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**Datasheet for the decision
of 30 May 2017**

Case Number: T 1995/15 - 3.2.03

Application Number: 07854897.1

Publication Number: 2095018

IPC: F21V5/00, F21Y101/02

Language of the proceedings: EN

Title of invention:
LIGHTING DEVICE AND LIGHTING METHOD

Applicant:
Cree, Inc.

Headword:

Relevant legal provisions:
EPC Art. 54

Keyword:
Novelty - implicit disclosure (yes)

Decisions cited:

Catchword:



Beschwerdekammern
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Case Number: T 1995/15 - 3.2.03

D E C I S I O N
of Technical Board of Appeal 3.2.03
of 30 May 2017

Appellant: Cree, Inc.
(Applicant) 4600 Silicon Drive
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Representative: Dummett Copp LLP
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 6 May 2015
refusing European patent application No.
07854897.1 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman G. Ashley
Members: B. Miller
M.-B. Tardo-Dino

Summary of Facts and Submissions

- I. The appellant (applicant) appealed the decision of the examining division to refuse European patent application No.07854897.1.
- II. The decision of the examining division was based on the finding that the application had been amended such that it contained subject-matter extending beyond the content of the application as filed, contrary to the requirement of Article 123(2) EPC. Further, the basis for the amendments in the application as filed had not been indicated, contrary to the requirement of Rule 137(4) EPC. Moreover, the examining division decided that the subject-matter of the main request and of the auxiliary request did not meet the requirements of Articles 84 and 54 EPC.
- III. The appellant requested that the decision be set aside and a patent be granted on the basis of the sets of claims of the main request or auxiliary requests 1 to 3, all filed with the letter of 25 April 2017.
- IV. Requests

(a) Main request

Claim 1 reads as follows:

"A lighting device, comprising:
at least a first solid state lighting device; and
at least a first patterned diffuser comprising a plurality of optical features,
(1) said first solid state lighting device positioned relative to said first patterned diffuser,

and (2) the first patterned diffuser configured, such that if said first solid state lighting device is illuminated so that said first solid state lighting device emits light, (a) at least some of said light emitted by said first solid state lighting device enters said first patterned diffuser and exits said first patterned diffuser, in an exit pattern such that a projected pattern of the emitted light would be produced on a structure having a flat surface positioned in the path of the emitted light and substantially perpendicular to the path of at least a portion of the emitted light, and (b) regardless of an entrance pattern of the light that enters said first patterned diffuser, at least 50% of said light entering said first patterned diffuser exits said first patterned diffuser within said exit pattern."

(b) First auxiliary request

Claim 1 of the first auxiliary request corresponds to claim 1 of the main request whereby the following feature has been added:

"said projected pattern is one of a substantially square shape, a substantially rectangular shape and a substantially hexagonal shape".

(c) Second auxiliary request

Claim 1 of the second auxiliary request corresponds to claim 1 of the main request whereby the various features have been rearranged to read:

"A lighting device, comprising:
at least a first solid state lighting device; and
at least a first patterned diffuser,

said first solid state lighting device positioned relative to said first patterned diffuser such that if said first solid state lighting device is illuminated so that said first solid state lighting device emits light, at least some of said light emitted by said first solid state lighting device enters said first patterned diffuser and exits said first patterned diffuser, said patterned diffuser comprising a plurality of optical features such that at least 50% of said light which enters the patterned diffuser exits the patterned diffuser within a pattern such that a projected pattern of the emitted light would be produced, regardless of the pattern of the light which enters the patterned diffuser, on a structure having a flat surface positioned in the path of the emitted light and substantially perpendicular to the path of at least a portion of the emitted light.

(d) Third auxiliary request

Claim 1 of the third auxiliary request corresponds to claim 1 of the second auxiliary request whereby the following feature has been added:

"...wherein said projected pattern is one of a substantially square shape, a substantially rectangular shape and a substantially hexagonal shape".

- V. In a communication accompanying a summons to oral proceedings, the Board set out its preliminary opinion concerning the appeal, and informed the appellant that inter alia the subject-matter of the claim 1 of each request on file seemed to lack novelty.

In this context the Board referred to the following prior art documents which it introduced into the proceedings of its own motion

D5: "LED Luminaire with Controlled Light Distribution", presentation retrieved from the Internet
http://www.rpcphotonics.com/pdfs/ RPC_Luminaire_Presentation.pdf
presented on 17 August 2006 at the SPIE Conference slides 1 to 18

D6: Technical Program of the SPIE Optics & Photonics Conference, retrieved from the Internet
<https://spie.org/Documents/ConferencesExhibitions/op06-Final.pdf>,
pages 1 and 196.

- VI. With a letter dated 25 April 2017 the appellant informed the Board that it would neither attend nor be represented at the oral proceedings.
- VII. Oral proceedings took place on 30 May 2017 in the absence of the appellant.
- VIII. The appellant's arguments concerning novelty with respect to D5 may be summarised as follows.

D5 did not disclose a lightening device wherein at least 50% of light entering the patterned diffuser exited the patterned diffuser within the pattern, regardless of the entrance pattern of the light. This feature was also not implicitly disclosed in D5, since not any diffuser would be suitable for generating a light pattern wherein at least 50% of light entering the diffuser exited the diffuser within the pattern.

Reasons for the Decision

1. Main Request

1.1 Novelty (Article 54 EPC)

1.1.1 D5 is a print out of the slides which were presented at the SPIE 2006 Annual Conference in San Diego (see page 1 of D5) on 17 August 2006 as evidenced by D6 (pages 1 and 196).

The public availability of D5 before the priority date of the present application was not disputed by the appellant.

1.1.2 D5 discloses on slides 9 to 11, 14, 16 and 18 a lighting device with a green LED from Osram (i.e. a solid state lighting device) which is used with engineered diffusers to provide a rectangular, square or annulus light pattern.

D5 therefore proposes a lightening device having the same lightening element (LED) with the same type of diffuser (engineered diffuser) for achieving the same pattern (rectangular, square) as required by claim 1 and as described in the present application (see claims 2 and 3; page 4, lines 11 and 12; page 9, lines 12 to 16).

1.1.3 The appellant argues that D5 does not explicitly specify that the lightening device comprises a diffuser wherein at least 50% of light entering the diffuser exits in a specific pattern regardless of an entrance pattern, and not every diffuser has this effect.

1.1.4 However, it is an established principle, that the disclosure of a prior art document is not limited to the explicit disclosure only but includes everything that the skilled person would inherently understand when reading the document (see Chapter I.C.4.3 of the Case Law of the Boards of Appeal, 2016, 8th edition).

The Board considers that the engineered diffuser described in D5 would not substantially absorb light, since this would reduce the brightness and efficiency of the lighting element, contrary to the aim explicitly stated in D5 (slides 2 and 18).

Therefore it is considered an inherent property of an engineered diffuser that at least 50% of light entering the diffuser exits in the exit pattern.

Furthermore, it is not apparent that the feature "regardless of an entrance pattern" is a distinguishing feature, when considering that the engineered diffuser of D5 is used together with a collimator, leading to a uniform entrance pattern (see slide 7), and in combination with a fixed, single LED lightening source which provides constantly the same light pattern.

Therefore the lightening element defined in claim 1 cannot be distinguished from the specific lighting element shown in D5.

1.1.5 When relying on an unusual parameter ("at least 50% of light entering the diffuser exits in an exit pattern regardless of an entrance pattern"), the onus is on the appellant to establish novelty over the lightening device of D5 for which, unless otherwise evidenced, there is no reason to doubt that it implicitly fulfils this parameter (see cases cited in the Case Law of the

Boards of Appeal, 8th edition, 2016, Chapter I.C. 5.2.3).

Neither in the application nor in the written submissions by the appellant has it been explained, why an engineered diffuser, such as described in D5, could be one which does not have the effect that at least 50% of light entering the diffuser exits in the exit pattern regardless of an entrance pattern.

On the contrary, the application as filed on page 4, lines 2 to 3 states that engineered diffusers in general "include optical features such that a substantial portion, e.g., at least 50 %" of the light entering the diffuser exits in an exit pattern regardless of an entrance pattern.

Therefore the application itself makes it clear that any engineered diffuser implicitly fulfils the requirements concerning the amount of light exiting the diffuser defined in claim 1.

1.2 Hence the Board concludes that the subject-matter of claim 1 lacks novelty in view of D5.

2. Auxiliary Request 1

2.1 Novelty (Article 54 EPC)

Claim 1 of auxiliary request 1 corresponds to claim 1 of the main request whereby the exit pattern to be produced has been further defined as being a substantially square shape, a substantially rectangular shape and a substantially hexagonal shape.

The pattern generated by the lightening device of D5 is the same as that defined in claim 1. D5 discloses on slides 10, 15, 16 and 18 a lightening device with engineered diffusers providing a rectangular, square or annulus light pattern.

- 2.2 The Board therefore concludes that the subject-matter of claim 1 of auxiliary request 1 lacks novelty in view of D5 for the same reasons as claim 1 of the main request.

3. Auxiliary Requests 2 and 3

3.1 Novelty (Article 54 EPC)

Claim 1 of auxiliary request 2 corresponds to claim 1 of the main request, wherein the wording of the claim has been rephrased. Claim 1 of auxiliary request 3 is based on claim 1 of auxiliary request 2 and further defines the exit pattern.

The appellant argues that the subject-matter of auxiliary requests 2 and 3 is novel for the same reasons as claim 1 of the main request (see point 23 of the letter dated 25 April 2017). The Board considers that the amendments to claim 1, as contained in auxiliary request 2, do not change the above arguments regarding novelty, and as stated in point 2.1 above, the exit pattern is known from D5.

- 3.2 The Board therefore concludes that the subject-matter of claims 1 of auxiliary requests 2 and 3 lack novelty in view of D5 for the same reasons given for claim 1 of the main request.

4. In summary the Board comes to the conclusion that none of the requests submitted by the appellant fulfils the requirements of Article 54 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



C. Spira

G. Ashley

Decision electronically authenticated