Tiny Drivers DALI NFC

LC35W75-400 DALI NFC F-1
LC75W150-700 DALI NFC F-1



Constant current lighting tiny drivers

Product features

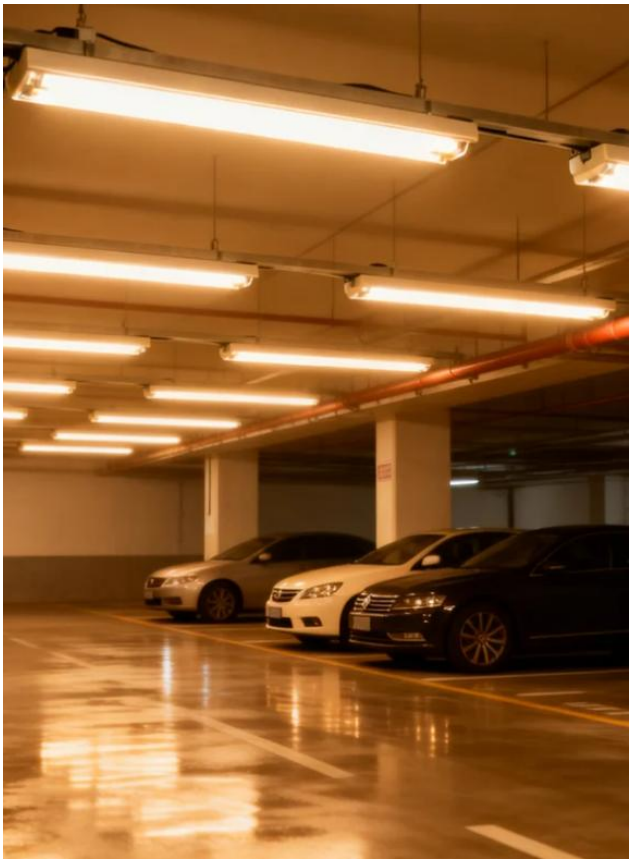
- Supply voltage 220-240 Vac ± 10%
- Range input voltage 198-264 Vac
- Range DC input voltage 198-280 Vdc
- Frequency: 0/50/60 Hz
- Class I
- Power factor ≥0,95 (at full load)
- Low rippel ±5%
- Current Accuracy ±5%
- Low THD ≤15% (at full load)
- Dimming range: 1%-100%
- Type of protection: IP20
- Non SELV
- 50.000 Hours lifetime (At Tc Max.)
- 5 Years guarantee

Product benefit

- Wide volatge range (54-240V)
- High Power Factor, High Efficiency, Low THD
- Flexible configuration via DALI-2
- Support NFC programming

Application

- For Linear lighting in Office
- Industry applications



Product parameters

Model	Watt Range	Input Voltage	Mains current (mA)	Inrush current (A/μs)	DC Operation Range	Output Voltage	Output Current	Efficiency (typical)	Power factor (full load)	Rippel 100Hz(%)
LC35W75-400 DALI NFC F-1	4-38W	220-240VAC	0.19A	40A/200μS	198-280VDC	54-240V	75-400mA	93.5%	0.95	±5%
LC75W150-700 DALI NFC F-1	8.1-75W		0.36A	60A/200μS			150-700mA	94.5%		

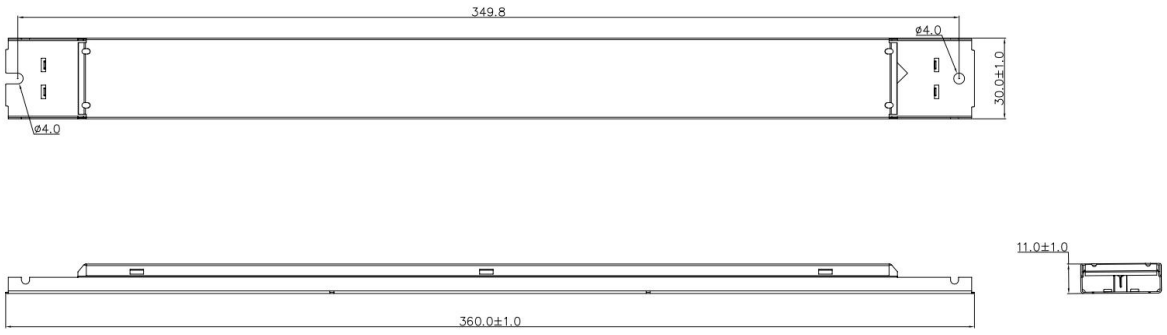
Operational temperatures and humidity

Ambient temperature range	-20 ... +60℃
Operation humidity range	10 ... 90%
Storage temperature range	-25 ... +85℃
Storage humidity range	5 ... 95%
Maximum temperature at tc point	85℃

Expected lifetime

Expected lifetime at measured temp. at tc point	TC=75℃(35W) TC=80℃(75W)	50000h

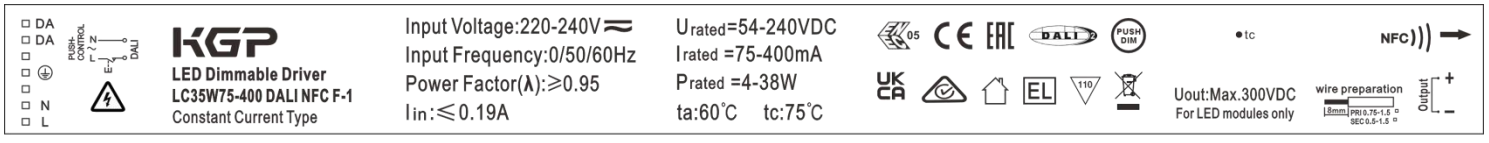
Dimensions: 360*30*11mm (L*W*H)

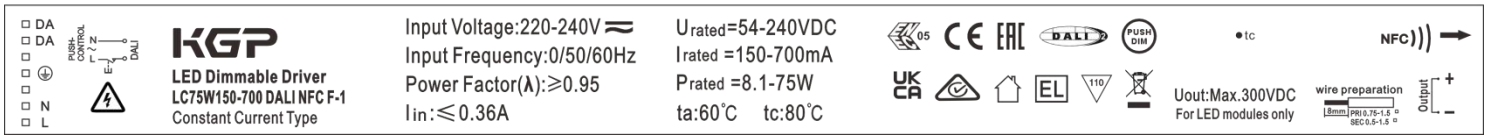


Wiring And Connections

Connectors	Direct Lead
Output wire cross-section	0.5-1.5 mm²
Output wire strip length	8-9 mm
Maximum length	3 m

Product Label





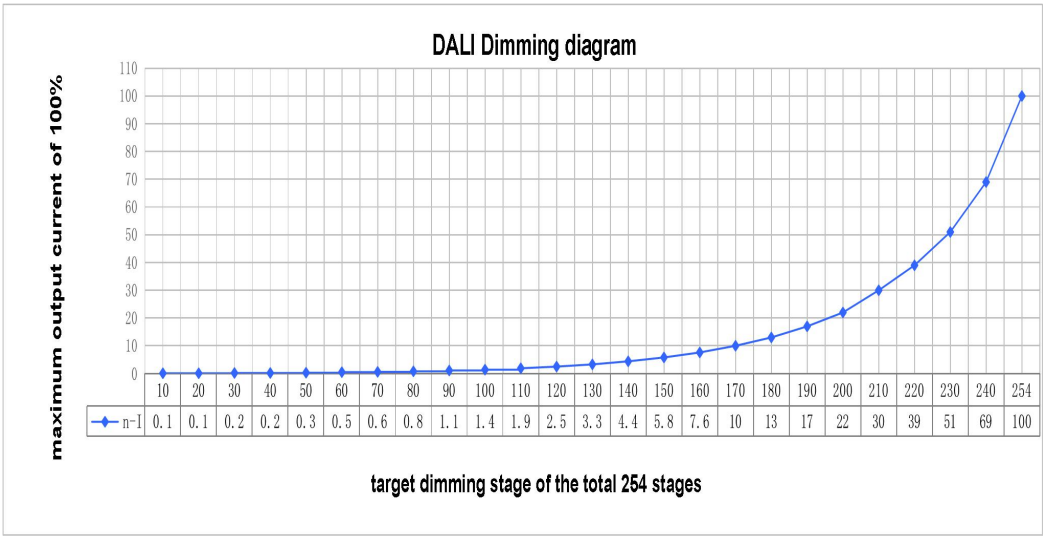
DALI Dimming Curve

formula for DALI dimming.

X(n)=10^{[(n-1)/(253/3)]-1},

Here,n means the target dimming stage of the total 254 stages.

X(n) means the percent of the maximum output current

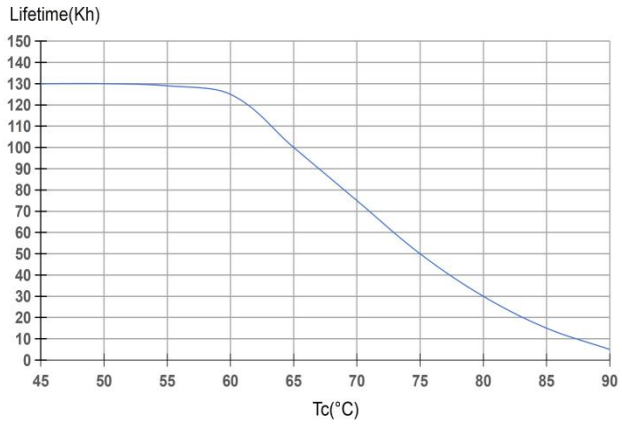


	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	254
n-I	0.1	0.1	0.2	0.2	0.3	0.5	0.6	0.8	1.1	1.4	1.9	2.5	3.3	4.4	5.8	7.6	10	13	17	22	30	39	51	69	100

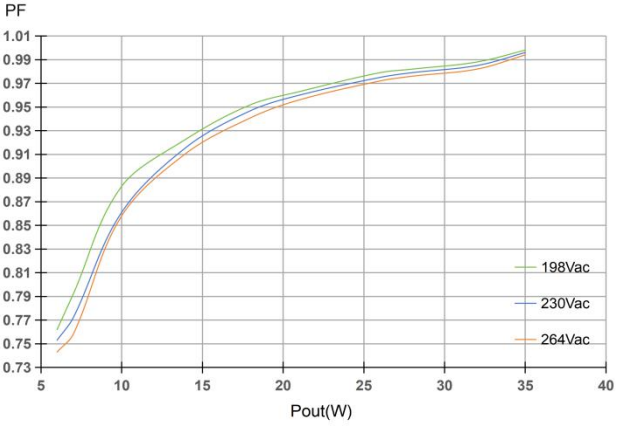
Graphs

LC35W75-400 DALI NFC F-1

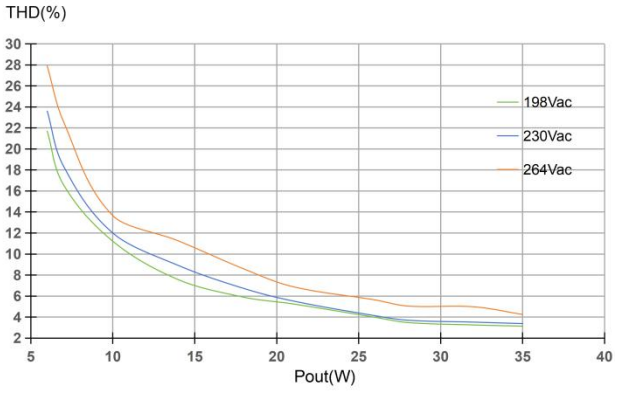
Lifetime vs. Case Temperature



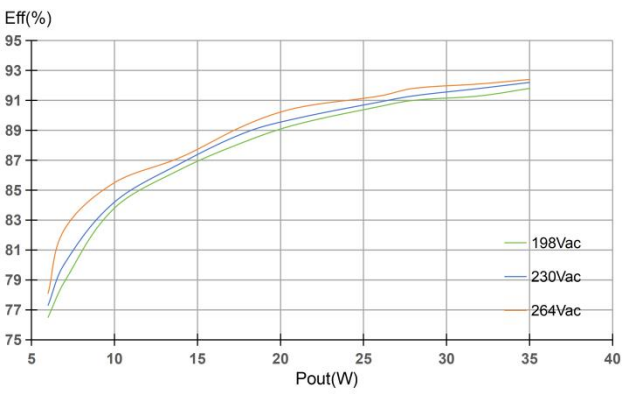
PF vs.Load



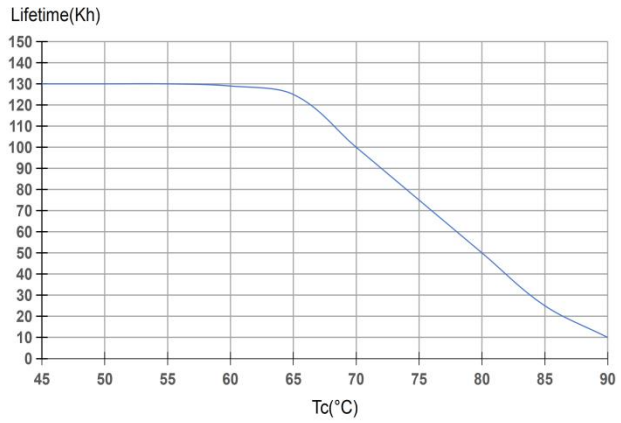
THD vs.Load



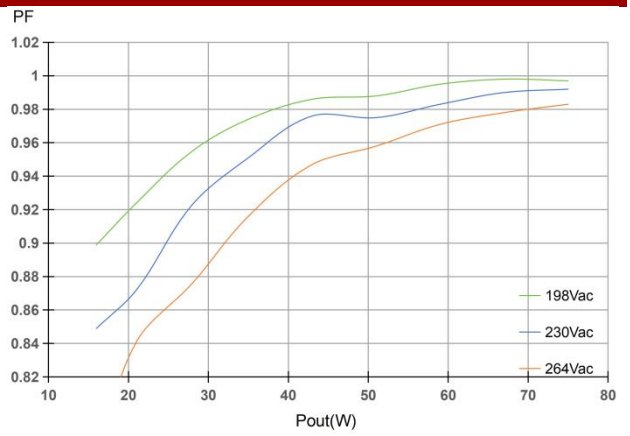
Efficiency vs. Load



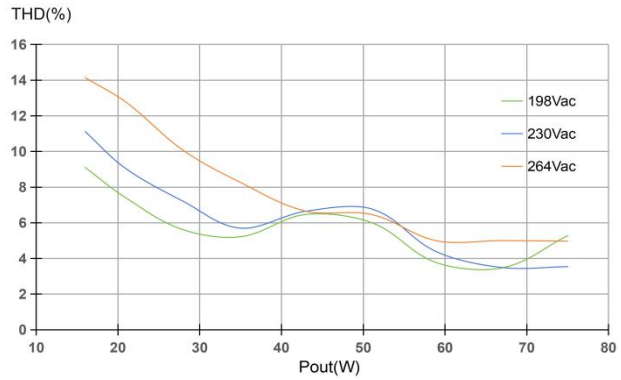
Lifetime vs. Case Temperature



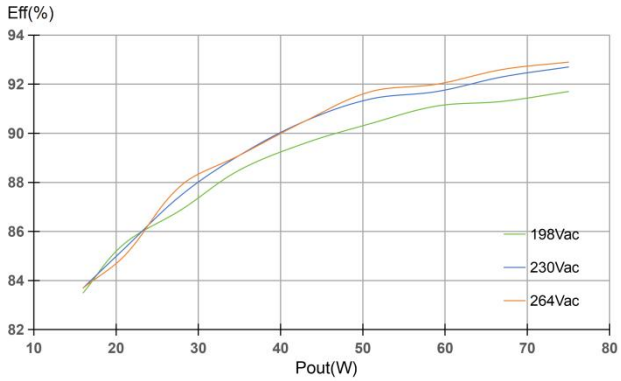
PF vs.Load



THD vs.Load



Efficiency vs. Load



Certificates and standards

EN 61347-1:2015/A1:2021
EN 61347-2-13:2014/A1:2017
EN IEC 62384:2020
AS61347.2.13:2018
AS/NZS61347.1:2016 Inc A1 Amd 1:2018
EN IEC 55015:2019/A11:2020
EN IEC 61000-3-2:2019/A1:2021
EN 61000-3-3:2013/A2:2021
EN IEC 61547:2023
BS EN 61347-1:2015/A1:2021
BS EN 61347-2-13:2014/A1:2017
BS EN 62493:2015/A1:2022
BS EN IEC 62384:2020

BS EN IEC 55015:2019
BS EN IEC 55015:2019+A11:2020
BS EN IEC 61000-3-2:2019/A1:2021
BS EN 61000-3-3:2013+A2:2021
BS EN IEC 61547:2023
EN 300 330 V2.1.1:2017
EN 301 489-1 V2.2.3:2019
EN 301 489-3 V2.3.2:2023
EN 62479:2010
EN 50663:2017

Safety Features

- Transient mains peaks protection:
  Values are in compliance with EN62384
  (Interference Immunity)
  Surges between L-N:up to 1kV L N-PE:up to 2kV
- Short-Circuit Protection: The control gear is protected against
- Permanent short-circuit with automatic restart function.
- Overload Protection: The control gear has overload Protection.
- Please check before switch-on mains power supply that the selected LED load is
  suitable (see Electrical Characteristics on data sheet).
- Overheating: The control gear has overheating protection.
- No Load Operation: The control gear is protected against no load operation(open load)
- If any of the above mentioned safety functions will be triggered disconnect the control gear from the power supply then
- Find and eliminate the cause of the problem.

- Non SELV
- SVM≤0,4
- PstLM≤1
- Open Circuit Voltaje (Umax):300V
- Noise:≤ 22dB @Background noise ≤15dB, Interval≥20cm
- Insulation voltage: O/P to PE , 1.75KVac/1min I/P to PE , 1.75KVac/1min
- Leakage current: O/P to PE , I/P to PE , <0.7mA

Electrical installation

- Connection terminals: Push-in terminals for rigid or flexible conductors with a section of
  Built-in:0,5-1,5mm² cable
- Stripped Length: 8-9mm
- Wiring: The mains conductor within the luminaire must be kept short
- Polarity: Please ensure the correct polarity of the leads.
  Reversed polarity can destroy the modules.
- Secondary Load: The sum of forward voltages of LED
  loads is within the tolerances which are mentioned in the Electrical Characteristics on the data sheet.
- Parallel Wiring: Parallel connection of LED loads is not allowed.

Wiring Diagram:

Fig. A: Dali Dimming

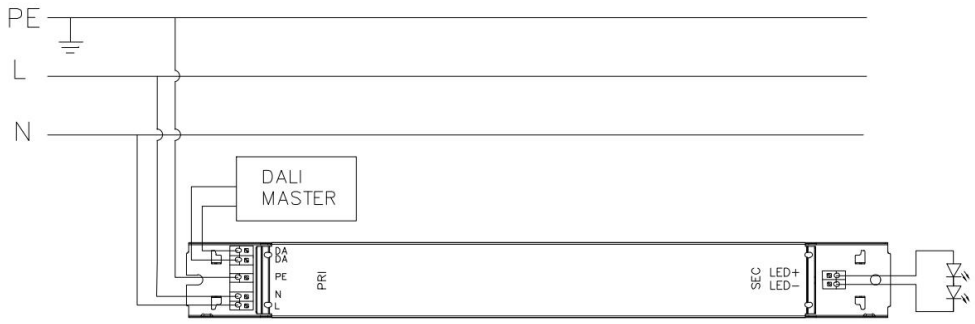
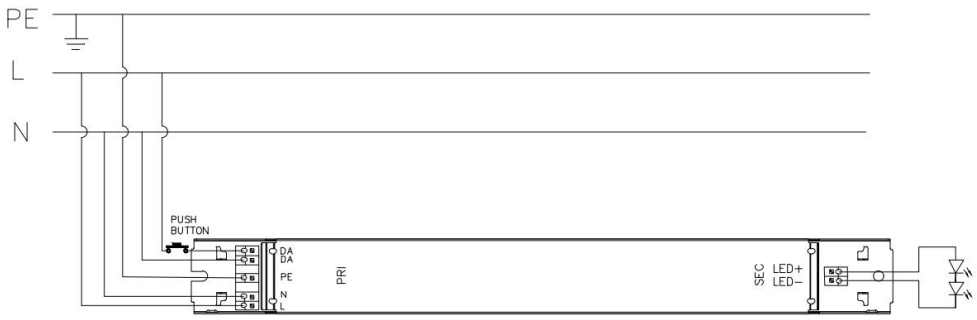


Fig. B: Push Dimming



- The factory default brightness is at 100%.
- Up to 30 drivers can perform the PUSH dimming at the same time when utilizing one common push button
- The maximum length of the cable from the push button to the last driver is 200 meters

Functions

- OEM Identification
- The OEM (Original Equipment Manufacturer) can set his own identification number.
- DALI Part 251: Memory bank 1 extension.

- OEM GTIN
- The Original Equipment Manufacturer (OEM) can set his own Global Trade Item Number (GTIN).
- DALI Part 251: Memory bank 1 extension.

- Luminaire data
- This function provides the asset management with accurate data about the luminaire.
- DALI Part 251: Memory bank 1 extension.
- DALI Part 253: Luminaire maintenance data.

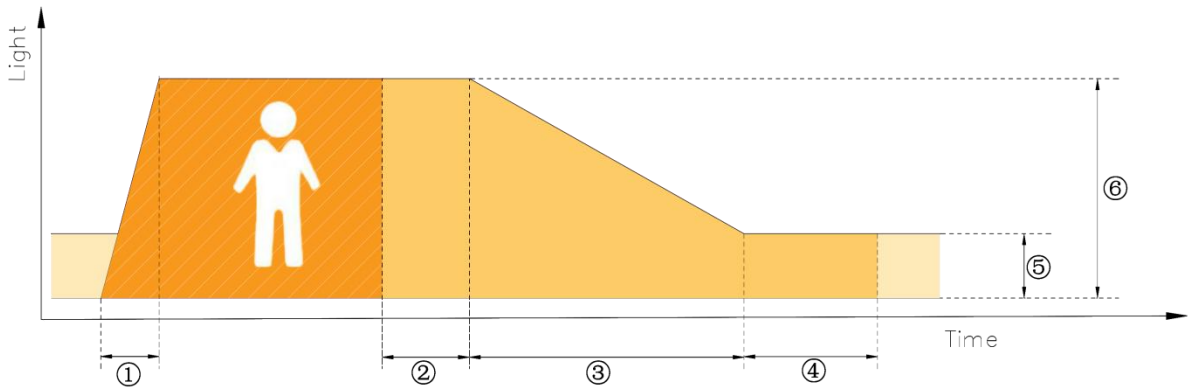
- LED current
- The LED output current must be adapted to the connected LED module.
- The value is limited by the current range of the respective device.
- The output current of the LED driver can be adjusted in a certain range.
- Adjustment is done by KGP Configurator via NFC.

Push functions:

Action	Action duration	Function
Short push	<0.6s	Turn on/off
Short push five Times	<3s	Quit Corridor mode
Long push	0.6-3s	Dimming up or down
Long push	10s	Sync all LEDs to be 50% brightness，and the dimming rate is changed to 3S
Long push	20s	Dimming rate is changed to 6S
Long push	>2mins	Enter Corridor mode - LED keep 100% brightness for 2mins.

- Switch DIM
- Integrated Switch DIM function allows a direct connection of a push button for dimming and switching.
- Brief push (< 0.6 s) switches LED driver ON and OFF. The dim level is saved at power-down and restored at power-up. When the push button is held, LED modules are dimmed. After repush the LED modules are dimmed in the opposite direction.
- In installations with LED drivers with different dimming levels or opposite dimming directions (e.g. after a system extension), all LED drivers can be synchronized to 50 % dimming level by a 10 s push.
- Use of push button with indicator lamp is not permitted.

- Corridor FUNCTION
  With the Corridor FUNCTION and a commercially available motion detector, it is easy to adapt the lighting in one area to its use.
- That is, when the area is entered by a person, the lighting dims instantly to the desired brightness and is available in full strength.
- After the area is left by the person, the brightness dims slowly to a smaller value or switches off completely.
- The individual parameters of the desired profile, such as brightness values or delay times, can be adjusted flexibly and individually.



- Fade-in time(1s): the time that starts as soon as the presence of a person is detected. During the fade-in time the luminous intensity is faded up to the presence value.
- Run-on time(120s): the time that starts as soon as the presence of a person is no longer detected. If the presence of a person is detected again during the run-on time the run-on time is restarted from zero. If no presence is detected during the run-on time the fade time is started as soon as the run-on time expires.
- Fade time(32s): the time during which the luminous intensity is faded from the presence value to the absence value.
- Switch-off delay （Never Off): the time during which the absence value is held before the lighting is switched off. Depending on the profile selected the switch-off delay may have different values or may not be defined.
- Absence value(default: 10 %): the luminous intensity when there is no person present.
- Presence value (default: 100 %): the luminous intensity when persons are present.

- Constant Light Output (CLO)
  With this function the light output of the LED module can be kept equal over the lifetime.
- The light output of an LED module reduces over the course of its lifetime.
- The Constant Light Output (CLO) function compensates for this natural decline by constantly increasing the output current of the LED driver throughout its lifetime.
- CLO shall be achieved by limitation of the LED current at the commissioning of the LED driver and providing a linear interpolation of the current over the time, depending on the data points given by the user.
- The user has to insert up to eight pairs of data (time, level).
- The output curve is the result of connecting the user data points linear.
- Detailed description for CLO see product manual.
- The minimal CLO starting point is limited by the smallest output current of the LED driver.

- Dimming curve
- DALI:The desired dimming behaviour is selected via two different dimming curves (logarithmic or linear).
- The default setting of the dimming behaviour is logarithmic.

Near Field Communication (NFC)

NFC Software User Guide

NFC user manual web version download link: https://www.kg-power.com/download.html

Number of drivers per cut-out type

Type	B10A	B13A	B16A	B20A	B25A	C10A	C13A	C16A	C20A	C25A	D10A	D13A	D16A	D20A	D25A
LC35W75-400 DALI NFC F-1	15	20	24	30	38	24	31	38	48	60	38	50	61	77	96
LC75W150-700 DALI NFC F-1	10	13	16	20	25	16	21	26	32	40	26	33	41	51	64

Packaging unit

Model	Packaging Carton	Packaging Pallet	CartonL*W*H (mm)	Net weight/ Pcs (g)	Net weight/ Carton (kg)	Gross weight/Carton (kg)
LC35W75-400 DALI NFC F-1 LC75W150-700 DALI NFC F-1	80		385*330*140	190	15.2	15.73

Revision history

DATE	REV	REMARK
2026.04.10	V1.0	Initial release