Although light is defined as electromagnetic radiation that provides the stimulus for vision, we now know conclusively that ocular detection of this signal also has many other physiological and psychological effects in humans and other organisms. This knowledge has led some to argue for rapid adoption of lighting recommendations that incorporate “lighting for health” elements, whereas others have argued that a more cautious approach would be wiser. CIE created Technical Committee 3-46 to outline a research agenda that could lead to evidence-based recommendations for healthful interior lighting within the context of delivering good lighting quality. The starting point for this work was CIE publication 158:2004/2009 and its five principles for healthy lighting. Although not a comprehensive review of the literature on this vast topic, this report summarizes the state of knowledge at the time of publication and identifies gaps in our understanding that in the view of the committee ought to be filled in order to support safe and beneficial future uses of light. The report delivers a research roadmap of questions in themed groups: Fundamental Processes, Daily Pattern, Longer Patterns, Application, Application – Specific, and Individual Differences. The roadmap indicates the ease with which each question might be answered and its importance to lighting application in the short term. Design considerations and the ethics of using light to influence health also receive attention.

The publication is written in English, with a short summary in French and German. It consists of 47 pages with two figures and one table and is readily available at the National Committees of the CIE or via the CIE Webshop.

The price of this publication is EUR 135,- (Members of the National Committees of the CIE receive a 66,7 % discount).