OPEN PROTOCOL FOR ELECTRICAL NETWORKS

Who = 1
LIGHTING
Version 1.1

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November 17, 2014

Contents

Chapter 1

Introduction

This file is available from http://www.myopen-legrandgroup.com. The purpose of this document is to describe the Open Web Net Message for WHO = 1 - LIGHTING. In particular, the document contains the *"1.1 Abbreviations"* section which describe some terms, with the relative values, used within the open message. The second chapter, *"WHO 1"*, contains the "WHAT", "DIMENSION" and "WHERE" tables, finally the chapter 3, *"Allowed OPEN messages Session"*, contains command and event session, status request, dimension writing and request.

1.1 Abbreviations

Name	Description	Range of Values
<dimmerSpeed>	Turn off (or on) the light at a pre-established speed	[0-255]: • 0 → Last speed used • from 1 to 254 → Actual speed • 255 → Default speed
<dimmerLevel10>	Dimmer's level	[2-10]: • 2 → 20% • 3 → 30% • 4 → 40% • 5 → 50% • 6 → 60% • 7 → 70% • 8 → 80% • 9 → 90% • 10 → 100%
<dimmerLevel100>	The increase of the luminosity intensity of the light point; expressed as a percentage value	[100-200]: • 100 → Switching off • 200 → Maximum luminosity intensity
<hour>	It indicate show many hours the actuator has to stay ON	[0-255]

<min>	It indicate show many minutes the actuator has to stay ON	[0-59]
<sec>	It indicate show many seconds the actuator has to stay ON	[0-59]
<status>	It indicates the status of actuator or dimmer	Status [0-1]: • 0 → OFF • 1 → ON
<workingTime>	The working time of the device in hours	[1-100000]

Chapter 2

WHO 1

2.1 WHAT Table

Value	Description
0	Turn off
0#x	Turn off at x speed for step
1	Turn on
1#x	Turn on at x speed for step
2	20%
3	30%
4	40%
5	50%
6	60%
7	70%
8	80%
9	90%
10	100%
11	ON timed 1 Min
12	ON timed 2 Min
13	ON timed 3 Min
14	ON timed 4 Min
15	ON timed 5 Min
16	ON timed 15 Min
17	ON timed 30 Sec
18	ON timed 0.5 Sec
20	Blinking on 0.5 sec
21	Blinking on 1 sec
22	Blinking on 1.5 sec
23	Blinking on 2 sec
24	Blinking on 2.5 sec
25	Blinking on 3 sec
26	Blinking on 3.5 sec
27	Blinking on 4 sec
28	Blinking on 4.5 sec
29	Blinking on 5 sec
30	Up one level
30#x#y	Up of x levels at y speed for steep
31	Down one level
31#x#y	Down of x levels at y speed for step
1000	It accepts a parameter that is the value of what table

2.2 DIMENSION Table

Value	Description
1	Set up the level at X speed
2	Temporization
3	Required Only ON Light
4	Status dimmer 100 levels with ON/OFFspeed
8	Working time lamp
9	Max working time lamp

2.3 WHERE Table

Description	Value
Interface	Int = I3I4: • I3 = 0; I4 [1 – 9] • I3 = 1; I4 [1 – 5]
General	• 0 → General of system • 0#4#<Int>→ General of local bus
Area	A [00, 1 – 9, 100]: • <A>→ Area of private riser • <A>#4#<Int>→ Area of local bus
Group	G [1 – 255] • #<G>→ Group of private riser • #<G>#4#<Int>→ Group of local bus
Point to point	A; PL: • A = 00; PL [01 – 15] • A [1 – 9]; PL [1 – 9] • A = 10; PL [01 – 15]; • A [01 – 09]; PL [10 – 15] • <A><PL>→ Point to point of private riser • <A><PL>#4#<Int>→ Point to point of local bus

Chapter 3

Allowed OPEN messages Session

3.1 Command session - Light Frames

3.1.1 Turn OFF - What = 0

Command	Open Frame
Client → Server	*1*0*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*0*<where>##

3.1.2 Turn ON - What = 1

Command	Open Frame
Client → Server	*1*1*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*1*<where>##

3.1.3 ON timed 1 min - What = 11

Command	Open Frame
Client → Server	*1*11*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*1*<where>##
Server → Client	*1*<status>*<where>##

3.1.4 ON timed 2 min - What = 12

Command	Open Frame
Client → Server	*1*12*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*1*<where>##
Server → Client	*1*<status>*<where>##

3.1.5 ON timed 3 min - What = 13

Command	Open Frame
Client → Server	*1*13*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*1*<where>##
Server → Client	*1*<status>*<where>##

3.1.6 ON timed 4 min - What = 14

Command	Open Frame
Client → Server	*1*14*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*1*<where>##
Server → Client	*1*<status>*<where>##

3.1.7 ON timed 5 min - What = 15

Command	Open Frame
Client → Server	*1*15*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*1*<where>##
Server → Client	*1*<status>*<where>##

3.1.8 ON timed 15 min - What = 16

Command	Open Frame
Client → Server	*1*16*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*1*<where>##
Server → Client	*1*<status>*<where>##

3.1.9 ON timed 30 min - What = 17

Command	Open Frame
Client → Server	*1*17*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*1*<where>##
Server → Client	*1*<status>*<where>##

3.1.10 ON timed 0.5 sec - What = 18

Command	Open Frame
Client → Server	*1*18*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*1*<where>##
Server → Client	*1*<status>*<where>##

3.1.11 Blinking on 0.5 sec - What = 20

Command	Open Frame
Client → Server	*1*20*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*20*<where>##

3.1.12 Blinking on 1 sec - What = 21

Command	Open Frame
Client → Server	*1*21*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*21*<where>##

3.1.13 Blinking on 1.5 sec - What = 22

Command	Open Frame
Client → Server	*1*22*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*22*<where>##

3.1.14 Blinking on 2 sec - What = 23

Command	Open Frame
Client → Server	*1*23*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*23*<where>##

3.1.15 Blinking on 2.5 sec - What = 24

Command	Open Frame
Client → Server	*1*24*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*24*<where>##

3.1.16 Blinking on 3 sec - What = 25

Command	Open Frame
Client → Server	*1*25*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*25*<where>##

3.1.17 Blinking on 3.5 sec - What = 26

Command	Open Frame
Client → Server	*1*26*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*26*<where>##

3.1.18 Blinking on 4 sec - What = 27

Command	Open Frame
Client → Server	*1*27*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*27*<where>##

3.1.19 Blinking on 4.5 sec - What = 28

Command	Open Frame
Client → Server	*1*28*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*28*<where>##

3.1.20 Blinking on 5 sec - What = 29

Command	Open Frame
Client → Server	*1*29*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*29*<where>##

3.1.21 Command translation - What = 1000

Command	Open Frame	Note
Client → Server	*1*1000#<what>*<where>##	This command is valid for dimmer too
Server → Client	Ack	

Event Session	Open Frame
Server → Client	*1*1000#<what>*<where>##

3.2 Command session - Dimmer Frames

3.2.1 Turn OFF - What = 0

Command	Open Frame
Client → Server	*1*0*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*0*<where>##

3.2.2 Turn ON - What = 1

Command	Open Frame
Client → Server	*1*1*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*<dimmerLevel10>*<where>##

3.2.3 Turn OFF at x SPEED for step - What = 0#

Command	Open Frame
Client → Server	*1*0#<dimmerSpeed>*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*#1*<where>*1*<dimmerLevel100>*<dimmerSpeed>##

3.2.4 Turn ON at x SPEED - What = 1#

Command	Open Frame
Client → Server	*1*1#<dimmerSpeed>*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*#1*<where>*1*<dimmerLevel100>*<dimmerSpeed>##

3.2.5 20% - What = 2

Command	Open Frame
Client → Server	*1*2*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*2*<where>##

3.2.6 30% - What = 3

Command	Open Frame
Client → Server	*1*3*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*3*<where>##

3.2.7 40% - What = 4

Command	Open Frame
Client → Server	*1*4*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*4*<where>##

3.2.8 50% - What = 5

Command	Open Frame
Client → Server	*1*5*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*5*<where>##

3.2.9 60% - What = 6

Command	Open Frame
Client → Server	*1*6*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*6*<where>##

3.2.10 70% - What = 7

Command	Open Frame
Client → Server	*1*7*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*7*<where>##

3.2.11 80% - What = 8

Command	Open Frame
Client → Server	*1*8*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*8*<where>##

3.2.12 90% - What = 9

Command	Open Frame
Client → Server	*1*9*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*9*<where>##

3.2.13 100% - What = 10

Command	Open Frame
Client → Server	*1*10*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*10*<where>##

3.2.14 ON timed 1 min - What = 11

Command	Open Frame
Client → Server	*1*11*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*11*<where>##
Server → Client	*1*<dimmerLevel10>*<where>##
Server → Client	*1*<status>*<where>##

3.2.15 ON timed 2 min - What = 12

Command	Open Frame
Client → Server	*1*12*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*12*<where>##
Server → Client	*1*<dimmerLevel10>*<where>##
Server → Client	*1*<status>*<where>##

3.2.16 ON timed 3 min - What = 13

Command	Open Frame
Client → Server	*1*13*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*13*<where>##
Server → Client	*1*<dimmerLevel10>*<where>##
Server → Client	*1*<status>*<where>##

3.2.17 ON timed 4 min - What = 14

Command	Open Frame
Client → Server	*1*14*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*14*<where>##
Server → Client	*1*<dimmerLevel10>*<where>##
Server → Client	*1*<status>*<where>##

3.2.18 ON timed 5 min - What = 15

Command	Open Frame
Client → Server	*1*15*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*15*<where>##
Server → Client	*1*<dimmerLevel10>*<where>##
Server → Client	*1*<status>*<where>##

3.2.19 ON timed 15 min - What = 16

Command	Open Frame
Client → Server	*1*16*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*16*<where>##
Server → Client	*1*<dimmerLevel10>*<where>##
Server → Client	*1*<status>*<where>##

3.2.20 ON timed 30 sec - What = 17

Command	Open Frame
Client → Server	*1*17*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*17*<where>##
Server → Client	*1*<dimmerLevel10>*<where>##
Server → Client	*1*<status>*<where>##

3.2.21 ON timed 0.5 sec - What = 18

Command	Open Frame
Client → Server	*1*18*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*18*<where>##
Server → Client	*1*<dimmerLevel10>*<where>##
Server → Client	*1*<status>*<where>##

3.2.22 Up one level - What = 30

Command	Open Frame
Client → Server	*1*30*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*<dimmerLevel10 + 1>*<where>##

3.2.23 Up of x levels at y SPEED for step - What = 30#x#y

Command	Open Frame
Client → Server	*1*30#<dimmerLevel10>#<dimmerSpeed>*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*#1*<where>*1*<dimmerLevel100>*<dimmerSpeed>##

3.2.24 Down one level - What = 31

Command	Open Frame
Client → Server	*1*31*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*<dimmerLevel10 - 1>*<where>##

3.2.25 Down of x levels at y SPEED for step - What = 31#x#y

Command	Open Frame
Client → Server	*1*31#<dimmerLevel10>#<dimmerSpeed>*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*#1*<where>*1*<dimmerLevel100>*<dimmerSpeed>##

3.3 Status request

3.3.1 Light status request command

Command	Open Frame
Client → Server	*#1*<where>##
Server → Client	*1*<status>*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*<status>*<where>##

3.3.2 Dimmer status request command

Command	Open Frame
Client → Server	*#1*<where>##
Server → Client	*1*<dimmerLevel10>*<where>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*<dimmerLevel10>*<where>##

3.4 Dimension writing

3.4.1 Set up the level at X speed - Dimension = 1

Command	Open Frame
Client → Server	*#1*<where>#1*<dimmerLevel100><dimmerSpeed>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*#1*<where>*1*<dimmerLevel100>*<dimmerSpeed>##

3.4.2 Temporization command - Dimension = 2

Command	Open Frame
Client → Server	*#1*<where>*#2*<hour>*<min>*<sec>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*1*<state>*<where>##
Server → Client	*#1*<where>*#2*<dimmerLevel100>*<dimmerSpeed>## (only for dimmer)

3.4.3 Max working time lamp - Dimension = 9

Command	Open Frame
Client → Server	*#1*<where>*#9*<workingTime>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*#1*<where>*#9*<workingTime>##

3.5 Dimension request

3.5.1 Set up the level at X speed - Dimension = 1

Command	Open Frame
Client → Server	*#1*<where>*1##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*#1*<where>*1*<dimmerLevel100>*<dimmerSpeed>##

3.5.2 Temporization request - Dimension = 2

Command	Open Frame
Client → Server	*#1*<where>*2##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*#1*<where>*2*<hour>*<min>*<sec>##

3.5.3 Required Only ON Light - Dimension = 3

Command	Open Frame
Client → Server	*#1*<where>*3##
Server → Client	*1*<dimmerLevel10>*<where>## (only if some dimmer is ON)
Server → Client	*1*<status>*12<where>## (only if some lights is ON, status=1)
Server → Client	Ack

3.5.4 Working time lamp - Dimension = 8

Command	Open Frame
Client → Server	*#1*<where>*8##
Server → Client	*#1*<where>*8*<workingTime>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*#1*<where>*8*<workingTime>##

3.5.5 Max working time lamp - Dimension = 9

Command	Open Frame
Client → Server	*#1*<where>*9##
Server → Client	*#1*<where>*9*<workingTime>##
Server → Client	Ack

Event Session	Open Frame
Server → Client	*#1*<where>*9*<workingTime>##

3.6 Event session

3.6.1 Light status

Event Session	Open Frame
Server → Client	*1*<what>*<where>##

3.6.2 Luminous intensity change

Event Session	Open Frame
Server → Client	*#1*<where>*1*<dimmerLevel100>*<dimmerSpeed>##

3.6.3 Light temporization

Event Session	Open Frame
Server → Client	*#1*<where>*2*<hour>*<min>*<sec>##

Chapter 4

WHO 14

4.1 WHAT Table

Value	Description
0	Disable
1	Enable

4.2 WHERE Table

Description	Value
General	• 0 → General of system
Area	A [00, 1 − 9, 100]: • <A>→ Area
Point to point	A; PL: • <A><PL>→ Point to point

Chapter 5

Allowed OPEN messages Session

5.1 Command session - Special Commands

5.1.1 Disable - What = 0

Command	Open Frame
Client → Server	*14*0*<where>##
Server → Client	Ack

Event Session	Open Frame	Note
Server → Client	*14*0*<where>##	if the command is addressed to APL there won't be any answer in the monitor session.

5.1.2 Enable - What = 1

Command	Open Frame
Client → Server	*14*1*<where>##
Server → Client	Ack

Event Session	Open Frame	Note
Server → Client	*14*1*<where>##	if the command is addressed to APL there won't be any answer in the monitor session.