

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAVANT TECHNOLOGIES LLC d/b/a GE LIGHTING,
ELONG INTERNATIONAL USA INC., and
XIAMEN LONGSTAR LIGHTING CO. LTD.
Petitioners,

v.

FEIT ELECTRIC COMPANY, INC.,
Patent Owner.

IPR2025-00260
Patent 8,604,678 B2

Before THOMAS L. GIANNETTI, KEVIN W. CHERRY, and
ANDREW L. NALVEN, *Administrative Patent Judges*.

GIANNETTI, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
Consolidating Cases for Trial
35 U.S.C. §§ 314, 315(c); 37 C.F.R. §§ 42.122(a)

I. INTRODUCTION

Savant Technologies LLC d/b/a GE Lighting, Elong International USA Inc., and Xiamen Longstar Lighting Co. Ltd. (collectively, “Petitioner”¹) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1 and 11–14 of U.S. Patent No. 8,604,678 B2 (Ex. 1001, the “’678 patent”). Feit Electric Company, Inc. (“Patent Owner”) did not file a Preliminary Response.

We determine that Petitioner has established a reasonable likelihood that it will prevail with respect to at least one claim.

We therefore grant the Petition and institute trial on all the challenged claims and all the asserted grounds of unpatentability.

II. BACKGROUND

A. RELATED PROCEEDINGS

The parties identify the following district court proceedings as related: *Feit Elec. Co. v. Ledvance, LLC*, No. 5:24-cv-31 (E.D. Ky., filed Feb. 2, 2024); *Feit Elec. Co. v. Savant Techs. LLC*, No. 1:24-cv-473 (N.D. Ohio., filed Mar. 13, 2024); and *Feit Elec. Co. v. Elong Int’l USA Inc.*, No. 3:24-cv-1089 (N.D. Tex., filed May 6, 2024). Pet. 18–19; Paper 7, 1.

The parties also identify the following two pending PTAB proceedings involving the ’678 patent: IPR2024-01357 and IPR2025-00258. Pet. 19, Paper 7. 1. In IPR2024-01357 (the “’1357 IPR”), Savant

¹ Petitioner identifies Seoul Semiconductor Co. Ltd. as an additional real party-in-interest. Pet. 18. Petitioner states that Ledvance LLC is not a real party-in-interest, but does have a business relationship with Seoul Semiconductor Co. Ltd. *Id.*

Technologies LLC and Ledvance LLC are challenging claims 1–3, 6, 7, 9, 10, 16–21, 25, 26, and 29 of the ’678 patent. On March 5, 2025, we instituted trial in IPR2024-01357. ’1357 IPR, Paper 17.

B. THE ’678 PATENT

The ’678 patent relates to light-emitting diode (LED) devices that use photoluminescent materials to generate a desired color of light—generally white. Ex. 1001, 1:24–26. A problem with these systems, the ’678 patent explains, is that the devices do not look white when the diode is in the OFF state. *See id.* at 1:64–2:10. The ’678 patent proposes to solve this problem by modifying the wavelength-conversion component—the component that includes the luminescent material—to include a “a light diffusing layer comprising particles of a light diffractive material” such as TiO₂. *See id.* at 2:55–3:14.

C. CHALLENGED CLAIMS AND GROUNDS

Petitioners request that we institute *inter partes* review on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1	103	Basin-2007, ² Basin-2005 ³
11–14	103	Basin-2007, Basin-2005, Stokes ⁴

² US Patent Publ’n No. 2009/0057699 A1 (pub. Mar. 5, 2009) (Ex. 1005).

³ US Patent Publ’n No. 2007/0045761 A1 (pub. Mar. 1, 2007) (Ex. 1006).

⁴ US Patent No. 6,791,259 B1 (issued Sept. 14, 2004) (Ex. 1008).

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1, 11–14	103	Krummacher, ⁵ Shimizu, ⁶ Stokes

Pet. 20. In support, Petitioner submits a declaration by William A. Doolittle, Ph.D. Ex. 1022 (“Doolittle Decl.”).

D. ILLUSTRATIVE CLAIMS

Independent claim 1 and its dependent claim 11, reproduced below, are illustrative:

1. A wavelength conversion component for a light emitting device comprising:
 - a wavelength conversion layer comprising particles of at least one photoluminescence material; and
 - a light diffusing layer comprising particles of a light scattering material,wherein the light diffusing layer improves an off-state white appearance of the wavelength conversion component;
wherein the wavelength conversion component is configured such that in operation a portion of excitation light comprising blue light having a wavelength of greater than or equal to 440 nm generated by the light emitting device is emitted through the wavelength conversion component to contribute to a final visible emission product.
11. The component of claim 1, wherein the light scattering material has an average particle size that is selected such that the light scattering material will scatter the excitation light relatively more than the light scattering material will

⁵ US Patent Publ’n No. 2008/0079015 A1 (pub. Apr. 3, 2008) (Ex. 1007).

⁶ US Patent No. 6,069,440 (issued May 30, 2000) (Ex. 1010).

scatter light generated by the at least one photoluminescence material.

Ex. 1001, 26:9–24, 28:56–61.

III. DISCRETIONARY DENIAL

On April 24, 2025, Patent Owner filed a request with the Acting Director of the USPTO seeking discretionary denial of the Petition. Paper 13. Petitioner filed an opposition (Paper 14) and, with authorization, Patent Owner filed a reply (Paper 15).

On June 12, 2025, the Acting Director issued a decision denying the request and referring the Petition to the Board “to handle the case in the normal course, including by issuing a decision on institution addressing the merits and other nondiscretionary considerations, as appropriate.” Paper 16, 3.

The Acting Director further instructed the Board, “[a]bsent extraordinary circumstances, the Board shall consolidate this proceeding with IPR2024-01357.” *Id.*

IV. DECISION ON INSTITUTION

Petitioner states that “[t]his petition challenges the previously unchallenged claims 11 and 12, which have been newly asserted against Savant in district court, and the related claims 13 and 14.” Pet. 1 (footnote omitted). Petitioner explains further that the Petition “also challenges independent claim 1, from which all those claims ultimately depend.” *Id.* Petitioner further represents that “[r]elevant sections of this petition, particularly the introduction and the challenges to independent claim 1, are

verbatim copies of the corresponding sections of the petition in IPR2024-01357.” *Id.* at 1–2.

In our Institution Decision in IPR2024-01357, we analyzed claim 1 of the ’678 patent in light of Basin-2007 and Basin-2005. ’1357 IPR, Paper 17, 23–28. We concluded, after reviewing the arguments presented there, that “Petitioner has demonstrated a reasonable likelihood of proving that the combined teachings of Basin-2005 and Basin-2007 render claim 1 unpatentable as obvious.” *Id.* at 28. In this proceeding, Petitioner has presented a challenge to claim 1 based on those same references that it represents is a “verbatim” copy of its previous challenge to claim 1 in the ’1357 IPR. Pet. 1–2, 28–35. Petitioner supports its challenge with expert testimony. Ex. 1002 ¶¶ 107–125.⁷ Patent Owner has not submitted a response on the merits of this challenge.

For the purposes of this Decision, and for the reasons given in the Petition, we adopt the analysis in our Institution Decision in the ’1357 IPR (at pp. 23–28), where we determined that Petitioner has demonstrated a reasonable likelihood of prevailing on its obviousness challenge to claim 1 based on Basin-2005 and Basin-2007.

Turning now to Petitioner’s challenge to claim 11, Petitioner relies on Basin-2007 and Stokes for the particle size limitations added to claim 1 by that dependent claim. Pet. 35–39. Thus, Petitioner asserts that “Basin-2007 discloses a light scattering material with an average TiO₂ particle size that is ‘sub-micron’ (less than 1000 nm).” *Id.* at 37 (citing Ex. 1005 ¶ 5).

⁷ Exhibit 1002 appears to be a duplicate copy of Dr. Doolittle’s declaration from the ’1357 IPR.

Petitioner concludes, “Basin-2007 renders obvious claim 11 by literally disclosing the selection of average particle sizes that preferentially scatter blue light.” *Id.* Further, “to the extent that the claim language ‘an average particle size that is selected such that [it preferentially scatters blue light]’ requires an average particle size selected for that reason (rather than an average particle size that leads to that outcome), this claim element is rendered obvious by Stokes.” *Id.* at 38 (citing Doolittle Decl. ¶ 45) (alterations in original). Petitioner explains that “Stokes explicitly discloses the selection of an average particle size ‘such that the particles preferentially scatter blue . . . LED light as compared to yellow . . . light from the luminescent material.’” *Id.* at 38 (citing Ex. 1008, 7:1–4) (alterations in original).

Petitioner provides a motivation for combining Stokes with Basin-2007 with a reasonable expectation of success. Pet. 38–39. Petitioner explains that “[t]o the extent that claim 11 is understood to also claim the basis for selecting a particular average particle size, a [person of ordinary skill] would have had reason to use such a basis for selecting average particle size as taught by Stokes.” *Id.* at 38 (citing Doolittle Decl. ¶¶ 46–48). Further, “a [person of ordinary skill] would have been motivated to apply this principle to Basin-2007, because it would increase the conversion of blue light to yellow light and improve the uniformity of the light source.” *Id.* at 39 (citing Doolittle Decl. ¶ 48).

At this stage, Patent Owner does not provide an opposition to Petitioner’s evidence or arguments on the merits. For the reasons given by Petitioner, including those summarized above, we determine that Petitioner

has demonstrated a reasonable likelihood of prevailing on this challenge to claim 11 based on Basin-2005, Basin-2007, and Stokes.

In view of the foregoing, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its challenge to at least one claim of the '678 patent. We therefore institute *inter partes* review of all challenges in the Petition. *See* 35 U.S.C. § 314(a).

V. CONSOLIDATION

The Board has discretion to consolidate multiple proceedings before the Office. *See* 37 C.F.R. 42.122(a): “Where another matter involving the patent is before the Office, the Board may during the pendency of the inter partes review enter any appropriate order regarding the additional matter including providing for the . . . consolidation . . . of any such matter.”

As noted *supra*, the Acting Director of the USPTO has instructed the Board, “[a]bsent extraordinary circumstances, the Board shall consolidate this proceeding with IPR2024-01357.” Paper 16, 3. Due to the similarity of the parties, counsel, subject matter, and asserted prior art between IPR2024-01357 and this proceeding, and in view of the Acting Director’s guidance, we exercise our discretion to consolidate this proceeding with IPR2024-01357. *See* 37 C.F.R. § 42.122(a).

VI. ORDER

It is ORDERED that the Petition is *granted*, and pursuant to 35 U.S.C. § 314(a), *inter partes* review of claims 1 and 11–14 of the '678 patent is instituted with respect to all grounds in the Petition;

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the claims 1 and 11–14 of the

'678 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial;

FURTHER ORDERED that pursuant to 37 C.F.R. § 42.122(a) and the Acting Director's guidance, this proceeding is consolidated for trial with IPR2024-01357;

FURTHER ORDERED that counsel for the parties are directed to meet and confer regarding any changes they deem necessary to accommodate the additional claims in the consolidated proceedings;

FURTHER ORDERED that the Scheduling Order entered in IPR2024-01357 shall govern the consolidated proceedings unless modified by the Board;

FURTHER ORDERED that a copy of this Decision will be entered in IPR2024-01357, and all further filings in the consolidated proceedings shall be made in IPR2024-01357; and

FURTHER ORDERED that the case caption in the attached example shall be used for filings in the consolidated proceedings.

Example Case Caption for Consolidated Proceedings

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