# SKY BRIGHTNESS DURING TWILIGHT : WITHIN THE CONCEPT OF PHYSICS AND ASTRONOMICAL CONSIDERATION

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#### ABSTRACT

# SKY BRIGHTNESS DURING TWILIGHT : WITHIN THE CONCEPT OF PHYSICS AND ASTRONOMICAL CONSIDERATION

Sky brightness during twilight is one of the interesting area that can be discover by some scientist and also for those people who love to discover about the nature of the universe and atmosphere.

This study was done since a long time ago and it keeps continuing from time to time. As it was did in so many ways to see the differences and what are the things that related to this field, this project was done to discover and analyze what are the concept of physics and also its astronomical consideration that can be study especially during twilight.

Most people know that during twilight the changes of the sky colour are extremely can be seen during that time and it can be divided into two variations of twilight which are evening twilight and morning twilight. So from this atmosphere, the condition of the sky brightness can be discovering easily by using Sky Quality Meter (SQM) equipment.

From the data that was transferred into the computer, graph of the  $mag/arcsec^2$  versus the degree can be come out and also the luminance of twilight can be calculated from it. Here, the analysis of the sky brightness and its condition can be seen from the analysis of data.

After all the experiment was successfully done, the objectives of the project was successfully achieved where the relationship between the concept of physics and it astronomical concept are can be seen it related to each other.

## **CHAPTER 1**

#### **INTRODUCTION**

### Introduction

1.1

"When darkness is at its darkest, that is the beginning of all light."

– Lao-Tzu.

From the beginning of time, people has look out this world with all active curiosity, cataloging what they saw and at last develop the explanations for wily the earth and sky appear as they do. The results of this type of naturalistic activity as they relate to the earth's atmosphere have been done by Minnaert (Minnaert, 1954), whose work on at least the main lines of all of the knowledge which people had been able to gain from an earthbound position, by use the unaided eye (John et al.).

The darkness, or brightness, of the night sky and twilight is a topic of interest to all amateur astronomers and astrophotographers (Jerry Lodriguss, 2006). The beauty of the sky colour especially during twilight, make us curious to know what its physical properties that extremely related to it and factor it to be happened. We can see all that happened in our atmosphere are relevant to be study and also to be understood to reveal the secret of it.

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