



The 70 Watt Metal Halide Spotlight, Workhorse of Retail Lighting Has Finally Met Its Match with the Luminus Gen 4 "CGM-14" COB

*Tom Jory, Luminus Devices*

As tens of thousands in the lighting industry trek miles across the many halls at Messe Frankfurt for the biennial Light+Building exhibition, many will be hoping to see new technology breakthroughs that continue the displacement of conventional lighting solutions with LED solutions that provide better light, are more efficient, and perform consistently over time.

This is one of those breakthrough years that can spark a shift in market options and lighting preferences. The 70 Watt ceramic metal halide lamp – the mainstay of retail lighting – can now be replaced with an LED solution that not only delivers the same or superior quality of light but can do so in an identical form factor to existing luminaires. Enabling this milestone is Luminus Gen4 technology which not only bumps up efficacy by ~10% over the best in class Gen3, but Luminus is also raising the maximum case temperature from 105°C to 120°C and raising maximum current to ~3x nominal. The combination of these three attributes give luminaire makers a wide range of design options to consider. For example, simply drop the Gen4 COB into an existing luminaire to get more lumens out, or reduce the current to keep the same lumens with fewer watts consumed, or slice an inch or two off of your extruded heatsink to reduce shipping weight/cost and save BOM cost on aluminum. Or, as described below, replace the old 70W ceramic metal halide spot to get even higher center beam candle power (CBCP) without any tradeoff in quality of light nor increase in form factor.

### The Luminus Breakthrough

In past years we've seen LED replacements for lower wattage ceramic metal halide lamps, but the volume opportunity remains in retail where the 70W lamp is king. Ironically, thermal issues – like they were with the original metal halide lamps – have been a primary obstacle to an LED solution that could match the 70W ceramic metal halide form factor and CBCP punch and sparkle. The breakthrough from Luminus Devices is its Gen4 COBs that not only enable the light density necessary for punch, but also meet the form factor requirements. They also deliver unique spectrally tuned light that can be applied to different environments. We continue to realize the promise of LED technology to be more than a simple replacement and to make light and lighting better. Luminus' COBs can also be spectrally "tuned" with the cyan-enriched PerfectWhite, spectrally similar to halogen, Sensus and XtremeSensus, with below BBL chromaticity

and higher gamut area index for vibrant, saturated colors and bright, pure whites, and AccuWhite™ that delivers 95CRI minimum color rendering.

Seeing is believing. That's why this breakthrough technology is front and center of our stand at Light + Building this year. Come by the Luminus stand in Hall 4.0, B30 and see for yourself how Luminus has made it possible to replace the 70W ceramic metal halide lamp with an LED in the same form factor with better light. Yes, seeing is believing.