

LED LUMINAIRE MANUAL

Руководство по эксплуатации

СВЕТОДИОДНЫЙ СВЕТИЛЬНИК С OSRAM СВЕТОДИОДОМ

Model No.:FP1-H

V031350009200003

Last Update:10/9/2024

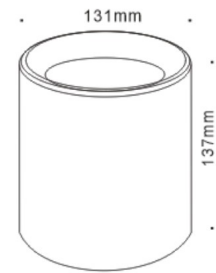
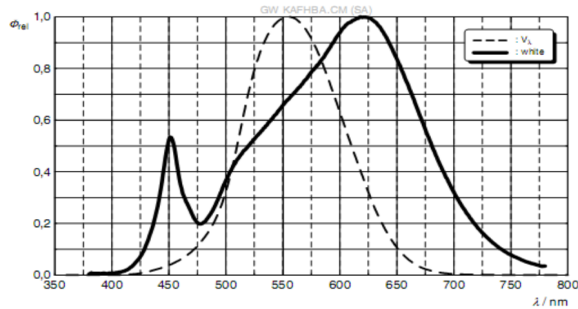
Description & Parameters

- LED FIXED LUMINAIRE
- Item No.: 2025177670-90
- Approval by CB, CE, EAC & RoHs
- Mounting Type: Ceiling surface mounted
- General application: Education, Office, shopping mall and other indoor place



Specification

$\Phi_{rel} = f(\lambda)$; $I_F = 450 \text{ mA}$; $T_J = 25 \text{ }^\circ\text{C}$ 19W



LED Light Source: Osram COB type GW KAFHBA.CM-SQTP-35S3-XX

LED driver: Osram type IT DALI 30/220-240/700 CS

Constant Current DALI LED driv

Input: AC220/240V 50~60Hz

Power:19W

Color temperature(K): 3500K

Fixture luminous flux (lm): 2058lm @3500K

Beam angle: 37°

Color rendering index(CRI): 90

IP rating: IP20

IK rating:IK03

Physical Dimensions: Ø131x137mm

Dimming/ addressable: DALI dimmable

Operating temperature range (°C): -10°C...+55°C

LED Flickering Rate: Ultra low (5% or less)



Materials and color finish

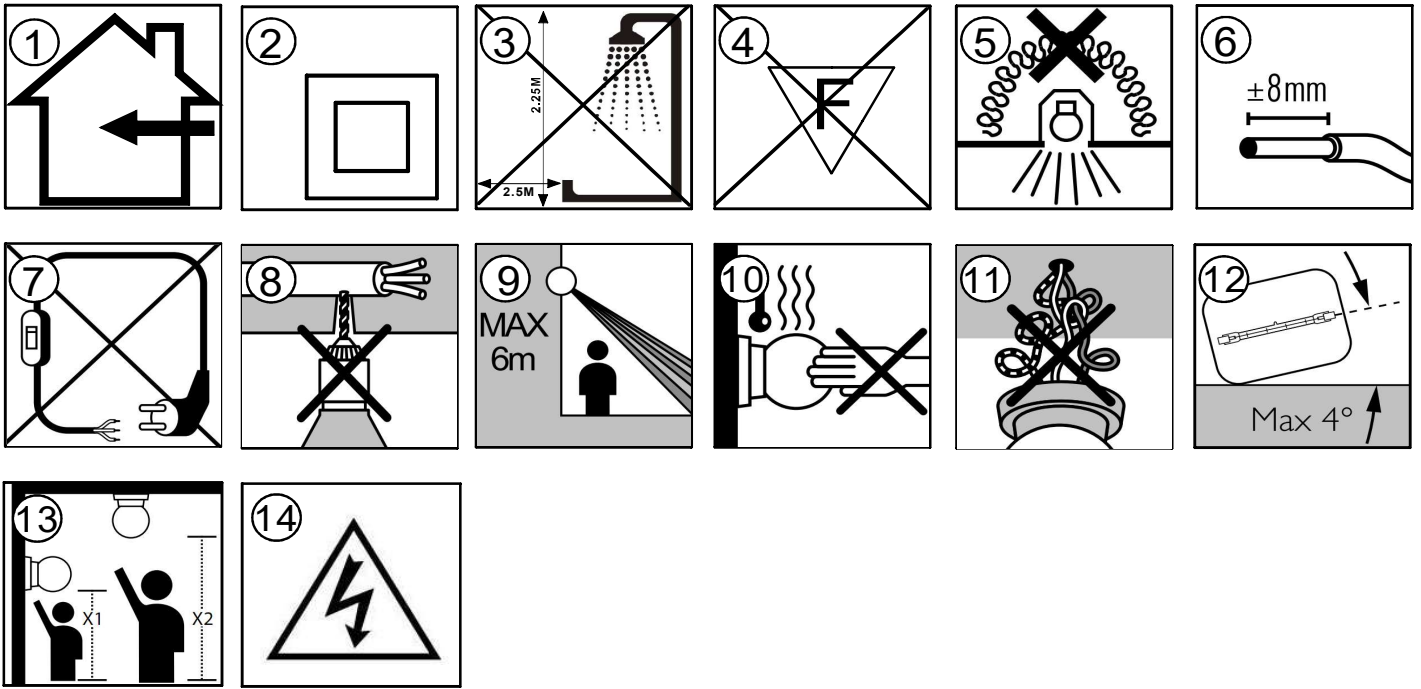
Body / construction: Aluminium die-cast

color finished

White bezel / Black baffle

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安全使用说明

安装、维护和修理前请务必关闭电源。

- 01-产品只能安装在室内。
- 02-防护等级为II,产品或组件具有双重绝缘或加强绝缘。
- 03-产品不可安装在浴室或其它潮湿环境。
- 04-产品不可直接安装在普通易燃表面。
- 05-产品不可覆盖绝热材料。
- 06-按图标所示为导线剥皮长度。
- 07-产品仅适合直接连接电源。
- 08-安装过程中请确保不会钻到天花板内的电线。
- 09-建议安装高度值。
- 10-本产品的部件会发热。
- 11-请勿夹紧或扭曲产品和安装面之间的电源线。
- 12-天花平面最大倾斜角度。
- 13-请安装在人体接触不到的地方。
- 14-存在触电危险,应由专业人员安装。

Safety instructions

Always switch off the power prior to installation, maintenance or repair activities.

- 01-The product should only be installed indoors
- 02-Protection class II: the product or component is provided with double or reinforced insulation.
- 03-The product is not suitable for installation in bathrooms.
- 04-The product is not suitable for direct mounting on normally flammable surfaces.
- 05-The product is not suitable for covering with thermally insulating material.
- 06-Strip the wire as indicated on the icon.
- 07-The product is only suitable for wiring directly to the electrical mains supply.
- 08-Ensure not to drill through electrical wires or any other obstruction in the wall or ceiling during installation.
- 09- The product can be mounted up to a maximum height of 6 m.
- 10- Parts of this product may get hot.
- 11-Electrical wiring may never be clamped or twisted between the product and the mounting surface.
- 12-This product should be mounted horizontally. For longer life, the bulb should not be at an angle greater than 4 degrees.

13-Mount the product out of arm reach (X1: for children, X2: for adults).

14-Caution: Risk of electric shock! The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

Инструкция безопасности

Перед проведением установки, сервисного обслуживания или ремонта всегда отключайте питание устройства.

- 01-изделие подходит только для использования в помещении,
- 02-класс защиты II:изделие или деталь выполнены с использованием двойной или усиленной изоляции.
- 03-изделие не может устанавливаться в ванных комнатах.
- 04-изделие не подходит для установки на возгораемых поверхностях.
- 05-изделие нельзя накрывать теплоизоляционным материалом.
- 06-проводите зачистку проводов как показано на значке.
- 07- изделие можно подключать только напрямую к электросети.
- 08- во время установки будьте внимательны, просверливая отверстия в стене или потолке, не задевайте провода и другие объекты.
- 09-максимально допустимая высота монтажа изделия составляет 26 м.
- 10-детали изделия могут нагреваться.
- 11-запрещается скручивать и сжимать электропроводку между изделием и поверхностью монтажа
- 11-монтаж изделия необходимо выполнить горизонтально. Для более долговечной эксплуатации угол наклона лампы не должен превышать 4 градуса.
- 12-монтаж изделия должен проводиться вне зоны досягаемости рукой (X1: для детей, X2: для взрослых).
- 13- Внимание!Риск поражения электрическим током! Замену источника света для этого светильника должен проводить только производитель, сервисный агент производителя или специалист с агент производителя или специалист с аналогичной квалификацией.

Light is OSRAM

Product Datasheet

IT DALI 30/220-240/700 CS Constant Current DALI LED driver

The reliable driver for energy saving lighting.
DALI-2 certified; Embedded with Touch DIM/Corridor function; High flexibility thanks to wide operating range;
Simple and easy current setting via dipswitch interface.

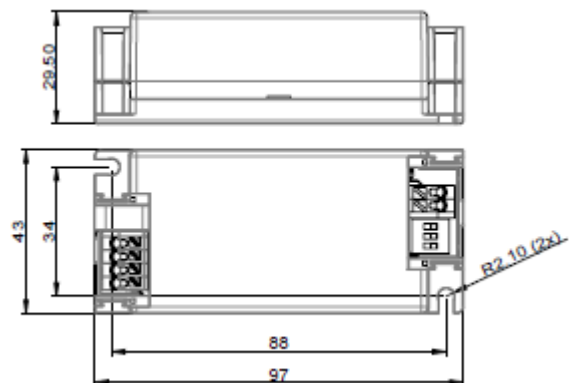
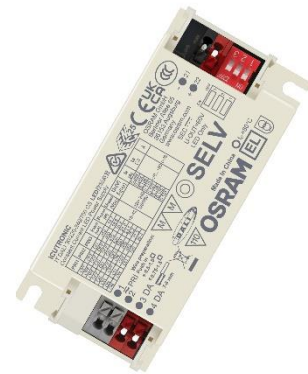
Benefits

Wide operating range: 350/400/450/500/550/600/650/700mA
Simple and easy current setting via dipswitch
High quality of light with low ripple current < 5%
Small size enables compact fixture design
Built in and independent mounting options (with cable clamp)
With Touch DIM functionality

Applications

Office - Shop - Hospitality
Spotlights, Downlights
Panels and other indoor luminaires

Approvals (In preparation, if not printed on product label)



Size (L x W x H) mm: 97 x 43 x 29.5
Housing material: plastic, white
Product Weight: 112.5g

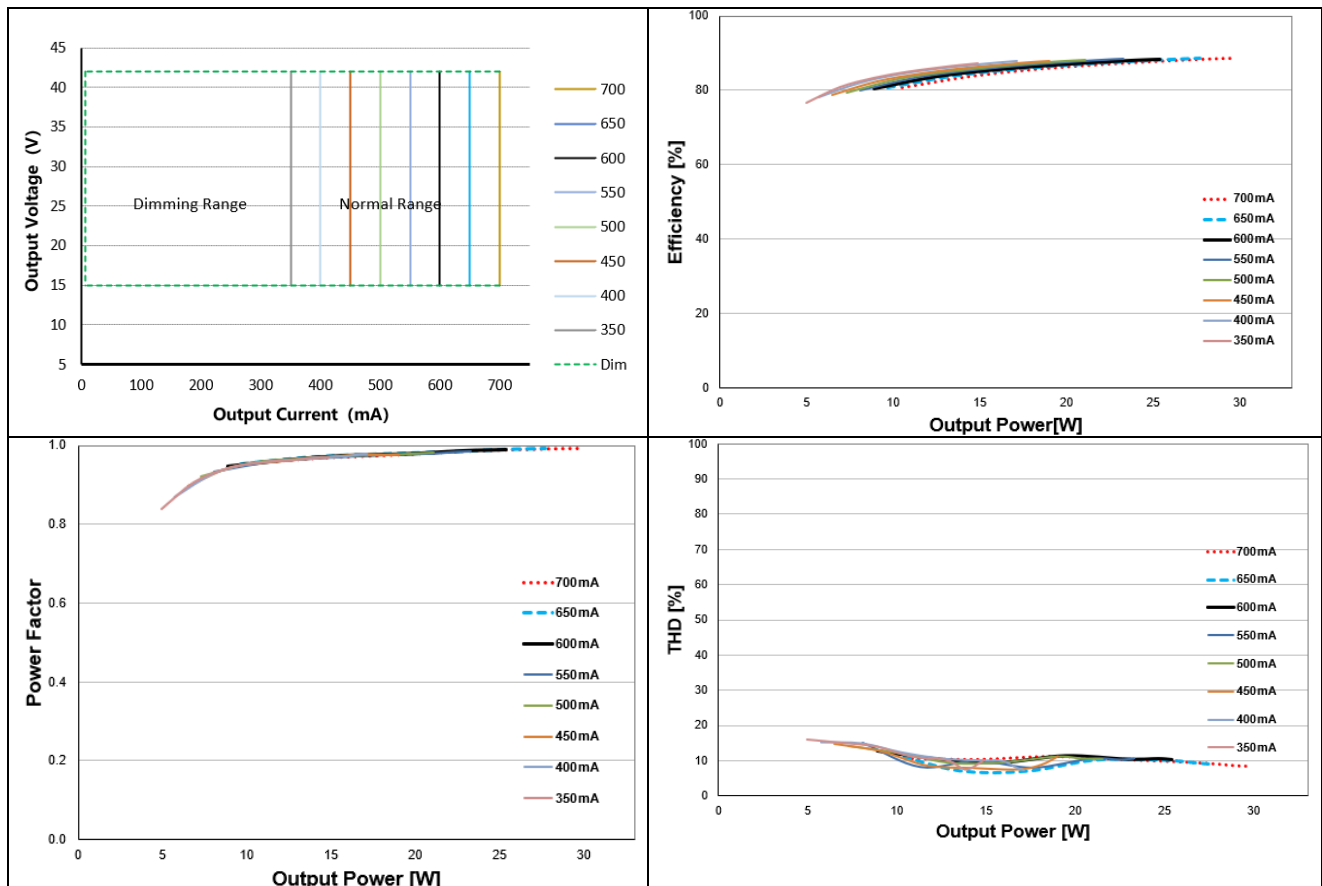
Product Features

- Output currents: 350/400/450/500/550/600/650/700 mA
- Output voltage: 15 VDC – 42 VDC
- Amplitude dimming 1...100%
- Typ. Efficiency: 88 %
- Low stand-by consumption < 0.5 W
- Ambient temp range, ta: -20°C to + 50°
- Dipswitch interface
- Touch DIM/Corridor Function
- Low ripple < 5 %
- Low THD < 10 %
- Suitable for class I and II luminaires
- 50,000 hours lifetime at tc max.

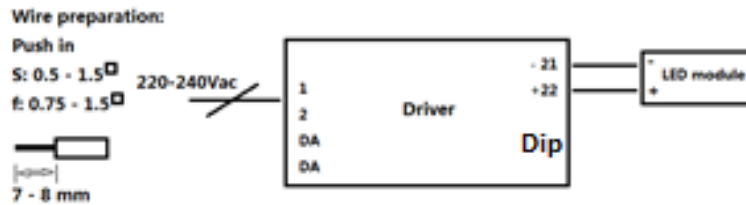
Electrical Specifications

	Item	Value	Unit	Remarks
INPUT	Nominal Voltage	220 - 240	V	
	Nominal frequency	0 / 50 / 60	Hz	
	AC voltage range	198 – 264	V	
	DC voltage range	176 – 276	V	
	Maximum voltage	275	VAC	48hrs maximum
	AC Nominal current	0.161	A	Full load, 230V, 50Hz
	DC Nominal current	0.078	A	50% load, 230V, 0Hz
	Total Harmonic Distortion (THD)	< 10	%	Full load, 230 V, 50 Hz / see graphs
	Power factor	0.98		Full load, 230 V, 50 Hz / see graphs
	Efficiency	88	%	Full load, 230 V, 50 Hz, typical / see graphs
	Power losses	3.8	W	Maximum, full load
	No-load power	n/a	W	Load switching on output side is not permitted
	Network stand-by power	< 0.5	W	
	Protection class	II		Suitable for class I & II luminaires
	Leakage current	< 0.7	mA	Output floating
Inrush current	30	A pk	twidth = 100µs typical (measured at 50% Ipeak)	
Max. units per circuit breaker	B10: 25; C10: 37 B16: 40; C16: 60 B25: 62; C25: 93	pcs		
OUTPUT	Nominal voltage range	15 – 42	V	
	Maximum voltage	≤ 60	V	Open circuit
	Nominal current range	350/400/450/500/550/600/650/700	mA	Default current: 700mA
	Current accuracy	+/- 5	%	
	Current ripple	< 5	%	Ripple / average @ 100 Hz
	Pst LM	≤ 1		Full load
	SVM	≤ 0.4		Full load
	Nominal power range	5.3 – 29.4	W	
	Maximum power	29.4	W	Ta ≤ Max.
	Emergency output factor (EL)	0.15 – 0.5		EOFi = 0.15 – 0.5, @Ta=80 °C No hazard
	Galvanic isolation	SELV		3,75 kVrms. Output to mains - Touch current < 0.7 mA
DIM	Dimming control	Yes		DALI-2/TouchDIM/Corridor Function
	Dimming range	1 -100	%	@ Maximum nominal output current.
	Dimming technique	Analog dimming		
	PWM frequency	n/a	Hz	
	Galvanic isolation DALI/mains	Basic		
	Galvanic isolation DALI/output	SELV		
TouchDIM	Yes			
ENVIRONMENT	Ambient temperature range ta	-20...+50	°C	
	Maximum case temperature tc	80	°C	
	Max. case temp. in fault condition	110	°C	
	Storage temperature range	-25...+85	°C	
	Relative humidity	5...85	%	Not condensing
	Surge transient protection	1	kV	L/N
	Environmental rating	Indoor		
	IP rating	IP 20		
	Mains switching cycles	> 100'000		
	Expected lifetime	50,000	hrs	@tcmax = 80°C, 10% failure rate
PROTECTIONS	Over temperature	Yes		
	Overload	Yes		Automatic, reversible
	No load	Yes		Limitation of Output voltage ≤ 60V
	Short-circuit	Yes		Automatic, reversible
	Output overvoltage	Yes		Limitation of Output voltage ≤ 60V

Electrical characteristics



Wiring Diagram



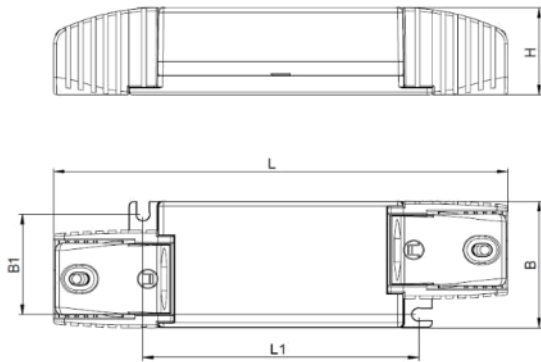
For built-in: 0.5-1.5 mm², for independent: 0.75-1.5 mm²

Max. cable length -system: 2m

Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs

DIP1	DIP2	DIP3	Current (mA)
OFF	OFF	ON	350
OFF	OFF	OFF	400
OFF	ON	OFF	450
OFF	ON	ON	500
ON	OFF	OFF	550
ON	OFF	ON	600
ON	ON	OFF	650
ON	ON	ON	700
Current selected by Dip switch			

For independent type



L	145mm
L1	88mm
B	43mm
B1	34mm
H	29.5mm

An optional cable clamp is available. This cable clamp can be snapped into the driver and thus converts it into an independent installation.

Rated output power and current sets								
I out (mA)	350	400	450	500	550	600	650	700
U min (V)	15	15	15	15	15	15	15	15
U max (V)	42	42	42	42	42	42	42	42
P min (W)	5.3	6.0	6.8	7.5	8.3	9.0	9.8	10.5
P max (W)	14.7	16.8	18.9	21.0	23.1	25.2	27.3	29.4
Ta (°C)	50	50	50	50	50	50	50	50
Tc (°C)	80	80	80	80	80	80	80	80
AC Line Current, nominal@230V (A)	0.084	0.094	0.106	0.116	0.127	0.138	0.149	0.161
Max power Loss@230V (W)	2.2	2.5	2.6	2.8	3.1	3.3	3.6	3.8
Input Power@230V (W)	16.9	19.3	21.5	23.8	26.2	28.5	30.9	33.2
DC Line Current, nominal@230VDC (A) EOFi=15%	0.016	0.017	0.019	0.020	0.023	0.024	0.026	0.028
DC Line Current, nominal@230VDC (A) EOFi=50%	0.040	0.045	0.050	0.056	0.061	0.067	0.072	0.078

Remarks

— For built-in type: Controlgear relies upon the luminaire enclosure for protection against accidental contact with live parts.

⊙ : Double or reinforced insulation between live parts and external parts which contact with the luminaire.

— Emergency lighting

This LED power supply is suitable for emergency lighting fixtures acc. to EN 60598-2-22., with emergency output factor EOFI=0.15 (default value, can be programmed up to EOFI=0.5) and related duration time of 1h at least. Function in emergency is ensured up to ta=80°C.

— Recommendations on how to dispose of it at the end of its life in line with Directive 2012/19/EU:

Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centers and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved, and materials are recycled.

— Ecodesign regulation information:

Intended for use with LED modules. The forward voltage of the LED light source shall be within the defined operating window of the control gear in all operating conditions including dimming if applicable. Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centers and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved, and materials are recycled.

GW KAFHBA.CM

SOLERIQ® S 9

The SOLERIQ® S products were specifically designed for applications requiring large flux packages out of a compact area.



Applications

- Downlights/Spotlights

Features:

- Package: Chip-on-Board
- Typ. Radiation: 120° (Lambertian emitter)
- Color temperature: 3000K - 5000K
- CRI: 90 (min.)
- ESD: 2 kV acc. to ANSI/ESDA/JEDEC JS-001 (HBM, Class 2)
- Luminous Flux: typ. 2193 lm @ 3000 K, 25 °C
- Luminous efficacy: typ. 122 lm/W @ 3000 K, 25 °C

GW KAFHBA.CM

Ordering Information

Type	Color temperature	Luminous Flux ¹⁾ $I_F = 500 \text{ mA}$ Φ_V	Ordering Code
GW KAFHBA.CM-SQTP-30S3-XX	3000 K	1940 ... 3040 lm	Q65113A0933
GW KAFHBA.CM-SQTP-35S3-XX	3500 K	1940 ... 3040 lm	Q65113A0932
GW KAFHBA.CM-SQTP-40S3-XX	4000 K	1940 ... 3040 lm	Q65113A0953
GW KAFHBA.CM-SQTP-50S3-XX	5000 K	1940 ... 3040 lm	Q65113A0952

Maximum Ratings

Parameter	Symbol	Values
Operating Temperature	T_{op}	min. -40 °C
		max. 105 °C
Storage Temperature	T_{stg}	min. -40 °C
		max. 105 °C
Junction Temperature	T_j	max. 125 °C
Forward Current $T_j = 25\text{ °C}$	I_F	max. 920 mA
Reverse voltage ²⁾	V_R	Not designed for reverse operation
ESD withstand voltage acc. to ANSI/ESDA/JEDEC JS-001 (HBM, Class 2)	V_{ESD}	2 kV

Characteristics

$I_F = 500\text{ mA}$; $T_j = 25\text{ °C}$

Parameter	Symbol	Values
Viewing angle at 50% I_V	2ϕ	typ. 120 °
Forward Voltage ³⁾	V_F	typ. 36.00 V
Reverse current ²⁾	I_R	Not designed for reverse operation
Color Rendering Index ⁴⁾	CRI	min. 90
Electrical thermal resistance junction/solderpoint with efficiency $\eta_e = 42\%$	$R_{thJS\ elec.}$	typ. 0.78 K / W

Brightness Groups

Group	Luminous Flux ¹⁾ $I_F = 500\text{ mA}$ min. Φ_V	Luminous Flux ¹⁾ $I_F = 500\text{ mA}$ max. Φ_V
SQ	1940 lm	2100 lm
SR	2100 lm	2240 lm
SS	2240 lm	2400 lm
ST	2400 lm	2590 lm
SU	2590 lm	2800 lm
TP	2800 lm	3040 lm