

1                   UNITED STATES PATENT AND TRADEMARK OFFICE  
2                   BEFORE THE PATENT TRIAL AND APPEAL BOARD  
3           HISENSE USA                   )  
4           Corporation,                )  
5                                        )  
6                   Petitioner,           )  
7                                        )  
8           vs.                         )   IPR2023-01168  
9                                        )  
10           BRIGHTPLUS VENTURES,       )   Patent No. 9,605,835  
11           LLC,                        )  
12                                        )  
13                   Patent Owner.       )  
14                                        )  
15                                        )  
16                                        )  
17                                        )  
18                                        )

11                                       - - -  
12  
13                   Videoconference Deposition of  
14                                       WILLIAM BOHANNON  
15                                       (Taken by Petitioner)  
16                                       Atlanta, Georgia  
17                                       July 12, 2024

18           Reported by:   Lynne C. Fulwood  
19                                       Certified Court Reporter  
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1 STATE OF GEORGIA

2 COUNTY OF COBB

3 VIDEOCONFERENCE DEPOSITION OF WILLIAM BOHANNON

4

5 Pursuant to Article 8.B of the RULES AND  
6 REGULATIONS OF THE BOARD OF COURT REPORTING OF THE  
7 JUDICIAL COUNCIL OF GEORGIA, I make the following  
8 disclosure:

9 I am a Georgia Certified Court Reporter.

10 I am here as a representative of Huseby Global  
11 Litigation.

12 Huseby Global Litigation was contacted by  
13 the offices of KILPATRICK TOWNSEND, to provide court  
14 reporting services for this deposition. Huseby

15 Global Litigation will not be taking this deposition  
16 by O.C.G.A. 15-14-37 (a) and (b).  
17  
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19  
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22  
23  
24  
25

3

1 ON BEHALF OF THE PETITIONER:

2 MATIAS FERRARIO - via Zoom  
Attorney at Law  
3 Kilpatrick Townsend  
1001 West Fourth Street  
4 Winston Salem, North Carolina 27101  
336-607-7475  
5 Mferrario@ktslaw.com

6 ON BEHALF OF THE PATENT OWNER:

7 NEAL MASSAND - via Zoom  
Attorney at Law  
8 Ni Wang Massand, PLLC  
8140 Walnut Hill Lane  
9 Suite 615  
Dallas, Texas 75231  
10 Nmassand@nilawfirm.com  
11  
12 - - -  
13 Videoconference deposition of WILLIAM  
14 BOHANNON, taken by the Petitioner, at 1001  
15 West Fourth Street, Winston Salem, North  
16 Carolina, on the 12th day of July 2024, at  
17 12:00 p.m. EST, before Lynne C. Fulwood,  
18 Certified Court Reporter.  
19  
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21  
22  
23  
24  
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1 P R O C E E D I N G S,

2 - - -

3 (It was stipulated by all counsel  
4 present, that the Court Reporter is  
5 authorized to swear the witness remotely.)

6 WILLIAM BOHANNON,  
7 having first been duly sworn, was deposed and  
8 examined as follows:

9 EXAMINATION

10 BY MR. FERRARIO:

11 Q Good morning, Mr. Bohannon. I know we  
12 met before we officially started but my name is  
13 Matias Ferrario. I am counsel for Hisense in this  
14 matter.

15 A Good morning.

16 Q Would you please state your name for the  
17 record?

18 A William Bohannon.

19 Q Mr. Bohannon, have you been deposed  
20 before?

21 A Yes.

22 Q So you know generally the rules. I'll go  
23 over them briefly. In particular since we're doing

24           this via Zoom, it's very important that you wait  
25           until I finish asking my question before you answer.

5

1           Is that okay?

2                   A     Yes.

3                   Q     And that way if we're not -- we'll avoid  
4           talking over each other which is can get very  
5           difficult for the Court Reporter to transcribe  
6           everything. Is that okay?

7                   A     Yes.

8                   Q     It's also important that when I ask a  
9           question, that your answers be verbal so the Court  
10          Reporter can take down your answer as opposed to a  
11          head nod or some other type of nonverbal indication.  
12          Okay?

13                   A     Yes.

14                   Q     I'll try to take regular breaks. But if  
15          you feel like you need one, feel free to ask at

16           anytime. The only stipulation or condition that I  
17           would ask is that we not take a break while a  
18           question is pending. Okay?

19           A     Yes.

20           Q     All right. So we're here to talk about  
21           your declaration that you submitted in connection  
22           with an IPR that was filed by Hisense against the  
23           '835 patent. Is that your understanding?

24           A     Yes.

25           Q     And that is IPR 2023-01168, right?

6

1           A     01168, right.

2           Q     And that relates to U.S. patent number  
3           9,605,835, right?

4           A     Yes, '835.

5           Q     And we'll refer to it as the 835 patent  
6           the rest of today if you're okay with that?

7           A     Yes.

8                   Q     Now, you submitted two declarations in  
9                   connection with that IPR; is that correct?

10                  A     Two declarations? Which two are we  
11                  talking about?

12                  Q     Well, you submitted the first declaration  
13                  I believe in conjunction with a preliminary response  
14                  in the IPR. Do you recall that?

15                  A     Well, I have one declaration in front of  
16                  me that was the one that uses -- asks about IPR  
17                  2023-0116 -- 68. That's the one I thought we were  
18                  going to discuss today.

19                  Q     Okay. Well, and that's why I wanted to  
20                  make sure we're talking about the same declaration so  
21                  that we can be specific about it because you filed a  
22                  second declaration -- well, let me ask you this. You  
23                  have a declaration in front of you, a physical copy;  
24                  is that right?

25                  A     Yes, the official signed version of the

1 declaration.

2 Q Does it have an exhibit number on the  
3 lower right-hand corner?

4 A Exhibit -- well, not in the lower  
5 right-hand corner. Kind of right in the middle down  
6 below the -- anyway it says Exhibit 2006, declaration  
7 of William Bohannon. That's the one I thought we  
8 were going to discuss today.

9 Q Okay. Perfect. That is the one we're  
10 going to discuss today and that is if you flip to the  
11 last page, you executed that on April 23rd, 2024; is  
12 that correct?

13 A Yes, dated April 23rd, 2024 and it's got  
14 my signature.

15 Q So what we will do I think is go ahead  
16 and mark that as exhibit -- let's say Bohannon 1,  
17 Lynne, if that's okay.

18 THE COURT REPORTER: That's fine.

19 MR. FERRARIO: We'll mark that as  
20 Bohannon 1 or B-1 as an exhibit in your  
21 deposition. I shared that document into  
22 chat in case we want to pull it up and  
23 reference any particular part. I  
24 understand you have a physical version of

25                   that with you.

8

1                   A     Yes.

2                   BY MR. FERRARIO:

3                   Q     Now, the other document that I've shared  
4                   in the chat is a copy of the U.S. patent 9,605,835,  
5                   which I'd like marked as Bohannon 2, or B-2. And I  
6                   will ask you, Mr. Bohannon, do you have a copy of  
7                   that patent with you?

8                   A     Yes. I sent it out, a copy, the '835  
9                   patent.

10                  Q     All right.

11                  A     How do I see these documents you've  
12                  supposedly shared in the chat?

13                  Q     Let's cover that now. Are you able to  
14                  see the chat window in your program?

15                  A     No. That's why I asked.

16                  MR. FERRARIO: Neal, are you able to

17 see them?

18 MR. MASSAND: I have -- just maybe  
19 suggest right there. William, if you look  
20 at the bottom of your screen, there may be  
21 an icon that says "chat".

22 THE WITNESS: It says show chat  
23 previews and I click that button and it's  
24 not coming up. I'm clicking the others.  
25 Oh, there I clicked it. It says I'm

9

1 chatting as guest here. Okay. Now I see  
2 it; the document is there. Exhibit 2007.

3 BY MR. FERRARIO:

4 Q Right. So I haven't introduced that  
5 document yet but what I'll try to do is make sure we  
6 refer to them but both by -- this might be a little  
7 confusing but both by your -- the document name,  
8 which has its own exhibit number and the IPR?

9                   A     Which is 2007.

10                  Q     I haven't introduced that yet but let's

11                   go ahead. Lynne, you can mark that as Bohannon --

12                   let me finish. Lynne, you can go ahead and mark

13                   EX-2007 Bohannon CV as Bohannon 3.

14                             (Whereupon, Bohannon Exhibit No. 3 was

15                             marked for identification by the court

16                             reporter.)

17                  MR. MASSAND: Matias, I think we

18                   should proceed as we are but if we, you

19                   know, if this turns out to be difficult, I

20                   think one thing we could do is you could

21                   just e-mail me the exhibit and I can e-mail

22                   to William. I assuming we'd all be on the

23                   same page then if this turns out to be

24                   difficult or complicated.

25                  MR. FERRARIO: That's fine. Okay.

1                   That's fine.

2                   Mr. Bohannon, are you able to see  
3                   three documents in the chat window?

4                   A     So I am able to see one document in the  
5                   chat room, the one that you -- I guess it's my resume  
6                   so that's what's in the chat room on my screen  
7                   anyway. I don't know what you've got.

8                   BY MR. FERRARIO:

9                   Q     What I can do is share, for example,  
10                  again it might be because you joined late, and I'll  
11                  share Bohannon 1 with you, which is the '835 patent.  
12                  Do you see that now?

13                  A     I see that.

14                  Q     Very well. And then I'll go ahead and  
15                  share as well what is Bohannon 1.

16                  A     Yes, I see that now. Better late than  
17                  never.

18                  Q     Okay. Great. I wanted to start with  
19                  Bohannon 3, which is Exhibit 2007, your resume if you  
20                  will. Let me know when you have that in front of  
21                  you?

22                  A     It's in front of me.

23                  Q     So working backward, I just wanted to  
24                  cover a few items starting with your education. I  
25                  see that you received a BA in mathematics in 1977; is

1           that right?

2           A     That's correct.

3           Q     And that didn't include any courses  
4           relating to LED displays, did it?

5           A     I don't think LED displays were in use in  
6           the 1970's.

7           Q     Following graduation or perhaps while you  
8           were also still in school, from 1976 to 1979, you  
9           list Science Application?

10          A     That's correct.

11          Q     What is that?

12          A     What do you mean what is that?  What is  
13          that?

14          Q     Well, is Science Application the name of  
15          a company?

16          A     Yes.

17          Q     And what did you do during that time?

18                   A     They're known as SAIT these days.  
19                   They're a fairly large company in San Diego. So at  
20                   any rate, I did, you know, a lot of data processing  
21                   and generally worked with neutron activation, gamma  
22                   ray spectroscopy, radio chemistry. Do you understand  
23                   what radio chemistry is?

24                   Q     Thank you. I do. And you worked with  
25                   LED or LCD display panels in that time?

12

1                   A     Well, LED and LCD weren't really in  
2                   existence in the '70s although I worked in the lab  
3                   with Dr. Roger Johnson who was one of the inventors  
4                   of plasma displays and so he was always showing me  
5                   his latest and greatest displays, which at the time  
6                   were kind of digital displays that worked with  
7                   crossed wires so he created a grid of wires and when  
8                   you energized individual wires, you could make a dot  
9                   matrix type display so that was probably the earliest

10 digital display I looked at in the '70s.

11 Q Moving on, you went to Kappa Systems in  
12 1979; is that right?

13 A That's correct.

14 Q And did your work with Kappa Systems  
15 involve any work with LED or LCD display panels?

16 A Well, I have my same answer from before.  
17 I don't think LED's/LCD's were much in use in the  
18 '70s; really didn't have any -- didn't come to the  
19 fore until the '80s.

20 Q So that's a no?

21 A That's correct. I don't think LED's and  
22 LCD displays were in existence in the '70s. Maybe  
23 some of the labs. I mean, I got some of the first  
24 LCD displays in the '80s. I think I got the first  
25 Samsung display that came to America in the '80s or

13

1 the '90s, end of '80s and '90s so.

2 Q Mr. Bohannon, we'll get there.

3 A I'm just trying to explain the history of  
4 it. You keep asking me about what happened in the  
5 '70s and I'm telling you that those types of displays  
6 weren't much in existence in the '70s.

7 Q Right. And I think this deposition will  
8 go much quicker if you just allow me to ask my  
9 question, you answer them and then we move onto the  
10 next topic. Otherwise we may be here a long time.  
11 Is that fair?

12 A That's fine.

13 Q Now, in 1980 you went to Hughes Aircraft;  
14 is that right?

15 A Yes.

16 Q You spent approximately three years  
17 there?

18 A Yes.

19 Q And there it states that you worked on  
20 LCD projection systems; is that right?

21 A That's correct.

22 Q And then in 1983 you went to TRW; is that  
23 right?

24 A That's correct.

25 Q And you were a program manager?

1 A That's correct.

2 Q Did you work on LCD or LED displays at  
3 TRW?

4 A No, but I used lots of displays. I  
5 didn't work on them per se. I don't know what work  
6 on means to you.

7 Q All right. So that was a no, you did not  
8 work on LCD or LED displays at TRW?

9 MR. MASSAND: Objection to form.

10 A I asked you what does work on mean to  
11 you.

12 BY MR. FERRARIO:

13 Q Well, your description says development.  
14 Did you do any development work on LED or LCD  
15 displays at TRW?

16 A At TRW I was responsible for a lot of  
17 systems, data collection systems or avionic systems  
18 and if those systems had displays as a part of their

19 -- if displays were in the system, then that's the  
20 way it was. I mean my job was not to develop  
21 displays per se. I mean you're using the word work  
22 on kind of loosely so I'm not quite sure what that  
23 means.

24 Q So what I heard from that was that no,  
25 you did not do any development work on LED or LCD

15

1 displays; is that correct?

2 MR. MASSAND: Objection to form.

3 A You want to repeat the question.

4 BY MR. FERRARIO:

5 Q So you did not do any development work on  
6 LCD or LED displays while you were at TRW?

7 A That's true.

8 Q You then moved to a Computer  
9 Accessories/Proxima in 1989; is that right?

10 A That's true.

11 Q And here it looks like you worked on LCD  
12 display technology; is that correct?

13 A That's true.

14 Q I think you phrased it as tracked LCD  
15 technology. Do you see that?

16 A I see that.

17 Q What does that refer to? What does  
18 tracked?

19 A Well, I worked with all of the major LCD  
20 companies that Japan or tried to where the technology  
21 was, to get samples from them, to develop new  
22 products. We had -- the reason why I went to work  
23 for that company or the reason why they hired me was  
24 to help advance their technology of displays so.

25 Q I note that -- go ahead. I'm sorry. I

16

1 didn't mean to interrupt.

2 A So anyway, I worked with all of the major

3 LCD developing companies to understand where they  
4 were and how we could use it and how to make it  
5 better and the result of this work was most of the  
6 patents -- most of the patents that I hold so did a  
7 lot of work on LCD's.

8 Q Right. I was -- that was going to be my  
9 next question. So I see that you are a named  
10 inventor on a number of patents, correct?

11 A That's correct.

12 Q And those are listed in your resume on  
13 page five and six?

14 A Yes, I see them.

15 Q And did all of your patents listed there  
16 come out of work while you were at Computer  
17 Accessories/Proxima?

18 A Yes. So they are the assignee or they're  
19 -- I think the patents have been cross-licensed and  
20 shifted around but Computer Accessories was the  
21 initial assignee.

22 Q Did all those patents relate to overhead  
23 projectors?

24 A Not really. I mean it was -- they make a  
25 large screen projector -- to make a large screen

1 display system there are several ways to do it. You  
2 can either have a large screen or you can blow up a  
3 smaller screen with optics, basically a projection  
4 type system.

5 Q And some of your patents related to that  
6 what I would understand overhead projector, the kind  
7 we would see in classrooms, right, the teachers would  
8 use and would then project an image on a large  
9 surface?

10 MR. MASSAND: Objection.

11 A We had a big market in the education  
12 market. That's for sure. I mean 3M licensed all of  
13 our products and, you know, and sold them together  
14 with some of their other educational equipment but  
15 these things are also used in a variety of other ways  
16 for entertainment purposes or what have you. But,  
17 for example, the patent, the '967 for a projector,  
18 that was the large screen projector, not an overhead  
19 projector. That's the system that you would call

20           like what you see these days when you go to a venue  
21           and there's a large screen display even in like in  
22           the movie theater. So large projector, not an  
23           overhead projector. And the other patents aren't  
24           necessarily limited to overhead projectors. None of  
25           them were basically limited to overhead projectors.

18

1           They all worked with a variety of projection  
2           technology and some of some of them were just means  
3           to increase the brightness of a projector sort of  
4           like the '629 for liquid crystal displays with an  
5           optical fluid layer. The goal of that one was to get  
6           more light to a series of LCD's and optical elements  
7           so not necessarily limited to a projector; to be used  
8           for a variety of purposes to get more light to an LCD  
9           system.

10           Q     Thank you. And so you would -- you could  
11           use that technology in a variety of applications, not

12 just overhead projectors?

13 A That's true.

14 Q Now following your stint with Computer  
15 Accessories, you then moved to Planet ATE; is that  
16 correct?

17 A No. I did research.

18 Q You did what, I'm sorry?

19 A The company that I started to, my own  
20 consulting company, called Manx Research. It's the  
21 one that's listed at the top. 1994 to present,  
22 independent consultant Manx Research.

23 Q So following Computer Accessories, you  
24 started Manx in 1994?

25 A That's correct. And continue to the

19

1 present.

2 Q And then within that starting in 2001 to  
3 2010, you were working at Planet ATE?

4                   A     Yeah, that was -- that fell out of all of  
5                   the consulting work that I do.

6                   Q     And you were a cofounder of that company;  
7                   is that right?

8                   A     I was the cofounder of that company.

9                   Q     What does that company do?

10                  A     Cofounded together with people that I'd  
11                  worked with before as a consultant. So as a  
12                  consultant it's like you're listed under  
13                  semiconductor under advance research on page two, you  
14                  see where it says semiconductor manage the Asian  
15                  market development for Edge Semiconductor, a division  
16                  of Semtech. Do you see that paragraph?

17                  Q     Is that where you're referring to Planet  
18                  ATE and carried over to another setup called ATE  
19                  Engine in 2012?

20                  A     Yes, that's the paragraph. So I worked  
21                  with those guys as a consultant and then in 2001, we  
22                  started Planet ATE.

23                  Q     Now, in Manx Research so in addition to  
24                  the work you were doing in conjunction with or for  
25                  AET, you were also doing other consulting activities;

1 is that right?

2 A That's right. That's correct.

3 Q And working as an expert and investigator  
4 in high technology patent and other legal matters,  
5 right?

6 A Let me see where it says that. The  
7 sentence that you just read, where does that appear?

8 Q I can direct your attention to the  
9 paragraph beginning with miscellaneous. Do you see  
10 that?

11 A Oh, also act as an expert and  
12 investigator, right. Okay.

13 Q Is that right?

14 A That's correct.

15 Q And that's both in the U.S. and in Japan,  
16 right?

17 A That's correct.

18 Q For various firms such as Power  
19 Integrations and IP, right?

20 A That's correct.

21 Q So as part of your consulting work at  
22 Manx, you provide expert services to companies  
23 involved in patent litigation; is that right?

24 A That's correct.

25 Q And one of those companies that you

21

1 provide expert services to is IP Value?

2 A One of them.

3 Q Who is IP Value?

4 A A patent licensing firm.

5 Q And who do you work with at IP Value?

6 A A variety of people. I'm not currently  
7 retained by them but I have worked with them in the  
8 past with a bunch of different people. So I don't  
9 have a handy list of all the people I've worked for.  
10 That's probably confidential anyway so...

11 Q Well, some of your work would be public,  
12 right, as an expert?

13 MR. MASSAND: Objection to form.

14 A Some of my work is public and most of the  
15 work that I do is private but you can do a search on  
16 me through some kind of LexisNexis system and I'll  
17 probably appear somewhere.

18 BY MR. FERRARIO:

19 Q Well, let me ask you then this. I mean,  
20 on page four of your resume, you have a section  
21 entitled litigation related areas. Do you see that?

22 A Page four. Oh, Computer Accessories, you  
23 mean responsible for directing the company's patent  
24 and trademark and litigation activities? Is that  
25 what you're talking about?

22

1 Q No, I'm not. On page four of your  
2 resume --

3 A I'm looking at it.

4 Q -- after your education, there's a

5 section titled litigation related experience.

6 A Oh, that's the addendum.

7 Q Do you have an addendum to this resume?

8 A Well, I thought -- I thought you guys  
9 would have it as well.

10 Q Did you provide it to counsel in this  
11 case?

12 A I thought I did.

13 MR. FERRARIO: All right. We'll make  
14 a request that that addendum be provided to  
15 us, please.

16 MR. MASSAND: Yes. If it hasn't been  
17 already, we'll certainly provide it.

18 BY MR. FERRARIO:

19 Q All right. Going back to IP Value, you  
20 understand IP Value is a nonpracticing entity?

21 A They don't practice. They just license  
22 them.

23 Q Do you understand what the term  
24 nonpracticing entity means?

25 A My understanding is that they don't

1 practice the patent. They don't build the product.  
2 They license patents.

3 Q With that understanding of nonpracticing  
4 entity, is IP Value a nonpracticing entity?

5 A As I said three times before, they  
6 license patents so they acquire patent portfolios and  
7 then work with people to license them.

8 Q The answer to my question is yes?

9 A The answer to your question is they  
10 license patents.

11 Q And do you work for any other  
12 nonpracticing entities?

13 A I'm sure I have. It will be shown in the  
14 addendum.

15 Q Is Brightplus Ventures a nonpracticing  
16 entity?

17 A I'm not exactly sure what Brightplus  
18 Ventures' business model is.

19 Q Were you retained by Brightplus Ventures  
20 in this matter?

21 A Yes.

22                   Q     Is there another -- I'm sorry -- is there  
23                   another entity with which you were retained that is  
24                   non-Brightplus Ventures?

25                   MR. MASSAND:  Objection to form.

24

1                   A     Well, there's -- sorry for talking over  
2                   you, Neal.  That's the law firm that Neal works with.

3                   Q     There isn't like an owner of Brightplus  
4                   Ventures that you're working with?

5                   A     I'm not familiar with their corporate  
6                   structure.

7                   Q     But you signed an engagement letter  
8                   presumably in this case?

9                   A     I did.

10                  Q     And that was with Brightplus Ventures?

11                  A     I'd have to look at it to be sure.

12                  Q     So you don't know?

13                  A     I don't know for sure.

14 Q Are you working on any other matters for  
15 Brightplus Ventures?

16 A No.

17 Q Were you retained for any work again, for  
18 example, LG in relation to Brightplus Ventures?

19 A Not in relation to Brightplus Ventures.  
20 Brightplus Ventures is only this case, these IPR's.

21 Q When were you retained for this matter?

22 A I don't know. Sometime last year. Do  
23 you want the -- I don't know if you're allowed to see  
24 the retention letter or not. I don't think so.

25 MR. MASSAND: We're not producing

25

1 documents right now. If there's something  
2 that comes up, we'll get it out later.

3 MR. FERRARIO: Right. Just testify to  
4 the best of your ability.

5 Were you involved in analyzing any

6           Hisense products to determine if they fell  
7           within the scope of the claims of the '835  
8           patent.

9           A     I have not done any teardown, product  
10          teardown for Brightplus Ventures. I've worked on  
11          IPR's.

12          BY MR. FERRARIO:

13          Q     Is Dominion Harbor a nonpracticing  
14          entity?

15          A     Yes.

16          Q     Is it related to IP Value?

17          A     No.

18          Q     Is it related to Brightplus Ventures?

19          A     No. I'm sure if you do a LexisNexis  
20          search, you can find it.

21          Q     Okay. Again, we'll go a lot faster if  
22          you just answer my question and you can leave all the  
23          other commentary off.

24                  MR. MASSAND: I think he's trying to  
25          answer your questions.

1                   MR. FERRARIO: The question was if it  
2                   was related and the answer was no and that  
3                   was all that needed to be --

4                   MR. MASSAND: He answered.

5                   MR. FERRARIO: What about Power  
6                   Integrations, is Power Integrations related  
7                   to IP Value?

8                   A     No.

9                   BY MR. FERRARIO:

10                  Q     You mentioned working with 3M before. Do  
11                  you recall that?

12                  A     I recall it in conjunction with Proxima  
13                  and Computer Accessories. They license it. So they  
14                  were an OEM. We called them an OEM. That means that  
15                  we would build the product and they could put 3M's  
16                  name on it and sell it in their own sales channel.

17                  Q     Mr. Bohannon, I just simply asked you if  
18                  you recall whether you worked with 3M, not what it  
19                  entailed and what it was about.

20                  A     Well, the word that bothered me was  
21                  worked with. I wanted to explain what worked with  
22                  meant to me.

23                   Q     So you never worked with any of the  
24                   inventors that were or are part of the prior art in  
25                   this proceedings?

27

1                   MR. MASSAND:  Objection.

2                   A     Not to my knowledge.

3                   BY MR. FERRARIO:

4                   Q     And you understand that some of the prior  
5                   art involved in this proceedings was developed at 3M,  
6                   correct?

7                   A     I'm not sure what you mean by prior art.

8                   Q     You don't know what I mean by the term  
9                   prior art in these proceedings?

10                  A     No.  Well, I'll explain then.  So if you  
11                  read through some of the prior art in this  
12                  proceedings, you'll see that they refer to some  
13                  products from 3M called Vikuiti and other products  
14                  and so I didn't work with them.  I didn't see that --

15           their products are mentioned in the prior art if that  
16           answers your question.

17           Q     You didn't understand that some of the  
18           prior art in these proceedings is actually -- was  
19           actually invented by 3M?

20           A     I'm taking issue --

21                     MR. MASSAND:  Objection to form.

22                     THE WITNESS:  -- with your -- I  
23           understand prior art to be patents.

24           BY MR. FERRARIO:

25           Q     Well, we'll get into that then.  I can

28

1           show you what you meant.

2                     Mr. Bohannon, have you ever been subject  
3           to a Daubert motion?

4           A     No.

5           Q     Do you know what a Daubert motion is?

6           A     That's where you're objected to as an

7 expert. That's my understanding.

8 Q And has your testimony ever been struck  
9 by a court --

10 A No.

11 Q -- in response to a Daubert motion?

12 A No.

13 Q Has any portion of your testimony ever  
14 been struck by a court in response to a Daubert  
15 motion?

16 A No.

17 Q You mentioned that you've done work with  
18 Power Integrations; is that correct?

19 A Yes.

20 Q Was that in conjunction with a case  
21 against Opti Current?

22 A Opti Current, yes.

23 Q And that case Opti Current was the  
24 plaintiff?

25 A I think so. I'd have to go back and look

1 at all the case. I've done a lot of work with Power  
2 Integrations, a bunch of IPR's and -- with a bunch of  
3 other companies. So you're asking me something  
4 that's not on the tip of my tongue.

5 Q Do you recall working with Power  
6 Integrations in a case in the Northern District of  
7 California?

8 A Yes.

9 Q Around 2018?

10 A Probably.

11 Q And you provided expert testimony in that  
12 case?

13 A Yes.

14 Q In the form of an expert report?

15 A Yes, and I testified in court.

16 Q Did you also give a deposition in that  
17 case?

18 A I don't think so.

19 Q How are you being compensated for your  
20 work in this matter?

21 A So your question is am I being  
22 compensated? Was that your question?

23 Q My question is how are you being

24 compensated?

25 A I'm being paid.

30

1 Q Are you being paid by the hour?

2 A Yes.

3 Q I believe you listed your rate in your  
4 declaration \$350 an hour?

5 A Yes.

6 Q Do you have any other financial interests  
7 in the outcome of this matter?

8 A My financial interest in the outcome of  
9 the matter is I get paid by the hour. I submit an  
10 invoice so it's not dependent upon the outcome of the  
11 matter.

12 Q Do you own any stock in Brightplus  
13 Ventures or any affiliated entity?

14 A No.

15 Q Do you own any shares or other types of

16 interests in Brightplus Ventures or any of its  
17 affiliated entities?

18 A No.

19 (Whereupon, Bohannon Exhibit No. 1 was  
20 marked for identification by the court  
21 reporter.)

22 BY MR. FERRARIO:

23 Q All right. I would like to ask you some  
24 questions about your declaration, which we've marked  
25 as Exhibit 1 and I believe is shared with you as

31

1 EX2006 in the chat and I believe you also have a copy  
2 of it as well. Do you have that with you?

3 A It's in the chat room. It's in front of  
4 me.

5 Q All right. And I apologize. So my large  
6 screen is over here. So I'm going to hope, you know,  
7 I might be looking over here. Hopefully that doesn't

8           bother you but that's what I'm doing. I'll try to  
9           refer to page numbers, PDF page numbers because I'd  
10          like to get you to page five, the exhibit list, of  
11          your declaration. And let me know when you're there?

12               A     I'm there.

13               Q     So there you list five exhibits, right?

14               A     2006, 2007, 2008, 2009 and 2010.

15               Q     So one of the exhibits is your own  
16          declaration, that's 2006, right?

17               A     That's correct.

18               Q     And then it's your curriculum vitae,  
19          which is 2007, right?

20               A     That's correct.

21               Q     And then 2008 is the joint claim  
22          construction statement, right?

23               A     That's correct.

24               Q     2009 is Brightplus Ventures opening claim  
25          construction brief, right?

1 A That's correct.

2 Q And then 2010 is Hisense's opening claim  
3 construction brief, right?

4 A That's correct. If you want to go into  
5 any details of those things, you need to put it --

6 Q Understood. Not a question pending.  
7 Now, I may also refer to paragraph numbers, which  
8 would refer to the paragraph numbers in your report  
9 and I'd like you to go to paragraph 12, please, of  
10 your declaration?

11 A So paragraph 12 in section B, basis of my  
12 opinion and materials considered.

13 Q Are you there?

14 A I'm there.

15 Q All right. Now, in paragraph 12, you  
16 identify the materials you considered in forming your  
17 opinions in your declaration; is that right?

18 A That's correct. Says I have reviewed the  
19 '835 patent prosecution --

20 Q Mr. Bohannon, if you just answer my  
21 question, I'll -- we'll get to it together. Is it  
22 correct that that's where you identify in this  
23 paragraph 12, yes or no?

24 A Yes.

25 Q And there in paragraph 12, you identify

33

1 the '835 patent, right?

2 A Yes.

3 Q And you identify the '835 patent  
4 prosecution, correct?

5 A Yes.

6 Q You identify Dr. Pattison's declaration,  
7 right?

8 A Yes.

9 Q The prior art discussed herein, right?

10 A That's what it says.

11 Q And the remaining exhibits listed herein,  
12 right?

13 A That's what it says.

14 Q Now, you do not identify the responsive  
15 claim construction briefing in either your exhibit or  
16 paragraph 12, correct?

17                   A     So I refer to the ones we listed earlier  
18                   2008, '9 and '10.  
19                   Q     Correct. And those are the opening claim  
20                   construction briefs, right?  
21                   A     They are what they are.  
22                   Q     And those are not the responsive claim  
23                   construction briefs, right?  
24                   A     I'm not sure what you're referring to.  
25                   Q     You also don't identify in the exhibit

34

1                   list or in paragraph 12 the petition, right?  
2                   A     Paragraph 12 is as it is. I mean we both  
3                   kind of read it so. There's a whole lot of stuff  
4                   that's not in paragraph 12.  
5                   Q     Can you answer my question?  
6                   A     Repeat your question.  
7                   Q     You do not identify om either the exhibit  
8                   list or paragraph 12 the petition?

9                   A     Paragraph 12 does not contain the  
10                   petition.

11                  Q     The exhibit list doesn't contain the  
12                   petition either, right?

13                  A     True.

14                  Q     The exhibit list does not identify the  
15                   board's institution decision, does it?

16                  A     The exhibit list is what it is. It's  
17                   only a few items. So there's a whole bunch of stuff  
18                   that's not there also.

19                  Q     And I'm going to confirm what's not there  
20                   and my question is: Is the board's institution  
21                   decision listed in exhibit -- in the exhibit list?

22                  A     No, it is not.

23                  Q     Is the board's institution decision  
24                   listed in paragraph 12?

25                  A     No, it is not.

1           Q    The exhibit list doesn't identify any  
2 other Brightplus Venture patents, does it?

3           A    No, it does not.

4           Q    Paragraph 12 doesn't identify any  
5 Brightplus patents either, right?

6           MR. MASSAND:  Objection to form.

7           A    So paragraph 12 says reviewed the '835  
8 patent.  So isn't the '835 patent a Brightplus  
9 patent?

10          Q    I said other Brightplus patents?

11          A    I didn't hear you.  Other.

12          MR. MASSAND:  I didn't hear that  
13 either.

14 BY MR. FERRARIO:

15          Q    Okay.  Well, let me re-ask it.  The  
16 exhibit list does not identify any other Brightplus  
17 patents other than the '835, correct?

18          A    Yes.  THIS declaration is only on the  
19 '835.

20          Q    And paragraph 12 doesn't identify any  
21 other Brightplus patents other than the '835,  
22 correct?

23          A    It doesn't need to, correct.

24          Q    I didn't ask you if it needed to.  I just  
25 asked you if it did.  I mean, we can get into

1 arguments all day and we're going to be here until  
2 8:00 o'clock my time which who knows what time it is  
3 for you. So this is a deposition testimony. I'm  
4 going to ask you to answer my questions and they  
5 should be mostly yes or no and if you have other  
6 commentary, your counsel can redirect you on it.  
7 That's what he's here for. Okay?

8 MR. MASSAND: Matias, he's answering  
9 the questions the best of his ability.

10 A Some of your questions aren't what I  
11 consider to yes or no questions.

12 BY MR. FERRARIO:

13 Q Well, if something's listed in a list or  
14 not, that's a yes or no question. Whether it's  
15 needed to be listed, that's argumentative and that's  
16 what you're doing. So we can put this testimony in  
17 front of the board and they're going to see very

18 clearly which answers are responsive or not. So  
19 today will go a lot easier if you just stick to  
20 answering my questions, okay. Does that sound fair?

21 A Yes.

22 MR. MASSAND: Mr. Bohannon, I  
23 encourage you to answer to the best of your  
24 ability.

25 THE WITNESS: That's what I intend to

37

1 do.

2 BY MR. FERRARIO:

3 Q So let me ask you this. So did you  
4 review the institution decision in this case?

5 A When it was available. I'm not sure it  
6 was available. I'm not exactly sure the timing of  
7 these things so a lot of times you submit a  
8 declaration to an IPR before it's been decided by the  
9 board.

10 Q Do you have a memory sitting here today  
11 of having reviewed the institution decision?

12 A I might have reviewed it when it came  
13 out. I'm not exactly sure when it came out. That  
14 was the basis of my response previously.

15 Q You understand that you submitted this  
16 declaration after the institution decision was  
17 issued?

18 A I said I'm not sure.

19 Q So you don't know when the institution  
20 decision issued?

21 A I'm not sure.

22 Q And sitting here today, do you have a  
23 memory of having reviewed the institution decision?

24 A Yes.

25 Q What is your memory of that?

1 A What do you mean?

2                   Q     Do you remember reading it all the way  
3                   through?

4                   A     Yes. I mean you said what's my memory of  
5                   having reviewed it. I mean what other thing could I  
6                   have done?

7                   Q     Was to review the institution decision.  
8                   That was one of the things you've done?

9                   A     Yes.

10                  Q     So you are aware of the board's view on  
11                  substantive issues that are part of this matter?

12                  MR. MASSAND: Objection to form.

13                  A     Well, I think it's clear if you look at  
14                  my declaration that I do not discuss the  
15                  institution's decision in the declaration.

16                  BY MR. FERRARIO:

17                  Q     That's not my question. My question is:  
18                  You are aware of the substantive issues addressed by  
19                  the board in the institution decision, right?

20                  MR. MASSAND: Objection to form.

21                  A     I'm aware of my -- I'm aware that I  
22                  reviewed it. I didn't -- it's not a part of my  
23                  opinion. So if you look at the declaration, my  
24                  opinion is based upon reading the patent and the  
25                  prior art and the things listed. It does not say in

1 here that my opinion is based upon the institution's  
2 decision, not in the scope of my declaration.

3 BY MR. FERRARIO:

4 Q And so if the board had a view, for  
5 example, on a claim construction issue, that would  
6 not have fallen within the scope of your opinion in  
7 this declaration; is that correct?

8 A I think it's clear from my declaration  
9 what's in it and not in it.

10 Q You don't cite the board's institution  
11 decision anywhere in your declaration, right?

12 MR. MASSAND: Objection to form.

13 A My declaration does not contain any words  
14 that describe or refer to the institution decision.

15 BY MR. FERRARIO:

16 Q Do you think the board's view of the  
17 prior art or claim construction issues would be  
18 important or relevant for you to do an analysis?

19 MR. MASSAND: Objection to form.

20 A So that's not in my declaration. Like I  
21 said before, a lot of types with these IPR's you do a  
22 declaration before the institution has released their  
23 decision. So I can't think of any IPR's that I've  
24 worked on where the initial declaration contained any  
25 words at all about the institution's decision thrown

40

1 in a sur reply or some other proceeding further down  
2 the road so you're kind of getting ahead of yourself.

3 BY MR. FERRARIO:

4 Q You still haven't answered my question.  
5 Do you think it would have been important to have  
6 considered the board's institution decision if you  
7 were to submit a declaration after such decision?

8 MR. MASSAND: Objection to form.

9 A That's a question I cannot answer.

10 BY MR. FERRARIO:

11 Q Why is that? Why can't you answer that?

12 A Because it's not in my declaration. I  
13 don't think it existed at the time I prepared the  
14 declaration.

15 Q And that may be a perfectly reasonable  
16 explanation. You didn't consider it because it  
17 didn't exist when you submitted your declaration. Is  
18 that what your testimony is?

19 A That's true.

20 Q My question though is if you were going  
21 to put a declaration together and there was an  
22 institution decision, do you think it would be  
23 important to review and understand what that decision  
24 said such that you could include it in your analysis?

25 MR. MASSAND: Objection to form.

41

1 A You're asking me -- excuse me. You're  
2 asking me to speculate.

3 BY MR. FERRARIO:

4 Q I'm not asking you -- I'm asking you  
5 would you consider it important?

6 A You're asking me to speculate.

7 Q Speculate.

8 A I don't want to. It's not in my  
9 declaration.

10 Q So you're refusing to answer the question  
11 as to whether you would think an institution decision  
12 is something that you would or would not need to look  
13 at in forming opinions such as the ones you've  
14 provided here?

15 MR. MASSAND: Objection to form.

16 A So you're asking me to peer into the  
17 future, you know, while I'm writing a declaration.  
18 I'm supposed to peer into the future and magically  
19 come up with an institution decision when it doesn't  
20 exist and then speculate on it?

21 BY MR. FERRARIO:

22 Q Not what I'm asking you. I'm asking you  
23 if an institution decision existed hypothetically and  
24 you were going to submit a declaration after the  
25 fact, do you think it would be important to review

1           and address the institution decision in creating a  
2           declaration?

3           A     So you want me to answer a hypothetical  
4           question --

5           Q     (Counsel nods head affirmatively.)

6           A     -- something in my declaration. My  
7           declaration ignores the hypothetical situation. It's  
8           based on the prior art and the knowledge at the time,  
9           not in the future.

10          Q     So are you refusing to answer my  
11          question?

12          A     I can't answer it. You're asking me to  
13          speculate on a hypothetical situation.

14          Q     If the institution decision existed  
15          before you submitted this declaration, would you have  
16          reviewed it?

17                   MR. MASSAND: Objection to form.

18          A     Hypothetical.

19          BY MR. FERRARIO:

20 Q Are you refusing to answer my question?  
21 A I said it's hypothetical. You said "if".  
22 So this is all a question of timing when you write  
23 your declaration what exists. I wrote the  
24 declaration and you can see what it's based upon. If  
25 you look at paragraph 12, the institution decision is

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1 not listed.

2 Q Yeah. I'm trying to get an  
3 understanding, Mr. Bohannon, as to whether it's not  
4 listed because you didn't think it was important or  
5 because you believe it didn't exist or what and  
6 that's -- I think my questions are fairly directed to  
7 that?

8 A Well, I've answered that.

9 Q Help me understand that.

10 A I've answered your question --

11 Q You haven't.

12 A -- enough times.

13 Q No. I asked you if the institution  
14 decision existed before you submitted this  
15 declaration, would you have thought it would be  
16 important to include in your analysis?

17 A It's a hypothetical question. You said  
18 "if".

19 Q Uh-huh.

20 A I'm not answering hypothetical questions.

21 Q If you were to submit a declaration today  
22 after institution, would you include an analysis of  
23 the institution decision?

24 A You're just speculating.

25 Q I'm asking you what you would do.

44

1 A You're asking me to speculate. I won't  
2 speculate. I thought the purpose of this deposition  
3 was to go over the declaration that exists, not a

4 hypothetical one.

5 Q Well, Mr. Bohannon, it's my deposition.  
6 I get to ask the questions I want to ask. So I've  
7 asked that question and are you saying you're  
8 refusing to answer the question?

9 A I'm saying I can't answer a hypothetical  
10 question based on some kind of future knowledge.

11 Q When did you submit this declaration?

12 A Well, we went over that earlier. When  
13 you looked at my signature, I said April 23rd.

14 Q Just answer the question. When did you  
15 submit the declaration?

16 MR. MASSAND: Matias, he did answer  
17 the question.

18 A So if you turn to the last page of the  
19 declaration, it says dated April 23rd, 2024 and next  
20 to my signature so that's pretty clear.

21 BY MR. FERRARIO:

22 Q When did the institution decision issue  
23 in this case?

24 A I've answered that before. I do not  
25 know.

1           Q    The institution decision issued in this  
2           case in January 23rd, 2024, three months before you  
3           submitted this declaration, right?

4           A    So I'm not saying right. I don't have  
5           personal knowledge of that. This is your knowledge.

6           Q    You think that's relevant to your  
7           opinions?

8                   MR. MASSAND: Objection to form.

9           A    What's relevant?

10          BY MR. FERRARIO:

11          Q    The fact that the institution decision  
12          existed three months before you issued your  
13          declaration?

14          A    So you're -- you've made the statement  
15          and you asked me to accept it as true?

16          Q    True.

17          A    Are you submitting that as the --

18          Q    Would that help you confirm?

19          A    No. I mean, you're saying when it was  
20          submitted or when it was issued or whatever. That's

21 not in my declaration. So I don't think it's  
22 pertinent to my declaration as it exists.

23 Q That's all I wanted to know. So you  
24 confirm that you do not believe the institution  
25 decision is pertinent to your declaration?

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1 A No. Pertinent or not pertinent is your  
2 opinion as to when it existed or when it was issued  
3 or whatever. That's not in my declaration is the  
4 statement I'm making. We're looking at your  
5 credibility, not mine.

6 Q You don't even know if an institution  
7 decision exists in this case, do you?

8 MR. MASSAND: Objection to form.

9 A I've answered this question many times  
10 before.

11 BY MR. FERRARIO:

12 Q Which is what? Remind me now.

13                   A     The institution decision is not part of  
14                   my declaration.

15                   Q     Yeah, but you testified earlier you  
16                   remember reviewing the institution decision.

17                   A     Yes, that's true. I said I reviewed it  
18                   when it was available.

19                   Q     Did you review it before or after -- I'm  
20                   sorry. I didn't mean to cut you off. Go ahead.

21                   A     I said I'm not sure when it was  
22                   available. I'm not sure when I reviewed it. I tell  
23                   you one thing I know absolutely for certain is that  
24                   it's not in my declaration. It's not a part of my  
25                   declaration.

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1                   Q     Sir, you remember reviewing the  
2                   institution decision but you don't know if it was  
3                   before or after you prepared your declaration. Is  
4                   that your testimony?

5                   A     I've answered this question many times  
6                   before and the answer is that I'm not sure when it  
7                   was available. I'm not sure when I reviewed it and  
8                   it's not in my declaration.

9                   Q     But you did review it, correct?

10                  A     I've answered this question many times  
11                  before. I reviewed it. I'm not sure when I reviewed  
12                  it. I'm not sure when it was issued and I'm not --  
13                  and it's not in the declaration.

14                  Q     Now, you understand that the institution  
15                  decision is dated, right?

16                         MR. MASSAND: Objection to form.

17                  A     I don't have it in front of me.

18                  BY MR. FERRARIO:

19                  Q     In your review of the institution  
20                  decision, you don't recall seeing the date on it, do  
21                  you?

22                  A     I've answered this question many times  
23                  before. You want to read back the answer?

24                  Q     This is a different question. I asked  
25                  you.

1           A     Why don't we read it back?

2           Q     Do you remember seeing the -- do you  
3 remember seeing the date on the institution decision  
4 when you reviewed it?

5           A     I thought you just asked that question a  
6 few minutes ago. Why don't we just read it back?

7           Q     Why don't you just answer the question?

8           A     Why don't you read it back? I've  
9 answered it before.

10          Q     Read what back?

11          A     The Court Reporter.

12          Q     We don't have a realtime transcript so  
13 you just tell me. Do you remember seeing the date on  
14 the institution decision when you reviewed it?

15          A     I do not remember when I reviewed it. I  
16 do not remember when it was issued. It's not a part  
17 of my declaration.

18          Q     Don't you think you should have included  
19 it in the analysis of the institution decision since  
20 you filed your declaration after it was issued?

21               MR. MASSAND: Objection to form.

22                   A     So my declaration does not contain  
23                   anything about the institution's decision.

24                   BY MR. FERRARIO:

25                   Q     Don't you think the view of a panel of

49

1                   three judges at the patent office on the  
2                   patentability of the '835 patent would be relevant to  
3                   the opinions you're expressing in your declaration?

4                   MR. MASSAND: Objection to form.

5                   A     So if you look at paragraph 12, you can  
6                   see what I based my opinion on. The institution  
7                   decision is not listed in there. You're just asking  
8                   me to speculate and I don't understand why you want  
9                   me to speculate over and over again because I  
10                  answered that question so many times.

11                  BY MR. FERRARIO:

12                  Q     Do you think your expert opinion is  
13                  reliable if it does not include an analysis of the

14 institution decision by the patent office?

15 MR. MASSAND: Objection to form.

16 A So I have done several IPR's and I don't  
17 think any of the IPR's I did contained an analysis of  
18 the institution decision. I don't think it's  
19 standard practice. Maybe in your firm you can have  
20 your experts do that. Did your experts have an  
21 example of -- do an analysis of the institution  
22 decision?

23 BY MR. FERRARIO:

24 Q Did you say that was your standard  
25 practice is to not review the institution decision?

50

1 A I have reviewed things when I'm asked to  
2 review them. I don't go out and independently look  
3 up documents to read. I work for my clients and  
4 under their direction.

5 Q Okay. So if the client gives you a

6           certain set of materials, that's what you review and  
7           if they don't give you materials, you won't go out  
8           and look for other stuff; is that your testimony?

9           A     I'm sure you --

10           MR. MASSAND:  Objection.

11           THE WITNESS:  -- direct the same way.

12           Nobody wants somebody to independently dig  
13           up a whole bunch of stuff and do a bunch of  
14           extra work.  I work for the client.  If  
15           they want me to review something, I review  
16           it.

17           BY MR. FERRARIO:

18           Q     That same philosophy applied to a piece  
19           of prior art, for example, and what I mean by that is  
20           if somebody gives you a piece of prior art, are you  
21           only going to look at the parts that they tell you to  
22           look at or are you looking at all of the piece of  
23           prior art?

24           MR. MASSAND:  Objection to form.

25           A     I look at all the prior -- I look at --

1 if someone hands me a patent to read, I read the  
2 patent. I don't just read certain columns. I read  
3 the entire patent.

4 MR. FERRARIO: All right, sir. We've  
5 been going for a little over an hour. You  
6 want to take a 10-minute break?

7 MR. MASSAND: Sure. Can we make it  
8 15? Is that all right?

9 MR. FERRARIO: How about we say we'll  
10 go back on the record at 1:30 my time.  
11 That's about 16 minutes away.

12 MR. MASSAND: Sure. That work for  
13 you, William?

14 THE WITNESS: Yeah, so that's 10:30.

15 MR. FERRARIO: See you then.

16 (Whereupon, a brief recess was taken.)

17 BY MR. FERRARIO:

18 Q Back on the record. Mr. Bohannon, I want  
19 to direct your attention to your declaration,  
20 paragraph 25. Let me know when you get there?

21 A Technology overview, paragraph 25.

22 Q In this paragraph you set forth your

23 understanding of the overview of the technology to  
24 which the '835 patent relates, correct?  
25 A Yes.

52

1 Q And one of the things you identify is the  
2 purpose and alignment of certain structures to  
3 maximize the amount of light directed through the LCD  
4 panel, right?

5 A Well, kind of paraphrasing. I call it  
6 the employment of several structures and layers  
7 incident upon the surface. Overall structures  
8 include a variety of things --

9 THE COURT REPORTER: I'm sorry. I  
10 can't hear, Mr. Bohannon.

11 THE WITNESS: So I was just reading a  
12 part of paragraph 25.

13 BY MR. FERRARIO:

14 Q I'm sorry. You were in the middle of

15           answering my question I think. Do you want to  
16           continue?

17           A     You want to repeat your question?

18           Q     Yeah. So in paragraph 25, one of the  
19           things you identify is the use of certain structures  
20           disclosed in the '835 patent to maximize the amount  
21           of light that's directed through the LCD panel,  
22           correct?

23           A     So that's what the last sentence says.  
24           Maximize the amount of light directed through the LCD  
25           panel at an angle and intensity that is appropriate

53

1           for viewing the images displayed on the LCD panel.

2           Q     I wanted to ask you a little bit about  
3           the angles of light and how that works at least as  
4           it's described in the '835 patent. So if I could ask  
5           you to turn to section four, which is the '835  
6           patent's overview. Do you see that?

7                   A     Paragraph 26.

8                   Q     Right. And here you provide a summary --  
9                   some of the technology disclosed by the '835 patent,  
10                  right?

11                  A     Well, I say the '835 patent accomplishes  
12                  this by orienting the LED's on its surface to face in  
13                  a direction normal, etcetera.

14                  Q     And in paragraph 26, you identify some of  
15                  the structures as including a diffuser, right?

16                  A     Yes. I say the light emitted by the LED  
17                  passes through diffuser and into a specific type of  
18                  brightness enhancement film.

19                  Q     And you also identify a brightness  
20                  enhancement film, right?

21                  A     So that's what I just said.

22                  Q     Yeah. If you can just limit it to  
23                  answering my question, which was first diffuser and  
24                  then I was going to ask you about BEF so this will go  
25                  a lot faster and it will be simpler.

1           A     All of your questions are leading  
2           questions.

3           Q     Yeah. This is a cross-examination. Are  
4           you aware of that?

5           A     I am.

6           Q     Okay. Then let's proceed. So if I refer  
7           to brightness enhancement film as BEF, you'll  
8           understand that as well? Is that okay?

9           A     Well, a BEF is a brightness enhancement  
10          film is not a standardized term. The '835 patent has  
11          their version of a BEF and other people have their  
12          versions of BEF so you have to be specific to the  
13          '835 patent BEF.

14          Q     And that's what I think we're going to  
15          talk a little bit about today and so I think it's  
16          your opinion that a BEF refers to a class of film; is  
17          that right?

18          A     Well, there's several types of films that  
19          go together to make up a stack that's certainly used  
20          with the backlight in LCD panel. Everybody -- it's  
21          kind of the art that people use to build up an LCD  
22          display with LED backlight is to use a variety of  
23          films and they all have kind of similar names but

24           they do different functionality.

25                   Q     Not answering my question.  You describe

55

1           BEF as referring to a class of films; is that right?

2                   A     So I said the term brightness enhancement  
3           film or BEF is not a standardized term and understood  
4           in the same way by everyone referring to a class of  
5           films with different characteristics.

6                   Q     So you understand the term BEF to refer  
7           to a class of films with different characteristics,  
8           correct?

9                   A     Yes, different characteristics.

10                  Q     And it's your opinion that the BEF that  
11           is claimed in the '835 patent has certain  
12           characteristics, right?

13                  A     That's what's in the claims of the '835  
14           patent, the characteristics of the BEF.

15                  Q     And those characteristics for that it

16 allows light having a first orientation through the  
17 film and light having a second orientation back  
18 towards the LED substrate; is that right?

19 A That's what -- yes, that's what's in  
20 paragraph 26.

21 Q And that's a special type of BEF film  
22 that is claimed by the '835 patent, right?

23 A That's what's in the claims, claim one  
24 from the other claims.

25 Q All right. Well, let's look at the '835

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1 patent, which I previously put into chat?

2 A The chat has gone away.

3 Q I'm sorry?

4 A The chat room has gone away.

5 Q Okay. I'll put it back in.

6 MR. MASSAND: I think it did for me as  
7 well. I think I logged off that's probably

8                   why.

9                   MR. FERRARIO: I see. It should be  
10                   coming through now. This is just for the  
11                   record. It's been previously marked as  
12                   Bohannon 2 and it is Exhibit 1001 to the  
13                   IPR, the '835 patent. Once you've had a  
14                   chance to open it and confirm that, let me  
15                   know.

16                  A     The chat is not working well. I have it  
17                   in front of me. What page do you want me to look at?

18                                 (Whereupon, Bohannon Exhibit No. 2 was  
19                   marked for identification by the court  
20                   reporter.)

21                  BY MR. FERRARIO:

22                  Q     Well, I just wanted you to confirm that  
23                   we're all looking at the U.S. Patent No. 9,605,835 to  
24                   Roberts?

25                  A     Yes.

1           Q     Titled solid-state luminaires for general  
2 illumination, right?

3           A     Right; by Cree, Incorporated.

4           Q     And you reviewed this patent in  
5 connection with forming the opinions in your  
6 declaration, correct?

7           A     That's correct.

8           Q     So this hopefully doesn't get too wonky  
9 but I'll be referring both to figures and text. You  
10 know, maybe we'll need to jump a little bit around  
11 but you're familiar with how to read a patent,  
12 correct?

13          A     Yes.

14          Q     And so if I refer to column and line  
15 numbers, you're comfortable with being able to  
16 navigate to that place, right?

17          A     I think so.

18          Q     Most of my questions are going to relate  
19 to Figures 5A, 5B, 6A, and 6B. Okay?

20          A     Okay.

21          Q     And I don't know precisely how well you  
22 recollect the disclosures but looking at Figure 5A,  
23 does that look familiar to you?

24          A     I think there's a similar figure in my

25 declaration.

58

1 Q Yeah. And when you look at that figure,  
2 do you recognize the component labeled as ten as the  
3 substrate?

4 A In 5B, not in 5A.

5 Q I'm sorry. Did you say in 5B, yes, but  
6 not in 5A?

7 A That's exactly what I said.

8 Q And do you -- do you recognize the  
9 component in Figure 5A that's labeled with 50 as the  
10 reflector?

11 A Yes. We should look at the patent  
12 description that describes the figure itself. We  
13 should look at precisely how it's described.

14 Q But you do recognize that as the  
15 reflector as 50?

16 A Generally recognized --

17 MR. MASSAND: Objection.

18 THE WITNESS: -- as 5A and 5B.

19 BY MR. FERRARIO:

20 Q Well, then let's -- I was just trying to  
21 see how well your memory was but we can go to column  
22 11 if you like and line 20. Let me know when you're  
23 there?

24 A So referring to Figure 5A, a portion of  
25 the -- 40 is the idea.

59

1 Q You see in that paragraph it refers to  
2 element 50 as the reflector sheet?

3 A Yes. The sheets may be smaller than the  
4 lighting panel 40.

5 Q And then a little bit further down in  
6 around line 54 refers to element 60 as the diffuser  
7 sheet?

8 A Yes, I see that.

9 Q And then spanning over into the next  
10 column 20?  
11 A The next column is 12, not 20.  
12 Q I'm sorry, 12. And we're now looking at  
13 figure -- referring to Figure 5B right around line 17  
14 -- I'm sorry, it's not referring to Figures 6A and  
15 6B.  
16 A That's B.  
17 Q I'm revising the question. In line 17,  
18 column 12, it's referring to Figure 6A and 6B,  
19 there's a reference to a brightness enhancement film  
20 seven; do you see that?  
21 A Let me get the figure out. Brightness  
22 enhancement films 72 or 70 -- with light extraction  
23 features 72.  
24 Q All right. So item 70 is the brightness  
25 enhancement film; is that what you understand?

1           A     That's what's described in line 17 of  
2           this column 12.

3           Q     Now, I want to talk about Figure 6B if  
4           you will and --

5           A     Zero?

6           Q     I'm sorry?

7           A     You said 60 as in 6-0?

8           Q     No. I'm sorry. 6B as in boy.

9           A     Oh, 6B, yes.

10          Q     And you understand that 6B is sort of a  
11          close-up of part of 70, the brightness enhancement  
12          film?

13          A     Well, if you read the description and  
14          look at the figures, you can see that 72 is also on  
15          Figure 6A, which is described in -- on line 18 or so,  
16          there's three-dimensional light extraction features  
17          72.

18          Q     Right. So 72 are the prisms that are  
19          part of the brightness enhancement film; is that what  
20          your understanding is?

21          A     Well, the light extraction features --

22                 THE COURT REPORTER: I'm sorry. You  
23          really have to speak up and get closer to  
24          your microphones.

25                 THE WITNESS: Three-dimensional light

1 extraction features is how they're  
2 described on line 18 or so.

3 BY MR. FERRARIO:

4 Q Perfect. And this paragraph then goes  
5 onto talk about light ray 73A. You see that?

6 A I do.

7 Q And then a little bit further on light  
8 ray 73B. You see that?

9 A I do.

10 Q All right. And with respect to Figure  
11 6B, it shows and then it's described as light ray  
12 73A, bent toward an optical axis that's perpendicular  
13 to the principal plane 76 of the lighting panel 40  
14 when they exit the film 70. Do you see that?

15 A Oh, I read that. Definitely it says that  
16 73A are bent towards an optical axis 74 that is  
17 perpendicular to the principal plane 76.

18                   Q     All right. So you understand that light  
19     ray 73A is light of a first orientation that is  
20     emitted or passes through the brightness enhancement  
21     film?

22                   MR. MASSAND: Objection to form.

23                   A     So light 73A passes through -- I don't  
24     think it says first orientation on column 12 if you  
25     can point it out to me.

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1                   Q     Right. No. I'm asking you though is  
2     that in the orientation? Would you agree that's one  
3     orientation?

4                   A     That's one orientation where the light  
5     (inaudible) 74 perpendicular to the principal plane  
6     76.

7                   THE COURT REPORTER: I can't hear him.

8                   THE WITNESS: So light ray 73A are  
9     bent toward the optical axis 74.

10 BY MR. FERRARIO:

11 Q And that one is one that exits the film  
12 70, right?

13 A It appears to.

14 Q And then there's another light ray 73B,  
15 which is internally reflected back into the diffuser  
16 sheet 60; is that right?

17 A It says -- the sentence reads:  
18 Internally reflected into the diffuser sheet such as  
19 light ray 73B where they may be further recycled.

20 Q Now, looking at Figure 6B, I see that ray  
21 73A is labeled and is shown as exiting the brightness  
22 enhancement film, right?

23 A It shows leaving that area of 72.

24 Q The three-dimensional light extraction  
25 feature right?

1 A The three-dimensional light extraction

2 feature, yes.

3 Q Which is shown in Figure 6A as part of  
4 the brightness enhancement film, right?

5 A Yes.

6 Q And ray 73B is internally reflected in  
7 Figure 6B, right?

8 A So, yes, according to line 23, column 12,  
9 it says that 74 is perpendicular -- oh, 73B where  
10 they're further recycled and diffused.

11 Q Are you familiar with the term total  
12 internal reflection?

13 A Yes.

14 Q What does that refer to?

15 A That's where the light -- the optical  
16 axis is coded and angled in a certain manner such  
17 that light stays inside of the -- the optic element  
18 such that it doesn't get transmitted except for  
19 certain angles and certain -- so specifically  
20 designed optical structure that are used in  
21 projection optics -- you know if you were making a  
22 projector to show a large screen image --  
23 (inaudible) -- it's got to come out sometime.

24 Q Is 73B showing instance of total internal  
25 reflection?

1           A     Well, I'm not sure if you would describe  
2     it like that. It's being internally reflected on  
3     that structure depending upon the angle. I think  
4     that if you're really designing something to be  
5     totally internally reflected, it would be different.

6           THE COURT REPORTER: I'm sorry. I  
7     can't hear him.

8           THE WITNESS: I said I think that if  
9     you were the design would have to be  
10    totally internally reflected, it would be  
11    different and you would call it out in the  
12    patent description, which this does not.

13   BY MR. FERRARIO:

14           Q     Doesn't the patent describe ray 73B as  
15    being totally internally reflected?

16           A     Where do you think it says that in the  
17    patent description?

18           Q     Well, doesn't it show it?

19                   A     Where do you think it says that in the  
20                   patent description?  
21                   Q     Does it -- does it show it, Mr. Bohannon?  
22                   A     It shows reflection from two phases. It  
23                   doesn't show it -- it doesn't show it to be bouncing  
24                   around forever in there. It shows it some kind of  
25                   reflection but I wouldn't necessarily call it total

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1                   internal reflection. That's a very specific term of  
2                   art.

3                   Q     In your view of the term of art, does it  
4                   mean that every light ray needs to be totally  
5                   internally reflective?

6                   A     For what to happen?

7                   Q     For it to be considered totally  
8                   internally reflecting enhancement film?

9                   A     I don't think -- my declaration doesn't  
10                  use that terminology. I don't think the patent '835

11 uses that terminology. I think it's something that  
12 you are trying to impose upon it. So unless you can  
13 show me where in the '835 it says total internal  
14 reflection or in my declaration, I'm not going to  
15 answer that correctly.

16 Q Is there something hesitancy on your part  
17 to use that term as it relates to ray 73B?

18 A I said I was describing the patent.

19 Q Is ray 73B in your expert opinion totally  
20 internally reflective?

21 A I said I was describing the patent.

22 Q Let me direct your attention to column  
23 12, line 40 the sentence beginning "thus". Are you  
24 there?

25 A Oh, yeah, I'm there.

66

1 Q Do you understand --

2 A So it says it will be totally internally

3 reflective back into the diffuser sheet.

4 THE COURT REPORTER: Okay, Mr.

5 Bohannon, when you hold up the paper and  
6 you're reading into it and I can't  
7 understand what you're saying.

8 THE WITNESS: Okay. So I'm saying  
9 that yes, on column 12 around there around  
10 line 45 or so it says, that light traveling  
11 approximately parallel to an optical axis  
12 74 of the lighting panel 40 perpendicular  
13 to the plane of panel 40 will be totally  
14 internally reflected back into the diffuser  
15 sheet60. So that's where it says totally  
16 internally reflected so I was wrong when I  
17 said that I didn't think the patent  
18 referred to it.

19 BY MR. FERRARIO:

20 Q Thank you. So just to step back so we're  
21 able to continue discussing this, the '835 patent  
22 discusses light ray 73A being of a certain angle that  
23 allows it to pass through the brightness enhancement  
24 film, correct?

25 A Yes.

1           Q     And then light ray 73B being of a certain  
2           angle where it is totally internally reflected,  
3           right?

4           A     So optical -- so light ray 73 is says  
5           it's perpendicular to the principal plane 76 of  
6           lighting panel 40 when they exit the film 74 are  
7           internally reflected back into diffuser sheet 60.  
8           This is the light ray 73B where they further recycle  
9           so that's what it says in the patent description.

10          Q     Right. And I appreciate you reading but,  
11          you know, I'm trying to make this a little more  
12          simple so we are all talking about the same thing and  
13          I just want to confirm in simple ways 73A is of a  
14          certain angle in which it exits the film, correct?

15          A     73A is set on Figure 60 as exiting the  
16          film.

17          Q     And light ray 73B is at a different angle  
18          such that it is totally internally reflected, right?

19          A     No, there's an or in that sentence in the

20 patent description. So there's bent towards optical  
21 axis perpendicular or are reflected back to the  
22 diffuser sheet such as light where they refer to  
23 recycle and/or diffused.  
24 Q Yeah, that "or" refers to light ray 73B,  
25 right?

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1 MR. MASSAND: Objection to form.

2 A So ray 73A bent towards -- are internally  
3 reflected back to diffuser sheet 60 such as light ray  
4 73B so they may be further recycled.

5 BY MR. FERRARIO:

6 Q So again, for the third or fourth time,  
7 it shows light ray 73 of a certain angle that exits  
8 the film, right?

9 A I think we agree that 73A exits the film  
10 and Figure 6B.

11 Q And 73B of a different angle is

12 internally reflected?

13 A Reflected back into the diffuser sheet 60  
14 so they may be further recycled. So I'm taking issue  
15 with your wording.

16 Q Which part of my wording?

17 A So isn't it true that on line -- line I  
18 just said so looks like line 23 or something like  
19 that -- no, it's line 25 where they may be further  
20 recycled and/or diffused.

21 Q Yeah. So the light ray 73B that is  
22 totally internally reflected may be further recycled  
23 or diffused. Is that your understanding?

24 A No. It's not my understanding. Where it  
25 says there on line 24 in column 12 where it says that

69

1 it's perpendicular to the optical axis 76 of the  
2 lighting panel 40 when they exit the film 74 are  
3 internally reflected back into the diffuser sheet, it

4 does not state totally. You're throwing words in  
5 there. It says internally reflected back into the  
6 diffuser sheet where they may be further recycled.

7 Q Well, let's try it this way then. So  
8 light ray 73A exits the film. You would agree with  
9 that?

10 A So bent towards an optical axis 74  
11 perpendicular to the principal plane when they exit  
12 the film 70, I agree it says that.

13 Q And do you agree that light ray 73B is  
14 internally reflected back?

15 A So where they're -- so it says -- let me  
16 get this straight here. 74 perpendicular to the  
17 lighting panel 40 when they exit the film 70 are  
18 internally reflected back into the diffuser sheet 60  
19 such that light ray 73B so they may be further  
20 recycled.

21 Q And the '835 patent describes this as  
22 totally internally reflected, right?

23 A Where does it exactly precisely say that?

24 Q Well, let me ask you this. Do you  
25 understand that as an expert in this field that light

1 ray 73B is totally internally reflected?

2 A Well, it says that light ray 73B is  
3 internally reflected back into the diffuser sheet.  
4 It doesn't say totally internally reflected because I  
5 think if you meant totally internally reflected, it  
6 would mean something slightly different.

7 Q What would it mean in your opinion?

8 A So I like to use the inventor's language  
9 -- (inaudible) so it's pre-invention so it says here  
10 that light -- such as light ray 73B may strike a  
11 sidewall at an angle that is greater than the  
12 critical angle defined by the different and the  
13 medium -- hold on.

14 Look about line 41, column 12, where it  
15 says, thus for example light extraction features may  
16 include sidewalls sloped at an angle such that light  
17 traveling approximately parallel to the optical axis  
18 perpendicular to the plane of the panel will be  
19 totally internally reflected back into the diffuser  
20 sheet 60.

21                   Q     All right. So let's use the inventor's  
22                   language. Is ray 73B traveling approximately  
23                   parallel to the optical axis 74 on lighting panel 40?

24                   A     Approximately but we're qualifying it.  
25                   When you look at it, it's hard to say whether it's

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1                   approximately parallel to 74 or angled to 74 but  
2                   these drawings are never accurate and the words have  
3                   their own meaning. It says on line 45: That is,  
4                   light, such as light ray 73B may strike a sidewall of  
5                   the light extraction feature at an angle that is  
6                   greater than the critical angle.

7                   Q     So looking at Figure 6B, as an expert in  
8                   this field, how would you describe light ray 73B?

9                   A     Well, it's the inventor's invention and  
10                  they drew the pictures and I believe the words that  
11                  they've gotten -- anyway, like in line 45 line ray 73  
12                  may strike a sidewall and depending upon the index of

13           refraction, etcetera, it goes on to describe how the  
14           -- all that stuff works and makes it kind of  
15           (inaudible) effect.

16                     At any rate it says the light extraction  
17           features 72 may be designed and configured to  
18           encourage light recycling/diffusion in the lighting  
19           panel in order to improve uniformity of emission from  
20           the lighting panel 40. I think that's the whole crux  
21           of the invention.

22                     Q     You think the way light ray 73B is  
23           reflected is the crux of the invention?

24                     A     No. What I said there was the light is  
25           internally reflected back into the diffuser sheet

72

1           such that it -- such that it generally improves the  
2           illumination of the lighting panel.

3                     Q     Does Figure 6B show internal reflection?

4                     A     Figure 6B shows light bouncing from the

5 left-hand side of the slope part of the light  
6 extraction feature 72 reflecting over to the  
7 right-hand side of the sloped part of light  
8 extraction 72 and then bouncing back towards the  
9 direction it went in and recycling.

10 Q Is that internal reflection?

11 A It's reflecting internally there.

12 Q Is that recycling?

13 A It says it doesn't -- the light ray  
14 doesn't further go on and show where it eventually  
15 goes but the words talk about recycling light so it  
16 says, in other words, light extraction feature 72 may  
17 be designed and configured to encourage light  
18 recycling/diffusion in the lighting panel 40 in order  
19 to improve uniformity of emission. So that's why I  
20 said it's part of the crux of the invention as that's  
21 what's claimed in claim one and other claims is that  
22 light extraction recycle to improve emissions.

23 Q I'm glad you referenced claim one. Let's  
24 take a look at that and let's just confirm that what  
25 we've been talking about is what's being referred to

1 in the claim. So if you go to column 22, let me know  
2 when you get there.

3 A I'm there.

4 Q All right. And you see the paragraph  
5 beginning a brightness enhancement film?

6 A What line?

7 Q 40.

8 A So we're talking about part of claim one,  
9 brightness enhancement film under reflectors.

10 Q And this aspect of the claim recites the  
11 specific type of brightness enhancement film that you  
12 say belongs to a class of brightness enhancement  
13 films; is that correct?

14 A Yes.

15 Q And this particular type of enhancement  
16 film emits light having a first orientation, right?

17 A So it says on claim one in the brightness  
18 enhancement film is configured to preferentially emit  
19 light having a first orientation from the lighting  
20 panel and to preferentially reflect light having a  
21 second orientation different from the first

22 orientation back into the lighting panel.

23 Q Now, is that -- an example of that is  
24 what's being shown in Figure 6B?

25 A I think that's a reasonable example.

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1 Q And that would show light ray 73A as one  
2 that is emitted from the brightness enhancement film,  
3 right?

4 A That's what it appears to show in 6B.

5 Q And then light ray 73B is one that is --  
6 let me get the language right -- that is reflected  
7 having a second orientation; is that right?

8 A That's what Figure 6B appears to show.

9 Q Now, I want to go back to your  
10 declaration, please, and direct your attention to  
11 paragraph 49. And it may be helpful -- actually  
12 let's provide a little more foundation here. Let's  
13 just do a quick sketch and start at paragraph 37 if

14           you will. I presume you're reasonably familiar with  
15           your declaration, right?  
16           A     Reasonably.  
17           Q     All right. So just above paragraph 37,  
18           you've got section seven, which is petitioner's prior  
19           art summary, right?  
20           A     That's what it says.  
21           Q     And the first prior art you summarize is  
22           Mok, M-O-K, right?  
23           A     That's what it says, section A.  
24           Q     And then section B covers Epstein, right?  
25           A     That's correct.

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1           Q     Section C covers K0, K-O?  
2           A     That's correct in paragraph 40.  
3           Q     Section D covers Holman?  
4           A     That's correct paragraph 41.  
5           Q     Section E covers Lamb?

6                   A     That's correct paragraph 42.

7                   Q     Section F covers Kretman?

8                   A     That's correct paragraph 44.

9                   Q     And then that brings us to on the

10                  following page section eight with the heading round

11                  one, etcetera?

12                  A     Round one Petitioner's Mok, Holman and

13                  Lamb combination failed to render obvious independent

14                  claim one.

15                  Q     You see that?

16                  A     I did. I just read it.

17                  Q     And section A then states that Mok does

18                  not disclose claim 1D of the brightness enhancement

19                  film on the reflector?

20                  A     So which page or paragraph are you

21                  reading from?

22                  Q     Section A just above paragraph 46. Do

23                  you see that?

24                  A     I thought Mok was described in paragraph

25                  38. Oh, the next page over, paragraph 46, Mok

1 discloses, section A is entitled Mok does not  
2 disclose claim 1D of the brightness enhancement film  
3 on the reflector.

4 Q Are you with me?

5 A I just read it.

6 Q Now, we finally get to on the following  
7 page just above paragraph 49, you have a section  
8 titled the brightness enhancer 18 of Mok does not  
9 recycle light and thus is not a brightness  
10 enhancement film as claimed in the '835 patent. Do  
11 you see that?

12 A I do paragraph, 49.

13 Q And you see the section heading that I  
14 just read to you?

15 A Yes. I said, however, based on my  
16 experience, the 3M product is not a brightness  
17 enhancement film because it doesn't reflect the light  
18 as required of a brightness enhancement film as  
19 claimed in the '835 patent.

20 (Whereupon, Bohannon Exhibit No. 4 was  
21 marked for identification by the court  
22 reporter.)

23 BY MR. FERRARIO:

24 Q We'll get to your opinions here. I'm  
25 just trying to orient you as to where we are. So why

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1 don't -- I'm going to load Mok into chat and I'll  
2 have Mok as Bohannon exhibit -- Bohannon Exhibit 4.  
3 Mok, which is Exhibit 1005. Mr. Bohannon, once  
4 you've had a chance to open it, let me know and I'll  
5 begin asking you some questions.

6 A I've opened it. I'm looking at it.

7 Q You recognize this as Mok the piece of  
8 prior art that you reviewed and opined on in  
9 connection with the declaration? Are you familiar  
10 with this prior art reference?

11 A Yeah. I haven't memorized it but this is  
12 one that I've read and referred to.

13 Q You understand that Mok discloses a  
14 brightness enhancer 18?

15                   A     Which figure are you referring to?  
16                   Q     Generally.  
17                   A     Yeah, I see 18.  
18                   Q     And that's a brightness enhancement film;  
19                   is that correct?  
20                   A     So --  
21                   MR. MASSAND:  Objection to form.  
22                   THE WITNESS:  -- brightness enhancer  
23                   18 it says in paragraph -- Mok paragraph  
24                   15.  There is no line numbering on this  
25                   patent application.  At any rate, 18 is a

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1                   brightness enhancer.  
2                   BY MR. FERRARIO:  
3                   Q     Do you recognize that as a film?  
4                   A     Well, you know, we -- I guess we have to  
5                   argue over the definition of a film.  It's an optical  
6                   structure.  I'll admit that.

7                   Q     Yeah. I have a feeling we're going to  
8                   argue about a lot of stuff today. We're going to  
9                   refer to -- you're right that this does not have line  
10                  numbers. Instead it has paragraph numbers so we'll  
11                  -- and you see how those paragraph numbers are in  
12                  brackets at the top of each paragraph?

13                  A     That's how I was able to identify  
14                  paragraph 15.

15                  Q     Great. I'd like to direct your attention  
16                  to paragraph 24.

17                  A     So paragraph 24 starts: The brightness  
18                  enhancer 18.

19                  Q     Do you see there in the last full  
20                  sentence that brightness enhancer 18 comprises a  
21                  brightness enhanced film BEF available from 3M and  
22                  sold under the registered trademark Vikuiti?

23                               MR. MASSAND: Objection.

24                  A     I see that.

25                  BY MR. FERRARIO:

1           Q     And so when you read Mok, you understood  
2           that one of the brightness enhancers that Mok said  
3           could be used is the brightness enhancement film BEF  
4           from 3M sold under the Vikuiti brand, correct?

5           A     I see that.

6           Q     And you understood Mok to disclose as one  
7           of the potential brightness enhancers the 3M BEF,  
8           right?

9                     MR. MASSAND:  Objection to form.

10          A     Well, it says by way of example in the  
11          embodiment shown in 18 comprises a brightness  
12          enhanced film available from 3M, etcetera.

13          Q     So you understood one of the brightness  
14          enhancers that Mok was saying could be used was the  
15          3M BEF, right?

16                    MR. MASSAND:  Objection to form.

17          A     I don't know what you want.  I just said  
18          read the sentence.

19          BY MR. FERRARIO:

20          Q     I mean I just want you to answer my  
21          question.  Is it yes, did you understand it or no,  
22          did you not understand it?

23          A     I can read simple English.  Brightness

24           enhancer 18 comprises a film -- an enhanced film BEF  
25           from 3M so, yes, I understand that sentence.

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1           Q     In fact you quoted that sentence in your  
2           declaration, right?

3           A     I would have to verify.

4           Q     Paragraph 49.

5           A     Oh, yeah, paragraph 49. Mok states  
6           comprises a brightness enhancement film available  
7           from 3M so, yes, I quoted that.

8           Q     Now, while you're in that paragraph,  
9           let's just confirm now. It's your opinion, however,  
10          that that film, the 3M BEF, is not a brightness  
11          enhancement film as claimed in the '835 patent,  
12          right?

13          A     So I say: However, based upon my  
14          experience, the 3M product is not a brightness  
15          enhancement film because it doesn't recycle light as

16 required of a brightness enhancement film as claimed  
17 in the '835 patent, and in paragraph 49, Mok does not  
18 disclose or teach light recycling.

19 Q Right. I think you skipped over a  
20 sentence because what you were saying is that the  
21 brightness enhancement film in the '835 patent  
22 teaches light that has two angles, one that emits  
23 e.g., passive light, and one that reflects light to  
24 be recycled, right?

25 A So the correct reading of the sentence is

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1 the brightness enhancement film as taught in the '835  
2 has two angles, one that emits light and one that  
3 reflects light to be recycled.

4 Q And there you're describing what we  
5 covered earlier in Figure 6B, right?

6 A Figure 6B shows a couple of angles.

7 Q And it shows one angle in which it emits

8           and another angle in which it's reflected, right?

9           A     That's what 6B shows.

10          Q     And so it's your opinion that the 3M  
11          product does not do that?

12          A     Well, I like the way I wrote paragraph 49  
13          where it -- where I say at the end of paragraph 49  
14          Mok does not disclose or teach light recycling.

15          Q     I'd like you to answer my question. And  
16          does the BEF 3M film allow light of one angle to emit  
17          and reflect light of another angle?

18          A     So that's not how I describe it in  
19          paragraph 49. So I --

20          Q     I'm not asking how you to describe it in  
21          paragraph 49. I'm asking you with your experience  
22          with 3M BEF films, do you understand how they work?

23          A     So I say the brightness enhancement -- so  
24          I say that the 3M brightness enhancement film does  
25          not recycle light as required in the '835 patent.

1 Q That's not my question.

2 A Well, that's my statement.

3 Q I understand. Let me start over. Do you  
4 know how 3M BEF products work?

5 A Not precisely.

6 Q Do you know if 3M BEF products allow  
7 light of a first orientation to emit and reflect  
8 light having a second orientation?

9 MR. MASSAND: Objection to form.

10 A So my statement -- my opinion is that  
11 based on my experience, it does not recycle light as  
12 required in the '835 patent.

13 BY MR. FERRARIO:

14 Q You need to answer my question please. I  
15 really need you to answer my question.

16 A I can't answer your question.

17 MR. MASSAND: Are you asking him to  
18 provide an opinion outside the scope of his  
19 report about a product that's not referred  
20 to? I mean that's what it sounds like.

21 MR. FERRARIO: You keep your objection  
22 -- you can object to form and leave it at  
23 that.

24 You said you have experience in the

25 industry with the 3M product; is that

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1 right?

2 A I have looked at a wide variety of  
3 optical films used in display products so...

4 BY MR. FERRARIO:

5 Q Does that include the 3M product?

6 A I can't recall precisely if I looked at  
7 Vikuiti. I've looked at a bunch of 3M products. I  
8 can't recall precisely what I've done with Vikuiti or  
9 not and -- but anyway, based on my experience, the 3M  
10 product is not a brightness enhancement film as  
11 described in the '835 patent because it doesn't do  
12 light recycling.

13 BY MR. FERRARIO:

14 Q Well, let's start with that then. So  
15 when you say it doesn't do light recycling, what do  
16 you mean by that?

17                   A     So I say at the end of paragraph 49, Mok  
18                   does not disclose or teach light recycling.

19                   Q     What do you mean by that?

20                   A     That paragraph 50 where I say a person of  
21                   ordinary skill in the art would know that there is no  
22                   standard BEF in the brightness enhancement film.  
23                   There's just not any kind of film that enhances  
24                   brightness and the '835's brightness enhancement film  
25                   enhances brightness by enabling the light recycling

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1                   while other BEF's do other things.

2                   Q     What do you mean by light recycling?

3                   A     It's described in the '835 patent. So  
4                   we've got to go back to claim one and that speaks for  
5                   itself.

6                   Q     Are you refusing to answer my question?

7                   A     I'm answering your question the way I'm  
8                   answering it.

9                   Q     You're just referring to something else.  
10                   I'm asking you as the expert in this case who has  
11                   studied the '835 patent and Mok if the difference  
12                   between the two is light recycling, what are you  
13                   referring to?

14                  A     Well, the light is recycled back into the  
15                   lighting panel so preferentially reflect light having  
16                   a second orientation different from the first  
17                   orientation back into the lighting panel. I think  
18                   that's as clear as it gets.

19                  Q     Okay. So if the BEF reflects light  
20                   having a second orientation back into the lighting  
21                   panel, that is recycling light?

22                  A     That's what it says in claim one,  
23                   preferentially recycle light having a second  
24                   orientation back into the lighting panel but there's  
25                   more to say but that's basically what it says the

1 brightness enhancement film should do.

2 Q And is it your -- then it's your opinion  
3 based on your experience that the 3M BEF does not  
4 reflect light having a second orientation back into a  
5 lighting panel?

6 A So my opinion is that Mok does not  
7 disclose or teach light recycling. So I said based  
8 on my experience that the 3M product is not a  
9 brightness enhancement film because it doesn't  
10 recycle light as required by the brightness  
11 enhancement film as claimed in the '835 patent.

12 Q So I want to ask you about that last  
13 piece of it. Why does the 3M product not recycle  
14 light in your opinion?

15 A Why? I don't know. I didn't design it,  
16 3M's product.

17 Q But what is it --

18 A 3M designed it.

19 Q What is it about the 3M product and the  
20 way it works that leads you to say it does not  
21 recycle light?

22 A We'll should let -- Mok describes that.  
23 I think Mok talks about what the BEF does in his  
24 invention.

25 Q I'm asking you.

1           A     He's the one that used it in his  
2     invention.

3           Q     Based on your experience, you provided  
4     this opinion, why do you say the 3M product does not  
5     recycle light?

6           A     So I'd have to go through Mok and dig  
7     that out but I stand by my statement that Mok does  
8     not disclose or teach light recycling and he's the  
9     person who pointed to the Vikuiti and he's using it  
10    for other purposes.

11          Q     You're really not answering my question  
12    and I just think the board is going to see this  
13    testimony is going to really want to understand.  
14    What's the basis?

15          A     They can do what they want.

16          Q     What's the basis -- on what technical  
17    base are you saying that the 3M product does not

18           recycle the light?

19                   A     So I'm reading through Mok because I want  
20           to get to the right point. So it says here the  
21           brightness enhancer -- this is paragraph 15 detailed  
22           description -- but it says the brightness enhancer 18  
23           collects diffused light and directs it out of the  
24           front surface of the brightness enhancer 18 to  
25           maximize the on-axis brightness of the light emitting

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1           panel. So what this tells me is that Mok who has  
2           filed a patent application on an invention where he  
3           wanted to increase the brightness by using this  
4           brightness enhancement film, which maximizes the  
5           on-axis brightness of the light emitting panel, not  
6           to recycling. Not to recycling is my words but he  
7           says he's using it to maximize the on-axis  
8           brightness. So right there it's telling me that he  
9           is not reflecting light back into the lighting panel

10 to maximize brightness. He's using it to maximize  
11 the on-axis brightness so Mok himself -- (crosstalk)  
12 what's going on.

13 Q Okay. Perfect. So it's your -- it's  
14 your then opinion that because Mok does not describe  
15 light reflecting, that it's not describing recycling?

16 A So --

17 MR. MASSAND: Object to form.

18 A -- Mok is describing. I can read it  
19 again. I can read it over and over to you and I hope  
20 the board sees it, too, and then they can read it  
21 themselves but Mok himself studied this -- Vikuiti  
22 film and it says it maximizes the on-axis brightness  
23 of the light emitting panel and it doesn't say  
24 anything in there about maximizing it by recycling.  
25 So I stand by my paragraph 49 where I say, Mok does

1 not disclose or teach light recycling.

2 BY MR. FERRARIO:

3 Q Does the 3M product reflect light having  
4 a second orientation?

5 MR. MASSAND: Objection to form.

6 A So Mok studied it and Mok is using it to  
7 do the on-axis brightness.

8 BY MR. FERRARIO:

9 Q I understand that. But I need you to  
10 answer my question "do you know". Do you know  
11 whether the 3M product reflects light?

12 A Do I know whether or not it reflects what  
13 kind of light? What are you talking about exactly?

14 Q Just generally, at all?

15 A Everything reflects light. I mean light  
16 bounces off the walls in my office. My walls of my  
17 office are also reflecting light. They're not  
18 necessarily used for recycling.

19 Q So the 3M product's brightness  
20 enhancement film does reflect light?

21 MR. MASSAND: Objection to form.

22 A So you have to get specific. I mean go  
23 back to Figure 6B if you want to see how the '835  
24 patent describes light recycling and reflection. I'm  
25 taking Mok at his word where he -- where Mok is using

1           it in his invention where he uses it to maximize  
2           on-axis brightness.

3           BY MR. FERRARIO:

4           Q     So I have to go back to see Figure 6B to  
5           show that a brightness enhancement film that is  
6           reflecting and recycling light, is that what you're  
7           saying?

8           MR. MASSAND: Objection to form.

9           A     Figure 6B is a part of the '835 patent  
10          describes the invention.

11          BY MR. FERRARIO:

12          Q     And what you're telling me is that the 3M  
13          BEF product does not do what's shown in Figure 6B?

14          A     No. I'm relying upon Mok. Mok doesn't  
15          talk about recycling. Mok talks about using the film  
16          to maximize on-axis brightness and he's got figures  
17          that illustrate that point.

18          Q     Well, setting Mok aside then so I

19 understand what your testimony is regarding Mok. Do  
20 you as an expert in this field have an independent  
21 understanding of how 3M's BEF products work and does  
22 it reflect light in the way that's shown in Figure  
23 6B?

24 A So you're asking me if I have an  
25 independent opinion so you're asking me if I analyzed

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1 the film that -- or measured the film that Mok used  
2 and have I studied it to the degree as described in  
3 Figure 6B of the '835 patent? Is that what you're  
4 asking?

5 Q I'm asking if you know how the 3M BEF  
6 product works?

7 A So I know what I read in the prior art.  
8 I know whatever kind or what kind of information was  
9 available with this prior art, what it describes, and  
10 I have not seen anything similar to Figure 6B isn't

11           it? 6A? 6B? So I haven't seen anything similar to  
12           Figure 6B for the 3M Vikuiti product. I have not  
13           seen that and outside of that, I couldn't say.

14           Q     All right. Great. So that's all I was  
15           trying to understand. Because, you know, you don't  
16           -- you cite based on your experience in the industry  
17           in this paragraph, right, but you don't cite sort of  
18           like a brochure from 3M, right?

19           A     So what are you saying?

20           Q     I mean, in other words, you don't cite  
21           any documents at the end of this sentence, right?

22           A     I cite Mok. I say Mok does not teach  
23           recycling.

24           Q     Well, I'm saying on the however based on  
25           my experience sentence, right there. You don't have

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1           a cite to any evidence, right?

2           A     I don't have a cite to anything other

3           than my own experience.

4           Q     So other than your experience, you don't  
5           cite, for example, any patents by 3M that might  
6           relate to the 3M product, right?

7           A     If it's not in my declaration, I didn't  
8           cite it.

9           Q     And you don't cite any brochures from 3M  
10          that describe the 3M product, right?

11          A     When we started this deposition, you  
12          asked me what kind of documents I looked at and it  
13          wasn't listed so I'm not trying to --

14          Q     I just want to confirm -- I'm sorry. Go  
15          ahead.

16          A     So I'm not trying to be deceptive or  
17          anything. The documents that I looked at are shown  
18          in that paragraph that we already went over when we  
19          talked about the prior art, the file history,  
20          etcetera, etcetera.

21          Q     And I'm just trying to confirm that you  
22          don't have anything else other than that and you're  
23          just -- this is your experience is what you're basing  
24          your technical understanding of the 3M product,  
25          right?

1           A    I also don't have the institution  
2           decision.

3           Q    Do you not have it or --

4           A    I don't have it in my declaration.

5           Q    But you do have it?

6           A    Somewhere. That referred to --

7           Q    Sorry.

8           A    I did not refer to it either.

9           Q    Yeah, we know that. We covered that.  
10          I'm going to -- have you ever worked with the Vikuiti  
11          3M product before?

12          A    I think I've taken stuff apart. I've  
13          analyzed probably thousands of back lights and panel  
14          construction and pretty sure I've played with it  
15          before but I never did measurements as described in  
16          Figure 6B. Figure 6B in the '835 is pretty specific  
17          about the two angles and I never did a two-angle  
18          analysis of the 3M Vikuiti product. I'm relying upon  
19          Mok who is using it to enhance on-axis brightness

20           only.

21           Q     So you don't know what the outcome of a  
22           two-angle analysis on 3M's Vikuiti product would  
23           have, do you?

24           A     No, but I'm relying upon Mok who has  
25           studied it.

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1           Q     Now, Mok is not the only one who  
2           referenced 3M's Vikuiti product, right, in the prior  
3           art?

4           A     Well, I'm sure you've got somebody in  
5           mind so who is it?

6           Q     Well, I mean this is from your  
7           declaration. So I'm not trying to surprise you.

8           A     Well, let's -- (crosstalk) --

9           Q     -- (crosstalk) look at the declaration --  
10          I'm going to load in the chat Bohannon 5, which is  
11          Exhibit 1008 Epstein.

12                   (Whereupon, Bohannon Exhibit No. 5 was  
13                   marked for identification by the court  
14                   reporter.)

15                   MR. MASSAND: We've been going for  
16                   like an hour so whenever you find a  
17                   stopping point.

18                   MR. FERRARIO: Let me -- I've got sort  
19                   of -- yeah give me 10, 15 minutes. I've  
20                   got four things.

21                   MR. MASSAND: I just want it to be on  
22                   your radar.

23                   MR. FERRARIO: I know, Neal. This  
24                   should be going a lot quicker.

25                   MR. MASSAND: The testimony is what it

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1                   is.

2                   BY MR. FERRARIO:

3                   Q     All right. Do you have Bohannon 5 open?

4                   A     You mean the Epstein patent?

5                   Q     Is that what you have, Epstein?

6                   A     It shows up as 1008 Epstein. It doesn't  
7 show up as Bohannon 5.

8                   Q     Yeah. I'm marking these for your  
9 deposition as well concurrently so as I mentioned,  
10 it's a little confusing but yeah. So this is Exhibit  
11 1008 Epstein. That states patent application  
12 publication entitled LED Array Systems. Do you have  
13 that?

14                  A     Yes.

15                  Q     And we're probably going to get into this  
16 more but for right now I'm going to have you go to  
17 paragraph 74, please. Let me know when you're there?

18                  A     It takes a while. Paragraph 74, one or  
19 more light management films may be used above the  
20 guiding layer for directing or redirecting the light.  
21 One is available from 3M under the tradename BEF  
22 trademark.

23                  Q     So Epstein also discloses the 3M BEF  
24 product, right?

25                  A     It's not clear to me that this is the

1 exact same thing that Mok showed.

2 Q Because it's not referencing it as the  
3 Vikuiti brand?

4 A That's one.

5 Q Anything else?

6 A The fact that it's under the tradename  
7 BEF and it's got a TM signal so they -- 3M has  
8 obviously applied for and -- applied for a trademark  
9 in that.

10 Q So you're not sure whether that's the  
11 same BEF or not; is that what you're --

12 A I don't think anybody is sure. I mean  
13 Epstein knows what he did.

14 (Whereupon, Bohannon Exhibit No. 6 was  
15 marked for identification by the court  
16 reporter.)

17 BY MR. FERRARIO:

18 Q I'm going to put in the chat what I'd  
19 like to be marked as Bohannon 6. This is Exhibit No.  
20 1007 in the IPR to Lamb, L-A-M-B. Let me know when

21           you've got that.

22                   A     I've got it. I have Lamb patent  
23           application from 2005.

24                   Q     And let me direct your attention to  
25           paragraph 35.

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1                   A     Takes a while to get down there. So this  
2           one says paragraph 35, the traditional backlight  
3           further includes a thin diffuser sheet and a layer of  
4           enhancement film 14 having prismatic surface  
5           structures such as Vikuiti brightness enhancement  
6           film available from 3M.

7                   Q     So you recognize that Lamb discloses the  
8           same 3M BEF product that Mok does?

9                   A     I don't know if it's the same or not. He  
10          says such as Vikuiti brightness enhancement film.

11                  Q     I don't understand what you mean by that.

12                  A     Well, he's got "such as" as one example,

13           whatever such as means.

14           Q     So one of the examples disclosed in Lamb  
15           is the same as one of the examples disclosed in Mok,  
16           right?

17           A     Well, I'm not sure it's the same thing  
18           that Mok looked at it but it's something that Lamb  
19           certainly looked at. I won't argue with you about  
20           that.

21           Q     So you're saying that's sort of --  
22           wouldn't connect it to; is that what you're saying?

23                     MR. MASSAND: Objection to form.

24           A     As a person who has sourced lots of films  
25           and what not, you've got to be fairly precise in your

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1           specifications and all that sort of thing to get the  
2           right thing and such as, without having an accurate  
3           part number, is hard for me to say whether this is  
4           the exact same stuff Mok looked at or not. I don't

5 think it is. It says "such as". He's using an  
6 example of it.

7 BY MR. FERRARIO:

8 Q So the example that's given, which is the  
9 Vikuiti brightness enhancement film BEF, that  
10 example, is that the same as brightness enhancement  
11 film BEF available from 3M and sold under the  
12 registered trademark Vikuiti?

13 A So I can't testify to that. I don't know  
14 if it is or isn't. I'm sure there's a part number on  
15 it and they all have different specifications. This  
16 says such as. It's an example of a film.

17 Q I know -- were 3M Vikuiti BEF products  
18 well known to those with skill in the art?

19 A I've seen them in products. I think  
20 they're known to a degree. I don't think -- I know  
21 for a fact that not everyone uses them. Some people  
22 use them. Some people don't.

23 (Whereupon, Bohannon Exhibit No. 7 was  
24 marked for identification by the court  
25 reporter.)

1 BY MR. FERRARIO:

2 Q Let's go ahead and do the final one here.  
3 Load it into chat what I'd like to be marked as  
4 Bohannon 7. It is Exhibit 1006 to Holman.

5 A All right. I got it open. Where do you  
6 want me to go?

7 Q Page 118.

8 A So there are no paragraph markers on  
9 here? This is a huge document.

10 Q This is going to be a tough one. It's  
11 going to take us a while to get through.

12 A So which page do you want me to go to,  
13 118?

14 Q Yeah. Let me know when you're there,  
15 please.

16 A So this says section 8.1 brightness  
17 enhancement films and their use in standard  
18 backlights?

19 Q Correct. So brightness enhancement films  
20 were used and commonly used in standard backlight  
21 applications; is that right?

22                   A     It says here despite the fact that prism  
23                   arrays have become common elements in practically all  
24                   illuminators used to back light LCD's, their  
25                   influence on the spatial uniformity of output light

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1                   and the development of spatially uniform beams of  
2                   light has been neither well established nor  
3                   productively exploited.

4                   So I kind of disagree with this paragraph  
5                   because I've looked at hundreds of different products  
6                   and you don't see them that often, these prism  
7                   arrays. I think one of the reasons is because  
8                   they're too expensive.

9                   Q     Do you see the next sentence it says:  
10                  The most common prism sheets used to enhance  
11                  backlighting brightness are manufactured by 3M under  
12                  the tradename BEF, an acronym for brightness  
13                  enhancement films?

14                   A     I see that.

15                   Q     And you see that in recognizing that this  
16 is referring to 3M's BEF product?

17                   A     I mean the sentence speaks for itself.

18                   Q     And so you're saying you disagree with  
19 Holman that these types of arrays are commonly used  
20 in backlight operation? Is that what you're saying?

21                   A     Yes, it is what I'm saying. I've taken  
22 hundreds of them apart. You see them sometimes. You  
23 don't see them -- I wouldn't call them common. I  
24 think -- what's the date of this application anyway?  
25 I'm going to go back and look at the date of it.

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1                   This is 2003. So back in 2003, the LCD market was  
2 completely different than what it is today. There  
3 weren't that many of them, weren't as many products.  
4 People were grasping at straws for ways to increase  
5 brightness. It may have been more popular in 2003

6 but I doubt it.

7 MR. FERRARIO: Very interesting.

8 Well, we can take a break. We can go off  
9 the record. How long you want?

10 MR. MASSAND: Ten minutes is fine with  
11 me.

12 (Whereupon, a brief recess was taken.)

13 BY MR. FERRARIO:

14 Q So back to paragraph 49 of your  
15 declaration, it's your opinion that based on your  
16 experience in the industry, the 3M product is not a  
17 brightness enhancement film because it does not  
18 recycle light, correct?

19 A Right, that it's not a brightness  
20 enhancement film as claimed in the '835 patent.

21 Q Because it does not recycle light, right?

22 A Because it doesn't do the things as  
23 claimed in the claims.

24 Q You said because -- go ahead.

25 A So I say in paragraph 49 that the

1 brightness enhancement film as taught in the '835  
2 patent has two angles. This is specifically cited in  
3 claim one in Mok who -- this is in reference to the  
4 Mok piece of prior art. Mok does not disclose or  
5 teach light recycling. He teaches on-axis brightness  
6 enhancement.

7 Q And, again, it's because the brightness  
8 enhancement film in Mok does not recycle light?

9 MR. MASSAND: Objection to form.

10 A Right. Mok doesn't -- Mok uses it for  
11 on-axis brightness enhancement.

12 BY MR. FERRARIO:

13 Q Didn't ask you how he uses it. I'm just  
14 asking you it's your opinion because the brightness  
15 enhancement film in Mok does not recycle light?

16 MR. MASSAND: Objection.

17 A It shows during on-axis brightness  
18 enhancement.

19 BY MR. FERRARIO:

20 Q So then it doesn't do it or Mok doesn't  
21 show it?

22 A So Mok is the person who used it in his

23 invention and he's saying that he uses it for on-axis  
24 brightness enhancement.

25 Q But do you know if it doesn't?

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1 A I did not analyze Mok's piece of BEF  
2 films.

3 Q You don't know if it does or does not do  
4 it?

5 A I did not analyze Mok's films.

6 Q Do you know?

7 A How would I know? I did not analyze  
8 Mok's films.

9 Q So you don't know if the 3M Vikuiti  
10 brightness BEF film recycles light?

11 MR. MASSAND: Objection to form.

12 A I don't know the one that Mok looked at.  
13 So Mok has looked at one example of a 3M brightness  
14 enhancement film called Vikuiti and he uses it for

15 on-axis brightness enhancement.

16 BY MR. FERRARIO:

17 Q Let's go to Lamb, which is Exhibit 1007  
18 and again paragraph 35. Let me know when you're  
19 there. And again, paragraph 35 refers to Vikuiti  
20 brightness enhancement film BEF from 3M, right?

21 A It does.

22 Q And Lamb states that the enhancement film  
23 14 reflects light within a certain angle toward the  
24 view. See that?

25 A I do.

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1 Q Is refracting light within a certain  
2 angle toward the viewer similar to light ray 73A in  
3 Figure 6B of the '835 patent?

4 MR. MASSAND: Objection to form.

5 A It doesn't -- does not Lamb show his own  
6 figures?

7 BY MR. FERRARIO:

8 Q I'm asking you my question.

9 A So I did not look at --

10 Q I'm just asking you. Does refracting  
11 light within a certain angle towards a viewer  
12 describe light ray 73A?

13 MR. MASSAND: Objection to form.

14 A Well, it's hard to tell. I can't tell  
15 from these words alone. I'd like to see a diagram.

16 Q If you can't tell, you can't tell. Then  
17 Lamb goes on to state: Light outside that angle is  
18 recycled, i.e., reflected back into the backlight  
19 ten. Do you see that?

20 A I do.

21 Q Does that describe light ray 73B in  
22 Figure 6B of the '835 patent?

23 A I'd like to see a diagram. I can't tell  
24 from the words alone.

25 MR. MASSAND: Objection to form.

1 THE WITNESS: Do you have any diagrams  
2 that shows a light ray kind of what you  
3 would call a ray trace analysis? I don't  
4 think so.

5 BY MR. FERRARIO:

6 Q Does Lamb describe the Vikuiti brightness  
7 enhancement film BEF as recycling light?

8 A The words are what they are so he  
9 describes some form.

10 Q Is that a yes, he describes some form of  
11 recycling light?

12 A Well, when I look at Figure 1 -- when I  
13 look at Figure 2, Figure 1 is a prior art figure.  
14 Figure 2 -- it says -- completely impossible for me  
15 to understand how this is similar to the '835 patent  
16 because if he's going to recycle light back into the  
17 reflector, it's impossible without a ray trace. It's  
18 impossible for me to understand how that would at all  
19 work.

20 Q Okay. I didn't ask you how it worked.  
21 I'm only asking you whether the BEF described in Lamb  
22 is one that emits light having a first orientation  
23 and reflects light having a second orientation?

24                   A     Like I said, it's -- it's hard to say how  
25                   that would work given the way the reflectors are

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1                   placed in the Lamp description. So if you look at  
2                   Figure 2, it's hard to -- it's impossible to see how  
3                   light could be recycled in that arrangement.

4                   Q     But Lamb describes light being recycled,  
5                   right?

6                   A     So what paragraph is that because I was  
7                   looking at --

8                   Q     35.

9                   A     I was looking at the figures. Okay.  
10                  What Lamb says is that film 14 refracts light within  
11                  a certain angle and light outside that angle is  
12                  recycled or reflected back into the backlight and  
13                  when you look at the -- at the cross-section -- when  
14                  you look at the construction figure, Figure 2, it's  
15                  impossible for me to tell how that works.

16 I can read the words but when you look  
17 and you realize where the reflectors are where all  
18 the optical elements are, it makes no sense.

19 Q Is that because they're off to the side?

20 A That's one reason. But it's not the  
21 whole structure. The multiple layer structure, this  
22 doesn't make any sense.

23 Q Now one reason it may not make sense to  
24 you is because the paragraph 35 that's describing  
25 Figure 1 and not Figure 2, right?

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1 A The traditional backlight -- well, Figure  
2 2 is just as bad as Figure 1. Figure 1 and Figure 2  
3 are quite similar in that the reflector backlight  
4 reflector is not a smooth surface so, again, it's  
5 hard to see out. Any kind of recycling could happen  
6 with the reflector in those CCFL's. This is a  
7 different animal.

8                   Q     You understand Figure 1 identifies layer  
9     14 as the brightness enhancement film, right?

10                  A     Yes.

11                  Q     And layer 16 and 18 are diffusers?

12                  A     I don't know what 18 is. I have to go  
13     down and see what 18 is. So it calls 18 a typical  
14     diffuser and I guess they're showing two diffusers.  
15     I don't know why one is so thick. It doesn't make  
16     much sense. I wouldn't call that a typical backlight  
17     anyway so I guess it's from years ago.

18                  Q     And 17 is the reflector, right?

19                  A     They call it a shaped reflector located  
20     behind an array of light bulbs; a thick diffuse plate  
21     18 is usually placed over the array of light bulbs to  
22     diffuse from individual bulbs, e.g., CCFL's in order  
23     to hide them from the viewer. A completely different  
24     animal.

25                  Q     Now, with this understanding that Lamb's

1 description of recycling, you've actually -- in  
2 relation to Figure 1, do you understand that Lamb  
3 teaches the Vikuiti brightness enhancement film BEF  
4 as recycling light?

5 MR. MASSAND: Objection to form.

6 A Well, I don't like Figure 1 and I'll tell  
7 you why. Where it says the typical diffuser -- this  
8 is in paragraph 34 -- where it says a typical  
9 diffuser plate 18 has a large amount of absorption  
10 associated with it as well as a large amount of back  
11 scattering the effects of which grow exponentially if  
12 light recycling enhancement films are added further  
13 aid in hiding light bulbs from the viewer, diffuser  
14 plates have been patterned, which results in  
15 artificial -- additional -- not artificial but  
16 additional losses of light. So right now he's  
17 telling you that this doesn't work.

18 Q That may very well be your opinion but he  
19 is describing a system wherein the BEF is recycling  
20 light, correct?

21 MR. MASSAND: Objection to form.

22 MR. FERRARIO: So you disagree that  
23 Lamb states that the light refracted from  
24 the enhancement film within a certain angle

25 is recycled back into the diffuser?

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1 A Where it says light outside. It doesn't  
2 say within. It says outside. So it's light within a  
3 certain angle goes to the viewer. Light outside that  
4 angle is recycled or refracted back but -- with all  
5 the caveats in the explanation of Figure 1, you can  
6 just tell this doesn't work.

7 BY MR. FERRARIO:

8 Q So you identified two types of light.  
9 Light within a certain angle and then light outside  
10 that angle, right?

11 A Yes. Lamb is claiming light outside that  
12 angle is recycled.

13 Q So is light within a certain angle light  
14 of a first orientation?

15 A I don't know.

16 Q Is light outside that angle light of a

17 second orientation?

18 A I don't know. He uses -- he describes it  
19 as he describes it. I'll let his words speak for  
20 themselves.

21 Q Does the light within a certain angle,  
22 i.e., first orientation, pass through the enhancement  
23 film towards the viewer --

24 MR. MASSAND: Objection to form.

25 MR. FERRARIO: -- according to Lamb?

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1 A So it says enhancement film refracts  
2 light within a certain angle towards the viewer. The  
3 words speak for themselves.

4 BY MR. FERRARIO:

5 Q And does light outside that angle, i.e.,  
6 of a second orientation reflect back towards the  
7 display?

8 MR. MASSAND: Objection to the form.

9                   A     It says it --

10               BY MR. FERRARIO:

11               Q     I'm sorry. Back towards the backlight?

12                   MR. MASSAND: Objection to form.

13               A     It says it's reflected back into the

14               light into the backlight where it travels within the

15               system. But also the top of paragraph 34, which

16               claims a large amount of absorption associated with

17               that diffuser plate so when I read paragraph 34 and

18               35 together, it tells me that none of the light's

19               going to be recycled. It's not going to get through

20               the system.

21               BY MR. FERRARIO:

22               Q     So Lamb is describing that it was known

23               in the prior art to use BEF film to recycle light?

24                   MR. MASSAND: Objection to form.

25               A     Those are your words.

1 BY MR. FERRARIO:

2 Q I'm asking you is that what one of skill  
3 in the art would understand reading Lamb?

4 A By reading Lamb, I see a system that's  
5 got lots of problems that's not doing any kind of  
6 light recycling from a system perspective. I don't  
7 think any of that light as it bounces off of the BEF,  
8 it's not going to reach the reflector, therefore,  
9 it's not going to do recycling.

10 Q That's despite what Lamb explicitly  
11 teaches about that BEF used in the prior art system?

12 A So Lamb explicitly teaches that BEF is  
13 diffused in Figure 1 is not going to work the way you  
14 think it's going to work because there's all those  
15 losses in the various diffuser plates and that light  
16 bulb arrangement with the shape refractor is not  
17 going to work. So regardless of what you think it's  
18 doing, it's not going to work.

19 Q So if Lamb's specific arrangement doesn't  
20 work, does Lamb at least confirm or educate you as to  
21 how 3M's Vikuiti BEF reflects light having a second  
22 orientation?

23 MR. MASSAND: Objection to form.

24 A So this is -- this is -- he's talking  
25 about a layer of enhancement so 14 having prismatic

1 surface structures such as Vikuiti implies some kind  
2 of a light association with that. So he's using that  
3 as an example. He doesn't indicate that he actually  
4 tested it and kind of skeptic. Unless I tested it  
5 and seen that the two-angle relationship as described  
6 in the '835 patent, I'm not going to just take it at  
7 face value. His recycling is not going to work  
8 because of the way the whole system is built.

9 BY MR. FERRARIO:

10 Q But as an expert, you then don't have an  
11 understanding that Vikuiti's brightness enhancement  
12 films were well known to emit and reflect light in  
13 the way that Lamb is describing; is that what you're  
14 saying?

15 A Well, I think this says -- says something  
16 to the effect in here -- if you continue on, he talks  
17 about the reflective polarizer placed over the

18 enhancement film, such as the multilayer polarizer  
19 such as Vikuiti dual brightness enhancement film also  
20 available from 3M company. The reflective polarizer  
21 transmits light with a predetermined polarization  
22 while reflecting light with a different polarization  
23 into the backlight where the polarization state is  
24 altered and the light is fed back to the reflective  
25 polarizer. This process is also referred to as

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1 recycling. So that Vikuiti was a dual -- it was a  
2 dual BEF. It is a different kind of creature during  
3 Mok and what we're all talking about.

4 Q That's a different film, right?

5 A That's the continuation of paragraph 35  
6 talking about Figure 1.

7 Q I mean, the dual brightness enhancement  
8 film is a reflective polarizer, right? That's  
9 different than the brightness enhancement film.

10 That's your understanding?

11 A That's the brightness enhancement film  
12 with a polarizer.

13 Q And that also recycles light, right?

14 A But it's not going to work well.

15 Q Whether it works well or not, both of  
16 these disclosures confirm that the 3M BEF recycles  
17 light, right?

18 A I don't know why you say both.

19 Q Well, I say both because Lamb says both,  
20 right?

21 MR. MASSAND: Objection to form.

22 A I'm looking at the figures.

23 THE COURT REPORTER: I'm sorry. I  
24 didn't hear the answer.

25 THE WITNESS: I said I'm looking at

113

1 the figures.

2 MR. MASSAND: Are you guys frozen or  
3 are you still here?

4 THE WITNESS: I am.

5 BY MR. FERRARIO:

6 Q I'm waiting on an answer. You were  
7 looking at the figures. I'm waiting on an answer.  
8 Do they both recycle light?

9 A Both.

10 Q Both the BEF and the DBEF?

11 A They appear to reflect some light back.  
12 Whether it actually works in the system is to be  
13 determined. I don't think it does.

14 Q But they both do reflect some light back?

15 A They appear to reflect some light back in  
16 some state. I don't think it's going to work with  
17 their systems. They won't -- it won't actually  
18 recycle. It won't actually reflect off the reflector  
19 and the polarizer doesn't work. People don't do that  
20 kind of thing.

21 Q Does Lamb describe the BEF as emitting  
22 light having a first orientation?

23 A So it reflects -- refracts light within a  
24 certain angle towards the viewer so...

25 Q And does Lamb describe the BEF as

1 reflecting light having a second orientation?

2 MR. MASSAND: I think there was an  
3 answer -- he was still trying to finish his  
4 answer.

5 A Yeah, well, that sentence says it  
6 refracts light within a certain angle towards the  
7 viewer. It's not the exact -- it's not the same  
8 wording as the '835 does for their -- for their first  
9 angle. Refracting light within a certain angle is  
10 different but light reflected back into the backlight  
11 but I don't -- and then it says, outside that angle  
12 -- light outside that angle is recycled, i.e.,  
13 reflected back into the backlight. I don't think  
14 that works.

15 Q Whether it works or not, that's how Lamb  
16 describes the BEF, right?

17 A Those are his words. You can use them as  
18 you wish.

19 MR. MASSAND: Objection to form.  
20 BY MR. FERRARIO:  
21 Q Well, or not apparently. Do you agree  
22 that this description of the 3M BEF product is a  
23 hallmark of 3M's BEF film?  
24 A No.  
25 MR. MASSAND: Objection to form.

115

1 BY MR. FERRARIO:  
2 Q You think that this description of total  
3 internal reflection has been a hallmark of 3M's  
4 films --  
5 A No.  
6 Q -- in the industry?  
7 MR. MASSAND: Objection.  
8 A No, I don't see any words like total  
9 internal reflection associated with that Vikuiti BEF  
10 and there's got to be precise parts numbers

11 associated with those things all of which have  
12 different characteristics. I mean, they've got to  
13 specify that -- that sheet. You know, I think just  
14 because they have a tradename doesn't mean that every  
15 single thing has got the exact same qualities  
16 associated with it.

17 BY MR. FERRARIO:

18 Q You think that these brightness  
19 enhancement films or prism sheets were the most  
20 common brightness enhancement films known in the  
21 industry?

22 A No, they're not.

23 MR. MASSAND: Object to form.

24 THE WITNESS: Absolutely not.

25 BY MR. FERRARIO:

116

1 Q Let's take a look at Holman, which we had  
2 previously marked as Bohannon 7. It is Exhibit No.

3 1006.

4 A Okay.

5 Q And I think we had previously looked at  
6 page 118. Why don't we go there.

7 A So I'm looking at it.

8 Q And I wanted to direct you to the first  
9 sentence of the second paragraph under the heading  
10 that begins the most common prism sheets. Do you see  
11 that?

12 A Yes, I do.

13 Q And do you see where Holman states that  
14 the most common prism sheets used to enhance  
15 backlighting brightness are manufactured by 3M under  
16 the tradename BEF?

17 A I see that.

18 Q And so do you agree that people of skill  
19 in the art would have been familiar with the most  
20 common prism sheets used to enhance backlighting and  
21 brightness?

22 MR. MASSAND: Objection to form.

23 A So they've got their opinion. I mean  
24 that was back in the early 2000s so there were  
25 obviously some sold but those systems are not

1 commonplace. I haven't taken apart in a long time.

2 BY MR. FERRARIO:

3 Q I'd like you to scroll to page 119 if you  
4 would?

5 A Yes.

6 Q And in the paragraph beginning with  
7 "preferable practice", do you see that?

8 A No. Down towards the bottom?

9 Q Yeah. Should be the last -- the last  
10 paragraph of page 119. Do you see where it says  
11 "preferable practice"?

12 A Yes.

13 Q And you see a reference there to Figures  
14 1 through 3, 7 and 10 to 15?

15 A Yes.

16 Q And that's referring to multilayered  
17 illuminator inventions described herein?

18 A Yes.

19 Q And you provide some opinion on some of

20 the figures in Holman in your declaration, right?

21 A I don't know. Which page?

22 Q Do have you a memory of it?

23 A I'm looking at the thing. Do you want me

24 to page through it and find it myself or do you want

25 to tell me?

118

1 Q It's not critical. I'm just wondering if

2 you recollect it. We can keep -- I just want to keep

3 moving. I don't want to go back to your declaration

4 right now. But if you don't remember, then that's

5 fine.

6 A No, I don't recall what you're talking

7 about in my declaration unless you can point me to a

8 page.

9 Q Let's keep moving. I want to scroll down

10 to page 125. Let me know when you're there?

11 A Internally reflected light and its

12 recycling.

13 Q Yeah. So this is section 8.2.2.3 of  
14 Holman, entitled internally reflected light and its  
15 recycling. You see that?

16 A I do.

17 Q And you reviewed this reference in  
18 connection with forming opinions in your declaration,  
19 right?

20 A I think so. I mean, you want to point me  
21 to where I talked about it?

22 Q Well, we talked earlier that, you know,  
23 you -- when you reviewed a reference, you reviewed  
24 all of it, right?

25 A Part of my declaration where I talk about

119

1 Holman.

2 Q We'll get to that. Let's continue  
3 looking on page 125 here. Do you see how Holman

4 describes angle specific total internal reflections  
5 when combined with some type of reflective return  
6 mechanism constitute the basis for the backlighting  
7 specific brightness enhancement that has been the  
8 hallmark of 3M's commercial prism array film BEF. Do  
9 you see that?

10 A Yes, I see that.

11 Q A little further down, do you see the  
12 paragraph beginning the reflective recycling?

13 A Yes.

14 Q And Holman states that the reflective  
15 recycling of the rejected ray fraction illustrated by  
16 bundles 1286 in Figure 58 and 1316 in Figure 59 is  
17 important to the present inventions only in that  
18 recycling efficiency increases the percentage of  
19 input light that becomes a usable part of the prism  
20 sheet's total light output.

21 A Yep. I see that.

22 Q Would you agree that total light output  
23 refers to maximizing brightness?

24 A Well, what page is that you're reading  
25 on? I was trying to find the figure.

1 Q 125.

2 MR. MASSAND: I'm sorry. Can you  
3 repeat the question?

4 MR. FERRARIO: Yeah.

5 THE COURT REPORTER: You want me to  
6 read it back?

7 MR. FERRARIO: Yes, please.

8 (Whereupon, the Court Reporter read  
9 the record: Question: Would you agree  
10 that total light output refers to  
11 maximizing brightness.)

12 A So total light output, I don't understand  
13 what that means. You've got -- the sentence starts  
14 out angle specific total internal reflection. It  
15 doesn't say - so internal reflections but some type  
16 of reflective return mechanism constitutes the basis  
17 and has been a hallmark for their -- I mean, it's too  
18 bad somebody doesn't ask him -- doesn't do a real  
19 system analysis of it to show if there's actually an  
20 increase in brightness at the end of the day but I

21 see what the words say.

22 BY MR. FERRARIO:

23 Q And the words say that using BEF to  
24 recycle light increases brightness, right?

25 A Where does it say all this increases

121

1 brightness? It talks about rejected protons that  
2 scatter back into angles -- increase viewable power  
3 within the range anyway -- reuse -- it's not quite --  
4 it's not as clear as you would like it to be, that  
5 paragraph.

6 Q Do you understand -- I'm sorry. Go  
7 ahead.

8 A I said that paragraph isn't as clear as  
9 you would like it to be.

10 Q Does increasing the percentage of input  
11 light that becomes a usable part of the prism sheet's  
12 total light output increase brightness?

13                   A     Where does it say that?  
14                   Q     I'm asking you.  
15                   A     I mean, we're talking about Holman.  
16                   Where does Holman use those words?  
17                   Q     I'm on page 125.  
18                   A     It says while the reuse of wasted photons  
19                   is an admirable feature in general reuse in and of  
20                   itself does not influence the output uniformity in  
21                   any appreciable manner, therefore not a critical  
22                   feature for the use in the present invention.  
23                   Photons that are reflectively recycled randomly and  
24                   as such are equally apt to enhance brightness [sic]  
25                   of nonuniformity as they are to affect dark ones.

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1                   That's what that's paragraph says.

2                   Q     And does the paragraph below it say that  
3                   recycle efficiency increases the percentage of input  
4                   light that becomes a useable part of the prism

5 sheet's total light output?

6 A It says reflective recycling of rejected  
7 ray fractions illustrated by bundles 1286 in Figure  
8 58 and 59 -- that's what I was looking for by the way  
9 -- is important only to the present invention only in  
10 that the recycling efficiency increases a percentage  
11 of input light that becomes a usable part of the  
12 prism sheet's total light output. So it doesn't say  
13 what you would like it to say.

14 Q I don't what it is you think I would like  
15 it to say. I'm asking a question. And my question  
16 is: Does increasing the percentage of input light  
17 that becomes a usable part of the prism sheet's total  
18 light output increase brightness?

19 A You would have to look at the system to  
20 see that. Do they have a polarizer after that? Is  
21 this one of the polarizers. So it's hard to say.  
22 I'd have to look at it as a system rather than just  
23 as a brochure for a BEF film made by 3M.

24 Q Is that what this is?

25 A Well, it kind of reads like a brochure.

1           Q    But you read this -- you read this patent  
2 application, right?

3           A    I read this.  Doesn't mean I believe  
4 every --

5           Q    The whole thing?  You read the whole  
6 thing?

7           A    Doesn't mean that I believe every word of  
8 it and take it as some form of gospel.  I mean, it's  
9 his opinion as much -- if anything.

10          Q    His opinion describing the most commonly  
11 used brightness enhancement film --

12          A    That's why I said it reads like a  
13 brochure.  I can almost imagine that the inventors  
14 have some kind of relationship with 3M and they're  
15 using to cite their product because it is not the  
16 most commonly used film.  You hardly ever see these  
17 films.  I can't remember the last time I saw one of  
18 these films in a backlight system.  They're not  
19 common.

20          Q    Since you were looking at figures, let's  
21 go ahead and look at Figure 59?

22                   A     What page is that on?  
23                   Q     It's on page 227 of 243.  
24                   A     Okay. I'm looking at 59.  
25                   Q     And do you see the light rays depicted in

124

1                   Figure 59?  
2                   A     I do. You're talking about -- about 1312  
3                   or 1312 through 1314. I don't know what 1314 is a  
4                   bundle perhaps?  
5                   Q     Right. And then the output is 1316?  
6                   A     Yes, I see that.  
7                   Q     And do you recognize Figure 59 as showing  
8                   total internal reflection for certain light rays?  
9                   A     It's showing reflection. Whether you  
10                  want to call it total internal or not is up to you.  
11                  Q     Well, Holman calls it that, right?  
12                  A     I'm not a believer in everything he's  
13                  saying.

14 Q And '835 patent calls it that, too,  
15 right?

16 MR. MASSAND: Objection to form.

17 A I don't think they call it total  
18 internal. They call it internal into -- they use  
19 different wording. You're trying to force it into  
20 this one format and I'm not buying it.

21 BY MR. FERRARIO:

22 Q I'm not buying what you're saying. It  
23 cites it as totally internally reflective, right?

24 A I'm not agreeing with everything you say.  
25 I mean, the figure speaks for itself.

125

1 Q Okay, perfect. Let's go to Figure 58,  
2 please, would you?

3 A Okay.

4 Q And this shows light rays in a BEF that I  
5 don't know. You tell me. What does this show?

6                   A     Shows a bunch of light bouncing around.

7                   Q     Is this light being recycled?

8                   A     Hard to say if it would actually work or

9                   not like that.

10                  Q     If it did, would it show a light being

11                  recycled?

12                  A     Well, tell me what that 1288 is doing.

13                  It's going off to the side.  It's going to be lost in

14                  space.

15                  Q     You're the expert.  You tell me.  You

16                  reviewed this reference.  You cited it.  You

17                  analyzed it.

18                  A     I did.  I told you what I thought.

19                  Q     Okay.

20                  A     Light bouncing around going in odd

21                  places.  I don't think any of it's useful.

22                  Q     Okay.  Take a look at Figure 57?

23                  A     I am.

24                  Q     And what does light [sic] 57 show?

25                  A     Shows light.

1 Q I'm sorry, Figure 57?

2 A It shows light being directed towards the  
3 viewer symbolized by an eyeball.

4 Q So is Holman disclosing that some light  
5 is directed to the viewer and some light is reflected  
6 back?

7 A And some light is lost as in Figure 58.

8 Q Is that what Holman is disclosing?

9 A That's what I'm saying the figure shows.  
10 You asked my opinion of the figures.

11 Q And these figures are --

12 A Shows light being lost.

13 Q And these figures are being used to  
14 describe prism sheets, right?

15 A Looks like a prism sheet.

16 Q Such as 3M's BEF?

17 A I don't see a 3M trademark on these  
18 figures. You've got to -- you measure them some way.  
19 He made up these figures from something so we'll have  
20 to take him at his word. I can't testify that this  
21 is a 3M BEF or not.

22 Q But Holman described them as 3M's BEF's,

23 right?

24 A You can take Holman's words for what they  
25 are.

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1 (Whereupon, Bohannon Exhibit No. 8 was  
2 marked for identification by the court  
3 reporter.)

4 BY MR. FERRARIO:

5 Q I'm going to drop in the chat a document  
6 I'd like marked as Bohannon 8, please.

7 A So what's this document?

8 Q Have you ever seen this document before?

9 A Is it in my declaration?

10 Q I'm just asking if you've ever seen it  
11 before?

12 A Do I say I see it somewhere?

13 Q Have you ever seen it before?

14 A I might have. I don't think it's in my

15 declaration. Are you -- you got it off the Internet  
16 from a while back, huh?

17 Q Do you recognize this document as  
18 describing the Vikuiti brightness enhancement film?

19 A This says what it says. It's your  
20 document.

21 Q And you recognize that the Vikuiti  
22 brightness enhancement film is described using total  
23 internal reflection?

24 MR. MASSAND: Objection to form.

25 A So this is a document you got off the

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1 Internet. I mean, I don't know its providence. So  
2 it is what it is. I can't speak to it.

3 BY MR. FERRARIO:

4 Q You see the sentence in the middle of the  
5 paragraph that says the process of refracting usable  
6 light?

7 A I can read.

8 Q Do you see where it says refracting  
9 usable light towards the viewer and reflecting most  
10 of the remaining light back into the display is  
11 called recycling? Do you see that?

12 A I see that.

13 Q Do you agree with that sentence?

14 A What do you mean do I agree with it? Do  
15 I agree with what this thing is supposed to be. I  
16 mean, you got this thing off the Internet from  
17 somewhere.

18 Q I'm just asking you if you agree that the  
19 process of refracting useable light towards the  
20 viewer and reflecting most of the remaining light  
21 back into the display is known as recycling?

22 A Well, we call -- it's a similar process  
23 recycling but it's got to go back to the -- it's got  
24 to go back to the right place. It can't just -- just  
25 be reflecting some light because everything reflects

1 light. I mean, your office walls reflect light.  
2 Doesn't mean it's useable or not. Just kind of adds  
3 to the general glow. So you got to look at these  
4 things as a system and this is some brochure that may  
5 or may not be, you know, real document or not. I  
6 can't tell you. Something you found on the Internet.

7 (Whereupon, Bohannon Exhibit No. 9 was  
8 marked for identification by the court  
9 reporter.)

10 BY MR. FERRARIO:

11 Q I'm going to drop another document in the  
12 chat I'd like marked as Bohannon 9, please. Mr.  
13 Bohannon, please let me know once you've got that and  
14 opened it up?

15 A What is it? I don't get Bohannon's  
16 eight's and nine's. I just get a PDF file.

17 Q All right. This is a two-page PDF  
18 document. Do you have it open?

19 A For PDF.

20 Q And have you ever seen this document  
21 before?

22 A I am not sure.

23 Q So you may have?

24 A This is from 2002 or before.

25 Q Now, I'd like to direct your attention to

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1 the second page of the PDF and to the right side  
2 middle of the page titled "how it works". You see  
3 that?

4 A I see that.

5 Q And do you see that 3M describes that its  
6 product utilizes refraction and reflection to  
7 increase the efficiency of your backlight?

8 A I see that.

9 Q Do you see that it describes the film as  
10 refracting light within the viewing cone toward the  
11 viewer? See that?

12 A I see that.

13 Q And that light outside that angle is  
14 reflected back and recycled. Do you see that?

15 A Well, here's the thing. You know, those

16 angles don't --

17 Q I just asked -- first of all, I'm just  
18 asking if you see that?

19 A I see the figure. I see the document you  
20 got from the Internet that's like 20-some-odd years  
21 old so...

22 Q That's all I'm asking then. There is no  
23 other question pending. Did you see it. I'm not  
24 asking you to argue. Mr. Bohannon, there's no  
25 question pending. If you want to provide some

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1 testimony, you can get with your attorney and you can  
2 do something -- file something a supplemental  
3 declaration if you feel like you need to. That's all  
4 I'm asking. That's all I'm saying. I'm just asking  
5 you if you see the information here on this page? Do  
6 you agree that the Vikuiti BEF recycles light?

7 MR. MASSAND: Objection to form.

8                   A     So you were just saying you weren't  
9                   asking me any question and then you asked a question  
10                  so...

11               BY MR. FERRARIO:

12               Q     Yeah. That's how this works.

13               A     So I'm not sure of the providence of this  
14                  document and I don't -- I'm not a believer of this  
15                  little figure and I don't know what those angles are.  
16                  Those angles look the same, look to me like if light  
17                  gets through the initial reflection, some of that may  
18                  be directed towards the viewer and what those  
19                  percentages are, it's hard to tell. It's not a very  
20                  believable document and I know that these things are  
21                  not used anymore these days. Maybe it was something  
22                  3M was trying to market back in the early 2000's and  
23                  it didn't get very far and they've dropped it. It's  
24                  too bad you don't have any recent documents but these  
25                  things are not common.

1           Q     Let's go back to your declaration if you  
2           would.

3                     MR. MASSAND: Lynne, do you have a  
4           time like how much time we spent on the  
5           record.

6                     THE COURT REPORTER: Yes, I do. Hold  
7           on one second. Three hours thirty-two  
8           minutes.

9                     MR. MASSAND: Matias, I think your  
10          time limit is four hours. I don't know how  
11          close you are to done.

12                    MR. FERRARIO: Got it.

13                    MR. MASSAND: Seven? In a trial  
14          practice cross-examination is four.

15                    MR. FERRARIO: Maybe you can send it  
16          to me and I'll look at it at a break.  
17          Let's just keep going. You know, the  
18          problem is the witness has wasted so much  
19          time.

20                    MR. MASSAND: You ask a question  
21          basically paraphrasing things. I mean  
22          that's the way you've asked the questions.

23                    MR. FERRARIO: I get to ask the  
24          questions.

25

MR. MASSAND: He's wanting to speak to

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1 the declaration.

2 MR. FERRARIO: I get to ask the  
3 questions --

4 MR. MASSAND: Anyway asking for more  
5 time based on your paraphrasing and  
6 mischaracterizations so.

7 MR. FERRARIO: Well, we can let the  
8 board decide that but we don't have to do  
9 that now.

10 MR. MASSAND: Yes, we can.

11 BY MR. FERRARIO:

12 Q Going back to your declaration, please,  
13 and I'm still back on paragraph 49, I got to ask.

14 A What page?

15 Q Paragraph 49.

16 A Is that a page?

17 Q That's right. Your declaration is not  
18 page numbered. Let me know when you get there?

19 A Okay. I'm there.

20 Q Okay. You state that based on your  
21 experience in the industry, the 3M product is not a  
22 brightness enhancement film because it does not  
23 recycle light. Do you recall that?

24 A I do.

25 Q Now, after looking at Mok, after looking

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1 at Lamb, after looking at Holman and then after  
2 looking at the 3M product brochures, do you stand by  
3 that statement?

4 A Oh, yes, I do. I doubt your product  
5 brochures. They weren't clear. They didn't show the  
6 things that they need to show if I was going to  
7 change my position, which I am not. Mok doesn't  
8 teach it light recycling. Lamb, that thing never

9           worked. It's not doing anything and Holman was  
10           something else. I forget. But I'm not changing my  
11           opinion.

12           Q     All right. Now, turning back, I want to  
13           ask you some questions about your opinions beginning  
14           in paragraph 46 of your declaration. In the section  
15           A, Mok does not disclose claim 1D of a brightness  
16           enhancement film on the reflector.

17           A     I see that.

18           Q     Now, in the second sentence of paragraph  
19           46, you state that the term on requires that the BEF  
20           be directly on the diffuser or on with intervening  
21           elements present, right?

22           A     I can read that.

23           Q     And it's your opinion that an air gap or  
24           space of air cannot be an intervening element, right?

25           A     So I say the '835 patent invention

1 provides benefits of improved uniformly along with  
2 overall reduced panel thickness without using any  
3 spaced apart distance or larger spaced distances as  
4 disclosed by Mok. Neither Mok nor the '835 describe  
5 any kind of spaced apart distances or gaps between  
6 elements using various elements as an element or an  
7 optical element.

8 Q So it's your opinion that if there's a  
9 space or air between elements, then those elements  
10 are not on, right?

11 A I think I've answered that question.

12 Q And in fact in paragraph 47, you say that  
13 Mok -- Mok's empty space between the elements is not  
14 an intervening layer. That's your opinion?

15 A I say Mok includes an empty space between  
16 the elements, which is not considered an intervening  
17 layer. That's my opinion.

18 Q Now, you didn't consider a claim  
19 construction where the word "on" included empty space  
20 as an intervening element, right?

21 A Well, the claim construction documents  
22 are a part of my declaration -- referenced in my  
23 declaration. You know that. If you want to see  
24 what's in there, we can look at that.

25 Q Well, you understand that that's an issue

1           that is disputed between the parties, right, whether  
2           air is an intervening element or not?

3           A     Well, I also say there in paragraph 47  
4           that petitioner appears to concede this point.  
5           Petitioner at paragraph 18 or page 18. I forget  
6           which.

7           Q     And that point of being conceded is that  
8           Mok does disclose an empty space, right? You  
9           understand that. Not whether the claim construction  
10          of the term "on" includes air as an intervening  
11          element or not, do you understand that?

12          A     I understand what you're saying.

13          Q     So, again, back to my question, it was  
14          that you understand that the parties dispute whether  
15          air is an intervening layer or not, right?

16          A     I understand that that's part of the  
17          dispute.

18                   Q     And your opinion in your declaration  
19                   assumes that air cannot be an intervening element,  
20                   right?

21                   A     It's an absence of elements.  There's  
22                   nothing there.

23                   Q     Now, if you're wrong about that, if  
24                   you're wrong, then Mok does show a brightness  
25                   enhancement film on a reflector, right?

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1                   A     If you're wrong, it doesn't.

2                   Q     So you agree that if you're wrong, then  
3                   if Mok does disclose a brightness enhancement film on  
4                   a reflector?

5                   A     That's not how I construe on.

6                   Q     That's not the question.

7                   A     On is construed as either directly on or  
8                   on an intervening element and dead air does not  
9                   count.

10                   Q     I understand that's your position. You  
11                   didn't provide any analysis or opinions in the event  
12                   that the claim construction went against you, right?

13                   A     So why should I?

14                   Q     Well, I mean if you read the institution  
15                   decision, you might have wanted a backup.

16                   A     You're going to go back to that?

17                   Q     Well, do you know what the board's claim  
18                   construction was on that term?

19                   A     If it's not in my declaration, I don't  
20                   have in front of me and would be a waste of time.

21                   Q     Now, going back to Mok if you would, go  
22                   to paragraph 25.

23                   A     Of what?

24                   Q     Mok. M-O-K.

25                   A     Mok prior art. Brightness enhancer 18

1                   may be mounted in front of the diffuser and may be

2 separated therefrom by a spaced distance 54.

3 Q Do you see where Mok states that it is  
4 preferable to stack the brightness enhancer directly  
5 on the diffuser?

6 A Yes, I see that sentence but that's not  
7 how he did his drawings.

8 Q But it is preferable that they be  
9 directly on top of each other, right, according to  
10 Mok?

11 A It says however the brightness enhancer  
12 is preferred -- preferably stacked directly on the  
13 diffuser 16.

14 Q And you don't cite this sentence anywhere  
15 in your declaration, do you?

16 A Well, we've got the drawings. I mean,  
17 why did he have it on the front page of his patent  
18 application if it's preferable as you state. I don't  
19 think it is preferable. I think it's preferable  
20 because the drawing is on the first page of the  
21 patent application.

22 Q Look, your argument is with Mok, not me.

23 A I'm telling you. You said it's  
24 preferable. I'm disagreeing with you.

25 Q Mok said it was preferable, right?

1           A     It says preferably.

2           Q     So Mok's teaching is to preferably place  
3     the brightness enhancement film directly on the  
4     diffuser, right?

5           MR. MASSAND:  Objection to form.

6           A     It says brightness enhancer may be  
7     mounted in front of the diffuser and may be separated  
8     therefrom by a spaced distance 54.  So I read that  
9     sentence and I say it's not on so says however the  
10    brightness enhancer is preferably stacked on the  
11    diffuser thereby minimizing or eliminating the  
12    distance but it shows it in the figure so Mok is  
13    ambiguous at best.

14          Q     And you don't address the second sentence  
15    anywhere in your declaration, do you?

16          A     Probably not.

17          Q     Look flip to the '835 patent if you  
18    would.

19                   A     Okay.

20                   Q     And I want to look at Figure 5B for me,

21                   please.

22                   A     I'm looking at it.

23                   Q     And do you recognize what elements 75 and

24                   77 are?

25                   A     No. I'd have to read the description.

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1                   Q     Did you consider Figure 5B in connection

2                   with forming opinions in your declaration?

3                   A     Yeah, but I'm going to see what those --

4                   I can't recall all the call outs and all these

5                   various things. So I'm looking for the phrase where

6                   it describes what those two are. 77, I don't see it.

7                   I'm reading from column 12, line 4, as also

8                   illustrated in Figure 5B are optional additional

9                   layers which may include layers configured to diffuse

10                  polarize, collimate and/or reflect light.

11                   That's additional optional layers may be  
12                   provided to improve the brightness and uniformity of  
13                   the light and/or otherwise to provide a desired  
14                   emission pattern. So that's what those are.

15                   Q     Going back up to Figure 5B now that you  
16                   understand what those are, I wanted to ask you are  
17                   layers 77 and 75 on layer 70?

18                   A     Well, they're optional layers. I think  
19                   it's just or whoever the inventor is -- I think that  
20                   they've just put them there to show you can do more  
21                   without being specific. So I wouldn't apply any of  
22                   that stuff to them.

23                   Q     I'll just re-ask my question: In your  
24                   opinion, are those layers 77 and 75 on layer 70?

25                   MR. MASSAND: Objection to form.

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1                   A     Well, I think he's just using it to  
2                   illustrate that you can do more if you want to. He's

3 not showing it as a definite construction. He's got  
4 the depth on, the diffuser on, the reflector all  
5 lined up below it doing what it's -- what the claim  
6 date they want to do; 77 and 75 are just illustrative  
7 purposes.

8 Q So what you're saying is Figure 5B in  
9 your opinion doesn't disclose the positional  
10 configuration of optional layers 77 and 75?

11 A It could be -- it could be anything, a  
12 wide variety of things. So it's just saying that you  
13 could put more stuff on top if you wanted to without  
14 going to any specifics at all whatsoever. So it  
15 doesn't make your argument.

16 Q Let's go back to Mok if you will, please,  
17 and let me know when you're there?

18 A Where do you want me to be in Mok?

19 Q I'm going to ask you some questions about  
20 Figure 3.

21 MR. MASSAND: Matias, I sent you the  
22 rule if you want to take a break and see if  
23 there's some argument if I'm wrong. Let me  
24 know. Otherwise you've got about 10 more  
25 minutes of your time.

1 MR. FERRARIO: You sent it via e-mail  
2 or what?

3 MR. MASSAND: Yeah, e-mail.

4 MR. FERRARIO: I don't have it yet. I  
5 think you might be confused with defending  
6 party has four hours for redirect.

7 MR. MASSAND: No. It says -- this is  
8 just the trial testimony. Seven hours for  
9 direct. Four hours for cross, two hours  
10 for redirect. It's clear. I think our  
11 scheduling order even says that the rule  
12 applies as far as testimony. I'm not a  
13 hundred percent sure about that but the  
14 trial practice guide is pretty clear and so  
15 is the CFR.

16 MR. FERRARIO: Well, I'll take a look  
17 at it. We may have to ask for extra time  
18 given the behavior of your witness.

19 THE WITNESS: Given the questioner.

20 MR. FERRARIO: I'm sure it's my fault  
21 as well. I'm sure I probably contributed  
22 to it.  
23 So have you had a chance to look at  
24 Figure 3?  
25 A I'm looking at it. Wasting time.

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1 BY MR. FERRARIO:  
2 Q And does this figure show angles,  
3 sidewalls around a solid-state light emitter?  
4 A I was asked to verify what that stuff is.  
5 Q What do you mean? You need to go through  
6 and look at all the different elements here to  
7 understand the figure?  
8 A Yes, I want to be accurate.  
9 Q I direct you to paragraph 28.  
10 A I'm looking at it.  
11 Q Are you there?

12                   A     I'm bouncing around the other paragraphs  
13                   trying to see what all that stuff is. So what's your  
14                   question?

15                   Q     So do you understand Mok discloses the  
16                   reflector cup with angled sidewalls?

17                   A     So he's saying reflector cup may be  
18                   formed in the base portion there of -- mechanically  
19                   formed after fabricating the base portion such as by  
20                   drilling. It is generally preferred that the  
21                   reflector cup be provided with a reflective coating  
22                   to improve efficiency. It's not a very full  
23                   description. I don't know what you're looking for.

24                   Q     So I'm asking you if that reflector cup  
25                   has -- is made with reflective material that is

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1                   angled around the LED?

2                   A     Well, I'm not sure what they're trying to  
3                   show in that figure. They don't call out angles. I

4 don't think he uses the word angles to describe it.  
5 He talks about making it by drilling when you do it  
6 with drilling, it's more or a straight edge but it's  
7 hard to say.

8 Q So when you're looking at Figure 3, are  
9 you saying that the surface 58 is not angled?

10 A 58 is a coating.

11 Q Yeah. Is that on an angled surface?

12 A Well, it's not called out as an angle.  
13 He doesn't call out any specific angles for any  
14 specific reason. I'm not sure what he's trying to  
15 illustrate.

16 Q I'm not asking you whether he uses the  
17 word angled. I'm asking you whether looking at it as  
18 one of skill in the art understand that is an angled  
19 surface relative to the substrate?

20 A Well, the drawing is what it is but he  
21 doesn't call out angles as far as I know.

22 Q And is that surface a reflective surface?

23 A I'm trying to flip around in here and  
24 find angles.

25 Q Yeah. Again, my question isn't whether

1           he uses the word angle. It's whether you as one  
2           skilled in the art would understand that is shown as  
3           an angled surface relative to the substrate?

4           A     Well, as a person of ordinary skill in  
5           the art of somebody showing -- if somebody is  
6           describing an angle or for whatever reason they show  
7           it as an angle, they do a -- they do an angular  
8           diagram and give it a name and call it out and say  
9           this angle is such and such but when I look through  
10          Mok first and see how he's using angle, he's saying  
11          the emitter emits light over a certain angle so he's  
12          talking about the emitter emitting light. When he's  
13          describing the cup, he's describing it done by  
14          drilling which implies perpendicular walls so it's  
15          ambiguous at best and he's not calling it out and not  
16          mentioning it in his patent description or anything.  
17          I don't know. The drawing it is what it is. I don't  
18          believe it. I don't believe it's accurate.

19          Q     What do you mean you don't believe it?

20          A     Like I just said, if he wants to describe

21 an angle in that sidewall, he should have shown it as  
22 an angular representation. He should have given it a  
23 name and a number. He should describe it, rather  
24 than just show a drawing without calling --  
25 Q The drawing does show it as an angle,

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1 right?

2 A No, it doesn't show it as an angle. It  
3 shows it as a cross-sectional -- it's got some kind  
4 of sectional representation but I'm not a believer.

5 Q Maybe a sloped surface relative to the  
6 base layer?

7 A No. It's some kind of representation.

8 Q And the surface of Figure 3, that can be  
9 made with metal, right?

10 A It's not clear to me that that's made by  
11 metal. You mean the whole structure is metal? Is  
12 that what you're saying?

13                   Q     Well, I'm saying paragraph 28 says it  
14                   could be plated with a metal?

15                   A     It's going to show you how if there's a  
16                   bunch of metal in there. So where is the plating?

17                   Q     It says the reflector cup can be plated  
18                   with copper. Do you see that in paragraph 28?

19                   A     So you see those wires going to the LED?  
20                   So when you -- if you coat that whole thing with  
21                   copper, you're going to short it out.

22                   Q     But that's what Mok describes is using a  
23                   metal to make the reflective surface, right?

24                   A     What paragraph?

25                   Q     28.

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1                   A     I mean, he says the reflector cup is  
2                   initially plated with copper then with a subsequent  
3                   layer of gold or silver to maximize reflectivity. To  
4                   me it's not his best practice.

5                   Q     I'm not asking what his best practice is.  
6                   Just asking you if it discloses it, right?

7                   A     It is what it is. You can write your  
8                   declaration however you want. I'm not a believer  
9                   that it's doing everything you say it's doing and I'm  
10                  afraid it's going to short out if the whole thing is  
11                  made out of copper.

12                  Q     The reflective surface 50 described by  
13                  Mok could also be made out of metal, right?

14                  A     What paragraph?

15                  Q     21.

16                  A     So what's your question now?

17                  Q     That reflective surface 50 can also be  
18                  made out of metal, right?

19                  A     Well, it says it may comprise a specular  
20                  reflective surface, e.g., aluminum or a diffuse  
21                  reflective surface, e.g., white paint.

22                  Q     Is aluminum a metal?

23                  A     Yes.

24                  MR. FERRARIO: All right. Why don't  
25                  we take a break. Let's stay on the record

1 but Mr. Bohannon take a break for you and  
2 Neal, you and I can meet and confer on this  
3 issue about of time limit.

4 So I kind of disagree with what you  
5 sent me. I think this is testimony for the  
6 seven-hour limit, not -- well, but let me  
7 just say this. I'm looking at my outline.  
8 And I've probably got well, who what I  
9 would say is 15 minutes but might actually  
10 be more like 20 to 25. And if you let me  
11 take a break, we'll come back. I'll do my  
12 best to wrap up. Most of it will be in Mr.  
13 Bohannon's control.

14 MR. MASSAND: Okay. Let me you know  
15 also during the break just make sure that  
16 we're okay with doing that, proceeding that  
17 way, and then when we get back on if it's  
18 -- if we're agreeable, we can go ahead that  
19 way.

20 MR. FERRARIO: All right. I'll hang  
21 out. So you want five minute break? Ten

22 minute break?  
23 MR. MASSAND: Ten would be better.  
24 MR. FERRARIO: All right. We'll say  
25 -- I've got my time is 4:42 we'll be back

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1 on.  
2 MR. MASSAND: Why don't we just make  
3 it 4:45? Does that work?  
4 MR. FERRARIO: All right. That's  
5 fine. Off the record.  
6 (Whereupon, a brief recess was taken.)  
7 BY MR. FERRARIO:  
8 Q Mr. Holman -- Mr. Bohannon, I'd like to  
9 direct your attention and ask you some questions  
10 about Holman at EX 1006?  
11 A What page?  
12 Q Well, what I want to ask you is when you  
13 form your declaration, did you review the entirety of

14 Holman or all of its disclosures and teachings?

15 A I think so.

16 Q So you didn't limit your review of Holman  
17 to only certain specific portions that might have  
18 been cited by the petitioner?

19 A No, I don't think so. There's a  
20 reference that I looked at.

21 Q So I want to ask you some questions --  
22 (crosstalk) --

23 A -- (crosstalk.)

24 Q Well, I want to get that. Flip over to  
25 your declaration if you would and ask you some

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1 questions found in paragraph 41 of your declaration.

2 A Where you're on Holman?

3 Q Thank you. You're there. So in the  
4 third sentence you state: That Holman describes a  
5 multilayered LED light source array that employs

6 reflectors, elevated prismatic films and polarization  
7 converting films to collimate for optical light  
8 illumination of an LCD panel. Do you see that?

9 A I do.

10 Q What does collimate light mean?

11 A That it's all going in the same  
12 direction.

13 Q You then say that Holman is silent about  
14 a reflector that is angled with respect to the base  
15 panel.

16 A You want me to look at Holman?

17 Q No. I'm still on your declaration.

18 A Figure 7.

19 Q Yeah. So then you reference Figure 7 of  
20 Holman and you conclude that the reflecting layer 76  
21 is only shown as being flat and is not disclosed as  
22 angled elsewhere.

23 A I got to get down to all those figures.

24 Q Well, I'll take you to the figure but  
25 maybe we should cover what your testimony is first

1 and then we'll ask you some questions about it.

2 Okay?

3 A Well, you brought up the figures.

4 Q I'm sorry?

5 A I said you brought up the figures so I  
6 want to look at the figures because Holman's got a  
7 lot of strange figures.

8 Q Why don't you let me know when you're  
9 done with that exercise and then I'll (crosstalk) --

10 A (Crosstalk) -- look at figure --

11 Q When you're done looking at the figures  
12 you want to look at, let me know and I'll continue  
13 with my questions.

14 A All right. So what's your question?

15 Q So back to your declaration, you then  
16 provide that Holman is silent about diffusely  
17 gathering layer 68 contacting the reflecting layer.  
18 See that?

19 A Holman is also citing about contacted in  
20 76.

21 Q What do you mean by contacting?

22 A Well, I think it's pretty clear the

23 language. I mean, if you look at Figure 7 in Holman,  
24 you'll see that 68 is a long distance away from 76.

25 Q Yeah, but I still want to know what do

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1 you mean by contact? Do you mean direct contact?

2 A I think I'm using contact in plain  
3 language context. I mean 76 is a long ways away from  
4 68. It's clear from the drawings. It couldn't be  
5 more clear from the drawings. I mean a lot of these  
6 drawings are -- (crosstalk) -- cartoons but 68 is a  
7 long ways away from 76 any way you want to describe  
8 it.

9 Q So anyway you want to describe contact  
10 it's not contact plain language?

11 A Plain language.

12 Q But if it was indirectly contacting,  
13 that's not contact in your opinion?

14 A So I don't think Holman defines

15           contacting or indirect contacting or direct  
16           contacting. I mean I'd have to search through 200  
17           pages of stuff to verify that but I don't think there  
18           was any waffle words around his contact in which the  
19           way I thought of it as plain language. When you look  
20           at the design Figure 7, it's clear.

21                   Q     Yeah, I understand that but you're using  
22           the word contacting so I'm trying to understand what  
23           you mean by it?

24                   A     I just said plain language. Do we need  
25           to get a dictionary?

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1                   Q     Would that provide the plain language for  
2           you?

3                   A     No. I'm asking you. You're the one who  
4           seems to have a problem with contacting. I say it's  
5           plain language and 68 is not contacting 76.

6                   Q     Sir, a dictionary provides for physical

7 touching, not your understanding of the plain meaning  
8 of contacting?

9 MR. MASSAND: Objection to form.

10 A So my understanding is that 68 when I  
11 look at Figure 7, it's clear that 68 is not  
12 contacting 76.

13 BY MR. FERRARIO:

14 Q They're not physically touching?

15 A They're not physically touching.

16 Q That's all I wanted to know.

17 A He does not have any kind of descriptors  
18 around contacting. I don't think we're trying to  
19 construe terms in Holman. We're trying to construe  
20 terms in the '835.

21 Q You might be surprised. Now, you also  
22 state that Holman is silent about the reflecting  
23 layer 76 forming reflected optical cavities, right?

24 A Yeah, I think so. Let me see. Does not  
25 Holman 76 -- so Holman is silent about 76 forming

1 reflecting optical cavities. The reflecting layer 76  
2 is flat and does not form around the light elements.

3 Q And then you further provide some  
4 reasoning that confining structure 72 is not part of  
5 the reflecting layer, right, and it's a separate  
6 component?

7 A It appears to be so if you look at Figure  
8 7.

9 Q Now do you know why you provided this  
10 testimony in this section, your description of  
11 Holman?

12 A Do I know why? It was cited.

13 Q So let's go to Holman and take a look at  
14 some of this. Oh, wait before we do that, I'm sorry.  
15 Let me ask you quickly about a figure that you have  
16 in your declaration. If you could go to paragraph  
17 56, please?

18 A Of what?

19 Q Your declaration.

20 A 56.

21 Q And the text is not really relevant at  
22 this point but I want you to scroll to the next page  
23 where you reproduce a figure?

24 A Yes.

25 Q And that's Figure 13A. Do you see that?

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1 A Yes.

2 Q Let's go to Holman if you would. Can you  
3 show me Figure 13A?

4 A What?

5 Q Tell me what page it's on.

6 A You're asking me?

7 Q Can you tell me what page [sic] 13A is on  
8 in Holman?

9 A Not off the top of my head.

10 Q I can't find it. There's a Figure 13.  
11 Yeah, there's no Figure 13A in Holman, is there?

12 A There's a Figure 13 which looks almost  
13 exactly like it.

14 Q Well, similar but it's not exact, right?

15 A There's exhibits in the shading.

16 Q That's all I mean. My concern -- what  
17 Holman are you using?

18 A I don't know. Some version of Holman  
19 obviously. Didn't make it up. Didn't get it off the  
20 Internet.

21 Q And then going back to your declaration  
22 in paragraph 56, do you see how in the text above the  
23 figure, you cite Holman at 40. See that?

24 A No. I'm looking for the original  
25 document that I --

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1 Q Well, whatever document you have is the  
2 wrong document, not the one you used. We've  
3 confirmed that.

4 A What's the exhibit number again for  
5 Holman?

6 Q 1006.

7 A Oh, here it is. What page is that Figure

8 13 on?

9 Q Figure 13 of Holman is on PDF 177 of 243.

10 A I have another version of Holman here and  
11 looking for it and not finding it with that  
12 particular shading but I didn't make it up. It came  
13 from somewhere.

14 Q All right. Well, we don't have -- I  
15 don't want to burn a bunch of my time you figuring  
16 out the error but I guess you were using some other  
17 Holman?

18 A No.

19 Q Does that concern you regarding the  
20 accuracy of your opinions in your declaration?

21 A No. I mean the figure is in essence the  
22 same but there's lots of shading in it. I don't know  
23 why you don't see the shading because those call outs  
24 are there.

25 Q Well, let's use the correct version of

1 Holman and I want to ask you some questions about  
2 Figure 13 and in particular, I want to ask you about  
3 the cavities that we see here. If you can go to  
4 pages 37 and 39 of Holman.

5 A So what page are you looking for?

6 Q Let's start at -- let's start at 37 and  
7 by that I mean the 37 that's on the PDF on the upper  
8 central portion --

9 A Page 37 of the Holman PDF?

10 Q Well, it's 38 of 243. Maybe that's a  
11 more precise way.

12 A 38 of what document? Holman?

13 Q Yeah.

14 A So I'm on page 38 of Holman. What part  
15 of page 38 do you want me to look at?

16 Q Well, just to make sure we're on the same  
17 page, do you see a section entitled number 4.1.4.1?

18 A Nope.

19 Q Then do you see the labeling petitioner  
20 Hisense USA Corporation on the bottom right?

21 A Yes.

22 Q What page is recited in the page you're  
23 looking at?

24 A 39 which is called 38 at the top.

25

Q Yeah, it's confusing. Let's go to page

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1 38 of 243, which is 37 at the top.

2 A Okay. All right. One page out.

3 Q And I'm wondering if I might be able to  
4 share my screen just to try to make it easier for  
5 both of us if I can -- so we can reference the figure  
6 at the same time as looking at the text.

7 A Reference what figure?

8 Q 13. Unless you're -- you know, unless  
9 you're more facile than me and you're happy to just  
10 break -- I mean go back and forth between all of  
11 them, that's fine, too.

12 A What page was Figure 13 on?

13 Q 177 of 243.

14 A So I'm there. There's something wrong  
15 with that Figure 13 because there's call outs  
16 something that's in the black part. You know there's

17 more structure like so called Figure 13A but I'm not  
18 sure where that came from. There's a bunch of stuff  
19 missing on that Figure 13.

20 Q Well, would you be more comfortable using  
21 13A then?

22 A It depends on what you want to talk  
23 about. Why don't you ask your question and we can  
24 see how it's best answered. Because you see -- I see  
25 what you said the 13A in my declaration. There's

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1 that whole middle section that's all solid black.  
2 There's a lot of all outs in there you can't see any  
3 more because it's all blacked out like it's been  
4 edited or something but anyway what's your question?

5 Q Well, I guess my question is on Figure 13  
6 whether Holman discloses angles reflectors?

7 A That's page 177?

8 Q The figure is on 177.

9                   A     Well, you see there's 225, 226, 224, 220,  
10                   228, 238 points to something. 232, so there's a  
11                   whole bunch of call outs that they go into this black  
12                   that you can't tell what they're pointing at. That  
13                   figure that I had in the declaration it's got shading  
14                   so you can see the various components of impact but  
15                   that Figure 13 is -- something's gone wrong there.

16                  Q     Does that make you remind why you found a  
17                   different Figure 13 for the declaration?

18                  A     I wasn't looking for a different figure.  
19                   I don't know which version of the PDF document I was  
20                   using. I can't seem to be able to switch because  
21                   they're called by the same name but I didn't make it  
22                   up. I swear. And you can tell by looking at this  
23                   Figure 13 that there's -- it's missing information  
24                   structure in there. Like what does 225 point to.  
25                   What does 226 point to. What does 224 point to.

1           What does 220 point to. What does 228 point to.  
2           It's a big unknown black stone there that we can't  
3           see into the figure that's in the declaration so I  
4           don't know what's going on with the document.

5           Q     Okay. My concern is you used the wrong  
6           document but why don't we use this Figure 13A in  
7           relation to the description that Holman gives so that  
8           you can feel more comfortable about the interior  
9           components of the figure?

10          A     If you look at my Figure 13, 225 points  
11          to a layer that's beneath it, 220 layer. The 220  
12          layers are all thick layers that covers all that  
13          stuff in the black stone and then 228 points to --  
14          looks like it points to a high of the 220 layer and  
15          you can't see that in the same. There's something  
16          going on.

17          Q     Yeah. Okay. All right. Well, let's use  
18          Figure 13A and then I'll ask you some questions about  
19          it because, yeah, I suspect you were just -- for 13  
20          you would just say you couldn't answer. Holman  
21          describes Figure 13 as continuous back plane package  
22          structure appropriate for LED's, right?

23          A     Does say continuous for back plane  
24          package structure for LED's having planar electrodes.

25          Q     And the LED's are components 70, right?

1 A That's what it says.

2 Q And they are surrounded by reflective  
3 base layers 220 and 225.

4 A That's why you need my Figure 13 because  
5 you can see the difference between 225 and 220.

6 Q Yeah. And those are reflective base  
7 layers, right?

8 A Electrically insulating reflective base  
9 layers.

10 Q And does Holman describe what type of  
11 reflectivity those base layers are made out of?

12 A No, other than the electrically  
13 insulating. The thickness is H.

14 Q And I understand that. I'm not going to  
15 ask about that. We'll talk about heat sinks and  
16 electrical insulating but right now I'm focused on  
17 the properties of the reflective base layers.

18                   A     Well, I don't see any other description  
19                   of it. Maybe you've got it squirreled away  
20                   somewhere.

21                   Q     Well, I'm looking at page -- what do you  
22                   prefer that we use the top page number or the bottom  
23                   right page number?

24                   A     I don't care. Just point me in a  
25                   direction. The top page number seems to be the page.

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1                   Q     Let's goes to the page No. 38, please.

2                   A     Okay. I'm there.

3                   Q     And do you see in the second line the  
4                   sentence, the sloped sidewall?

5                   A     Page 38, okay. The sloped sidewall can  
6                   be a diffusely reflecting material identical to the  
7                   base layer material sloped sidewall, okay. So what's  
8                   the question?

9                   Q     So the question is that Figure 13 of

10 Holman discloses using an angled reflector to form a  
11 housing for the LED, right?

12 A There's also a vertical component to  
13 that. It's got an angle component of one part and a  
14 vertical component of another part.

15 Q Yeah. So but both. It uses vertical --  
16 an angle and a flat reflective layer to form a  
17 housing around the LED, right?

18 A More or less.

19 Q And the reflective base layer surrounds  
20 the LED in this figure, right?

21 A The reflective base layer, so which part  
22 are you calling the reflective base layer?

23 Q Well, base layer 220 and 225?

24 A 220 is that whole substrate so say that  
25 again so...

1 Q It's the reflective base layer, right?

2           A     Well, it's a whole electrically  
3     insulating material so it's a whole bunch of stuff.  
4     I mean, it's the reflecting part of it, it's only the  
5     (inaudible) surface part. You have to (inaudible)  
6     thick part.

7           Q     Holman calls it the reflective base  
8     layer, right?

9           A     Base layer 220 -- so what was your  
10    question again? I'm rereading Holman and looking at  
11    those figures.

12          Q     Holman discloses using a reflective base  
13    layer with angled sidewalls to form -- well, let me  
14    finish the question -- to form housing around an LED,  
15    right?

16          A     Well, it's not just angle. It's got  
17    straight components and angular components. And  
18    there's no indication that what the meaning is of  
19    either of those but it's got angled components and  
20    straight components.

21          Q     It uses that's reflective base layer to  
22    form an optical cavity; is that right?

23          A     It's forming something, yes.

24          Q     Would it be fair to describe it as an  
25    optical cavity?

1           A    I don't know if Holman describes it as an  
2           optical cavity or not.

3           Q    Would you understand it as one?

4           A    I don't know. In the grand scheme of  
5           things, optical cavity is kind of specifically  
6           described. It's a spot where he's got the LED. I'm  
7           not sure how Holman refers to it.

8           Q    Well, I can direct you to page 37 refers  
9           to it as a hollow cavity?

10          A    A hollow cavity. I'm looking at 37.

11          Q    Actually, I'm sorry. I may have -- I  
12          think he refers to it as -- well, a hollow cavity is  
13          248, yeah.

14          A    Where is that?

15          Q    I'm looking at page 37 towards the bottom  
16          but I can't find 248 on the figure.

17          A    Where a rectangular cavity 248 -- of all  
18          the cavities 248 -- that's looking for 248 in my

19 figure there and not seeing it.

20 Q Right. Now at the bottom of page 37,  
21 Holman describes the square rectangular cavities 248  
22 are made only slightly larger in extent than the  
23 emitting area of the LED's themselves sloped  
24 sidewalls 230 are used to increase the amount of LED  
25 light coupled to the cavity output aperture of width

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1 W42. Based on that disclosure, you'd understand he's  
2 referring to the cavity formed by the reflective base  
3 layer, right?

4 A Yeah, I suppose, although it's not really  
5 in the figures though.

6 Q And --

7 A I want to point out also on page 38 of  
8 Holman where he talks about this sidewall is sloped  
9 at an angle to the vertical which may in some cases  
10 be nearly zero degrees which is directly vertical, so

11 I don't know. It's kind of all over the place.

12 Q Well, talking about some part of it is  
13 vertical; some can be sloped at an angle and some  
14 flat and extended, right?

15 A It's all over the place. Then you've got  
16 the -- (crosstalk.)

17 Q Now, can we go back to your declaration,  
18 please?

19 A I'm there.

20 Q And in paragraph 40 -- I think we were in  
21 paragraph 40 previously?

22 A I thought we were on 57.

23 Q No. I want to go to paragraph 41 of your  
24 declaration.

25 A Okay.

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1 Q And I just want to direct your attention  
2 to the sentence where you say: Holman is also silent

3           about the diffusely scattering layer 68 contacting  
4           the reflecting layer 76.

5           A     Oh, that's -- yeah, we already talked  
6           about that.

7           Q     Well, I want to ask some more questions  
8           about that. So I just wanted you to hold that in  
9           mind. I know you look at it relative to Figure 7 but  
10          I want to -- I want to go to the -- it want to go  
11          back to Figure 13 please of Holman. And if you want  
12          to use Figure 13A, that's fine as well. Let me know  
13          when you're there. Are you there at the figure?

14          A     I'm looking at the PDF. So which figure,  
15          the 13?

16          Q     Either one, 13 or 13A, whichever you one  
17          you want to look at.

18          A     I'll start with 13.

19                THE COURT REPORTER: I need you all to  
20          speak up.

21                MR. FERRARIO: Okay. Sorry.

22                13, okay. You see -- do you see 68  
23          there in Figure 13?

24          A     68 on top, yes.

25          BY MR. FERRARIO:

1           Q    And do you see that it is contacting the  
2   reflective base layer 220?

3           A    I'm not sure what -- I'm not sure what  
4   that is so is 68 the thing on top or is 68 -- what's  
5   68 pointing to? The call outs are funky in there.

6           Q    You understand that 68 is the diffusely  
7   scattering layer that Holman describes?

8           A    Yes.

9           Q    And it's basically shown right on top of  
10  that reflecting base layer; isn't it?

11          A    Reflective base layer being 225 but if  
12  you look on the left side where 68 is pointing to  
13  something, it's hard to see what it's pointing to.  
14  If I look on the right side, it looks like it's the  
15  thing on top may be spaced apart by some small amount  
16  from that so Figure 13 is hard to use.

17          Q    And 13A is showing it in contact, right?

18          A    I'm going back to 13A. 13A -- 68 and 13A  
19  looks like -- is more in contact. So now you like my

20 Figure 13A, huh?

21 Q Let's go to your opinions regarding the  
22 heat sink.

23 A So what paragraph is that?

24 Q Let's start with your -- let's see. I  
25 think it's in your declaration paragraph 55.

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1 A Heat sink. Mok does not explicitly  
2 disclose a heat sink and says argues that a printed  
3 circuit board is a heat sink.

4 THE COURT REPORTER: I can't hear you.

5 THE WITNESS: Mok does not explicitly  
6 disclose a heat sink and says argues that a  
7 printed circuit board is a heat sink. So  
8 there we are.

9 BY MR. FERRARIO:

10 Q And then in 56 you talk about Holman and  
11 your statement is that Holman does not teach or

12 suggest that the base layer is considered by itself a  
13 heat sink panel on the second side of the at least  
14 one substrate.

15 A I say Holman does not teach or suggest  
16 that the base layer is considered by itself a heat  
17 sink panel on a second side of at least one  
18 substrate. We're talking about the base layer 220  
19 which you can see in my Figure 13A and cannot see in  
20 your Figure 13 so what's the question?

21 Q A little bit later on you say that even  
22 granting petitioner the most favorable interpretation  
23 of Holman, if the base layers 220 and 225 would  
24 function as heat sinks, the base layer of the LED  
25 package is not a heat sink within the meaning

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1 ascribed to it in the '835 patent.

2 A And the next sentence says if the '835 is  
3 considered to draw heat away from the substrate in

4 the direction opposite to a direction of the light  
5 emission.

6 Q Right. So I think your point there is  
7 that the heat sink 220 would be drawing heat away in  
8 a different direction, not away from the LED; is that  
9 what you're trying to argue?

10 A All petitioner has demonstrated that  
11 Holman discloses removing heat from the LED's to the  
12 substrate, not away from the substrate or the  
13 sensitive components which they light.

14 Q Now, doesn't Holman provide that the base  
15 layer 220 is just part of the collective heat sink,  
16 right?

17 A I'm not agreeing with that.

18 Q And weren't heat sinks known well before  
19 the earliest priority date of the '835 patent?

20 A I mean people have been using heat sinks  
21 for a long time, which is why we know that this is  
22 not going to work well. Call it as you wish.

23 Q And in fact --

24 A (Crosstalk -- cooling an element if you  
25 want to be a real heat sink.

1 Q So you actually -- (crosstalk) --

2 A This is going to absorb heat.

3 THE COURT REPORTER: You're both  
4 talking over each other.

5 MR. FERRARIO: I know. I'm sorry.

6 And so heat sinks were well known,  
7 right?

8 A Heat sinks are well known, yes.

9 BY MR. FERRARIO:

10 Q And they were well known before the  
11 earliest priority date of the '835 patent, right?

12 A Well, are you talking about the specific  
13 arrangement in the '835 versus the specific  
14 arrangement in Holman or are you talking in general?

15 Q In general.

16 A Well, people know LED's and LCD's and all  
17 that other stuff, too.

18 Q So in general they were well known?

19 A So are LCD's. So are LED's. So are  
20 convection development.

21 Q Thank you for confirming that. In Ex  
22 1008, do you mind turning to that, please?  
23 A Yes. Which page?  
24 Q Paragraph 54.  
25 A 54. The one that starts substrate 408

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1 may be provided with a metallic layer on its lower  
2 surface for extracting heat generated by LED's 420?  
3 Q Yes, that sentence discloses a heat sink,  
4 right?  
5 A Well, it's the lowest surface for  
6 extracting heat generated by the LED.  
7 Q Is that a yes?  
8 A So the substrate 408 may be provided with  
9 a metallic layer on its lower surface not shown for  
10 conducting heat generated by the LED.  
11 Q Is that the heat sink?  
12 A I'm arguing with you. So the lower

13 surface extracts heat from the LED but in my opinion  
14 heat sinks have got to get the heat out of the  
15 system. So there needs to be some kind of a  
16 certainly resistant path to it -- a cooling element  
17 or something that will actually extract the heat, not  
18 just keep it there.

19 Q Isn't that what Epstein discloses is a  
20 metallic surface for extracting heat?

21 A Yeah, but he's got the place where you  
22 can cool it so he says in addition to conductors 421  
23 may be provided with large area pads to aid in  
24 spreading the heat generated by the LED's. So that's  
25 a (inaudible) statement. You've got to be able to

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1 spread the heat generated by the LED's. You want to  
2 call it more like a heat sink. Generally where the  
3 conductors 420 do not lie in the optical path and the  
4 LED's. Anyway, on and on. It's about the conductors

5           and all that stuff but you need a thermally resistant  
6           path to -- something that will cool it if you want to  
7           call it a heat sink.

8           Q     And that's what Epstein is disclosing?

9           A     I don't agree with you. He's got part of  
10          it for that.

11                MR. FERRARIO: All right. Why don't  
12                we take a five-minute break. Let me go  
13                through my outline, confirm I don't have  
14                anything else and we can wrap up.

15                MR. MASSAND: Okay.

16                MR. FERRARIO: All right, five  
17                minutes.

18                (Whereupon, a brief recess was taken.)

19                MR. FERRARIO: Mr. Bohannon, thank you  
20                for your time today. I don't have any  
21                further questions. I do want to put on the  
22                record a request for a rough if you can,  
23                Lynne, as soon as possible.

24                And then I would maybe mention, Mr.  
25                Bohannon, that your expert testimony was

1 brought in the House of Current versus Power  
2 Integrations case December 21st, 2018 case.  
3 You may just want to look at that. That  
4 way when you testify about that, you have  
5 -- because I know a lot of lawyers  
6 sometimes don't tell you outcomes of stuff  
7 but you might want to look at that.

8 THE WITNESS: I've heard that.

9 MR. FERRARIO: No problem. Thank you  
10 for your time. I appreciate it.

11 EXAMINATION

12 BY MR. MASSAND:

13 Q Mr. Bohannon, I just have a couple of  
14 quick questions. Have you reviewed the institution  
15 decision in this proceeding?

16 A Yes. I think so.

17 Q And based on that review, did any of your  
18 opinions in your report change?

19 A No, they did not.

20 MR. FERRARIO: I'll object to that.

21 MR. MASSAND: I have no further

22 questions.

23 MR. FERRARIO: All right. Thanks for  
24 your time. Lynne, I appreciate it.

25 THE COURT REPORTER: You're welcome.

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2 (Deposition concluded at 6:00 p.m.)

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