UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

HISENSE USA CORPORATION,	:	
	:	
Petitioner,	:	
	:	IPR2023-01410
versus	:	
	:	Patent No.
BRIGHTPLUS VENTURES, LLC,	:	8,294,075
	:	
Patent Owner.	:	

DEPOSITION OF WILLIAM BOHANNON

2:02 P.M.
September 23, 2024

CONDUCTED REMOTELY

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(Monday, September 23, 2024 2:02 P.M.)

WILLIAM BOHANNON,

called as a witness at the instance of the Petitioner, being first duly sworn, was examined and deposed as follows:

EXAMINATION

BY MR. FERRARIO:

Q. Good afternoon, Mr. Bohannon. As you know, my name is Matias Ferrario. I represent Hisense in these proceedings. You are here to give testimony in connection with the declaration you submitted in the 075 IPR, correct?

A. That's my understanding.

Q. All right. And you've been deposed by me before multiple times, correct?

A. Yes.

Q. And we've gone over some ground rules on depositions.

Do you remember -- remember those?

A. I do.

Q. All right. So I'll -- I will save everybody some time, rather than go through them again. However, if there's -- anything has changed since the last time, please let us know.

Now, do you have a copy of the declaration for

which this deposition is the subject?
A. I do. I printed out a copy so I could refer to it.
Q. All right. And on your copy, what is the title of it, please?
A. Exhibit 2006, Declaration of William Bohannon.
Q. All right. Thank you. So I'm going to drop into the chat an electronic version of that. And just we'll get you to confirm it's the same one.
A. The one I have was signed January 26, 2024.
Q. Okay. Are you able to see the document that I dropped in the chat?
A. I'm working on it. Yep. I am going to go to the signature page and see if I recognize it. It looks like the one.
(Petitioner's Exhibit 2006, Declaration of William Bohannon, was marked for identification.)
BY MR. FERRARIO:
Q. All right. Great. Now, as far as you're concerned, did you only submit -- or you only prepared one declaration, correct?
A. Yes.
Q. Now, the declaration relates to U.S. Patent No. 8,294,075, correct?

A. That's what it says.
Q. And you also prepared in the different proceeding a declaration related to the '835 patent.
Do you recall that?
A. I do.
Q. And do you also recall that the '835 patent and the '075 patent are similar?
A. They are continuations in part. I think the '075 is the older one.
Q. And a lot of the testimony you provided in the '835 declaration is the same or similar to the testimony you provided in the '075 declaration, correct?
A. More or less. I haven't catalogued the differences. The descriptions -- patent descriptions are the same. The claims are different.
Q. And I guess what I'm trying to sort of get to at some point here is the idea that, you know, for example, in the '835 proceedings, you provided your testimony regarding brightness enhancement films.
Do you recall that?
A. I do.
Q. And in this proceeding, you provide the same testimony as it relates to brightness enhancement films, correct?
A. Well, the patent descriptions are the same. The

prior art is the same. The claims are different.

Q. And so setting the claims aside, at least as to your technical testimony in the '835 proceedings, those would be the same in the '075 proceedings; is that correct?

A. Oh, the claims define the invention. So I don't think you can set the claims aside.

Q. Well, what about with respect to your testimony regarding what one of skill in the art would know or understand about brightness enhancement films? Is that the same between the two proceedings?

A. Probably not identical, no.

Q. So you think that the technical understanding of brightness enhancement films might vary depending on whether we're talking about them in the context of the '835 proceedings versus the '075 proceedings? Is that your testimony?

A. Well, your question was whether they were the same, and I'm taking issue at -- at that statement. There may be similarities, but they are not the same. I haven't actually catalogued differences or similarities. I just know that it's not identical.

Q. What about the prior art? In other words, your testimony about the prior art in the '835 proceedings as it relates to brightness enhancement films, would that

be the same in the '075 proceedings?
A. Well, when you say "the same," that's a very definitive statement. I don't know if it's the same or not. I assume there is some differences.
Q. There are differences in the prior art?
A. I mean, it's a different IPR. It's a different patent. It's got a different claim. You've cited this prior art for the most part, but if it was the same, we would just dump it and work at the '835 again. But we're not. We are working on the '075. So I don't think it's fair to say they are the same.
Q. What about your testimony, for example, related to Epstein? Has your view as to whether Epstein discloses a brightness enhancement film changed since the last time you provided testimony about Epstein?
A. Well, let's look at that part of my declaration that describes Epstein's brightness enhancement films.
Q. Yeah. I'm just wondering if there is any reason why we need to go through it in detail again.
Or is your testimony the same?
A. Well, I've stated over and over again several times that I don't think it's the same precisely. I haven't catalogued the differences. I'm -- nothing in my declaration that says, "This is the same as the '835. So forget about this."

Q. Since you've provided your testimony in the '835 proceedings, have you thought of or considered that you wanted to change your testimony in these proceedings as it relates to Epstein?

A. No, I do not want to change my declaration. I stand by my declaration for the '075.

Q. Same -- same question for Mok.

Is there anything between the '835 deposition that's caused you to want to change your testimony or opinions as it relates to Mok in the '075 proceeding?

A. No, I do not want to change my opinion.

Q. Same question as to Holman.

A. Same answer.

Q. Same question as to Lamb.

A. Same answer.

Q. Now I'd like you to direct your attention to paragraph 25 of Exhibit 2006, please. Let me know when you get there.

A. Well, you are paging through it on my screen. So you're there.

Q. Now, in paragraph 25, you state that the field of the '075 patent relates to employing solid-state lighting devices -- for example, LEDs -- to illuminate a liquid crystal display LCD panel. Do you see that?

A. I see that.

Q. And that's your understanding of the field of the '075 patent?

A. That's my understanding.

Q. And you testify that "this may be accomplished through." Do you see that phrase?

A. I do.

Q. What -- what is -- what are you referring to by this?

A. So what I'm referring to is paragraph 25, "The relevant field for that of the '075 patent is that of solid-state lighting systems, more particularly adjusting light output of solid-state lighting (e.g., backlighting). Generally, the field relates to employing solid-state lighting devices (e.g., LEDs) to illuminate a liquid crystal display panel."

Q. So you're referring to both illuminating liquid crystal display panels and adjusting the light output of solid-state lighting?

A. That's what the paragraph says.

Q. Now, you mention that this can be accomplished by employing several structures and layers incident upon the surface upon which the LEDs are mounted, as well as between LED and LCD panels, correct?

A. As well as between the LEDs and the LCD panel.

Q. Now, the several structures and layers that you

refer to may include reflective surfaces, polarizers of varying type and function, diffusers, lenses, brightness enhancement layers, and others; is that correct?

A. Yeah, you read that accurately.

Q. Now, are those structures known to those of skill in the art?

A. For the most part.

Q. And were those structures known to those of skill in the art prior to the earliest priority date of the '075 patent?

A. I'm not sure what you're referring to.

Q. Do you -- are you not sure what the earliest priority date of the '075 patent is?

A. No. These structures are fairly broad statements. So reflective surfaces, polarizers of various type and functions, diffusers, lenses, brightness enhancement layers are known to people of ordinary skill in the art.

Q. Are you saying they are known to people of ordinary skill in the art?

A. That's what I said. These structures, they include reflective surfaces, polarizers of various types and functions, diffusers, lenses, brightness enhancement layers. There is many variations of these types of devices.

Q. And were these structures known to those of skill in the art as of the filing date of the '075 patent?

A. So if you look at the filing date -- I don't have it in front of me.

But what is the filing date?

Q. I believe August 2010.

A. You are asking a question.

Q. You asked me for the filing date. I'm saying August 2010.

A. You answered it in a question format.

Q. Okay. All right. So let me reask the question, then, Mr. Bohannon. And I appreciate you working with me.

As of August 2010, were these structures known to those of skill in the art?

A. I'm looking up the filing date. It looks like 2006. Continuation of the application, that was filed on April 21, 2006. Now, U.S. Patent 7,777,166. So I would say that these same set, various elements that I listed in paragraph 25, were generally known to people of ordinary skill in the art, although the '075 describes several inventive versions of this stuff.

Q. All right. Well, let's go back a little bit. You filed -- you mentioned an April 21, 2006, date.

Where did you see that?

A. Page 1 of the patent.

Q. If you -- are you looking at that patent now?

A. Yes. It says item 6 --

Q. Why don't I drop --

A. -- related to U.S. application data continuation of application number, et cetera, filed on April 21, 2006.

Q. And do you understand that to be the filing date?

A. So it's a continuation of the -- of an application filed then. So that's the way the patent office works.

Q. Do you understand that -- that that is the priority date?

A. I'm not an attorney. I'm reading the first page of the patent.

Q. If you look up a few lines, do you see a date of August 5, 2010?

A. Yes, I do.

Q. And what -- what is -- what does it say next to it?

A. That's the file date.

Q. But you understand that on August 5, 2010, that this application was filed?

A. That's my understanding.

Q. All right. And you understand that it claims priority to April 21, 2006, correct?

A. That's my understanding.

Q. All right. So when I asked you whether one of skill in the art understood that the structures listed in paragraph 25 of your declaration were known as of the filing date of August 5, 2010, what is your answer?

A. Well, these -- these structures it talks about -- let's see -- these may be -- so the goal of the patent "may be accomplished through the employment of several structures and layers incident upon the surface on which LEDs are mounted." And "these structures may include reflective surfaces, polarizers of varying type -- functions, diffusers, lenses, brightness enhancement layers, and others."

I mean, those are very general terms. You know, lenses or reflective surfaces, there is many -- you know, there's probably an infinite number of variations of reflective surfaces and lenses and diffusers and brightness enhancement layers. So when you say a term like a brightness enhancement layer, you're not pointing at one specific item. You're pointing to an infinite variety of items that could be used to enhance brightness. So I think you're trying -- you are

overreaching a bit on your question.

Q. Well, can you answer my question? Were -- were those structures known as of the filing date of the '075 patent?

A. So I would say that the words are known. People know what a lens is. People know what a reflective surface is. People know what the polarizer is. But that does not mean they know the exact instance as -- as described in the patent. I mean, it is an invention described in a patent. So there are inventive elements in there.

Q. Now, as of the earliest priority date of April 21, 2006, were these structures known to those of skill in the art?

A. So these classes of structures were known to people of ordinary skill in the art but not the exact instances. As I described earlier, everyone knows what a lens is. Everyone understands what a polarizer is, et cetera, but not particularly the ones invented or described in this invention.

Q. So -- so let's -- the -- the -- for the following series of questions, I would like to limit it to what one of skill in the art would have known as of the earliest priority date.

What -- what did one of skill in the art know

about reflective surfaces as structures used to illuminate LCD panels and to adjust the light output of solid-state lighting?

A. Well, there is an infinite variety of reflective surfaces. Depending upon how they reflect, they are either diffuse or -- they are either inversion or specular, depending upon the types of reflective surfaces that are built. So you need more detail to really understand what's going on, which is what the rest of the patent describes in the description and the claims.

Q. What about polarizers? What would one of skill in the art know about polarizers at the time of the earliest priority date of the '075 patent?

MR. MASSAND: Objection to form.

THE WITNESS: Well, a polarizer is a term. Like a reflector, it's -- it's kind of a general term. There is a million different types of polarizers available out there. So people know what a polarizer is.

BY MR. FERRARIO:

Q. And -- and polarizers polarize light?

A. Reflectors reflect light. Polarizers polarize the light.

Q. What about diffusers? Do diffusers diffuse

light?

A. Diffusers diffuse light.

Q. What about lenses?

MR. MASSAND: Objection to form.

THE WITNESS: So my declaration is not a textbook on optical elements. It's -- it's for -- it's talking about the issues raised in the IPR. So I didn't have a section that describes the functionality in exquisite detail that you would like.

BY MR. FERRARIO:

Q. Are you able to answer my question or no?

MR. MASSAND: Objection to form.

THE WITNESS: I don't know what your question is.

BY MR. FERRARIO:

Q. What about lenses?

MR. MASSAND: Objection to form.

THE WITNESS: What do you mean what about lenses?

BY MR. FERRARIO:

Q. Well, let's see. I asked you about reflective surfaces, and you said they reflect light. I asked you about polarizers, and you said they polarize light. I asked you about diffusers, and you said they diffuse

light.

Do you recall all that?

A. I do.

Q. What about lenses?

MR. MASSAND: Objection to form.

BY MR. FERRARIO:

Q. What do they do?

A. So I just -- I said earlier that my declaration is not a textbook on optical elements, and I don't have a section in there that describes the functionality in any kind of precise way of any of these optical elements. So I think you're outside the scope here.

Q. Are you refusing to answer my question, then, Mr. Bohannon?

MR. MASSAND: Objection to form.

THE WITNESS: It's outside the scope of my declaration.

BY MR. FERRARIO:

Q. I'm sorry. I did not catch your answer.

A. It's outside the scope of my declaration. I talk about --

Q. That may or may not be the -- I'm sorry. That may or may not be the case. That's something the lawyers can talk about.

A. Okay.

Q. But my question is: Are you refusing to answer my question?

MR. MASSAND: Objection to form.

THE WITNESS: No, I'm not refusing. I said it's outside the scope of my declaration. I don't go into -- I didn't write a textbook on optical elements and how everything works in here. We just analyze the prior art versus the '075 patent. So you're kind of going down a strange path.

BY MR. FERRARIO:

Q. So you don't know what lenses do? Is that --

MR. MASSAND: Objection to form.

THE WITNESS: So why don't you ask a question that -- that's part of the declaration.

BY MR. FERRARIO:

Q. Well, you said the structures used in the '075 patent may include lenses, right? That's your testimony?

A. Lenses, diffusers, polarizers, brightness enhancement layers, and others.

Q. Okay.

A. Next, you are going to ask me what -- what I mean by "others."

Q. Well, I may. I may. And I would be within my

right. But right now I'm asking you about lenses. What do lenses do?

MR. MASSAND: Objection to form.

THE WITNESS: That's a common term that people of ordinary skill in the art understand. People know what lenses are. You know, you're asking me a very -- kind of a strange question on a very broad topic, and this declaration is not a treatise on how various optical elements work. It's talking about the prior art versus the claims in the '075 patent.

BY MR. FERRARIO:

Q. What about brightness enhancement layers? What are those?

MR. MASSAND: Objection to form.

THE WITNESS: So I describe brightness enhancement layers in the declaration. I think when I say that, it's not a precise term. So I say, if you go down to paragraph 26, the term brightness enhancement film or BEF is not a standardized term. I understood it the same way by everyone, but it's merely a way of referring to a class of films with different characteristics.

BY MR. FERRARIO:

Q. Do the class of films share a characteristic?

A. Well, I think a class of films is a term that they share. It's a class of films.

Q. Did the class of films share a characteristic?

A. So the term brightness enhancement film is not a standardized term. I understood it in the same way by everyone, but it's merely a way of referring to a class of films with different characteristics. The BEF of the '075 patent is designed to allow light having a first orientation, i.e., entering at an incident angle below a certain threshold to pass through the BEF and reflecting light having a second orientation, i.e., entering at an incident angle outside of a certain threshold back toward the LED substrate. So those are the BEFs that we're talking about.

Q. How would one know whether a film falls within the class of films that are in a BEF class?

A. Well, that's hard to say. People kind of bandy the term about.

Q. Is there some type of common characteristic that would cause a film to fall within a class of BEF films?

A. It's not a standardized term, as I said in the next paragraph, 26. You're looking for information that we don't have.

Q. But it is a class of films, right? That's your testimony?

A. That's what I said here.
Q. But you're not able to tell me what characteristic a film would have that would make it fall within the class or without the class; is that correct?
A. Well, no, that's wrong. I said right there that the BEF of the '075 patent is designed to allow light having the first orientation entering at an incident angle to pass through a -- below a certain threshold to pass through the BEF and reflecting light having a second orientation. So those -- those are the class of films that we're talking about in regards to the '075 patent claims.
Q. All BEFs do that?
A. I haven't looked at all BEFs. The BEFs that are referred to in the '075 claims do that.
Q. Now, under the section that you were reading from in paragraph 26 of your declaration regarding light having a first orientation that passes through the BEF and light having a second orientation being reflected back towards the substrate, is that known as recycling light?
A. Well, I think it's quite clear what's -- what's happening in that sentence is that the one orientation that passes through the BEF, and at the second orientation, it goes -- it is reflected back. The light

would -- reflecting light having a second orientation back towards the LED substrate. And it goes on to say that the LED substrate includes a reflector.

Q. Is that known as recycling that light?

A. I am going to see if that's the way I describe it. It says here on page 9, "Where the reflector reflects light back into the diffuser and the BEF in a process referred to as recycling, the purpose of recycling light is to ensure that the light reaching the BEF is of the first orientation so that light passes through the LCD panel is of an appropriate angle and intensity for adequately illuminating the panel for a viewer." So that explains those terms for you.

Q. So you did call it recycling light; is that right?

MR. MASSAND: Objection to form.

THE WITNESS: So I have the sentence that says "The reflector reflects light back into the diffuser and the BEF in a process referred to as recycling" in quotes, period.

BY MR. FERRARIO:

Q. So, Mr. Bohannon, was recycling light known as of the earliest priority date of the '075 patent?

A. Well, I think you can find the -- the description of that in the '075 patent.

Q. What about before that? Was that known to those of skill in the art?

A. So I haven't categorized exactly when people of ordinary skill in the art first became aware of recycling or recycling light back from the reflector. I cannot give you an exact date.

Q. I want to ask you, a little bit further on in your declaration, in section 7, you see you have a section regarding Petitioner's prior art summary?

A. Yes.

Q. And you provide a summary of Mok in section A?

A. Yep.

Q. And then Epstein in section B?

A. You read it correctly.

Q. And then Holman in section C?

A. You are correct.

Q. And then Lamb in section D, correct?

A. That's what it looks like.

Q. Now, in the section related to Epstein, paragraph 40 says intentionally deleted?

A. I do.

Q. What -- what is that about?

A. I think when we -- when I developed this declaration, there was a -- I worked with the attorneys, and there was a lot of back-and-forth and editing and

re-editing and adding and subtracting and all that sort of stuff. And whatever was in paragraph 40 was deleted.

Q. Now, in your summary of Mok in paragraph 38, you describe Mok as accomplishing light recycling. Do you see that?

A. I do.

Q. And in Mok, it's your view that it's the diffuser that accomplishes light recycling; is that right?

A. That's not my view. Mok describes using a diffuser to accomplish light recycling.

Q. Well, it discusses that the diffuser may reflect light back to the surface; is that correct?

A. I'm quoting Mok.

Q. And is that correct that it's Mok describing light being reflected back by the diffuser?

A. I'm quoting Mok, paragraph 21, "A reflective surface 50 may be provided on the base panel 12 to recycle (i.e., reflect) light which may be reflected -- which may be reflected by the back surface 60 of the diffuser 16 (i.e., light incident on the back surface 60 of the diffuser 16 at an angle that exceeds the critical angle for that particular diffuser)." So that's a quote from Mok.

Q. Now, don't all surfaces reflect light?

A. Well, everything reflects light to some degree.
Q. Okay. And Mok discloses a brightness enhancer 18; is that correct?
A. So where does it -- Mok describes a brightness enhancer -- so we have to turn the page. On page 13, "The light-emitting panel of Mok includes a base panel 12, diffuser 16, and brightness enhancer 18 spaced apart by distances 48 and 54 respectively. These elements are arranged -- arranged in linear stacks." And then there is a picture of figure 1, which shows these things, on the next page.
Q. So -- so can you answer my question? Mok discloses a brightness enhancer 18, correct?
A. That -- that I read -- I read that sentence --
Q. And --
A. -- Mok includes base panel 12, diffuser 16, and brightness enhancer 18.
Q. And the brightness enhancer 18 also reflects light, correct?
A. Mok does not describe that.
Q. That's not the question, Mr. Bohannon.
A. That's my answer.
Q. Does the brightness enhancer 18 reflect light?
MR. MASSAND: Objection to form.
THE WITNESS: Mok does not describe that.

Mok describes light going through the brightness enhancer.

BY MR. FERRARIO:

Q. Is -- would one of skill in the art know that brightness enhancer 18 necessarily would reflect light?

A. I don't know what you mean by "necessarily."

Q. Would one of skill in the art understand that brightness enhancer 18 reflects light?

MR. MASSAND: Objection to form.

THE WITNESS: I just answered that question. I said Mok does not describe it like that. Mok says --

BY MR. FERRARIO:

Q. But, Mr. Bohannon, you're being argumentative.

MR. MASSAND: Objection.

THE WITNESS: Well, it takes two to argue.

BY MR. FERRARIO:

Q. Would one of skill in the art know that brightness enhancer 18 reflects light?

MR. MASSAND: Objection to form.

THE WITNESS: Not necessarily. That's not my -- what you just said, where Mok's brightness enhancer reflects light, is not in Mok. It's -- those words do not exist in Mok. There may

be many reasons for that.

The way Mok designs his brightness enhancer, he designed it such that it straightens out the light and helps it go through the system in a -- in a more orderly fashion, I guess you would say. So whatever Mok did he did. Mok does not describe it.

BY MR. FERRARIO:

Q. So -- so does -- is it your testimony that brightness enhancer 18 does not reflect light?

A. So let's go to Mok, and then we can get an adequate description of what Mok does --

Q. Mr. Bohannon --

A. -- and how he describes his brightness enhancement film.

Q. Mr. Bohannon, I'm asking as one of skill in the art and an expert as to what was known or not known. I'm not asking you what was described in Mok. I'm simply asking you what you know or what one of skill in the art would know as of the time of the earliest priority date of the '075 patent.

A. So --

Q. My question is: Would one of skill in the art understand that brightness enhancer 18 in Mok reflects light?

MR. MASSAND: Objection to form.

THE WITNESS: So the person of ordinary skill in the art looking at Mok would read that on paragraph 24 of Mok, that the brightness enhancer 18 thereby maximizes the on-axis brightness of panel 10. So that's what a person of ordinary skill in the art is going to know about the so-called brightness enhancer of Mok.

I mean, remember, in my declaration, I said that brightness enhancer is not a specific term. It's kind of a generalized term that people throw at things. So no one knows for sure what Mok's brightness enhancer does unless -- until they read Mok.

BY MR. FERRARIO:

Q. So your testimony is that, no, brightness enhancer 18 does not reflect light? Is that your answer?

MR. MASSAND: Objection to form.

THE WITNESS: So Mok built his system so that the brightness enhancer 18 maximizes the on-axis brightness of panel 10. This is in paragraph 24 of PDF page 5 of the Mok patent. Or is it an application? I can't remember. Exhibit -- Hisense Exhibit 1005, page 5 of 7. So there it

is. That's what a person of ordinary skill in the art is going to know about the element that Mok calls the brightness enhancer.

BY MR. FERRARIO:

Q. And so it would -- and one of skill in the art would not know anything else about it other than what Mok explicitly describes? Is that your testimony?

A. My testimony is that if somebody wants to know how an invention works, they read the patent, the patent description, and they look at the drawings, and they go, okay. So this thing that Mok calls a brightness enhancer 18, it's -- maximizes the on-axis brightness of panel 10. So that's what the brightness enhancer does.

You got to remember the brightness enhancer, the whole purpose of a brightness enhancer is to get light through the panel.

Q. What is the purpose of the brightness enhancement film claimed by the '075 patent?

A. So let's look at the '075 patent, then. I'm looking for the right page. It takes a while to get down to those spots.

So if you look at claim 1 on column 21, about line 50 or so is where brightness start and the brightness enhancement film on -- so the reflector sheet on the first side of at least one substrate of

brightness enhancement film on the reflector sheet, whereas a reflector sheet is arranged between the substrate and the brightness enhancement film and the brightness enhancement film is configured to preferentially emit light having the first orientation from the lighting panel and preferentially reflect light having a second orientation different from the first orientation back into the lighting panel.

So that's the -- what the brightness enhancement film does in the '075, which is different from the so-called brightness enhancement film that Mok describes.

Q. As of the filing date -- well, let me rephrase that.

As of the earliest priority date of the '075 patent, were there commercially available brightness enhancement films?

A. Well, there are films that I think Mok -- what does Mok describe?

Q. That people of skill -- oh, I'm sorry. You are still answering the question. Go ahead.

A. I said I think all these things are commercially available -- polarizers and reflectors and whatnot.

Q. Were you familiar with the commercial space at that time as it relates to optical films?

A. Well, if you look at Mok paragraph 24, they go on and talk about how the brightness enhancer 18 comprises the brightness enhancement film available from 3M and sold under the trademark Vikuiti. So there you go. Right there in Mok paragraph 24.

Q. Mr. Bohannon, were you familiar with the commercial base of optical films as of the earliest priority date of the '075 patent?

A. From before, I sourced many different optical elements for products that I was working on.

Q. Did you ever source products from 3M?

A. 3M was a partner. They were -- we built products for 3M under their -- 3M's brand name. So 3M was always trying to get us to use some of their stuff, and I tried it, and it didn't work right. So I never actually --

Q. Did you --

A. -- took 3M up on any of their offers for stuff.

Q. Did you ever use 3M BEF?

A. I might have three -- like I said, we built stuff for 3M. We built optical products for 3M, and 3M, you know, shared their technology with us to a degree. And I tried their stuff in some of the products we built with their name on it and did not like it. So I did not use it. I got stuff out of Japan that worked a lot

better.

Q. Oh, where did you get it from?

A. Nitto Denko.

Q. How do you spell that?

A. N-I-T-T-O D-E-N-K-O.

Q. And did you use Nitto Denko's optical films?

A. I did.

Q. Do you recall in particular the name of any of those optical films?

A. No. There's a huge catalog of optical films. It's voluminous. So I don't recall any of the brand names or anything like that.

Q. Did they sell brightness enhancement films?

A. They sold a whole bunch of different films --

Q. Did they sell --

A. -- I'm not sure what was in the catalog. It was huge, like 300.

Q. Do you recall -- sorry. Do you recall if they sold brightness enhancement films?

A. No, I do not recall precisely.

Q. Did they sell optical films that recycled light?

A. I wasn't worried about recycling light. That wasn't a problem.

Q. That does not answer my question.

A. What was your question?

Q. Did they sell optical films that recycled light?
A. I'm not sure. They had a huge catalog of stuff. Like I said, it wasn't the thing -- the things I was looking for. I did not have a problem recycling light.
Q. All right. Now, beginning on page 15 of your declaration, you provide your opinions relating to ground 1 in section 8; is that correct?
A. Let's see -- section 8, ground one, page 15.
Q. And so in this section, this is where you provide your opinions in connection with ground 1, correct?
A. Apparently.
Q. Now, on paragraph 46, you provide some opinions relating to prior art named Holman, correct?
A. So I think paragraph 46, we're still talking about Mok. Anyway, paragraph 46 reads: "Petitioner concedes that this air gap is not an intervening layer."
That's the paragraph you want to talk about?
Q. I want to talk about the sentence that follows that says, "Petitioner then relies on prism sheets 58 of 60 of Holman to disclose this element." Do you see that?
A. I see that.
Q. And you recognize Holman is one of the pieces of prior art that you analyzed in connection with forming

the opinions in your declaration, correct?

A. That is true.

Q. And Holman discloses prism sheaths 58 and 60, correct?

A. Yep. That's what it says in my declaration.

Q. And it's your opinion that those prism sheets are not BEFs, correct?

A. Yes. I say, "As such, Petitioner then relies on prism sheets 58 and 60 of Holman to disclose this element. It -- however, the prism sheets 58 and 60 are not BEFs. For example, Holman differentiates between prism sheets and BEFs."

And then there is a paragraph that goes on that quotes Holman at, I guess, page 121, section 8.2.1 where he talks about how prism sheets are not BEFs.

Q. Let's take a look at Holman. And let me drop it in the chat here for us.

(Petitioner's Exhibit 1006, World Intellectual Property Organization International Publication Number WO 03/056876 A2, was marked for identification.)

BY MR. FERRARIO:

Q. It may take a minute.

Let me know once you've seen it and are able to open Holman, please.

A. Yeah, I can open Holman.
Which page do you want to go to?
Q. Well, let's just make sure -- I've shared my screen. And the document you're looking at, in the lower right-hand corner, is it labeled Exhibit 1006?
MR. MASSAND: Matias, by the way, your screen does not look shared to me.
THE WITNESS: Yeah, that's the problem.
MR. FERRARIO: Oh. That's a problem. Thank you, Neal.
BY MR. FERRARIO:
Q. Okay. Sorry about that. Are you able to see my screen now?
A. I am.
Q. And do you see on the bottom right-hand corner a label Exhibit 1006?
A. I do.
Q. And this is PCT International Publication Number WO 03/056876 A2, correct?
A. Yep.
Q. And the inventors of the -- well, the first inventor is Holman, right?
A. Apparently.
Q. Do you recall reviewing this reference in connection with forming opinions in your report?

A. I do.
Q. Now, Holman describes prism sheets 58 and 60 as including brightness enhancement films, correct?
A. Let's see -- I'm trying to see where it says brightness enhancement films.
Q. Oh, I'm not share -- I am just -- I'm asking for your recollection as to whether you think that's correct or not. I'm not --
A. It says here, "that such improved illumination systems are a primary interest for projection of images onto screens there spatial light modulators."
Q. Yeah. Yeah. I have not taken you to that portion. I guess --
A. I can't answer your question, then.
Q. -- I'm just trying to seek your understandings. Would it surprise you if Holman identified prism sheets 58 and 60 as BEFs?
A. So going back to page 16 of my declaration, paragraph 46, where I say "Holman differentiates between prism sheets and BEFs" -- and this is from Holman at page 121, section 8.2.1, where he talks about "One unique aspect of elevated prism sheets 58 and 60, as used in all previous illumination answer -- examples, is that they do not have to exhibit the extreme standards in cosmetic perfection that have associated with 3M's

BEF in direct view brightness enhancement applications."
So that kind of answers your question.
Q. Well, you understood that section to only be referring to the previously illumination examples, right? Isn't that right?
A. I think -- think that he differentiates between prism sheets and BEFs in general. Preventative --
Q. And --
A. -- so his problem is that -- is that BEF sheets are easily damaged, and preventative measures include discarding all damaged BEF sheets. And he says, "No such costly measures are needed with present prism sheets 58 and 60." So I think that answers your question.
Q. Now, he's only distinguishing 3M's BEF brightness enhancement films; isn't that right? Not all brightness enhancement films?
A. Well, he's talking about 3M's BEFs. They are, like I said in my declaration --
Q. And --
A. -- a BEF is not a standardized term. People kind of --
Q. No. You said it was -- you said it was --
A. -- ground it to a lot of things.
Q. Sorry. You said it was a class of films,

correct?

MR. MASSAND: Objection to form.

THE WITNESS: That's not a standardized --

BY MR. FERRARIO:

Q. And isn't Holman here, at best, distinguishing one of the members of the class but not the entire class?

A. I don't think you can make that distinction.

Q. And isn't Holman only distinguishing 3M's BEFs in some of the previous illumination examples and not all of them?

MR. MASSAND: Objection to form.

THE WITNESS: So Holman doesn't -- so Holman does not make those distinctions.

BY MR. FERRARIO:

Q. So would it surprise you if Holman, in a different part of the reference, explained that prism sheets 58 and 60 could include 3M's BEFs? Would that surprise you?

A. Well, he talks about how -- you know, the implication is -- it says, "One unique aspect of elevated prism sheets 58 and 60, as used, is that they do not have to exhibit the extreme standards associated with 3M's BEF in direct view enhancement applications."

So there's an allusion to the fact that there -- he's using them in place of the 3M BEFs. So you can draw whatever conclusions you want.

Q. So -- so it would surprise you if that -- if Holman described one of the class members of prism sheets 58 and 60 could be 3M's BEFs?

A. I never said that.

Q. You understand that Holman does allow for one of their prism sheets 58 and 60 to be 3M's BEFs, right?

A. So where do --

MR. MASSAND: Objection to form.

THE WITNESS: So point me to the quotation there.

BY MR. FERRARIO:

Q. Well, would that change your opinion that prism sheets --

A. I stand by --

Q. -- that prism sheet 58 and 60 are not BEFs?

A. Well, he clearly says that they are not BEFs. He does not -- he uses them in -- so he goes on to say 58 and 60 is that they don't have to exhibit the extreme standard in cosmetic perfection associated with 3M's BEF. It says, "No costly measures are needed with the present prism sheets 58 and 60 because the cosmetic defects cannot be directly viewed." --

Q. And isn't that true with respect to --
A. -- so that's my -- that's my -- that -- that's my opinion of Holman's BEFs.
Q. So Holman's BEFs are different than 3M's BEFs? That's your testimony?
A. So Holman's prism sheets 58 and 60, as used, is that they do not have to exhibit the extreme standards in cosmetic perfection. You've got to have a distinction --
Q. But they --
A. -- with 3M's BEFs.
Q. But they can still be --
A. It says no preventative measures are needed.
Q. But they can still be BEFs, correct?
A. Well, I'd like to go back to that statement that I made about BEFs in general where -- on page 8 of my declaration, "The term brightness enhancement film or BEF is not a standardized term understood in the same way by everyone but is merely a way of referring to a class of films with different characteristics."
So it's not a standardized term. You don't say BEF and it means everything to everyone. It's -- it -- it's kind of a way of referring to a class of films with different characteristics.
In the '075 patent, we were very precise. The

claims are very precise about describing the BEFs.
Q. Do you want to change your testimony that Holman doesn't disclose prism sheet 58 and 60 as including BEFs?
A. I'm not changing my opinion. My opinion stands. My declaration is perfectly fine and accurate in my opinion.
Q. If Holman stated that prism sheets 58 and 60 may be one of the offerings manufactured by 3M under BEF, would that change your opinion as you set it out in paragraph 46?
A. So are -- are you --
MR. MASSAND: Objection to form.
THE WITNESS: Are you quoting from some part of Holman? If so, let's see the -- let's see accurate --
BY MR. FERRARIO:
Q. Can -- can you answer my question, Mr. Bohannon?
A. No. You're asking me to speculate, and I refuse to speculate.
Q. So that would not change your opinion here; is that correct?
MR. MASSAND: Objection to form.
THE WITNESS: You're asking me to speculate. You're making stuff up and want me to

do some off-the-cuff opinion on something.
If Holman said that, let's see it.
BY MR. FERRARIO:
Q. Well, if Holman said that, would that change your opinion?
MR. MASSAND: Objection to form.
THE WITNESS: You're asking me to speculate. I don't speculate.
BY MR. FERRARIO:
Q. Okay. Let me -- let me ask you this: If Holman said that, would that conflict with your opinion in paragraph 46?
MR. MASSAND: Objection to form.
THE WITNESS: You're asking me to speculate, and I don't speculate.
BY MR. FERRARIO:
Q. If Holman said that prism sheets may be one of the offerings manufactured by 3M under BEF, then the statement that prism sheets 58 and 60 are not BEFs would be incorrect; isn't that right?
MR. MASSAND: Objection to form.
THE WITNESS: You're asking me to speculate. I mean, Holman -- we got a direct quote of Holman on page 121 here.
Are you saying that -- that quotation is

inaccurate?

I never heard you say that.

BY MR. FERRARIO:

Q. Are the offerings manufactured by 3M under the trade name BEF, are those BEFs?

MR. MASSAND: Objection to form.

THE WITNESS: So if you read the claims -- if we go back to claim 1 of the '075 patent, you can see what the '075 patent calls a BEF. So the -- we're back on column 21, about line 61, the brightness enhancement film. "And the brightness enhancement film is configured to preferentially emit light having a first orientation from the lighting panel and preferentially reflect light having a second orientation different from the first orientation back into the lighting panel."

That's a pretty good definition of a brightness enhancement film, according to the '075 patent, realizing that BEF or brightness enhancement film is not an exact term understood by everyone the same way but kind of a broad class arm-waving at best of an optical element that does certain things for certain -- in certain times.

This one configured to orientation and to reflect light having a second orientation, that's a

BEF, according to the '075 patent.

MR. MASSAND: Matias, whenever you get a chance for a break.

MR. FERRARIO: Okay. Yeah, let's take 15.

Do you want to go back on at 3:25?

MR. MASSAND: Okay. Sounds good.

(Recess.)

BY MR. FERRARIO:

Q. All right. Dropping into chat Exhibit 1005. I think we discussed this earlier, Mr. Bohannon. But if you can, open that up when you get a chance, and let me know when you've done that.

A. Okay. I'm looking at Mok.

(Petitioner's Exhibit 1005, United States Patent Application Publication, Publication Number U.S. 2006/0227545 A1, was marked for identification.)

BY MR. FERRARIO:

Q. All right. Great. And so I am going to share my screen here. All right.

And are we looking at the same thing? This is U.S. Patent Application Publication 2006/0227545 A1, correct?

A. That's right.

Q. And the first listed inventor is Mok, M-O-K, correct?

A. That's right.

Q. Now, Mok discloses the 3M BEF, correct?

A. I think I read that to you earlier.

Q. And I want to find it so that we can confirm. All right. And so --

A. I can confirm that --

Q. -- I am looking at paragraph 22 to 24. Do you see that?

A. I do.

Q. And there, you see Mok describing a brightness enhancer 18 is comprised of a BEF available from 3M and sold under the registered trademark Vikuiti. Do you see that?

A. I do.

Q. Now, Mok says that other types of brightness enhancers could be used as well. Do you see that?

A. I do.

Q. And so is -- Mok's reference to other types of brightness enhancers, does that refer to the same class of BEF films that you reference in your expert declaration?

A. Possibly.

Q. And this is the same 3M BEF that's referenced in

Holman; is that correct?
A. There's no way of knowing that.
MR. MASSAND: Objection to form.
BY MR. FERRARIO:
Q. And it's the same --
A. I mean, there's -- there's -- I'm sure -- I know 3M has got a huge catalog. They have got a lot of part numbers and different characteristics. So it's -- no way to tell which one they are using.
Q. It's the same 3M BEF that's referenced in Epstein?
MR. MASSAND: Objection to form.
THE WITNESS: Same answer.
BY MR. FERRARIO:
Q. It's the same --
A. 3M has a huge catalog and got lots of different products with different types of characteristics. So without a part number, you couldn't tell.
Q. Is it the same 3M Vikuiti BEF referenced in Lamb?
MR. MASSAND: Objection to form.
THE WITNESS: I don't know what Lamb references. Let's see Lamb and see what it references.
BY MR. FERRARIO:

Q. Now, isn't it true that a hallmark of 3M's BEF is recycling light?

MR. MASSAND: Objection to form.

THE WITNESS: There's nothing in my declaration that talks about hallmarks.

BY MR. FERRARIO:

Q. And do you know that to be the case, notwithstanding the fact that it made -- you left it out of your declaration intentionally or not?

MR. MASSAND: Objection to form.

THE WITNESS: The hallmark? I mean, there's nothing in my declaration that talks about hallmarks of BEFs. I don't know what you're talking about.

BY MR. FERRARIO:

Q. Is that something that you left out of your declaration purposefully?

MR. MASSAND: Objection to form.

THE WITNESS: So we're just talking past each other. I don't know what you mean by "hallmark." I didn't talk about hallmarks.

BY MR. FERRARIO:

Q. Would one of skill in the art, as of the earliest priority at any date of the '075 patent, understood -- or understand if a hallmark of 3M's BEFs

was recycling light?

MR. MASSAND: Objection to form.

THE WITNESS: I answered that already where I said I don't know what you mean by "hallmark."

What do you mean by "hallmark"?

Your question does not make any sense.

BY MR. FERRARIO:

Q. Would one of skill in the art, as of the earliest priority date of the '075 patent, understand that a characteristic feature of 3M's BEFs was recycling light?

A. So, again, there is nothing in the -- in the citations in the prior art you've citated [sic] that talked about the characteristics of BEFs from 3M. You know, Mok says -- the ones that I read to you already describe using it to enhance the brightness through the panel.

Q. Would one of skill in the art, as of the time of the earliest priority date of the '075 patent, have understood that 3M's BEFs were known to recycle light?

MR. MASSAND: Objection to form.

THE WITNESS: So I -- there's nothing in my declaration that talks about 3M BEFs and their characteristics and what people know about them or

don't know about them, other than the quotations I've made from Holman or Mok or -- or various quotations I've cited in my declaration. Beyond that, I don't know what you're talking about.

BY MR. FERRARIO:

Q. Okay. So you don't know. Okay.

A. I said, beyond what I've described in my declaration, I don't know what you're talking about.

Q. Yep. You didn't -- you didn't put in your declaration that people knew that?

A. I did not do a study of that.

MR. MASSAND: Objection to form.

THE WITNESS: Yes. I did not do a study of 3M BEFs and what people knew or did not know about them, what their hallmarks or special characteristics are. I quoted from Holman, and I quoted from Mok. And I'm sure I quoted from Lamb and Epstein as well.

So if it's something in my declaration, I'm perfectly happy to talk about it.

BY MR. FERRARIO:

Q. I'm going to drop into chat EX 1007, and once you've had a chance to open that please, let me know.

(Petitioner's Exhibit 1007, United States Patent Application Publication, Publication Number:

U.S. 2005/0135115 A1, was marked for identification.)

THE WITNESS: The Lamb prior art.

BY MR. FERRARIO:

Q. All right. Let me share the screen so I can make sure we're all talking the same thing. All right. Is the EX 1007 that you're looking at United States Patent Application Publication U.S. 2005/0135115 A1?

A. That's correct.

Q. And the first listed inventor is Lamb, correct?

A. That's correct. The 3M company is the assignee.

Q. Now, Lamb discloses the use of a 3M brightness enhancement film relating -- or described as Vikuiti, correct?

A. So point me to the paragraph, please.

Q. Do you see, in paragraph 35, Lamb discloses a layer of enhancement film 14 having prismatic surface structures, such as Vikuiti brightness enhancement film BEF available from 3M company? Do you see that?

A. So which paragraph is that?

Q. That is in 35. I'm sharing that in the screen with you. Do you see that?

A. Yep, I see that.

Q. Is that the same 3M Vikuiti BEF film identified in Holman?

MR. MASSAND: Objection to form.
THE WITNESS: So Holman just describes Vikuiti film from 3M. It does not give a part number. So I don't know if it's the same one or not. Unless there is more information that you have, there is --
BY MR. FERRARIO:
Q. Is that --
A. -- the same -- it's the same -- it's the same name perhaps, but you can't tell if it's the same product. They had lots of products in their catalog.
Q. Is that the same 3M Vikuiti brightness enhancement film disclosed in Epstein?
A. Can't tell.
MR. MASSAND: Objection to form.
BY MR. FERRARIO:
Q. Is that the same -- is that the same Vikuiti brightness enhancement film from 3M disclosed in Mok?
A. You can't tell.
MR. MASSAND: Objection to form.
THE WITNESS: There needs to be a part number.
BY MR. FERRARIO:
Q. Now, the 3M Vikuiti brightness enhancement film BEF disclosed in Lamb is described as having a property

where light is recycled, correct?
A. Where it says the enhancement film refracts light within a certain angle towards the viewer and light outside the angle is recycled.
Q. And so you understand this brightness enhancement film as being the same as the brightness enhancement film of the '075 patent, correct?
MR. MASSAND: Objection to form.
THE WITNESS: No, I don't think so.
BY MR. FERRARIO:
Q. Now, the brightness enhancement film disclosed in Lamb allows light of a first orientation to pass through the brightness enhancement film, correct?
MR. MASSAND: Objection to form.
THE WITNESS: So the sentence reads: "The enhancement film refracts light within a certain angle towards the viewer." So it doesn't use the words that you said.
BY MR. FERRARIO:
Q. But you understand that if light is refracted towards the viewer, that that is light that is passing through the film, correct?
MR. MASSAND: Objection to form.
THE WITNESS: So I read the sentence as I read it. "Refracts the light within a certain

angle towards the viewer." There is no other information.

BY MR. FERRARIO:

Q. And then light of a second orientation is reflected back; isn't that correct?

A. So light outside the angle is, quote, "recycled."

MR. MASSAND: Objection to form.

THE WITNESS: So it does not say the words you would like it to say.

BY MR. FERRARIO:

Q. What words do you think I would like it to say?

A. The same one you -- the leading question that you asked ending with "right."

Q. And the words that Lamb uses is that the recycled light is reflected back; isn't that correct?

A. It says, "i.e., reflected back."

Q. And it continues to propagate within the system until it reaches the proper angle for exiting the system; isn't that correct?

A. Per -- it says, "Where it travels within the system until reaching the proper angle for exiting the system." That's what it says.

Q. So Lamb discloses a BEF that recycles light, Mr. Bohannon.

A. Well, that's your interpretation --
MR. MASSAND: Objection to form.
THE WITNESS: -- not mine.
BY MR. FERRARIO:
Q. And it's the same BEF disclosed in Mok, Holman, and Epstein, right?
MR. MASSAND: Objection to form.
THE WITNESS: That's your interpretation, not mine.
BY MR. FERRARIO:
Q. And your interpretation is factually incorrect; isn't that right?
MR. MASSAND: Objection to form.
THE WITNESS: That's wrong.
BY MR. FERRARIO:
Q. You have missed and/or skipped, intentionally or not, explicit teachings about the BEFs used in the prior art; isn't that right?
MR. MASSAND: Objection to form.
THE WITNESS: That's wrong.
BY MR. FERRARIO:
Q. I am going to ask you some questions about the '075 patent that I'm sharing on my screen here.
Are you able to see this?
A. I can see that, yes.

Q. Now, we've talked a little bit about claim 1, and I believe you were reading from some portions of it. But I wanted to ask you about claim 6. Okay? Do you see this here?

A. I do.

Q. And claim 6 depends from claim 1, correct?

A. I see.

Q. And recites the lighting panel of claim 1, further comprising the heat sink panel, right?

A. I see.

Q. And that heat sink panel is configured to draw heat away from the substrate in a direction opposite to a direction of light from the substrate, correct?

A. That's the way it's read.

Q. And column 12 of the '075 patent discusses the heat sink panel in relation to figure 7, right?

A. That's correct.

Q. And figure 7 in the text describes a heat sink panel 80, correct?

A. I want to see what figure 7 looks like.

Q. Would you like me to scroll to it?

A. Sure.

Q. But you -- you would agree with me that the text describes heat sink panel 80, right?

A. It says, "referring to figure 7" -- oh, you

moved it. So I can't read it.

Q. Sorry. Go ahead.

A. "Referring to figure 7, the lighting panel may further include a heat sink panel 80, which is configured on the side of the tile 10 opposite to the lighting elements 12. This heat may be extracted from the lighting panel in a direction opposite the direction of light emission."

Q. And then it further states that the heat sink panel 80 "may include a plurality of heat sink features 82, such as cooling fins," correct?

A. You read it correctly.

Q. All right. Let's take a look at figure 7, then. And is this the figure 7 that I'm showing you here?

A. That's figure 7.

Q. All right. And so 80 here refers to this rectangular panel depicted, correct?

A. It appears.

Q. And optional cooling fins 82 are shown here as fingers or tines coming off the bottom; is that correct?

A. Apparently.

Q. And so 80 is described as a heat sink panel that draws heat away from the LEDs in a direction opposite of the emission of light; is that correct?

A. That's what it -- how it appears.
Q. And so I'm clear, the direction of light here would go from the LED 12 towards 70; is that correct?
A. Apparently.
Q. And the heat, then, goes from 12 away from substrate 10 down into 80; is that correct?
A. Apparently.
Q. And that is the direction opposite? The heat is moving in the direction opposite of the light; is that correct?
A. It appears so.
Q. Now, 80 -- so if 10 is the substrate, correct? Do we need to show that to you?
A. Sure. You've got control.
Q. Oh, no. It's a tile, tile 10.
But you recognize that tile 10 includes the substrate, right?
A. I think they call the substrate something else in one of the other figures.
Q. Let's see --
A. Talking about a carrier substrate, substrate 13.
Q. So what did you understand, in the '075 patent, to be the difference between the substrate and -- here, in figure 5B, for example, and the tile 10?
A. I'm not sure. I'd have to do a search on tile.

Q. But in any event, the heat sink here would be moving it away from the substrate, which would be within the layer 10 tile area as well, correct?

MR. MASSAND: Objection to form.

THE WITNESS: So what are you pointing to? Figure 7?

BY MR. FERRARIO:

Q. Well, the substrate is not shown in figure 7, correct?

A. Yeah, we're not sure what's -- yeah, 10 is the tile. So I'm not sure.

Q. But 10 is shown in figure 5B, right?

A. There is a 10 in figure 5B.

Q. And substrate is sort of in the same area as figure 10, right?

A. It's hard to say. I'd have to study it a little bit.

Q. But in any event, the patent is explaining that the layer 80 can draw heat away from the substrate, correct?

A. I'd have to see the words to say "correct," not the claims in the description.

Q. But didn't we just cover that here?

A. We've been --

Q. Figure 7, right? And is this not describing the

heat sink panel 80 being extracted from the lighting panel in a direction opposite to the direction of light emission?

A. Yep.

Q. And the '075 patent discloses that the heat sink panel 80 can include black anodized aluminum. Do you see that?

A. I see that.

Q. And is that -- is that just a metal?

A. Oh, we all know what aluminum is.

Q. And we all know it's a metal, right?

A. I don't understand what -- the point you're making.

Q. Just looking for confirmation and agreement.

A. I can read.

Q. You can read, and you know aluminum is a metal, don't you? Right?

A. So it includes black anodized aluminum for improved heat emission.

Q. Is that because metal is conductive? It conducts heat?

MR. MASSAND: Objection to form.

THE WITNESS: Metal generally conducts heat.

BY MR. FERRARIO:

Q. And so the metal that's laying underneath the tile and the substrate there will serve as a heat sink to draw the heat away from the LED?

A. So the --

Q. Is that what's happening?

A. They are talking about heat sink panel 80, which may be coated and/or treated in a manner that decreases thermal resistance. For example, heat sink panel 80 may include black anodized aluminum for improved heat emission. That's an accurate reading of what they are trying -- what they are talking about.

Q. Now, this is a relatively common arrangement in LED lighting; is that correct?

A. I wouldn't characterize it like that.

Q. Well, heat sinks were known well before the priority date of the '075 patent, correct?

A. People have been using heat sinks for a long time in electronics. So you asked me if that's common in lighting panels, like LED backlights. So I've taken thousands of them apart, and I think -- I don't think I've ever seen a black anodized aluminum panel with fins on it beneath an LED. So I would not call it common at all.

Q. I'm sorry. Could you say that again?

A. I said, I don't think it's common. You said it

was common. I disagreed with you.

Q. Do you -- do you recall whether you had seen the use of heat sinks in prior art for backlighting display panels?

A. Well, I've seen heat sinks in -- in products. So I don't know what year and all that sort of thing or what time frame they are from. I can't recall. But I have seen something that could be referred to as a heat sink. I said, I have not seen black anodized aluminum heat sinks with fins.

Q. But Holman discloses heat sinks, right?

A. I can't testify to that. Show me.

Q. And Epstein discloses heat sinks as well, right?

A. Show me.

Q. Well, you didn't put in your declaration the fact that Holman discloses heat sinks, right?

MR. MASSAND: Objection to form.

THE WITNESS: So I can't remember what I said in my declaration about heat sinks. So I will look and see.

So are we talking about section D, combination of Mok, Holman, and Lamb, also does not disclose the heat sink panel on the second side in claim 6? That's what we are talking about?

I say in paragraph 53, "Petitioner

concedes that Mok does not explicitly disclose the heat sink and instead argues that a printed circuit board is a heat sink. Petition at 34.

"In the alternative -- so this is paragraph 54 -- "In the alternative, Petitioner relies on Holman and contends that Holman describes a base layer that functions as part of a heat sink. However, the actual text of Holman states that not only must the bast layer of material be thermally stable, it must be counted on to serve as part of the collective heat sink. Holman does not teach or suggest that base layer is considered by itself a heat sink panel." And more stuff on Holman.

It -- I think that's the entirety of my -- of my declaration on claim 6 in heat sinks. So if I missed something, I missed something. I stand by my declaration as it is.

MR. FERRARIO: Neal, let's take another 15-minute break, and let me go through my stuff, and we'll see if I have any more questions.

MR. MASSAND: Okay.

MR. FERRARIO: All right. So 4:10.

(Recess.)

MR. FERRARIO: I have no further questions. I'll pass the witness.

MR. MASSAND: We have no questions.

(The deposition was concluded at 4:12 p.m.)

DISCLOSURE

Pursuant to Article 10.B of the Rules and Regulations of the Board of Court Reporting of the Judicial Council of Georgia which states: Each court reporter shall tender a disclosure form at the time of the taking of the deposition stating the arrangements made for the reporting services of the certified court reporter, by the certified court reporter, the court reporter's employer or the referral source for the deposition, with any party to the litigation, counsel to the parties, or other entity. Such form shall be attached to the deposition transcript, I make the following disclosure: I am a Georgia Certified Court Reporter. I am here as a representative of Huseby Global Litigation.

Huseby Global Litigation, was contacted to provide court reporting services for the deposition. Huseby Global Litigation, will not be taking this deposition under any contract that is prohibited by O.C.G.A. 9-11-28(c). Huseby Global Litigation, has no contract/agreement to provide reporting services with any party to the case, any counsel in the case, or any reporter or reporting agency from whom a referral might have

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been made to cover this deposition. Huseby Global Litigation, will charge its usual and customary rates to all parties in the case, and a financial discount will not be given to any party to this litigation.

Susan DiFilippantonio
Susan DiFilippantonio, Notary Public
and Registered Professional Reporter
Commission Expires 10-22-2028
Georgia Certificate Number 2125

STATE OF GEORGIA:

COUNTY OF FULTON:

I hereby certify that the foregoing transcript was reported, as stated in the caption, and the questions and answers thereto were reduced to typewriting under my direction; that the foregoing pages represent a true, complete, and correct transcript of the evidence given upon said hearing, and I further certify that I am not of kin or counsel to the parties in the case; am not in the employ of counsel for any of said parties; nor am I in any way interested in the result of said case.

Susan DiFilippantonio

Susan DiFilippantonio, Notary Public
and Registered Professional Reporter
Commission Expires 10-22-2028
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CAPTION

The Deposition of WILLIAM BOHANNON, taken in the matter, on the date, and at the time and place set out on the title page hereof.

It was requested that the deposition be taken by the reporter and that same be reduced to typewritten form.

It was agreed by and between counsel and the parties that the Deponent will read and sign the transcript of said deposition.

CERTIFICATE OF REPORTER

STATE OF GEORGIA

COUNTY OF FULTON

Before me, this day, personally appeared, WILLIAM BOHANNON, who, being duly sworn, states that the foregoing transcript of his deposition, taken in the matter, on the date, and at the time and place set out on the title page hereof, constitutes a true and accurate transcript of said deposition.

If no changes need to be made on the following two pages, place a check here _____, and return only this signed page.

DEPOSITION ERRATA SHEET

Assignment No. 0009402

Case Caption: Hisense USA Corporation -vs- Brightplus Ventures, LLC

Witness: WILLIAM BOHANNON

DECLARATION UNDER PENALTY OF PERJURY I declare under penalty of perjury that I have read the entire transcript of my deposition taken in the captioned matter or the same has been read to me, and the same is true and accurate, save and except for changes and/or corrections, if any, as indicated by me on the DEPOSITION ERRATA SHEET hereof, with the understanding that I offer these changes as if still under oath.

_____ There are no changes noted.

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SIGNATURE OF DEPONENT

_____
WILLIAM BOHANNON

Sworn to and subscribed before me
this _____ day of _____, _____.

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