



# **Autonomous Dimming Function for Outdoor luminaires and LED Modules Basic+**

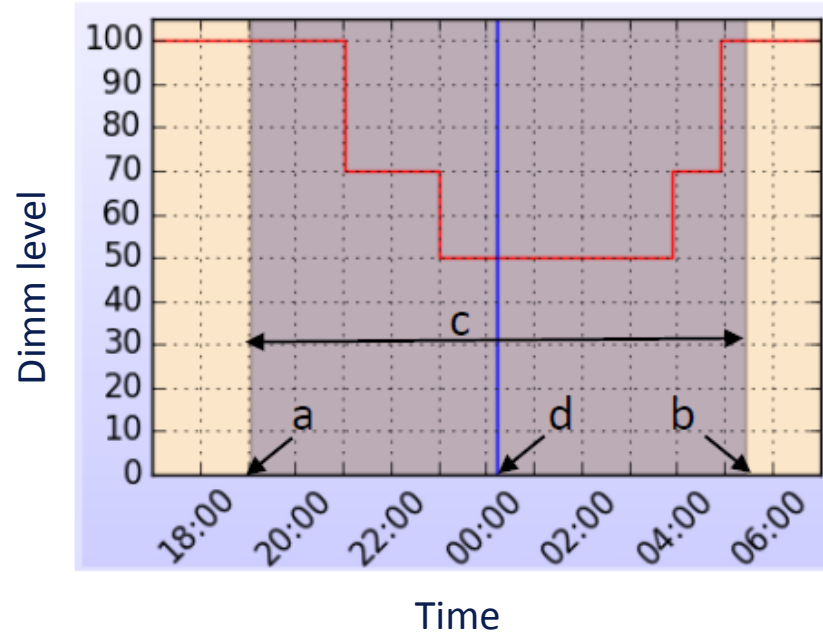
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LED Lighting solutions for Municipality , Industry und Commerce

## Description of Operation

- Lunux luminaires provide the option of autonomous dimming operation.
- During operation, the light level is automatically dimmed to different levels according to a predefined profile (examples below) .
- A maximum of 5 dimming steps between 0-100% can be defined.

## Description of Operation



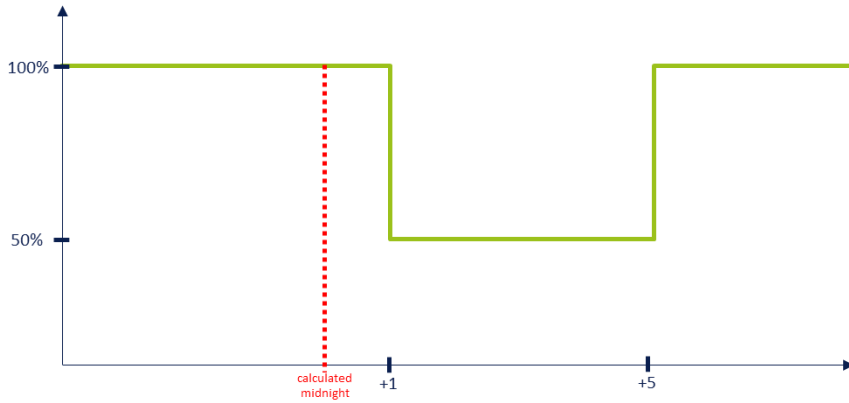
a: last switch on  
b: last switch off  
c: last runtime  
d: calculated midnight

1. During operation the luminaire counts the runtime between switching on and off and saves this information
2. At next operation the saved runtime is used to calculate a virtual midnight point\*.
3. The dimming points for next operation are then determined relative to this midnight point

\*for accurate midnight calculation, the luminaire needs to be switched on in the same offset to sunset as it is switched off to sunrise (e.g. switch on 20 min after sunset and switch off 20 min before sunrise)

# Overview

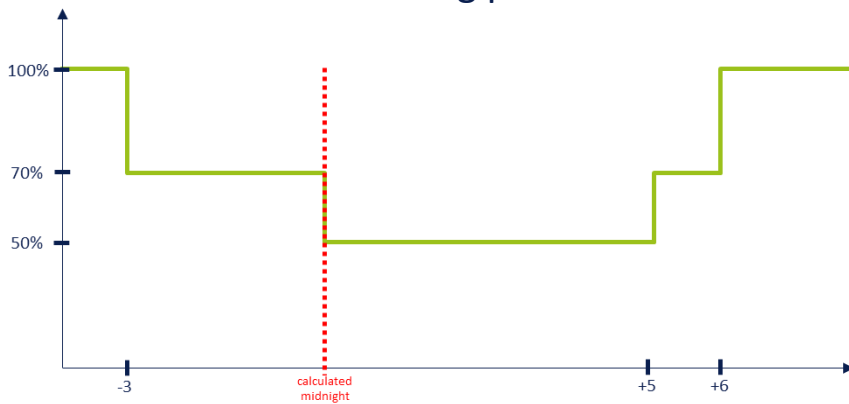
### D01: Dimming profile 1



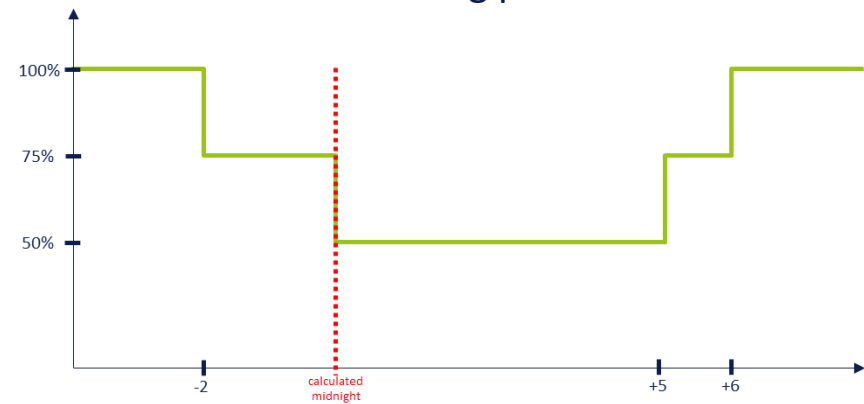
### D02: Dimming profile 2



### D03: Dimming profile 3

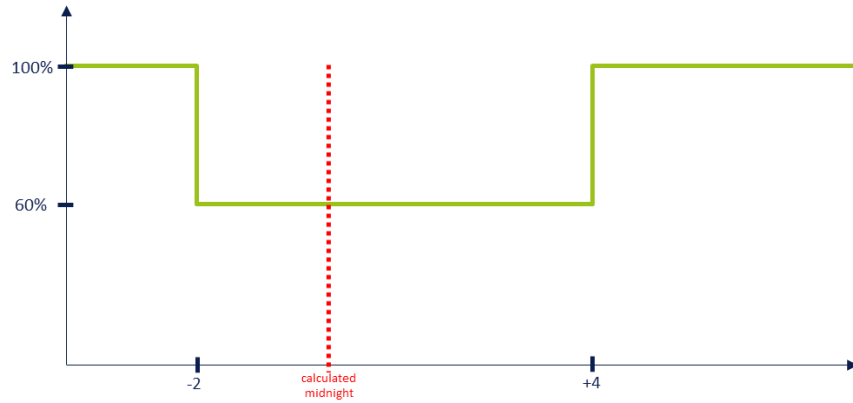


### D04: Dimming profile 4

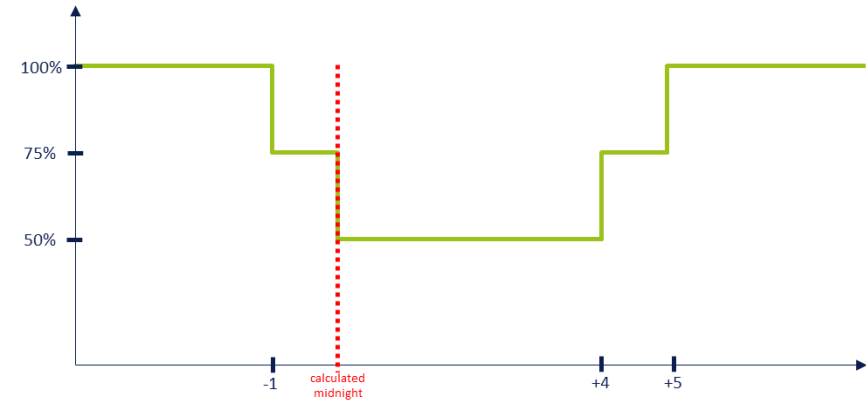


# Overview

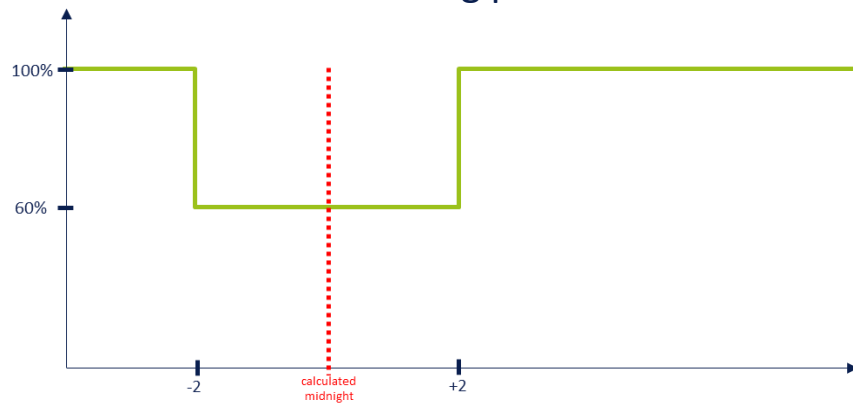
### D05: Dimming profile 5



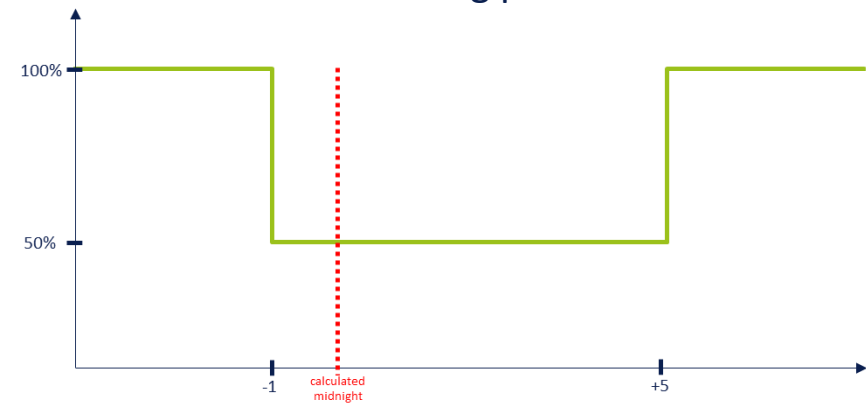
### D06: Dimming profile 6



### D07: Dimming profile 7

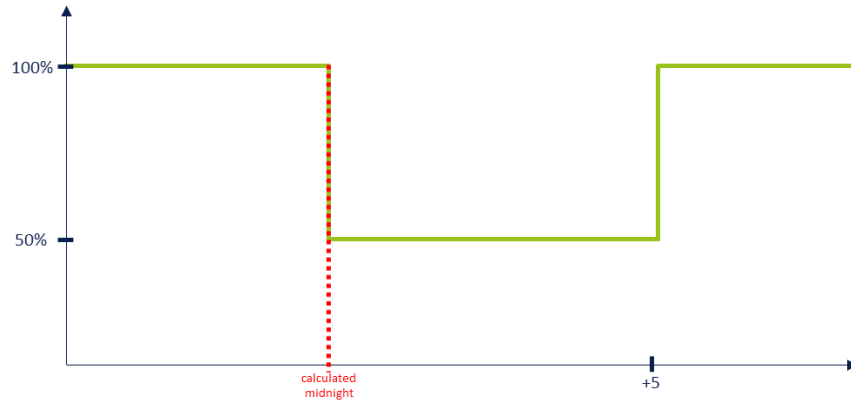


### D08: Dimming profile 8



# Overview

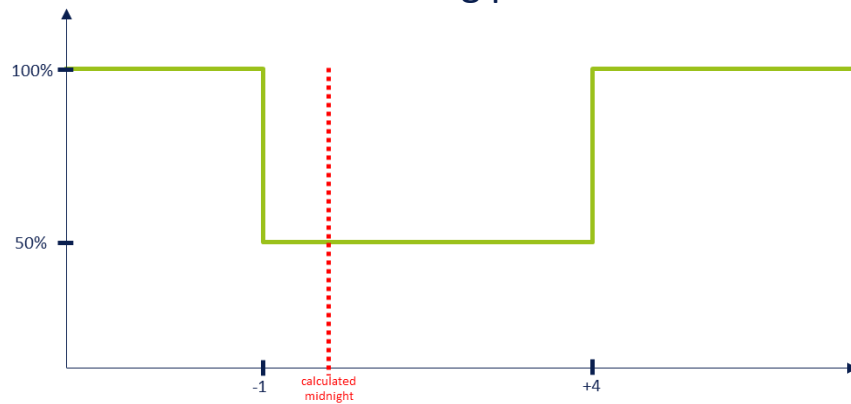
D09: Dimming profile 9



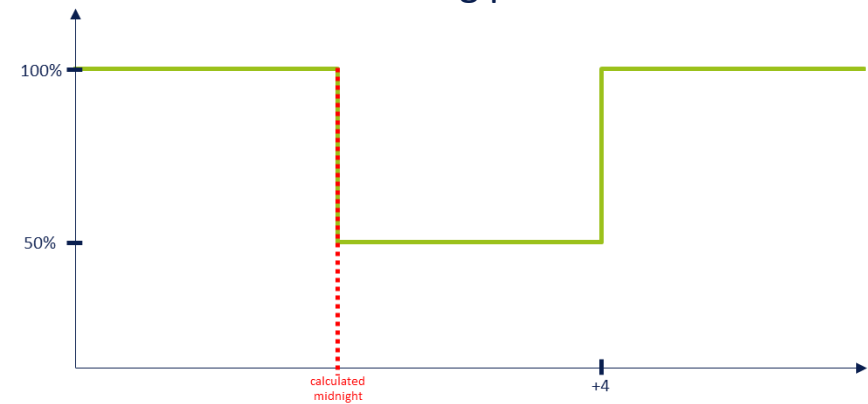
D10: Dimming profile 10



D11: Dimming profile 11

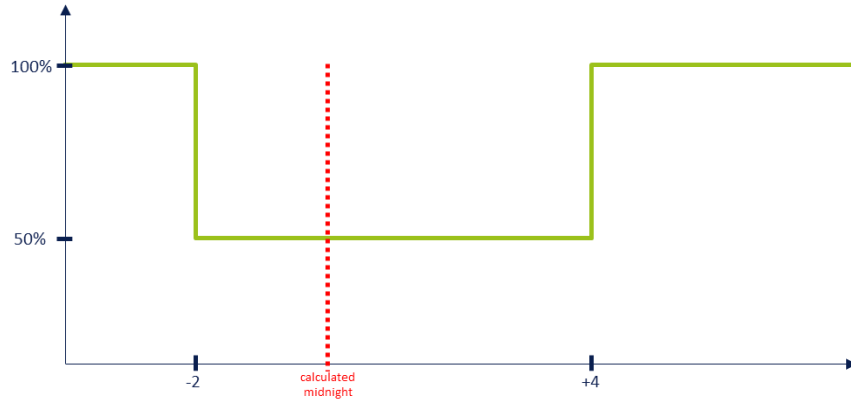


D12: Dimming profile 12

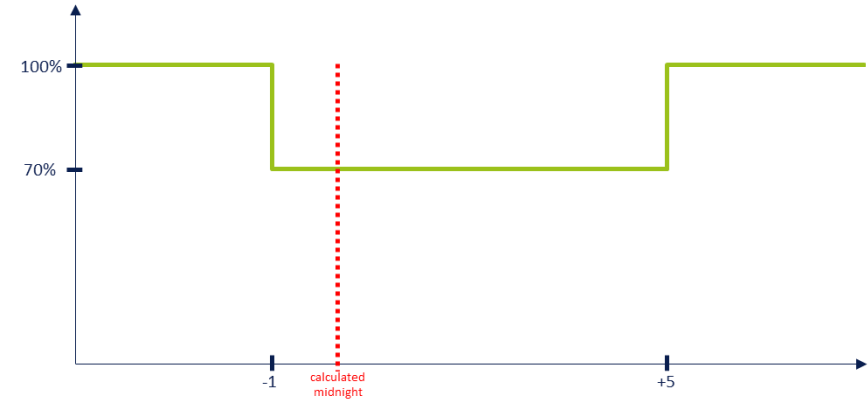


# Overview

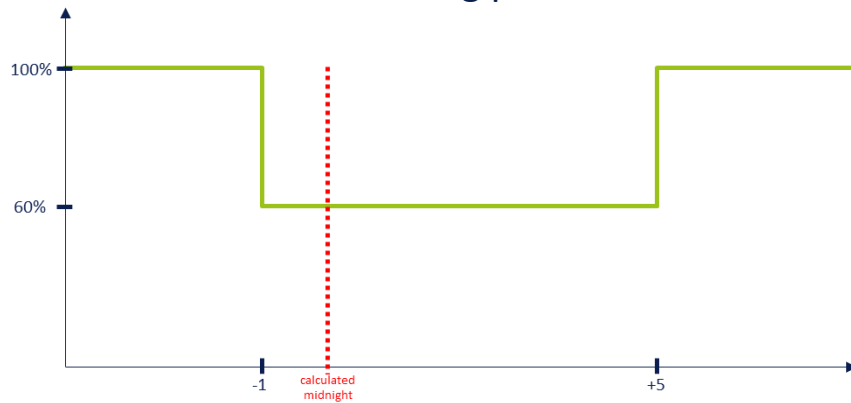
### D13: Dimming profile 13



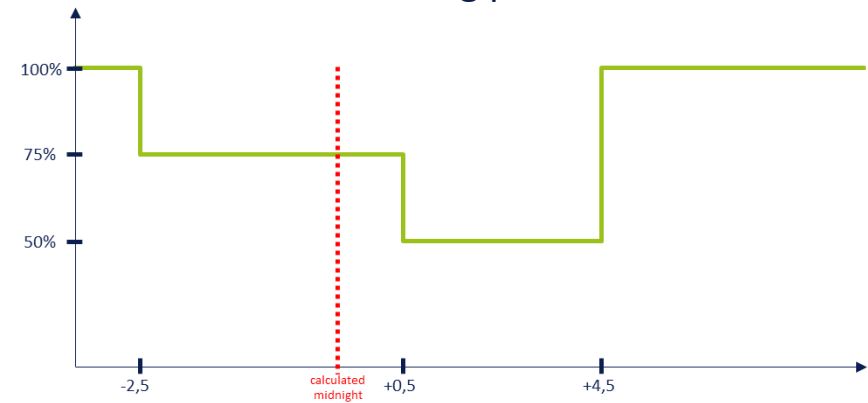
### D14: Dimming profile 14



### D15: Dimming profile 15

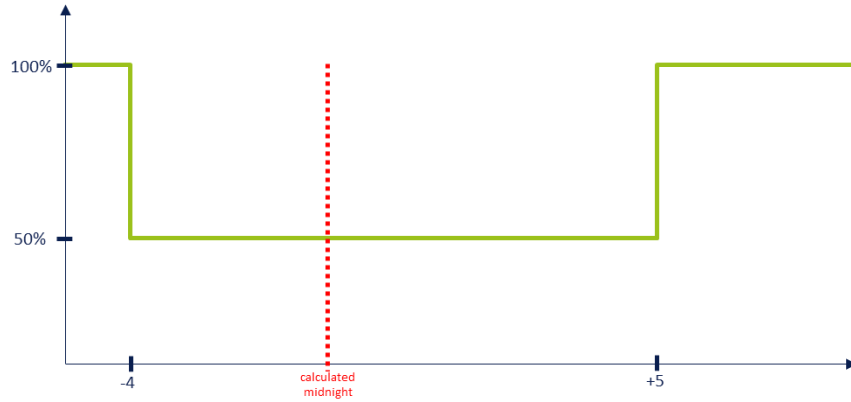


### D16: Dimming profile 16

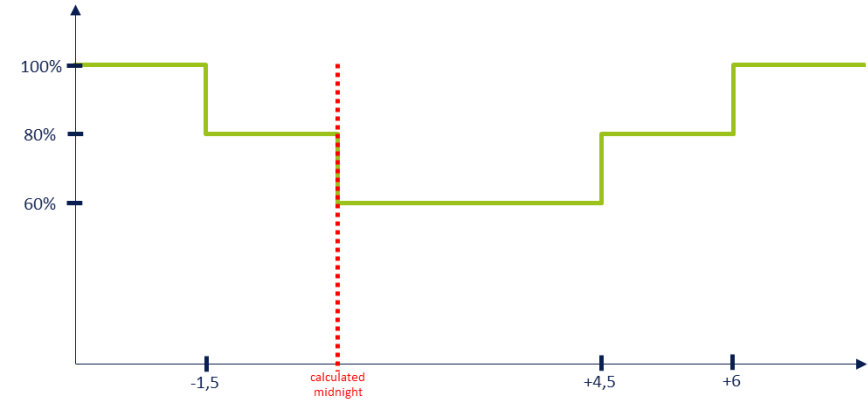


# Overview

### D17: Dimming profile 17



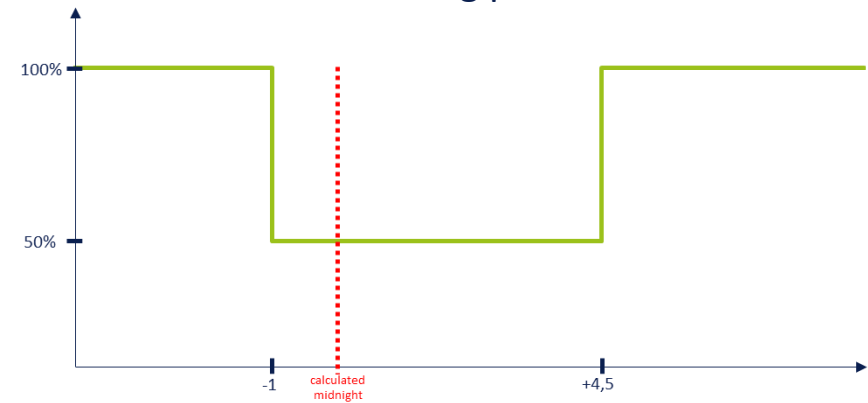
### D18: Dimming profile 18



### D19: Dimming profile 19



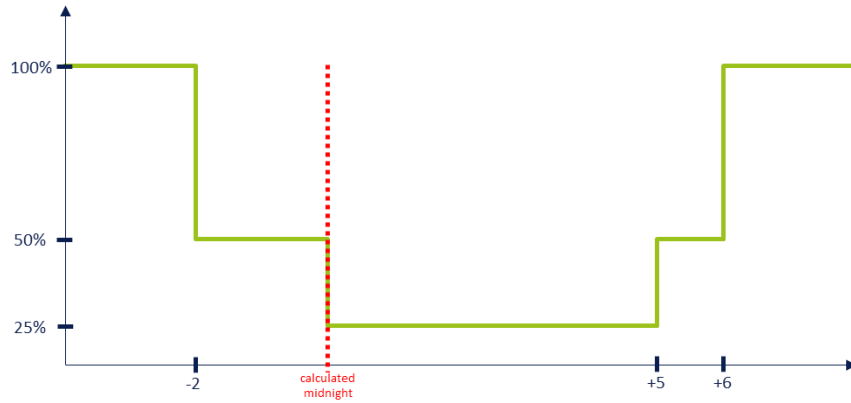
### D20: Dimming profile 20





# Overview

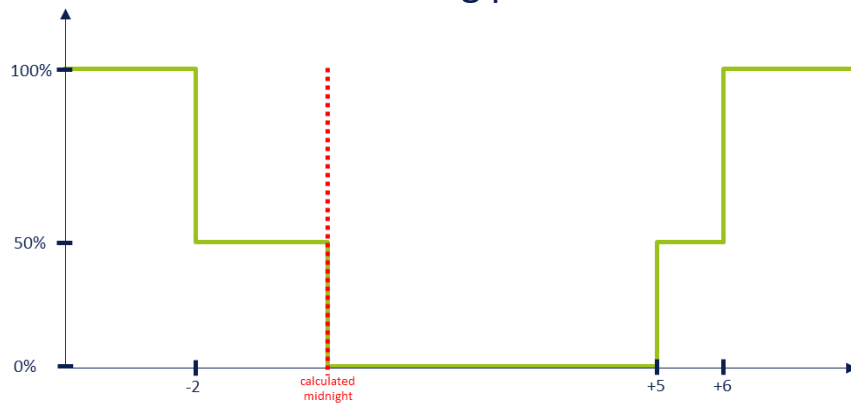
### D21: Dimming profile 21



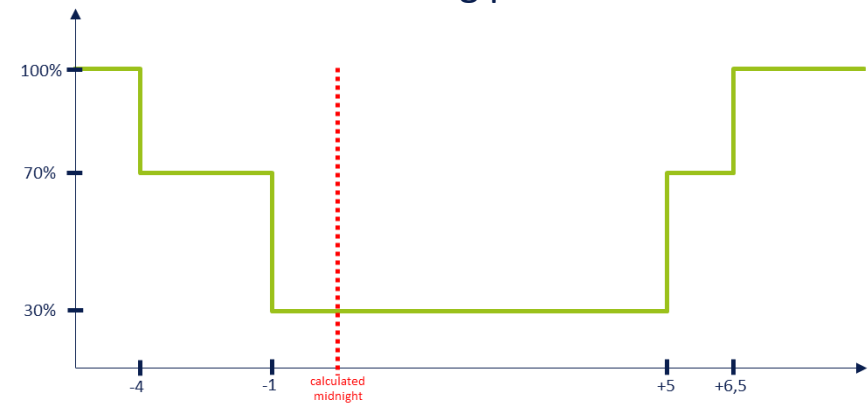
### D22: Dimming profile 22



### D23: Dimming profile 23

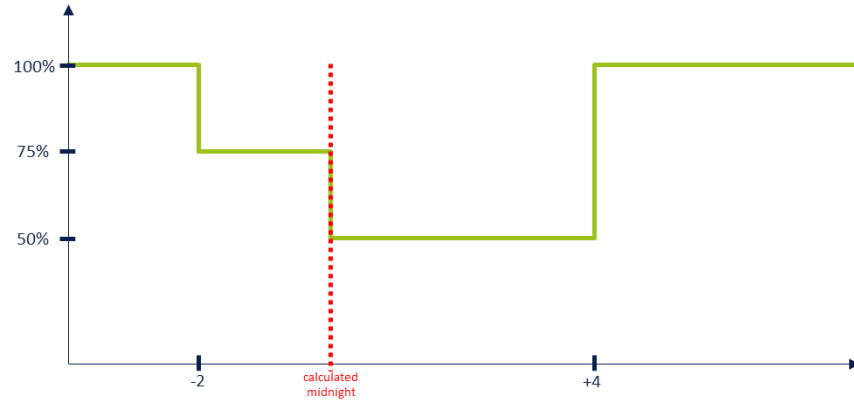


### D24: Dimming profile 24

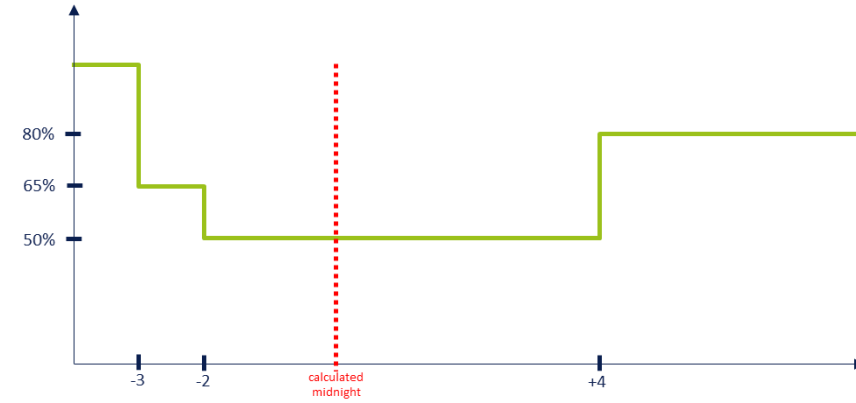


# Overview

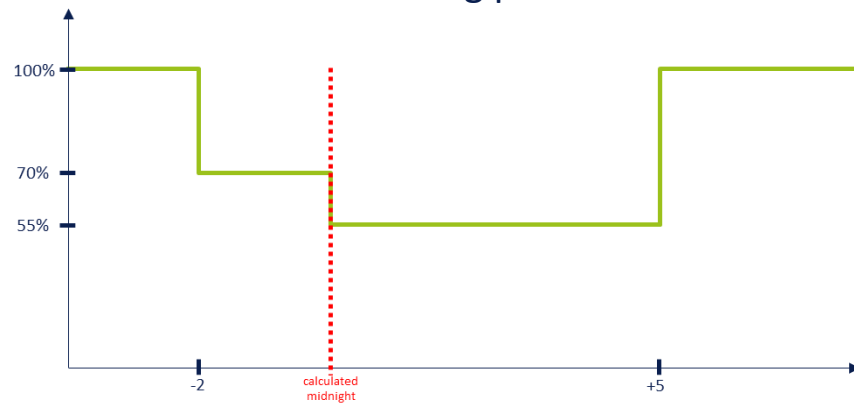
### D25: Dimming profile 25



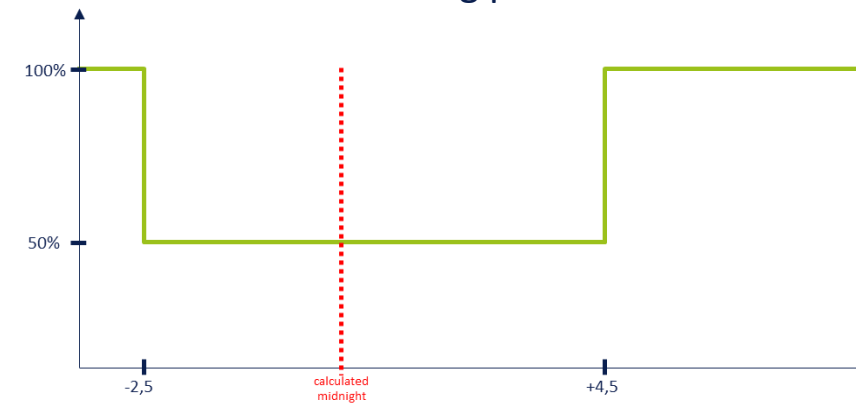
### D26: Dimming profile 26



### D27: Dimming profile 27



### D28: Dimming profile 28

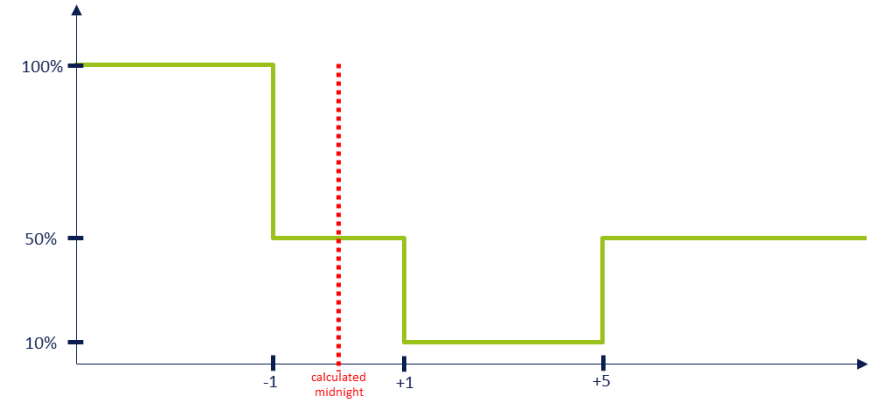


# Overview

### D29: Dimming profile 29

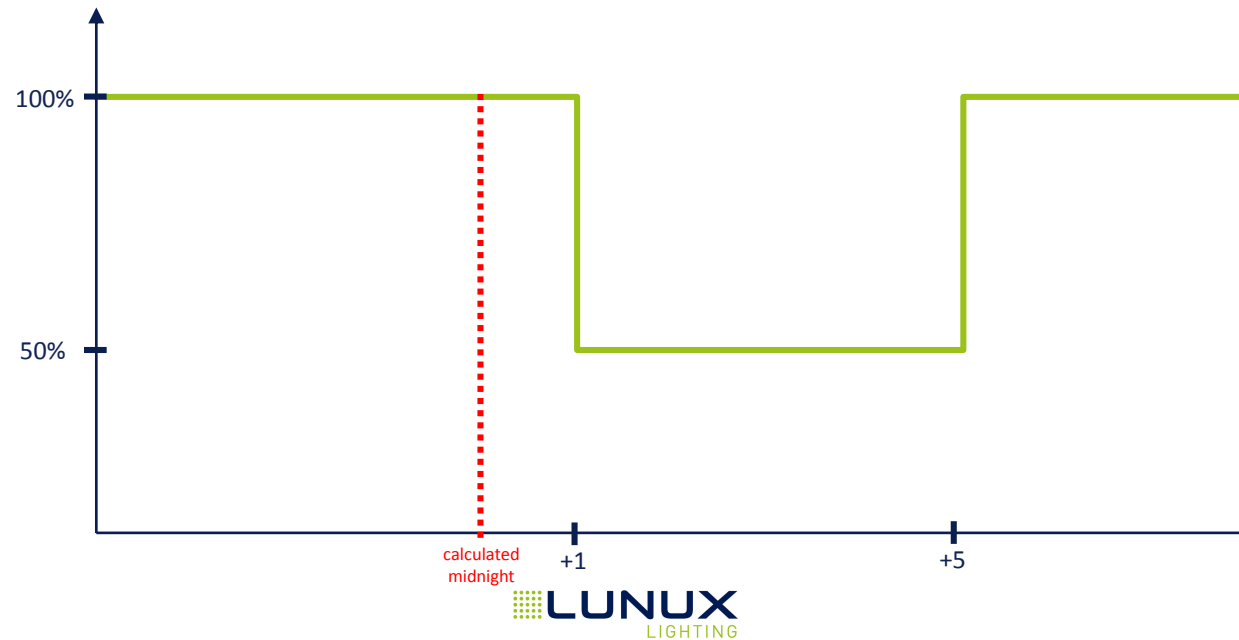


### D30: Dimming profile 30



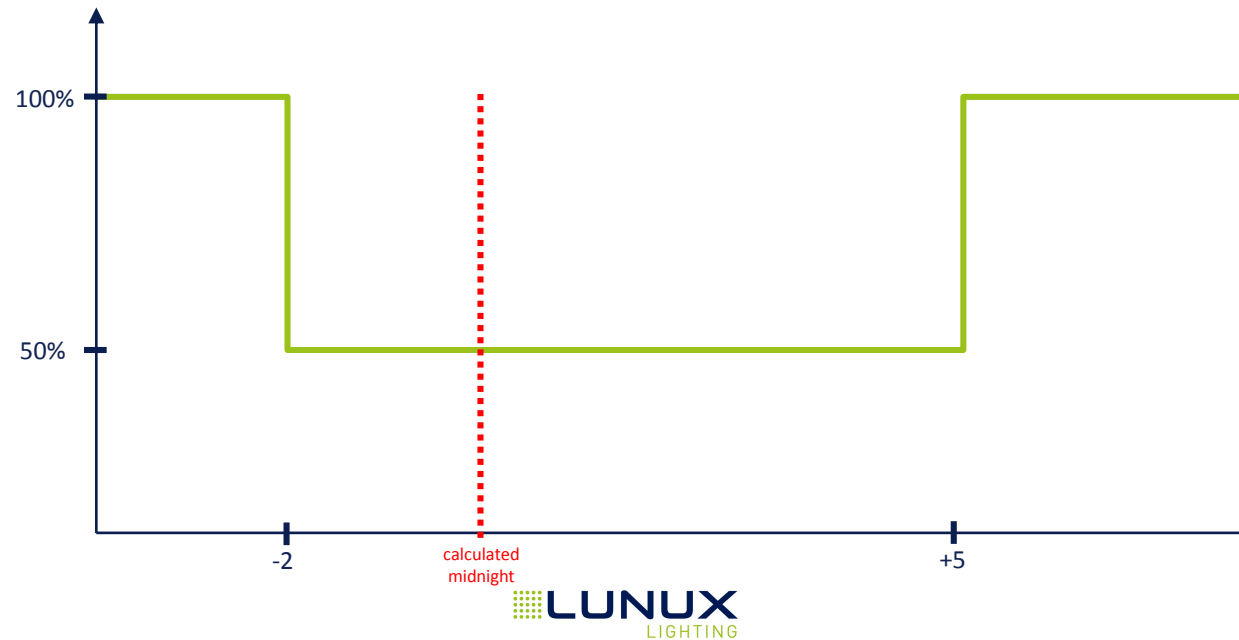
## D01: Dimming profile 1

Time	Level
Until +1	100%
+1 to +5	50%
From +5	100%



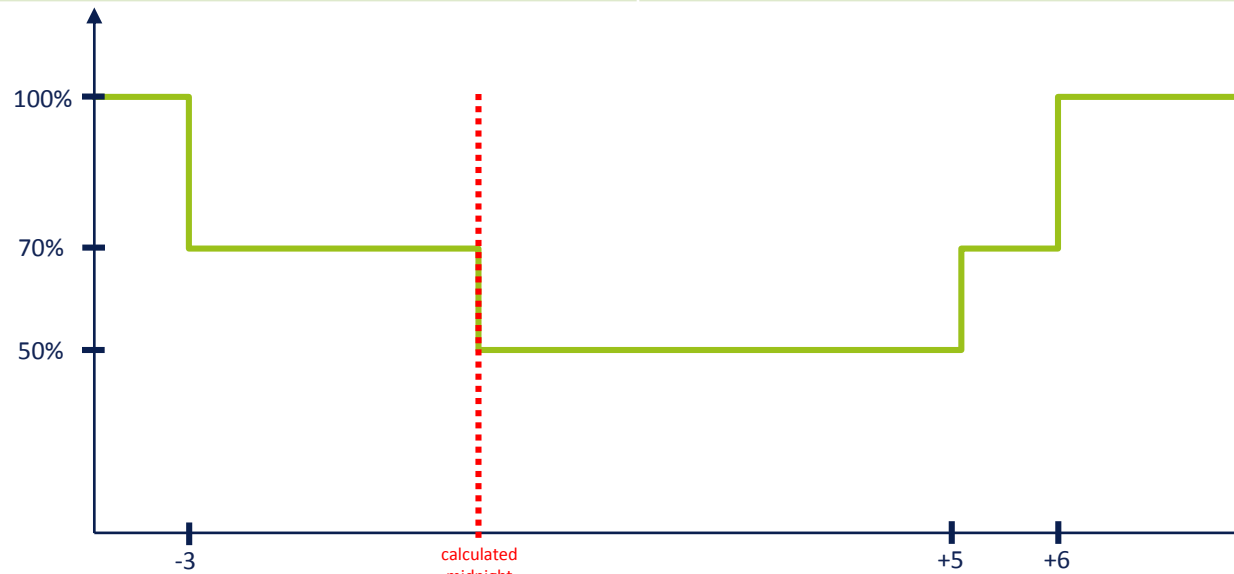
## D02: Dimming profile 2

Time	Level
Until -2	100%
-2 to +5	50%
From +5	100%



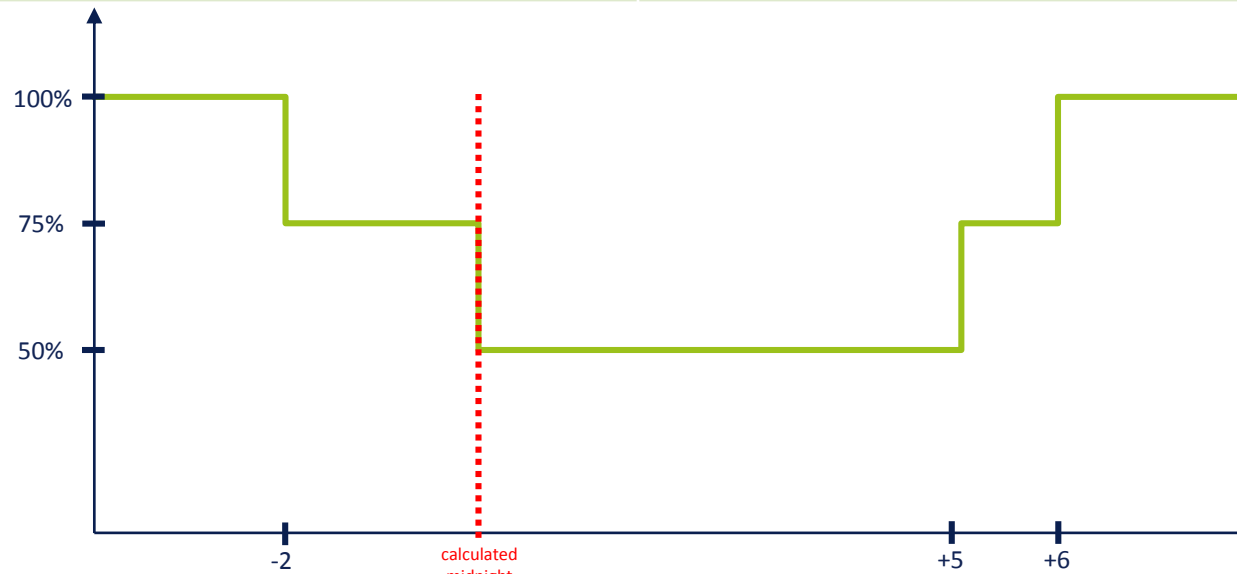
## D03: Dimming profile 3

Time	Level
Until -3	100%
-3 to 0	70%
0 to +5	50%
+5 to +6	70%
From +6	100%



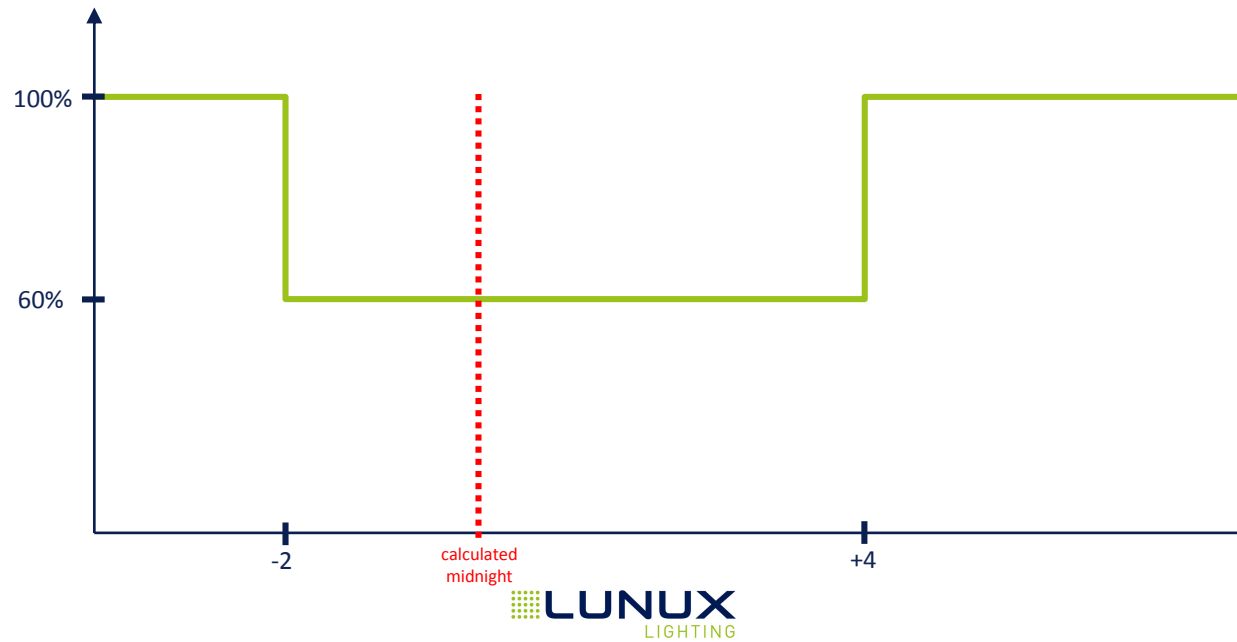
## D04: Dimming profile 4

Time	Level
Until -2	100%
-2 to 0	75%
0 to +5	50%
+5 to +6	75%
From +6	100%



## D05: Dimming profile 5

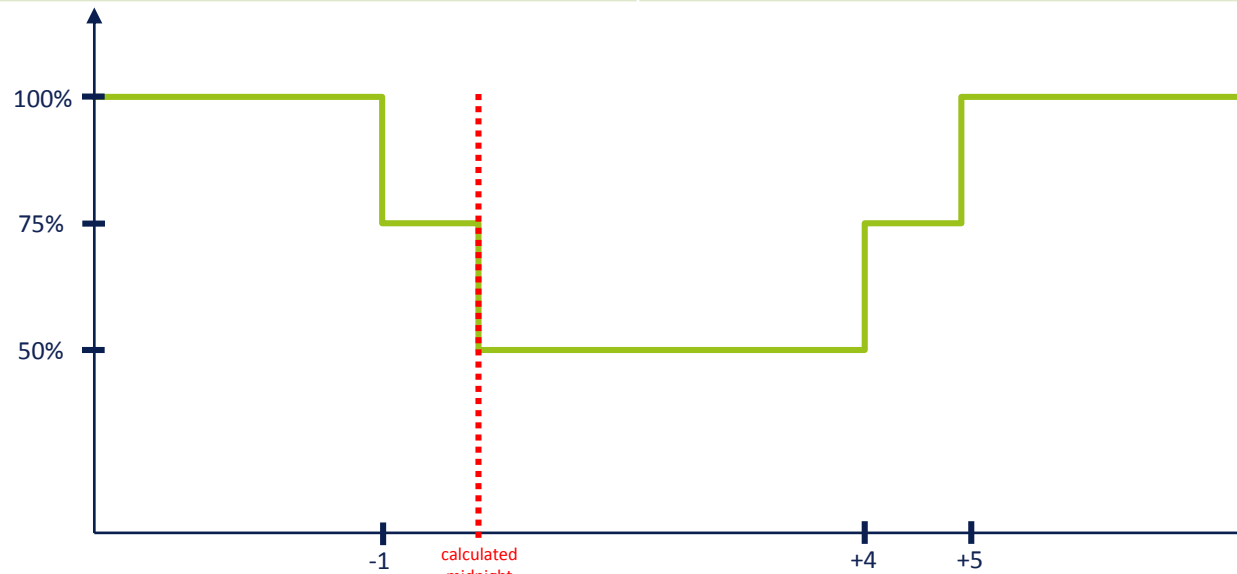
Time	Level
Until -2	100%
-2 to +4	60%
From +4	100%





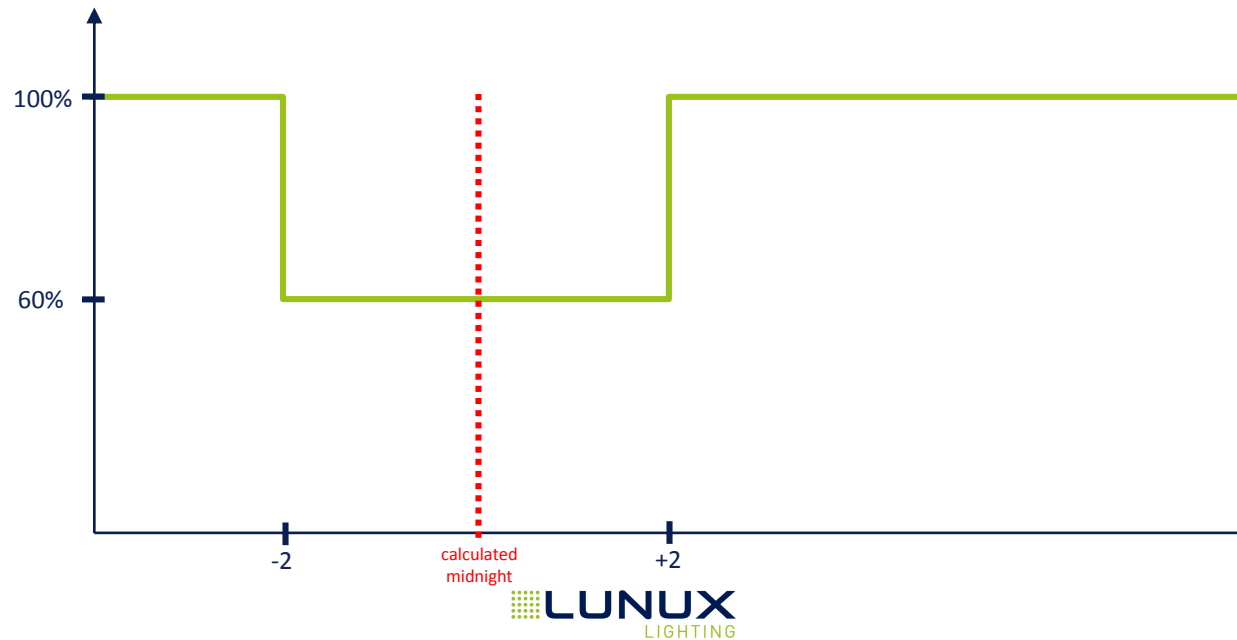
## D06: Dimming profile 6

Time	Level
Until -1	100%
-1 to 0	75%
0 to +4	50%
+4 to +5	75%
From +5	100%



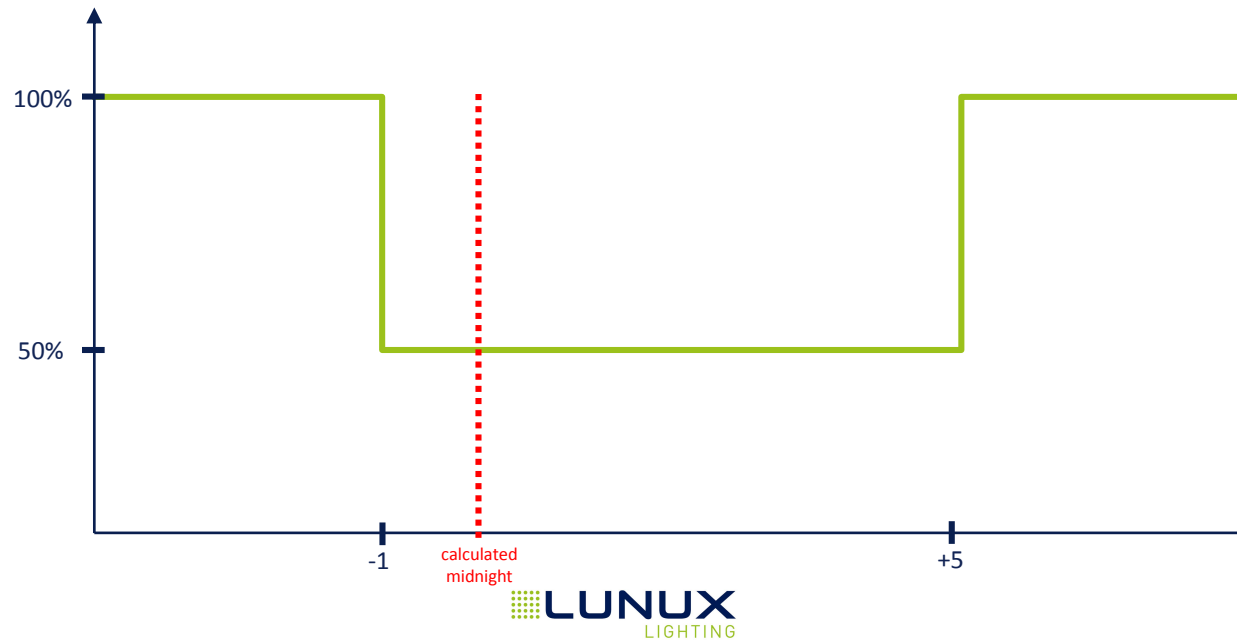
## D07: Dimming profile 7

Time	Level
Until -2	100%
-2 to +2	60%
From +2	100%



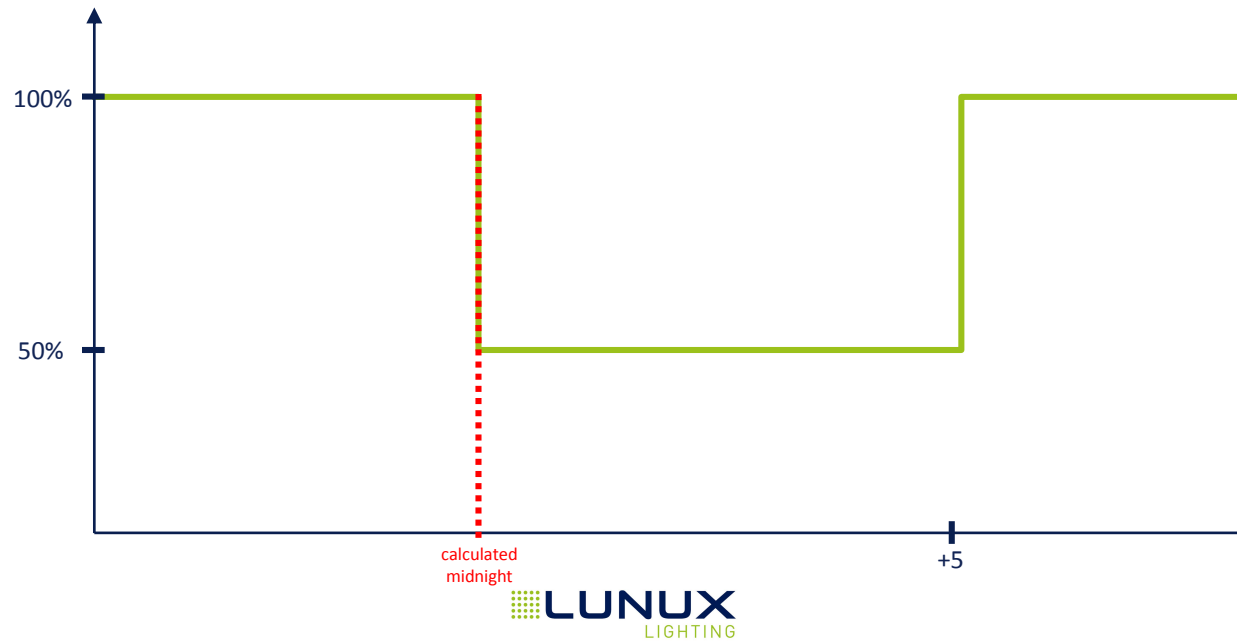
## D08: Dimming profile 8

Time	Level
Until -1	100%
-1 to +5	50%
From +5	100%



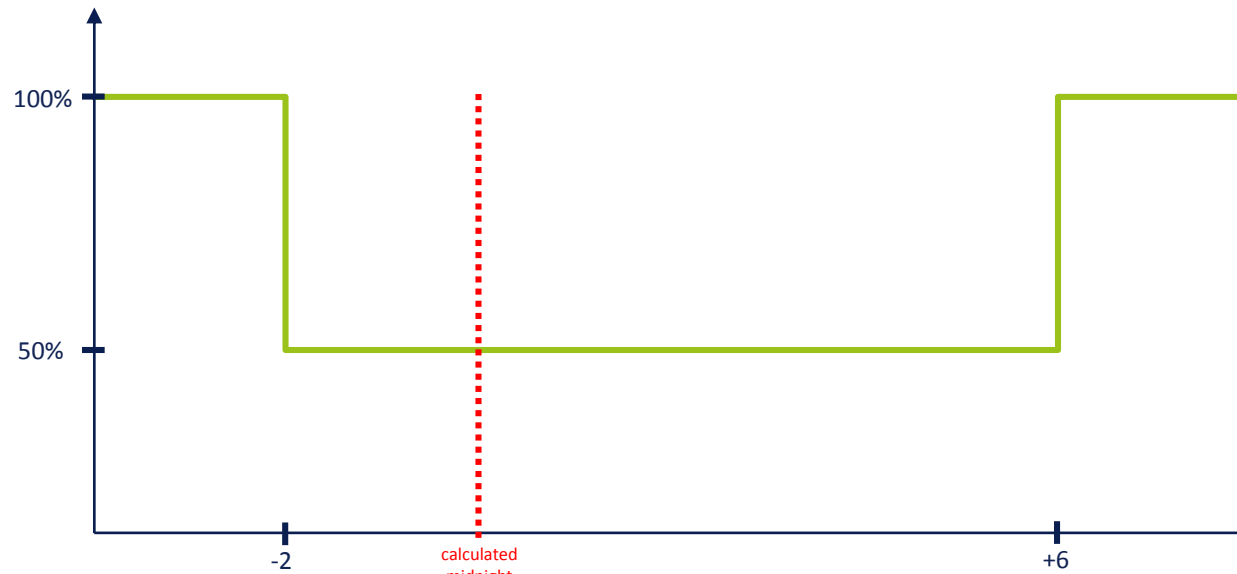
## D09: Dimming profile 9

Time	Level
Until 0	100%
0 to +5	50%
From +5	100%



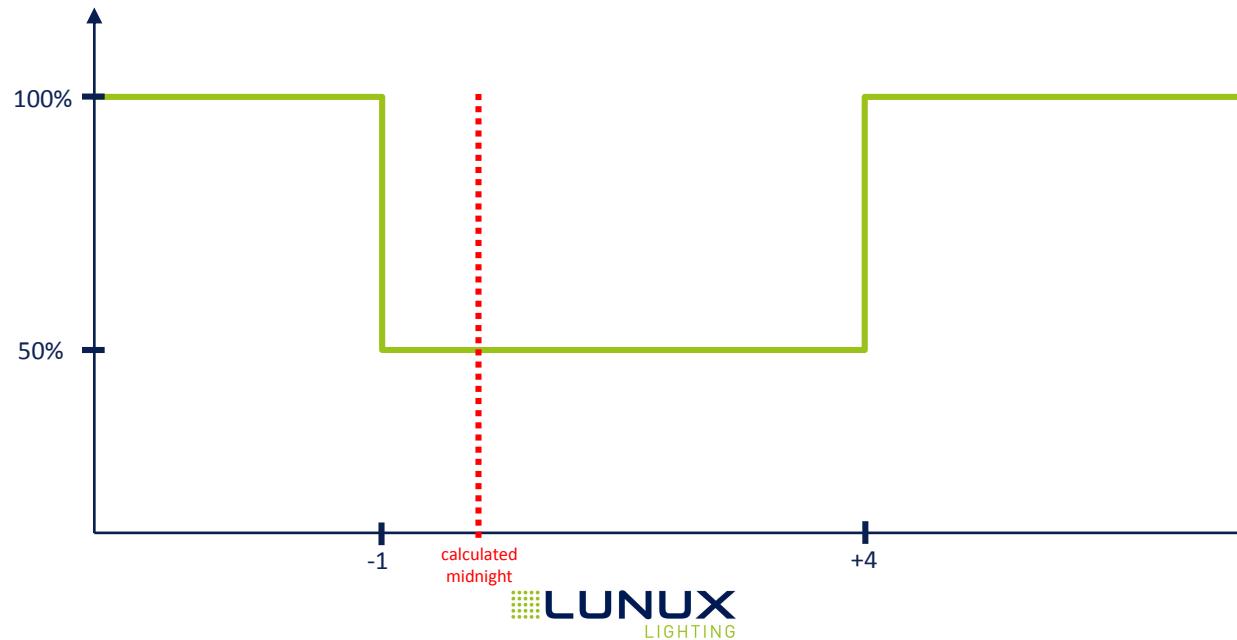
## D10: Dimming profile 10

Time	Level
Until -2	100%
-2 to +6	50%
From +6	100%



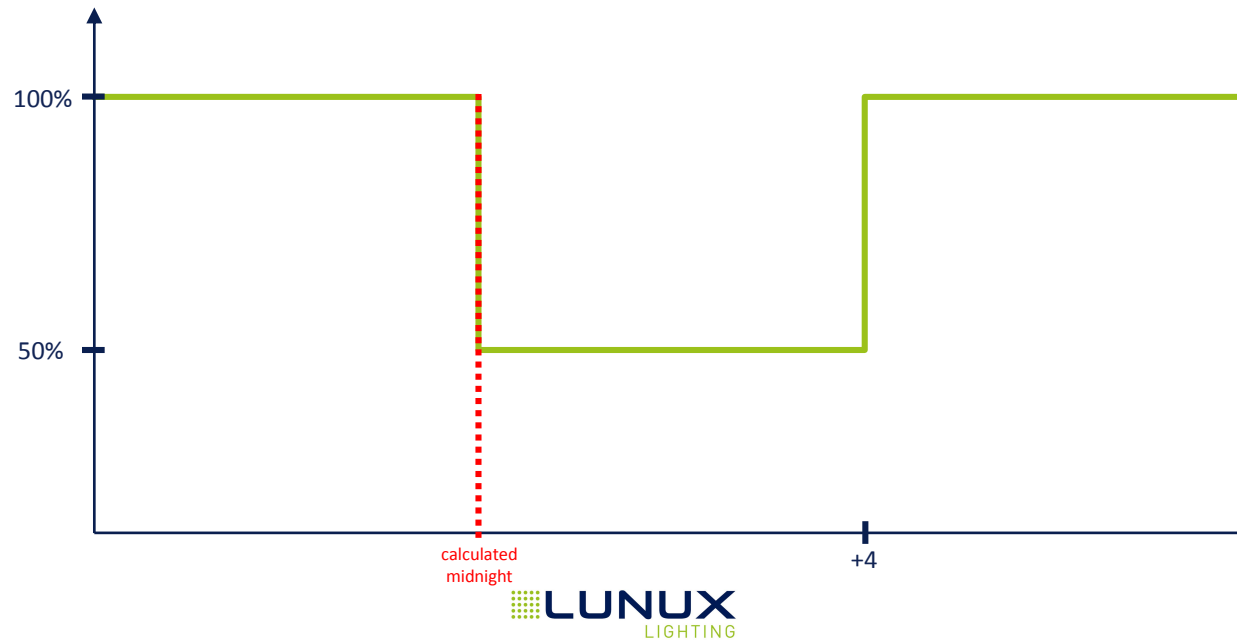
## D11: Dimming profile 11

Time	Level
Until -1	100%
-1 to +4	50%
From +4	100%



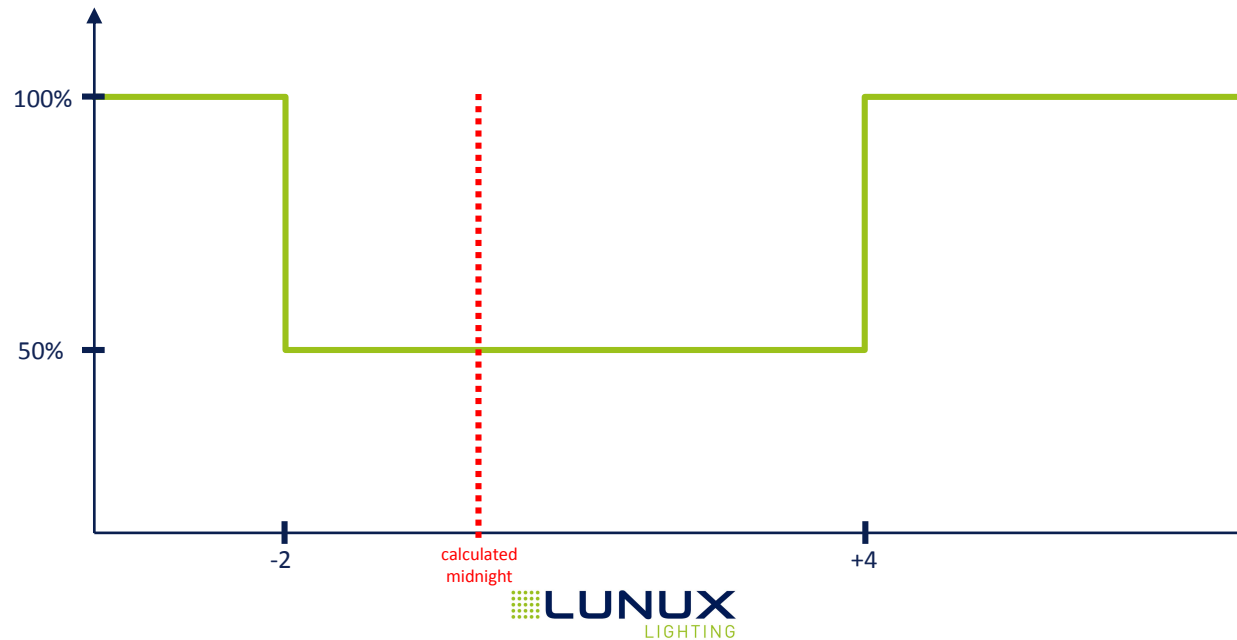
## D12: Dimming profile 12

Time	Level
Until 0	100%
0 to +4	50%
From +4	100%



## D13: Dimming profile 13

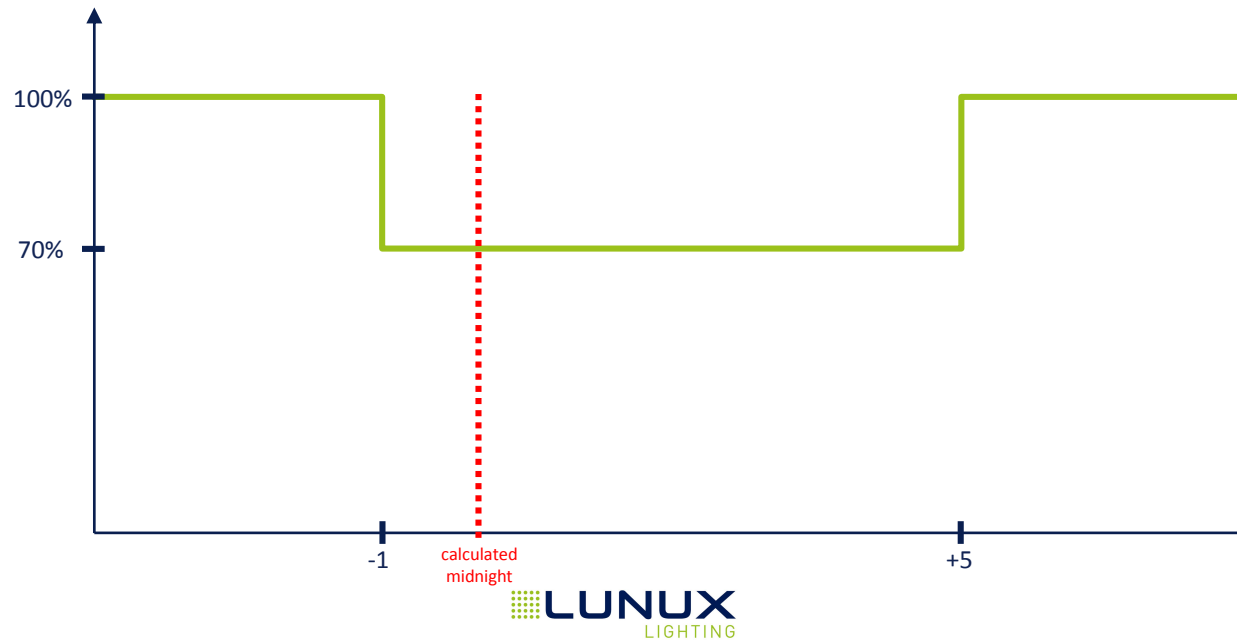
Time	Level
Until -2	100%
-2 to +4	50%
From +4	100%





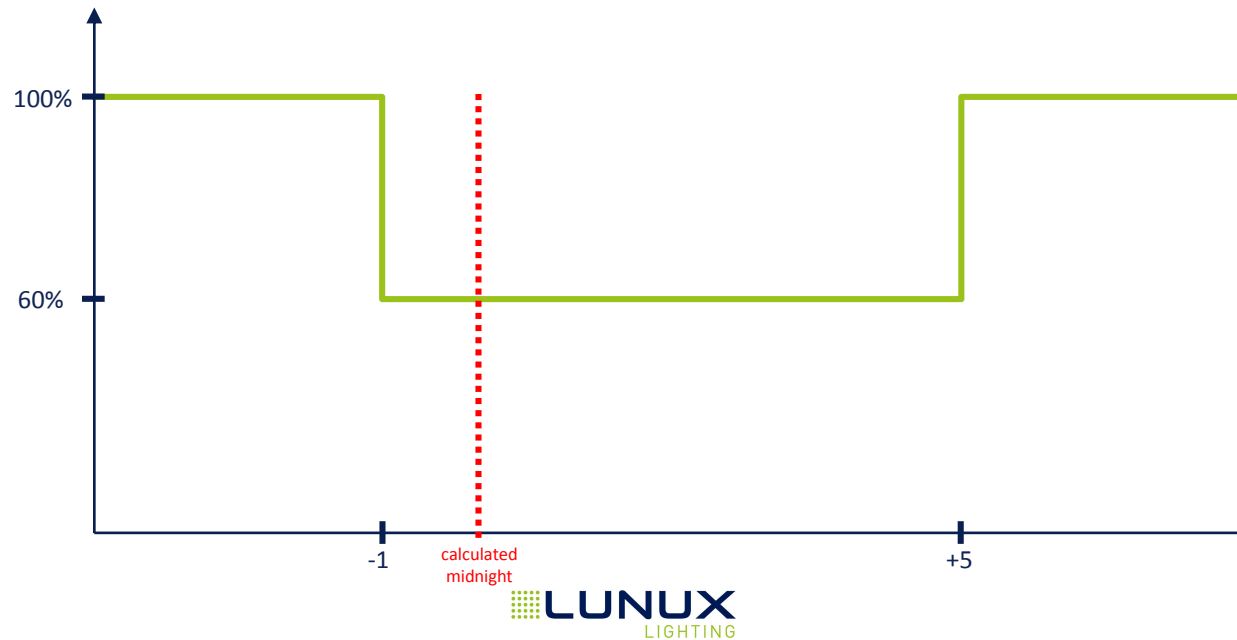
## D14: Dimming profile 14

Time	From
Until -1	100%
-1 to +5	70%
From +5	100%



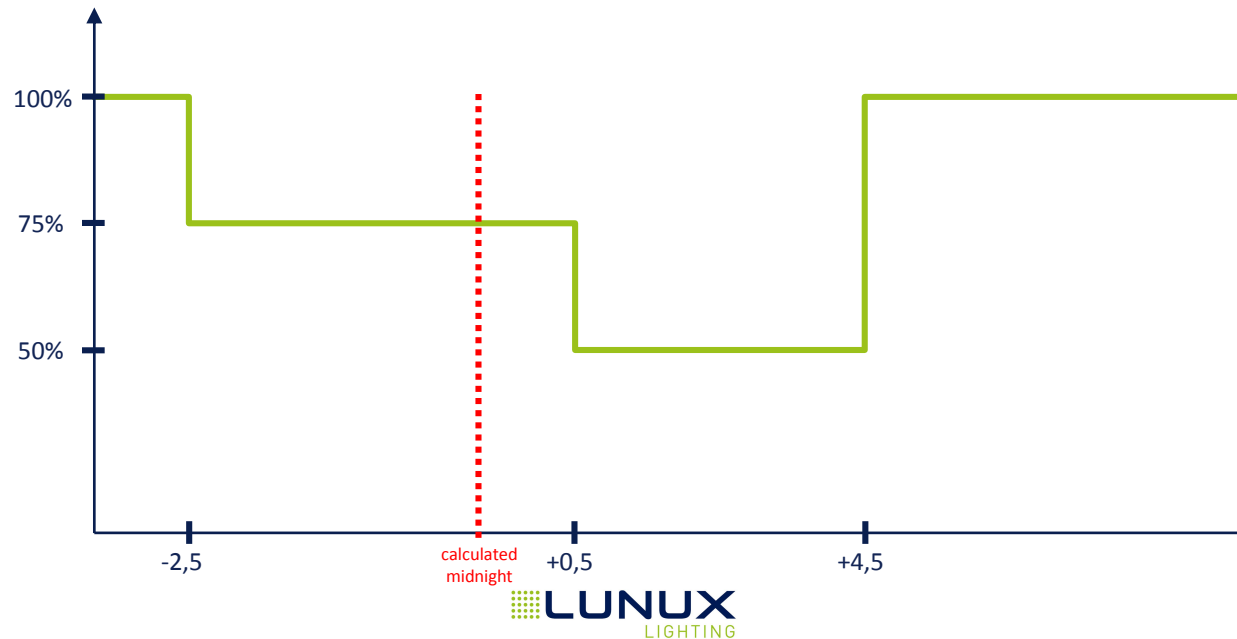
## D15: Dimming profile 15

Time	Level
Until -1	100%
-1 to +5	60%
From +5	100%



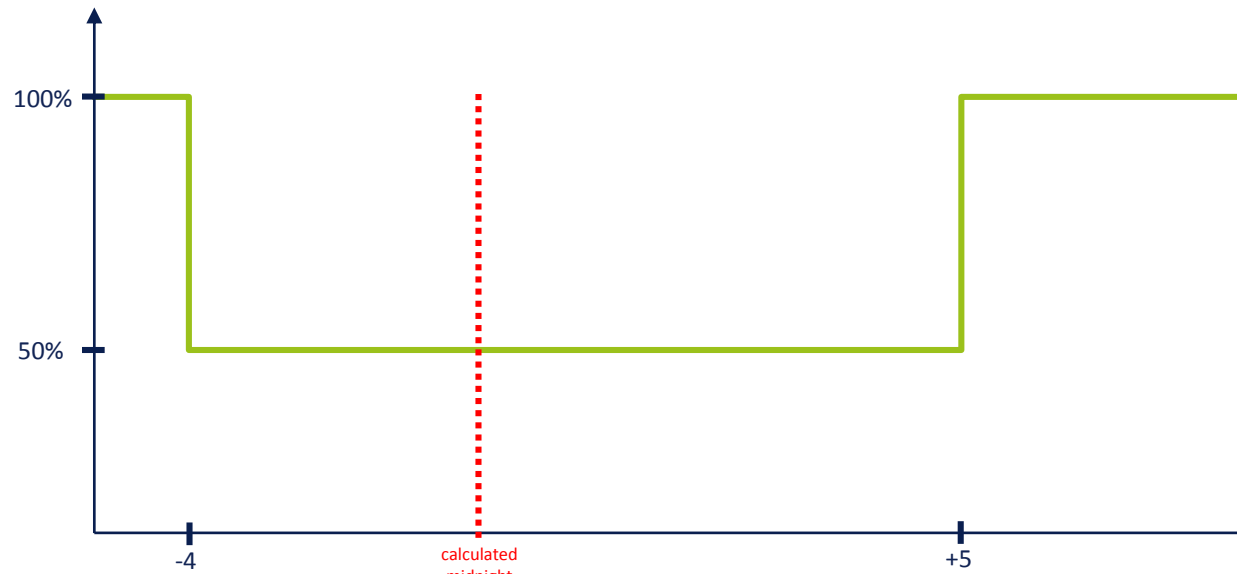
## D16: Dimming profile 16

Time	Level
Until -2,5	100%
-2,5 to +0,5	75%
+0,5 to +4,5	50%
From +4,5	100%



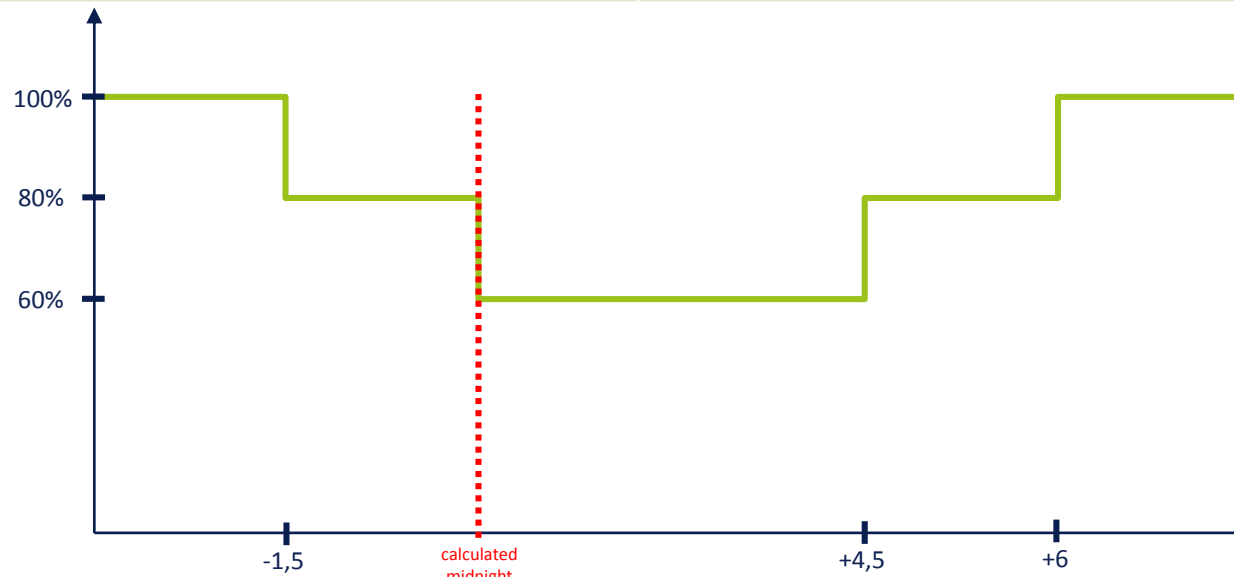
## D17: Dimming profile 17

Time	Level
Until -4	100%
-4 to +5	50%
From +5	100%



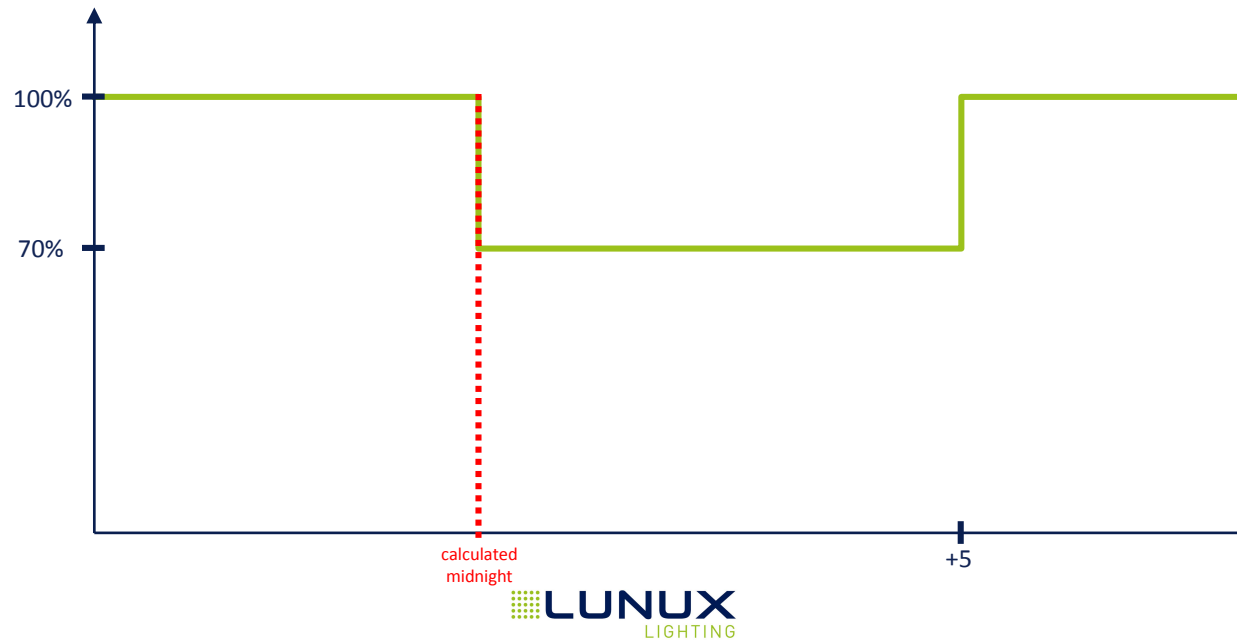
## D18: Dimming profile 18

Time	Level
Until -1,5	100%
-1,5 to 0	80%
0 to +4,5	60%
+4,5 to +6	80%
From +6	100%



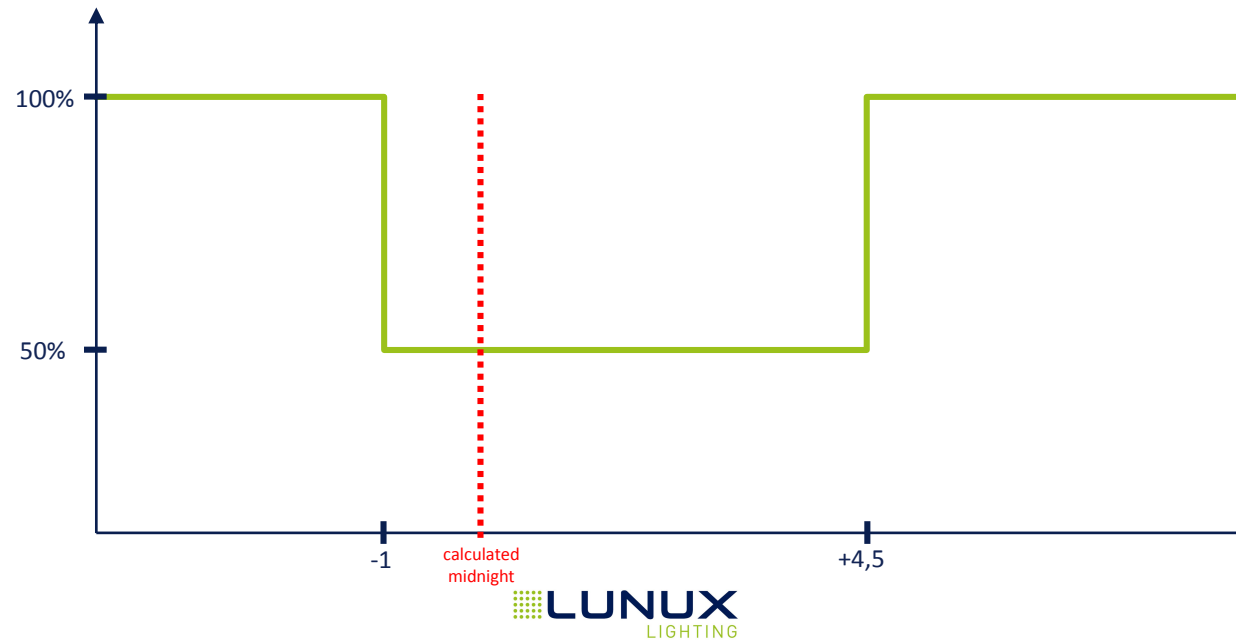
## D19: Dimming profile 19

Time	Level
Until 0	100%
0 to +5	70%
From +5	100%



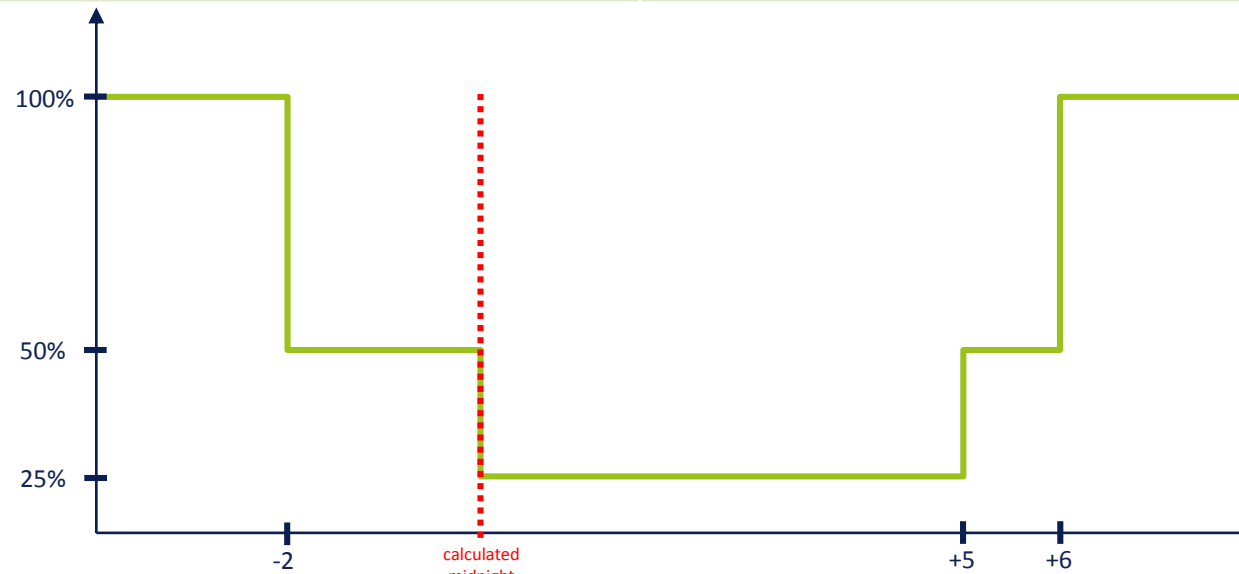
## D20: Dimming profile 20

Time	Level
Until -1	100%
-1 to +4,5	50%
From +4,5	100%



## D21: Dimming profile 21

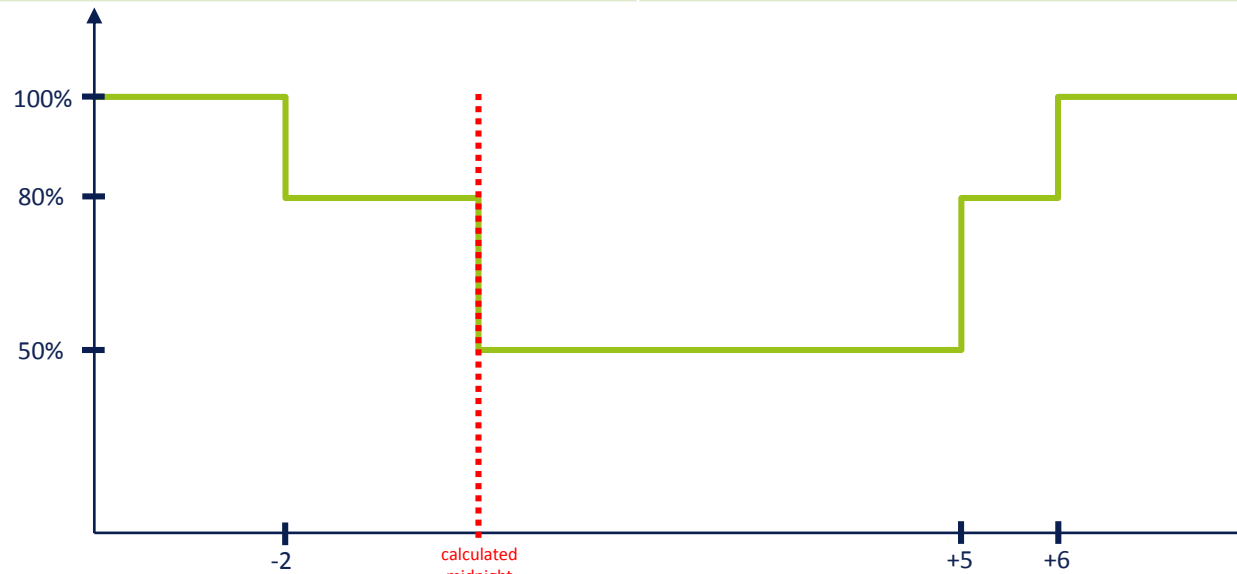
Time	Level
Until -2	100%
-2 to 0	50%
0 to +5	25%
+5 to +6	50%
From +6	100%





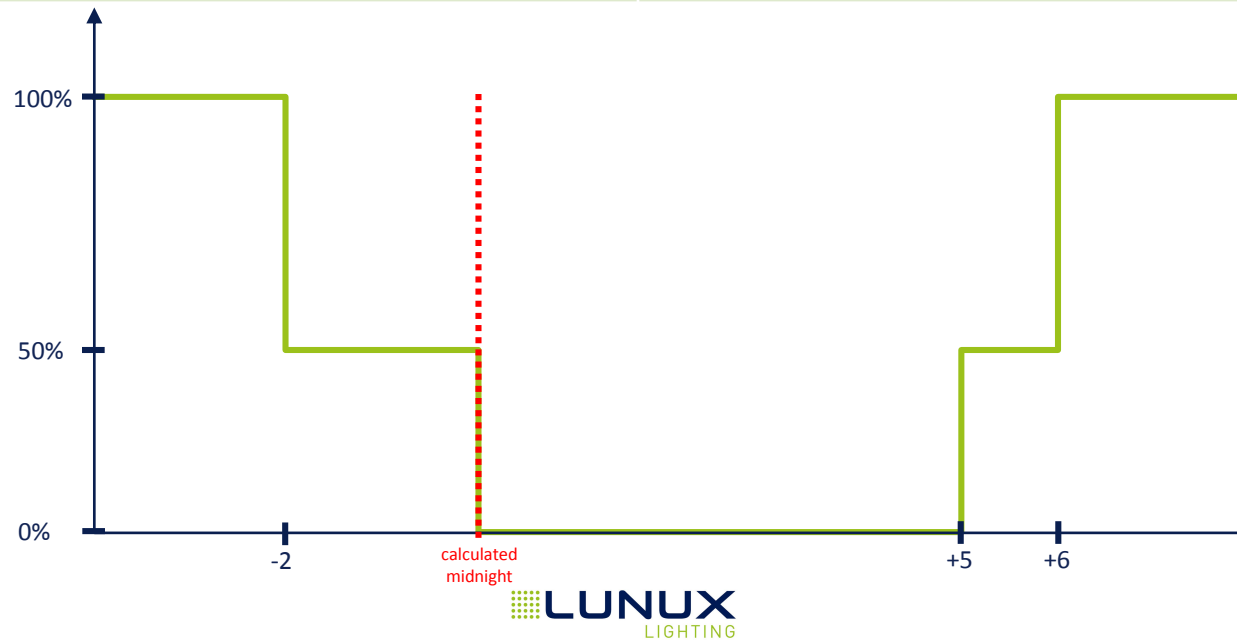
## D22: Dimming profile 22

Time	Level
Until -2	100%
-2 to 0	80%
0 to +5	50%
+5 to +6	80%
From +6	100%



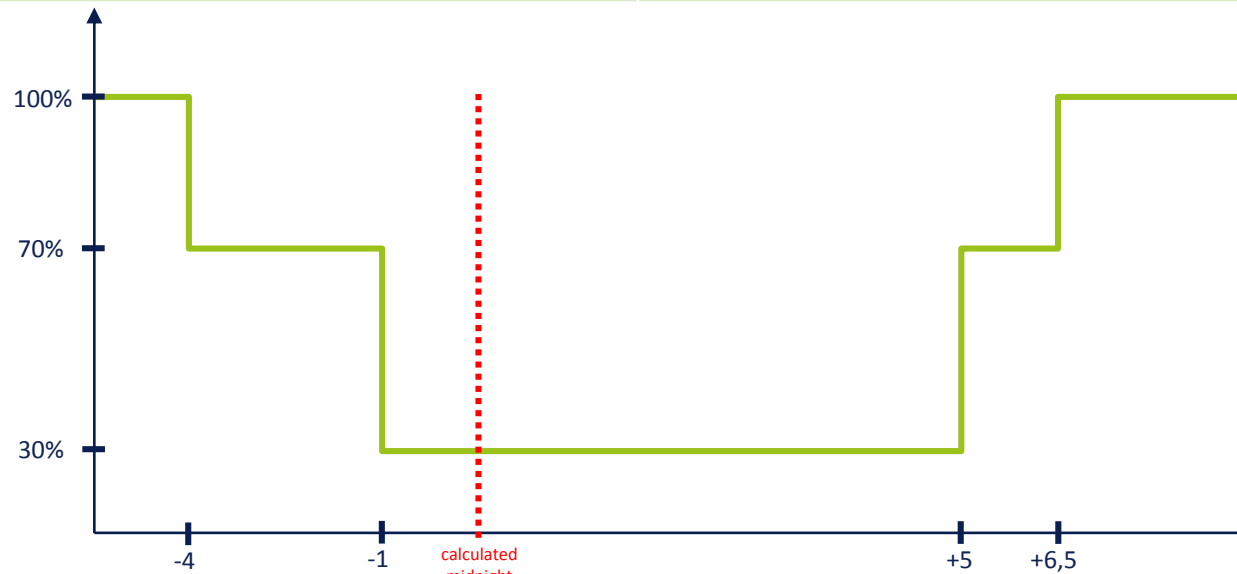
## D23: Dimming profile 23

Time	Level
Until -2	100%
-2 to 0	50%
0 to +5	0%
+5 to +6	50%
From +6	100%



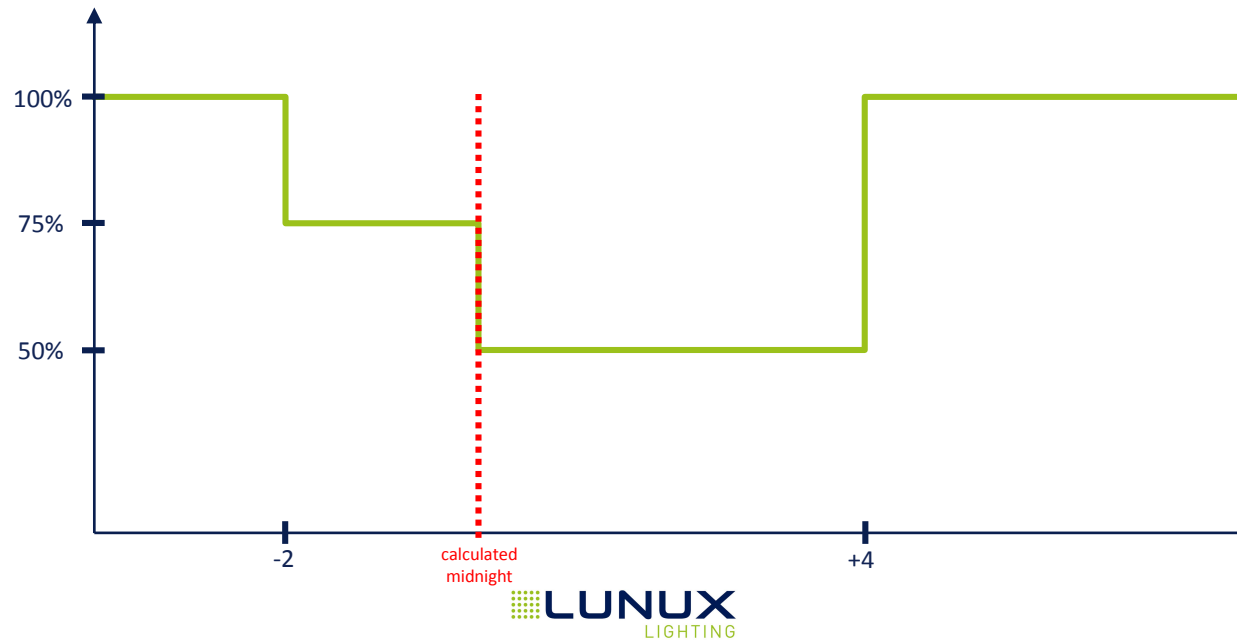
## D24: Dimming profile 24

Time	Level
Until -4	100%
-4 to -1	70%
-1 to +5	30%
+5 to +6,5	70%
From +6,5	100%



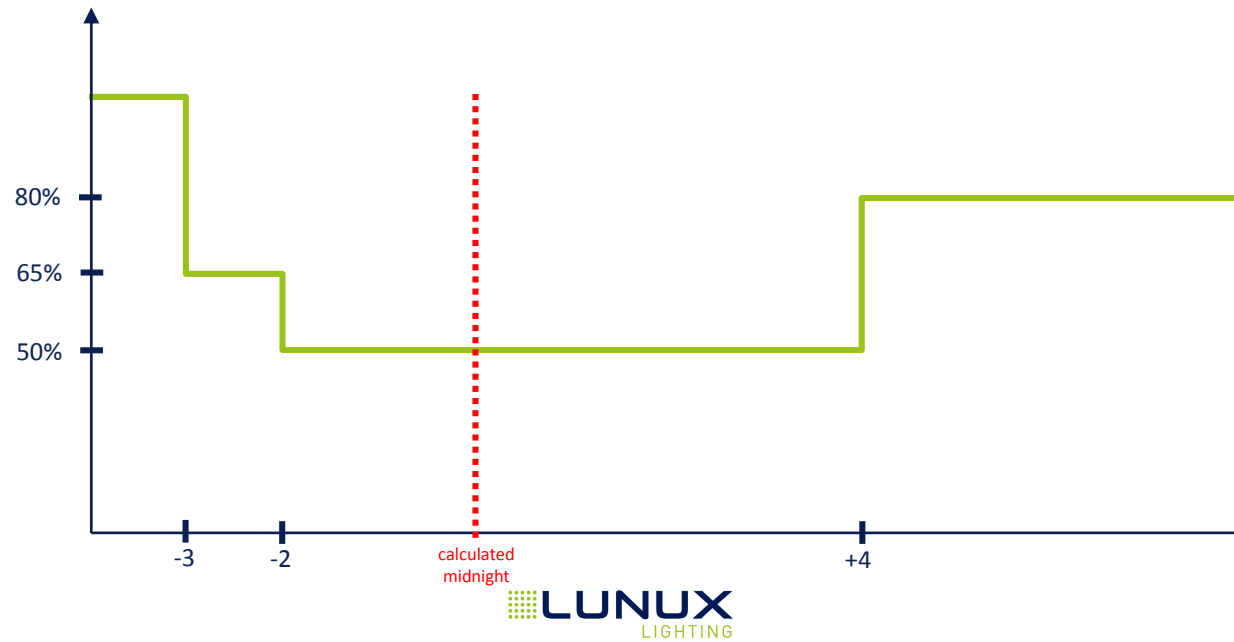
## D25: Dimming profile 25

Time	Level
Until -2	100%
-2 to 0	75%
0 to +4	50%
From +4	100%



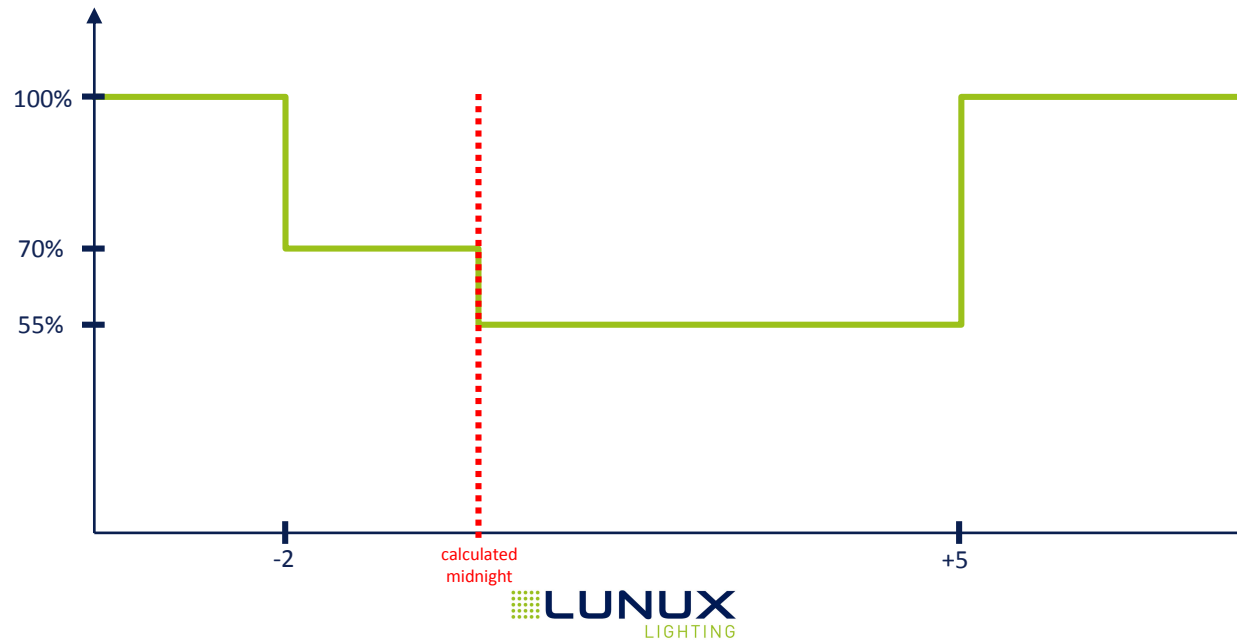
## D26: Dimming profile 26

Time	Level
Until -3	100%
-3 to -2	65%
-2 to +4	50%
From +4	80%



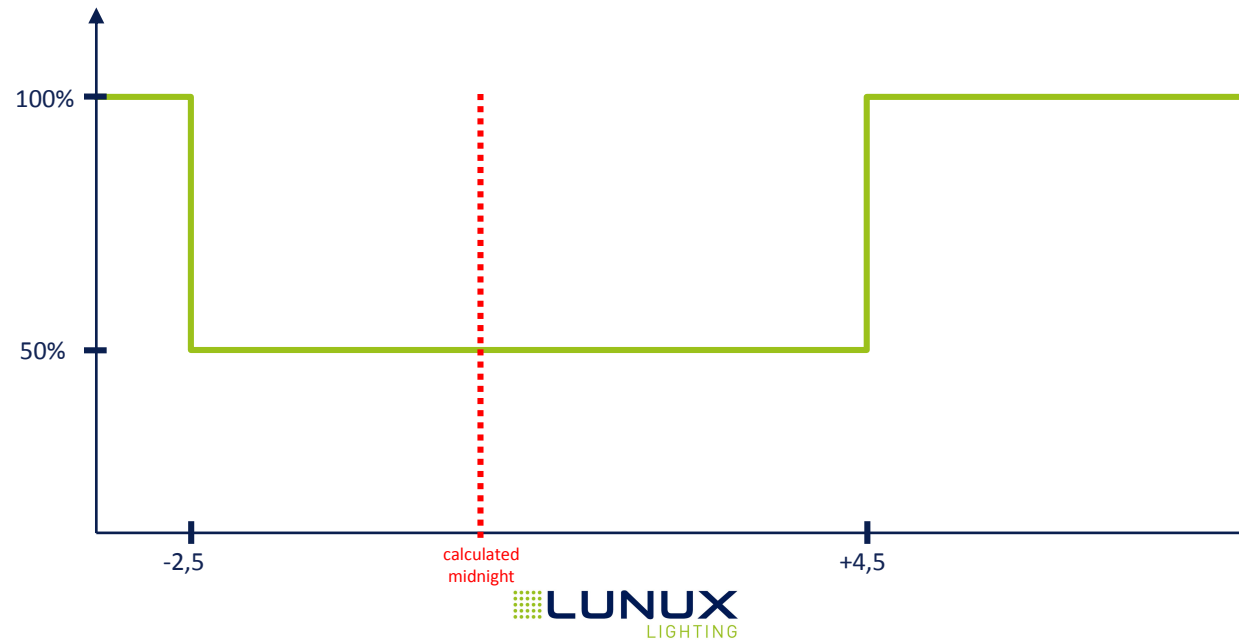
## D27: Dimming profile 27

Time	Level
Until -2	100%
-2 to 0	70%
0 to +5	55%
From +5	100%



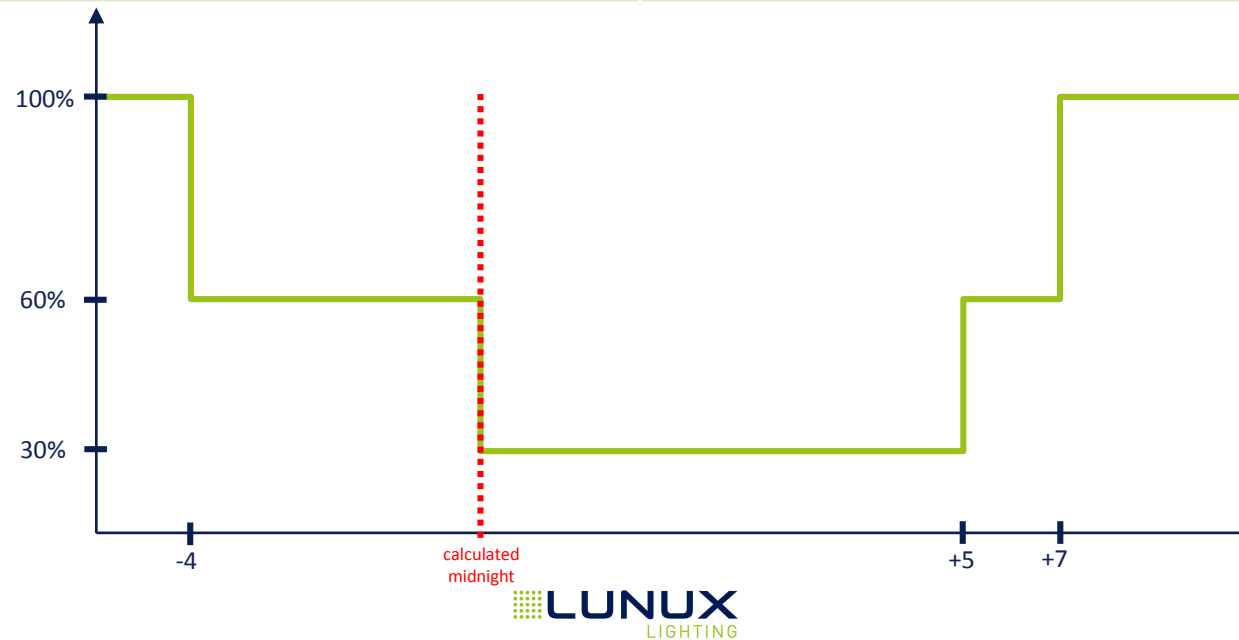
## D28: Dimming profile 28

Time	Level
Until -2,5	100%
-2,5 to +4,5	50%
From +4,5	100%



## D29: Dimming profile 29

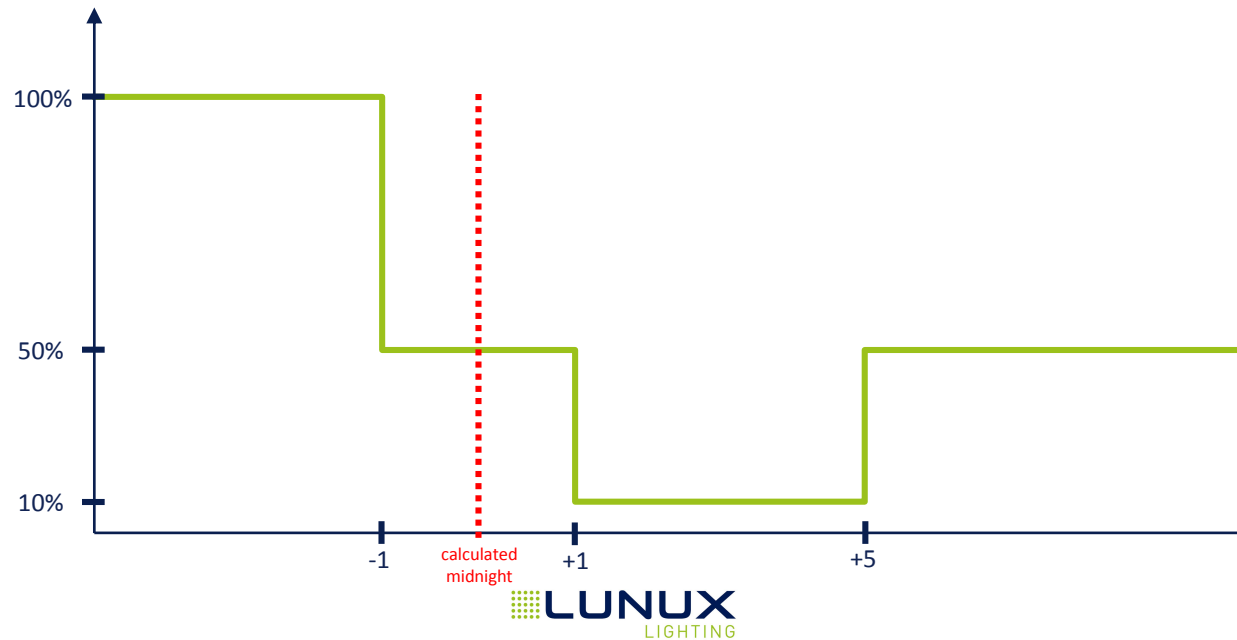
Time	Level
Until -4	100%
-4 to 0	60%
0 to +5	30%
+5 to +7	60%
From +7	100%





## D30: Dimming profile 30

Time	Level
Until -1	100%
-1 to +1	50%
+1 to +5	10%
From +5	50%





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for your attention!

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