ENEL 487 - Intersection: Gordon and Lockwood

1 Introduction

This document shows some example data taken from the traffic intersection at Gordon Road and Lockwood Road, in the city of Regina, SK, Canada, on 16:04 2020-09-12 Saturday. The Primary road is Gordon, and the Secondary is Lockwood.

1.1 The cycle times

This intersection has Red/Yellow/Green lights, as well as pedestrian crossings, in all four directions.

The usual range of durations for light times are given in the following table in seconds. Actual measured values for the Gordon/Lockwood intersection are in parentheses.

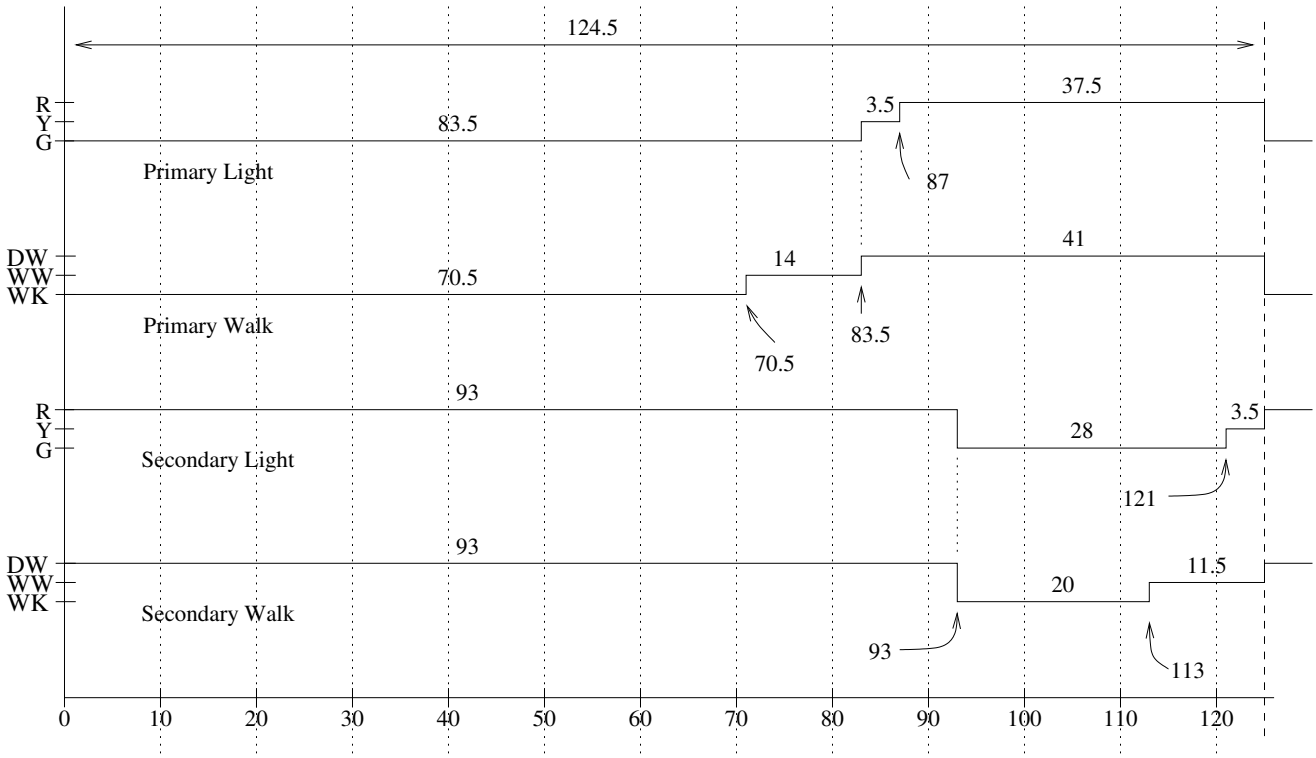
Parameter	Abbrev.	Value Range	Description
Primary GREEN Time	PGT	10–180 (83.5)	Length of time the primary GREEN light is on
Primary YELLOW Time	PYT	2–10 (3.5)	Length of time the primary YELLOW light is on
Primary RED Delay Time	PRDT	0–7 (6)	Length of time between when primary RED light is turned on and the secondary GREEN light is turned on.
Primary Walk Time	PWT	10–180 (83.5)	Length of time the primary walk light is on
Primary Walk Warning Time	PWWT	2–10 (3.5)	Length of time the primary walk warning light is on
Primary Don't Walk Time	PDWT	0–7 (6)	Length of time the primary don't walk light is on.
Secondary GREEN Time	SGT	10–180 (28)	Length of time the secondary GREEN light is on
Secondary YELLOW Time	SYT	2–10 (3.5)	Length of time the secondary YELLOW light is on
Secondary RED Delay Time	SRDT	0–7 (0)	Length of time between when secondary RED light is turned on and the primary GREEN light is turned on.
Secondary Walk Time	SWT	10–180 (83.5)	Length of time the secondary walk light is on
Secondary Walk Warning Time	SWWT	2–10 (3.5)	Length of time the secondary walk warning light is on
Secondary Don't Walk Time	SDWT	0–7 (6)	Length of time the secondary don't walk light is on.

1.2 Timing Diagram

The timing diagram follows from the data in the above table. I have used the letters **R** (Red), **Y** (Yellow), and **G** (Green) for traffic lights and **DW** (Don't Walk), **WW** (Walk Warning), and **WK** (Walk) for Walk Lights.

The full cycle time for the intersection is 124.5 s. The the walk light timings measured were those default values used in the absence of pedestrian-activated behaviour; whether such activation changes the timing was not determined.

In other words, the timing diagram shows the intersection's behaviour in Static Cycle Mode (SCM).


124.5
R
Y
G
83.5
3.5
37.5
87
Primary Light
DW
WW
WK
70.5
14
41
83.5
70.5
Primary Walk
R
Y
G
93
28
3.5
121
Secondary Light
DW
WW
WK
93
20
11.5
93
113
Secondary Walk
0
10
20
30
40
50
60
70
80
90
100
110
120