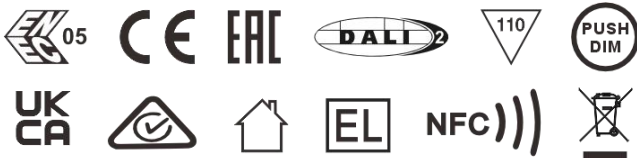


Tiny Drivers DALI NFC

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



Constant current lighting tiny drivers

Product features

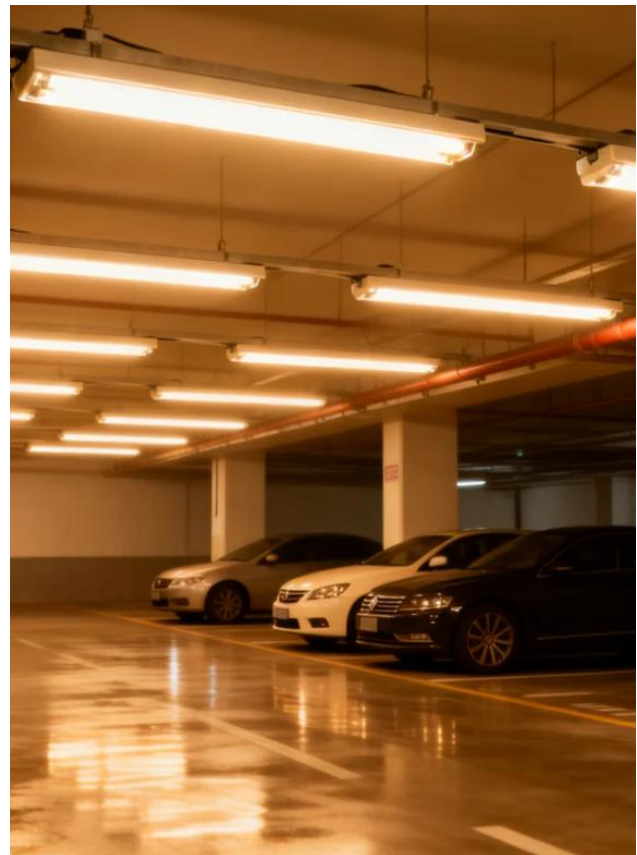
- Supply voltage 220-240 Vac ± 10%
- Range input voltage 198-264 Vac
- Range DC input voltage 198-280 Vdc
- Frequency: 50/60 Hz
- Class II
- Power factor ≥0,95 (at full load)
- Low ripple ±5%
- Current Accuracy ±5%
- Low THD ≤15% (at full load)
- Dimming range: 1%-100%
- Type of protection: IP20
- SELV
- 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/ μ s) | 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/200 μ s | 198-280VDC | 54-240V | 75-400mA | 93.5% | 0.95 | ±5% |
| LC75W150-700 DALI NFC F-1 | 8.1-75W | | 0.36A | 60A/200 μ s | | 2.5-45V | 150-700mA | 94.5% | | |

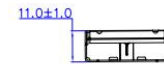
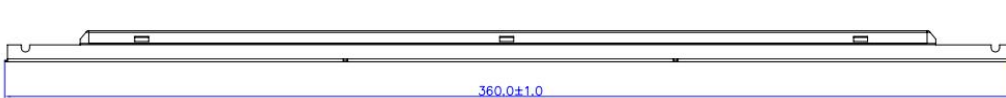
Operational temperatures and humidity

| | |
|---------------------------------|------------------------------|
| Ambient temperature range | -20 ... +55°C |
| Operation humidity range | 10 ... 90% |
| Storage temperature range | -25 ... +85°C |
| Storage humidity range | 5 ... 95% |
| Maximum temperature at tc point | 75°C for 35W 80°C for 75W |

Expected lifetime

| | | |
|---|------------------------------|--------|
| Expected lifetime at measured temp. at tc point | TC=75°C(35W) TC=80°C(75W) | 50000h |
|---|------------------------------|--------|







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



Wiring And Connections

| | |
|---------------------------|-------------------------|
| Connectors | Direct Lead |
| Output wire cross-section | 0.5-1.5 mm ² |
| Output wire strip length | 8-9 mm |
| Maximum length | 3 m |

Product Label

| | | | | | | |
|---|--|--|---|--|---|---|
| <input type="checkbox"/> DA <input type="checkbox"/> DA <input type="checkbox"/> DA <input type="checkbox"/> N <input type="checkbox"/> L |  KGP Lighting Technologies S.L. Av. del Pla 9 - 08185 Lliçà de Vall, Barcelona LED Dimmable Driver LC35W75-400 DALI NFC F-1 Constant Current Type | Input Voltage: 220-240V Input Frequency: 0/50/60Hz Power Factor(λ): ≥ 0.95 $I_{in} \leq 0.19A$ | $U_{rated} = 54-240VDC$ $I_{rated} = 75-400mA$ Prated = 4-38W $t_a: 60^\circ C$ $t_c: 75^\circ C$ |  | •tc NFC))) → Uout: Max. 300VDC For LED modules only wire preparation 18mm FRN 0.75-1.5 = SEC 0.8-1.5 |  |
| <input type="checkbox"/> DA <input type="checkbox"/> DA <input type="checkbox"/> DA <input type="checkbox"/> N <input type="checkbox"/> L |  KGP Lighting Technologies S.L. Av. del Pla 9 - 08185 Lliçà de Vall, Barcelona LED Dimmable Driver LC75W150-700 DALI NFC F-1 Constant Current Type | Input Voltage: 220-240V Input Frequency: 0/50/60Hz Power Factor(λ): ≥ 0.95 $I_{in} \leq 0.36A$ | $U_{rated} = 54-240VDC$ $I_{rated} = 150-700mA$ Prated = 8.1-75W $t_a: 60^\circ C$ $t_c: 80^\circ C$ |  | •tc NFC))) → Uout: Max. 300VDC For LED modules only wire preparation 18mm FRN 0.75-1.5 = SEC 0.8-1.5 |  |

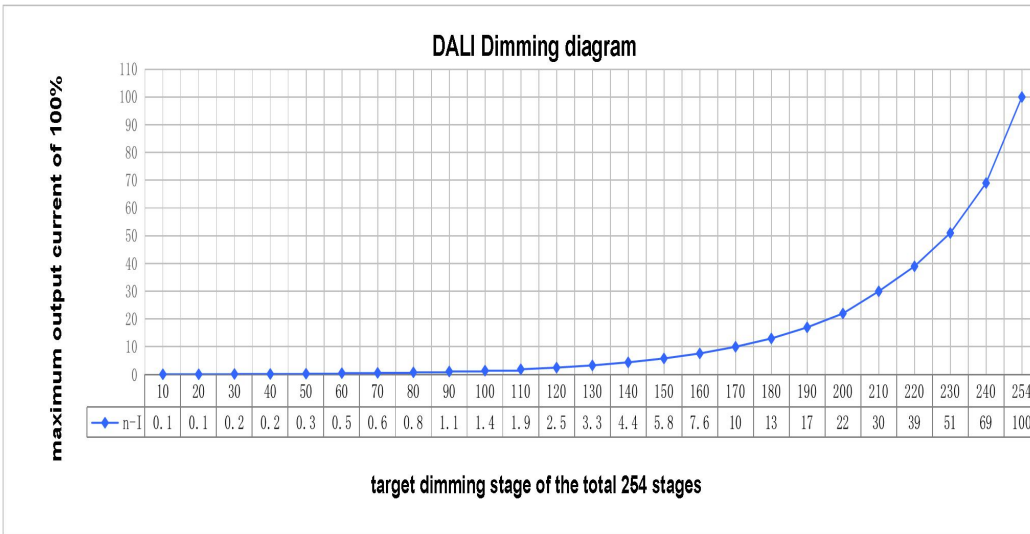
DALI Dimming Curve

formula for DALI dimming.

$$X(n) = 10^{\left\{ \left[\frac{(n-1)}{(253/3)} \right] - 1 \right\}}$$

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

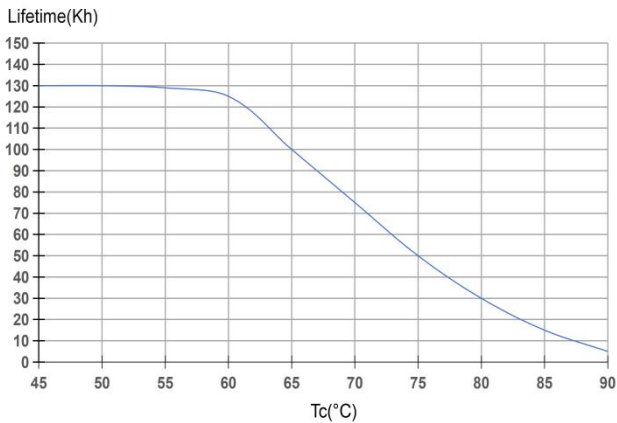
X(n) means the percent of the maximum output current



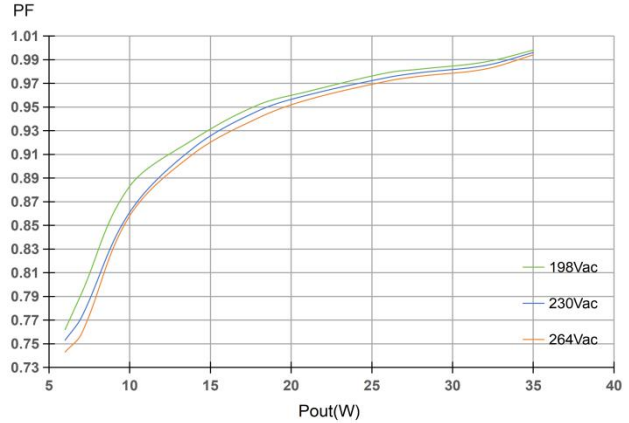
Graphs

LC35W75-400 DALI NFC F-1

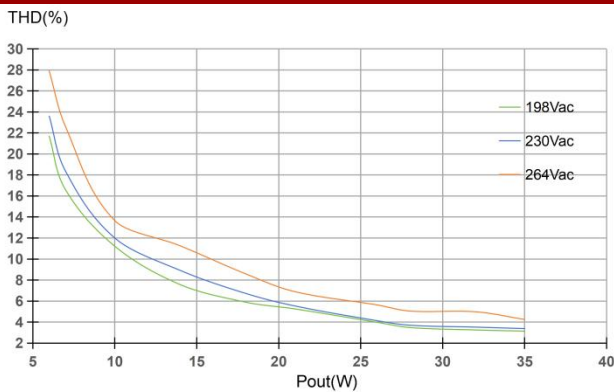
Lifetime vs. Case Temperature



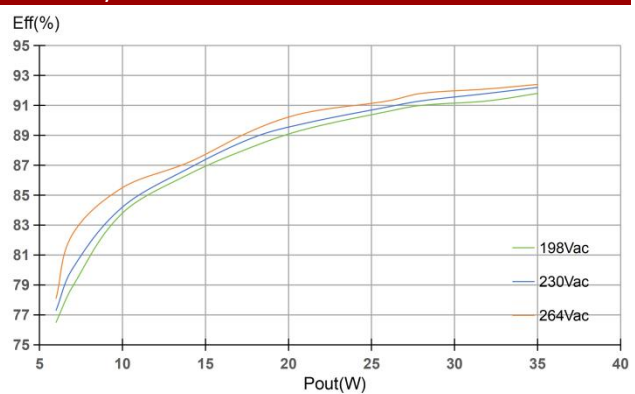
PF vs. Load



THD vs. Load

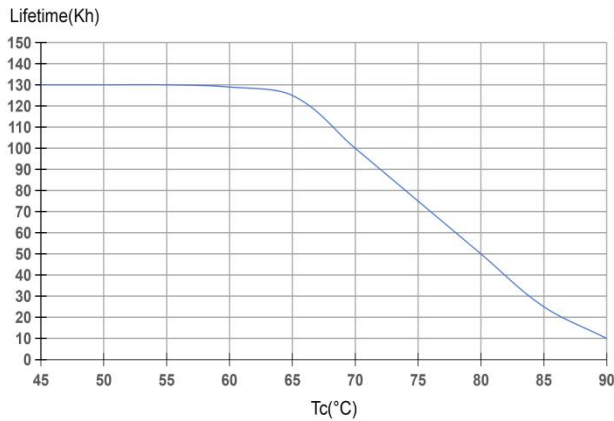


Efficiency vs. Load

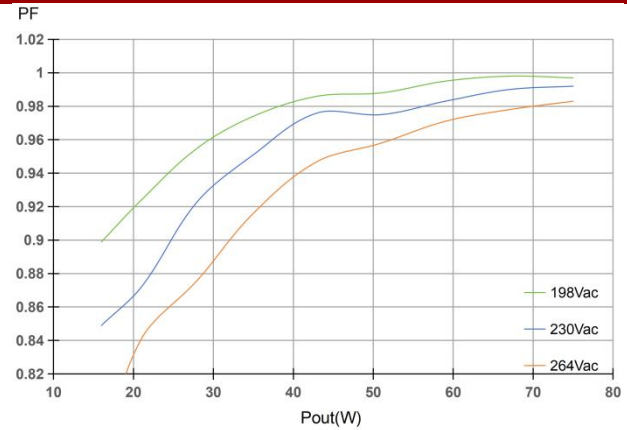


LC75W150-700 DALI NFC F-1

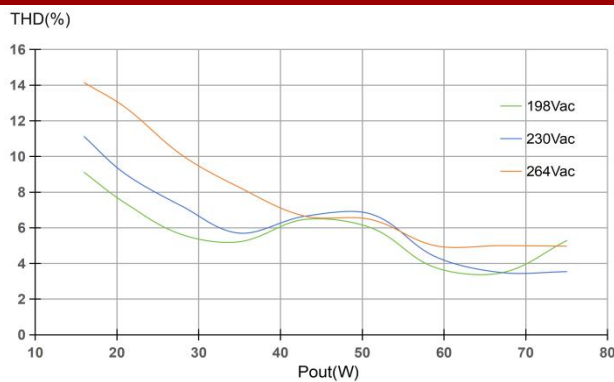
Lifetime vs. Case Temperature



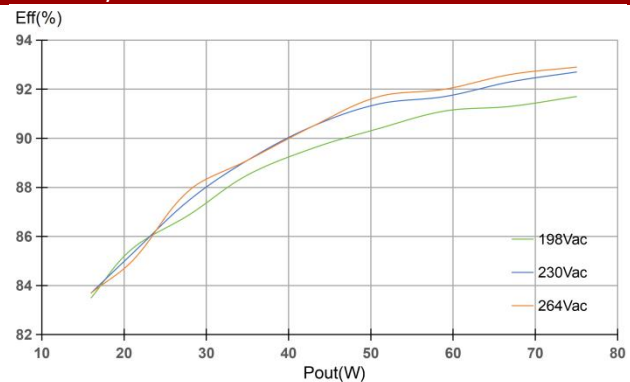
PF vs. Load



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

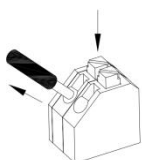
- Transient mains peaks protection:
Values are in compliance with EN62384
(Interference Immunity)
Surges between L-N: up to 2kV
- Short-Circuit Protection: The control gear is protected against
- Permanent short-circuit with automatic restart function.
- Overload Protection: The control gear only works in range of rated output power and voltage (< 60VDC)
- 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.

- SELV
- $SVM \leq 0,4$
- $PstLM \leq 1$
- Open Circuit Voltage (U_{max}): 60V
- Noise: $\leq 22dB$ @ Background noise $\leq 15dB$, Interval $\geq 15cm$
- Insulation voltage: 3000V 5mA 60S between P-S
- Leakage current: I/P to O/P < 0.7mA

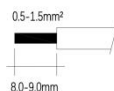
Electrical installation

- 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.

Press down the "Push Button" and remove the cable from front.



Wire Preparation



Wiring Diagram:

Fig. A: Dali Dimming

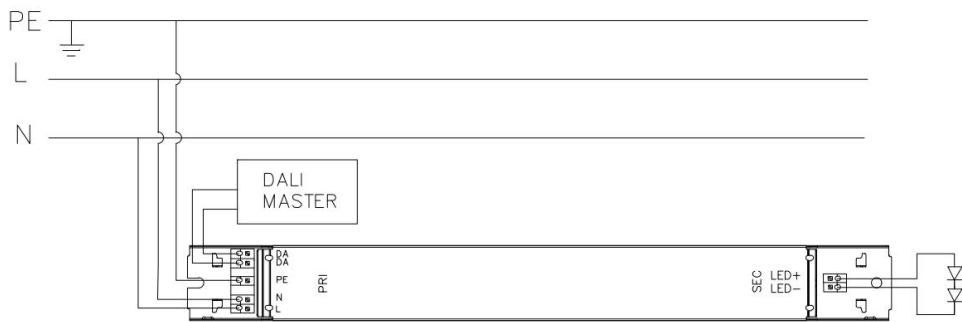
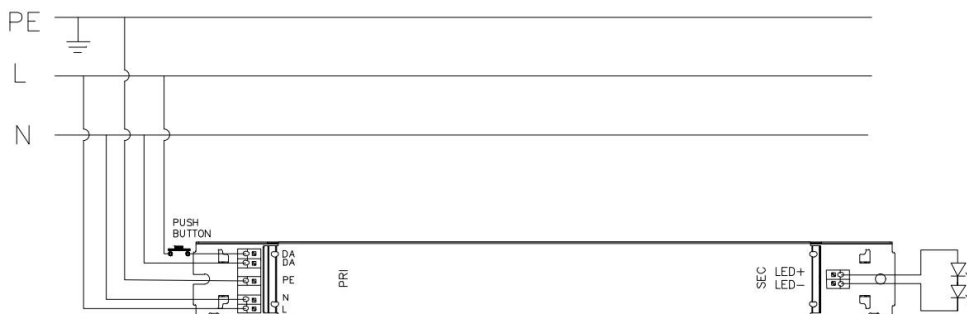


Fig. B: Push Dimming



- 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:

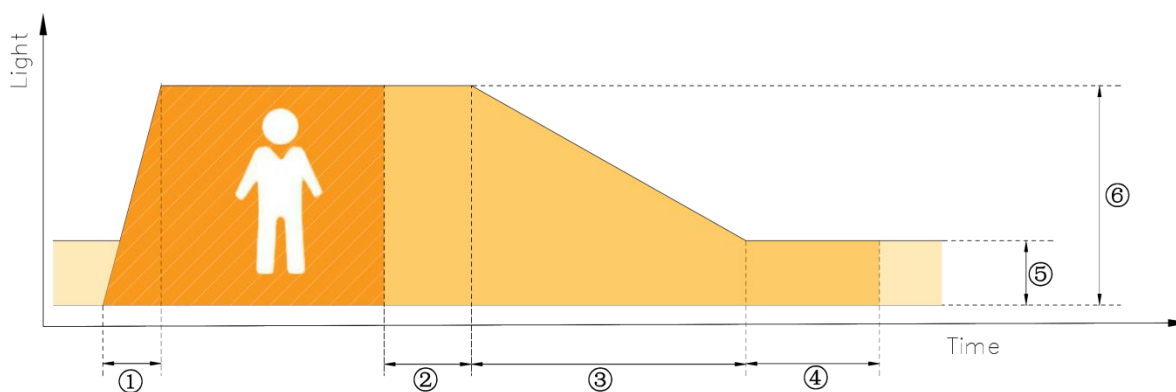
| Action | Action duration | Function |
|-----------------------|-----------------|---|
| Short push | <0.6s | Turn on/off |
| Short push five Times | <3s | Quit Corridor mode |
| Long push | 0.6-3s | Dimming up or down |
| Long push | 10s | Sync all LEDs to be 50% brightness, and the dimming rate is 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.kgp-iot.com/CUSTOMERS.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 | Carton L*W*H (mm) | Net weight/ Pcs (g) | Net weight/ Carton (kg) | Gross weight/ Carton (kg) |
|---------------------------|------------------|------------------|-------------------|---------------------|-------------------------|---------------------------|
| LC35W75-400 DALI NFC F-1 | 80 | 48 | 385*330*140 | 190 | 15.2 | 15.73 |
| LC75W150-700 DALI NFC F-1 | | | | | | |

Revision history

| DATE | REV | REMARK |
|------------|------|-----------------|
| 2026.04.10 | V1.0 | Initial release |
| | | |
| | | |
| | | |