

## Lights Turned Out on Validity Finding

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Finding that the Patent Trial and Appeal Board's (PTAB) anticipation and obviousness decisions resulted from an erroneous interpretation of the claim language and a misunderstanding of case law, the US Court of Appeals for the Federal Circuit vacated the PTAB's decision and remanded for further consideration. *Technical Consumer Products v. Lighting Science Group Corp.*, Case No. 19-1361 (Fed. Cir. Apr. 8, 2020) (Stoll, J.).

Life Science Group (LSG) owns a patent directed to a replacement light emitting diode (LED) light fixture. The claimed LED light fixture includes (1) a ring-shaped heat sink disposed around a heat spreader and (2) a combination of the heat sink, the heat spreader and an outer optic that has "an overall height H and an overall outside dimension D such that the ratio of H/D is equal to or less than 0.25."

Technical Consumer Products, Inc.; Nicor, Inc.; and Amax Lighting (collectively TCP) petitioned for *inter partes* review (IPR), arguing the challenged claims were anticipated and obvious over the Chou patent. TCP argued that Chou's ring-shaped outer flange, which does not include a separate heat sink, was the ring-shaped heat sink required by the patent claims. TCP further argued that the H/D ratio of the combination of Chou's trim, flange and outer optic was less than 0.25. TCP's calculation did not rely on a separate heat sink disclosed in Chou. In response, LSG argued that Chou's additional heat sink must be included in the H/D ratio calculation, and that when Chou's additional heat sink is included in the calculation, Chou's H/D ratio is not less than 0.25. LSG also presented evidence that Chou's light fixture would not dissipate heat if the additional heat sink was removed.

In its final written decision, the PTAB found that Chou did not anticipate the claims for two reasons. First, the PTAB found that "the arrangement of heat sinking elements disclosed in Chou includes both trim 12 and heatsink 14," and therefore, agreed with LSG's arguments that all heat sinks in Chou (*i.e.*, flange and heat sink) must be included in the H/D ratio calculation, and if all heat sinks in Chou were included, Chou does not disclose the H/D ratio limitation. Second, relying on the Federal Circuit's 2017 decision in *In re. Chudik*, the PTAB found that the only way to meet the claimed requirement was to remove an essential element of Chou—its heat sink— and thus Chou could not anticipate the claims. TCP appealed.

Focusing first on whether Chou's heat sink must be included in the H/D ratio calculation, the Federal Circuit found that the PTAB misunderstood the claim language by requiring all of the heat sinks in

Chou to be included in the H/D ratio calculation. The Court explained that the plain language of the claim only requires the heat sink “annularly coupled to the heat spreader” to be included in the claimed H/D ratio calculation. In other words, the claim “does not suggest that *all* heat sinks in the luminaire must be included in this calculation.”

The Federal Circuit next found that the PTAB misunderstood and misapplied *Chudik*. In *Chudik*, the claim required a “protruding surface” of the device be “arranged to engage the surface” of a particular cavity, but the protruding surface of the prior art reference was incapable of engaging the cavity surface because an anchoring element was in the way. The Court found that the prior art did not anticipate the claim because it could only meet the claim language if the anchoring element was physically removed, thus distorting the original design. Turning to the current case, the Federal Circuit found that Chou’s heat sink does not need to be *physically* removed from Chou to anticipate the claim, thus concluding that *Chudik* does not support the PTAB’s conclusion of no anticipation or obviousness. The Court therefore vacated the PTAB’s decision and remanded for further consideration.

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