

Abstract

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The Impact of Sunlight on the Performance of Visible Light Communication Systems over the Year

Visible light communications (VLC) is a valuable addition to future generations of networks, utilizing light for illumination for the purposes of advanced service provisioning at high speed. Low energy consumption, license free and RF interference free operation are compelling advantages. VLC systems are affected by sunlight limiting connection availability and reliability. The paper presents an analysis of the performance of VLC systems at different locations around the world over the cycle of a year the evaluation considers the impact of sunlight as a function of location, time and for different surfaces over the four seasons of the year.