

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6696491

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
CREE, INC.	03/01/2021
RECEIVING PARTY DATA	
Name:	CREELED, INC.
Street Address:	39870 EUREKA DRIVE
City:	NEWARK
State/Country:	CALIFORNIA
Postal Code:	94560
PROPERTY NUMBERS Total: 9	
Property Type	Number
Patent Number:	7282744
Patent Number:	7884447
Patent Number:	8378463
Patent Number:	7638811
Patent Number:	7648257
Patent Number:	8192056
Patent Number:	8297061
Patent Number:	8379407
Patent Number:	8792250
CORRESPONDENCE DATA	
Fax Number:	(919)419-9354
<i>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.</i>	
Phone:	9194199350
Email:	hip@hultquistip.com
Correspondent Name:	HULTQUIST, PLLC
Address Line 1:	PO BOX 14329
Address Line 4:	RESEARCH TRIANGLE PK, NORTH CAROLINA 27709
ATTORNEY DOCKET NUMBER:	4241-100 (PROJECT CHILI)
NAME OF SUBMITTER:	STEVEN J. HULTQUIST

SIGNATURE:	/steven j. hultquist/
DATE SIGNED:	05/06/2021

Total Attachments: 233[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

PATENT ASSIGNMENT AGREEMENT

This Patent Assignment Agreement (“**Assignment**”) is made by and between Cree, Inc., a North Carolina corporation having its principal offices at 4600 Silicon Drive, Durham, North Carolina 27703, USA (“**Assignor**”), and CreeLED, Inc. (f/k/a Chili Acquisition, Inc.), a Delaware corporation having its principal offices at 39870 Eureka Drive, Newark, CA 94560, USA (“**Assignee**”), as of the date set forth below.

WHEREAS, Assignor is selling to Assignee, contemporaneously with the execution and delivery of this Assignment at a closing on the date hereof, the Acquired Assets (as defined in the Purchase Agreement) pursuant to the Asset Purchase Agreement dated as of October 18, 2020, as amended, among Assignee, SMART Global Holdings, Inc., a Cayman Islands exempted company of which Assignee is a wholly-owned subsidiary, and Assignor (the “**Purchase Agreement**”) and the Intellectual Property Assignment and License Agreement dated as of the date hereof, between Assignee and Assignor (the “**IPALA**”), providing for, among other things, the sale to Assignee or an Affiliate of Assignee by Assignor of all of Assignor’s right, title and interest in and to the Assigned Patents (as set forth below);

WHEREAS, the term “**Patents**” means all United States, international and foreign patents, utility models, industrial rights and applications therefor, and all reissues, reexaminations, divisions, divisionals, renewals, extensions, provisionals, continuations and continuations-in-part thereof, and all patents, applications, registrations and filings claiming priority to or serving as a basis for priority thereof;

WHEREAS, the term “**Assigned Patents**” means (a) the patents and patent applications identified on Exhibit A; (b) any and all Patents, where U.S. or non-U.S., issuing on or arising from Patents included in (a); (c) all Patents claiming priority to any of the Patents covered by (a) or (b) above; (d) with respect to all of the foregoing, all renewals, reissues, extensions (or other governmental actions that provide exclusive rights to the owner thereof in the patented subject matter beyond the original expiration date), substitutions, confirmations, registrations, revalidations, reexaminations, additions, continuations, continued prosecutions, requests for continuing examinations, continuing prosecution applications, continuations-in-part, and divisions of or to any of the foregoing, and all results of oppositions, reexaminations, supplemental examinations, and other review procedures (including ex parte reexamination, inter partes review, post grant review, and covered business method (CBM) review), and all Patents issuing on or arising from any of the foregoing, and all foreign counterparts of any of the foregoing; and (e) all registrations of any of the foregoing including supplementary protection certificates or the equivalent thereof in any and all countries;

WHEREAS, Assignee is desirous of acquiring all of Assignor’s right, title and interest in and to the Assigned Patents;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor does hereby unconditionally and irrevocably sell, assign, transfer, convey and deliver to Assignee, free and clear of all liens, encumbrances, rights and claims of any third party except for such permitted liens and encumbrances as expressly provided in the Purchase Agreement, IPALA, and other agreements entered into pursuant thereto, Assignor’s entire right, title and interest in and to all of the following, throughout the world, whether existing now or in the future:

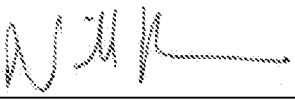
- (a) the Assigned Patents;
- (b) all inventions described in any of the Assigned Patents that (i) are included in any claim in the Assigned Patents, or (ii) are disclosed in an enabling manner in any of the Assigned Patents;

(c) all rights to apply for, file prosecute, register, maintain, extend and renew, in any and all countries of the world (i) Patents and other governmental grants or issuances of any type that claim any of the inventions described in (b), and (ii) the Assigned Patents; and

(d) to the extent they exist, any and all remedies, claims, causes of action and other enforcement rights of any kind (whether known or unknown or whether currently pending, filed, or otherwise, and whether accrued or accruing in the past, present or future) under, pursuant to, or on account of, any of the Assigned Patents or the rights described in (c), including all causes of action and other enforcement rights for (i) all past, current, and future damages, (ii) injunctive relief, and (iii) any other remedies of any kind for past, current, and future infringement.

Assignor also hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents or certificates of invention which may be granted upon any of the Assigned Patents in the name of Assignee, as the assignee of the entire interest therein.

CREE, INC.

By: _____

Name: Neill P. Reynolds

Title: EVP & Chief Financial Officer

Date: 3/1/2021

CREELED, INC.

By: _____

Name: _____

Title: _____

Date: _____

EXECUTION VERSION

(c) all rights to apply for, file prosecute, register, maintain, extend and renew, in any and all countries of the world (i) Patents and other governmental grants or issuances of any type that claim any of the inventions described in (b), and (ii) the Assigned Patents; and

(d) to the extent they exist, any and all remedies, claims, causes of action and other enforcement rights of any kind (whether known or unknown or whether currently pending, filed, or otherwise, and whether accrued or accruing in the past, present or future) under, pursuant to, or on account of, any of the Assigned Patents or the rights described in (c), including all causes of action and other enforcement rights for (i) all past, current, and future damages, (ii) injunctive relief, and (iii) any other remedies of any kind for past, current, and future infringement.

Assignor also hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents or certificates of invention which may be granted upon any of the Assigned Patents in the name of Assignee, as the assignee of the entire interest therein.

CREE, INC.

By: _____

Name: _____

Title: _____

Date: _____

CREELED, INC.

By:  _____

Name: Bruce Goldberg

Title: Vice President & Chief Legal Officer

Date: 3/1/2021

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EXHIBIT A
ASSIGNED PATENTS

Patents (Issued)

Cree No.	Country	Application Status	App. No.	Filing Date	Publ. No.	Publ. Date	Patent No.	Issue Date	Exp. Date	Application Title	Owner/Applicant	Govt. Rights
P0137US1	United States of America	Granted	09/760,635	16-Jan-2001	US 2002/0093020 A1	18-Jul-2002	6,800,876	5-Oct-2004	2-Jul-2021	Group III Nitride LED with Undoped Cladding Layer	Cree, Inc.	PATE 11
P0137US3	United States of America	Granted	10/948,363	23-Sep-2004	US 2005/0040426	24-Feb-2005	7,071,490	4-Jul-2006	20-Aug-2021	Group III Nitride LED with Silicon Carbide Substrate	Cree, Inc.	
P0137US5	United States of America	Granted	13/439,292	4-Apr-2012			RE45059	5-Aug-2014	16-Jan-2021	Group III Nitride LED with Undoped Cladding Layer	Cree, Inc.	
P0137US6	United States of America	Granted	14/797,980	13-Jul-2015			RE46,589	24-Oct-2017	16-Jan-2021	Group III Nitride LED with Undoped Cladding Layer and Multiple Quantum Well	Cree, Inc.	
P0137US7	United States of America	Granted	14/743,528	18-Jun-2015			RE46,588	24-Oct-2017	16-Jan-2021	Group III Nitride with Undoped Cladding Layer	Cree, Inc.	
P0138US1	United States of America	Granted	10/367,495	14-Feb-2003	US 2004/0159843	19-Aug-2004	7,170,097	30-Jan-2007	14-Nov-2023	Inverted Light Emitting Diode on Conductive Substrate	Cree, Inc.	
P0138US2	United States of America	Granted	11/625,377	22-Jan-2007	US 2007/0114541	24-May-2007	7,482,183	27-Jan-2009	24-Aug-2023	Light Emitting Diode with Degenerate Coupling Structure	Cree, Inc.	
P0138US3	United States of America	Granted	11/627,399	26-Jan-2007	US 2007/0210318	13-Sep-2007	7,531,840	12-May-2009	15-Mar-2023	Light Emitting Diode with Metal Coupling Structure	Cree, Inc.	
P0139US1	United States of America	Granted	10/366,053	13-Feb-2003	US 2004/0159851	19-Aug-2004	6,987,281	17-Jan-2006	13-Feb-2023	Group III Nitride Contact Structures for Light Emitting Devices	Cree, Inc.	
P0140US1	United States of America	Granted	10/365,901	13-Feb-2003	US 2004/0159842	19-Aug-2004	6,952,024	4-Oct-2005	13-Feb-2023	Group III-Nitride LED with Silicon Carbide Cladding Layer	Cree, Inc.	

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P0147US2	United States of America	Granted	10/665,595	17-Sep-2003	US 2004/0041164	4-Mar-2004	6,821,804	23-Nov-2004	28-Nov-2020	Enhanced Light Extraction in LEDs Through the Use of Internal and External Optical Elements	Cree, Inc.	Yes
P0162US1	United States of America	Granted	10/057,821	25-Jan-2002	US 2002/0123164	5-Sep-2002	6,791,119	14-Sep-2004	25-Jan-2022	Light Emitting Diodes Including Modifications for Light Extraction	Cree, Inc.	Yes
P0162US2	United States of America	Granted	10/859,635	3-Jun-2004	US 2004/0217362	4-Nov-2004	7,026,659	11-Apr-2006	25-Jan-2022	Light Emitting Diodes Including Pedestals	Cree, Inc.	Yes
P0162US4	United States of America	Granted	11/842,350	21-Aug-2007	US2007-0284604	13-Dec-2007	7,420,222	2-Sep-2008	25-Jan-2022	Light Emitting Diodes Including Transparent Oxide Layers	Cree, Inc.	Yes
P0162US5	United States of America	Granted	12/360,216	27-Jan-2009	US2009/0166658	2-Jul-2009	8,426,881	23-Apr-2013	1-Nov-2022	Light Emitting Diodes Including Two Reflector Layers	Cree, Inc.	Yes
P0162US6	United States of America	Granted	12/835,366	13-Jul-2010	US-2010-0283077-A1	11-Nov-2010	8,692,277	8-Apr-2014	25-Jan-2022	Light Emitting Diodes Including Optically Matched Substrates	Cree, Inc.	Yes
P0204US1	United States of America	Granted	10/140,796	7-May-2002	US 2003/0006418	9-Jan-2003	6,958,497	25-Oct-2005	16-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice, Group III Nitride Based Quantum Well Structures and Group III Nitride Based Superlattice Structures	Cree, Inc.	
P0204US2	United States of America	Granted	10/963,666	13-Oct-2004	US 2005/0045895	3-Mar-2005	7,312,474	25-Dec-2007	19-Jul-2022	Group III Nitride Based Superlattice Structures	Cree, Inc.	

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P0204US3	United States of America	Granted	11/8/75,353	19-Oct-2007	2008-0038858	14-Feb-2008	8,227,268	24-Jul-2012	7-May-2022	Methods of Fabricating Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice, Group III Nitride Based Quantum Well Structures and Group III Nitride Based Superlattice Structures	Cree, Inc.	
P0204US4	United States of America	Granted	13/535,026	27-Jun-2012	US2012/0298955A1	29-Nov-2012	9,112,083	18-Aug-2015	20-Jun-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice, Group III Nitride based Quantum Well Structures and Group III Nitride Based Superlattice Structures	Cree, Inc.	
P0208US1	United States of America	Granted	10/267,093	4-Oct-2002	US 2003/0089918	15-May-2003	7,858,403	28-Dec-2010	31-Dec-2022	Methods and Systems for Fabricating Broad Spectrum Light Emitting Devices	Cree, Inc.	
P0208US3	United States of America	Granted	12/951,177	22-Nov-2010	US-2011-0070669-A1	24-Mar-2011	8,476,091	2-Jul-2013	17-Jan-2023	Methods and Systems for Fabricating Broad Spectrum Light Emitting Devices	Cree, Inc.	
P0209US3	United States of America	Granted	11/432,793	11-May-2006			RE43,725	9-Oct-2012	12-Jun-2022	Ultraviolet Light Emitting Diode	Cree, Inc.	
P0210US1	United States of America	Granted	11/110,545	20-Apr-2005	US2005/0236633	27-Oct-2005	7,872,268	18-Jan-2011	6-Apr-2026	Improved Substrate Buffer Structure for Group III Nitride Devices	Cree, Inc.	
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P0214US1	United States of America	Granted	10/185,252	27-Jun-2002	US 2003/0045015	6-Mar-2003	6,888,167	3-May-2005	27-Jun-2022	Flip Chip Bonding of Light Emitting Devices and Light Emitting Devices Suitable for Flip-Chip Bonding	Cree, Inc.	
P0214US2	United States of America	Granted	10/920,101	17-Aug-2004	US 2005/0017256	27-Jan-2005	7,259,033	21-Aug-2007	23-Jul-2021	Flip-Chip Bonding of Light Emitting Devices and Light Emitting Devices Suitable for Flip-Chip Bonding	Cree, Inc.	
P0214US3	United States of America	Granted	11/772,419	2-Jul-2007			7,608,860	27-Oct-2009	27-Jun-2022	Flip Chip Bonding of Light Emitting Devices and Light Emitting Devices Suitable for Flip-Chip Bonding	Cree, Inc.	
P0215US1	United States of America	Granted	10/185,350	27-Jun-2002	US 2003/0042507	6-Mar-2003	6,747,298	8-Jun-2004	27-Jun-2022	Collis for Bonding of Light Emitting Diodes Having Shaped Substrates	Cree, Inc.	
P0215US2	United States of America	Granted	10/832,971	27-Apr-2004	US 2004/020082	14-Oct-2004	7,341,175	11-Mar-2008	30-Aug-2023	Bonding of Light Emitting Diodes Having Shaped Substrates	Cree, Inc.	
P0226US1	United States of America	Granted	10/058,369	28-Jan-2002			6,635,503	21-Oct-2003	28-Jan-2022	Cluster Packaging of Light Emitting Diodes	Cree, Inc.	
P0231US1	United States of America	Granted	10/200,244	22-Jul-2002			6,740,906	25-May-2004	25-Jan-2022	Light Emitting Diodes Including Modifications for Submount Bonding	Cree, Inc.	
P0231US2	United States of America	Granted	11/039,566	20-Jan-2005	2005/0194603	8-Sep-2005	7,211,833	1-May-2007	13-Aug-2022	Light Emitting Diodes Including Barrier Layers/Sublayers (as amended)	Cree, Inc.	
P0231US3	United States of America	Granted	10/825,647	15-Apr-2004	US 2005/0019971	27-Jan-2005	7,037,742	2-May-2006	15-Apr-2024	Methods of Fabricating Light Emitting Devices Using Mesa Regions and Passivation Layers	Cree, Inc.	

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P0231US4	United States of America	Granted	11/688,605	20-Mar-2007	US2007-0161137-A1	12-Jul-2007	7,611,915	3-Nov-2009	25-Apr-2028	Methods of Manufacturing Light Emitting Diodes Including Barrier Layers/Sublayers	Cree, Inc.	
P0231US5	United States of America	Granted	12/564,458	22-Sep-2009	US-2010-0006883-A	14-Jan-2010	8,269,241	18-Sep-2012	20-Oct-2030	Methods of Manufacturing Light Emitting Diodes Including Barrier Layers/Sublayers	Cree, Inc.	
P0231US6	United States of America	Granted	13/586,642	15-Aug-2012	US2012/0305939	6-Dec-2012	8,604,502	10-Dec-2013	22-Sep-2029	Methods of Manufacturing Light Emitting Diodes Including Barrier Layers/Sublayers	Cree, Inc.	
P0231US7	United States of America	Granted	14/067,395	30-Oct-2013			8,907,366	9-Dec-2014	25-Jan-2022	Light Emitting Diodes Including Current Spreading Layer and Barrier Sublayers	Cree, Inc.	
P0232US1	United States of America	Granted	10/818,619	6-Apr-2004	US 2004/0217361	4-Nov-2004	7,531,380	12-May-2009	6-Jul-2026	Light-Emitting Devices Having an Active Region with Electrical Contacts Coupled to Opposing Surfaces Thereof and Methods of Forming the Same	Cree, Inc.	
P0232US3	United States of America	Granted	12/463,736	11-May-2009	US-2009-0224281-A1	10-Sep-2009	8,378,461	19-Feb-2013	6-Apr-2024	Light Emitting Devices having an Active Region with Electrical Contacts Coupled to Opposing Surfaces Thereof	Cree, Inc.	
P0233US1	United States of America	Granted	10/818,620	6-Apr-2004			7,087,936	8-Aug-2006	6-Apr-2024	Light Emitting Devices Having an Anti-reflective Layer that has a Graded Index of Refraction and Methods of Forming the Same	Cree, Inc.	

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P0233US2	United States of America	Granted	11/4/78,873	30-Jun-2006	US2006-0278883	14-Dec-2006	8,748,920	10-Jun-2014	8-Jan-2026	Light-Emitting Devices Having an Antireflective Layer that Has a Graded Index of Refraction and Methods of Forming the Same	Cree, Inc.	
P0234US1	United States of America	Granted	10/818,592	6-Apr-2004	US 2004/0217360	4-Nov-2004	7,714,345	11-May-2010	27-Nov-2024	Light-Emitting Devices having Coplanar Electrical Contacts Adjacent to a Substrate Surface Opposite an Active Region and Methods of Forming Same	Cree, Inc.	
P0245US1	United States of America	Granted	10/659,241	9-Sep-2003	US 2004/0056260	25-Mar-2004	6,853,010	8-Feb-2005	9-Sep-2023	Phosphor-Coated Light Emitting Diodes Including Tapered Sidewalls, and Fabrication Methods Therefor	Cree, Inc.	
P0249US1	United States of America	Granted	10/325,616	20-Dec-2002	US 2004/0118512	24-Jun-2004	7,147,739	12-Dec-2006	8-Apr-2024	Systems for Assembling Components on Submounts and Methods Therefor	Cree, Inc.	
P0249US2	United States of America	Granted	11/585,515	24-Oct-2006	US2007-0034323	15-Feb-2007	7,638,013	29-Dec-2009	20-May-2024	Systems for Assembling Components on Submounts and Methods therefor	Cree, Inc.	
P0250US1	United States of America	Granted	10/248,754	14-Feb-2003	US 2004/0159849	19-Aug-2004	7,042,020	9-May-2006	7-Apr-2023	Light Emitting Device Incorporating a Luminescent Material	Cree, Inc.	
P0250US2	United States of America	Granted	10/853,921	26-May-2004	US 2004/0214358	28-Oct-2004	6,967,116	22-Nov-2005	14-Feb-2023	Light Emitting Device Incorporating a Luminescent Material	Cree, Inc.	
P0253US1	United States of America	Granted	10/427,274	1-May-2003	US2004-0217364	4-Nov-2004	7,005,679	28-Feb-2006	1-May-2023	Multicomponent Solid State White Light	Cree, Inc.	

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P0253US2	United States of America	Granted	11/3/47,645	2- Feb-2006	US2006-0138435	29- Jun-2006	7,791,092	7- Sep-2010	22- May-2025	Multiple Component Solid State White Lamp	Cree, Inc.	
P0253US3	United States of America	Granted	12/845,629	28-Jul-2010	US-2010-0290221-A1	18-Nov-2010	8,901,585	2- Dec-2014	1- May-2023	Multiple Component Solid State White Lamp	Cree, Inc.	
P0258US1	United States of America	Granted	10/368,063	14-Feb-2003	US 2003/0168663	11-Sep-2003	6,794,684	21-Sep-2004	14-Feb-2023	Reflective Ohmic Contacts for Silicon Carbide Including a Layer Consisting of Nickel, Methods of Fabricating Same, and Light Emitting Diodes Including the Same	Cree, Inc.	
P0270US1	United States of America	Granted	10/840,463	6-May-2004	US 2005/0029533	10-Feb-2005	7,338,822	4-Mar-2008	6-May-2024	LED Fabrication via Ion Implant Isolation	Cree, Inc.	
P0270US3	United States of America	Granted	11/154,619	16-Jun-2005	US 2005/0285126	29-Dec-2005	7,592,634	22-Sep-2009	6-May-2024	LED Fabrication via Ion Implant Isolation	Cree, Inc.	
P0270US4	United States of America	Granted	12/327,882	4-Dec-2008	US 2009/0104726	23-Apr-2009	7,943,406	17-May-2011	20-Sep-2024	LED Fabrication via Ion Implant Isolation	Cree, Inc.	
P0270US5	United States of America	Granted	12/507,288	22-Jul-2009	20090309124	17-Dec-2009	7,943,954	17-May-2011	6-May-2024	LED Fabrication Via Ion Implant Isolation	Cree, Inc.	
P0272US1	United States of America	Granted	10/385,034	10-Mar-2003			6,885,033	26-Apr-2005	19-Mar-2023	Light Emitting Devices for Light Conversion and Methods and Semiconductor Chips for Fabricating the Same	Cree, Inc.	
P0272US2	United States of America	Granted	11/011,545	14-Dec-2004			7,405,094	29-Jul-2008	10-May-2023	Methods of Fabricating Light Emitting Devices for Light Conversion	Cree, Inc.	
P0272US3	United States of America	Granted	12/173,393	15-Jul-2008	US2008-0272386	6-Nov-2008	8,941,125	27-Jan-2015	18-Nov-2024	Methods of Fabricating Light Emitting Devices for Light Conversion	Cree, Inc.	

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P0275US1	United States of America	Granted	10/818,912	6-Apr-2004	2005-0224829-A1	13-Oct-2005	7,868,343	11-Jan-2011	6-Apr-2024	Light-Emitting Devices Having Multiple Encapsulation Layers with at Least One of the Encapsulation Layers Including Nanoparticles and Methods of Forming the Same	Cree, Inc.	
P0275US2	United States of America	Granted	12/953,803	24-Nov-2010	US-2011-0068362-A1	24-Mar-2011	8,946,755	3-Feb-2015	12-Jun-2024	Light-Emitting Devices Having Multiple Encapsulation Layers with at Least One of the Encapsulation Layers Including Nanoparticles and Methods of Forming the Same	Cree, Inc.	
P0276US1	United States of America	Granted	10/721,641	25-Nov-2003	US 2004/0124487	1-Jul-2004	6,897,486	24-May-2005	25-Nov-2023	LED Package Die Having a Small Footprint	Cree, Inc.	
P0276US2	United States of America	Granted	11/034,598	13-Jan-2005	US2005-0145858	7-Jul-2005	7,078,254	18-Jul-2006	25-Nov-2023	LED Package Die Having a Small Footprint	Cree, Inc.	
P0277US1	United States of America	Granted	10/721,654	25-Nov-2003	US 2004/0126913	1-Jul-2004	7,692,206	6-Apr-2010	23-Jun-2024	Composite Leadframe LED Package and Method of Making the Same	Cree, Inc.	
P0281US1	United States of America	Granted	10/741,705	19-Dec-2003	US 2004/0147094	29-Jul-2004	7,160,747	9-Jan-2007	1-Sep-2024	Methods of Forming Semiconductor Devices Having Self-Aligned Semiconductor Mesas and Contact Layers	Cree, Inc.	
P0281US2	United States of America	Granted	11/520,383	13-Sep-2006	US2007-0007544	11-Jan-2007	7,613,219	3-Nov-2009	11-Jun-2025	Semiconductor Devices Having Self Aligned Semiconductor Mesas And Contact Layers	Cree, Inc.	

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P0282US1	United States of America	Granted	10/741,240	19-Dec-2003	US 2004/0147054	29-Jul-2004	7,329,569	12-Feb-2008	3-Nov-2024	Methods of Forming Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers	Cree, Inc.	
P0282US2	United States of America	Granted	11/959,725	19-Dec-2007	US2008-0135982	12-Jun-2008	7,642,626	5-Jan-2010	19-Dec-2023	Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers	Cree, Inc.	
P0284US1	United States of America	Granted	10/676,953	30-Sep-2003	US2005-01843070	25-Aug-2005	6,972,438	6-Dec-2005	30-Sep-2023	Light Emitting Diode with Porous SiC Substrate and Method for Fabricating	Cree, Inc.	Yes
P0285US1	United States of America	Granted	10/786,755	24-Feb-2004	2005-0093430	5-May-2005	9,142,734	22-Sep-2015	24-Feb-2024	Composite White Light Source and Method for Fabricating	Cree, Inc.	
P0289US1	United States of America	Granted	10/446,532	27-May-2003	US 2004/0041222	4-Mar-2004	7,264,378	4-Sep-2007	17-Jun-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289US10	United States of America	Granted	13/022,365	8-Feb-2011	US 2011/0121345	26-May-2011	8,530,915	10-Sep-2013	27-May-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289US11	United States of America	Granted	13/481,334	25-May-2012	US 2012/0235199	20-Sep-2012	8,710,514	29-Apr-2014	27-May-2023	POWER SURFACE MOUNT LIGHT EMITTING DIE PACKAGE	Cree, Inc.	
P0289US2	United States of America	Granted	10/692,351	22-Oct-2003			7,244,965	17-Jul-2007	27-May-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289US3	United States of America	Granted	11/703,721	8-Feb-2007	US 2007/0138497	21-Jun-2007	7,775,685	17-Aug-2010	18-Mar-2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289US4	United States of America	Granted	11/689,868	22-Mar-2007	US 2007/0200127	30-Aug-2007	8,188,488	29-May-2012	23-Jul-2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289US5	United States of America	Granted	11/694,046	30-Mar-2007	US 2007/0181901	9-Aug-2007	7,659,551	9-Feb-2010	27-May-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	

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P0289US6	United States of America	Granted	12/856,320	13-Aug-2010	US 2010/0301372	2-Dec-2010	7,976,186	12-Jul-2011	27-May-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289US7	United States of America	Granted	13/023,263	8-Feb-2011	US 2011/0186895	4-Aug-2011	8,608,349	17-Dec-2013	27-May-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289US8	United States of America	Granted	13/023,268	8-Feb-2011	US 2011/0186896	4-Aug-2011	8,167,463	1-May-2012	27-May-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289US9	United States of America	Granted	13/023,273	8-Feb-2011	US 2011/0186897	4-Aug-2011	8,622,582	7-Jan-2014	27-May-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0295US1	United States of America	Granted	11/362,472	23-Feb-2006	2007-0194330	31-Aug-2007	7,737,451	15-Jun-2010	23-Feb-2026	High Efficiency LEDs with Tunnel Junction Layer	Cree, Inc.	
P0295US2	United States of America	Granted	12/782,107	18-May-2010	US2010-0224860-A1	9-Sep-2010	8,324,637	4-Dec-2012	23-Feb-2026	High Efficiency LEDs with Tunnel Junction Layer	Cree, Inc.	
P0298US1	United States of America	Granted	10/666,399	18-Sep-2003	2005-0062140	24-Mar-2005	7,915,085	29-Mar-2011	18-Sep-2023	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	
P0298US2	United States of America	Granted	12/506,989	21-Jul-2009	US-2009-0278156-A1	12-Nov-2009	10,546,978	28-Jan-2020	18-Sep-2023	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	
P0298US3	United States of America	Granted	12/862,640	24-Aug-2010	US-2010-0323465-A1	23-Dec-2010	10,164,158	25-Dec-2018	18-Sep-2023	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	
P0298US4	United States of America	Granted	13/072,371	25-Mar-2011	US-2011-0169038-A1	14-Jul-2011	9,093,616	28-Jul-2015	18-Sep-2023	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	
P0298US5	United States of America	Granted	14/209,652	13-Mar-2014	US2014-0191259	10-Jul-2014	9,105,817	11-Aug-2015	18-Sep-2023	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	
P0304US1	United States of America	Granted	10/836,743	29-Apr-2004			9,666,772	30-May-2017	29-Apr-2024	High Powered Light Emitter Packages with Compact Optics	Cree, Inc.	

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P0310US1	United States of America	Granted	10/659,240	9- Sep-2003	US 2005/0051782	10- Mar-2005	7,029,935	18- Apr-2006	4- Jan-2024	Transmissive Optical Elements Including Transparent Plastic Shell Having a Phosphor Dispersed Therein, and Methods of Fabricating Same	Cree, Inc.	
P0311US1	United States of America	Granted	10/659,108	9- Sep-2003	US 2005/0051789	10- Mar-2005	7,183,587	27- Feb-2007	9- Sep-2023	Solid Metal Block Mounting Substrates for Semiconductor Light Emitting Devices	Cree, Inc.	
P0314US1	United States of America	Granted	10/987,135	12- Nov-2004	US 2005/0151138	14- Jul-2005	7,291,529	6- Nov-2007	10- Nov-2025	Methods of Processing Semiconductor Wafer Backsides Having Light Emitting Devices (LEDs) Thereon and LEDs So Formed	Cree, Inc.	
P0317US1	United States of America	Granted	11/114,639	26- Apr-2005	US2005/0253154	17- Nov-2005	7,462,861	9- Dec-2008	4- Oct-2025	LED Bonding Structures and Methods of Fabricating LED Bonding Structures	Cree, Inc.	
P0317US2	United States of America	Granted	12/268,466	11- Nov-2008	US 2009/0068774	12- Mar-2009	7,642,121	5- Jan-2010	26- Apr-2025	LED Bonding Structures and Methods of Fabricating LED Bonding Structures	Cree, Inc.	
P0317US3	United States of America	Granted	12/614,700	9- Nov-2009	20100052004	4- Mar-2010	8,076,670	13- Dec-2011	6- May-2025	LED with Conductively Joined Bonding Structure	Cree, Inc.	
P0369US1	United States of America	Granted	10/841,016	6- May-2004	US2005-0247950	10- Nov-2005	7,825,006	2- Nov-2010	18- Nov-2026	Lift-off Process for GaN Films Formed on SiC Substrates and Devices Fabricated Using the Method	Cree, Inc.	
P0370US1	United States of America	Granted	10/848,937	18- May-2004	US2006/0049411	9- Mar-2006	7,332,365	19- Feb-2008	18- Jul-2025	Method for Fabricating Group-III Nitride Devices and Devices Fabricated Using Method	Cree, Inc.	

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P0372US1	United States of America	Granted	10/861,929	4-Jun-2004			7,456,499	25-Nov-2008	4-Jun-2024	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0372US2	United States of America	Granted	12/215,319	26-Jun-2008	US 2008/0283861	20-Nov-2008	8,446,004	21-May-2013	13-Dec-2024	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0372US3	United States of America	Granted	13/897,952	20-May-2013	US 2013/0323865	5-Dec-2013	8,932,886	13-Jan-2015	4-Jun-2024	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0375US1	United States of America	Granted	10/861,639	4-Jun-2004			7,280,288	9-Oct-2007	4-Jun-2024	Composite Optical Lens with an Integrated Reflector	Cree, Inc.	
P0381US2	United States of America	Granted	12/899,228	6-Oct-2010			RE43,412	29-May-2012	24-Nov-2024	LED with Self Aligned Bond Pad	Cree, Inc.	
P0386US1	United States of America	Granted	10/811,598	29-Mar-2004	2005-0212405	29-Sep-2005	7,355,284	8-Apr-2008	21-Feb-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386US2	United States of America	Granted	12/031,951	15-Feb-2008	US2008/0142829	19-Jun-2008	7,858,998	28-Dec-2010	26-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Silicone Film Having a Lens Therein	Cree, Inc.	
P0386US3	United States of America	Granted	12/484,667	15-Jun-2009	US-2009-0250710-A1	8-Oct-2009	8,269,240	18-Sep-2012	17-May-2024	Semiconductor Light Emitting Devices Including Multiple Semiconductor Light Emitting Elements in a Substrate Cavity	Cree, Inc.	

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P0386US5	United States of America	Granted	13/356,046	23-Jan-2012			8,455,909	4-Jun-2013	29-Mar-2024	Semiconductor Light Emitting Devices Including Flexible Silicone Film Having a Lens Therein	Cree, Inc.	
P0388US1	United States of America	Granted	10/987,136	12-Nov-2004	US 2005/0145869	7-Jul-2005	7,402,837	22-Jul-2008	27-Nov-2024	Light Emitting Devices with Self Aligned Ohmic Contact	Cree, Inc.	
P0393US1	United States of America	Granted	10/987,894	12-Nov-2004	US 2005/0121686	9-Jun-2005	7,518,158	14-Apr-2009	15-Apr-2026	Semiconductor Light Emitting Devices and Submounts and Methods for Forming the Same	Cree, Inc.	
P0393US2	United States of America	Granted	12/397,555	4-Mar-2009	20090159918	25-Jun-2009	8,138,000	20-Mar-2012	22-Jan-2025	Semiconductor Light Emitting Devices and Submounts and Methods for Forming the Same	Cree, Inc.	
P0393US3	United States of America	Granted	13/372,765	14-Feb-2012	US-2012-0138996-A1	7-Jun-2012	8,847,257	30-Sep-2014	12-Nov-2024	Semiconductor Light Emitting Devices and Submounts	Cree, Inc.	
P0394US1	United States of America	Granted	10/811,350	26-Mar-2004	US2005-0215000	29-Sep-2005	7,202,181	10-Apr-2007	17-Mar-2025	Etching of Substrates of Light Emitting Diodes	Cree, Inc.	
P0394US2	United States of America	Granted	11/710,838	26-Feb-2007	US2007-0173068-A1	26-Jul-2007	7,488,692	10-Feb-2009	26-Mar-2024	Etching of Substrates of Light Emitting Diodes	Cree, Inc.	
P0404US1	United States of America	Granted	11/064,798	23-Feb-2005	US 2006/0189098	24-Aug-2006	7,932,111	26-Apr-2011	28-Jun-2025	Substrate Removal Process for High Light Extract LEDs	Cree, Inc.	
P0404US2	United States of America	Granted	13/093,622	25-Apr-2011	US-2011-0198626-A1	18-Aug-2011	9,559,252	31-Jan-2017	23-Feb-2025	Substrate Removal Process for High Light Extract LEDs	Cree, Inc.	
P0405US1	United States of America	Granted	11/042,030	24-Jan-2005	US20060163586	27-Jul-2006	7,335,920	26-Feb-2008	24-Jan-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0405US2	United States of America	Granted	11/983,515	9-Nov-2007	US2008-0061311-A1	13-Mar-2008	8,410,490	2-Apr-2013	24-Jan-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	

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P0405US3	United States of America	Granted	12/079,486	25-Mar-2008	US2009-0121246-A1	14-May-2009	8,410,499	2-Apr-2013	24-Jan-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0405US4	United States of America	Granted	12/581,759	19-Oct-2009	US-2010-0032704-A1	11-Feb-2010	8,541,788	24-Sep-2013	24-Jan-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0405US6	United States of America	Granted	13/974,505	23-Aug-2013	2013-0341663	26-Dec-2013	8,772,792	8-Jul-2014	24-Jan-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0406US1	United States of America	Granted	10/920,613	18-Aug-2004			7,405,093	29-Jul-2008	10-Aug-2026	Methods of Assembly for a Semiconductor Light Emitting Device Package	Cree, Inc.	
P0409US1	United States of America	Granted	11/044,126	27-Jan-2005	2005-0218421	6-Oct-2005	7,279,346	9-Oct-2007	10-Mar-2025	Methods for Packaging Light Emitting Devices and Packaged Light Emitting Devices	Cree, Inc.	
P0409US2	United States of America	Granted	11/849,530	4-Sep-2007	US2007-0290218-A1	20-Dec-2007	7,928,456	19-Apr-2011	27-Jan-2025	Packaged Light Emitting Devices	Cree, Inc.	
P0409US3	United States of America	Granted	13/080,968	6-Apr-2011	US-2011-0180834-A1	28-Jul-2011	8,154,043	10-Apr-2012	31-Mar-2024	Packaged Light Emitting Devices	Cree, Inc.	
P0410US1	United States of America	Granted	11/044,779	27-Jan-2005	2005-0221518	6-Oct-2005	7,326,583	5-Feb-2008	12-Oct-2025	Methods for Packaging of a Semiconductor Light Emitting Device	Cree, Inc.	
P0410US2	United States of America	Granted	11/055,194	10-Feb-2005	2005-0221519	6-Oct-2005	7,517,728	14-Apr-2009	16-Dec-2025	Semiconductor Light Emitting Devices Including a Luminescent Conversion Element	Cree, Inc.	
P0410US3	United States of America	Granted	11/953,110	10-Dec-2007	US2008-0087910	17-Apr-2008	7,612,383	3-Nov-2009	9-Jul-2025	Reflector Packages and semiconductor Light Emitting Devices Including The Same	Cree, Inc.	

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P0410US4	United States of America	Granted	12/398,626	5-Mar-2009	US-2009-0224277-A1	10-Sep-2009	7,799,586	21-Sep-2010	10-Feb-2025	Semiconductor Light Emitting Devices Including a Luminescent Conversion Element and Methods for Packaging the Same	Cree, Inc.	
P0410US5	United States of America	Granted	12/886,001	20-Sep-2010	US-2011-0006330-A1	13-Jan-2011	8,039,859	18-Oct-2011	10-Feb-2025	Semiconductor Light Emitting Devices Including an Optically Transmissive Element and Methods for Packaging the Same	Cree, Inc.	
P0440US1	United States of America	Granted	10/840,515	6-May-2004			7,282,744	16-Oct-2007	6-May-2024	III-Nitride Optoelectronic Device Structure with High Al AlGaIn Diffusion Barrier	Cree, Inc.	
P0445US1	United States of America	Granted	10/946,587	21-Sep-2004			7,217,583	15-May-2007	21-Sep-2024	Methods of Coating Semiconductor Light Emitting Elements by Evaporating Solvent From a Suspension	Cree, Inc.	
P0445US2	United States of America	Granted	11/799,702	1-May-2007	US2007-0224716-A1	27-Sep-2007	7,569,407	4-Aug-2009	21-Sep-2024	Methods of Coating Semiconductor Light Emitting Elements by Evaporating Solvent From a Suspension	Cree, Inc.	
P0446US1	United States of America	Granted	10/898,608	23-Jul-2004			7,118,262	10-Oct-2006	7-Dec-2024	Reflective Optical Elements for Semiconductor Light Emitting Devices	Cree, Inc.	
P0447US1	United States of America	Granted	10/947,704	23-Sep-2004	US 2006/0061259	23-Mar-2006	7,372,198	13-May-2008	28-Nov-2025	Semiconductor Light Emitting Devices Including Patternable Films Comprising Transparent Silicone and Phosphor, and Methods of Manufacturing Same	Cree, Inc.	

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P0447US2	United States of America	Granted	11/944,804	26-Nov-2007			7,591,702	22-Sep-2009	23-Sep-2024	Methods of Manufacturing Semiconductor Light Emitting Devices Including Patternable Films Comprising Transparent Silicon and Phosphor	Cree, Inc.	
P0450US1	United States of America	Granted	10/951,042	22-Sep-2004	US 2006/0060877	23-Mar-2006	7,259,402	21-Aug-2007	22-Sep-2024	High Efficiency Group III Nitride-Silicon Carbide Light Emitting Diode	Cree, Inc.	
P0453US1	United States of America	Granted	11/032,363	10-Jan-2005	US 2006/0152140	13-Jul-2006	7,564,180	21-Jul-2009	31-Aug-2025	Light Emission Device and Method Utilizing Multiple Emitters and Multiple Phosphors	Cree, Inc.	
P0453US2	United States of America	Granted	12/419,896	7-Apr-2009	US 2009/0195137	6-Aug-2009	8,120,240	21-Feb-2012	10-Jan-2025	Light Emission Device and Method Utilizing Multiple Emitters	Cree, Inc.	
P0453US3	United States of America	Granted	13/274,821	17-Oct-2011	US 2012/0032208	9-Feb-2012	8,513,873	20-Aug-2013	10-Jan-2025	Light Emission Device and Method Utilizing Multiple Emitters	Cree, Inc.	
P0458US1	United States of America	Granted	11/149,999	10-Jun-2005	2008-0007953-A1	10-Jan-2008	9,412,926	9-Aug-2016	10-Jun-2025	High Power Solid State Lamp	Cree, Inc.	
P0461US2	United States of America	Granted	12/030,539	13-Feb-2008			8,772,757	8-Jul-2014	7-Sep-2026	Deep Ultraviolet Light Emitting Devices and Methods of Fabricating Deep Ultraviolet Light Emitting Devices	Cree, Inc.	
P0462US1	United States of America	Granted	11/035,716	14-Jan-2005	US2006-0157726	20-Jul-2006	7,777,247	17-Aug-2010	12-Aug-2026	Semiconductor Light Emitting Device Mounting Substrates Including a Conductive Lead Extending Therein and Methods of Packaging Same	Cree, Inc.	

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P0463US1	United States of America	Granted	11/191,111	27-Jul-2005			8,089,090	3-Jan-2012	2-Feb-2028	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0463US2	United States of America	Granted	13/271,865	12-Oct-2011	US-2012-0080688	5-Apr-2012	8,759,868	24-Jun-2014	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0468US1	United States of America	Granted	10/899,793	27-Jul-2004	US 2006/0022209	2-Feb-2006	7,557,380	7-Jul-2009	28-Oct-2024	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	PATENT
P0468US2	United States of America	Granted	12/123,137	19-May-2008	US2008-0217641	11-Sep-2008	7,557,379	7-Jul-2009	27-Jul-2024	Light Emitting Devices Having a Roughened Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Roughened Reflective Bond Pad	Cree, Inc.	
P0468US3	United States of America	Granted	12/476,519	2-Jun-2009	US-2009-0250716-A1	8-Oct-2009	8,669,563	11-Mar-2014	15-Jul-2025	Light Emitting devices Having Roughened/Reflective Contacts and Methods of Fabricating Same	Cree, Inc.	
P0468US4	United States of America	Granted	13/313,302	7-Dec-2011	US-2012-0080709-A1	5-Apr-2012	8,471,269	25-Jun-2013	27-Jul-2024	Light Emitting devices Having Roughened/Reflective Contacts and Methods of Fabricating Same	Cree, Inc.	
P0471US1	United States of America	Granted	11/083,460	17-Mar-2005	2006-0001046	5-Jan-2006	7,534,633	19-May-2009	17-Mar-2025	LED with Substrate Modifications for Enhanced Light Extraction and Method for Making Same	Cree, Inc.	Yes

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P0471US2	United States of America	Granted	12/384,277	1-Apr-2009	US2009-02333394	17-Sep-2009	8,617,909	31-Dec-2013	17-Mar-2025	LED with Substrate Modifications for Enhanced Light Extraction and Method of Making Same	Cree, Inc.	Yes
P0472US1	United States of America	Granted	11/171,893	30-Jun-2005	US 2006/0006404	12-Jan-2006	7,329,905	12-Feb-2008	30-Jun-2025	Chip-Scale Methods for Packaging Light Emitting Devices and Chip-Scale Packaged Light Emitting Devices	Cree, Inc.	PATENT
P0472US2	United States of America	Granted	12/027,313	7-Feb-2008	US2008-01428717	19-Jun-2008	7,977,686	12-Jul-2011	3-Oct-2025	Chip-Scale Packaging of Light Emitting Devices and Packaged Light Emitting Devices	Cree, Inc.	
P0473US2	United States of America	Granted	12/363,000	30-Jan-2009	US2009-0134421	28-May-2009	8,598,606	3-Dec-2013	29-Oct-2026	Solid Metal block Semiconductor Light Emitting Device Mounting Substrates and Packages	Cree, Inc.	
P0473US3	United States of America	Granted	12/484,713	15-Jun-2009	2010-0133555	3-Jun-2010	7,906,793	15-Mar-2011	25-Oct-2024	Solid Metal Block Semiconductor Light Emitting Device Mounting Substrates	Cree, Inc.	
P0478US1	United States of America	Granted	10/899,791	27-Jul-2004	US 2005/0056824	17-Mar-2005	7,692,182	6-Apr-2010	20-Jul-2022	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478US2	United States of America	Granted	12/698,658	2-Feb-2010	US-2010-0133508-A1	3-Jun-2010	8,044,384	25-Oct-2011	7-May-2022	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	

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P0478US3	United States of America	Granted	13/250,715	30-Sep-2011	US-2012-0018701	26-Jan-2012	8,546,787	1-Oct-2013	7-May-2022	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478US4	United States of America	Granted	14/015,466	30-Aug-2013	2013-0341593	26-Dec-2013	9,054,253	9-Jun-2015	7-May-2022	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0480US1	United States of America	Granted	11/187,075	21-Jul-2005	2007-0018183	25-Jan-2007	8,674,375	18-Mar-2014	13-Jan-2027	Roughened High Refractive Index Layer/LED for High Light Extraction	Cree, Inc.	
P0487US1	United States of America	Granted	11/037,965	18-Jan-2005	US 2006/0060879	23-Mar-2006	8,513,686	20-Aug-2013	3-Feb-2025	High Output Small Area Group III-Nitride LEDs	Cree, Inc.	
P0490US1	United States of America	Granted	11/118,987	29-Apr-2005	2006-0246612	2-Nov-2006	7,446,345	4-Nov-2008	8-May-2026	Light Emitting Devices with Active Layers that Extend into Opened Pits	Cree, Inc.	
P0490US2	United States of America	Granted	12/243,507	1-Oct-2008	US2009-0029493	29-Jan-2009	7,611,917	3-Nov-2009	29-Apr-2025	Methods of Forming Light Emitting Devices with Active Layers that Extend into Opened Pits	Cree, Inc.	
P0495US1	United States of America	Granted	11/149,998	10-Jun-2005	2006-0278882	14-Dec-2006	8,669,572	11-Mar-2014	10-Jun-2025	Power Lamp Package	Cree, Inc.	
P0499US1	United States of America	Granted	11/247,563	10-Oct-2005	US2006-0076568	13-Apr-2006	8,541,795	24-Sep-2013	10-Oct-2025	Side Emitting Optical Coupling Device	Cree, Inc.	
P0499US2	United States of America	Granted	14/010,828	27-Aug-2013	2013-0342096-A1	26-Dec-2013	9,287,474	15-Mar-2016	10-Oct-2025	Side Emitting Optical Coupling Device	Cree, Inc.	
P0513US1	United States of America	Granted	11/227,667	15-Sep-2005	US 2006/0138937	29-Jun-2006	8,288,942	16-Oct-2012	15-Sep-2025	High Efficacy White LED	Cree, Inc.	

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P0539US1	United States of America	Granted	11/4/6,836	29-Jun-2006	2008/0001160	3-Jan-2008	8,610,134	17-Dec-2013	24-Feb-2027	LED Package with Flexible Polyimide Circuit and Method of Manufacturing LED Package	Cree, Inc.	
P0542US1	United States of America	Granted	11/210,713	23-Aug-2005	2006-0001056	5-Jan-2006	7,759,682	20-Jul-2010	23-Aug-2025	LED with Substrate Modifications for Enhanced Light Extraction and Method of Making Same	Cree, Inc.	
P0542US2	United States of America	Granted	12/821,069	22-Jun-2010	US-2010-0273280-A1	28-Oct-2010	8,034,647	11-Oct-2011	17-Mar-2025	LED with Substrate Modifications for Enhanced Light Extraction and Method of Making Same	Cree, Inc.	
P0546US1	United States of America	Granted	11/098,086	4-Apr-2005	US2006-0220585-A1	5-Oct-2006	7,535,180	19-May-2009	15-Jul-2025	Semiconductor Light Emitting Circuits Including Light Emitting Diodes and Four Layer Semiconductor Shunt Devices	Cree, Inc.	
P0546US2	United States of America	Granted	12/419,480	7-Apr-2009	US2009-0189529-A1	30-Jul-2009	8,283,869	9-Oct-2012	9-Apr-2025	Semiconductor Light Emitting Circuits Including Light Emitting Diodes and Semiconductor Shunt Devices	Cree, Inc.	
P0550US1	United States of America	Granted	11/034,240	12-Jan-2005	US2006-0152651	13-Jul-2006	7,304,694	4-Dec-2007	12-Jan-2025	Solid Colloidal Dispersions for Backlighting of Liquid Crystal Displays	Cree, Inc.	
P0555US1	United States of America	Granted	11/416,804	3-May-2006	US 2007/0257272	8-Nov-2007	7,829,899	9-Nov-2010	12-Oct-2028	Multi-Element LED Lamp Package	Cree, Inc.	
P0555US2	United States of America	Granted	12/895,108	30-Sep-2010	US 2011/0018466	27-Jan-2011	8,324,635	4-Dec-2012	24-May-2026	Multi-Element LED Lamp Package	Cree, Inc.	

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P0555US3	United States of America	Granted	13/674,937	12-Nov-2012	US 2013/0069544	21-Mar-2013	8,629,459	14-Jan-2014	3-May-2026	MULTI-ELEMENT LED LAMP PACKAGE	Cree, Inc.	
P0555US4	United States of America	Granted	14/136,846	20-Dec-2013			8,847,242	30-Sep-2014	3-May-2026	MULTI-ELEMENT LED LAMP PACKAGE	Cree, Inc.	
P0556US1	United States of America	Granted	11/273,431	14-Nov-2005	US2007-0109463	17-May-2007	7,508,466	24-Mar-2009	22-Dec-2026	Systems and Methods for Laser Backlighting of Liquid Crystal Displays	Cree, Inc.	
P0557US1	United States of America	Granted	11/563,712	28-Nov-2006	US 2008/0121910	29-May-2008	9,318,327	19-Apr-2016	14-Jan-2029	Semiconductor Devices Having Low Threading Dislocations and Improved Light Extraction and Methods of Making the Same	Cree, Inc.	
P0560US1	United States of America	Granted	11/082,470	17-Mar-2005	US 2006/0060874	23-Mar-2006	8,174,037	8-May-2012	1-Dec-2025	High Efficiency Group III-Nitride LED with Lenticular Surface	Cree, Inc.	
P0560US2	United States of America	Granted	12/401,832	11-Mar-2009	US 2009/0166659	2-Jul-2009	8,154,039	10-Apr-2012	22-Sep-2024	High Efficiency Group III Nitride LED with Lenticular Surface	Cree, Inc.	
P0560US3	United States of America	Granted	12/401,843	11-Mar-2009	20090242918	1-Oct-2009	8,183,588	22-May-2012	2-Mar-2025	High Efficiency Group III Nitride LED with Lenticular Surface	Cree, Inc.	
P0560US4	United States of America	Granted	13/188,361	21-Jul-2011	US-2011-0284875-A1	24-Nov-2011	8,692,267	8-Apr-2014	12-Jan-2025	High Efficiency Group III-Nitride LED with Lenticular Surface	Cree, Inc.	
P0560US5	United States of America	Granted	14/183,955	19-Feb-2014			8,878,209	4-Nov-2014	22-Sep-2024	High Efficiency Group III-Nitride LED with Lenticular Surface	Cree, Inc.	
P0570US1	United States of America	Granted	11/994,406	6-Jun-2008	US 2008/0265379	30-Oct-2008	7,884,447	8-Feb-2011	11-Apr-2027	Laser Diode Orientation on Miscut Substrate	Cree, Inc.	

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P0570US2	United States of America	Granted	12/974,332	21-Dec-2010	US 2011/0089536	21-Apr-2011	8,378,463	19-Feb-2013	27-Jun-2026	Laser Diode Orientation on Miscut Substrate	Cree, Inc.	
P0575US1	United States of America	Granted	11/600,617	15-Nov-2006	US2008-0112453	15-May-2008	7,813,400	12-Oct-2010	15-Nov-2026	Group III Nitride Based Laser Diode and Method for Fabricating Same	Cree, Inc.	
P0575US2	United States of America	Granted	12/880,392	13-Sep-2010	US-2010-0330720-A1	30-Dec-2010	8,050,304	1-Nov-2011	15-Nov-2026	Group III Nitride Based Laser Diode and Method for Fabricating Same	Cree, Inc.	
P0586US1	United States of America	Granted	11/328,887	9-Jan-2006	US2007-0161135-A1	12-Jul-2007	7,569,406	4-Aug-2009	9-Jan-2026	Method for Coating Semiconductor Device Using Droplet Deposition	Cree, Inc.	
P0586US2	United States of America	Granted	12/491,162	24-Jun-2009	US2009-0321769-A1	31-Dec-2009	8,043,874	25-Oct-2011	15-Feb-2026	Method for Coating Semiconductor Device Using Droplet Deposition	Cree, Inc.	
P0586US3	United States of America	Granted	13/237,789	20-Sep-2011	US-2012-0007126-A1	12-Jan-2012	8,390,016	5-Mar-2013	9-Jan-2026	Method for Coating Semiconductor Device Using Droplet Deposition	Cree, Inc.	
P0588US2	United States of America	Granted	12/796,365	8-Jun-2010	2010-0244052	30-Sep-2010	9,905,731	27-Feb-2018	17-Nov-2025	High Output Group III Nitride Light Emitting Diodes	Cree, Inc.	
P0589US3	United States of America	Granted	12/545,600	21-Aug-2009	US2009-0310338-A1	17-Dec-2009	8,328,405	11-Dec-2012	20-Jul-2025	Independent Control of Light Emitting Diodes	Cree, Inc.	
P0597US1	United States of America	Granted	11/197,096	4-Aug-2005			7,365,371	29-Apr-2008	26-Nov-2025	Packages for Semiconductor Light Emitting Devices Utilizing Dispensed Encapsulants	Cree, Inc.	
P0597US2	United States of America	Granted	12/100,647	10-Apr-2008			7,834,375	16-Nov-2010	20-Oct-2025	Submounts for Semiconductor Light Emitting Devices and Methods of Forming Packaged Light Emitting Devices Including Dispensed Encapsulants	Cree, Inc.	

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P0597US3	United States of America	Granted	12/938,815	3- Nov-2010	US-2011-0053297-A1	3- Mar-2011	8,202,745	19- Jun-2012	4- Aug-2025	Submounts for Semiconductor Light Emitting Devices and Methods of Forming Packaged Light Emitting Devices Including Dispensed Encapsulants	Cree, Inc.	
P0597US4	United States of America	Granted	13/149,197	31- May-2011	US-2012-0061702	15- Mar-2012	8,835,952	16- Sep-2014	21- May-2026	Submounts for Semiconductor Light Emitting Devices and Methods of Forming Packaged Light Emitting Devices Including Dispensed Encapsulants	Cree, Inc.	
P0602US1	United States of America	Granted	11/476,520	27- Jun-2006	US2007-0297179-A1	27- Dec-2007	7,703,945	27- Apr-2010	18- Sep-2026	Efficient Emitting LED Package and Method for Efficiently Emitting Light	Cree, Inc.	
P0602US2	United States of America	Granted	12/732,014	25- Mar-2010	US-2010-0177497-A1	15- Jul-2010	7,963,666	21- Jun-2011	27- Jun-2026	Efficient Emitting LED Package and Method for Efficiently Emitting Light	Cree, Inc.	
P0613US1	United States of America	Granted	11/473,089	21- Jun-2006	US2007-0158668A1	12- Jul-2007	8,563,339	22- Oct-2013	22- Dec-2028	System for and Method for Closed Loop Electrophoretic Deposition of Phosphor Materials on Semiconductor Devices	Cree, Inc.	Yes
P0615US1	United States of America	Granted	11/336,369	20- Jan-2006	US2007-0170454-A1	26- Jul-2007	7,521,728	21- Apr-2009	21- Apr-2026	Packages for Semiconductor Light Emitting Devices Utilizing Dispensed Reflectors and Methods of Forming the Same	Cree, Inc.	
P0617US1	United States of America	Granted	11/398,214	4- Apr-2006	US2007-0228387	4- Oct-2007	8,969,908	3- Mar-2015	4- Apr-2026	Uniform Emission LED Package	Cree, Inc.	

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P0624US1	United States of America	Granted	11/461,018	31-Jul-2006	US 2007/0037307	15-Feb-2007	7,384,809	10-Jun-2008	6-Apr-2024	Method of Forming Three-Dimensional Features on Light Emitting Diode for Improved Light Extraction	Cree, Inc.	
P0624US2	United States of America	Granted	12/030,404	13-Feb-2008	US 2008/0135866	12-Jun-2008	7,829,906	9-Nov-2010	7-Aug-2024	Three Demensional Features on Light Emitting Diodes for Improved Light Extraction	Cree, Inc.	
P0624US3	United States of America	Granted	12/917,960	2-Nov-2010	US-2011-0068351-A1	24-Mar-2011	8,263,995	11-Sep-2012	1-Apr-2024	Method of Forming Three Dimensional Features on Light Emitting Diodes for Improved Light Extraction	Cree, Inc.	
P0628US1	United States of America	Granted	11/498,418	2-Aug-2006	US2006-0267029 A1	30-Nov-2006	7,932,106	26-Apr-2011	2-Nov-2025	Light Emitting Diode with High Aspect Ratio Sub-Micron Roughness for Light Extraction and Methods of Forming	Cree, Inc.	Yes
P0628US2	United States of America	Granted	13/045,246	10-Mar-2011	US-2011-0169030-A1	14-Jul-2011	8,507,924	13-Aug-2013	17-Mar-2025	Light Emitting Diode with High Aspect Ratio Sub-Micron Roughness for Light Extraction and Methods of Forming	Cree, Inc.	Yes
P0638US1	United States of America	Granted	11/343,180	30-Jan-2006	US 2006/0186418	24-Aug-2006	7,791,061	7-Sep-2010	21-Jul-2027	Improved External Extraction Light Emitting Diode based upon Crystallographic Faceted Surfaces	Cree, Inc.	
P0638US2	United States of America	Granted	12/834,608	12-Jul-2010	US-2010-0276700-A1	4-Nov-2010	8,357,923	22-Jan-2013	30-Jan-2026	Improved External Extraction Light Emitting Diode based upon Crystallographic Faceted Surfaces	Cree, Inc.	
P0644US1	United States of America	Granted	11/734,218	11-Apr-2007	US 2008/0251800	16-Oct-2008	8,409,972	2-Apr-2013	1-Dec-2027	Undoped and Unintentionally Doped Buffer Structures	Cree, Inc.	

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P0645US1	United States of America	Granted	11/567,236	6-Dec-2006	US 2008/0135855	12-Jun-2008	7,812,354	12-Oct-2010	6-Dec-2026	Alternative Doping for Group III-Nitride LEDs	Cree, Inc.	
P0647US1	United States of America	Granted	11/584,135	20-Oct-2006	US2008-0096365	24-Apr-2008	10,873,002	22-Dec-2020	14-Aug-2027	Permanent Wafer Bonding Using Metal Alloy Preform Discs	Cree, Inc.	
P0648US1	United States of America	Granted	11/486,244	13-Jul-2006			7,960,819	14-Jun-2011	16-Sep-2026	Leadframe-Based Packages for Solid State Light Emitting Devices and Methods of Forming Leadframe-Based Packages for Solid State Light Emitting Devices	Cree, Inc.	
P0648US2	United States of America	Granted	11/657,347	24-Jan-2007	2008-0012036A1	17-Jan-2008	8,044,418	25-Oct-2011	13-Jul-2026	Leadframe-Based Packages for Solid State Light Emitting Devices and Methods of Forming Leadframe-Based Packages for Solid State Light Emitting Devices	Cree, Inc.	
P0648US3	United States of America	Granted	13/153,930	6-Jun-2011	US-2011-0233579-A1	29-Sep-2011	8,193,547	5-Jun-2012	13-Jul-2026	Leadframe-Based Packages for Solid State Light Emitting Devices and Methods of Forming Leadframe-Based Packages for Solid State Light Emitting Devices	Cree, Inc.	
P0648US4	United States of America	Granted	13/242,103	23-Sep-2011	US-2012-0012879-A1	19-Jan-2012	8,941,134	27-Jan-2015	15-Jul-2026	Leadframe-Based Packages for Solid State Light Emitting Devices and Methods of Forming Leadframe-Based Packages for Solid State Light Emitting Devices	Cree, Inc.	

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P0649US1	United States of America	Granted	11/732,559	3-Apr-2007	US2007-0284602	13-Dec-2007	9,368,428	14-Jun-2016	17-Dec-2027	Dielectric Wafer Level Bonding and with Conductive Feed-Throughs for Electrical Connection and Thermal Management	Cree, Inc.	Yes
P0650US1	United States of America	Granted	11/496,922	31-Jul-2006	US2008-0023711	31-Jan-2008	8,735,920	27-May-2014	31-Jul-2026	Surface Mount LED Package with Dispensed Optical Element	Cree, Inc.	PATENT
P0653US1	United States of America	Granted	11/673,317	9-Feb-2007	US 2008/0191224	14-Aug-2008	8,212,262	3-Jul-2012	19-Sep-2028	Transparent LED Chip	Cree, Inc.	
P0654US1	United States of America	Granted	11/545,131	9-Oct-2006			9,018,619	28-Apr-2015	9-Oct-2026	Quantum Wells for Light Conversion	Cree, Inc.	
P0656US1	United States of America	Granted	11/595,720	9-Nov-2006	US2008-0111470	15-May-2008	7,897,980	1-Mar-2011	6-Jan-2027	Expandable LED Array Interconnect	Cree, Inc.	Yes
P0658US1	United States of America	Granted	11/590,480	31-Oct-2006	2008-0099770	1-May-2008	7,808,013	5-Oct-2010	5-Jan-2027	Integrated Heat Spreader for Light Emitting Devices (LEDs) and Related Assemblies	Cree, Inc.	
P0659US1	United States of America	Granted	11/507,191	21-Aug-2006	US2008-0044934	21-Feb-2008	7,763,478	27-Jul-2010	18-Dec-2028	Encapsulating and Forming Optical Element on LED Package by Liquid Injection Molding	Cree, Inc.	
P0659US2	United States of America	Granted	12/835,013	13-Jul-2010	US-2010-0276708-A1	4-Nov-2010	8,039,848	18-Oct-2011	21-Aug-2026	Semiconductor Light Emitting Device Substrate Strips and Packaged Semiconductor Light Emitting Devices	Cree, Inc.	
P0659US3	United States of America	Granted	13/253,657	5-Oct-2011	US-2012-0025254	2-Feb-2012	8,410,491	2-Apr-2013	21-Aug-2026	Semiconductor Light Emitting Device Substrate Strips and Packaged Semiconductor Light Emitting Devices	Cree, Inc.	

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P0661US1	United States of America	Granted	11/440,166	24-May-2006	US2007-0273058-A1	29-Nov-2007	7,850,887	14-Dec-2010	25-May-2027	Thermocompression Molding of Plastic Optical Elements	Cree, Inc.	
P0667US1	United States of America	Granted	11/753,483	24-May-2007	US 2008/0290353	27-Nov-2008	8,436,371	7-May-2013	11-Jun-2028	Microscale Optoelectronic Device Packages	Cree, Inc.	
P0668US1	United States of America	Granted	11/601,295	17-Nov-2006	2007-0115670	24-May-2007	7,993,021	9-Aug-2011	17-Nov-2026	Multiple Color Lighting Element Cluster Tiles for Solid State Lighting Panels	Cree, Inc.	
P0669US1	United States of America	Granted	11/600,642	16-Nov-2006			7,621,655	24-Nov-2009	16-May-2027	LED Lighting Units and Assemblies with Edge Connections	Cree, Inc.	
P0669US2	United States of America	Granted	12/582,372	20-Oct-2009	US-2010-0039806-A1	18-Feb-2010	7,789,529	7-Sep-2010	16-Nov-2026	LED Lighting Units and Assemblies with Edge Connectors	Cree, Inc.	
P0670US1	United States of America	Granted	11/685,761	13-Mar-2007	US 2008/0224157	18-Sep-2008	7,638,811	29-Dec-2009	24-Apr-2027	Graded Dielectric Layer	Cree, Inc.	
P0672US1	United States of America	Granted	11/379,709	21-Apr-2006	US 2007/0247847	25-Oct-2007	7,648,257	19-Jan-2010	1-Jan-2027	Light Emitting Diodes Packages	Cree, Inc.	
P0672US2	United States of America	Granted	12/634,783	10-Dec-2009	US 2010/0090606	15-Apr-2010	8,192,056	5-Jun-2012	16-May-2026	Light Emitting Diodes Packages	Cree, Inc.	
P0675US1	United States of America	Granted	11/412,381	27-Apr-2006	US2007-0253209-A1	1-Nov-2007	7,655,957	2-Feb-2010	26-Nov-2027	Submounts for Semiconductor Light Emitting Device Packages and Semiconductor Light Emitting Device Packages Including the Same	Cree, Inc.	
P0675US2	United States of America	Granted	12/685,883	12-Jan-2010	US-2010-0109029-A1	6-May-2010	8,378,374	19-Feb-2013	27-Apr-2026	Semiconductor Light Emitting Device Packages Including Submounts	Cree, Inc.	
P0677US1	United States of America	Granted	11/739,307	24-Apr-2007	US 2007/0262339	15-Nov-2007	7,649,209	19-Jan-2010	24-Apr-2027	Side-View Surface Mount White LED	Cree, Inc.	

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P0677US2	United States of America	Granted	12/635,818	11-Dec-2009	US-2010-0090233-A1	15-Apr-2010	8,362,512	29-Jan-2013	24-Apr-2027	Side-View Surface Mount White LED	Cree, Inc.	
P0677US3	United States of America	Granted	13/046,982	14-Mar-2011	US-2011-0164435-A1	7-Jul-2011	8,487,337	16-Jul-2013	24-Apr-2027	Side-View Surface Mount White LED	Cree, Inc.	
P0677US4	United States of America	Granted	13/347,243	10-Jan-2012	US-2012-0104428-A1	3-May-2012	8,390,022	5-Mar-2013	24-Apr-2027	Side-View Surface Mount LED	Cree, Inc.	
P0678US1	United States of America	Granted	11/443,741	31-May-2006	US2007-0278512-A1	6-Dec-2007	7,646,035	12-Jan-2010	16-Dec-2027	Packaged Light Emitting Devices Including Multiple Index Lenses and Methods of Fabricating the Same	Cree, Inc.	
P0678US2	United States of America	Granted	12/624,885	24-Nov-2009	US-2010-0073917-A1	25-Mar-2010	7,952,115	31-May-2011	31-May-2026	Packaged Light Emitting Devices Including Multiple Index Lenses and Methods of Fabricating the Same	Cree, Inc.	
P0680US1	United States of America	Granted	11/496,918	31-Jul-2006	US2008-0026498-A1	31-Jan-2008	7,804,147	28-Sep-2010	25-Sep-2027	LED Package Element with Internal Meniscus for Bubble-Free Hollow Floating Lens Placement	Cree, Inc.	Yes
P0681US1	United States of America	Granted	12/012,376	31-Jan-2008	US2008-0185608-A1	7-Aug-2008	8,021,904	20-Sep-2011	2-Jun-2029	Ohmic Contacts to Nitrogen Polarity GaN	Cree, Inc.	
P0691US1	United States of America	Granted	29/248,311	9-Aug-2006			D591,697	5-May-2009	5-May-2023	Lamp Packages	Cree, Inc.	
P0691US2	United States of America	Granted	29/328,924	4-Dec-2008			D640,645	28-Jun-2011	28-Jun-2025	Lamp Packages	Cree, Inc.	
P0691US3	United States of America	Granted	29/392,801	26-May-2011			D681,573	7-May-2013	7-May-2027	Lamp Packages	Cree, Inc.	
P0696US1	United States of America	Granted	11/428,158	30-Jun-2006	US 2008/0003777	3-Jan-2008	8,643,195	4-Feb-2014	13-Jul-2029	Nickel Tin Bonding System for Semiconductor Wafers and Devices	Cree, Inc.	

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P0697US1	United States of America	Granted	11/534,317	22-Sep-2006	US 2008/0073665	27-Mar-2008	7,855,459	21-Dec-2010	19-Sep-2028	Modified Gold-Tin System with Increased Melting Temperature for Wafer Bonding	Cree, Inc.	
P0698US1	United States of America	Granted	29/249,263	28-Sep-2006			D606,948	29-Dec-2009	29-Dec-2023	Light Emitting Diode	Cree, Inc.	
P0698US2	United States of America	Granted	29/331,898	4-Feb-2009			D605,612	8-Dec-2009	8-Dec-2023	Light Emitting Diode	Cree, Inc.	
P0699US1	United States of America	Granted	29/248,867	8-Sep-2006			D585847	3-Feb-2009	3-Feb-2023	LED Lighting Tiles	Cree, Inc.	
P0700US1	United States of America	Granted	11/832,785	2-Aug-2007	US 2009/0034201	5-Feb-2009	8,297,061	30-Oct-2012	6-Jan-2031	Optoelectronic Device with Upconverting Luminescent Medium	Cree, Inc.	
P0704US1	United States of America	Granted	11/675,250	15-Feb-2007	US2008/0198112	21-Aug-2008	7,952,544	31-May-2011	21-Mar-2030	Partially Filterless Liquid Crystal Display Devices and Methods of Operating the Same	Cree, Inc.	
P0704US2	United States of America	Granted	11/847,882	30-Aug-2007	US2008/0198114	21-Aug-2008	8,836,624	16-Sep-2014	11-Feb-2030	Partially Filterless and Two-Color Subpixel Liquid Crystal Display Devices, and Mobile Electronic Devices Including the Same, and Methods of Operating the Same	Cree, Inc.	
P0708US1	United States of America	Granted	11/705,233	12-Feb-2007	US2008-0191225	14-Aug-2008	9,061,450	23-Jun-2015	14-Sep-2028	Methods of Forming Packaged Semiconductor Light Emitting Devices Having Front Contacts by Compression Molding	Cree, Inc.	

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P0708US2	United States of America	Granted	12/984,242	4-Jan-2011	US-2011-0101385-A1	5-May-2011	8,669,573	11-Mar-2014	12-Feb-2027	Packaged Semiconductor Light Emitting Devices Having Multiple Optical Elements and Methods of Forming the Same	Cree, Inc.	
P0708US3	United States of America	Granted	13/486,223	1-Jun-2012	US2012/0235180	20-Sep-2012	8,822,245	2-Sep-2014	12-Feb-2027	Packaged Semiconductor Light Emitting Devices Having Multiple Optical Elements and Methods of Forming the Same	Cree, Inc.	
P0709US1	United States of America	Granted	11/705,305	12-Feb-2007	US2008-0194061	14-Aug-2008	7,709,853	4-May-2010	1-Jun-2028	Packaged Semiconductor Light Emitting Devices Having Multiple Optical Elements	Cree, Inc.	
P0717US1	United States of America	Granted	11/881,683	27-Jul-2007	US2008-0079017	3-Apr-2008	7,943,952	17-May-2011	24-Dec-2027	Method of Uniform Phosphors Chip Coating and LED Package Fabricated Using Method	Cree, Inc.	
P0719US1	United States of America	Granted	11/600,618	15-Nov-2006	US2008-0112454	15-May-2008	8,045,595	25-Oct-2011	15-Nov-2026	Self Aligned Diode Fabrication Method and Self Aligned Laser Diode	Cree, Inc.	
P0722US1	United States of America	Granted	11/985,410	14-Nov-2007	US2009-0121241-A1	14-May-2009	9,634,191	25-Apr-2017	14-Nov-2027	Wire Bond Free Wafer Level LED	Cree, Inc.	Yes
P0722US2	United States of America	Granted	15/449,510	3-Mar-2017	2017-0179088	22-Jun-2017	10,199,360	5-Feb-2019	14-Nov-2027	Wire Bond Free Wafer Level LED	Cree, Inc.	Yes
P0724US1	United States of America	Granted	11/775,958	11-Jul-2007	US 2009/0014731	15-Jan-2009	9,401,461	26-Jul-2016	17-Dec-2028	LED Chip Design for White Conversion	Cree, Inc.	
P0726US1	United States of America	Granted	11/835,044	7-Aug-2007			7,863,635	4-Jan-2011	14-Mar-2028	Semiconductor Light Emitting Devices with Applied Wavelength Conversion Materials	Cree, Inc.	

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P0726US2	United States of America	Granted	12/9/76,769	22-Dec-2010	US-2011-0089456-A1	21-Apr-2011	9,054,282	9-Jun-2015	13-Jun-2028	Semiconductor Light Emitting Devices with Applied Wavelength Conversion Materials and Methods for Forming the Same	Cree, Inc.	
P0727US1	United States of America	Granted	12/250,828	14-Oct-2008	US2009-012615-A1	14-May-2009	8,119,028	21-Feb-2012	14-Oct-2028	Cerium and Europium Doped Single Crystal Phosphors	Cree, Inc.	
P0727US2	United States of America	Granted	13/366,637	6-Feb-2012	US-2012-0132857-A1	31-May-2012	8,597,543	3-Dec-2013	14-Oct-2028	Cerium and Europium Doped Phosphor Compositions and Light Emitting Devices Including the Same	Cree, Inc.	
P0728US1	United States of America	Granted	29/306,911	21-Apr-2008			D608,739	26-Jan-2010	26-Jan-2024	Light Emitting Diode	Cree, Inc.	
P0756US1	United States of America	Granted	11/600,604	15-Nov-2006	US2008-0112452	15-May-2008	7,769,066	3-Aug-2010	15-Nov-2026	Laser Diode and Method for Fabricating Same	Cree, Inc.	
P0756US2	United States of America	Granted	12/826,305	29-Jun-2010	US-2010-0273281-A1	28-Oct-2010	8,679,876	25-Mar-2014	13-Oct-2028	Laser Diode and Method for Fabricating Same	Cree, Inc.	
P0760US1	United States of America	Granted	11/743,324	2-May-2007	US 2007/0223219	27-Sep-2007	8,125,137	28-Feb-2012	22-Aug-2026	Multi-Chip Light Emitting Device Lamps for Providing High-CRI Warm White Light and Light Fixtures Including the Same	Cree, Inc.	
P0760US2	United States of America	Granted	12/941,030	5-Nov-2010	US 2011/0050125	3-Mar-2011	8,410,680	2-Apr-2013	18-Jun-2025	Multi-Chip Light Emitting Device Lamps for Providing High-CRI Warm White Light and Light Fixtures Including the Same	Cree, Inc.	

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P0761US3	United States of America	Granted	13/851,688	27-Mar-2013	US 2013/0249434	26-Sep-2013	8,847,478	30-Sep-2014	10-Jan-2025	Multi-Chip Light Emitting Device Lamps for Providing High-CRI Warm White Light and Light Fixtures Including the Same	Cree, Inc.	
P0761US1	United States of America	Granted	11/715,687	8-Mar-2007	US2008-0217635	11-Sep-2008	7,795,623	14-Sep-2010	1-Dec-2025	Light Emitting Devices Having Current Reducing Structures and Methods of Forming Light Emitting Devices Having Current Reducing Structures	Cree, Inc.	
P0761US2	United States of America	Granted	12/879,692	10-Sep-2010	US-2011-0008922-A1	13-Jan-2011	8,163,577	24-Apr-2012	30-Jun-2024	Light Emitting Devices Having Current Reducing Structures and Methods of Forming Light Emitting Devices Having Current Reducing Structures	Cree, Inc.	
P0761US3	United States of America	Granted	13/406,251	27-Feb-2012			8,436,368	7-May-2013	30-Jun-2024	Light Emitting Devices Having Current Reducing Structures and Methods of Forming Light Emitting Devices Having Current Reducing Structures	Cree, Inc.	
P0761US4	United States of America	Granted	13/856,928	4-Apr-2013	US-2013-0292639-A1	7-Nov-2013	8,704,240	22-Apr-2014	30-Jun-2024	Light Emitting Devices Having Current Reducing Structures and Methods of Forming Light Emitting Devices Having Current Reducing Structures	Cree, Inc.	

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P0762US1	United States of America	Granted	11/8/79,665	17-Jul-2007	US2009-0021180-A1	22-Jan-2009	8,111,001	7-Feb-2012	28-Feb-2030	LED with Integrated Constant Current Driver	Cree, Inc.	
P0762US2	United States of America	Granted	13/347,228	10-Jan-2012	US-2012-0104955-A1	3-May-2012	8,232,739	31-Jul-2012	17-Jul-2027	LED with Integrated Constant Current Driver	Cree, Inc.	
P0762US3	United States of America	Granted	13/532,451	25-Jun-2012	US-2012-0262078-A1	18-Oct-2012	8,569,970	29-Oct-2013	17-Jul-2027	LED with Integrated Constant Current Driver	Cree, Inc.	
P0762US4	United States of America	Granted	13/677,709	15-Nov-2012	2013-0069527	21-Mar-2013	8,810,151	19-Aug-2014	17-Jul-2027	LED with Integrated Constant Current Driver	Cree, Inc.	
P0763US1	United States of America	Granted	11/839,562	16-Aug-2007	US 2008/0054279	6-Mar-2008	8,425,271	23-Apr-2013	1-Apr-2028	Phosphor Position in Light Emitting Diodes	Cree, Inc.	
P0764US1	United States of America	Granted	11/839,603	16-Aug-2007	US 2008/0054284	6-Mar-2008	7,910,938	22-Mar-2011	16-Aug-2027	Encapsulant Profile for Light Emitting Diodes	Cree, Inc.	
P0764US2	United States of America	Granted	13/040,088	3-Mar-2011	US2011-0149604-A1	23-Jun-2011	8,766,298	1-Jul-2014	16-Aug-2027	Encapsulant Profile for Light Emitting Diodes	Cree, Inc.	
P0764US2-REX	United States of America	Granted	90/013,789	4-Aug-2016			8,766,298	22-Feb-2017	16-Aug-2027	Encapsulant Profile for Light Emitting Diodes	Cree, Inc.	
P0770US1	United States of America	Granted	11/611,600	15-Dec-2006	US 2008/0142820	19-Jun-2008	9,178,121	3-Nov-2015	7-Aug-2031	Reflective Mounting Substrates for Light Emitting Diodes	Cree, Inc.	
P0773US1	United States of America	Granted	11/744,286	4-May-2007	US2008-0272383	6-Nov-2008	7,910,944	22-Mar-2011	23-Jul-2027	Side Mountable Semiconductor Light Emitting Device Packages, Panels	Cree, Inc.	
P0773US2	United States of America	Granted	13/038,628	2-Mar-2011	US-2011-0169020-A1	14-Jul-2011	8,502,261	6-Aug-2013	4-May-2027	Side Mountable Semiconductor Light Emitting Device Packages, Panels and Methods of Forming the Same	Cree, Inc.	
P0780US1	United States of America	Granted	29/276,271	19-Jan-2007			D595,673	7-Jul-2009	7-Jul-2023	Light Emitting Diode	Cree, Inc.	

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P0780US2	United States of America	Granted	29/334,956	6-Apr-2009			D621802	17-Aug-2010	17-Aug-2024	Light Emitting Diodes	Cree, Inc.	
P0780US3	United States of America	Granted	29/365,193	6-Jul-2010			D669,040	16-Oct-2012	16-Oct-2026	Light Emitting Diodes	Cree, Inc.	
P0785US1	United States of America	Granted	11/674,696	14-Feb-2007	US2008-0191219	14-Aug-2008	7,922,360	12-Apr-2011	1-Aug-2028	Thermal Transfer in Solid State Light Emitting Apparatus and Methods of Manufacturing	Cree, Inc.	
P0785US2	United States of America	Granted	13/071,632	25-Mar-2011	US-2011-0170301-A1	14-Jul-2011	8,408,749	2-Apr-2013	14-Feb-2027	Thermal Transfer in Solid State Light Emitting Apparatus and Methods of Manufacturing	Cree, Inc.	
P0787US1	United States of America	Granted	11/656,759	22-Jan-2007	US2008-0173884	24-Jul-2008	9,024,349	5-May-2015	22-Jan-2027	Wafer-level Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	Yes
P0787US2	United States of America	Granted	11/899,790	7-Sep-2007	US2008-0179611	31-Jul-2008	9,159,888	13-Oct-2015	22-Jan-2027	Wafer-level Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	Yes
P0788US1	United States of America	Granted	29/275,362	21-Dec-2006			D566,057	8-Apr-2008	8-Apr-2022	LED Chip	Cree, Inc.	
P0788US2	United States of America	Granted	29/284,431	7-Sep-2007			D582,866	16-Dec-2008	16-Dec-2022	LED Chip	Cree, Inc.	
P0788US3	United States of America	Granted	29/327,786	13-Nov-2008			D602,450	20-Oct-2009	20-Oct-2023	LED Chip	Cree, Inc.	
P0789US1	United States of America	Granted	12/093,698	12-Nov-2008	US-2009-0219714-A1	3-Sep-2009	8,123,375	28-Feb-2012	7-Jan-2029	Tiles for Solid State Lighting Units	Cree, Inc.	
P0791US1	United States of America	Granted	11/818,818	14-Jun-2007	US2008-0308825	18-Dec-2008	7,999,283	16-Aug-2011	10-Jan-2029	Encapsulant With Scatterer to Tailor Spatial Emission Pattern and Color Uniformity in Light Emitting Diodes	Cree, Inc.	Yes

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P0794US1	United States of America	Granted	11/974,431	10-Oct-2007	US2009-0095966	16-Apr-2009	9,012,937	21-Apr-2015	10-Oct-2027	Multiple Conversion Material Light Emitting diode Package and Method of Fabricating Same	Cree, Inc.	
P0796US1	United States of America	Granted	29/250,973	7-Dec-2006			D594,827	23-Jun-2009	23-Jun-2023	Lamp Packages	Cree, Inc.	
P0798US1	United States of America	Granted	11/624,954	19-Jan-2007	US 2008/0173883	24-Jul-2008	7,968,900	28-Jun-2011	19-Jan-2027	High Performance LED Package	Cree, Inc.	
P0799US1	United States of America	Granted	29/275,303	20-Dec-2006			D566,056	8-Apr-2008	8-Apr-2022	LED Chip	Cree, Inc.	
P0799US2	United States of America	Granted	29/284,434	7-Sep-2007			D583,338	23-Dec-2008	23-Dec-2022	LED Chip	Cree, Inc.	
P0799US3	United States of America	Granted	29/328,502	25-Nov-2008			D593,968	9-Jun-2009	9-Jun-2023	LED Chip	Cree, Inc.	
P0800US1	United States of America	Granted	11/827,626	11-Jul-2007	US2009-0014736	15-Jan-2009	10,505,083	10-Dec-2019	18-Nov-2028	Design for Wafer Level White LED Chip and Fabrication Process	Cree, Inc.	Yes
P0808US1	United States of America	Granted	11/738,171	20-Apr-2007	US 2008/0258161	23-Oct-2008	9,484,499	1-Nov-2016	18-Feb-2029	Transparent Ohmic Contacts on Light Emitting Diodes with Carrier Substrates	Cree, Inc.	
P0810US1	United States of America	Granted	12/008,477	11-Jan-2008	US2009-0179207-A1	16-Jul-2009	8,878,219	4-Nov-2014	11-Jan-2028	Flip-Chip Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	
P0823US1	United States of America	Granted	12/024,400	1-Feb-2008	US2009-0194775-A1	6-Aug-2009	8,178,888	15-May-2012	30-May-2030	Semiconductor Light Emitting Devices with High Color Rendering	Cree, Inc.	Yes
P0825US1	United States of America	Granted	11/788,001	18-Apr-2007	US2008-0258168	23-Oct-2008	7,964,888	21-Jun-2011	13-Apr-2028	Semiconductor Light Emitting Device Packages and Methods	Cree, Inc.	

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P0825US2	United States of America	Granted	13/164,185	20-Jun-2011	US-2011-0284903-A1	24-Nov-2011	8,791,491	29-Jul-2014	18-Apr-2027	Semiconductor Light Emitting Device Packages and Methods	Cree, Inc.	
P0830US1	United States of America	Granted	11/380,402	26-Apr-2006	US2007-0252250-A1	1-Nov-2007	7,635,915	22-Dec-2009	4-May-2027	Apparatus, System & Method for Use in Mounting Electronic Elements (SMD)	Cree, Inc.	
P0830US2	United States of America	Granted	12/614,989	9-Nov-2009	US-2010-0052126-A1	4-Mar-2010	8,362,605	29-Jan-2013	12-May-2027	Apparatus, System & Method for Use in Mounting Electronic Elements (SMD)	Cree, Inc.	
P0836US1	United States of America	Granted	12/414,457	30-Mar-2009	US2009-0261358	22-Oct-2009	8,877,524	4-Nov-2014	30-Mar-2029	Emission Tuning Methods and Devices Fabricated Utilizing	Cree, Inc.	
P0842US1	United States of America	Granted	12/371,226	13-Feb-2009	US-2009-0206322-A1	20-Aug-2009	8,022,388	20-Sep-2011	31-Aug-2029	Broadband Light Emitting Device Lamps for Providing White Light Output	Cree, Inc.	
P0842US2	United States of America	Granted	13/215,889	23-Aug-2011	US-2011-030896-A1	15-Dec-2011	8,598,565	3-Dec-2013	13-Feb-2029	Broadband Light Emitting Device Lamps for Providing White Light Output	Cree, Inc.	
P0847US1	United States of America	Granted	11/895,795	27-Aug-2007	US 2008/0054286	6-Mar-2008	7,939,842	10-May-2011	11-Jan-2027	Light Emitting Device Packages, Light Emitting Diode (LED) Packages, and Related Methods	Cree, Inc.	
P0849US1	United States of America	Granted	12/002,429	14-Dec-2007	US2009-0152573-A1	18-Jun-2009	9,431,589	30-Aug-2016	14-Dec-2027	Textured Encapsulant Surface in LED Packages	Cree, Inc.	
P0852US1	United States of America	Granted	29/280,949	11-Jun-2007			D582865	16-Dec-2008	16-Dec-2022	LED Chip	Cree, Inc.	
P0852US2	United States of America	Granted	29/327,793	13-Nov-2008			D616,839	1-Jun-2010	1-Jun-2024	LED Chip	Cree, Inc.	

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P0853US1	United States of America	Granted	12/014,404	15-Jan-2008	US2009-0179213-A1	16-Jul-2009	8,058,088	15-Nov-2011	12-Sep-2029	Phosphor Coating Systems and Methods for Light Emitting Structures and Packaged Light Emitting Diodes Including Phosphor	Cree, Inc.	
P0853US2	United States of America	Granted	13/272,712	13-Oct-2011			8,618,569	31-Dec-2013	23-Jan-2028	Phosphor Coating Systems and Methods for Light Emitting Structures and Packaged Light Emitting Diodes Including Phosphor	Cree, Inc.	
P0860US1	United States of America	Granted	12/051,212	19-Mar-2008			8,916,890	23-Dec-2014	29-Jun-2031	Light Emitting Diodes with Light Filters	Cree, Inc.	Yes
P0862US1	United States of America	Granted	11/900,952	14-Sep-2007	US2009-0072254 A1	19-Mar-2009	8,519,437	27-Aug-2013	29-Mar-2028	Polarization Doping in Nitride Based Diodes	Cree, Inc.	Yes
P0863US1	United States of America	Granted	11/844,127	23-Aug-2007	US 2008/0210971	4-Sep-2008	7,910,945	22-Mar-2011	24-Aug-2026	Nickel Tin Bonding System with Barrier Layer for Semiconductor Wafers and Devices	Cree, Inc.	
P0863US2	United States of America	Granted	13/035,005	25-Feb-2011	US-2011-0180839-A1	28-Jul-2011	8,247,836	21-Aug-2012	2-Jul-2026	Nickel Tin Bonding System with Barrier Layer for Semiconductor Wafers and Devices	Cree, Inc.	
P0864US1	United States of America	Granted	12/082,444	10-Apr-2008			7,859,000	28-Dec-2010	10-Apr-2028	LEDs Using Single Crystalline Phosphor and Methods of Fabricating Same	Cree, Inc.	
P0864US2	United States of America	Granted	12/961,789	7-Dec-2010	US-2011-0073881-A1	31-Mar-2011	8,101,443	24-Jan-2012	10-Apr-2028	LEDs Using Single Crystalline Phosphor and Methods of Fabricating Same	Cree, Inc.	
P0865US1	United States of America	Granted	12/151,089	2-May-2008	US2009-0272996-A1	5-Nov-2009	9,287,469	15-Mar-2016	2-May-2028	Encapsulation for Phosphor-Converted White Light Emitting Diode	Cree, Inc.	

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P0866US1	United States of America	Granted	12/077,638	19-Mar-2008	US 2009-0236621-A1	24-Sep-2009	8,637,883	28-Jan-2014	19-Mar-2028	Low Index Spacer Layer in LED Devices	Cree, Inc.	
P0868US1	United States of America	Granted	12/145,213	24-Jun-2008	US2009-0242897A1	1-Oct-2009	7,791,101	7-Sep-2010	25-Nov-2028	Indium Nitride-Based Ohmic Contact Layers for Gallium-Nitride Based Devices	Cree, Inc.	
P0868US2	United States of America	Granted	12/850,979	5-Aug-2010	US-2010-0314640-A1	16-Dec-2010	7,943,924	17-May-2011	24-Jun-2028	Indium Nitride-Based Ohmic Contact Layers for Gallium-Nitride Based Devices	Cree, Inc.	
P0871US1	United States of America	Granted	29/284,854	18-Sep-2007			D623,607	14-Sep-2010	14-Sep-2024	Lamp Packages	Cree, Inc.	
P0872US1	United States of America	Granted	11/982,275	31-Oct-2007	2009-0108281	30-Apr-2009	9,070,850	30-Jun-2015	5-Jan-2029	Light Emitting Diode Package and Method of Fabricating Same	Cree, Inc.	
P0872US2	United States of America	Granted	14/705,228	6-May-2015	2015-0236219	20-Aug-2015	10,892,383	12-Jan-2021	31-Oct-2027	Light Emitting Diode Package and Method of Fabricating Same	Cree, Inc.	
P0877US1	United States of America	Granted	11/982,276	31-Oct-2007	US2008-0170396	17-Jul-2008	10,295,147	21-May-2019	9-Nov-2026	LED Array and Method for Fabricating Same	Cree, Inc.	Yes
P0878US1	United States of America	Granted	29/292,900	31-Oct-2007			D615,504	11-May-2010	11-May-2024	Emitter Package	Cree, Inc.	
P0885US1	United States of America	Granted	12/145,280	24-Jun-2008	US-2009-0315061-A1	24-Dec-2009	9,147,812	29-Sep-2015	29-Jul-2031	Method for Assembling LED Package	Cree, Inc.	
P0887US1	United States of America	Granted	12/428,149	22-Apr-2009	US-2009-0286335-A1	19-Nov-2009	8,038,497	18-Oct-2011	30-Jul-2029	Methods of Fabricating Light Emitting Deices by Selective Deposition of Light Conversion Materials Based on Measured Emission Characteristics	Cree, Inc.	
P0888US1	United States of America	Granted	11/956,989	14-Dec-2007	US 2009/0153022	18-Jun-2009	8,167,674	1-May-2012	26-Jan-2028	Phosphor Distribution in LED Lamps Using Centrifugal Force	Cree, Inc.	

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P0888US2	United States of America	Granted	13/429,053	23-Mar-2012	US-2012-0206039-A1	16-Aug-2012	9,041,285	26-May-2015	12-Sep-2028	Phosphor Distribution in LED Lamps Using Centrifugal Force	Cree, Inc.	
P0895US1	United States of America	Granted	12/229,366	22-Aug-2008	US2009-0065790-A1	12-Mar-2009	9,196,799	24-Nov-2015	1-Dec-2030	LED Chips Having Fluorescent Substrates with Microholes and Methods for Fabricating	Cree, Inc.	
P0896US1	United States of America	Granted	12/126,079	23-May-2008	US2009-0129074-A1	21-May-2009	8,267,542	18-Sep-2012	3-Jun-2028	Improved binning of Light sources for Lighting of Flat Panel Displays	Cree, Inc.	
P0896US2	United States of America	Granted	13/548,646	13-Jul-2012	US2012-0275147A1	1-Nov-2012	9,335,214	10-May-2016	4-Jun-2030	Improved binning of Light sources for Lighting of Flat Panel Displays	Cree, Inc.	
P0898US1	United States of America	Granted	12/185,031	1-Aug-2008	US-2010-0025719-A1	4-Feb-2010	8,384,115	26-Feb-2013	1-May-2030	Improved Bond-Pad Design for enhancing Light Extraction from LED Chips	Cree, Inc.	Yes
P0900US1	United States of America	Granted	12/199,592	27-Aug-2008	US2009-0050924-A1	26-Feb-2009	7,843,060	30-Nov-2010	31-Jan-2029	Droop-Free High Output Light Emitting Devices and Methods of Fabricating and Operating Same	Cree, Inc.	
P0900US2	United States of America	Granted	12/938,877	3-Nov-2010	US2011-0042705	24-Feb-2011	8,524,515	3-Sep-2013	8-Oct-2028	Droop-Free High Output Light Emitting Devices and Methods of Fabricating and Operating Same	Cree, Inc.	
P0908US1	United States of America	Granted	12/154,691	23-May-2008	US 2009-0050907	26-Feb-2009	7,821,023	26-Oct-2010	17-Jan-2025	Solid State Lighting Component	Cree, Inc.	Yes
P0908US2	United States of America	Granted	12/883,979	16-Sep-2010	US-2011-0012143-A1	20-Jan-2011	8,217,412	10-Jul-2012	10-Jan-2025	Solid State Lighting Component	Cree, Inc.	Yes
P0908US3	United States of America	Granted	13/489,035	5-Jun-2012	US-2012-0241781-A1	27-Sep-2012	8,698,171	15-Apr-2014	10-Jan-2025	Solid State Lighting Component	Cree, Inc.	Yes

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P0908US4	United States of America	Granted	13/971,547	20-Aug-2013	2013-0341653A1	26-Dec-2013	9,076,940	7-Jul-2015	18-Mar-2026	Solid State Lighting Component	Cree, Inc.	Yes
P0909US1	United States of America	Granted	12/156,995	5-Jun-2008	US 2009-0050908	26-Feb-2009	9,793,247	17-Oct-2017	17-Jan-2025	Solid State Lighting Component (jointly owned with PSSLS)	Cree, Inc.; Philips Solid State Lighting Solutions	Yes
P0913US1	United States of America	Granted	12/057,748	28-Mar-2008	US2009-0246895-A1	1-Oct-2009	8,350,461	8-Jan-2013	13-Jul-2031	Apparatus and Methods for Combining Light Emitters	Cree, Inc.	PATENT
P0913US2	United States of America	Granted	13/714,955	14-Dec-2012	20130107515	2-May-2013	8,513,871	20-Aug-2013	28-Mar-2028	Apparatus and Methods for Combining Light Emitters	Cree, Inc.	
P0915US1	United States of America	Granted	12/271,945	17-Nov-2008	US 2010/0123104	20-May-2010	9,428,688	30-Aug-2016	7-May-2029	Phosphor Composition	Cree, Inc.	
P0915US2	United States of America	Granted	15/234,433	11-Aug-2016	US 2016/0348000	1-Dec-2016	10,266,767	23-Apr-2019	6-Oct-2029	PHOSPHOR COMPOSITION	Cree, Inc.	
P0915US3	United States of America	Granted	16/296,818	8-Mar-2019	2019-0203117	4-Jul-2019	10,767,111	8-Sep-2020	17-Nov-2028	PHOSPHOR COMPOSITION	Cree, Inc.	
P0916US1	United States of America	Granted	11/751,982	22-May-2007	US2007-0274080	29-Nov-2007	8,033,692	11-Oct-2011	22-May-2027	Lighting Device	Cree, Inc.	
P0916US2	United States of America	Granted	13/233,302	15-Sep-2011	US-2012-0018751-A1	26-Jan-2012	8,529,104	10-Sep-2013	22-May-2027	Lighting Device	Cree, Inc.	
P0917US1	United States of America	Granted	11/751,990	22-May-2007	20070274063	29-Nov-2007	7,718,991	18-May-2010	22-May-2027	Lighting Device and Method of Making	Cree, Inc.	
P0918US1	United States of America	Granted	11/753,103	24-May-2007	US 2007/0280624	6-Dec-2007	8,008,676	30-Aug-2011	24-May-2027	Solid State Light Emitting Device and Method of Making	Cree, Inc.	
P0926US1	United States of America	Granted	11/870,679	11-Oct-2007	US2008-0089053	17-Apr-2008	8,994,045	31-Mar-2015	11-Oct-2027	Lighting Device and Method of Making Same	Cree, Inc.	

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P0932US1	United States of America	Granted	11/947,323	29-Nov-2007	US2008-0130265	5-Jun-2008	7,901,111	8-Mar-2011	28-Feb-2029	Lighting Device and Lighting Method	Cree, Inc.	
P0940US1	United States of America	Granted	12/017,558	22-Jan-2008	US2008-0179602	31-Jul-2008	9,391,118	12-Jul-2016	22-Jan-2028	Fault Tolerant Light Emitters, Systems Incorporating Fault Tolerant Light Emitters and Methods of Fabricating Fault Tolerant Light Emitters	Cree, Inc.	
P0958US1	United States of America	Granted	11/614,180	21-Dec-2006	US20070236911	11-Oct-2007	7,614,759	10-Nov-2009	21-Dec-2026	Lighting Device	Cree, Inc.	
P0958US2	United States of America	Granted	12/570,712	30-Sep-2009	US-2010-0020532-A	28-Jan-2010	8,328,376	11-Dec-2012	30-Sep-2029	Lighting Device	Cree, Inc.	
P0958US3	United States of America	Granted	13/660,131	25-Oct-2012	2013-0070442	21-Mar-2013	8,858,004	14-Oct-2014	30-Sep-2029	Lighting Device	Cree, Inc.	
P0981US1	United States of America	Granted	12/017,600	22-Jan-2008	US2008-0211416	4-Sep-2008	10,586,787	10-Mar-2020	8-Nov-2033	Illumination Devices Using Externally Interconnected Arrays of Light Emitting Devices, and Methods of Fabricating Same	Cree, Inc.	
P0981US2	United States of America	Granted	15/464,801	21-Mar-2017	US2017-0194298	6-Jul-2017	10,157,898	18-Dec-2018	22-Jan-2028	Illumination Devices and Methods of Fabricating Same	Cree, Inc.	
P0998US1	United States of America	Granted	12/287,764	13-Oct-2008	US2009-0057690-A1	5-Mar-2009	8,232,564	31-Jul-2012	22-Jan-2027	Wafer Level Phosphor Coating Technique for Warm Light Emitting Diodes	Cree, Inc.	
P1004US1	United States of America	Granted	12/475,261	29-May-2009	US2009-0283779-A1	19-Nov-2009	9,273,830	1-Mar-2016	14-Jun-2027	Light Source with Near Field Mixing	Cree, Inc.	
P1009US1	United States of America	Granted	29/323,659	28-Aug-2008			D608,307	19-Jan-2010	19-Jan-2024	Light Emitting Diode	Cree, Inc.	

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P1009US2	United States of America	Granted	29/342,451	25-Aug-2009			D614,592	27-Apr-2010	27-Apr-2024	Light Emitting Diode	Cree, Inc.	
P1011US1	United States of America	Granted	12/238,976	26-Sep-2008	US-2010-0081218-A1	1-Apr-2010	7,955,875	7-Jun-2011	15-Jul-2029	Forming Light Emitting Devices Including Custom Wavelength Conversion Structures	Cree, Inc.	
P1019US1	United States of America	Granted	12/329,713	8-Dec-2008	US-2010-0140636-A1	10-Jun-2010	8,575,633	5-Nov-2013	24-Dec-2028	Light Emitting Diode with Improved Light Extraction	Cree, Inc.	
P1022US1	United States of America	Granted	12/329,722	8-Dec-2008	US-2010-0140637-A1	10-Jun-2010	8,017,963	13-Sep-2011	21-Jul-2029	Light Emitting Diode with a Dielectric Mirror Having a Lateral Configuration	Cree, Inc.	
P1023US1	United States of America	Granted	12/317,528	23-Dec-2008	US-2010-0155750-A1	24-Jun-2010	7,897,419	1-Mar-2011	21-May-2029	Color Correction for Wafer Level White LEDs	Cree, Inc.	
P1023US2	United States of America	Granted	13/018,254	31-Jan-2011	US-2011-0121344-A1	26-May-2011	8,193,544	5-Jun-2012	23-Dec-2028	Color Correction for Wafer Level White LEDs	Cree, Inc.	
P1024US1	United States of America	Granted	12/316,097	8-Dec-2008	US-2010-0140635-A1	10-Jun-2010	7,915,629	29-Mar-2011	8-Apr-2029	Composite High Reflectivity Layer	Cree, Inc.	
P1024US2	United States of America	Granted	13/071,349	24-Mar-2011	US-2011-0169036-A1	14-Jul-2011	8,598,609	3-Dec-2013	23-Feb-2029	Composite High Reflectivity Layer	Cree, Inc.	
P1024US3	United States of America	Granted	14/047,566	7-Oct-2013	2014-0034987	6-Feb-2014	8,710,536	29-Apr-2014	8-Dec-2028	Composite High Reflectivity Layer	Cree, Inc.	
P1028US1	United States of America	Granted	12/288,957	24-Oct-2008	US-2010-0103660-A1	29-Apr-2010	9,425,172	23-Aug-2016	24-Oct-2028	Array Layout for Color Mixing	Cree, Inc.	
P1028US2	United States of America	Granted	12/629,735	2-Dec-2009	US-2010-0127283-A1	27-May-2010	9,484,329	1-Nov-2016	24-Oct-2028	Array Layouts for Color Mixing	Cree, Inc.	
P1043US1	United States of America	Granted	12/418,816	6-Apr-2009	US-2010-0155746-A1	24-Jun-2010	7,985,970	26-Jul-2011	6-Apr-2029	High Voltage Low Current Surface-Emitting LED	Cree, Inc.	

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P1043US2	United States of America	Granted	13/190,126	25-Jul-2011	US-2011-0278608-A1	17-Nov-2011	8,530,921	10-Sep-2013	6-Apr-2029	High Voltage Low Current Surface-Emitting LED	Cree, Inc.	
P1050US1	United States of America	Granted	29/330,657	12-Jan-2009			D621,799	17-Aug-2010	17-Aug-2024	Light Emitting Diode	Cree, Inc.	
P1050US2	United States of America	Granted	29/353,652	12-Jan-2010			D635,527	5-Apr-2011	5-Apr-2025	Light Emitting Diode	Cree, Inc.	
P1054US1	United States of America	Granted	12/466,782	15-May-2009	US-2010-0289045-A1	18-Nov-2010	8,287,759	16-Oct-2012	27-Nov-2030	Luminescent Particles, Methods and Light Emitting Devices Including the Same	Cree, Inc.	
P1054US2	United States of America	Granted	13/611,719	12-Sep-2012	US 2013/0001470	3-Jan-2013	8,608,979	17-Dec-2013	15-May-2029	Luminescent Particles, Methods and Light Emitting Devices Including the Same	Cree, Inc.	
P1064US1	United States of America	Granted	12/500,679	10-Jul-2009	US2011/0006668	13-Jan-2011	8,547,009	1-Oct-2013	14-Nov-2029	Lighting Structures Including Diffuser Particles Comprising Phosphor Host Materials	Cree, Inc.	
P1073US1	United States of America	Granted	12/425,855	17-Apr-2009			7,967,652	28-Jun-2011	17-Apr-2029	Methods for Combining Light Emitting Devices in a Packages and Packages Including Combined Light Emitting Devices	Cree, Inc.	
P1073US2	United States of America	Granted	12/838,677	19-Jul-2010	US-2011-0037080-A1	17-Feb-2011	8,333,631	18-Dec-2012	29-Jun-2029	Methods for Combining Light Emitting Devices in a Packages and Packages Including Combined Light Emitting Devices	Cree, Inc.	
P1079US1	United States of America	Granted	12/553,025	2-Sep-2009	US-2011-0049546-A1	3-Mar-2011	9,362,459	7-Jun-2016	24-Jan-2031	Improved High Reflectivity Mirrors and Method for Making Same	Cree, Inc.	Yes

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P1089US1	United States of America	Granted	12/7/19,297	8-Mar-2010	US-2011-0215355-A1	8-Sep-2011	9,991,427	5-Jun-2018	4-Jul-2031	Photonic Crystal Phosphor Light Conversion Structures for Light Emitting Devices	Cree, Inc.	
P1095US1	United States of America	Granted	12/6/14,553	9-Nov-2009	US 2010/0140634	10-Jun-2010	7,893,445	22-Feb-2011	9-Nov-2029	Solid State Emitter Package Including Multiple Emitters	Cree, Inc.	
P1095US2	United States of America	Granted	13/008,898	18-Jan-2011	US 2011/0133223	9-Jun-2011	8,362,499	29-Jan-2013	9-Nov-2029	Solid State Emitter Packages including Accessory Lens	Cree, Inc.	
P1102US1	United States of America	Granted	12/498,253	6-Jul-2009	US-2011-0001151-A1	6-Jan-2011	8,415,692	9-Apr-2013	29-Dec-2030	LED Packages with Scattering Particle Regions	Cree, Inc.	
P1107US1	United States of America	Granted	12/643,670	21-Dec-2009	US-2010-0254129-A1	7-Oct-2010	9,335,006	10-May-2016	27-Nov-2031	Saturated Yellow Phosphor Converted LED and Blue Converted Red LED	Cree, Inc.	
P1109US1	United States of America	Granted	12/757,179	9-Apr-2010	US-2011-0248287-A1	9-Apr-2011	9,012,938	21-Apr-2015	9-Apr-2030	High Reflective Substrate of Light Emitting Devices with Improved Light Output	Cree, Inc.	
P1112US1	United States of America	Granted	12/463,709	11-May-2009	US-2009-0283787-A1	19-Nov-2009	8,368,100	5-Feb-2013	13-Jun-2029	Semiconductor Light Emitting Diodes having reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes
P1112US2	United States of America	Granted	13/023,788	9-Feb-2011	US-2011-0127568-A1	2-Jun-2011	8,643,039	4-Feb-2014	29-Aug-2028	Lateral Semiconductor Light Emitting Diodes Having Large Area Contacts	Cree, Inc.	Yes
P1112US3	United States of America	Granted	14/159,209	20-Jan-2014	US2014-0151735	5-Jun-2014	9,397,266	19-Jul-2016	14-Nov-2027	Lateral Semiconductor Light Emitting Diodes Having Large Area Contacts	Cree, Inc.	Yes

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P1113US1	United States of America	Granted	12/699,541	3-Feb-2010	US-2011-0187294-A1	4-Aug-2011	8,575,592	5-Nov-2013	19-Aug-2031	Group III Nitride Based Light Emitting Diode Structures with Multiple Quantum Well Structures Having Varying Well Thickness	Cree, Inc.	
P1115US1	United States of America	Granted	12/769,354	28-Apr-2010	US 2010/0270567	28-Oct-2010	8,957,435	17-Feb-2015	28-Apr-2029	Lighting Device	Cree, Inc.	
P1116US1	United States of America	Granted	12/757,891	9-Apr-2010	US-2010-0252851-A1	7-Oct-2010	8,866,169	21-Oct-2014	15-Aug-2029	LED Package with Increased Feature Sizes	Cree, Inc.	
P1117US1	United States of America	Granted	29/335,819	22-Apr-2009			D635,525	5-Apr-2011	5-Apr-2025	LED Chip	Cree, Inc.	
P1123US1	United States of America	Granted	12/482,165	10-Jun-2009			8,216,867	10-Jul-2012	17-Dec-2029	Front End Scribing of Light Emitting Diode (LED) Wafers and Resulting Devices	Cree, Inc.	
P1133US1	United States of America	Granted	29/338,186	5-Jun-2009			D641,719	19-Jul-2011	19-Jul-2025	Light Emitting Diode	Cree, Inc.	
P1134US1	United States of America	Granted	12/479,318	5-Jun-2009	US 2010/0133554	3-Jun-2010	7,923,739	12-Apr-2011	5-Jun-2029	Solid State Lighting Device	Cree, Inc.	
P1134US2	United States of America	Granted	13/082,699	8-Apr-2011	US 2011/0180827	28-Jul-2011	8,497,522	30-Jul-2013	5-Jun-2029	Solid State Lighting Device	Cree, Inc.	
P1134US3	United States of America	Granted	13/953,438	29-Jul-2013	US 2014/0027801	30-Jan-2014	8,866,166	21-Oct-2014	5-Jun-2029	Solid State Lighting Device	Cree, Inc.	
P1138US1	United States of America	Granted	12/771,938	30-Apr-2010	US-2011-0266560-A1	3-Nov-2011	8,329,482	11-Dec-2012	1-Nov-2030	White-Emitting LED Chips and Method for Making Same	Cree, Inc.	Yes
P1139US1	United States of America	Granted	13/219,486	26-Aug-2011	US-2013-0049021-A1	28-Feb-2013	8,558,252	15-Oct-2013	26-Aug-2031	White LEDs with Emission Wavelength Correction	Cree, Inc.	

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P1148US1	United States of America	Granted	12/538,602	10-Aug-2009	US2011/0031502	10-Feb-2011	9,437,785	6-Sep-2016	21-Jun-2033	Light Emitting Diodes Including Integrated Backside Reflector and Die Attach	Cree, Inc.	
P1175US1	United States of America	Granted	12/625,943	25-Nov-2009	US-2011-0121333-A1	26-May-2011	8,410,512	2-Apr-2013	12-Feb-2031	Heat Post Package for Improved Thermal Resistance	Cree, Inc.	
P1176US1	United States of America	Granted	12/720,387	9-Mar-2010	US 2011/0221330	15-Sep-2011	8,508,127	13-Aug-2013	15-Nov-2030	High CRI lighting device by adding cyan color	Cree, Inc.	
P1176US2	United States of America	Granted	13/030,421	18-Feb-2011	US 2011/0222277	15-Sep-2011	8,508,117	13-Aug-2013	9-Mar-2030	HIGH CRI LIGHTING DEVICE WITH ADDED LONG-WAVELENGTH BLUE COLOR	Cree, Inc.	
P1185US1	United States of America	Granted	12/619,838	17-Nov-2009	US-2010-0127613-A1	27-May-2010	9,464,225	11-Oct-2016	17-Nov-2028	Luminescent Particles, Methods of Identifying Same and Light Emitting Devices Including the Same	Cree, Inc.	
P1191US1	United States of America	Granted	12/574,918	7-Oct-2009	US 2011/0080720	7-Apr-2011	8,379,407	19-Feb-2013	4-Feb-2031	Adapter for Connecting Surface-Mount Devices to Printed Circuit Boards	Cree, Inc.	
P1191US2	United States of America	Granted	13/718,589	18-Dec-2012	US 2013/0107480	2-May-2013	8,792,250	29-Jul-2014	7-Oct-2029	Adapter for Connecting Surface-Mount Devices to Printed Circuit Boards	Cree, Inc.	
P1202US1	United States of America	Granted	12/766,293	23-Apr-2010	US-2011-0260199-A1	27-Oct-2011	9,240,526	19-Jan-2016	22-Aug-2033	Solid State Light Emitting Diode Packages with Leadframes and Ceramic Material and Methods of Forming the Same	Cree, Inc.	
P1205US1	United States of America	Granted	12/719,287	8-Mar-2010	US-2011-0116275-A1	19-May-2011	8,337,214	25-Dec-2012	3-Feb-2030	Electrical Connectors and Light Emitting Device Package and	Cree, Inc.	

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										Methods of Assembling the Same		
P1205US2	United States of America	Granted	13/724,581	21- Dec- 2012	US 2013/0188350	25- Jul- 2013	8,727,789	20- May- 2014	13- Nov- 2029	ELECTRICAL CONNECTORS AND LIGHT EMITTING DEVICE PACKAGE AND METHODS OF ASSEMBLING THE SAME	Cree, Inc.	
P1206US1	United States of America	Granted	12/842,639	23- Jul- 2010	US-2012-0018754	26- Jan- 2012	10,546,846	28- Jan- 2020	23- Jul- 2030	Light Transmission Control for Masking Appearance of Solid State Light Sources	Cree, Inc.	
P1207US1	United States of America	Granted	12/970,789	16- Dec- 2010	US-2012-0153306- A1	21- Jun- 2012	9,391,247	12- Jul- 2016	4- Jul- 2033	High Power LEDs with Non-Polymer Material Lenses and Methods of Making the Same	Cree, Inc.	
P1210US1	United States of America	Granted	13/104,238	10- May- 2011	US2012-0286304	15- Nov- 2012	8,921,875	30- Dec- 2014	4- Aug- 2032	Recipient Luminophoric Mediums Having Narrow-Spectrum Luminescent Materials and Related Semiconductor Light Emitting Devices and Methods	Cree, Inc.	Yes
P1212US1	United States of America	Granted	12/868,567	25- Aug- 2010	US-2011-0042698- A1	24- Feb- 2011	8,748,915	10- Jun- 2014	16- Jul- 2026	Emitter Package with Angled or Vertical LED	Cree, Inc.; Cree Hong Kong Limited	
P1225US1	United States of America	Granted	12/905,995	15- Oct- 2010	US-2011-0084294- A1	14- Apr- 2011	8,536,584	17- Sep- 2013	15- Aug- 2031	High Voltage waive Bond Free LEDs	Cree, Inc.	
P1226US1	United States of America	Granted	12/717,048	3- Mar- 2010	US-2010-0155763- A	24- Jun- 2010	8,940,561	27- Jan- 2015	20- Jun- 2028	Systems and Methods for Application of Optical Materials to Optical Elements	Cree, Inc.	

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P1229US1	United States of America	Granted	12/9/76,664	22-Dec-2010			8,772,817	8-Jul-2014	25-Mar-2031	Electronic Device Submounts Including Conductive Substrates with Thermally Conductive Vias	Cree, Inc.	
P1231US1	United States of America	Granted	12/704,995	12-Feb-2010	US-2011-0198984-A1	18-Aug-2011	9,518,715	13-Dec-2016	12-Feb-2030	Lighting Devices that Comprise One or More Solid State Light Emitters	Cree, Inc.	
P1231US2	United States of America	Granted	13/022,978	8-Feb-2011	US-2011-0211351-A1	1-Sep-2011	8,773,007	8-Jul-2014	12-Feb-2030	Lighting Devices that Comprise One or More Solid State Light Emitters	Cree, Inc.	
P1231US3	United States of America	Granted	14/278,600	15-May-2014	2015-0009670	8-Jan-2015	9,605,812	28-Mar-2017	1-Jun-2030	Light Engine Module with Removable Circuit Board	Cree, Inc.	
P1231US4	United States of America	Granted	15/434,516	16-Feb-2017	2017-0159892	8-Jun-2017	10,119,660	6-Nov-2018	12-Feb-2030	Light Engine Modules including a Support and a Solid State Light Emitter	Cree, Inc.	
P1231US5	United States of America	Granted	15/788,376	19-Oct-2017	2018-0045381	15-Feb-2018	10,222,004	5-Mar-2019	16-Feb-2037	Lighting Devices that Comprise One or More Solid State Light Emitters	Cree, Inc.	
P1231US6	United States of America	Granted	16/246,899	14-Jan-2019	2019-0145585	16-May-2019	10,451,224	22-Oct-2019	12-Feb-2030	Lighting Devices that Comprise One or More Solid State Light Emitters	Cree, Inc.	
P1238US1	United States of America	Granted	12/720,390	9-Mar-2010	US-2011-0220929-A1	15-Sep-2011	8,643,038	4-Feb-2014	19-Jul-2030	Warm White LEDs Having High Color Rendering Index Values and Related Luminescent Mediums	Cree, Inc.	
P1252US1	United States of America	Granted	12/756,725	8-Apr-2010	US-2010-0315012-A1	16-Dec-2010	8,339,029	25-Dec-2012	19-Jun-2029	Light Emitting Devices and Systems Having Tunable Chromaticity and Methods of Tuning the Chromaticity of Light Emitting Devices and Systems	Cree, Inc.	

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P1252US2	United States of America	Granted	13/682,894	21-Nov-2012	US2013-0082612	4-Apr-2013	8,740,663	3-Jun-2014	17-Apr-2029	Light Emitting Devices and Systems Having Tunable Chromaticity and Methods of Tuning the Chromaticity of Light Emitting Devices and Systems	Cree, Inc.	
P1256US1	United States of America	Granted	13/367,898	7-Feb-2012	US 2012/0313115	13-Dec-2012	9,583,681	28-Feb-2017	19-May-2032	LIGHT EMITTER DEVICE PACKAGES, MODULES AND METHODS	Cree, Inc.	
P1260US1	United States of America	Granted	13/093,431	25-Apr-2011	US 2011/0260182	27-Oct-2011	9,048,392	2-Jun-2015	13-May-2031	Light Emitting Device Array Assemblies and Related Methods	Cree, Inc.	
P1261US1	United States of America	Granted	13/017,757	31-Jan-2011	US-2012-0193659-A1	2-Aug-2012	9,508,904	29-Nov-2016	18-Apr-2031	Structures and Substrates for Mounting Optical Elements and Methods and Devices for Providing the Same Background	Cree, Inc.	
P1262US1	United States of America	Granted	12/887,067	21-Sep-2010	US-2012-0068209	22-Mar-2012	9,515,229	6-Dec-2016	21-Feb-2033	Semiconductor Light Emitting Devices with Optical Coatings and Methods of Making Same	Cree, Inc.	
P1263US1	United States of America	Granted	29/360,791	30-Apr-2010			D648,686	15-Nov-2011	15-Nov-2025	Light Emitting Diode (LED) Package	Cree, Inc.	
P1263US2	United States of America	Granted	29/401,692	14-Sep-2011			D659,657	15-May-2012	15-May-2026	Light Emitting Diode (LED) Package	Cree, Inc.	
P1264US1	United States of America	Granted	12/887,097	21-Sep-2010	US-2012-0068594	22-Mar-2012	8,410,679	2-Apr-2013	21-Sep-2030	Semiconductor Light Emitting Devices with Densely Packed Phosphor Layer at Light Emitting Surface	Cree, Inc.	

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P1264US2	United States of America	Granted	13/780,132	28-Feb-2013	2013-0178127	11-Jul-2013	8,684,781	1-Apr-2014	21-Sep-2030	Semiconductor Light Emitting Devices with Densely Packed Phosphor Layer at Light Emitting Surface	Cree, Inc.	
P1264US3	United States of America	Granted	14/177,931	11-Feb-2014	US2014-0161147	12-Jun-2014	8,884,510	11-Nov-2014	21-Sep-2030	Semiconductor Light Emitting Devices with Densely Packed Phosphor Layer at Light Emitting Surface	Cree, Inc.	
P1272US1	United States of America	Granted	13/017,845	31-Jan-2011	US-2012-0193648-A1	2-Aug-2012	9,166,126	20-Oct-2015	26-Dec-2031	Conformally Coated Light Emitting Devices and Methods for Providing the Same	Cree, Inc.	
P1273US1	United States of America	Granted	13/082,034	7-Apr-2011	US-2012-0256211	11-Oct-2012	8,957,438	17-Feb-2015	9-Dec-2033	Methods of Fabricating Light Emitting Devices Including Multiple Sequenced Luminescent Layers, and Devices so Fabricated	Cree, Inc.	
P1274US1	United States of America	Granted	13/035,520	25-Feb-2011	US2012-0217865	30-Aug-2012	8,742,654	3-Jun-2014	2-May-2032	Solid State Light Emitting Devices Including Nonhomogeneous Luminescent Particle Size Layers	Cree, Inc.	
P1279US1	United States of America	Granted	13/022,542	7-Feb-2011	US 2012/0201024	9-Aug-2012	9,395,057	19-Jul-2016	5-Oct-2032	Lighting Device with Flexibly Coupled Heatsinks	Cree, Inc.	
P1281US1	United States of America	Granted	12/825,075	28-Jun-2010	US 2011/0031865	10-Feb-2011	8,598,602	3-Dec-2013	27-Oct-2030	Light Emitting Device Packages with Improved Heat Transfer	Cree, Inc.	
P1281US2	United States of America	Granted	14/094,341	2-Dec-2013	US 2014/0159088	12-Jun-2014	9,123,874	1-Sep-2015	27-Oct-2030	Light Emitting Device Packages with Improved Heat Transfer	Cree, Inc.	

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P1282US1	United States of America	Granted	12/814,241	11-Jun-2010	US-2010-0252840-A1	7-Oct-2010	8,476,668	2-Jul-2013	28-Apr-2030	High Voltage Low Current Surface-Emitting LED	Cree, Inc.	
P1282US2	United States of America	Granted	13/190,094	25-Jul-2011	US-2012-0043563	23-Feb-2012	9,093,293	28-Jul-2015	8-Oct-2030	High Voltage Low Current Surface-Emitting LED	Cree, Inc.	
P1285US1	United States of America	Granted	12/853,812	10-Aug-2010	US 2011/0316022	29-Dec-2011	8,269,244	18-Sep-2012	12-Jan-2029	LED PACKAGE WITH EFFICIENT, ISOLATED THERMAL PATH	Cree, Inc.	
P1285US2	United States of America	Granted	13/616,759	14-Sep-2012	US 2013/0011946	10-Jan-2013	8,878,217	4-Nov-2014	12-Jan-2029	LED PACKAGE WITH EFFICIENT, ISOLATED THERMAL PATH	Cree, Inc.	
P1295US1	United States of America	Granted	13/177,415	6-Jul-2011	US2013-0009179	10-Jan-2013	10,842,016	17-Nov-2020	6-Jul-2031	Compact Optically Efficient Solid State Lighting Source with Integrated Thermal Management	Cree, Inc.	
P1296US1	United States of America	Granted	29/365,939	16-Jul-2010			D643,819	23-Aug-2011	23-Aug-2025	Package for Lightin Emitting Diode(LED) Lighting	Cree, Inc.	
P1296US2	United States of America	Granted	29/397,017	11-Jul-2011			D667,801	25-Sep-2012	25-Sep-2026	PACKAGE FOR LIGHT EMITTING DIODE (LED) LIGHTING	Cree, Inc.	
P1296US3	United States of America	Granted	29/432,988	24-Sep-2012			D708,156	1-Jul-2014	1-Jul-2028	PACKAGE FOR LIGHT EMITTING DIODE (LED) LIGHTING	Cree, Inc.	
P1305US1	United States of America	Granted	13/017,778	31-Jan-2011	20120193647	2-Aug-2012	8,803,201	12-Aug-2014	8-Aug-2032	Solid State Lighting Component Package with reflective Layer	Cree, Inc.	

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P1317US1	United States of America	Granted	13/050,110	17-Mar-2011	US-2012-0236553-A1	20-Sep-2012	8,950,892	10-Feb-2015	19-May-2032	Methods for Combining Light Emitting Devices in a White Light Emitting Apparatus that Mimics Incandescent Dimming Characteristics and Solid State Lighting Apparatus of General Illumination that Mimic Incandescent Dimming Characteristics	Cree, Inc.	
P1317US2	United States of America	Granted	14/615,120	5-Feb-2015	2015-0189708	2-Jul-2015	9,642,207	2-May-2017	16-Dec-2031	Methods for Combining Light Emitting Devices in a White Light Emitting Apparatus that Mimics Incandescent Dimming Characteristics and Solid State Lighting Apparatus of General Illumination that Mimic Incandescent Dimming Characteristics	Cree, Inc.	
P1319US1	United States of America	Granted	13/017,502	31-Jan-2011	20120068198	22-Mar-2012	9,041,042	26-May-2015	31-Jan-2031	High Density Multi-Chip LED Devices	Cree, Inc.	
P1319US2	United States of America	Granted	29/384,360	31-Jan-2011			D658,139	24-Apr-2012	24-Apr-2026	High-Density Emitter Package	Cree, Inc.	
P1325US1	United States of America	Granted	13/250,289	30-Sep-2011	US-2012-0256200	11-Oct-2012	8,455,882	4-Jun-2013	8-Oct-2031	High Efficiency LEDs	Cree, Inc.	
P1327US1	United States of America	Granted	13/017,407	31-Jan-2011	20120069564	22-Mar-2012	8,696,159	15-Apr-2014	1-Jul-2031	Multi-Chip LED Devices	Cree, Inc.	
P1327US2	United States of America	Granted	29/384,363	31-Jan-2011			D660,257	22-May-2012	22-May-2026	Emitter Package	Cree, Inc.	

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P1328US1	United States of America	Granted	13/017,575	31-Jan-2011	US 2012/0086024	12-Apr-2012	9,627,361	18-Apr-2017	31-Jan-2031	MULTIPLE CONFIGURATION LIGHT EMITTING DEVICES AND METHODS	Cree, Inc.	
P1328US2	United States of America	Granted	29/384,476	31-Jan-2011			D650,343	13-Dec-2011	13-Dec-2025	MULTIPLE CONFIGURATION LIGHT EMITTING DEVICE PACKAGE	Cree, Inc.	
P1332US1	United States of America	Granted	13/227,961	8-Sep-2011	US 2012/0127720	24-May-2012	8,648,359	11-Feb-2014	28-Jun-2030	Light Emitting Devices and Methods	Cree, Inc.	
P1333US1	United States of America	Granted	13/015,996	29-Jan-2011	20120197599	2-Aug-2012	8,589,120	19-Nov-2013	19-Jan-2032	Methods, System, and Apparatus for Determining Optical Properties of Lighting Elements of Lighting Components Having Similar Color Points	Cree, Inc.	
P1335US1	United States of America	Granted	13/152,863	3-Jun-2011	US 2012/0305958	6-Dec-2012	8,906,263	9-Dec-2014	29-Aug-2033	Red Nitride Phosphors	Cree, Inc.	
P1337US1	United States of America	Granted	13/154,872	7-Jun-2011	US 2012/0313124	13-Dec-2012	8,747,697	10-Jun-2014	3-Jun-2032	Gallium-Substituted Yttrium Aluminum Garnet Phosphor for High CRI LED Components	Cree, Inc.	
P1339US1	United States of America	Granted	13/252,448	4-Oct-2011			8,957,440	17-Feb-2015	1-Nov-2031	Light Emitting Devices with Low Packaging Factor	Cree, Inc.	
P1344US1	United States of America	Granted	13/021,496	4-Feb-2011	US 2012/019852	9-Aug-2012	9,035,328	19-May-2015	11-Nov-2032	LIGHT-EMITTING DIODE COMPONENT	Cree, Inc.	
P1348US1	United States of America	Granted	13/028,972	16-Feb-2011	US 2012/0126255	24-May-2012	8,564,000	22-Oct-2013	25-Jan-2031	Light Emitting Devices for Light Emitting Diodes (LEDs)	Cree, Inc.	
P1348US2	United States of America	Granted	13/104,558	10-May-2011	US 2012/0126257	24-May-2012	8,624,271	7-Jan-2014	6-Dec-2030	Light Emitting Devices	Cree, Inc.	

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P1348US3	United States of America	Granted	14/043,494	1- Oct-2013	US 2014/0097453	10- Apr-2014	9,203,004	1- Dec-2015	22- Nov-2030	Light Emitting Devices for Light Emitting Diodes (LEDs)	Cree, Inc.	
P1348US4	United States of America	Granted	14/148,102	6-Jan-2014	US 2014/0183577	3- Jul-2014	9,209,354	8- Dec-2015	22- Nov-2030	Light Emitting Devices for Light Emitting Diodes (LEDs)	Cree, Inc.	
P1349US1	United States of America	Granted	29/379,636	22- Nov-2010			D650,760	20- Dec-2011	20- Dec-2025	LIGHT EMITTING DEVICE PACKAGE	Cree, Inc.	
P1349US2	United States of America	Granted	29/407,084	22- Nov-2011			D667,803	25- Sep-2012	25- Sep-2026	LIGHT EMITTING DEVICE PACKAGE	Cree, Inc.	
P1349US3	United States of America	Granted	29/408,955	19- Dec-2011			D676,395	19- Feb-2013	19- Feb-2027	LIGHT EMITTING DEVICE PACKAGE	Cree, Inc.	
P1350US1	United States of America	Granted	13/282,172	26- Oct-2011	US 2012/0250310	4- Oct-2012	9,300,062	29- Mar-2016	1- Jul-2032	ATTACHMENT DEVICES AND METHODS FOR LIGHT EMITTING DEVICES	Cree, Inc.	
P1361US1	United States of America	Granted	13/011,417	21- Jan-2011	US-2012-0187431-A1	26- Jul-2012	8,698,184	15- Apr-2014	15- Nov-2031	Light Emitting Diodes with Low Junction Temperature and Solid State Backlight Components Including Light Emitting Diodes with Low Junction Temperature	Cree, Inc.	
P1363US1	United States of America	Granted	29/380,387	3- Dec-2010			D676,000	12- Feb-2013	12- Feb-2027	Light Emitting Device Package	Cree, Inc.	
P1365US1	United States of America	Granted	29/380,549	7- Dec-2010			D648,687	15- Nov-2011	15- Nov-2025	LIGHT EMITTING DEVICE PACKAGE	Cree, Inc.	
P1365US2	United States of America	Granted	29/403,433	6- Oct-2011			D661,264	5- Jun-2012	5- Jun-2026	LIGHT EMITTING DEVICE PACKAGE	Cree, Inc.	

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PI366US1	United States of America	Granted	13/088,693	18-Apr-2011	US 2012/0261680	18-Oct-2012	9,245,874	26-Jan-2016	29-Aug-2031	LED ARRAY HAVING EMBEDDED LED AND METHOD THEREOF	Cree, Inc.	
PI371US1	United States of America	Granted	12/969,267	15-Dec-2010			8,686,445	1-Apr-2014	1-Dec-2031	Solid State Lighting Devices and Methods	Cree, Inc.	
PI375US1	United States of America	Granted	13/042,959	8-Mar-2011	US-2012-0201025-A1	9-Aug-2012	8,698,388	15-Apr-2014	8-Mar-2031	Lighting Apparatus Providing Increased Luminous Flux While Maintaining Color Point and CRI	Cree, Inc.	
PI376US1	United States of America	Granted	13/362,683	31-Jan-2012	US 2012/0300491	29-Nov-2012	9,859,471	2-Jan-2018	31-Jan-2032	High Brightness Light Emitting Diode (LED) Packages, Systems, and Methods with Improved Resin Filling and High Adhesion	Cree, Inc.	
PI379US1	United States of America	Granted	13/100,786	4-May-2011	US 2012/0280261	8-Nov-2012	9,263,636	16-Feb-2016	4-May-2031	Light-Emitting Diode (LED) for Achieving an Asymmetric Light Output	Cree, Inc.	
PI381US1	United States of America	Granted	13/018,013	31-Jan-2011	US2012/0193660	2-Aug-2012	9,640,737	2-May-2017	3-Feb-2033	Horizontal Light Emitting Diodes Including Phosphor Particles	Cree, Inc.	
PI382US1	United States of America	Granted	29/396,909	8-Jul-2011			D691,973	22-Oct-2013	22-Oct-2027	Lamp Packages	Cree, Inc.	
PI383US1	United States of America	Granted	29/396,911	8-Jul-2011			D673,126	25-Dec-2012	25-Dec-2026	LED Chip	Cree, Inc.	
PI383US2	United States of America	Granted	29/436,228	2-Nov-2012			D689,031	3-Sep-2013	3-Sep-2027	LED Chip	Cree, Inc.	
PI384US1	United States of America	Granted	13/027,006	14-Feb-2011	US-2012-0193649-A1	2-Aug-2012	9,754,926	5-Sep-2017	18-Feb-2032	Light Emitting Diode (LED) Arrays Including Direct Die Attach and Related Assemblies	Cree, Inc.	

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P1385US1	United States of America	Granted	29/382,394	3-Jan-2011			D679,842	9-Apr-2013	9-Apr-2027	High Brightness LED Package	Cree, Inc.	
P1385US2	United States of America	Granted	29/451,761	8-Apr-2013			D704,358	6-May-2014	6-May-2028	HIGH BRIGHTNESS LED PACKAGE	Cree, Inc.	
P1386US1	United States of America	Granted	13/011,609	21-Jan-2011	US 2012/0153317	21-Jun-2012	9,111,778	18-Aug-2015	21-Nov-2031	Light Emitting Diode (LED) Devices, Systems, and Methods	Cree, Inc.	
P1395US1	United States of America	Granted	13/019,812	2-Feb-2011	US 2011/0186873	4-Aug-2011	8,860,043	14-Oct-2014	21-Apr-2031	Light Emitting Device Packages, Systems and Methods	Cree, Inc.	
P1396US1	United States of America	Granted	29/383,908	24-Jan-2011			D689,830	17-Sep-2013	17-Sep-2027	Light Emitting Diode	Cree, Inc.	
P1396US2	United States of America	Granted	29/396,907	8-Jul-2011			D675,581	5-Feb-2013	5-Feb-2027	Light Emitting Diode	Cree, Inc.	
P1397US1	United States of America	Granted	29/393,910	24-Jan-2011			D682,225	14-May-2013	14-May-2027	Light Emitting Diode	Cree, Inc.	
P1398US1	United States of America	Granted	29/383,906	24-Jan-2011			D672,731	18-Dec-2012	18-Dec-2026	Light Emitting Diode	Cree, Inc.	
P1401US1	United States of America	Granted	13/440,992	6-Apr-2012	US 2013/0020929	24-Jan-2013	8,664,846	4-Mar-2014	18-Jun-2031	SOLID STATE LIGHTING DEVICE INCLUDING GREEN SHIFTED RED COMPONENT	Cree, Inc.	
P1415US1	United States of America	Granted	13/178,791	8-Jul-2011	US-2012-0193662-A1	2-Aug-2012	9,673,363	6-Jun-2017	19-Dec-2034	Reflective Mounting Substrates for Flip-Chip Mounted Horizontal LEDs	Cree, Inc.	
P1420US1	United States of America	Granted	13/034,267	24-Feb-2011	US2012-0217530	30-Aug-2012	9,362,455	7-Jun-2016	4-Aug-2031	Semiconductor Light Emitting Diodes Having Multiple Bond Pads and Current Spreading Structures	Cree, Inc.	

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P1421US1	United States of America	Granted	29/386,077	24-Feb-2011			D675,580	5-Feb-2013	5-Feb-2027	Light Emitting Diode	Cree, Inc.	
P1422US1	United States of America	Granted	29/386,078	24-Feb-2011			D673,125	25-Dec-2012	25-Dec-2026	Light Emitting Diodes	Cree, Inc.	
P1427US1	United States of America	Granted	13/224,850	2-Sep-2011	US 2012/0193651	2-Aug-2012	9,490,235	8-Nov-2016	2-Sep-2031	LIGHT EMITTING DEVICES, SYSTEMS AND METHODS	Cree, Inc.	
P1428US1	United States of America	Granted	13/152,833	3-Jun-2011	US 2012/0306354	6-Dec-2012	8,729,790	20-May-2014	23-Mar-2032	Coated Phosphors and Light Emitting Devices Including the Same	Cree, Inc.	
P1428US2	United States of America	Granted	14/246,375	7-Apr-2014	US 2014/0217326	7-Aug-2014	9,537,052	3-Jan-2017	23-Mar-2032	COATED PHOSPHORS AND LIGHT EMITTING DEVICES INCLUDING THE SAME	Cree, Inc.	
P1429US1	United States of America	Granted	13/153,155	3-Jun-2011	US 2012/0306355	6-Dec-2012	8,814,621	26-Aug-2014	23-Jun-2031	METHODS OF DETERMINING AND MAKING RED NITRIDE COMPOSITIONS	Cree, Inc.	
P1433US1	United States of America	Granted	13/603,586	5-Sep-2012	US 2013/0193455	1-Aug-2013	9,099,616	4-Aug-2015	3-Jan-2032	LIGHT EMITTER PACKAGES AND DEVICES HAVING IMPROVED WIRE BONDING AND RELATED METHODS	Cree, Inc.	
P1434US1	United States of America	Granted	13/296,812	15-Nov-2011	US 2013/0119417	16-May-2013	10,043,960	7-Aug-2018	19-Jun-2033	LIGHT EMITTING DIODE (LED) PACKAGES AND RELATED METHODS	Cree, Inc.	
P1436US1	United States of America	Granted	13/051,894	18-Mar-2011	US-2012-0235190	20-Sep-2012	10,147,853	4-Dec-2018	18-Mar-2031	Encapsulant with Index Matched Thixotropic Agent	Cree, Inc.	

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P1444US1	United States of America	Granted	13/292,577	9- Nov- 2011	US 2013/0114242	9- May- 2013	8,884,508	11- Nov- 2014	10- Jan- 2033	Solid State Lighting Device Including Multiple Wavelength Conversion Materials	Cree, Inc.	
P1445US1	United States of America	Granted	13/306,589	29- Nov- 2011	2013-0134445	30- May- 2013	8,564,004	22- Oct- 2013	29- Nov- 2031	Complex Primary Optics and Methods of Fabrication	Cree, Inc.	
P1446US1	United States of America	Granted	29/388,240	25- Mar- 2011			D691,569	15- Oct- 2013	15- Oct- 2027	LED CHIP	Cree, Inc.	
P1447US1	United States of America	Granted	13/112,502	20- May- 2011	US-2012-0193661-A1	2- Aug- 2012	9,660,153	23- May- 2017	28- Jan- 2033	Gap Engineering for Flip-Chip Mounted Horizontal LEDs	Cree, Inc.	
P1453US1	United States of America	Granted	13/415,626	8- Mar- 2012	US-2012-0280263	8- Nov- 2012	8,680,556	25- Mar- 2014	24- Oct- 2028	Composite High Reflectivity Layer	Cree, Inc.	
P1455US1	United States of America	Granted	13/462,450	2- May- 2012	US 2012/0307481	6- Dec- 2012	8,610,140	17- Dec- 2013	3- May- 2031	LIGHT EMITTING DIODE (LED) PACKAGES, SYSTEMS, DEVICES AND RELATED METHODS	Cree, Inc.	
P1457US1	United States of America	Granted	13/187,232	20- Jul- 2011	2012-0187862	26- Jul- 2012	10,256,385	9- Apr- 2019	8- Feb- 2029	LIGHT EMITTING DIE (LED) PACKAGES AND RELATED METHODS	Cree, Inc.	
P1458US1	United States of America	Granted	13/168,689	24- Jun- 2011	US-2012-0326159-A1	27- Dec- 2012	8,686,429	1- Apr- 2014	18- Jan- 2032	LED Structure with Enhanced Mirror Reflectivity	Cree, Inc.	Yes
P1463US1	United States of America	Granted	13/293,475	10- Nov- 2011			9,444,024	13- Sep- 2016	21- Dec- 2031	Methods of Forming Optical Conversion Material Caps and Light Emitting Devices Including Pre-Formed Optical Conversion Material Caps	Cree, Inc.	
P1471US1	United States of America	Granted	13/370,696	10- Feb- 2012	US-2012-0199843	9- Aug- 2012	9,105,824	11- Aug- 2015	6- Jun- 2031	High Reflective Board or Substrate for LEDs	Cree, Inc.	

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P1472US1	United States of America	Granted	13/160,793	15-Jun-2011	2012/0319148	20-Dec-2012	8,525,190	3-Sep-2013	24-Aug-2031	Conformal Gel Layers for Light Emitting Diodes and Methods of Fabricating Same	Cree, Inc.	
P1477US1	United States of America	Granted	13/361,276	30-Jan-2012	2013-0193836	1-Aug-2013	9,318,669	19-Apr-2016	10-Mar-2034	METHODS OF DETERMINING AND MAKING RED NITRIDE COMPOSITIONS	Cree, Inc.	
P1498US1	United States of America	Granted	29/396,759	6-Jul-2011			D700,584	4-Mar-2014	4-Mar-2028	LED Component	Cree, Inc.	
P1499US1	United States of America	Granted	13/554,769	20-Jul-2012	US 2013/0214298	22-Aug-2013	10,490,712	26-Nov-2019	20-Jul-2032	LIGHT EMITTER DEVICE PACKAGES, COMPONENTS, AND METHODS FOR IMPROVED CHEMICAL RESISTANCE AND RELATED METHODS	Cree, Inc.	
P1505US1	United States of America	Granted	13/312,508	6-Dec-2011	US 2013/0141905	6-Jun-2013	9,496,466	15-Nov-2016	7-Apr-2032	LIGHT EMITTER DEVICES AND METHODS, UTILIZING LIGHT EMITTING DIODES (LEDs), FOR IMPROVED LIGHT EXTRACTION	Cree, Inc.	
P1510US1	United States of America	Granted	13/372,063	13-Feb-2012	US 2013/0208442	15-Aug-2013	8,957,580	17-Feb-2015	15-Nov-2032	LIGHTING DEVICE INCLUDING MULTIPLE WAVELENGTH CONVERSION MATERIAL LAYERS	Cree, Inc.	
P1514US1	United States of America	Granted	13/444,394	11-Apr-2012	US 2013/0207142	15-Aug-2013	9,240,530	19-Jan-2016	4-May-2033	LIGHT EMITTER DEVICES HAVING IMPROVED CHEMICAL AND PHYSICAL RESISTANCE AND	Cree, Inc.	

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										RELATED METHODS		
P1515US1	United States of America	Granted	13/444,399	11-Apr-2012	US 2013/0207130	15-Aug-2013	9,343,441	17-May-2016	18-Jan-2034	LIGHT EMITTER DEVICES HAVING IMPROVED LIGHT OUTPUT AND RELATED METHODS	Cree, Inc.	
P1516US1	United States of America	Granted	13/372,076	13-Feb-2012	US 2013/0207141	15-Aug-2013	8,946,747	3-Feb-2015	13-Feb-2032	LIGHTING DEVICE INCLUDING MULTIPLE ENCAPSULANT MATERIAL LAYERS	Cree, Inc.	
P1519US1	United States of America	Granted	13/671,089	7-Nov-2012	20130077299	28-Mar-2013	8,729,589	20-May-2014	7-Nov-2031	HIGH VOLTAGE ARRAY LIGHT EMITTING DIODE (LED) DEVICES AND METHODS	Cree, Inc.	
P1519US2	United States of America	Granted	14/189,500	25-Feb-2014	US 2014/0240974	28-Aug-2014	9,194,567	24-Nov-2015	7-Nov-2031	HIGH VOLTAGE ARRAY LIGHT EMITTING DIODE (LED) DEVICES AND METHODS	Cree, Inc.	
P1528US1	United States of America	Granted	13/336,540	23-Dec-2011			8,455,908	4-Jun-2013	16-Feb-2031	IMPROVED LIGHT EMITTING DEVICES AND METHODS	Cree, Inc.	
P1528US2	United States of America	Granted	13/908,597	3-Jun-2013	US 2013/0334548	19-Dec-2013	8,921,869	30-Dec-2014	16-Feb-2031	IMPROVED LIGHT EMITTING DEVICES AND METHODS	Cree, Inc.	
P1529US1	United States of America	Granted	13/435,912	30-Mar-2012	US 2012/0299022	29-Nov-2012	8,575,639	5-Nov-2013	22-Nov-2030	IMPROVED LIGHT EMITTING DEVICES AND METHODS	Cree, Inc.	
P1529US2	United States of America	Granted	14/052,201	18-Oct-2013	US 2014/0097454	10-Apr-2014	8,994,057	31-Mar-2015	22-Nov-2030	LIGHT EMITTING DEVICES FOR LIGHT EMITTING DIODES (LEDS)	Cree, Inc.	

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P1530US1	United States of America	Granted	13/793,882	11-Mar-2013	US 2013/0264591	10-Oct-2013	8,809,880	19-Aug-2014	6-Jun-2032	LIGHT EMITTING DIODES (LEDS), DEVICES, AND METHODS FOR PROVIDING FAILURE MITIGATION IN LED ARRAYS	Cree, Inc.	
P1538US1	United States of America	Granted	29/402,571	23-Sep-2011			D689,209	3-Sep-2013	3-Sep-2027	Lamp Packages	Cree, Inc.	
P1539US1	United States of America	Granted	29/402,573	23-Sep-2011			D689,210	3-Sep-2013	3-Sep-2027	Lamp Packages	Cree, Inc.	
P1541US1	United States of America	Granted	29/404,913	26-Oct-2011			D702,653	15-Apr-2014	15-Apr-2028	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1541US2	United States of America	Granted	29/487,954	14-Apr-2014			D736,725	18-Aug-2015	18-Aug-2029	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1546US1	United States of America	Granted	13/828,895	14-Mar-2013	US 2013/0328070	12-Dec-2013	9,590,155	7-Mar-2017	5-Feb-2034	LIGHT EMITTING DEVICES AND SUBSTRATES WITH IMPROVED PLATING	Cree, Inc.	
P1554US1	United States of America	Granted	13/471,164	14-May-2012	US 2013/0301257	14-Nov-2013	9,515,055	6-Dec-2016	13-Apr-2034	LIGHT EMITTING DEVICES INCLUDING MULTIPLE ANODES AND CATHODES	Cree, Inc.	
P1557US1	United States of America	Granted	29/418,797	20-Apr-2012			D708,155	1-Jul-2014	1-Jul-2028	Solid State Lighting Apparatus	Cree, Inc.	
P1564US1	United States of America	Granted	13/309,177	1-Dec-2011	US 2013/0020590	24-Jan-2013	10,211,380	19-Feb-2019	15-Jul-2032	LIGHT EMITTING DEVICES AND COMPONENTS HAVING EXCELLENT CHEMICAL RESISTANCE AND RELATED METHODS	Cree, Inc.	

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PI708US1	United States of America	Granted	13/312,518	6-Dec-2011	US 2013/0141920	6-Jun-2013	10,008,637	26-Jun-2018	9-Oct-2032	LIGHT EMITTER DEVICES AND METHODS WITH REDUCED DIMENSIONS AND IMPROVED LIGHT OUTPUT	Cree, Inc.	
PI710US1	United States of America	Granted	13/714,992	14-Dec-2012	US 2014/0167600	19-Jun-2014	9,447,319	20-Sep-2016	4-Jul-2034	YELLOW PHOSPHOR HAVING AN INCREASED ACTIVATOR CONCENTRATION AND A METHOD OF MAKING A YELLOW PHOSPHOR	Cree, Inc.	
PI722US1	United States of America	Granted	13/554,628	20-Jul-2012	20140021493	23-Jan-2014	9,287,475	15-Mar-2016	20-Jul-2032	Solid State Lighting Component Package with Layer	Cree, Inc.	
PI727US1	United States of America	Granted	13/691,102	30-Nov-2012	US 2013/0161658	27-Jun-2013	10,686,107	16-Jun-2020	16-Dec-2031	LIGHT EMITTER DEVICES AND COMPONENTS WITH CHEMICAL RESISTANCE AND RELATED METHODS	Cree, Inc.	
PI728US1	United States of America	Granted	13/544,662	9-Jul-2012	2014-0009932A1	9-Jan-2014	8,931,929	13-Jan-2015	6-Jan-2033	Light Emitting Diode Primary Optic for Beam Shaping	Cree, Inc.	
PI730US1	United States of America	Granted	13/424,699	20-Mar-2012	2013-0193453	1-Aug-2013	9,831,220	28-Nov-2017	19-Apr-2033	Light Emitting Diode (LED) Arrays Including Direct Die Attach and Related Assemblies	Cree, Inc.	
PI730US2	United States of America	Granted	13/463,267	3-May-2012	US2012-0305949A1	6-Dec-2012	9,053,958	9-Jun-2015	20-Mar-2032	Light Emitting Diode (LED) Arrays Including Direct Die Attach and Related Assemblies	Cree, Inc.	
PI741US1	United States of America	Granted	29/412,168	31-Jan-2012			D707,192	17-Jun-2014	17-Jun-2028	LIGHT EMITTING DEVICE	Cree, Inc.	

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PI742US1	United States of America	Granted	29/412,166	31-Jan-2012			D705,181	20-May-2014	20-May-2028	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
PI745US1	United States of America	Granted	13/369,996	9-Feb-2012	2012/0319142	20-Dec-2012	8,957,430	17-Feb-2015	1-Aug-2032	Gel Underfill Layers for Light Emitting Diodes and Methods of Fabricating Same	Cree, Inc.	
PI747US1	United States of America	Granted	13/762,912	8-Feb-2013	US 2013/0215434	22-Aug-2013	9,246,060	26-Jan-2016	8-Feb-2033	LIGHT EMITTING DEVICES AND PACKAGES AND RELATED METHODS WITH ELECTRODE MARKS ON LEADS	Cree, Inc.	
PI748US1	United States of America	Granted	13/361,569	30-Jan-2012	US-2012-0211793	23-Aug-2012	9,443,903	13-Sep-2016	30-Jun-2026	Low Temperature High Strength Metal Stack for Die Attachment	Cree, Inc.	
PI751US1	United States of America	Granted	13/436,247	30-Mar-2012	US 2013/0258658	3-Oct-2013	8,895,998	25-Nov-2014	30-Mar-2032	CERAMIC-BASED LIGHT EMITTING DIODE (LED) DEVICES, COMPONENTS AND METHODS	Cree, Inc.	
PI752US1	United States of America	Granted	13/836,709	15-Mar-2013	US 2013/0200420	8-Aug-2013	9,806,246	31-Oct-2017	14-Dec-2032	CERAMIC-BASED LIGHT EMITTING DIODE (LED) DEVICES, COMPONENTS, AND METHODS	Cree, Inc.	
PI753US1	United States of America	Granted	13/836,940	15-Mar-2013	US 2013/0200406	8-Aug-2013	9,786,825	10-Oct-2017	7-Feb-2032	CERAMIC-BASED LIGHT EMITTING DIODE (LED) DEVICES, COMPONENTS, AND METHODS	Cree, Inc.	
PI760US1	United States of America	Granted	14/216,146	17-Mar-2014	US 2014/0264397	18-Sep-2014	9,431,590	30-Aug-2016	17-Mar-2034	CERAMIC-BASED LIGHT EMITTING DIODE (LED) PACKAGES AND METHODS	Cree, Inc.	

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PI762US1	United States of America	Granted	29/420,874	14-May-2012			D712,849	9-Sep-2014	9-Sep-2028	LIGHT EMITTING DIODE (LED) PACKAGE WITH MULTIPLE ANODES AND CATHODES	Cree, Inc.	
PI763US1	United States of America	Granted	29/420,876	14-May-2012			D713,804	23-Sep-2014	23-Sep-2028	LIGHT EMITTING DIODE (LED) PACKAGE WITH MULTIPLE ANODES AND CATHODES	Cree, Inc.	
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PI764US1	United States of America	Granted	13/608,397	10-Sep-2012	US2013-0264589	10-Oct-2013	9,653,643	16-May-2017	28-Oct-2033	Wafer Level Packaging of Light Emitting Diodes (LEDS)	Cree, Inc.	
PI764US2	United States of America	Granted	15/499,520	27-Apr-2017	2017-0229431	10-Aug-2017	10,854,584	1-Dec-2020	18-Nov-2032	Wafer Level Packaging of Light Emitting Diodes (LEDS)	Cree, Inc.	
PI766US1	United States of America	Granted	13/800,260	13-Mar-2013	US 2013/0279169	24-Oct-2013	10,222,032	5-Mar-2019	13-Mar-2033	LIGHT EMITTER COMPONENTS AND METHODS HAVING IMPROVED ELECTRICAL CONTACTS	Cree, Inc.	
PI767US1	United States of America	Granted	13/800,284	13-Mar-2013	US 2013/0270592	17-Oct-2013	10,134,961	20-Nov-2018	13-Mar-2033	SUBMOUNT BASED SURFACE MOUNT DEVICE (SMD) LIGHT EMITTER COMPONENTS AND METHODS	Cree, Inc.	
PI768US1	United States of America	Granted	13/774,248	22-Feb-2013	US 2014/0239325	28-Aug-2014	8,916,896	23-Dec-2014	22-Feb-2033	LIGHT EMITTER COMPONENTS AND METHODS HAVING IMPROVED PERFORMANCE	Cree, Inc.	
PI773US1	United States of America	Granted	13/590,982	21-Aug-2012	2014-0055032	27-Feb-2014	9,609,709	28-Mar-2017	11-Sep-2033	Multi-Segment LED Components and LED Lighting Apparatus Including the Same	Cree, Inc.	

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PI774US1	United States of America	Granted	13/672,315	8-Nov-2012	2014-0125229	8-May-2014	9,179,512	3-Nov-2015	11-Jan-2034	Multi-Segment LED Lighting Apparatus Configurations	Cree, Inc.	
PI775US1	United States of America	Granted	13/769,273	15-Feb-2013	20140232288	21-Aug-2014	8,970,131	3-Mar-2015	15-Feb-2033	SOLID STATE LIGHTING APPARATUSES AND RELATED METHODS	Cree, Inc.	
PI776US1	United States of America	Granted	13/769,277	15-Feb-2013	20140232289	21-Aug-2014	9,414,454	9-Aug-2016	15-Feb-2033	SOLID STATE LIGHTING APPARATUSES AND RELATED METHODS	Cree, Inc.	
PI782US1	United States of America	Granted	13/798,721	13-Mar-2013	US2014-0265921	18-Sep-2014	9,055,643	9-Jun-2015	7-Dec-2033	Solid State Lighting Apparatus and Methods of Forming	Cree, Inc.	
PI788US1	United States of America	Granted	13/441,620	6-Apr-2012	US 2013/0092960	18-Apr-2013	9,082,921	14-Jul-2015	13-Jul-2028	MULTI-DIE LED PACKAGE	Cree, Inc.	
PI792US1	United States of America	Granted	29/417,220	30-Mar-2012			D706,231	3-Jun-2014	3-Jun-2028	LIGHT EMITTING DIODE	Cree, Inc.	
PI796US1	United States of America	Granted	13/466,590	8-May-2012			9,437,783	6-Sep-2016	7-Dec-2032	Light Emitting Diode (LED) Contact Structures and Process for Fabricating the Same	Cree, Inc.	
PI811US1	United States of America	Granted	13/441,558	6-Apr-2012	US 2012/0306351	6-Dec-2012	9,401,103	26-Jul-2016	18-Nov-2032	LED-ARRAY LIGHT SOURCE WITH ASPECT RATIO GREATER THAN 1	Cree, Inc.	
PI814US1	United States of America	Granted	29/417,704	6-Apr-2012			D703,624	29-Apr-2014	29-Apr-2028	LED-ARRAY PACKAGE	Cree, Inc.	
PI814US2	United States of America	Granted	29/433,842	5-Oct-2012			D704,154	6-May-2014	6-May-2028	LIGHT EMITTER PACKAGE	Cree, Inc.	
PI815US1	United States of America	Granted	13/829,962	14-Mar-2013	US 2013/0292708	7-Nov-2013	8,878,204	4-Nov-2014	14-Mar-2033	SUBMOUNT BASED LIGHT EMITTER COMPONENTS AND METHODS	Cree, Inc.	

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P1831US1	United States of America	Granted	13/602,950	4-Sep-2012	20140061689	6-Mar-2014	8,772,798	8-Jul-2014	4-Sep-2032	LED Based Lighting System	Cree, Inc.	
P1833US1	United States of America	Granted	13/796,045	12-Mar-2013	US 2013/0256710	3-Oct-2013	9,172,012	27-Oct-2015	31-Oct-2027	MULTI-CHIP LIGHT EMITTER PACKAGES AND RELATED METHODS	Cree, Inc.	
P1834US1	United States of America	Granted	13/554,776	20-Jul-2012	US 2013/0322068	5-Dec-2013	10,439,112	8-Oct-2019	20-Jul-2032	LIGHT EMITTER PACKAGES, SYSTEMS, AND METHODS HAVING IMPROVED PERFORMANCE	Cree, Inc.	
P1834US2	United States of America	Granted	13/713,410	13-Dec-2012	US 2013/0322070	5-Dec-2013	9,349,929	24-May-2016	22-Jun-2033	LIGHT EMITTER PACKAGES, SYSTEMS, AND METHODS HAVING IMPROVED PERFORMANCE	Cree, Inc.	
P1847US1	United States of America	Granted	13/833,272	15-Mar-2013	2014-0117386-A1	1-May-2014	9,786,811	10-Oct-2017	4-Feb-2031	Titled Emission LED Array	Cree, Inc.	
P1848US1	United States of America	Granted	29/423,422	31-May-2012			D709,464	22-Jul-2014	22-Jul-2028	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1850US1	United States of America	Granted	13/790,369	8-Mar-2013	2013-0328096	12-Dec-2013	9,496,458	15-Nov-2016	8-Mar-2033	Semiconductor Light Emitting Diodes with Crack-Tolerant Barrier Structures and Methods of Fabricating the Same	Cree, Inc.	
P1858US1	United States of America	Granted	13/649,052	10-Oct-2012	US2013-0329425A1	12-Dec-2013	9,048,396	2-Jun-2015	13-Sep-2032	LED Package with Encapsulant Having Planar Surfaces	Cree, Inc.	
P1858US2	United States of America	Granted	14/661,874	18-Mar-2015	2015-0194580	9-Jul-2015	9,865,780	9-Jan-2018	16-May-2033	LED Package with Encapsulant Having Planar Surfaces	Cree, Inc.	
P1859US1	United States of America	Granted	29/424,353	11-Jun-2012			D711,840	26-Aug-2014	26-Aug-2028	LED Package	Cree, Inc.	

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P1862US1	United States of America	Granted	29/424,861	15-Jun-2012			D725,613	31-Mar-2015	31-Mar-2029	LED PACKAGE	Cree, Inc.	
P1866US1	United States of America	Granted	29/425,831	27-Jun-2012			D721,339	20-Jan-2015	20-Jan-2029	LIGHT EMITTER DEVICE	Cree, Inc.	
P1870US1	United States of America	Granted	29/426,661	9-Jul-2012			D703,348	22-Apr-2014	22-Apr-2028	Lamp Package	Cree, Inc.	
P1872US1	United States of America	Granted	13/837,442	15-Mar-2013	US2013-0341590A1	26-Dec-2013	9,685,585	20-Jun-2017	31-Mar-2033	Quantum Dot Narrow-Band Downconverters for High Efficiency LEDs	Cree, Inc.	
P1892US1	United States of America	Granted	29/430,291	23-Aug-2012			D711,841	26-Aug-2014	26-Aug-2028	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1900US1	United States of America	Granted	29/431,064	2-Sep-2012			D718,258	25-Nov-2014	25-Nov-2028	LED Package	Cree, Inc.	
P1904US1	United States of America	Granted	13/759,229	5-Feb-2013	US2014-0217436	7-Aug-2014	9,318,674	19-Apr-2016	5-Apr-2033	Submount-Free Light Emitting Diode (LED) Components and Methods of Fabricating Same	Cree, Inc.	
P1905US1	United States of America	Granted	13/947,623	22-Jul-2013	2015-0024516	22-Jan-2015	9,589,852	7-Mar-2017	11-May-2034	Electrostatic Phosphor Coating Systems and Methods for Light Emitting Structures and Packaged Light Emitting Diodes Including Phosphor Coating	Cree, Inc.	
P1912US1	United States of America	Granted	13/649,067	10-Oct-2012	US-2013-0328073 A1	12-Dec-2013	9,818,919	14-Nov-2017	10-Oct-2032	LED Package with Multiple Element Light Source and Encapsulant Having Planar Surfaces	Cree, Inc.	

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P1915US1	United States of America	Granted	13/838,654	15-Mar-2013	US 2014/0268728	18-Sep-2014	9,897,267	20-Feb-2018	17-Oct-2033	LIGHT EMITTER COMPONENTS, SYSTEMS, AND RELATED METHODS	Cree, Inc.	
P1930US1	United States of America	Granted	13/779,146	27-Feb-2013	US 2014/0239316	28-Aug-2014	10,295,124	21-May-2019	30-Aug-2033	LIGHT EMITTER PACKAGES AND METHODS	Cree, Inc.	
P1933US1	United States of America	Granted	29/431,542	7-Sep-2012			D753,612	12-Apr-2016	12-Apr-2030	IMPROVED WIRE BONDS FOR LIGHT EMITTER DEVICES	Cree, Inc.	
P1956US1	United States of America	Granted	13/801,743	13-Mar-2013			9,666,764	30-May-2017	10-Sep-2032	Wafer Level Packaging of Multiple Light Emitting Diodes (LEDs) on a Single Carrier Die	Cree, Inc.	
P1958US1	United States of America	Granted	13/796,954	12-Mar-2013	US 2013/0270581	17-Oct-2013	9,666,762	30-May-2017	29-Dec-2027	MULTI-CHIP LIGHT EMITTER PACKAGES AND RELATED METHODS	Cree, Inc.	
P1964US1	United States of America	Granted	29/439,629	13-Dec-2012			D749,051	9-Feb-2016	9-Feb-2030	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1980US1	United States of America	Granted	29/444,591	31-Jan-2013			D738,832	15-Sep-2015	15-Sep-2029	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1982US1	United States of America	Granted	13/755,993	31-Jan-2013	2013-0193468	1-Aug-2013	9,780,268	3-Oct-2017	4-Apr-2026	SUBMOUNT BASED SURFACE MOUNT DEVICE (SMD) LIGHT EMITTER COMPONENTS AND METHODS	Cree, Inc.	
P2010US1	United States of America	Granted	13/866,587	19-Apr-2013	20140313713	23-Oct-2014	10,094,523	9-Oct-2018	6-Feb-2036	LED Assembly	Cree, Inc.	

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P2018US1	United States of America	Granted	13/868,361	23-Apr-2013	US2014-0312373	23-Oct-2014	8,896,008	25-Nov-2014	23-Apr-2013	Light Emitting Diodes Having Group III Nitride Surface Features Defined by a Mask and Crystal Planes, and Fabrication Methods Thereof	Cree, Inc.	
P2018US2	United States of America	Granted	14/519,746	21-Oct-2014	2015-0037918	5-Feb-2015	9,281,445	8-Mar-2016	23-Apr-2013	Light Emitting Diodes Having Group III Nitride Surface Features Defined by a Mask and Crystal Planes, and Fabrication Methods Thereof	Cree, Inc.	
P2028US1	United States of America	Granted	13/834,195	15-Mar-2013	US 2013/0256711	3-Oct-2013	9,735,198	15-Aug-2017	31-Jan-2013	SUBSTRATE BASED LIGHT EMITTER DEVICES, COMPONENTS, AND RELATED METHODS	Cree, Inc.	
P2028US1	United States of America	Granted	13/839,130	15-Mar-2013	US 2014/0265809	18-Sep-2014	9,215,792	15-Dec-2015	15-Mar-2013	CONNECTOR DEVICES, SYSTEMS, AND RELATED METHODS FOR LIGHT EMITTER COMPONENTS	Cree, Inc.	
P2059US1	United States of America	Granted	29/451,177	28-Mar-2013			D712,850	9-Sep-2014	3-Jun-2028	LIGHT EMITTER DEVICE	Cree, Inc.	
P2069US1	United States of America	Granted	13/902,411	24-May-2013	20140346533	27-Nov-2014	9,923,132	20-Mar-2018	17-Feb-2034	Solid State Lighting Component Package with Conformal Reflective Coating	Cree, Inc.	
P2070US1	United States of America	Granted	29/452,692	19-Apr-2013			D738,542	8-Sep-2015	8-Sep-2029	LIGHT EMITTING DEVICE	Cree, Inc.	

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P2073US1	United States of America	Granted	14/255,607	17-Apr-2014	US2014-0312376-A1	23-Oct-2014	9,219,202	22-Dec-2015	17-Apr-2034	Semiconductor Light Emitting devices Including Red Phosphors that Exhibit Good Color Rendering Properties and Related Red Phosphors	Cree, Inc.	
P2075US1	United States of America	Granted	29/453,958	3-May-2013			D735,683	4-Aug-2015	4-Aug-2029	LED Package	Cree, Inc.	
P2076US1	United States of America	Granted	29/462,795	8-Aug-2013			D758,976	14-Jun-2016	14-Jun-2030	LED Package	Cree, Inc.	
P2079US1	United States of America	Granted	13/943,043	16-Jul-2013	20150021628	22-Jan-2015	9,099,575	4-Aug-2015	16-Jul-2033	SOLID STATE LIGHTING DEVICE AND FABRICATION METHODS INCLUDING DEPOSITED LIGHT-AFFECTING ELEMENTS	Cree, Inc.	
P2080US1	United States of America	Granted	14/045,474	3-Oct-2013	20150097200	9-Apr-2015	9,240,528	19-Jan-2016	30-Nov-2033	Solid State Lighting Apparatus with High Scotopic/Photopic (S/P) Ratio	Cree, Inc.	
P2081US1	United States of America	Granted	14/143,820	30-Dec-2013	20150188006	2-Jul-2015	9,935,246	3-Apr-2018	28-Dec-2035	Silazane-Containing Materials for Light Emitting Diodes	Cree, Inc.	
P2085US1	United States of America	Granted	13/909,927	4-Jun-2013	2013-0341634	26-Dec-2013	9,461,201	4-Oct-2016	8-Dec-2028	Light Emitting Diode Dielectric Mirror	Cree, Inc.	
P2090US1	United States of America	Granted	29/459,231	27-Jun-2013			D739,565	22-Sep-2015	22-Sep-2029	LIGHT EMITTER DEVICE	Cree, Inc.	
P2091US1	United States of America	Granted	29/459,233	27-Jun-2013			D740,453	6-Oct-2015	6-Oct-2029	LIGHT EMITTER DEVICE	Cree, Inc.	
P2099US1	United States of America	Granted	14/053,404	14-Oct-2013	2014-0217443	7-Aug-2014	10,439,107	8-Oct-2019	5-Feb-2033	Chip with Integrated Phosphor	Cree, Inc.	

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P2116US1	United States of America	Granted	13/956,814	1- Aug-2013	US 2015/0034978	5- Feb-2015	9,461,024	4- Oct-2016	1- Aug-2033	LIGHT EMITTER DEVICES AND METHODS FOR LIGHT EMITTING DIODE (LED) CHIPS	Cree, Inc.	
P2120US1	United States of America	Granted	13/957,290	1- Aug-2013	2014-0027795	30- Jan-2014	9,887,327	6- Feb-2018	18- Feb-2033	LED Package with Encapsulant Having Curved and Planar Surfaces	Cree, Inc.	
P2121US1	United States of America	Granted	29/462,353	1- Aug-2013			D718,725	2- Dec-2014	2- Dec-2028	LED Package with Encapsulant	Cree, Inc.	
P2146US1	United States of America	Granted	14/471,697	28- Aug-2014	2015-0060922	5- Mar-2015	10,074,781	11- Sep-2018	16- Aug-2035	Semiconductor Light Emitting Devices Including Multiple Red Phosphors that Exhibit Good Color Rendering Properties with Increased Brightness	Cree, Inc.	
P2147US1	United States of America	Granted	14/286,344	23- May-2014	US 2015/0267906	24- Sep-2015	10,234,119	19- Mar-2019	23- May-2034	MULTIPLE VOLTAGE LIGHT EMITTER PACKAGES, SYSTEMS, AND RELATED METHODS	Cree, Inc.	
P2149US1	United States of America	Granted	14/120,297	14- May-2014	US 2015/0069430	12- Mar-2015	10,283,681	7- May-2019	17- Jul-2034	Phosphor-Converted Light Emitting Device	Cree, Inc.	
P2153US1	United States of America	Granted	14/050,001	9- Oct-2013	2014-0070245	13- Mar-2014	9,728,676	8- Aug-2017	24- Jun-2031	High Voltage Monolithic LED Chip	Cree, Inc.	
P2153US2	United States of America	Granted	15/647,823	12- Jul-2017	2017-0309778	26- Oct-2017	10,115,860	30- Oct-2018	24- Jun-2031	High Voltage Monolithic LED Chip	Cree, Inc.	
P2153US3	United States of America	Granted	16/173,617	29- Oct-2018	2019-0074407	7- Mar-2019	10,797,201	6- Oct-2020	24- Jun-2031	High Voltage Monolithic LED Chip	Cree, Inc.	

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P2158US1	United States of America	Granted	14/183,218	18-Feb-2014	US2014-0291715	2-Oct-2014	10,424,702	24-Sep-2019	1-Aug-2033	Compact LED Package with Reflectivity Layer	Cree, Inc.	
P2159US1	United States of America	Granted	29/478,014	30-Dec-2013			D746,240	29-Dec-2015	29-Dec-2029	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P2163US1	United States of America	Granted	14/259,890	23-Apr-2014	20150311402	29-Oct-2015	9,960,322	1-May-2018	10-Aug-2034	Solid State Lighting Devices and Methods for Incorporating Notch Filtering Materials	Cree, Inc.	
P2172US1	United States of America	Granted	14/259,943	23-Apr-2014	20150308634	29-Oct-2015	9,685,101	20-Jun-2017	23-Apr-2034	Solid State Light-Emitting Devices with Improved Contrast	Cree, Inc.	
P2180US1	United States of America	Granted	14/152,829	10-Jan-2014	2015-0200335	16-Jul-2015	9,954,144	24-Apr-2018	10-Jan-2034	Wafer Level Contact Pad Solder Bumping for Surface Mount Devices with Non-Planar Recessed Contacting Surfaces	Cree, Inc.	
P2207US1	United States of America	Granted	14/278,464	15-May-2014	20150334789	19-Nov-2015	9,215,761	15-Dec-2015	15-May-2034	Solid State Lighting Devices with Color Point Non-Coincident with Blackbody Locus	Cree, Inc.	
P2213US1	United States of America	Granted	14/639,743	5-Mar-2015	US 2015/0282260	1-Oct-2015	9,538,590	3-Jan-2017	5-Mar-2034	SOLID STATE LIGHTING APPARATUSES, SYSTEMS, AND RELATED METHODS	Cree, Inc.	
P2233US1	United States of America	Granted	14/168,561	30-Jan-2014	US 2014/0217433	7-Aug-2014	9,000,470	7-Apr-2015	22-Nov-2030	LIGHT EMITTER DEVICES AND METHODS FOR LIGHT EMITTING DIODE (LED) CHIPS	Cree, Inc.	
P2287US1	United States of America	Granted	14/329,807	11-Jul-2014	2016-0013373	14-Jan-2016	9,601,670	21-Mar-2017	11-Jul-2034	Method to Form Primary Optic with Variable Shapes and/or Geometries without a Substrate	Cree, Inc.	

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P2308US1	United States of America	Granted	14/292,331	30-May-2014	US 2015/0349218	3-Dec-2015	9,691,949	27-Jun-2017	30-May-2034	SUBMOUNT BASED LIGHT EMITTER COMPONENTS AND METHODS	Cree, Inc.	
P2313US1	United States of America	Granted	14/292,244	30-May-2014	US 2015/0345714	3-Dec-2015	10,797,204	6-Oct-2020	28-Jan-2035	SUBMOUNT BASED LIGHT EMITTER COMPONENTS AND METHODS	Cree, Inc.	
P2318US1	United States of America	Granted	14/325,047	7-Jul-2014	2016-0005939	7-Jan-2016	9,660,161	23-May-2017	8-Jun-2035	Light Emitting Diode (LED) Components Including Contact Expansion Frame	Cree, Inc.	
P2324US1	United States of America	Granted	14/453,878	7-Aug-2014	US 2014/0339593	20-Nov-2014	9,437,788	6-Sep-2016	19-Dec-2032	LIGHT EMITTING DIODE (LED) COMPONENT COMPRISING A PHOSPHOR WITH IMPROVED EXCITATION PROPERTIES	Cree, Inc.	
P2326US1	United States of America	Granted	14/478,571	5-Sep-2014	2016-0072022	10-Mar-2016	10,622,522	14-Apr-2020	5-Sep-2034	LED Packages with Chips Having Insulated Surfaces	Cree, Inc.	
P2332US1	United States of America	Granted	14/337,377	22-Jul-2014	US 2016/0029485	28-Jan-2016	9,961,770	1-May-2018	14-Oct-2034	SOLDER PADS, METHODS, AND SYSTEMS FOR CIRCUITRY COMPONENTS	Cree, Inc.	
P2338US1	United States of America	Granted	14/961,439	7-Dec-2015	US 2016/0165680	9-Jun-2016	9,826,581	21-Nov-2017	7-Dec-2035	Voltage Configurable Solid State Lighting Apparatuses, Systems, and Related Methods	Cree, Inc.	
P2343US1	United States of America	Granted	14/476,049	3-Sep-2014	US 2016/0064623	3-Mar-2016	9,331,253	3-May-2016	3-Sep-2034	LIGHT EMITTING DIODE (LED) COMPONENT COMPRISING A PHOSPHOR WITH IMPROVED EXCITATION PROPERTIES	Cree, Inc.	

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P2353US1	United States of America	Granted	14/478,147	5-Sep-2014			9,214,607	15-Dec-2015	5-Sep-2034	Wire Bonded Light Emitting Diode (LED) Components Including Reflective Layer and Methods of Fabricating Same	Cree, Inc.	
P2363US1	United States of America	Granted	14/602,040	21-Jan-2015	2016-0211420	21-Jul-2016	10,658,546	19-May-2020	21-Jan-2035	High Efficiency LEDs and Methods of Manufacturing	Cree, Inc.	
P2369US1	United States of America	Granted	29/503,928	30-Sep-2014			D790,486	27-Jun-2017	27-Jun-2031	LED Package with Truncated Encapsulant	Cree, Inc.	
P2376US1	United States of America	Granted	14/529,327	31-Oct-2014			9,219,201	22-Dec-2015	31-Oct-2034	Blue Light Emitting Devices that Include Phosphor-Converted Blue Light Emitting Devices	Cree, Inc.	
P2377US1	United States of America	Granted	14/538,526	11-Nov-2014	US 2016/0133610	12-May-2016	10,453,825	22-Oct-2019	29-Dec-2034	LIGHT EMITTING DIODE (LED) COMPONENTS AND METHODS	Cree, Inc.	
P2382US1	United States of America	Granted	14/961,470	7-Dec-2015	US 2016/0161098	9-Jun-2016	10,267,506	23-Apr-2019	26-Jul-2031	Solid State Lighting Apparatuses with Non-Uniformly Spaced Emitters for Improved Heat Distribution. Systems Having the Same, And Methods Having the Same	Cree, Inc.	
P2383US1	United States of America	Granted	14/550,186	21-Nov-2014			9,601,673	21-Mar-2017	21-Nov-2034	Light Emitting Diode (LED) Components Including LED Dies That are Directly Attached to Lead Frames	Cree, Inc.	
P2389US1	United States of America	Granted	14/550,443	21-Nov-2014	US 2016/0148860	26-May-2016	9,406,594	2-Aug-2016	21-Nov-2034	LEADFRAME BASED LIGHT EMITTER COMPONENTS AND RELATED METHODS	Cree, Inc.	

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P2396US1	United States of America	Granted	14/546,524	18-Nov-2014			9,985,168	29-May-2018	26-Apr-2036	GROUP III NITRIDE BASED LED STRUCTURES INCLUDING MULTIPLE QUANTUM WELLS WITH BARRIER-WELL UNIT INTERFACE LAYERS	Cree, Inc.	
P2396US2	United States of America	Granted	15/970,959	4-May-2018	US2018-0254377	6-Sep-2018	10,224,454	5-Mar-2019	18-Nov-2034	GROUP III NITRIDE BASED LED STRUCTURES INCLUDING MULTIPLE QUANTUM WELLS WITH BARRIER-WELL UNIT INTERFACE LAYERS	Cree, Inc.	
P2396US3	United States of America	Granted	16/267,636	5-Feb-2019	2019-0172971	6-Jun-2019	10,756,231	25-Aug-2020	18-Nov-2034	GROUP III NITRIDE BASED LED STRUCTURES INCLUDING MULTIPLE QUANTUM WELLS WITH BARRIER-WELL UNIT INTERFACE LAYERS	Cree, Inc.	
P2403US1	United States of America	Granted	14/575,805	18-Dec-2014	2015-0179903	25-Jun-2015	10,468,565	5-Nov-2019	19-Feb-2033	LED Package with Multiple Element Light Source and Encapsulant Having Curved and/or Planar Surfaces	Cree, Inc.	
P2409US1	United States of America	Granted	29/511,587	11-Dec-2014			D826,871	28-Aug-2018	28-Aug-2032	Light Emitting Diode Device	Cree, Inc.	
P2409US2	United States of America	Granted	29/655,949	9-Jul-2018			D892,066	4-Aug-2020	4-Aug-2035	Contact Pads for LED Chips	Cree, Inc.	

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P2436US1	United States of America	Granted	14/699,302	29-Apr-2015	2015-0249196	3-Sep-2015	10,243,121	26-Mar-2019	24-Jun-2031	High Voltage Monolithic LED Chip with Improved Reliability	Cree, Inc.	
P2436US2	United States of America	Granted	16/290,084	1-Mar-2019	2019-0198734	27-Jun-2019	10,734,558 - withdraw	4-Aug-2020	24-Jun-2031	High Voltage Monolithic LED Chip with Improved Reliability	Cree, Inc.	
P2439US1	United States of America	Granted	14/690,284	17-Apr-2015			9,412,907	9-Aug-2016	17-Apr-2035	Graded Vias for LED Chip P- and N-Contacts	Cree, Inc.	
P2440US1	United States of America	Granted	29/523,168	7-Apr-2015			D778,848	14-Feb-2017	14-Feb-2031	SOLID STATE LIGHT EMITTER COMPONENT	Cree, Inc.	
P2457US1	United States of America	Granted	29/518,882	27-Feb-2015			D777,122	24-Jan-2017	24-Jan-2031	LED Package	Cree, Inc.	
P2486US1	United States of America	Granted	15/143,261	29-Apr-2016	US 2016/0320004	3-Nov-2016	10,683,971	16-Jun-2020	11-Mar-2038	SOLID STATE LIGHTING COMPONENTS	Cree, Inc.	
P2497US1	United States of America	Granted	14/860,483	21-Sep-2015	2017-0179350	22-Jun-2017	10,186,644	22-Jan-2019	24-Jun-2031	Self-Aligned Floating Mirror for Contact Vias	Cree, Inc.	
P2503US2	United States of America	Granted	14/802,655	17-Jul-2015	US 2017/0018538	19-Jan-2017	10,074,635	11-Sep-2018	17-Jul-2035	SOLID STATE LIGHT EMITTER DEVICES AND METHODS	Cree, Inc.	
P2516US1	United States of America	Granted	15/196,906	29-Jun-2016	US 2017/0005241	5-Jan-2017	9,780,266	3-Oct-2017	2-Jul-2036	STABILIZED QUANTUM DOT STRUCTURE AND METHOD OF MAKING A STABILIZED QUANTUM DOT STRUCTURE	Cree, Inc.	
P2517US1	United States of America	Granted	29/529,243	4-Jun-2015			D783,547	11-Apr-2017	11-Apr-2032	LED Package	Cree, Inc.	

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P2518US1	United States of America	Granted	15/184,104	16-Jun-2016	2016-0372638	22-Dec-2016	9,871,173	16-Jan-2018	16-Jun-2036	Light Emitting Devices Having Closely-Spaced Broad-Spectrum and Narrow-Spectrum Luminescent Materials and Related Methods	Cree, Inc.	
P2518US2	United States of America	Granted	15/832,848	6-Dec-2017	2018-0108816	19-Apr-2018	10,109,773	23-Oct-2018	16-Jun-2036	Light Emitting Devices Having Closely-Spaced Broad-Spectrum and Narrow-Spectrum Luminescent Materials and Related Methods	Cree, Inc.	
P2584US1	United States of America	Granted	15/192,790	24-Jun-2016	2017-0373045	28-Dec-2017	10,192,854	29-Jan-2019	24-Jun-2036	Light Emitter Components and Related Methods	Cree, Inc.	
P2618US1	United States of America	Granted	15/399,729	5-Jan-2017	2017-0294417	12-Oct-2017	10,529,696	7-Jan-2020	5-Jan-2037	High Density Pixelated LED and Devices and Methods Thereof	Cree, Inc.	
P2618US2	United States of America	Granted	15/401,240	9-Jan-2017	2017-0294418	12-Oct-2017	10,312,224	4-Jun-2019	5-Jan-2037	High Density Pixelated LED and Devices and Methods Thereof	Cree, Inc.	
P2618US3	United States of America	Granted	16/414,162	16-May-2019	2019-0273070	5-Sep-2019	10,910,352	2-Feb-2021	9-Jan-2037	High Density Pixelated LED and Devices and Methods Thereof	Cree, Inc.	
P2640US1	United States of America	Granted	15/657,027	21-Jul-2017	2018-0033924	1-Feb-2018	10,290,777	14-May-2019	21-Jul-2037	LIGHT EMITTING DIODES, COMPONENTS AND RELATED METHODS	Cree, Inc.	
P2640US2	United States of America	Granted	16/380,400	10-Apr-2019	US2019-0237638	1-Aug-2019	10,930,826	23-Feb-2021	21-Jul-2037	LIGHT EMITTING DIODES, COMPONENTS AND RELATED METHODS	Cree, Inc.	
P2640US3	United States of America	Granted	16/797,173	21-Feb-2020	2020-0194636	18-Jun-2020	10,879,435	29-Dec-2020	21-Jul-2037	Light Emitting Diodes, Components and Related Methods	Cree, Inc.	

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P2643US1	United States of America	Granted	29/5/79,906	4-Oct-2016			D823,492	17-Jul-2018	17-Jul-2033	LIGHT EMITTING DEVICE	Cree, Inc.	
P2651US1	United States of America	Granted	15/264,547	13-Sep-2016	US 2017/0069606	9-Mar-2017	10,431,568	1-Oct-2019	18-Dec-2034	LIGHT EMITTING DIODES, COMPONENTS AND RELATED METHODS	Cree, Inc.	
P2654US1	United States of America	Granted	15/359,517	22-Nov-2016	2018-0145059	24-May-2018	10,804,251	13-Oct-2020	22-Nov-2036	LIGHT EMITTING DIODE (LED) DEVICES, COMPONENTS AND METHODS	Cree, Inc.	
P2670US1	United States of America	Granted	15/694,591	1-Sep-2017	2019-0074417	7-Mar-2019	10,361,349	23-Jul-2019	1-Sep-2037	Light Emitting Diodes, Components and Related Methods	Cree, Inc.	
P2680US1	United States of America	Granted	15/475,366	31-Mar-2017			9,905,735	27-Feb-2018	31-Mar-2037	High Brightness, Low-CRI Semiconductor Light Emitting Devices Including Narrow-Spectrum Luminescent Materials	Cree, Inc.	
P2701US1	United States of America	Granted	15/593,042	11-May-2017	2018-0331078	15-Nov-2018	10,410,997	10-Sep-2019	11-May-2037	TUNABLE INTEGRATED OPTICS LED COMPONENTS AND METHODS	Cree, Inc.	
P2701US2	United States of America	Granted	16/525,100	29-Jul-2019	2019-0355701	21-Nov-2019	10,847,501	24-Nov-2020	11-May-2037	Tunable Integrated Optics LED Components and Methods	Cree, Inc.	
P2702US1	United States of America	Granted	15/453,594	8-Mar-2017	US2018-0261741	13-Sep-2018	10,439,114	8-Oct-2019	8-Mar-2037	SUBSTRATES FOR LIGHT EMITTING DIODES AND RELATED METHODS	Cree, Inc.	
P2718US1	United States of America	Granted	15/654,323	19-Jul-2017	20190027658	24-Jan-2019	10,672,957	2-Jun-2020	19-Jul-2037	LED Apparatuses and Methods for High Lumen Output Density	Cree, Inc.	

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P2731US1	United States of America	Granted	15/826,417	29-Nov-2017	2019-0165229	30-May-2019	10,734,560	4-Aug-2020	14-Feb-2038	Configurable Circuit Layout for LEDs	Cree, Inc.	
P2737US1	United States of America	Granted	16/053,980	3-Aug-2018	2019-0044040	7-Feb-2019	10,651,357	12-May-2020	3-Aug-2038	High Density Pixelated-LED Chips and Chip Array Devices	Cree, Inc.	
P2737US2	United States of America	Granted	16/174,584	30-Oct-2018	2019-0074266	7-Mar-2019	10,734,363	4-Aug-2020	3-Aug-2038	High Density Pixelated-LED Chips and Chip Array Devices, and Fabrication Methods	Cree, Inc.	
P2738US1	United States of America	Granted	15/809,241	10-Nov-2017	2019-0148603	16-May-2019	10,347,799	9-Jul-2019	10-Nov-2037	Stabilized Quantum Dot Composite and Method of Making a Stabilized Quantum Dot Composite	Cree, Inc.	
P2738US2	United States of America	Granted	16/419,261	22-May-2019	2019-0273189	5-Sep-2019	10,879,433	29-Dec-2020	10-Nov-2037	Stabilized Quantum Dot Composite and Method of Making a Stabilized Quantum Dot Composite	Cree, Inc.	
P2739US1	United States of America	Granted	15/809,213	10-Nov-2017	2019-0148602	16-May-2019	10,741,730	11-Aug-2020	17-Nov-2038	Stabilized Luminescent Nanoparticles Comprising a Perovskite Semiconductor and Method of Fabrication	Cree, Inc.	
P2740US1	United States of America	Granted	15/809,353	10-Nov-2017	2019-0148605	16-May-2019	10,541,353	21-Jan-2020	10-Nov-2037	Light Emitting Devices Including Narrowband Converters for Outdoor Lighting Applications	Cree, Inc.	
P2742US1	United States of America	Granted	29/616,841	8-Sep-2017			D851,790	18-Jun-2019	18-Jun-2034	Light Emitting Device	Cree, Inc.	
P2742US2	United States of America	Granted	29/689,497	30-Apr-2019			D890,961	21-Jul-2020	21-Jul-2035	Light Emitting Device	Cree, Inc.	

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P2746US1	United States of America	Granted	15/896,805	14-Feb-2018	US2019-0252460	15-Aug-2019	10,529,773	7-Jan-2020	14-Feb-2038	Solid State Lighting Devices with Opposing Emission Directions	Cree, Inc.	
P2766US1	United States of America	Granted	15/993,540	30-May-2018			10,453,827	22-Oct-2019	30-May-2038	LED Apparatuses and Methods	Cree, Inc.	
P2767US1	United States of America	Granted	15/967,529	30-Apr-2018	2019-0333791	31-Oct-2019	10,573,543	25-Feb-2020	30-Apr-2038	Apparatus and Methods for Mass Transfer of Electronic Die	Cree, Inc.	
P2790US1	United States of America	Granted	15/994,105	31-May-2018	2019-0371973	5-Dec-2019	10,608,148	31-Mar-2020	31-May-2038	Stabilized Fluoride Phosphor for Light Emitting Diode (LED) Applications	Cree, Inc.	
P2791US1	United States of America	Granted	15/957,454	19-Apr-2018	2019-0326485	24-Oct-2019	10,522,722	31-Dec-2019	19-Apr-2038	Light-Emitting Diode Package with Light-Altering Material	Cree, Inc.	
P2791US2	United States of America	Granted	16/686,457	18-Nov-2019	2020-0105984	2-Apr-2020	10,811,573	20-Oct-2020	19-Apr-2038	Light-Emitting Diode Package with Light-Altering Material	Cree, Inc.	
P2844US1	United States of America	Granted	29/661,900	31-Aug-2018			D902,448	17-Nov-2020	17-Nov-2035	Light Emitting Diode Package	Cree, Inc.	
P2863US1	United States of America	Granted	16/189,195	13-Nov-2018	2020-0152840	14-May-2020	10,651,351	12-May-2020	13-Nov-2038	Light Emitting Diode Packages	Cree, Inc.	
P2864US1	United States of America	Granted	16/229,986	21-Dec-2018	2020-0203419	25-Jun-2020	10,903,265	26-Jan-2021	8-Feb-2039	Pixelated LED Chips and Chip Array Devices, and Fabrication Methods	Cree, Inc.	
P2864US2	United States of America	Granted	17/008,544	31-Aug-2020	2020-0395404	17-Dec-2020	10,903,268	26-Jan-2021	21-Dec-2038	Pixelated LED Chips and Chip Array Devices, and Fabrication Methods	Cree, Inc.	
P2891US1	United States of America	Granted	16/222,173	17-Dec-2018	2020-0194644	18-Jun-2020	10,879,441	29-Dec-2020	17-Dec-2038	Interconnects for Light Emitting Diode Chips	Cree, Inc.	

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Patents (Pending)

Cree No.	Country	Application Status	App. No.	Filing Date	Publ. No.	Publ. Date	Application Title	Owner/Applicant	Govt Rights
P0254US1	United States of America	Published	10/461,561	12-Jun-2003	US2004/0012027	22-Jan-2004	Saturated Phosphor Solid State Emitter	Cree, Inc.	
P0298US6	United States of America	Published	16/293,267	5-Mar-2019	2019-0198725	27-Jun-2019	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	
P0685US2	United States of America	Pending	15/459,161	15-Mar-2017	2017-0186913	29-Jun-2017	Formation of Nitride-Based Optoelectronic and Electronic Device Structures on Lattice-Matched Substrates	Cree, Inc.	
P0809US1	United States of America	Pending	11/895,573	24-Aug-2007	US2009-0050911-A1	26-Feb-2009	Light-Emitting Device Packages Using Light Scattering Particles of Different Size	Cree, Inc.	Yes
P0872US3	United States of America	Pending	17/127,154	18-Dec-2020			Light Emitting Diode Package and Method of Fabricating Same	Cree, Inc.	
P0915US4	United States of America	Published	16/944,874	31-Jul-2020	2020-0362237	19-Nov-2020	PHOSPHOR COMPOSITION	Cree, Inc.	
P0981US3	United States of America	Published	16/804,986	28-Feb-2020	2020-0243492	30-Jul-2020	Illumination Devices Using Externally Interconnected Arrays of Light Emitting Devices, and Methods of Fabricating Same	Cree, Inc.	
P1231US7	United States of America	Published	16/596,300	8-Oct-2019	2020-0041075	6-Feb-2020	Lighting Devices that Comprise One or More Solid State Light Emitters	Cree, Inc.	
P1297US1	United States of America	Published	13/367,929	7-Feb-2012	US 2013/0003375	3-Jan-2013	COMPONENTS AND METHODS FOR LIGHT EMITTING DIODE (LED) LIGHTING	Cree, Inc.	
P1564US2	United States of America	Published	16/263,191	31-Jan-2019	2019-0165228	30-May-2019	Light Emitting Devices and Components Having Improved Chemical Resistance and Related Methods	Cree, Inc.	

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P1764US3	United States of America	Pending	17/103,509	24-Nov-2020			Wafer Level Packaging of Light Emitting Diodes (LEDS)	Cree, Inc.	
P1842US1	United States of America	Pending	13/804,309	14-Mar-2013	US2014-0159084	12-Jun-2014	LED Dome with Improved Color Spatial Uniformity	Cree, Inc.	
P1956US2	United States of America	Pending	15/493,735	21-Apr-2017	2017-0271561	21-Sep-2017	Wafer Level Packaging of Multiple Light Emitting Diodes (LEDS) on a Single Carrier Die	Cree, Inc.	
P2028US2	United States of America	Pending	15/676,961	14-Aug-2017	2017-0345866	30-Nov-2017	SUBSTRATE BASED LIGHT EMITTER DEVICES, COMPONENTS, AND RELATED METHODS	Cree, Inc.	
P2069US2	United States of America	Pending	15/885,215	31-Jan-2018	US2018-0240951	23-Aug-2018	Solid State Lighting Component Package with Conformal Reflective Coating	Cree, Inc.	
P2142US1	United States of America	Published	14/447,357	30-Jul-2014	2015-0054425	26-Feb-2015	Nanocomposite Compositions and Methods of Making	Cree, Inc.	
P2153US4	United States of America	Published	17/062,119	2-Oct-2020	2021-0020805	21-Jan-2021	High Voltage Monolithic LED Chip	Cree, Inc.	
P2230US1	United States of America	Published	14/271,116	6-May-2014	2015-0325759	12-Nov-2015	Optical Element with Integrated Indicator	Cree, Inc.	
P2250US2	United States of America	Pending	14/691,314	20-Apr-2015	2015-0228876	13-Aug-2015	Multi-Segment Monolithic LED Chip	Cree, Inc.	
P2284US1	United States of America	Pending	14/453,482	6-Aug-2014	2014-0367713	18-Dec-2014	Multi-Layer Conversion Material for Down Conversion In Solid State Lighting	Cree, Inc.	
P2377US2	United States of America	Published	16/601,826	15-Oct-2019	2020-0043905	6-Feb-2020	Light Emitting Diode (LED) Components and Methods	Cree, Inc.	
P2383US2	United States of America	Pending	15/432,146	14-Feb-2017	2017-0155026	1-Jun-2017	Light Emitting Diode (LED) Components Including LED Dies That	Cree, Inc.	

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							are Attached to Lead Frames		
P2396US4	United States of America	Published	16/998,651	20-Aug-2020	2020-0381581	3-Dec-2020	Group III Nitride Based LED Structures Including Multiple Quantum Wells with Barrier-Well Unit Interface Layers	Cree, Inc.	
P2401US1	United States of America	Published	14/633,734	27-Feb-2015	2016-0254423	1-Sep-2016	Non-Magnified LED for High Center-Beam Candle	Cree, Inc.	
P2403US2	United States of America	Pending	16/664,686	25-Oct-2019			LED Package with Multiple Element Light Source and Endcapsulant Having Curved and/or Planar Surfaces	Cree, Inc.	
P2426US1	United States of America	Published	15/280,438	29-Sep-2016	US 2017/0098746	6-Apr-2017	Low Optical Loss Flip Chip Solid State Lighting Device	Cree, Inc.	
P2436US3	United States of America	Published	16/944,356	31-Jul-2020	2020-0365782	19-Nov-2020	High Voltage Monolithic LED Chip with Improved Reliability	Cree, Inc.	
P2475US1	United States of America	Published	15/087,641	31-Mar-2016	US 2016/0293811	6-Oct-2016	LIGHT EMITTING DIODES AND METHODS WITH ENCAPSULATION	Cree, Inc.	
P2486US2	United States of America	Published	16/901,624	15-Jun-2020	2020-0309347	1-Oct-2020	Solid State Lighting Components	Cree, Inc.	
P2618US4	United States of America	Pending	16/950,142	17-Nov-2020			High Density Pixelated LED and Devices and Methods Thereof	Cree, Inc.	
P2640US4	United States of America	Pending	17/116,576	9-Dec-2020			Light Emitting Diodes, Components and Related Methods	Cree, Inc.	
P2701US3	United States of America	Pending	17/092,939	9-Nov-2020			TUNABLE INTEGRATED OPTICS LED COMPONENTS AND METHODS	Cree, Inc.	
P2703US1	United States of America	Pending	15/676,965	14-Aug-2017	2018-0076368	15-Mar-2018	LIGHT EMITTING DIODES AND METHODS	Cree, Inc.	

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P2728US1	United States of America	Published	16/624,266	18-Dec-2019	2020-0118983	16-Apr-2020	RGB LED Package with BSY Emitter	Cree, Inc.	
P2735US1	United States of America	Published	15/681,205	18-Aug-2017	2019-0057954	21-Feb-2019	LIGHT EMITTING DIODES, COMPONENTS AND RELATED METHODS	Cree, Inc.	
P2735US2	United States of America	Published	15/912,155	5-Mar-2018	2019-0058003	21-Feb-2019	Light Emitting Diodes, Components and Related Methods	Cree, Inc.	
P2737US3	United States of America	Published	16/983,553	3-Aug-2020	2020-0411487	31-Dec-2020	High Density Pixelated-LED Chips and Chip Array Devices, and Fabrication Methods	Cree, Inc.	
P2761US1	United States of America	Published	15/882,103	29-Jan-2018	US2019-0237630	1-Aug-2019	Reflective Layers for Light-Emitting Diodes	Cree, Inc.	
P2761US2	United States of America	Pending	16/963,533	21-Jul-2020			Reflective Layers for Light-Emitting Diodes	Cree, Inc.	
P2762US1	United States of America	Published	15/899,196	19-Feb-2018	US2019-0259925	22-Aug-2019	Clear Coating for Light Emitting Device Exterior Having Chemical Resistance and Related Methods	Cree, Inc.	
P2767US2	United States of America	Published	16/796,093	20-Feb-2020	2020-0194288	18-Jun-2020	Apparatus and Methods for Mass Transfer of Electronic Die	Cree, Inc.	
P2769US1	United States of America	Published	16/107030	21-Aug-2018	2020-0066952	27-Feb-2020	LED Device, System, and Method with Adaptive Patterns	Cree, Inc.	
P2778US1	United States of America	Published	15/918,839	12-Mar-2018	2019-0280043	12-Sep-2019	Light Emitting Diode (LED) Components and Methods	Cree, Inc.	
P2783US1	United States of America	Published	15/997,350	4-Jun-2018	2019-0371974	5-Dec-2019	LED Systems, Apparatuses, and Methods	Cree, Inc.	
P2790US2	United States of America	Published	16/794,414	19-Feb-2020	2020-0185572	11-Jun-2020	Stabilized Fluoride Phosphor for Light Emitting Diode (LED) Applications	Cree, Inc.	

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P2791US3	United States of America	Published	17/016,701	10-Sep-2020	2021-0005793	7-Jan-2021	Light-Emitting Diode Package with Light-Altering Material	Cree, Inc.	
P2793US1	United States of America	Published	16/390,714	22-Apr-2019	2019-0326484	24-Oct-2019	Semiconductor Light Emitting Devices Including Superstrates with Patterned Surfaces	Cree, Inc.	
P2842US1	United States of America	Published	16/118,762	31-Aug-2018	2019-0363232	28-Nov-2019	Light-Emitting Diode Packages with Individually Controllable Light-Emitting Diode Chips	Cree, Inc.	
P2843US1	United States of America	Published	16/118,747	31-Aug-2018	2019-0363223	28-Nov-2019	Light-Emitting Diode Packages	Cree, Inc.	
P2849US1	United States of America	Published	16/118,779	31-Aug-2018	2020-0075813	5-Mar-2020	Light-Emitting Diodes, Light-Emitting Diode Arrays and Related Devices	Cree, Inc.	
P2849US2	United States of America	Published	16/545,357	20-Aug-2019	2020-0075822	5-Mar-2020	Light-Emitting Diodes, Light-Emitting Diode Arrays and Related Devices	Cree, Inc.	
P2854US1	United States of America	Published	16/203,709	29-Nov-2018	2020-0176507	4-Jun-2020	Indicia for Light Emitting Diode Chips	Cree, Inc.	
P2856US1	United States of America	Published	16/118,788	31-Aug-2018	2020-0075798	5-Mar-2020	Group III Nitride LED Structures with Improved Electrical Performance	Cree, Inc.	
P2863US2	United States of America	Published	16/850,108	16-Apr-2020	2020-0243730	30-Jul-2020	Light Emitting Diode Packages	Cree, Inc.	
P2864US3	United States of America	Pending	17/152,127	19-Jan-2021			Pixelated LED Chips and Chip Array Devices, and Fabrication Methods	Cree, Inc.	
P2865US1	United States of America	Pending	29/658,067	27-Jul-2018			Light Emitting Diode Chip	Cree, Inc.	
P2873US1	United States of America	Published	16/249,246	16-Jan-2019	2020-0227603	16-Jul-2020	Light Emitting Diode Packages	Cree, Inc.	

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P2891US2	United States of America	Published	17/004,486	27-Aug-2020	2020-0395524	17-Dec-2020	Interconnects for Light Emitting Diode Chips	Cree, Inc.	
P2923US1	United States of America	Published	16/357,949	19-Mar-2019	2020-0303591	24-Sep-2020	Contact Structures for Light Emitting Diode Chips	Cree, Inc.	
P2927US1	United States of America	Published	16/369,003	29-Mar-2019	2020-0312220	1-Oct-2020	Active Control of Light Emitting Diodes and Light Emitting Diode Displays	Cree, Inc.	
P2927US2	United States of America	Published	16/381,116	11-Apr-2019	2020-0309357	1-Oct-2020	Active Control of Light Emitting Diodes and Light Emitting Diode Displays	Cree, Inc.	
P2927US3	United States of America	Published	16/437,878	11-Jun-2019	2020-0312222	1-Oct-2020	Active Control of Light Emitting Diodes and Light Emitting Diode Displays	Cree, Inc.	
P2927US4	United States of America	Published	16/542,923	16-Aug-2019	2020-0312225	1-Oct-2020	Active Control of Light Emitting Diodes and Light Emitting Diode Displays	Cree, Inc.	
P2927US5	United States of America	Published	16/543,009	16-Aug-2019	2020-0312226	1-Oct-2020	Active Control of Light Emitting Diodes and Light Emitting Diode Displays	Cree, Inc.	
P2927US6	United States of America	Published	16/815,101	11-Mar-2020	2020-0312231	1-Oct-2020	Active Control of Light Emitting Diodes and Light Emitting Diode Displays	Cree, Inc.	
P2927US7	United States of America	Pending	17/081,522	27-Oct-2020			Active Control of Light Emitting Diodes and Light Emitting Diode Displays	Cree, Inc.	
P2945US1	United States of America	Published	16/453,447	26-Jun-2019	2020-0411730	31-Dec-2020	Light Emitting Diode Packages	Cree, Inc.	
P2952US1	United States of America	Pending	16/690,707	21-Nov-2019			Submount Structures for Light Emitting Diode Packages	Cree, Inc.	
P2979US1	United States of America	Pending	16/675,750	6-Nov-2019			Lumiphoric Material Region Arrangements for Light Emitting Diode Packages	Cree, Inc.	
P2981US1	United States of America	Pending	16/542,458	16-Aug-2019			Light-Emitting Diode Chip Structures	Cree, Inc.	

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P2995US1	United States of America	Pending	16/592,364	3-Oct-2019				Lumiphoric Arrangements for Light Emitting Diode Packages	Cree, Inc.	
P2996US1	United States of America	Pending	17/084,194	29-Oct-2020				Texturing for High Density Pixelated-LED Chips and Chip Array Devices	Cree, Inc.	
P2999US1	United States of America	Pending	29/711,302	30-Oct-2019				Light Emitting Diode Package	Cree, Inc.	
P3041US1	United States of America	Pending	16/857,721	24-Apr-2020				Light-Emitting Diode Chip with Electrical Overstress Protection	Cree, Inc.	
P3046US0	United States of America	Pending	63/044,746	26-Jun-2020				LED Chips with Irregular Microtextured Light Extraction Surfaces, and Fabrication Method	Cree, Inc.	
P3056US1	United States of America	Pending	16/918,137	1-Jul-2020				Lens Arrangements for Light-Emitting Diode Packages	Cree, Inc.	
P3057US1	United States of America	Pending	16/906,129	19-Jun-2020				Active Electrical Elements with Light-Emitting Diodes	Cree, Inc.	
P3060US1	United States of America	Pending	17/178,511	18-Feb-2021				Solid State Light Emitting Device with Improved Color Emission	Cree, Inc.	
P3072US1	United States of America	Pending	16/850,540	16-Apr-2020				Light-Altering Material Arrangements for Light-Emitting Devices	Cree, Inc.	
P3082US1	United States of America	Pending	16/993,470	14-Aug-2020				Light-Altering Particle Arrangements for Light Emitting Devices	Cree, Inc.	
P3083US1	United States of America	Pending	17/002,320	25-Aug-2020				Binder Materials for Light-Emitting Devices	Cree, Inc.	
P3098US1	United States of America	Pending	17/019,593	14-Sep-2020				Spacer Layer Arrangements for Light Emitting Diodes	Cree, Inc.	
P3100US1	United States of America	Pending	17/078,733	23-Oct-2020				Pixelated-LED Chips with Inter-Pixel Underfill	Cree, Inc.	

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							Materials, and Fabrication Methods		
P3103US0	United States of America	Pending	63/128,691	21-Dec-2020			LED Chips and Devices with Textured Light-Extracting Portions, and Fabrication Methods	Cree, Inc.	
P3108US1	United States of America	Pending	17/103,121	24-Nov-2020			Cover Structure Arrangements for Light Emitting Diode Packages	Cree, Inc.	
P3118US1	United States of America	Unfiled					Glass Fiber Reinforced RGB Component	Cree, Inc.	
P3129US1	United States of America	Unfiled					Textured Glass Lenses for Efficient Light Conversion and Improved Color Over Angle in LED's	Cree, Inc.	
P3130US1	United States of America	Pending	17/123,381	16-Dec-2020			Support Structures for Light emitting Diode Packages	Cree, Inc.	
P3135US1	United States of America	Pending	17/173,735	11-Feb-2021			Optical Arrangements in Cover Structures for Light Emitting Diode Packages and Related Methods	Cree, Inc.	

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Foreign Patents (Issued)

Cree No.	Country	Application Status	App. No.	Filing Date	Publ. No.	Publ. Date	Patent No.	Issue Date	Exp. Date	Application Title	Owner/ Applicant	Govt Rights
P0101CN2	China (People's Republic)	Granted	03810738.4	12-Nov-2004	CN 1653625A	10-Aug-2005	ZL 03810738.4	30-Jul-2008	14-May-2023	High Reliability Group III-Nitride Light Emitting Diode	Cree, Inc.	PATENT REEL: 056169 FRAME 0098
P0101DE2	Germany	Granted	03736594.7	14-May-2003			DE60330452.4-08	9-Dec-2009	14-May-2023	High Reliability Group III-Nitride Light Emitting Diode	Cree, Inc.	
P0101DE3	Germany	Granted	09173624.9	21-Oct-2009	2144307	13-Jan-2010	2144307	3-Oct-2018	14-May-2023	Light Emitting Diode Having Continuous Vertical Conductivity	Cree, Inc.	
P0101EP2	European Patent Convention	Granted	03736594.7	10-Nov-2004			1509956	9-Dec-2009	14-May-2023	High Reliability Group III-Nitride Light Emitting Diode	Cree, Inc.	
P0101EP3	European Patent Convention	Granted	09173624.9	21-Oct-2009	2144307	13-Jan-2010	2144307	3-Oct-2018	14-May-2023	Light Emitting Diode Having Continuous Vertical Conductivity	Cree, Inc.	
P0101TW	Taiwan	Granted	092113084	14-May-2003	200408146	16-May-2004	1253185	11-Apr-2006	14-May-2023	Robust Group III Light Emitting Diode for High Reliability in Standard Packaging Applications	Cree, Inc.	
P0135CN	China (People's Republic)	Granted	01818295.X	29-Apr-2003			ZL01818295.X	12-Dec-2007	2-Nov-2021	Group III Nitride Light Emitting Devices with Gallium-Free Layers	Cree, Inc.	
P0135MY	Malaysia	Granted	PI20015075	2-Nov-2001			MY-119108-A	31-Mar-2005	2-Nov-2021	Group III Nitride Light Emitting Devices with Gallium-Free Layers	Cree, Inc.	
P0135TW	Taiwan	Granted	090127313	2-Nov-2001			NI-185819	1-Sep-2003	2-Nov-2021	Group III Nitride Light Emitting Devices with Gallium-Free Layers	Cree, Inc.	

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P0137CN	China (People's Republic)	Granted	02803773.1	16- Jul- 2003			02803773.1	6- Sep- 2006	12- Jan- 2022	Group III Nitride LED with Undoped Cladding Layer	Cree, Inc.	
P0137CN2	China (People's Republic)	Granted	03815553.2	30- Dec- 2004	CN1666350	7- Sep- 2005	ZL 03815553.2	11- Mar- 2009	20- May- 2023	Group III Nitride LED with Undoped Cladding Layer and Multiple Quantum Well	Cree, Inc.	
P0137DE2	Germany	Granted	03764297.2	20- May- 2003			1514313	20- Jul- 2016	20- May- 2023	Group III Nitride LED with Undoped Cladding Layer and Multiple Quantum Well	Cree, Inc.	
P0137EP2	European Patent Convention	Granted	03764297.2	17- Dec- 2004			1514313	20- Jul- 2016	20- May- 2023	Group III Nitride LED with Undoped Cladding Layer and Multiple Quantum Well	Cree, Inc.	
P0137KR	Korea, Republic of	Granted	2003-7009251	10- Jul- 2003			10-0944505	19- Feb- 2010	12- Jan- 2022	Group III Nitride LED with Undoped Cladding Layer	Cree, Inc.	
P0137KR2	Korea, Republic of	Granted	10-2004-7019467	30- Nov- 2004			10-1238241	22- Feb- 2013	20- May- 2023	Group III Nitride LED with Undoped Cladding Layer and Multiple Quantum Well	Cree, Inc.	
P0137KR4	Korea, Republic of	Granted	10-2012-7031650	3- Dec- 2012	10-2013- 0006534	16- Jan- 2013	10-1327342	4- Nov- 2013	20- May- 2023	Group III Nitride LED with Undoped Cladding Layer and Multiple Quantum Well	Cree, Inc.	
P0137MY	Malaysia	Granted	PI20020144	16- Jan- 2002			MY-128599-A	28- Feb- 2007	16- Jan- 2022	Group III Nitride LED with Undoped Cladding Layer	Cree, Inc.	
P0137MY2	Malaysia	Granted	PI20031999	29- May- 2003			MY-129574-A	30- Apr- 2007	29- May- 2023	Group III Nitride LED with Undoped Cladding Layer	Cree, Inc.	
P0137TW	Taiwan	Granted	91100590	16- Jan- 2002			NI-179020	30- Sep- 2003	16- Jan- 2022	Group III Nitride LED with Undoped Cladding Layer	Cree, Inc.	
P0137TW2	Taiwan	Granted	92114742	30- May- 2003	200408147	16- May- 2004	NI-228322	21- Feb- 2005	30- May- 2023	Group III Nitride LED with Undoped Cladding Layer and	Cree, Inc.	

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										Multiple Quantum Well		
P0147MY	Malaysia	Granted	PI20005642	1- Dec- 2000			MY-127035-A	30- Nov- 2006	30- Nov- 2021	Enhanced Light Extraction Through the Use of Internal and External Optical Elements	Cree, Inc.	Yes
P0147TW	Taiwan	Granted	89125695	5- Mar- 2001	535300	1- Jun- 2003	NI-178676	26- Aug- 2003	4- Mar- 2021	Light Emitting Diode with Enhanced Light Extraction, Method for Growing the Same and Method for Manufacturing the Same	Cree, Inc.	Yes
P0148MY	Malaysia	Granted	PI20005641	1- Dec- 2000			MY-124220-A	30- Jun- 2006	30- Jun- 2021	Solid State Lamp	Cree, Inc.	Yes
P0149MY	Malaysia	Granted	PI20005419	17- Nov- 2000			MY-131156	31- Jul- 2007	31- Jul- 2022	Multi Element, Multi Color Solid State LED/Laser	Cree, Inc.	Yes
P0150MY	Malaysia	Granted	PI20005616	30- Nov- 2000			MY-125237-A	31- Jul- 2006	31- Jul- 2021	Scalable LED with Improved Current Spreading Structures	Cree, Inc.	Yes
P0151EP3	European Patent Convention	Granted	10196041.7	30- Nov- 2010	2362437	31- Aug- 2011	2362437	28- Aug- 2019	30- Nov- 2020	High Efficiency Light Emitters with Reduced Polarization-Induced Charges	Cree, Inc.	Yes
P0151MY	Malaysia	Granted	PI20005640	1- Dec- 2000			MY-123546-A	31- May- 2006	31- May- 2021	High Efficiency Light Emitters with Reduced Polarization-Induced Charges	Cree, Inc.	Yes
P0151TW	Taiwan	Granted	89125697	9- Mar- 2001			NI-160350	1- Aug- 2002	9- Mar- 2021	High Efficiency Light Emitters with Reduced Polarization-Induced Charges	Cree, Inc.	Yes
P0161MY	Malaysia	Granted	PI20005643	1- Dec- 2000			MY-124997-A	31- Jul- 2006	31- Jul- 2021	Enhanced Light Extraction through	Cree, Inc.	Yes

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										the Use of Micro-LED Arrays		
P0162CN	China (People's Republic)	Granted	02804417.7	31-Jul-2003	1552103	1-Dec-2004	ZL02804417.7	5-Aug-2009	1-Feb-2022	Light Emitting Diodes Including Modifications for Light Extraction and Manufacturing Methods Therefor	Cree, Inc.	Yes
P0162CN2	China (People's Republic)	Granted	200911000311.3	1-Feb-2002	101976717	16-Feb-2011	ZL200911000311.3	27-Aug-2014	1-Feb-2022	Light Emitting Diodes Including Modifications for Light Extraction and Manufacturing Methods Therefor	Cree, Inc.	Yes
P0162DE	Germany	Granted	02713514.4	1-Feb-2002	1382073	21-Jan-2004	1382073	2-Jan-2013	1-Feb-2022	Light Emitting Diodes Including Modifications for Light Extraction and Manufacturing Methods Therefor	Cree, Inc.	Yes
P0162EP	European Patent Convention	Granted	02713514.4	26-Aug-2003	1382073	21-Jan-2004	1382073	2-Jan-2013	1-Feb-2022	Light Emitting Diodes Including Modifications for Light Extraction and Manufacturing Methods Therefor	Cree, Inc.	Yes
P0162HK	Hong Kong	Granted	05104361.8	24-May-2005	1552103	1-Dec-2004	1071636	16-Apr-2010	1-Feb-2022	Light Emitting Diodes Including Modifications for Light Extraction and Manufacturing Methods Therefor	Cree, Inc.	Yes
P0162JP2	Japan	Granted	2006-289664	25-Oct-2006			4642731	10-Dec-2010	1-Feb-2022	Light Emitting Diodes Including Modifications for Light Extraction and Manufacturing Methods Therefor	Cree, Inc.	Yes
P0162KR	Korea, Republic of	Granted	2003-7010011	29-Jul-2003			10-0643094	31-Oct-2006	1-Feb-2022	Light Emitting Diodes Including Modifications for Light Extraction and Manufacturing Methods Therefor	Cree, Inc.	Yes

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P0162MY	Malaysia	Granted	PI20020349	31- Jan- 2002			MY-127500-A	29- Dec- 2006	31- Jan- 2022	Light Emitting Diodes Including Modifications for Light Extraction and Manufacturing Methods Therefor	Cree, Inc.	Yes
P0162TW	Taiwan	Granted	091101671	31- Jan- 2002			NL-180757	11- Jul- 2003	31- Jan- 2022	Light Emitting Diodes Including Modifications for Light Extraction and Manufacturing Methods Therefor	Cree, Inc.	PATENT Yes
P0204CN	China (People's Republic)	Granted	02811089.7	23- May- 2002	1552104	1- Dec- 2004	ZL02811089.7	21- Nov- 2007	23- May- 2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice	Cree, Inc.	REEL: 056169 FRAME: 0102
P0204DE	Germany	Granted	02726917.4	23- May- 2002			1390990	22- Oct- 2008	23- May- 2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice	Cree, Inc.	
P0204DE2	Germany	Granted	03078515.8	23- May- 2002			6023187737-08	8- Apr- 2009	23- May- 2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice	Cree, Inc.	
P0204DE3	Germany	Granted	09157557.1	23- May- 2002	2075855	1- Jul- 2009	2075855	16- Aug- 2017	23- May- 2022	Group III Nitride Based Light Emitting Diode with a Superlattice Structure	Cree, Inc.	
P0204DE4	Germany	Granted	10169310.9	12- Jul- 2010	2237334	6- Oct- 2010	2237334	6- Nov- 2019	23- May- 2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice	Cree, Inc.	
P0204DE5	Germany	Granted	10180148.8	23- May- 2002	2259347	8- Dec- 2010	2259347	14- Aug- 2019	23- May- 2022	Group III Nitride Based Light Emitting Diode Structures with a	Cree, Inc.	

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									Quantum Well and Superlatice		
P0204EP	European Patent Convention	Granted	02726917.4	23-May-2002		1390990	22-Oct-2008	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlatice	Cree, Inc.	
P0204EP2	European Patent Convention	Granted	03078515.8	23-May-2002	1401027	24-Mar-2004	8-Apr-2009	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlatice	Cree, Inc.	PATENT REEL: 056169 FRAME: 0103
P0204EP3	European Patent Convention	Granted	09157557.1	23-May-2002	2075855	1-Jul-2009	16-Aug-2017	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlatice	Cree, Inc.	
P0204EP4	European Patent Convention	Granted	10169310.9	12-Jul-2010	2237334	6-Oct-2010	6-Nov-2019	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlatice	Cree, Inc.	
P0204EP5	European Patent Convention	Granted	10180148.8	23-May-2002	2259347	8-Dec-2010	14-Aug-2019	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlatice	Cree, Inc.	
P0204FR	France	Granted	02726917.4	23-May-2002		1390990	22-Oct-2008	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlatice	Cree, Inc.	
P0204FR3	France	Granted	09157557.1	23-May-2002	2075855	1-Jul-2009	16-Aug-2017	23-May-2022	Group III Nitride Based Light Emitting Diode with a Superlatice Sturcture	Cree, Inc.	

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P0204FR5	France	Granted	10180148.8	23-May-2002	2259347	8-Dec-2010	2259347	14-Aug-2019	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice	Cree, Inc.	
P0204GB	United Kingdom	Granted	02726917.4	23-May-2002			1390990	22-Oct-2008	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice	Cree, Inc.	
P0204GB2	United Kingdom	Granted	03078515.8	23-May-2002			1401027	8-Apr-2009	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice	Cree, Inc.	
P0204GB3	United Kingdom	Granted	09157557.1	23-May-2002	2075855	1-Jul-2009	2075855	16-Aug-2017	23-May-2022	Group III Nitride Based Light Emitting Diode with a Superlattice Structure	Cree, Inc.	
P0204GB5	United Kingdom	Granted	10180148.8	23-May-2002	2259347	8-Dec-2010	2259347	14-Aug-2019	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice	Cree, Inc.	
P0204JP3	Japan	Granted	2009-184911	23-May-2002	2009-260398	5-Nov-2009	5363236	13-Sep-2013	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice	Cree, Inc.	
P0204JP4	Japan	Granted	2012-000065	4-Jan-2012			5426696	6-Dec-2013	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlattice	Cree, Inc.	
P0204KR	Korea, Republic of	Granted	2003-7012710	29-Sep-2003			899133	18-May-2009	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a	Cree, Inc.	

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										Quantum Well and Superlatice		PATENT REEL: 056169 FRAME: 0105
P0204KR3	Korea, Republic of	Granted	2009-7022150	22-Oct-2009	09-117909	13-Nov-2009	10-1032847	26-Apr-2011	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlatice	Cree, Inc.	
P0204KR4	Korea, Republic of	Granted	10-2010-7022242	23-May-2002			10-1066760	15-Sep-2011	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlatice. Group III Nitride Based Quantum Well Structures and Group III Nitride Based Superlatice Structures	Cree, Inc.	
P0204MY	Malaysia	Granted	PI20022001	30-May-2002			MY-137396-A	30-Jan-2009	30-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlatice. Group III Nitride Based Quantum Well Structures and Group III Nitride Based Superlatice Structures	Cree, Inc.	
P0204NL5	Netherlands	Granted	10180148.8	23-May-2002	2259347	8-Dec-2010	2259347	14-Aug-2019	23-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlatice	Cree, Inc.	
P0204TW	Taiwan	Granted	091111618	29-May-2002			NL-182875	1-Aug-2003	29-May-2022	Group III Nitride Based Light Emitting Diode Structures with a Quantum Well and Superlatice. Group	Cree, Inc.	

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									III Nitride Based Quantum Well Structures and Group III Nitride Based Superlattice Structures		PATENT REEL: 056169 FRAME: 0106	
P0208CN	China (People's Republic)	Granted	02826523.8	28-Oct-2002		ZL02826523.8	1-Apr-2009	28-Oct-2022	Broad Spectrum Light Emitting Devices and Methods and Systems for Fabricating the Same	Cree, Inc.		
P0208DE	Germany	Granted	02778659.9	28-Oct-2002		1446838	21-Nov-2018	28-Oct-2022	Broad Spectrum Light Emitting Devices and Methods and Systems for Fabricating the Same	Cree, Inc.		
P0208EP	European Patent Convention	Granted	02778659.9	18-May-2004		1446838	21-Nov-2018	28-Oct-2022	Broad Spectrum Light Emitting Devices and Methods and Systems for Fabricating the Same	Cree, Inc.		
P0208JP	Japan	Granted	2003-541058	28-Apr-2004		4960577	30-Mar-2012	28-Oct-2022	Broad Spectrum Light Emitting Devices and Methods and Systems for Fabricating the Same	Cree, Inc.		
P0208MY	Malaysia	Granted	P120024089	31-Oct-2002		MY-148153-A	15-Mar-2013	31-Oct-2022	Broad Spectrum Light Emitting Devices and Methods and Systems for Fabricating the Same	Cree, Inc.		
P0209CN	China (People's Republic)	Granted	02809205.8	31-Oct-2003	CN 1505843	6-Jun-2004	ZL02809205.8	5-May-2010	12-Jun-2022	Ultraviolet Light Emitting Diode	Cree, Inc.	

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P0209CN2	China (People's Republic)	Granted	201010156574.X	12- Jun- 2002	CN101834245 A	15- Sep- 2010	ZL201010156574.X	22- May- 2013	12- Jun- 2022	Ultraviolet Light Emitting Diode	Cree, Inc.	
P0209EP2	European Patent Convention	Granted	08169004.2	12- Jun- 2002	2034530	11- Mar- 2009	2034530	21- Jan- 2015	12- Jun- 2022	Ultraviolet Light Emitting Diode	Cree, Inc.	
P0209GB2	United Kingdom	Granted	08169004.2	12- Jun- 2002	2034530	11- Mar- 2009	2034530	21- Jan- 2015	12- Jun- 2022	Ultraviolet Light Emitting Diode	Cree, Inc.	
P0214CN	China (People's Republic)	Granted	02818620.6	23- Mar- 2004	1557025	22- Dec- 2004	02818620.6	4- Jun- 2008	22- Jul- 2022	Flip Chip Bonding of Light Emitting Devices and Light Emitting Devices Suitable for Flip- Chip Bonding	Cree, Inc.	
P0214DE	Germany	Granted	02752483.4	22- Jul- 2002			1417722	5- Oct- 2011	22- Jul- 2022	Flip Chip Bonding of Light Emitting Devices and Light Emitting Devices Suitable for Flip- Chip Bonding	Cree, Inc.	
P0214EP	European Patent Convention	Granted	02752483.4	22- Jul- 2002			1417722	5- Oct- 2011	22- Jul- 2022	Flip Chip Bonding of Light Emitting Devices and Light Emitting Devices Suitable for Flip- Chip Bonding	Cree, Inc.	
P0214MY	Malaysia	Granted	PI20022772	23- Jul- 2002			MY130893-A	31- Jul- 2007	23- Jul- 2022	Flip Chip Bonding of Light Emitting Devices and Light Emitting Devices Suitable for Flip- Chip Bonding	Cree, Inc.	
P0214TW	Taiwan	Granted	091116245	22- Jul- 2002			NI-197351	1- Mar- 2004	22- Jul- 2022	Flip Chip Bonding of Light Emitting Devices and Light Emitting Devices Suitable for Flip- Chip Bonding	Cree, Inc.	
P0215CN	China (People's Republic)	Granted	02818644.3	22- Jul- 2002	1557014	22- Dec- 2004	ZL02818644.3	14- Mar- 2007	22- Jul- 2022	Bonding of Light Emitting Diodes Having Shaped Substrates and Collets for Bonding	Cree, Inc.	

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										of Light Emitting Diodes Having Shaped Substrates		
P0215DE	Germany	Granted	02763308.0	22-Jul-2002			1410426	7-Mar-2012	22-Jul-2022	Bonding of Light Emitting Diodes Having Shaped Substrates and Collets for Bonding of Light Emitting Diodes Having Shaped Substrates	Cree, Inc.	
P0215EP	European Patent Convention	Granted	02763308.0	22-Jul-2002			1410426	7-Mar-2012	22-Jul-2022	Bonding of Light Emitting Diodes Having Shaped Substrates and Collets for Bonding of Light Emitting Diodes Having Shaped Substrates	Cree, Inc.	PATENT REEL: 056169 FRAME: 0108
P0215JP	Japan	Granted	2003-516088	23-Jan-2004			4594618	24-Sep-2010	22-Jul-2022	Bonding of Light Emitting Diodes Having Shaped Substrates and Collets for Bonding of Light Emitting Diodes Having Shaped Substrates	Cree, Inc.	
P0215MY	Malaysia	Granted	PI20022771	23-Jul-2002			My-138237-A	29-May-2009	23-Jul-2022	Bonding of Light Emitting Diodes Having Shaped Substrates and Collets for Bonding of Light Emitting Diodes having Shaped Substrates	Cree, Inc.	
P0215TW	Taiwan	Granted	091116248	22-Jul-2002			NI-187970	5-Feb-2004	22-Jul-2022	Bonding of Light Emitting Diodes Having Shaped Substrates and Collets for Bonding of Light Emitting Diodes having Shaped Substrates	Cree, Inc.	

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P0226DE	Germany	Granted	02806684.3	18-Oct-2002			1470591	15-Dec-2010	18-Oct-2022	Cluster Packaging of Light Emitting Diodes	Cree, Inc.	
P0226EP	European Patent Convention	Granted	02806684.3	6-Jul-2004			1470591	15-Dec-2010	18-Oct-2022	Cluster Packaging of Light Emitting Diodes	Cree, Inc.	
P0226GB	United Kingdom	Granted	02806684.3	18-Oct-2002			1470591	15-Dec-2010	18-Oct-2022	Cluster Packaging of Light Emitting Diodes	Cree, Inc.	
P0226JP	Japan	Granted	2003-564940	28-Jul-2004	2005-516419	2-Jun-2005	4489436	21-Apr-2010	18-Oct-2022	Cluster Packaging of Light Emitting Diodes	Cree, Inc.	
P0226MY	Malaysia	Granted	P120024049	29-Oct-2002			MY-129737	30-Apr-2007	29-Oct-2022	Cluster Packaging of Light Emitting Diodes	Cree, Inc.	
P0226TW	Taiwan	Granted	091132155	30-Oct-2002	200303622	1-Sep-2003	N253764	21-Apr-2006	30-Oct-2022	Cluster Packaging of Light Emitting Diodes	Cree, Inc.	
P0231CN	China (People's Republic)	Granted	02818519.6	23-Jul-2002	1582503	16-Feb-2005	ZL02818519.6	1-Aug-2007	23-Jul-2022	Light Emitting Diodes Including Modifications for Submount Bonding and Manufacturing Methods Therefor	Cree, Inc.	
P0231CN2	China (People's Republic)	Granted	03817467.7	15-Jul-2003	1672268	21-Sep-2005	ZL03817467.7	7-Nov-2007	15-Jul-2023	Light Emitting Diodes including Barrier Layers/Sublayers and Manufacturing Methods Therefor	Cree, Inc.	
P0231DE	Germany	Granted	02752514.6	23-Jul-2002			1412989	6-May-2011	23-Jul-2022	Light Emitting Diodes Including Modifications for Submount Bonding and Manufacturing Methods Therefor	Cree, Inc.	
P0231DE2	Germany	Granted	03765562.8	15-Jul-2003			1523776	15-May-2019	15-Jul-2023	Light Emitting Diodes including Barrier Layers/Sublayers and Manufacturing Methods Therefor	Cree, Inc.	

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P023IDE4	Germany	Granted	10185865.2	1- Oct- 2010	2287930	23- Feb- 2011	2287930	5- Jun- 2019	15- Jul- 2023	Light Emitting Diodes including Barrier Layers/Sublayers and Manufacturing Methods Therefor	Cree, Inc.	PATENT REEL: 0056169 FRAME: 0110
P023IEP	European Patent Convention	Granted	02752514.6	23- Jul- 2002			1412989	6- May- 2011	23- Jul- 2022	Light Emitting Diodes Including Modifications for Submount Bonding and Manufacturing Methods Therefor	Cree, Inc.	
P023IEP2	European Patent Convention	Granted	03765562.8	15- Jul- 2003			1523776	15- May- 2019	15- Jul- 2023	Light Emitting Diodes including Barrier Layers/Sublayers and Manufacturing Methods Therefor	Cree, Inc.	
P023IEP4	European Patent Convention	Granted	10185865.2	1- Oct- 2010	2287930	23- Feb- 2011	2287930	5- Jun- 2019	15- Jul- 2023	Light Emitting Diodes including Barrier Layers/Sublayers and Manufacturing Methods Therefor	Cree, Inc.	
P023IGB2	United Kingdom	Granted	03765562.8	15- Jul- 2003			1523776	15- May- 2019	15- Jul- 2023	Light Emitting Diodes including Barrier Layers/Sublayers and Manufacturing Methods Therefor	Cree, Inc.	
P023IHK	Hong Kong	Granted	04104119.4	23- Jul- 2002	HK1061113	3- Sep- 2004	04104119.4	4- Nov- 2011	23- Jul- 2022	Light Emitting Diodes Including Modifications for Submount Bonding and Manufacturing Methods Therefor	Cree, Inc.	
P023IJP	Japan	Granted	2003-516101	23- Jan- 2004			4654372	7- Jan- 2011	23- Jul- 2022	Light Emitting Diodes Including Modifications for Submount Bonding and Manufacturing Methods Therefor	Cree, Inc.	
P023IJP2	Japan	Granted	2004-523125	24- Jan- 2005			4602079	8- Oct- 2010	15- Jul- 2023	Light Emitting Diodes including Barrier	Cree, Inc.	

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									Layers/Sublayers and Manufacturing Methods Therefor		PATENT REEL: 056169 FRAME: 0111	
P0231KR2	Korea, Republic of	Granted	2005-7000878	17-Jan-2005		10-1028965	5-Apr-2011	15-Jul-2023	Light Emitting Diodes including Barrier Layers/Sublayers and Manufacturing Methods Therefor	Cree, Inc.		
P0231MY	Malaysia	Granted	PI20022779	2-Jul-2002		MY-131877-A	28-Sep-2007	2-Jul-2022	Light Emitting Diodes Including Modifications for Submount Bonding and Manufacturing Methods Therefor	Cree, Inc.		
P0231NL2	Netherlands	Granted	03765562.8	15-Jul-2003		1523776	15-May-2019	15-Jul-2023	Light Emitting Diodes including Barrier Layers/Sublayers and Manufacturing Methods Therefor	Cree, Inc.		
P0231TW	Taiwan	Granted	091116373	23-Jul-2002		NL-190777	21-Nov-2003	23-Jul-2022	Light Emitting Diodes Including Modifications for Submount Bonding and Manufacturing Methods Therefor	Cree, Inc.		
P0232CN	China (People's Republic)	Granted	200480011632.2	31-Oct-2005	1788357	14-Jun-2006	ZL200480011632.2	21-Jan-2009	13-Apr-2024	Light Emitting Devices having an Action Region with Electrical Contacts Coupled to Opposing Surfaces Thereof and Methods of Forming Same		Cree, Inc.
P0232DE	Germany	Granted	04750072.3	4-Feb-2005	1618613	25-Jan-2006	1618613	12-Jun-2019	13-Apr-2024	Light Emitting Devices having an Action Region with Electrical Contacts Coupled to Opposing Surfaces Thereof and Methods of Forming Same		Cree, Inc.

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P0232EP	European Patent Convention	Granted	04750072.3	4-Feb-2005	1618613		1618613	12-Jun-2019	13-Apr-2024	Light Emitting Devices having an Action Region with Electrical Contacts Coupled to Opposing Surfaces Thereof and Methods of Forming Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0112
P0232FR	France	Granted	04750072.3	4-Feb-2005	1618613	25-Jan-2006	1618613	12-Jun-2019	13-Apr-2024	Light Emitting Devices having an Action Region with Electrical Contacts Coupled to Opposing Surfaces Thereof and Methods of Forming Same	Cree, Inc.	
P0232GB	United Kingdom	Granted	04750072.3	4-Feb-2005	1618613	25-Jan-2006	1618613	12-Jun-2019	13-Apr-2024	Light Emitting Devices having an Action Region with Electrical Contacts Coupled to Opposing Surfaces Thereof and Methods of Forming Same	Cree, Inc.	
P0232IT	Italy	Granted	04750072.3	4-Feb-2005	1618613	25-Jan-2006	1618613	12-Jun-2019	13-Apr-2024	Light Emitting Devices having an Action Region with Electrical Contacts Coupled to Opposing Surfaces Thereof and Methods of Forming Same	Cree, Inc.	
P0232JP2	Japan	Granted	2012-180804	17-Aug-2012			5722844	3-Apr-2015	13-Apr-2024	Light Emitting Devices having an Action Region with Electrical Contacts Coupled to Opposing Surfaces Thereof and Methods of Forming Same	Cree, Inc.	

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P0232KR	Korea, Republic of	Granted	2005-7003804	4-Mar-2005			10-1060914	24-Aug-2011	13-Apr-2024	Light Emitting Devices having an Action Region with Electrical Contacts Coupled to Opposing Surfaces Thereof and Methods of Forming Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0113
P0232KR2	Korea, Republic of	Granted	10-2010-7029479	29-Oct-2010			10-1230762	31-Jan-2013	13-Apr-2024	Light Emitting Devices having an Action Region with Electrical Contacts Coupled to Opposing Surfaces Thereof and Methods of Forming Same	Cree, Inc.	
P0232TW	Taiwan	Granted	093111759	27-Apr-2004			1234296	11-Jun-2005	27-Apr-2024	Light Emitting Devices having an Action Region with Electrical Contacts Coupled to Opposing Surfaces Thereof and Methods of Forming Same	Cree, Inc.	
P0233CN	China (People's Republic)	Granted	200480011589.X	28-Oct-2005	1816917	9-Aug-2006	ZL200480011589X	27-May-2009	13-Apr-2024	Light Emitting Devices Having an Anti-reflective Layer that has a Graded Index of Refraction and Methods of Forming the Same	Cree, Inc.	
P0233DE	Germany	Granted	04750073.1	13-Apr-2004			1618614	20-Jan-2016	13-Apr-2024	Light Emitting Devices Having an Anti-reflective Layer that has a Graded Index of Refraction and Methods of Forming the Same	Cree, Inc.	

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P0233EP	European Patent Convention	Granted	04750073.1	11-Oct-2005			1618614	20-Jan-2016	13-Apr-2024	Light Emitting Devices Having an Anti-reflective Layer that has a Graded Index of Refraction and Methods of Forming the Same	Cree, Inc.
P0233KR	Korea, Republic of	Granted	2005-7020431	27-Sep-2005			10-1211864	6-Dec-2012	13-Apr-2024	Light Emitting Devices Having an Anti-reflective Layer that has a Graded Index of Refraction and Methods of Forming the Same	Cree, Inc.
P0233TW	Taiwan	Granted	093111777	27-Apr-2004	I274427	21-Feb-2007	I274427	21-Feb-2007	27-Apr-2024	Light Emitting Devices Having an Anti-reflective Layer that has a Graded Index of Refraction and Methods of Forming the Same	Cree, Inc.
P0234TW	Taiwan	Granted	093111776	27-Apr-2004			I 243490	11-Nov-2005	27-Apr-2024	Light-Emitting Devices having Coplanar Electrical Contacts Adjacent to a Substrate Surface Opposite an Action Region and Methods of Forming Same	Cree, Inc.
P0245CN	China (People's Republic)	Granted	03822176.4	18-Mar-2005	I682384	12-Oct-2005	ZL03822176.4	9-Jun-2010	8-Sep-2023	Phosphor-Coated Light Emitting Diodes Including Tapered Sidewalls, and Fabrication Methods Therefor	Cree, Inc.
P0245DE	Germany	Granted	03797885.5	8-Sep-2003			1540747	25-Jan-2012	8-Sep-2023	Phosphor-Coated Light Emitting Diodes Including Tapered Sidewalls, and Fabrication Methods Therefor	Cree, Inc.

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P0245EP	European Patent Convention	Granted	03797885.5	21-Jan-2005			1540747	25-Jan-2012	8-Sep-2023	Phosphor-Coated Light Emitting Diodes Including Tapered Sidewalls, and Fabrication Methods Therefor	Cree, Inc.	PATENT REEL: 056169 FRAME: 0115
P0245HK	Hong Kong	Granted	05107516.5	8-Sep-2003	HK1073176	9-Dec-2005	HK1075326	31-Aug-2012	8-Sep-2023	Phosphor-Coated Light Emitting Diodes Including Tapered Sidewalls, and Fabrication Methods Therefor	Cree, Inc.	
P0245KR	Korea, Republic of	Granted	2005-7004402	15-Mar-2005			10-1182041	5-Sep-2012	8-Sep-2023	Phosphor-Coated Light Emitting Diodes Including Tapered Sidewalls, and Fabrication Methods Therefor	Cree, Inc.	
P0245MY	Malaysia	Granted	PI20033571	18-Sep-2003			MY-134719-A	31-Dec-2007	18-Sep-2023	Phosphor-Coated Light Emitting Diodes Including Tapered Sidewalls, and Fabrication Methods Therefor	Cree, Inc.	
P0245TW	Taiwan	Granted	092125739	18-Sep-2003			319236	1-Jan-2010	18-Sep-2023	Phosphor-Coated Light Emitting Diodes Including Tapered Sidewalls, and Fabrication Methods Therefor	Cree, Inc.	
P0250CN	China (People's Republic)	Granted	200480004065.8	12-Aug-2005	CN1748326 A	15-Mar-2006	ZI200480004065.8	29-Sep-2010	29-Jan-2024	Light Emitting Device Incorporating a Luminescent Material	Cree, Inc.	
P0250DE	Germany	Granted	04706472.0	29-Jan-2004			1593165	5-May-2010	29-Jan-2024	Light Emitting Device Incorporating a Luminescent Material	Cree, Inc.	
P0250EP	European Patent Convention	Granted	04706472.0	16-Aug-2005	1593165	9-Nov-2005	1593165	5-May-2010	29-Jan-2024	Light Emitting Device Incorporating a Luminescent Material	Cree, Inc.	

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P0250GB	United Kingdom	Granted	04706472.0	29-Jan-2004			1593165	5-May-2010	29-Jan-2024	Light Emitting Device Incorporating a Luminescent Material	Cree, Inc.	PATENT REEL: 056169 FRAME: 0116
P0250JP	Japan	Granted	2006-503117	15-Aug-2005			4791351	29-Jul-2011	29-Jan-2024	Light Emitting Device Incorporating a Luminescent Material	Cree, Inc.	
P0250KR	Korea, Republic of	Granted	10-2005-7014972	12-Aug-2005			10-1016357	14-Feb-2011	29-Jan-2024	Light Emitting Device Incorporating a Luminescent Material	Cree, Inc.	
P0253TW	Taiwan	Granted	093110313	14-Apr-2004			I344705	1-Jul-2011	14-Apr-2024	Multiple Component Solid State White Light	Cree, Inc.	
P0254CN	China (People's Republic)	Granted	03818711.6	3-Feb-2005		28-Sep-2005	ZL03818711.6	23-Jul-2008	12-Jun-2023	Semiconductor Emitter Comprising a Saturated Phosphor	Cree, Inc.	
P0254DE	Germany	Granted	03737130.9	12-Jun-2003			60325851.4	14-Jan-2009	12-Jun-2023	Semiconductor Emitter Comprising a Saturated Phosphor	Cree, Inc.	
P0254EP	European Patent Convention	Granted	03737130.9	12-Jun-2003			1512181	14-Jan-2009	12-Jun-2023	Saturated Phosphor Solid State Emitter	Cree, Inc.	
P0254GB	United Kingdom	Granted	03737130.9	12-Jun-2003			1512181	14-Jan-2009	12-Jun-2023	Semiconductor Emitter Comprising a Saturated Phosphor	Cree, Inc.	
P0254JP2	Japan	Granted	2011-002499	7-Feb-2011			5951180	17-Jun-2016	12-Jun-2023	Semiconductor Emitter Comprising Saturated Phosphor	Cree, Inc.	
P0254MY	Malaysia	Granted	PI20032210	13-Jun-2003			MY138406-A	29-May-2009	13-Jun-2023	Saturated Phosphor Solid State Emitter	Cree, Inc.	
P0254TW	Taiwan	Granted	092115977	12-Jun-2003	200409478	1-Jun-2004	I329367	21-Aug-2010	12-Jun-2023	Saturated Phosphor Solid State Emitter	Cree, Inc.	

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P0258CN	China (People's Republic)	Granted	200480003804.1	9- Aug- 2005	1748325	15- Mar- 2006	ZL200480003804.1	14- Feb- 2009	30- Jan- 2024	Reflective Ohmic Contacts for Silicon Carbide Including a Layer Consisting of Nickel, Methods of Fabricating Same, and Light Emitting Diodes Including the Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0117
P0258KR	Korea, Republic of	Granted	2005-7014638	9- Aug- 2005			10-1076958	19- Oct- 2011	30- Jan- 2024	Reflective Ohmic Contacts for Silicon Carbide Including a Layer Consisting of Nickel, Methods of Fabricating Same, and Light Emitting Diodes Including the Same	Cree, Inc.	
P0258MY	Malaysia	Granted	P120040440	12- Feb- 2004			MY127699-A	29- Dec- 2006	12- Feb- 2024	Reflective Ohmic Contacts for Silicon Carbide Including a Layer Consisting of Nickel, Methods of Fabricating Same, and Light Emitting Diodes Including the Same	Cree, Inc.	
P0270CN	China (People's Republic)	Granted	200480012561.8	9- Nov- 2005	CN1802755A	12- Jul- 2006	ZL200480012561.8	16- May- 2012	6- May- 2024	LED Fabrication via Ion Implant Isolation	Cree, Inc.	
P0270CN2	China (People's Republic)	Granted	200910208855.2	5- Nov- 2009	101697366A	21- Apr- 2010	ZL2009102088552	19- Dec- 2012	6- May- 2024	LED Fabrication via Ion Implant Isolation	Cree, Inc.	
P0270EP	European Patent Convention	Granted	04751419.5	8- Nov- 2005			1623467	7- Dec- 2016	6- May- 2024	LED Fabrication via Ion Implant Isolation	Cree, Inc.	
P0270GB	United Kingdom	Granted	04751419.5	6- May- 2004			1623467	7- Dec- 2016	6- May- 2024	LED Fabrication via Ion Implant Isolation	Cree, Inc.	
P0270JP	Japan	Granted	2006-532792	9- Nov- 2005			5122817	2- Nov- 2012	6- May- 2024	LED Fabrication via Ion Implant Isolation	Cree, Inc.	

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P0270JP2	Japan	Granted	2011-056687	15-Mar-2011	2011-187966	22-Sep-2011	5491439	7-Mar-2014	6-May-2024	LED Fabrication via Ion Implant Isolation	Cree, Inc.	
P0270TW	Taiwan	Granted	093112923	7-May-2004			1347683	21-Aug-2011	7-May-2024	LED Fabrication via Ion Implant Isolation	Cree, Inc.	
P0275DE	Germany	Granted	05734066.3	5-Apr-2005			602005011119,0-08	19-Nov-2008	5-Apr-2025	Light-Emitting Devices Having Multiple Encapsulation Layers with at Least One of the Encapsulation Layers Including Nanoparticles and Methods of Forming the Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0118
P0275EP	European Patent Convention	Granted	05734066.3	1-Oct-2006	1741315	10-Jan-2007	1741315	19-Nov-2008	5-Apr-2025	Light-Emitting Devices Having Multiple Encapsulation Layers with at Least One of the Encapsulation Layers Including Nanoparticles and Methods of Forming the Same	Cree, Inc.	
P0275FR	France	Granted	05734066.3	5-Apr-2005			1741315	19-Nov-2008	5-Apr-2025	Light-Emitting Devices Having Multiple Encapsulation Layers with at Least One of the Encapsulation Layers Including Nanoparticles and Methods of Forming the Same	Cree, Inc.	
P0275GB	United Kingdom	Granted	05734066.3	5-Apr-2005			1741315	19-Nov-2008	5-Apr-2025	Light-Emitting Devices Having Multiple Encapsulation Layers with at Least One of the	Cree, Inc.	

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										Encapsulation Layers Including Nanoparticles and Methods of Forming the Same		PATENT REEL: 056169 FRAME: 0119
P0275JP	Japan	Granted	2007-507454	27-Oct-2006			5376801	4-Oct-2013	5-Apr-2025	Light-Emitting Devices Having Multiple Encapsulation Layers with at Least One of the Encapsulation Layers Including Nanoparticles and Methods of Forming the Same	Cree, Inc.	
P0275KR	Korea, Republic of	Granted	2006-7020679	2-Oct-2006			10-1138540	13-Apr-2012	5-Apr-2025	Light-Emitting Devices Having Multiple Encapsulation Layers with at Least One of the Encapsulation Layers Including Nanoparticles and Methods of Forming the Same	Cree, Inc.	
P0275KR2	Korea, Republic of	Granted	10-1225252	30-Aug-2011			10-2011-7020217	16-Jan-2013	5-Apr-2025	Light-Emitting Devices Having Multiple Encapsulation Layers with at Least One of the Encapsulation Layers Including Nanoparticles and Methods of Forming the Same	Cree, Inc.	
P0275TW	Taiwan	Granted	094105634	24-Feb-2005			I364115	11-May-2012	24-Feb-2025	Light-Emitting Devices Having Multiple Encapsulation Layers with at Least One of the	Cree, Inc.	

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									Encapsulation Layers Including Nanoparticles and Methods of Forming the Same			
P0276CN2	China (People's Republic)	Granted	201110069421.6	16-Mar-2011	CN102208517 A	5-Oct-2011	ZL201110069421.6	5-Jun-2013	3-Dec-2023	LED Package Die Having a Small Footprint	Cree, Inc.	PATENT REEL: 056169 FRAME: 0120
P0276DE	Germany	Granted	03808426.5	3-Dec-2003	1576654	21-Sep-2005	1576654	18-Jan-2012	3-Dec-2023	LED Package Die Having a Small Footprint	Cree, Inc.	
P0276EP	European Patent Convention	Granted	03808426.5	27-May-2005	1576654	21-Sep-2005	1576654	18-Jan-2012	3-Dec-2023	LED Package Die Having a Small Footprint	Cree, Inc.	
P0276FR	France	Granted	03808426.5	3-Dec-2003	1576654	21-Sep-2005	1576654	18-Jan-2012	3-Dec-2023	LED Package Die Having a Small Footprint	Cree, Inc.	
P0276GB	United Kingdom	Granted	03808426.5	3-Dec-2003	1576654	21-Sep-2005	1576654	18-Jan-2012	3-Dec-2023	LED Package Die Having a Small Footprint	Cree, Inc.	
P0276JP	Japan	Granted	2004-559225	3-Jun-2005			4675627	4-Feb-2011	3-Dec-2023	LED Package Die Having a Small Footprint	Cree, Inc.	
P0276JP2	Japan	Granted	2010-204604	13-Sep-2010			5140711	22-Nov-2012	3-Dec-2023	LED Package Die Having a Small Footprint	Cree, Inc.	
P0276KR	Korea, Republic of	Granted	10-2005-7009880	1-Jun-2005			10-1108403	13-Jan-2012	3-Dec-2023	LED Package Die Having a Small Footprint	Cree, Inc.	
P0277CN	China (People's Republic)	Granted	200380104936.9	3-Jun-2005	CN 1720608	11-Jan-2006	ZL200380104936.9	30-Apr-2008	3-Dec-2023	Composite Leadframe LED Package and Method of Making the Same	Cree, Inc.	
P0277DE	Germany	Granted	03790215.2	3-Dec-2003	1568076	31-Aug-2005	1568076	26-Jan-2011	3-Dec-2023	Composite Leadframe LED Package and Method of Making the Same	Cree, Inc.	
P0277DE2	Germany	Granted	10185249.9	27-May-2005	2270889	5-Jan-2011	60348759.9	30-Mar-2016	3-Dec-2023	Composite Leadframe LED Package and	Cree, Inc.	

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										Method of Making the Same		
P0277DE3	Germany	Granted	10185206.9	27-May-2005		60348861.7		30-Mar-2016	3-Dec-2023	Composite Leadframe LED Package and Method of Making the Same	Cree, Inc.	
P0277EP	European Patent Convention	Granted	03790215.2	3-Dec-2003	31-Aug-2005	1568076	26-Jan-2011	3-Dec-2023	Composite Leadframe LED Package and Method of Making the Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0121	
P0277EP2	European Patent Convention	Granted	10185249.9	1-Oct-2010	5-Jan-2011	2270889	30-Mar-2016	3-Dec-2023	Composite Leadframe LED Package and Method of Making the Same	Cree, Inc.		
P0277EP3	European Patent Convention	Granted	10185206.9	1-Oct-2010	16-Feb-2011	2284914	20-Apr-2016	3-Dec-2023	Composite Leadframe LED Package and Method of Making the Same	Cree, Inc.		
P0277GB	United Kingdom	Granted	03790215.2	3-Dec-2003	31-Aug-2005	1568076	26-Jan-2011	3-Dec-2023	Composite Leadframe LED Package and Method of Making the Same	Cree, Inc.		
P0277JP	Japan	Granted	2004-559204	3-Jun-2005		4757495	10-Jun-2011	3-Dec-2023	Composite Leadframe LED Package and Method of Making the Same	Cree, Inc.		
P0277KR	Korea, Republic of	Granted	10-2005-7009879	1-Jun-2005		10-1141492	23-Apr-2012	3-Dec-2023	Composite Leadframe LED Package and Method of Making the Same	Cree, Inc.		
P0277TW	Taiwan	Granted	092134358	5-Dec-2003	11-Nov-2010	I333230	11-Nov-2010	4-Dec-2023	Composite Leadframe LED Package and Method of Making the Same	Cree, Inc.		

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P0281CN	China (People's Republic)	Granted	200380107146.6	5- Aug- 2005			ZL200380107146.6	26- May- 2010	18- Dec- 2023	Methods of Forming Semiconductor Devices Having Self-Aligned Semiconductor Mesas and Contact Layers and Related Devices	Cree, Inc.	PATENT REEL: 056169 FRAME: 0122
P0281DE	Germany	Granted	03814166.9	18- Dec- 2003	1573871	14- Sep- 2005	1573871	7- Mar- 2018	18- Dec- 2023	Methods of Forming Semiconductor Devices Having Self-Aligned Semiconductor Mesas and Contact Layers and Related Devices	Cree, Inc.	
P0281EP	European Patent Convention	Granted	03814166.9	6- May- 2005	1573871	14- Sep- 2005	1573871	7- Mar- 2018	18- Dec- 2023	Methods of Forming Semiconductor Devices Having Self-Aligned Semiconductor Mesas and Contact Layers and Related Devices	Cree, Inc.	
P0281JP	Japan	Granted	2004-563767	17- Jun- 2005			4866550	18- Nov- 2011	18- Dec- 2023	Methods of Forming Semiconductor Devices Having Self-Aligned Semiconductor Mesas and Contact Layers and Related Devices	Cree, Inc.	
P0281KR	Korea, Republic of	Granted	2005-7011312	17- Jun- 2005			10-1045160	22- Jun- 2011	18- Dec- 2023	Methods of Forming Semiconductor Devices Having Self-Aligned Semiconductor Mesas and Contact Layers and Related Devices	Cree, Inc.	

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P0281TW	Taiwan	Granted	092136164	19-Dec-2003			I337373	11-Feb-2011	19-Dec-2023	Methods of Forming Semiconductor Devices Having Self-Aligned Semiconductor Mesas and Contact Layers and Related Devices	Cree, Inc.	PATENT REEL: 056169 FRAME: 0123
P0282CN	China (People's Republic)	Granted	200380106477.8	17-Jun-2005			ZL200380106477.8	26-May-2010	18-Dec-2023	Methods of Forming Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers and Related Devices	Cree, Inc.	
P0282DE	Germany	Granted	20036011678	18-Dec-2003	DE60311678 T2	22-Nov-2007	1573870	28-Nov-2006	18-Dec-2023	Methods of Forming Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers and Related Devices	Cree, Inc.	
P0282DE2	Germany	Granted	06124077.6	14-Nov-2006	1830416	5-Sep-2007	1830416	8-Jun-2011	18-Dec-2023	Methods of Forming Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers and Related Devices	Cree, Inc.	
P0282EP	European Patent Convention	Granted	03800027.9	6-May-2005	1573870	14-Sep-2005	1573870	28-Nov-2006	18-Dec-2023	Methods of Forming Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers and Related Devices	Cree, Inc.	
P0282EP2	European Patent Convention	Granted	06124077.6	14-Nov-2006	1830416	5-Sep-2007	1830416	8-Jun-2011	18-Dec-2023	Methods of Forming Semiconductor Devices Including	Cree, Inc.	

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									Mesa Structures and Multiple Passivation Layers and Related Devices		PATENT REEL: 056169 FRAME: 0124	
P0282FR	France	Granted	03800027.9	18-Dec-2003		1573870	28-Nov-2006	18-Dec-2023	Methods of Forming Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers and Related Devices	Cree, Inc.		
P0282FR2	France	Granted	06124077.6	14-Nov-2006	1830416	5-Sep-2007	1830416	8-Jun-2011	18-Dec-2023	Methods of Forming Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers and Related Devices		Cree, Inc.
P0282GB	United Kingdom	Granted	03800027.9	18-Dec-2003		1573870	28-Nov-2006	18-Dec-2023	Methods of Forming Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers and Related Devices	Cree, Inc.		
P0282GB2	United Kingdom	Granted	06124077.6	14-Nov-2006	1830416	5-Sep-2007	1830416	8-Jun-2011	18-Dec-2023	Methods of Forming Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers and Related Devices		Cree, Inc.
P0282JP	Japan	Granted	2004-563850	20-Jun-2005		5183012	25-Jan-2013	18-Dec-2023	Methods of Forming Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers and Related Devices	Cree, Inc.		

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P0282TW	Taiwan	Granted	092136163	19-Dec-2003			1338320	1-Mar-2011	19-Dec-2023	Methods of Forming Semiconductor Devices Including Mesa Structures and Multiple Passivation Layers and Related Devices	Cree, Inc.	PATENT REEL: 056169 FRAME: 0125
P0283KR	Korea, Republic of	Granted	2005-7011314	17-Jun-2005			10-1020387	28-Feb-2011	18-Dec-2023	Methods of Forming Electronic Devices Including Semiconductor Mesa Structures and Conductivity Junctions and Related Devices	Cree, Inc.	
P0283TW	Taiwan	Granted	092136260	19-Dec-2003			1334620	11-Dec-2010	19-Dec-2023	Methods of Forming Electronic Devices Including Semiconductor Mesa Structures and Conductivity Junctions and Related Devices	Cree, Inc.	
P0284CN	China (People's Republic)	Granted	200480027969.2	27-Mar-2006	CN1860619	8-Nov-2006	200480027969.2	18-Mar-2009	21-Sep-2024	Light Emitting Diode with Porous SiC Substrate and Method for Fabricating	Cree, Inc.	
P0284DE	Germany	Granted	04788908.4	21-Sep-2004	1668710	14-Jun-2006	1668710	24-Dec-2014	21-Sep-2024	Light Emitting Diode with Porous SiC Substrate and Method for Fabricating	Cree, Inc.	Yes
P0284EP	European Patent Convention	Granted	04788908.4	1-Mar-2006	1668710	14-Jun-2006	1668710	24-Dec-2014	21-Sep-2024	Light Emitting Diode with Porous SiC Substrate and Method for Fabricating	Cree, Inc.	Yes
P0284JP	Japan	Granted	2006-533962	30-Mar-2006			5748384	22-May-2015	21-Sep-2024	Light Emitting Diode with Porous SiC Substrate and Method for Fabricating	Cree, Inc.	Yes

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P0285CN	China (People's Republic)	Granted	200480011028.X	24- Oct- 2005	CN1777999	24- May- 2006	ZL200480011028.X	26- May- 2010	24- Feb- 2024	Composite White LED and Method for Fabricating	Cree, Inc.
P0285DE	Germany	Granted	04714213.8	24- Feb- 2004	1597777	23- Nov- 2005	1597777	24- Apr- 2013	24- Feb- 2024	Composite White LED and Method for Fabricating	Cree, Inc.
P0285EP	European Patent Convention	Granted	04714213.8	11- Aug- 2005	1597777	23- Nov- 2005	1597777	24- Apr- 2013	24- Feb- 2024	Composite White LED and Method for Fabricating	Cree, Inc.
P0285JP2	Japan	Granted	2010-254633	15- Nov- 2010	2011-061230	24- Mar- 2011	5559013	13- Jun- 2014	24- Feb- 2024	Composite White LED Source and Method for Fabricating	Cree, Inc.
P0285MY	Malaysia	Granted	PI 20040593	24- Feb- 2004			MY-142684-A	31- Dec- 2010	24- Feb- 2024	Composite White LED and Method for Fabricating	Cree, Inc.
P0289CN	China (People's Republic)	Granted	03820849.0	2- Mar- 2005			ZL03820849.0	27- Aug- 2008	2- Sep- 2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.
P0289CN2	China (People's Republic)	Granted	200480030943.3	20- Apr- 2006	CN1871710A	29- Nov- 2006	ZL 200480030943.3	23- Mar- 2011	20- Oct- 2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.
P0289CN3	China (People's Republic)	Granted	201110021562.0	13- Jan- 2011	CN102148316 A	10- Aug- 2011	ZL201110021562.0	20- Jan- 2016	20- Oct- 2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.
P0289DE	Germany	Granted	03794564.9	2- Sep- 2003			1537603	9- Jul- 2008	2- Sep- 2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.
P0289DE2	Germany	Granted	04795871.5	20- Oct- 2004			1680816	30- Sep- 2009	20- Oct- 2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.
P0289DE3	Germany	Granted	08157294.3	30- May- 2008			1953825	24- Jul- 2013	2- Sep- 2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.
P0289DE4	Germany	Granted	09171045.9	20- Oct- 2004	2139051	30- Dec- 2009	2139051	4- Jun- 2014	20- Oct- 2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.

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P0289EP	European Patent Convention	Granted	03794564.9	2- Sep-2003			1537603	9-Jul-2008	2- Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289EP2	European Patent Convention	Granted	04795871.5	1-Jul-2006			1680816	30-Sep-2009	20-Oct-2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289EP3	European Patent Convention	Granted	08157294.3	30-May-2008			1953825	24-Jul-2013	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289EP4	European Patent Convention	Granted	09171045.9	20-Oct-2004	2139051	30-Dec-2009	2139051	4-Jun-2014	20-Oct-2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289FR	France	Granted	03794564.9	2- Sep-2003			1537603	9-Jul-2008	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289GB	United Kingdom	Granted	03794564.9	2- Sep-2003			1537603	9-Jul-2008	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289GB3	United Kingdom	Granted	08157294.3	2- Sep-2003			1953825	24-Jul-2013	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289GB4	United Kingdom	Granted	09171045.9	20-Oct-2004	2139051	30-Dec-2009	2139051	4-Jun-2014	20-Oct-2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289JP	Japan	Granted	2004-534428	28-Feb-2005			4731906	28-Apr-2011	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289JP2	Japan	Granted	2006-536764	1-Jul-2006			4602345	8-Oct-2010	20-Oct-2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289JP3	Japan	Granted	2011-032598	17-Feb-2011			5746877	15-May-2015	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	

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P0289JP4	Japan	Granted	2011-032599	17-Feb-2011				5520241	11-Apr-2014	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289JP5	Japan	Granted	2011-032600	17-Feb-2011				5629601	10-Oct-2014	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289JP6	Japan	Granted	2011-032601	17-Feb-2011				5520242	11-Apr-2014	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289JP9	Japan	Granted	2011-032604	17-Feb-2011				5520243	11-Apr-2014	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289KR	Korea, Republic of	Granted	10-2005-7003428	28-Feb-2005				10-1082235	3-Nov-2011	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289KR2	Korea, Republic of	Granted	10-2006-7007929	24-Apr-2006				10-1244075	8-Mar-2013	20-Oct-2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289KR3	Korea, Republic of	Granted	10-2011-7002567	31-Jan-2011				10-1082145	3-Nov-2011	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289KR4	Korea, Republic of	Granted	10-2011-7002573	31-Jan-2011				10-1088928	25-Nov-2011	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289KR5	Korea, Republic of	Granted	10-2011-7002568	31-Jan-2011				10-1082304	3-Nov-2011	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289KR6	Korea, Republic of	Granted	10-2011-7002575	31-Jan-2011				10-1160037	19-Jun-2012	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289KR7	Korea, Republic of	Granted	10-2011-7002566	31-Jan-2011				10-1082169	3-Nov-2011	2-Sep-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	

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P0289KR8	Korea, Republic of	Granted	10-2012-7027757	24-Oct-2012			10-1314986	27-Sep-2013	20-Oct-2024	POWER SURFACE MOUNT LIGHT EMITTING DIE PACKAGE	Cree, Inc.	
P0289KR9	Korea, Republic of	Granted	10-2013-7009561	15-Apr-2013			10-1386846	11-Apr-2014	20-Oct-2024	POWER SURFACE MOUNT LIGHT EMITTING DIE PACKAGE	Cree, Inc.	
P0289TW	Taiwan	Granted	092123988	29-Aug-2003			I331380	10-Oct-2010	29-Aug-2023	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289TW2	Taiwan	Granted	093131884	20-Oct-2004			I392105	1-Apr-2013	20-Oct-2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289TW3	Taiwan	Granted	100139850	1-Nov-2011	201212297	16-Mar-2012	I538255	11-Jun-2016	20-Oct-2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289TW4	Taiwan	Granted	100139852	1-Nov-2011	201210062	1-Mar-2012	I495143	1-Aug-2015	20-Oct-2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0289TW7	Taiwan	Granted	102105621	18-Feb-2013	201338194	16-Sep-2013	I550897	21-Sep-2016	20-Oct-2024	Power Surface Mount Light Emitting Die Package	Cree, Inc.	
P0295CN	China (People's Republic)	Granted	200780014101.2	20-Oct-2008	CN101427431 A	6-May-2009	ZL200780014101.2	6-Jul-2011	17-Jan-2027	High Efficiency LEDs with Tunnel Junctions	Cree, Inc.	
P0295JP	Japan	Granted	2008-556321	25-Aug-2008			5726405	10-Apr-2015	17-Jan-2027	High Efficiency LEDs with Tunnel Junctions	Cree, Inc.	
P0298DE	Germany	Granted	04783941.0	1-Mar-2006	1665361		1665361	25-Mar-2020	13-Sep-2024	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	
P0298EP	European Patent Convention	Granted	04783941.0	1-Mar-2006	1665361		1665361	25-Mar-2020	13-Sep-2024	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	

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P0298JP	Japan	Granted	2006-526964	20-Mar-2006			5431646	13-Dec-2013	13-Sep-2024	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	
P0298JP3	Japan	Granted	2012-026327	9-Feb-2012			6058894	16-Dec-2016	13-Sep-2024	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	
P0298TW	Taiwan	Granted	093128231	17-Sep-2004			1358837	21-Feb-2012	17-Sep-2024	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	
P0304CN	China (People's Republic)	Granted	200480017056.2	19-Dec-2005	CN1809934A	26-Jul-2006	ZL200480017056.2	17-Jun-2009	28-Apr-2024	High Powered Light Emitter Packages with Compact Optics	Cree, Inc.	
P0304CN2	China (People's Republic)	Granted	200910137491.3	28-Apr-2009	CN101556985 A	14-Oct-2009	ZL2009101374913	9-Jun-2017	28-Apr-2024	High Powered Light Emitter Packages with Compact Optics	Cree, Inc.	
P0304DE	Germany	Granted	04750926.0	28-Apr-2004	1620903	1-Feb-2006	1620903	16-Aug-2017	28-Apr-2024	High Powered Light Emitter Packages with Compact Optics	Cree, Inc.	
P0304DE2	Germany	Granted	10185698.7	30-Sep-2010	2264798	22-Dec-2010	2264798	14-Oct-2020	28-Apr-2024	High Powered Light Emitter Packages with Compact Optics	Cree, Inc.	
P0304DE3	Germany	Granted	10185708.4	30-Sep-2010	2270887	5-Jan-2011	2270887	22-Jan-2020	28-Apr-2024	High Powered Light Emitter Packages with Compact Optics	Cree, Inc.	
P0304EP	European Patent Convention	Granted	04750926.0	28-Oct-2005	1620903	1-Feb-2006	1620903	16-Aug-2017	28-Apr-2024	High Powered Light Emitter Packages with Compact Optics	Cree, Inc.	
P0304EP2	European Patent Convention	Granted	10185698.7	30-Sep-2010	2264798	22-Dec-2010	2264798	14-Oct-2020	28-Apr-2024	High Powered Light Emitter Packages with Compact Optics	Cree, Inc.	
P0304EP3	European Patent Convention	Granted	10185708.4	30-Sep-2010	2270887	5-Jan-2011	2270887	22-Jan-2020	28-Apr-2024	High Powered Light Emitter Packages with Compact Optics	Cree, Inc.	
P0304KR	Korea, Republic of	Granted	10-2005-7020463	28-Oct-2005			10-1148332	15-May-2012	28-Apr-2024	High Powered Light Emitter Packages with Compact Optics	Cree, Inc.	

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P0304TW	Taiwan	Granted	093112133	30-Apr-2004			1484665	11-May-2015	30-Apr-2024	High Powered Light Emitter Packages with Compact Optics	Cree, Inc.	
P0310DE	Germany	Granted	602004018659.7-08	1-Jun-2004			1663603 B1	24-Dec-2008	1-Jun-2024	Transmissive Optical Elements Including Transparent Plastic Shell Having a Phosphor Dispersed Therein, and Methods of Fabricating Same	Cree, Inc.	
P0310EP	European Patent Convention	Granted	04754030.7	1-Apr-2006	1663603	7-Jun-2006	1663603	24-Dec-2008	1-Jun-2024	Transmissive Optical Elements Including Transparent Plastic Shell Having a Phosphor Dispersed Therein, and Methods of Fabricating Same	Cree, Inc.	
P0310JP	Japan	Granted	2006-526059	9-Mar-2006			4674318	4-Feb-2011	1-Jun-2024	Transmissive Optical Elements Including Transparent Plastic Shell Having a Phosphor Dispersed Therein, and Methods of Fabricating Same	Cree, Inc.	
P0310JP2	Japan	Granted	2010-258269	18-Nov-2010			5425042	6-Dec-2013	1-Jun-2024	Transmissive Optical Elements Including Transparent Plastic Shell Having a Phosphor Dispersed Therein, and Methods of Fabricating Same	Cree, Inc.	
P0310MY	Malaysia	Granted	PI20043655	8-Sep-2004			MY-136484-A	31-Oct-2008	8-Sep-2024	Transmissive Optical Elements Including Transparent Plastic Shell Having a	Cree, Inc.	

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									Phosphor Dispersed Therein, and Methods of Fabricating Same		
P0311CN2	China (People's Republic)	Granted	200910151806.X	1- Jun-2004	101630715	20- Jan-2010	ZL200910151806.X	14- Sep-2011	1- Jun-2024	Solid Metal Block Mounting Substrates for Semiconductor Light Emitting Devices, and Oxidizing Methods for Fabricating Same	Cree, Inc.
P0311EP	European Patent Convention	Granted	04754031.5	1- Aug-2006	1665395	7- Jun-2006	1665395	30- Mar-2016	1- Jun-2024	Solid Metal Block Mounting Substrates for Semiconductor Light Emitting Devices, and Oxidizing Methods for Fabricating Same	Cree, Inc.
P0311GB	United Kingdom	Granted	04754031.5	1- Jun-2004	1665395	7- Jun-2006	1665395	30- Mar-2016	1- Jun-2024	Solid Metal Block Mounting Substrates for Semiconductor Light Emitting Devices, and Oxidizing Methods for Fabricating Same	Cree, Inc.
P0311IN	India	Granted	1021/DELNP/2006	1- May-2006			248638	29- Jul-2011	1- Jun-2024	Solid Metal Block Mounting Substrates for Semiconductor Light Emitting Devices, and Oxidizing Methods for Fabricating Same	Cree, Inc.
P0314DE	Germany	Granted	04810913.6	12- Nov-2004			602004038973.0	15- Aug-2012	12- Nov-2024	Methods of Processing Semiconductor Wafer Backsides Having Light	Cree, Inc.

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									Emitting Devices (LEDs) Thereon and LEDs So Formed		PATENT REEL: 056169 FRAME: 0133
P0314EP	European Patent Convention	Granted	04810913.6	1-Jul-2006		1690301	15-Aug-2012	12-Nov-2024	Methods of Processing Semiconductor Wafer Backsides Having Light Emitting Devices (LEDs) Thereon and LEDs So Formed	Cree, Inc.	
P0317CN	China (People's Republic)	Granted	200580013439.7	24-Nov-2006	25-Jun-2008	ZL200580013439.7	19-Aug-2009	27-Apr-2025	LED Bonding Structures and Methods of Fabricating LED Bonding Structures	Cree, Inc.	
P0317KR	Korea, Republic of	Granted	10-2006-7024874	27-Nov-2006		10-1130151	19-Mar-2012	27-Apr-2025	LED Bonding Structures and Methods of Fabricating LED Bonding Structures	Cree, Inc.	
P0369DE	Germany	Granted	05728975.3	1-Dec-2006	7-Mar-2007	1759424	1-May-2019	22-Mar-2025	Lift-off Process for GaN Films Formed on SiC Substrates	Cree, Inc.	
P0369DE2	Germany	Granted	EP11186059.9	21-Oct-2011	25-Jan-2012	2410581	10-Jun-2020	22-Mar-2025	Lift-off Process for GaN Films Formed on SiC Substrates and Devices Fabricated Using the Method	Cree, Inc.	
P0369EP	European Patent Convention	Granted	05728975.3	1-Dec-2006	7-Mar-2007	1759424	1-May-2019	22-Mar-2025	Lift-off Process for GaN Films Formed on SiC Substrates	Cree, Inc.	
P0369EP2	European Patent Convention	Granted	EP11186059.9	21-Oct-2011	25-Jan-2012	2410581	10-Jun-2020	22-Mar-2025	Lift-off Process for GaN Films Formed on SiC Substrates and Devices Fabricated Using the Method	Cree, Inc.	
P0369KR	Korea, Republic of	Granted	10-2006-7023842	14-Nov-2006		1203365	14-Nov-2012	22-Mar-2025	Lift-off Process for GaN Films Formed on SiC Substrates	Cree, Inc.	

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										and Devices Fabricated Using the Method		
P0370DE	Germany	Granted	05751127.1	17- May- 2005	1763900	21- Mar- 2007	1763900	24- Jun- 2015	17- May- 2025	Method for Fabricating Group- III Nitride Devices and Devices Fabricated Using Method	Cree, Inc.	
P0370EP	European Patent Convention	Granted	05751127.1	1- Dec- 2006	1763900	21- Mar- 2007	1763900	24- Jun- 2015	17- May- 2025	Method for Fabricating Group- III Nitride Devices and Devices Fabricated Using Method	Cree, Inc.	PATENT REEL: 056169 FRAME: 0134
P0370JP	Japan	Granted	2007-527328	20- Mar- 2006			5468203	7- Feb- 2014	17- May- 2025	Method for Fabricating Group- III Nitride Devices and Devices Fabricated Using Method	Cree, Inc.	
P0370TW	Taiwan	Granted	094116021	18- May- 2005			1390759	21- Mar- 2013	18- May- 2025	Method for Fabricating Group- III Nitride Devices and Devices Fabricated Using Method	Cree, Inc.	
P0372DE	Germany	Granted	05758018.5	3- Jun- 2005			1756879	7- Jan- 2009	3- Jun- 2025	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0372DE2	Germany	Granted	08161650.0	3- Jun- 2005	2075856	1- Jul- 2009	2075856	13- May- 2015	3- Jun- 2025	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0372DE6	Germany	Granted	10185255.6	1- Oct- 2010	2287928	23- Feb- 2011	2287928	2- Oct- 2019	3- Jun- 2025	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	

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P0372EP	European Patent Convention	Granted	05758018.5	3-Jan-2007	1756879	28-Feb-2007	1756879	7-Jan-2009	3-Jun-2025	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0372EP2	European Patent Convention	Granted	08161650.0	3-Jun-2005	2075856	1-Jul-2009	2075856	13-May-2015	3-Jun-2025	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0372EP3	European Patent Convention	Granted	10185238.2	1-Oct-2010	2287926	23-Feb-2011	2287926	26-Jul-2017	3-Jun-2025	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0372EP4	European Patent Convention	Granted	10185245.7	1-Oct-2010	2287927	23-Feb-2011	2287927	26-Jul-2017	3-Jun-2025	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0372EP5	European Patent Convention	Granted	10185250.7	1-Oct-2010	2290713	2-Mar-2011	2290713	1-Nov-2017	3-Jun-2025	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0372EP6	European Patent Convention	Granted	10185255.6	1-Oct-2010	2287928	23-Feb-2011	2287928	2-Oct-2019	3-Jun-2025	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0372EP7	European Patent Convention	Granted	10185257.2	1-Oct-2010	2287929	23-Feb-2011	2287929	6-May-2015	3-Jun-2025	Power Light Emitting Die Package with Reflecting Lens and the Method of Making the Same	Cree, Inc.	
P0372GB	United Kingdom	Granted	05758018.5	3-Jun-2005			1756879	7-Jan-2009	3-Jun-2025	Power Light Emitting Die Package with	Cree, Inc.	

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P0372GB3	United Kingdom	Granted	10185238.2	3- Jun-2005	2287926	23- Feb-2011	2287926	26- Jul-2017	3- Jun-2025	Cree, Inc.
P0372GB4	United Kingdom	Granted	10185245.7	3- Jun-2005	2287927	23- Feb-2011	2287927	26- Jul-2017	3- Jun-2025	Cree, Inc.
P0372GB5	United Kingdom	Granted	10185250.7	3- Jun-2005	2290713	2- Mar-2011	2290713	1- Nov-2017	3- Jun-2025	Cree, Inc.
P0372GB7	United Kingdom	Granted	10185257.2	3- Jun-2005	2287929	23- Feb-2011	2287929	6- May-2015	3- Jun-2025	Cree, Inc.
P0372JP	Japan	Granted	20070515655	1- Dec-2006			5596901	15- Aug-2014	3- Jun-2025	Cree, Inc.
P0372MY	Malaysia	Granted	PI 20052468	31- May-2005			MY-139974-A	30- Nov-2009	31- May-2025	Cree, Inc.
P0372NL	Netherlands	Granted	05758018.5	3- Jun-2005			1756879	7- Jan-2009	3- Jun-2025	Cree, Inc.
P0372TW	Taiwan	Granted	094118053	1- Jun-2005			I382561	11- Jan-2013	1- Jun-2025	Cree, Inc.

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P0375DE	Germany	Granted	05775549.8	3- Jun- 2005	1756880	28- Feb- 2007	1756880	2- Apr- 2014	3- Jun- 2025	Composite Optical Lens with an Integrated Reflector	Cree, Inc.	
P0375EP	European Patent Convention	Granted	05775549.8	3-Jan- 2007	1756880	28- Feb- 2007	1756880	2- Apr- 2014	3- Jun- 2025	Composite Optical Lens with an Integrated Reflector	Cree, Inc.	
P0375JP	Japan	Granted	2007-515656	1- Dec- 2006			5260049	2- May- 2013	3- Jun- 2025	Composite Optical Lens with an Integrated Reflector	Cree, Inc.	
P0375JP2	Japan	Granted	2011103758	6- May- 2011			5695488	13- Feb- 2015	3- Jun- 2025	Composite Optical Lens with an Integrated Reflector	Cree, Inc.	
P0386CN	China (People's Republic)	Granted	200580010101.6	28- Sep- 2006	1938872	28- Mar- 2007	ZL200580010101.6	19- Dec- 2012	19- Jan- 2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386CN2	China (People's Republic)	Granted	201210037869.4	20- Feb- 2012	102544332	4- Jul- 2012	ZL201210037869.4	29- Jul- 2015	19- Jan- 2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386CN3	China (People's Republic)	Granted	201210037889.1	20- Feb- 2012	102544333	4- Jul- 2012	ZL201210037889.1	21- Oct- 2015	19- Jan- 2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386CN4	China (People's Republic)	Granted	201210037905.7	20- Feb- 2012	102569613	11- Jul- 2012	ZL201210037905.7	28- Oct- 2015	19- Jan- 2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	

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P0386DE	Germany	Granted	05711668.3	30-Aug-2006	1730791	13-Dec-2006	1730791	28-Aug-2019	19-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0138
P0386DE2	Germany	Granted	10179454.3	19-Jan-2005	2259351	8-Dec-2010	2259351	22-Apr-2020	19-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386EP	European Patent Convention	Granted	05711668.3	30-Aug-2006	1730791	13-Dec-2006	1730791	28-Aug-2019	19-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386EP2	European Patent Convention	Granted	10179454.3	19-Jan-2005	2259351	8-Dec-2010	2259351	22-Apr-2020	19-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386FR	France	Granted	05711668.3	30-Aug-2006	1730791	13-Dec-2006	1730791	28-Aug-2019	19-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386FR2	France	Granted	10179454.3	19-Jan-2005	2259351	8-Dec-2010	2259351	22-Apr-2020	19-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an	Cree, Inc.	

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P0386GB	United Kingdom	Granted	05711668.3	30-Aug-2006	1730791	13-Dec-2006	1730791	28-Aug-2019	19-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386GB2	United Kingdom	Granted	10179454.3	19-Jan-2005	2259351	8-Dec-2010	2259351	22-Apr-2020	19-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386IT	Italy	Granted	05711668.3	30-Aug-2006	1730791	13-Dec-2006	1730791	28-Aug-2019	19-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386IT2	Italy	Granted	10179454.3	19-Jan-2005	2259351	8-Dec-2010	2259351	22-Apr-2020	19-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386JP	Japan	Granted	2007-506144	18-Aug-2006			5027652	29-Jun-2012	19-Jan-2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	

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P0386KR	Korea, Republic of	Granted	10-2006-7020036	27- Sep- 2006			10-1052096	20- Jul- 2011	19- Jan- 2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0140
P0386KR2	Korea, Republic of	Granted	10-2010-7015549	13- Jul- 2010			10-1143207	27- Apr- 2012	19- Jan- 2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386KR3	Korea, Republic of	Granted	10-2011-7026477	7- Nov- 2011			10-1190414	5- Oct- 2012	19- Jan- 2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386NL	Netherlands	Granted	05711668.3	30- Aug- 2006	1730791	13- Dec- 2006	1730791	28- Aug- 2019	19- Jan- 2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386NL2	Netherlands	Granted	10179454.3	19- Jan- 2005	2259351	8- Dec- 2010	2259351	22- Apr- 2020	19- Jan- 2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an Optical Element, and Methods of Assembling Same	Cree, Inc.	
P0386TW	Taiwan	Granted	094105635	24- Feb- 2005			1488328	11- Jun- 2015	24- Feb- 2025	Semiconductor Light Emitting Devices Including Flexible Film Having Therein an	Cree, Inc.	

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P0388KR	Korea, Republic of	Granted	2006-7009201	11-May-2006		10-1127712	9-Mar-2012	12-Nov-2024	Light Emitting Devices with Self Aligned Ohmic Contact and Methods of Fabricating Same	Cree, Inc.	
P0393CN	China (People's Republic)	Granted	200480036254.3	6-Jun-2006		ZL200480036254.3	1-Apr-2009	24-Nov-2024	Semiconductor Light Emitting Devices and Submounts and Methods for Forming the Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0141
P0393DE	Germany	Granted	04812190.9	1-Jun-2006	1692729	1692729	12-Feb-2020	24-Nov-2024	Semiconductor Light Emitting Devices and Submounts and Methods for Forming the Same	Cree, Inc.	
P0393EP	European Patent Convention	Granted	04812190.9	1-Jun-2006	1692729	1692729	12-Feb-2020	24-Nov-2024	Semiconductor Light Emitting Devices and Submounts and Methods for Forming the Same	Cree, Inc.	
P0393IN	India	Granted	2517/DELNP/2006	1-Jun-2006		256862	5-Aug-2013	24-Nov-2024	Semiconductor Light Emitting Devices and Submounts and Methods for Forming the Same	Cree, Inc.	
P0393JP	Japan	Granted	2006-543856	8-Jun-2006		4870572	25-Nov-2011	24-Nov-2024	Semiconductor Light Emitting Devices and Submounts and Methods for Forming the Same	Cree, Inc.	
P0393KR	Korea, Republic of	Granted	2006-7011189	7-Jun-2006		10-1097694	15-Dec-2011	24-Nov-2024	Semiconductor Light Emitting Devices and Submounts and	Cree, Inc.	

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P0393MY	Malaysia	Granted	PI20045094	9-Dec-2004		MY137449-A	30-Jan-2009	9-Dec-2024	Semiconductor Light Emitting Devices and Submounts and Methods for Forming the Same	Cree, Inc.	
P0394DE	Germany	Granted	05711774.9	24-Jan-2005		1728284	24-Aug-2011	24-Jan-2025	Etching of Substrates of Light Emitting Diodes	Cree, Inc.	PATENT REEL: 056169 FRAME: 0142
P0394EP	European Patent Convention	Granted	05711774.9	29-Aug-2006		1728284	24-Aug-2011	24-Jan-2025	Etching of Substrates of Light Emitting Diodes	Cree, Inc.	
P0394JP	Japan	Granted	2007-504944	26-Sep-2006		4740942	13-May-2011	24-Jan-2025	Etching of Substrates of Light Emitting Diodes	Cree, Inc.	
P0394JP2	Japan	Granted	2011-027409	10-Feb-2011		5390548	18-Oct-2013	24-Jan-2025	Etching of Substrates of Light Emitting Diodes	Cree, Inc.	
P0394KR	Korea, Republic of	Granted	2006-7019702	22-Sep-2006		10-1230812	31-Jan-2013	24-Jan-2025	Etching of Substrates of Light Emitting Diodes	Cree, Inc.	
P0394NL	Netherlands	Granted	05711774.9	24-Jan-2005		1728284	24-Aug-2011	24-Jan-2025	Etching of Substrates of Light Emitting Diodes	Cree, Inc.	
P0394TW	Taiwan	Granted	094105990	1-Mar-2005		1456626	11-Oct-2014	1-Mar-2025	Etching of Substrates of Light Emitting Devices	Cree, Inc.	
P0404JP2	Japan	Granted	2011-177042	12-Aug-2011	2011-223049	5676396	9-Jan-2015	15-Sep-2025	Substrate Removal Process for High Light Extract LEDs	Cree, Inc.	
P0405DE	Germany	Granted	05806491.6	15-Sep-2005	1849193	602005030067.8	14-Sep-2011	15-Sep-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0405DE2	Germany	Granted	10181491.1	15-Sep-2005	2267803	2267803	4-Nov-2020	15-Sep-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0405EP	European Patent Convention	Granted	05806491.6	17-Aug-2007	1849193	1849193	14-Sep-2011	15-Sep-2025	LED with Current Confinement	Cree, Inc.	

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P0405EP2	European Patent Convention	Granted	10181491.1	15-Sep-2005	2267803	29-Dec-2010	2267803	4-Nov-2020	15-Sep-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0405GB	United Kingdom	Granted	05806491.6	15-Sep-2005	1849193	31-Oct-2007	1849193	14-Sep-2011	15-Sep-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0405GB2	United Kingdom	Granted	10181491.1	15-Sep-2005	2267803	29-Dec-2010	2267803	4-Nov-2020	15-Sep-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0405JP2	Japan	Granted	2011-117143	25-May-2011	2011-160006	18-Aug-2011	5887068	19-Feb-2016	15-Sep-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0405JP3	Japan	Granted	2011-117144	25-May-2011	2011-160007	18-Aug-2011	5887069	19-Feb-2016	15-Sep-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0405TW	Taiwan	Granted	094131846	15-Sep-2005	I372471	11-Sep-2012	I372471	11-Sep-2012	15-Sep-2025	LED with Current Confinement Structure and Surface Roughening	Cree, Inc.	
P0406TW	Taiwan	Granted	094126665	8-Aug-2005			I385817	11-Feb-2013	8-Aug-2025	Methods of Assembly for a Semiconductor Light Emitting Device Package	Cree, Inc.	
P0409DE	Germany	Granted	057299588	24-Mar-2005			1730784	2-Jun-2010	24-Mar-2025	Methods for Packaging Light Emitting Devices and Packaged Light Emitting Devices	Cree, Inc.	
P0409EP	European Patent Convention	Granted	057299588	26-Sep-2006	1730784	13-Dec-2006	1730784	2-Jun-2010	24-Mar-2025	Methods for Packaging Light Emitting Devices and Packaged Light Emitting Devices	Cree, Inc.	

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P0409JP	Japan	Granted	2007-506286	10-Nov-2006			5357423	6-Sep-2013	24-Mar-2025	Methods for Packaging Light Emitting Devices and Packaged Light Emitting Devices	Cree, Inc.	
P0409KR	Korea, Republic of	Granted	2006-7022560	26-Oct-2006			10-1166592	11-Jul-2012	24-Mar-2025	Methods for Packaging Light Emitting Devices and Packaged Light Emitting Devices	Cree, Inc.	
P0409KR2	Korea, Republic of	Granted	10-2012-7008718	4-Apr-2012			10-1278361	18-Jun-2013	24-Mar-2025	Methods for Packaging Light Emitting Devices and Packaged Light Emitting Devices	Cree, Inc.	
P0409TW	Taiwan	Granted	094110051	30-Mar-2005			1405338	11-Aug-2013	30-Mar-2025	Methods for Packaging Light Emitting Devices and Packaged Light Emitting Devices	Cree, Inc.	
P0410DE	Germany	Granted	05730896.7	24-Mar-2005			1730794	27-Jul-2016	24-Mar-2025	Reflector Packages and Methods for Packaging of a Semiconductor Light Emitting Device	Cree, Inc.	
P0410DE2	Germany	Granted	05730762.1	24-Mar-2005			1730793	20-Jul-2016	24-Mar-2025	Semiconductor Light Emitting Devices Including a Luminescent Conversion Element and Methods for Packaging the Same	Cree, Inc.	
P0410EP	European Patent Convention	Granted	05730896.7	26-Sep-2006			1730794	27-Jul-2016	24-Mar-2025	Reflector Packages and Methods for Packaging of a Semiconductor Light Emitting Device	Cree, Inc.	
P0410EP2	European Patent Convention	Granted	05730762.1	3-Oct-2006	1730793	13-Dec-2006	1730793	20-Jul-2016	24-Mar-2025	Semiconductor Light Emitting Devices Including a Luminescent Conversion Element	Cree, Inc.	

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P0410IN2	India	Granted	5215/DELNP/2006	9-Nov-2006			265543	27-Feb-2015	24-Mar-2025	Semiconductor Light Emitting Devices Including a Luminescent Conversion Element and Methods for Packaging the Same	Cree, Inc.	
P0410JP	Japan	Granted	2007-506265	10-Nov-2006			5209959	1-Mar-2013	24-Mar-2025	Reflector Packages and Methods for Packaging of a Semiconductor Light Emitting Device	Cree, Inc.	
P0410JP2	Japan	Granted	2007506264	10-Nov-2006			5285271	7-Jun-2013	24-Mar-2025	Semiconductor Light Emitting Devices Including a Luminescent Conversion Element and Methods for Packaging the Same	Cree, Inc.	
P0410TW	Taiwan	Granted	094110053	30-Mar-2005			1442578	21-Jun-2014	30-Mar-2025	Reflector Packages and Methods for Packaging of a Semiconductor Light Emitting Device	Cree, Inc.	
P0410TW2	Taiwan	Granted	094110059	30-Mar-2005			1413272	21-Oct-2013	30-Mar-2025	Semiconductor Light Emitting Devices Including a Luminescent Conversion Element and Methods for Packaging the Same	Cree, Inc.	
P0410TW3	Taiwan	Granted	101115666	30-Mar-2005	201246629	16-Nov-2012	1452740	11-Sep-2014	30-Mar-2025	Semiconductor Light Emitting Devices Including a Luminescent Conversion Element and Methods for Packaging the Same	Cree, Inc.	
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P0440TW	Taiwan	Granted	93112874	7- May- 2004			I-244223	21- Nov- 2005	7- May- 2024	III-Nitride Optoelectronic Device Structure with High Al AlGaN Diffusion Barrier	Cree, Inc.	
P0445DE	Germany	Granted	05808825.3	30- Jun- 2005	1797597	20- Jun- 2007	1797597	16- Nov- 2016	30- Jun- 2025	Methods of Coating Semiconductor Light Emitting Elements by Evaporating Solvent From a Suspension	Cree, Inc.	
P0445EP	European Patent Convention	Granted	05808825.3	17- Apr- 2007	1797597	20- Jun- 2007	1797597	16- Nov- 2016	30- Jun- 2025	Methods of Coating Semiconductor Light Emitting Elements by Evaporating Solvent From a Suspension	Cree, Inc.	
P0445GB	United Kingdom	Granted	05808825.3	30- Jun- 2005	1797597	20- Jun- 2007	1797597	16- Nov- 2016	30- Jun- 2025	Methods of Coating Semiconductor Light Emitting Elements by Evaporating Solvent From a Suspension	Cree, Inc.	
P0445NL	Netherlands	Granted	05808825.3	30- Jun- 2005	1797597	20- Jun- 2007	1797597	16- Nov- 2016	30- Jun- 2025	Methods of Coating Semiconductor Light Emitting Elements by Evaporating Solvent From a Suspension	Cree, Inc.	
P0445TW	Taiwan	Granted	094122646	5-Jul- 2005			1411659	11- Oct- 2013	5- Jul- 2025	Methods of Coating Semiconductor Light Emitting Elements by Evaporating Solvent From a Suspension	Cree, Inc.	
P0445TW2	Taiwan	Granted	101130701	5-Jul- 2005	201249955	16- Dec- 2012	1452112	11- Sep- 2014	5- Jul- 2025	Methods of Coating Semiconductor Light Emitting Elements by Evaporating Solvent From a Suspension	Cree, Inc.	

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P0447CN	China (People's Republic)	Granted	200580032035.2	22- Mar- 2007	101027785	29- Aug- 2007	ZL200580032035.2	9- Sep- 2009	5- Jul- 2025	Semiconductor Light Emitting Devices Including Patternable Films Comprising Transparent Silicone and Phosphor, and Methods of Manufacturing Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0147
P0447DE	Germany	Granted	05771259.8	5-Jul- 2005	1794810	13- Jun- 2007	1794810	13- Mar- 2019	5- Jul- 2025	Semiconductor Light Emitting Devices Including Patternable Films Comprising Transparent Silicone and Phosphor, and Methods of Manufacturing Same	Cree, Inc.	
P0447EP	European Patent Convention	Granted	05771259.8	7- Mar- 2007	1794810	13- Jun- 2007	1794810	13- Mar- 2019	5- Jul- 2025	Semiconductor Light Emitting Devices Including Patternable Films Comprising Transparent Silicone and Phosphor, and Methods of Manufacturing Same	Cree, Inc.	
P0447GB	United Kingdom	Granted	05771259.8	5-Jul- 2005	1794810	13- Jun- 2007	1794810	13- Mar- 2019	5- Jul- 2025	Semiconductor Light Emitting Devices Including Patternable Films Comprising Transparent Silicone and Phosphor, and Methods of Manufacturing Same	Cree, Inc.	

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P0447IT	Italy	Granted	05771259.8	5-Jul-2005	1794810	13-Jun-2007	1794810	13-Mar-2019	5-Jul-2025	Semiconductor Light Emitting Devices Including Patternable Films Comprising Transparent Silicone and Phosphor, and Methods of Manufacturing Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0148
P0447NL	Netherlands	Granted	05771259.8	5-Jul-2005	1794810	13-Jun-2007	1794810	13-Mar-2019	5-Jul-2025	Semiconductor Light Emitting Devices Including Patternable Films Comprising Transparent Silicone and Phosphor, and Methods of Manufacturing Same	Cree, Inc.	
P0447TW	Taiwan	Granted	094122648	5-Jul-2005			1377694	21-Nov-2012	5-Jul-2025	Semiconductor Light Emitting Devices Including Patternable Films Comprising Transparent Silicone and Phosphor, and Methods of Manufacturing Same	Cree, Inc.	
P0450TW	Taiwan	Granted	094131893	15-Sep-2005	I286394	1-Sep-2007	I286394	1-Sep-2007	15-Sep-2025	High Efficiency Group III Nitride-Silicon Carbide Light Emitting Diode	Cree, Inc.	
P0453CN	China (People's Republic)	Granted	200580046318.2	10-Jul-2007	CN 101099245A	2-Jan-2009	ZL 200580046318.2	9-Sep-2009	1-Nov-2025	Light Emission Device	Cree, Inc.	
P0453CN2	China (People's Republic)	Granted	200910160078.9	22-Jul-2009	CN101635294 A	27-Jan-2010	ZL 200910160078.9	30-May-2012	1-Nov-2025	Light Emission Device	Cree, Inc.	

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P0453JP	Japan	Granted	2007-550362	10-Jul-2007			4744534	20-May-2011	1-Nov-2025	Light Emission Device	Cree, Inc.	
P0453JP3	Japan	Granted	2011-055766	14-Mar-2011			5379819	4-Oct-2013	1-Nov-2025	Light Emission Device	Cree, Inc.	
P0453TW	Taiwan	Granted	94140784	21-Nov-2005	200947772	16-Nov-2009	1-320236	1-Feb-2010	21-Nov-2025	Light Emission Device and Method Therefor	Cree, Inc.	
P0453TW2	Taiwan	Granted	98113983	28-Apr-2009			1-447946	1-Aug-2014	21-Nov-2025	Light Emission Device and Method Therefor	Cree, Inc.	
P0457DE	Germany	Granted	05763653.2	30-Mar-2005	1766697	28-Mar-2007	1766697	24-Feb-2010	30-Mar-2025	Light Emitting Devices Having Current Blocking Structures and Methods of Fabricating Light Emitting Devices Having Current Blocking Structures	Cree, Inc.	
P0457EP	European Patent Convention	Granted	05763653.2	21-Dec-2006	1766697	28-Mar-2007	1766697	24-Feb-2010	30-Mar-2025	Light Emitting Devices Having Current Blocking Structures and Methods of Fabricating Light Emitting Devices Having Current Blocking Structures	Cree, Inc.	
P0457JP	Japan	Granted	2007-519194	25-Dec-2006			4904261	13-Jan-2012	30-Mar-2025	Light Emitting Devices Having Current Blocking Structures and Methods of Fabricating Light Emitting Devices Having Current Blocking Structures	Cree, Inc.	
P0457JP2	Japan	Granted	2008-062736	12-Mar-2008			5009841	8-Jun-2012	30-Mar-2025	Light Emitting Devices Having Current Blocking Structures and Methods of Fabricating Light	Cree, Inc.	

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										Fabricating Light Emitting Devices Having Current Blocking Structures		
P0457TW2	Taiwan	Granted	102119636	19-Apr-2005	201403856	16-Jan-2014	I506811	1-Nov-2015	19-Apr-2025	Light Emitting Devices Having Current Blocking Structures and Methods of Fabricating Light Emitting Devices Having Current Blocking Structures	Cree, Inc.	
P0458JP	Japan	Granted	2008-515705	10-Dec-2007			4903199	13-Jan-2012	3-May-2026	High Power Solid State Lamp	Cree, Inc.	
P0463CN	China (People's Republic)	Granted	200580025279.8	1-Nov-2006	101002338	18-Jul-2007	ZL200580025279.8	4-Nov-2009	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0463CN3	China (People's Republic)	Granted	201110276667.0	27-Jul-2005	102324455	18-Jan-2012	ZL201110276667.0	12-Oct-2016	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0463CN4	China (People's Republic)	Granted	201110276702.9	27-Jul-2005	102324452	18-Jan-2012	ZL201110276702.9	25-Nov-2015	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0463DE	Germany	Granted	05776417.7	27-Jul-2005	1771893	11-Apr-2007	1771893	18-Mar-2015	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0463EP	European Patent Convention	Granted	05776417.7	14-Nov-2006	1771893	11-Apr-2007	1771893	18-Mar-2015	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices	Cree, Inc.	Yes

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										and Methods of Forming		
P0463GB	United Kingdom	Granted	05776417.7	27-Jul-2005	1771893	11-Apr-2007	1771893	18-Mar-2015	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0463JP	Japan	Granted	2007-523744	21-Dec-2006			5358092	6-Sep-2013	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0463JP3	Japan	Granted	2011-227831	17-Oct-2011			5816047	2-Oct-2015	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0463JP4	Japan	Granted	2014-177342	1-Oct-2014			6258820	15-Dec-2017	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0463KR	Korea, Republic of	Granted	2007-7001556	1-Dec-2006			10-1335760	26-Nov-2013	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0463KR2	Korea, Republic of	Granted	10-2012-7000395	27-Jul-2005			10-1289541	18-Jul-2013	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0463KR3	Korea, Republic of	Granted	10-2012-7003994	15-Feb-2012			10-1335168	25-Nov-2013	27-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes

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P0463TW	Taiwan	Granted	094125273	26-Jul-2005			I374552	11-Oct-2012	26-Jul-2025	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices and Methods of Forming	Cree, Inc.	Yes
P0468CN	China (People's Republic)	Granted	200580025319.9	25-Jan-2007			ZL0580025319.9	8-Dec-2010	30-Mar-2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	PATENT REEL: 056169 FRAME: 0153
P0468DE	Germany	Granted	05749950.1	30-Mar-2005	1771889	11-Apr-2007	1771889	24-Oct-2012	30-Mar-2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	
P0468DE2	Germany	Granted	12153104.0	30-Mar-2005	2450972	9-May-2012	2450972	3-Dec-2014	30-Mar-2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	
P0468EP	European Patent Convention	Granted	05749950.1	10-Oct-2007	1771889	11-Apr-2007	1771889	24-Oct-2012	30-Mar-2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	
P0468EP2	European Patent Convention	Granted	12153104.0	30-Mar-2005	2450972	9-May-2012	2450972	3-Dec-2014	30-Mar-2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	

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										Having a Reflective Bond Pad		
P0468FR	France	Granted	05749950.1	30-Mar-2005	1771889	11-Apr-2007	1771889	24-Oct-2012	30-Mar-2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	
P0468GB	United Kingdom	Granted	05749950.1	30-Mar-2005	1771889	11-Apr-2007	1771889	24-Oct-2012	30-Mar-2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	
P0468GB2	United Kingdom	Granted	12153104.0	30-Mar-2005	2450972	9-May-2012	2450972	3-Dec-2014	30-Mar-2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	
P0468JP	Japan	Granted	2007-523542	25-Jan-2007			4796577	5-Aug-2011	30-Mar-2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	
P0468KR	Korea, Republic of	Granted	2007-7001911	25-Jan-2007			10-1197385	29-Oct-2012	30-Mar-2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	

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P0468KR2	Korea, Republic of	Granted	10-2011-7021739	16- Sep- 2011			10-1208871	29- Nov- 2012	30- Mar- 2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	PATENT REEL: 056169 FRAME: 0155
P0468KR3	Korea, Republic of	Granted	10-2011-7029719	30- Mar- 2005			10-1197429	29- Oct- 2012	30- Mar- 2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	
P0468NL2	Netherlands	Granted	12153104.0	30- Mar- 2005	2450972	9- May- 2012	2450972	3- Dec- 2014	30- Mar- 2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	
P0468TW	Taiwan	Granted	094112458	19- Apr- 2005			1390757	21- Mar- 2013	19- Apr- 2025	Light Emitting Devices Having a Reflective Bond Pad and Methods of Fabricating Light Emitting Devices Having a Reflective Bond Pad	Cree, Inc.	
P0471DE	Germany	Granted	05761972.8	1-Jan- 2007	1787335	23- May- 2007	1787335	16- Oct- 2019	9- Jun- 2025	LED with Substrate Modifications for Enhanced Light Extraction and Method for Making Same	Cree, Inc.	Yes
P0471EP	European Patent Convention	Granted	05761972.8	1-Jan- 2007	1787335	23- May- 2007	1787335	16- Oct- 2019	9- Jun- 2025	LED with Substrate Modifications for Enhanced Light Extraction and Method for Making Same	Cree, Inc.	Yes

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P0471JP	Japan	Granted	2007-520314	4-Jan-2007			5570697	4-Jul-2014	9-Jun-2025	LED with Substrate Modifications for Enhanced Light Extraction and Method for Making Same	Cree, Inc.	Yes
P0471TW	Taiwan	Granted	094121086	24-Jun-2005			1449160	11-Aug-2014	24-Jun-2025	LED with Substrate Modifications for Enhanced Light Extraction and Method for Making Same	Cree, Inc.	PATENT
P0472DE	Germany	Granted	05769290.7	30-Jun-2005	1774598	18-Apr-2007	1774598	14-Sep-2011	30-Jun-2025	Chip-Scale Methods for Packaging Light Emitting Devices and Chip-Scale Packaged Light Emitting Devices	Cree, Inc.	REEL: 056169 FRAME: 0156
P0472EP	European Patent Convention	Granted	05769290.7	28-Dec-2006	1774598	18-Apr-2007	1774598	14-Sep-2011	30-Jun-2025	Chip-Scale Methods for Packaging Light Emitting Devices and Chip-Scale Packaged Light Emitting Devices	Cree, Inc.	
P0472JP	Japan	Granted	2007-520428	4-Jan-2007			4996463	18-May-2012	30-Jun-2025	Chip-Scale Methods for Packaging Light Emitting Devices and Chip-Scale Packaged Light Emitting Devices	Cree, Inc.	
P0472KR	Korea, Republic of	Granted	2007-7002238	29-Jan-2007			10-1193740	16-Oct-2012	30-Jun-2025	Chip-Scale Methods for Packaging Light Emitting Devices and Chip-Scale Packaged Light Emitting Devices	Cree, Inc.	
P0472TW	Taiwan	Granted	094122504	1-Jul-2005			1422044	1-Jan-2014	1-Jul-2025	Chip-Scale Methods for Packaging Light Emitting Devices and Chip-Scale Packaged Light Emitting Devices	Cree, Inc.	

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P0473DE2	Germany	Granted	09177126.1	25-Nov-2009	2151873	10-Feb-2010	2151873	17-Oct-2012	5-Jul-2025	Solid Metal Block Semiconductor Light Emitting Device Mounting Substrates and Packages Including Cavities and Heat Sinks, and Methods of Packaging Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0157
P0473EP2	European Patent Convention	Granted	09177126.1	25-Nov-2009	2151873	10-Feb-2010	2151873	17-Oct-2012	5-Jul-2025	Solid Metal Block Semiconductor Light Emitting Device Mounting Substrates and Packages Including Cavities and Heat Sinks, and Methods of Packaging Same	Cree, Inc.	
P0473GB2	United Kingdom	Granted	09177126.1	5-Jul-2005	2151873	10-Feb-2010	2151873	17-Oct-2012	5-Jul-2025	Solid Metal Block Semiconductor Light Emitting Device Mounting Substrates and Packages Including Cavities and Heat Sinks, and Methods of Packaging Same	Cree, Inc.	
P0473KR	Korea, Republic of	Granted	2007-7009221	23-Apr-2007			10-1203818	15-Nov-2012	5-Jul-2025	Solid Metal Block Semiconductor Light Emitting Device Mounting Substrates and Packages Including Cavities and Heat Sinks, and Methods of Packaging Same	Cree, Inc.	
P0473TW	Taiwan	Granted	094122643	5-Jul-2005	I460877	11-Nov-2014	I460877	11-Nov-2014	5-Jul-2025	Solid Metal Block Semiconductor Light Emitting Device Mounting Substrates and Packages Including Cavities and Heat Sinks, and Methods of Packaging Same	Cree, Inc.	

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P0478CA	Canada	Granted	2567739	1- Nov- 2006			2567739	16- Sep- 2014	24- Jun- 2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	PATENT REEL: 056169 FRAME: 0158
P0478DE	Germany	Granted	05784977.0	24- Jun- 2005	1771894	11- Apr- 2007	1771894	3- Apr- 2013	24- Jun- 2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478DE2	Germany	Granted	10169579.9	24- Jun- 2005	2242117	20- Oct- 2010	2242117	30- May- 2018	24- Jun- 2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478DE3	Germany	Granted	10180319.5	24- Jun- 2005			2259340	21- Dec- 2016	24- Jun- 2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478DE4	Germany	Granted	10180325.2	24- Jun- 2005	2259341	8- Dec- 2010	2259341	26- Aug- 2020	24- Jun- 2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478DE5	Germany	Granted	101803286	24- Jun- 2005	2259342	8- Dec- 2010	2259342	10- Mar- 2021	24- Jun- 2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478EP	European Patent Convention	Granted	05784977.0	1- Nov- 2006	1771894	11- Apr- 2007	1771894	3- Apr- 2013	24- Jun- 2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	

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									Device Structures with an Indium Containing Capping Structure		PATENT REEL: 056169 FRAME: 0159	
P0478EP2	European Patent Convention	Granted	10169579.9	24-Jun-2005	2242117	20-Oct-2010	2242117	30-May-2018	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure		Cree, Inc.
P0478EP3	European Patent Convention	Granted	10180319.5	24-Jun-2005	2259340	8-Dec-2010	2259340	21-Dec-2016	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure		Cree, Inc.
P0478EP4	European Patent Convention	Granted	10180325.2	24-Jun-2005	2259341	8-Dec-2010	2259341	26-Aug-2020	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure		Cree, Inc.
P0478EP5	European Patent Convention	Granted	101803286	24-Jun-2005	2259342	8-Dec-2010	2259342	10-Mar-2021	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure		Cree, Inc.
P0478FR	France	Granted	05784977.0	24-Jun-2005	1771894	11-Apr-2007	1771894	3-Apr-2013	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478FR2	France	Granted	10169579.9	24-Jun-2005	2242117	20-Oct-2010	2242117	30-May-2018	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium	Cree, Inc.	

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										Containing Capping Structure		
P0478FR5	France	Granted	101803286	24-Jun-2005	2259342	8-Dec-2010	2259342	10-Mar-2021	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	PATENT REEL: 056169 FRAME: 0160
P0478GB	United Kingdom	Granted	05784977.0	24-Jun-2005	1771894	11-Apr-2007	1771894	3-Apr-2013	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478GB2	United Kingdom	Granted	10169579.9	24-Jun-2005	2242117	20-Oct-2010	2242117	30-May-2018	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478GB3	United Kingdom	Granted	10180319.5	24-Jun-2005			2259340	21-Dec-2016	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478GB4	United Kingdom	Granted	10180325.2	24-Jun-2005	2259341	8-Dec-2010	2259341	26-Aug-2020	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478GB5	United Kingdom	Granted	101803286	24-Jun-2005	2259342	8-Dec-2010	2259342	10-Mar-2021	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	

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P0478IN	India	Granted	7210/DELNP/2006	30-Nov-2006			267605	24-Jul-2015	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	PATENT REEL: 056169 FRAME: 0161
P0478IT	Italy	Granted	05784977.0	24-Jun-2005	1771894	11-Apr-2007	1771894	3-Apr-2013	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478IT2	Italy	Granted	10169579.9	24-Jun-2005	2242117	20-Oct-2010	2242117	30-May-2018	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478IT4	Italy	Granted	10180325.2	24-Jun-2005	2259341	8-Dec-2010	2259341	26-Aug-2020	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478IT5	Italy	Granted	101803286	24-Jun-2005	2259342	8-Dec-2010	2259342	10-Mar-2021	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478KR	Korea, Republic of	Granted	2007-7001904	25-Jan-2007			10-1236063	15-Feb-2013	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478KR2	Korea, Republic of	Granted	10-2011-7021897	19-Sep-2011			10-1388369	16-Apr-2014	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	

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									Device Structures with an Indium Containing Capping Structure		PATENT REEL: 056169 FRAME: 0162
P0478KR4	Korea, Republic of	Granted	10-2013-7005591	4-Mar-2013		10-1363826	10-Feb-2014	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478NL	Netherlands	Granted	05784977.0	24-Jun-2005	1771894	11-Apr-2007	3-Apr-2013	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478NL2	Netherlands	Granted	10169579.9	24-Jun-2005	2242117	20-Oct-2010	30-May-2018	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478NL3	Netherlands	Granted	10180319.5	24-Jun-2005		2259340	21-Dec-2016	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478NL4	Netherlands	Granted	10180325.2	24-Jun-2005	2259341	8-Dec-2010	26-Aug-2020	24-Jun-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0478TW	Taiwan	Granted	094122647	5-Jul-2005		1394288	21-Apr-2013	5-Jul-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium	Cree, Inc.	

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										Containing Capping Structure		
P0478TW2	Taiwan	Granted	102102712	15-Jul-2005	201338193	16-Sep-2013	1474505	21-Feb-2015	5-Jul-2025	Group III Nitride Based Quantum Well Light Emitting Device Structures with an Indium Containing Capping Structure	Cree, Inc.	
P0480CN	China (People's Republic)	Granted	200680030998.3	25-Feb-2008	CN101248537 A	20-Aug-2008	ZL200680030998.3	16-Jan-2013	26-Jun-2026	Roughened High Refractive Index Layer/LED for High Light Extraction	Cree, Inc.	
P0480TW	Taiwan	Granted	095125858	14-Jul-2006			1487133	1-Jun-2015	14-Jul-2026	Roughened High Refractive Index Layer/LED for High Light Extraction	Cree, Inc.	
P0487CN	China (People's Republic)	Granted	200580032027.8	22-Mar-2007	CN101027783 A	29-Aug-2007	ZL200580032027.8	19-Aug-2009	15-Sep-2025	High Output Small Area Group III-Nitride LEDs	Cree, Inc.	
P0487DE	Germany	Granted	05812300.1	6-Mar-2007	1792353	6-Jun-2007	1792353	11-Mar-2020	15-Sep-2025	High Output Small Area Group III-Nitride LEDs	Cree, Inc.	
P0487EP	European Patent Convention	Granted	05812300.1	6-Mar-2007	1792353	6-Jun-2007	1792353	11-Mar-2020	15-Sep-2025	High Output Small Area Group III-Nitride LEDs	Cree, Inc.	
P0487TW	Taiwan	Granted	094131892	15-Sep-2005			I312584	21-Jul-2009	15-Sep-2025	High Output Small Area Group III-Nitride LEDs	Cree, Inc.	
P0490DE	Germany	Granted	11 2006 001 084.0	29-Oct-2007			112006001084	12-Mar-2020	24-Jan-2026	Light Emitting Devices with Active Layers that Extend into Opened Pits	Cree, Inc.	
P0490JP	Japan	Granted	2008-508828	1-Dec-2007			5415756	22-Nov-2013	24-Jan-2026	Light Emitting Devices with Active Layers that Extend into Opened Pits	Cree, Inc.	
P0490JP2	Japan	Granted	2012-083854	24-Jan-2006			5603366	29-Aug-2014	24-Jan-2026	Light Emitting Devices with Active Layers that Extend into Opened Pits	Cree, Inc.	

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P0490TW	Taiwan	Granted	095100933	10-Jan-2006			1437723	11-May-2014	10-Jan-2026	Light Emitting Devices with Active Layers that Extend into Opened Pits	Cree, Inc.	
P0499AU	Australia	Granted	2005295913	11-Oct-2005			2005295913	10-Nov-2011	11-Oct-2025	Side Emitting Optical Coupling Device	Cree, Inc.	
P0499DE	Germany	Granted	05802983.6	11-Oct-2005	1805812	11-Jul-2007	1805812	16-Jul-2014	11-Oct-2025	Side Emitting Optical Coupling Device	Cree, Inc.	
P0499EP	European Patent Convention	Granted	05802983.6	8-May-2007	1805812	11-Jul-2007	1805812	16-Jul-2014	11-Oct-2025	Side Emitting Optical Coupling Device	Cree, Inc.	
P0499FR	France	Granted	05802983.6	11-Oct-2005	1805812	11-Jul-2007	1805812	16-Jul-2014	11-Oct-2025	Side Emitting Optical Coupling Device	Cree, Inc.	
P0499GB	United Kingdom	Granted	05802983.6	11-Oct-2005	1805812	11-Jul-2007	1805812	16-Jul-2014	11-Oct-2025	Side Emitting Optical Coupling Device	Cree, Inc.	
P0499JP	Japan	Granted	2007-536779	12-Apr-2007			5203706	22-Feb-2013	11-Oct-2025	Side Emitting Optical Coupling Device	Cree, Inc.	
P0499KR	Korea, Republic of	Granted	10-2007-7010841	11-May-2007			1203311	14-Nov-2012	11-Oct-2025	Side Emitting Optical Coupling Device	Cree, Inc.	
P0499NL	Netherlands	Granted	05802983.6	11-Oct-2005	1805812	11-Jul-2007	1805812	16-Jul-2014	11-Oct-2025	Side Emitting Optical Coupling Device	Cree, Inc.	
P0499TW	Taiwan	Granted	094135548	12-Oct-2005			1370217	11-Aug-2012	12-Oct-2025	Side Emitting Optical Coupling Device	Cree, Inc.	
P0507CN	China (People's Republic)	Granted	200580048078.X	13-Aug-2007	101120450	6-Feb-2008	ZL200580048078.X	19-Aug-2009	5-Dec-2025	Semiconductor Light Emitting Device Mounting Substrates and Packages Including Cavities and Cover Plates (As Amended)	Cree, Inc.	
P0507CN2	China (People's Republic)	Granted	200910151809.3	5-Dec-2005	101599524	9-Dec-2009	ZL200910151809.3	13-Jun-2012	5-Dec-2025	Semiconductor Light Emitting Device Mounting Substrates and Packages Including	Cree, Inc.	

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								Cavities and Cover Plates (and Methods of Fabricating Same)		
P0513TW	Taiwan	Granted	094131904	15-Sep-2005		1279929	21-Apr-2007	15-Sep-2025	Cree, Inc.	
P0546TW	Taiwan	Granted	095111811	3-Apr-2006	1411122	1411122	1-Oct-2013	3-Apr-2026	Cree, Inc.	
P0549DE	Germany	Granted	112006001634.2	19-Dec-2007	DE 112006001634 T5	112006001634	30-Apr-2008	11-Jul-2013	Cree, Inc.	
P0550TW	Taiwan	Granted	094147281	29-Dec-2005		I393937	21-Apr-2013	29-Dec-2025	Cree, Inc.	
P0555CN	China (People's Republic)	Granted	200780015711.4	31-Oct-2008	CN101622723 A	ZL 200780015711.4	9-May-2012	30-Apr-2027	Cree, Inc.	
P0555DE	Germany	Granted	07761588.8	30-Apr-2007	2008316	602007035778.0	26-Mar-2014	30-Apr-2027	Cree, Inc.	
P0555DE2	Germany	Granted	11186407.0	2-Nov-2011		2413360	25-May-2016	30-Apr-2027	Cree, Inc.	
P0555EP	European Patent Convention	Granted	07761588.8	14-Oct-2008	2008316	2008316	26-Mar-2014	30-Apr-2027	Cree, Inc.	
P0555EP2	European Patent Convention	Granted	11186407	2-Nov-2011	2413360	2413360	25-May-2016	30-Apr-2027	Cree, Inc.	
P0555JP	Japan	Granted	2009-510000	31-Oct-2008	2010-506377	5743401	15-May-2015	30-Apr-2027	Cree, Inc.	

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P0556DE	Germany	Granted	112006003107.4	13-May-2008			112006003107	28-Nov-2013	7-Nov-2026	Systems and Methods for Laser Backlighting of Liquid Crystal Displays	Cree, Inc.	
P0560DE	Germany	Granted	05797533.6	15-Sep-2005	1792350	6-Jun-2007	1792350	13-Feb-2019	15-Sep-2025	High Efficiency Group III-Nitride LED with Lenticular Surface	Cree, Inc.	
P0560DE3	Germany	Granted	10185888.4	15-Sep-2005	2270878	5-Jan-2011	2270878	8-Mar-2017	15-Sep-2025	High Efficiency Group III-Nitride LED with Lenticular Surface	Cree, Inc.	
P0560EP	European Patent Convention	Granted	05797533.6	7-Mar-2007	1792350	6-Jun-2007	1792350	13-Feb-2019	15-Sep-2025	High Efficiency Group III-Nitride LED with Lenticular Surface	Cree, Inc.	
P0560EP3	European Patent Convention	Granted	10185888.4	1-Oct-2010	2270878	5-Jan-2011	2270878	8-Mar-2017	15-Sep-2025	High Efficiency Group III-Nitride LED with Lenticular Surface	Cree, Inc.	
P0560KR	Korea, Republic of	Granted	2007-7006475	21-Mar-2007			10-1024330	16-Mar-2011	15-Sep-2025	High Efficiency Group III-Nitride LED with Lenticular Surface	Cree, Inc.	
P0570DE	Germany	Granted	112006001847.7	27-Jun-2006			112006001847	17-Feb-2011	27-Jun-2026	Laser Diode Orientation on Miscut Substrate	Cree, Inc.	
P0570JP	Japan	Granted	2008-521413	11-Jan-2008			5638198	31-Oct-2014	27-Jun-2026	Laser Diode Orientation on Miscut Substrate	Cree, Inc.	
P0584JP	Japan	Granted	2008-555243	13-Aug-2008			5129161	9-Nov-2012	22-Jan-2027	Rare Earth Doped Layer or Substrate for Light Conversion	Cree, Inc.	
P0588CN	China (People's Republic)	Granted	200580032028.2	22-Mar-2007	CN101027784 A	29-Aug-2007	ZL200580032028.2	7-Aug-2013	15-Sep-2025	High Output Group III Nitride Light Emitting Diodes	Cree, Inc.	
P0588DE	Germany	Granted	05808877.4	15-Sep-2005	1792352	6-Jun-2007	1792352	1-Nov-2017	15-Sep-2025	High Output Group III Nitride Light Emitting Diodes	Cree, Inc.	
P0588EP	European Patent Convention	Granted	05808877.4	12-Mar-2007	1792352	6-Jun-2007	1792352	1-Nov-2017	15-Sep-2025	High Output Group III Nitride Light Emitting Diodes	Cree, Inc.	

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P0588FR	France	Granted	05808877.4	15-Sep-2005	1792352	6-Jun-2007	1792352	1-Nov-2017	15-Sep-2025	High Output Group III Nitride Light Emitting Diodes	Cree, Inc.	
P0588GB	United Kingdom	Granted	05808877.4	15-Sep-2005	1792352	6-Jun-2007	1792352	1-Nov-2017	15-Sep-2025	High Output Group III Nitride Light Emitting Diodes	Cree, Inc.	
P0588TW	Taiwan	Granted	094131905	15-Sep-2005			1314787	11-Sep-2009	15-Sep-2025	High Output Group III Nitride Light Emitting Diodes	Cree, Inc.	
P0589DE	Germany	Granted	112006001923.6	21-Jan-2008			112006001923	3-Jan-2019	12-Jul-2026	Independent Control of Light Emitting Diodes for Backlighting of Color Displays	Cree, Inc.	
P0589JP	Japan	Granted	2008-522819	21-Jan-2008			5107244	12-Oct-2012	12-Jul-2026	Independent Control of Light Emitting Diodes for Backlighting of Color Displays	Cree, Inc.	
P0589TW	Taiwan	Granted	095126441	19-Jul-2006			1416451	21-Nov-2013	19-Jul-2026	Independent Control of Light Emitting Diodes for Backlighting of Color Displays	Cree, Inc.	
P0597CN	China (People's Republic)	Granted	200580051748.3	1-Apr-2008	101278410	1-Oct-2008	ZL200580051748.3	14-Sep-2011	14-Sep-2025	Packages for Semiconductor Light Emitting Devices Utilizing Dispensed Encapsulants	Cree, Inc.	
P0597CN2	China (People's Republic)	Granted	201110201851.9	19-Jul-2011	102280567	14-Dec-2011	ZL201110201851.9	30-Apr-2014	14-Sep-2025	Packages for Semiconductor Light Emitting Devices Utilizing Dispensed Encapsulants	Cree, Inc.	
P0597JP	Japan	Granted	2008-524949	4-Apr-2008			5220603	15-Mar-2013	14-Sep-2025	Packages for Semiconductor Light Emitting Devices Utilizing Dispensed Encapsulants	Cree, Inc.	

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P0597JP2	Japan	Granted	2012-223101	5- Oct- 2012			5542890	16- May- 2014	14- Sep- 2025	Packages for Semiconductor Light Emitting Devices Utilizing Dispensed Encapsulants	Cree, Inc.	PATENT REEL: 056169 FRAME: 0168
P0597KR	Korea, Republic of	Granted	2008-7005266	3- Mar- 2008			10-1365875	14- Feb- 2014	14- Sep- 2025	Packages for Semiconductor Light Emitting Devices Utilizing Dispensed Encapsulants	Cree, Inc.	
P0597KR2	Korea, Republic of	Granted	10-2013-7027934	23- Oct- 2013			10-1455022	20- Oct- 2014	14- Sep- 2025	Packages for Semiconductor Light Emitting Devices Utilizing Dispensed Encapsulants	Cree, Inc.	
P0602CN	China (People's Republic)	Granted	200780024342.5	29- Dec- 2008	CN101479860 A	8- Jul- 2009	ZL200780024342.5	19- Dec- 2012	16- May- 2027	Efficient Emitting LED Package and Method for Efficiently Emitting Light	Cree, Inc.	
P0602DE	Germany	Granted	07777104.6	16- May- 2007	2038939	25- Mar- 2009	2038939	13- Jul- 2016	16- May- 2027	Efficient Emitting LED Package and Method for Efficiently Emitting Light	Cree, Inc.	
P0602EP	European Patent Convention	Granted	07777104.6	16- Dec- 2008	2038939	25- Mar- 2009	2038939	13- Jul- 2016	16- May- 2027	Efficient Emitting LED Package and Method for Efficiently Emitting Light	Cree, Inc.	
P0602TW	Taiwan	Granted	096119146	29- May- 2007			1434429	11- Apr- 2014	29- May- 2027	Efficient Emitting LED Package and Method for Efficiently Emitting Light	Cree, Inc.	
P0613JP	Japan	Granted	2008-527912	25- Feb- 2008			5242395	12- Apr- 2013	22- Jun- 2026	Closed Loop Electrophoretic Deposition of Semiconductor Devices	Cree, Inc.	Yes

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P0617CN	China (People's Republic)	Granted	200780012387.0	6- Oct- 2008			ZL200780012387.0	20- Nov- 2013	29- Mar- 2027	Uniform Emission LED Package	Cree, Inc.	
P0617EP	European Patent Convention	Granted	07754163.9	30- Oct- 2008	2008315	31- Dec- 2008	2008315	20- Jul- 2016	29- Mar- 2027	Uniform Emission LED Package	Cree, Inc.	
P0617GB	United Kingdom	Granted	07754163.9	29- Mar- 2007	2008315	31- Dec- 2008	2008315	20- Jul- 2016	29- Mar- 2027	Uniform Emission LED Package	Cree, Inc.	
P0617JP	Japan	Granted	2009-504205	8- Dec- 2008	2009-532900	10- Sep- 2009	5366800	20- Sep- 2013	29- Mar- 2027	Uniform Emission LED Package	Cree, Inc.	
P0617KR	Korea, Republic of	Granted	10-2008-7026531	29- Oct- 2008			10-1335823	26- Nov- 2013	29- Mar- 2027	Uniform Emission LED Package	Cree, Inc.	
P0617TW	Taiwan	Granted	096111808	3- Apr- 2007			1447931	1- Aug- 2014	3- Apr- 2027	Uniform Emission LED Package	Cree, Inc.	
P0625CN	China (People's Republic)	Granted	200710141670.5	17- Aug- 2007	CN101132043 A	27- Feb- 2008	ZL200710141670.5	18- Nov- 2009	17- Aug- 2027	Diffusion Barrier for Light Emitting Diodes and a Method for Preventing Reflector Metals from Migrating (amended)	Cree, Inc.	
P0638DE	Germany	Granted	07716846.6	19- Jan- 2007			1979955	21- Oct- 2015	19- Jan- 2027	Improved External Extraction Light Emitting Diode Based Upon Crystallographic Faceted Surfaces	Cree, Inc.	
P0638DE2	Germany	Granted	08161100.6	19- Jan- 2007	1983581	22- Oct- 2008	1983581	30- Mar- 2016	19- Jan- 2027	Method of Forming a Light-Emitting Diode	Cree, Inc.	
P0638DE3	Germany	Granted	11164343.3	19- Jan- 2007	2362446	31- Aug- 2011	2362446	4- Sep- 2019	19- Jan- 2027	Method of Forming a Light-Emitting Diode	Cree, Inc.	
P0638DE4	Germany	Granted	11164342.5	19- Jan- 2007	2362445	31- Aug- 2011	2362445	12- Dec- 2018	19- Jan- 2027	Method of Forming a Light-Emitting Diode	Cree, Inc.	
P0638EP	European Patent Convention	Granted	07716846.6	23- Jul- 2008			1979955	21- Oct- 2015	19- Jan- 2027	Improved External Extraction Light Emitting Diode	Cree, Inc.	

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P0638EP2	European Patent Convention	Granted	08161100.6	24- Jul- 2008	1983581	22- Oct- 2008	1983581	30- Mar- 2016	19- Jan- 2027	Method of Forming a Light-Emitting Diode	Cree, Inc.	
P0638EP3	European Patent Convention	Granted	11164343.3	19- Jan- 2007	2362446	31- Aug- 2011	2362446	4- Sep- 2019	19- Jan- 2027	Method of Forming a Light-Emitting Diode	Cree, Inc.	
P0638EP4	European Patent Convention	Granted	11164342.5	19- Jan- 2007	2362445	31- Aug- 2011	2362445	12- Dec- 2018	19- Jan- 2027	Method of Forming a Light-Emitting Diode	Cree, Inc.	
P0638TW	Taiwan	Granted	096103390	30- Jan- 2007			1345321	11- Jul- 2011	30- Jan- 2027	Improved External Extraction Light Emitting Diode based upon Crystallographic Faceted Surfaces	Cree, Inc.	
P0638TW2	Taiwan	Granted	099121117	28- Jun- 2010	201104920	1- Feb- 2011	1472061	1- Feb- 2015	30- Jan- 2027	External Extraction Light Emitting Diode Based upon Crystallographic Faceted Surfaces	Cree, Inc.	
P0648CN	China (People's Republic)	Granted	200710142165.2	12- Jul- 2007	101110462	23- Jan- 2008	ZL200710142165.2	13- Feb- 2013	12- Jul- 2027	Leadframe-Based Packages for Solid State Light Emitting Devices and Methods of Forming Leadframe-Based Packages for Solid State Light Emitting Devices	Cree, Inc.	
P0648JP	Japan	Granted	2007-184533	13- Jul- 2007			5154155	14- Dec- 2012	13- Jul- 2027	Leadframe-Based Packages for Solid State Light Emitting Devices and Methods of Forming Leadframe-Based Packages for Solid State Light Emitting Devices	Cree, Inc.	
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P0648JP2	Japan	Granted	2008-014205	24-Jan-2008			5215678	8-Mar-2013	24-Jan-2028	Leadframe-Based Packages for Solid State Light Emitting Devices and Methods of Forming Leadframe-Based Packages for Solid State Light Emitting Devices	Cree, Inc.	PATENT REEL: 056169 FRAME: 0171
P0648JP4	Japan	Granted	2011-255841	24-Nov-2011			5555684	6-Jun-2014	24-Jan-2028	Leadframe-Based Packages for Solid State Light Emitting Devices and Methods of Forming Leadframe-Based Packages for Solid State Light Emitting Devices	Cree, Inc.	
P0653JP	Japan	Granted	2008-19894	30-Jan-2008	2008-199012	28-Aug-2008	5371252	27-Sep-2013	30-Jan-2028	Transparent LED Chip	Cree, Inc.	
P0656JP	Japan	Granted	2007-228699	4-Sep-2007			6093495	17-Feb-2017	4-Sep-2027	Expandable LED Array Interconnect	Cree, Inc.	
P0658CN	China (People's Republic)	Granted	200780046707.4	25-Oct-2007	101606247	16-Dec-2009	ZL200780046707.4	30-Nov-2011	25-Oct-2027	Integrated Heat Spreader for LEDs and Related Assemblies	Cree, Inc.	
P0658DE	Germany	Granted	07852925.2	25-Oct-2007	2078311	15-Jul-2009	2078311	29-Nov-2017	25-Oct-2027	Integrated Heat Spreaders for LEDs and Related Assemblies	Cree, Inc.	
P0658EP	European Patent Convention	Granted	07852925.2	30-Apr-2009	2078311	15-Jul-2009	2078311	29-Nov-2017	25-Oct-2027	Integrated Heat Spreader for LEDs and Related Assemblies	Cree, Inc.	
P0658GB	United Kingdom	Granted	07852925.2	25-Oct-2007	2078311	15-Jul-2009	2078311	29-Nov-2017	25-Oct-2027	Integrated Heat Spreaders for LEDs and Related Assemblies	Cree, Inc.	
P0658JP2	Japan	Granted	2012-016161	30-Jan-2012			5864289	8-Jan-2016	25-Oct-2027	Integrated Heat Spreader for LEDs	Cree, Inc.	

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										and Related Assemblies		
P0659CN	China (People's Republic)	Granted	200710142646.3	20-Aug-2007	101132044	27-Feb-2008	ZL200710142646.3	23-May-2012	20-Aug-2027	Encapsulating and Forming Optical Element on LED Package by Liquid Injection Molding	Cree, Inc.	
P0659CN2	China (People's Republic)	Granted	201210047246.5	28-Feb-2012	102569616	11-Jul-2012	ZL201210047246.5	12-Aug-2015	20-Aug-2027	Encapsulating and Forming Optical Element on LED Package by Liquid Injection Molding	Cree, Inc.	
P0659JP4	Japan	Granted	2012-034825	21-Feb-2012			5726104	10-Apr-2015	21-Aug-2027	Encapsulating and Forming Optical Element on LED Package by Liquid Injection Molding	Cree, Inc.	
P0661EP	European Patent Convention	Granted	07776907.3	25-Nov-2008	2021165	11-Feb-2009	2021165	26-Jun-2013	9-May-2027	Thermocompression Molding of Plastic Optical Elements	Cree, Inc.	
P0661GB	United Kingdom	Granted	07776907.3	9-May-2007	2021165	11-Feb-2009	2021165	26-Jun-2013	9-May-2027	Thermocompression Molding of Plastic Optical Elements	Cree, Inc.	
P0661JP	Japan	Granted	2009-512024	25-Nov-2008	2009-538445	5-Nov-2009	4917644	3-Feb-2012	9-May-2027	Thermocompression Molding of Plastic Optical Elements	Cree, Inc.	
P0668DE	Germany	Granted	06837827.2	17-Nov-2006	1948994	30-Jul-2008	602006032082.5	19-Sep-2012	17-Nov-2026	Tiles for Solid State Lighting Panels	Cree, Inc.	
P0668EP	European Patent Convention	Granted	06837827.2	16-May-2008	1948994	30-Jul-2008	1948994	19-Sep-2012	17-Nov-2026	Tiles for Solid State Lighting Panels	Cree, Inc.	
P0668JP	Japan	Granted	2008-541353	19-May-2008			4914900	27-Jan-2012	17-Nov-2026	Tiles for Solid State Lighting Panels	Cree, Inc.	
P0668TW	Taiwan	Granted	095142940	20-Nov-2006	1397649	1-Jun-2013	1397649	1-Jun-2013	20-Nov-2026	Tiles for Solid State Lighting Panels	Cree, Inc.	
P0669DE	Germany	Granted	112006003111.2	19-May-2008			112006003111	19-Sep-2019	17-Nov-2026	LED Lighting Units and Assemblies with Edge Connections	Cree, Inc.	
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P0669JP	Japan	Granted	2008-541352	19-May-2008			4764928	17-Jun-2011	17-Nov-2026	LED Lighting Units and Assemblies with Edge Connections	Cree, Inc.	
P0669KR	Korea, Republic of	Granted	2008-7014010	11-Jun-2008			10-1312730	23-Sep-2013	17-Nov-2026	LED Lighting Units and Assemblies with Edge Connections	Cree, Inc.	
P0669TW	Taiwan	Granted	095142941	20-Nov-2006			1424786	21-Jan-2014	20-Nov-2026	LED Lighting Units and Assemblies with Edge Connections	Cree, Inc.	
P0672DE	Germany	Granted	07760470.0	11-Apr-2007			2010819	7-Mar-2018	11-Apr-2027	Light Emitting Diodes Packages	Cree, Inc.	
P0672EP	European Patent Convention	Granted	07760470.0	15-Oct-2008			2010819	7-Mar-2018	11-Apr-2027	Light Emitting Diodes Packages	Cree, Inc.	
P0673JP	Japan	Granted	2009-506691	21-Oct-2008			5227948	22-Mar-2013	11-Apr-2027	Light Emitting Diode Lighting Package with Improved Heat Sink	Cree, Inc.	
P0675CN	China (People's Republic)	Granted	200780014978.1	16-Jan-2009			ZL200780014978.1	20-Apr-2011	22-Mar-2027	Submounts for Semiconductor Light Emitting Device Packages and Semiconductor Light Emitting Device Packages Including the Same	Cree, Inc.	
P0675CN2	China (People's Republic)	Granted	201110043185.0	22-Mar-2007			ZL201110043185.0	23-Jan-2013	22-Mar-2027	Submounts for Semiconductor Light Emitting Device Packages and Semiconductor Light Emitting Device Packages Including the Same	Cree, Inc.	
P0675DE2	Germany	Granted	11170753.5	22-Mar-2007			2372801	18-Mar-2020	22-Mar-2027	Submounts for Semiconductor Light Emitting Device Packages and Semiconductor Light Emitting	Cree, Inc.	

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P0675EP2	European Patent Convention	Granted	11170753.5	22-Mar-2007	2372801	5-Oct-2011	2372801	18-Mar-2020	22-Mar-2027	Submounts for Semiconductor Light Emitting Device Packages and Semiconductor Light Emitting Device Packages Including the Same	Cree, Inc.	
P0675JP	Japan	Granted	2009-507687	5-Jan-2009	2009-535806	1-Oct-2009	4990355	11-May-2012	22-Mar-2027	Submounts for Semiconductor Light Emitting Device Packages and Semiconductor Light Emitting Device Packages Including the Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0174
P0675JP2	Japan	Granted	2012-056127	13-Mar-2012			5746076	15-May-2015	22-Mar-2027	Submounts for Semiconductor Light Emitting Device Packages and Semiconductor Light Emitting Device Packages Including the Same	Cree, Inc.	
P0675TW	Taiwan	Granted	096113857	19-Apr-2007			1459581	1-Nov-2014	19-Apr-2027	Submounts for Semiconductor Light Emitting Device Packages and Semiconductor Light Emitting Device Packages Including the Same	Cree, Inc.	
P0677CN	China (People's Republic)	Granted	200780014958.4	24-Oct-2008	CN101432895 A	13-May-2009	ZL200780014958.4	5-Sep-2012	4-Apr-2027	Side-View Surface Mount White LED	Cree, Inc.	
P0677CN3	China (People's Republic)	Granted	201210252142.8	19-Jul-2012	CN102800786 A	28-Nov-2012	ZL201210252142.8	16-Sep-2015	4-Apr-2027	Side-View Surface Mount White LED	Cree, Inc.	

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P0677DE	Germany	Granted	07754938.4	4- Apr- 2007	2011164	7- Jan- 2009	2011164	29- Aug- 2018	4- Apr- 2027	Side-View Surface Mount White LED	Cree, Inc.	
P0677EP	European Patent Convention	Granted	07754938.4	14- Oct- 2008	2011164	7- Jan- 2009	2011164	29- Aug- 2018	4- Apr- 2027	Side-View Surface Mount White LED	Cree, Inc.	
P0677JP2	Japan	Granted	2011-229090	18- Oct- 2011	2012-044206	1- Mar- 2012	5936327	20- May- 2016	4- Apr- 2027	Side-View Surface Mount White LED	Cree, Inc.	
P0677TW	Taiwan	Granted	096113673	18- Apr- 2007			1351118	21- Oct- 2011	18- Apr- 2027	Side-View Surface Mount White LED	Cree, Inc.	
P0678EP	European Patent Convention	Granted	07794749.7	1- Mar- 2009	2025009	18- Feb- 2009	2025009	8- Jul- 2020	10- May- 2027	Packaged Light Emitting Devices Including Multiple Index Lenses and Methods of Fabricating the Same	Cree, Inc.	
P0678GB	United Kingdom	Granted	07794749.7	1- Mar- 2009	2025009	18- Feb- 2009	2025009	8- Jul- 2020	10- May- 2027	Packaged Light Emitting Devices Including Multiple Index Lenses and Methods of Fabricating the Same	Cree, Inc.	
P0678JP	Japan	Granted	2009-513163	1- Dec- 2008	2009-539250	12- Nov- 2009	4886033	16- Dec- 2011	10- May- 2027	Packaged Light Emitting Devices Including Multiple Index Lenses and Methods of Fabricating the Same	Cree, Inc.	
P0680JP	Japan	Granted	2007-143451	30- May- 2007			5271509	17- May- 2013	30- May- 2027	LED Package Element with Internal Meniscus for Bubble-Free Hollow Floating Lens Placement	Cree, Inc.	Yes
P0691EP1	European Community	Granted	000670294	7- Feb- 2007			670294-0001	7- Feb- 2007	7- Feb- 2032	Lamp Packages	Cree, Inc.	

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P0691EP1-2	European Community	Granted	000670294	7-Feb-2007			670294-0002	7-Feb-2007	7-Feb-2032	Lamp Packages	Cree, Inc.	
P0696CN	China (People's Republic)	Granted	200710127905.5	29-Jun-2007	CN101097847 A	2-Jan-2008	ZL200710127905.5	29-Sep-2010	29-Jun-2027	Nickel Tin Bonding System for Semiconductor Wafers and Devices	Cree, Inc.	
P0696TW	Taiwan	Granted	096123546	28-Jun-2007			1491079	1-Jul-2015	28-Jun-2027	Nickel Tin Bonding System for Semiconductor Wafers and Devices	Cree, Inc.	
P0696TW2	Taiwan	Granted	104108884	28-Jun-2007	201526313	1-Jul-2015	1603511	21-Oct-2017	28-Jun-2027	Nickel Tin Bonding System for Semiconductor Wafers and Devices	Cree, Inc.	
P0698EP1	European Community	Granted	000697743	23-Mar-2007			697743-0001	23-Mar-2007	23-Mar-2032	Light Emitting Diode	Cree, Inc.	
P0698EP1-2	European Community	Granted	000697743	23-Mar-2007			697743-0002	23-Mar-2007	23-Mar-2032	Light Emitting Diode	Cree, Inc.	
P0698EP1-3	European Community	Granted	000697743	23-Mar-2007			697743-0003	23-Mar-2007	23-Mar-2032	Light Emitting Diode	Cree, Inc.	
P0698EP1-4	European Community	Granted	000697743	23-Mar-2007			697743-0004	23-Mar-2007	23-Mar-2032	Light Emitting Diode	Cree, Inc.	
P0698JP	Japan	Granted	2007-007336	23-Mar-2007			1350522	9-Jan-2009	9-Jan-2024	Light Emitting Diode	Cree, Inc.	
P0698JP2	Japan	Granted	2007-029375	23-Mar-2007			1353075	6-Feb-2009	6-Feb-2024	Light Emitting Diode	Cree, Inc.	
P0698JP3	Japan	Granted	2007-029376	23-Mar-2007			1331817	25-Apr-2008	25-Apr-2023	Light Emitting Diode	Cree, Inc.	
P0698JP4	Japan	Granted	2007-029377	23-Mar-2007			1353076	6-Feb-2009	6-Feb-2024	Light Emitting Diode	Cree, Inc.	
P0698KR	Korea, Republic of	Granted	30-2007-10861	13-Mar-2007			30-499118	14-Jul-2008	14-Jul-2023	Light Emitting Diode	Cree, Inc.	
P0698KR2	Korea, Republic of	Granted	30-2007-47437	15-Nov-2007			30-499696	18-Jul-2008	18-Jul-2023	Light Emitting Diode	Cree, Inc.	

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P0698KR3	Korea, Republic of	Granted	30-2007-47438	15-Nov-2007			30-499117	14-Jul-2008	14-Jul-2023	Light Emitting Diode	Cree, Inc.	
P0699EP1	European Community	Granted	000688288	8-Mar-2007			000688288-001	8-Mar-2007	8-Mar-2032	LED LightingTiles	Cree, Inc.	
P0699EP1-2	European Community	Granted	000688288	8-Mar-2007			000688288-002	8-Mar-2007	8-Mar-2032	LED LightingTiles	Cree, Inc.	
P0699EP1-3	European Community	Granted	000688288	8-Mar-2007			000688288-003	8-Mar-2007	8-Mar-2032	LED LightingTiles	Cree, Inc.	
P0699EP1-4	European Community	Granted	000688288	8-Mar-2007			000688288-004	8-Mar-2007	8-Mar-2032	LED LightingTiles	Cree, Inc.	
P0699EP1-5	European Community	Granted	000688288	8-Mar-2007			000688288-005	8-Mar-2007	8-Mar-2032	LED LightingTiles	Cree, Inc.	
P0699EP1-6	European Community	Granted	000688288	8-Mar-2007			000688288-006	8-Mar-2007	8-Mar-2032	LED LightingTiles	Cree, Inc.	
P0699EP1-7	European Community	Granted	000688288	8-Mar-2007			000688288-007	8-Mar-2007	8-Mar-2032	LED LightingTiles	Cree, Inc.	
P0699EP1-8	European Community	Granted	000688288	8-Mar-2007			000688288-008	8-Mar-2007	8-Mar-2032	LED LightingTiles	Cree, Inc.	
P0699EP1-9	European Community	Granted	000688288	8-Mar-2007			000688288-09	8-Mar-2007	8-Mar-2032	LED LightingTiles	Cree, Inc.	
P0699JP	Japan	Granted	2007-005932	7-Mar-2007			1,323,429	1-Feb-2008	1-Feb-2023	LED LightingTiles	Cree, Inc.	
P0699KR	Korea, Republic of	Granted	30-2007-8898	28-Feb-2007			30-483276	6-Mar-2008	6-Mar-2023	LED LightingTiles	Cree, Inc.	
P0700CN	China (People's Republic)	Granted	200880101599.0	2-Feb-2010	CN 101790800 A	28-Jul-2010	ZL200880101599.0	22-Jan-2014	2-Aug-2028	Optoelectronic Device with Upconverting Luminescent Medium	Cree, Inc.	
P0700DE	Germany	Granted	08797079.4	2-Aug-2008	2176893	21-Apr-2010	602008042196.1	27-Jan-2016	2-Aug-2028	Optoelectronic Device with Upconverting	Cree, Inc.	

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										Luminophoric Medium		
P0700EP	European Patent Convention	Granted	08797079.4	20-Jan-2010	2176893	21-Apr-2010	2176893	27-Jan-2016	2-Aug-2028	Optoelectronic Device with Upconverting Luminophoric Medium	Cree, Inc.	
P0700JP	Japan	Granted	2010-519264	19-Jan-2010	2010-535421	18-Nov-2010	5453262	10-Jan-2014	2-Aug-2028	Optoelectronic Device with Upconverting Luminophoric Medium	Cree, Inc.	PATENT REEL: 056169 FRAME: 0178
P0704JP	Japan	Granted	2009-549606	12-Feb-2008	2010-518454	27-May-2010	5612859	12-Sep-2014	12-Feb-2028	Partially Filterless Liquid Crystal Display Devices and Methods of Operating the Same	Cree, Inc.	
P0704KR	Korea, Republic of	Granted	2009-7017044	15-Feb-2008	09-109108	19-Oct-2009	10-1616129	21-Apr-2016	12-Feb-2028	Partially Filterless Liquid Crystal Display Devices and Methods of Operating the Same	Cree, Inc.	
P0708JP	Japan	Granted	2008-030633	12-Feb-2008	2008-205462	4-Sep-2008	5063398	17-Aug-2012	12-Feb-2028	Methods of Forming Packaged Semiconductor Light Emitting Devices Having Front Contacts by Compression Molding	Cree, Inc.	
P0709CN	China (People's Republic)	Granted	200810088194.x	13-Feb-2008	101261985	10-Sep-2008	ZL200810088194.x	14-Aug-2013	13-Feb-2028	Methods of Forming Packaged Semiconductor Light Emitting Devices Having Multiple Optical Elements by Compression Molding	Cree, Inc.	
P0709TW	Taiwan	Granted	097104985	12-Feb-2008			I466313	21-Dec-2014	12-Feb-2028	Methods of Forming Packaged Semiconductor Light Emitting Devices Having Multiple Optical	Cree, Inc.	

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									Elements by Compression Molding			
P0711DE	Germany	Granted	08754201.5	2-May-2008		2158292	15-Feb-2012	2-May-2028	"Single Crystalline Phosphor Light Conversion Structures for Light Emitting Devices"	Cree, Inc.		
P0711EP	European Patent Convention	Granted	08754201.5	16-Dec-2009		2158292	15-Feb-2012	2-May-2028	Single Crystalline Phosphor Light Conversion Structures for Light Emitting Devices	Cree, Inc.		
P0711TW	Taiwan	Granted	097117320	9-May-2008		1476944	11-Mar-2015	9-May-2028	Single Crystalline Phosphor Light Conversion Structures for Light Emitting Devices	Cree, Inc.		
P0722CN	China (People's Republic)	Granted	200880124595.4	9-Jul-2010	CN101933166 A	29-Dec-2010	ZL200880124595.4	2-Oct-2013	11-Sep-2028	Wire Bond Free Wafer Level LED	Cree, Inc.	Yes
P0722JP	Japan	Granted	2010-534010	14-May-2010	2011-503898	27-Jan-2011	5433583	13-Dec-2013	11-Sep-2028	Wire Bond Free Wafer Level LED	Cree, Inc.	Yes
P0722JP2	Japan	Granted	2012-212830	26-Sep-2012	2013-038438	21-Feb-2013	5767184	26-Jun-2015	11-Sep-2028	Wire Bond Free Wafer Level LED	Cree, Inc.	Yes
P0722KR	Korea, Republic of	Granted	2010-7013082	14-Jun-2010		1503558	11-Mar-2015	11-Sep-2028	Wire Bond Free Wafer Level LED	Cree, Inc.	Yes	
P0724EP	European Patent Convention	Granted	08160049.6	9-Jul-2008	2015374	14-Jan-2009	2015374	21-Mar-2018	9-Jul-2028	LED Chip Design for White Conversion	Cree, Inc.	
P0724GB	United Kingdom	Granted	08160049.6	9-Jul-2008	2015374	14-Jan-2009	2015374	21-Mar-2018	9-Jul-2028	LED Chip Design for White Conversion	Cree, Inc.	
P0727DE2	Germany	Granted	12165900.7	13-Nov-2008	2481786	1-Aug-2012	2481786	30-Sep-2015	13-Nov-2028	Cerium and Europium Doped Phosphor Compositions and Light Emitting	Cree, Inc.	

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										Devices Including the Same		
P0727EP2	European Patent Convention	Granted	12165900.7	27-Apr-2012	2481786	1-Aug-2012	2481786	30-Sep-2015	13-Nov-2028	Cerium and Europium Doped Phosphor Compositions and Light Emitting Devices Including the Same	Cree, Inc.	
P0727FR2	France	Granted	12165900.7	13-Nov-2008	2481786	1-Aug-2012	2481786	30-Sep-2015	13-Nov-2028	Cerium and Europium Doped Phosphor Compositions and Light Emitting Devices Including the Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0180
P0727GB2	United Kingdom	Granted	12165900.7	13-Nov-2008	2481786	1-Aug-2012	2481786	30-Sep-2015	13-Nov-2028	Cerium and Europium Doped Phosphor Compositions and Light Emitting Devices Including the Same	Cree, Inc.	
P0728EP1	European Community	Granted	001025290	20-Oct-2008			1025290-0001	20-Oct-2008	20-Oct-2033	Light Emitting Diode	Cree, Inc.	
P0728EP1-2	European Community	Granted	001025290	20-Oct-2008			1025290-0002	20-Oct-2008	20-Oct-2033	Light Emitting Diode	Cree, Inc.	
P0728EP1-3	European Community	Granted	001025290	20-Oct-2008			1025290-0003	20-Oct-2008	20-Oct-2033	Light Emitting Diode	Cree, Inc.	
P0728EP1-4	European Community	Granted	001025290	20-Oct-2008			1025290-0004	20-Oct-2008	20-Oct-2033	Light Emitting Diode	Cree, Inc.	
P0728EP1-5	European Community	Granted	001025290	20-Oct-2008			1025290-0005	20-Oct-2008	20-Oct-2033	Light Emitting Diode	Cree, Inc.	
P0728EP1-6	European Community	Granted	001025290	20-Oct-2008			1025290-0006	20-Oct-2008	20-Oct-2033	Light Emitting Diode	Cree, Inc.	

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P0728EP1-7	European Community	Granted	001025290	20-Oct-2008			1025290-0007	20-Oct-2008	20-Oct-2033	Light Emitting Diode	Cree, Inc.	
P0728JP	Japan	Granted	2008-026912	20-Oct-2008			1370241	28-Aug-2009	28-Aug-2029	Light Emitting Diode	Cree, Inc.	
P0728TW	Taiwan	Granted	097306044	21-Oct-2008			D136189	1-Aug-2010	20-Oct-2023	Light Emitting Diode	Cree, Inc.	
P0760JP	Japan	Granted	2008-118021	30-Apr-2008			5091000	21-Sep-2012	30-Apr-2028	Multi-Chip Light Emitting Device Lamps for Providing High-CRI Warm White Light and Light Fixtures Including the Same	Cree, Inc.	
P0760JP2	Japan	Granted	2010-247923	4-Nov-2010	2011-035420	17-Feb-2011	5539163	9-May-2014	30-Apr-2028	Multi-Chip Light Emitting Device Lamps for Providing High-CRI Warm White Light and Light Fixtures Including the Same	Cree, Inc.	
P0761CN2	China (People's Republic)	Granted	2015105124289	19-Aug-2015	CN105098012 A	25-Nov-2015	ZL201510512428.9	15-May-2020	19-Feb-2028	Light Emitting Devices Having Current Reducing Structures and Methods of Forming Light Emitting Devices Having Current Reducing Structures	Cree, Inc.	
P0761DE	Germany	Granted	08725740.8	19-Feb-2008	2118938	18-Nov-2009	2118938	21-Aug-2017	19-Feb-2028	Light Emitting Devices Having Current Reducing Structures and Methods of Forming Light Emitting Devices Having Current Reducing Structures	Cree, Inc.	

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P0761EP	European Patent Convention	Granted	08725740.8	31-Mar-2009	2118938	18-Nov-2009	2118938	21-Aug-2017	19-Feb-2028	Light Emitting Devices Having Current Reducing Structures and Methods of Forming Light Emitting Devices Having Current Reducing Structures	Cree, Inc.	PATENT REEL: 056169 FRAME: 0182
P0761GB	United Kingdom	Granted	08725740.8	19-Feb-2008	2118938	18-Nov-2009	2118938	21-Aug-2017	19-Feb-2028	Light Emitting Devices Having Current Reducing Structures and Methods of Forming Light Emitting Devices Having Current Reducing Structures	Cree, Inc.	
P0761IN	India	Granted	5720/DELNP/2009	19-Feb-2008	5720/DELNP/2009	4-Jun-2010	320781	18-Sep-2019	19-Feb-2028	Light Emitting Devices Having Current Reducing Structures and Methods of Forming Light Emitting Devices Having Current Reducing Structures	Cree, Inc.	
P0761JP	Japan	Granted	2009-552684	19-Feb-2008	2010-520640	10-Jun-2010	5693852	13-Feb-2015	19-Feb-2028	Light Emitting Devices Having Current Reducing Structures and Methods of Forming Light Emitting Devices Having Current Reducing Structures	Cree, Inc.	
P0762JP	Japan	Granted	2010-516992	18-Jan-2010			5497641	14-Mar-2014	11-Jul-2028	LED with Integrated Constant Current Driver	Cree, Inc.	
P0763CN	China (People's Republic)	Granted	200710148326.9	31-Aug-2007	CN101232065 A	30-Jul-2008	ZL200710148326.9	4-Jul-2012	31-Aug-2027	Phosphor Position in Light Emitting Diodes	Cree, Inc.	

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P0763CN2	China (People's Republic)	Granted	201210175686.9	31- May- 2012	CN102683560	19- Sep- 2012	ZL201210175686.9	20- Jan- 2016	31- Aug- 2027	Phosphor Position in Light Emitting Diodes	Cree, Inc.	
P0763DE	Germany	Granted	102007040841.4	29- Aug- 2007	DE102007040 841.4-33	13- Mar- 2008	102007040841	6- Dec- 2012	29- Aug- 2027	Phosphor Position in Light Emitting Diodes	Cree, Inc.	
P0763JP	Japan	Granted	2007-216808	23- Aug- 2007			4929100	17- Feb- 2012	23- Aug- 2027	Phosphor Position in Light Emitting Diodes	Cree, Inc.	
P0764CN	China (People's Republic)	Granted	200710148327.3	31- Aug- 2007	CN101232066 A	30- Jul- 2008	ZL200710148327.3	21- Mar- 2012	31- Aug- 2027	Encapsulant Profile for Light Emitting Diodes	Cree, Inc.	
P0764CN2	China (People's Republic)	Granted	201210031021.0	13- Feb- 2012	CN102593328 A	22- Aug- 2012	ZL201210031021.0	16- Mar- 2016	31- Aug- 2027	Encapsulant Profile for Light Emitting Diodes	Cree, Inc.	
P0764DE	Germany	Granted	102007040811.2	29- Aug- 2007	DE102007040 811.2-33	20- Mar- 2008	10207040811	22- Oct- 2015	29- Aug- 2027	Encapsulant Profile for Light Emitting Diodes	Cree, Inc.	
P0770DE	Germany	Granted	102007058720.3	6- Dec- 2007	DE102007058 720 A1	26- Jun- 2008	102007058720.3	14- Sep- 2017	6- Dec- 2027	Reflective Mounting Substrates for Light Emitting Diodes	Cree, Inc.	
P0770JP2	Japan	Granted	2010-279745	13- Dec- 2007			5763913	19- Jun- 2015	13- Dec- 2027	Reflective Mounting Substrates for Light Emitting Diodes	Cree, Inc.	
P0770JP4	Japan	Granted	2011-259427	13- Dec- 2007			5620359	26- Sep- 2014	13- Dec- 2027	Reflective Mounting Substrates for Light Emitting Diodes	Cree, Inc.	
P0780EP1	European Community	Granted	000763305	19- Jul- 2007			763305-0001	19- Jul- 2007	19- Jul- 2032	Light Emitting Diode	Cree, Inc.	
P0780EP1- 10	European Community	Granted	000763305	19- Jul- 2007			763305-00010	19- Jul- 2007	19- Jul- 2032	Light Emitting Diode	Cree, Inc.	
P0780EP1- 2	European Community	Granted	000763305	19- Jul- 2007			763305-0002	19- Jul- 2007	19- Jul- 2032	Light Emitting Diode	Cree, Inc.	
P0780EP1- 3	European Community	Granted	000763305	19- Jul- 2007			763305-0003	19- Jul- 2007	19- Jul- 2032	Light Emitting Diode	Cree, Inc.	

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P0780EP1-4	European Community	Granted	000763305	19-Jul-2007			763305-0004	19-Jul-2007	19-Jul-2032	Light Emitting Diode	Cree, Inc.	
P0780EP1-5	European Community	Granted	000763305	19-Jul-2007			763305-0005	19-Jul-2007	19-Jul-2032	Light Emitting Diode	Cree, Inc.	
P0780EP1-6	European Community	Granted	000763305	19-Jul-2007			763305-0006	19-Jul-2007	19-Jul-2032	Light Emitting Diode	Cree, Inc.	
P0780EP1-7	European Community	Granted	000763305	19-Jul-2007			763305-0007	19-Jul-2007	19-Jul-2032	Light Emitting Diode	Cree, Inc.	
P0780EP1-8	European Community	Granted	000763305	19-Jul-2007			763305-0008	19-Jul-2007	19-Jul-2032	Light Emitting Diode	Cree, Inc.	
P0780EP1-9	European Community	Granted	000763305	19-Jul-2007			763305-0009	19-Jul-2007	19-Jul-2032	Light Emitting Diode	Cree, Inc.	
P0780JP	Japan	Granted	2007-019708	19-Jul-2007			1350524	9-Jan-2009	9-Jan-2029	Light Emitting Diode	Cree, Inc.	
P0780JP2	Japan	Granted	2008-007144	19-Jul-2007			1350939	9-Jan-2009	9-Jan-2029	Light Emitting Diode	Cree, Inc.	
P0780JP3	Japan	Granted	2008-007145	19-Jul-2007			1350940	9-Jan-2009	9-Jan-2029	Light Emitting Diode	Cree, Inc.	
P0780JP4	Japan	Granted	2008-007146	19-Jul-2007			1339547	8-Aug-2008	8-Aug-2028	Light Emitting Diode	Cree, Inc.	
P0787CN	China (People's Republic)	Granted	200780050197.8	21-Jul-2009	CN101627481 A	13-Jan-2010	ZL200780050197.8	21-Mar-2012	20-Nov-2027	Wafer-level Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	Yes
P0787CN3	China (People's Republic)	Granted	201210030627.2	13-Feb-2012	CN102544267 A	4-Jul-2012	ZL201210030627.2	28-Jan-2015	20-Nov-2027	Wafer-level Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	Yes
P0787DE	Germany	Granted	07874432.3	20-Nov-2007			2111649	27-Sep-2017	20-Nov-2027	Wafer Level Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	Yes

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P0787DE2	Germany	Granted	07840092.6	20-Nov-2007			2111648	15-May-2019	20-Nov-2027	Wafer-level Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	Yes
P0787EP	European Patent Convention	Granted	07874432.3	20-Nov-2007			2111649	27-Sep-2017	20-Nov-2027	Wafer-level Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	Yes
P0787EP2	European Patent Convention	Granted	07840092.6	20-Nov-2007			2111648	15-May-2019	20-Nov-2027	Wafer-level Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	Yes
P0787KR	Korea, Republic of	Granted	10-2009-7017405	10-Aug-2009			1398655	16-May-2014	20-Nov-2027	Wafer-level Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	Yes
P0787KR2	Korea, Republic of	Granted	10-2009-7017407	20-Aug-2009			10-1548022	21-Aug-2015	20-Nov-2027	Wafer-level Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	Yes
P0787TW2	Taiwan	Granted	097110195	21-Mar-2008			1492412	11-Jul-2015	21-Mar-2028	Wafer-level Phosphor Coating Method and Devices Fabricated Utilizing Method	Cree, Inc.	Yes
P0788EP	European Community	Granted	000747290	19-Jun-2007			000747290-0001	19-Jun-2007	19-Jun-2032	LED Chip	Cree, Inc.	
P0788EP2	European Community	Granted	000897376	7-Mar-2008			897376-0001	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0788EP2-2	European Community	Granted	000897376	7-Mar-2008			897376-0002	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0788EP2-3	European Community	Granted	000897376	7-Mar-2008			897376-0003	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0788EP2-4	European Community	Granted	000897376	7-Mar-2008			897376-0004	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	

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P0788EP2-5	European Community	Granted	000897376	7-Mar-2008			897376-0005	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0788EP2-6	European Community	Granted	000897376	7-Mar-2008			897376-0006	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0788EP2-7	European Community	Granted	000897376	7-Mar-2008			897376-0007	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0788JP	Japan	Granted	2008-005706	7-Mar-2008			1350550	9-Jan-2009	9-Jan-2029	LED chip	Cree, Inc.	
P0788JP2	Japan	Granted	2008-028400	7-Mar-2008			1363431	22-May-2009	22-May-2029	LED Chip	Cree, Inc.	
P0788TW2	Taiwan	Granted	097301339	6-Mar-2008			D131739	1-Nov-2009	5-Mar-2023	LED Chip	Cree, Inc.	
P0788TW3	Taiwan	Granted	098302525	6-Mar-2008			D139501	11-Mar-2011	5-Mar-2023	LED Chip	Cree, Inc.	
P0789JP	Japan	Granted	2008-541347	19-May-2008			5166278	28-Dec-2012	17-Nov-2026	Tiles for Solid State Lighting Units	Cree, Inc.	
P0789KR	Korea, Republic of	Granted	20087012021	20-May-2008			10-1361883	5-Feb-2014	17-Nov-2026	Tiles for Solid State Lighting Units	Cree, Inc.	
P0791CN	China (People's Republic)	Granted	200880100370.5	13-Nov-2009	CN101790798 A	28-Jul-2010	ZL200880100370.5	30-Jul-2014	3-Apr-2028	Encapsulant With Scatterer to Tailor Spatial Emission Pattern and Color Uniformity in Light Emitting Diodes	Cree, Inc.	Yes
P0791DE	Germany	Granted	08754071.2	3-Apr-2008	2160769	10-Mar-2010	2160769	31-Oct-2018	3-Apr-2028	Encapsulant With Scatterer to Tailor Spatial Emission Pattern and Color Uniformity in Light Emitting Diodes	Cree, Inc.	Yes
P0791EP	European Patent Convention	Granted	08754071.2	13-Nov-2009	2160769	10-Mar-2010	2160769	31-Oct-2018	3-Apr-2028	Encapsulant With Scatterer to Tailor Spatial Emission Pattern and Color Uniformity in Light Emitting Diodes	Cree, Inc.	Yes

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P0791JP	Japan	Granted	2010-512143	14-Dec-2009		5081299	7-Sep-2012	3-Apr-2028	Encapsulant With Scatterer to Tailor Spatial Emission Pattern and Color Uniformity in Light Emitting Diodes	Cree, Inc.	Yes
P0791JP2	Japan	Granted	2012-191540	31-Aug-2012		5648030	14-Nov-2014	3-Apr-2028	Encapsulant With Scatterer to Tailor Spatial Emission Pattern and Color Uniformity in Light Emitting Diodes	Cree, Inc.	PATENT
P0793JP	Japan	Granted	2008-33823	14-Feb-2008		5011154	8-Jun-2012	14-Feb-2028	Group III Nitride Diodes on Low Index Carrier Substrates	Cree, Inc.	REEL: 056169 FRAME: 0187
P0794DE	Germany	Granted	08253301.9	9-Oct-2008	2048718	2048718	9-Sep-2015	9-Oct-2028	Multiple Conversion Material Light Emitting diode Package and Method of Fabricating Same	Cree, Inc.	
P0794DE2	Germany	Granted	11191027.9	9-Oct-2008	2472614	2472614	26-Apr-2017	9-Oct-2028	Multiple Conversion Material Light Emitting diode Package and Method of Fabricating Same	Cree, Inc.	
P0794EP	European Patent Convention	Granted	08253301.9	9-Oct-2008	2048718	2048718	9-Sep-2015	9-Oct-2028	Multiple Conversion Material Light Emitting diode Package and Method of Fabricating Same	Cree, Inc.	
P0794EP2	European Patent Convention	Granted	11191027.9	28-Nov-2011	2472614	2472614	26-Apr-2017	9-Oct-2028	Multiple Conversion Material Light Emitting diode Package and Method of Fabricating Same	Cree, Inc.	

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P0796EP1	European Community	Granted	000738174	6- Jun-2007	000738174-0001	21- Aug-2007	738174-0001	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796EP1-10	European Community	Granted	000738174	6- Jun-2007			738174-00010	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796EP1-11	European Community	Granted	000738174	6- Jun-2007			738174-00011	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796EP1-12	European Community	Granted	000738174	6- Jun-2007			738174-00012	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796EP1-2	European Community	Granted	000738174	6- Jun-2007			738174-0002	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796EP1-3	European Community	Granted	000738174	6- Jun-2007			738174-0003	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796EP1-4	European Community	Granted	000738174	6- Jun-2007			738174-0004	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796EP1-5	European Community	Granted	000738174	6- Jun-2007			738174-0005	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796EP1-6	European Community	Granted	000738174	6- Jun-2007			738174-0006	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796EP1-7	European Community	Granted	000738174	6- Jun-2007			738174-0007	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796EP1-8	European Community	Granted	000738174	6- Jun-2007			738174-0008	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796EP1-9	European Community	Granted	000738174	6- Jun-2007			738174-0009	6- Jun-2007	6- Jun-2032	Lamp Packages	Cree, Inc.	
P0796JP	Japan	Granted	2007-015113	6- Jun-2007			1353072	6- Feb-2009	6- Feb-2029	Lamp Packages	Cree, Inc.	
P0796JP2	Japan	Granted	2008-000540	15- Jan-2008			1,350,536	9- Jan-2009	9- Jan-2029	Lamp Packages	Cree, Inc.	
P0796JP3	Japan	Granted	2008-000541	15- Jan-2008			1350537	9- Jan-2009	9- Jan-2029	Lamp Packages	Cree, Inc.	

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P0796JP4	Japan	Granted	2008-000542	15-Jan-2008				1371224	11-Sep-2009	11-Sep-2029	Lamp Packages	Cree, Inc.	
P0798DE	Germany	Granted	08713756.8	15-Jan-2008				2102920	21-Mar-2018	15-Jan-2028	High Performance LED Package	Cree, Inc.	
P0798EP	European Patent Convention	Granted	08713756.8	15-Jan-2008				2102920	21-Mar-2018	15-Jan-2028	High Performance LED Package	Cree, Inc.	
P0798JP	Japan	Granted	2009-546471	15-Jan-2008				5431962	13-Dec-2013	15-Jan-2028	High Performance LED Package	Cree, Inc.	
P0798TW	Taiwan	Granted	097102058	18-Jan-2008				1481063	11-Apr-2015	18-Jan-2028	High Performance LED Package	Cree, Inc.	
P0799EP	European Community	Granted	000747282	19-Jun-2007				747282-0001	19-Jun-2007	19-Jun-2032	LED Chip	Cree, Inc.	
P0799EP2	European Community	Granted	00897384	7-Mar-2008				897384-0001	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0799EP2-2	European Community	Granted	00897384	7-Mar-2008				897384-0002	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0799EP2-3	European Community	Granted	00897384	7-Mar-2008				897384-0003	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0799EP2-4	European Community	Granted	00897384	7-Mar-2008				897384-0004	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0799EP2-5	European Community	Granted	00897384	7-Mar-2008				897384-0005	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0799EP2-6	European Community	Granted	00897384	7-Mar-2008				897384-0006	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0799EP2-7	European Community	Granted	00897384	7-Mar-2008				897384-0007	7-Mar-2008	7-Mar-2033	LED Chip	Cree, Inc.	
P0799JP	Japan	Granted	2007-016276	19-Jun-2007				1323445	1-Feb-2008	1-Feb-2028	LED Chip	Cree, Inc.	

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P0799JP2	Japan	Granted	2008-005707	7- Mar- 2008			1,350,551	9- Jan- 2009	9- Jan- 2029	LED Chip	Cree, Inc.	
P0799JP3	Japan	Granted	2008-028401	5- Nov- 2008			1364214	5- Jun- 2009	5- Jun- 2029	LED Chip	Cree, Inc.	
P0799TW2	Taiwan	Granted	097301340	6- Mar- 2008			D131740	1- Nov- 2009	5- Mar- 2023	LED Chip	Cree, Inc.	
P0799TW3	Taiwan	Granted	098302526	6- Mar- 2008			D136583	21- Aug- 2010	5- Mar- 2023	LED Chip	Cree, Inc.	
P0803CN	China (People's Republic)	Granted	200880108205.4	22- Mar- 2010			ZL200880108205.4	8- Jun- 2016	29- Jul- 2028	Correction of Temperature Induced Color Drift in Solid State Lighting Displays	Cree, Inc.	
P0803JP	Japan	Granted	2010-519226	31- Jan- 2010			5462790	24- Jan- 2014	29- Jul- 2028	Correction of Temperature Induced Color Drift in Solid State Lighting Displays	Cree, Inc.	
P0807CN	China (People's Republic)	Granted	200880020967.9	18- Dec- 2009	CN101681973 A	24- Mar- 2010	ZL2008980020967.9	23- Jul- 2014	4- Apr- 2028	Transparent Ohmic Contacts on Light Emitting Diodes with Growth Substrates	Cree, Inc.	
P0807TW	Taiwan	Granted	097114379	18- Apr- 2008			I414079	1- Nov- 2013	18- Apr- 2028	Transparent Ohmic Contacts on Light Emitting Diodes with Growth Substrates	Cree, Inc.	
P0808CN	China (People's Republic)	Granted	200880020777.7	20- Oct- 2009	CN101681972 A	24- Mar- 2010	ZL200880020777.7	5- Aug- 2015	4- Apr- 2028	Transparent Ohmic Contacts on Light Emitting Diodes with Carrier Substrates	Cree, Inc.	
P0808DE	Germany	Granted	08745097.9	4- Apr- 2008			2140503	3- Oct- 2018	4- Apr- 2028	Transparent Ohmic Contacts on Light Emitting Diodes with Carrier Substrates	Cree, Inc.	

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P0808EP	European Patent Convention	Granted	08745097.9	20-Oct-2009			2140503	3-Oct-2018	4-Apr-2028	Transparent Ohmic Contacts on Light Emitting Diodes with Carrier Substrates	Cree, Inc.	
P0808TW	Taiwan	Granted	097114378	18-Apr-2008			1460882	11-Nov-2014	18-Apr-2028	Transparent Ohmic Contacts on Light Emitting Diodes	Cree, Inc.	
P0809JP	Japan	Granted	2008-163311	23-Jun-2008			5091023	21-Sep-2012	23-Jun-2028	Technique to Achieve Color Temperature Uniformity and Color Mixing in Light-Emitting Device Packages Using Light Scattering Particles of Different Size	Cree, Inc.	
P0822CN	China (People's Republic)	Granted	200880126273.3	4-Jul-2010	CN101939854 A	5-Jan-2011	ZL200880126273.3	17-Dec-2014	2-Dec-2028	Light Emitting Devices with High Efficiency Phosphor Structures	Cree, Inc.	
P0825CN	China (People's Republic)	Granted	200880020879.9	15-Apr-2008	101689590	31-Mar-2010	ZL200880020879.9	14-Dec-2011	15-Apr-2028	Semiconductor Light Emitting Device Packages and Methods	Cree, Inc.	
P0825DE	Germany	Granted	08742905.6	15-Apr-2008	2147468	27-Jan-2010	2147468	28-Feb-2018	15-Apr-2028	Semiconductor Light Emitting Device Packages and Methods	Cree, Inc.	
P0825EP	European Patent Convention	Granted	08742905.6	15-Apr-2008	2147468	27-Jan-2010	2147468	28-Feb-2018	15-Apr-2028	Semiconductor Light Emitting Device Packages and Methods	Cree, Inc.	
P0825JP	Japan	Granted	2010-504064	15-Apr-2008			5512509	4-Apr-2014	15-Apr-2028	Semiconductor Light Emitting Device Packages and Methods	Cree, Inc.	
P0825TW	Taiwan	Granted	097114012	17-Apr-2008			1467795	1-Jan-2015	17-Apr-2028	Semiconductor Light Emitting Device Packages and Methods	Cree, Inc.	
P0830DE	Germany	Granted	07789665.2	25-Apr-2007	2011149	7-Jan-2009	2011149	6-Sep-2017	25-Apr-2027	Apparatus and Method for Use in	Cree, Inc.	

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										Mounting Electronic Elements			PATENT REEL: 056169 FRAME: 0192
P0830EP	European Patent Convention	Granted	07789665.2	15- Oct- 2008	2011I49	7- Jan- 2009	2011I49	6- Sep- 2017	25- Apr- 2027	Apparatus, System & Method for Use in Mounting Electronic Elements (SMD)	Cree, Inc.		
P0830GB	United Kingdom	Granted	07789665.2	25- Apr- 2007	2011I49	7- Jan- 2009	2011I49	6- Sep- 2017	25- Apr- 2027	Apparatus and Method for Use in Mounting Electronic Elements	Cree, Inc.		
P0836CN	China (People's Republic)	Granted	200980121201.4	31- Mar- 2009	102047456	4- May- 2011	ZL200980121201.4	8- Jun- 2016	31- Mar- 2029	Emission Tuning Methods and Devices Fabricated Utilizing	Cree, Inc.		
P0836DE	Germany	Granted	09728238.8	27- Oct- 2010	2283526	16- Feb- 2011	2283526	11- Dec- 2019	31- Mar- 2029	Emission Tuning Methods and Devices Fabricated Utilizing	Cree, Inc.		
P0836EP	European Patent Convention	Granted	09728238.8	27- Oct- 2010	2283526	16- Feb- 2011	2283526	11- Dec- 2019	31- Mar- 2029	Emission Tuning Methods and Devices Fabricated Utilizing	Cree, Inc.		
P0836JP	Japan	Granted	2011-502981	30- Sep- 2010	2011-517090	26- May- 2011	5819187	9- Oct- 2015	31- Mar- 2029	Emission Tuning Methods and Devices Fabricated Utilizing	Cree, Inc.		
P0842CN	China (People's Republic)	Granted	200980109299.1	16- Sep- 2010	CN101999169 A	8- Apr- 2011	ZL200980109299.1	25- Dec- 2013	13- Feb- 2029	Broadband Light Emitting Device Lamps for Providing White Light Output	Cree, Inc.		
P0842DE	Germany	Granted	09711271.8	3- Sep- 2010	2253025	24- Nov- 2010	2253025	17- Apr- 2019	13- Feb- 2029	Broadband Light Emitting Device Lamps for Providing White Light Output	Cree, Inc.		
P0842EP	European Patent Convention	Granted	09711271.8	3- Sep- 2010	2253025	24- Nov- 2010	2253025	17- Apr- 2019	13- Feb- 2029	Broadband Light Emitting Device Lamps for Providing White Light Output	Cree, Inc.		
P0842JP	Japan	Granted	2010-546790	13- Aug- 2010			5389054	18- Oct- 2013	13- Feb- 2029	Broadband Light Emitting Device Lamps for	Cree, Inc.		

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										Providing White Light Output		
P0849CN	China (People's Republic)	Granted	20081018683.5	14-Dec-2008	CN101471416 A	1-Jul-2009	ZL20081018683.5	12-Dec-2014	14-Dec-2028	Textured Encapsulant Surface in LED Packages	Cree, Inc.	
P0849DE	Germany	Granted	08170514.7	2-Dec-2008	2071642	17-Jun-2009	2071642	7-Mar-2018	2-Dec-2028	Textured Encapsulant Surface in LED Packages	Cree, Inc.	
P0849EP	European Patent Convention	Granted	08170514.7	2-Dec-2008	2071642	17-Jun-2009	2071642	7-Mar-2018	2-Dec-2028	Textured Encapsulant Surface in LED Packages	Cree, Inc.	
P0862DE	Germany	Granted	08160129.6	10-Jul-2008	2037509	18-Mar-2009	2037509	7-Jun-2017	10-Jul-2028	Polarization Doping in Nitride Based Diodes	Cree, Inc.	Yes
P0862EP	European Patent Convention	Granted	08160129.6	10-Jul-2008	2037509	18-Mar-2009	2037509	7-Jun-2017	10-Jul-2028	Polarization Doping in Nitride Based Diodes	Cree, Inc.	Yes
P0862JP	Japan	Granted	2008-182592	14-Jul-2008			5059705	10-Aug-2012	14-Jul-2028	Polarization Doping in Nitride Based Diodes	Cree, Inc.	Yes
P0863CN	China (People's Republic)	Granted	200880111927.5	28-Jan-2010	CN 101828274A	8-Sep-2010	ZL200880111927.5	4-Jan-2012	12-Aug-2028	Nickel Tin Bonding System with Barrier Layer for Semiconductor Wafers and Devices	Cree, Inc.	
P0863CN2	China (People's Republic)	Granted	201110360898.X	15-Nov-2011	CN 102447025 A	9-May-2012	ZL201110360898.X	11-Mar-2015	12-Aug-2028	Nickel Tin Bonding System with Barrier Layer for Semiconductor Wafers and Devices	Cree, Inc.	
P0863DE	Germany	Granted	08797663.5	12-Aug-2008	2183793	12-May-2010	2183793	3-Jan-2018	12-Aug-2028	Nickel Tin Bonding System with Barrier Layer for Semiconductor Wafers and Devices	Cree, Inc.	
P0863EP	European Patent Convention	Granted	08797663.5	28-Jan-2010	2183793	12-May-2010	2183793	3-Jan-2018	12-Aug-2028	Nickel Tin Bonding System with Barrier Layer for Semiconductor Wafers and Devices	Cree, Inc.	
P0863TW	Taiwan	Granted	097131759	20-Aug-2008			I403001	21-Jul-2013	20-Aug-2028	Nickel Tin Bonding System with Barrier Layer for	Cree, Inc.	

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									Semiconductor Wafers and Devices			
P0865DE	Germany	Granted	09159268.3	1- May- 2009	2113949	4- Nov- 2009	2113949	18- Apr- 2018	1- May- 2029	Encapsulation for Phosphor- Converted White Light Emitting Diode	Cree, Inc.	
P0865EP	European Patent Convention	Granted	09159268.3	1- May- 2009	2113949	4- Nov- 2009	2113949	18- Apr- 2018	1- May- 2029	Encapsulation for Phosphor- Converted White Light Emitting Diode	Cree, Inc.	
P0865JP	Japan	Granted	2009-112468	7- May- 2009	2009-272634	19- Nov- 2009	5227252	22- Mar- 2013	7- May- 2029	Encapsulation for Phosphor- Converted White Light Emitting Diode	Cree, Inc.	
P0866CN	China (People's Republic)	Granted	200980118291.1	19- Nov- 2010	102037577	27- Apr- 2011	ZL200980118291.1	6- Aug- 2014	11- Mar- 2029	Low Index Spacer Layer in LED Devices	Cree, Inc.	
P0877DE	Germany	Granted	08252829.0	27- Aug- 2008			2056014	1- Aug- 2018	27- Aug- 2028	LED Array and Method for Fabricating Same	Cree, Inc.	Yes
P0877EP	European Patent Convention	Granted	08252829.0	27- Aug- 2008			2056014	1- Aug- 2018	27- Aug- 2028	LED Array and Method for Fabricating Same	Cree, Inc.	Yes
P0878DE	Germany	Granted	40 2008 001869.9	11- Apr- 2008			402008001869.9	11- Apr- 2008	11- Apr- 2033	Emitter Package	Cree, Inc.	
P0878JP	Japan	Granted	2008-009535	15- Apr- 2008			1363307	22- May- 2009	22- May- 2029	Emitter Package	Cree, Inc.	
P0878JP2	Japan	Granted	2009-002856	15- Apr- 2008			1363679	29- May- 2009	29- May- 2029	Emitter Package	Cree, Inc.	
P0878JP4	Japan	Granted	2009-002858	19- Feb- 2009			1363680	29- May- 2009	29- May- 2029	Light Emitting Diode	Cree, Inc.	
P0878JP5	Japan	Granted	2009-016140	15- Jul- 2009			1377306	4- Dec- 2009	4- Dec- 2029	Light Emitting Diode	Cree, Inc.	

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P0886CN	China (People's Republic)	Granted	200980121269.2	8- Dec- 2010	CN102057507 A	11- May- 2011	ZL200980121269.2	8- Jul- 2015	8- Apr- 2029	Semiconductor Light Emitting Devices with Separated Wavelength Conversion Materials and Methods of Forming the Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0195
P0886DE	Germany	Granted	EP09733871.9	8- Apr- 2009	2279535	2- Feb- 2011	2279535	5- Mar- 2014	8- Apr- 2029	Semiconductor Light Emitting Devices with Separated Wavelength Conversion Materials and Methods of Forming the Same	Cree, Inc.	
P0886EP	European Patent Convention	Granted	EP09733871.9	25- Nov- 2010	2279535	2- Feb- 2011	2279535	5- Mar- 2014	8- Apr- 2029	Semiconductor Light Emitting Devices with Separated Wavelength Conversion Materials and Methods of Forming the Same	Cree, Inc.	
P0886JP	Japan	Granted	2011-506258	22- Oct- 2010			5535196	9- May- 2014	8- Apr- 2029	Semiconductor Light Emitting Devices with Separated Wavelength Conversion Materials and Methods of Forming the Same	Cree, Inc.	
P0888DE	Germany	Granted	08171399.2	11- Dec- 2008	2071636	17- Jun- 2009	602008042365.4	17- Feb- 2016	11- Dec- 2028	Phosphor Settling in an LED Device Using Centrifugal Force	Cree, Inc.	
P0888EP	European Patent Convention	Granted	08171399.2	11- Dec- 2008	2071636	17- Jun- 2009	2071636	17- Feb- 2016	11- Dec- 2028	Phosphor Settling in an LED Device Using Centrifugal Force	Cree, Inc.	

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P0896JP	Japan	Granted	2010-534021	14-May-2010			5324591	26-Jul-2013	7-Nov-2028	Improved binning of Light sources for Lighting of Flat Panel Displays	Cree, Inc.	
P0898JP	Japan	Granted	2009-132243	1-Jun-2009			5523747	18-Apr-2014	1-Jun-2029	Improved Bond-Pad Design for enhancing Light Extraction from EZ1000 LED Chips	Cree, Inc.	Yes
P0908CN	China (People's Republic)	Granted	200980125244.X	30-Dec-2010	CN102132424 A	20-Jul-2011	ZL200980125244.X	7-Sep-2016	13-Mar-2029	Solid State Lighting Component	Cree, Inc.	Yes
P0908DE	Germany	Granted	09750906.1	13-Mar-2009	2304817	6-Apr-2011	2304817	8-Jan-2020	13-Mar-2029	Solid State Lighting Component	Cree, Inc.	Yes
P0908EP	European Patent Convention	Granted	09750906.1	13-Mar-2009	2304817	6-Apr-2011	2304817	8-Jan-2020	13-Mar-2029	Solid State Lighting Component	Cree, Inc.	Yes
P0908FR	France	Granted	09750906.1	13-Mar-2009	2304817	6-Apr-2011	2304817	8-Jan-2020	13-Mar-2029	Solid State Lighting Component	Cree, Inc.	Yes
P0908GB	United Kingdom	Granted	09750906.1	13-Mar-2009	2304817	6-Apr-2011	2304817	8-Jan-2020	13-Mar-2029	Solid State Lighting Component	Cree, Inc.	Yes
P0908IT	Italy	Granted	09750906.1	13-Mar-2009	2304817	6-Apr-2011	2304817	8-Jan-2020	13-Mar-2029	Solid State Lighting Component	Cree, Inc.	Yes
P0908JP	Japan	Granted	2011-510484	22-Nov-2010	2011-521469	21-Jul-2011	5236803	5-Apr-2013	13-Mar-2029	Solid State Lighting Component	Cree, Inc.	Yes
P0908JP2	Japan	Granted	2013-064671	26-Mar-2013	2013-179302	9-Sep-2013	6359802	29-Jun-2018	13-Mar-2029	Solid State Lighting Component	Cree, Inc.	Yes
P0908NL	Netherlands	Granted	09750906.1	13-Mar-2009	2304817	6-Apr-2011	2304817	8-Jan-2020	13-Mar-2029	Solid State Lighting Component	Cree, Inc.	Yes
P0909CN	China (People's Republic)	Granted	200980125251.X	30-Dec-2010	CN102272923 A	7-Dec-2011	ZL200980125251.X	15-Jul-2015	3-Apr-2029	Solid State Lighting Component (jointly owned with PSSLS)	Cree, Inc.; Philips Solid State Lighting Solutions	Yes
P0913CN	China (People's Republic)	Granted	200980111321.6	28-Sep-2010	CN101982014 A	23-Feb-2011	ZL200980111321.6	19-Feb-2014	24-Mar-2029	Apparatus and Methods for	Cree, Inc.	

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										Combining Light Emitters		
P0913JP	Japan	Granted	2011-501803	27-Sep-2010		5395162		25-Oct-2013	24-Mar-2029	Apparatus and Methods for Combining Light Emitters	Cree, Inc.	
P0915CN	China (People's Republic)	Granted	200980154727.2	18-Jul-2011	102282235	14-Dec-2011	ZL200980154727.2	10-Dec-2014	9-Nov-2029	Phosphor Composition	Cree, Inc.	
P0915DE	Germany	Granted	09756883.6	9-Nov-2009	2364341	14-Sep-2011	2364341	17-Dec-2014	9-Nov-2029	Phosphor Composition	Cree, Inc.	
P0915EP	European Patent Convention	Granted	09756883.6	19-May-2011	2364341	14-Sep-2011	2364341	17-Dec-2014	9-Nov-2029	Phosphor Composition	Cree, Inc.	
P0915GB	United Kingdom	Granted	09756883.6	9-Nov-2009	2364341	14-Sep-2011	2364341	17-Dec-2014	9-Nov-2029	Phosphor Composition	Cree, Inc.	
P0915JP	Japan	Granted	2011-536402	17-May-2011	2012-509364	19-Apr-2012	5600112	22-Aug-2014	9-Nov-2029	Phosphor Composition	Cree, Inc.	
P0915KR	Korea, Republic of	Granted	10-2011-7014100	17-Jun-2011			10-1667070	11-Oct-2016	9-Nov-2029	Phosphor Composition	Cree, Inc.	
P0915TW	Taiwan	Granted	098139027	17-Nov-2009	201033331	16-Sep-2010	1441899	21-Jun-2014	17-Nov-2029	Phosphor Composition	Cree, Inc.	
P0916DE	Germany	Granted	07795158.0	22-May-2007	EP2027412 A	25-Feb-2009	2027412	4-Jul-2018	22-May-2027	Lighting Device	Cree, Inc.	
P0916EP	European Patent Convention	Granted	07795158.0	22-Dec-2008	EP2027412 A	25-Feb-2009	2027412	4-Jul-2018	22-May-2027	Lighting Device	Cree, Inc.	
P0916TW	Taiwan	Granted	96118338	23-May-2007			1412707	21-Oct-2013	23-May-2027	Lighting Device	Cree, Inc.	
P0917TW	Taiwan	Granted	96118337	23-May-2007			1447934	1-Aug-2014	23-May-2027	Lighting Device and Method of Making	Cree, Inc.	
P0918DE	Germany	Granted	07795294.3	24-May-2007			2033235	21-Jun-2017	24-May-2027	Solid State Lighting Emitting Device	Cree, Inc.	

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										and Method of Making Same		
P0918EP	European Patent Convention	Granted	07795294.3	24-May-2008			2033235	21-Jun-2017	24-May-2027	Solid State Light Emitting Device and Method of Making Same	Cree, Inc.	
P0918TW	Taiwan	Granted	96118669	25-May-2007			1425652	1-Feb-2014	25-May-2027	Solid State Light Emitting Device and Method of Making Same	Cree, Inc.	
P0926CN	China (People's Republic)	Granted	200780038066.8	10-Oct-2007	CN101558501 A	14-Oct-2009	ZL200780038066.8	22-Apr-2015	10-Oct-2027	Lighting Device and Method of Making Same	Cree, Inc.	
P0926JP	Japan	Granted	2009-532552	10-Oct-2007			5351034	30-Aug-2013	10-Oct-2027	Lighting Device and Method of Making Same	Cree, Inc.	
P0926TW	Taiwan	Granted	96137952	11-Oct-2007			1435468	21-Apr-2014	11-Oct-2027	Lighting Device and Method of Making Same	Cree, Inc.	
P0932CN	China (People's Republic)	Granted	200780043986.9	29-Nov-2007	CN101617411 A	30-Dec-2009	ZL200780043986.9	11-Jul-2012	29-Nov-2027	Lighting Device and Lighting Method	Cree, Inc.	
P0932DE	Germany	Granted	07864886.2	29-Nov-2007	EP2095438A	2-Sep-2009	2095438	30-Aug-2017	29-Nov-2027	Lighting Device and Lighting Method	Cree, Inc.	
P0932EP	European Patent Convention	Granted	07864886.2	22-Jun-2009	EP2095438A	2-Sep-2009	2095438	30-Aug-2017	29-Nov-2027	Lighting Device and Lighting Method	Cree, Inc.	
P0932JP	Japan	Granted	2009-539475	29-Nov-2007	2010-511976	15-Apr-2010	5171841	11-Jan-2013	29-Nov-2027	Lighting Device and Lighting Method	Cree, Inc.	
P0932TW	Taiwan	Granted	96145992	30-Nov-2007			1493745	21-Jul-2015	30-Nov-2027	Lighting Device and Lighting Method	Cree, Inc.	
P0940CN	China (People's Republic)	Granted	200880002765.1	22-Jan-2008	CN101652861 A	17-Feb-2010	ZL200880002765.1	23-Jan-2013	22-Jan-2028	Fault Tolerant Light Emitters, Systems Incorporating Fault Tolerant Light Emitters and Methods of Fabricating Fault Tolerant Light Emitters	Cree, Inc.	
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P0940DE	Germany	Granted	08728021.0	22-Jan-2008	EP2111640A	28-Oct-2009	2111640	8-May-2019	22-Jan-2028	Fault Tolerant Light Emitters, Systems Incorporating Fault Tolerant Light Emitters and Methods of Fabricating Fault Tolerant Light Emitters	Cree, Inc.	PATENT REEL: 056169 FRAME: 0199
P0940EP	European Patent Convention	Granted	08728021.0	22-Jan-2008	EP2111640A	28-Oct-2009	2111640	8-May-2019	22-Jan-2028	Fault Tolerant Light Emitters, Systems Incorporating Fault Tolerant Light Emitters and Methods of Fabricating Fault Tolerant Light Emitters	Cree, Inc.	
P0958CN	China (People's Republic)	Granted	200680048120.2	21-Dec-2006	CN101351891A	21-Jan-2009	ZL200680048120.2	19-Nov-2014	21-Dec-2026	Lighting Device	Cree, Inc.	
P0958DE	Germany	Granted	06848729.7	21-Dec-2006	EP1969633A	17-Sep-2008	1969633	29-Aug-2018	21-Dec-2026	Lighting Device	Cree, Inc.	
P0958EP	European Patent Convention	Granted	06848729.7	4-Jul-2008	EP1969633A	17-Sep-2008	1969633	29-Aug-2018	21-Dec-2026	Lighting Device	Cree, Inc.	
P0958TW	Taiwan	Granted	095148130	21-Dec-2006			I396814	21-May-2013	21-Dec-2026	Lighting Device	Cree, Inc.	
P0981CN	China (People's Republic)	Granted	200880002764.7	22-Jul-2009	CN101601135A	9-Dec-2009	ZL200880002764.7	27-Jun-2012	22-Jan-2028	Illumination Devices Using Externally Interconnected Arrays of Light Emitting Devices, and Methods of Fabricating Same	Cree, Inc.	
P0981DE	Germany	Granted	08728033.5	22-Jan-2008	EP2111641A	28-Oct-2009	2111641	30-Aug-2017	22-Jan-2028	Illumination Devices Using Externally Interconnected Arrays of Light Emitting Devices,	Cree, Inc.	

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									and Methods of Fabricating Same		PATENT REEL : 056169 FRAME: 0200
P0981EP	European Patent Convention	Granted	0872803.5	22- Jan- 2008	EP2111641A	28- Oct- 2009	2111641	30- Aug- 2017	22- Jan- 2028	Cree, Inc.	
P0981KR	Korea, Republic of	Granted	10-2009-7017522	22- Jan- 2008			10-1506356	20- Mar- 2015	22- Jan- 2028	Cree, Inc.	
									Interconnected Arrays of Light Emitting Devices, and Methods of Fabricating Same		
P0981TW	Taiwan	Granted	97102419	22- Jan- 2008	I440210	1- Jun- 2014	I440210	1- Jun- 2014	22- Jan- 2028	Cree, Inc.	
									Interconnected Arrays of Light Emitting Devices, and Methods of Fabricating Same		
P1004DE	Germany	Granted	09758707.5	15- Dec- 2010	2301071		2301071	8- May- 2019	29- May- 2029	Cree, Inc.	
P1004EP	European Patent Convention	Granted	09758707.5	15- Dec- 2010	2301071		2301071	8- May- 2019	29- May- 2029	Cree, Inc.	
P1009EP1	European Community	Granted	001090112	18- Feb- 2009			001090112-0001	18- Feb- 2009	18- Feb- 2034	Cree, Inc.	
P1009EP1- 10	European Community	Granted	001090112	18- Feb- 2009			001090112-00010	18- Feb- 2009	18- Feb- 2034	Cree, Inc.	
P1009EP1- 2	European Community	Granted	001090112	18- Feb- 2009			001090112-0002	18- Feb- 2009	18- Feb- 2034	Cree, Inc.	

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P1009EP1-3	European Community	Granted	001090112	18-Feb-2009			001090112-0003	18-Feb-2009	18-Feb-2034	Lighting Device	Cree, Inc.	
P1009EP1-4	European Community	Granted	001090112	18-Feb-2009			001090112-0004	18-Feb-2009	18-Feb-2034	Lighting Device	Cree, Inc.	
P1009EP1-5	European Community	Granted	001090112	18-Feb-2009			001090112-0005	18-Feb-2009	18-Feb-2034	Lighting Device	Cree, Inc.	
P1009EP1-6	European Community	Granted	001090112	18-Feb-2009			001090112-0006	18-Feb-2009	18-Feb-2034	Lighting Device	Cree, Inc.	PATENT
P1009EP1-7	European Community	Granted	001090112	18-Feb-2009			001090112-0007	18-Feb-2009	18-Feb-2034	Lighting Device	Cree, Inc.	
P1009EP1-8	European Community	Granted	001090112	18-Feb-2009			001090112-0008	18-Feb-2009	18-Feb-2034	Lighting Device	Cree, Inc.	
P1009EP1-9	European Community	Granted	001090112	18-Feb-2009			001090112-0009	18-Feb-2009	18-Feb-2034	Lighting Device	Cree, Inc.	
P1022CN	China (People's Republic)	Granted	200980149205.3	7-Dec-2009	CN102742038 A	17-Oct-2012	ZL200980149205.3	16-Dec-2015	7-Dec-2029	Lateral Flip Chip with Transparent Conductive Oxide and Omnidirectional Reflector	Cree, Inc.	
P1022DE	Germany	Granted	09836676.8	7-Dec-2009	2374164	12-Oct-2011	2374164	14-Nov-2018	7-Dec-2029	Lateral Flip Chip with Transparent Conductive Oxide and Omnidirectional Reflector	Cree, Inc.	
P1022EP	European Patent Convention	Granted	09836676.8	7-Dec-2009	2374164	12-Oct-2011	2374164	14-Nov-2018	7-Dec-2029	Lateral Flip Chip with Transparent Conductive Oxide and Omnidirectional Reflector	Cree, Inc.	
P1022GB	United Kingdom	Granted	09836676.8	7-Dec-2009	2374164	12-Oct-2011	2374164	14-Nov-2018	7-Dec-2029	Lateral Flip Chip with Transparent Conductive Oxide and Omnidirectional Reflector	Cree, Inc.	

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P1023JP	Japan	Granted	2011-542135	16-Jun-2011			5785499	31-Jul-2015	18-Dec-2029	Color Correction for Wafer Level White LEDs	Cree, Inc.	PATENT REEL: 056169 FRAME: 0202
P1024CN	China (People's Republic)	Granted	200980149203.4	8-Jun-2011	CN102742037 A	17-Oct-2012	ZL200980149203.4	9-Mar-2016	7-Dec-2029	Composite High Reflectivity Layer	Cree, Inc.	
P1024IN	India	Granted	4583/DELNP/2011	16-Jun-2011			346473	10-Sep-2020	7-Dec-2029	Composite High Reflectivity Layer	Cree, Inc.	
P1024JP	Japan	Granted	2011-539526	2-Jun-2011			5421386	29-Sep-2013	7-Dec-2029	Composite High Reflectivity Layer	Cree, Inc.	
P1024KR	Korea, Republic of	Granted	10-2011-7015872	8-Jul-2011	10-2011-0106347	28-Sep-2011	10-1677520	14-Nov-2016	7-Dec-2029	Composite High Reflectivity Layer	Cree, Inc.	
P1028CN	China (People's Republic)	Granted	200980142352.8	21-Oct-2009	CN102203495 A	28-Sep-2011	ZL200980142352.8	25-Aug-2017	21-Oct-2029	Array Layout for Color Mixing	Cree, Inc.	
P1028JP	Japan	Granted	2011-533175	22-Apr-2011	2012-507139	22-Mar-2012	5845088	27-Nov-2015	21-Oct-2029	Array Layout for Color Mixing	Cree, Inc.	
P1043CN	China (People's Republic)	Granted	201010159854.6	2-Apr-2010	CN101859758 A	13-Oct-2010	ZL201010159854.6	7-Jul-2017	2-Apr-2030	High Voltage Low Current Surface-Emitting LED	Cree, Inc.	
P1054CN	China (People's Republic)	Granted	201080032353.X	13-Jan-2012			ZL201080032353.X	25-Nov-2015	14-May-2030	Luminescent Particles, Methods and Light Emitting Devices Including the Same	Cree, Inc.	
P1054DE	Germany	Granted	10722231.7	14-May-2010	2430113	21-Mar-2012	2430113	3-Jan-2018	14-May-2030	Luminescent Particles, Methods and Light Emitting Devices Including the Same	Cree, Inc.	
P1054EP	European Patent Convention	Granted	10722231.7	10-Nov-2011	2430113	21-Mar-2012	2430113	3-Jan-2018	14-May-2030	Luminescent Particles, Methods and Light Emitting Devices Including the Same	Cree, Inc.	
P1054GB	United Kingdom	Granted	10722231.7	14-May-2010	2430113	21-Mar-2012	2430113	3-Jan-2018	14-May-2030	Luminescent Particles, Methods and Light Emitting Devices Including the Same	Cree, Inc.	

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P1054UN	India	Granted	9322/CHENP/2011	13-Dec-2011	9322/CHENP/2011 A	15-Feb-2013	296397	1-May-2018	14-May-2030	Luminescent Particles, Methods and Light Emitting Devices Including the Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0203
P1054JP	Japan	Granted	2012-511033	14-Nov-2011			5512801	4-Apr-2014	14-May-2030	LUMINESCENT PARTICLES, METHODS AND LIGHT EMITTING DEVICES INCLUDING THE SAME	Cree, Inc.	
P1054KR	Korea, Republic of	Granted	10-2011-7028313	28-Nov-2011			10-1761932	20-Jul-2017	14-May-2030	Luminescent Particles, Methods and Light Emitting Devices Including the Same	Cree, Inc.	
P1064JP	Japan	Granted	2012-519657	6-Jan-2012	2012-533175	20-Dec-2012	5769705	3-Jul-2015	6-Jul-2030	Lighting Structures Including Diffuser Particles Comprising Phosphor Host Materials	Cree, Inc.	
P1073CN	China (People's Republic)	Granted	201080017142.9	18-Oct-2011	102405372	4-Apr-2012	ZL201080017142.9	22-Jul-2015	5-Feb-2030	Methods for Combining Light Emitting Devices in a Packages and Packages Including Combined Light Emitting Devices	Cree, Inc.	
P1073DE	Germany	Granted	10704866.2	5-Feb-2010	2399062	28-Dec-2011	2399062	20-Apr-2016	5-Feb-2030	Methods for Combining Light Emitting Devices in a Packages and Packages Including Combined Light Emitting Devices	Cree, Inc.	
P1073EP	European Patent Convention	Granted	10704866.2	5-Feb-2010	2399062	28-Dec-2011	2399062	20-Apr-2016	5-Feb-2030	Methods for Combining Light Emitting Devices in a Packages and Packages Including Combined Light Emitting Devices	Cree, Inc.	

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P1073JP	Japan	Granted	2011-551112	18-Aug-2011			5694199	13-Feb-2015	5-Feb-2030	Methods for Combining Light Emitting Devices in a Packages and Packages Including Combined Light Emitting Devices	Cree, Inc.	
P1079TW	Taiwan	Granted	099121883	2-Jul-2010	201126211	1-Aug-2011	1545353	11-Aug-2016	2-Jul-2030	Improved High Reflectivity Mirrors and Method for Making Same	Cree, Inc.	
P1095JP	Japan	Granted	2012-537884	2-May-2012	2013-510439	21-Mar-2013	5689136	6-Feb-2015	29-Sep-2030	Solid State Emitter Package Including Multiple Emitters	Cree, Inc.	
P1095KR	Korea, Republic of	Granted	10-2012-7014954	8-Jun-2012			10-1345404	19-Dec-2013	29-Sep-2030	Solid State Emitter Package Including Multiple Emitters	Cree, Inc.	
P1102CN	China (People's Republic)	Granted	201080030421.9	6-Jan-2012	CN102473822 A	23-May-2012	ZL201080030421.9	28-Sep-2016	28-Jun-2030	LED Packages with Scattering Particle Regions	Cree, Inc.	
P1102DE	Germany	Granted	10739724.2	31-Jan-2012	2452374	16-May-2012	2452374	27-Nov-2019	28-Jun-2030	LED Packages with Scattering Particle Regions	Cree, Inc.	
P1102EP	European Patent Convention	Granted	10739724.2	31-Jan-2012	2452374	16-May-2012	2452374	27-Nov-2019	28-Jun-2030	LED Packages with Scattering Particle Regions	Cree, Inc.	
P1102JP	Japan	Granted	2012-519534	27-Dec-2011			5676599	9-Jan-2015	28-Jun-2030	LED Packages with Scattering Particle Regions	Cree, Inc.	
P1112CN	China (People's Republic)	Granted	201080026730.9	16-Dec-2011	CN102460744 A	16-May-2012	ZL201080026730.9	12-Nov-2014	23-Feb-2030	Semiconductor Light Emitting Diodes Having Reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes
P1112DE	Germany	Granted	10705732.5	23-Feb-2010	EP2430673	21-Mar-2012	2430673	27-May-2020	23-Feb-2030	Semiconductor Light Emitting Diodes Having Reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes

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P1112EP	European Patent Convention	Granted	10705732.5	23-Feb-2010	EP2430673	21-Mar-2012	2430673	27-May-2020	23-Feb-2030	Semiconductor Light Emitting Diodes Having Reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes
P1112FR	France	Granted	10705732.5	23-Feb-2010	EP2430673	21-Mar-2012	2430673	27-May-2020	23-Feb-2030	Semiconductor Light Emitting Diodes Having Reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes
P1112GB	United Kingdom	Granted	10705732.5	23-Feb-2010	EP2430673	21-Mar-2012	2430673	27-May-2020	23-Feb-2030	Semiconductor Light Emitting Diodes Having Reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes
P1112JP	Japan	Granted	2012-510802	7-Nov-2011	2012-527116	1-Nov-2012	5797640	28-Aug-2015	23-Feb-2030	Semiconductor Light Emitting Diodes having reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes
P1112JP3	Japan	Granted	2017-098246	17-May-2017	2017-163154	14-Sep-2017	6530442	24-May-2019	23-Feb-2030	Semiconductor Light Emitting Diodes having reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes
P1112NL	Netherlands	Granted	10705732.5	23-Feb-2010	EP2430673	21-Mar-2012	2430673	27-May-2020	23-Feb-2030	Semiconductor Light Emitting Diodes Having Reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes
P1113DE	Germany	Granted	11740222.2	31-Jan-2011	2532033	12-Dec-2012	2532033	23-Aug-2017	31-Jan-2031	Group III Nitride Based Light Emitting Diode Structures with Multiple Quantum	Cree, Inc.	

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										Well Structures Having Varying Well Thickness		
P1113EP	European Patent Convention	Granted	11740222.2	27-Jul-2012	2532033	12-Dec-2012	2532033	23-Aug-2017	31-Jan-2031	Group III Nitride Based Light Emitting Diode Structures with Multiple Quantum Well Structures Having Varying Well Thickness	Cree, Inc.	
P1116CN	China (People's Republic)	Granted	201080027586.0	21-Dec-2011	CN102484190 A	30-May-2012	ZL201080027586.0	3-Feb-2016	27-Apr-2030	LED Package with Increased Feature Sizes	Cree, Inc.	PATENT REEL: 056169 FRAME: 0206
P1116RU	Russian Federation	Granted	2011146934	21-Nov-2011			2538354	9-Nov-2014	27-Apr-2030	LED Package with Increased Feature Sizes	Cree, Inc.	
P1116TW	Taiwan	Granted	099113616	28-Apr-2010	201042785	1-Dec-2010	I505508	21-Oct-2015	28-Apr-2030	LED Package with Increased Feature Sizes	Cree, Inc.	
P1123CN	China (People's Republic)	Granted	201080035958.4	9-Feb-2012	102668132	12-Sep-2012	ZL201080035958.4	23-Sep-2015	26-May-2030	Front End Scribing of Light Emitting Diode (LED) Wafers and Resulting Devices	Cree, Inc.	
P1134CN	China (People's Republic)	Granted	201080030486.3	5-Jan-2012	CN102460751 A	16-May-2012	ZL201080030486.3	8-Jul-2015	19-May-2030	Solid State Lighting Device	Cree, Inc.	
P1134DE	Germany	Granted	10783782.5	5-Jan-2012	2438631	11-Apr-2012	2438631	10-Apr-2019	19-May-2030	Solid State Lighting Device	Cree, Inc.	
P1134EP	European Patent Convention	Granted	10783782.5	5-Jan-2012	2438631	11-Apr-2012	2438631	10-Apr-2019	19-May-2030	Solid State Lighting Device	Cree, Inc.	
P1138CN	China (People's Republic)	Granted	201180021906.6	30-Oct-2012	CN102870242	9-Jan-2013	ZL201180021906.6	8-Jun-2016	28-Feb-2031	White-Emitting LED Chips and Method for Making Same	Cree, Inc.	Yes
P1138JP	Japan	Granted	2013-509039	31-Oct-2012	2013-526078	20-Jun-2013	5918221	15-Apr-2016	28-Feb-2031	White-Emitting LED Chips and Method for Making Same	Cree, Inc.	Yes

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P1148CN	China (People's Republic)	Granted	201080046495.1	9- Apr- 2012	102612760	25- Jul- 2012	ZL201080046495.1	13- May- 2015	29- Jul- 2030	Light Emitting Diodes Including Integrated Backside Reflector and Die Attach	Cree, Inc.	
P1148JP	Japan	Granted	2012-524727	9- Feb- 2012	2013-502071	17- Jan- 2013	5846560	4- Dec- 2015	29- Jul- 2030	Light Emitting Diodes Including Integrated Backside Reflector and Die Attach	Cree, Inc.	
P1176TW	Taiwan	Granted	100105864	22- Feb- 2011	201203503	16- Jan- 2012	1463636	1- Dec- 2014	22- Feb- 2031	High CRI Lighting Device with Added Long-Wavelength Blue Color	Cree, Inc.	
P1185CN	China (People's Republic)	Granted	201080021470.6	15- Nov- 2011	CN 102439682 A	2- May- 2012	ZL 201080021470.6	9- Mar- 2016	9- Nov- 2030	LUMINESCENT PARTICLES, METHODS OF IDENTIFYING SAME AND LIGHT EMITTING DEVICES INCLUDING THE SAME	Cree, Inc.	
P1185JP	Japan	Granted	2012-520843	14- Nov- 2011			5989542	19- Aug- 2016	9- Nov- 2030	Luminescent Particles, Methods of Identifying Same and Light Emitting Devices Including the Same	Cree, Inc.	
P1185KR	Korea, Republic of	Granted	10-2011-7027105	14- Nov- 2011			10-1690813	22- Dec- 2016	9- Nov- 2030	Luminescent Particles, Methods of Identifying Same and Light Emitting Devices Including the Same	Cree, Inc.	
P1185TW	Taiwan	Granted	099139421	16- Nov- 2010	201126756	1- Aug- 2011	I575771	21- Mar- 2017	16- Nov- 2030	Luminescent Particles, Methods of Identifying Same and Light Emitting Devices Including the Same	Cree, Inc.	

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P1202EP	European Patent Convention	Granted	11772447.6	19-Oct-2012	2561559	27-Feb-2013	2561559	8-Jul-2020	13-Apr-2031	Solid State Light Emitting Diode Packages with Leadframes and Ceramic Material and Methods of Forming the Same	Cree, Inc.	PATENT REEL: 056169 FRAME: 0208
P1202GB	United Kingdom	Granted	11772447.6	19-Oct-2012	2561559	27-Feb-2013	2561559	8-Jul-2020	13-Apr-2031	Solid State Light Emitting Diode Packages with Leadframes and Ceramic Material and Methods of Forming the Same	Cree, Inc.	
P1202JP	Japan	Granted	2013-506177	22-Oct-2012	2013-526037	20-Jun-2013	5958770	1-Jul-2016	13-Apr-2031	Solid State Light Emitting Diode Packages with Leadframes and Ceramic Material and Methods of Forming the Same	Cree, Inc.	
P1210DE	Germany	Granted	12782214.6	3-Dec-2013	2707909	19-Mar-2014	2707909	7-Aug-2019	5-Mar-2032	Recipient Luminophoric Mediums Having Narrow-Spectrum Luminescent Materials and Related Semiconductor Light Emitting Devices and Methods	Cree, Inc.	
P1210EP	European Patent Convention	Granted	12782214.6	3-Dec-2013	2707909		2707909	7-Aug-2019	5-Mar-2032	Recipient Luminophoric Mediums Having Narrow-Spectrum Luminescent Materials and Related Semiconductor Light Emitting Devices and Methods	Cree, Inc.	Yes

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P1212CN	China (People's Republic)	Granted	201180051188.7	23-Apr-2013	CN103180976 A	26-Jun-2013	ZL201180051188.7	4-May-2016	18-Aug-2031	Emitter Package with Angled or Vertical LED	Cree, Inc.; Cree Hong Kong Limited	
P1212TW	Taiwan	Granted	100130234	24-Aug-2011	201216527	16-Apr-2012	I580076	21-Apr-2017	24-Aug-2031	Emitter Package with Angled or Vertical LED	Cree, Inc.; Cree Hong Kong Limited	
P1225CN	China (People's Republic)	Granted	201180060870.2	15-Jun-2013	CN103339729 A	2-Oct-2013	ZL201180060870.2	8-Jun-2016	11-Oct-2031	High Voltage waive Bond Free LEDs	Cree, Inc.	
P1238CN	China (People's Republic)	Granted	201180023439.0	9-Nov-2012	102893365	23-Jan-2013	ZL201180023439.0	8-Jun-2016	7-Mar-2031	Methods of Forming Warm White Light Emitting Devices Having High Color Rendering Index Values and Related Light Emitting Devices	Cree, Inc.	PATENT REEL: 056169 FRAME: 0209
P1238DE	Germany	Granted	11753863.7	7-Mar-2011			2545577	19-Sep-2018	7-Mar-2031	Methods of Forming Warm White Light Emitting Devices Having High Color Rendering Index Values and Related Light Emitting Devices	Cree, Inc.	
P1238EP	European Patent Convention	Granted	11753863.7	28-Sep-2012			2545577	19-Sep-2018	7-Mar-2031	Methods of Forming Warm White Light Emitting Devices Having High Color Rendering Index Values and Related Light Emitting Devices	Cree, Inc.	
P1238JP	Japan	Granted	2012-557148	6-Nov-2012	2013-522875	13-Jun-2013	5766728	26-Jun-2015	7-Mar-2031	Methods of Forming Warm White Light Emitting Devices Having High Color Rendering Index Values and Related	Cree, Inc.	

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P1285TW	Taiwan	Granted	100126672	27-Jul-2011	201222900	1-Jun-2012	1515932	1-Jan-2016	27-Jul-2031	LED PACKAGE WITH EFFICIENT, ISOLATED THERMAL PATH	Cree, Inc.	
P1295DE	Germany	Granted	11748482.4	6-Jul-2011			2591280	13-Dec-2017	6-Jul-2031	Compact Optically Efficient Solid State Light Source with Integrated Thermal Management	Cree, Inc.	
P1295EP	European Patent Convention	Granted	11748482.4	6-Jul-2011			2591280	13-Dec-2017	6-Jul-2031	Compact Optically Efficient Solid State Light Source with Integrated Thermal Management	Cree, Inc.	
P1319CN	China (People's Republic)	Granted	201180053323.1	6-May-2013	CN103189981 A	3-Jul-2013	ZL201180053323.1	19-Apr-2017	19-Sep-2031	High Density Multi-Chip LED Devices	Cree, Inc.	
P1319CN2	China (People's Republic)	Granted	201130249077.X	29-Jul-2011			ZL201130249077.X	30-May-2012	29-Jul-2021	Multi-Chip LEDs	Cree, Inc.	
P1319TW2	Taiwan	Granted	100303968	1-Aug-2011			D148537	1-Aug-2012	1-Aug-2023	High Density Multi-Chip LED Devices	Cree, Inc.	
P1327CN2	China (People's Republic)	Granted	201130249221.X	29-Jul-2011			ZL201130249221.X	15-Aug-2012	29-Jul-2021	Multi-Chip LED Lamp Components	Cree, Inc.	
P1327KR	Korea, Republic of	Granted	10-2013-7009678	16-Apr-2013	10-2013-0079541	10-Jul-2013	10-1487867	23-Jan-2015	19-Sep-2031	Multi-Chip LED Devices	Cree, Inc.	
P1327TW	Taiwan	Granted	100133870	20-Sep-2011	201234678	16-Aug-2012	1451604	1-Sep-2014	20-Sep-2031	Multi-Chip LED Devices	Cree, Inc.	
P1327TW2	Taiwan	Granted	100303967	1-Aug-2011	D152509	21-Mar-2013	D152509	21-Mar-2013	1-Aug-2023	Light-Emitting Diode Package	Cree, Inc.	
P1328CN2	China (People's Republic)	Granted	201130227081.6	12-Jul-2011			ZL 201130227081.6	1-May-2013	12-Jul-2021	MULTIPLE CONFIGURATION LIGHT EMITTING DEVICES AND METHODS	Cree, Inc.	
P1328TW2	Taiwan	Granted	100303944	29-Jul-2011			D148141	11-Jul-2012	28-Jul-2026	MULTIPLE CONFIGURATION LIGHT EMITTING	Cree, Inc.	

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									DEVICES AND METHODS		
P1328TW3	Taiwan	Granted	100303945	29-Jul-2011		D148142	11-Jul-2012	28-Jul-2026	MULTIPLE CONFIGURATION LIGHT EMITTING DEVICES AND METHODS	Cree, Inc.	
P1332KR	Korea, Republic of	Granted	10-2012-7031924	5-Dec-2012		10-1578090	10-Dec-2015	3-Oct-2031	Light Emitting Devices and Methods	Cree, Inc.	
P1332TW	Taiwan	Granted	100137044	12-Oct-2011	201222902	1-Jun-2012	11-Jul-2017	12-Oct-2031	Light Emitting Devices and Methods	Cree, Inc.	
P1335CN	China (People's Republic)	Granted	201280037886.6	28-Jan-2014		ZL201280037886.6	20-Jul-2016	31-May-2032	RED NITRIDE PHOSPHORS	Cree, Inc.	
P1335TW	Taiwan	Granted	101119308	30-May-2012	201302978	16-Jan-2013	21-Oct-2016	30-May-2032	RED NITRIDE PHOSPHORS	Cree, Inc.	
P1337DE	Germany	Granted	12726990.0	31-May-2012	EP2718397	16-Apr-2014	25-Apr-2018	31-May-2032	Gallium-Substituted Yttrium Aluminum Garnet Phosphor and Light Emitting Devices Including the Same	Cree, Inc.	
P1337EP	European Patent Convention	Granted	12726990.0	26-Nov-2013	EP2718397	16-Apr-2014	25-Apr-2018	31-May-2032	Gallium-Substituted Yttrium Aluminum Garnet Phosphor and Light Emitting Devices Including the Same	Cree, Inc.	
P1337JP	Japan	Granted	2014-514501	2-Apr-2014		6134706	28-Apr-2017	31-May-2032	GALLIUM-SUBSTITUTED YTTRIUM ALUMINUM GARNET PHOSPHOR AND LIGHT EMITTING DEVICES INCLUDING THE SAME	Cree, Inc.	
P1348CN	China (People's Republic)	Granted	201180061776.9	21-Jun-2013	CN103270614 A	28-Aug-2013	24-May-2017	31-Oct-2031	Light Emitting Devices and Methods	Cree, Inc.	

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P1348CN2	China (People's Republic)	Granted	201180065495.0	19-Jul-2013	CN 103329290 A	25-Sep-2013	ZL201180065495.0	29-Sep-2017	31-Oct-2031	Light Emitting Devices and Methods	Cree, Inc.	PATENT REEL: 056169 FRAME: 0213
P1348JP2	Japan	Granted	2013-540955	22-May-2013	2014-505994	6-Mar-2014	6106859	17-Mar-2017	31-Oct-2031	Light Emitting Devices and Methods	Cree, Inc.	
P1348TW	Taiwan	Granted	100141887	16-Nov-2011	201230398	16-Jul-2012	1502772	1-Oct-2015	16-Nov-2031	Light Emitting Devices and Methods	Cree, Inc.	
P1348TW2	Taiwan	Granted	100141889	16-Nov-2011	201232813	1-Aug-2012	1481072	11-Apr-2015	16-Nov-2031	Light Emitting Devices and Methods	Cree, Inc.	
P1349CN	China (People's Republic)	Granted	201130139847.5	23-May-2011			ZL201130139847.5	1-Aug-2012	23-May-2021	LIGHT EMITTING DEVICE PACKAGE	Cree, Inc.	PATENT REEL: 056169 FRAME: 0213
P1349CN2	China (People's Republic)	Granted	201230099913.5	9-Apr-2012			ZL201230099913.5	7-Nov-2012	23-May-2021	LIGHT EMITTING DEVICE PACKAGE	Cree, Inc.	
P1349CN3	China (People's Republic)	Granted	201230099954.4	9-Apr-2012			ZL201230099954.4	5-Dec-2012	23-May-2021	LIGHT EMITTING DEVICE PACKAGE	Cree, Inc.	
P1349CN4	China (People's Republic)	Granted	201230099981.1	9-Apr-2012			ZL201230099981.1	5-Dec-2012	23-May-2021	LIGHT EMITTING DEVICE PACKAGE	Cree, Inc.	
P1363CN	China (People's Republic)	Granted	201130166527.9	2-Jun-2011			ZL201130166527.9	1-Aug-2012	2-Jun-2021	Light Emitting Device Package	Cree, Inc.	PATENT REEL: 056169 FRAME: 0213
P1365CN	China (People's Republic)	Granted	201130171313.0	7-Jun-2011			ZL201130171313.0	18-Apr-2012	7-Jun-2021	LIGHT EMITTING DEVICE PACKAGE	Cree, Inc.	
P1375CN	China (People's Republic)	Granted	201280013372.7	16-Sep-2013	CN103703311	2-Apr-2014	ZL201280013372.7	24-Aug-2016	24-Jan-2032	Lighting Apparatus Providing Increased Luminous Flux While Maintaining Color Point CRI	Cree, Inc.	
P1375DE	Germany	Granted	12742738.3	24-Jan-2012	2671019	11-Dec-2013	2671019	23-Nov-2016	24-Jan-2032	Lighting Apparatus Providing Increased Luminous Flux While Maintaining Color Point CRI	Cree, Inc.	

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P1375EP	European Patent Convention	Granted	12742738.3	9-Aug-2013	2671019	11-Dec-2013	2671019	23-Nov-2016	24-Jan-2032	Lighting Apparatus Providing Increased Luminous Flux While Maintaining Color Point CRI	Cree, Inc.	
P1385CN	China (People's Republic)	Granted	201130210595.0	30-Jun-2011			ZL 201130210595.0	23-May-2012	30-Jun-2021	HIGH BRIGHTNESS LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1385EP1	European Community	Granted		1-Jul-2011			001283600/0001	22-Aug-2011	1-Jul-2036	HIGH BRIGHTNESS LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1385EP1-2	European Community	Granted		1-Jul-2011			001283600/0002	22-Aug-2011	1-Jul-2036	HIGH BRIGHTNESS LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1385EP1-3	European Community	Granted		1-Jul-2011			001283600/0003	22-Aug-2011	1-Jul-2036	HIGH BRIGHTNESS LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1385JP	Japan	Granted	2011015199	1-Jul-2011			1431637	9-Dec-2011	9-Dec-2031	HIGH BRIGHTNESS LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1385JP2	Japan	Granted	2011015200	1-Jul-2011			1433030	6-Jan-2012	6-Jan-2032	HIGH BRIGHTNESS LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1385JP3	Japan	Granted	2011015201	1-Jul-2011			1433335	6-Jan-2012	6-Jan-2032	HIGH BRIGHTNESS LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1385KR	Korea, Republic of	Granted	30-2011-27243	1-Jul-2011			30-679457	30-Jan-2013	30-Jan-2028	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	

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P1385KR2	Korea, Republic of	Granted	30-2011-27244	1-Jul-2011			30-679962	1-Feb-2013	1-Feb-2028	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1385KR3	Korea, Republic of	Granted	30-2011-27245	1-Jul-2011			30-679937	1-Feb-2013	1-Feb-2028	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1386TW	Taiwan	Granted	101102722	20-Jan-2012	201236219	1-Sep-2012	1560915	1-Dec-2016	20-Jan-2032	LIGHT EMITTING DIODE (LED) DEVICES, SYSTEMS AND METHODS	Cree, Inc.	
P1415DE	Germany	Granted	12742154.3	9-Aug-2013	2671267	11-Dec-2013	2671267	4-Mar-2020	18-Jan-2032	Reflective Mounting Substrates for Flip-Chip Mounted Horizontal LEDs	Cree, Inc.	
P1415EP	European Patent Convention	Granted	12742154.3	9-Aug-2013	2671267	11-Dec-2013	2671267	4-Mar-2020	18-Jan-2032	Reflective Mounting Substrates for Flip-Chip Mounted Horizontal LEDs	Cree, Inc.	
P1428CN	China (People's Republic)	Granted	201280037810.3	28-Jan-2014			ZL201280037810.3	31-Aug-2016	31-May-2032	Coated Phosphors and Light Emitting Devices Including the Same	Cree, Inc.	
P1428DE	Germany	Granted	12726991.8	31-May-2012	EP2714840	9-Apr-2014	2714840	13-Apr-2016	31-May-2032	Coated Phosphors and Light Emitting Devices Including the Same	Cree, Inc.	
P1428EP	European Patent Convention	Granted	12726991.8	2-Jan-2014	EP2714840	9-Apr-2014	2714840	13-Apr-2016	31-May-2032	COATED PHOSPHORS AND LIGHT EMITTING DEVICES INCLUDING THE SAME	Cree, Inc.	
P1428JP	Japan	Granted	2014-513678	3-Feb-2014			6309448	23-Mar-2018	31-May-2032	COATED PHOSPHORS AND LIGHT EMITTING DEVICES INCLUDING THE SAME	Cree, Inc.	
P1428TW	Taiwan	Granted	101119310	30-May-2012			1582211	11-May-2017	30-May-2032	COATED PHOSPHORS AND LIGHT EMITTING DEVICES	Cree, Inc.	

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P1429CN	China (People's Republic)	Granted	201280037377.3	27- Jan- 2014		ZL201280037377.3	26- Aug- 2015	31- May- 2032	METHODS OF DETERMINING AND MAKING RED NITRIDE COMPOSITIONS	Cree, Inc.	
P1429TW	Taiwan	Granted	101119309	30- May- 2012		1542663	21- Jul- 2016	30- May- 2032	METHODS OF DETERMINING AND MAKING RED NITRIDE COMPOSITIONS	Cree, Inc.	
P1433CN	China (People's Republic)	Granted	201280043429.8	6- Mar- 2014		ZL201280043429.8	30- Jun- 2017	4- Sep- 2032	LIGHT EMITTER PACKAGES AND DEVICES HAVING IMPROVED WIRE BONDING AND RELATED METHODS	Cree, Inc.	
P1445CN	China (People's Republic)	Granted	201280058607.4	28- May- 2014		ZL201280058607.4	3- Oct- 2017	14- Nov- 2032	Complex Primary Optics for LED Packages and Methods for Fabricating the Same	Cree, Inc.	
P1447CN	China (People's Republic)	Granted	201280030330.4	20- Dec- 2013		ZL201280030330.4	1- Mar- 2017	10- May- 2032	Gap Engineering for Flip-Chip Mounted Horizontal LEDs	Cree, Inc.	
P1455CN	China (People's Republic)	Granted	201280021567.6	1- Nov- 2013		ZL201280021567.6	29- Mar- 2017	2- May- 2032	LIGHT EMITTING DIODE (LED) PACKAGES, SYSTEMS, DEVICES AND RELATED METHODS	Cree, Inc.	
P1458CN	China (People's Republic)	Granted	201280041229.9	18- Dec- 2013		ZL201280041229.9	6- Apr- 2018	20- Apr- 2032	LED Structure with Enhanced Mirror Reflectivity	Cree, Inc.	Yes
P1498CN	China (People's Republic)	Granted	201230001815.3	6-Jan- 2012		ZL201230001815.3	13- Mar- 2013	6- Jan- 2022	LED Component	Cree, Inc.	

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P1499CN	China (People's Republic)	Granted	201280044022.7	10-Mar-2014	CN103782402 A	7-May-2014	ZL201280044022.7	1-Dec-2017	20-Jul-2032	LIGHT EMITTER DEVICE PACKAGES, COMPONENTS, AND METHODS FOR IMPROVED CHEMICAL RESISTANCE AND RELATED METHODS	Cree, Inc.	PATENT REEL: 056169 FRAME: 0217
P1505CN	China (People's Republic)	Granted	201280069044.9	5-Aug-2014	CN104115293 A	22-Oct-2014	ZL201280069044.9	6-Jul-2018	29-Nov-2032	LIGHT EMITTER DEVICES AND METHODS FOR IMPROVED LIGHT EXTRACTION	Cree, Inc.	
P1519CN	China (People's Republic)	Granted	201280066174.7	4-Jul-2014	CN104081112 A	1-Oct-2014	ZL201280066174.7	16-Mar-2016	7-Nov-2032	HIGH VOLTAGE ARRAY LIGHT EMITTING DIODE (LED) DEVICES AND METHODS	Cree, Inc.	
P1528JP	Japan	Granted	2014-548830	23-Jun-2014	2015-503840	2-Feb-2015	5937696	20-May-2016	19-Dec-2032	IMPROVED LIGHT EMITTING DEVICES AND METHODS	Cree, Inc.	
P1538CN	China (People's Republic)	Granted	201230073375.2	23-Mar-2012			ZL201230073375.2	1-May-2013	23-Mar-2022	Lamp Packages	Cree, Inc.	
P1538JP	Japan	Granted	2012-006431	22-Mar-2012			1461807	11-Jan-2013	11-Jan-2033	Lamp Packages	Cree, Inc.	
P1538TW	Taiwan	Granted	101301598	23-Mar-2012			D157837	11-Dec-2013	23-Mar-2024	Lamp Packages	Cree, Inc.	
P1539CN	China (People's Republic)	Granted	201230073385.6	23-Mar-2012			ZL201230073385.6	1-May-2013	23-Mar-2022	Lamp Packages	Cree, Inc.	
P1539JP	Japan	Granted	2012-006430	22-Mar-2012			1461806	11-Jan-2013	11-Jan-2033	Lamp Packages	Cree, Inc.	
P1539TW	Taiwan	Granted	101301597	23-Mar-2012			D157836	11-Dec-2013	23-Mar-2024	Lamp Packages	Cree, Inc.	

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P1541CN	China (People's Republic)	Granted	201230130915.6	25- Apr- 2012			ZL201230130915.6	30- Oct- 2013	25- Apr- 2022	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1541CN2	China (People's Republic)	Granted	201330361367.2	30- Jul- 2013			ZL201330361367.2	29- Jan- 2014	25- Apr- 2022	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1541EP1	European Community	Granted	002033449	26- Apr- 2012			002033449-0001	26- Apr- 2012	26- Apr- 2037	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1541EP1- 2	European Community	Granted	002033449	26- Apr- 2012			002033449-0002	26- Apr- 2012	26- Apr- 2037	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1541EP1- 3	European Community	Granted	002033449	26- Apr- 2012			002033449-003	26- Apr- 2012	26- Apr- 2037	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1541KR	Korea, Republic of	Granted	30-2012-0020196	26- Apr- 2012			30-0753131	14- Jul- 2014	14- Jul- 2029	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1541KR2	Korea, Republic of	Granted	30-2012-0020197	26- Apr- 2012			30-0753132	14- Jul- 2014	14- Jul- 2029	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1541TW	Taiwan	Granted	102300058	26- Apr- 2012			D160580	11- May- 2014	26- Apr- 2024	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1541TW2	Taiwan	Granted	102300059	26- Apr- 2012			D160581	11- May- 2014	26- Apr- 2024	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1541TW3	Taiwan	Granted	101302309	26- Apr- 2012			D156539	21- Oct- 2013	26- Apr- 2024	LIGHT EMITTING DEVICE COMPONENT	Cree, Inc.	
P1557CN	China (People's Republic)	Granted	201230501058.6	19- Oct- 2012			ZL201230501058.6	22- Jan- 2014	19- Oct- 2022	Solid State Lighting Apparatus	Cree, Inc.	
P1708CN	China (People's Republic)	Granted	201280060437.3	6- Jun- 2014	CN103988324 A	13- Aug- 2014	ZL2012800604373	29- Mar- 2017	30- Nov- 2032	LIGHT EMITTER DEVICES AND METHODS WITH REDUCED DIMENSIONS AND IMPROVED LIGHT OUTPUT	Cree, Inc.	
P1745CN	China (People's Republic)	Granted	201280036076.9	21- Jan- 2014	CN103688372 A	26- Mar- 2014	ZL201280036076.9	16- Feb- 2018	11- Jun- 2032	Gel Layers for Light Emitting Diodes and	Cree, Inc.	

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									Methods of Fabricating Same			
P1751CN	China (People's Republic)	Granted	201380018373.5	30- Sep- 2014	CN104247061 A	3- Oct- 2013	ZL201380018373.5	13- Feb- 2018	25- Mar- 2033	Ceramic-Based Light Emitting Diode (LED) Devices, Components and Methods	Cree, Inc.	
P1766CN	China (People's Republic)	Granted	201380018187.1	29- Sep- 2014	104205380	10- Dec- 2014	ZL201380018187.1	11- Sep- 2018	27- Mar- 2033	LIGHT EMITTER COMPONENTS AND METHODS HAVING IMPROVED ELECTRICAL CONTACTS	Cree, Inc.	PATENT REEL: 056169 FRAME: 0219
P1792CN	China (People's Republic)	Granted	201230472866.4	29- Sep- 2012			ZL201230472866.4	1- May- 2013	29- Sep- 2022	LIGHT EMITTING DEVICE	Cree, Inc.	
P1792JP	Japan	Granted	2012-023963	1- Oct- 2012			1476166	5- Jul- 2013	5- Jul- 2033	LIGHT EMITTING DEVICE	Cree, Inc.	
P1792JP2	Japan	Granted	2012-026117	26- Oct- 2012			1476175	5- Jul- 2013	5- Jul- 2033	LIGHT EMITTING DEVICE	Cree, Inc.	
P1792TW	Taiwan	Granted	102301581	1- Oct- 2012			D159849	11- Apr- 2014	1- Oct- 2024	LIGHT EMITTING DEVICE	Cree, Inc.	
P1792TW2	Taiwan	Granted	102301582	1- Oct- 2012			D160508	11- May- 2014	1- Oct- 2024	LIGHT EMITTING DEVICE	Cree, Inc.	
P1792TW3	Taiwan	Granted	102301583	1- Oct- 2012			D159850	11- Apr- 2014	1- Oct- 2024	LIGHT EMITTING DEVICE	Cree, Inc.	
P1792TW4	Taiwan	Granted	102301584	1- Oct- 2012			D160509	11- May- 2014	1- Oct- 2024	LIGHT EMITTING DEVICE	Cree, Inc.	
P1792TW5	Taiwan	Granted	102301585	1- Oct- 2012			D159851	11- Apr- 2014	1- Oct- 2024	LIGHT EMITTING DEVICE	Cree, Inc.	
P1793CN	China (People's Republic)	Granted	201280073778.4	5- Dec- 2014	CN104364904 A	18- Feb- 2015	ZL201280073778.4	8- Dec- 2017	6- Apr- 2032	Light Emitting Diode (LED) Components and Methods for	Cree, Inc.	

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									Improved Light Extraction		PATENT REEL: 056169 FRAME: 0220
P1814CN	China (People's Republic)	Granted	201230476421.3	8-Oct-2012		ZL 201230476421.3	7-May-2014	8-Oct-2022	Light Emitter Package	Cree, Inc.	
P1814EP1	European Community	Granted	002114934	8-Oct-2012		002114934-0001	8-Oct-2012	8-Oct-2037	LIGHT EMITTER PACKAGE	Cree, Inc.	
P1814EP1-2	European Community	Granted	002114934	8-Oct-2012		002114934-0002	8-Oct-2012	8-Oct-2037	LIGHT EMITTER PACKAGE	Cree, Inc.	
P1814JP	Japan	Granted	2012-024518	9-Oct-2012		1485299	1-Nov-2013	1-Nov-2033	LED-ARRAY PACKAGE	Cree, Inc.	
P1834CN2	China (People's Republic)	Granted	201380029065.2	1-Dec-2014	104396036	4-Mar-2015	ZL201380029065.2	29-May-2018	31-May-2033	LIGHT EMITTER PACKAGES, SYSTEMS, AND METHODS	Cree, Inc.
P1834DE	Germany	Granted	13797813.6	4-Dec-2014	2856525	8-Apr-2015	2856525	14-Oct-2020	31-May-2033	LIGHT EMITTER PACKAGES, SYSTEMS, AND METHODS HAVING IMPROVED PERFORMANCE	Cree, Inc.
P1834EP	European Patent Convention	Granted	13797813.6	4-Dec-2014	2856525	8-Apr-2015	2856525	14-Oct-2020	31-May-2033	LIGHT EMITTER PACKAGES, SYSTEMS, AND METHODS HAVING IMPROVED PERFORMANCE	Cree, Inc.
P1834FR	France	Granted	13797813.6	4-Dec-2014	2856525	8-Apr-2015	2856525	14-Oct-2020	31-May-2033	LIGHT EMITTER PACKAGES, SYSTEMS, AND METHODS HAVING IMPROVED PERFORMANCE	Cree, Inc.
P1834GB	United Kingdom	Granted	13797813.6	4-Dec-2014	2856525	8-Apr-2015	2856525	14-Oct-2020	31-May-2033	LIGHT EMITTER PACKAGES, SYSTEMS, AND METHODS	Cree, Inc.

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										HAVING IMPROVED PERFORMANCE		
P1834NL	Netherlands	Granted	13797813.6	4-Dec-2014	2856525	8-Apr-2015	2856525	14-Oct-2020	31-May-2033	LIGHT EMITTER PACKAGES, SYSTEMS, AND METHODS HAVING IMPROVED PERFORMANCE	Cree, Inc.	
P1848CN	China (People's Republic)	Granted	201230586339.6	29-Nov-2012			ZL201230586339.6	31-Jul-2013	29-Nov-2022	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	PATENT REEL: 056169 FRAME: 0221
P1858CN	China (People's Republic)	Granted	2013800306646	10-Dec-2014	CN104364919 A	18-Feb-2015	ZL201380030664.6	2-Jan-2018	5-Jun-2033	LED Package with Encapsulant Having Planar Surfaces	Cree, Inc.	
P1858CN2	China (People's Republic)	Granted	2018100323010	12-Jan-2018	CN108172678 A	15-Jun-2018	108172678	5-Jan-2021	5-Jun-2033	LED Package with Encapsulant Having Planar Surfaces	Cree, Inc.	
P1858DE	Germany	Granted	13730742.7	9-Jan-2015	2859596		2859596	12-Aug-2020	5-Jun-2033	LED Package with Encapsulant Having Planar Surfaces	Cree, Inc.	
P1858EP	European Patent Convention	Granted	13730742.7	9-Jan-2015	2859596		2859596	12-Aug-2020	5-Jun-2033	LED Package with Encapsulant Having Planar Surfaces	Cree, Inc.	
P1858FR	France	Granted	13730742.7	9-Jan-2015	2859596		2859596	12-Aug-2020	5-Jun-2033	LED Package with Encapsulant Having Planar Surfaces	Cree, Inc.	
P1858GB	United Kingdom	Granted	13730742.7	9-Jan-2015	2859596		2859596	12-Aug-2020	5-Jun-2033	LED Package with Encapsulant Having Planar Surfaces	Cree, Inc.	
P1858IT	Italy	Granted	13730742.7	9-Jan-2015	2859596		2859596	12-Aug-2020	5-Jun-2033	LED Package with Encapsulant Having Planar Surfaces	Cree, Inc.	
P1858TW	Taiwan	Granted	102120670	11-Jun-2013	201405884	1-Feb-2014	1-591857	11-Jul-2017	11-Jun-2033	LED Package with Encapsulant Having Planar Surfaces	Cree, Inc.	
P1859CN	China (People's Republic)	Granted	201230619265.1	11-Dec-2012	CN302458980 S	5-Jun-2013	ZL201230619265.1	5-Jun-2013	11-Dec-2022	LED Package	Cree, Inc.	
P1859EP	European Community	Granted	002150789	11-Dec-2012			002150789-0001	11-Dec-2012	11-Dec-2037	LED Package	Cree, Inc.	

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P1859EP1-2	European Community	Granted	002150789	11-Dec-2012			002150789-0002	11-Dec-2012	11-Dec-2037	LED Package	Cree, Inc.	
P1859EP1-3	European Community	Granted	002150789	11-Dec-2012			002150789-0003	11-Dec-2012	11-Dec-2037	LED Package	Cree, Inc.	
P1859EP1-4	European Community	Granted	002150789	11-Dec-2012			002150789-0004	11-Dec-2012	11-Dec-2037	LED Package	Cree, Inc.	
P1859EP1-5	European Community	Granted	002150789	11-Dec-2012			002150789-0005	11-Dec-2012	11-Dec-2037	LED Package	Cree, Inc.	PATENT REEL: 056169 FRAME: 0222
P1859EP1-6	European Community	Granted	002150789	11-Dec-2012			002150789-0006	11-Dec-2012	11-Dec-2037	LED Package	Cree, Inc.	
P1859JP	Japan	Granted	2012-030304	11-Dec-2012			1493737	28-Feb-2014	28-Feb-2034	LED Package	Cree, Inc.	
P1859KR	Korea, Republic of	Granted	30-2012-0059744	11-Dec-2012			30-0756220	5-Aug-2014	5-Aug-2029	LED Package	Cree, Inc.	
P1859TW	Taiwan	Granted	10I307391	11-Dec-2012			D158573	21-Jan-2014	11-Dec-2024	LED Package	Cree, Inc.	
P1862CN	China (People's Republic)	Granted	201230629600.6	14-Dec-2012	CN302470567	12-Jun-2013	ZL201230629600.6	12-Jun-2013	14-Dec-2022	XPQ multichip (Design)	Cree, Inc.	
P1866CN	China (People's Republic)	Granted	201230652789.0	26-Dec-2012			ZL201230652789.0	6-Nov-2013	26-Dec-2022	LIGHT EMITTER DEVICE	Cree, Inc.	
P1866CN2	China (People's Republic)	Granted	201230652840.8	26-Dec-2012			ZL201230652840.8	6-Nov-2013	26-Dec-2022	LIGHT EMITTER DEVICE	Cree, Inc.	
P1866CN3	China (People's Republic)	Granted	201230652790.3	26-Dec-2012			ZL201230652790.3	16-Oct-2013	26-Dec-2022	LIGHT EMITTER DEVICE	Cree, Inc.	
P1866JP3	Japan	Granted	2013-018279	9-Aug-2013			1493219	21-Feb-2014	21-Feb-2034	LIGHT EMITTER DEVICE	Cree, Inc.	
P1866TW	Taiwan	Granted	10I307667	27-Jun-2012			D160850	1-Jun-2014	27-Jun-2024	LIGHT EMITTER DEVICE	Cree, Inc.	

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P1866TW2	Taiwan	Granted	102301394	27-Jun-2012				D159325	11-Mar-2014	27-Jun-2024	LIGHT EMITTER DEVICE	Cree, Inc.	
P1866TW3	Taiwan	Granted	102301395	27-Jun-2012				D159326	11-Mar-2014	27-Jun-2024	LIGHT EMITTER DEVICE	Cree, Inc.	
P1900CN	China (People's Republic)	Granted	201330052393.7	4-Mar-2013	CN302896976	30-Jul-2014	ZL201330052393.7	30-Jul-2014	4-Mar-2023	LED Package	Cree, Inc.		
P1900EP1	European Community	Granted	002194696	1-Mar-2013			002194696-0001	1-Mar-2013	1-Mar-2038	LED Package	Cree, Inc.		
P1900EP1-2	European Community	Granted	002194696	1-Mar-2013			002194696-0002	1-Mar-2013	1-Mar-2038	LED Package	Cree, Inc.		
P1900EP1-3	European Community	Granted	002194696	1-Mar-2013			002194696-0003	1-Mar-2013	1-Mar-2038	LED Package	Cree, Inc.		
P1900EP1-4	European Community	Granted	002194696	1-Mar-2013			002194696-0004	1-Mar-2013	1-Mar-2038	LED Package	Cree, Inc.		
P1900EP1-5	European Community	Granted	002194696	1-Mar-2013			002194696-0005	1-Mar-2013	1-Mar-2038	LED Package	Cree, Inc.		
P1900EP1-6	European Community	Granted	002194696	1-Mar-2013			002194696-0006	1-Mar-2013	1-Mar-2038	LED Package	Cree, Inc.		
P1900EP1-7	European Community	Granted	002194696	1-Mar-2013			002194696-0007	1-Mar-2013	1-Mar-2038	LED Package	Cree, Inc.		
P1900JP	Japan	Granted	2013-004502	1-Mar-2013			1505332	18-Jul-2014	18-Jul-2034	LED Package	Cree, Inc.		
P1900JP2	Japan	Granted	2013-025955	6-Nov-2013			1505348	18-Jul-2014	18-Jul-2034	LED Package	Cree, Inc.		
P1900KR	Korea, Republic of	Granted	30-20130010610	28-Feb-2013			30-0756220-00-01	10-Nov-2014	10-Nov-2029	LED Package	Cree, Inc.		
P1900KR2	Korea, Republic of	Granted	30-2014-0016126	31-Mar-2014			30-0756220-02	2-Jul-2015	5-Aug-2029	LED Package	Cree, Inc.		

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P1900TW	Taiwan	Granted	102301478	1- Mar- 2013			D-159498	21- Mar- 2014	1- Mar- 2025	LED Package	Cree, Inc.	
P1900TW2	Taiwan	Granted	102308472	30- Dec- 2013			D165762	1- Feb- 2015	30- Dec- 2025	LED Package	Cree, Inc.	
P1904CN	China (People's Republic)	Granted	201480007388.6	4- Aug- 2015	104956500	30- Sep- 2015	ZL201480007388.6	11- Sep- 2018	21- Jan- 2034	Submount-Free Light Emitting Diode (LED) Components and Methods of Fabricating Same	Cree, Inc.	
P1904DE	Germany	Granted	14749368.8	21- Jan- 2014	2954564	16- Dec- 2015	2954564	6- Mar- 2019	21- Jan- 2034	Submount-Free Light Emitting Diode (LED) Components and Methods of Fabricating Same	Cree, Inc.	
P1904EP	European Patent Convention	Granted	14749368.8	1- Sep- 2015	2954564	16- Dec- 2015	2954564	6- Mar- 2019	21- Jan- 2034	Submount-Free Light Emitting Diode (LED) Components and Methods of Fabricating Same	Cree, Inc.	
P1964CN	China (People's Republic)	Granted	201330248426.5	13- Jun- 2013			ZL 201330248426.5	12- Mar- 2014	13- Jun- 2023	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1964CN2	China (People's Republic)	Granted	201330525357.8	4- Nov- 2013			ZL201330525357.8	4- Jun- 2014	13- Jun- 2023	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1964CN3	China (People's Republic)	Granted	201330525210.9	4- Nov- 2013			ZL201330525210.9	4- Jun- 2014	13- Jun- 2023	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1964CN4	China (People's Republic)	Granted	201330525231.0	4- Nov- 2013			ZL 201330525231.0	23- Jul- 2014	13- Jun- 2023	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	
P1980CN	China (People's Republic)	Granted	201330359083.X	29- Jul- 2013			ZL201330359083.X	7- May- 2014	29- Jul- 2023	HR3030 (Design)	Cree, Inc.	
P1980TW	Taiwan	Granted	102302923	25- Apr- 2013			D162119	1- Aug- 2014	25- Apr- 2025	PORTION OF A LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.	

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P1982CN	China (People's Republic)	Granted	201380071952.6	30-Jul-2015	CN104969368	7-Oct-2015	ZL201380071952.6	25-Aug-2017	5-Apr-2033	SUBMOUNT BASED SURFACE MOUNT DEVICE (SMD) LIGHT EMITTER COMPONENTS AND METHODS	Cree, Inc.
P2075CN	China (People's Republic)	Granted	201330524820.7	4-Nov-2013			ZL201330524820.7	5-Nov-2014	4-Nov-2023	LED Package	Cree, Inc.
P2076CN	China (People's Republic)	Granted	2014300259695	10-Feb-2014	CN302876156	9-Jul-2014	ZL201430025969.5	9-Jul-2014	10-Feb-2024	LED Package	Cree, Inc.
P2076EP	European Community	Granted	002402024-0001	10-Feb-2014			002402024-0001	10-Feb-2014	10-Feb-2039	LED Package	Cree, Inc.
P2076EP1-2	European Community	Granted	002402024	10-Feb-2014			002402024-0002	10-Feb-2014	10-Feb-2039	LED Package	Cree, Inc.
P2076EP1-3	European Community	Granted	002402024	10-Feb-2014			002402024-0003	10-Feb-2014	10-Feb-2039	LED Package	Cree, Inc.
P2076EP1-4	European Community	Granted	002402024	10-Feb-2014			002402024-0004	10-Feb-2014	10-Feb-2039	LED Package	Cree, Inc.
P2076KR	Korea, Republic of	Granted	30-2014-0006603	10-Feb-2014			30-0794053	21-Apr-2015	21-Apr-2030	LED Package	Cree, Inc.
P2076TW	Taiwan	Granted	103300731	10-Feb-2014			D-166931	1-Apr-2015	10-Feb-2026	LED Package	Cree, Inc.
P2085CN	China (People's Republic)	Granted	201480032248.4	9-Nov-2015	CN105264678	20-Jan-2016	ZL201480032248.4	21-Jun-2019	3-Jun-2034	Light Emitting Diode Dielectric Mirror	Cree, Inc.
P2085KR	Korea, Republic of	Granted	10-2015-7034456	3-Dec-2015			2133904	8-Jul-2020	3-Jun-2034	Light Emitting Diode Dielectric Mirror	Cree, Inc.
P2099CN	China (People's Republic)	Granted	2014800199615	8-Oct-2015	CN105190916	23-Dec-2015	ZL2014800199615	18-Feb-2020	23-Jan-2034	Chip with Integrated Phosphor	Cree, Inc.
P2120CN	China (People's Republic)	Granted	201480043303.X	29-Jan-2016	I05431941	23-Mar-2016	ZL201480043303.X	30-Jul-2019	9-Jul-2034	LED Package with Encapsulant Having	Cree, Inc.

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P2121CN	China (People's Republic)	Granted	201430021459.0	26-Jan-2014	CN302896999 S	30-Jul-2014	ZL2014300214590	30-Jul-2014	26-Jan-2024	LED Package	Cree, Inc.
P2159CN	China (People's Republic)	Granted	2014302138214	30-Jun-2014			ZL 2014302138214	28-Jan-2015	30-Jun-2024	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.
P2159EP1	European Community	Granted	002491118	26-Jun-2014			002491118/0001	26-Jun-2014	26-Jun-2039	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.
P2159EP1-2	European Community	Granted	002491118	26-Jun-2014			002491118/0002	26-Jun-2014	26-Jun-2039	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.
P2159EP1-3	European Community	Granted	002491118	26-Jun-2014			002491118/0003	26-Jun-2014	26-Jun-2039	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.
P2159JP	Japan	Granted	2014-014321	30-Jun-2014			1539617	6-Nov-2015	6-Nov-2035	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.
P2159TW	Taiwan	Granted	103303821	27-Jun-2014			D170851	1-Oct-2015	27-Jun-2026	LIGHT EMITTING DIODE (LED) PACKAGE	Cree, Inc.
P2308CN	China (People's Republic)	Granted	201580028960.1	30-Nov-2016	106463462	22-Feb-2017	ZL201580028960.1	29-Nov-2019	29-May-2035	SUBMOUNT BASED LIGHT EMITTER COMPONENTS AND METHODS	Cree, Inc.
P2308DE	Germany	Granted	15727282.4	23-Nov-2016	3149779	5-Apr-2017	3149779	23-Oct-2019	29-May-2035	SUBMOUNT BASED LIGHT EMITTER COMPONENTS AND METHODS	Cree, Inc.
P2308EP	European Patent Convention	Granted	15727282.4	23-Nov-2016	3149779	5-Apr-2017	3149779	23-Oct-2019	29-May-2035	SUBMOUNT BASED LIGHT EMITTER COMPONENTS AND METHODS	Cree, Inc.
P2308TW	Taiwan	Granted	104117211	28-May-2015	201608742	1-Mar-2016	I607585	1-Dec-2017	28-May-2035	SUBMOUNT BASED LIGHT EMITTER COMPONENTS AND METHODS	Cree, Inc.

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P2363CN	China (People's Republic)	Granted	201680006614.8	1-Jul-2017	CN107210341 A	26-Sep-2017	ZL2016800066148	24-Nov-2020	15-Jan-2036	High Efficiency LEDs and Methods of Manufacturing	Cree, Inc.	
P2369CN	China (People's Republic)	Granted	2015300794232	30-Mar-2015			ZL201530079423.2	28-Oct-2015	30-Mar-2025	LED Package with Truncated Encapsulant	Cree, Inc.	
P2383CN	China (People's Republic)	Granted	201580070562.6	23-Jun-2017	CN107112384 A	29-Aug-2017	ZL201580070562.6	3-Jan-2020	18-Nov-2035	Light Emitting Diode (LED) Components Including LED Dies That Are Directly Attached to Lead Frames	Cree, Inc.	
P2383DE	Germany	Granted	15861447.9	9-May-2017	3221902	27-Sep-2017	3221902	1-Apr-2020	18-Nov-2035	Light Emitting Diode (LED) Components Including LED Dies That Are Directly Attached to Lead Frame	Cree, Inc.	
P2383EP	European Patent Convention	Granted	15861447.9	9-May-2017	3221902	27-Sep-2017	3221902	1-Apr-2020	18-Nov-2035	Light Emitting Diode (LED) Components Including LED Dies That Are Directly Attached to Lead Frame	Cree, Inc.	
P2383GB	United Kingdom	Granted	15861447.9	9-May-2017	3221902	27-Sep-2017	3221902	1-Apr-2020	18-Nov-2035	Light Emitting Diode (LED) Components Including LED Dies That Are Directly Attached to Lead Frame	Cree, Inc.	
P2383JP	Japan	Granted	2017-527296	19-May-2017			6462130	11-Jan-2019	18-Nov-2035	Light Emitting Diode (LED) Components Including LED Dies That Are Directly Attached to Lead Frame	Cree, Inc.	
P2383TW	Taiwan	Granted	104138628	20-Nov-2015	201630211	16-Aug-2016	1568015	21-Jan-2017	20-Nov-2035	Light Emitting Diode (LED) Components	Cree, Inc.	

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P2426DE	Germany	Granted	16778642.5	1-May-2018	3357097	8-Aug-2018	3357097	16-Dec-2020	29-Sep-2036	Low Optical Loss Flip Chip Solid State Lighting Device	Cree, Inc.	
P2426EP	European Patent Convention	Granted	16778642.5	1-May-2018	3357097	8-Aug-2018	3357097	16-Dec-2020	29-Sep-2036	Low Optical Loss Flip Chip Solid State Lighting Device	Cree, Inc.	
P2618TW	Taiwan	Granted	106112033	11-Apr-2017	201801284	1-Jan-2018	1668835	11-Aug-2019	10-Apr-2037	High Density Pixelated LED and Devices and Methods Thereof	Cree, Inc.	
P2618TW2	Taiwan	Granted	108118059	24-May-2019	201937680	16-Sep-2019	1676261	1-Nov-2019	11-Apr-2037	High Density Pixelated LED and Devices and Methods Thereof	Cree, Inc.	

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Foreign Patents (Pending)

Cree No.	Country	Application Status	App. No.	Filing Date	Publ. No.	Publ. Date	Application Title	Owner/Applicant	Govt Rights
P0137EP3	European Patent Convention	Published	12151803.9	19-Jan-2012	2445066	25-Apr-2012	Group III Nitride LED with Undoped Cladding Layer and Multiple Quantum Well	Cree, Inc.	
P0275JP2	Japan	Pending	2011-265534	5-Dec-2011			Light-Emitting Devices Having Multiple Encapsulation Layers with at Least One of the Encapsulation Layers Including Nanoparticles and Methods of Forming the Same	Cree, Inc.	
P0298EP2	European Patent Convention	Published	20156945.6	12-Feb-2020	3667708	17-Jun-2020	Molded Chip Fabrication Method and Apparatus	Cree, Inc.	
P0499EP2	European Patent Convention	Published	14177165.9	15-Jul-2014	2797130	29-Oct-2014	Side Emitting Optical Coupling Device	Cree, Inc.	
P0656DE	Germany	Pending	102007042761.3	7-Sep-2007	102007042761.3	5-Jun-2008	Expandable LED Array Interconnect	Cree, Inc.	Yes
P0659DE	Germany	Pending	102007039230.5	20-Aug-2007	DE102007039230	27-Mar-2008	Encapsulating and Forming Optical Element on LED Package by Liquid Injection Molding	Cree, Inc.	
P0677EP2	European Patent Convention	Pending	18188441.2	10-Aug-2018			Side-View Surface Mount White LED	Cree, Inc.	
P0760DE	Germany	Pending	102008021572.4	30-Apr-2008	DE 102008021752A1	11-Dec-2008	Multi-Chip Light Emitting Device Lamps for Providing High-CRI Warm White Light and Light Fixtures Including the Same	Cree, Inc.	

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P0760DE2	Germany	Pending	102008064722.5	14-Jan-2011			Multi-Chip Light Emitting Device Lamps for Providing High-CRI Warm White Light and Light Fixtures Including the Same	Cree, Inc.	
P0761EP2	European Patent Convention	Published	17180805.8	11-Jul-2017	3264475	3-Jan-2018	Light Emitting Devices Having Current Reducing Structures and Methods of Forming Light Emitting Devices Having Current Reducing Structures	Cree, Inc.	
P0762EP	European Patent Convention	Published	08780130.4	28-Dec-2009	2174530	14-Apr-2010	LED with Integrated Constant Current Driver	Cree, Inc.	
P0872EP	European Patent Convention	Pending	08253519.6	29-Oct-2008	2056363	6-May-2009	Light Emitting Diode Package and Method of Fabricating Same	Cree, Inc.	
P0908EP2	European Patent Convention	Published	20150591.4	7-Jan-2020	3657558	26-Aug-2020	Solid State Lighting Component	Cree, Inc.	Yes
P0909EP	European Patent Convention	Published	09758647.3	31-Dec-2010	EP2291860	9-Mar-2011	Solid State Lighting Component (jointly owned with PSSLS)	Cree, Inc.; Philips Solid State Lighting Solutions	Yes
P0917EP	European Patent Convention	Pending	07795157.2	22-Dec-2008	EP 2027602	25-Feb-2009	Lighting Device and Method of Making	Cree, Inc.	
P0981EP2	European Patent Convention	Pending	17169109.0	2-May-2017	3223313	27-Sep-2017	Illumination Devices Using Externally Interconnected Arrays of Light Emitting Devices, and Methods of Fabricating Same	Cree, Inc.	
P0981EP3	European Patent Convention	Unfiled					Illumination Devices Using Externally Interconnected Arrays of Light Emitting Devices, and Methods of Fabricating Same	Cree, Inc.	

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P1024EP	European Patent Convention	Published	09801584.5	7-Dec-2009	2374163	12-Oct-2011	Composite High Reflectivity Layer	Cree, Inc.	
P1028EP	European Patent Convention	Published	09745149.6	6-May-2011	2350520	3-Aug-2011	Array Layout for Color Mixing	Cree, Inc.	
P1043EP	European Patent Convention	Published	10159157.6	6-Apr-2010	2239776	13-Oct-2010	High Voltage Low Current Surface-Emitting LED	Cree, Inc.	
P1043EP2	European Patent Convention	Unfiled					High Voltage Low Current Surface-Emitting LED	Cree, Inc.	
P1112EP2	European Patent Convention	Published	20174132.9	12-May-2020	3751627	16-Dec-2020	Semiconductor Light Emitting Diodes Having Reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes
P1112IN	India	Pending	9679/DELNP/2011	23-Feb-2010		25-Jan-2013	Semiconductor Light Emitting Diodes Having Reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes
P1112JP5	Japan	Published	2019-239699	27-Dec-2019	2020-065073	23-Apr-2020	Semiconductor Light Emitting Diodes having reflective Structures and Methods of Fabricating Same	Cree, Inc.	Yes
P1116IN	India	Pending	8640/DELNP/2011	27-Apr-2010		11-Jan-2013	LED Package with Increased Feature Sizes	Cree, Inc.	
P1185EP	European Patent Convention	Published	10832001.1	15-Dec-2011	2502252	26-Sep-2012	Luminescent Particles, Methods of Identifying Same and Light Emitting Devices Including the Same	Cree, Inc.	
P1210EP2	European Patent Convention	Published	19164386.5	21-Mar-2019	3553835	16-Oct-2019	Recipient Luminescent Mediums Having Narrow-Spectrum Luminescent Materials	Cree, Inc.	Yes

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							and Related Semiconductor Light Emitting Devices and Methods		
P1225DE	Germany	Pending	112011103482.2	15-Apr-2013			High Voltage waive Bond Free LEDs	Cree, Inc.	
P1226EP	European Patent Convention	Published	11751075.0	6-Sep-2012	2543060	9-Jan-2013	Systems and Methods for Application of Optical Materials to Optical Elements	Cree, Inc.	
P1252EP	European Patent Convention	Published	11766551.3	4-Apr-2011	2556722	13-Feb-2013	Light Emitting Devices and Systems Having Tunable Chromaticity and Methods of Tuning the Chromaticity of Light Emitting Devices and Systems	Cree, Inc.	
P1285CN2	China (People's Republic)	Published	201811517972.2	12-Dec-2018	110071196	30-Jul-2019	LED PACKAGE WITH EFFICIENT, ISOLATED THERMAL PATH	Cree, Inc.	
P1319DE	Germany	Published	112011103148.3	19-Mar-2013	DE112011103148	18-Jul-2013	High Density Multi-Chip LED Devices	Cree, Inc.	
P1327DE	Germany	Published	112011103147.5	19-Sep-2011	DE112011103147	25-Jul-2013	Multi-Chip LED Devices	Cree, Inc.	
P1332EP	European Patent Convention	Published	11833129.7	20-Nov-2012	2628196	21-Aug-2013	Light Emitting Devices and Methods	Cree, Inc.	
P1350KR	Korea, Republic of	Pending	10-2013-7015669	17-Jun-2013			ATTACHMENT DEVICES AND METHODS FOR LIGHT EMITTING DEVICES	Cree, Inc.	
P1834CN3	China (People's Republic)	Published	2019108932844	20-Sep-2019	110611025	24-Dec-2019	LIGHT EMITTER PACKAGES, SYSTEMS, AND METHODS HAVING IMPROVED PERFORMANCE	Cree, Inc.	

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P1834EP2	European Patent Convention	Published	13796844.2	4-Dec-2014	2856524	8-Apr-2015	LIGHT EMITTER PACKAGES, SYSTEMS, AND METHODS	Cree, Inc.	
P1858EP2	European Patent Convention	Published	20190184.0	10-Aug-2020	3758078	30-Dec-2020	LED Package with Encapsulant Having Planar Surfaces	Cree, Inc.	
P2085CN2	China (People's Republic)	Published	201910474940.7	3-Jun-2019	110246946	17-Sep-2019	Light Emitting Diode Dielectric Mirror	Cree, Inc.	
P2085EP	European Patent Convention	Pending	14733925.3	30-Nov-2015	3005428	13-Apr-2016	Light Emitting Diode Dielectric Mirror	Cree, Inc.	
P2120EP	European Patent Convention	Pending	14742722.3	11-Feb-2016	3028302	8-Jun-2016	LED Package with Encapsulant Having Curved and Planar Surfaces	Cree, Inc.	
P2207DE	Germany	Pending	112015002289.9	20-Oct-2016		1-Jun-2017	Solid State Lighting Devices with Color Point Non-Coincident with Blackbody Locus	Cree, Inc.	
P2284CN	China (People's Republic)	Pending	201580054094.3	5-Apr-2017	106796974A	31-May-2017	Multi-Layer Conversion Material for Down Conversion In Solid State Lighting	Cree, Inc.	
P2284EP	European Patent Convention	Published	15750564.5	28-Feb-2017	3178118	14-Jun-2017	Multi-Layer Conversion Material for Down Conversion In Solid State Lighting	Cree, Inc.	
P2363DE	Germany	Pending	112016000430.3	19-Jul-2017		5-Oct-2017	High Efficiency LEDs and Methods of Manufacturing	Cree, Inc.	
P2426CN	China (People's Republic)	Pending	201680070374.8	31-May-2018	CN108369977	3-Aug-2018	Low Optical Loss Flip Chip Solid State Lighting Device	Cree, Inc.	
P2475CN	China (People's Republic)	Pending	201680019859.4	29-Sep-2017	107438899	5-Dec-2017	Light Emitting Diodes and Methods with Encapsulation	Cree, Inc.	
P2486EP	European Patent Convention	Pending	16724776.6	15-Nov-2017			Solid State Lighting Components	Cree, Inc.	
P2497DE	Germany	Pending	112016004262.0	21-Mar-2018	112016004262	14-Jun-2018	Self-Aligned Floating Mirror for Contact Vias	Cree, Inc.	

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P2503CN	China (People's Republic)	Pending	201680053361.X	14- Mar- 2018	CN108352436A	31- Jul- 2018	SOLID STATE LIGHT EMITTER DEVICES AND METHODS	Cree, Inc.	
P2516DE	Germany	Pending	112016003002.9	21- Dec- 2017	DE 112016003002	15- Mar- 2018	Stabilized Quantum Dot Structure and Method of Making a Stabilized Quantum Dot Structure	Cree, Inc.	
P2618CN	China (People's Republic)	Published	201780036322.3	11- Dec- 2018	109643724	16- Apr- 2019	High Density Pixelated LED and Devices and Methods Thereof	Cree, Inc.	
P2618EP	European Patent Convention	Pending	17721889.8	12- Nov- 2018	3443593	20- Feb- 2019	High Density Pixelated LED and Devices and Methods Thereof	Cree, Inc.	
P2618JP	Japan	Published	2018-553935	12- Oct- 2018	2019-514217	30- May- 2019	High Density Pixelated LED and Devices and Methods Thereof	Cree, Inc.	
P2618KR	Korea, Republic of	Pending	10-2018-7032540	9- Nov- 2018			High Density Pixelated LED and Devices and Methods Thereof	Cree, Inc.	
P2640CN	China (People's Republic)	Published	201780058518.2	22- Mar- 2019	109791968	21- May- 2019	Light Emitting Diodes, Components and Related Methods	Cree, Inc.	
P2640EP	European Patent Convention	Published	17748998.6	26- Feb- 2018	3491679	5- Jun- 2019	Light Emitting Diodes, Components and Related Methods	Cree, Inc.	
P2654CN	China (People's Republic)	Published	201780071924.2	21- May- 2019	109983849	5- Jul- 2019	Light Emitting Diode (LED) Device, Components and Methods	Cree, Inc.	
P2654EP	European Patent Convention	Published	17811780.0	19- Jun- 2019	3542601	25- Sep- 2019	Light Emitting Diode (LED) Device, Components and Methods	Cree, Inc.	
P2670CN	China (People's Republic)	Published	201880055722.3	27- Feb- 2020	111052422	21- Apr- 2020	Light Emitting Diodes, Components and Related Methods	Cree, Inc.	

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P2701CN	China (People's Republic)	Published	201880031079.0	11- Nov- 2019	110622325	27- Dec- 2019	Tunable Integrated Optics LED Components and Methods	Cree, Inc.	
P2701EP	European Patent Convention	Published	18725095.6	9- Dec- 2019	3622564	18- Mar- 2020	Tunable Integrated Optics LED Components and Methods	Cree, Inc.	
P2702CN	China (People's Republic)	Published	201880016034.6	5- Sep- 2019	110383510	25- Oct- 2019	Substrates for Light Emitting Diodes and Related Methods	Cree, Inc.	
P2728CN	China (People's Republic)	Published	201780092941.4	7-Jul- 2017	110870064	6- Mar- 2020	RGB LED Package with BSY Emitter	Cree, Inc.	
P2735CN	China (People's Republic)	Published	201880066265.8	10- Apr- 2020	111213236	29- May- 2020	Light Emitting Diodes, Components and Related Methods	Cree, Inc.	
P2735EP	European Patent Convention	Published	18769534.1	5- Feb- 2020	3649673	13- May- 2020	Light Emitting Diodes, Components and Related Methods	Cree, Inc.	
P2737CN	China (People's Republic)	Published	201880056710.2	28- Feb- 2020	111052387	21- Apr- 2020	High Density Pixelated-LED Chips and Chip Array Devices, and Fabrication Methods	Cree, Inc.	
P2737EP	European Patent Convention	Published	18762420.0	3- Mar- 2020	3662514	10- Jun- 2020	High Density Pixelated-LED Chips and Chip Array Devices, and Fabrication Methods	Cree, Inc.	
P2737JP	Japan	Published	2020-505841	3- Feb- 2020	2020-529738	8- Oct- 2020	High Density Pixelated-LED Chips and Chip Array Devices, and Fabrication Methods	Cree, Inc.	
P2737KR	Korea, Republic of	Pending	10-2020-7005916	28- Feb- 2020			High Density Pixelated-LED Chips and Chip Array Devices, and Fabrication Methods	Cree, Inc.	
P2737TW	Taiwan	Published	107127064	3- Aug- 2018	201921716	1- Jun- 2019	High Density Pixelated-LED Chips and Chip Array	Cree, Inc.	

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P2738CN	China (People's Republic)	Published	201880072611.3	9- May- 2020	111344378	26- Jun- 2020	Stabilized Quantum Dot Composite and Method of Making a Stabilized Quantum Dot Composite	Cree, Inc.
P2739CN	China (People's Republic)	Published	201880072603.9	9- May- 2020	CN111315844	19- Jun- 2020	Stabilized Luminescent Nanoparticles Comprising a Perovskite Semiconductor and Method of Fabrication	Cree, Inc.
P2761CN	China (People's Republic)	Published	201980016062.2	28- Aug- 2020	111788702	16- Oct- 2020	Reflective Layers for Light -Emitting Diodes	Cree, Inc.
P2761EP	European Patent Convention	Published	19704987.7	29- Jul- 2020	3747058	9- Dec- 2020	Reflective Layers for Light -Emitting Diodes	Cree, Inc.
P2762CN	China (People's Republic)	Published	201910121719.3	19- Feb- 2019	110176528	27- Aug- 2019	Clear Coating for Light Emitting Device Exterior Having Chemical Resistance and Related Methods	Cree, Inc.
P2766CN	China (People's Republic)	Published	201980036203.7	27- Nov- 2020	112166508	1- Jan- 2021	LED Apparatuses and Methods	Cree, Inc.
P2766EP	European Patent Convention	Pending	19730633.5	7- Dec- 2020			LED Apparatuses and Methods	Cree, Inc.
P2767CN	China (People's Republic)	Published	201980029225.0	29- Oct- 2020	112055890	8- Dec- 2020	Apparatus and Methods for Mass Transfer of Electronic Die	Cree, Inc.
P2783CN	China (People's Republic)	Published	201980037340.2	2- Dec- 2020	112236875	15- Jan- 2021	LED Systems, Apparatuses, and Methods	Cree, Inc.
P2783EP	European Patent Convention	Published	19731412.3	13- Nov- 2020	3776674	17- Feb- 2021	LED Systems, Apparatuses, and Methods	Cree, Inc.

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P2783TW	Taiwan	Published	108118486	29-May-2019	202013768	1-Apr-2020	LED Systems, Apparatuses, and Methods	Cree, Inc.	
P2790CN	China (People's Republic)	Published	201980036726.1	30-Nov-2020	CN112204116	8-Jan-2021	Stabilized Fluoride Phosphor for Light Emitting Diode (LED) Applications	Cree, Inc.	
P2790EP	European Patent Convention	Pending	19731393.5	13-Nov-2020			Stabilized Fluoride Phosphor for Light Emitting Diode (LED) Applications	Cree, Inc.	
P2790JP	Japan	Pending	2020-566926	30-Nov-2020			Stabilized Fluoride Phosphor for Light Emitting Diode (LED) Applications	Cree, Inc.	
P2791CN	China (People's Republic)	Published	201980026488.6	16-Oct-2020	111989789	24-Nov-2020	Light-Emitting Diode Package with Light-Altering Material	Cree, Inc.	
P2791EP	European Patent Convention	Published	19712473.8	7-Sep-2020	3782207	24-Feb-2021	Light-Emitting Diode Package with Light-Altering Material	Cree, Inc.	
P2793CN	China (People's Republic)	Published	201980027658.2	22-Oct-2020	112005390	27-Nov-2020	Patterned Sapphire for Improved Color Over Angle and Other Properties	Cree, Inc.	
P2793EP	European Patent Convention	Published	19726227.2	14-Sep-2020	3785307	3-Mar-2021	Patterned Sapphire for Improved Color Over Angle and Other Properties	Cree, Inc.	
P2793JP	Japan	Pending	2020-552264	28-Sep-2020			Patterned Sapphire for Improved Color Over Angle and Other Properties	Cree, Inc.	
P2793WO	Patent Cooperation Treaty	Published	PCT/US2019/028502	22-Apr-2019	WO2019-209708	31-Oct-2019	Patterned Sapphire for Improved Color Over Angle and Other Properties	Cree, Inc.	
P2842CN	China (People's Republic)	Published	201980035067.X	24-Nov-2020	112189256	5-Jan-2021	Light-Emitting Diode Packages with Individually Controllable Light-Emitting Diode Chips	Cree, Inc.	

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P2842EP	European Patent Convention	Pending	19727152.1	28-Oct-2020			Light-Emitting Diode Packages with Individually Controllable Light-Emitting Diode Chips	Cree, Inc.	
P2843CN	China (People's Republic)	Pending	201980035147.5	24-Nov-2020			Light-Emitting Diode Packages	Cree, Inc.	
P2843EP	European Patent Convention	Pending	19727151.3	28-Oct-2020			Light-Emitting Diode Packages	Cree, Inc.	
P2843JP	Japan	Pending		#####			Light-Emitting Diode Packages	Cree, Inc.	
P2843KR	Korea, Republic of	Pending	10-2020-7037027	22-Dec-2020			Light-Emitting Diode Packages	Cree, Inc.	
P2863WO	Patent Cooperation Treaty	Published	PCT/US2019/059473	1-Nov-2019	2020-101920	22-May-2020	Light Emitting Diode Packages	Cree, Inc.	
P2864WO	Patent Cooperation Treaty	Published	PCT/IB2019/060455	4-Dec-2019	2020-128701	25-Jun-2020	Pixelated LED Chips and Chip Array Devices, and Fabrication Methods	Cree, Inc.	
P2891WO	Patent Cooperation Treaty	Published	PCT/US2019/059331	1-Nov-2019	2020-131231	25-Jun-2020	Interconnects for Light Emitting Diode Chips	Cree, Inc.	
P2927WO	Patent Cooperation Treaty	Published	PCT/US2020/023140	17-Mar-2020	WO2020-205229	8-Oct-2020	Active Control of Light Emitting Diodes and Light Emitting Diode Displays	Cree, Inc.	
P2927WO2	Patent Cooperation Treaty	Unfiled					Active Control of Light Emitting Diodes and Light Emitting Diode Displays	Cree, Inc.	
P2945WO	Patent Cooperation Treaty	Published	PCT/US2020/038960	22-Jun-2020	WO2020-263748	30-Dec-2020	Light Emitting Diode Packages	Cree, Inc.	
P2952WO	Patent Cooperation Treaty	Pending	PCT/US2020/061249	19-Nov-2020			Submount Structures for Light Emitting Diode Packages	Cree, Inc.	
P2995WO	Patent Cooperation Treaty	Pending	PCT/US2020/054088	2-Oct-2020			Lumiphoric Arrangements for	Cree, Inc.	

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P2996WO	Patent Cooperation Treaty	Pending	PCT/US2020/057955	29-Oct-2020			Texturing for High Density Pixelated-LED Chips and Chip Array Devices	Cree, Inc.	

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