

<b>PATENT ASSIGNMENT COVER SHEET</b>
--------------------------------------

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT7186718

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	NUNC PRO TUNC ASSIGNMENT
<b>EFFECTIVE DATE:</b>	12/10/2021

**CONVEYING PARTY DATA**

Name	Execution Date
ECOSENSE LIGHTING INC.	01/05/2022

**RECEIVING PARTY DATA**

<b>Name:</b>	KORRUS, INC.
<b>Street Address:</b>	837 N. SPRING ST.
<b>Internal Address:</b>	SUITE 103
<b>City:</b>	LOS ANGELES
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	90012

**PROPERTY NUMBERS Total: 577**

Property Type	Number
Application Number:	11715071
Application Number:	12149900
Application Number:	12409409
Application Number:	12711175
Application Number:	12855550
Application Number:	12858379
Application Number:	12861765
Application Number:	12879784
Application Number:	12884848
Application Number:	12914789
Application Number:	12936238
Application Number:	12986934
Application Number:	13019521
Application Number:	13025791
Application Number:	13025833
Application Number:	13025849
Application Number:	13025860
Application Number:	13163482

PATENT

<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	13163498
<b>Application Number:</b>	13175376
<b>Application Number:</b>	13184160
<b>Application Number:</b>	13211145
<b>Application Number:</b>	13269193
<b>Application Number:</b>	13274489
<b>Application Number:</b>	13281221
<b>Application Number:</b>	13298617
<b>Application Number:</b>	13298905
<b>Application Number:</b>	13304182
<b>Application Number:</b>	13328978
<b>Application Number:</b>	13357578
<b>Application Number:</b>	13419325
<b>Application Number:</b>	13431834
<b>Application Number:</b>	13454453
<b>Application Number:</b>	13464191
<b>Application Number:</b>	13480767
<b>Application Number:</b>	13482956
<b>Application Number:</b>	13484113
<b>Application Number:</b>	13491483
<b>Application Number:</b>	13593128
<b>Application Number:</b>	13600988
<b>Application Number:</b>	13653999
<b>Application Number:</b>	13723968
<b>Application Number:</b>	13781633
<b>Application Number:</b>	13787582
<b>Application Number:</b>	13854854
<b>Application Number:</b>	13856613
<b>Application Number:</b>	13865760
<b>Application Number:</b>	13867730
<b>Application Number:</b>	13886547
<b>Application Number:</b>	13894203
<b>Application Number:</b>	13909752
<b>Application Number:</b>	13915432
<b>Application Number:</b>	13931359
<b>Application Number:</b>	13937338
<b>Application Number:</b>	13945763
<b>Application Number:</b>	13959422

<b>Property Type</b>	<b>Number</b>
Application Number:	13973213
Application Number:	14014112
Application Number:	14040379
Application Number:	14054234
Application Number:	14075936
Application Number:	14097481
Application Number:	14106581
Application Number:	14135098
Application Number:	14166692
Application Number:	14178157
Application Number:	14181386
Application Number:	14191679
Application Number:	14199398
Application Number:	14256670
Application Number:	14310957
Application Number:	14316685
Application Number:	14336276
Application Number:	14523392
Application Number:	14526504
Application Number:	14528818
Application Number:	14528876
Application Number:	14531545
Application Number:	14543164
Application Number:	14560867
Application Number:	14615315
Application Number:	14617849
Application Number:	14629049
Application Number:	14632755
Application Number:	14636204
Application Number:	14636205
Application Number:	14697390
Application Number:	14698574
Application Number:	14702765
Application Number:	14702800
Application Number:	14751065
Application Number:	14792600
Application Number:	14816827
Application Number:	14819010

<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14827709
<b>Application Number:</b>	14925885
<b>Application Number:</b>	14936371
<b>Application Number:</b>	14944097
<b>Application Number:</b>	14967125
<b>Application Number:</b>	14975467
<b>Application Number:</b>	14992939
<b>Application Number:</b>	14996143
<b>Application Number:</b>	15047604
<b>Application Number:</b>	15049457
<b>Application Number:</b>	15051119
<b>Application Number:</b>	15051326
<b>Application Number:</b>	15074665
<b>Application Number:</b>	15077387
<b>Application Number:</b>	15135287
<b>Application Number:</b>	15154581
<b>Application Number:</b>	15170806
<b>Application Number:</b>	15173538
<b>Application Number:</b>	15173554
<b>Application Number:</b>	15176083
<b>Application Number:</b>	15225808
<b>Application Number:</b>	15226656
<b>Application Number:</b>	15229959
<b>Application Number:</b>	15236898
<b>Application Number:</b>	15261351
<b>Application Number:</b>	15268781
<b>Application Number:</b>	15270928
<b>Application Number:</b>	15344206
<b>Application Number:</b>	15380998
<b>Application Number:</b>	15381012
<b>Application Number:</b>	15383897
<b>Application Number:</b>	15390475
<b>Application Number:</b>	15418268
<b>Application Number:</b>	15426662
<b>Application Number:</b>	15439938
<b>Application Number:</b>	15453842
<b>Application Number:</b>	15453848
<b>Application Number:</b>	15466697

<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15481223
<b>Application Number:</b>	15489261
<b>Application Number:</b>	15542608
<b>Application Number:</b>	15547451
<b>Application Number:</b>	15592729
<b>Application Number:</b>	15618236
<b>Application Number:</b>	15633425
<b>Application Number:</b>	15653900
<b>Application Number:</b>	15661515
<b>Application Number:</b>	15665269
<b>Application Number:</b>	15674077
<b>Application Number:</b>	15679083
<b>Application Number:</b>	15693091
<b>Application Number:</b>	15700562
<b>Application Number:</b>	15712019
<b>Application Number:</b>	15785950
<b>Application Number:</b>	15822046
<b>Application Number:</b>	15835610
<b>Application Number:</b>	15851125
<b>Application Number:</b>	15878110
<b>Application Number:</b>	15883174
<b>Application Number:</b>	15917481
<b>Application Number:</b>	15921206
<b>Application Number:</b>	15937843
<b>Application Number:</b>	15986253
<b>Application Number:</b>	15991951
<b>Application Number:</b>	16004625
<b>Application Number:</b>	16004936
<b>Application Number:</b>	16031121
<b>Application Number:</b>	16031144
<b>Application Number:</b>	16048170
<b>Application Number:</b>	16048246
<b>Application Number:</b>	16048251
<b>Application Number:</b>	16048685
<b>Application Number:</b>	16049086
<b>Application Number:</b>	16049178
<b>Application Number:</b>	16049289
<b>Application Number:</b>	16049299

<b>Property Type</b>	<b>Number</b>
Application Number:	16049427
Application Number:	16049452
Application Number:	16049537
Application Number:	16049770
Application Number:	16049776
Application Number:	16049781
Application Number:	16049782
Application Number:	16049786
Application Number:	16055683
Application Number:	16134434
Application Number:	16139609
Application Number:	16154853
Application Number:	16161221
Application Number:	16168311
Application Number:	16168387
Application Number:	16168471
Application Number:	16203045
Application Number:	16234207
Application Number:	16241880
Application Number:	16279396
Application Number:	16285956
Application Number:	16312470
Application Number:	16354875
Application Number:	16377452
Application Number:	16377457
Application Number:	16379966
Application Number:	16385045
Application Number:	16390716
Application Number:	16390842
Application Number:	16393518
Application Number:	16393660
Application Number:	16397001
Application Number:	16398724
Application Number:	16400854
Application Number:	16401170
Application Number:	16401346
Application Number:	16401446
Application Number:	16401985

<b>Property Type</b>	<b>Number</b>
Application Number:	16402157
Application Number:	16417583
Application Number:	16433853
Application Number:	16446022
Application Number:	16480867
Application Number:	16509200
Application Number:	16511750
Application Number:	16518452
Application Number:	16537863
Application Number:	16550996
Application Number:	16589730
Application Number:	16599768
Application Number:	16600819
Application Number:	16601711
Application Number:	16664046
Application Number:	16664098
Application Number:	16664171
Application Number:	16664213
Application Number:	16664263
Application Number:	16664546
Application Number:	16664800
Application Number:	16673891
Application Number:	16673892
Application Number:	16685523
Application Number:	16686039
Application Number:	16688627
Application Number:	16694998
Application Number:	16694483
Application Number:	16702230
Application Number:	16702314
Application Number:	16702349
Application Number:	16702384
Application Number:	16702411
Application Number:	16702727
Application Number:	16702780
Application Number:	16702825
Application Number:	16702873
Application Number:	16702919

<b>Property Type</b>	<b>Number</b>
Application Number:	16702979
Application Number:	16714422
Application Number:	16717883
Application Number:	16728596
Application Number:	16746661
Application Number:	16780093
Application Number:	16780362
Application Number:	16786277
Application Number:	16792805
Application Number:	16792816
Application Number:	16792827
Application Number:	16807019
Application Number:	16822670
Application Number:	16859498
Application Number:	16879656
Application Number:	16883938
Application Number:	16886659
Application Number:	16886664
Application Number:	16886668
Application Number:	16891735
Application Number:	16892008
Application Number:	16895925
Application Number:	16907650
Application Number:	16908194
Application Number:	16915466
Application Number:	16927531
Application Number:	16927564
Application Number:	16927589
Application Number:	16927634
Application Number:	16927654
Application Number:	16927696
Application Number:	16933678
Application Number:	17000882
Application Number:	17021502
Application Number:	17026764
Application Number:	17035981
Application Number:	17067744
Application Number:	17068983



<b>Property Type</b>	<b>Number</b>
Application Number:	17088242
Application Number:	17100666
Application Number:	17157263
Application Number:	17164093
Application Number:	17164879
Application Number:	17176902
Application Number:	17185579
Application Number:	17187307
Application Number:	17187339
Application Number:	17206748
Application Number:	17207801
Application Number:	17229506
Application Number:	17230534
Application Number:	17265083
Application Number:	17316216
Application Number:	17316264
Application Number:	17316362
Application Number:	17316398
Application Number:	17319789
Application Number:	17373186
Application Number:	17367920
Application Number:	17387202
Application Number:	17385058
Application Number:	17409869
Application Number:	17334895
Application Number:	17363145
Application Number:	17341973
Application Number:	17353413
Application Number:	17360475
Application Number:	17461182
Application Number:	17468908
Application Number:	17521543
Application Number:	17536161
Application Number:	17541875
Application Number:	29260689
Application Number:	29260746
Application Number:	29300902
Application Number:	29300903

<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	29328159
<b>Application Number:</b>	29353914
<b>Application Number:</b>	29353916
<b>Application Number:</b>	29358277
<b>Application Number:</b>	29361267
<b>Application Number:</b>	29379758
<b>Application Number:</b>	29399523
<b>Application Number:</b>	29399524
<b>Application Number:</b>	29423725
<b>Application Number:</b>	29439581
<b>Application Number:</b>	29441108
<b>Application Number:</b>	29441116
<b>Application Number:</b>	29441960
<b>Application Number:</b>	29454826
<b>Application Number:</b>	29456725
<b>Application Number:</b>	29456727
<b>Application Number:</b>	29457754
<b>Application Number:</b>	29458298
<b>Application Number:</b>	29469709
<b>Application Number:</b>	29475763
<b>Application Number:</b>	29475764
<b>Application Number:</b>	29475766
<b>Application Number:</b>	29475769
<b>Application Number:</b>	29489662
<b>Application Number:</b>	29490770
<b>Application Number:</b>	29492704
<b>Application Number:</b>	29492740
<b>Application Number:</b>	29495601
<b>Application Number:</b>	29495625
<b>Application Number:</b>	29519149
<b>Application Number:</b>	29519153
<b>Application Number:</b>	29532380
<b>Application Number:</b>	29532381
<b>Application Number:</b>	29532382
<b>Application Number:</b>	29532383
<b>Application Number:</b>	29533635
<b>Application Number:</b>	29533666
<b>Application Number:</b>	29533667

<b>Property Type</b>	<b>Number</b>
Application Number:	29538204
Application Number:	29539504
Application Number:	29546119
Application Number:	29554095
Application Number:	29554110
Application Number:	29578082
Application Number:	29578086
Application Number:	29578094
Application Number:	29578095
Application Number:	29591259
Application Number:	29591342
Application Number:	29591973
Application Number:	29591977
Application Number:	29601870
Application Number:	29601871
Application Number:	29601872
Application Number:	29636105
Application Number:	29636123
Application Number:	29636127
Application Number:	29641793
Application Number:	29646267
Application Number:	29646268
Application Number:	29673014
Application Number:	61234767
Application Number:	61241459
Application Number:	61243988
Application Number:	61257298
Application Number:	61301183
Application Number:	61301193
Application Number:	61356473
Application Number:	61375097
Application Number:	61391506
Application Number:	61414817
Application Number:	61414821
Application Number:	61424562
Application Number:	61470901
Application Number:	61502212
Application Number:	61526136

<b>Property Type</b>	<b>Number</b>
Application Number:	61526355
Application Number:	61530832
Application Number:	61547786
Application Number:	61605026
Application Number:	61606178
Application Number:	61607188
Application Number:	61625592
Application Number:	61642984
Application Number:	61646766
Application Number:	61655894
Application Number:	61659386
Application Number:	61707757
Application Number:	61714693
Application Number:	61724639
Application Number:	61737957
Application Number:	61740937
Application Number:	61757597
Application Number:	61763268
Application Number:	61851094
Application Number:	61851513
Application Number:	61776173
Application Number:	61778002
Application Number:	61783888
Application Number:	61871525
Application Number:	61897448
Application Number:	61899723
Application Number:	61912348
Application Number:	61936000
Application Number:	61989693
Application Number:	62016899
Application Number:	62033487
Application Number:	62069528
Application Number:	62077039
Application Number:	62093855
Application Number:	62103472
Application Number:	62117826
Application Number:	62150669
Application Number:	62191831

<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	62202936
<b>Application Number:</b>	62288368
<b>Application Number:</b>	62305386
<b>Application Number:</b>	62334644
<b>Application Number:</b>	62352779
<b>Application Number:</b>	62352864
<b>Application Number:</b>	62353275
<b>Application Number:</b>	62354464
<b>Application Number:</b>	62364137
<b>Application Number:</b>	62372935
<b>Application Number:</b>	62405446
<b>Application Number:</b>	62405456
<b>Application Number:</b>	62405463
<b>Application Number:</b>	62405468
<b>Application Number:</b>	62405472
<b>Application Number:</b>	62440694
<b>Application Number:</b>	62446526
<b>Application Number:</b>	62451612
<b>Application Number:</b>	62451616
<b>Application Number:</b>	62469358
<b>Application Number:</b>	62477408
<b>Application Number:</b>	62491137
<b>Application Number:</b>	62541444
<b>Application Number:</b>	62546470
<b>Application Number:</b>	62560183
<b>Application Number:</b>	62562714
<b>Application Number:</b>	62616401
<b>Application Number:</b>	62616404
<b>Application Number:</b>	62616414
<b>Application Number:</b>	62616423
<b>Application Number:</b>	62626423
<b>Application Number:</b>	62634798
<b>Application Number:</b>	62643564
<b>Application Number:</b>	62665197
<b>Application Number:</b>	62665957
<b>Application Number:</b>	62665980
<b>Application Number:</b>	62666061
<b>Application Number:</b>	62666063

<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	62666066
<b>Application Number:</b>	62666079
<b>Application Number:</b>	62667571
<b>Application Number:</b>	62681490
<b>Application Number:</b>	62687186
<b>Application Number:</b>	62696705
<b>Application Number:</b>	62712182
<b>Application Number:</b>	62712191
<b>Application Number:</b>	62723298
<b>Application Number:</b>	62757664
<b>Application Number:</b>	62757672
<b>Application Number:</b>	62758411
<b>Application Number:</b>	62758447
<b>Application Number:</b>	62780545
<b>Application Number:</b>	62852222
<b>Application Number:</b>	62852218
<b>Application Number:</b>	62885162
<b>Application Number:</b>	62915604
<b>Application Number:</b>	62933245
<b>Application Number:</b>	62933224
<b>Application Number:</b>	62933237
<b>Application Number:</b>	62933283
<b>Application Number:</b>	62933267
<b>Application Number:</b>	62950002
<b>Application Number:</b>	62958574
<b>Application Number:</b>	62977479
<b>Application Number:</b>	63009374
<b>Application Number:</b>	63064596
<b>Application Number:</b>	63085817
<b>Application Number:</b>	63120989
<b>Application Number:</b>	63131117
<b>Application Number:</b>	63166405
<b>Application Number:</b>	63171142
<b>Application Number:</b>	63179835
<b>Application Number:</b>	63189789
<b>Application Number:</b>	63288419
<b>PCT Number:</b>	US2010049531
<b>PCT Number:</b>	US2011023604

Property Type	Number
PCT Number:	US2011023622
PCT Number:	US2011041106
PCT Number:	US2011048499
PCT Number:	US2011055459
PCT Number:	US2012060588
PCT Number:	US2013029453
PCT Number:	US2013075172
PCT Number:	US2014062905
PCT Number:	US2015014680
PCT Number:	US2015036957
PCT Number:	US2015059770
PCT Number:	US2016015470
PCT Number:	US2016015473
PCT Number:	US2016015348
PCT Number:	US2016015368
PCT Number:	US2016015385
PCT Number:	US2016015402
PCT Number:	US2016015318
PCT Number:	US2016015437
PCT Number:	US2016015435
PCT Number:	US2016015441
PCT Number:	US2016016972
PCT Number:	US2016020521
PCT Number:	US2016020523
PCT Number:	US2016030613
PCT Number:	US2016046245
PCT Number:	US2016066699
PCT Number:	US2017013636
PCT Number:	US2017021449
PCT Number:	US2017038625
PCT Number:	US2017038833
PCT Number:	US2017047217
PCT Number:	US2017047224
PCT Number:	US2017047230
PCT Number:	US2017047231
PCT Number:	US2017047233
PCT Number:	US2017051939
PCT Number:	US2018015449

Property Type	Number
PCT Number:	US2018016662
PCT Number:	US2018020793
PCT Number:	US2018020792
PCT Number:	US2018020790
PCT Number:	US2018020787
PCT Number:	US2018029380
PCT Number:	US2018044450
PCT Number:	US2019013359
PCT Number:	US2019013380
PCT Number:	US2019013356
PCT Number:	US2019030252
PCT Number:	US2019013379
PCT Number:	US2019043788
PCT Number:	US2019060634
PCT Number:	US2019060636
PCT Number:	US2019060640
PCT Number:	US2019060642
PCT Number:	US2019062593
PCT Number:	US2019066947
PCT Number:	US2020065964
PCT Number:	US2020045626
PCT Number:	US2020059701
PCT Number:	US2021012738
PCT Number:	US2021045708
PCT Number:	US2021052946
PCT Number:	US2021071807
PCT Number:	US2021072512

**CORRESPONDENCE DATA**

Fax Number: (919)800-3226  
*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*  
Phone: (919) 522-0312  
Email: jaybrownlaw@gmail.com  
Correspondent Name: JAY M. BROWN  
Address Line 1: 1135 KILDAIRE FARM RD.  
Address Line 2: SUITE 200  
Address Line 4: CARY, NORTH CAROLINA 27511

ATTORNEY DOCKET NUMBER:	ESL22001GEN
-------------------------	-------------



<b>NAME OF SUBMITTER:</b>	JAY M. BROWN
<b>SIGNATURE:</b>	/Jay M. Brown/
<b>DATE SIGNED:</b>	02/21/2022

**Total Attachments: 63**

source=AsgmtAsmptAgmt\_1-5-22#page1.tif  
source=AsgmtAsmptAgmt\_1-5-22#page2.tif  
source=AsgmtAsmptAgmt\_1-5-22#page3.tif  
source=AsgmtAsmptAgmt\_1-5-22#page4.tif  
source=AsgmtAsmptAgmt\_1-5-22#page5.tif  
source=MergerAgmt\_12-10-21#page1.tif  
source=MergerAgmt\_12-10-21#page2.tif  
source=MergerAgmt\_12-10-21#page3.tif  
source=MergerAgmt\_12-10-21#page4.tif  
source=MergerAgmt\_12-10-21#page5.tif  
source=MergerAgmt\_12-10-21#page6.tif  
source=MergerAgmt\_12-10-21#page7.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page1.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page2.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page3.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page4.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page5.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page6.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page7.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page8.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page9.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page10.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page11.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page12.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page13.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page14.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page15.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page16.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page17.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page18.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page19.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page20.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page21.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page22.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page23.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page24.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page25.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page26.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page27.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page28.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page29.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page30.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page31.tif

source=SCHEDULE A - Patent Assets-2022Feb21#page32.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page33.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page34.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page35.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page36.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page37.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page38.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page39.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page40.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page41.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page42.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page43.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page44.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page45.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page46.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page47.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page48.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page49.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page50.tif  
source=SCHEDULE A - Patent Assets-2022Feb21#page51.tif

## ASSIGNMENT AND ASSUMPTION AGREEMENT

THIS ASSIGNMENT AND ASSUMPTION AGREEMENT (this “**Agreement**”) being effective nunc pro tunc at the Effective Time as defined herein, is made by and between Ecosense Lighting Inc., a Delaware corporation (the “**Assignor**”), and Korrus, Inc., a Delaware corporation (the “**Assignee**”).

### RECITALS

WHEREAS, Assignor and Assignee have entered into an Agreement and Plan of Merger dated as of November 24, 2021 (the “**Merger Agreement**”), pursuant to which, upon filing a duly executed copy of a Certificate of Merger with the Secretary of State of the State of Delaware (the “**Effective Time**”) being a date certain as set forth in the attached Declaration By Assignor and Assignee, Assignor shall be merged with and into Assignee (the “**Merger**”), the separate existence of Assignor shall cease, and Assignee shall be the surviving corporation of the Merger.

NOW, THEREFORE, in consideration of the promises and the mutual agreements and covenants contained herein and in the Merger Agreement and for other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

### AGREEMENT

1. Assignment and Assumption. In accordance with the terms of the Merger Agreement and effective as of the Effective Time, Assignor hereby sells, assigns, conveys, transfers, and delivers to Assignee, and Assignee hereby accepts and receives, all right, title and interest, everywhere in the world, in all patents, patent applications, inventions, registered and unregistered trademarks and service marks (collectively the “**Trademarks**”) together with the goodwill of the portions of the business of Assignor connected with the use of and symbolized by the Trademarks and also including those portions of Assignor's business, tradenames, copyrights, trade secrets, domain names, mask works, information technology and proprietary rights and processes, similar or other intellectual property rights, subject matter of any of the foregoing, tangible embodiments of any of the foregoing, licenses in, to and under any of the foregoing (collectively, the “**Intellectual Property**”) owned by Assignor immediately prior to the Effective Time including all of the rights and powers relating to such Intellectual Property, including without limitation, the exclusive right to enforce any rights in Intellectual Property held by Assignor immediately prior to the Effective Time and the exclusive right to make demands for past damages for infringement occurring prior to the Effective Time.

2. Patents. In furtherance of the Assignment and Assumption in Section 1 above, Assignor hereby irrevocably transfers, conveys, sells and assigns to Assignee all of Assignor's right, title and interest, everywhere in the world, in and to the patents and patent applications included in the Intellectual Property, which are set forth in Schedule A, including, but not limited to, any continuations, divisions, continuations-in-part, substitutes, reissues, reexaminations, extensions and renewals thereof, together with all priority rights (including, but not limited to, all provisional patent applications and PCT applications) and counterpart applications (including, but

not limited to, all pending and granted national stage applications) under any existing or future international patent conventions, agreements or treaties. Assignor hereby authorizes and requests the Commissioner of the United States Patent and Trademark Office, and the corresponding entity or agency in any applicable foreign country or regional authority, to record Assignee as assignee and owner of the foregoing patents and patent applications.

3. Trademarks. In furtherance of the Assignment and Assumption in Section 1 above, Assignor hereby irrevocably transfers, conveys, sells and assigns to Assignee all of Assignor's right, title and interest, everywhere in the world, in and to the Trademarks included in the Intellectual Property, which are set forth in Schedule B, together with the goodwill of the business in connection with and symbolized by the Trademarks, including the portions of the business of Assignor to which the Trademarks pertain, and all rights to sue and for recovery of damages and profits due or accrued, arising out of or in connection with, any and all past, present and future infringements or dilution of or damage or injury to the Trademarks or such associated goodwill, if any. Assignor hereby authorizes and requests the Commissioner of the United States Patent and Trademark Office, and the corresponding entity or agency in any applicable foreign country or regional authority, to record Assignee as assignee and owner of the Trademarks.

4. Domain Names. In furtherance of the Assignment and Assumption in Section 1 above, Assignor hereby irrevocably transfers, conveys, sells and assigns to Assignee all of Assignor's right, title and interest, everywhere in the world, in and to the domain name registrations included in the Intellectual Property, which are listed on Schedule C hereto, and all subdomains thereunder.

5. Copyrights. In furtherance of the Assignment and Assumption in Section 1 above, Assignor hereby irrevocably transfers, conveys, sells and assigns to Assignee all of Assignor's right, title and interest, everywhere in the world, in and to all registered and unregistered copyrights in both published and unpublished works included in the Intellectual Property, including without limitation all of Assignor's rights in derivative works and modifications thereof.

6. General Terms.

a. Definitions. Capitalized terms used but not defined herein shall be defined as set forth in the Merger Agreement.

b. Power of Attorney. Assignor irrevocably designates and appoints Assignee and its duly authorized officers and agents as Assignor's agent and attorney in fact, to act for and in Assignor's behalf and stead to execute and file any documents necessary to perfect the assignment to Assignee of the Intellectual Property and to do all other lawfully permitted acts to further the prosecution, issuance, maintenance and enforcement of the Intellectual Property with the same legal force and effect as if executed by or on behalf of Assignor. The power of attorney granted in this Section 6(b) is given in consideration of the agreements and covenants of Assignor in connection with the transactions contemplated by this Agreement and, as such, is coupled with an interest and shall be irrevocable.

c. No Modification. Nothing contained in this Agreement is intended to or

shall be deemed to modify, alter, amend or otherwise change any of the rights or obligations of Assignor or Assignee under the Merger Agreement. Notwithstanding anything to the contrary contained in this Agreement, in the event of any conflict between the terms of this Agreement and the terms of the Merger Agreement, the terms of the Merger Agreement shall govern.

d. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns. Nothing in this Agreement, express or implied, is intended to or shall confer upon any other person any rights, interests, benefits or remedies of any nature whatsoever under or by reason of this Agreement.

e. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

f. Severability. If any provision of this Agreement is held to be unenforceable for any reason, it shall be adjusted rather than voided, if possible, in order to achieve the intent of the parties to this Agreement to the fullest extent possible. In any event, all other provisions of this Agreement shall be deemed valid and enforceable to the fullest extent possible.

g. Governing Law. This Agreement shall be governed by and construed under the internal laws of the State of Delaware as applied to agreements among Delaware residents entered into and to be performed entirely within Delaware, without reference to the principles of conflicts of law or choice of laws.

h. Headings. The section headings contained in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement.

IN WITNESS WHEREOF, the parties have caused this Assignment and Assumption Agreement to be executed and delivered as of the Effective Time, being a date certain as set forth in the attached Declaration By Assignor and Assignee.

**ASSIGNOR:**  
**ECOSENSE LIGHTING INC.**  
a Delaware corporation

DocuSigned by:  
*Mark Reynoso*  
By: \_\_\_\_\_  
Name: Mark Reynoso  
Title: Chief Executive Officer

**ASSIGNEE:**  
**KORRUS, INC.**  
a Delaware corporation

DocuSigned by:  
*Mark Reynoso*  
By: \_\_\_\_\_  
Name: Mark Reynoso  
Title: Chief Executive Officer

**DECLARATION BY ASSIGNOR AND ASSIGNEE**

WHEREAS, Ecosense Lighting Inc. (the "Assignor") and Korrus, Inc. (the "Assignee") have entered into an Agreement and Plan of Merger dated as of November 24, 2021 (the "Merger Agreement"), pursuant to which, upon filing a duly executed copy of a Certificate of Merger with the Secretary of State of the State of Delaware (the "Effective Time"), Ecosense Lighting Inc. shall be merged with and into Korrus, Inc. (the "Merger"), the separate existence of Ecosense Lighting Inc. shall cease, and Korrus, Inc. shall be the surviving corporation of the Merger.

WHEREAS, Section 13 of the Merger Agreement provides that effective as of the Effective Time, Ecosense Lighting Inc. sells, assigns, conveys, transfers, and delivers to Korrus, Inc., and Korrus, Inc. accepts and receives, the intellectual property owned by Ecosense Lighting Inc. immediately prior to the Effective Time.

NOW, THEREFORE, the Assignor and the Assignee declare that:

**The date certain of the Effective Time is: December 10, 2021.**

The signatories below being warned that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements and the like may jeopardize the validity in whole or part of the subject patents, trademarks, and other intellectual property, hereby further declare that all statements made of their own knowledge are true and all statements made on their information and belief are believed to be true.

**ASSIGNOR:**  
**ECOSENSE LIGHTING INC.**  
a Delaware corporation

DocuSigned by:  
*Mark Reynoso*  
By: \_\_\_\_\_  
Name: Mark Reynoso  
Title: Chief Executive Officer

**ASSIGNEE:**  
**KORRUS, INC.**  
a Delaware corporation

DocuSigned by:  
*Mark Reynoso*  
By: \_\_\_\_\_  
Name: Mark Reynoso  
Title: Chief Executive Officer

## AGREEMENT AND PLAN OF MERGER

THIS AGREEMENT AND PLAN OF MERGER (the “**Merger Agreement**”) is made this 24th day of November, 2021, by and between Ecosense Lighting Inc., a Delaware corporation (“**Ecosense**”) and Korrus, Inc., a Delaware corporation (“**Korrus**”). Ecosense and Korrus are hereinafter sometimes collectively referred to as the “**Constituent Corporations.**”

### RECITALS

**WHEREAS**, Korrus is a corporation duly organized and existing under the laws of the State of Delaware, having been incorporated on January 21, 2021, with authorized capital stock of 74,800,000 shares of Common Stock, \$0.0001 par value (the “**Korrus Common Stock**”), (b) 40,590,791 shares of Preferred Stock, \$0.0001 par value per share (“**Korrus Preferred Stock**”), of which 9,732,400 shares are designated Series A Preferred Stock (the “**Korrus Series A Preferred Stock**”), 20,764,946 shares are designated Series B Preferred Stock (the “**Korrus Series B Preferred Stock**”) and 10,093,445 shares are designated Series C Preferred Stock (the “**Korrus Series C Preferred Stock**”);

**WHEREAS**, as of the date of this Merger Agreement, one (1) share of Common Stock is issued and outstanding, which is held by Ecosense;

**WHEREAS**, Ecosense is a corporation duly organized and existing under the laws of the State of Delaware, having been incorporated on September 4, 2008 with authorized capital stock consisting of 74,800,000 shares of Common Stock, \$0.001 par value (the “**Ecosense Common Stock**”), (b) 40,590,791 shares of Preferred Stock, \$0.001 par value per share (“**Ecosense Preferred Stock**”), of which 9,732,400 shares are designated Series A Convertible Preferred Stock (the “**Ecosense Series A Preferred Stock**”), 20,764,946 shares are designated Series B Convertible Preferred Stock (the “**Ecosense Series B Preferred Stock**”) and 10,093,445 shares are designated Series C Convertible Preferred Stock (the “**Ecosense Series C Preferred Stock**”););

**WHEREAS**, the respective Boards of Directors of Korrus and Ecosense deem it advisable and to the advantage of each of the Constituent Corporations that Ecosense merge with and into Korrus upon the terms and subject to the conditions set forth in this Merger Agreement for the purpose of effecting a corporate reorganization;

**WHEREAS**, the Board of Directors and stockholders of each of the Constituent Corporations has approved this Merger Agreement;

**WHEREAS**, it is the intent of the parties to this Agreement that the merger contemplated hereby will be treated as a reorganization of Ecosense within the meaning of Section 368(a)(i)(F) of the Internal Revenue Code of 1986, as amended (the “**Code**”), whereby (i) Ecosense will merge with and into Korrus pursuant to a statutory merger under the applicable laws of Delaware and (ii) Korrus will be the surviving corporation pursuant to the merger.



## AGREEMENTS

**NOW, THEREFORE**, the parties do hereby adopt the plan of reorganization set forth in this Merger Agreement and do hereby agree that Ecosense shall merge with and into Korrus on the following terms, conditions and other provisions;

**1. Merger.** At the Effective Time (as defined below), Ecosense shall be merged with and into Korrus (the “**Merger**”), the separate existence of Ecosense shall cease, and Korrus shall be the surviving corporation of the Merger (the “**Surviving Corporation**”). The name of the Surviving Corporation shall be “Korrus, Inc.”.

**2. Effective Time.** The Merger shall become effective upon filing a duly executed copy of a Certificate of Merger, in such acceptable form as is required by the relevant provisions of the Delaware General Corporation Law, with the Secretary of State of the State of Delaware (the “**Effective Time**”).

**3. Effect of Merger.** Upon the Effective Time of the Merger, the separate existence of Ecosense shall cease and Korrus as the Surviving Corporation (i) shall continue to possess all of its assets, rights, powers and property as constituted immediately prior to the Effective Date of the Merger, (ii) shall be subject to all actions previously taken by its and Ecosense’s Board of Directors, (iii) shall succeed, without other transfer or further act or deed, to all of the assets, rights, powers and property of Ecosense, in the manner more fully set forth in the Delaware General Corporation Law, (iv) shall continue to be subject to all of the debts, liabilities and obligations of Ecosense as constituted immediately prior to the Effective Date of the Merger, (v) shall succeed, without other transfer or further act or deed, to all of the debts, liabilities and obligations of Ecosense in the same manner as if Korrus had itself incurred them, and (vi) the Surviving Corporation shall indemnify and hold harmless the officers and directors of each of the parties hereto against all such debts, liabilities, and duties and against all claims and demands arising out of the Merger all as more fully provided under the applicable provisions of the Delaware General Corporation Law.

**4. Governing Documents.** At the Effective Time, the Amended and Restated Certificate of Incorporation of Korrus, in effect immediately prior to the Effective Time shall become the certificate of incorporation of the Surviving Corporation. The Bylaws of Korrus in effect immediately prior to the Effective Time shall become the Bylaws of the Surviving Corporation.

**5. Directors and Officers.** The directors and officers of Korrus immediately prior the Effective Time shall be the directors and officers of the Surviving Corporation from and after the Effective Time and shall hold office until the earlier of their respective death, resignation or removal or their respective successors are duly elected or appointed and qualified in the manner provided for in the certificate of incorporation and bylaws of the Surviving Corporation or as otherwise provided by the Delaware General Corporation Law.

**6. Conversion of Shares of Ecosense.** Subject to the terms and conditions of this Agreement, at the Effective Time, by virtue of the Merger and without any action on the part of

Korvus, Ecosense, or the holders of shares of capital stock of the Ecosense: (a) each share of Ecosense Common Stock outstanding immediately prior thereto shall be automatically cancelled and converted into the right to receive one validly issued, fully paid and non-assessable share of Korvus Common Stock; (b) each share of Ecosense Series A Preferred Stock outstanding immediately prior thereto shall be automatically cancelled and converted into the right to receive one validly issued, fully paid and non-assessable share of Korvus Series A Preferred Stock; (c) each share of Ecosense Series B Preferred Stock outstanding immediately prior thereto shall be automatically cancelled and converted into the right to receive one validly issued, fully paid and non-assessable share of Korvus Series B Preferred Stock; and (d) each share of Ecosense Series C Preferred Stock outstanding immediately prior thereto shall be automatically cancelled and converted into the right to receive one validly issued, fully paid and non-assessable share of Korvus Series C Preferred Stock.

**7. Treatment of Stock Options.** Subject to the terms and conditions of this Agreement, at the Effective Time, by virtue of the Merger and without any additional action on the part of Korvus, Ecosense, or the holders of shares of capital stock of Ecosense: (a) Korvus will assume and adopt the Ecosense 2009 Stock Incentive Plan and 2019 Stock Incentive Plan (the “**Plans**”) and (b) each option to acquire shares of Ecosense Common Stock granted under the Plans that is outstanding and unexercised immediately prior to the Effective Time (each, an “**Assumed Option**”), whether or not then vested or exercisable, shall automatically be assumed by Korvus and shall be converted into a stock option (each, a “**Korvus Option**”) to acquire shares of Korvus Common Stock. Each Korvus Option so assumed and converted shall continue to have, and shall be subject to, the same terms and conditions as applied to the Ecosense Option immediately prior to the Effective Time and shall remain subject to the applicable Plan. As of the Effective Time, each Korvus Option will be exercisable for the same number of shares of Korvus Common Stock, at the same exercise price per share, as the Assumed Option was exercisable for Ecosense Common Stock.

**8. Treatment of Ecosense Warrants.** Subject to the terms and conditions of this Agreement, at the Effective Time, by virtue of the Merger and without any action on the part of Korvus, Ecosense, or the holders of shares of capital stock of the Ecosense: (a) Korvus will assume all outstanding warrants to purchase shares of capital stock of Ecosense, (b) each outstanding warrant to purchase shares of Ecosense Common Stock (the “**Outstanding Common Warrants**”) that is outstanding and unexercised immediately prior to the Effective Time shall be automatically converted into a warrant to purchase shares of Korvus Common Stock, on the same terms and conditions of the Outstanding Common Warrants immediately prior to the Effective Time, including without limitation, the number of shares of Korvus Common Stock, the exercise price per share and other terms of exercise; (b) each outstanding warrant to purchase shares of Ecosense Series B Preferred Stock (the “**Outstanding Series B Warrants**”) that is outstanding and unexercised immediately prior to the Effective Time shall be automatically converted into a warrant to purchase shares of Korvus Series B Preferred Stock, on the same terms and conditions of the Outstanding Series B Warrants immediately prior to the Effective Time, including without limitation, the number of shares of Korvus Series B Preferred Stock, the exercise price per share and other terms of exercise; and (c) each outstanding warrant to purchase shares of Ecosense Series C Preferred Stock (the “**Outstanding Series C Warrants**”) that is outstanding and unexercised immediately prior to the Effective Time shall be automatically converted into a warrant to purchase shares of Korvus Series C Preferred Stock, on

the same terms and conditions of the Outstanding Series C Warrants immediately prior to the Effective Time, including without limitation, the number of shares of Korrus Series C Preferred Stock, the exercise price per share and other terms of exercise.

**9. SAFEs.** Subject to the terms and conditions of this Agreement, at the Effective Time, by virtue of the Merger and without any action on the part of Korrus, Ecosense, or the holders of shares of capital stock of the Ecosense: (a) that certain Simple Agreement for Future Equity ("**SAFE**") issued to Soraa, Inc. by Ecosense on March 23, 2020 (the "**Soraa SAFE**"); and (b) that certain SAFE issued to Canaccord Genuity LLC issued by Ecosense on March 23, 2020 (the "**Canaccord SAFE**" and together with the Soraa SAFE, the "**SAFEs**") that is outstanding and unexercised immediately prior to the Effective Time shall be automatically converted into a SAFE to purchase capital stock of Korrus as set forth in the terms of conditions set forth in the SAFEs immediately prior to the Effective Time, including without limitation, the terms of conversion.

**10. Cancellation of Shares of Korrus.** At the Effective Time, all of the previously issued and outstanding shares of Korrus Common Stock that were issued and outstanding immediately prior to the Effective Time shall be automatically retired and canceled.

**11. Stock Certificates.** At and after the Effective Time, all of the outstanding certificates that, prior to that date, represented shares of Ecosense Common Stock and Ecosense Preferred Stock shall be deemed for all purposes to evidence ownership of and to represent the number of shares of Korrus Common Stock and Korrus Preferred Stock into which such shares of Ecosense Common Stock or Ecosense Preferred Stock are converted as provided herein. The registered owner on the books and records of Ecosense of any such outstanding stock certificate for Ecosense Common Stock or Ecosense Preferred Stock shall, until such certificate shall have been surrendered for transfer or otherwise accounted for to Korrus or its transfer agent, be entitled to exercise any voting and other rights with respect to, and to receive any dividend and other distributions upon, the shares of Korrus Common Stock or Korrus Preferred Stock evidenced by such outstanding certificate as above provided.

**12. Employee Benefit Plans.** At the Effective Time, the obligations of Ecosense under or with respect to every plan, trust, program and benefit then in effect or administered by Ecosense for the benefit of the directors, officers and employees of Ecosense or any of its subsidiaries shall become the lawful obligations of Korrus and shall be implemented and administered in the same manner and without interruption until the same are amended or otherwise lawfully altered or terminated. Effective at the Effective Time, Korrus hereby expressly adopts and assumes all obligations of Ecosense under such employee benefit plans.

**13. Intellectual Property.** Effective as of the Effective Time, Ecosense hereby sells, assigns, conveys, transfers, and delivers to Korrus, and Korrus hereby accepts and receives, all right, title and interest, everywhere in the world, in all patents, patent applications, inventions, registered and unregistered trademarks and service marks (collectively the "**Trademarks**") together with the goodwill of the portions of the business of Ecosense connected with the use of and symbolized by the Trademarks and also including those portions of Ecosense's business, tradenames, copyrights, trade secrets, domain names, mask works, information technology and proprietary rights and processes, similar or other intellectual property rights, subject matter of

any of the foregoing, tangible embodiments of any of the foregoing, licenses in, to and under any of the foregoing (collectively, the “**Intellectual Property**”) owned by Ecosense immediately prior to the Effective Time including all of the rights and powers relating to such Intellectual Property, including without limitation, the exclusive right to enforce any rights in Intellectual Property held by Ecosense immediately prior to the Effective Time and the exclusive right to make demands for past damages for infringement occurring prior to the Effective Time

**14. Assignment and Assumption.**

(a) Assignment. Effective as of the Effective Time, Ecosense hereby assigns and transfers to Korus all of the rights and obligations of Ecosense with respect to that certain Second Amended and Restated Voting Agreement dated as of December 2, 2014 (the “**Voting Agreement**”) by and among Ecosense, the Investors (as defined in the Voting Agreement) and the Common Stockholders (as defined in the Voting Agreement) and that certain Second Amended and Restated Right of First Refusal and Co-Sale Agreement dated as of December 2, 2014 (the “**Co-Sale Agreement**,” and together with the Voting Agreement, the “**Assigned Agreements**”) by and among Ecosense, the Investors (as defined in the Co-Sale Agreement) and the Common Stockholders (as defined in the Co-Sale Agreement).

(b) Assumption. Korus hereby agrees to be bound, from and after the Effective Time, by the terms and conditions of the Assigned Agreements, in each case, to the same extent as Ecosense was bound pursuant thereto immediately prior to the Effective Time.

**15. Further Assurances.** From time to time, as and when required by the Surviving Corporation or by its successors or assigns, there shall be executed and delivered on behalf of Ecosense such deeds, assignments and other instruments, and there shall be taken or caused to be taken by it all such further action as shall be appropriate, advisable or necessary in order to vest, perfect or confirm, of record or otherwise, in the Surviving Corporation the title to and possession of all property, interests, assets, rights, privileges, immunities, powers, franchises and authority of Ecosense, and otherwise to carry out the purposes of this Merger Agreement. The officers and directors of the Surviving Corporation are fully authorized in the name of and on behalf of Ecosense, or otherwise, to take any and all such actions and to execute and delivery any and all such deeds and other instruments as may be necessary or appropriate to accomplish the foregoing.

**16. Abandonment.** At any time before the Effective Time, this Merger Agreement may be terminated and the Merger abandoned by the Board of Directors of Ecosense or Korus, notwithstanding approval of this Merger Agreement by the Boards of Directors and stockholders of the Constituent Corporations.

**17. Amendment.** At any time before the Effective Time, this Merger Agreement may be amended, by the Boards of Directors of the Constituent Corporations, notwithstanding approval of this Merger Agreement by the stockholders of the Constituent Corporations; provided, however, that any amendment made by the Board of Directors subsequent to the adoption of this Merger Agreement by the stockholders of the Constituent Corporations shall not alter or change any of the principal terms of this Merger Agreement. Any other amendment to

this Merger Agreement shall require the approval of both the Board of Directors and holders of outstanding shares of the Constituent Corporations.

**18. Tax-Free Reorganization.** The Merger is intended to be a tax-free plan of reorganization within the meaning of Section 368(a)(1)(F) of the Code.

**19. Governing Law.** This Agreement shall be governed by and construed under the internal laws of the State of Delaware as applied to agreements among Delaware residents entered into and to be performed entirely within Delaware, without reference to the principles of conflicts of law or choice of laws.

**20. Counterparts.** In order to facilitate the filing and recording of this Merger Agreement, it may be executed in any number of counterparts, each of which shall be deemed to be an original. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, e.g., [www.docusign.com](http://www.docusign.com)) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

**[SIGNATURE PAGE FOLLOWS]**

IN WITNESS WHEREOF, the parties have caused this Agreement and Plan of Merger to be executed and delivered as of the date first above written.

ECOSENSE LIGHTING INC.  
a Delaware corporation

By: Steve Gelsomini  
Name: Steven Gelsomini  
Title: President

KORRUS, INC.,  
a Delaware corporation

By: mark reynoso  
Name: Mark Reynoso  
Title: Chief Executive Officer

**SCHEDULE A: U.S. Utility Patent Assets**

<b><u>Patent Grant Number</u></b>	<b><u>Patent Issue Date</u></b>	<b><u>Application Serial Number</u></b>	<b><u>Application Filing Date</u></b>	<b><u>Docket Number</u></b>	<b><u>TITLE</u></b>
US7,985,005	26-Jul-2011	11/715,071	06 Mar 2007	ESL15006USU	LIGHTING ASSEMBLY HAVING A HEAT DISSIPATING HOUSING
US7,866,850	11-Jan-2011	12/149,900	09 May 2008	ESL15004USU	LIGHT FIXTURE ASSEMBLY AND LED ASSEMBLY
US8,152,336	10-Apr-2012	12/409,409	23 Mar 2009	ESL15008USU	REMOVABLE LED LIGHT ASSEMBLY FOR USE IN A LIGHT FIXTURE ASSEMBLY
US8,125,776	28-Feb-2012	12/711,175	23 Feb 2010	ESL15007USU	SOCKET AND HEAT SINK UNIT FOR USE WITH REMOVABLE LED LIGHT MODULE
US8,414,178	9-Apr-2013	12/855,550	12 Aug 2010	ESL15010USU	LED LIGHT MODULE FOR USE IN A LIGHTING ASSEMBLY
US8153475B1	10-Apr-2012	12/858,379	17 Aug 2010	014151.074USI	Back-end processes for substrates re-use
		12/861,765	23 Aug 2010	014151.169US5	Methods and devices for light extraction from a group iii-nitride volumetric led using surface and sidewall roughening
US8207554B2	26-Jun-2012	12/879,784	10 Sep 2010	014151.085USI	System and Method for LED Packaging
		12/884,848	17 Sep 2010	014151.071USI	Power Light Emitting Diode and Method with Current Density Operation
US8269245B1	18-Sep-2012	12/914,789	28 Oct 2010	014151.080USI	Optical device with wavelength selective reflector
US8502465B2	6-Aug-2013	12/936,238	20 Sep 2010	014151.071US2	Power Light Emitting Diode and Method with Current Density Operation
US7,972,054	5-Jul-2011	12/986,934	07 Jan 2011	ESL15005USU	LIGHTING ASSEMBLY AND LIGHT MODULE FOR SAME
		13/019,521	02 Feb 2011	014151.099USI	Reflection Mode Package for Optical Devices Using Gallium and Nitrogen Containing Materials
US8525396B2	3-Sep-2013	13/025,791	11 Feb 2011	014151.137USI	Illumination Source with Direct Die Placement

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US8643257B2	4-Feb-2014	13/025,833	11 Feb 2011	014151.138USI	Illumination Source with Reduced Inner Core Size
US8618742B2	31-Dec-2013	13/025,849	11 Feb 2011	014151.139USI	Illumination Source and Manufacturing Methods
US8324835B2	4-Dec-2012	13/025,860	11 Feb 2011	014151.140USI	Modular LED Lamp and Manufacturing Methods
US8293551B2	23-Oct-2012	13/163,482	17 Jun 2011	014151.117USI	Gallium and Nitrogen Containing Triangular or Diamond-shaped Configuration for Optical Devices
US8313964B2	20-Nov-2012	13/163,498	17 Jun 2011	014151.116USI	Singulation Method and Resulting Device of Thick Gallium and Nitrogen Containing Substrates
US8,177,395	15-May-2012	13/175,376	01 Jul 2011	ESL15009USU	LIGHTING ASSEMBLY AND LIGHT MODULE FOR SAME
US8148180B2	3-Apr-2012	13/184,160	15 Jul 2011	014151.145USI	Techniques of Forming Ohmic Contacts on GaN Light Emitting Diodes
US9293667B2	22-Mar-2016	13/211,145	16 Aug 2011	014151.121USI	System and Method for Selected Pump LEDs with Multiple Phosphors
US8803452B2	12-Aug-2014	13/269,193	07 Oct 2011	014151.125USI	High Intensity Light Source
US8884517B1	11-Nov-2014	13/274,489	17 Oct 2011	014151.155USI	Illumination sources with thermally-isolated electronics
US8686431B2	1-Apr-2014	13/281,221	25 Oct 2011	014151.149USI	Gallium and Nitrogen Containing Trilateral Configuration for Optical Devices
US8597967B1	3-Dec-2013	13/298,617	17 Nov 2011	014151.129USI	Method and system for dicing substrates containing gallium and nitrogen material
US8541951B1	24-Sep-2013	13/298,905	17 Nov 2011	014151.128USI	High temperature LED system using an AC power source
US8912025B2	16-Dec-2014	13/304,182	23 Nov 2011	014151.158USI	Method for Manufacture of Bright GaN LEDs Using a Selective Removal Process
US8740413B1	3-Jun-2014	13/328,978	16 Dec 2011	014151.130USI	System and method for providing color light sources in proximity to predetermined wavelength conversion structures



<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US9450143B2	20-Sep-2016	13/357,578	24 Jan 2012	014151.117US2	Gallium and Nitrogen Containing Triangular or Diamond-Shaped Configuration for Optical Devices
US8389305B2	5-Mar-2013	13/419,325	13 Mar 2012	014151.145US2	Techniques of Forming Ohmic Contacts on GaN Light Emitting Diodes
US9236530B2	12-Jan-2016	13/431,834	27 Mar 2012	014151.141US1	Method and System for Epitaxy Processes on Miscut Bulk Substrates
		13/454,453	24 Apr 2012	JRNLT.031A	SOCKET AND HEAT SINK UNIT FOR USE WITH REMOVABLE LED LIGHT MODULE
US8,562,180	22-Oct-2013	13/464,191	04 May 2012	ESL15011USU	LIGHTING ASSEMBLY AND LIGHT MODULE FOR SAME
		13/480,767	25 May 2012	014151.150US1	High Intensity Light Source with Interchangeable Optics
US8674395B2	18-Mar-2014	13/482,956	29 May 2012	014151.085US2	System and method for led packaging
		13/484,113	20 May 2012	014151.129US2	Gallium and Nitrogen Material with Conductive Core Via Structures
US8911518B1	16-Dec-2014	13/491483	07 Jun 2012	014151.129US3	Method and system for dicing substrates containing gallium and nitrogen material with conductive core via structures
US9646827B1	9-May-2017	13/593,128	23 Aug 2012	014151.148US1	Method for smoothing surface of a substrate containing gallium and nitrogen
US8575642B1	5-Nov-2013	13/600,988	31 Aug 2012	014151.080US2	Optical devices having reflection mode wavelength material
US9,995,444	12-Jun-2018	13/653,999	17 Oct 2012	ECON-0002-U01	Linear LED Light Housing
US8802471B1	12-Aug-2014	13/723,968	21 Dec 2012	014151.212US1	Contacts for an n-type gallium and nitrogen substrate for optical devices
US9000466B1	7-Apr-2015	13/781,633	28 Feb 2013	014151.169US1	Methods and devices for light extraction from a group III-nitride volumetric LED using surface and sidewall roughening

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US9269876B2	23-Feb-2016	13/787,582	06 Mar 2013	014151.171US1	Light emitting diodes with low refractive index material layers to reduce light guiding effects
US8,783,938	22-Jul-2014	13/854,854	01 Apr 2013	ESL15012USU	LED LIGHT MODULE FOR USE IN A LIGHTING ASSEMBLY
US8985794B1	24-Mar-2015	13/856,613	04 Apr 2013	014151.159US2	Providing remote blue phosphors in an LED lamp
US9310052B1	12-Apr-2016	13/865,760	18 Apr 2013	014151.216US1	Compact lens for high intensity light source
US8,876,322	4-Nov-2014	13/867,730	22 Apr 2013	ESL15013USU	LINEAR LED MODULE AND SOCKET FOR SAME
		13/886,547	03 May 2013	014151.180US1	LED Lamps with Improved Quality of Light
US9360190B1	7-Jun-2016	13/894,203	14 May 2013	014151.216US2	Compact lens for high intensity light source
US8888332B2	18-Nov-2014	13/909,752	04 Jun 2013	014151.196US1	Accessories for led lamps
		13/915,432	11 Jun 2013	014151.150US0	LED Lamps and Controllers for Lighting Fixtures
US8686458B2	1-Apr-2014	13/931,359	28 Jun 2013	014151.071US3	Power light emitting diode and method with current density operation
US8994033B2	31-Mar-2015	13/937,338	09 Jul 2013	014151.251US1	Contacts for an n-type gallium and nitrogen substrate for optical devices
US10036544B1	31-Jul-2018	13/945,763	18 Jul 2013	014151.138US2	Illumination source with reduced weight
US8829774B1	9-Sep-2014	13/959,422	05 Aug 2013	014151.137US2	Illumination source with direct die placement
US8896235B1	25-Nov-2014	13/973,213	22 Aug 2013	014151.128US2	High temperature LED system using an AC power source
US9109760B2	18-Aug-2015	14/014,112	29 Aug 2013	014151.150US2	Accessories for led lamps
US9293644B2	22-Mar-2016	14/040,379	27 Sep 2013	014151.071US4	Power light emitting diode and method with uniform current density operation
US9978904B2	22-May-2018	14/054,234	15 Oct 2013	014151.235US1	Indium gallium nitride light emitting devices
US9215764B1	15-Dec-2015	14/075,936	08 Nov 2013	014151.215US1	High-temperature ultra-low ripple multi-stage LED driver and LED control circuits

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
		14/097,481	05 Dec 2013	014151.130US5	System and method for providing color light sources in proximity to predetermined wavelength conversion structures
US9,307,588	5-Apr-2016	14/106,581	13 Dec 2013	ECON0005U01	SYSTEMS AND METHODS FOR DIMMING OF A LIGHT SOURCE
US9761763B2	12-Sep-2017	14/135,098	19 Dec 2013	014151.234US1	Dense-luminescent-materials-coated violet leds
US9488324B2	8-Nov-2016	14/166,692	28 Jan 2014	014151.150US3	Accessories for led lamp systems
US9,565,782	7-Feb-2017	14/178,157	11 Feb 2014	ESL14007USU	Field-Replaceable Power Supply Cartridge
US9076926B2	7-Jul-2015	14/181,386	14 Feb 2014	014151.149US2	Gallium and nitrogen containing trilateral configuration for optical devices
US9267661B1	23-Feb-2016	14/191,679	27 Feb 2014	014151.189US1	Apportioning optical projection paths in an LED lamp
US9435525B1	6-Sep-2016	14/199,398	06 Mar 2014	014151.241US1	Multi-part heat exchanger for LED lamps
US8905588B2	9-Dec-2014	14/256,670	18 Apr 2014	014151.130US2	System and method for providing color light sources in proximity to predetermined wavelength conversion structures
US8933644B2	13-Jan-2015	14/310,957	20 Jun 2014	014151.180US2	Led lamps with improved quality of light
US9410664B2	9-Aug-2016	14/316,685	26 Jun 2014	014151.277US1	Circadian friendly led light source
US9995439B1	12-Jun-2018	14/336,276	21 Jul 2014	014151.216US3	Glare reduced compact lens for high intensity light source
US9976710	22-May-2018	14/523,392	24 Oct 2014	L0815.70000US01	Flexible Strip Lighting Apparatus and Methods
US10477636	12-Nov-2019	14/526,504	28 Oct 2014	ESL14001USU	LIGHTING SYSTEMS HAVING MULTIPLE LIGHT SOURCES
US9419189B1	16-Aug-2016	14/528818	30 Oct 2014	014151.284US1	Small LED source with high brightness and high efficiency
US9046227B2	2-Jun-2015	14/528876	30 Oct 2014	014151.180US3	Led lamps with improved quality of light

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US10147850B1	4-Dec-2018	14/531545	03 Nov 2014	014151.130US3	System and method for providing color light sources in proximity to predetermined wavelength conversion structures
US10436422B1	8-Oct-2019	14/543164	17 Nov 2014	014151.196US3	Multi-function active accessories for LED lamps
		14/560,867	04 Dec 2014	014151.292US1	Computer-Aided LED Lamp Design Method and Manufacture of Same Using Lamp Properties and Constraints
US9583678B2	28-Feb-2017	14/615315	05 Feb 2015	014151.267US1	High-performance led fabrication
US9,869,450	16-Jan-2018	14/617,849	09 Feb 2015	ESL14003USU	LIGHTING SYSTEMS HAVING A TRUNCATED PARABOLIC- OR HYPERBOLIC- CONICAL LIGHT REFLECTOR, OR A TOTAL INTERNAL REFLECTION LENS; AND HAVING ANOTHER LIGHT REFLECTOR
US9112116B2	18-Aug-2015	14/629049	23 Feb 2015	014151.251US2	Contacts for an n-type gallium and nitrogen substrate for optical devices
US9406843B2	2-Aug-2016	14/632755	26 Feb 2015	014151.169US2	Methods and devices for light extraction from a group iii-nitride volumetric led using surface and sidewall roughening
US9,568,665	14-Feb-2017	14/636,204	03 Mar 2015	ESL14002USU	LIGHTING SYSTEMS INCLUDING LENS MODULES FOR SELECTABLE LIGHT DISTRIBUTION
US9,651,227	16-May-2017	14/636,205	03 Mar 2015	ESL14005USU	LOW-PROFILE LIGHTING SYSTEM HAVING PIVOTABLE LIGHTING ENCLOSURE
US9917227B1	13-Mar-2018	14/697390	27 Apr 2015	014151.276US1	Controlling oxygen concentration levels during processing of highly-reflective contacts
US9368695B2	14-Jun-2016	14/698574	28 Apr 2015	014151.180US4	Led lamps with improved quality of light
US9,746,159	29-Aug-2017	14/702,765	04 May 2015	ESL14006USU	LIGHTING SYSTEM HAVING A SEALING SYSTEM

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US9,651,216	16-May-2017	14/702,800	04 May 2015	ESL14004USU	LIGHTING SYSTEMS INCLUDING ASYMMETRIC LENS MODULES FOR SELECTABLE LIGHT DISTRIBUTION
US10271391B2	23-Apr-2019	14/751065	25 Jun 2015	014151.306US1	Light emitting diode driver
		14/792,600	06 Jul 2015	ESL15001USU	Lighting System Having a Mounting Device
US9,651,232	16-May-2017	14/816,827	03 Aug 2015	ESL15002USU	LIGHTING SYSTEM HAVING A MOUNTING DEVICE
US10041649B1	7-Aug-2018	14/819010	05 Aug 2015	014151.322US1	Filters for circadian lighting
US9379280B2	28-Jun-2016	14/827709	17 Aug 2015	014151.251US3	Contacts for an n-type gallium and nitrogen substrate for optical devices
		14/925,885	28 Oct 2015	014151.294US1	LED Device Configured to Change Color During Dimming
US10180521B2	15-Jan-2019	14/936371	09 Nov 2015	014151.321US1	Luminaire for emitting directional and nondirectional light
US10154552B2	11-Dec-2018	14/944097	17 Nov 2015	014151.401US1	Dynamic power supply for light emitting diode
US10030828	24-Jul-2018	14/967,125	11 Dec 2015	L0815.70000US00	Flexible Strip Lighting Apparatus and Methods
US10468553B1	5-Nov-2019	14/975467	18 Dec 2015	014151.323US1	Contact for semiconductor device
US9653650B2	16-May-2017	14/992939	11 Jan 2016	014151.141US2	Method and system for epitaxy processes on miscut bulk substrates
US9915775B2	13-Mar-2018	14/996143	14 Jan 2016	014151.339US1	Circadian-friendly led light sources
US10139091B2	27-Nov-2018	15/047604	18 Feb 2016	014151.328US1	Led lamp with rearward extending heatsink
US9,642,202	2-May-2017	15/049,457	22 Feb 2016	ECON-0005U01C01	SYSTEMS AND METHODS FOR DIMMING OF A LIGHT SOURCE
US9618183B2	11-Apr-2017	15/051119	23 Feb 2016	014151.189US2	Apportioning optical projection paths in an led lamp
US10096755B2	9-Oct-2018	15/051326	23 Feb 2016	014151.171US2	Light emitting diode with low refractive index material layers to reduce light guiding effects
US9564553B2	7-Feb-2017	15/074665	18 Mar 2016	014151.071US5	Power light emitting diode and method with uniform current density operation

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US9660152B2	23-May-2017	15/077387	22 Mar 2016	014151.121US2	System and method for selected pump leds with multiple phosphors
US10271400B2	23-Apr-2019	15/135287	21 Apr 2016	014151.380US1	Controlling physiological conditions through environmental control
US9677723B2	13-Jun-2017	15/154581	13 May 2016	014151.180US5	Led lamps with improved quality of light
US9,772,073	26-Sep-2017	15/170,806	01 Jun 2016	014151.502US1	Illuminating With a Multizone Mixing Cup
US9,526,143	20-Dec-2016	15/173,538	03 Jun 2016	014151.503US1	Systems for Providing Tunable White Light With High Color Rendering
US9,609,715	28-Mar-2017	15/173,554	03 Jun 2016	014151.504US1	Systems for Providing Tunable White Light With High Color Rendering
US9,719,660	1-Aug-2017	15/176,083	07 Jun 2016	014151.527US1	Compositions for LED Light Conversions
		15/225,808	01 Aug 2016	ECON0002U02	Linear LED Light Housing
US10043946B2	7-Aug-2018	15/226656	02 Aug 2016	014151.169US3	Methods and devices for light extraction from a group iii-nitride volumetric led using surface and sidewall roughening
US10076633B2	18-Sep-2018	15/229959	05 Aug 2016	014151.277US2	Circadian-friendly led light source
		15/236,898	15 Aug 2016	014151.284US2	Small LED source with high brightness and high efficiency
		15/261351	09 Sep 2016	014151.130US4	System and method for providing color light sources in proximity to predetermined wavelength conversion structures
US10,012,370	3-Jul-2018	15/268,781	19 Sep 2016	ESL16001USU	LIGHTING SYSTEM HAVING A MOUNTING DEVICE
		15/270928	20 Sep 2016	014151.117US3	Gallium and nitrogen containing triangular or diamond-shaped configuration for optical devices
US10309620B2	4-Jun-2019	15/344206	04 Nov 2016	014151.150US4	Accessories for led lamp systems

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US9,860,956	2-Jan-2018	15/380,998	15 Dec 2016	014151.504US2	Systems for Providing Tunable White Light With High Color Rendering
US9,839,091	5-Dec-2017	15/381,012	15 Dec 2016	014151.503US2	Systems for Providing Tunable White Light With High Color Rendering
		15/383897	19 Dec 2016	014151.403US1	Treatment of eye condition using adjustable light
US9,894,788	13-Feb-2018	15/390,475	24 Dec 2016	ESL14007CON	Field-Replaceable Power Supply Cartridge
US9831388B2	28-Nov-2017	15/418268	27 Jan 2017	014151.267US2	High-performance led fabrication
US9768353B2	19-Sep-2017	15/426662	07 Feb 2017	014151.071US6	Power light emitting diode and method with uniform current density operation
		15/439,938	22 Feb 2017	ESL14004CON	LIGHTING SYSTEMS INCLUDING ASYMMETRIC LENS MODULES FOR SELECTABLE LIGHT DISTRIBUTION
US10132476	20-Nov-2018	15/453,842	08 Mar 2017	L0815.70001US01	Lighting System with Lens Assembly
US11060702	13-Jul-2021	15/453,848	08 Mar 2017	L0815.70001US02	Lighting System with Lens Assembly
US10274160B2	30-Apr-2019	15/466697	22 Mar 2017		Luminaire for emitting directional and non-directional light
US10317057	11-Jun-2019	15/481,223	06 Apr 2017	ESL15002CON	LIGHTING SYSTEM HAVING A MOUNTING DEVICE
US10700244	30-Jun-2020	15/489261	17 Apr 2017	014151.121US3	System and method for selected pump leds with multiple phosphors
US10261232	16-Apr-2019	15/542,608	10 Jul 2017	ESL15003PPH	OPTICAL DEVICES AND SYSTEMS HAVING A CONVERGING LENS WITH GROOVES
US10306724	28-May-2019	15/547,451	28 Jul 2017	ESL16002PPH	LIGHTING SYSTEMS, AND SYSTEMS FOR DETERMINING PERIODIC VALUES OF A PHASE ANGLE OF A WAVEFORM POWER INPUT
US10333586B2	25-Jun-2019	15/592729	11 May 2017	014151.406US1	Lamp power line communication
US10139056B2	27-Nov-2018	15/618236	09 Jun 2017	014151.180US6	Led lamps with improved quality of light
US10632214B2	28-Apr-2020	15/633425	26 Jun 2017	014151.413US1	Bactericidal light source with high quality of light

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US10299360B2	21-May-2019	15/653900	19 Jul 2017	014151.407US1	Smart lighting system with ultra-low standby consumption
US10084121B2	25-Sep-2018	15/661515	27 Jul 2017	014151.284US3	Small led source with high brightness and high efficiency
US10465862	5-Nov-2019	15/665,269	31 Jul 2017	014151.527US2	Compositions for LED Light Conversions
US10490696B2	26-Nov-2019	15/674077	10 Aug 2017	014151.415US1	Iii-nitride led with tunnel junction
US10197226	5-Feb-2019	15/679,083	16 Aug 2017	014151.502US3	Illuminating With a Multizone Mixing Cup
US10415768	17-Sep-2019	15/693,091	31 Aug 2017	014151.502US2	Illuminating With a Multizone Mixing Cup
US9985179B2	29-May-2018	15/700562	11 Sep 2017	014151.071US7	Power light emitting diode and method with uniform current density operation
US10401683B2	3-Sep-2019	15/712019	21 Sep 2017	014151.340US1	Low blue light displays
US10115865B2	30-Oct-2018	15/785950	17 Oct 2017	014151.267US3	High-performance led fabrication
US10465864	5-Nov-2019	15/822,046	24 Nov 2017	ECON-0002-U2	Linear LED Light Housing
		15/835,610	08 Dec 2017	ESL14003CON	LIGHTING SYSTEMS GENERATING CONTROLLED AND WAVELENGTH-CONVERTED LIGHT EMISSIONS
US10270489B2	23-Apr-2019	15/851125	21 Dec 2017	014151.405US1	Intelligent modules for intelligent networks
US10324250B2	18-Jun-2019	15/878110	23 Jan 2018	014151.339US3	Circadian-friendly led light sources
US10374122B2	6-Aug-2019	15/883174	30 Jan 2018	014151.276US2	Controlling oxygen concentration levels during processing of highly-reflective contacts
		15/917,481	09 Mar 2018	L0815.70010US01	Fixtures and Lighting Accessories for Lighting Devices



<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US10378726	13-Aug-2019	15/921,206	14 Mar 2018	ESL14003CIP	LIGHTING SYSTEM GENERATING A PARTIALLY COLLIMATED DISTRIBUTION COMPRISING A BOWL REFLECTOR, A FUNNEL REFLECTOR HAVING A CROSS-SECTIONAL PROFILE INCLUDING TWO PARABOLIC CURVES AND AN OPTICALLY TRANSPARENT BODY DISPOSED BETWEEN THE FUNNEL REFLECTOR AND BOWL REFLECTOR
US10253948	9-Apr-2019	15/937,843	27 Mar 2018	ESL17001USU	LIGHTING SYSTEMS HAVING MULTIPLE EDGE-LIT LIGHTGUIDE PANELS
		15/986253	22 May 2018	014151.235US2	Indium gallium nitride light emitting devices
US10553754B2	4-Feb-2020	15/991951	29 May 2018	014151.071US8	Power light emitting diode and method with uniform current density operation
US10228099	12-Mar-2019	16/004,625	11 Jun 2018	L0815.70000US02	Flexible Strip Lighting Apparatus and Methods
US10378705	13-Aug-2019	16/004,936	11 Jun 2018	L0815.70000US03	Flexible Strip Lighting Apparatus and Methods
US10137277B2	27-Nov-2018	16/031121	10 Jul 2018	014151.277US3	Circadian-friendly led light source
US10168009B2	1-Jan-2019	16/031144	10 Jul 2018	014151.180US7	Led lamps with improved quality of light
		16/048,170	27 Jul 2018	014151.501US1	Zoned Optical Cup
US10551010	4-Feb-2020	16/048,246	28 Jul 2018	014151.538US2	Multizone Mixing Cup
US11028976	8-Jun-2021	16/048,251	28 Jul 2018	014151.502US9	Illuminating With a Multizone Mixing Cup
US10774997	15-Sep-2020	16/048,685	30 Jul 2018	014151.527US4	Compositions for LED Light Conversions
US10602583	24-Mar-2020	16/049,086	30 Jul 2018	014151.541US1	Systems for Providing Tunable White Light With High Color Rendering
US10750590	18-Aug-2020	16/049,178	30 Jul 2018	014151.555US1	Systems for Providing Tunable White Light With High Color Rendering
US10697595	30-Jun-2020	16/049,289	30 Jul 2018	014151.505US1	Methods For Generating Tunable White Light With High Color Rendering

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US10677399	9-Jun-2020	16/049,299	30 Jul 2018	014151.506US1	Methods For Generating Tunable White Light With High Color Rendering
US10750591	18-Aug-2020	16/049,427	30 Jul 2018	014151.554US1	Methods For Generating Melatonin-Response Tuned White Light With High Color Rendering
US10701775	30-Jun-2020	16/049,452	30 Jul 2018	014151.556US1	Methods For Generating Melatonin-Response Tuned White Light With High Color Rendering
US10701776	30-Jun-2020	16/049,537	30 Jul 2018	014151.557US1	Methods For Generating Melatonin-Response Tuned White Light With High Color Rendering
US11047534	29-Jun-2021	16/049,770	30 Jul 2018	014151.502US4	Multizone Mixing Cup Illumination System
US10492264	26-Nov-2019	16/049,776	30 Jul 2018	014151.535US1	Lighting Systems for Providing Tunable White Light with Functional Diode Emissions
US10470269	5-Nov-2019	16/049,781	30 Jul 2018	014151.534US1	Lighting Systems for Providing Tunable Light with High Color Rendering
US10512133	17-Dec-2019	16/049,782	30 Jul 2018	014151.526US1	Methods of Providing Tunable Warm White Light
US10555397	4-Feb-2020	16/049,786	30 Jul 2018	014151.536US1	Systems and Methods for Providing Tunable Warm White Light
		16/055,683	06 Aug 2018	014151.169US4	Methods and devices for light extraction from a group iii-nitride volumetric led using surface and sidewall roughening
US10483850	19-Nov-2019	16/134,434	18 Sep 2018	ESL17003USU	Universal Input-Voltage - Compatible Switched-Mode Power Supply
US10529902B2	7-Jan-2020	16/139609	24 Sep 2018	014151.284US4	Small led source with high brightness and high efficiency
		16/154853	09 Oct 2018	014151.171US3	Light emitting diode with low refractive index material layers to reduce light guiding effects
US11022279	1-Jun-2021	16/161,221	16 Oct 2018	L0815.70001US04	Lighting System with Lens Assembly
US10693041	23-Jun-2020	16/168311	23 Oct 2018	014151.267US4	High-performance led fabrication

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US10694593	23-Jun-2020	16/168387	23 Oct 2018	014151.401US2	Dynamic power supply for light emitting diode
US10900615	26-Jan-2021	16/168471	23 Oct 2018	014151.277US4	Circadian-friendly led light source
US10557595B2	11-Feb-2020	16/203045	28 Nov 2018	014151.180US8	Led lamps with improved quality of light
		16/234207	27 Dec 2018	014151.405US2	Intelligent modules for intelligent networks
		16/241,880	07 Jan 2019	014151.502US5	Illuminating With a Multizone Mixing Cup
		16/279,396	19 Feb 2019	ESL17001CON	LIGHTING SYSTEMS FOR GENERATING LIGHT IN A CIRCADIAN MODE
US10649127	12-May-2020	16/285,956	26 Feb 2019	ESL15003CON	OPTICAL DEVICES AND SYSTEMS HAVING A CONVERGING LENS WITH GROOVES
		16/312470	21 Dec 2018	014151.412US1	Light Emitting Diode Package
		16/354875	15 Mar 2019	014151.443US1	Flip-chip package
		16/377452	08 Apr 2019	014151.405US3	Intelligent modules for intelligent networks
		16/377457	08 Apr 2019	014151.405US4	Intelligent modules for intelligent networks
US10750587	18-Aug-2020	16/379,966	10 Apr 2019	ESL16002CON	LIGHTING SYSTEMS, AND SYSTEMS FOR DETERMINING PERIODIC VALUES OF A PHASE ANGLE OF A WAVEFORM POWER INPUT
US11054117	6-Jul-2021	16/385045	16 Apr 2019	014151.150US5	Accessories for led lamp systems
US11240890	2/1/22	16/390716	22 Apr 2019	014151.380US2	Controlling physiological conditions by controlling environmental conditions
		16/390842	22 Apr 2019	014151.405US5	Intelligent modules for intelligent networks
		16/393,518	24 Apr 2019	ESL17001CIP1	Lighting Controller for Emulating Progression of Ambient Sunlight
US10805998	13-Oct-2020	16/393,660	24 Apr 2019	014151.520US1	Display Lighting Systems with Circadian Effects
US10955608	23-Mar-2021	16/397001	29 Apr 2019	014151.339US4	Circadian-friendly led light sources
		16/398,724	30 Apr 2019	ESL18002USU	Boundary-Mountable Lighting Systems
US11041609	22-Jun-2021	16/400,854	01 May 2019	L0815.70011US02	Lighting Systems and Devices with Central Silicone Module

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US10801696	13-Oct-2020	16/401,170	02 May 2019	ESL18007USU	Lighting Systems Generating Partially-Collimated Light Emissions
		16/401,346	02 May 2019	ESL18003USU	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations
		16/401,446	02 May 2019	ESL18006USU	True Low Voltage Emergency Backup Charger with Digital Line Voltage Detection
		16/401,985	02 May 2019	ESL18005USU	ECOART SYSTEM
		16/402,157	02 May 2019	ESL18004USU	Communication Protocol AutoDetect with Line Voltage Mis-Wire Protection
US10527268	7-Jan-2020	16/417,583	20 May 2019	ESL15002CON2	LIGHTING SYSTEM HAVING A MOUNTING DEVICE
US10578256	3-Mar-2020	16/433,853	06 Jun 2019	014151.502US6	Illuminating With a Multizone Mixing Cup
US10734549	4-Aug-2020	16/446022	19 Jun 2019	014151.444US1	High efficiency group-iii nitride light emitting diode
		16/480,867	25 Jul 2019	L0815.70007US02	Lighting Systems With High Color Rendering Index and Uniform Planar Illumination
		16/509,200	11 Jul 2019	L0815.70014US01	Systems Including an LED And a Light Guide
		16/511750	15 Jul 2019	014151.276US3	Controlling oxygen concentration levels during processing of highly-reflective contacts
US11073727	27-Jul-2021	16/518452	22 Jul 2019	014151.340US2	Low blue light displays
US11028980	8-Jun-2021	16/537,863	12 Aug 2019	L0815.70000US04	Flexible Strip Lighting Apparatus and Methods
		16/550996	26 Aug 2019	014151.196US4	Multi-function active accessories for led lamps
US10880962	29-Dec-2020	16/589,730	01 Oct 2019	ESL14001CON	LIGHTING SYSTEMS HAVING MULTIPLE LIGHT SOURCES
US10827580	3-Nov-2020	16/599,768	11 Oct 2019	014151.525US1	Two Channel Tunable Lighting Systems with Controlled Equivalent Melanopic Lux and CCT Outputs

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US10848064	24-Nov-2020	16/600,819	14 Oct 2019	ESL17003CON	Universal Input-Voltage - Compatible Switched-Mode Power Supply
		16/601,711	15 Oct 2019	ESL19D01-427	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 18-20]
		16/664,046	25 Oct 2019	ESL19P01-1	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations [PCT claim 1]
US10817745	27-Oct-2020	16/664,098	25 Oct 2019	ESL19P02-21	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations
US10885377	5-Jan-2021	16/664,171	25 Oct 2019	ESL19P03-51	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations
		16/664,213	25 Oct 2019	ESL19P04-143	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 143-152]
US10817746	27-Oct-2020	16/664,263	25 Oct 2019	ESL19P05-153	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations
		16/664,546	25 Oct 2019	ESL19T06-272	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claim 272]
		16/664,800	26 Oct 2019	ESL19T07-273	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations
US10753552	25-Aug-2020	16/673,891	04 Nov 2019	014151.527US3	Compositions for LED Light Conversions

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US10912172	2-Feb-2021	16/673,892	04 Nov 2019	014151.534US2	Lighting Systems for Providing Tunable Light with High Color Rendering
		16/685,523	15 Nov 2019	ESL18005CIP	Composite Interface Circuit
US11144493	12-Oct-2021	16/686,039	15 Nov 2019	ESL18005CIP2	COMPOSITE INTERFACE CIRCUIT
		16/688627	19 Nov 2019	014151.284US5	Small LED Source With High Brightness and High Efficiency
US10721802	21-Jul-2020	16/694,998	25 Nov 2019	014151.535US2	Lighting Systems for Providing Tunable White Light with Functional Diode Emissions
		16/694483	25 Nov 2019	014151.415US2	III-Nitride LED With Tunnel Junction
		16/702,230	03 Dec 2019	ESL19D08-32	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 32-50]
		16/702,314	03 Dec 2019	ESL19D09-74	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 74-82]
		16/702,349	03 Dec 2019	ESL19D10-83	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 83-88]
		16/702,384	03 Dec 2019	ESL19D11-89	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 89-99]
		16/702,411	03 Dec 2019	ESL19D12-121	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 121-130]
		16/702,727	04 Dec 2019	ESL19D13-226	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 226-231]

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
		16/702,780	04 Dec 2019	ESL19D14-428	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 242-243]
		16/702,825	04 Dec 2019	ESL19D15-255	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 255-265]
		16/702,873	04 Dec 2019	ESL19D16-328	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 328-336]
		16/702,919	04 Dec 2019	ESL19D17-379	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 379-393]
US11232321	24-Jan-2022	16/702,979	04 Dec 2019	ESL19D18-408	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 408-414]
US10716182	14-Jul-2020	16/714,422	13 Dec 2019	014151.526US2	Methods of Providing Tunable White Light
		16/717,883	17 Dec 2019	L0815.70016US02	LED Strip Which Comply With High Voltage AC Driving Power
US10989372	27-Apr-2021	16/728,596	27 Dec 2019	L0815.70010US02	Fixtures and Lighting Accessories for Lighting Devices
US10779371	15-Sep-2020	16/746,661	17 Jan 2020	014151.536US2	Systems and Methods for Providing Tunable Warm White Light
US10788168	29-Sep-2020	16/780,093	03 Feb 2020	014151.538US3	Multizone Mixing Cup
		16/780362	03 Feb 2020	014151.071US9	Power Light Emitting Diode and Method with Uniform Current Density Operation
US1105473	31-Aug-2021	16/786277	10 Feb 2020	014151.180US9	LED Lamps with Improved Quality of Light
US11047535	29-Jun-2021	16/792,805	17 Feb 2020	014151.502US8	Illuminating With a Multizone Mixing Cup

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
US11102863	24-Aug-2021	16/792,816	17 Feb 2020	014151.542US1	Multi-Channel White Light Device for Providing Tunable White Light with High Color Rendering
		16/792,827	17 Feb 2020	014151.543US1	Multi-Channel White Light Device for Providing Tunable White Light with High Color Rendering
US11226074	18-Jan-2022	16/807,019	02 Mar 2020	014151.502US7	Illuminating With a Multizone Mixing Cup
US11064585	13-Jul-2021	16/822670	18 Mar 2020	014151.541US2	Systems for Providing Tunable White Light With High Color Rendering
US11235077	1-Feb-2022	16/859,498	27 Apr 2020	014151.413US2	Bacterial Light Source with High Quality of Light
		16/879,656	20 May 2020	014151.554US2	Methods for Generating Melatonin-Response-Tuned White Light With High Color Rendering
		16/883,938	26 May 2020	014151.500US1	Dynamic Illumination Using a Coherent Light Source
US11198813	14-Dec-2021	16/886,659	28 May 2020	014151.555US2	Systems for Providing Tunable White Light with High Color Rendering
US11198020	14-Dec-2021	16/886,664	28 May 2020	014151.556US2	Methods for Generating Melatonin-Response-Tuned White Light With High Color Rendering
US11168250	9-Nov-2021	16/886,668	28 May 2020	014151.557US2	Methods for Generating Melatonin-Response-Tuned White Light With High Color Rendering
US11212889	28-Dec-2021	16/891,735	03 Jun 2020	014151.506US2	Methods for Generating Tunable White Light with High Color Rendering
US11191140	30-Nov-2021	16/892,008	03 Jun 2020	014151.505US2	Methods for Generating Tunable White Light with High Color Rendering
		16/895,925	08 Jun 2020	014151.527US5	Compositions for LED Light Conversions
		16/907,650	22 Jun 2020	014151.267US5	High-Performance LED Fabrication
		16/908,194	22 Jun 2020	014151.401US3	Dynamic Power Supply for LED
		16/915,466	29 Jun 2020	014151.121US4	System and Method for Selected Pump LEDs With Multiple Phosphors
		16/927,531	13 Jul 2020	014151.526US3	Methods of Providing Tunable Warm White Light



<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
		16/927,564	13 Jul 2020	014151.535US5	Multi-Channel Systems for Providing Tunable Light with High Color Rendering and Biological Effects
		16/927,589	13 Jul 2020	014151.535US6	Multi-Channel Systems for Providing Tunable Light with High Color Rendering and Biological Effects
US11246198	8-Feb-2022	16/927,634	13 Jul 2020	014151.525US2	Two-Channel Tunable Lighting Systems with Controllable Equivalent Melanopic Lux and Correlated Color Temperature Outputs
		16/927,654	13 Jul 2020	014151.520US2	Switchable Systems for White Light with High Color Rendering and Biological Effects
		16/927,696	13 Jul 2020	014151.520US4	Panel Systems with Circadian Lighting
		16/933,678	20 Jul 2020	014151.535US8	Lighting Systems for Providing Tunable White Light with Functional Diode Emissions
		17/000,882	24 Aug 2020	014151.527US6	Compositions for LED Light Conversions
		17/021,502	15 Sep 2020	014151.536US3	Systems and Methods for Providing Tunable Warm White Light
		17/026,764	21 Sep 2020	ESL18007CON	Lighting Systems Generating Partially-Collimated Emissions
		17/035,981	29 Sep 2020	014151.538US4	Multizone Mixing Cup
		17/067,744	11 Oct 2020	ESL18007CIP	Lighting Systems Generating Partially-Collimated Light Emissions
		17/068,983	13 Oct 2020	014151.520US5	Display Lighting Systems with Circadian Effects
		17/088,242	03 Nov 2020	014151.525US3	Two-Channel Tunable Lighting Systems with Controllable Equivalent Melanopic Lux and Correlated Color Temperature Outputs
		17/100,666	20 Nov 2020	ESL17001CIP2	Lighting Systems Generating Visible-Light Emissions For Dynamically Emulating Sky Colors

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
		17/157,263	25 Jan 2021	014151.277US5	Circadian-Friendly LED Light Source
		17/164,093	01 Feb 2021	014151.507US1	Systems and Methods for Providing Tunable Warm White Light
		17/164,879	02 Feb 2021	014151.534US3	Lighting Systems for Providing Tunable Light with High Color Rendering
		17/176,902	16 Feb 2021	014151.539US1	Circadian Outdoor Equivalency Metric for Assessing Photic Environment and History
		17/185,579	25 Feb 2021	014151.559US1	Antimicrobial Systems for Personal Spaces
		17/187,307	26 Feb 2021	014151.520US6	Display Lighting Systems with Circadian Effects
		17/187,339	26 Feb 2021	014151.520US7	Display Lighting Systems with Circadian Effects
		17/206,748	19 Mar 2021	L0815.70010US03	Fixtures and Lighting Accessories for Lighting Devices
		17/207,801	22 Mar 2021	014151.339US5	Circadian-Friendly LED Light Sources
		17/229,506	13 Apr 2021	014151.446US1	System and Method for Reducing Microbial Load Using Violet Light
		17/230,534	14 Apr 2021	L0815.70001US05	Lighting System With Lens Assembly
		17/265,083	01 Feb 2021	014151.525US4	Switchable Systems for White Light with High Color Rendering and Biological Effects
		17/316,216	10 May 2021	014151.520US10	Bioactive Panel Lighting Systems
		17/316,264	10 May 2021	014151.520US11	Switchable Bioactive Lighting
		17/316,362	10 May 2021	014151.520US9	Multi-Channel Bioactive Lighting
		17/316,398	10 May 2021	014151.520US8	Display Lighting Systems with Bioactive Lighting
		17/319,789	13 May 2021	L0815.70000US05	Flexible Strip Lighting Apparatus and Methods
		17/373,186	12-Jul-2021	014151.503US3	Systems for Providing Tunable White Light with High Color Rendering
		17/367,920	6-Jul-2021	014151.150US6	Accessories for LED Lamp Systems
		17/387,202	28-Jul-2021	014151.559US2	Antimicrobial Systems for Personal Spaces
		17/385,058	26-Jul-2021	014151.340US3	Low Blue Light Displays

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
		17/409,869	24-Aug-2021	014151.542US2	Multi-Channel White Light Device for Providing Tunable White Light With High Color Rendering
		17/334,895	31 May 2021	L0815.70011US03	Lighting Systems and Devices With Central Silicone Module
		17/363,145	30-Jun-2021	014151.562US1	Backlit Display
		17/341,973	8-Jun-2021	014151.502US10	Illuminating With a Multizone Mixing Cup
		17/353,413	21-Jun-2021	L0815.70001US03	Lighting System With Lens Assembly
		17/360,475	28-Jun-2021	014151.502US11	Illuminating With a Multizone Mixing Cup
		17/461,182	30-Aug-2021	014151.180US10	Led Lamps With Improved Quality of Light
		17/468,908	8-Sep-2021	ESL18005CIP2CON	Composite Interface Circuit
		17/521,543	8-Nov-2021	014151.557US3	Methods for Generating Melatonin-Response - Tuned White Light With High Color Rendering
		17/536,161	29-Nov-2021	014151.505US3	Methods for Generating Tunable White Light With High Color Rendering
		17/541,875	3-Dec-2021	014151.561US1	Color Correcting Optical Component
		17/549,429	13-Dec-2021	014151.555US3	Systems for Providing Tunable White Light With High Color Rendering
		17/645,684	22-Dec-2021	ESL19D18-408CON	Methods and Systems for an Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; [PCT claims 408-414]
		17/562,515	27-Dec-2021	014151.506US3	Methods for Generating Tunable White Light With High Color Rendering

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
		17/649,395	31-Jan-2022	L0815.70019USU	Lighting Systems Including Photo-Luminescent Material
		17/577,921	31-Jan-2022	014151.502US12	Illuminating With a Multi-Zone Mixing Cup
		17/589,126	31-Jan-2022	014151.380US3	Controlling Physiological Conditions By Controlling Environmental Conditions
		17/667,807	9-Feb-2022	014151.521US1	LED Lighting Channels Having SPD Characteristics and Related Systems

**SCHEDULE A: U.S. Design Patent Assets**

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
USD577,453	9/23/08	29/260,689	5/30/06	ESL15011DSN	TRACK LIGHT
USD564,119	3/11/08	29/260,746	5/30/06	ESL15010DSN	TRACK LIGHT
USD585,588	1/27/09	29/300,902	5/28/08	ESL15012DSN	LIGHT FIXTURE
USD585,589	1/27/09	29/300,903	5/28/08	ESL15013DSN	LIGHT FIXTURE
USD599,040	8/25/09	29/328,159	11/19/08	ESL15014DSN	LED LIGHT ASSEMBLY
USD628,156	11/30/10	29/353,914	1/15/10	ESL15017DSN	SOCKET AND HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE
USD627,727	11/23/10	29/353,916	1/15/10	ESL15016DSN	SOCKET AND HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE
USD626,094	10/26/10	29/358,277	3/24/10	ESL15015DSN	HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE
USD633,248	2/22/11	29/361,267	5/7/10	ESL15018DSN	LIGHT FIXTURE
USD645,007	9/13/11	29/379,758	11/23/10	ESL15019DSN	HEAT SINK AND SOCKET FOR A LIGHT FIXTURE

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
USD662899S	7/3/12	29/399,523	8/15/11	014151.146US1	Heatsink
USD662900S	7/3/12	29/399,524	8/15/11	014151.146US4	Heatsink for LED
USD694722S	12/3/13	29/423,725	6/4/12	014151.146US2	Heatsink
USD720310S	12/30/14	29/439,581	12/12/12	014151.209US1	Triangular semiconductor die
USD730302S	5/26/15	29/441,108	12/31/12	014151.239US1	Heat sink
USD739363S	9/22/15	29/441,116	12/31/12	014151.210US1	Array of triangular semiconductor dies
USD743356S	11/17/15	29/441,960	1/11/13	014151.229US1	Diamond-shaped semiconductor die
USD736723S	8/18/15	29/454,826	5/14/13	014151.268US1	LED lamp
USD751999S	3/22/16	29/456,725	6/3/13		Array of triangular semiconductor dice
USD763806S	8/16/16	29/456,727	6/3/13	014151.209US2	Triangular semiconductor die
USD699,179	2/11/14	29/457,754	6/12/13	ESL15020DSN	FIELD REPLACEABLE POWER SUPPLY CARTRIDGE
USD736724S	8/18/15	29/458298	6/18/13	014151.265US1	LED lamp with accessory
USD728490S	5/5/15	29/469,709	10/14/13	014151.146US3	Heatsink
USD739052S	9/15/15	29/475,763	12/6/13	014151.289US1	LED lamp
USD739569S	9/22/15	29/475,764	12/6/13	014151.290US1	LED lamp
USD739570S	9/22/15	29/475,766	12/6/13	014151.288US1	LED lamp
USD742555S	11/3/15	29/475,769	12/6/13	014151.291US1	LED lamp
USD747010S	1/5/16	29/489,662	5/1/14	014151.305US1	Spot lamp
USD751227S	3/8/16	29/490,770	5/13/14	014151.304US1	Flood lamp
USD752777S	3/29/16	29/492,704	6/2/14	014151.313US1	LED lamp
USD753850S	4/12/16	29/492,740	6/2/14	014151.314US1	LED light module
USD741507S	10/20/15	29/495,601	7/2/14	014151.319US1	Spot lamp
USD741508S	10/20/15	29/495,625	7/2/14	014151.318US1	Flood lamp

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
USD782,095	3/21/17	29/519,149	3/3/15	ESL15001DSN	LED LUMINAIRE HAVING OPEN AND CLOSED POSITIONS
USD782,096	3/21/17	29/519,153	3/3/15	ESL15002DSN	LED LUMINAIRE HAVING OPEN AND CLOSED POSITIONS
		29/532,380	7/6/15	ESL15003DSN	LED LUMINAIRE HAVING A MOUNTING SYSTEM
		29/532,381	7/6/15	ESL15004DSN	LED LUMINAIRE HAVING A MOUNTING SYSTEM
		29/532,382	7/6/15	ESL15005DSN	LED LUMINAIRE HAVING A MOUNTING SYSTEM
USD785,218	4/25/17	29/532,383	7/6/15	ESL15006DSN	LED LUMINAIRE HAVING A MOUNTING SYSTEM
USD782,093	3/21/17	29/533,635	7/20/15	ESL15007DSN	LED LUMINAIRE HAVING A MOUNTING SYSTEM
USD779,697	2/21/17	29/533,666	7/20/15	ESL15008DSN	LED LUMINAIRE HAVING A MOUNTING SYSTEM
USD782,094	3/21/17	29/533,667	7/20/15	ESL15009DSN	LED LUMINAIRE HAVING A MOUNTING SYSTEM
USD780347S	2/28/17	29/538,204	9/1/15	014151.288US2	Portion of a LED lamp
USD803171S	11/21/17	29/539,504	9/15/15	014151.210US2	Array of triangular semiconductor dies
USD781467S	3/14/17	29/546,119	11/19/15	014151.305US2	Spot lamp
USD781468S	3/14/17	29/554,095	2/8/16	014151.313US2	LED lamp
USD780957S	3/7/17	29/554,110	2/8/16	014151.304US2	Flood lamp
USD822,248	7/3/18	29/578,082	9/19/16	ESL16001DSN	LED LUMINAIRE HAVING A MOUNTING SYSTEM
USD822,249	7/3/18	29/578,086	9/19/16	ESL16002DSN	LED LUMINAIRE HAVING A MOUNTING SYSTEM

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
USD822,250	7/3/18	29/578,094	9/19/16	ESL16003DSN	LED LUMINAIRE HAVING A MOUNTING SYSTEM
USD822,263	7/3/18	29/578,095	9/19/16	ESL16004DSN	LED LUMINAIRE HAVING A MOUNTING SYSTEM
USD854196S	7/16/19	29/591,259	1/18/17	014151.410US2	Lamp
		29/591,342	1/19/17	014151.410US1	Lamp
USD813423S	3/20/18	29/591,973	1/25/17	014151.313US3	LED lamp
USD813424S	3/20/18	29/591,977	1/25/17	014151.313US4	LED lamp
USD838406S	1/15/19	29/601,870	4/26/17	014151.438US1	Barrel lighting fixture
USD836826S	12/25/18	29/601,871	4/26/17	014151.437US1	Gable lighting fixture
		29/601,872	4/26/17	014151.439US1	Light Fixture with Multiple Light Sources
USD873224S	1/21/20	29/636,105	2/6/18	014151.440US1	Heatsink
USD864880S	10/29/19	29/636,123	2/6/18	014151.441US1	Heatsink with hinge
USD890369	7/14/20	29/636127	2/6/18	014151.442US1	Track Pendant Lamp
		29/641,793	3/25/18	014151.438US2	Lighting Fixture
USD925101	7/13/21	29/646,267	5/3/18	ESL18008DSN	LED LUMINAIRE
USD925102	7/13/21	29/646,268	5/3/18	ESL18009DSN	LED LUMINAIRE
USD865271S	10/29/19	29/673,014	12/11/18	014151.438US3	Lighting fixture

**SCHEDULE A: U.S. Provisional Patent Assets**

<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
61/234767	08/18/09	014151.074PV1	Back-End Processes for Substrates Re-Use
61/241459	09/11/09	014151.085PV1	LED Package with Large Thermal Pad
61/243988	09/18/09	014151.071PV1	Power Light Emitting Diode and Method with Current Density Operation

<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
61/257298	11/02/09	014151.080PV1	Reflection Mode LED Package with Dielectric
61/301183	02/03/10	014151.099PV1	Reflection Mode Package for Optical Devices Using Gallium and Nitrogen Containing Materials
61/301193	02/03/10	014151.106PV1	White Light Apparatus and Method
61/356473	06/18/10	014151.117PV1	Gallium and Nitrogen Containing Triangular or Diamond-Shaped Configurations for Optical Devices
61/375097	08/19/10	014151.121PV1	Two-Phosphor Violet-Pumped White LED for Illumination
61/391506	10/08/10	014151.125PV1	Method to Assemble an LED Lamp
61/414817	11/17/10	014151.129PV1	Method and System for Dicing Substrates Containing Gallium and Nitrogen Material
61/414821	11/17/10	014151.128PV1	LED System With AC Power Source
61/424562	12/17/10	014151.130PV1	System and Method for Providing Light with Phosphor Conversion
61/470901	04/01/11	014151.141PV1	Method and System for Epitaxy Processes on Miscut Bulk Substrates
61/502212	06/28/11	014151.121PV2	Two-Phosphor Violet-Pumped White LED for Illumination
61/526136	08/22/11	014151.149PV1	Gallium and Nitrogen Containing Trilateral Configuration for Optical Devices
61/526355	08/23/11	014151.148PV1	Method and System for Fabricating Optical Devices
61/530832	09/02/11	014151.150PV1	Field Removable Lens for LED Lamp
61/547,786	10/17/11	ECON-0002-PROV	Linear LED Light Housing
61/605026	02/29/12	014151.169PV1	Methods and Devices for Light Extraction From a Group III-Nitride Volumetric LED Using Surface and Sidewall Roughening
61/606178	03/02/12	014151.165PV1	Thermally-Emissive Mechanical Adapters for LED Lamps
61/607188	03/06/12	014151.171PV1	Light Emitting Diodes with Low-Index Material Layers to Reduce Light Guiding Effects
61/625592	04/17/12	014151.159PV1	Providing Remote Blue Phosphors in an LED Lamp
61/642984	05/04/12	014151.180PV1	LED Lamps with Improved Quality of Light

**PATENT**

**REEL: 059239 FRAME: 0669**



<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
61/646766	05/14/12	014151.196PV0	Accessories for LED Lamps
61/655894	06/05/12	014151.196PV1	Accessories for LED Lamps
61/659386	06/13/12	014151.150PV2	LED Lamp for Directional Lighting Fixtures
61/707757	09/28/12	014151.216PV1	Compact Lens for High Intensity Light Source
61/714,693	10/16/12	014151.235PV1	Indium Gallium Nitride Light Emitting Devices
61/724639	11/09/12	014151.215PV1	High-Temperature Ultra-Low Ripple Multi-Stage LED Driver Circuit
61/737,957	12/17/12	ECON-0005-PROV1	Systems and Methods for Dimming of a Light Source
61/740937	12/21/12	014151.234PV1	Fabrication of Defense-Luminescent-Materials-Coated Violet LEDs
61/757597	01/28/13	014151.150PV4	LED Lamps with Improved Quality of Light
61/763,268	02/11/13	ECON-0005-PROV2	Systems and Methods for Dimming of a Light Source
61/851094	03/01/13	014151.189PV1	Apportioning Optical Projection Paths in an LED Lamp
61/851513	03/08/13	014151.241PV1	Multi-Part Heat Exchanger for LED Lamps
61/776173	03/11/13	014151.150PV5	LED Lamps with Improved Quality of Light
61/778002	03/12/13	014151.180PVO	LED Lamps with Improved Quality of Light
61/783,888	03/14/13		Double Hetero-Structure LED for Gallium and Nitrogen Containing Devices
61/871525	08/29/13	014151.277PV1	Circadian-Friendly LED Light Source
61/897,448	10/30/13		Flexible Strip Lighting Apparatus and Methods
61/899723	11/04/13	014151.284PV1	Small LED Source with High Brightness and High Efficiency
61/912348	12/05/13	014151.292PV1	Computer-Aided LED Lamp Design Method and Manufacture of Same Using Lamp Properties and Constraints
61/936000	02/05/14	014151.267PV1	High-Performance LED Fabrication
61/989693	05/07/14	014151.276PV1	Controlling Oxygen Concentration Levels During Processing of Highly-Reflective Contacts
62/016899	06/25/14	014151.306PV1	High Efficiency LED Power Converter
62/033487	08/05/14	014151.322PV1	Filters for Circadian Lighting

<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
62/069528	10/28/14	014151.294PV1	Emulating CCT-Change Along Blackbody Curves During Dimming Using Temperature-Sensitive Wavelength-Converting Materials
62/077039	11/07/14	014151.321PV1	Multidirectional Luminaires Using Light Guides with a Single Point Light Source Engine
62/093855	12/18/14	014151.323PV1	High-Quality Contact Stacks for Semiconductor Devices
62/103472	01/14/15	014151.339PV1	Circadian-Friendly LED Light Sources
62/117826	02/18/15	014151.328PV1	LED Lamp Socket Disposed Within a Heatsink Cavity
62/150669	04/21/15	014151.380PV1	Controlling Environmental Conditions Affecting Circadian Biorhythms Using Real-Time Biometrics
62/191831	07/13/15	014151.401PV1	Power Supply for Light Emitting Diode
62/202,936	08/10/15	ESL15003PROV	OPTICAL DEVICES AND SYSTEMS HAVING A CONVERGING LENS WITH GROOVES
62/288,368	01/28/16	14151.538PV1	Multizone Mixing Cup
62/305,386	03/08/16		Lighting System with Lens Assembly
62/334644	05/11/16	014151.406PV1	Lamp Power Line Communication
62/352779	06/21/16	014151.403PV1	Therapeutic Treatment of Eye Condition Using Adjustable Light
62/352864	06/21/16	014151.412PV1	Leadframe Package with Coating
62/353275	06/22/16	014151.405PV1	Intelligent Modules for Intelligent Networks
62/354464	06/24/16	014151.413PV1	Bactericidal Light Source with High Quality of Light
62/364137	07/19/16	014151.407PV1	Smart Lighting System with Ultra-Low Standby Consumption
62/372935	08/10/16	014151.415PV1	III-Nitride LED With Tunnel Junction and Hybrid MOCVD-Sputtering Epitaxy
62/405,446	10/07/16		Lighting System with Lens Assembly
62/405,456	10/07/16		Lighting System with Lens Assembly
62/405,463	10/07/16		Lighting System with Lens Assembly
62/405,468	10/07/16		Lighting System with Lens Assembly
62/405,472	10/07/16		Lighting System with Lens Assembly
62/440694	12/30/16	014151.405PV2	Intelligent Modules for Intelligent Networks

<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
62/446,526	01/15/17	ESL16002PROV	LIGHTING SYSTEMS, AND SYSTEMS FOR DETERMINING PERIODIC VALUES OF A PHASE ANGLE OF A WAVEFORM POWER INPUT
62/451,612	01/27/17		Lighting Systems With High Color Rendering Index and Uniform Planar Illumination
62/451,616	01/27/17		Lighting Systems With High Color Rendering Index and Uniform Planar Illumination
62/469,358	03/09/17		Fixtures and Lighting Accessories for Lighting Devices
62/477,408	03/27/17	ESL17001PROV	LINEAR DOWN-LIGHTING FIXTURES HAVING EITHER THREE STRINGS OF LED'S OR AN INTEGRATED OPTIC INCLUDING A QUARTER-PIPE LIGHT GUIDE AND A CENTRAL TIR LENS, FOR PRE-SELECTABLE AND RE-CONFIGURABLE LEFT/RIGHT WALL WASH AND CENTER WALL GRAZE LIGHTING; AND OPTIONAL CIRCADIAN / SKYLIGHT AND SUN SHADOW MODES
62/491,137	04/27/17	ESL17002PROV	Methods & Systems for Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations
62/541444	08/04/17	014151.340PV1	Circadian Displays
62/546,470	08/16/17	014151.502PV1	Illuminating with a Multizone Mixing Cup
62/560,183	09/18/17	ESL17003PROV	Universal Input and Power Factor Corrected LED Controller Circuits
62/562,714	09/25/17	ESL17004PROV	Methods & Systems for Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations
62/616,401	01/11/18	014151.535PV3	Multi-Channel Systems for Providing Tunable Light with High Color Rendering
62/616,404	01/11/18	014151.535PV4	Multi-Channel Systems for Providing Tunable Light with High Color Rendering and Biological Effects
62/616,414	01/11/18	014151.535PV5	Multi-Channel Systems for Providing Tunable Light with High Color Rendering and Biological Effects
62/616,423	01/11/18	014151.535PV2	Multi-Channel Systems for Providing Tunable Light and Functional Diode Emissions
62/626,423	02/05/18	014151.535PV6	Materials and Methods for Treatment of Hemoglobinopathies

<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
62/634,798	02/23/18	014151.535PV1	Multi-Channel Systems for Providing Tunable Light with High Color Rendering and Biological Effects
62/643,564	03/15/18	014151.443PV1	Flip-Chip Package
62/665,197	05/01/18		Lighting Systems and Devices with Central Silicone Module
62/665,957	05/02/18	ESL18002PROV	Boundary-Mountable Lighting Systems
62/665,980	05/02/18	ESL18003PROV	Methods & Systems for Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; (3rd provisional)
62/666,061	05/02/18	ESL18004PROV	Communication Protocol Autodetect with Line Voltage Mis-Wire Protection
62/666,063	05/02/18	ESL18005PROV	EcoART
62/666,066	05/02/18	ESL18006PROV	True Low Voltage Emergency Backup Charger with Digital Line Voltage Detection
62/666,079	05/02/18	ESL18007PROV	Lighting Systems Generating Partially-Collimated Light Emissions
62/667,571	05/06/18	ESL18010PROV	EcoART2
62/681,490	06/06/18		Lighting Systems and Devices with Central Silicone Module
62/687186	06/19/18	014151.444PV1	High Efficiency Group-III Nitride Light Emitting Diode
62/696,705	07/11/18		Systems Including an LED And a Light Guide
62/712,182	07/30/18	014151.525PV2	Systems and Methods for Providing Tunable Warm White Light
62/712,191	07/30/18	014151.525PV1	Switchable Systems for White Light with High Color Rendering and Biological Effects
62/723,298	08/27/18		Systems Including an LED And a Light Guide
62/757,664	11/08/18	014151.525PV3	Two-Channel Tunable Lighting Systems With Controllable Equivalent Melanopic Lux and Correlated Color Temperature Outputs
62/757,672	11/08/18	014151.520PV4	Switchable Systems for White Light with High Color Rendering and Biological Effects
62/758,411	11/09/18	014151.520PV3	Display Lighting Systems with Circadian Effects
62/758,447	11/09/18	014151.520PV2	Display Systems with Circadian Lighting
62/780,545	12/17/18		LED Strip Which Comply with High Voltage AC Driving Power

<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
62/852,222	05/23/19	014151.500PV2	Laser Illumination Devices
62/852,218	05/23/19	014151.500PV1	Dynamic Adaptive Laser Illumination
62/885,162	08/09/19	014151.520PV1	LED Lighting Channels Having Spectral Power Distribution Characteristics and Related Multi-Channel Tunable White Lighting Systems
62/915,604	10/15/19		LED Strip Which Comply With HVAC Driving Power
62/933,245	11/08/19	014151.528PV1	Dynamic Switchable Bioactive Lighting
62/933,224	11/08/19	014151.529PV1	Dynamic Multi-Channel Bioactive Lighting
62/933,237	11/08/19	014151.530PV1	Dynamic Display Lighting Systems With Bioactive Lighting
62/933,283	11/08/19	014151.531PV1	Dynamic Bioactive Panel Lighting Systems
62/933,267	11/08/19	014151.532PV1	Dynamic Wearable Bioactive Lighting
62/950,002	12/18/19	014151.533PV1	Systems and Methods for Gaze-Based Lighting of Displays
62/958,574	01/08/20	014151.537PV1	Systems and Methods for Lighting an E-Paper Display
62/977,479	02/17/20	014151.539PV1	Circadian Outdoor Equivalency Metric for Assessing Photic Environment and History
63/009374	04/13/20	14151.446PV1	System and Method for Reducing Microbial Load Using Violet Light
63/064596	08/12/20	014151.559PV1	Antimicrobial Systems for Enclosed Spaces
63/085,817	09/30/20	014151.560PV1	System and Method for Suppressing Microbes Having a Photosensitive Defense Mechanism
63/120,989	12/03/20	014151.561PV1	Color Correcting Optical Component
63/131,117	12/28/20	014151.559PV2	Antimicrobial Systems for Personal Spaces
63/166,405	03/26/21	014151.559PV3	Antimicrobial Systems for Personal Spaces
63/171,142	04/06/21	014151.562PV1	Violet and Long-Blue LCD Backlit Display
63/179,835	04/26/21	014151.563PV1	Finger Wearable Light Meter
63/189,789	05/18/21	014151.564PV1	Low, High and Mixed QD Lighting
63/288,419	12/10/21	014151.569PV1	Low Blue Light
63/291,000	12/17/21	014151.569PV2	Low Blue Light
63/301,414	01/20/22	014151.567PV1	Light Therapy System and Method

**SCHEDULE A: Patent Cooperation Treaty Patent Assets**

<b><u>Application Serial Number</u></b>	<b><u>Application Filing Date</u></b>	<b><u>Docket Number</u></b>	<b><u>TITLE</u></b>
PCT/US2010/049531	09/20/10	014151.071WO1	Power light emitting diode and method with current density operation
PCT/2011/023604	02/03/11	014151.099WO1	Reflection mode package for optical devices using gallium and nitrogen containing materials
PCT/US2011/023622	02/03/11	014151.106WO1	White light apparatus and method
PCT/US2011/041106	06/20/11	014151.117WO1	Gallium and nitrogen containing triangular or diamond-shaped configuration for optical devices
PCT/US2011/048499	08/19/11	014151.121WO1	System and method for selected pump leds with multiple phosphors
PCT/US2011/055459	10/07/11	014151.125WO1	High intensity light source
PCT/US2012/060588	10/17/12	ECON0002U01	Linear LED Light Housing
PCT/US2013/029453	03/06/13	014151.171WO1	Light emitting diodes with low refractive index material layers to reduce light guiding effects
PCT/US2013/075172	12/13/13	ECON0005U01	Systems and Methods for Dimming of a Light Source
PCT/US2014/062905	10/29/14	014151.70000W0	Flexible Strip Lighting Apparatus and Methods
PCT/US2015/014680	02/05/15	014151.267WO1	High-performance led fabrication
PCT/US2015/036957	06/22/15	014151.180WO1	LED Lamps with Improved Quality of Light
PCT/US2015/059770	11/09/15	014151.321WO1	Luminaire for emitting directional and nondirectional light
PCT/US2016/015470	01/28/16	014151.501WO1	Zoned Optical Cup
PCT/US2016/015473	01/28/16	014151.502WO1	Illuminating With a Multizone Mixing Cup
PCT/US2016/015348	01/28/16	014151.503WO1	Systems for Providing Tunable White Light With High Color Rendering
PCT/US2016/015368	01/28/16	014151.504WO1	Systems for Providing Tunable White Light With High Color Rendering
PCT/US2016/015385	01/28/16	014151.505WO1	Methods for Generating Tunable White Light With High Color Rendering
PCT/US2016/015402	01/28/16	014151.506WO1	Methods for Generating Tunable White Light With High Color Rendering
PCT/US2016/015318	01/28/16	014151.527WO1	Compositions for LED Light Conversions

<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
PCT/US2016/015437	01/28/16	014151.554WO1	Methods for Generating Melatonin-Response - Tuned White Light With High Color Rendering
PCT/US2016/015435	01/28/16	014151.556WO1	Methods for Generating Melatonin-Response - Tuned White Light With High Color Rendering
PCT/US2016/015441	01/28/16	014151.557WO1	Methods for Generating Melatonin-Response - Tuned White Light With High Color Rendering
PCT/US2016/016972	02/08/16	ESL14003PCT	LIGHTING SYSTEMS GENERATING CONTROLLED AND WAVELENGTH-CONVERTED LIGHT EMISSIONS
PCT/US2016/020521	03/02/16	ESL14002PCT	LIGHTING SYSTEMS INCLUDING LENS MODULES FOR SELECTABLE LIGHT DISTRIBUTION
PCT/US2016/020523	03/02/16	ESL14005PCT	LOW-PROFILE LIGHTING SYSTEM HAVING PIVOTABLE LIGHTING ENCLOSURE
PCT/US2016/030613	05/03/16	ESL14004PCT	LIGHTING SYSTEMS INCLUDING ASYMMETRIC LENS MODULES FOR SELECTABLE LIGHT DISTRIBUTION
PCT/US2016/046245	08/10/16	ESL15003PCT	OPTICAL DEVICES AND SYSTEMS HAVING A CONVERGING LENS WITH GROOVES
PCT/US2016/066699	12/14/16	014151.538WO1	Multizone Mixing Cup
PCT/US2017/013636	01/16/17	ESL16002PCT	LIGHTING SYSTEMS, AND SYSTEMS FOR DETERMINING PERIODIC VALUES OF A PHASE ANGLE OF A WAVEFORM POWER INPUT
PCT/US2017/021449	03/08/17	L0815.70001WO00	Lighting System with Lens Assembly
PCT/US2017/038625	06/21/17	014151.412WO1	Light emitting diode package
PCT/US2017/038833	06/22/17	014151.405WO1	Intelligent modules for intelligent networks
PCT/US2017/047217	08/16/17	014151.502WO2	Encased Volumetric Suspension Phosphors
PCT/US2017/047224	08/16/17	014151.508WO1	Illuminating With a Multizone Mixing Cup
PCT/US2017/047230	08/16/17	014151.509WO1	Multi-Channel White Light Device
PCT/US2017/047231	08/16/17	014151.510WO1	Multi-Channel White Light Methods
PCT/US2017/047233	08/16/17	014151.526WO1	Multi-Channel White Light System
PCT/US2017/051939	09/16/17	ESL16001PCT	LIGHTING SYSTEM HAVING A MOUNTING DEVICE

<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
PCT/US2018/015449	01/26/18	L0815.70007WO	LIGHTING SYSTEMS WITH HIGH COLOR RENDERING INDEX AND UNIFORM PLANAR ILLUMINATION
PCT/US2018/016662	02/02/18	ESL14003CIPPCT	Lighting Systems Generating Partially - Collimated Light Emissions
PCT/US2018/020793	03/02/18	014151.535WO1	Multi-Channel Systems for Providing Tunable Light and Functional Diode Emissions
PCT/US2018/020792	03/02/18	014151.535WO2	Multi-Channel Systems for Providing Tunable Light with High Color Rendering and Biological Effects
PCT/US2018/020790	03/02/18	014151.535WO3	Multi-Channel Systems for Providing Tunable Light with High Color Rendering and Biological Effects
PCT/US2018/020787	03/02/18	014151.535WO4	Multi-Channel Systems for Providing Tunable Light with High Color Rendering
PCT/US2018/029380	04/25/18	ESL18001PCT	Methods & Systems for Automated Design, Fulfillment, Deployment and Operation Platform for Lighting Installations; (3rd provisional)
PCT/US2018/044450	07/30/18	014151.507WO1	Systems and Methods for Providing Tunable Warm White Light
PCT/US2019/013359	01/11/19	014151.520WO2	Switchable Systems for White Light With High Color Rendering and Biological Effects
PCT/US2019/013380	01/11/19	014151.520WO4	Display Lighting Systems with Circadian Effects
PCT/US2019/013356	01/11/19	014151.525WO2	Two-Channel Tunable Lighting Systems With Controllable Equivalent Melanopic Lux and CCT Outputs
PCT/US2019/030252	05/01/19	L0815.70011WO00	Lighting Systems and Devices with Central Silicone Module
PCT/US2019/013379	07/18/19	014151.520WO6	Panel System with Circadian Lighting
PCT/US2019/043788	07/26/19	014151.525WO1	Two-Channel Tunable Lighting Systems With Controllable Equivalent Melanopic Lux and CCT Outputs
PCT/US2019/060634	11/08/19	014151.520WO1	Multi-Channel Bioactive Lighting
PCT/US2019/060636	11/08/19	014151.520WO3	Switchable Bioactive Lighting
PCT/US2019/060640	11/08/19	014151.520WO5	Display Lighting Systems with Bioactive Lighting
PCT/US2019/060642	11/08/19	014151.520WO7	Bioactive Panel Lighting Systems
PCT/US2019/062593	11/21/19	L0815.70019WO00	Lighting Systems Including Photo-Luminescent Material



<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Docket Number</u>	<u>TITLE</u>
PCT/US2019/066947	12/17/19	L0815.70016WO00	LED Strip Which Comply with High Voltage AC Driving Power
PCT/US2020/065964	12/18/19	014151.533W01	Systems and Methods for Gaze-Based Lighting of Displays
PCT/US2020/045626	08/10/20	014151.520W08	LED Lighting Channels Having Spectral Power Distribution Characteristics and Related Multi-Channel Tunable White Lighting Systems
PCT/US2020/059701	11/09/20	014151.530W01	Dynamic Display Lighting Systems with Bioactive Lighting
PCT/US2021/012738	01/08/21	014151.537W01	Systems and Methods for Lighting an E-Paper Display
PCT/US2021/045708	08/12/21	014151.559W01	Antimicrobial Systems for Personal Spaces
PCT/US2021/052946	09/30/21	014151.560W01	System and Method for Suppressing Microbes Having a Photosensitive Defense Mechanism
PCT/US2021/071807	10/09/21	ESL18007CIPPCT	Lighting Systems Generating Partially-Collimated Light Emissions
PCT/US2021/072512	11/19/21	ESL17001CIP2PCT	Lighting Systems Generating Visible-Light Emissions for Dynamically Emulating Sky Colors

**SCHEDULE A: Foreign Patent Assets**

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
2007348287	26 Apr 2013	2007348287	02 Nov 2007	Australia	.002VAU	LIGHTING ASSEMBLY HAVING A HEAT DISSIPATING HOUSING
200780052022	24 Jul 2013	200780052022	02 Nov 2007	China	.002VCN	LIGHTING ASSEMBLY HAVING A HEAT DISSIPATING HOUSING
5340179	16 Aug 2013	2009-552663	02 Nov 2007	Japan	.002VJP	LIGHTING ASSEMBLY HAVING A HEAT DISSIPATING HOUSING

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
2682389	30 Jun 2015	2682389	02 Nov 2007	Canada	.002VCA	LIGHTING ASSEMBLY HAVING A HEAT DISSIPATING HOUSING
2134569	23 Sep 2015	7861639.8	02 Nov 2007	France	.002VEP	LIGHTING ASSEMBLY HAVING A HEAT DISSIPATING HOUSING
2134569	23 Sep 2015	7861639.8	02 Nov 2007	Great Britain	.002VEP	LIGHTING ASSEMBLY HAVING A HEAT DISSIPATING HOUSING
602007043272	23 Sep 2015	7861639.8	02 Nov 2007	Germany	.002VEP	LIGHTING ASSEMBLY HAVING A HEAT DISSIPATING HOUSING
324092	22 Jan 2009	15632/2008	11/28/08	Australia	.006XAU	LIGHT FIXTURE
001050157-0001	9 Mar 2009	001050157-0001	11/28/08	Europe	.006XEU	LIGHT FIXTURE
2009219225	24 Dec 2013	2009219225	26 Feb 2009	Australia	.003VAU	LIGHT FIXTURE ASSEMBLY AND LED ASSEMBLY
5688295	30 Jan 2015	2010-548873	26 Feb 2009	Japan	.003VJP	LIGHT FIXTURE ASSEMBLY AND LED ASSEMBLY
2716750	23 Aug 2016	2716750	26 Feb 2009	Canada	.003VCA	LIGHT FIXTURE ASSEMBLY AND LED ASSEMBLY
2266649	12 Oct 2016	200980107048	26 Feb 2009	China	.003VCN	LIGHT FIXTURE ASSEMBLY AND LED ASSEMBLY
1154281	01 Dec 2017	11108067.8	26 Feb 2009	Hong Kong	.003VHK	LIGHT FIXTURE ASSEMBLY AND LED ASSEMBLY

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
2265864	09 May 2018	9716121	26 Feb 2009	Europe	.003VEP	LIGHT FIXTURE ASSEMBLY AND LED ASSEMBLY - EU patent granted, with national registrations for DE and GB
2265864	09 May 2018	9716121	26 Feb 2009	Great Britain	.003VEP	LIGHT FIXTURE ASSEMBLY AND LED ASSEMBLY
2265864	09 May 2018	9716121	26 Feb 2009	Germany	.003VEP	LIGHT FIXTURE ASSEMBLY AND LED ASSEMBLY
200930009821	4 Aug 2010	200930009821	5/19/09	China	.001XCN	LED LIGHT ASSEMBLY
001140602-0001	9 Sep 2009	001140602-0001	5/19/09	Europe	.001XEU	LED LIGHT ASSEMBLY
		CN20161151044	03 Aug 2009	China		White Light Devices Using Non-polar Or Semipolar Gallium Containing Materials And Phosphors
136335	22 Feb 2011	2010136335	7/13/10	Canada	.019XCA	SOCKET AND HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE
332120	6 Aug 2010	201012905	7/14/10	Australia	.019XAU	SOCKET AND HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE
001225973-0001	21 Jul 2010	001225973-0001	7/15/10	Europe	.019XEU	SOCKET AND HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
001225973-0002	21 Jul 2010	001225973-0002	7/15/10	Europe	.019XEU2	SOCKET AND HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE
201030242091	1 Jun 2011	201030242091	7/15/10	China	.019XCN	SOCKET AND HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE
1410692	4 Mar 2011	2010017327	7/15/10	Japan	.019XJP	SOCKET AND HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE
KR101368906B1	28 Feb 2014	KR2012700980	20 Sep 2010	Korea	014151.071KR1	Power light emitting diode and method with current density operation
ZL201080052148.X	13 Jun 2017	CN201080052148	20 Sep 2010	China	014151.071CN1	Power light emitting diode and method with current density operation
		CN201710364981	20 Sep 2010	China	014151.071CN2	Light emitting diode device
		DE20101103700T	20 Sep 2010	Germany	014151.071DE1	Power-leuchtdiode und verfahren mit stromdichtebetrieb
		JP20120529969	20 Sep 2010	Japan	014151.071JP1	Power Light Emitting Diode and Method with Current Density Operation
		JP2015-77282	20 Sep 2010	Japan	014151.071JP2	Power Light Emitting Diode and Method with Current Density Operation

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
		JP2017-093624	20 Sep 2010	Japan	014151.071JP3	Power Light Emitting Diode and Method with Current Density Operation
13721	5 May 2011	137221	9/22/10	Canada	.023XCA	HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE
001236897-0001	20 Jan 2011	1236897	9/23/10	Europe	.023XEU	HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE
333304	19 Oct 2010	201014108	9/23/10	Australia	.023XAU	HEAT SINK UNIT FOR USE WITH A REMOVABLE LED LIGHT MODULE
1142855	17 Apr 2014	10109335.3	29 Sep 2010	Hong Kong	.002VHK	LIGHTING ASSEMBLY HAVING A HEAT DISSIPATING HOUSING
333926	30 Nov 2010	14797/2010	11/5/10	Australia	.024XAU	LIGHT FIXTURE
137836	31 May 2011	137836	11/5/10	Canada	.024XCA	LIGHT FIXTURE
201030603283	28 Dec 2011	201030603283	11/5/10	China	.024XCN	LIGHT FIXTURE
001244198-0001	5 Nov 2010	001244198-0001	11/5/10	Europe	.024XEU	LIGHT FIXTURE
1424646	9 Sep 2011	2010-026745	11/8/10	Japan	.024XJP	LIGHT FIXTURE
		JP20110017315	29 Jan 2011	Japan		Large-scale facility and method for producing gallium nitride boules by ammonothermal process
DE202011110024U1	06 Sep 2012	DE201120110024U	03 Feb 2011	Germany	014151.106DE2	White Light Apparatus and Method (expired)

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
JP5567149	27 Jun 2014	JP20120552083	03 Feb 2011	Japan	014151.099JP1	Reflection Mode Package For Optical Devices Using Gallium and Nitrogen Containing Materials
		DE112011100183.5	03 Feb 2011	Germany	014151.106DE1	White Light Apparatus and Method
		JP20110053647	11 Mar 2011	Japan		Semi-insulating group iii metal nitride and production method thereof
140732	20 Jan 2012	140732	5/20/11	Canada	.029XCA	HEAT SINK AND SOCKET FOR A LIGHT FIXTURE
001277891-0001	26 Aug 2011	1277891-001	5/23/11	Europe	.029XEP	HEAT SINK AND SOCKET FOR A LIGHT FIXTURE
201130139745	30 May 2012	201130139745	5/23/11	China	.029XCN	HEAT SINK AND SOCKET FOR A LIGHT FIXTURE
JP5870097	15 Jan 2016	JP20130515583	20 Jun 2011	Japan	014151.117JP1	Gallium and Nitrogen Containing Triangular or Diamond-Shaped Configuration for Optical Devices
ZL201180029188.7	30 Nov 2016	CN201180029188	20 Jun 2011	China	014151.117CN2	Gallium and nitrogen containing triangular or diamond-shaped configuration for optical devices

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
		DE20111102068T	20 Jun 2011	Germany	014151.117DE1	Dreieckförmig oder rautenförmig geformte gallium- und stickstoffhaltige anordnung für optische bauelemente
CN103069582B	28 Jul 2017	CN2011840221	19 Aug 2011	China	014151.121CN1	System and method for selected pump leds with multiple phosphors
KR101973142B1	26 Apr 2019	KR20187012715	19 Aug 2011	Korea	014151.121KR2	System and method for selected pump leds with multiple phosphors
		CN201710543269	19 Aug 2011	China	014151.121CN2	System and Method for Selected Pump LEDs with Multiple Phosphors
		DE20111102386T	19 Aug 2011	Germany	014151.121DE1	System and Method for Selected Pump LEDs With Multiple Phosphors
		JP20130525007	19 Aug 2011	Japan	014151.121JP1	System and Method for Selected Pump LEDs With Multiple Phosphors
		KR20137006992	19 Aug 2011	Korea	014151.121KR1	System and method for selected pump leds with multiple phosphors
		KR20197011564	19 Aug 2011	Korea	014151.121KR3	System and method for selected pump leds with multiple phosphors
		KR1020217024897	19 Aug 2011	Korea	014151.121KR4	System and method for selected pump leds with multiple phosphors
ZL2012300219453	08 Aug 2012	CN2012300219453	03 Feb 2012	China	014151.146CN2	Heatsink
		JP20120026856	10 Feb 2012	Japan		Illumination source with reduced inner core size

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
ZL201220046277.4	26 Dec 2012	CN201220046277.4	13 Feb 2012	China	014151.138CN1	Illumination Source
		DE20121002859	13 Feb 2012	Germany	014151.138DE1	Beleuchtungsquelle mit veringertem Innenkerndimension
EP001314926-0001	14 Feb 2012	EP001314926	14 Feb 2012	Europe	014151.147EP1	Heatsink for LED
JP1451629	24 Aug 2012	JP20120002987	14 Feb 2012	Japan	014151.147JP1	Heatsink for LED
ZL201230029505.2		CN201230029505.2	15 Feb 2012	China	014151.147CN1	Heatsink for LED
		DE20121006613	30 Mar 2012	Germany	014151.141DE1	Method for manufacturing optical component e.g. gallium-nitride based LED used in optoelectronic device, involves setting miscut angle of substrate to predetermined value from m-direction of c-plane
ZL2012100981179	03 Feb 2016	CN2012198117	05 Apr 2012	China	014151.141CN1	Method and system for epitaxial processing of miscut block substrate
ZL201220205136.2	26 Dec 2012	CN201220205136.2	08 May 2012	China	014151.165CN1	LED Lamp System
JP5540229B2	02 Jul 2014	JP20120191931	31 Aug 2012	Japan	014151.150JP2	Improved accessory for led lamp
		DE20121017255	31 Aug 2012	Germany	014151.150DE1	Device for attaching LED lamp into lighting fixture, has attachment portion that is arranged close of lens, joined using primary and secondary supports and configured to produce retention force between attachment portion and lens



<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
ZL201220446387.X	17 Apr 2013	CN201220446387.X	03 Sep 2012	China	014151.150CN3	Lighting source
ZL203099372U	31 Jul 2013	CN201220446378U	03 Sep 2012	China	014151.150CN2	Lighting device
ZL2012103226871	27 Apr 2016	CN20121322687	03 Sep 2012	China	014151.150CN1	Improved fittings for LED lamp
ZL201220484334.7	17 Apr 2013	CN20122484334U	20 Sep 2012	China	014151.125CN1	Light source
EP002146449-0001	03 Dec 2012	EP002146449	03 Dec 2012	Europe	014151.146EP1	Heat Sink
EP002146449-0002	03 Dec 2012	EP002146449	03 Dec 2012	Europe	014151.146EP2	Heat Sink
D-01475075	21 Jun 2013	2012-29611	04 Dec 2012	Japan	014151.146JP1	Heat Sink
ZL201230600658.8	16 Oct 2013	CN201230600658.8	04 Dec 2012	China	014151.146CN1	Heatsink
ZL201300203029	03 May 2017	CN2013820302	06 Mar 2013	China	014151.171CN1	Light emitting diodes with low refractive index material layers to reduce light guiding effects
		EP20130757051	06 Mar 2013	Europe	014151.171EP1	Light emitting diodes with low refractive index material layers to reduce light guiding effects
		2014-561091	06 Mar 2013	Japan	014151.171JP1	Light emitting diodes with low refractive index material layers to reduce light guiding effects
2013202940	24 Dec 2013	2013202940	02 Apr 2013	Australia	.003AUD1	LIGHT FIXTURE ASSEMBLY AND LED ASSEMBLY
		DE20131007698	03 May 2013	Germany	014151.180DE1	LED-Lampen mit verbesserter Lichtqualität
ZL201310163390X	24 Oct 2017	CN20131163390	06 May 2013	China	014151.180CN1	Led lamps with improved quality of light
		JP20130097298	07 May 2013	Japan	014151.180JP1	Led lamp with improved quality of light
JP1500707	23 May 2014	JPD201313276	12 Jun 2013	Japan	014151.209JP1	Triangular Semiconductor Die

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
KR30-0772211	17 Nov 2014	KR20130030432	12 Jun 2013	Korea	014151.209KR1	Triangular Semiconductor Die
DE402013002758-0001		DE402013002758.0	12 Jun 2013	Germany	014151.209DE1	Triangular Semiconductor Die
		JPD201318085	12 Jun 2013	Japan	014151.209JP2	Triangular Semiconductor Die
ZL201330248472.5		CN201330248472.5	13 Jun 2013	China	014151.209CN1	Semiconductor Die
DE4020130029810001	27 Jun 2013	DE402013002981.8	27 Jun 2013	Germany	014151.210DE1	Triangular Semiconductor Die II
KR30-0786376	26 Feb 2015	KR20130033360	28 Jun 2013	Korea	014151.210KR1	Semiconductor Chips
KR30-0786380	26 Feb 2015	KR20130033361	28 Jun 2013	Korea	014151.210KR2	Array of Triangular Semiconductor Dies
ZL2013302923116		CN201330292311.6	28 Jun 2013	China	014151.210CN1	Array of Semiconductor Dies
		2013-215853	16 Oct 2013	Japan	014151.235JP1	Indium Gallium Nitride Light Emitting Devices
ZL201330545417.2	22 Oct 2014	CN201330545417.2	14 Nov 2013	China	014151.268CN1	LED Lamp
DE402013101118-0001		DE402013101118.1	14 Nov 2013	Germany	014151.268DE1	LED Lamp and Accessory
154341	6 Oct 2014	2013-026697 154341	14 Nov 2013 10 Dec 2013	Japan Canada	014151.268JP1 .033XCA	LED Lamp FIELD REPLACEABLE POWER SUPPLY CARTRIDGE
201330617764	12 Nov 2014	201330617764	12 Dec 2013	China	.033XCN	FIELD REPLACEABLE POWER SUPPLY CARTRIDGE
001394399-0001	19 Feb 2014	001394399-0001	12 Dec 2013	Europe	.033XEU	FIELD REPLACEABLE POWER SUPPLY CARTRIDGE
ZL201310718453.3	09 Jan 2018	CN201310718453	23 Dec 2013	China	014151.234CN1	Dense-Luminescent-Materials-Coated Violet Leds

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
JP5796100B2	21 Oct 2015	JP20140070142	28 Mar 2014	Japan	014151.150JP3	Improved led lamp accessory
JP1532576	31 Jul 2015	JP20140012193	05 Jun 2014	Japan	014151.288JP1	LED Lamp
JP1532374	31 Jul 2015	JP20140012191	05 Jun 2014	Japan	014151.289JP1	LED Lamp
JP1532574	31 Jul 2015	JP20140012190	05 Jun 2014	Japan	014151.290JP1	LED Lamp
JP1532575	31 Jul 2015	JP20140012192	05 Jun 2014	Japan	014151.291JP1	LED Lamp
DE402014100488.9	12 Aug 2014	DE402014100488.9	06 Jun 2014	Germany	014151.288DE1	LED Lamps
ZL2014301700168	24 Dec 2014	CN2014301700168	06 Jun 2014	China	014151.288CN1	LED Lamp
ZL2014301702214	24 Dec 2014	CN2014301702214	06 Jun 2014	China	014151.289CN1	LED Lamp
ZL2014301701620	24 Dec 2014	CN2014301701620	06 Jun 2014	China	014151.290CN1	LED Lamp
ZL2014301703448	24 Dec 2014	CN2014301703448	06 Jun 2014	China	014151.291CN1	LED Lamp
		402014100489	06 Jun 2014	Germany	014151.289DE1	LED Lamp
		402014100489	06 Jun 2014	Germany	014151.290DE1	LED Lamp
		DE201410110833	30 Jul 2014	Germany	014151.277DE1	Circadiangerechte LED-Lichtquelle
JP6480126B2	06 Mar 2019	JP20140174472	28 Aug 2014	Japan	014151.277JP1	Circadian friendly led light source
ZL 2014104371458	05 Jun 2020	CN201410437145	29 Aug 2014	China	014151.277CN1	Circadian friendly led light source
10-2219769	18 Feb 2021	KR20140114140	29 Aug 2014	Korea	014151.277KR1	Circadian-friendly led light source
		EP20170165385	05 Feb 2015	Europe	014151.267EP1	High-performance led fabrication
		JP20150094496	05 May 2015	Japan	014151.121JP2	System and method for pump leds with multiple phosphors
JP6073988B2	01 Feb 2017	JP20150139276	12 Jul 2015	Japan	014151.117JP2	Triangular or rhomboid structure containing gallium and nitrogen for optical device

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
JP6144302B2	07 Jun 2017	JP20150160563	17 Aug 2015	Japan	014151.150JP4	Improved led lamp accessory
ZL2016800840497	29 May 2020	CA20152966874	09 Nov 2015	Canada		Luminaire for emitting directional and nondirectional light
ZL201680084184.1	16 Oct 2020	2016-800840497	28 Jan 2016	China	014151.506CN1	Methods for Generating Tunable White Light with High Color Rendering
ZL2016800841112	01 Jan 2021	2016-800841841	28 Jan 2016	China	014151.502CN1	Illuminating with a Multizone Mixing Cup
		2016-800841112	28 Jan 2016	China	014151.554CN1	Methods for Generating Melatonin-Response-Tuned White Light with High Color Rendering
		2016800841038	28 Jan 2016	China	014151.504CN1	Systems for Providing Tunable White Light with High Color Rendering
		2016-800841790	28 Jan 2016	China	014151.527CN1	Compositions for LED Light Conversions
		16888444.5	28 Jan 2016	Europe	014151.554EP1	Methods for Generating Melatonin-Response-Tuned White Light with High Color Rendering
		CN202010372670.1	28 Jan 2016	China	014151.544CN2	Methods for Generating Tunable White Light With High Color Rendering
		EP17764047.1	08 Mar 2016	Europe	L0815.70001EP	Lighting System with Lens Assembly

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
2933453	06 Nov 2018	2933453	15 Jun 2016	Canada	.003VCA2	LIGHT FIXTURE ASSEMBLY AND LED ASSEMBLY
6747952	11 Aug 2020	JP20160234576	01 Dec 2016	Japan	014151.180JP2	Led lamps with improved light
		CN201780028606.8	08 Mar 2017	China	L0815.70001CN00	Lighting System with Lens Assembly
		CA20172961624	22 Mar 2017	Canada		Luminaire for emitting directional and non-directional light
		CN2017851283	21 Jun 2017	China	014151.412CN1	Light emitting diode package
		DE20171103086T	21 Jun 2017	Germany	014151.412DE1	LED-Package
		JP2018567076	21 Jun 2017	Japan	014151.412JP1	Light Emitting Diode Package
2021 - 082500138100	30 Aug 2021	CN201780051381	22 Jun 2017	China	014151.405CN1	Intelligent modules for intelligent networks
		DE20171103157T	22 Jun 2017	Germany	014151.405DE1	Intelligente Module für intelligente Netzwerke
		JP2018567077	22 Jun 2017	Japan	014151.405JP1	Intelligent Modules for Intelligent Networks
		JP20170122984	23 Jun 2017	Japan	014151.121JP3	System and method for pump led with multiple phosphors
		112016000999.2	31 Aug 2017	Germany	ESL14002DE	LIGHTING SYSTEMS INCLUDING LENS MODULES FOR SELECTABLE LIGHT DISTRIBUTION

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
2553935	24 Nov 2021	1715664.7	27 Sep 2017	Great Britain	ESL14002GB	LIGHTING SYSTEMS INCLUDING LENS MODULES FOR SELECTABLE LIGHT DISTRIBUTION
		CN201880021170.4	26 Jan 2018	China	L0815.70007CN00	LIGHTING SYSTEMS WITH HIGH COLOR RENDERING INDEX AND UNIFORM PLANAR ILLUMINATION
		201880091174.X	02 Mar 2018	China	014151.535CN1	Multi-Channel Systems for Providing Tunable Light with High Color Rendering and Biological Effects
		201880091145	02 Mar 2018	China	014151.535CN2	Multi-Channel Systems for Providing Tunable Light with High Color Rendering and Biological Effects
		2018-80091091	02 Mar 2018	China	014151.535CN3	Multi-Channel Systems for Providing Tunable Light and Functional Diode Emissions
		11 2018 006 827.7	02 Mar 2018	Germany	014151.535DE1	MULTI-CHANNEL SYSTEMS FOR PROVIDING TUNABLE LIGHT AND FUNCTIONAL DIODE EMISSIONS

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
		11 2018 006 831.5	02 Mar 2018	Germany	014151.535DE2	MULTI-CHANNEL SYSTEMS FOR PROVIDING TUNABLE LIGHT WITH HIGH COLOR RENDERING AND BIOLOGICAL EFFECTS
		18 900 130.8	02 Mar 2018	Europe	014151.535EP1	MULTI-CHANNEL SYSTEMS FOR PROVIDING TUNABLE LIGHT WITH HIGH COLOR RENDERING AND BIOLOGICAL EFFECTS
		EP201801873076	03 Aug 2018	Europe	014151.340EP1	Low blue light displays
		JP20180147286	03 Aug 2018	Japan	014151.340JP1	Low blue light display
		CN201810885802	06 Aug 2018	China	014151.340CN1	Low blue light displays
		19738727.7	01 Nov 2018	Europe	014151.520EP2	Display Lighting Systems with Circadian Effects
		19738223.7	11 Jan 2019	Europe	014151.520EP1	Switchable Systems for White Light with High Color Rendering and Biological Effects
		18900307.2	11 Jan 2019	Europe	014151.525EP1	Two Channel Tunable Lighting Systems with Controllable Equivalent Melanopic Lux and CCT Outputs
		JP20190024827	14 Feb 2019	Japan	014151.277JP2	Circadian friendly led light source

<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
		JP2021-08672	28 Aug 2014	Japan	014151.277JP3	Dense Luminescent Materials-Coated Violet LEDs
		JP2021-135450	28 Aug 2014	Japan	014151.277JP4	Dense Luminescent Materials-Coated Violet LEDs
DE202019103446U1	29 Nov 2019	DE201920103446U	19 Jun 2019	Germany	014151.444DE1	Lichtemittierende Gruppe-III-Nitrid-Diode mit hohem Wirkungsgrad
ZL201780083521.X	5 Nov 2021	201780083521.X	15 Jul 2019	China	ESL16002CN	Lighting Systems, and Systems for Determining Periodic Values of a Phase Angle of a Waveform Power Input
		201980064395	26 Jul 2019	China	014151.525CN1	Switchable Systems for White Light with High Color Rendering and Biological Effects
		112019003822	26 Jul 2019	Germany	014151.525DE1	Switchable Systems for White Light with High Color Rendering
		CN202010395902.5	12 May 2020	China	014151.277CN2	Circadian friendly led light source
		2019-8001-86834	11 Sep 2020	China	014151.520CN1	Display Lighting Systems with Circadian Effects
		201980029795	02 Nov 2020	China	L0815.70011CN	LIGHTING SYSTEMS AND DEVICES WITH CENTRAL SILICONE MODULE
		KR20210021040	17 Feb 2021	Korea	014151.277KR2	Circadian-friendly led light source
		KR1020210114830	17 Feb 2021	Korea	014151.277KR3	Circadian-friendly led light source



<u>Patent Grant Number</u>	<u>Patent Issue Date</u>	<u>Application Serial Number</u>	<u>Application Filing Date</u>	<u>Country</u>	<u>Docket Number</u>	<u>TITLE</u>
		JP20200133508		Japan	014151.180JP3	LED lamps with improved light
		201980091835.3	11-Aug-2021	China	L0815.70016CN	LED Strip Which Comply With High Voltage AC Driving Power
90011406020001	9-Sep-2009	001140602-0001	19-May-2009	United Kingdom	.001XEU	LED Light Assembly
90012368970001	20-Jan-2011	001236897	23-Sep-2010	United Kingdom	.023XEU	Heat Sink Unit for Use With a Removable LED Light Module
90021464490001	3-Dec-2012	002146449	3-Dec-2012	United Kingdom	014151.146EP1	Heat Sink
90021464490002	3-Dec-2012	002146449	3-Dec-2012	United Kingdom	014151.146EP2	Heat Sink
90013149260001	14-Feb-2012	001314926	14-Feb-2012	United Kingdom	014151.147EP1	Heat Sink for LED
		2109734	6-Jul-2021	United Kingdom	ESL14002UK-DIV1	Lighting Systems Including Lens Modules for Selectable Light Distribution
		2109739.9	6-Jul-2021	United Kingdom	ESL14002UK-DIV2	Lighting Systems Including Lens Modules for Selectable Light Distribution