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TRAFFIC SIGNAL LIGHTS: PERFORMANCE ON THE ROAD

Burini Júnior, Elvo Calixto (elvo@iee.usp.br)
IEE USP – Universidade de São Paulo, Instituto de eletrotécnica e Energia.

Abstract

Incandescent or LED traffic signal lamp shall meet minimum light intensity values, color (chromaticity), and light output distribution as described in some normative prescription (laboratory). We suppose that after the installation, based on normal use in traffic signal operation, the signal modules shall meet (or exceed) those values for a minimum period of time. The question is, for how long?

Measuring equipment limitation does exist, specially for some local market meters and field measurement are much more difficult to control, but considering that the traffic authority has to keep the signal working as specified for the proper signalization to the user, a minimum or even limited kind of information must be available.

The measurements of luminance from typical user's positions on the road were made. The objectives are to collect data from field head signal performance and to establish a simple procedure that can be used for light output values decay during continuous use over its life time.

Error found from some local market meters when measuring colored light, luminance, data from typical Traffic Signal Lights cities of São Paulo State, in Brazil will be collected and correlate with installation's information available. The reference is local and international specifications.

The digital image procedure can be used to achieve the same objective and it has in advance capability to make uniformity measurement.

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