Patent Right	Date	April 25, 2024	Court	Intellectual Property High Court, First Division
	Case number	2022 (Gyo-Ke) 10057 (Case 1) 2022 (Gyo-Ke) 10054 (Case 2)		
- A case in which the court rescinded a part of the decision rendered by the Japan Patent Office (JPO) in a trial for patent invalidation relating to an invention titled "Lamp and lighting device," holding that a part of the differences between the present invention and the primary prior art found by the JPO cannot be regarded as a difference, and it can be said that the JPO's decision, which denied the ease in conceiving of the present invention by relying on such difference, contained an error that affects the conclusion in its determination of an inventive step				

Case type: Rescission of Trial Decision to Maintain
Result: Partially granted for Case 1 (partial rescission of the JPO's decision)
References: Article 29, paragraph (2) of the Patent Act
Related rights, etc.: Invalidation Trial No. 2018-800036, Patent No. 5658831

Summary of the Judgment

1. On December 5, 2014, Y (the Defendant in Case 1; the Plaintiff in Case 2) obtained registration of establishment of a patent right (Patent No. 5658831; the number of claims: 17; the Patent) for an invention titled "Lamp and lighting device" for which the international filing date is March 5, 2013 (the priority date is April 25, 2012; the Priority Date).

X (the Plaintiff in Case 1; the Defendant in Case 2) filed a request for a trial for patent invalidation (Invalidation Trial No. 2018- 800036) with regard to the Patent on April 6, 2018. On December 16, 2019, Y filed a request for correction to correct the claims of the Patent, and on July 30, 2021, Y amended the written request for correction (the amended request for correction is referred to as the "Correction"). The contents of the Correction were to delete Claims 9 through 13 and to add Claims 18 through 23. Based on the Correction, X amended the grounds for invalidation and added some evidence and applicable legal provisions. On May 10, 2022, the JPO accepted the Correction, and rendered the following trial decision (the JPO Decision): "The patent for the inventions relating to Claims 3, 5, 7, 17, 20, 22, and 23 of the Patent shall be invalidated. The request for a trial regarding the inventions relating to Claims 1, 2, 4, 6, 8, 14, 16, 18, 19, and 21 of the Patent is groundless."

On June 10, 2022, Y filed a lawsuit of the present case (Case 2) seeking rescission of the part of the JPO Decision which determined the patent for the inventions relating to Claims 3, 5, 7, 17, 20, 22, and 23 of the Patent to be invalid, and on June 16, 2022, X filed a lawsuit of the present case (Case 1) seeking rescission of the part of the JPO Decision which determined the request for a trial regarding the inventions relating to Claims 1, 2, 4 , 14, 16, 18, 19, and 21 of the Patent to be groundless.

2. In the present case, the following grounds for rescission were asserted in Case 1: Ground for Rescission 1 (the non-permission of amendment of grounds for invalidation being given beyond the bounds of the JPO's discretionary power or through an abuse of that power);Ground for Rescission 2 (violation of the support requirement and violation of the enablement requirement); Ground for Rescission 3 (an error in the determination of an inventive step regarding the invention of Claim 4 relying on Object of Observation Ko 2 as the primary prior art); and Ground for Rescission 4 (an error in the determination of an inventive step regarding the inventions of Claims 1, 2, and 16 relying on Object of Observation Ko 4 as the primary prior art). In addition, the following grounds for rescission were asserted in Case 2: Ground for Rescission 1 (an error in the finding of the invention being publicly known to be worked); Ground for Rescission 2 (an error in the determination of an inventive step regarding the inventions of Claims 3, 5, 7, 22, and 23 relying on Object of Observation Ko 4 as the primary prior art); Ground for Rescission 3 (an error in the determination of an inventive step regarding the invention of Claim 17 relying on Object of Observation Ko 4 as the primary prior art); and Ground for Rescission 4 (an error in the determination of novelty and an inventive step regarding the invention of Claim 20 relying on Object of Observation Ko 7 as the primary prior art). In this judgment, the court partially rescinded the JPO's Decision regarding Ground for Rescission 3 in Case 1 by determining as summarized below, and determined that the other grounds for rescission asserted by X and the grounds for rescission asserted by Y are all groundless.

(1) Regarding Ground for Rescission 3 in Case 1

In the JPO Decision, the JPO found that Constituent Feature 1-4H of Invention 4 is "construed to mean that the first wall and the second wall themselves restrict the movement of the substrate in the shorter side direction." However, given that, in Invention 4, Constituent Feature 1-4H is construed to specify an aspect in which the movement of the substrate in the shorter side direction is limited by a pair of walls, and that it is sufficient for the pair of walls to be involved in limiting the movement of the substrate in the shorter side direction, the abovementioned finding of the JPO is erroneous.

In Object of Observation Ko 2 Invention, it is found that "said base has a pair of the first protrusion and the second protrusion, with a clip fitted between said first protrusion and said second protrusion, and said clip does not move in the shorter side direction," as has been found by the JPO Decision, and the first protrusion and the second protrusion are configured to have grooves through which a transparent resin clip, which straddles the LEDs and restricts the movement of the LED substrate in the vertical and horizontal directions, is inserted. In light of these, in Object of Observation Ko 2, the movement of the LED substrate in the horizontal direction cannot be restricted without (the grooves of) the first protrusion and the second protrusion, and therefore the movement of the LED substrate of Object of Observation Ko 2 in the shorter side direction (the horizontal direction) is found to be restricted by the first protrusion and the second protrusion through the clip. Thus, it can be said that the configuration relating to a pair of the first protrusion and the second protrusion of Object of Observation Ko 2 Invention fulfills Constituent Feature 1-4H of Invention 4; hence, the JPO Decision which found this to be Difference 4 is erroneous.

Y argues that the JPO Decision is justified in its understanding of the matters specifying the invention in Invention 4, which was interpreted by specifically taking into consideration the statements in paragraph [0055], etc. of the present description. However, in making determinations for finding the gist of the invention, it is not permissible to limit the interpretation of the matters specifying the invention to an embodiment, and also in the embodiment, it can be said that a pair of walls are restricting the movement of the substrate in the shorter side direction through the reflective member 70. Therefore, the abovementioned argument of Y cannot be accepted.
(2) Thus, it can be said that the JPO Decision, which found Difference 4 and denied the ease in conceiving of Invention 4 by relying on Difference 4, contained an error that affects the conclusion in its determination of an inventive step.

Judgment rendered on April 25, 2024
2022 (Gyo-Ke) 10057　Case of seeking rescission of the JPO decision (Case 1)
2022 (Gyo-Ke) 10054　Case of seeking rescission of the JPO decision (Case 2)
Date of conclusion of oral argument: November 1, 2023

Judgment

Plaintiff in Case 1 and defendant in Case 2:
ENDO Lighting Corporation
(hereinafter referred to as the "Plaintiff")

Defendant in Case 1 and plaintiff in Case 2:
Panasonic Intellectual Property Management Co., Ltd.
(hereinafter referred to as the "Defendant")

Main text

1. Of the decision rendered by the Japan Patent Office (JPO) on the case of Invalidation Trial No. 2018-800036 on May 10, 2022, the parts relating to Claim 4 of Patent No. 5658831 shall be rescinded.
2. All of the Plaintiff's other claims shall be dismissed.
3. The court costs in Case 1 and Case 2 are divided into five parts, of which, two shall be borne by the Plaintiff and the rest shall be borne by the Defendant.

Facts and reasons

No. 1 Claims

1. The Plaintiff's claim (Case 1)

Of the decision rendered by the JPO on the case of Invalidation Trial No. 2018-800036 on May 10, 2022, the parts relating to Claims 1, 2, 4, 14, 16, 18, 19, and 21 of Patent No. 5658831 shall be rescinded.

2. The Defendant's claim (Case 2)

Of the decision rendered by the JPO on the case of Invalidation Trial No. 2018-800036 on May 10, 2022, the parts relating to Claims 3, 5, 7, 17, 20, 22, and 23 of Patent No. 5658831 shall be rescinded.

No. 2 Outline of the case

Case 1 is a case in which the Plaintiff, which is the petitioner of a request for a trial for patent invalidation, seeks partial rescission of the part of the trial decision rendered for that request which stated that the request for the trial is groundless. Case 2 is a case

in which the Defendant, which is a patentee, seeks rescission of the part of that trial decision which stated that the patent is invalid. The issues are whether the JPO's non-allowance of amendment to grounds for invalidation goes beyond the bounds of the JPO's discretionary power or constitutes an abuse of that power, and whether there is an error in the JPO's determination on findings regarding the support requirement, enablement requirement, novelty, and an inventive step.

1. Background of the proceedings at the JPO, etc.

(1) The Defendant is the patentee of a patent relating to an invention titled "Lamp and lighting device" (Patent No. 5658831; the number of claims: 17; hereinafter referred to as the "Patent"). (Exhibits Ko 87 and 88)

The international filing date of the Patent is March 5, 2013 (the priority date is April 25, 2012 (hereinafter referred to as the "Priority Date"); the priority country is Japan), and the establishment of the Patent was registered on December 5, 2014. The description, claims, and drawings attached to the written application at the time of the filing are as stated in Attachment 1 (the patent gazette of the Patent; Exhibit Ko 87) (however, the claims are those at the time of the registration of establishment of the Patent; hereinafter these description and drawings are collectively referred to as the "Description," and these claims at the time of the registration of establishment of the Patent are referred to as the "claims at the time of registration"; in addition, hereinafter square brackets are used when citing paragraph numbers and drawing numbers from the detailed explanation of the invention in the Description).

(2) The Plaintiff filed a request for a trial for patent invalidation (Invalidation Trial No. 2018- 800036) with regard to the Patent for Claims 1 through 8, 14, 16, and 17 on April 6, 2018 (Exhibit Ko 88).

On December 16, 2019, the Defendant filed a request for correction to correct the claims of the Patent, and on July 30, 2021, the Defendant amended the written request for correction (hereinafter the amended request for correction is referred to as the "Correction"; the Correction contains no correction of the Description; Exhibits Otsu 26-1, 26-2, 28-6, and 28-7). The contents of the Correction were to delete Claims 9 through 13 and to add Claims 18 through 23.

Based on the Correction, the Plaintiff amended the grounds for invalidation and added some evidence and applicable legal provisions.

On May 10, 2022, the JPO accepted the Correction, and rendered the following trial decision (hereinafter referred to as the "JPO Decision"), while not allowing a part of the amendment of grounds for invalidation: "The patent for the inventions relating to Claims 3, 5, 7, 17, 20, 22, and 23 of the Patent shall be invalidated. The request for a

trial regarding the inventions relating to Claims 1, 2, 4, 6, 8, 14, 16, 18, 19, and 21 of the Patent is groundless." A certified copy of the JPO Decision was served on the Plaintiff and the Defendant on May 20, 2022.

(3) On June 10, 2022, the Defendant filed a lawsuit of the present case seeking rescission of the part of the JPO Decision relating to Claims 3, 5, 7, 17, 20, 22, and 23 of the Patent, and on June 16, 2022, the Plaintiff filed a lawsuit of the present case seeking rescission of the part of the JPO Decision relating to Claims 1, 2, 4 , 14, 16, 18, 19, and 21 of the Patent.

2. Statements of the claims after the Correction

(1) The statements of the respective claims (Claims 1 through 8, 14, and 16 through 23) after the Correction are as follows (hereinafter the inventions relating to the respective claims are referred to as "Invention 1," "Invention 2," and the like according to the claim numbers, and these inventions are collectively referred to as the "Inventions"; Exhibit Ko 87 and Exhibits Otsu 26-1, 26-2, 28-6, and 28-7).

[Claim 1]

A lamp comprising

an elongated housing having a light diffusion part,

multiple LED chips arranged inside said housing along its elongated direction,

an insulating reflective sheet which reflects the lights from said multiple LED chips,

an elongated substrate arranged inside said housing,

multiple containers mounted on said substrate, and

a base made of metal which holds said substrate,

which is a lamp

wherein each of said multiple LED chips is mounted in each of said multiple containers, said base has said elongated bottom part, the first wall provided at one end of said bottom part in the shorter side direction, and the second wall provided at the other end of said bottom part in the shorter side direction,

said first wall and said second wall are formed in a partition shape on said substrate side of said bottom part, and

if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),

the relationship of $1.09x \leq y \leq 1.49x$ is satisfied.

[Claim 2]

The lamp stated in Claim 1,

wherein, further, $y \geq 1.21x$.

[Claim 3]

A lamp comprising

an elongated housing having a light diffusion part,

multiple LED chips arranged inside said housing along its elongated direction, and

an insulating reflective sheet which reflects the lights from said multiple LED chips,

which is a lamp

wherein if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),

the relationship of $1.21x \leq y \leq 1.49x$ is satisfied.

[Claim 4]

A lamp comprising

an elongated housing having a light diffusion part,

multiple LED chips arranged inside said housing along its elongated direction,

an elongated substrate arranged inside said housing,

multiple containers mounted on said substrate, and

a base made of metal which has a pair of the first wall and the second wall and which holds said substrate,

which is a lamp

wherein each of said multiple LED chips is mounted in each of said multiple containers,

said substrate is arranged on said base in a state where the movement of said substrate in the shorter side direction is restricted by said first wall and said second wall, and

if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),

the relationship of $y > 1.49x$ is satisfied.

[Claim 5]

A lamp comprising

an elongated housing having a light diffusion part,

multiple LED chips arranged inside said housing along its elongated direction, and

an insulating reflective sheet which reflects the lights from said multiple LED chips,

which is a lamp

wherein if the half-width of luminance distribution, which is obtained when the lights

of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.21x \leq y \leq 1.49x$ and the relationship of $x \geq 8$ are satisfied.
[Claim 6]
A lamp comprising
an elongated housing having a light diffusion part and
multiple LED chips arranged inside said housing along its elongated direction,
which is a lamp
wherein if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $y \geq 1.21x$ is satisfied, and
further, $x < 8$.
[Claim 7]
The lamp stated in Claim 3,
wherein, further, $x \geq 8$.
[Claim 8]
A lamp comprising
an elongated housing having a light diffusion part and
multiple LED chips arranged inside said housing along its elongated direction,
which is a lamp
wherein if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.21x \leq y \leq 1.49x$ is satisfied, and
further, $x < 8$.
[Claim 14]
A lamp comprising
an elongated housing having a light diffusion part,
multiple LED chips arranged inside said housing along its elongated direction,
an insulating reflective sheet which reflects the lights from said multiple LED chips,
an elongated base arranged inside said housing, and
multiple containers mounted on said base,

which is a lamp
wherein each of said multiple LED chips is mounted in each of said multiple containers, and
if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.09x \leq y \leq 1.49x$ is satisfied.

[Claim 16]

A lamp comprising
an elongated housing having a light diffusion part,
multiple LED chips arranged inside said housing along its elongated direction,
an elongated base arranged inside said housing,
multiple containers mounted on said base, and
a base made of metal which holds said substrate,
which is a lamp
wherein each of said multiple LED chips is mounted in each of said multiple containers, said base has said elongated bottom part, the first wall provided at one end of said bottom part in the shorter side direction, and the second wall provided at the other end of said bottom part in the shorter side direction,
said first wall and said second wall are formed in a partition shape on said substrate side of said bottom part, and
if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.09x \leq y \leq 1.49x$ is satisfied, and
said housing is a straight tube made of polycarbonate.

[Claim 17]

A lighting device comprising a lamp,
which is a lighting device
wherein said lamp comprises
an elongated housing having a light diffusion part,
multiple LED chips arranged inside said housing along its elongated direction, and
a cap that receives AC power from a commercial power supply or DC power from an LED lighting power supply as power for lighting said LED chips, and

wherein, if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.09x \leq y \leq 1.49x$ is satisfied.
[Claim 18]
A lighting device comprising a lamp,
which is a lighting device
wherein said lamp comprises
an elongated housing having a light diffusion part,
multiple LED chips arranged inside said housing along its elongated direction,
an elongated base arranged inside said housing,
multiple containers mounted on said base, and
a pair of caps provided at one end and the other end of said housing in the longitudinal direction,
wherein the power for lighting said LED chips is received only from one of said pair of caps,
each of said multiple LED chips is mounted in each of said multiple containers, and
if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.09x \leq y \leq 1.49x$ is satisfied.
[Claim 19]
A lighting device comprising a lamp,
which is a lighting device
wherein said lamp comprises
an elongated housing having a light diffusion part,
multiple LED chips arranged inside said housing along its elongated direction,
an elongated base arranged inside said housing,
multiple containers mounted on said base, and
a base made of metal which has a pair of the first wall and the second wall and which holds said substrate,
wherein each of said multiple LED chips is mounted in each of said multiple containers,
said substrate is arranged on said base in a state where the movement of said substrate in the shorter side direction is restricted by said first wall and said second wall,

said housing is a straight tube made of polycarbonate, and
if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.09x \leq y \leq 1.49x$ is satisfied.
[Claim 20]
A lamp comprising
an elongated housing having a light diffusion part,
multiple LED chips arranged inside said housing along its elongated direction,
an elongated base arranged inside said housing, and
multiple containers mounted on said base,
which is a lamp
wherein each of said multiple LED chips is mounted in each of said multiple containers,
said housing is a straight tube made of polycarbonate, and
if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.09x \leq y \leq 1.21x$ is satisfied.
[Claim 21]
The lamp stated in any one of Claims 2 and 6 through 12 further comprising
an elongated substrate arranged inside said housing and
multiple containers mounted on said substrate,
wherein each of said multiple LED chips is mounted in each of said multiple containers.
[Claim 22]
The lamp stated in any one of Claims 2 and 6 through 13
wherein said housing is a straight tube made of polycarbonate.
[Claim 23]
A lighting device
comprising the lamp stated in any one of Claims 2, 6 through 13, and 15.
(2) Inventions 1, 4, 17, 18, and 20 can be divided into constituent features as follows. The underlined parts are parts corrected by the Correction.
A. Invention 1
1-1G A lamp comprising
1-1A an elongated housing having a light diffusion part,

1-1B multiple LED chips arranged inside said housing along its elongated direction,
1-1C an insulating reflective sheet which reflects the lights from said multiple LED chips,
1-1D an elongated substrate arranged inside said housing,
1-1E multiple containers mounted on said substrate, and
1-1F a base made of metal which holds said substrate,
1-1L which is a lamp
1-1H wherein each of said multiple LED chips is mounted in each of said multiple containers,
1-1I said base has said elongated bottom part, the first wall provided at one end of said bottom part in the shorter side direction, and the second wall provided at the other end of said bottom part in the shorter side direction,
1-1J said first wall and said second wall are formed in a partition shape on said substrate side of said bottom part, and
1-1K if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm), the relationship of $1.09x \leq y \leq 1.49x$ is satisfied.
B. Invention 4
1-4F A lamp comprising
1-4A an elongated housing having a light diffusion part,
1-4B multiple LED chips arranged inside said housing along its elongated direction,
1-4C an elongated substrate arranged inside said housing,
1-4D multiple containers mounted on said substrate, and
1-4E a base made of metal which has a pair of the first wall and the second wall and which holds said substrate,
1-4J which is a lamp
1-4G wherein each of said multiple LED chips is mounted in each of said multiple containers,
1-4H said substrate is arranged on said base in a state where the movement of said substrate in the shorter side direction is restricted by said first wall and said second wall, and
1-4I if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),

the relationship of y > 1.49x is satisfied.

C. Invention 17

1-17A A lighting device comprising a lamp,

1-17G which is a lighting device

1-17B wherein said lamp comprises

1-17C an elongated housing having a light diffusion part,

1-17D multiple LED chips arranged inside said housing along its elongated direction, and

1-17E a cap that receives AC power from a commercial power supply or DC power from an LED lighting power supply as power for lighting said LED chips, and

1-17F wherein, if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm), the relationship of $1.09x \leq y \leq 1.49x$ is satisfied.

D. Invention 18

1-18A A lighting device comprising a lamp,

1-18K which is a lighting device

1-18B wherein said lamp comprises

1-18C an elongated housing having a light diffusion part,

1-18D multiple LED chips arranged inside said housing along its elongated direction,

1-18E an elongated base arranged inside said housing,

1-18F multiple containers mounted on said base, and

1-18G a pair of caps provided at one end and the other end of said housing in the longitudinal direction,

1-18H wherein the power for lighting said LED chips is received only from one of said pair of caps,

1-18I each of said multiple LED chips is mounted in each of said multiple containers, and

1-18J if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm), the relationship of $1.09x \leq y \leq 1.49x$ is satisfied.

E. Invention 20

1-20D A lamp comprising

1-20A an elongated housing having a light diffusion part,

1-20B multiple LED chips arranged inside said housing along its elongated direction,

1-20C an elongated base arranged inside said housing, and

1-20D multiple containers mounted on said base,

1-20H which is a lamp

1-20E wherein each of said multiple LED chips is mounted in each of said multiple containers,

1-20F said housing is a straight tube made of polycarbonate, and

1-20G if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm), the relationship of $1.09x \leq y \leq 1.21x$ is satisfied.

3. Summary of the reasons for the JPO Decision

(1) Grounds for invalidation (In the JPO Decision, symbol "E" represents the support requirement, "F" represents the enablement requirement, "6" represents an inventive step, "7" represents novelty, "A" represents the use of Object of Observation Ko 2 as the primary cited document, "B" represents the use of Object of Observation Ko 4 as the primary cited document, and "C" represents the use of Object of Observation Ko 7 as the primary cited document, and the number following a hyphen "-" represents the target claim number. The same expressions are used here.)

The reasons for the JPO Decision are as stated in Attachment 2 "Written Trial Decision (Copy)." In summary, the JPO approved the Correction and, from among the following grounds for invalidation, the JPO found that the Plaintiff's claim is well-grounded with regard to Claims 3, 5, 7, 17, 20, 22, and 23 due to lack of an inventive step (including lack of novelty with regard to Claim 20) and rendered a trial decision to invalidate the patent for these claims, but found that the Plaintiff's claim is groundless with regard to Claims 1, 2, 4, 6, 8, 14, 16, 18, 19, and 21 and rendered a trial decision to maintain the patent for these claims: Grounds for Invalidation E-1 through E-8, E-14, and E-16 through E-23 (the support requirement); Grounds for Invalidation F-1 through F-8, F-14, and F-16 through F-23 (the enablement requirement); Ground for Invalidation 6A-4 (lack of an inventive step based on use of the invention relating to Object of Observation Ko 2 as the primary prior art and application of a technical matter described in Exhibit Ko 69 or a technical matter described in Exhibit Ko 70); Grounds for Invalidation 6B-1 through 6B-3, 6B-5, 6B-7, 6B-16, 6B-17, 6B-22, and 6B-23 (lack of an inventive step based on use of the invention relating to Object of Observation Ko 4 as the primary prior art and application of, for example, commonly used art described in Object of Observation Ko 2 or well-known art described in Exhibit Ko 74, a technical matter described in Exhibit Ko 69, a technical matter described in Exhibit Ko 70, or

well-known or commonly used art described in Object of Observation Ko 5, Exhibit Ko 72, and Exhibit Ko 73); Ground for Invalidation 6C-20 (lack of an inventive step based on use of the invention relating to Object of Observation Ko 7 as the primary prior art and application of a technical matter described in Exhibit Ko 71 or a technical matter described in Exhibit Ko 73); and Ground for Invalidation 7C-20 (lack of novelty based on use of the invention relating to Object of Observation Ko 7 as the primary prior art).

(2) JPO's findings regarding Object of Observations Ko 2, 4, and 7

Object of Observations Ko 2, 4, and 7 cited in the JPO Decision are as follows.

Object of Observation Ko 2: A product manufactured by the Plaintiff, "RAD-402W" (hereinafter sometimes referred to as "Product 402W"; the invention worked in Object of Observation Ko 2 is referred to as "Object of Observation Ko 2 Invention")
(Lot number: "HUM120331")

Object of Observation Ko 4: A product manufactured by Ricoh Company, Ltd. (hereinafter referred to as "Ricoh"), "CLARTEPI40N/23" (hereinafter Object of Observation Ko 4 is sometimes referred to as "Ricoh Product A"; the invention worked in Object of Observation Ko 4 is referred to as "Object of Observation Ko 4 Invention")
(Lot number: "11081726992607717-1")

Object of Observation Ko 7: A product manufactured by Ricoh, "CLARTEPG40N/23A" (hereinafter Object of Observation Ko 7 is sometimes referred to as "Ricoh Product B"; the invention worked in Object of Observation Ko 7 is referred to as "Object of Observation Ko 7 Invention")
(Lot number: "12031531992311143")

[Object of Observation Ko 2 Invention]

"An LED lamp that has a light diffusing elongated resin-made cover member and an elongated base to which said cover member is attached,

which is an LED lamp

wherein said base is made of metal and has a flat plate member along its longitudinal direction on the cover member side and an outer shell member with a semi-circular cross section integrally formed on the flat plate member, and

has an elongated LED substrate placed on the cover member side surface of said flat plate member via an insulating thermal tape,

multiple LEDs are arranged on said LED substrate,

said LED is composed of a container, an LED chip mounted in the container, and translucent resin filled in the container, and

has a light-reflective sheet with an insulating property which reflects the lights from a plurality of said LED chips,

said base has a pair of the first protrusion and the second protrusion, with a clip fitted between said first protrusion and said second protrusion, and
said clip does not move in the shorter side direction, and
has a cap that receives AC power from a commercial power supply,
with regard to luminance uniformity,
the left-end measurement of an image of a metal scale is 3.5 (mm), its right-end measurement is 300.2 (mm), and its horizontal pixel count is 1280,
the four maximum values extracted from the luminance CSV data are 25388, 24816, 24051, and 24322 (cd/m^2), and the four minimum values extracted are 24386, 23533, 23272, and 23286 (cd/m^2),
with regard to the interval between the light emission centers of LED chips,
in a state where 33 LEDs are arranged, the starting point of the metal scale is 0.4 (mm) and its end point is 295.0 (mm), and
with regard to the half-width,
the maximum luminance of a single LED is 10353 (cd/m^2), and
the starting point of the pixel position of the horizontal line indicating the luminance of 5177 (cd/m^2), which is half the maximum luminance, is 651, and the end point is 719 (however, each of these points is the position of the closest pixel to the left of the point where the horizontal line and the line of the graph intersect in "the case where no CSV data plot exists on the horizontal line" as stated in "12)" on page 8 of the written amendment dated February 22, 2019 (instruction and explanation document))."
[Object of Observation Ko 4 Invention]
"An LED lamp that has a light diffusing elongated resin-made cover member and an elongated base to which said cover member is attached,
which is an LED lamp
wherein said base is made of metal and has a flat plate member along its longitudinal direction on the cover member side and an outer shell member with a semi-circular cross section integrally formed on the flat plate member, and
has an elongated LED substrate placed on the cover member side surface of said flat plate member via an insulating thermal tape,
multiple LEDs are arranged on said LED substrate,
said LED is composed of a container, an LED chip mounted in the container, and translucent resin filled in the container, and
has a coating film that reflects the lights from a plurality of said LED chips, where said coating film has a reflective member and the outermost surface of the coating film has an insulating property,

said base has no walls on both ends of the flat plate member in the shorter side direction and has a cap that receives high-frequency power from an electronic ballast for fluorescent lamp inverters,
with regard to luminance uniformity,
the left-end measurement of an image of a metal scale is 2.2 (mm), its right-end measurement is 299.4 (mm), and its horizontal pixel count is 1280,
the four maximum values extracted from the luminance CSV data are 38178, 38054, 37980, and 38193 (cd/m^2), and the four minimum values extracted are 35302, 35080, 35233, and 35396 (cd/m^2),
with regard to the interval between the light emission centers of LED chips,
in a state where 35 LEDs are arranged, the starting point of the metal scale is 1.2 (mm) and its end point is 293.5 (mm), and
with regard to the half-width,
the maximum luminance of a single LED is 21545 (cd/m^2), and
the starting point of the pixel position of the horizontal line indicating the luminance of 10773 (cd/m^2), which is half the maximum luminance, is 583, and the end point is 628 (however, each of these points is the position of the closest pixel to the left of the point where the horizontal line and the line of the graph intersect in "the case where no CSV data plot exists on the horizontal line" as stated in "12)" on page 8 of the written amendment dated February 22, 2019 (instruction and explanation document))."
[Object of Observation Ko 7 Invention]
"An LED lamp that has a light diffusing elongated resin-made cover member and an elongated base to which said cover member is attached,
which is an LED lamp
wherein said base has a flat plate member along its longitudinal direction on the cover member side and an outer shell member with a semi-circular cross section (an arch shape) that is integrated to the flat plate member, and
has an elongated LED substrate placed on the cover member side surface of said flat plate member via an insulating thermal tape,
multiple LEDs are arranged on said LED substrate,
said LED is composed of a member of a rectangular shape in plan view, an LED chip mounted in the member of a rectangular shape in plan view, and translucent resin filled in the member of a rectangular shape in plan view, and
has a cap that receives AC power via a ballast for fluorescent lamps,
with regard to luminance uniformity,
the left-end measurement of an image of a metal scale is 4.0 (mm) and its right-end

measurement is 298.5 (mm), with the difference between them being 294.5 mm, and its horizontal pixel count is 1280,
the four maximum values extracted from the luminance CSV data are 17242, 17037, 16796, and 16922 (cd/m^2), and the four minimum values extracted are 15831, 15585, 15565, and 15653 (cd/m^2),
with regard to the interval between the light emission centers of LED chips,
in a state where 34 LEDs are arranged, the starting point of the metal scale is 2.0 (mm) and its end point is 294.5 (mm), and
with regard to the half-width,
the maximum luminance of a single LED is 9304.82 (cd/m^2),
the starting point of the pixel position of the horizontal line indicating the luminance of 4652.41 (cd/m^2), which is half the maximum luminance, is 641 at the closest pixel to the left and 642 at the closest pixel to the right, and the end point is 686 at the closest pixel to the left and 687 at the closest pixel to the right (however, each of these points is the position of the closest pixel to the left or right of the point where the horizontal line and the line of the graph intersect in "the case where no CSV data plot exists on the horizontal line" as stated on page 8 of the instruction and explanation document dated February 3, 2020), and
the luminance value of the starting point is 4644.207 (cd/m^2) at the closest pixel to the left and 4923.187 (cd/m^2) at the closest pixel to the right and the luminance value of the end point is 4708.482 (cd/m^2) at the closest pixel to the left and 4402.15 (cd/m^2) at the closest pixel to the right."

(3) Common features and differences found in the JPO Decision

(In the JPO Decision, the first number in a common feature or difference represents the corresponding claim number, and if there are multiple differences, a serial number is given after a hyphen "-." The same expressions are used here.)

A. Regarding Ground for Invalidation 6A-4

The common features and differences between Invention 4 and Object of Observation Ko 2 Invention as found in the JPO Decision are as follows.

(Common Feature 4)

"A lamp comprising
an elongated housing having a light diffusion part,
multiple LED chips arranged inside said housing along its elongated direction,
an elongated substrate arranged inside said housing,
multiple containers mounted on said substrate, and
a base made of metal which has a pair of the first convex part and the second convex

part and which holds said substrate,
which is a lamp
wherein each of said multiple LED chips is mounted in each of said multiple containers,
said substrate is arranged on said base in a state where the movement of said substrate in the shorter side direction is restricted, and
if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $y > 1.49x$ is satisfied."
(Difference 4)

With regard to the first convex part, the second convex part, and restriction of the movement of the substrate in the shorter side direction, these are the "first wall" and the "second wall" and the movement of the substrate in the shorter side direction is restricted "by said first wall and said second wall" in Invention 4, whereas in Object of Observation Ko 2 Invention, these are the "first protrusion" and the "second protrusion" and the LED substrate is "placed on the cover member side surface of said flat plate member via an insulating thermal tape," where "a clip is fitted between said first protrusion and said second protrusion and said clip does not move in the shorter side direction," in other words, the movement of the substrate in the shorter side direction is restricted by the first protrusion, the second protrusion, and the clip.

B. Regarding Ground for Invalidation 6B-1

The common features and differences between Invention 1 and Object of Observation Ko 4 Invention as found in the JPO Decision are as follows.

(Common Feature 1)
"A lamp comprising
an elongated housing having a light diffusion part,
multiple LED chips arranged inside said housing along its elongated direction,
an insulating reflective element which reflects the lights from said multiple LED chips,
an elongated substrate arranged inside said housing,
multiple containers mounted on said substrate, and
a base made of metal which holds said substrate,
which is a lamp
wherein each of said multiple LED chips is mounted in each of said multiple containers, and
if the half-width of luminance distribution, which is obtained when the lights of said

multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.09x \leq y \leq 1.49x$ is satisfied."
(Difference 1-1)

With regard to the insulating reflective element, such element is an "insulating reflective sheet" in Invention 1, whereas in Object of Observation Ko 4 Invention, it is a "coating film" which "has a reflective member" and of which the "outermost surface" "has an insulating property."
(Difference 1-2)

With regard to the base, "said base has said elongated bottom part, the first wall provided at one end of said bottom part in the shorter side direction, and the second wall provided at the other end of said bottom part in the shorter side direction," and "said first wall and said second wall are formed in a partition shape on said substrate side of said bottom part" in Invention 1, whereas in Object of Observation Ko 4 Invention, "said base has no walls on both ends of the flat plate member in the shorter side direction."

C. Regarding Ground for Invalidation 6B-2

The common features and differences between Invention 2 and Object of Observation Ko 4 Invention as found in the JPO Decision are the same as Common Feature 1 and Differences 1-1 and 1-2 described in B. above.

D. The common features and differences between Invention 3 and Object of Observation Ko 4 Invention as found in the JPO Decision regarding Ground for Invalidation 6B-3 are as follows.
(Common Feature 3)
"A lamp comprising
an elongated housing having a light diffusion part,
multiple LED chips arranged inside said housing along its elongated direction, and
an insulating reflective element which reflects the lights from said multiple LED chips, which is a lamp
wherein if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.09x \leq y \leq 1.49x$ is satisfied."
(Difference 3)

With regard to the insulating reflective element, such element is an "insulating reflective sheet" in Invention 3 (note of the judgment: it is found that "Invention 4" on page 99 of the JPO Decision is an erroneous description which should read "Invention 3"), whereas in Object of Observation Ko 4 Invention, it is a "coating film" which "has a reflective member" and of which "outermost surface" "has an insulating property."

E. Regarding Ground for Invalidation 6B-5

The common features and differences between Invention 5 and Object of Observation Ko 4 Invention as found in the JPO Decision are as follows.

(Common Feature 5)

"A lamp comprising

an elongated housing having a light diffusion part,

multiple LED chips arranged inside said housing along its elongated direction, and

an insulating reflective element which reflects the lights from said multiple LED chips, which is a lamp

wherein if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),

the relationship of $1.09x \leq y \leq 1.49x$ is satisfied."

(Difference 5)

With regard to the insulating reflective element, such element is an "insulating reflective sheet" in Invention 5, whereas in Object of Observation Ko 4 Invention, it is a "coating film" which "has a reflective member" and of which the "outermost surface" "has an insulating property."

F. Regarding Ground for Invalidation 6B-7

The common features and differences between Invention 7 and Object of Observation Ko 4 Invention as found in the JPO Decision are the same as Common Feature 3 and Difference 3 described in D. above.

G. Regarding Ground for Invalidation 6B-16

The common features and differences between Invention 16 and Object of Observation Ko 4 Invention as found in the JPO Decision are as follows.

(Common Feature 16)

"The lamp is

a lamp comprising

an elongated housing having a light diffusion part,

multiple LED chips arranged inside said housing along its elongated direction,

an elongated substrate arranged inside said housing,
multiple containers mounted on said substrate, and
a base made of metal which holds said substrate,
wherein each of said multiple LED chips is mounted in each of said multiple containers, and
if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.09x \leq y \leq 1.49x$ is satisfied."
(Difference 16-1)

With regard to the base, "said base has said elongated bottom part, the first wall provided at one end of said bottom part in the shorter side direction, and the second wall provided at the other end of said bottom part in the shorter side direction," and "said first wall and said second wall are formed in a partition shape on said substrate side of said bottom part" in Invention 16, whereas in Object of Observation Ko 4 Invention, "said base has no walls on both ends of the flat plate member in the shorter side direction."
(Difference 16-2)

With regard to housing, it "is a straight tube made of polycarbonate" in Invention 16, whereas in Object of Observation Ko 4 Invention, there is no such specification.

H. Regarding Ground for Invalidation 6B-17

The common features and differences between Invention 17 and Object of Observation Ko 4 Invention as found in the JPO Decision are as follows.
(Common Feature 17)
"The lamp is
one comprising
an elongated housing having a light diffusion part,
multiple LED chips arranged inside said housing along its elongated direction, and
a cap that receives power for lighting said LED chips,
wherein if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips is set to x (mm),
the relationship of $1.09x \leq y \leq 1.49x$ is satisfied."
(Difference 17-1)

Invention 17 is "a lighting device comprising a lamp," whereas Object of Observation Ko 4 Invention is an "LED lamp."

(Difference 17-2)

With regard to the cap, the cap "receives AC power from a commercial power supply or DC power from an LED lighting power supply" in Invention 17, whereas in Object of Observation Ko 4 Invention, it "receives high-frequency power from an electronic ballast for fluorescent lamp inverters."

I. Regarding Ground for Invalidation 6B-22

The common features and differences between Invention 22 and Object of Observation Ko 4 Invention as found in the JPO Decision are the same as Common Feature 3 and Difference 3 described in D. above and also as follows.

(Difference 22)

With regard to the housing, it "is a straight tube made of polycarbonate" in Invention 22, whereas in Object of Observation Ko 4 Invention, there is no such specification.

J. Regarding Ground for Invalidation 6B-23

The common features and differences between Invention 23 and Object of Observation Ko 4 Invention as found in the JPO Decision are the same as Common Feature 3 and Difference 3 described in D. above and also as follows.

(Difference 23)

Invention 23 is "a lighting device comprising a lamp," whereas in Object of Observation Ko 4 Invention, it is an "LED lamp."

K. Regarding Grounds for Invalidation 6C-20 and 7C-20

The common features and differences between Invention 20 and Object of Observation Ko 7 Invention as found in the JPO Decision are as follows.

(Common Feature 20)

"A lamp comprising

an elongated housing having a light diffusion part,

multiple LED chips arranged inside said housing along its elongated direction,

an elongated base arranged inside said housing, and

multiple LED chip mounting members mounted on said base,

which is a lamp

wherein each of said multiple LED chips is mounted in each of said multiple LED chip mounting members, and

if the half-width of luminance distribution, which is obtained when the lights of said multiple LED chips are transmitted through the outermost part of said lamp, is set to y (mm) and the interval between the light emission centers of said neighboring LED chips

is set to x (mm),
the relationship of $1.09x \leq y \leq 1.21x$ is satisfied."
(Difference 20-1)

With regard to the LED chip mounting member, it is a "container" in Invention 20, whereas in Object of Observation Ko 7 Invention, it is a "member of a rectangular shape in plan view."
(Difference 20-2)

With regard to the housing, it is "a straight tube made of polycarbonate" in Invention 20, whereas in Object of Observation Ko 7 Invention, there is no such specification.

No. 4 Summary of the court decision
1. Regarding Ground for Rescission 1 in Case 1 (whether the JPO's non-allowance of amendment to grounds for invalidation goes beyond the bounds of the JPO's discretionary power or constitutes an abuse of that power)
(1) In the present case, the JPO gave an advance notice of a trial decision on October 10, 2019 (Exhibit Ko 101-2), the Defendant filed a request for correction on December 16, 2019 (Exhibits Otsu 26-1 and 26-2), and the Plaintiff submitted a written refutation on March 19, 2020 (Exhibit Ko 105-2). While the original ground for the request for the trial for invalidation was lack of novelty based on Object of Observation Ko 2 and Object of Observation Ko 4, the Plaintiff added lack of an inventive step based on Object of Observation Ko 2 and Object of Observation Ko 4 as grounds for invalidation according to the Correction, and also additionally argued lack of novelty and an inventive step based on Object of Observation Ko 7.
(2) First, the addition of lack of an inventive step based on Object of Observation Ko 2 and Object of Observation Ko 4 adds new legal basis for grounds for invalidation. Also, the addition of lack of novelty and an inventive step based on Object of Observation Ko 7 adds new grounds for invalidation and adds a new primary cited document, which is Object of Observation Ko 7. Therefore, it can be said that the aforementioned amendment of the grounds for invalidation changes the gist of the written request submitted pursuant to the provisions of Article 131, paragraph (1) of the Patent Act.

It is construed that, according to the provisions of Article 131-2, paragraph (1) of the Patent Act, such amendment that changes the gist of a written request is not allowed, in principle, and that, pursuant to paragraph (2) of that Article, the chief administrative judge may rule to allow an amendment if it does not unreasonably delay the trial proceedings and if a request for correction has made it necessary to amend the grounds for the request (item (i) of that paragraph).

Looking at the present case, the only ground for invalidation which the Plaintiff had argued before the Correction based on Object of Observation Ko 2 (y/x = 1.89) was lack of novelty, and the Plaintiff had not argued lack of an inventive step. However, it was possible to argue lack of an inventive step as a ground for invalidation against the numerical limitation of $y \leq 1.49x$ in Claim 3 before the Correction. Thus, except for the part for which amendment was allowed, the case does not constitute a case where a request for correction has made it necessary to change the grounds for the request.

In addition, with regard to the addition of grounds for invalidation based on Object of Observation Ko 7 (y/x = 1.208), which is new evidence, it cannot be said that the request for correction regarding $y \leq 1.49$ has made it necessary to make an amendment that changes the gist of the grounds for the request, except for the part for which amendment was allowed.

Moreover, also with regard to the addition of lack of an inventive step based on Object of Observation Ko 4 (y/x = 1.23) as a ground for invalidation regarding the claims after the correction to change dependent claims into independent claims, it cannot be said that the request for correction has made it necessary to change the grounds for the request, except for the part for which amendment was allowed.

It follows that the question of whether to allow such amendment that changes the gist of the grounds for the request is subject to the discretionary power of the chief administrative judge, and it cannot be said that not allowing amendment in the present case goes beyond the bounds or constitutes an abuse of the discretionary power.

(3) According to the above, the Plaintiff's argument of Ground for Rescission 1 is groundless.

2. Regarding the Inventions

(1) Regarding the matters stated in the Description

The Description (Exhibit Ko 87) contains the following statements (see Attachment 1 for Figures 6A and 6B and Figures 7A and 7B cited below).

[Detailed explanation of the invention]

[Technical field]

[0001]

The present invention relates to a lamp and a lighting device, for example, a straight tube type light emitting diode (LED) lamp using LEDs and a lighting device comprising the same.

[Background art]

[0002]

LED is expected to be a new light source in various conventionally known lamps,

such as fluorescent lamps and incandescent lamps, because of its high efficiency and long life, and research and development of lamps using LEDs (LED lamps) is being promoted.

[0003]

LED lamps have types including an LED lamp of a straight tube type (straight tube type LED lamp) that replaces a straight tube type fluorescent lamp having electrode coils at both ends, and an LED lamp of a bulb type (bulb type LED lamp) that replaces a bulb type fluorescent lamp comprising an arc tube having electrode coils at both ends of a glass bulb or an incandescent bulb using a filament coil. For example, Patent Document 1 discloses a conventional straight tube type LED lamp. Patent Document 2 discloses a conventional bulb type LED lamp.

[0004]

In the LED lamp, the LEDs are configured as an LED module. The LED module includes a surface mount type (SMD: Surface Mount Device), a COB type (Chip On Board), and the like. The SMD type LED module uses a package type LED element in which an LED chip mounted in a resin-molded non-translucent container (cavity) is sealed with a phosphor-containing resin. It can be manufactured by mounting multiple such LED elements on a substrate. On the other hand, a COB type LED module can be manufactured by directly mounting multiple LED chips (bare chips) on a substrate and sealing them with a phosphor-containing resin.

[Prior art documents]

[Patent documents]

[0005]

[Patent Document 1] Unexamined Patent Application Publication No. 2009-043447 Gazette

[Patent Document 2] Unexamined Patent Application Publication No. 2009-037995 Gazette

[Outline of the invention]

[Problem to be solved by the invention]

[0006]

In the LED lamp, the LED module is contained in a housing. The LED module has multiple LEDs (LED elements and bare chips) arranged at regular intervals. In this case, the area with high light emission luminance (the part where LEDs are mounted) and the area with low light emission luminance (the part where LEDs are not mounted) appear repeatedly along the LED alignment direction, which causes a difference in the luminance of the light from the LED lamp (illumination light). In particular, when the

light source is LEDs, the aforementioned luminance difference is increased because the LEDs have the characteristics of having a Lambertian light distribution and a relatively narrow emission angle. As described above, the conventional LED lamp has a problem in that a luminance difference is generated in the light of the LEDs transmitted through the housing, which gives the user a sense of light graininess (hereinafter referred to as "graininess").

[0007]

In particular, in a straight tube type LED lamp, since an elongated straight tube is used as a housing, the user tends to feel more graininess. Further, when an SMD type LED module is used, multiple LED elements having a configuration in which an LED chip is mounted in a non-translucent container and light to the side is blocked are arranged. Therefore, the aforementioned luminance difference becomes very large between the part where the LED elements are arranged and the part where the LED elements are not arranged, and the user feels even more graininess.

[0008]

The present invention was made in order to solve such a problem, and it aims at providing a lamp and a lighting device which can suppress the graininess to a level that cannot be felt by the user.

[Means for solving the problem]

[0009]

In order to solve the aforementioned problem, an aspect of the lamp according to the present invention comprises an elongated housing having a light diffusion part and multiple light-emitting elements arranged inside the aforementioned housing along its elongated direction, characterized in that if the half-width of luminance distribution, which is obtained when the lights of the aforementioned multiple light-emitting elements are transmitted through the outermost part of the lamp, is set to y (mm) and the interval between the light emission centers of the neighboring light-emitting elements is set to x (mm), the relationship of $y \geq 1.09x$ is satisfied.

[Effect of the invention]

[0021]

According to the present invention, it is possible to realize a lamp and a lighting device that can suppress the graininess to a level that cannot be felt by the user.

[Mode for carrying out the invention]

[0023]

(Background to the present invention)

As described above, an LED lamp using an elongated housing has a problem that

graininess is felt. To solve this problem, it is self-evident that if the light diffusion of the lamp is increased, the graininess will be eliminated. However, simply increasing the diffusion causes a reduction in luminous flux as a side effect, resulting in a decrease in lamp illuminance.

[0024]

Therefore, it is important to suppress the graininess while minimizing the reduction in luminous flux, but no technical solution to such a problem has been found so far. The reasons are as follows: (1) the definition of graininess is ambiguous and not quantified, and it was very difficult to feed back this problem in the lamp design; and (2) concerning the lamp structure that affects the graininess, the interval between the light source elements, the material of the housing (tube), the distance from the light source element to the housing, and other elements are varied. In other words, in the past, while there are very many parameters that may affect the graininess, it was extremely difficult to reduce the luminous flux to the minimum necessary and to suppress the graininess.

[0025]

Therefore, as a result of diligent study, the inventors of the present application successfully found a uniform area where the reduction in luminous flux is minimized and the graininess can be reduced effectively, and quantified that area. That is, knowledge could be obtained that, in the present invention, the graininess can be quantified in relation to the luminance uniformity by adopting the luminance distribution of one light source emitted from the outermost part of the lamp as a parameter. The present invention has been accomplished in this way, and thereby, the problems (1) and (2) have been solved.

[0053]

[Base]

Each of the first base 50 and the second base 54 is made of metal, functions as a heat sink that dissipates heat generated in the LED module 10, and also functions as a base for placing and fixing the LED module 10.

[0054]

The first base 50 is a member that constitutes the outer part of the heat sink, and is configured in an elongated shape having substantially the same length as the entire length of the housing 20, as shown in Figure 2. The first base 50 can be formed, for example, by bending a metal plate such as a galvanized steel plate.

[0055]

The first base 50 comprises an elongated bottom part (bottom plate part) and the first wall 51 and the second wall 52 formed on both ends of the first base 50 in the

shorter side direction (the width direction of the substrate 11) at the bottom part. The first wall 51 and the second wall 52 are formed in a partition shape by bending a metal plate constituting the first base 50. As shown in Figure 3B, the substrate 11 of the LED module 10 is sandwiched between the first wall 51 and the second wall 52, and the LED module 10 is arranged on the first base 50 in a state where the movement of the substrate 11 in the shorter side direction is restricted by the first wall 51 and the second wall 52.
[0080]

As shown in Figure 6A, the luminance distribution of the transmitted light when the light from one LED passes through the diffusion member is a normal distribution that continuously spreads in all directions around the maximum luminance (about 15,000 cd/m^2). The position showing the maximum luminance is the light emission center of the LED. The example in Figure 6A shows the results when measurement is performed with the luminance measurement device (RISA manufactured by HiLand) 130 cm away from the diffusion member, which is the measurement object, and the horizontal axis width of the measurement screen is adjusted to 30 cm.
[0083]

Furthermore, as a result of repeated experiments, the present inventors discovered that there is a correlation among the half-width in the luminance distribution of one LED (Figure 6A), the interval between the light emission centers of the neighboring LEDs when multiple LEDs are arranged (Figure 6B), and the luminance uniformity. The half-width is FWHM (Full Width at Half Maximum). The interval between the light emission centers is the interval between the center of the luminance distribution (maximum luminance) of each LED in neighboring LEDs.
[0086]

As a result of examination based on the result of Figure 7A, it was found that, if the half-width of the luminance distribution obtained when the light of each of the multiple LEDs is transmitted through the diffusion member is set to y (mm), and the interval between the light emission centers of neighboring LEDs is set to x (mm), the luminance uniformity of the LEDs arranged in a row can be linearly approximated as $y = \alpha x$. Further, it was found that the luminance uniformity can be linearly approximated regardless of whether the material of the diffusion member that diffuses the light of the LED is glass or polycarbonate. In addition, it was found that the luminance uniformity can be linearly approximated regardless of whether the LED module is an SMD type or a COB type. That is, it was found that the luminance uniformity of LEDs arranged in a row can be linearly approximated regardless of the type of diffusion member or LED module.

[0087]

Specifically, as shown in Figure 7B, it was found that the luminance uniformity of 85% can be linearly approximated as y = 1.09x. It was also found that the luminance uniformity of 90% can be linearly approximated as y = 1.21x. Furthermore, it was found that the luminance uniformity of 95% can be linearly approximated as y = 1.49x.

[0088]

In addition, since the correlation coefficient R^2 in each straight line is 0.99 or 1.00, it has been confirmed that the half-width of the luminance distribution y, the interval between the light emission centers of LEDs x, and the luminance uniformity are highly correlated. For practical use of an LED lamp, the interval between the light emission centers x is preferably 3 mm or more and 30 mm or less, and it has been confirmed that there is a high correlation at least in this range.

[0089]

Here, based on the result of Figure 7B, the relationship between the linear inclination α and the luminance uniformity when the luminance uniformity is linearly approximated as y = αx as described above is shown in Figure 7C.

[0090]

The diffusion member in this experiment can be considered to correspond to the outermost part of the straight tube type LED lamp 1 in the present embodiment. Therefore, as shown in Figures 7B and 7C, in the straight tube type LED lamp 1, by configuring the housing 20 and the multiple LEDs 12 arranged along the tube axis direction (longitudinal direction) of the housing 20 so that the relationship of $y \geq 1.09x$ is satisfied, the luminance uniformity of 85% or more can be achieved. As a result, the luminance difference between the high luminance area and the low luminance area that appear in the alignment direction of the multiple LEDs 12 can be suppressed, and it is possible to make the user feel almost no graininess. In the present embodiment, the outermost part of the lamp is the housing 20, but the present invention is not limited to this.

(2) Based on the matters stated in the Description as shown in (1) above, it is found that the detailed explanation of the invention in the Description discloses the following matters regarding the Inventions.

A. Technical field

The Inventions relate to a straight tube type light emitting diode (LED) lamp using LEDs and a lighting device comprising the same ([0001]).

B. Problem to be solved by the invention

In the LED lamp, the LED module is contained in a housing, and the LED module

has multiple LEDs (LED elements and bare chips) arranged at regular intervals. Conventionally, there has been a problem that the area with high light emission luminance (the part where LEDs are mounted) and the area with low light emission luminance (the part where LEDs are not mounted) appear repeatedly along the LED alignment direction, which causes a difference in the luminance of the light of the LEDs transmitted through the housing, and that this gives the user a sense of light graininess particularly in the case of a straight tube type LED ([0006] and [0007]).

To solve this problem, it is self-evident that if the light diffusion of the lamp is increased, the graininess will be eliminated, but this causes a reduction in luminous flux as a side effect, resulting in a decrease in lamp illuminance. Therefore, it is important to suppress the graininess while minimizing the reduction in luminous flux. In the past, however, because (1) the definition of graininess is ambiguous and not quantified, and it was very difficult to feed back this problem in the lamp design, and (2) concerning the lamp structure that affects the graininess, the interval between the light source elements, the material of the housing (tube), the distance from the light source element to the housing, and other elements are varied, in other words, there are very many parameters that may affect the graininess, so it was extremely difficult to reduce the luminous flux to the minimum necessary and to suppress the graininess ([0023] and [0024]).

C. Means for solving the problem

The Inventions were made as a result of obtaining knowledge that the graininess can be quantified in relation to the luminance uniformity by adopting the luminance distribution of one light source emitted from the outermost part of the lamp (diffusion member) as a parameter; specifically, knowledge obtained from the results of [Figure 7A] that there is a correlation among the half-width in the luminance distribution of one LED (Figure 6A) (mm), the interval between the light emission centers of the neighboring LEDs (Figure 6B) x (mm), and the luminance uniformity of the LEDs arranged in a row, and that the luminance uniformity can be linearly approximated as $y = \alpha x$ (the luminance uniformity of 85% can be linearly approximated as $y = 1.09x$, that of 90% as $y = 1.21x$, and that of 95% as $y = 1.49x$) regardless of whether the material of the diffusion member is glass or polycarbonate ([0025], [0083], [0086], [0087], and [0090]). The subject matter of the Inventions is a lamp comprising an elongated housing having a light diffusion part and multiple light-emitting elements arranged inside the aforementioned housing along its elongated direction, wherein if the half-width of luminance distribution, which is obtained when the lights of the aforementioned multiple light-emitting elements are transmitted through the outermost part of the lamp,

is set to y (mm) and the interval between the light emission centers of the neighboring light-emitting elements is set to x (mm), the relationship of $y \geq 1.09x$ is satisfied ([0009], Claim 1 at the time of registration, etc.).

D. Effect of the invention

According to the present invention, it is possible to realize a lamp and a lighting device that can suppress the graininess to a level that cannot be felt by the user ([0021]).

E. Gist of the Inventions

(A) Regarding the linear approximation formula

In the Description, the half-width in the luminance distribution of one LED y (mm) (Figure 6A) and the interval between the light emission centers of the neighboring LEDs x (mm) (Figure 6B) were actually measured for the cases where the targeted luminance uniformity of 85%, 90%, and 95% can be achieved, and based on the results (Figure 7A), linear approximations were performed with $y = \alpha x$ (regression formulae were obtained) (hereinafter referred to as the "Parameter") ([0086] through [0089]). It can be said that obtaining a linear approximation formula (regression formula) from two sets of measurement data in this manner is a well-known technical matter (Exhibit Otsu 33).

(B) Gist of the Parameter

The Inventions are inventions related to a "lamp" or "lighting device," and inventions of a "product." In the Inventions that are inventions of a "product," the range of possible values of α in the Parameter, which consists of the approximation formula $y = \alpha x$, is specified.

Then, when finding the gist of the inventions in determining novelty or an inventive step, it is reasonable to construe that they include all products for which (the measurement results of) the y value and the x value are within the range of α in the relationship of $y = \alpha x$ as specified by the respective claims, and that the specific numerical value of the y value or the x value and how the y value or the x value is set are irrelevant.

Meanwhile, the Defendant argues that if a focus is placed on the y/x value for obtaining the desired luminance uniformity, it can be verified simply without requiring trial and error (for example, Exhibit Otsu 33), thus stating as if an invention of a product is defined by a manufacturing method of a product. However, even if an invention is defined by a manufacturing method of a product, there is no need to construe the invention of a product as being limited to the manufacturing method, and it is reasonable to construe that the same product with a different manufacturing method is included in the patented invention in question.

(C) Meaning of the linear approximation formula and the accuracy of the luminance

uniformity

The Parameter is a statistically estimated approximation formula, and it is common general technical knowledge that a numerical value derived from such formula is a predicted value, that the difference between the predicted value and the actual measurement data is called a "residual," and that the nearer the determination coefficient (the "correlation coefficient" in the present case) is to 1, the higher the accuracy of analysis (the accuracy of the predicted value). In this regard, [0088] of the Description indicates that "the correlation coefficient R^2 for each straight line is 0.99 or 1.00."

However, as an approximation formula is only statistically estimated, even if the highly correlated Parameter (approximation formula) is satisfied, the target luminance uniformity cannot be strictly achieved.

For example, even if a lamp has a y value and an x value that satisfy y=1.09x, the values expected to achieve a luminance uniformity of 85%, the actual luminance uniformity may be below or above 85%. In this way, an approximation formula is designed to produce a certain amount of slight difference due to its statistical nature.

As described above, the Parameter merely means that, even if the specified y/x value is satisfied, a value close to the target value of luminance uniformity can be achieved (achieved value may be below or above the target value).

More specifically, according to Description ([0087]), it is roughly expected that a luminance uniformity of approximately 85% to 90% is obtained in the numerical range of $1.09 \leq y/x \leq 1.21$, a luminance uniformity of approximately 90% to 95% is obtained in the numerical range of $1.21 \leq y/x \leq 1.49$, and a luminance uniformity of approximately 95% is obtained in the numerical range of $1.49 \leq y/x$.

The target value of each luminance uniformity does not have critical significance, such as optical effects related to "graininess" drastically changing below and above the target value. It is understood to be sufficient if the target luminance uniformity is roughly expected to be obtained by using the Parameter.

F. Finding of the gist of "*tsuitatejō* (a partition shape)" in Inventions 1, 2, and 16 (determination on Ground for Rescission 4 in Case 1)

When the ordinary meanings of the terms stated in the claims after the Correction are checked, "*tsuitate* (a partition)" is "an abbreviation of *tsuitate sōji* (a partitioning screen)," and a "*tsuitate sōji*" is "one type of *heishōgu* (a room divider or screen); single *fusuma shōji* (a wooden lattice frame covered with paper or cloth) or *ita shōji* (a board covered with paper or cloth) with a base attached to make it easy to move it" (the dictionary *Kōjien* 6th edition). There is also the following explanation: "a piece of

furniture that is placed at the entrance hall or inside a room and used to block the view, which also serves as a decoration; it is made so that the surface is upright and a base is attached to the bottom, allowing it to be moved, and in the old days it was called a *tsuitate sōji*" (the encyclopedia *My Pedia*).

In light of the above, "*tsuitate*" generally means a screen or furniture that stands upright from a base, and given that "*jō* (shape or state)" means "[i] appearance or state" (*Kōjien* 6th edition), "*tsuitatejō* (a partition shape)" is construed to mean the "appearance or state" of a "single *shōji* screen" or the "appearance or state of standing upright from a base."

In addition, considering the statement of Constituent Feature 1-1J, "*tsuitatejō* (a partition shape)" specifies the "appearance or state" of the "first wall" and the "second wall," and, according to Constituent Feature 1-1I, the "first wall" and the "second wall" are provided at one end and the other end of the bottom part of the base in the shorter side direction.

Considering the meaning of "*tsuitatejō* (a partition shape)" and the object to be specified by this term in this way, it can be construed from the statement of claims after the Correction that "*tsuitatejō* (a partition shape)" specifies the appearance or state where the "first wall" and the "second wall," which are provided at one end and the other end of the bottom part of the base in the shorter side direction, stand upright from the bottom part of the base.

On the other hand, even if the sites that are considered to correspond to the first wall and the second wall have parts that extend from the bottom part of the base to the substrate side in a shape that can be regarded to be almost upright, if there are also parts integral thereto that are formed in parallel to the bottom part of the base at almost the same height as the substrate, and they are formed in a shape that should be expressed as a "U shape" or "T shape" as a whole, those sites are regarded to be in a mode other than standing upright from the bottom part of the base, and it cannot be said that those sites are formed in a shape with an appearance or state of standing upright from the bottom part of the base.

Meanwhile, even if the statements in [0053] through [0055] and [Figure 3B] of the Description, which are the basis for correction of Correction 1 ("the first wall and the second wall" and that these are "formed in a partition shape") in the Correction (Exhibits Otsu 26-1 and 26-2), are examined in order to construe the meaning of the term "*tsuitatejō* (a partition shape)" stated in the claims after the Correction, no statements or definitions are found to suggest that "*tsuitatejō* (a partition shape)" in the claims after the Correction has a meaning that differs from the ordinary meaning. Rather, there is a

consistency between construing "*tsuitatejō* (a partition shape)" in the ordinary meaning as described above and the fact that the "first wall" and the "second wall" are shown as walls standing upright in [Figure 3B]. If the inclination angle and the appearance of the "first wall" or the "second wall" were irrelevant, there would be no need to include the specification "*tsuitatejō* (a partition shape)." For example, although Constituent Features 1-4E and 1-4H of Claim 4 corrected by the Correction have the specifications the "first wall" and the "second wall," they do not have the specification "*tsuitatejō* (a partition shape)." Comparison with such claim also suggests that the specification "*tsuitatejō* (a partition shape)" excludes the "first wall" and the "second wall" that are in a mode other than standing upright in the vertical direction.

In this respect, although the JPO has not clearly indicated the interpretation of "*tsuitatejō* (a partition shape)" in the JPO Decision, it made the following determination regarding Ground for Invalidation 6B-1 (Claim 1) which relied on Object of Observation Ko 4 as the primary evidence: "Object of Observation Ko 5 ... but they cannot be regarded to be in '*tsuitatejō* (a partition shape)' if they are in a shape of rising upward diagonally"; and "Exhibit Ko 73 Technique ... even setting aside that 'a pair of parts providing grooves 16 rising up from the flat strip 28' correspond to a part of the 'housing,' these parts cannot be considered to be in '*tsuitatejō* (a partition shape)' either." In light of these determinations, the JPO is found to have adopted the same interpretation as that mentioned above in the JPO Decision. Accordingly, it cannot be said that there is an error in the determination in the JPO Decision regarding this point.

G. Finding of the gist of "in a state where the movement of the substrate in the shorter side direction is restricted" in Invention 4 (determination on Ground for Rescission 3 in Case 1)

"*Kisei* (restriction)" is a term meaning "rules, regulations, or to limit something by setting up rules" (*Kōjien* 6th edition), so "*kisei sareta* (is restricted)" can be understood to mean that something is limited.

As Constituent Feature 1-4E specifies that the base has a pair of the first wall and the second wall, and Constituent Feature 1-4H specifies that the substrate is arranged on the base in a state where the movement of the substrate in the shorter side direction is restricted, or in other words, limited, by the pair of the first wall and the second wall, it can be said that a pair of the first wall and the second wall exist in the shorter side direction, and that the substrate is arranged on the base in a state where its movement in the shorter side direction is limited by such pair of walls.

Here, no explanation can be found in the Description to the effect that "*kisei* (restriction)" is being used in a meaning that differs from the ordinary meaning of the

word. Thus, with regard to "*kisei* (restriction)" in the aforementioned constituent feature, it is reasonable to construe that the fact that the movement of the substrate in the shorter side direction is limited by a pair of walls is being specified by Constituent Feature 1-4H, as described above.

On the other hand, there is no particular specification in Constituent Feature 1-4H or any other constituent feature about the specific manner in which the movement of the substrate in the shorter side direction is restricted by the pair of walls. Therefore, it is reasonable to construe that it is sufficient for the pair of walls to be involved in limiting the movement of the substrate in the shorter side direction.

Meanwhile, [0055] and [Figure 3B] of the Description, which relate to the first wall and the second wall, provide an embodiment in which the first wall 51 and the second wall 52 sandwich the substrate 11, with a reflective member 70 interposed between them, and it can be understood that a pair of walls are involved in limiting the movement of the substrate in the shorter side direction.

In this regard, the JPO found and determined in the JPO Decision as follows: "Paragraph [0055] of the patent description of the present case ... [0063] ... [0064] ... When comprehensively taking into account these statements and the statements in [Figure 3B] of the drawings of the present case, the matter that 'said substrate is arranged on said base in a state where the movement of said substrate in the shorter side direction is restricted by said first wall and said second wall' in Invention 4 is construed to mean that the first wall and the second wall themselves restrict the movement of the substrate in the shorter side direction, although the reflective member 70 is interposed between them." However, as mentioned above, it is sufficient for the pair of walls to be involved in limiting the movement of the substrate in the shorter side direction, according to the matters specifying Invention 4. Therefore, the JPO's finding that the relevant matter "is construed to mean that the first wall and the second wall themselves restrict the movement of the substrate in the shorter side direction" is erroneous.

3. Regarding Ground for Rescission 2 in Case 1 (the support requirement, the enablement requirement)

(1) Regarding violation of the support requirement

A. It is reasonable to construe that whether or not the statements of the claims comply with the support requirement should be determined by comparing the statements of the claims with the statements of the detailed explanation of the invention, and examining whether the invention stated in the claims is an invention stated in the detailed explanation of the invention and it is within the scope in which a person ordinarily skilled in the art could recognize that the problem to be solved by the invention could

be solved based on the statements of or suggestions by the detailed explanation of the invention, or within the scope in which a person ordinarily skilled in the art could recognize that the problem to be solved by the invention could be solved in light of the common general technical knowledge at the time of the filing of the application even without such statements or suggestions.

The problem to be solved by the Inventions and the means for solving the problem stated in the Description are as described in 2. (2) above. Here, as described in 2. (2) above, it can be said that, while the Parameter is a linear approximation formula, it is within the scope of common general technical knowledge of a person ordinarily skilled in the art that a numerical value derived from the formula is a predicted value due to the statistical nature of the formula.

In light of such common general technical knowledge, a person ordinarily skilled in the art would have understood the Description to be stating that, if the Parameter satisfies the prescribed relationship, it is roughly expected that a luminance uniformity of approximately 85% to 90% is obtained in the numerical range of $1.09 \leq y/x \leq 1.21$, a luminance uniformity of approximately 90% to 95% is obtained in the numerical range of $1.21 \leq y/x \leq 1.49$, and a luminance uniformity of approximately 95% is obtained in the numerical range of $1.49 \leq y/x$.

In addition, it is also regarded to have been well-known art that if the luminance uniformity exceeds approximately 85%, the graininess will be eliminated ([0001], [0024], and [0074] of Exhibit Ko 10).

It follows that a person ordinarily skilled in the art who reads the Description would recognize, by also taking into account the aforementioned common general technical knowledge, that the problem of the need to suppress the graininess can be solved if the Parameter is $1.09<y/x$.

Meanwhile, when looking at the Parameter in the Inventions specified in the claims after the Correction, it specifies the lower limit or the upper limit of y/x within the range of $1.09<y/x$, and further specifies the scope of the x value (Claims 5 through 8). Therefore, it can be understood that the inventions stated in the claims after the Correction specify a range in which the luminance uniformity becomes approximately 85% or more.

When comparing the statements of the claims after the Correction and the statements of the Description by taking the above into consideration, it can be said that the Inventions stated in those claims are inventions stated in the Description, and that they are within the scope in which a person ordinarily skilled in the art could recognize, based on the statements of the detailed explanation of the invention, that the problem

of the need to suppress the graininess can be solved with all of the numerical ranges specified by those claims. Accordingly, it can be said that the statements of the claims after the Correction satisfy the support requirement under Article 36, paragraph (6), item (i) of the Patent Act.

B. In this regard, the Plaintiff argues, among other matters, that the experiment result [Figure 7A] in the Description shows samples for which the luminance uniformity did not reach 85% at the stage of y = 1.09x (the 10th and 13th samples from the top), and therefore a person ordinarily skilled in the art could not have recognized from the experiment result that the problem to be solved can be solved. However, as mentioned in 2. (2) E. above, a person ordinarily skilled in the art would understand the Inventions by taking into account the common general technical knowledge at the time of the filing of the application that a residual exists between a value derived from a linear approximation formula and the actual measurement data, and also with regard to Sample Numbers 10, 13, etc. indicated by the Plaintiff, a person ordinarily skilled in the art would have been able to understand, by taking into account such common general technical knowledge, that approximately desired luminance uniformity can be obtained and the problem to be solved by the Inventions can be solved. Therefore, the Plaintiff's aforementioned argument is groundless.

Accordingly, the JPO did not err in determining in the JPO Decision that there is no violation of the support requirement.

(2) Regarding the enablement requirement

In the case of a product invention, working of an invention refers to an act of producing, using, etc. that product (Article 2, paragraph (3), item (i) of the Patent Act). Therefore, when determining whether or not a product invention fulfills the enablement requirement, it is reasonable to make the determination based on whether there are statements to the extent that allows a person ordinarily skilled in the art to produce and use that product, without requiring excessive trial and error, based on the statements of the detailed explanation of the invention in the description and the common general technical knowledge at the time of the filing of the application.

As mentioned in 2. (2) E. above, the Parameter is a linear approximation formula, and an approximately desired luminance uniformity can be obtained if the interval between the light emission centers x and the half-width of luminance distribution y are within the rage of the formula of the Parameter.

Here, the need to obtain a straight tube type LED with the graininess eliminated was a technical problem that had been well known before the filing of the present application (Exhibit Ko 1-3, Exhibit Ko 47, and Exhibit Ko 52), and it was common general

technical knowledge that, to solve this problem and eliminate the graininess, the luminance uniformity needs to be approximately 85% or more (Exhibit Ko 10).

Further, it was common general technical knowledge at the time of filing the application for the Patent that, in a straight tube type LED, the graininess is eliminated by selecting the LED elements, deciding the number of LEDs as appropriate according to cost (changing the x value), and then selecting the diffusion cover as appropriate (changing the y value), and also the measurement of the x value and the y value and the calculation of the y/x value ([0080]) are not particularly difficult. In light of these facts, it should be said that a person ordinarily skilled in the art would have been able to select, as appropriate, a combination that could suppress the graininess regarding such matters as the LED elements to be used, the diffusion member, and the distance between the elements and the diffusion member, based on the statements of the Description, etc. and common general technical knowledge, without undergoing excessive trial and error, and could work a lamp with a y value and an x value that fulfill the Parameter relating to the Inventions.

In this regard, the Plaintiff argues that a person ordinarily skilled in the art could not have understood that the desired luminance uniformity, which is the problem to be solved by the invention, can be obtained, without undergoing trial and error, but the Plaintiff's argument cannot be accepted in light of the determination mentioned above.

Accordingly, the JPO did not err in determining in the JPO Decision that there is no violation of the enablement requirement.

4. Ground for Rescission 1 in Case 2 (an error in the finding of being publicly known to be worked)

(1) Whether Object of Observation Ko 2 Invention was publicly known to be worked

A. According to evidence (those indicated in (A) through (C) below) and the entire import of oral arguments, the following facts are found.

(A) The Plaintiff started preparations for manufacturing Product 402W by around February 2012 at the latest, and imported at least 260 sets of Product 402W manufactured in the Republic of Korea on around March 6, 2012, 2497 sets on around April 10, 2012, and 600 sets on around April 13, 2012 (Exhibits Ko 2-6, 2-7, and 2-15, Exhibit Ko 37, and Exhibit Ko 221).

(B) On February 10, 2012, the Plaintiff prepared a written application for sample arrangement (Exhibit Ko 2-3; hereinafter referred to as the "Written Application"), specifying "no-return samples (lighting experiment/disassembly test)" as the "processing method." The Plaintiff followed the internal procedure for delivering a total of 16 units of four types of straight tube type LED lamps, including four units of Product

402W, to Kanaden Techno Engineering Corporation (hereinafter referred to as "Kanaden Techno"), completed the processing by setting April 16, 2012, as the due date for delivery, and delivered these units to Kanaden Techno on April 17, 2012.

While the units of Product 402W delivered to Kanaden Techno were kept in Kanaden Techno's warehouse, the Plaintiff acquired them from Kanaden Techno in around September 2017. These units indicated "HUM120331" as the manufacturing lot number, which can be regarded to mean that the date of manufacture of this product is March 31, 2012.

(Regarding the above facts, the evidence mentioned above and Exhibits Ko 2-1, 2-4, 2-5, 2-8 through 2-10, and 2-13)

(C) The Plaintiff posted Product 402W in its leaflet (published in January 2012; hereinafter referred to as the "Leaflet") as a product planned to be released at the beginning of March 2012 (Exhibit Ko 1-8). In addition, the Plaintiff also posted Product 402W in its catalog (published in February 2012; hereinafter referred to as the "Catalog"), but while the planned time of release is indicated for other posted products, no such information is indicated for Product 402W (Exhibit Ko 1-3).

B. When the facts found above are comprehensively taken into consideration, it is found that the structure of Product 402W became analyzable by around April 17, 2012, the date on which the units of the product were delivered to Kanaden Techno by the Plaintiff at the latest, as a result of being transferred to Kanaden Techno.

C. In response, the Defendant argues that units of Product 402W are not found to have been delivered to Kanaden Techno by the Plaintiff on around April 17, 2012, and even if they were delivered around that time, there was an implicit requirement between the Plaintiff and Kanaden Techno to maintain confidentiality, and it cannot be said that the invention was publicly known to be worked.

However, in light of the appearance of the document, etc., the Written Application seems to have been prepared by the Plaintiff based on an internally standardized format, suggesting that it was prepared as part of routine work. In addition, as the contents and the seals affixed in the "Applicant's seal" section and the "date of completion" section coincide with or are consistent with the contents or seals in the "Written Application for Sample Arrangement" dated April 16, 2012 (Exhibit Ko 2-4) and the "Delivery Sheet" dated April 17, 2012 (Exhibit Ko 2-5), the date of preparation of the Written Application is found to be February 10, 2012, as found above (meanwhile, based on the same reason and the handwritten characters themselves, the date of preparation of the Delivery Sheet is found to be April 17, 2012, instead of September 17, 2012). Further, as the aforementioned "Delivery Sheet" includes an impression of a seal that is identical

to the surname of Kanaden Techno's person in charge (Exhibit Ko 2-13), it can be regarded to support the fact that the units of Product 402W were delivered to Kanaden Techno on April 17, 2012.

Meanwhile, although there is a tick in the "no-return samples (lighting experiment/disassembly test)" section of the "processing method" in the Written Application, Kanaden Techno is a business company that has obtained a construction business license for electrical construction business, etc. (Exhibit Ko 2-2), and also there are no circumstances suggesting that Kanaden Techno was involved in the product development of Product 402W by the Plaintiff in the form of joint research or another form. In addition to these circumstances, given that the contents of the Leaflet and the Catalog suggest that Product 402W was already on sale to the general public in around April 2012, when the units of the product were delivered to Kanaden Techno or at a time extremely close to that date, it is difficult to consider that the delivery of the units of Product 402W to Kanaden Techno was made on a premise of having Kanaden Techno bear an obligation of confidentiality with regard to the configuration, etc. of the product.

Even by taking into consideration other points argued by the Plaintiff, the Plaintiff's argument on this point cannot be accepted.

According to the above, it can be said that Invention 402W is an invention that was publicly known to be worked within Japan prior to the Priority Date.

Accordingly, the JPO did not err in determining in the JPO Decision that "it can be said that the invention specified by the configuration of Object of Observation Ko 2 was publicly known to be worked before April 25, 2012, which is the priority date of the Patent."

(2) Whether Object of Observation Ko 7 Invention was publicly known to be worked

A. According to evidence (those indicated below) and the entire import of oral arguments, the following facts are found.

(A) On July 7, 2011, Ricoh issued a press release to the effect that it planned to release a straight tube type LED lamp "CLARTE P Series Type 40" at the end of that month (Exhibit Ko 4-8). In addition, Ricoh published Ricoh Product B in the catalog "<CLARTE> P Series" (Exhibit Ko 4-6), which posts its products as of January 2012, and the specifications of Ricoh Product B posted in the catalog are almost identical to the specifications of the product introduced in the aforementioned press release. Furthermore, Ricoh was selling the product series including Ricoh Product B by January 2012 at the latest. (Exhibits Ko 4-4 and 4-5 and Exhibit Ko 80)

(B) The Defendant acquired 14 units of Ricoh Product B (Defendant Ricoh's Product B) in an auction that ended on September 12, 2019, and all units of the Defendant

Ricoh's Product B indicated "1203" as the manufacturing lot number. This means that the month and year of manufacture of this product is March 2012. (Exhibits Ko 4-4, 4-9, and 4-10 and Exhibit Ko 55)

B. When the facts found above are comprehensively taken into consideration, it is found that the structure of Ricoh Product B became analyzable by third persons by around January 2012 at the latest as a result of being sold by Ricoh.

C. In response to this, the Defendant argues that the time that Ricoh Product B was placed on the market is unclear, and that if the month and year of manufacture of Defendant Ricoh's Product B were in March 2012, it is difficult to consider that the product would be distributed on the market immediately after its manufacture.

However, as mentioned above, Ricoh is found to have been selling Ricoh Product B by January 2012, and it is rational and reasonable to view that Ricoh Product B was actually distributed on the market as of the Priority Date, which is about three months after that. Therefore, the Defendant's arguments regarding this point cannot be accepted.

In addition, the Defendant indicates circumstances including the variation in the Plaintiff's measurement values and age-related changes, and argues that the Plaintiff's measurement values of Ricoh Product B cannot be regarded to be equal to the initial values of Ricoh Product B.

Regarding this point, the seller in the auction described information including the following as an explanation on Defendant Ricoh's Product B: they are used items; there are "slight scratches or stains" as the condition of the items; the items have been used for nearly two years; the items are carefully packed and sent in a state where "only the tubes are roughly wiped with a neutral detergent" as they were removed by an electrician; and although "the area around the RICOH logo mark" appears to have darkened, LEDs do not darken through use, so it is the original specification (Exhibit Ko 55).

Incidentally, it is indicated that the rated life of Ricoh Product B until its luminous flux decreases to 70% is 40,000 hours (Exhibits Ko 4-2 and 4-6). However, because of this, despite the fact that Ricoh Product B was used for 10,000 hours, which corresponds to 25% of 40,000 hours, as having been used for two years, it cannot necessarily be said that this affects the light distribution characteristics; indeed, the light distribution characteristics of two units of Defendant Ricoh's Product B were both 117 degrees (Exhibit Ko 84). Also with regard to the darkening at the cap pins and the tube end part on the lamp mark side, it cannot be immediately said from their presence that similar darkening also exists at other sites and that this affects the light distribution characteristics. Meanwhile, regarding Ricoh Product B, there is a warning not to rub

the front surface of the product strongly as the photocatalyst film may peel off and the intended effect may not be achieved (Exhibit Ko 4-5), but it cannot be considered that such mode as "roughly wiping with a neutral detergent" is included in this. Furthermore, there is also no significant difference in the half-width, etc. between Ricoh Product A (which is found to be an unused item according to Exhibit Ko 4-3, Exhibits Ko 26-1 and 26-2, and Exhibit Ko 27) and Defendant Ricoh's Product B based on measurement taken after exchanging their cover members (Exhibit Ko 83).

In light of these circumstances, etc., it cannot be considered that changes have occurred to the parameter values of Ricoh Product B due to age-related changes, etc., and therefore, the Plaintiff's measurement values of Ricoh Product B and the measurement values of the product in the inspection procedure in the present invalidation trial are regarded to be approximately equal to the initial values of Ricoh Product B.

Therefore, the Defendant's arguments regarding this point cannot be accepted.

D. Summary

Accordingly, it can be said that Object of Observation Ko 7 Invention is an invention that was publicly known to be worked within Japan prior to the Priority Date.

(3) Whether Object of Observation Ko 4 Invention was publicly known to be worked

A. Ricoh Product A and Ricoh Product B are products of the "CLARTE P Series Type 40" series, and as determined in (2) above, it can be said that Ricoh was selling the product series including Ricoh Product B by January 2012 at the latest (Exhibits Ko 4-2, 4-4, and 4-6), and the date of manufacture that can be identified from the serial number "1108" of Object of Observation Ko 4 is August 2011 (Exhibits Ko 4-7, 4-9, and 4-10). Therefore, Ricoh Product A is also presumed to have been sold as of January 2012, as in the case of Ricoh Product B.

B. The Defendant argues that the date of launch of Ricoh Product A cannot be found due to the following reasons: Ricoh has answered that it "cannot identify" the time of launch and the time of shipment of that product (Exhibit Ko 4-10); the evidence contains no proof of the time when Object of Observation Ko 4 was sold to third persons and was placed in the distribution process; the evidence which the JPO Decision relied on as the basis for the date of launch (Exhibit Ko 4-6) is a part of the statements in a catalog in which Ricoh's many products are posted, and the catalog does not contain clear information that a specific product, Ricoh Product A, was already released for sale in January 2012.

However, catalogs are lists of products or business information in a booklet form which contain matters that serve as determination criteria, such as characteristics,

functions, and prices of products or the like, and on which products that are actually being sold are posted. Therefore, Ricoh Product A, which is posted on a product catalog (Exhibit Ko 4-6), along with its concrete specifications and price, as information as of January 2012, is highly likely to have been sold as of January 2012. In addition, as mentioned in A. above, the date of manufacture that can be identified from the serial number "1108" of Object of Observation Ko 4 is August 2011, and this is consistent with Ricoh's news release (Exhibit Ko 4-8). Considering these facts, it can be presumed that Ricoh Product A was being sold as of January 2012.

Accordingly, the Defendant's aforementioned argument cannot be accepted.

C. In addition, the Defendant argues that the measurement values of Object of Observation Ko 4 do not indicate the measurement values as of the priority date of the Patent, and submitted a written opinion prepared by Specially Appointed Professor Hei (Exhibit Otsu 1).

However, while the major factors that affect the half-width are generally light distribution characteristics of individual LEDs, the distance between the LED elements and the cover member, and the diffusion property of the cover member (Exhibit Ko 84), it cannot be said that the total luminous flux and the efficiency in the measurement results of Ricoh Product A (Exhibit Ko 28) particularly show deterioration as compared to the catalog values and calculation values. In addition, as Object of Observation Ko 4 is understood to be almost an unused item (Exhibit Ko 4-3), it can be said that there have been no change in the characteristics of individual LEDs and there has also been no deterioration in the diffusion property. Thus, the Defendant's argument, which is premised on age-related changes, is groundless. The Defendant also argues about the power consumption of the device of Object of Observation Ko 4, the presence of a significant decrease in luminous efficiency, the unknown storage conditions, etc., and the possibility of a minor change in Ricoh Product A, but none of them can be accepted.

D. Summary

Accordingly, it can be said that Object of Observation Ko 4 Invention is an invention that was publicly known to be worked within Japan prior to the Priority Date.

(4) According to the above, Ground for Rescission 1 in Case 2 is groundless, and therefore, there is no error in the JPO Decision regarding this point.

5. Ground for Rescission 3 in Case 1 (an error in the determination on an inventive step regarding Ground for Invalidation 6A-4)

(1) In the JPO Decision, the JPO found that Constituent Feature 1-4H of Invention 4 is "construed to mean that the first wall and the second wall themselves restrict the movement of the substrate in the shorter side direction." However, as determined with

regard to Invention 4 in 2. (2) G. above, given that, in Invention 4, Constituent Feature 1-4H is construed to specify an aspect in which the movement of the substrate in the shorter side direction is limited by a pair of walls, and that it is sufficient for the pair of walls to be involved in limiting the movement of the substrate in the shorter side direction, the abovementioned finding of the JPO is erroneous.

In Object of Observation Ko 2 Invention, it is found that "said base has a pair of the first protrusion and the second protrusion, with a clip fitted between said first protrusion and said second protrusion, and said clip does not move in the shorter side direction," as has been found by the JPO Decision in No. 2, 3. (2) above, and the first protrusion and the second protrusion are configured to have grooves through which a transparent resin clip, which straddles the LEDs and restricts the movement of the LED substrate in the vertical and horizontal directions, is inserted (Exhibit Ko 62). In light of these, in Object of Observation Ko 2, the movement of the LED substrate in the horizontal direction cannot be restricted without (the grooves of) the first protrusion and the second protrusion, and therefore, the movement of the LED substrate of Object of Observation Ko 2 in the shorter side direction (the horizontal direction) is found to be restricted by the first protrusion and the second protrusion through the clip. Thus, it can be said that the configuration relating to a pair of the first protrusion and the second protrusion of Object of Observation Ko 2 Invention fulfills Constituent Feature 1-4H of Invention 4; hence, the JPO Decision which found this to be Difference 4 is erroneous.

The Defendant argues that the JPO Decision is justified in its understanding of the matters specifying the invention in Invention 4, which was interpreted by specifically taking into consideration the statements in paragraph [0055], etc. of the Description. However, in making determinations for finding the gist of the invention, it is not permissible to limit the interpretation of the matters specifying the invention to an embodiment, and also in the embodiment, it can be said that a pair of walls are restricting the movement of the substrate in the shorter side direction through the reflective member 70. Therefore, the aforementioned argument of the Defendant cannot be accepted

(2) Thus, it can be said that the JPO Decision, which found Difference 4 and denied the ease in conceiving of Invention 4 by relying on Difference 4, contained an error that affects the conclusion in its determination of an inventive step.

6. Ground for Rescission 4 in Case 1 (an error in the determination on lack of an inventive step regarding Grounds for Invalidation 6B-1, 6B-2, and 6B-16)

(1) Between Invention 1 and Object of Observation Ko 4 Invention, there are Common Feature 1, Difference 1-1, and Difference 1-2 as found by the JPO Decision in No. 2, 3.

(3) A. above.

(2) In light of the case, Difference 1-2 (with regard to the base, "said base has said elongated bottom part, the first wall provided at one end of said bottom part in the shorter side direction, and the second wall provided at the other end of said bottom part in the shorter side direction," and "said first wall and said second wall are formed in a partition shape on said substrate side of said bottom part" in Invention 1, whereas in Object of Observation Ko 4 Invention, "said base has no walls on both ends of the flat plate member in the shorter side direction") will be examined.

A. In Object of Observation Ko 4 Invention, "said base has no walls on both ends of the flat plate member in the shorter side direction." In light of the other configurations of Object of Observation Ko 4, such configuration is construed to have been adopted because such walls were not needed in relation to the arrangement of the "LED substrate." Then, it cannot be immediately identified from Object of Observation Ko 4 Invention, which is an invention that was publicly known to be worked, that some kind of inconvenience will be caused by the configuration of Object of Observation Ko 4, and also it cannot be said that there is a motivation to purposefully change the configuration concerning the arrangement of the substrate from the already established Object of Observation Ko 4 Invention.

B. Accordingly, no motivation can be found to change the configuration concerning the arrangement of the substrate in such Object of Observation Ko 4 Invention to make it comprise the first protrusion and the second protrusion. There is no error in the JPO Decision regarding this point.

(3) Regarding "*tsuitatejō* (a partition shape)" in Inventions 1, 2, and 16

A. Regarding the finding of the gist of "*tsuitatejō* (a partition shape)"

As mentioned in 2. (2) F. above, it can be construed that "*tsuitatejō* (a partition shape)" in the Inventions specifies the appearance or state where the "first wall" and the "second wall," which are provided at one end and the other end of the bottom part of the base in the shorter side direction, stand upright from the bottom part of the base, and it cannot be said items formed in a shape that should be expressed as a "U shape" or "T shape" as a whole are formed in a shape with an appearance or state of standing upright from the bottom part of the base.

B. Regarding the ease in conceiving of Difference 1-2 from the secondary cited documents or well-known references

(A) By using Object of Observation Ko 4 as the primary prior art, the ease of conceiving of Difference 1-2 by combining the technical matters of Exhibit Ko 69, Exhibit Ko 70, Object of Observation Ko 5, and Exhibit Ko 73 will be examined.

Exhibit Ko 69 is found to contain a statement of the following technical matter: "in an LED lamp 201 having a cover member 203 with a straight tube shape, an elongated LED substrate 209 is inserted and held in a pair of parallel substrate rails 210 of the substrate body 208."

Exhibit Ko 70 is found to contain a statement of the following technical matter: "in a straight tube type LED lamp 1, on one side (surface) of the base 30, an LED module mounting surface 31 consisting of a planar flat part is formed to mount the LED module 20, and on the front side of the base 30, a locking part 32 is formed to fix one of the long side ends (ends in the width direction) of the elongated plate-shaped mounting substrate 21 (LED mounting substrate) 21 of the LED module 20, where the locking part 32 is configured to lock the side and the surface of the mounting substrate 21, the other long side end of the mounting substrate 21 is fixed by a fixing member 60, and the fixing member 60 comprises a pressing resin member 61 that presses down on the surface of the mounting substrate 21 from above, and a pressing plate 62 consisting of a leaf spring that further presses down on the pressing resin member 61 from above."

Object of Observation Ko 5 is found to contain a statement of the following technical matter: "in the LED lamp, the base has an elongated bottom part, the first side part provided at one end of the bottom part in the shorter side direction, and the second side part provided at the other end of the bottom part in the shorter side direction, where the cross section of the first side part and the second side part is formed in a shape that rises upward diagonally while widening on the substrate side of the bottom part."

Exhibit Ko 73 is found to contain a statement of the following technical matter: "an LED lighting unit 10, wherein a housing 12 includes a long and thin heat sink 14 having two spaced apart longitudinal direction grooves 16, the heat sink 14 has a flat strip 28 that runs in its length direction and a pair of parts providing grooves 16 rising up from the flat strip 28, and the flat strip 28 provides an area for mounting the substrate 20."

When A. above is taken into consideration, even if Exhibit Ko 69, Exhibit Ko 70, Object of Observation Ko 5, and Exhibit Ko 73, which are regarded to be secondary cited documents or well-known references, are examined in regard to Grounds for Invalidation 6B-1, 6B-2, and 6B-16, the walls do not stand upright or they are in a shape that should be expressed as a "U shape" or the like as a whole, so it cannot be said that they are in "*tsuitatejō* (a partition shape)" as specified by Inventions 1, 2, and 16.

Therefore, without having to examine motivation, etc., a person ordinarily skilled in the art would not have conceived of the configurations of the Inventions relating to Differences 1-2 and 16-1 even if they applied the matters stated in these evidence items to Object of Observation Ko 4 Invention, and therefore, it cannot be said that they could

have easily made the Inventions.

(B) Next, by using Object of Observation Ko 4 as the primary cited document, the ease of conceiving of Difference 1-2 by combining the technical matters of Exhibit Ko 72 will be examined.

Exhibit Ko 72 is found to contain a statement of the following technical matter: "an LED illumination lamp 100 with a variable irradiation direction with the rotation angle of the lighting substrate 3 being adjustable against the angle 8 and the support 2, where, in the straight tube type LED lamp, the housing 5 to which the LED substrate 4 is attached is supported against the angle 8 by the sub-rotating screws 12 so as to be rotatable around a virtual axis in a direction parallel to the support 2."

In addition, it can be said that Exhibit Ko 72 has sites that correspond to side walls in "*tsuitatejō* (a partition shape)" at the "housing 5."

Exhibit Ko 72 relates to an illumination direction variable lighting device that can be easily mounted on a socket of existing long fluorescent lamp equipment and a vending machine provided with the illumination direction variable lighting device ([0001]). In the field of lighting, light emitting diodes (LEDs) are attracting attention as light sources, and incandescent bulb type and fluorescent lamp type LED lighting equipment has been developed ([0003]). On the other hand, an LED emits light with a point light source and has directivity, and once the illumination direction of the LED is set, it is virtually impossible to change it ([0004]). Therefore, techniques that allow arbitrary adjustment of the illumination angle in lighting equipment using LEDs have been disclosed ([0005] through [0008]). However, prior art had problems, such as the possibility of causing equipment damage or non-illumination, complexity of the angle adjustment mechanism, and unsuitability for use in efficiently irradiating multiple objects simultaneously ([0009] and [0010]). Exhibit Ko 72 aims to provide an illumination direction variable lighting device with a simple structure that allows arbitrary adjustment of the irradiation angle of each LED lighting substrate, while ensuring sufficient intensity, and that can be directly replaced with conventional fluorescent lighting equipment by restricting the rotation of the LED lighting substrate to within the external dimensions of conventional long fluorescent lamps ([0011]).

Exhibit Ko 72 states that the aforementioned technical matters of Exhibit Ko 72 were adopted in order to solve such problems ([0012] and [0026]), and it contains no statements concerning functions or actions of sites that could be regarded to correspond to "*tsuitatejō* (a partition shape)" (the rising parts of the "housing 5").

Thus, there is a lack of motivation to adopt parts that correspond to "*tsuitatejō* (a partition shape)" in Object of Observation Ko 4, which does not have protrusions in the

first place, as mentioned in (2) above. Moreover, it should be said that a person ordinarily skilled in the art could not have conceived of the configurations of the Inventions relating to Difference 1-2 and Difference 16-1 based on the technical matters of Exhibit Ko 72, which contain no suggestions, etc. regarding sites that could be regarded to correspond to "*tsuitatejō* (a partition shape)."

(4) According to the above, no part of Ground for Rescission 4 in Case 1 is well-grounded, and there is no error in the determination in the JPO Decision.

7. Ground for Rescission 2 in Case 2 (Grounds for Invalidation 6B-3, 6B-5, 6B-7, 6B-22, and 6B-23)

(1) The common features and differences as respectively described in No. 2, 3. (3) D. through F., I., and J. above are found between Inventions 3, 5, 7, 22, and 23 and Object of Observation Ko 4 Invention.

(2) By using Object of Observation Ko 4 as the primary cited document, the ease of conceiving of Inventions 3, 5, 7, 22, and 23 by combining the technical matters of Object of Observation Ko 2 and Exhibit Ko 74 will be examined.

Looking at Object of Observation Ko 2 and Exhibit Ko 74, these products have "a light-reflective sheet with an insulating property which reflects the lights from a plurality of said LED chips," and it can be said that it was commonly used art as of the priority date of the Patent to use an insulating reflective sheet as the insulating reflective element in a lamp using multiple LED chips.

With regard to Differences 3 and 5, replacing the "coating film" which "has a reflective member" and of which the "outermost surface" "has an insulating property" in Object of Observation Ko 4 Invention with the well-known "insulating reflective sheet" constitutes selection of an optimum material from publicly known materials for solving a certain problem or replacement with an equivalent for solving a certain problem. Both of these are mere demonstration of ordinary creativity (change of design) by a person ordinarily skilled in the art.

It follows that there is no error in the JPO Decision regarding the involvement of an inventive step in Inventions 3 and 5, Invention 7 citing Invention 3, and Inventions 22 and 23 citing Invention 7.

8. Regarding Ground for Rescission 3 in Case 2 (Ground for Invalidation 6B-17)

(1) The common features and differences between Invention 17 and Object of Observation Ko 4 Invention are found to be the same as Common Feature 17, Difference 17-1, and Difference 17-2 as found in the JPO Decision, which are described in No. 2, 3. (3) H. above.

(2) From among these, with regard to Difference 17-2 relating to the grounds for

rescission argued by the Defendant, caps that receive [i] "AC power from a commercial power supply," [ii] "DC power from an LED lighting power supply," or [iii] "high-frequency power from an electronic ballast for fluorescent lamp inverters" were commonly used prior to the Priority Date (Exhibit Ko 1-3 and Exhibit Ko 4-6), and the kind of power to be received by the cap of a straight tube LED is selected as appropriate depending on the kind of power to be received by the equipment main body to which the straight tube LED will be attached.

Thus, with regard to Difference 17-2, selection of a cap to be adopted in Object of Observation Ko 4 Invention merely constitutes replacement with an equivalent for solving a certain problem, which is to appropriately receive the supplied power. Therefore, adopting the configuration of Invention 17 relating to Difference 2 (a cap that "receives AC power from a commercial power supply or DC power from an LED lighting power supply") in Object of Observation Ko 4 Invention is mere demonstration of ordinary creativity (change of design) by a person ordinarily skilled in the art.

(3) According to the above, Ground for Rescission 3 in Case 2 is groundless, and there is no error in the determination in the JPO Decision.

9. Regarding Ground for Rescission 4 in Case 2 (Grounds for Invalidation 6C-20 and 7C-20)

(1) The common features and differences between Invention 20 and Object of Observation Ko 7 Invention are found to be the same as Common Feature 20, Difference 20-1, and Difference 20-2 as found in the JPO Decision, which are described in No. 2, 3. (3) K. above.

(2) The difference regarding the parameter which is argued by the Defendant (Difference 20-3 argued by the Defendant) will be examined.

The major factors that affect the half-width are light distribution characteristics of individual LEDs, the distance between the LED elements and the cover member, and the diffusion property of the cover member (Exhibit Ko 84). The Defendant indicates the possibility of changes in the y value due to changes in the light distribution angles of individual LED elements and the diffusion property of the diffusion member resulting from age-related deterioration. However, when looking at the light distribution characteristics of individual LEDs, as described in the report of Exhibit Ko 4-12 (the internal structure of Ricoh Product A) and the report of Exhibit Ko 56 (the internal structure of Ricoh Product B), the inverter type CLARTE product (Ricoh Product A) and the glow tube type CLARTE product (Ricoh Product B) adopt LED containers that are understood to be the same, and it can be confirmed that the LED container of the glow tube type CLARTE product (Ricoh Product B) has the same light distribution

characteristics as the LED container of the inverter type CLARTE product (Ricoh Product A), which is understood to be almost unused. The "50% beam spread angle" measured with the "11081726992607717-1" inverter type CLARTE product (Ricoh Product A) of Object of Observation Ko 4, which is understood to be almost unused, was "116 deg." for the 32nd LED in the report of Exhibit Ko 26-1, and "117 deg." for the 67th LED in the report of Exhibit Ko 26-2, while that measured with serial number "12031531992311143" glow tube type CLARTE product (Ricoh Product B) was 117 deg. as stated in the report of Exhibit Ko 84, and none of these showed deterioration in the light distribution angle.

In addition, as stated in the report of Exhibit Ko 83, from the uniformity and the y/x values measured by exchanging the cover of Object of Observation Ko 4, which is understood to be almost unused, with the cover of Object of Observation Ko 7, it cannot be found that deterioration in the diffusion property affects the y value.

When these circumstances, etc. are taken into account, it is not considered that changes have been caused to the parameter values of Ricoh Product B due to age-related changes, etc., and the measurement values of Ricoh Product B in the findings are regarded to be approximately the same as the initial values of Ricoh Product B.

In light of the above, there is no error in the JPO Decision which found that Object of Observation Ko 7 satisfies the relationship of $y \fallingdotseq 1.208x$.

(3) The Defendant argues that differences between Invention 20 and Object of Observation Ko 7 include not only Difference 20-1 and Difference 20-2 found in the JPO Decision, but also Difference 20-3 argued by the Defendant with regard to the parameter, on the premise of the argument that the initial values of Object of Observation Ko 7 (Ricoh Product B) do not satisfy the x value and the y value of Invention 20, given that the y/x value is presumed to become smaller as the lamp deteriorates. However, as examined above, this argument lacks its premise, and is therefore groundless.

Accordingly, the JPO did not err in finding Difference 1 and Difference 2, and determining that these are not substantial differences in the JPO Decision.

No. 5 Conclusion

As shown above, Ground for Rescission 3 argued by the Plaintiff is well-grounded, and therefore, the parts of the JPO Decision relating to Invention 4 should be rescinded, but all other grounds for rescission argued by the Plaintiff and the grounds for rescission argued by the Defendant are groundless.

Accordingly, the parts of the JPO Decision relating to Claim 4 are rescinded and all other claims are dismissed, and the judgment is rendered as indicated in the main text.

Intellectual Property High Court, First Division
Presiding judge: HONDA Tomonari
Judge: TOYAMA Atsushi
Judge: AMANO Kenji

(Attachment 1) ● (Omitted) ●

(Attachment 2) ● (Omitted) ●