

Ex. 1002

UNITED STATES PATENT AND TRADEMARK OFFICE  

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SATCO PRODUCTS, INC.

Petitioner

v.

LIGHTING SCIENCE GROUP CORP.

Patent Owner

IPR Trial No.: To Be Assigned

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**DECLARATION OF DR. VICTOR ROBERT IN SUPPORT OF  
PETITION FOR INTER PARTES REVIEW  
OF U.S. PATENT NO. 8,672,518**

I, Victor Roberts, Ph.D., declare as follows:

1. I am over the age of 18 and am competent to make this declaration in support of Satco Product's Inc. ("Satco") Petition for Inter Partes Review. The information set forth here is from my own personal knowledge. If called to testify, I could and would provide testimony regarding the substance, contents, and reasons and bases for these statements.
2. I have been retained as an expert witness by Satco to address issues concerning the validity of U.S. Patent No. 8,672,518 ("the '518 Patent") for the above captioned inter partes review. I am being compensated for my time at a rate of \$250 per hour.
3. I am familiar with the technology at issue (i.e. LED luminaires). I am also familiar with the level of skill of a person of ordinary skill in the art with respect to the technology at issue as of October, 2009. In preparing this declaration, I reviewed the '968 Patent and considered each of the documents cited below in light of my knowledge of the technology at issue. When forming my opinions I considered the viewpoint of a person of ordinary skill in the art as of October, 2009.

**QUALIFICATIONS**

4. I have attached a current copy of my curriculum vitae as Exhibit A. Over the past four years I have testified as an expert either at a trial, hearing, or deposition in two patent infringement matters. The details of these cases are shown in Appendix B
5. I received a Bachelor of Science degree in Electrical Engineering from University of Maryland; a Master of Science degree in Engineering, with a major in Electrical Engineering, from Case Western Reserve University, and a Ph.D. in Electrical Engineering and Applied Physics from Case Western Reserve University.
6. I am an electrical engineer with a Ph.D. and over 45 years of experience in the design and construction of lighting systems and controls.
7. I am the named inventor on 39 United States Patents, and numerous associated foreign patents, related to lighting technology, plus one patent related to advanced appliance controls.
8. Since becoming an independent technology consultant over 16 years ago, I have been retained as an expert or expert witness in 22 other patent infringement matters.
9. I have over 52 years of experience conducting research & development in electrical engineering, laser physics, plasma physics, discharge physics and related disciplines, including more than 45 years of experience conducting and managing research & development on high efficacy linear fluorescent, compact fluorescent and metal halide lamps; low-mercury and mercury-free fluorescent lamps; electrodeless induction-coupled fluorescent and metal halide lamps; capacitively- and cavity-coupled sulfur lamps; selective emitters for high efficacy incandescent lamps; electronic ballasts and drivers for conventional and electrodeless fluorescent and HID lamps and lighting controls.

10. I am also a co-developer of the first retrofit energy-saving fluorescent lamp and a pioneer in the development of electrodeless fluorescent and metal halide lamps. I established and lead teams at the GE Research and Development Center that developed the Genura® compact fluorescent reflector lamp, world's first integrally-ballasted electrodeless fluorescent lamp; and an electrodeless metal halide lamp that remains the highest efficacy, high output, gas discharge, white light source ever demonstrated.
11. I am the co-editor (for technical content) of the revised edition of Lighting, Volume 1 of the E Source Technology Atlas Series, published in 2005 by Platts, a Division of the McGraw-Hill Companies, Inc., ISBN 1-58167-002-8. This volume, often known as The Lighting Technology Atlas, includes a section on light emitting diodes (LEDs). .

#### **STANDARDS USED AND RELIED UPON**

12. I have been informed that a patent's claims determine the scope of the invention. How those claims are construed is a matter of law that will ultimately be determined by the Board.
13. I have been informed that, for purposes of my opinions as to the validity of the claims of the '518 Patent, I am to give the claims the broadest reasonable interpretation in light of the specification.
14. I have been informed and understand that a patent claim can be invalid as anticipated if all of the limitations of a claim are disclosed in a single reference and are arranged in a similar manner.
15. I understand that a reference does not have to use the same terminology as the claim.

16. I understand that a reference can anticipate a claim even if the reference discloses additional functions or components not in the claim.
17. I have been informed and understand that a patent claim can also be invalid as being obvious to a person of ordinary skill in the art at the time the application was filed. I understand this to mean that even if all of the elements of a claim are not found in a single reference, the claim is still not patentable if the differences between the subject matter disclosed in the reference and what is claimed would have been obvious to a person of ordinary skill in the art at the time the application was filed.
18. I have been informed and understand that the determination of whether a claim would have been obvious should be based on several factors, including, among others:
- The level of ordinary skill in the art at the time the application was filed;
  - The scope and content of the prior art;
  - What differences, if any, existed between the claim and the prior art;
  - Objective indicia of non-obviousness, such as recognition of a problem or failure of others.
19. I have been informed and understand that the teachings of two or more references may be combined in the same way as disclosed in the claims, if such a combination would have been obvious to one having ordinary skill in the art. In determining whether a combination would have been obvious, it is appropriate to consider, among other factors:

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