



TARUS600

The pictures shown are for illustrative purposes only. For shape, material and color specifications refer to internal descriptions.

Tarus 600

Technical data

INSTALL

Large areas, industrial contexts.

ACCESSIBILITY



Openable

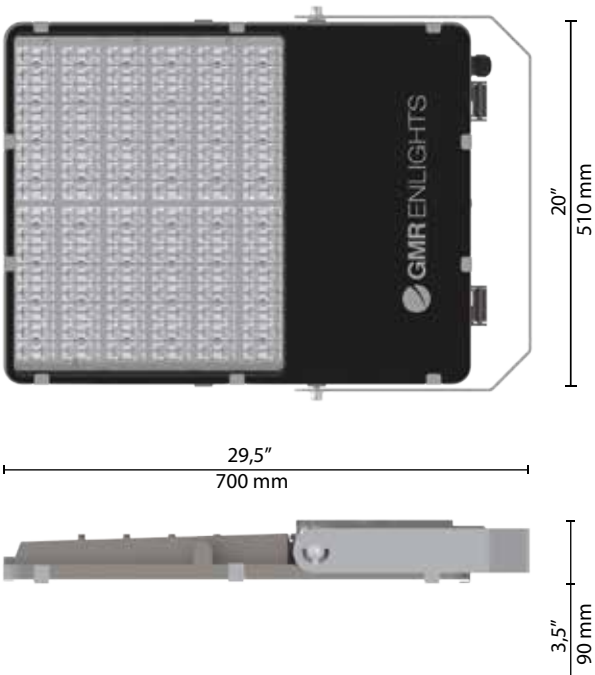
Openable fixture with basic tools
Replaceable internal components
using basic tools.

OPTICAL TECHNOLOGY



Glossed

Refracting optical system consist of singlechip LED, PMMA lenses with 30 years of warranty against UV and yellowing by aging, aluminium reflector having a purity of 99,7% and extra clear tempered glass.



Scale: 1:15

Max. weight

22 Kg

CXS

Front: 0,27 m²

STANDARD

EN 60598-1, EN 60598-2-3, EN 62471, EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3, UNI EN ISO 16474-3, UNI EN ISO 6270-1

CONFORMITY | PROTECTION

Conformity



Salt spray test

ISO 9227



8.000 hr

Vibration test passed

IEC 60068-2-6



Insulation classes



Protection classes



Photobiological safety



Classe 0 Exempt group IEC/TR62471

PLUS



CUT OFF



OPTICAL FLEXIBILITY



LOW GLARE



COMPLIANT



IPEA MIN

LIGHTING FIXTURE FEATURES

General features

Power source:	220-240V 50/60Hz tolerance +/-10%
Current supply:	350 mA 525 mA 700 mA 1050 mA (P _{max} = 629W)
Power Factor THD:	≥0.95 <10 % (At full load)
Expected life (Ta=25°):	> 100.000 h L90B10 @ LED 1050mA
Operational temperature (Ta):	T _{min} = -40°C T _{max} = +50°C 800mA (344W)
Storage temperature:	-40°C/+80°C
Overcharge protection:	Main surge immunity up to 10kV
Disconnecter:	Optional
Standard functions:	Current fixed Virtual midnight CLO

Materials

Lighting fixture:	Die cast aluminium EN1706 Epoxy powder coating
Optical system:	Optics in PMMA
Screen:	Screen-printed ultraclear tempered glass Th. 4mm
Gaskets:	Removable silicon
Cable gland:	Polyamide PA66 M20 Ø 14mm MAX IP 66
Screws and bolts:	AISI 304 stainless steel
Bracket:	Galvanized steel
Fixture color:	GMR light
Silkscreen color:	RAL 9005

LED FEATURES

LED data 4.000 K - 640mA:	722 lm/LED 186 lm/W 25°C [Tj] ≤ 3 step MacAdam
Color temperature:	2.700 K 3.000 K 4000K CRI ≥ 70

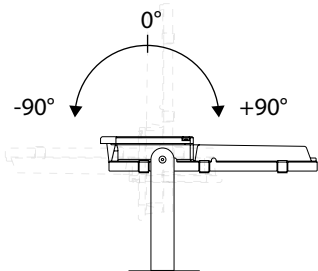
Tarus 600

Technical data

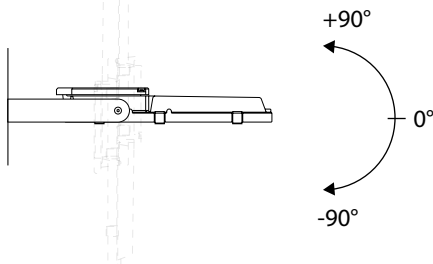
FIXING TYPE*

5° step seamless tilt adjustment

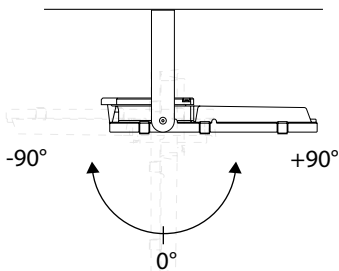
Pole-top



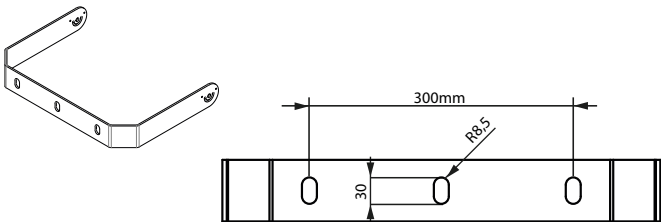
Wall mounting



Surface mounting



BRACKET DRILLING



OPTIONAL

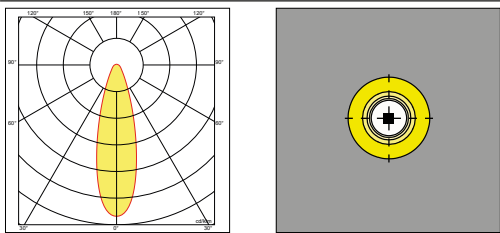
Mechanical equipment:	Hot galvanized steel pole-top cross arm
	Galvanized protection grid Optical Aiming device
Additional surge protector device:	SPD with warning LED CLASS 1 CLASS 2 12kV/kA
Additional surge protector device SPD 400:	SPD with warning LED CLASS 1 CLASS 2 12kV+ permanent overvoltage protection higher than 270Vac
Electrical equipment:	0,5 m power cable with 2-3 or 4-5 core connector
	Disconnecter and cable clamp cross section 1.5mm ² ÷ 4mm ²
Optional functions:	DALI2 D4i
Connectors and sockets:	NM (Nema Socket) ZS (Zhaga Socket)

^(*)The icons are demonstrative. The actual dimensions and distances between the products are to be checked at time of order.

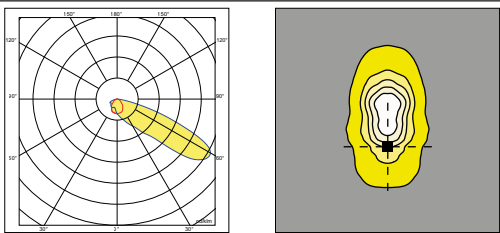
Tarus 600

Available optical system

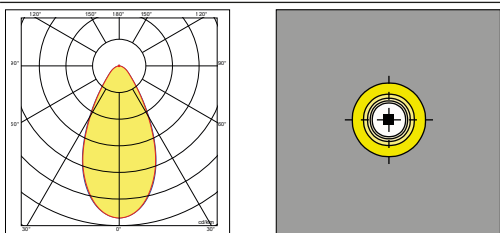
9A



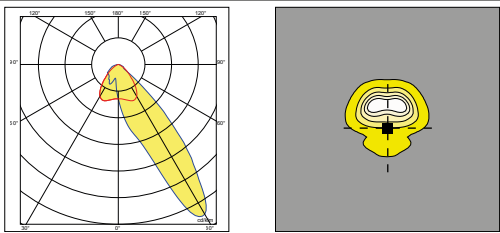
11A



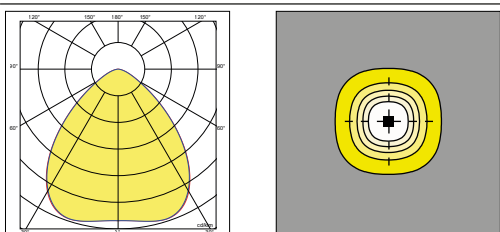
9B



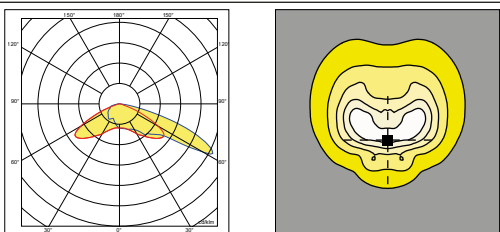
11B



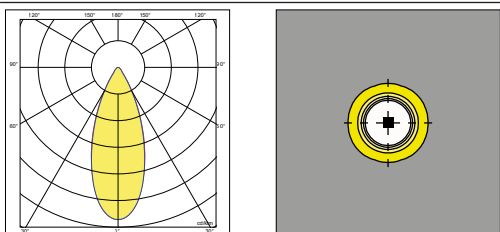
9C



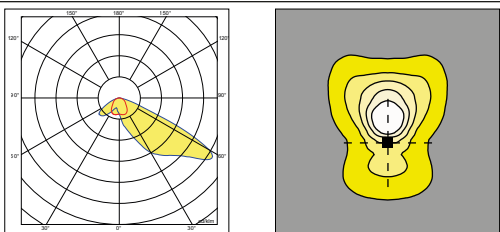
11C



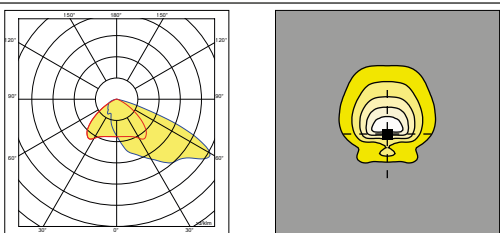
9D



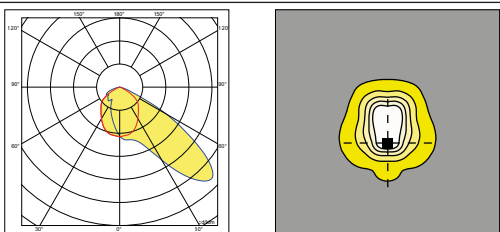
11D



11E



11F



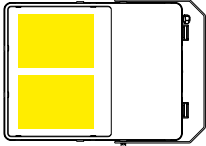
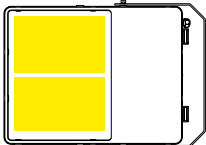
The LED modules nominal data refers only to the LED light sources in a standard version, with 4000 K color temperature, color rendering index CRI 70 min. and a junction temperature tj of 25°C. The LED nominal data are extrapolated from the manufacturer documentations.

LED code	I LED [mA]	Luminous flux [lm]	Power [W]	Efficiency [lm/W]
GL36	350	27946	135,9	206
	525	40782	207,5	197
	700	52763	281,1	188
	750	56030	302,4	185
	800	59227	323,9	183
	850	62353	345,6	180
	900	65410	367,3	178
	950	68398	389,3	176
	1000	71316	411,4	173
	1050	74165	433,6	171
GL48	350	36296	184,3	197
	525	52844	281,4	188
	600	59568	324,0	184
	650	63928	352,7	181
	700	68191	381,6	179
	750	72356	410,8	176
	800	76423	440,3	174
	900	84263	499,9	169
	950	88036	530,1	166
	1000	91712	560,6	164
	1050	95289	591,3	161

The lighting fixture measured data refers to GMR ENLIGHTS products in a standard version, with 4000 K color temperature, optica type 9D and an ambient temperature ta of 25 °C.

GMR ENLIGHTS offers the possibility of driving the device with custom currents (•).

Feature availability is subject to configurations. To obtain luminous fluxes and efficiencies of the lighting fixture in case of optic type and/or color temperature and/or color rendering index different from the standard use the conversion factors shown in the tables.

Order code: TA6_GLxx		I LED [mA]	I lighting fixture [mA]	Luminous flux [lm]	Power [W]	Efficiency [lm/W]
GL36		175	350	26828	148,5	181
		263	525	39151	223,0	176
		350	700	50652	299,5	169
		375	750	53789	322,0	167
		400	800	56858	344,0	165
		425	850	59859	367,0	163
		450	900	62794	389,5	161
		475	950	65662	412,5	159
		500	1000	68463	435,5	157
		525	1050	71198	458,5	155
GL48		175	350	34844	205,0	170
		263	525	50730	303,5	167
		300	600	57185	347,5	165
		325	650	61371	377,0	163
		350	700	65463	407,0	161
		375	750	69462	437,5	159
		400	800	73366	468,5	157
		450	900	80892	531,5	152
		475	950	84515	563,5	150
		500	1000	88044	596,0	148
		525	1050	91477	629,0	145

OPTIC CONVERSION FACTOR
LUMINOUS FLUX

Optic type	Flux multiplier
9D	1,00
11B	0,99
9A 11E	0,97
11F	0,96
9B 9C	0,95
11C	0,94
11A 11D	0,93

Tk CONVERSION FACTOR
LUMINOUS FLUX

Tk [K]	Flux multiplier
2.700	0,93
3.000	0,96
4.000	1,00

CRI CONVERSION FACTOR
LUMINOUS FLUX

CRI (color render index)	Flux multiplier
70	1,00
80	0,90
90	0,77

Below are the limitations based on the ambient temperatures for correct and safe use of the Tarus 600 projector divided by geographical area. Please always refer to the table and discuss with the reference sales office when ordering.

AVERAGE TA IN THE HOTTEST MONTH (°C)							
America		Asia/Oceania		Middle East/Africa		Europe	
	ToP		ToP		ToP		ToP
Argentina	30	Australia	30	Saudi Arabia	45	Albania	30
Brazil	30	South Korea	30	Bahrain	40	Austria	25
Canada	25	Philippines	35	Egypt	35	Belgium	25
Chile	30	Hong Kong	35	Jordan	35	Bosnia Herzegovina	35
Colombia	20	India	35	Israel	30	Bulgaria	30
Ecuador	30	Iran	35	Kuwait	50	Cyprus	35
Mexico	30	Malaysia	35	Libanon	30	Croatia	30
Perù	30	New Zealand	25	Morocco	30	Denmark	20
Uruguay	35	Pakistan	35	Oman	40	Estonia	20
USA (Arizona)	40	Russia	25	Qatar	45	Finland	20
USA (New York)	30	Singapore	35	UAE (Abu Dhabi)	40	France (Lyon)	30
		Taiwan	35			France (Marseille)	30
		Vietnam	35			France (Parigi)	25
						Germany	25
						Greece	35
						Ireland	20
						Iceland	15
						Canary Islands	30
						Italy	30
						Lettonia	20
						Liechtenstein	25
						Lithuania	25
						Luxembourg	25
						Malta	35
						Moldavia	30
						North Macedonia	30
						Norway	20
						Netherlands	20
						Poland	25
						Portugal	30
						Czech Republic	25
						Romania	30
						Scotland	20
						Serbia	30
						Slovenia	30
						Spain (Madrid)	35
						Spain (Malaga)	30
						Spain (Barcelona)	35
						Sweden (Goteborg)	20
						Sweden (Borlänge)	25
						Switzerland	25
						Turkey (Ankara)	30
						Ukraine (Kiev)	25
						UK	20

TARUS 600 OUTDOOR							
Max Current for optical configuration	ToP20	ToP25	ToP30	ToP35	ToP40	ToP45	ToP50
GL36	1050	1050	1050	1000	950	900	800
GL48	1050	1000	950	900	800	700	650

TARUS 600 INDOOR						
Max Current for optical configuration	ToP25	ToP30	ToP35	ToP40	ToP45	ToP50
GL36	1050	1050	950	900	850	750
GL48	950	900	800	750	650	600

Functions

Standard functionality

Fixed current

During production, the light fixture is pre-set with a fixed current amongst the standard settings that appear in the tables on page 3. Upon customer's request, it is also possible to set a specific current (custom setting).

Virtual Midnight | Automatic dimming

The driver is programmed to automatically dim the light output according to the time. As required by regulations, the maximum output is set during initial hours and towards the end of the light fixture's operating time interval. During these hours there is statistically more traffic. The light output is then dimmed during the central hours of the operating time interval. This management is achievable through a self-learning process of the device, that establishes the centre point of the time interval. This moment is called "virtual midnight" and it is the point that the dimming profile refers to in order to know when to reduce the light output. We can manage up to 8hrs of programming that evolve around the virtual midnight and up to 5 steps of dimming. This way the light output will adjust automatically, adapting throughout the year to the duration of the nighttime, by referring to the pre-set parameters based on the centre point of the operating time interval.

CLO Constant Lumen Output

LEDs over time are inevitably subject to performance depreciation. This light reduction may be compensated by gradually increasing the LED's current during its lifespan, this corresponds to a gradual increase of lumen output proportional to the amount that is naturally depreciated.

On request functionality

DALI2 Control and monitoring system

On request, the fixture can be fitted with a DALI2 communication interface. This protocol allows it to be monitored and controlled remotely through use of Dali control buses.

D4i

On request, the fixture can be equipped with a D4i certified power supply. This is the ideal solution for wireless sensors and/or controls. This system was developed to integrate various systems to address smart city requirements. Included is DALI2 protocol + auxiliary power (AUX) to supply power to devices and sensors. This system is usually required when using a Zhaga socket.

LINESWITCH

This functionality by using an extra wire within the streetlight's power line, allows to dimmer to a pre-set level. For example, a centralised timer can change this value from 100% to 50%, and vice versa.

AMPDIM

This feature allows dimming using the power line controlled by an upstream flow regulator. For this feature, the flow controller must use amplitude modulation (AM).

NEMA | Nema Socket (7 PIN)

The Nema Socket is a 7 PIN connector/socket with IP66 rating, that is fitted on the fixture to make it interfaceable with various ANSI C136 compliant devices and remote-control gear.

These devices can be installed during or after installation of the light fixtures. The NEMA socket can provide power interruption and is interfaceable with DALI buses and/or 1-10V dimming. It is compatible with point-to-point node connection, and twilight sensors ect.

ZHAGA Zhaga Socket (4 PIN)

The Zhaga socket is a small and compact 4 Pin connector/socket, that is fits ideally with the design of GMR ENLIGHTS fixtures. With ZHAGA sockets it is possible install the devices, sensors, ZHAGA remote controls during or after installation of the light fixtures. This socket is usually required in conjunction with the DALI Sensor feature, which involves a DALI2/D4i communication protocol in addition to 12/24V auxiliary port to supply power to the sensors. It is compatible with point-to-point wireless control solutions and SMART CITY applications to control and monitor the public lighting infrastructure.

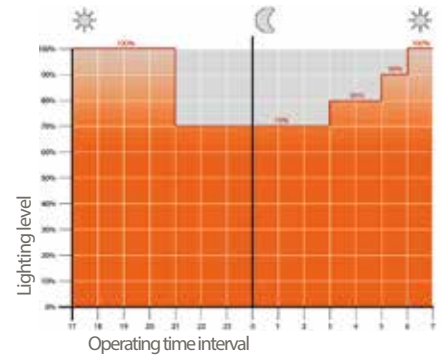
PRESENCE SENSOR

The product can be equipped with a presence sensor type zhaga book 18 in the lower part of the luminaire. In this case the lighting body is provided with Zhaga socket and Driver D4i. It is very important to carefully evaluate the installation context (height and underlying area) according to the sensing diagram of the device.

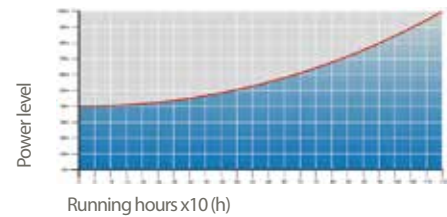
Third-party remote control

GMR ENLIGHTS fixtures are compatible with most third-party remote controls, powerline communication systems, wired systems (buses) and wireless systems.

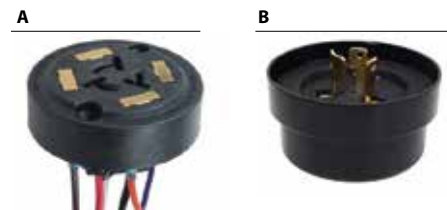
Example of 4-step adjustment with virtual midnight



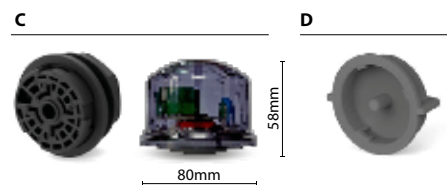
CLO Light Flow Compensation



7 Pin Nema Socket 7 (A) and IP66 shorting cap (B)



4 Pin Zhaga Socket (C) and IP66 cap (D)



Installation example of Zhaga



Installation example of presence sensor

