

Pico COBs

NARROW BEAMS AND HIGH FLUX DENSITY GENERATE MORE PUNCH WITH HIGH CANDELA OR CBCP

If lighting designers issued a “most wanted” list of LEDs, an LED that was very small and delivered high flux density, or punch, would be at or near the top of the list. High flux density and small light emitting surfaces have long been achievable, but until the arrival of Pico COBs, the two have not been successfully joined in a single package.

Luminus’ Pico COBs have 3.5 mm and 4.5 mm light emitting surfaces and can produce a stunning 675 or 1255 lumens respectively at 3000K and 90+ CRI. Now there is an LED solution with both the quality of light and the punch to replace one of the most common lamps across architectural segments: the 50W halogen spot.

Pico-COBs use Luminus’ latest Gen4 technology for increased drive currents and case temperatures. This provides lots of engineering space to create innovative new designs with smaller form factors. Unique dramatic effects, longer throws, and narrower beams can now be produced by tiny fixtures incorporating sleek designs that are hidden in the architecture.

Pico COB Characteristics

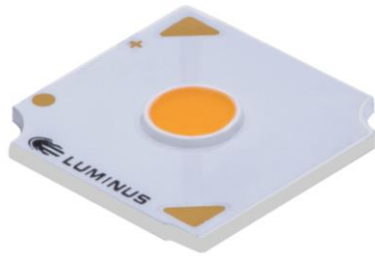
- High lumen output and efficacy
- CCT range 2400K, 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, and 6500K
- AccuWhite high color rendering: 97CRI typical for most CCTs
- 2 and 3 SDCM color binning options
- Exceptional long-term color stability
- Excellent optical emission uniformity and color over angle consistency.
- Superior thermal conductivity for uniform heat spreading



The image above shows a beam comparison. On the left, a 4.5 mm Pico COB LES. In the center, a 6 mm LES. On the right, a 9 mm LES. Each COB is mounted into a PAR 20 lamp with identical optical systems, identical power, and they are producing the same lumens. Only the LES is different. We can clearly see that the 4.5 mm LES lamp produces more punch and a narrower beam.

Pico COBs

Luminus Pico COBs with 3.5mm and 4.5mm



3.5 mm Light Emitting Surface		
CCT	Output Flux Typical 85°C	CRI Minimum
2400K	255	90
2700K	330	80
	275	90
	255	95
3000K	340	80
	290	90
	265	95
3500K	355	80
	300	90
	285	95
4000K	360	80
	305	90
	280	95
5000K	365	80
	310	90
	270	95
5700K	360	80
6500K	360	80

4.5 mm Light Emitting Surface		
CCT	Output Flux Typical 85°C	CRI Minimum
2400K	390	90
2700K	505	80
	415	90
	390	95
3000K	520	80
	440	90
	405	95
3500K	540	80
	460	90
	435	95
4000K	550	80
	465	90
	425	95
5000K	555	80
	470	90
	410	95
5700K	550	80
6500K	545	80

About Luminus

Luminus, Inc. develops and markets solid-state lighting solutions (SSL) to help its customers migrate from conventional lamp technologies to long-life and energy-efficient LED illumination. Combining technology originated from the Massachusetts Institute of Technology (MIT) with innovation from Silicon Valley, Luminus offers a comprehensive range of LED solutions for global lighting markets as well as high-output specialty lighting solutions for performance-driven markets including consumer displays, entertainment lighting and medical applications. Luminus is headquartered in Sunnyvale, California. For additional information please visit www.luminus.com.