503918084 07/15/2016 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3964737

| ATURE OF CONVEYAN CONVEYING PARTY DA FENG LIU ADEMA RIEMER MARIUSZ JANKOW ALEKSANDER ZACH | | ASSIGNMENT Name | Execution Date 06/15/2016 | | |
|--|---------|---|-------------------------------------|--|--|
| FENG LIU ADEMA RIEMER MARIUSZ JANKOW ALEKSANDER ZACH | ΤΑ | Name | | | |
| ADEMA RIEMER MARIUSZ JANKOW ALEKSANDER ZACH | | Name | | | |
| ADEMA RIEMER MARIUSZ JANKOW ALEKSANDER ZACH | | | 06/15/2016 | | |
| MARIUSZ JANKOW ALEKSANDER ZACH | | | | | |
| ALEKSANDER ZACH | | | 06/14/2016 | | |
| | | | 06/13/2016 | | |
| | | | 06/13/2016 | | |
| | ΓΑ | | | | |
| Name: | | LIGHTING HOLDING B.V. | | | |
| Street Address: | HIGH TE | CH CAMPUS 45 | | | |
| City: | EINDHO | VEN | | | |
| State/Country: | NETHER | | | | |
| Postal Code: | 5656 AE | | | | |
| Property Type Application Number: 1516 | | Number | | | |
| | | 5100200 | | | |
| CORRESPONDENCE DA | АТА | | | | |
| Fax Number: | (9 | 14)495-9570 | | | |
| | | he e-mail address first; if that is unsu | | | |
| Phone: | - | <i>if that is unsuccessful, it will be sent</i> | via US Mall. | | |
| Email: | | .cangelosi@philips.com | | | |
| Correspondent Name: | PI | HILIPS LIGHTING B.V. | | | |
| Address Line 1: | 46 | 55 COLUMBUS AVENUE | COLUMBUS AVENUE | | |
| Address Line 2: | | JITE 330 | | | |
| Address Line 4: | V | ALHALLA, NEW YORK 10595 | | | |
| ATTORNEY DOCKET NU | MBER: | 2015P00851WOUS01 | | | |
| NAME OF SUBMITTER: | | DANIEL J. PIOTROWSKI | | | |
| | | /DANIEL J. PIOTROWSKI/ | | | |
| SIGNATURE: | | /DANIEL J. PIOTROWSKI/ | | | |

source=2015P00851US_Assignment#page3.tif source=2015P00851US_Assignment#page4.tif

> PATENT REEL: 039170 FRAME: 0496

ASSIGNMENT

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Philips Lighting Holding B.V., having a place of business at High Tech Campus 45, 5656 AB. Eindhoven, the Netherlands, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:

is executed concurrently herewith

🖾 was filed on. 13 Jan 2016, having an International Application No. PCT/EP2016/063431,

and all rights in and to said application, and all other United States, foreign and international patent applications associated therewith, based thereon, or claiming priority therefrom including, but not limited to, any and all provisionals, nonprovisionals divisions, continuations, continuations in-part, re-examinations, relosues, and extensions thereof, and the right to claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents granted on these applications.

I/We authorize and request that the Patent Office officials in the United States and in any and all foreign countries to issue any and all Letters Patent when granted, solely to the Assignee(s), for its sole use, and that of its successors, assigns, and legal representatives.

I/We will provide my/our cooperation to enable the Assignee to enjoy the foregoing right, title, and interest to the fullest extent. Upon request at the expense of the Assignee, I/we agree to execute all papers, take all rightful oaths, testify in all legal proceedings including patent prosecution actions and infringement actions, and do all other such acts which may be necessary, desirable, or convenient for securing and maintaining patents on the foregoing invention or for perfecting title thereto in the Assignee.

I/We certify that I/we have the full right to convey the above rights.

| 2016-6-15 | (sign name here) | | |
|-----------|--------------------|-----------------|------------|
| Daie | (print name here) | Veng LX | , Assignor |
| | (sign name bere) | | |
| Date | (print name here) | Adema NIEMER | , Assignor |
| | (sign name here) | | |
| Date | (print name here) | Narime JANKOW | , Assignor |
| | (sign name here) | | |
| Date | (prinit name here) | Aleksander ZACH | , Assignor |

Page 1 of 1

PATENT REEL: 039170 FRAME: 0497

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Philips Lighting Holding B.V., having a place of business at High Tech Campus 45, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:

| [] i | s ez | kecuted | conc | currently herewith |
|------|------|----------|-------|--|
| 🗌 v | vas | execute | ed by | y me/us on |
| [] v | vas | filed or | 1 | , having a Serial No |
| 🛛 v | vas | filed or | 1. 13 | Jun 2016, having an International Application No. PCT/EP2016/063431, |

and all rights in and to said application, and all other United States, foreign and international patent applications associated therewith, based thereon, or claiming priority therefrom including, but not limited to, any and all provisionals, nonprovisionals divisions, continuations, continuations-in-part, re-examinations, reissues, and extensions thereof, and the right to claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents granted on these applications.

I/We authorize and request that the Patent Office officials in the United States and in any and all foreign countries to issue any and all Letters Patent when granted, solely to the Assignee(s), for its sole use, and that of its successors, assigns, and legal representatives.

I/We will provide my/our cooperation to enable the Assignee to enjoy the foregoing right, title, and interest to the fullest extent. Upon request at the expense of the Assignee, I/we agree to execute all papers, take all rightful oaths, testify in all legal proceedings including patent prosecution actions and infringement actions, and do all other such acts which may be necessary, desirable, or convenient for securing and maintaining patents on the foregoing invention or for perfecting title thereto in the Assignee.

J/We certify that J/we have the full right to convey the above rights.

| (sign name here) | | |
|-------------------|--|--|
| (print name here) | Feng LIU | , Assignor |
| (sign name here) | -R-Holo- | |
| (print name here) | Adema RIEMER | , Assignor |
| (sign name here) | | |
| (print name here) | Mariuze JANKOW | , Assignor |
| (sign name here) | | |
| (print name here) | Aleksander ZACH | , Assignor |
| | (sign name here) (print name here) (sign name here) (print name here) (sign name here) | (print name here) Feng LIU (sign name here) Adema RIEMER (print name here) Adema RIEMER (sign name here) Mariuze JANKOW (sign name here) Image: Comparison of the second seco |

Page 1 of 1

U.S.A. Sole/Joint

ASSIGNMENT

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Philips Lighting Holding B.V., having a place of business at High Tech Campus 45, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:

| | is executed concurrently herewith | |
|-------------|---|-----|
| Π | was executed by me/us on | |
| П | was filed on, having a Serial No. | ••• |
| \boxtimes | was filed on. 13 Jun 2016, having an International Application No. PCT/EP2016/063431, | |

and all rights in and to said application, and all other United States, foreign and international patent applications associated therewith, based thereon, or claiming priority therefrom including, but not limited to, any and all provisionals, nonprovisionals divisions, continuations, continuations-in-part, re-examinations, reissues, and extensions thereof, and the right to claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents granied on these applications.

I/We authorize and request that the Patent Office officials in the United States and in any and all foreign countries to issue any and all Letters Patent when granted, solely to the Assignee(s), for its sole use, and that of its successors, assigns, and legal representatives.

I/We will provide my/our cooperation to enable the Assignee to enjoy the foregoing right, title, and interest to the fullest extent. Upon request at the expense of the Assignee, I/we agree to execute all papers, take all rightful oaths, testify in all legal proceedings including patent prosecution actions and infringement actions, and do all other such acts which may be necessary, desirable, or convenient for securing and maintaining patents on the foregoing invention or for perfecting title thereto in the Assignee.

I/We certify that I/we have the full right to convey the above rights.

| | (sign name here) | | |
|------------|-------------------|-----------------|------------|
| Date | (print name here) | Feng LIU | , Assignor |
| | (sign name here) | | |
| Date | (print name here) | Adema RIEMER | , Assignor |
| 13/06/2016 | (sign name here) | Lehon brain | |
| Date | (print name here) | Mariusz JANKOW | , Assignor |
| | (sign name here) | | |
| Date | (print name here) | Aleksander ZACH | , Assignor |

U.S.A. Sole/Joint

ASSIGNMENT

Docket No. 2015P00851WO 01US

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Philips Lighting Holding B.V., having a place of business at High Tech Campus 45, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:

| \Box | is executed concurrently herewith |
|-------------|---|
| | was executed by me/us on an |
| \square | was filed on. |
| \boxtimes | was filed on. 13 Jun 2016, having an International Application No. PCT/EP2016/063431, |

and all rights in and to said application, and all other United States, foreign and international patent applications associated therewith, based thereon, or claiming priority therefrom including, but not limited to, any and all provisionals, nonprovisionals divisions, continuations, continuations-in-part, re-examinations, reissues, and extensions thereof, and the right to claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents granted on these applications.

L/We authorize and request that the Patent Office officials in the United States and in any and all foreign countries to issue any and all Letters Patent when granted, solely to the Assignee(s), for its sole use, and that of its successors, assigns, and legal representatives.

I/We will provide my/our cooperation to enable the Assignee to enjoy the foregoing right, title, and interest to the fullest extent. Upon request at the expense of the Assignee, I/we agree to execute all papers, take all rightful oaths, testify in all legal proceedings including patent prosecution actions and infringement actions, and do all other such acts which may be necessary, desirable, or convenient for securing and maintaining patents on the foregoing invention or for perfecting title thereto in the Assignee.

I/We certify that I/we have the full right to convey the above rights.

| | (sign name here) | | |
|------------|-------------------|-----------------|------------|
| Date | (print name here) | Feng LIU | , Assignor |
| | (sign name here) | | |
| Date | (print name here) | Adema RIEMER | , Assignor |
| | (sign name here) | | |
| Date | (print name here) | Mariuze JANKOW | , Assignor |
| 13.06.2016 | (sign name here) | Ich Melesarde | |
| Date | (print name here) | Aleksander ZACH | , Assignor |

Page 1 of 1

RECORDED: 07/15/2016