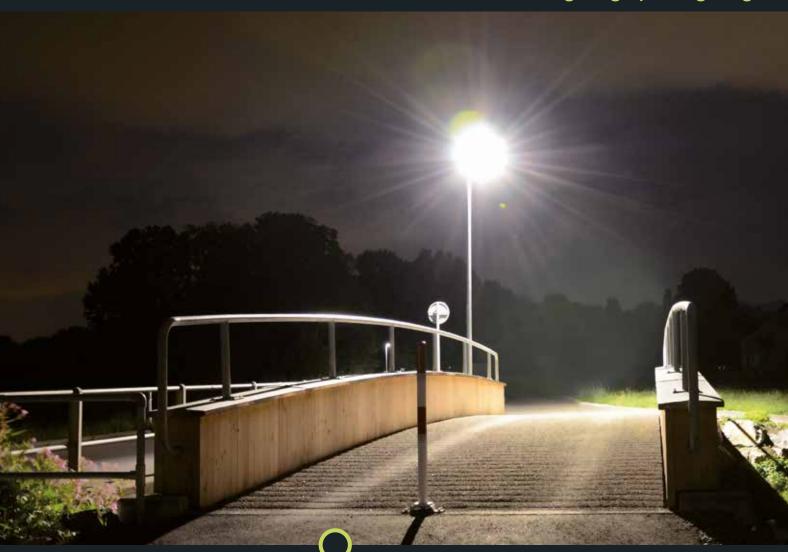
### 19 - Street lighting / path lighting









# LIGHT MEETS EMOTION AND PRUDENCE.

They are perfect for your service road or employee car park. GIFAS products highly score with their elegant design, modern LED technology and long-lasting service life, providing great lighting for your movement area in the long run.

StreetLED SMART	298
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### StreetLED SMART



### Light-emitting diode (LED)

Only high quality LEDs are used for the StreetLED SMART, with an optimal balance of colour quality, light output, life expectancy and free of mercury and lead (RoHS compliant). To achieve the best balance between natural colour distribution (true colour rendering) and the human eye at night, the colour temperature of 4000 K was selected.



# 62

### Optics

In addition to standard-compliant illumination, the asymmetrical light distribution also leads to less light pollution or glare; in combination with the "full cut-off" characteristic, light pollution is reduced to zero. Less stray light allows residents to sleep more peacefully and thus increases their quality of life.



### Electronics / Optional power reduction to 50%

The circuit boards used in the StreetLED SMART are specially designed and equipped with an individual driver to reduce the power to 50 % if required.



### Housing

In addition to a modern housing design, objectives such as resistance to extreme weather conditions, support of the important functions as well as protection of the vital parts of the luminaire had to be fulfilled. The result distinguishes the StreetLED SMART; completely sealed, no openings, disturbing cooling fins or fans. A lightweight aluminium alloy with a multi-layer surface finish is used.



### Future-proof

The StreetLED SMART is a high-tech street lighting system with futureoriented features such as light management via internet, wireless internet connection WIFI, security cameras, video control, speed sensors, light sensors and much more.

### Type comparison - StreetLED SMART

Types	StreetLED SMART 12	StreetLED SMART 12	StreetLED SMART 24	StreetLED SMART 36	StreetLED SMART 42
Technical data	The second	100	100	The second	
Number LED	12	12	24	36	42
Height of light spot (m)	to 5 m	to 5 m	5-7 m	7-12 m	9-14 m
Pole spacing (m)	24 m (5 m height)	20 m (5 m height)	21 m (6 m height)	28 m (8 m height)	35 m (10 m height)
Luminous flux	2390 lm	3950 lm	7990 lm	11420 lm	15730 lm
System output	149 lm/W	141 lm/W	148 lm/W	150 lm/W	157 lm/W
Power input	16W	28W	54W	76W	100W
Connection cable	8 m	8 m	8 m	12m	12 m
LVK	А	В	В	В	В
Street category	P4/M6	P4/M6	P3/M5	M4	M3
Area of application	For smaller roads, paths and cycle lanes, private driveways, alleyways and parking spaces.	For smaller roads, paths and cycle lanes, private driveways, alleyways and parking spaces.	For larger paths and cycle lanes, private areas and industrial zones.	For communal roads, crossroads, car parks and challenging open land and industrial zones.	For city roads and squares, multiple intersections, large areas and parks, large open land and industrial zones.



### StreetLED SMART



The retrofittable StreetLED SMART is the answer to the diverse possibilities of future-proof and smart street lighting that can do a lot more than just illuminate a street. With a high degree of modularity, the StreetLED SMART is already prepared today for the requirements of tomorrow.

### Scope of services

- Tool-free opening
- Zhaga version for retrofitting standardized Sensors or control solutions
- Tiltable ± 15°
- Overvoltage protection
- Automatically tension-free when opening

### Technical data

Input voltage 202-254 VAC/50-60 Hz

 Power factor
 >0.95

 Light colour
 4000 K

 CRI
 ≥80

Service life approx. 100.000 h (L90/B10)

Protection category IP66 Shock resistance IK09 Protection class I

Dimensions LxWxH 520x324x70 mm

Weight 7.2 kg

Adjustability -15° to +15° (5°-Steps)

Control DALI, Sensor Ready via Zhaga socket

Temperature operation range -40°C to +50°C

Flash cover 10kV

Connection cable 3x1.5 m² (8m or 12m pre-assembled))

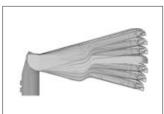
Pole mount 60 mm or 76 mm, to be ordered separately

Cover made of toughened safety glass, 4mm

Housing Die-cast aluminum

Colour RAL 9006



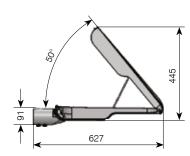




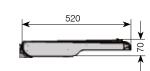


Technical drawing (incl. mast mounting):









The mast mounting is available separately in 60mm or 76mm and enables post-top or side-entry mounting. The slope can be in  $5^{\circ}$  steps can be changed by +/-  $15^{\circ}$ . All screws are off made of weatherproof stainless steel.

Classic applications of the StreetLED SMART are public Streets, intersections, parking lots and demanding open and industrial terrain.

	Item no.	Description
Ī	800370	StreetLED SMART 12, Zhaga, 16W, 2390 lm
	800371	StreetLED SMART 12, Zhaga, 28 W, 3950 lm
	800372	StreetLED SMART 24, Zhaga, 54W, 7990lm
	800373	StreetLED SMART 36, Zhaga, 76W, 11420 lm
	800374	StreetLED SMART 42, Zhaga, 100W, 15730Im

I	tem no.	Accessories
	800375	Mast mount 60 mm, RAL 9002
	800376	Mast mount 76 mm, RAL 9002
	800377	Light and motion sensor for Zhaga socket (Mast height up to 12 m)
01	n request	Sensor for traffic detection incl. software
OI	n request	Radio control for Zhaga socket

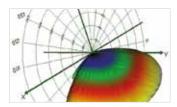
### StreetLED 4





### Light-emitting diode (LED)

Only high-quality LEDs are used for the StreetLED 4, with an optimum balance between colour quality, light output, life expectancy and freedom from mercury and lead (RoHS-compliant). The colour temperature of 4000 K was selected to achieve the best balance between natural colour distribution (true colour rendering) and the human eye at night.



### Optics

In addition to standardised illumination, the asymmetrical light distribution also results in less light pollution or glare; in conjunction with the 'full cut-off' characteristic, light pollution is reduced to zero. Less stray light allows residents to sleep more peacefully and thus improves their quality of life.



### Housing

In addition to a modern housing design, objectives such as resistance to extreme weather conditions, support for important functions and protection of the vital parts of the luminaire had to be met. The result characterises the StreetLED 4; completely sealed, no openings, annoying cooling fins or fans. A lightweight aluminium alloy with a multi-layer surface finish is used.

### Model overview - StreetLED 4

Modelle	StreetLED 4 20W	StreetLED 4 40W	StreetLED 4 60W	StreetLED 4 80W
Technical data				
Recommended Light point height	up to 5m	5-7m	5-7m	7-12m
Luminous flux	3000lm	6000lm	9000lm	12000lm
Light output	150lm/W	150lm/W	150lm/W	150lm/W
System output	20W	40W	60W	80W
Application areas	For smaller roads, footpaths and cycle paths, private forecourts, alleys and car parks.	For smaller roads, footpaths and cycle paths, private forecourts, alleys and car parks.	For municipal roads, junctions, car parks and de- manding open and industrial sites.	For urban roads and squares, multiple intersections, large areas and car parks, large open spaces and industrial sites.



### StreetLED 4



The StreetLED 4 for project and outdoor lighting combines advanced LED technology with a modern design that dispenses with additional cooling fins. Longevity is a top priority, both for indoor and outdoor use. An impact-resistant glass cover and long-life LED chips complete this compact luminaire.

To minimise light pollution in accordance with the Dark Sky initiative the luminaire has a closed construction that avoids unnecessary light emissions into the sky. The beam pattern of the StreetLED 4 fulfils the requirements for both the illumination of residential streets and the uniform illumination of paths, roads and objects in industrial facilities.

### **Product features**

- On-site adjustment of the tilt angle +/-15°
- Simple replacement of photometric components
- Universal mounting adapter for pole spigot (Ø76mm or Ø60mm)
- 20kV overvoltage protection
- Two different sizes for more flexibility and aesthetic uniformity

### Technische Daten

Input voltage 100-240VAC

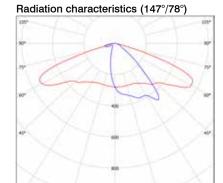
System power 20W / 40W / 60W / 80W

Luminous flux 3000lm / 6000lm / 9000lm / 12000lm

Light colour 4000K CRI index Ra > 70 min. 100000h Service life Protection category / class IP66 / I Impact resistance IK08 Adjustment -15 $^{\circ}$  to +15 $^{\circ}$ Temperature range -30°C to +45°C Housing colour **RAL 9007** 

Dimensions (LxWxH)

20W / 40W 400 x 220 x 128mm 60W / 80W 550 x 280 x 134mm Weight 4.4kg / 4.4kg / 6.4kg / 6.4kg



Item no.	Description
342428	StreetLED 4 20W, 4000K, excl. mast support
342429	StreetLED 4 40W, 4000K, excl. mast support
342430	StreetLED 4 60W, 4000K, excl. mast support
342431	StreetLED 4 80W, 4000K, excl. mast support
Item no.	Accessories
342433	Mast mount 60 mm, RAL 9007
342434	Mast mount 76mm, RAL 9007





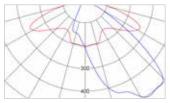
### Classic design

The simple, classic StreetLED CUBE2 is made of pressed aluminium. The cast parts are powder coloured and thermally processed. The luminaire has IK 10 impact resistance and IP66 protection.



### Technology

Use of Cree LED chips with a minimum efficiency of 130 lm/W. The colour temperature of 4500K is very pleasant. The StreetLED CUBE2 is also available in warm white on request.



### Optics

The optical lenses of the StreetLED CUBE2 are made of high-quality PMMA grade, with over 90% light transmission. They are UV and ozone resistant. It is possible to meet the most demanding technical requirements with a combination of different quantities and positions of the lenses.



### Driver

The driver is for the whole lifetime, for a minimum of 50000 h, and with many interesting options. DALI, 1-10 V dimming or autonomous dimming system. We can offer a wireless management system or NEMA connector with photocell.



### Additional functions

We can operate the LEDs with an operating current of 300 mA - 700 mA, depending on the size of the lamp and the customer's requirements.



### Type comparison – StreetLED CUBE2

Types	StreetLED CUBE2 12	StreetLED CUBE2 24	StreetLED CUBE2 48	StreetLED CUBE2 72
Technical data				
Number LED	12	24	48	72
Height of light spot (m)	up to 5 m	5-7 m	7-12m	7-12m
Pole spacing (m)	24m (5m height)	26m (6m height)	38m (8m height)	38m (10m height)
Street category	P4/M6	P3/M5	M4	M3
Dimmable	✓	✓	✓	✓
Light colour	4000 K	4000 K	4000 K	4000 K
Variability	+/- 15° (5°-Steps)	+/- 15° (5°-Steps)	+/- 15° (5°-Steps)	+/- 15° (5°-Steps)
Area of application	For smaller roads, paths and cycle lanes, private driveways, alleyways and parking spaces.	For larger paths and cycle lanes, private areas and industrial zones.	For communal roads, crossroads, car parks and challenging open land and industrial zones.	For city roads and squares, multiple intersections, large areas and parks, large open land and industrial zones.

Types	StreetLED CUBE2 S48	StreetLED CUBE2 H48
Technical data		
Number LED	48	72
Height of light spot (m)	7-12m	7-12 m
Pole spacing (m)	38m (8m height)	38 m (10 m height)
Street category	M4	M3
Dimmable	✓	✓
Light colour	4000 K	4000 K
Variability	-	_
Area of application	For communal roads, crossroads, car parks and challenging open land and industrial zones.	For city roads and squares, multiple intersections, large areas and parks, large open land and industrial zones.











IP66







The right light for needs of approx. 5lx, corresponding to lighting class P4. Classic Application cases of StreetLED CUBE2 12 are smaller neighbourhood streets, pedestrian and cycling paths, private forecourts, alleys and car parks.

### Technical data

Light source 1 Modul-12 LEDs

System output 18W Luminous flux 2653lm Light colour Input voltage 4000K

120-277VAC, 50/60Hz Service life min. 100000h (L90)

Protection category IP66 Shock resistance IK10 4.2kg Weight

Dimensions LxWxH 424×274×82.5mm

Street category P4/M6 Recommended height of light spot to 5m Recommended pole spacing 24m (LPH 5m) Select current 450mA

-15° to +15° (5°-Steps) -40°C to +50°C Variability Temperature operation range Housing colour RAL 9006

Dimmable 50% control phase 230VAC

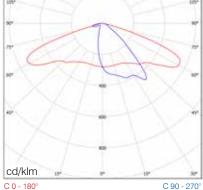
Fuse protection flash cover 10kV

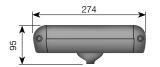
mounted with H07RN-F cable Equipment

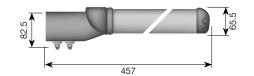
8m, 4x1mm<sup>2</sup>

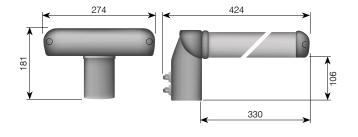
Item no.	Description
303608	StreetLED CUBE2 12, switchable 50% control phase 230VAC, mounted with H07RN-F cable 8m, 4x1mm <sup>2</sup>
800375	Pole securing mechanism for poles of diameter 60mm
800376	Pole securing mechanism for poles of diameter 76mm

# 18W - 2653lm



















34W - 5271lm









The right light for needs of approx. 7.5lx or 0.5cd/m2, corresponding to lighting classes P3 and M5. Classic Application cases of StreetLED CUBE2 24 are neighbourhood streets, major pedestrian and cycling paths, private areas and industrial sites.

### Technical data

Light source 2 Modul-24 LEDs

System output 34W 5271lm Luminous flux Light colour 4000K

120-277VAC, 50/60Hz Input voltage Service life min. 100000h (L90)

Protection category IP66 Shock resistance IK10 4.25kg Weight

424x274x82.5mm Dimensions LxWxH Street category P3 (7,5lx) or M5 (0.5cd/m<sup>2</sup>)

Recommended height of light spot 5-7m

Recommended pole spacing 26m (LPH 6m) 450mA Select current

Variability -15° to +15° (5°-Steps)

Temperature operation range -40°C to +50°C Housing colour RAL 9006

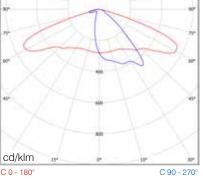
Dimmable 50% control phase 230VAC

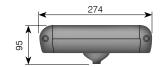
Fuse protection flash cover 10kV

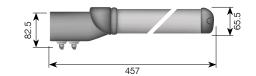
Equipment mounted with H07RN-F cable

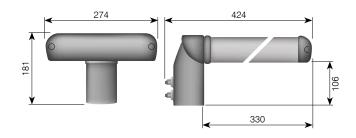
8m, 4x1mm<sup>2</sup>

Item no.	Description
303609	StreetLED CUBE2 24, Dimmable 50% control phase 230VAC, mounted with H07RN-F cable 8m, 4x1mm²
800375	Pole securing mechanism for poles of diameter 60mm
800376	Pole securing mechanism for poles of diameter 76mm



















IP66







The right light for lighting needs of approx. 0.75cd/m2, corresponding to lighting class M4. Typical Application cases of StreetLED CUBE2 48 are local roads, intersections, car parks and demanding outdoor and industrial premises

### Technical data

Light source 4 Module-48 LEDs 65W System output

Luminous flux 10325lm Light colour Input voltage 4000K

120-277VAC, 50/60 Hz Service life min. 100000h (L90) Protection category IP66

Shock resistance IK10 6.35 kg Weight

Dimensions LxWxH 594x275x82.5mm Street category M4 (0.75cd/m<sup>2</sup>)

Recommended height of light spot 7-12m Recommended pole spacing 38m (LPH 8m) Select current 450mA

Variability -15° to +15° (5°-Steps) Temperature operation range -40°C to +50°C RAL 9006

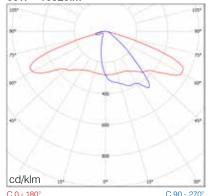
Housing colour Dimmable 50% control phase 230VAC

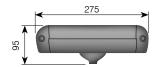
Fuse protection Flash cover 10kV Equipment mounted with H07RN-F cable

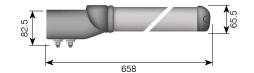
12m, 4x1mm<sup>2</sup>

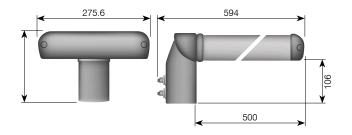
Item no.	Description
303610	StreetLED CUBE2 48, switchable 50 % control phase 230VAC, mounted with H07RN-F cable 8m, 4x1mm <sup>2</sup>
800375	Pole securing mechanism for poles of diameter 60mm
800376	Pole securing mechanism for poles of diameter 76mm

### 65W - 10325lm





















IP66







The right light for lighting needs of approx. 1.0cd/m2, corresponding to lighting class M3. Typical Application cases of StreetLED CUBE2 72 are urban streets and squares, multiple intersections, large areas and car parks, and large outdoor and industrial premises.

### Technical data

Light source 6 Module-72 LEDs 97W System output

15183lm Luminous flux Light colour 4000K

120-277VAC, 50/60 Hz Input voltage Service life min. 100000h (L90)

Protection category IP66 Shock resistance IK10 6.45kg Weight

594x275x82.5mm Dimensions LxWxH Street category M3 (1.0cd/m<sup>2</sup>) 7-12m

Recommended height of light spot

Recommended pole spacing 38m (LPH 10m) Select current 450mA

Variability -15° to +15° (5°-Steps) Temperature operation range -40°C to +50°C Housing colour RAL 9006

Dimmable 50% control phase 230VAC

Fuse protection Flash cover 10kV

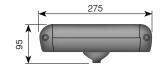
Equipment mounted with H07RN-F cable

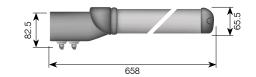
12m, 4x1mm<sup>2</sup>

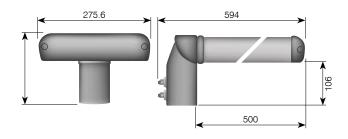
Item no.	Description
303611	StreetLED CUBE2 72, switchable 50% control phase 230VAC, mounted with H07RN-F cable 8m, 4x1mm <sup>2</sup>
800375	Pole securing mechanism for poles of diameter 60mm
800376	Pole securing mechanism for poles of diameter 76mm

### 97W - 15183lm



















IP66







The right light for needs of approx. 0.75 cd/m², corresponding to lighting class M4. Classic Application cases of StreetLED CUBE2 S48 are municipal roads, intersections, car parks and complicated outdoor and industrial sites

### Technical data

Light source 4 Module-48 LEDs System output 101W Luminous flux 15000lm Light colour 4000K

Light colour 4000K Input voltage 120-277VAC, 50/60 Hz Service life min. 100000h (L90)

Protection category IP66 Shock resistance IK10 Weight 6.35kg

Dimensions LxWxH 566x275x171mm Street category M4 (0.75cd/m²)

Recommended height of light spot 7 - 12m
Recommended pole spacing 38m (LPH 8m)
Select current 700mA
Temperature operation range -40°C to +50°C
Housing colour RAL 9006

Dimmable 50% control phase 230VAC

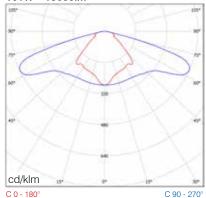
Fuse protection Flash cover 10kV

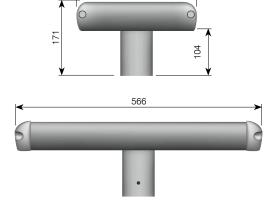
Equipment mounted with H07RN-F cable

8m, 4x1mm²

Item no.	Description
303612	StreetLED CUBE2 S48, Dimmable 50% Control phase 230VAC, mounted with H07RN-F cable 8m, 4x1mm <sup>2</sup>
284292	Pole securing mechanism for poles of diameter 60mm

### 101W - 15000lm





275



















The right light for needs of approx. 1.0cd/m2, corresponding to lighting class M3. Classic Application cases of StreetLED CUBE2 H48 are urban streets and squares, multiple intersections, large areas and car parks, and large outdoor and industrial sites.

### Technical data

Light source 4 Module-48 LEDs

101W System output 15087lm Luminous flux Light colour 4000K

120-277VAC, 50/60Hz Input voltage Service life min. 100000h (L90)

IP66 Protection category Shock resistance IK08 6.45kg Weight 539x275x148mm Dimensions LxWxH

Street category M3 (1.0cd/m<sup>2</sup>) Recommended height of light spot 7-12m Recommended pole spacing 38m (LPH 10m) Temperature operation range -40°C to +50°C Select current 700mA

Housing colour **RAL 9006** 

Dimmable 50% control phase 230VAC

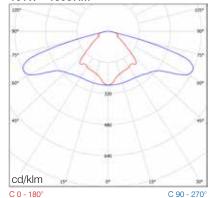
Fuse protection Flash cover 10kV

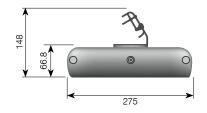
Equipment mounted with H07RN-F cable

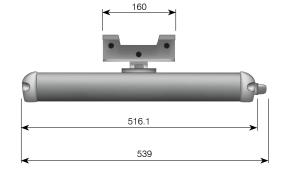
1m, 4x1mm<sup>2</sup>

Item no.	Description
303613	StreetLED CUBE2 H72, Dimmable 50% Control phase 230VAC, mounted with H07RN-F cable 8m, 4x1mm <sup>2</sup>

### 101W - 15087lm





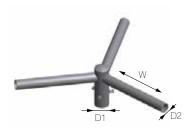


## Equipment

### Accessories mast mounts









### Outrigger twice, 90°

Iter	m no.	W	D1	D2
283	3064	400	60	60
277	7764	400	76	60

### Outrigger twice, 180°

Item no.	W	D1	D2
276320	280	70	60
279209	280	60	60

### Outrigger threefold, 120°

Item no.	W	D1	D2
277145	280	76	60

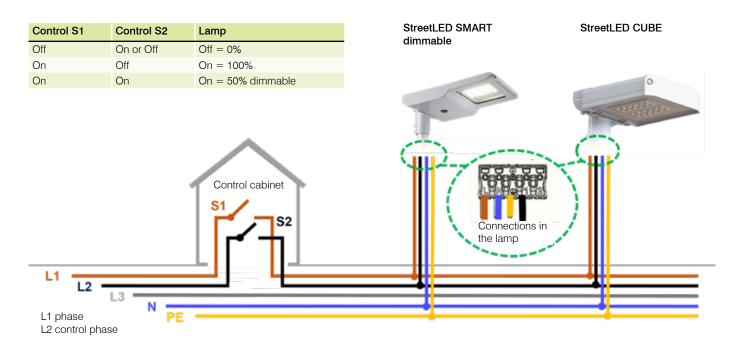
### Outrigger fourfold, 90°

Item no.	W	D1	D2
285849	400	60	60
277908	250	76	60

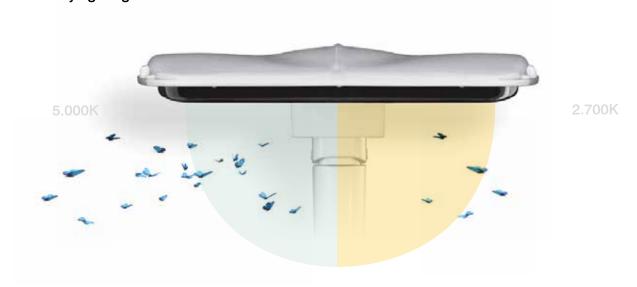


### Power reduction to 50% via 230V phase switching - switchable for StreetLED SMART and StreetLED CUBE -

The lamp is switched on by switching phase (L). The luminaire can be dimmed by 50% by switching on or off another phase (control phase). This is a preset value which cannot be changed. The power reduction is also 50%.



### Insect-friendly lighting



Insect-friendly LED pole lights with 2700K and 3000K

UV, blue and white LED light attract most insects. The more red components there are in the light, the fewer insects are attracted. When buying lamps for outdoor use, therefore, care should be taken to ensure that the light contains as few blue components as possible. With modern LED pole luminaires, the essential conditions for insect-friendly lighting can be well met. The LED technology used can be easily switched and dimmed and is thus ideally suited to sustainably adapt the light supply to the light requirement. We at GIFAS already offer corresponding lamps, for example in 2700K and 3000K versions. The completely enclosed lamp housing as well as a low surface temperature of the housing provide additional protection against insects. Another advantage: the street luminaires with asymmetrical light distribution not only provide standardcompliant illumination but also result in fewer light emissions. Fewer light emissions increase the quality of life for people, animals and insects.

We will be happy to support you in your planning!



### StreetLED3 / StreetLED CUBE2



BMW, Munich



BMW, Munich



Sewage treatment plant, Osnabrück



Sewage treatment plant, Osnabrück



Factory site



Ask Chemicals, Wülfrath

### StreetLED3 / StreetLED SMART



Retail, Ernstbrunn



ARA "Energiepark", Morgental



Urban road, industrial area



Factory site, chemical industry



Parking lot lighting, Göllheim



### StreetLED3 / StreetLED CUBE



Before - Residential area, Rorschacherberg



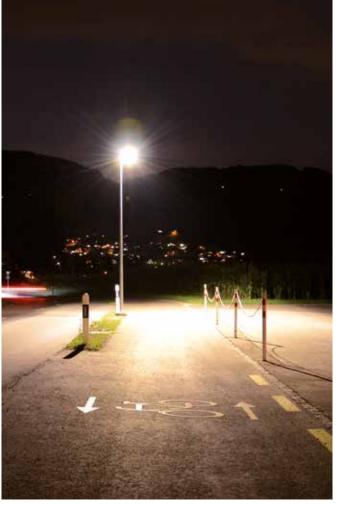
After - Residential area, Rorschacherberg



Footpath, Rebstein



GIFAS, Rheineck



Bicycle path, Rebstein

### StreetLED3 / StreetLED CUBE



Car park lighting Billa, Mistelbach



Main street, Rorschach



Energy Seeland, Lyss



Urban road, residential area



Urban road, residential area



# WE ARE EXPERTS IN YOUR FIELD

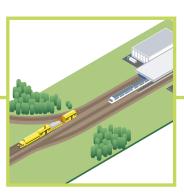
## Street lighting / path lighting







Industrial sector



**Transportation** 

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