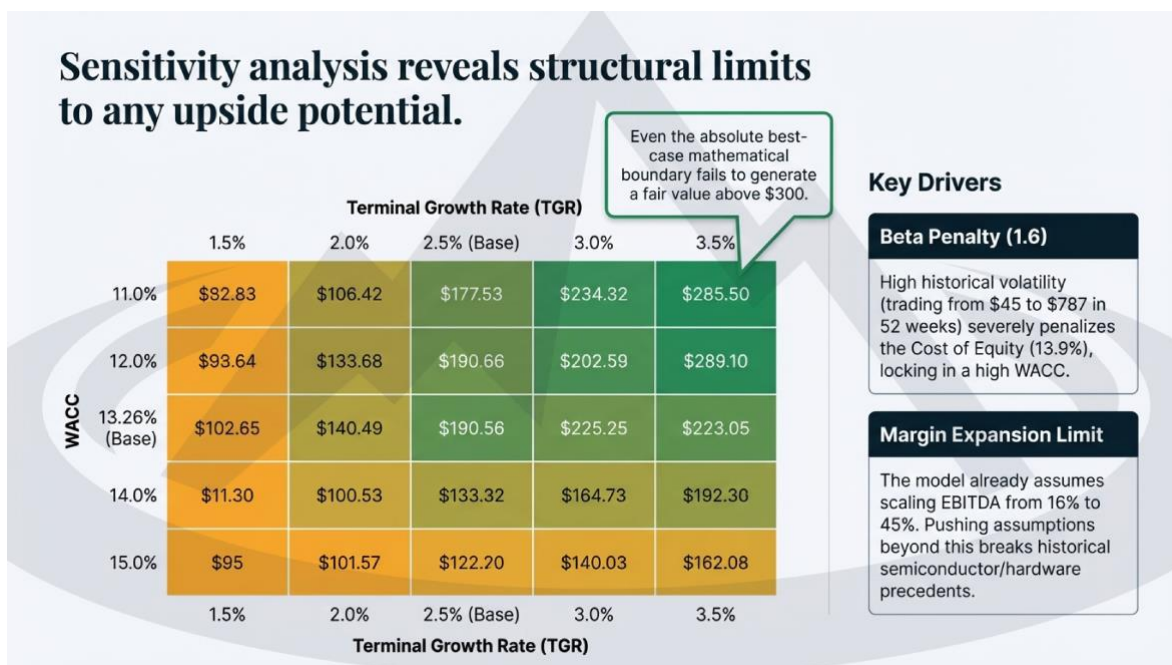


Figure 10. Sensitivity analysis and the ceiling on upside.

Key takeaway: Inversion leads us to a simple conclusion: the assumptions required to justify the current price are incompatible with economic gravity. Even generous terminal growth and margin inputs fail to support today's valuation.

We therefore draw a sharp line between FACTS and ASSESSMENT. The fact is that \$LITE's revenue growth is real and substantial. Our assessment is that the market price has already purchased and resold that growth multiple times over. In our experience, the Capital Cycle tends to punish impatience, particularly at peaks when optimism conflates growth with value.

Today, the stock price itself has become a reflexive force, shaping procurement behavior and pulling in competitors who are incentivized by the same high margins that investors are extrapolating. As these new and existing players scale up, they lay the groundwork for the very saturation that will undermine those margins. Against that backdrop, we argue for the virtue of Patient Capital. The underlying technology is critical; the current price, in our judgment, is a fiction born at the top of the cycle.

8. Strategic Implications for the Retail Investor

As we look out to 2026, we see a disciplined roadmap for the retail investor who wants exposure to AI's promise without becoming collateral damage in its capital cycle. Maintaining an Avoid/Reduce stance at the 702 dollar level is not a criticism of Lumentum's engineering talent; it is a decision to sidestep ruin when a stock trades at nearly four times our view of its fundamental value. At this altitude, the margin of safety has effectively disappeared.

We frame the tactical playbook in three dimensions. First, we monitor the Entry Zone. We regard the sub-400 dollar area as the first region where risk and reward begin to look less distorted, although even there the stock remains technically overvalued relative to our 190 dollar fair value. Second, we observe deleveraging dynamics. The thesis requires that the company drive its Net Debt/EBITDA ratio below 2.0x by 2028; failure to bend that curve materially undermines the equity story. Third, we listen

closely to hyperscaler guidance. For \$LITE shareholders, we see the quarterly calls from Microsoft and Google as more informative than Lumentum’s own reports, because they set the cadence of AI infrastructure spending (see Figure 11).

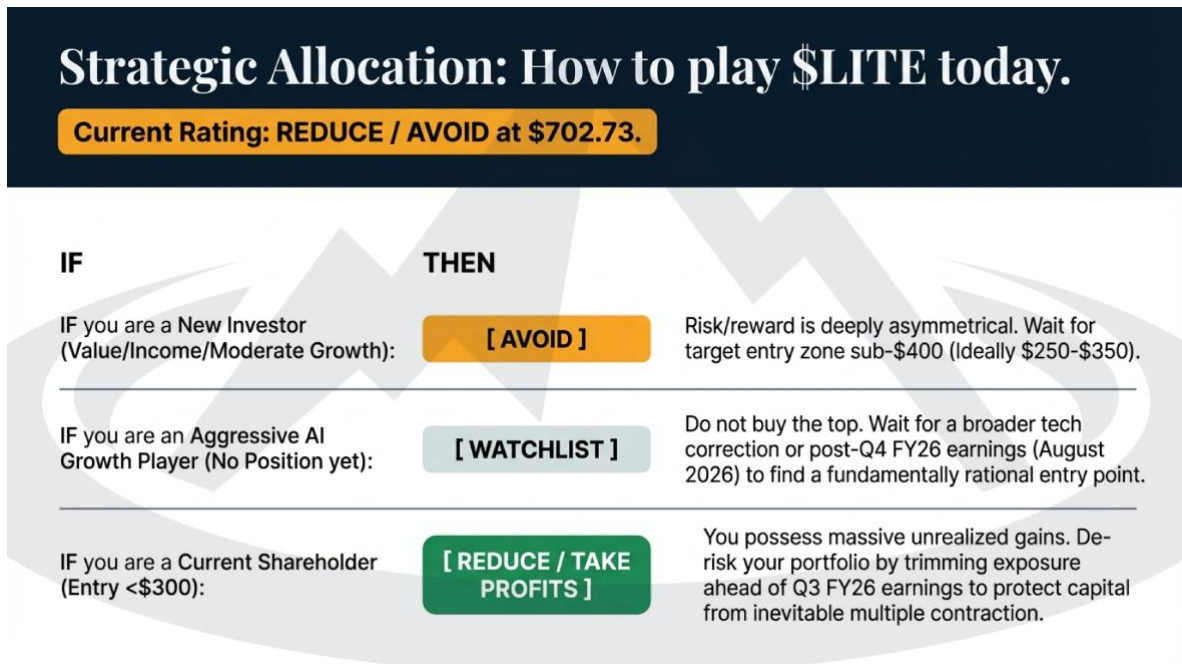


Figure 11. Strategic allocation playbook at current price levels.

Key takeaway: The retail playbook is defensive: maintain an Avoid/Reduce stance, monitor the sub-400 dollar entry zone, and watch deleveraging and hyperscaler guidance. We prefer patience over chasing performance at peak-cycle valuations.

In the end, we view investing as the practice of waiting patiently for the market to correct its own narrative errors. At MoatPeak, we prefer to stand in the safety of the valley rather than chase performance in the thin air of an unsustainable peak.

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