PONGSIRI SIRIMONGKOL: CALCULATION OF LUMINANCE PERCIEVED BY OBSER-VERS IN SPORT LIGHTING. THESIS ADVISORS: MR. CHAIYA CHAMCHOY, M.Eng. 255 pp.

This thesis presents method of calculating luminance values of cylinder (sample object) percieved by observer (spectator, colour TV camera) and a microcomputer program developed for sports lighting calculation. It is used with the popular 16 bits microcomputer. The program can calculate illuminance levels at any specific point on horizontal planes and vertical planes facing to observer, and luminance levels on surface of cylinder; and is also able to find maximum, minimum, average and uniformity of illuminance. It can also plot isolux diagrams, 3 dimension graph of illuminance distribution

This calculation method is useful for the assessment of the quality of sports lighting, especially in matches that are to be broadcast.