## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7260974

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
CURRENT LIGHTING SOLUTIONS, LLC (FKA - GE LIGHTING SOLUTIONS, LLC)	02/24/2020

### **RECEIVING PARTY DATA**

Name:	CONSUMER LIGHTING, LLC
Street Address:	1975 NOBLE ROAD
City:	EAST CLEVELAND
State/Country:	OHIO
Postal Code:	44112

### **PROPERTY NUMBERS Total: 68**

Property Type	Number
Patent Number:	6481874
Patent Number:	6805458
Patent Number:	6799864
Patent Number:	6787999
Patent Number:	7479662
Patent Number:	9944519
Patent Number:	7224000
Patent Number:	7800121
Patent Number:	8362695
Patent Number:	8436380
Patent Number:	10309587
Patent Number:	10340424
Patent Number:	8322889
Patent Number:	9954145
Patent Number:	10422484
Patent Number:	9618165
Patent Number:	9360166
Patent Number:	8541933
Patent Number:	9951938
Patent Number:	8668356

**PATENT** 

REEL: 059582 FRAME: 0748

507214124

Property Type	Number
Patent Number:	10240772
Patent Number:	8480257
Patent Number:	8672516
Patent Number:	8835199
Patent Number:	8414151
Patent Number:	9127816
Patent Number:	8608347
Patent Number:	9416952
Patent Number:	9730294
Patent Number:	9464784
Patent Number:	8992052
Patent Number:	9188312
Patent Number:	9767522
Patent Number:	9841175
Patent Number:	9500355
Patent Number:	9587820
Patent Number:	9125271
Patent Number:	9612002
Patent Number:	9303846
Patent Number:	9664343
Patent Number:	9506624
Patent Number:	10196565
Patent Number:	10001256
Patent Number:	9401468
Patent Number:	10139095
Patent Number:	9970629
Patent Number:	9841167
Patent Number:	9642218
Patent Number:	9462656
Patent Number:	9668307
Patent Number:	10197230
Patent Number:	9970646
Intl Reg Number:	DM/668362
Intl Reg Number:	DM/668361
Intl Reg Number:	DM/660991
Intl Reg Number:	DM/691745
Intl Reg Number:	DM/695927
Intl Reg Number:	DM/674927

Property Type	Number
Intl Reg Number:	DM/732709
Intl Reg Number:	DM/732710
Intl Reg Number:	DM/794837
Intl Reg Number:	DM/732717
Intl Reg Number:	DM/741519
Intl Reg Number:	DM/756544
Intl Reg Number:	DM/785821
Intl Reg Number:	DM/794839
Intl Reg Number:	DM/808547
Intl Reg Number:	DM/791984

### **CORRESPONDENCE DATA**

### Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Phone:** 240.477.8581

**Email:** tthomas@woodiplaw.com, uspto@dockettrak.com,

docketing@woodiplaw.com

Correspondent Name: WOOD IP LLC

Address Line 1: 555 QUINCE ORCHARD ROAD

Address Line 2: SUITE 280

Address Line 4: GAITHERSBURG, MARYLAND 20878

ATTORNEY DOCKET NUMBER:	GE ASSIGNMENTS 2
NAME OF SUBMITTER:	TAMMI THOMAS
SIGNATURE:	/TAMMI THOMAS/
DATE SIGNED:	04/04/2022

### **Total Attachments: 60**

source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page1.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page2.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page3.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page4.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page5.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page6.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page7.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page9.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page10.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page11.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page12.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page12.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page13.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page13.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page13.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page14.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page15.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page15.tif

source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page16.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page17.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page18.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page19.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page20.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page21.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page22.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page23.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page24.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page25.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page26.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page27.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page28.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page29.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page30.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page31.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page32.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page33.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page34.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page35.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page36.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page37.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page38.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page39.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page40.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page41.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page42.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page43.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page44.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page45.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page46.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page47.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page48.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page49.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page50.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page51.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page52.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page53.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page54.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page55.tif source=Amended\_Restated Assignment\_Current and Consumer Lighting LLC\_with schedules#page56.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page57.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page58.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page59.tif source=Amended Restated Assignment Current and Consumer Lighting LLC with schedules#page60.tif

### AMENDED AND RESTATED PATENT ASSIGNMENT AGREEMENT

This Amended and Restated Patent Assignment Agreement (the "<u>Assignment"</u>), effective as of April 1, 2019, is by and between Current Lighting Solutions, LLC (fka GE Lighting Solutions, LLC), a Delaware Limited Liability Company, having an office at 1975 Noble Rd. Building 338, Nela Park, East Cleveland, Ohio 44112 ("<u>Assignor</u>") and Consumer Lighting (U.S.) LLC, a Delaware Limited Liability Company, having an office at 1975 Noble Road, East Cleveland, Ohio 44112, ("<u>Assignee</u>").

WHEREAS, Assignor is the owner of certain intellectual property listed on the attached <u>Schedules A</u> and B (the "<u>Assigned Patent Applications</u>");

WHEREAS, General Electric Company and Espresso Holdco, Inc. entered into that certain Stock and Asset Purchase Agreement dated as of November 5, 2018 ("Purchase Agreement");

WHEREAS, in furtherance of the transactions contemplated by the Purchase Agreement, the parties thereto have agreed to cause Assignor to assign to Assignee the Assigned Patent Applications, and all right, title and interest in and to the Assigned Patent Registrations, and the parties wish to record such assignment in the respective Patent Offices; and

WHEREAS, the Parties wish to amend and restate their agreement with respect to the Assigned Patent Applications.

NOW, THEREFORE, in consideration of the sum of US\$10 (ten US Dollars) and other good and valuable consideration paid by the Assignee to the Assignor, the receipt and sufficiency of which is hereby acknowledged, Assignor and Assignee agree as follows:

- 1. <u>Assignment of Patent Applications</u>. Effective as of the date hereof, Assignor sells, transfers, conveys, assigns and delivers to Assignee and Assignee accepts all right, title and interest in and to (i) the Assigned Patent Applications; (ii) all income, royalties, damages, claims, and payments now or hereafter due or payable under and with respect thereto, including, without limitation, damages, claims, and payments for past and future infringements thereof; (iii) all rights to sue for past, present, and future infringements of the foregoing, including the right to settle suits involving claims and demands for royalties owing; and (iv) the right to assign the rights conveyed herein, the same to be held and enjoyed by Assignee for its own use and benefit, and for the benefit of its successors, assigns, and legal representatives.
- 2. <u>Additional Documents</u>. Assignor shall execute any other documents as may be reasonably required to carry out the purposes of the Assignment.
- 3. <u>Successors</u>. This Assignment shall inure to the benefit of and is binding upon the respective successors and assigns of Assigner and Assignee.
- 4. Governing Law. This Assignment shall be governed by and construed in accordance with (i) the laws of the United States, in respect to patent issues, and (ii) in all other respects, including as to validity (except for patent issues), interpretation and effect, by the laws of the State of New York.
- 5. <u>Counterparts</u>. This Assignment may be executed in separate counterparts, each of which is deemed to be an original and all of which taken together constitute one and the same agreement.
- 6. <u>Miscellaneous</u>. This Assignment is subject to all the terms and conditions of the Purchase Agreement. The parties intend that this Assignment is for recordation purposes only and its terms shall not modify the applicable terms and conditions of the Purchase Agreement.

IN WITNESS WHEREOF, Assignor and Assignee caused this Assignment to be duly executed as of the date first written above.

	By: Executive Senia ( Consel
	Date: Feb. 24, 2020
STATE OF	
COUNTY OF	
	day of2020, personally appeared to me as the person whose name is subscribed to the foregoing
	ted the same for the purposes and consideration therein

**REEL: 059582 FRAME: 0753** 

ACCEPTED

CONSUMER SOLUTIONS (U.S.), LLC

By: 2 2 2

Its: Vice President

Date: February 21, 2020

STATE OF CONNECTICUT

COUNTY OF FAIRFIELD

Before me, the undersigned authority, on this 21st day of February 2020, personally appeared Victoria Vron known to me as the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purposes and consideration therein expressed, in the capacity state, and with authority to act in this assignment on behalf of the Assignee.



Maria La Es Ciw Notary Public

(Legibly Print or Stamp Name of Notary)

## Espresso to Opal

# Schedule A-Patents & Patent Applications

TI	EP	JP	CN	Ę	US	US	GB	DE	S	US
Issued	Filed	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Issued
HIGH POWER LED POWER PACK FOR SPOT MODULE ILLUMINATION	LED POWER PACK FOR SPOT MODULE ILLUMINATION	LED POWER PACK FOR SPOT MODULE ILLUMINATION	HIGH POWER LED POWER PACK FOR SPOT MODULE ILLUMINATION	HIGH POWER LED POWER PACK FOR SPOT MODULE ILLUMINATION	HIGH POWER LED POWER PACK FOR SPOT MODULE ILLUMINATION	NIGHT LIGHT FOR PLUMBING FIXTURES	HEAT DISSIPATION SYSTEM FOR HIGH POWER LED LIGHTING SYSTEM	HEAT DISSIPATION SYSTEM FOR HIGH POWER LED LIGHTING SYSTEM	HEAT DISSIPATION SYSTEM FOR HIGH POWER LED LIGHTING SYSTEM	HEAT DISSIPATION SYSTEM FOR HIGH POWER LED LIGHTING SYSTEM
EPP-EUROPEAN PATENT - PCT ORIGINATED	DIV-DIVISIONAL FILING	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	EPP-EUROPEAN PATENT - PCT ORIGINATED	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	EPC-EUROPEAN PATENT CONVENTION	EPC-EUROPEAN PATENT CONVENTION	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING
502016000112354	10171923.5	2003-500968	2812366.2	2739450	10/063924	10/064772	2721632.4	2721632.4	2809084.5	09/681400
11/17/2003	8/4/2010	11/23/2006	5/24/2002	11/17/2003	5/24/2002	8/15/2002	3/29/2002	3/29/2002	3/29/2002	3/29/2001
8/24/2016		2/5/2010	8/5/2009	8/24/2016	10/5/2004	10/19/2004	6/13/2007	6/13/2007	4/25/2007	11/19/2002
EP1393374		JP4452495	CN02812366.2	EP1393374	US6799864	US6805458	EP1374319	EP1374319	CN02809084.5	US6481874

PATENT

**REEL: 059582 FRAME: 0755** 

JP	ES	NL	IT	GВ	S	JP	DE	US	GB	DE	US	GB
Filed	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Issued
COATED LED WITH IMPROVED EFFICIENCY	LED-BASED MODULAR	LED-BASED MODULAR	LED-BASED MODULAR	LED-BASED MODULAR	ZOOMABLE SPOT MODULE	ZOOMABLE SPOT MODULE	VARIABLE OPTICS SPOT MODULE	HIGH POWER LED POWER PACK FOR SPOT MODULE ILLUMINATION				
PCT-PATENT COOPERATION TREATY	PATENT CONVENTION	PATENT CONVENTION	PATENT CONVENTION	PATENT CONVENTION	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	EPC-EUROPEAN PATENT CONVENTION	PRI-PRIORITY APPLICATION	EPC-EUROPEAN PATENT CONVENTION	EPC-EUROPEAN PATENT CONVENTION	PRI-PRIORITY APPLICATION	PATENT - PCT ORIGINATED
2004-532037	3751945.1	3751945.1	502010901806259	3751945.1	3823757.1	2004-543297	3754619.9	10/065320	2766298	2766298	09/682535	2739450
8/29/2003	8/29/2003	8/29/2003	8/29/2003	8/29/2003	4/4/2005	9/19/2003	9/19/2003	10/3/2002	9/17/2002	9/17/2002	9/17/2001	11/17/2003
	11/11/2009	11/11/2009	11/11/2009	11/11/2009	11/28/2012	10/21/2009	2/28/2018	9/7/2004	1/10/2007	1/10/2007	8/10/2004	8/24/2016
	EP1540746	EP1540746	EP1540746	EP1540746	CN03823757.1	JP4350648	EP1547447	US6787999	EP1427962	EP1427962	US6773139	EP1393374

US	JP	EP	EP	DE	FR	BE	CN	AU	KR	US	US	EP
Filed	Issued	Filed	Filed	Issued	Filed							
LED-BASED LIGHT BULB	LED-BASED LIGHT BULB	LED-BASED LIGHT BULB	LED-BASED LIGHT BULB	COATED LED WITH IMPROVED EFFICIENCY	IMPROVED EFFICIENCY							
PCT-PATENT COOPERATION TREATY	DIV-DIVISIONAL FILING	DIV-DIVISIONAL FILING	PCT-PATENT COOPERATION TREATY	EPC-EUROPEAN PATENT CONVENTION	EPC-EUROPEAN PATENT CONVENTION	EPP-EUROPEAN PATENT - PCT ORIGINATED	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	REI-REISSUE	FILING
10/555721	2011-110613	12166294.4	4751681	3751945.1	3751945.1	3751945.1	3824703.8	2003270052	2005-7003453	10/525697	90/011805	8004649.3
4/2/2007	5/17/2011	5/1/2012	11/25/2005	8/29/2003	8/29/2003	8/29/2003	8/29/2003	3/1/2005	8/29/2003	3/23/2006	7/22/2011	3/13/2008
	10/2/2015			11/11/2009	11/11/2009	11/11/2009	3/11/2009	6/4/2009	9/19/2006	1/10/2009	10/17/2013	
	JP5815982			EP1540746	EP1540746	EP1540746	CN100468791C	AU2003270052	KR622209	US7479662	US7479662	

GB	NL	DE	CN	WO	US	US	JP	CN	US	US	US	CN	
Issued	Issued	Issued	Issued	Filed	Filed	Issued	Issued	Issued	Issued	Filed	Filed	Issued	
LED LAMP	LED LAMP	LED LAMP	LED LAMP	LED LAMP	White LEDs with enhanced color contrast	PIEZOFAN AND HEAT SINK SYSTEM FOR ENHANCED HEAT TRANSFER	LED-BASED LIGHT BULB	LED-BASED SPECIALTY LIGHT BULB	LED-BASED LIGHT BULB	LED-BASED LIGHT BULB	LED-BASED LIGHT BULB	LED-BASED LIGHT BULB	
EPP-EUROPEAN PATENT - PCT ORIGINATED	EPP-EUROPEAN PATENT - PCT ORIGINATED	EPP-EUROPEAN PATENT - PCT ORIGINATED	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	CON- CONTINUATION	ORD-UTILITY PATENT FILING	PCT-PATENT COOPERATION TREATY	DIV-DIVISIONAL FILING	CON- CONTINUATION	CIP- CONTINUATION IN PART	CON- CONTINUATION	PCT-PATENT COOPERATION TREATY	
11779260.6	11779260.6	11779260.6	201180054064.4	US11/55185	14/295486	11/531170	2006-514328	201010226198.7	13/424835	13/424805	13/424785	200480015673.9	
5/15/2013	5/15/2013	5/15/2013	5/9/2013	10/7/2011	6/4/2014	9/12/2006	11/4/2005	5/5/2004	3/20/2012	3/20/2012	3/20/2012	5/5/2004	
6/29/2016	6/29/2016	6/29/2016	8/31/2016			12/4/2012	6/27/2014	10/30/2013	4/17/2018			11/24/2010	
EP2638318	EP2638318	EP2638318	CN103180659			US8322889	JP5566564	CN101915365	US9944519			CN1802533	

KR	MX	ЪЪ	MX	KR	EP	BR	US	US	CN	CN CN	US
Filed	Filed	Issued	Issued	Filed	Filed	Filed	Issued	Issued	Filed	Filed	Filed
TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES	Transparent Heat Fins - Transparent Thermally Conductive Polymer Composites For Light Source Thermal Management	Transparent Heat Fins - Transparent Thermally Conductive Polymer Composites For Light Source Thermal Management	TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT	LED lamp having a spherical diffuser	LED LAMP WITH UNIFORM OMNIDIRECTIONAL LIGHT INTENSITY OUTPUT	LED lamp having a spherical diffuser	LED lamp having a spherical diffuser	LED LAMP WITH UNIFORM OMNIDIRECTIONAL LIGHT INTENSITY OUTPUT			
DIV-DIVISIONAL FILING	DIV-DIVISIONAL FILING	DIV-DIVISIONAL FILING	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	CON- CONTINUATION	CON- CONTINUATION	PCT-PATENT COOPERATION TREATY	DIV-DIVISIONAL FILING	CONTINUATION
1020187004495	MX/a/2016/001608	2015-212729	MX/a/2012/008009	1020127011454	10821324	112012011011-0	14/183013	14/205542	201080054756.4	2016109308322	15/158978
2/13/2018	2/4/2016	10/29/2015	7/9/2012	5/2/2012	5/1/2012	10/1/2010	2/18/2014	3/12/2014	6/1/2012	10/31/2016	5/19/2016
	4/8/2017	9/6/2017	4/28/2016				6/7/2016	4/11/2017			
	MX349604	JP6193330	MX338717				US9360166	US9618165			

CN	KR	JP	AU	S	BR	ЕР	US	
Issued	Filed	Issued	Issued	Issued	Filed	Filed	Issued	
Heatsink design for uniform optical output of a LED lamp with spherical diffuser	TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT	TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT	TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT	TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT	TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT	TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT	TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT	FOR LIGHT SOURCE THERMAL MANAGEMENT
PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	
201080054757.9	1020127020972	2012-548995	2011205461	201180005962	112012017088-0	11708124	12/979611	
6/1/2012	8/9/2012	7/12/2012	7/31/2012	7/12/2012	4/12/2016	7/25/2012	12/28/2010	
10/7/2015	4/10/2018	5/12/2017	10/22/2015	11/25/2015			9/24/2013	
CN201080054757.9	KR101847657	JP6139134	AU2011205461	CN201180005962.0			US8541933	

MX	CN	SU	JP	BR	MX	CN	US	DE	TW	KR	EP	US
Issued	Filed	Appeal	Filed	Filed	Issued	Issued	Issued	Issued	Issued	Filed	Filed	Filed
Lightweight Heat Sinks and LED Lamps Employing Same	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Lightweight Heat Sinks and LED Lamps Employing Same	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Opaque High Conduction Light Weight Heat Sinks	Opaque High Conduction Light Weight Heat Sinks	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Heatsink design for uniform optical output of a LED lamp with spherical diffuser	LED LAMP			
PCT-PATENT COOPERATION TREATY	DIV-DIVISIONAL FILING	ORD-UTILITY PATENT FILING	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	PATENT - PCT ORIGINATED	ORD-UTILITY PATENT FILING	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	CON- CONTINUATION
MX/a/2012/011433	2018102156900	12/979476	2013-502622	112012025157-0	MX/a/2012/011434	201180027211.9	12/979529	11712382.8	100111435	1020127028368	10763295.2	14/062317
3/18/2011	3/15/2018	12/28/2010	10/2/2012	10/2/2012	3/18/2011	11/30/2012	12/28/2010	10/23/2012	3/31/2011	10/30/2012	5/2/2012	10/24/2013 4/24/2018
1/20/2014					1/22/2014	5/11/2016	3/11/2014	1/11/2017	2/11/2017			4/24/2018
MX317299					MX317382	CN102939501	US8668356	DE602011034251.7	TWI570380			US9951938

MX	CN	US	NL	DE	VN	KR	DE	KR	MX	CN	US	NL
Issued	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Filed	Issued	Issued	Issued	Issued
LIGHTWEIGHT HEAT SINKS AND LED LAMPS	Multifunctional HeatFins for LED Lamp Optical and Thermal Management	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Multifunctional HeatFins for LED Lamp Optical and Thermal Management	Multifunctional HeatFins for LED Lamp Optical and Thermal Management	LED LAMP	LED LAMP	LED LAMP	LED LAMP	LED LAMP	LED LAMP
PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	PATENT - PCT ORIGINATED	PATENT - PCT ORIGINATED	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PATENT - PCT ORIGINATED	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	EPP-EUROPEAN PATENT - PCT ORIGINATED
MX/a/2013/003422	201180057758.3	12/979573	11713109.4	11713109.4	1201301341	1020137009765	10861503	1020137016970	MX/a/2013/007701	201080070988.9	13/336392	10861503
3/18/2011	5/30/2013	12/28/2010	4/19/2013	4/19/2013	3/18/2011	3/18/2011	7/2/2013	6/28/2013	6/28/2013	6/28/2013	12/23/2011	7/2/2013
11/27/2014	3/29/2017	3/18/2014	4/27/2016	4/27/2016	6/20/2017	12/8/2017	11/30/2016		10/6/2014	10/12/2016	7/9/2013	11/30/2016
MX325708	CN103238027	US8672516	EP2622267	EP2622267	VN17098	KR10-1809185	DE602010038548.5		MX324190	CN103261777	US8480257	EP2659178

S	KR	JP	ЕP	TW	US	JP	Œ	BR
Issued	Filed	Issued	Filed	Issued	Issued	Issued	Filed	Filed
PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE	PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR CONFIGURATION	PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR CONFIGURATION	PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR CONFIGURATION	PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR CONFIGURATION	PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR CONFIGURATION	Multifunctional HeatFins for LED Lamp Optical and Thermal Management	Multifunctional HeatFins for LED Lamp Optical and Thermal Management	Multifunctional HeatFins for LED Lamp Optical and Thermal Management
PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	POT-PATENT COOPERATION TREATY
201180036888.9	1020137004798	2013-521870	11749600	100126837	13/187592	2013-531566	W00201301695	112013007741-7
1/28/2013	2/26/2013	1/25/2013	1/25/2013	7/28/2011	7/21/2011	3/18/2011	3/18/2011	3/18/2011
3/23/2016		1/15/2016		6/21/2017	9/16/2014	10/2/2015		
CN103081567		JP5868404		TWI589033	US8835199	JP5815716		

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PROSPHOR	CN	Z	MX	BR	JP	CX	US	ZL Z	GB	DE	KR	US	
SOUTH COPERATION IN PART INSTALLABLE IN PART I	Filed	Filed	Issued	Filed	Issued	Issued	Issued	Issued	Issued	Issued	Filed	Issued	
TINUATION ART 12/896314 10/1/2010 4/9/2013  PATENT PERATION AT 10/1/2010 4/9/2013  PATENT PERATION 10/1/2010 4/9/2013  PATENT PCT 11/1/2013 4/15/2015  EUROPEAN ENT - PCT 11/1/2013 4/15/2015  EUROPEAN ENT PCT 11/1/2013 4/15/2015  EUROPEAN ENT PCT 11/1/2013 4/15/2015  EUROPEAN ENT FILING 13/323038 12/12/2011 9/8/2015  PATENT PERATION 201180065492.7 7/16/2013 4/15/2015  PATENT PERATION 2013-550473 7/16/2013 8/10/2016  PATENT PERATION 11/2013018378-0 7/18/2013  PATENT PERATION 11/2013018378-0 7/18/2013  PRIORITY 2013-558/DELNP/2013 6/17/2013  PRIORITY 201210260962.1 7/26/2012	COOLING SYSTEM AND ILLUMINATING DEVICE COMPRISING SAME	LED LIGHT ENGINE/HEAT SINK ASSEMBLY	LIGHT EMITTING DIODE (LED) BASED LAMP	CONFIGURATION									
10/1/2010 4/9/2013  7/18/2013 4/15/2015  11463.6 7/16/2013 4/15/2015  12/12/2011 9/8/2015  12/12/2011 9/8/2015  7/16/2013 12/18/2015  7/18/2013 12/18/2015  13 6/17/2013 11/20/2014	PRI-PRIORITY APPLICATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	EPP-EUROPEAN PATENT - PCT ORIGINATED	EPP-EUROPEAN PATENT - PCT ORIGINATED	EPP-EUROPEAN PATENT - PCT ORIGINATED	PCT-PATENT COOPERATION TREATY	CIP- CONTINUATION IN PART	
4/15/2015 4/15/2015 4/15/2015 9/8/2015 12/18/2016	201210260962.1	5368/DELNP/2013	MX/a/2013/008428	112013018378-0	2013-550473	201180065492.7	13/323038	11811463.6	11811463.6	11811463.6	1020137018979	12/896314	
	7/26/2012	6/17/2013	7/19/2013	7/18/2013	7/16/2013	7/19/2013	12/12/2011	7/16/2013	7/16/2013	7/16/2013	7/18/2013	10/1/2010	
EP2665967 EP2665967 EP2665967  EP2665965  MX325568  MX325568			11/20/2014		12/18/2015	8/10/2016	9/8/2015	4/15/2015	4/15/2015	4/15/2015		4/9/2013	
			MX325568		JP5855135	CN103354886	US9127816	EP2665967	EP2665967	EP2665967		US8414151	

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EM	MX	S	US	AU	CA	US	US	MX	JP	US	US
Issued	Issued	Issued	Issued	Issued	Filed	Issued	Issued	Issued	Issued	Issued	Issued
LAMP	LAMP	LAMP	LAMP	LIGHTING APPARATUS WITH A LIGHT SOURCE COMPRISING LIGHT EMITTING DIODES	LIGHTING APPARATUS WITH A LIGHT SOURCE COMPRISING LIGHT EMITTING DIODES	LIGHTING APPARATUS WITH A LIGHT SOURCE COMPRISING LIGHT EMITTING DIODES	LIGHTING APPARATUS WITH A LIGHT SOURCE COMPRISING LIGHT EMITTING DIODES	LAMP	LAMP	LAMP	LAMP
ID- INTERNATIONAL DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DIV-DIVISIONAL FILING	PCT-PATENT COOPERATION TREATY	CON- CONTINUATION	PRI-PRIORITY APPLICATION	DES-DESIGN	DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	PDS-PRIORITY DESIGN APPLICATION
1310809	MX/F/2012/000249	201230017702.2	29/397912	2015246150	2852884	14/079992	13/189052	MX/f/2012/001322	2012-008926	29/404955	29/404991
1/20/2012	1/20/2012	1/20/2012	7/22/2011	10/23/2015	4/17/2014	11/14/2013	7/22/2011	4/27/2012	4/17/2012	10/27/2011	10/27/2011
1/20/2012	3/14/2013	2/13/2013	5/29/2012	9/21/2017		8/16/2016	12/17/2013	5/10/2013	11/30/2012	10/2/2012	10/2/2012
EM1310809-0001	MX38269	CN201230017702.2	USD660991	AU2015246150		US9416952	US8608347	MX38663	JP1458769	USD668361	USD668362

AU	ZN	CA	ZN	EP	CN	US	KR	S	EP	US
Issued	Issued	Filed	Filed	Filed	Issued	Issued	Filed	Filed	Filed	Issued
Non-imaging Fresnel lens for LED lamps	Non-imaging Fresnel lens for LED lamps	OPTICAL SYSTEM AND LIGHTING DEVICE COMPRISED THEREOF	OPTICAL SYSTEM AND LIGHTING DEVICE COMPRISED THEREOF	LIGHTING DEVICE INCLUDING A DRIVE DEVICE CONFIGURED FOR DIMMING LIGHTEMITTING DIODES	LIGHTING DEVICE INCLUDING A DRIVE DEVICE CONFIGURED FOR DIMMING LIGHTEMITTING DIODES	LIGHTING DEVICE INCLUDING A DRIVE DEVICE CONFIGURED FOR DIMMING LIGHTEMITTING DIODES	LIGHTING DEVICE INCLUDING A DRIVE DEVICE CONFIGURED FOR DIMMING LIGHT-EMITTING DIODES			
DIV-DIVISIONAL FILING	DIV-DIVISIONAL FILING	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PRI-PRIORITY APPLICATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PRI-PRIORITY APPLICATION
2016204281	720860	2862702	627462	13705865.7	201380007897.4	13/365949	20147015329	201280066241.5	12773479.6	13/290589
6/23/2016	6/3/2016	7/24/2014	7/28/2014	7/28/2014	8/1/2014	2/3/2012	6/5/2014	7/7/2014	5/9/2014	11/7/2011
10/19/2017	3/23/2018				10/27/2017	10/11/2016				8/8/2017
AU2016204281	NZ720860				CN104145158	US9464784				US9730294

CA	AU	KR	BR	MX	CN	EP	CN	SU
Filed	Issued	Filed	Filed	Issued	Issued	Filed	Filed	Issued
OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT- EMITTING DIODE	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT- EMITTING DIODE	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT- EMITTING DIODE	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT- EMITTING DIODE	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT- EMITTING DIODE	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT- EMITTING DIODE	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT- EMITTING DIODE	Inner lens optics for Omnidirectional lamp	Inner lens optics for Omnidirectional lamp
PCT-PATENT COOPERATION TREATY	DIV-DIVISIONAL FILING	PRI-PRIORITY APPLICATION						
2879388	2013296992	1020157005463	112015001967-6	MX/A/2015/001515	201380041269.8	13742302.6	201611095526.8	13/566623
1/15/2015	1/30/2015	3/2/2015	1/28/2015	1/30/2015	2/3/2015	2/3/2015	12/2/2016	8/3/2012
	6/22/2017			5/5/2016	7/28/2017			3/31/2015
	AU2013296992			MX338948	CN104755988			US8992052

EP	CN	CA	TW	US	CA	KR	JP	CN	EP	MX	US	US	
Filed	Filed	Filed	Issued	Issued	Filed	Filed	Filed	Filed	Filed	Filed	Issued	Issued	
SYSTEM AND METHOD FOR MONITORING USE OF A LAMP	SYSTEM AND METHOD FOR MONITORING USE OF A LAMP	SYSTEM AND METHOD FOR MONITORING USE OF A LAMP	SYSTEM AND METHOD FOR MONITORING USE OF A LAMP	SYSTEM AND METHOD FOR MONITORING USE OF A LAMP	Optical system for BR LED replacement lamps	OPTICAL SYSTEM FOR A DIRECTIONAL LAMP	Light Emitting Diode Lamp						
PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PRI-PRIORITY APPLICATION	PDS-PRIORITY DESIGN APPLICATION	
13795118.2	201380072423.8	2896452	102143590	13/706511	2905246	1020157028302	2016-500327	201480027463.5	14711037.3	MX/A/2015/012160	13/802987	29/418358	
6/18/2015	8/6/2015	6/25/2015	11/28/2013	12/6/2012	9/10/2015	10/8/2015	9/10/2015	11/13/2015	9/7/2015	9/10/2015	3/14/2013	4/16/2012	
			11/21/2017	9/19/2017							11/17/2015	10/15/2013	
			TWI606414	US9767522							US9188312	USD691745	

CA	TW	US	US	US	CN	US	US	CN	ΕP	US	US	KR
Filed	Filed	Issued	Issued	Issued	Issued	Issued	Filed	Filed	Filed	Issued	Filed	Filed
THREE-WAY LAMP WITH PROGRAMMABLE OUTPUT LEVELS	HOW THREE-WAY LAMP WITH PROGRAMMABLE OUTPUT LEVELS	High Output Three-way lamp with consumer programable output levels	ACTIVE COOLING DEVICE	LAMP WITH LIGHT EMITTING ELEMENTS SURROUNDING ACTIVE COOLING DEVICE	OPTICS SYSTEM FOR SOLID STATE LIGHTING APPARATUS	OPTICS SYSTEM FOR SOLID STATE LIGHTING APPARATUS	LAMP WITH HEAT SINK AND ACTIVE COOLING DEVICE	LAMP WITH HEAT SINK AND ACTIVE COOLING DEVICE	LAMP WITH HEAT SINK AND ACTIVE COOLING DEVICE	LED LAMP	SYSTEM AND METHOD FOR MONITORING USE OF A LAMP	SYSTEM AND METHOD FOR MONITORING USE OF A LAMP
PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	PRI-PRIORITY APPLICATION	ORD-UTILITY PATENT FILING	PUM-PCT UTILITY MODEL	PCT-PATENT COOPERATION TREATY	CON- CONTINUATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	DES-DESIGN	CON- CONTINUATION	PCT-PATENT COOPERATION TREATY
2922489	103128643	14/013157	13/710782	13/665959	201390000447.8	14/398887	15/809655	201380023503.4	13724956.1	29/420071	15/685427	10-2015-7017930
2/18/2016	8/20/2014	8/29/2013	12/11/2012	11/1/2012	11/4/2014	11/4/2014	11/10/2017	11/4/2014	11/7/2014	5/4/2012	8/24/2017	7/3/2015
		9/1/2015	3/7/2017	11/22/2016	9/23/2015	12/12/2017				1/22/2013		
		US9125271	US9587820	US9500355	CN201390000447.8	US9841175				USD674927		

CN	EM	US	MX	US	EP	CN	CA	US	MX	JP	TW	CN
Issued	Issued	Issued	Issued	Issued	Filed	Filed	Filed	Issued	Issued	Issued	Filed	Filed
DECO CANDLE LED LAMP WITH ELEVATED LIGHT SOURCE	DECO CANDLE LED LAMP WITH ELEVATED LIGHT SOURCE	LED LAMP WITH AN ELEVATED LIGHT UNIT	LED LAMP	LED LAMP	LED LAMP WITH ND-GLASS BULB	LED LAMP WITH ND-GLASS BULB	LED LAMP WITH ND-GLASS BULB	LED LAMP WITH ND-GLASS BULB	LED LAMP WITH ND-GLASS BULB	LED LAMP WITH ND-GLASS BULB	A lighting device a lighting assembly and a regulating element	A lighting device a lighting assembly and a regulating element
DES-DESIGN	DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION
201330441103.8	2308536	29/448755	MX/f/2013/002869	29/450990	13785746.2	201380066484.3	2888268	14/056328	MX/A/2015/004952	2015-538048	103140869	201310666489.1
9/13/2013	9/13/2013	3/13/2013	9/20/2013	3/27/2013	4/24/2015	6/18/2015	4/16/2015	10/17/2013	4/17/2015	4/15/2015	11/25/2014	12/10/2013
11/12/2014	9/13/2013	6/23/2015	7/21/2015	12/17/2013				4/4/2017	7/20/2017	11/24/2017		
CN201330441103.8	EM002308536-0001	USD732709	MX44596	USD695927				US9612002	MX349277	JP6247694		

US	TR	PE	во	CL	SG	EM	US	US	TW	US	MX	CA
Issued	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Filed	Issued	Issued	Issued
LAMP HAVING LENS ELEMENT FOR DISTRIBUTING LIGHT	LED LAMP WITH STIPPLED LENS	LED LAMP WITH STIPPLED	UNITARY HEAT SINK FOR SOLID STATE LAMP	DIRECTIONAL LAMP WITH ADJUSTABLE BEAM SPREAD	DIRECTIONAL LAMP WITH ADJUSTABLE BEAM SPREAD	DECO CANDLE LED LAMP WITH ELEVATED LIGHT SOURCE	DECO CANDLE LED LAMP WITH ELEVATED LIGHT SOURCE					
PRI-PRIORITY APPLICATION	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	PRI-PRIORITY APPLICATION	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	DES-DESIGN	DES-DESIGN
14/068414	2014/02278	417.2014	SP-109-2014	1189-2014	D2014/343/E	2427054	29/468115	14/574414	103117510	13/906387	MX/f/2013/002814	152860
10/31/2013	3/24/2014	3/26/2014	3/26/2014	5/7/2014	3/20/2014	3/18/2014	9/26/2013	12/18/2014	5/19/2014	5/31/2013	9/13/2013	9/12/2013
11/29/2016	6/1/2014	3/22/2016	10/31/2016	8/4/2016	5/2/2014	3/18/2014	6/23/2015	5/30/2017		4/5/2016	2/6/2015	10/24/2014
US9506624B2	TR2014 02278	PE4480	в06590-в	CL8.125	SGD2014/343/E	EM002427054	USD732710	US9664343		US9303846B2	MX43404	10/24/2014 CA152860

MX	BR	CA	CA	MX	BR	EM	US	BR	CN	EP	MX	CA	
Filed	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Filed	Filed	Filed	Filed	Filed	
Smooth Par Lamp Par38/30/20	Smooth Par Lamp Par38/30/20	Smooth Par Lamp Par38/30/20	LED DIRECTIONAL LAMP WITH LENS	LAMP HAVING LENS ELEMENT FOR DISTRIBUTING LIGHT									
DDV-DESIGN DIVISIONAL	DDV-DESIGN DIVISIONAL	DDV-DESIGN DIVISIONAL	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	
MX/F/2017/000350	322016005759-4	165183	161897	MX/F/2015/001238	302015002002-4	2690537	29/506035	112016008265-6	201480059977.9	14802240.3	MX/A/2016/005675	2928432	
2/2/2017	12/12/2016	11/5/2015	4/13/2015	4/13/2015	4/13/2015	4/28/2015	10/13/2014	4/14/2016	4/29/2016	4/27/2016	4/29/2016	4/21/2016	
	11/7/2017	1/7/2016	1/7/2016	2/3/2017	8/1/2017	4/28/2015	8/15/2017						
	BR322016005759-4	CA165183	CA161897	MX48952	BR302015002002	EM002690537	USD794837						

CN	US	US	BR	AU	KR	CN	JP	EP	TW	US	CA	MX
Filed	Issued	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed
LAMP WITH LED CHIPS COOLED BY A PHASE TRANSFORMATION LOOP	LAMP WITH LED CHIPS COOLED BY A PHASE TRANSFORMATION LOOP	STRUCTURES SUBJECTED TO THERMAL ENERGY AND THERMAL MANAGEMENT METHODS THEREFOR	ENHANCED COLOR- PREFERENCE LIGHT SOURCES	ENHANCED COLOR- PREFERENCE LIGHT SOURCES								
ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	PRI-PRIORITY APPLICATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY
201510982991.2	14/583039	14/567270	112016005086-0	2014315049	1020167008964	201480061293.2	2016-540937	14842487.2	103131905	14/917870	2923187	MX/A/2016/003053
12/24/2015	12/24/2014	12/11/2014	3/8/2016	3/9/2016	4/5/2016	5/9/2016	3/3/2016	3/3/2016	9/16/2014	3/9/2016	3/3/2016	3/8/2016
	7/26/2016											
	US9401468B2											

EP	TW	US	Z	MY	AU	S	S	US	US	WO	US
Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Issued	Filed	Filed
MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	LED LAMP	REFLECTOR AND LAMP COMPRISED THEREOF	Continuation or CIP for A lamp TIR inner reflector	LIGHT BULB	A19 Lamp Design Using Light Emitting Diodes	LED LAMP WITH COATED SUBSTRATE
PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PRI-PRIORITY APPLICATION	ORD-UTILITY PATENT FILING	CIP- CONTINUATION IN PART	PDS-PRIORITY DESIGN APPLICATION	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION
14903619.6	104133077	15/515755	201747013831	2017701023	2014408631	201410654638.7	201511035930.1	14536957	29/486580	PCT/US2018/27200	15/486415
4/4/2017	10/7/2015	3/30/2017	4/19/2017	3/24/2017	3/27/2017	11/17/2014	11/10/2015	11/10/2014	3/31/2014	4/12/2018	4/13/2017
									6/23/2015		
									USD732717		

PATENT

REEL: 059582 FRAME: 0774

AU	US	CA	US	TW	CN	BR	MX	CA	KR	JP	CN
Filed	Issued	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed
REMOTE PHOSPHOR LIGHTING DEVICES AND METHODS	REMOTE PHOSPHOR LIGHTING DEVICES AND METHODS	LIGHTING APPARATUS	LIGHTING APPARATUS	LIGHTING APPARATUS	LIGHTING APPARATUS	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS
ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY
2016244183	14/886781	2968975	15/529849	104140827	201410736040.2	112017006964-4	MX/A/2017/004648	2963171	1020177012079	2017-518287	PCT-PATENT COOPERATION TREATY 201480082766.7
10/11/2016	10/19/2015	5/25/2017	5/25/2017	12/4/2015	12/4/2014	4/5/2017	4/7/2017	3/30/2017	5/2/2017	4/5/2017	4/10/2017
	5/15/2018										
	US9970629										

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WO	US	US	BR	MX	CA	KR	JP	CN	ΕP	TW	Z	MY
Filed	Issued	Issued	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed
WIRELESS BEHAVIORAL FEEDBACK FOR ACTIVE LIGHTING CONTROL	WIRELESS BEHAVIORAL FEEDBACK FOR ACTIVE LIGHTING CONTROL	LIGHTING SYSTEM WITH ACTIVELY CONTROLLABLE OPTICS AND METHOD	REMOTE PHOSPHOR LIGHTING DEVICES AND METHODS	REMOTE PHOSPHOR LIGHTING DEVICES AND METHODS	REMOTE PHOSPHOR LIGHTING DEVICES AND METHODS	REMOTE PHOSPHOR LIGHTING DEVICES AND METHODS	REMOTE PHOSPHOR LIGHTING DEVICES AND METHODS					
ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING
PCT/US2016/061016	14/948912	14/850596	102016024252-5	MX/A/2016/013679	2944470	1020160133496	2016-200502	201610909566.5	16194150.5	105132230	201644035129	PI 2016703520
11/9/2016	11/23/2015	9/10/2015	10/18/2016	10/18/2016	10/6/2016	10/14/2016	10/12/2016	10/19/2016	10/17/2016	10/5/2016	10/14/2016	9/26/2016
	5/2/2017	12/12/2017										
	US9642218	US9841167										

CA	WO	CA	US	N	MY	S	KR	JP	TW	US	US	TW
Filed	Filed	Filed	Issued	Filed	Issued	Filed						
LED LAMP WITH INTERNAL MIRROR	LED LAMP WITH INTERNAL MIRROR	WARM DIMMING FOR AN LED LIGHT SOURCE	WARM DIMMING FOR AN LED LIGHT SOURCE	LED APPARATUS EMPLOYING NEODYMIUM- FLUORINE MATERIALS	LAMP BASE HAVING INTEGRAL SEMICONDUCTOR TRANSIENT PROTECTION DEVICE	WIRELESS BEHAVIORAL FEEDBACK FOR ACTIVE LIGHTING CONTROL						
PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	PCT-PATENT COOPERATION TREATY	PRI-PRIORITY APPLICATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	ORD-UTILITY PATENT FILING
2978463	PCT/US2016/022367	2992994	14/809892	1201701007	2017700676	201580054742.5	1020177012241	2017-516838	104133048	14/876366	14/572224	105136487
8/31/2017	3/14/2016	1/18/2018	7/27/2015	3/21/2017	2/27/2017	4/7/2017	5/4/2017	3/28/2017	10/7/2015	10/6/2015	12/16/2014	11/9/2016
			5/30/2017								10/4/2016	
			US9668307								US9462656B2	

EM	KR	CA	VE	PE	CL	СО	US	CN	CA	US	US	CN	
Issued	Issued	Issued	Filed	Issued	Issued	Issued	Issued	Filed	Filed	Filed	Filed	Filed	
LIGHT STICK LAMP	LIGHT STICK LAMP	LIGHT STICK LAMP	LIGHT STICK LAMP	LIGHT STICK LAMP	LIGHT STICK LAMP	LIGHT STICK LAMP	Design patent for light stick, design 1#	LED LAMP WITH INTERNAL MIRROR	LED LAMP WITH INTERNAL MIRROR	LED LAMP WITH INTERNAL MIRROR	LED LAMP WITH ENCAPSULATED DRIVER AND SAFETY CIRCUIT	LED LAMP WITH INTERNAL MIRROR	
DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	
2688358	30-2015-0019635	162007	15-388	548.15	1019-2015	15095060	29/507347	201680027451.1	2979409	15/557655	15/549539	201680015297.6	
4/24/2015	4/17/2015	4/21/2015	4/27/2015	4/23/2015	4/22/2015	4/27/2015	10/27/2014	11/10/2017	9/11/2017	9/12/2017	8/8/2017	9/12/2017	
4/24/2015	11/14/2016	11/19/2015		12/31/2015	4/26/2017	12/3/2015	10/20/2015						
EM002688358	KR30-0881911-0000	CA162007		PE4423	CL8.599	CO8863	USD741519						

WO	CN	CL	AR	PE	MX	DO	СО	US	AR	MX	JP	CN	
Filed	Issued	Issued	Issued	Issued	Issued								
LED APPARATUS EMPLOYING NEODYMIUM BASED MATERIALS WITH VARIABLE CONTENT OF FLUORINE AND OXYGEN	LED LIGHT STICK LAMP	Design patent application, light stick, design 3#	LIGHT STICK LAMP	LIGHT STICK LAMP	LIGHT STICK LAMP	LIGHT STICK LAMP							
PRI-PRIORITY APPLICATION	DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN							
PCT/CN2016/076459	201530210994.5	2015-01830	88621	1182.15	MX/F/2015/001966	D2015-0152	15145.198	29/513041	88355	MX/F/2015/001369	2015-008829	201530116199.X	
3/16/2016	6/24/2015	6/24/2015	6/17/2015	6/23/2015	6/23/2015	6/16/2015	6/24/2015	12/24/2014	4/23/2015	4/24/2015	4/20/2015	4/27/2015	
	2/3/2016	9/5/2017	6/17/2015	12/18/2015	1/17/2017	10/30/2015	1/6/2016	5/17/2016	4/23/2015	7/6/2016	4/28/2016	11/18/2015	
	CN303580651	CL8.645	AR88621	PE1182.15	MX48789	DOD2015-0152	CO8886	USD756544S1	AR88355	MX47331	JP1551048	CN201530116199.X	

**REEL: 059582 FRAME: 0779** 

PATENT

US	CN	EM	US	2	US	US	WO	US	CN	US	TW	
Issued	Issued	Issued	Issued	Issued	Issued	Issued	Filed	Filed	Filed	Issued	Filed	
LED LAMP	LED LAMP	LED LAMP	LED LAMP	Extended facet feature on lens surface to mimic the reflector appearance for LED directional lamps. (file as DESIGN patent)	LED LAMP	LED Retrofit Lamp - design patent	COLOR-SHIFTED LAMPS USING NEODYMIUM- FLUORINE CONTAINING COATING	COLOR-SHIFTED LAMPS USING NEODYMIUM- FLUORINE CONTAINING COATING	HEATSINK WITH INTEGRATED ELECTRICAL AND BASE CONTACTS	HEATSINK WITH INTEGRATED ELECTRICAL AND BASE CONTACTS	LED APPARATUS EMPLOYING NEODYMIUM BASED MATERIALS WITH VARIABLE CONTENT OF FLUORINE AND OXYGEN	
DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	DES-DESIGN	DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	PDS-PRIORITY DESIGN APPLICATION	PDS-PRIORITY DESIGN APPLICATION	ORD-UTILITY PATENT FILING	CIP- CONTINUATION IN PART	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	ORD-UTILITY PATENT FILING	
29/564569	201530460093.1	3126796	29/564547	201530460092.7	29/510862	29/510861	PCT/US16/59974	14/931476	201610812024.6	14/850010	106107252	
5/13/2016	11/17/2015	5/13/2016	5/13/2016	11/17/2015	12/3/2014	12/3/2014	11/2/2016	11/3/2015	9/9/2016	9/10/2015	3/6/2017	
7/4/2017	8/24/2016	5/13/2016	7/4/2017	9/7/2016	2/23/2016	2/23/2016				5/15/2018		
USD791370	CN201530460093.1	EM0031267960001	USD791369	CN201530460092.7	USD750285S1	USD750284S1				US9970646		

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CN	EM	MX	BR	KR	JP	CN	US	CN	WO	TW	US	EM	
Issued	Issued	Issued	Filed	Issued	Issued	Issued	Issued	Filed	Filed	Filed	Issued	Issued	
LED LAMP	RETROFIT LAMP WITH LED LIGHT SOURCE FILAMENT	LED dimmer, LED apparatus and LED system	BATTERY BACK UP LAMP USING AC WIRING ACTIVATION	BATTERY BACK UP LAMP USING AC WIRING ACTIVATION	BATTERY BACK UP LAMP USING AC WIRING ACTIVATION	LED LAMP							
PDS-PRIORITY DESIGN APPLICATION	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	PRI-PRIORITY APPLICATION	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	DES-DESIGN	
201530318687.9	3143593	MX/F/2016/001745	302016002233-0	3020160024398	2016-011260	201630224764.9	29/547642	201510392344.6	PCT/US2016/055868	105135107	14/938930	3126457	
8/24/2015	5/20/2016	6/3/2016	5/30/2016	5/23/2016	5/27/2016	6/6/2016	12/6/2015	7/6/2015	10/7/2016	10/28/2016	11/12/2015	5/13/2016	
5/4/2016	5/20/2016	11/1/2017		11/6/2017	4/28/2017	6/20/2017	5/2/2017				11/28/2017	5/13/2016	
CNCN201530318687.9	EM003143593	MX51236		KR3009306910001	JP1577376	CN304185627	USD785821			ATEN]	US9832827	EM0031264570001	

TW	WO	CX	TW	WO	US	US
Filed	Filed	Filed	Filed	Filed	Filed	Issued
COMPOSITE MATERIAL FOR LIGHTING FILTERING, LIGHTING APPARATUS, AND METHOD FOR DTERMINING DOPING CONCENTRATION OR	COMPOSITE MATERIAL FOR LIGHTING FILTERING, LIGHTING APPARATUS, AND METHOD FOR DTERMINING DOPING CONCENTRATION OR THICKNESS OF COMPOSITE MATERIAL	COMPOSITE MATERIAL FOR LIGHTING FILTERING, LIGHTING APPARATUS, AND METHOD FOR DTERMINING DOPING CONCENTRATION OR THICKNESS OF COMPOSITE MATERIAL	LED APPARATUS EMPLOYING TUNABLE COLOR FILTERING USING MULTIPLE NEODYMIUM AND FLUORINE COMPOUNDS	LED APPARATUS EMPLOYING TUNABLE COLOR FILTERING USING MULTIPLE NEODYMIUM AND FLUORINE COMPOUNDS	LED APPARATUS EMPLOYING TUNABLE COLOR FILTERING USING MULTIPLE NEODYMIUM AND FLUORINE COMPOUNDS	LED LAMP
ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	CIP- CONTINUATION IN PART	DES-DESIGN
105143390	PCT/US2016/069236	201511015919.9	105140480	PCT/US2016/065149	14/966329	29/555687
12/27/2016	12/29/2016	12/29/2015	12/7/2016	12/6/2016	12/11/2015	2/24/2016
						8/15/2017
						USD794839

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AU	MY	TW	CA	US	EM	JP	KR	TH	CL	MX	CN	
Issued	Issued	Issued	Issued	Issued	Issued	Issued	Issued	Filed	Filed	Issued	Issued	
LAMP	LAMP	LAMP	LAMP	LAMP	LAMP	LAMP	LAMP	LAMP	LAMP	LAMP	LAMP	THICKNESS OF COMPOSITE MATERIAL
DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	
201615617	16-00994-0101	105306826	170765	29/584591	003404391-0001	2016-021772	30-2016-0049167	1602004298	2554-2016	MX/F/2016/003443	201630206723.7	
10/4/2016	10/4/2016	11/14/2016	10/4/2016	11/16/2016	10/4/2016	10/6/2016	10/13/2016	11/8/2016	10/6/2016	11/7/2016	5/27/2016	
1/9/2017	1/19/2018	11/1/2017	7/12/2017	1/23/2018	10/4/2016	6/16/2017	9/13/2017			11/16/2017	3/8/2017	
AU201615617	MY16-00994-0101	TWD186469	CA170765	USD808547	EM003404391-0001	JP1581002	KR30-0923676-0000			MX51383	CNCN201630206723.7	

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S	WO	CA	US	CN	US	CA	CN	EM	US	AR	BR	РН	
Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Issued	Issued	Filed	Issued	Unfiled	
LED LAMP	LED BULB WITH GLASS ENVELOPE	LED LAMP AND ASSEMBLING METHOD THEREOF	LED LAMP AND ASSEMBLING METHOD THEREOF	LED LAMP AND ASSEMBLING METHOD THEREOF	LAMP AND LIGHTING FIXTURE COMPRISING THE LAMP	LAMP AND LIGHTING FIXTURE COMPRISING THE LAMP	LAMP AND LIGHTING FIXTURE COMPRISING THE LAMP	LAMP	BOTTOM PORTION OF LAMP	LAMP	LAMP	LAMP	
PRI-PRIORITY APPLICATION	PRI-PRIORITY APPLICATION	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	PRI-PRIORITY APPLICATION	DES-DESIGN	PDS-PRIORITY DESIGN APPLICATION	DES-DESIGN	DES-DESIGN	DES-DESIGN	
201710447399.1	PCT/CN2016/105677	2990790	15/865643	201710036140.8	15/854894	2990134	201611225008.3	3456680	29/566268	90850	302016004733-2		
6/14/2017	11/14/2016	1/4/2018	1/9/2018	1/17/2017	12/27/2017	12/27/2017	12/27/2016	11/10/2016	5/27/2016	10/14/2016	10/14/2016		
								11/10/2016	7/11/2017		9/12/2017		
								EM003456680-0001	USD791984		BR302016004733-2		
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JP	US	US	US	KR	US	EP	CN	CX	TW	WO	US	US	CN	US	
Issued	Filed	Filed	Issued	Issued	Issued	Filed	Filed	Filed	Issued	Filed	Filed	Filed	Filed	Filed	
Light Emitting Diode Component	LIGHT EMITTING DIODE COMPONENT	Light Emitting Diode Component	LIGHT EMITTING DIODE COMPONENT	LIGHT EMITTING DIODE COMPONENT	LIGHT EMITTING DIODE COMPONENT	LIGHT EMITTING DIODE COMPONENT	LIGHT EMITTING DIODE COMPONENT	LIGHT EMITTING DIODE COMPONENT	Light Emitting Diode Component	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING SILICATE, NITRIDE, AND PFS PHOSPHORS	LED FILAMENT LAMPS WITH WHITE FILAMENT APPEARANCE	LED FILAMENT LAMPS WITH WHITE FILAMENT APPEARANCE	LAMP	LED BATTERY BACKUP LAMP	
PCT-PATENT COOPERATION TREATY	CON- CONTINUATION	CON- CONTINUATION	CON- CONTINUATION	ORD-UTILITY PATENT FILING	CON- CONTINUATION	PCT-PATENT COOPERATION TREATY	DIV-DIVISIONAL FILING	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	PRO- PROVISIONAL	PRI-PRIORITY APPLICATION	PRO- PROVISIONAL	
2007-510852	14/062169	13/886878	12/884717	2006-7024601	12/884612	5740241.4	201310632677.2	200580020335.9	94113337	PCT/US2015/025128	15/922021	62/578200	201711190699.2	62/511433	
4/25/2005	10/24/2013	5/3/2013	9/17/2010	4/25/2005	9/17/2010	11/10/2006	4/25/2005	4/25/2005	4/26/2005	4/9/2015	3/15/2018	10/27/2017	11/24/2017	5/26/2017	
3/20/2014			5/7/2013	6/25/2012	1/29/2013				2/11/2015						
JP5503844			US8436380	KR1161461	US8362695				TWI473291	WO					

US	Q	CN CN	S	CN	CN	JP	US	US	US	KR	US	EP	S	S	TW
Application	Application	Application	Application	Application	Application	Issued	Filed	Filed	Issued	Issued	Issued	Filed	Filed	Filed	Issued
LED FILAMENT WITH COLORED OFF STATE MASKING	END CAP ACCEMBLY, LAMP USING THE END CAP AND ACCEMBLING METHOD OF THE LAMP	PRESENCE SENSING METHOD, PRESENCE SENSING DEVICE AND LIGHT SYSTEM	DRIVER FOR LED AND LED SYSTEM	LED LAMP	LED LAMP	Light Emitting Diode Component	LIGHT EMITTING DIODE COMPONENT	Light Emitting Diode Component	LIGHT EMITTING DIODE COMPONENT	LIGHT EMITTING DIODE COMPONENT	LIGHT EMITTING DIODE COMPONENT	LIGHT EMITTING DIODE COMPONENT	LIGHT EMITTING DIODE COMPONENT	LIGHT EMITTING DIODE COMPONENT	Light Emitting Diode  Component
provisional	Non Provisional	Non Provisional	Non Provisional	Non Provisional	Non Provisional	PCT-PATENT COOPERATION TREATY	CON- CONTINUATION	CON- CONTINUATION	CON- CONTINUATION	ORD-UTILITY PATENT FILING	CON- CONTINUATION	PCT-PATENT COOPERATION TREATY	DIV-DIVISIONAL FILING	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING
62/765060	201810933465.0	201810660549.1	201810300160.6	201810200947.5	201810189396.7	2007-510852	14/062169	13/886878	12/884717	2006-7024601	12/884612	5740241.4	201310632677.2	200580020335.9	94113337
2018-08-16	2018-08-16	2018-06-25	2018-04-04	2018-03-12	2018-03-05	4/25/2005	10/24/2013	5/3/2013	9/17/2010	4/25/2005	9/17/2010	11/10/2006	4/25/2005	4/25/2005	4/26/2005
						3/20/2014			5/7/2013	6/25/2012	1/29/2013				2/11/2015
						JP5503844			US8436380	KR1161461	US8362695				TWI473291

PATENT

**REEL: 059582 FRAME: 0786** 

9	EP	US	PH	HT	Z	МҮ	US		
Filed	Filed	Filed	Filed	Filed	Filed	Filed	Issued	To Be Filed	Awaiting Evaluation
ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG,	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	WHITE LEDs WITH TUNABLE CRI	A PWM dimming circuit with low stand-by power for LED device	Self-adaptive UV Disinfection Light Fixture
PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	CON- CONTINUATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PRI-PRIORITY APPLICATION	unfiled invention disclosure	unfiled invention disclosure
201580060838.2	15706560.8	15/509554	1-2017-500305	1701001199	201747011928	PI 2017700550	10/909564		
5/9/2017	3/1/2017	3/8/2017	2/20/2017	3/8/2017	4/3/2017	2/17/2017	8/2/2004		
							8/3/2010		
							US7768189		

ХМ	KR	AU	BR	MX	CA	KR	JP	
Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	
ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING YAG, NITRIDE, AND PFS PHOSPHORS	NITRIDE, AND PFS PHOSPHORS
PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	
PI 2017700351	1020177009584	2015315832	112017004395-5	MX/A/2017/003055	2959989	10-2017-7009138	2017-512013	
1/31/2017	4/7/2017	2/24/2017	3/6/2017	3/8/2017	3/2/2017	4/4/2017	3/1/2017	

CN	CA	BR	AU	TW	US	TH	PH	MX
Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed
ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG,	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS
PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	ORD-UTILITY PATENT FILING	CON- CONTINUATION	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY
201580048476.5	2959131	112017003420-4	2015315833	105101403	15/454831	1701001253	1-2017-500431	MX/A/2017/003056
3/9/2017	2/23/2017	2/21/2017	2/21/2017	1/18/2016	3/9/2017	3/9/2017	3/8/2017	3/8/2017

TW	US	EP	Z	MY	AU	BR	JP	豆	ЕР	
Filed	Issued	Filed	Filed	Filed	Filed	Filed	Filed	Filed	Filed	
MULTI-CHANNEL LAMP SYSTEM AND METHOD WITH MIXED SPECTRUM	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	ENHANCED COLOR- PREFERENCE LED LIGHT SOURCES USING LAG, NITRIDE, AND PFS PHOSPHORS	NITRIDE, AND PFS PHOSPHORS						
ORD-UTILITY PATENT FILING	ORD-UTILITY PATENT FILING	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	
105112496	14/757957	16723849.2	201747040195	PI2017703601	2016251580	112017022622-7	2017-510659	201747011927	15703175.8	
4/21/2016	12/24/2015	10/11/2017	11/10/2017	9/26/2017	10/20/2017	10/20/2017	2/22/2017	4/3/2017	3/1/2017	
	5/15/2018									
	US9974138									

MX	CA	KR	JP	CN	
Filed	Filed	Filed	Filed	Filed	
MULTI-CHANNEL LAMP SYSTEM AND METHOD WITH MIXED SPECTRUM					
PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	PCT-PATENT COOPERATION TREATY	
MX/A/2017/013515	2983422	1020177032638	2017-552122	201680023187.4	
10/20/2017	10/19/2017	11/10/2017	10/4/2017	10/20/2017	

126013-CN-2	HEAT DISSIPATION SYSTEM FOR HIGH POWER LED	Granted	China	Non Provisional	02809084.5	2002-03-29	02809084.5	2007-04-25
126013-DE-4	HEAT DISSIPATION SYSTEM FOR HIGH POWER LED	Granted	Germany (Federal Republic of)	Non Provisional	02721632.4	2002-03-29	60220653.7	2007-06-13
126013-GB-5	HEAT DISSIPATION SYSTEM FOR HIGH POWER LED	Granted	United Kingdom	Non Provisional	02721632.4	2002-03-29	1374319	2007-06-13
126013-US-1	HEAT DISSIPATION SYSTEM FOR HIGH POWER LED	Granted	United States of America	Non Provisional	09/681400	2001-03-29	6481874	2002-11-19
126018-US-1	NIGHT LIGHT FOR PLUMBING FIXTURES	Granted	United States of America	Non Provisional	10/064772	2002-08-15	6805458	2004-10-19
126020-CN-2	HIGH POWER LED POWER PACK FOR SPOT MODULE	Granted	China	Non Provisional	02812366.2	2002-05-24	02812366.2	2009-08-05
126020-DE-12	LED POWER PACK FOR SPOT MODULE ILLUMINATION	Granted	Germany (Federal Republic of)	Non Provisional	10171923.5	2002-05-24	2241803	2018-11-07
126020-EP-7	LED POWER PACK FOR SPOT MODULE  ILLUMINATION	Granted	European Patent	Non Provisional	10171923.5	2002-05-24	2241803	2018-11-07
126020-FR-10	HIGH POWER LED POWER PACK FOR SPOT MODULE ILLUMINATION	Granted	France	Non Provisional	02739450.0	2002-05-24	1393374	2016-08-24
126020-FR-11	LED POWER PACK FOR SPOT MODULE ILLUMINATION	Granted	France	Non Provisional	10171923.5	2002-05-24	2241803	2018-11-07
126020-GB-13	LED POWER PACK FOR SPOT MODULE ILLUMINATION	Granted	United Kingdom	Non Provisional	10171923.5	2002-05-24	2241803	2018-11-07
126020-GB-9	HIGH POWER LED POWER PACK FOR SPOT MODULE ILLUMINATION	Granted	United Kingdom	Non Provisional	02739450.0	2002-05-24	1393374	2016-08-24
126020-IT-8	HIGH POWER LED POWER PACK FOR SPOT MODULE ILLUMINATION	Granted	Italy	Non Provisional	502016000112354	2002-05-24	1393374	2016-08-24
126020-JP-3	LED POWER PACK FOR SPOT MODULE ILLUMINATION	Granted	Japan	Non Provisional	2003-500968	2002-05-24	4452495	2010-02-05
126020-US-1	HIGH POWER LED POWER PACK FOR SPOT MODULE ILLUMINATION	Granted	United States of America	Non Provisional	10/063924	2002-05-24	6799864	2004-10-05
126030-US-1	VARIABLE OPTICS SPOT MODULE	Granted	United States of America	Non Provisional	09/682535	2001-09-17	6773139	2004-08-10
126038-DE-4	ZOOMABLE SPOT MODULE	Granted	Germany (Federal Republic of)	Non Provisional	02766298.0	2002-09-17	60217523.2	2007-01-10
126038-GB-5	ZOOMABLE SPOT MODULE	Granted	United Kingdom	Non Provisional	02766298.0	2002-09-17	1427962	2007-01-10
126042-CN-9	P	Granted	China Germany (Federal	Non Provisional	03823757.1	2003-09-19	03823757.1	2012-11-28
126042-DE-4	LED-BASED MODULAR LAMP	Granted	Republic of)	Non Provisional	03754619.9	2003-09-09	1547447	2008-07-16
126042-EP-2		Granted	European Patent	Non Provisional	03754619.9	2003-09-09	1547447	2008-07-16
126042-JP-7	LED-BASED MODULAR LAMP	Granted	Japan	Non Provisional	2004-543297	2003-09-19	4350648	2009-07-31
126042-US-1	LED-BASED MODULAR LAMP	Granted	America	Non Provisional	10/065320	2002-10-03	6787999	2004-09-07

Patent Reference	e Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
126053-AU-4		Granted	Australia	Non Provisional		2003-08-29	2003270052	2009-06-04
126053-BE-7	COATED LED WITH IMPROVED EFFICIENCY	Granted	Belgium	Non Provisional	03751945.1	2003-08-29	1540746	2009-11-11
126053-CN-5	COATED LED WITH IMPROVED EFFICIENCY	Granted	China	Non Provisional	03824703.8	2003-08-29	100468791C	2009-03-11
126053-DE-9	COATED LED WITH IMPROVED EFFICIENCY	Granted	Germany (Federal Republic of)	Non Provisional	03751945.1	2003-08-29	1540746	2009-11-11
	Phosphor-coated light emitting diode with							
126053-EP-16	improved efficiency	Granted	European Patent	Non Provisional	08004649.3	2003-08-29	1930959	2019-05-08
126053-ES-13	COATED LED WITH IMPROVED EFFICIENCY	Granted	Spain	Non Provisional	03751945.1	2003-08-29	1540746	2009-11-11
126053-FR-8	COATED LED WITH IMPROVED EFFICIENCY	Granted	France	Non Provisional	03751945.1	2003-08-29	1540746	2009-11-11
126053-GB-10	COATED LED WITH IMPROVED EFFICIENCY	Granted	United Kingdom	Non Provisional	03751945.1	2003-08-29	1540746	2009-11-11
126053-IT-11	COATED LED WITH IMPROVED EFFICIENCY	Granted	Italy	Non Provisional	502010901806259	2003-08-29	1540746	2009-11-11
126053-JP-15	COATED LED WITH IMPROVED EFFICIENCY	Application	Japan	Non Provisional	2004-532037	2003-08-29		
126053-KR-3	COATED LED WITH IMPROVED EFFICIENCY	Granted	Korea, Republic of (KR)	Non Provisional	2005-7003453	2003-08-29	622209	2006-09-19
126053-NL-12	COATED LED WITH IMPROVED EFFICIENCY	Granted	Netherlands		03751945.1	2003-08-29	1540746	2009-11-11
			United States of					
126053-US-17	COATED LED WITH IMPROVED EFFICIENCY	Granted	America	Non Provisional	90/011805	2011-07-22	7479662	2013-10-17
126053-US-2	COATED LED WITH IMPROVED EFFICIENCY	Granted	United States of America	Non Provisional	10/525697	2003-08-29	7479662	2009-01-20
133068-CN-10	NA	Granted	China	Non Provisional	200480015658.4	2004-05-05	200480015658.4	2009-08-12
	METHOD AND APPARATUS FOR LED PANEL LAMP		Germany (Federal					
133068-DE-5	SYSTEMS	Granted	Republic of)	Non Provisional	04751568.9	2004-05-05	1627179	2008-10-08
133068-NI-7	METHOD AND APPARATUS FOR LED PANEL LAMP SYSTEMS	Granted	Netherlands	Non Provisional	04751568 9	2004-05-05	1627179	2008-10-08
	METHOD AND APPARATUS FOR LED PANEL LAMP		United States of					
133068-US-2	SYSTEMS	Granted	America	Non Provisional	10/555913	2004-05-05	7635203	2009-12-22
133814-CN-3	LED-BASED LIGHT BULB	Granted	China	Non Provisional	200480015673.9	2004-05-05	200480015673.9	2010-11-24
133814-CN-7	LED-BASED SPECIALTY LIGHT BULB	Granted	China	Non Provisional	201010226198.7	2004-05-05	201010226198.7	2013-10-30
133811-DE-11	I ED_BASED LIGHT BLILB	Granted	Germany (Federal	Non Provisional	0/751681 0	2007-02-02	1677178	2018-11-07
133914 ED 10	TED BACED HOUT BILLS	Grantod	Europoan Patont	Non Provisional	04751601.0	2007 05 05	1627179	2010 11 07
133814-EP-10	LED-BASED LIGHT BULB	Granted	European Patent	Non Provisional	12166294.4	2004-05-05	2484962	2018-11-07
133814-FR-13	LED-BASED LIGHT BULB	Granted	France	Non Provisional	04751681.0	2004-05-05	1627178	2018-11-07
133814-GB-15	LED-BASED LIGHT BULB	Granted	United Kingdom	Non Provisional	04751681.0	2004-05-05	1627178	2018-11-07
133814-JP-12	LED-BASED LIGHT BULB	Granted	Japan	Non Provisional	2011-110613	2004-05-05	5815982	2015-10-02
133814-JP-9	LED-BASED LIGHT BULB	Granted	Japan	Non Provisional	2006-514328	2004-05-05	5566564	2014-06-27
			United States of					
133814-US-2	LED-BASED LIGHT BULB	Published	America	Non Provisional	10/555721	2004-05-05		
133814-US-4	LED-BASED LIGHT BULB	Published	America	Non Provisional	13/424785	2012-03-20		
			United States of					
133814-US-5	LED-BASED LIGHT BULB	Published	America	Non Provisional	13/424805	2012-03-20		
			United States of					
133814-US-6	LED-BASED LIGHT BULB	Granted	America	Non Provisional	13/424835	2012-03-20	9944519	2018-04-17
149581-CN-12	LIGHT EMITTING DIODE COMPONENT	Application	China	Non Provisional	200580020335.9	2005-04-25		
149581-CN-13	LIGHT EMITTING DIODE COMPONENT	Application	China	Non Provisional	201310632677.2	2005-04-25		
149581-DF-16	LIGHT EMITTING DIODE COMPONENT	To Re Filed	Germany (Federal	Non Provisional				
149581-EP-14	LIGHT EMITTING DIODE COMPONENT	Granted	European Patent	Non Provisional	05740241.4	2005-04-25	1743358	2019-05-15
149581-GB-18	LIGHT EMITTING DIODE COMPONENT	To Be Filed	United Kingdom	Non Provisional				
149581-JP-9	Light Emitting Diode Component	Granted	Japan	Non Provisional	2007-510852	2005-04-25	5503844	2014-03-20
149581-KR-4	LIGHT EMITTING DIODE COMPONENT	Granted	Korea, Republic of (KR)   Non Provisional	Non Provisional	2006-7024601	2005-04-25	1161461	2012-06-25

Gert ENTITION CODIC COMPONENT   To 6e Filed   Membraidout   Mon Provisional   Mon	Patent Reference	Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
Description	149581-NL-17	LIGHT EMITTING DIODE COMPONENT	To Be Filed	Netherlands	Non Provisional				
Ucidit PMTTNIC DIODE COMPONENT	149581-TW-10	Light Emitting Diode Component	Granted	Taiwan	Non Provisional	094113337	2005-04-26	1473291	2015-02-11
IGHT PANTTINKS DIOSE COMPONENT				United States of					
Light Enricing Dode Component	149581-US-3	LIGHT EMITTING DIODE COMPONENT	Granted	America	Non Provisional	12/884612	2010-09-17	8362695	2013-01-29
Light Enthing Diole Component	1149581-US-5	I I GHT FMITTING DIODF COMPONENT	Granted	United States of	Non Provisional	12/884717		0859578	2013-05-07
Light Emitring Dode Component				United States of					
Ideal TEMITINIS DIODIC COMPONENT   Granted   Marked States of Heat States of Heat TANAISTER   District States of Heat Tanaister   Distri	149581-US-6	Light Emitting Diode Component	Allowed	America	Non Provisional	13/886878	2013-05-03		
DED   LED   LAMP   PROCESSITE	1,10001 116 7	TIDING GANGE CONTROL TIME TO THE TANK T	7	United States of	Nas Dravisional	1 / /000100	2012 10 21	10 2/0 /2/	2010 07 02
HEAT TRANSFER   Comment	11000	DIEZOFAN AND HEAT SINK SYSTEM FOR ENHANCED	0.00	United States of	TACIT TO VIDEO I GI	17/002103	7010-10-24	10,510,121	2017 01 02
White LEPs with enhanced color contrast   Granted   Chine	208435-US-1	HEAT TRANSFER	Granted	America	Non Provisional	11/531170		8322889	2012-12-04
White LEDs with enhanced color contrast   Granted   America   Mon Provisional   1/1926/45   2011-10-07   2013/05/89				United States of					
EED LAMP	223739-US-2	White LEDs with enhanced color contrast	Granted	America	Non Provisional			9954145	2018-04-24
ED LAMP	238658-CN-4	LED LAMP	Granted	China	Non Provisional	)64.4		103180659	2016-08-31
EED LAMP   Granted   Republic of)   Non Provisional   11792606   2011-10-07   253318				Germany (Federal					
ED LAMP   ED LAMP   Graned   United Kingdom   Lamp Provisional   11792506   2011-10-07   233318	238658-DE-5	LED LAMP	Granted	Republic of)	Non Provisional	11779260.6		2638318	2016-06-29
ED DAMP	238658-GB-7	LED LAMP	Granted	United Kingdom	Non Provisional	11779260.6		2638318	2016-06-29
LED LAMP   Published   LeD Lamp having a spherical diffuser   Application   Rezait   Non Provisional   12/942053   2010-11-09   2010-	238658-NL-6	LED LAMP	Granted	Netherlands	Non Provisional	11779260.6	2011-10-07	2638318	2016-06-29
IED lamp having a spherical diffuser	238658-US-1	LED LAMP	Published	Onited States of America	Non Provisional	12/942053	2010-11-09		
IED lamp having a spherical diffuser	240966-BR-7		Application	Brazil	Non Provisional	112012011011-0	2010-10-01		
EED lamp having a spherical diffuser   Application   ED lamp having a spherical diffuser   Published   Eunopean Patent   Mon Provisional   10821324.0   2010-10-01   2010-10-11   2010-10	240966-CN-12		Published	China	Non Provisional	2016109308322	2010-10-01		
IED lamp having a spherical diffuser   Evaluation   Eva	240966-CN-3	LED lamp having a spherical diffuser	Application	China	Non Provisional	201080054756.4	2010-10-01		
LED IAMP WITH UNIFORM OMNIDIRECTIONAL   LED IAMP WITH UNIFORM OMNIDIRECTIONAL   LIGHT INTENSITY OUTPUT   LIGHT INTENSITY OUTPUT   Published   Momerica   United States of LIGHT INTENSITY OUTPUT   LIGHT INTENSITY OUTPUT   Published   Momerica	240966-EP-8	LED lamp having a spherical diffuser	Published	European Patent	Non Provisional	10821324.0	2010-10-01		
LED lamp having a spherical diffuser         Published         Korea, Republic of (RI)         Non Provisional         1020127011454         2010-10-01           LED LAMP WITH UNIFORM OMNIDIRECTIONAL         United States of LIGHT INTENSITY OUTPUT         United States of LIGHT INTENSITY OUTPUT         United States of LIGHT INTENSITY OUTPUT         Vinited States of LIGHT INTENSITY OUTPUT         United States of LIGHT INTENSITY OUTPUT         United States of LIGHT INTENSITY OUTPUT         Vinited States of LIGHT INTENSITY OUTPUT         Vinited States of LIGHT INTENSITY OUTPUT         United States of LIGHT INTENSITY OUTPUT         Vinited States of LIGHT	240966-KR-13	LIGHT EMITTING DIODE (LED) BASED LAMP	Examination Requested	Korea, Republic of (KR)	Non Provisional	10-2018-7028878	2010-10-01		
LED LAMP WITH LUNFORM OMNIDIRECTIONAL   Granted   United States of   LED LAMP WITH LUNFORM OMNIDIRECTIONAL   United States of   LED LAMP WITH LUNFORM OMNIDIRECTIONAL   United States of   LIGHT INTENSITY OUTPUT   United States of   LIGHT INTENSITY OUTPUT   United States of   LIGHT INTENSITY OUTPUT   United States of   Non Provisional   12/57339   2009-10-02   9103507	240966-KR-9	LED lamp having a spherical diffuser	Published	Korea, Republic of (KR)	Non Provisional		2010-10-01		
LIGHT INTENSITY OUTPUT   Granted   America   Non Provisional   12/572339   2009-10-02   9103507		LED LAMP WITH UNIFORM OMNIDIRECTIONAL		United States of					
LED LAMP WITH UNIFORM OMNIDIRECTIONAL   United States of   United St	240966-US-1	LIGHT INTENSITY OUTPUT	Granted	America	Non Provisional	12/572339		9103507	2015-08-11
LIGHT INTENSITY OUTPUT LIGHT States of LIGHT SUTTHERNALY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMALY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMALLY		LED LAMP WITH UNIFORM OMNIDIRECTIONAL	-	United States of					
LEGHT INTENSITY OUTPUT     Granted     America     Non Provisional     14/205542     2014-03-12     9618165       LED lamp having a spherical diffuser     Granted     United States of COMPOSITES FOR LIGHT SOURCE THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT     Granted     America     Non Provisional     14/183013     2014-02-18     936016682       TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT     Granted     Australia     Non Provisional     2011-05461     2011-01-11     2011205461       TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT     Application     Brazil     Non Provisional     112012017088-0     2011-01-11     2011205461       TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT     Granted     China     Non Provisional     201180005962.0     2011-01-11     201180005962.0       TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT     Granted     China     Non Provisional     201180005962.0     2011-01-11     201180005962.0       Thansparent Hear Fins - Transparent Thermally Conductive Polymer Composites For Light Source Thermal Management     European Patent     Non Provisional     11708124.0     2011-01-11     6193330	240900-05-11	IED LAMP WITH UNIFORM OMNIDIRECTIONAL	Published	United States of	Non Provisional	15/1589/8	5010-03-13		
LED lamp having a spherical diffuser   Granted   America   Ameri	240966-US-4	LIGHT INTENSITY OUTPUT	Granted	America	Non Provisional	14/205542		9618165	2017-04-11
LED lamp having a spherical diffuser   Granted   America   Non Provisional   14/183013   2014-02-18   936016682   TRANSPARENT THERMALLY CONDUCTIVE POLYMER   COMPOSITES FOR LIGHT SOURCE THERMAL   Application   Brazil   Non Provisional   2011205461   2011-01-11   2011205461   2011-01-11   2011205461   Australia   Non Provisional   11/2012017088-0   2011-01-11   2011205461   2011-01-11   2011205461   Australia   Non Provisional   11/2012017088-0   2011-01-11   2011205461   Australia   Non Provisional   11/201201708-0   2011-01-11   2011205461   Australia   Non Provisional   11/201201708-0   2011-01-11   2011205461   Australia   Non P				United States of					
TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT  TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL Application  Round Provisional  TRANSPARENT THERMALLY CONDUCTIVE POLYMER  COMPOSITES FOR LIGHT SOURCE THERMAL  MANAGEMENT  TRANSPARENT THERMALLY CONDUCTIVE POLYMER  COMPOSITES FOR LIGHT SOURCE THERMAL  MANAGEMENT  THERMALLY CONDUCTIVE POLYMER  COMPOSITES FOR LIGHT SOURCE THERMAL  MANAGEMENT  TRANSPARENT THERMALLY CONDUCTIVE POLYMER  COMPOSITES FOR LIGHT SOURCE THERMAL  MANAGEMENT  THERMALLY CONDUCTIVE POLYMER  COMPOSITES FOR LIGHT SOURCE THERMAL  MANAGEMENT  THERMALLY CONDUCTIVE POLYMER  COMPOSITES FOR LIGHT SOURCE THERMAL  MANAGEMENT  THERMALLY CONDUCTIVE POLYMER  COMPOSITES FOR LIGHT SOURCE  THERMALLY CONDUCTIVE POLYMER  COMPOSITES FOR	240966-US-5	LED lamp having a spherical diffuser	Granted	America	Non Provisional	14/183013		9360166B2	2016-06-07
MANAGEMENT         Granted         Australia         Non Provisional         2011205461         2011-01-11         2011205461           TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT         Application         Brazil         Non Provisional         112012017088-0         2011-01-11           TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL 		TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL							
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TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL  MANAGEMENT Transparent Heat Fins - Transparent Thermally Conductive Polymer Composites For Light Source Thermal Management  Granted  Granted  Granted  Conductive Polymer Composites For Light Source For Light Source Granted  Granted  Ron Provisional  Application  European Patent  Non Provisional  2015-212729  2011-01-11  6193330	241019-CNL6	COMPOSITES FOR LIGHT SOURCE THERMAL	Granted	China	Non Provisional	20118000 <b>5</b> 962 0	2011_01_11	20118000 <b>5</b> 962 0	2015-11-25
COMPOSITES FOR LIGHT SOURCE THERMAL  MANAGEMENT  Management  Application  European Patent  Non Provisional  11708124.0  2011-01-11  2011-01-11  Application  European Patent  Non Provisional  Non Provisional  Non Provisional  2015-212729  2011-01-11	C+TOTO-CI4-0	TRANSPARENT THERMALLY CONDUCTIVE POLYMER	Gaired	2	NOTI TOVISIONAL	201100000000000000000000000000000000000	7011-01-11	201100000000000000000000000000000000000	2010-11-20
MANAGEMENT  Application European Patent Non Provisional 11708124.0 2011-01-11  Transparent Heat Fins - Transparent Thermally Conductive Polymer Composites For Light Source Thermal Management Granted Japan Non Provisional 2015-212729 2011-01-11		COMPOSITES FOR LIGHT SOURCE THERMAL							
Transparent Heat Fins - Transparent Thermally Conductive Polymer Composites For Light Source Thermal Management Granted Japan Non Provisional 2015-212729 2011-01-11	241019-EP-4	MANAGEMENT	Application	European Patent	Non Provisional	11708124.0	2011-01-11		
Conductive Polymer Composites For Light Source Thermal Management Granted Japan Non Provisional 2015-212729 2011-01-11 6193330		Transparent Heat Fins - Transparent Thermally							
Inermal Management Granted Japan Non Provisional 2/117-2/17/29 2/11-11-11	;	Conductive Polymer Composites For Light Source	· -	•	:				
	241019-JP-11	Thermal Management	Granted	Japan	Non Provisional	2015-212729	2011-01-11	6193330	2017-09-06

Patent Reference	Patent Reference Patent Application Title TRANSPARENT THERMALLY CONDUCTIVE POLYMER	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
241019-JP-8	COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT	Granted	Japan	Non Provisional	2012-548995	2011-01-11	6139134	2017-05-12
	TRANSPARENT THERMALLY CONDUCTIVE POLYMER							
241019-KR-13	MANAGEMENT	Application	Korea, Republic of (KR)	Non Provisional	1020187004495	2011-01-11		
	TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL							
241019-KR-9	MANAGEMENT	Granted	Korea, Republic of (KR)	Non Provisional	1020127020972	2011-01-11	101847657	2018-04-04
	TRANSPARENT THERMALLY CONDUCTIVE POLYMER							
241019-MX-10	COMPOSITES FOR LIGHT SOURCE THERMAL MANAGEMENT	Grantad	Maviro	Non Provisional	MX/a/2012/008009	2011-01-11	338717	2016-04-28
241019-1010-10	TO ANICO ARENT THERMAN I V CONDITIONS POLYMER	Glaliten	MEXICO	NOII PIOVISIONAL	MIV/d/ 2012/000002	7011-01-11	230/1/	2010-04-20
	COMPOSITES FOR LIGHT SOURCE THERMAL							
241019-MX-12	MANAGEMENT.	Granted	Mexico	Non Provisional	2016001608	2011-01-11	349604	2017-08-04
	TRANSPARENT THERMALLY CONDUCTIVE POLYMER COMPOSITES FOR LIGHT SOURCE THERMAL		United States of					
241019-US-2	MANAGEMENT	Granted	America	Non Provisional	12/979611	2010-12-28	8541933	8541933 2013-09-24
	Heatsink design for uniform optical output of a LED	-	2					
241200-CN-11	lamp with sphenical dilluser	Granted	Crima	Non Provisional	201080034/3/.9	10-01-0102	201080054757.9	701-01
241200-CN-7	LED LAMP	Granted	China	Design	201030545633.3	2010-10-08	201030545633.3	2011-06-22
241200-EM-3	LED LAMP	Granted	European Union	Design	001764713-0001	2010-10-06	001764713-0001	2010-10-06
241200-EM-4	LED LAMP	Granted	European Union	Design	001764713-0002	2010-10-06	001764713-0002	2010-10-06
241200-EM-5	LED LAMP	Granted	European Union	Design	001764713-0003	2010-10-06	001764713-0003	2010-10-06
241200-EM-6	LED LAMP	Granted	European Union	Design	001764713-0004	2010-10-06	001764713-0004	2010-10-06
241200-EP-18	Heatsink design for uniform optical output of a LED lamp with spherical diffuser	Published	European Patent	Non Provisional	10763295.2	2010-10-01		
241200-JP-14	Light Emitting Diode (LED) Based Light Bulb	Granted	Japan	Design	2010-023996	2010-10-06	1423574	2011-08-19
241200-JP-15	Light Emitting Diode (LED)-Based Light Bulb	Granted	Japan	Design	2010-023995	2010-10-06	1423363	2011-08-19
241200-US-1	LED LAMP	Granted	United States of America	Non Provisional	12/572480	2009-10-02	8593040	2013-11-26
241200-US-12	LED LAMP	Granted	United States of America	Non Provisional	14/062317	2013-10-24	9951938	2018-04-24
241200-US-2	LED LAMP	Granted	United States of America	Design	29/359239	2010-04-07	D658788	2012-05-01
244671-BR-8	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Application	Brazil	Non Provisional	112012025157-0	2011-03-18		
244671-CN-4	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Granted	China	Non Provisional	201180027211.9	2011-03-18	102939501	2016-05-11
244671-DE-12	Opaque High Conduction Light Weight Heat Sinks	Granted	Germany (Federal Republic of)	Non Provisional	11712382.8	2011-03-18	602011034251.7	2017-01-11
244671-JP-15	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Granted	Japan	Non Provisional	2016-177353	2011-03-18	6321101	2018-04-13
244671-JP-9	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Granted	Japan	Non Provisional	2013-502622	2011-03-18	6321101	2018-04-13

Def Projection   Extra SMIS_AND_LED LAMPS   Published   Corons, Republic of 160)   Non Provisional   D001277038368   2011-03-18   2012-03-18   201	Patent Reference	Patent Reference Patent Application Title	Status	Country	Patent-Design Type	<b>Application Number</b>	Filed Date	Patent No.	Grant Date
Ightweight hart 50k and EU Lamps Employing   Garned   Make	244671-KR-10	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Published		Non Provisional	1020127028368	2011-03-18		
Donner Hyl Conduction Light Weight Head Side   Commed   Universitated   Man Provisional   D0011435   D011435   D01	244671-MX-6	Lightweight Heat Sinks and LED Lamps Employing Same	Granted	Mexico	Non Provisional	MX/a/2012/011434	2011-03-18	317382	2014-01-22
LIGHTWRISH FIRE 3 NNS AND LED LAMPS   Fullished   Carried   Carr	244671-TW-11	Opaque High Conduction Light Weight Heat Sinks	Granted	?	Non Provisional	100111435	2011-03-31	1570380	2017-02-11
UGHTWHIGHT HEAT SINKS AND LED LAMPS   Published Criman   Mon. Providerial   2018/00158900   2011/03-18   317799	244671-US-2	EMPLOYING SAME	Granted	ושובי	Non Provisional	12/979529	2010-12-28	8668356	2014-03-11
UGHTW06GHT HEAT SINKS AND LED LAMPS   Application   Korea, Republic of (KR) Non Provisional   0.0203-7005011   2016-02-20   317.99   317	244773-CN-23	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Published	China	Non Provisional	2018102156900	2011-03-18		
Lightyweight Heat Sinks and LED Lamps Employing   Carnited   Mack   Ma	244773-KR-24	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Application		Non Provisional	10-2018-7005011	2018-02-20		
EMPLOYING SAME   EMPL	244773-MX-5	Lightweight Heat Sinks and LED Lamps Employing Same	Granted		Non Provisional	MX/a/2012/011433	2011-03-18	317299	2014-01-20
IED LAMP	244773-115-2	LIGHTWEIGHT HEAT SINKS AND LED LAMPS	Granted	United States of	Non Provisional	17/979476	2010-12-28	10 240 772	2019-03-26
LED LAMP   LED LAMP   Canted	245146-CN-4	LED LAMP	Granted	China	Non Provisional	201080070988.9	2010-12-31	103261777	2016-10-12
RED LAMP	245146-DE-9	LED LAMP	Granted	Germany (Federal Republic of)	Non Provisional	10861503.0	2010-12-31	602010038548.5	2016-11-30
Distance   Control of Control o	245146-KR-7	LED LAMP	Application		Non Provisional	1020137016970	2010-12-31		
December   Colombi   Col	245146-MX-5	LED LAMP	Granted		Non Provisional	MX/a/2013/007701	2010-12-31	324190	2014-10-06
IED LAMP	245146-NL-10	LED LAMP	Granted	Netherlands United States of	Non Provisional	10861503.0	2010-12-31	2659178	2016-11-30
Multifunctional Hearths for LED Lamp Optical and Information Application   Applicati	245146-US-2	LED LAMP	Granted	America	Non Provisional	13/336392	2011-12-23	8480257	2013-07-09
Multifunctional Hearfins for LED Lamp Optical and UGHTWEIGHT HEAT SINKS AND LED LAMPS   Granted   Multifunctional Hearfins for LED Lamp Optical and Informal Management   Multifunctional Hearfins for LED Lamp Optical and Informal Management   Granted   Granted   Indonesia   Mon Provisional   Mon	245224-BR-7	Thermal Management	Application	Brazil	Non Provisional	112013007741-7	2011-03-18		
LIGHTWEIGHT HEAT SINKS AND LED LAMPS   Granted   Granted   Granted   Granted   Granted   Granted   Multifunctional Heatfins for LED Lamp Optical and   Thermal Management   The	245224-CN-4	Multifunctional HeatFins for LED Lamp Optical and Thermal Management	Granted	China	Non Provisional	201180057758 3	2011-03-18	103238027	2017-03-29
Multifunctional Hearfins for IED Lamp Optical and Intermal Management	2/E22/ DE 12	LIGHTWEIGHT HEAT SINKS AND LED LAMPS	Contool Contool	Germany (Federal	No Professor	11712100 /	2011 02 10	6000110050000	2016 04 27
Multifunctional Heatfins for LED Lamp Optical and Caranted Indonesia Mon Provisional Violations (Indicated Indicated		Multifunctional HeatFins for LED Lamp Optical and	-	-					
Thermal Management   Granted   Japan   Non Provisional   2013-531566   2011-03-18   5815716		Multifunctional HeatFins for LED Lamp Optical and					1		
Multifunctional HeatFins for LED Lamp Optical and Thermal Management of LED LampS of Enanted of Mexico (KR) Non Provisional (MX)a/2013/003422 2011-03-18 10-1809185 1	245224-JP-9	Thermal Management	Granted	Japan	Non Provisional	2013-531566	2011-03-18	5815716	2015-10-02
5         LIGHTWEIGHT HEAT SINKS AND LED LAMPS         Granted         Mexico         Non Provisional         MX/a/2013/003422         2011-03-18         325708           16         EMPLOVING SAME         EMPLOVING SAME         Mon Provisional         11713109.4         2011-03-18         262267           16         EMPLOVING SAME         United States of LIGHTWEIGHT HEAT SINKS AND LED LAMPS         United States of United States of Provisional         11713109.4         2011-03-18         262267           10         EMPLOVING SAME         Granted         America         Non Provisional         12/979573         2010-12-28         8672516           11         Thermal Management         HOSPHOR SUSPENDED IN SILICONE.         Granted         Vietnam         Non Provisional         12/979573         2010-12-28         8672516           PHOSPHOR SUSPENDED IN SILICONE.         Granted         China         Non Provisional         12/01301341         2011-03-18         17098           PHOSPHOR SUSPENDED IN SILICONE.         Granted         China         Non Provisional         201180036888.9         2011-07-25         103081567           PHOSPHOR SUSPENDED IN SILICONE.         PHOSPHOR SUSPENDED IN AREMOTE         European Patent         Non Provisional         11749600.0         2011-07-25         5868404           PHOSPHOR SUSPEN	245224-KR-10	Multifunctional HeatFins for LED Lamp Optical and Thermal Management	Granted		Non Provisional	1020137009765	2011-03-18	10-1809185	2017-12-08
LIGHTWEIGHT HEAT SINKS AND LED LAMPS   Granted   Netherlands   Non Provisional   11713109.4   2011-03-18   2622267	245224-MX-5	LIGHTWEIGHT HEAT SINKS AND LED LAMPS	Granted		Non Provisional	MX/a/2013/003422	2011-03-18	325708	2014-11-27
LIGHTWEIGHT HEAT SINKS AND LED LAMPS 2 EMPLOYING SAME 3 Multifunctional HeatFins for LED Lamp Optical and Multifunctional HeatFins for LED Lamp Optical and PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR CONFIGURATION 4 PHOSPHOR CONFIGURATION PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE SUSPENDED SUS	245224-NL-16	LIGHTWEIGHT HEAT SINKS AND LED LAMPS EMPLOYING SAME	Granted	Netherlands	Non Provisional	11713109.4	2011-03-18	2622267	2016-04-27
Multifunctional Heatfins for LED Lamp Optical and Multifunctional Heatfins for LED Lamp Optical Heatfins f	2 1 1 1 2 2	LIGHTWEIGHT HEAT SINKS AND LED LAMPS	555	United States of		12/070573	1010	0677516	3017 03 10
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PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR CONFIGURATION PHOSPHOR SUSPENDED IN SILICONE, PHOSPHOR SUSPENDED IN SILICONE, PHOSPHOR SUSPENDED IN A REMOTE PHOSPHOR SUSPENDED IN A REMOTE PHOSPHOR CONFIGURATION PHOSPHOR SUSPENDED IN A REMOTE PHOSPHOR CONFIGURATION PHOSPHOR CONFIGURATION SUSPENDED IN A REMOTE PHOSPHOR CONFIGURATION PROVISIONAL SUSPENDED IN SILICONE, SUSPENDED IN SILI	245284-CN-8	MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR CONFIGURATION	Granted	China	Non Provisional	201180036888.9	2011-07-25	103081567	2016-03-23
PHOSPHOR CONFIGURATION Published European Patent Non Provisional 11749600.0 2011-07-25  PHOSPHOR SUSPENDED IN SILICONE,  MOLDED/FORMED AND USED IN A REMOTE  PHOSPHOR CONFIGURATION Granted Innan Non Provisional 2013-531870 2011-07-25 5868404		PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE							
MOLDED/FORMED AND USED IN A REMOTE  PHOSPHOR CONFIGURATION  Granted Japan Non-Provisional 2013-531870 2011-07-25 5868404	245284-EP-5	PHOSPHOR CONFIGURATION  PHOSPHOR SUSPENDED IN SILICONE,	Published	European Patent	Non Provisional	11/49600.0	2011-07-25		
Contract Con	245284-JP-6	MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR CONFIGURATION	Granted	Japan	Non Provisional	2013-521870	2011-07-25	5868404	2016-01-15

Patent Reference	Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
245284-KR-7		Granted	epublic of (KR)	Non Provisional		2011-07-25	101885933	2018-08-06
245284-TW-3	PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR CONFIGURATION	Granted		Non Provisional	100126837	2011-07-28	1589033	2017-06-21
245284-US-2	PHOSPHOR SUSPENDED IN SILICONE, MOLDED/FORMED AND USED IN A REMOTE PHOSPHOR CONFIGURATION	Granted	United States of America	Non Provisional	13/187592	2011-07-21	8835199	2014-09-16
245302-US-2	LIGHT EMITTING DIODE (LED) BASED LAMP	Granted	United States of America	Non Provisional	12/896314	2010-10-01	8414151	2013-04-09
250388-BR-7	LED LIGHT ENGINE/HEAT SINK ASSEMBLY	Application	Brazil	Non Provisional	112013018378-0	2011-12-21		
250388-CN-5	LED LIGHT ENGINE/HEAT SINK ASSEMBLY	Granted	China	Non Provisional	201180065492.7	2011-12-21	103354886	2016-08-10
250388-DF-11	LED LIGHT ENGINE/HEAT SINK ASSEMBLY	Granted	Germany (Federal	Non Provisional	11811463 6	2011-12-21	2665967	2015-04-15
250289 GB 12	LED LIGHT ENGINE (HEAT SINK ASSEMBLY	Grantod	United Kingdom	Non Provisional	11911/62 6	2011 12 21	2665067	2015 07 15
250388-IN-9	LED LIGHT ENGINE/HEAT SINK ASSEMBLY	Published	India	Non Provisional	5368/DFINP/2013	2011-12-21	2003907	CT-+0-CT02
250388-JP-6	LED LIGHT ENGINE/HEAT SINK ASSEMBLY	Granted	Japan	Non Provisional	2013-550473	2011-12-21	5855135	2015-12-18
250388-KR-10	LED LIGHT ENGINE/HEAT SINK ASSEMBLY	Granted	Korea, Republic of (KR)	Non Provisional	1020137018979	2011-12-21	10-1920510	2018-11-14
250388-MX-8	LED LIGHT ENGINE/HEAT SINK ASSEMBLY	Granted	Mexico	Non Provisional	MX/a/2013/008428	2011-12-21	325568	2014-11-20
250388-NL-13	LED LIGHT ENGINE/HEAT SINK ASSEMBLY	Granted	Netherlands United States of	Non Provisional	11811463.6	2011-12-21	2665967	2015-04-15
250388-US-2	LED LIGHT ENGINE/HEAT SINK ASSEMBLY	Granted	America	Non Provisional	13/323038	2011-12-12	9127816	2015-09-08
253990-US-1	LAMP	Granted	America	Design	29/404991	2011-10-27	D668362	2012-10-02
253992-JP-2	LAMP	Granted	Japan	Design	2012-008926	2012-04-17	1458769	2012-11-30
253992-MX-3	LAMP	Granted	Mexico United States of	Design	MX/f/2012/001322	2012-04-27	38663	2013-05-10
253992-US-1	LAMP	Granted	America	Design	29/404955	2011-10-27	D668361	2012-10-02
254037-AU-6	LIGHTING APPARATUS WITH A LIGHT SOURCE COMPRISING LIGHT EMITTING DIODES	Granted	Australia	Non Provisional	2015246150	2012-07-12	2015246150	2017-09-21
254037-CA-4	LIGHTING APPARATUS WITH A LIGHT SOURCE COMPRISING LIGHT EMITTING DIODES	Application	Canada	Non Provisional	2852884	2012-07-12		
254037-CA-7	LIGHTING APPARATUS WITH A LIGHT SOURCE COMPRISING LIGHT EMITTING DIODES	Application	Canada	Non Provisional		2012-07-12		
254037-US-1	LIGHTING APPARATUS WITH A LIGHT SOURCE COMPRISING LIGHT EMITTING DIODES	Granted	United States of America	Non Provisional	13/189052	2011-07-22	8608347	2013-12-17
254037-115-3	LIGHTING APPARATUS WITH A LIGHT SOURCE	Granted	United States of	Non Provisional	14/079992	2013-11-14	941695282	2016-08-16
254047-CN-2	LAMP	Granted	China	Design	201230017702.2	2012-01-20	201230017702.2	2013-02-13
254047-EM-5	LAMP	Granted	European Union	Design	1310809	2012-01-20	1310809-0001	2012-01-20
254047-MX-4	LAMP	Granted	Mexico	Design	MX/F/2012/000249	2012-01-20	38269	2013-03-14
254047-US-1	LAMP	Granted	United States of America	Design	29/397912	2011-07-22	D660991	2012-05-29
254088-CN-4	LIGHTING DEVICE INCLUDING A DRIVE DEVICE CONFIGURED FOR DIMMING LIGHTEMITTING DIODES	Granted	China	Non Provisional	201280066241.5	2012-10-05	104025710	2018-06-08
	LIGHTING DEVICE INCLUDING A DRIVE DEVICE CONFIGURED FOR DIMMING LIGHTEMITTING							
254088-EP-3	DIODES	Published	European Patent	Non Provisional	12773479.6	2012-10-05		

Patent Reference	Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
	LIGHTING DEVICE INCLUDING A DRIVE DEVICE CONFIGURED FOR DIMMING LIGHTEMITTING		•					
254088-KR-5	DIODES	Granted	Korea, Republic of (KR)	Non Provisional	20147015329	2012-10-05	10-2013971	2019-08-19
1	CONFIGURED FOR DIMMING LIGHT-EMITTING	•	United States of	:	1	:		1
256056 VII 0	Non impaining Engaged long for LED lamps	Granted		Non Provisional	15/290569	2011-11-07	2016204294	2017-06-06
256956-AU-9	OPTICAL SYSTEM AND LIGHTING DEVICE	Granted	Australia	Non Provisional	2016204281	2013-01-30	2016204281	2017-10-19
256956-CA-7	COMPRISED THEREOF	Granted	Canada	Non Provisional	2862702	2013-01-30	5,789,115	2019-11-28
	OPTICAL SYSTEM AND LIGHTING DEVICE							
256956-CN-3	COMPRISED THEREOF	Granted	China	Non Provisional	201380007897.4	2013-01-30	104145158	2017-10-27
	OPTICAL SYSTEM AND LIGHTING DEVICE							
256956-NZ-6	COMPRISED THEREOF	Application	New Zealand	Non Provisional	627462	2013-01-30		
256956-NZ-8	Non-imaging Fresnel lens for LED lamps	Granted	New Zealand	Non Provisional	720860	2013-01-30	720860	2018-03-23
270070	OPTICAL SYSTEM AND LIGHTING DEVICE		United States of		12/2010/10	2012	040470483	
7-995P-U2-T	COMPRISED THEREOF	Granted	America	Non Provisional	13/365949	2012-02-03	9464/8482	7019-10-11
	FRUSTO-CONICAL SURFACE FOR A LIGHT-EMITTING							
258399-AU-8	DIODE	Granted	Australia	Non Provisional	2013296992	2013-06-27	2013296992	2017-06-22
	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT-EMITTING							
258399-BR-6	DIODE	Application	Brazil	Non Provisional	112015001967-6	2013-06-27		
	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT-FMITTING							
258399-CA-9	DIODE	Granted	Canada	Non Provisional	2879388	2013-06-27	2,879,388	2018-11-27
258399-CN-10	Inner lens optics for Omnidirectional lamp	Granted	China	Non Provisional	201611095526.8	2013-06-27	ZL201611095526.8	2019-09-24
	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT-EMITTING							
258399-CN-4	DIODE	Granted	China	Non Provisional	201380041269.8	2013-06-27	104755988	2017-07-28
	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT-EMITTING							
258399-EP-3	DIODE	Published	European Patent	Non Provisional	13742302.6	2013-06-27		
	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT-EMITTING							
258399-KR-7	DIODE	Application	Korea, Republic of (KR)	Non Provisional	1020157005463	2013-06-27		
	OMNI-DIRECTIONAL REFLECTOR COMPRISING A FRUSTO-CONICAL SURFACE FOR A LIGHT-EMITTING							
258399-MX-5	DIODE	Granted	Mexico	Non Provisional	MX/A/2015/001515	2013-06-27	338948	2016-05-05
259427-US-1	Light Emitting Diode Lamp	Granted	9	Design	29/418358	2012-04-16	D691745	2013-10-15
260163-CA-9	Optical system for BR LED replacement lamps	Granted		Non Provisional	2905246	2014-02-21	2,905,246	2019-01-08
260163-CN-6	Optical system for BR LED replacement lamps	Granted	China	Non Provisional	201480027463.5	2014-02-21	ZL201480027463.5	2019-04-19
260163-EP-5	Optical system for BR LED replacement lamps	Published	European Patent	Non Provisional	14711037.3	2014-02-21		
260163-JP-7	Optical system for BR LED replacement lamps	Granted	Japan	Non Provisional	2016-500327	2014-02-21	6360145	2018-06-29
260163-KR-8	OPTICAL SYSTEM FOR A DIRECTIONAL LAMP	Published	Korea, Republic of (KR)	Non Provisional	1020157028302	2014-02-21	101938034	2019-01-07
260163-MX-4	Optical system for BR LED replacement lamps	Granted	Mexico	Non Provisional	MX/A/2015/012160	2014-02-21	349762	2017-08-10
260163-US-1	OPTICAL SYSTEM FOR A DIRECTIONAL LAMP	Granted	United States of America	Non Provisional	13/802987	2013-03-14	918831	9188312 2015-11-17
260242-CA-4	SYSTEM AND METHOD FOR MONITORING USE OF A LAMP	Application	Canada	Non Provisional	2896452	2013-11-08		
	SYSTEM AND METHOD FOR MONITORING USE OF A							
260242-CN-5	LAMP	Granted	China	Non Provisional	201380072423.8	2013-11-08	104956770	2018-05-11

Patent Reference	Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
260242-EP-6	SYSTEM AND METHOD FOR MONITORING USE OF A LAMP	Published	European Patent	Non Provisional		2013-11-08		
260242 KB 7	M AND METHOD FOR MONITORING USE OF A	Examination	Koroa Boniblic of (KB)		10 2015 7017030	2013 11 09		
200242-NN-7	SYSTEM AND METHOD FOR MONITORING USE OF A	Veduested	Noted, republic of (KN)	NOT FLOVISIONAL	10-2013-7017930	2013-11-00		
260242-TW-3	LAMP	Granted	Taiwan	Non Provisional	102143590	2013-11-28	1606414	2017-11-21
2602/2-115-1	SYSTEM AND METHOD FOR MONITORING USE OF A	Granted	United States of	Non Provisional	13/706511	2012-12-06	076757	0767533 2017-00-10
	SYSTEM AND METHOD FOR MONITORING USE OF A		United States of					
260242-US-8	LAMP	Published	America	Non Provisional	15/685427	2017-08-24		
	OPTICS SYSTEM FOR SOLID STATE LIGHTING							
260556A-CN-3	APPARATUS	Granted	China	Utility Model	201390000447.8	2013-05-03	201390000447.8	2015-09-23
	OPTICS SYSTEM FOR SOLID STATE LIGHTING		United States of					
260556A-US-2	APPARATUS	Granted	America	Non Provisional	14/398887	2013-05-03	9841175	2017-12-12
260556-CN-5	DEVICE	Dublished	China	Non Provisional	201380023503 4	2013-05-03		
	LAMP WITH HEAT SINK AND ACTIVE COOLING	s c c	5					
260556-EP-4	DEVICE	Granted	European Patent	Non Provisional	13724956.1	2013-05-03	2844916	2019-04-03
260556-US-2	IFDIAMP	Granted	United States of	Design	29/420071	2012-05-04	D674927	2013-01-22
	LAMP WITH LIGHT EMITTING ELEMENTS		United States of					
262372-US-1	SURROUNDING ACTIVE COOLING DEVICE	Granted	America	Non Provisional	13/665959	2012-11-01	9500355B2	2016-11-22
			United States of					
263287-US-1	ACTIVE COOLING DEVICE	Granted	America	Non Provisional	13/710782	2012-12-11	9587820	2017-03-07
263996-CA-4	LEVELS	Application	Canada	Non Provisional	2922489	2014-07-25		
	HOW THREE-WAY LAMP WITH PROGRAMMABLE							
263996-TW-3	OUTPUT LEVELS	Granted	Taiwan	Non Provisional	103128643	2014-08-20	1639356	2018-10-21
	High Output Three-way lamp with consumer		United States of					
263996-US-1	programable output levels	Granted	America	Non Provisional	14/013157	2013-08-29	912527	9125271 2015-09-01
	A lighting device a lighting assembly and a							
264543-CN-1	regulating element	Published	China	Non Provisional	201310666489.1	2013-12-10		
) ) ) )	A lighting device a lighting assembly and a	) - - -						
264543-TW-3	regulating element	Published	Taiwan	Non Provisional	103140869	2014-11-25		
264692-CA-7	LED LAMP WITH ND-GLASS BULB	Granted	Canada	Non Provisional		2013-10-18	2888268	2019-05-07
264692-CN-8	LED LAMP WITH ND-GLASS BULB	Published	China	Non Provisional	201380066484.3	2013-10-18		
			Germany (Federal					
264692-DE-14	LED LAMP WITH ND-GLASS BULB	Granted	Republic of)	Non Provisional	13785746.2	2013-10-18	602013043222.8	2018-09-05
264692-DK-15	LED LAMP WITH ND-GLASS BULB	Granted	Denmark	Non Provisional	13785746.2	2013-10-18	2909527	2018-09-05
264692-EP-9		Granted	European Patent	Non Provisional	13785746.2	2013-10-18	2909527	2018-09-05
264692-GB-16	LED LAMP WITH ND-GLASS BULB	Granted	United Kingdom	Non Provisional	13785746.2	2013-10-18	2909527	2018-09-05
264692-HU-17	LED LAMP WITH ND-GLASS BULB	Granted	Hungary	Non Provisional	13785746.2	2013-10-18	2909527	2018-09-05
264692-JP-10	LED LAMP WITH ND-GLASS BULB	Granted	Japan	Non Provisional	2015-538048	2013-10-18	6247694	2017-11-24
264692-MX-12	LED LAMP WITH ND-GLASS BULB	Granted	Mexico	Non Provisional	MX/A/2015/004952	2013-10-18	349277	2017-07-20

Patent Reference	e Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	<b>Grant Date</b>
264692-NI-18	IFD I AMP WITH ND-GLASS RUI R	Granted	Netherlands	Non Provisional	13785746 2	2013-10-18	2909527	2018-09-05
			United States of					
264692-US-3	LED LAMP WITH ND-GLASS BULB	Granted	America	Non Provisional	14/056328	2013-10-17	9612002	2017-04-04
265722-116-1	LECTAMB	Granton Co	United States of	Docing 1	20//E0000	2013-03-27	D695937	2013-07-21
1000	DECO CANDI E LED LAMP WITH ELEVATED LIGHT			0.00	100000	1		1
267238-CA-4	SOURCE CED CHIMIT WITH ELEVATED CIGHT	Granted	Canada	Design	152860	2013-09-12	152860	2014-10-24
267230 CN 3	DECO CANDLE LED LAMP WITH ELEVATED LIGHT		ָבָּ בּי	7	201320441102 0	2013 00 13	221222111220	2014 11 12
	DECO CANDLE LED LAMP WITH ELEVATED LIGHT			o c		T C C C C C C C C C C C C C C C C C C C		P
267238-EM-2	SOURCE	Granted	European Union	Design	002308536	2013-09-13	002308536-0001	2013-09-13
267238-MX-5	SOURCE	Granted	Mexico	Design	MX/f/2013/002814	2013-09-13	43404	2015-02-06
267238_115_1	I ED I AMD WITH AN ELEVATED LIGHT LINIT	Granted	United States of	Design	20///8755	2013-03-13	D732709	2015-06-23
	DIRECTIONAL LAMP WITH ADJUSTABLE BEAM			: , c				
7-AA 1-606 / 07	OFFICE	GIGILLED	Idwall	NOII FIONSIONAL	10311/310	CT-CO-+102	1020303	TO-07-01
267909-US-1	DIRECTIONAL LAMP WITH ADJUSTABLE BEAM SPREAD	Granted	United States of America	Non Provisional	13/906387	2013-05-31	9303846B2	2016-04-05
260 <b>coc</b> 116 1	LINITADA REVI SINIA BOB SOLID STATELIAND	G State	United States of	No Provisional	14/574414	2017 12 10	0667373	3017 05 30
270742-BO-6	LED LAMP WITH STIPPLED LENS	Granted	Bolivia	Design	SP-109-2014	2014-03-26	6590-B	2016-10-31
270742-CL-5	LED LAMP WITH STIPPLED LENS	Granted	Chile	Design	1189-2014	2014-05-07	8.125	2016-08-04
270742-EM-2	LED LAMP WITH STIPPLED LENS	Granted	European Union	Design	002427054	2014-03-18	002427054	2014-03-18
270742-PE-7	LED LAMP WITH STIPPLED LENS	Granted	Peru	Design	417.2014	2014-03-26	4480	2016-03-22
270742-SG-3	LED LAMP WITH STIPPLED LENS	Granted	Singapore	Design	D2014/343/E	2014-03-20	D2014/343/E	2014-05-02
270742-117-5	רבט באווייייייייייייייייייייייייייייייייייי	Galle	United States of	Cougs	2014/022/0	12-00-1102	7074 02270	70-00-01
270742-US-1	LED LAMP WITH STIPPLED LENS	Granted	America	Design	29/468115	2013-09-26	D732710	2015-06-23
271073-BR-7	LAMP HAVING LENS ELEMENT FOR DISTRIBUTING	Application	Brazil	Non Provisional	112016008265-6	2014-10-29		
	LAMP HAVING LENS ELEMENT FOR DISTRIBUTING	:						
271073-CA-3	LIGHT	Allowed	Canada	Non Provisional	2928432	2014-10-29		
271073-CN-6	LAMP HAVING LENS ELEMENT FOR DISTRIBUTING LIGHT	Granted	China	Non Provisional	201480059977.9	2014-10-29	ZL201480059977.9	2019-04-23
271073-EP-5	LAMP HAVING LENS ELEMENT FOR DISTRIBUTING LIGHT	Published	European Patent	Non Provisional	14802240.3	2014-10-29		
271073-MX-4	LAMP HAVING LENS ELEMENT FOR DISTRIBUTING LIGHT.	Published	Mexico	Non Provisional	2016005675	2014-10-29	361524	2018-12-07
271073   16 1	LAMP HAVING LENS ELEMENT FOR DISTRIBUTING	G State	United States of	Non Provisional	17/068717	2012-10-31	050662782	2016 11 20
271455-BR-3	LED DIRECTIONAL LAMP WITH LENS	Granted	Brazil	Design	302015002002-4	2015-04-13	302015002002	2017-08-01
271455-BR-7	Smooth Par Lamp Par38/30/20	Granted	Brazil	Design	322016005759-4	2016-12-12	322016005759-4	2017-11-07
271455-CA-5	LED DIRECTIONAL LAMP WITH LENS	Granted	Canada	Design	161897	2015-04-13	161897	2016-01-07
271455-CA-6	Smooth Par Lamp Par38/30/20	Granted	Canada	Design	165183	2015-11-05	165183	2016-01-07
271455-EM-2	LED DIRECTIONAL LAMP WITH LENS	Granted	European Union	Design	002690537-0001	2015-04-28	002690537-0001	2015-04-28
271455-MX-4	LED DIRECTIONAL LAMP WITH LENS	Granted	Mexico	Design		2015-04-13	48952	2017-02-03
2 / 1455-MX-8	Smooth Par Lamp Par38/30/20	Granted	United States of	Design	MX/F/2U1//UUU35U	20-70-/102	51249	7017-11-01
271455-US-1	LED DIRECTIONAL LAMP WITH LENS	Granted	America	Design	29/506035	2014-10-13	D794837	2017-08-15
271590-AU-8	ENHANCED COLOR-PREFERENCE LIGHT SOURCES	Allowed	Australia	Non Provisional	2014315049	2014-09-09		

Patent Reference	Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No	Grant Date
271590-BR-9	ENHANCED COLOR-PREFERENCE LIGHT SOURCES	Application	Brazil	Non Provisional	112016005086-0	2014-09-09		
271590-CA-11	FNHANCED COLOR-PREFERENCE LIGHT SOURCES	Examination	Canada	Non Provisional	2923187	2014-09-09		
271590-CN-6	ENHANCED COLOR-PREFERENCE LIGHT SOURCES	Granted	China	Non Provisional	201480061293.2	2014-09-09	105683653	2019-01-22
271590-EP-4	ENHANCED COLOR-PREFERENCE LIGHT SOURCES	Published	European Patent	Non Provisional	14842487.2	2014-09-09		
271590-JP-5	ENHANCED COLOR-PREFERENCE LIGHT SOURCES	Application	Japan	Non Provisional	2016-540937	2014-09-09		
271590-KR-7	ENHANCED COLOR-PREEERENCE LIGHT SOLIRCES	Examination	Korea Republic of (KR)	Non Provisional	1020167008964	2017/-00-00		
271590-MX-10	ENHANCED COLOR-PREFERENCE LIGHT SOURCES	Allowed	Mexico		MX/A/2016/003053	2014-09-09		
271590-TW-3	ENHANCED COLOR-PREFERENCE LIGHT SOURCES	Published	Taiwan	Non Provisional	103131905	2014-09-16		
271590-US-12	ENHANCED COLOR-PREFERENCE LIGHT SOURCES	Granted	United States of America	Non Provisional	14/917,870	2014-09-09	10,196,5	10,196,565 2019-02-05
	STRUCTURES SUBJECTED TO THERMAL ENERGY AND THERMAL MANAGEMENT METHODS		United States of					
272656-US-1	THEREFOR	Granted	America	Non Provisional	14/567270	2014-12-11	10001256	2018-06-19
	LAMP WITH LED CHIPS COOLED BY A PHASE							
272931-CN-2	TRANSFORMATION LOOP	Published	China	Non Provisional	201510982991.2	2015-12-24		
272931-US-1	LAMP WITH LED CHIPS COOLED BY A PHASE TRANSFORMATION LOOP	Granted	United States of America	Non Provisional	14/583039	2014-12-24	9401468B2	2016-07-26
273563_WO_2	A10 Jamp Design Heing Light Emitting Diodes	^pplication	Patent Cooperation	Non Provisional	BCT/1182018/27200	2018-04-12		
	0 -0 -0	1	United States of					
273601-US-1	LIGHT BULB	Granted	America	Design	29/486580	2014-03-31	D732717	2015-06-23
274439-CN-2	REFLECTOR AND LAMP COMPRISED THEREOF	Published	China	Non Provisional	201511035930.1	2015-11-10		
274439-US-1	REFLECTOR AND LAMP COMPRISED THEREOF	Granted	United States of America	Non Provisional	14/536,957	2014-11-10	10,139,095	2018-11-27
275328-CN-1	LED LAMP	Published	China	Non Provisional	201410654638.7	2014-11-17		
275441-AU-10	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	Examination Requested	Australia	Non Provisional	2014408631	2014-10-08		
275//1_BB_0	MATERIALS AND OPTICAL COMPONENTS FOR	A special section	Prosi-	Non Provisional	113017006064-4	2017 10 08		
	MATERIALS AND OPTICAL COMPONENTS FOR	:	-					
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MATERIALS AND OPTICAL COMPONENTS FOR	מינים מינים	Callaga	TWO I TOWN	2303171	2014-10-00		
275441-CN-4	COLOR FILTERING IN A LIGHTING APPARATUS	Published	China	Non Provisional	201480082766.7	2014-10-08		
	MATERIALS AND OPTICAL COMPONENTS FOR	-	)					
275441-EP-3	COLOR FILTERING IN A LIGHTING APPARATUS  MATERIALS AND OPTICAL COMPONENTS FOR	Published	European Patent	Non Provisional	14903619.6	2014-10-08		
275441-IN-12	COLOR FILTERING IN A LIGHTING APPARATUS	Application	India	Non Provisional	201747013831	2014-10-08		
275441-IP-5	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	Application	Japan	Non Provisional	2017-518287	2014-10-08		
	MATERIALS AND OPTICAL COMPONENTS FOR	:	-					
275441-KR-6	COLOR FILTERING IN A LIGHTING APPARATUS	Application	Korea, Republic of (KR)	Non Provisional	1020177012079	2014-10-08		
275441-MX-8	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	Published	Mexico	Non Provisional	MX/A/2017/004648	2014-10-08		
275441-MY-11	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	Application	Malaysia	Non Provisional	2017701023	2014-10-08		
	MATERIALS AND OPTICAL COMPONENTS FOR							
275441-TW-2	COLOR FILTERING IN A LIGHTING APPARATUS	Published	Taiwan	Non Provisional	104133077	2015-10-07		
275441-US-13	MATERIALS AND OPTICAL COMPONENTS FOR COLOR FILTERING IN A LIGHTING APPARATUS	Published	United States of America	Non Provisional	15/515755	2014-10-08		
275459-CA-5	LIGHTING APPARATUS	Application	Canada	Non Provisional	2968975	2015-12-01		
		Examination						
275459-TW-3	LIGHTING APPARATUS	Requested	Taiwan	Non Provisional	104140827	2015-12-04		

Patent Reference	Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	<b>Grant Date</b>
275459-US-4	LIGHTING APPARATUS	Published	United States of America	Non Provisional	15/529849	2015-12-01		
	REMOTE PHOSPHOR LIGHTING DEVICES AND							
275877-AU-10	METHODS	Application	Australia	Non Provisional	2016244183	2016-10-11		
275877-BR-9	REMOTE PHOSPHOR LIGHTING DEVICES AND METHODS	Published	Brazil	Non Provisional	102016024252-5	2016-10-18		
	REMOTE PHOSPHOR LIGHTING DEVICES AND	5				1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
275877-CA-7	METHODS	Application	Canada	Non Provisional	2944470	2016-10-06		
275877-CN-4	REMOTE PHOSPHOR LIGHTING DEVICES AND MFTHODS	Puhlished	China	Non Provisional	201610909566 5	2016-10-19		
	REMOTE PHOSPHOR LIGHTING DEVICES AND							
275877-EP-3	METHODS	Published	European Patent	Non Provisional	16194150.5	2016-10-17		
275877-IN-12	REMOTE PHOSPHOR LIGHTING DEVICES AND METHODS	Application	India	Non Provisional	201644035129	2016-10-14		
	REMOTE PHOSPHOR LIGHTING DEVICES AND	Examination	•	: ;				
27 JOZ 7 "-J	REMOTE PHOSPHOR LIGHTING DEVICES AND	Veduested	Japan	NOT FLOVISIONAL	2010-20002	2010-10-12		
275877-MX-8	METHODS	Published	Mexico	Non Provisional	MX/A/2016/013679	2016-10-18		
	REMOTE PHOSPHOR LIGHTING DEVICES AND							
275877-MY-11	METHODS  OF THE PROPERTY OF TH	Application	Malaysia	Non Provisional	PI 2016703520	2016-09-26		
275877-TW-2	METHODS	Granted	Taiwan	Non Provisional	105132230	2016-10-05	1646284	2019-01-01
	REMOTE PHOSPHOR LIGHTING DEVICES AND		United States of					
275877-US-1	METHODS	Granted	America	Non Provisional	14/886781	2015-10-19	9970629	2018-05-15
276116-US-2	OPTICS AND METHOD	Granted	America	Non Provisional	14/850596	2015-09-10	9841167	2017-12-12
276170-TW-3	WIRELESS BEHAVIORAL FEEDBACK FOR ACTIVE	Granted	Taiwan	Non Provisional	105136487	2016-11-09	1642327	2018-11-21
	WIRELESS BEHAVIORAL FEEDBACK FOR ACTIVE		United States of					
276170-US-1	LIGHTING CONTROL	Granted	America	Non Provisional	14/948912	2015-11-23	9642218	2017-05-02
276428-US-1	TRANSIENT PROTECTION DEVICE	Granted	America	Non Provisional	14/572224	2014-12-16	9462656B2	2016-10-04
776871/CN17	LED APPARATUS EMPLOYING NEODYMIUM-	Dishlished	<u> </u>	Non Provisional	2015800577725	2015-10-07		
	LED APPARATUS EMPLOYING NEODYMIUM-							
276824-JP-5	FLUORINE MATERIALS	Application	Japan	Non Provisional	2017-516838	2015-10-07		
276824-KR-6	LED APPARATUS EMPLOYING NEODYMIUM- FLUORINE MATERIALS	Application	Korea, Republic of (KR)	Non Provisional	1020177012241	2015-10-07		
	LED APPARATUS EMPLOYING NEODYMIUM-							
276824-TW-4	FLUORINE MATERIALS	Published	Taiwan	Non Provisional	104133048	2015-10-07		
276927 118 2	LED APPARATUS EMPLOYING NEODYMIUM-		United States of	Nos Prociniosal	11/076366	2015 10 06		
2/6824-US-2	LED APPARATUS EMPLOYING NEODYMIUM-	Published	America	Non Provisional	14/8/6366	90-01-5107		
276824-VN-9	FLUORINE MATERIALS	Application	Vietnam	Non Provisional	1201701007	2015-10-07		
277975-CA-3	WARM DIMMING FOR AN LED LIGHT SOURCE	Application		Non Provisional	2992994	2016-07-25		
277975-US-1	WARM DIMMING FOR AN LED LIGHT SOURCE	Granted	United States of America	Non Provisional	14/809892	2015-07-27	9668307	2017-05-30
278033A-CA-3	LED LAMP WITH INTERNAL MIRROR	Application	Canada	Non Provisional	2979409	2016-03-14		
278033A-CN-4	LED LAMP WITH INTERNAL MIRROR	Published	China	Non Provisional	201680027451.1	2016-03-14		
770000 115 0			United States of		15/555 655	200	10 107 220	2020
278033-CA-3	LED LAMP WITH INTERNAL MIRROR	Application	Canada	Non Provisional	2978463	2016-03-14	10,100,000	
	IED IAMP WITH INTERNAL MIRROR	Published	China	Non Provisional	201680015297.6	2016-03-14	+	+

Patent Reference	e Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
778033-115-5	LED LAMP WITH ENCAPSULATED DRIVER AND SAFETY CIRCUIT	Application	United States of	Non Provisional	15/5/0530	2016-03-14		
278821-AR-9	LIGHT STICK LAMP	Granted	Argentina	Design	88355	2015-04-23	88355	2015-04-23
278821-CA-14	LIGHT STICK LAMP	Granted	Canada	Design	162007	2015-04-21	162007	2015-11-19
278821-CL-11	LIGHT STICK LAMP	Granted	Chile	Design	1019-2015	2015-04-22	8.599	2017-04-26
278821-CN-5	LIGHT STICK LAMP	Granted	China	Design	201530116199.X	2015-04-27	201530116199.X	2015-11-18
278821-CO-10	LIGHT STICK LAMP	Granted	Colombia	Design	15095060	2015-04-27	8863	2015-12-03
278821-EM-4	LIGHT STICK LAMP	Granted	European Union	Design	002688358	2015-04-24	002688358	2015-04-24
278821-JP-6	LIGHT STICK LAMP	Granted	Japan	Design	2015-008829	2015-04-20	1551048	2016-04-28
278821-KR-15	LIGHT STICK LAMP	Granted	Korea, Republic of (KR)	Design	30-2015-0019635	2015-04-17	30-0881911-0000	2016-11-14
278821-MX-8	LIGHT STICK LAMP	Granted	Mexico	Design	MX/F/2015/001369	2015-04-24	47331	2016-07-06
278821-PE-12	LIGHT STICK LAMP	Granted	Peru	Design	548.15	2015-04-23	4423	2015-12-31
278821   18.1	Design paragraphs for light stick placing 1#	Grantod	United States of	202	20/5073/17	2014-10-27	07/15/10	2015-10-20
270021-03-1	Sile otter, deoign	Claired	All disca	7	15 300	201-10-27	0741010	2010-10-20
2/8821-VE-13	LIGHT STICK LAMP	Published	Venezuela	Design	15-388	2015-04-2/		
278823-AR-6	LED LIGHT STICK LAMP	Granted	Argentina	Design	88621	2015-06-17	88621	2015-06-17
278823-CL-8	LED LIGHT STICK LAMP	Granted	Chile	Design	2015-01830	2015-06-24	8.645	2017-09-05
278823-CN-9	LED LIGHT STICK LAMP	Granted	China	Design	201530210994.5	2015-06-24	303580651	2016-02-03
278823-CO-10	LED LIGHT STICK LAMP	Granted	Colombia	Design	15145.198	2015-06-24	8886	2016-01-06
278823-DO-2	LED LIGHT STICK LAMP	Granted	Dominican Republic	Design	D2015-0152	2015-06-16	D2015-0152	2015-10-30
2/8823-MX-3	LED LIGHT STICK LAMP	Granted	Mexico	Design	MX/F/2015/001966	2015-06-23	48/89	2017-01-17
2/8823-PE-4	LED LIGHT STICK LAMP	Granted	Peru	Design	1182.15	2015-06-23	41.7811	21-71-6107
278823-US-1	Design patent application, light stick, design 3#	Granted	America	Design	29/513041	2014-12-24	D <b>7</b> 56544S1	2016-05-17
	LED APPARATUS EMPLOYING NEODYMIUM BASED			1				
278893-CA-3	FILIORINE AND OXYGEN	Application	Canada	Non Provisional	3016820	2016-03-16		
	LED APPARATUS EMPLOYING NEODYMIUM BASED	1	5 5 5					
	MATERIALS WITH VARIABLE CONTENT OF	Examination						
278893-CN-4	FLUORINE AND OXYGEN	Requested	China	Non Provisional	201680083708.5	2016-03-16		
	LED APPARATUS EMPLOYING NEODYMIUM BASED							
278893-JP-5	FLUORINE AND OXYGEN	Requested	Japan	Non Provisional	2018-548065	2016-03-16		
	LED APPARATUS EMPLOYING NEODYMIUM BASED	-	-					
	MATERIALS WITH VARIABLE CONTENT OF							
278893-KR-6	FLUORINE AND OXYGEN	Application	Korea, Republic of (KR)	Non Provisional	10-2018-7029257	2016-03-16		
	LED APPARATUS EMPLOYING NEODYMIUM BASED							
770003 147 7	CITIODINIE VNID OAAOEN	7		No. Deputition of	2010011240	2016 03 16		
2/8893-MX-/	FLOORINE AND OXYGEN.	Published	Mexico	Non Provisional	2018011248	2016-03-16		
	MATERIALS WITH VARIABLE CONTENT OF							
278893-TW-2	FLUORINE AND OXYGEN	Published	Taiwan	Non Provisional	106107252	2017-03-06		
	LED APPARATUS EMPLOYING NEODYMIUM BASED		In it od States of					
278893-US-8	FLUORINE AND OXYGEN	Allowed	America	Non Provisional	16/078.383	2016-03-16		
	HEATSINK WITH INTEGRATED ELECTRICAL AND							
279283-CN-2	BASE CONTACTS	Published	China	Non Provisional	201610812024.6	2016-09-09		
	HEATSINK WITH INTEGRATED ELECTRICAL AND		United States of					
279283-US-1	BASE CONTACTS	Granted	America	Non Provisional	14/850010	2015-09-10	9970646	2018-05-15
	COLOR-SHIFTED LAMPS USING NEODYMIUM-		United States of					
279295-US-1	FLUORINE CONTAINING COATING	Allowed	America	Non Provisional	14/931476	2015-11-03		
	COLOR-SHIFTED LAMPS USING NEODYMIUM-	- - - -	Patent Cooperation	: :				
7-0AA-CE76/7	FLOORINE CONTAINING COATING	Published	Ireaty	Non Provisional	PCI/USIB/39974	ZO-TT-07		_

STEM STRUCTURE Dublished United States of STEM STRUCTURE Granted America United States of America United States of Design Organization In patent Granted In Provisional In Interest Interest In Interest Interest In Interest Intere	Patent Reference	Patent Reference   Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
AMP DESIGN WITH LED STEM STRUCTURE   Genned   United States of   Uni	279479-CN-2	STEM STRUCTURE	Published	China	Non Provisional	201611151608.X	2016-10-28		
AMP EXISION WITH LEED STEAM STRUCTURE         Acknowledged         Annexica         United States of United S	279479-US-3		Granted	United States of America	Non Provisional	16/138,181	2018-09-21	10,415,770	2019-09-17
EED National Company of the States of Control of Cont	279479-US-4		Acknowledged	United States of America	Non Provisional	16/573,563	2019-09-17		
REDUMP   COMPAND   CONTROL   Contr	2 <b>7</b> 9578-US-1		Granted	United States of America	Design	29/510861	2014-12-03	D <b>7</b> 50284S1	2016-02-23
INDICAMP	279603-115-1		Granted	United States of	Design	29/510862	2014-12-03	D75028551	2016-02-23
REDUMP   Design   D	279708A-CN-1		Granted	China	Design	201530460093.1	2015-11-17	201530460093.1	2016-08-24
ELDIAMP   Element Statistic on Inert Surface to mimic the Periodic Statistic of Element Statistic or Inert Surface to mimic the Periodic Statistic of LED Interctional Imps. (Title Periodic Oracle Statistic or ILED Interctional Imps. (Title Periodic Oracle Statistic Sta	279708A-EM-3		Granted	European Union	Design	003126457	2016-05-13	0031264570001	2016-05-13
Extended facet feature on lens surface to minicity   Enanted   Clina   21530460093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406093.7   2015406503.7   2015406503.7   2015406503.7   2015406503.7   201540653.7   201540	279708A-US-2	LED LAMP	Granted	United States of America	Design	29/564569	2016-05-13	D791370	2017-07-04
Part		Extended facet feature on lens surface to mimic the			•				
EDJAMP   E	279708-CN-1	ce for LED directional lamps. (file	Granted	China	Design	201530460092.7	2015-11-17	201530460092.7	2016-09-07
EDILAMP   Compact Floorescent shape retrofit LED lamp with   Compact Floorescent shape retrofit LED lamp w	279708-EM-4		Granted	European Union	Design	003126796	2016-05-13	0031267960001	2016-05-13
BATTERY BACK UP LAMP USING AC WIRING         Equipment of Equipment (and Compact Fluorescent shape retrofit LED lamp with Flament LED light source HEXAGONAL (and ED Hament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source HEXAGONAL (but hape retrofit LED lamp with Flament LED light source	279708-US-3		Granted	United States of America	Design	29/564547	2016-05-13	D <b>7</b> 91369	2017-07-04
BATTERY BACK UP LAMP USING AC WRING         Requested         Inwahr         Outreed States of Long States			Examination		:				
ACTIVATION         ACTIVATION         ACTIVATION         America	280131-1W-2		Requested	United States of	Non Provisional	10513510/	27-10-58		
BATTERY BACK UP LAMP USING AC WIRING   Patient Cooperation   Compact Fluorescent Shape retrofit LED lamp with   Granted   Granted   Brazil   Compact Fluorescent Shape retrofit LED lamp with   Granted   Brazil   Compact Fluorescent Shape retrofit LED lamp with   Granted   Brazil   Compact Fluorescent Shape retrofit LED lamp with   Granted   Bulgaria   Design   Dosign   D03170380   2016-06-03   2015-07-06   2015-07-07-07   2015-07	280131-US-1		Granted	America	Non Provisional	14/938930	2015-11-12	9832827	2017-11-28
IED dimmer, LED apparatus and LED system   Granted   China   Compact Fluorescent shape retrofit LED lamp with   Granted   Gr	280131-WO-3		Published	Patent Cooperation Treaty	Non Provisional	PCT/US2016/055868	2016-10-07		
Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL         Granted         Austria         Design         03170380         2016-06-03         2013-056-0001           Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL         Granted         Belgium         Non Provisional         03170380         2016-06-03         2016-06-03         03170356-0001           Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL         Granted         Bulgaria         Design         003170380         2016-06-03         03170356-0001           RETROFIT LAMP WITH LED LIGHT SOURCE FLAMENT         Granted         China         Design         003170380         2016-06-01         302016002295           FLAMENT         FLAMENT         Granted         China         Design         003170380         2016-06-03         302016002295           FLAMENT         FLAMENT         Granted         China         Design         003170380         2016-06-01         302016002295           FLAMENT         FLAMENT         Granted         China         Design         003170380         2016-06-03         302016002295           Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL         Granted         Cechia         Design         003170380         2016-06-03         003	281499-CN-1		Granted	China	Non Provisional	201510392344.6	2015-07-06	ZL201510392344.6	2019-05-10
Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL (Flament LED light source HEXAGONAL)	281662B-AT-30	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Austria	Design	003170380	2016-06-03	003170356-0001	2016-06-03
Filament LED light source HEXAGONAL   Granted   European Hurrice   Filament LED light source HEXAGONAL   Granted   European Hurrice   European H		D lamp with	-						
Filament LED light source HEXAGONAL   Granted   Bulgaria   Design   Desig	2010020-01-11		gialitan	or grain	NOI FICKBIONAL	0031/0380	2010-00-00	000170001	2010-00-00
RETROFIT LAMP WITH LED LIGHT SOURCE   Granted   Grante	281662B-BG-12		Granted	Bulgaria	Design	003170380	2016-06-03	003170356-0001	2016-06-03
RETROFIT LAMP WITH LED LIGHT SOURCE FILAMENT  Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with flament LED light source (HEXAGONAL) Compact Fluorescent shape retrofit LED lamp with flament LED light source (HEXAGONAL) Compact Fluorescent shape retrofit LED lamp with flament LED light source (HEXAGONAL) Compact Fluorescent shape retrofit LED lamp with flament LED light source (HEXAGONAL) Compact Fluorescent shape retrofit LED lamp with flament LED light source (HEXAGONAL) Compact Fluorescent shape retrofit LED lamp with flament LED light source (HEXAGONAL) Compact Fluorescent shape retrofit LED lamp with Granted Estonia  Design  Design	281662B-BR-5		Granted	Brazil	Design	302016002295-0	2016-06-01	302016002295	2018-01-30
FILAMENT   Compact Fluorescent shape retrofit LED lamp with   Granted   China   Design   Design   201630224766.8   2016-06-03   2016-06-03   203938851		LAMP WITH LED LIGHT SOURCE			,				
Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Granted Cyprus (Republic of) Design 003170380 2016-06-03 003170356-0001  Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Granted Czechia Design 003170380 2016-06-03 003170356-0001  Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL Granted Germany (Federal Filament LED light source HEXAGONAL Granted Denmark 003170380 2016-06-03 003170356-0001  Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL Granted Denmark 003170380 2016-06-03 003170356-0001  Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL Granted Estonia Design 003170380 2016-06-03 003170356-0001  Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL Granted Estonia Design 003170380 2016-06-03 003170356-0001  Compact Fluorescent shape retrofit LED lamp with Granted European Union Design 003170356-0002 2016-06-03 003170356-0001  ESTROFIT LAMP WITH LED LIGHT SOURCE European Union Design 003170356-0001 003170356-0001	281662B-CN-2	FILAMENT	Granted	China	Design	201630224766.8	2016-06-06	303938851	2016-11-23
Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL     Czechia     Design     003170380     2016-06-03     003170356-0001       Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL     Granted     Germany (Federal Republic of)     Design     003170380     2016-06-03     003170356-0001       Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL     Granted     Denmark     Design     003170380     2016-06-03     003170356-0001       Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL     Granted     Denmark     Design     003170380     2016-06-03     003170356-0001       Compact Fluorescent shape retrofit LED lamp with filament LED light source (HEXAGONAL)     Granted     Estonia     Design     003170380     2016-06-03     003170356-0001       Compact Fluorescent shape retrofit LED lamp with filament LED light source (HEXAGONAL)     Granted     Estonia     Design     003170380     2016-06-03     003170356-0001       Compact Fluorescent shape retrofit LED lamp with filament LED light source (HEXAGONAL)     Granted     European Union     Design     003170356-0002     2016-06-03     003170356-0002       RETROFIT LAMP WITH LED LIGHT SOURCE     European Union     Design     003170356-0001     2016-06-03     003170356-0001	281662B-CY-23	D lamp with	Granted	Cyprus (Republic of)	Design	003170380	2016-06-03	003170356-0001	2016-06-03
Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Granted Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Granted Compact Fluorescent shape retrofit LED lamp with flament LED light source HEXAGONAL Granted Compact Fluorescent shape retrofit LED lamp with Compact Fluorescent shape retrofit LED lamp with Estonia Design 003170380 2016-06-03 003170356-0001  Compact Fluorescent shape retrofit LED lamp with Granted Scholar Estonia Design 003170380 2016-06-03 003170356-0001  Compact Fluorescent shape retrofit LED lamp with Fluorescent shape retrofit LED lamp with Fluorescent shape retrofit LED lamp with Granted Scholar European Union Design 003170356-0002 2016-06-03 003170356-0002  RETROFIT LAMP WITH LED LIGHT SOURCE Function Scholar European Union Design 003170356-0001 003170356-0001	281662B-CZ-13	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Czechia	Design	003170380	2016-06-03	003170356-0001	2016-06-03
Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL Granted Denmark Design 003170380 2016-06-03 003170356-0001  Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL Granted Compact Fluorescent shape retrofit LED lamp with Filament LED light source (HEXAGONAL) Granted Estonia Design 003170356-0001  Compact Fluorescent shape retrofit LED lamp with Granted European Union Design 003170380 2016-06-03 003170356-0001  ESTONIA DESIGN 003170356-0001 2016-06-03 003170356-0001  FILAMP WITH LED LIGHT SOURCE Granted European Union Design 003170356-0001 2016-06-03 003170356-0001	281662R-DF-15	D lamp with	Granted	Germany (Federal Republic of)	Design	003170380	2016-06-03	003170356-0001	2016-06-03
t filament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL Compact Fluorescent shape retrofit LED lamp with Compact Fluorescent shape retrofit LED lamp with filament LED light source (HEXAGONAL) Compact Fluorescent shape retrofit LED lamp with filament LED light source (HEXAGONAL) FRETROFIT LAMP WITH LED LIGHT SOURCE RETROFIT LAMP WITH LED LIGHT SOURCE Fluorescent shape retrofit LED lamp with filament LED light source (HEXAGONAL) Further Source (HEXAGONAL) Furth					Ċ				
Compact Huorescent shape retrofit LED lamp with   Granted   Estonia   Design   003170380   2016-06-03   003170356-0001	281662B-DK-14		Granted	Denmark	Design	003170380	2016-06-03	003170356-0001	2016-06-03
Compact Fluorescent shape retrofit LED lamp with 9 filament LED light source (HEXAGONAL) Furopean Union PETROFIT LAMP WITH LED LIGHT SOURCE Furopean Union FLOORE FUROPEAN Union PETROFIT LAMP WITH LED LIGHT SOURCE FUROPEAN Union FUR	281662B-EE-16		Granted	Estonia	Design	003170380	2016-06-03	003170356-0001	2016-06-03
RETROFIT LAMP WITH LED LIGHT SOURCE Granted Granted European Union Design 003170356-0001 2016-06-03 003170356-0001	2017	D lamp with			2			00117015	
FILAMENT Granted European Union Design 003170356-0001 2016-06-03 003170356-0001	2816628-EIVI-39	RETROFIT I AMP WITH LED LIGHT SOURCE	Granted	European Union	Design		2016-06-03	0031/0356-0002	2016-06-03
	281662B-EM-8	FILAMENT	Granted	European Union	Design	003170356-0001	2016-06-03	003170356-0001	2016-06-03

Patent Reference	Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
281662B-ES-19	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Spain	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-FI-36	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Finland	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-FR-20	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	France	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-GB-38	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	United Kingdom	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-GR-18	Compact Fluorescent shape retrofit LED lamp with	Granted	Greece	Decign	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-HR-21	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Croatia	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-HU-27	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Hungary	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-IE-17	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Ireland (Republic of)	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-IT-22	D lamp with	Granted	Italy	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-JP-3	RCE	Granted	Japan	Design	2016-011262	2016-05-27	1584508	2017-08-04
281662B-KR-4	RETROFIT LAMP WITH LED LIGHT SOURCE FILAMENT	Granted	Korea, Republic of (KR)	Design	3020160025356	2016-05-26	3009081590001	2017-05-22
281662B-LT-25	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Lithuania	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-LU-26	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Luxembourg	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-LV-24	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Latvia	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-MT-28	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Malta	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-MX-6	RETROFIT LAMP WITH LED LIGHT SOURCE FILAMENT	Granted	Mexico	Design	MX/F/2016/001747	2016-06-03	51385	2017-11-16
281662B-NL-29	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Netherlands	Non Provisional	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-PL-31	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Poland	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-PT-32	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Portugal	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662-BR-5	RETROFIT LAMP WITH LED LIGHT SOURCE FILAMENT	Granted	Brazil	Design	302016002233-0	2016-05-30	30 2016 002233-0	2019-02-12
281662B-RO-33	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Romania	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-SE-37	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Sweden	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-SI-34	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Slovenia	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-SK-35	Compact Fluorescent shape retrofit LED lamp with filament LED light source HEXAGONAL	Granted	Slovak Republic	Design	003170380	2016-06-03	003170356-0001	2016-06-03
281662B-TR-9	RETROFIT LAMP WITH LED LIGHT SOURCE FILAMENT	Granted	Turkey	Design	2016/04070	2016-05-24	2016/04070	2016-06-24
281662B-US-1	RETROFIT LAMP WITH LED LIGHT SOURCE FILAMENT	Granted	United States of America	Design	29/547644	2015-12-06	D789569	2017-06-13
281662C-AL-35	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Albania	Design	003170356	2016-06-03	003170356-0002	2016-06-03

Patent Reference	Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
281662C-AT-21	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Austria	Design	003170356		003170356-0002	2016-06-03
281662C_RE_0	Compact Fluorescent shape retrofit LED lamp with	Granted	Relations	Non Provisional	003170356		003170356-0003	2016-06-03
281662C-BG-10	Compact Fluorescent shape retrofit LED lamp with	Grantod	R-I	Docing Sings	003170356		003170356-0003	2016.06.03
281662C-BR-2	RETROFIT LAMP WITH LED LIGHT SOURCE	Granted	Brazil	Design	302016002232-1		30 2016 002232-1	2019-02-12
281662C-CN-3	RETROFIT LAMP WITH LED LIGHT SOURCE	Granted	China	Design	201630224763.4		303938850	2016-11-23
281662C-CY-36	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Cyprus (Republic of)	Design	003170356		003170356-0002	2016-06-03
281662C-CZ-11	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Czechia	Design	003170356	2016-06-03	003170356-0002	2018-06-03
281662C-DE-13	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Germany (Federal Republic of)	Design	003170356		003170356-0002	2016-06-03
281662C-DK-12	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Denmark	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-EE-14	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Estonia	Design	003170356		003170356-0002	2016-06-03
281662C-EM-5	RETROFIT LAMP WITH LED LIGHT SOURCE FILAMENT	Granted	European Union	Design	003170356		003170356-0002	2016-06-03
281662C-ES-31	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Spain	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-FI-27	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Finland	Design	003170356		003170356-0002	2016-06-03
281662C-FR-32	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	France	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-GB-29	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	United Kingdom	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-GR-30	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Greece	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-HR-33	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Croatia	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-HU-18	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Hungary	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-IE-15	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Ireland (Republic of)	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-IT-34	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Italy	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-JP-6	RETROFIT LAMP WITH LED LIGHT SOURCE FILAMENT	Granted	Japan	Design	2016-011263	2016-05-27	1585456	2017-08-10
281662C-KR-7	RETROFIT LAMP WITH LED LIGHT SOURCE FILAMENT	Granted	Korea, Republic of (KR)	Design	3020160024401	2016-05-23	300930693-0002	2017-11-06
281662C-LT-16	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Lithuania	Design	003170356		003170356-0002	2016-06-03
281662C-LU-17	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Luxembourg	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-LV-37	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Latvia	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-MT-19	Compact Fluorescent shape retrofit LED lamp with filament LED light source OCTAGONAL	Granted	Malta	Design	003170356	2016-06-03	003170356-0002	2016-06-03
281662C-MX-8	RETROFIT LAMP WITH LED LIGHT SOURCE FILAMENT	Granted	Mexico	Design	MX/F/2016/001748	2016-06-03	51250	2017-11-01

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281662-CN-2		Granted	China	Design		2016-06-06	304185627	2017-06-20
	Compact Fluorescent shape retrofit LED lamp with			(				
281662C-NL-20	filament LED light source OCTAGONAL	Granted	Netherlands	Non Provisional	003170356	2016-06-03	003170356-0002	2016-06-03
	Compact Fluorescent shape retrofit LED lamp with	<b>)</b>	) 	7	1	,		
5010050 L 55	Compact Fluorescent shape retrofit LED lamp with	0		000	COLF	5010 00 00	00011,0000	5010
281662C-PT-23	filament LED light source OCTAGONAL	Granted	Portugal	Design	003170356	2016-06-03	003170356-0002	2016-06-03
	Compact Fluorescent shape retrofit LED lamp with							
281662C-RO-24	filament LED light source OCTAGONAL	Granted	Romania	Design	003170356	2016-06-03	003170356-0002	2016-06-03
	Compact Fluorescent shape retrofit LED lamp with							
281662C-SE-28	filament LED light source OCTAGONAL	Granted	Sweden	Design	003170356	2016-06-03	003170356-0002	2016-06-03
	Compact Fluorescent shape retrofit LED lamp with							
281662C-SI-25	filament LED light source OCTAGONAL	Granted	Slovenia	Design	003170356	2016-06-03	003170356-0002	2016-06-03
	Compact Fluorescent shape retrofit LED lamp with	· -	-					
281662C-5K-26	tilament LED light source OCI AGONAL	Granted	Slovak Republic	Design	0031/0356	2016-06-03	0031/0356-0002	2016-06-03
2816626-118-1	REIROFII LAMP WITH LED LIGHT SOURCE	Granted	America	Design	29/547645	2015-12-06	D790086	2017-06-20
	RETROEIT I AMP WITH LED LIGHT SOLIRCE			Ċ				
281662-EM-10	FILAMENT	Granted	European Union	Design	003143593-0002	2016-05-20	003143593-0002	2016-05-20
281662-FM-7	RETROFIT LAMP WITH LED LIGHT SOURCE	Granted	Furonean Union	Design	003143593-0001	2016-05-20	003143593-0001	2016-05-20
791667 ID 3	RETROFIT LAMP WITH LED LIGHT SOURCE	Granto.	5			2016 05-27	1577376	2017 04 28
	RETROFIT LAMP WITH LED LIGHT SOURCE			1				
281662-KR-4	FILAMENT	Granted	Korea, Republic of (KR) Design	Design	3020160024398	2016-05-23	3009306910001	2017-11-06
281662-MX-6	RETROFIT LAMP WITH LED LIGHT SOURCE	Granted	Mexico	Design	MX/F/2016/001745	2016-06-03	51236	2017-11-01
	RETROFIT LAMP WITH LED LIGHT SOURCE		United States of	1				
281662-US-1	FILAMENT	Granted	America	Design	29/547642	2015-12-06	D785821	2017-05-02
281833-CN-1	LED LAMP	Granted	China	Design	201530318687.9	2015-08-24	CN201530318687.9	2016-05-04
281833-US-2	LED LAMP	Granted	America	Design	29/555687	2016-02-24	D794839	2017-08-15
	LED APPARATUS EMPLOYING TUNABLE COLOR							
282201-CA-4	FLUORINE COMPOUNDS	Application	Canada	Non Provisional	3007011	2016-12-06		
	LED APPARATUS EMPLOYING TUNABLE COLOR FILTERING USING MULTIPLE NEODYMIUM AND							
282201-CN-5	FLUORINE COMPOUNDS	Published	China	Non Provisional	201680072489.0	2016-12-06		
	LED APPARATUS EMPLOYING TUNABLE COLOR FILTERING USING MULTIPLE NEODYMIUM AND							
282201-JP-6	FLUORINE COMPOUNDS	Application	Japan	Non Provisional	2018-529287	2016-12-06		
	LED APPARATUS EMPLOYING TUNABLE COLOR FILTERING USING MULTIPLE NEODYMIUM AND							
282201-KR-7	FLUORINE COMPOUNDS	Application	Korea, Republic of (KR) Non Provisional	Non Provisional	1020187019280	2016-12-06		
	LED APPARATUS EMPLOYING TUNABLE COLOR							
282201-MX-8	FLUORINE COMPOUNDS	Published	Mexico	Non Provisional	MX/A/2018/007034	2016-12-06		
	LED APPARATUS EMPLOYING TUNABLE COLOR							
202201 TW 3	FILTERING USING MULTIPLE NEODYMIUM AND		H .::	Nos	1051 10180	2016 12 07		
282201-TW-3	FLUORINE COMPOUNDS	Published	Taiwan	Non Provisional	105140480	2016-12-07		

Patent Reference	Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
282201-US-1	LED APPARATUS EMPLOYING TUNABLE COLOR FILTERING USING MULTIPLE NEODYMIUM AND FLUORINE COMPOUNDS	Published	United States of America	Non Provisional	14/966329	2015-12-11		
	LED APPARATUS EMPLOYING TUNABLE COLOR FILTERING USING MULTIPLE NEODYMIUM AND		Patent Cooperation					
282201-WO-2	FLUORINE COMPOUNDS	Published	Treaty	Non Provisional	PCT/US2016/065149	2016-12-06		
	COMPOSITE MATERIAL FOR LIGHTING FILTERING, LIGHTING APPARATUS, AND METHOD FOR CONCENTRATION OF							
282246-CA-4	THICKNESS OF COMPOSITE MATERIAL	Application	Canada	Non Provisional	3009501	2016-12-29		
	COMPOSITE MATERIAL FOR LIGHTING FILTERING, LIGHTING APPARATUS, AND METHOD FOR							
	DTERMINING DOPING CONCENTRATION OR							
282246-CN-1	THICKNESS OF COMPOSITE MATERIAL	Granted	China	Non Provisional	201511015919.9	2015-12-29	106935696	2019-06-07
	COMPOSITE MATERIAL FOR LIGHTING FILTERING, LIGHTING APPARATUS, AND METHOD FOR							
282246-IP-5	DTERMINING DOPING CONCENTRATION OR THICKNESS OF COMPOSITE MATERIAL	Examination	lapan	Non Provisional	2018-533692	2016-12-29		
	COMPOSITE MATERIAL FOR LIGHTING FILTERING,	3	1					
	LIGHTING APPARATUS, AND METHOD FOR							
282246-MX-6	THICKNESS OF COMPOSITE MATERIAL	Published	Mexico	Non Provisional	MX/A/2018/008045	2016-12-29		
	COMPOSITE MATERIAL FOR LIGHTING FILTERING,							
	LIGHTING APPARATUS, AND METHOD FOR DTERMINING DOPING CONCENTRATION OR	Examination						
282246-TW-3	THICKNESS OF COMPOSITE MATERIAL	Requested	Taiwan	Non Provisional	105143390	2016-12-27		
	COMPOSITE MATERIAL FOR LIGHTING FILTERING, LIGHTING APPARATUS, AND METHOD FOR DETERMINING DOPING CONCENTRATION OR		United States of					
282246-US-7	THICKNESS OF COMPOSITE MATERIAL	Published	America	Non Provisional	16/061479	2016-12-29		
	COMPOSITE MATERIAL FOR LIGHTING FILTERING,							
	DTERMINING DOPING CONCENTRATION OR		Patent Cooperation					
282246-WO-2	THICKNESS OF COMPOSITE MATERIAL	Published	Treaty	Non Provisional	PCT/US2016/069236	2016-12-29		
285167-AR-9	LAMP	Application	Argentina	Design	90850	2016-10-14		
285167-AU-6	LAMP	Granted	Australia	Design	201615617	2016-10-04	201615617	2017-01-09
285167-CA-3	LAMP	Granted	Canada	Design	170765	2016-10-04	170765	2017-07-12
285167-CL-11	LAMP	Granted	Chile	Design	2554-2016	2016-10-06	8.920	2018-01-29
285167-CN-1	LAMP	Granted	China	Design	201630206723.7	2016-05-27	CN201630206723.7	2017-03-08
285167-EM-15	LAMP	Granted	European Union	Design	003404391-0001	2016-10-04	003404391-0001	2016-10-04
285167-JP-14	LAMP	Granted	Japan	Design	2016-021772	2016-10-06	1581002	2017-06-16
285167-KR-13	LAMP	Granted	Korea, Republic of (KR)	Design	30-2016-0049167	2016-10-13	30-0923676-0000	2017-09-13
285167-MX-10	LAMP	Granted	Mexico	Design	MX/F/2016/003443	2016-11-07	51383	2017-11-16
285167-MY-5	LAMP	Granted	Malaysia	Design	16-00994-0101	2016-10-04	16-00994-0101	2018-01-19
285167-TH-12	LAMP	Granted	Thailand	Design	1602004298	2016-11-08	68481	2018-04-06
285167-TW-4	LAMP	Granted	Taiwan	Design	105306826	2016-11-14	D186469	2017-11-01
			United States of					
285167-US-2	LAMP	Granted	America	Design	29/584591	2016-11-16	D808547	2018-01-23
310863-EM-2	LAMP	Granted	Linited States of	Design	003456680	2016-11-10	003456680-0001	2016-11-10
310863-US-1	BOTTOM PORTION OF LAMP	Granted	America	Design	29/566268	2016-05-27	D791984	2017-07-11

Patent Reference	e Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
314689-CA-2	LAMP AND LIGHTING FIXTURE COMPRISING THE LAMP	Application	Canada	Non Provisional	2990134	2017-12-27		
	LAMP AND LIGHTING FIXTURE COMPRISING THE	- :	2	:				
7-NO3-CN-T	LAMP AND LIGHTING EIXTLIRE COMPRISING THE	rubiislied	United States of	NOI PIOVISIONAL	C.000C27110102	7010-17-27		
314689-US-3	LAMP AND LIGHTING FIXTURE COMPRISING THE LAMP	Granted	United States of America	Non Provisional	15/854894	2017-12-27	10,520,182	2019-12-31
314807-CA-3	LED LAMP AND ASSEMBLING METHOD THEREOF	Application	Canada	Non Provisional	2990790	2018-01-04		
314807-CN-1	LED LAMP AND ASSEMBLING METHOD THEREOF	Published	China	Non Provisional	201710036140.8	2017-01-17		
314807-US-2	LED LAMP AND ASSEMBLING METHOD THEREOF	Granted	United States of America	Non Provisional	15/865643	2018-01-09	10,393,322	2019-08-27
			United States of					
314807-US-4	LED LAMP AND ASSEMBLING METHOD THEREOF	Acknowledged	America	Non Provisional	16/553,124	2019-08-27		
315623-CA-2	LED BULB WITH GLASS ENVELOPE	Published	Canada	Non Provisional	3,043,641	2016-11-14		
315623-CN-3	LED BULB WITH GLASS ENVELOPE	Published	China	Non Provisional	201680091999.2	2016-11-14		
21622		<u> </u>	United States of	No.	16/3/0 501	2010		
317731-CA-4	LOW REFRACTIVE INDEX NEODYMIUM FLUORIDE DOPED POLYCARBONATE	Application	Canada	Non Provisional	3,058,685			
31 <b>77</b> 31 (N) 3	LOW REFRACTIVE INDEX NEODYMIUM FLUORIDE	Examination			201700000000000000000000000000000000000	2017 02 20		
317731-TW-2	LOW REFRACTIVE INDEX NEODYMIUM FLUORIDE DOPED POLYCARBONATE	Published	Taiwan	Non Provisional	107106176	2018-02-23		
317731-US-5	LOW REFRACTIVE INDEX NEODYMIUM FLUORIDE DOPED POLYCARBONATE	Application	United States of America	Non Provisional	16/492,103	2017-02-28		
317731-WO-1	LOW REFRACTIVE INDEX NEODYMIUM FLUORIDE DOPED POLYCARBONATE	Published	Patent Cooperation Treaty	Non Provisional	PCT/CN2017/075209	2017-02-28		
317903-CA-3	LED LAMP	Application	Canada	Non Provisional	3006744	2018-05-30		
317903-CN-1	LED LAMP	Published	China	Non Provisional	201710447399.1	2017-06-14		
317903-US-2	LED LAMP	Application	United States of America	Non Provisional	15/989160	2018-05-24		
318826-CA-4	LED BATTERY BACKUP LAMP	Application	Canada	Non Provisional	3,060,082	2018-05-11		
318826-CN-3	LED BATTERY BACKUP LAMP	Application	China	Non Provisional	201880032117.4	2018-05-11		
318826-US-5	LED BATTERY BACKUP LAMP	To Be Filed	United States of America	Non Provisional	16/617,495	2019-11-26		

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	A MARIN THE PROPERTY OF THE PR	- 5	Patent Cooperation	,				
	SE FOR WIRELESS		United States of		1 0 1000	100000000000000000000000000000000000000		
( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	METHOD AND SYSTEM FOR MULTI-CHANNEL	- Population	United States of		10,011000	0.1		
319472B-US-1	ACOUSTIC COMMUNICATION AND SENSING	Application	America	Non Provisional	15/944707	2018-04-03		
319472-CA-3	Method and Apparatus for Wireless Control of Devices	Application	Canada	Non Provisional	3,058,796	2018-04-03		
319472-CN-4	Method and Apparatus for Wireless Control of Devices	Published	China	Non Provisional	201880023204.3	2018-04-03		
319472-WO-2	SYSTEM AND METHOD FOR PRESENCE DETECTION	Published	Patent Cooperation Treaty	Non Provisional	PCT/US18/25901	2018-04-03		
320869-CA-2		Application	Canada	Non Provisional	3,024,222	2018-11-15		
320869-CN-1		Application	China	Non Provisional	201711190699.2	2017-11-24		
320869-US-3	LAMP	Application	United States of America	Non Provisional	16/181,764	2018-11-06		
322732-CA-2	LED LAMP	Application	Canada	Non Provisional	3,034,433	2019-02-21		
322732-CN-1	LED LAMP	Published	China	Non Provisional	201810189396.7	2018-03-05		
322732-US-3	LED LAMP	Published	United States of America	Non Provisional	16/267,537	2019-02-05		
322952-CA-3	LED FILAMENT LAMPS WITH WHITE FILAMENT APPEARANCE	Application	Canada	Non Provisional	3,021,307	2018-10-18		
322952-CN-4	LED FILAMENT LAMPS WITH WHITE FILAMENT APPEARANCE	Published	China	Non Provisional	201811258982.9	2018-10-26		
322952-KR-5	LED FILAMENT LAMPS WITH WHITE FILAMENT APPEARANCE	Application	Korea, Republic of (KR)	Non Provisional	10-2018-0129163	2018-10-26		
322952-TW-6	LED FILAMENT LAMPS WITH WHITE FILAMENT APPEARANCE	Published	Taiwan	Non Provisional	107136175	2018-10-15		
322952-US-2	LED FILAMENT LAMPS WITH WHITE FILAMENT APPEARANCE	Granted	United States of America	Non Provisional	15/922021	2018-03-15	10,495,263	2019-12-03
323748-CA-2	LED LAMP	Application	Canada	Non Provisional	3,036,005	2019-03-07		
323748-CN-1	LED LAMP	Published	China	Non Provisional	201810200947.5	2018-03-12		
323748-US-3	LED LAMP	Published	United States of America	Non Provisional	16/295,359	2019-03-07		
324073-CA-3	DRIVER FOR LED AND LED SYSTEM	To Be Filed	Canada	Non Provisional				
324073-CN-1	DRIVER FOR LED AND LED SYSTEM	Published	China	Non Provisional	201810300160.6	2018-04-04		

Patent Reference	Patent Reference Patent Application Title	Status	Country	Patent-Design Type	Application Number	Filed Date	Patent No.	Grant Date
			United States of					
324073-US-4	DRIVER FOR LED AND LED SYSTEM	To Be Filed	America	Non Provisional				
			Patent Cooperation					
324073-WO-2	DRIVER FOR LED AND LED SYSTEM	Published	Treaty	Non Provisional	PCT/CN2019/081203	2019-04-03		
	PRESENCE SENSING METHOD, PRESENCE SENSING							
324640-CN-1	DEVICE AND LIGHT SYSTEM	Application	China	Non Provisional	201810660549.1	2018-06-25		
	PRESENCE SENSING METHOD, PRESENCE SENSING		United States of					
324640-US-2	DEVICE AND LIGHT SYSTEM	Allowed	America	Non Provisional	16/452,172	2019-06-25		
	LED FILAMENT WITH COLORED OFF STATE		United States of					
325836-US-2	MASKING	Application	America	Non Provisional	16/543,508	2019-11-05		
	END CAP ACCEMBLY, LAMP USING THE END CAP							
326216-CN-1	AND ACCEMBLING METHOD OF THE LAMP	Application	China	Non Provisional	201810933465.0	2018-08-16		
	END CAP ACCEMBLY, LAMP USING THE END CAP		United States of					
326216-US-2	AND ACCEMBLING METHOD OF THE LAMP	Application	America	Non Provisional	16/572,563	2019-09-16		
327798-CA-2	UV Disinfection Under Cabinet Light Optical System   Application	Application	Canada	Non Provisional	3,060,616			
327798-CN-1	UV Disinfection Under Cabinet Light Optical System   Application	Application	China	Non Provisional	201811269817.3	2018-10-29		
			United States of					
327798-US-3	UV Disinfection Under Cabinet Light Optical System Application	Application	America	Non Provisional	16/661891	2019-10-29		
327799-CA-2	Self-adaptive UV Disinfection Light Fixture	Acknowledged	Canada	Non Provisional				
327799-CN-1	Self-adaptive UV Disinfection Light Fixture	Application	China	Non Provisional	201910113788.X	2019-02-14		
			United States of					
327799-US-3	Self-adaptive UV Disinfection Light Fixture	To Be Filed	America	Non Provisional				
	A PWM dimming circuit with low stand-by power							
328282-CA-2	for LED device	To Be Filed	Canada	Non Provisional				
	A PWM dimming circuit with low stand-by power							
328282-CN-1	for LED device	Acknowledged	China	Non Provisional	201910295648.9	2019-04-12		
	A PWM dimming circuit with low stand-by power		United States of					
328282-US-3	for LED device	To Be Filed	America	Non Provisional				

**RECORDED: 04/04/2022**