



GRANADAK

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

Granada K

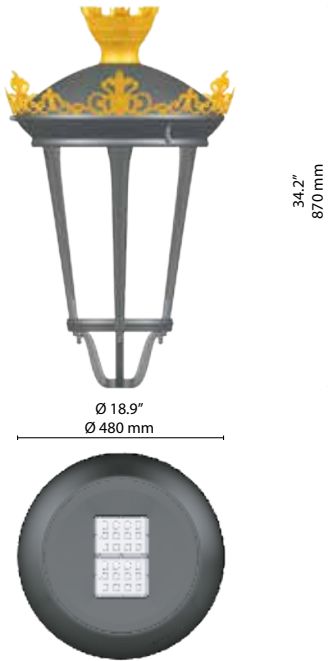
Technical data

ACCESSIBILITY

Timeless
Tool-free openable fixture.
Replaceable internal components
without the need of tools.

OPTICAL TECHNOLOGY

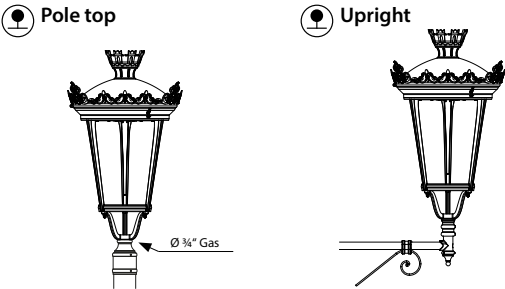
Glass free
Refracting optical system consist of
single-chip LED, shockproof lenses
with 30 years of warranty against
UV and yellowing due to aging
(GLASS-FREE).



Scale: 1:15

Max. weight	EPA (Wind Exposure)
33.5 lb (15.2 Kg) mounting hardware excluded	Plan: 2.2 ft ² (0.21 m ²)

MOUNTING TYPE



OPTIONS

Glass	Diffusers
Ultraclear tempered glass Th. 0.15in (4mm) 1.7 lb 0.8 Kg	Polycarbonate with U.V. protection 2.8 lb 1.3 Kg



STANDARD

Compliance: UL Standard 1598-CSA C22,2no.250.0.

CONFORMITY | PROTECTION

Conformity	Salt spray test
	ISO 9227 8.000 hr
Enclosure Ratings	Enclosure Ratings
 Class I	

Photobiological safety

Exempt group IEC/
TR62471

DESIGN FEATURES



SPECIFICATIONS

Input Voltage:	120-277V 50/60Hz tolerance +/-10%
Driver current:	350 mA 525 mA 700 mA 1050 mA (P _{max} = 78W)
Power Factor THD:	≥0.95 <10 % (At full load)
Rated life:	> 100.000 h L90B10 at 77°F (25°C)
Operational temperature:	T _{min} = -40°F (-40°C) T _{max} = 131°F (55°C) 700 mA 104°F (40°C) 1050 mA
Storage temperature:	-40°F/+176°F (-40°C/+80°C)
Built-in surge protection:	Up to 10kV
Standard functions:	Constant Current Virtual midnight

CONSTRUCTION

Housing construction:	Die cast aluminium EN1706
Optical system:	PMMA lenses
Gaskets:	Removable silicon
Cable gland:	Polyamide PA66 PG16 Ø 0.55in (14mm) MAX
Fasteners:	AISI 304 stainless steel
Housing finish:	GMR Dark Grey Custom colors on request

LED FEATURES

LED performance at 4000 K, 640 mA:	722 lm per LED 186 lm/W T _j = 77°F (25°C) ≤ 3 SDCM (MacAdam steps)
Color temperature:	3000 K & 4000 K with CRI 70 standard

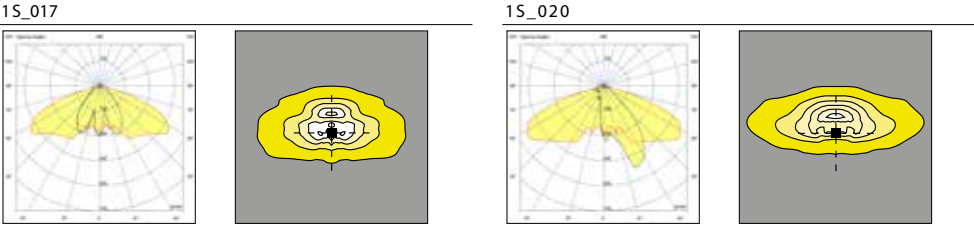
OPTIONS

Disconnecter: Internal electrical disconnecter that automatically interrupts power when the luminaire is opened for maintenance. Cross section AWG14 ÷ AWG6
LED color temperature: 2200K, 2700K, and higher CRI options (e.g., CRI 80) available upon request, along with higher temperature options.
Additional surge protection device (SPD): Rated for 10 kV / 5 kA, 8/20 µs waveform
Additional electrical equipment: 3-core or 5-core Power Cable Mini Connector
Optional driver functions: DALI2 D4i
Control interface and sensor options: NM (Nema Socket) Photocell 10LX-60LX (NM)

Type I S

The measured data for the lighting fixture is based on the standard configuration of GMR ENLIGHTS products (CRI 70) at an ambient temperature of 77°F (25°C). Other currents are available in 50mA steps, ranging from 200mA up to 1050mA, where applicable.

Feature availability may vary based on product configuration. Upon request, additional color temperature options beyond the standard 3000K and 4000K listed in the table, as well as alternative CRI selections, are available.

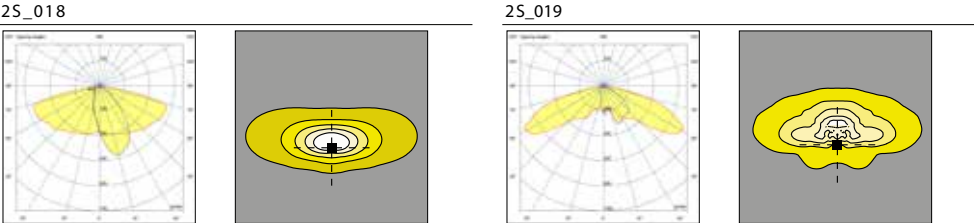


Optic	LED Module		Driver Current [mA]	Lumen Output [lm]		Wattage [W]	Efficacy [lm/W]		B.U.G. Rating	
				3000 K	4000 K		3000 K	4000 K	3000 K	4000 K
017	GF03		350	2055	2163	13.5	152	160	B2-U0-G2	B2-U0-G2
			525	3012	3171	20.5	147	155	B1-U0-G1	B1-U0-G1
			700	3917	4123	27	145	153	B1-U0-G1	B1-U0-G1
			1050	5665	5964	40.5	140	147	B2-U0-G1	B2-U0-G2
	GF04		350	2688	2829	17.5	154	162	B2-U0-G2	B2-U0-G2
			525	3962	4171	26.5	150	157	B1-U0-G1	B1-U0-G1
			700	5186	5459	35	148	156	B2-U0-G2	B2-U0-G2
			1050	7268	7651	53	137	144	B2-U0-G2	B2-U0-G2
	GF06		350	3917	4123	26	151	159	B3-U0-G3	B3-U0-G3
			525	5762	6065	38.5	150	158	B2-U0-G1	B2-U0-G2
			700	7307	7691	51.5	142	149	B2-U0-G2	B2-U0-G2
			1050	9894	10415	78.5	126	133	B2-U0-G2	B2-U0-G2
020	GF03		350	2055	2163	13.5	152	160	B1-U2-G1	B1-U2-G1
			525	3012	3171	20.5	147	155	B1-U1-G1	B1-U1-G1
			700	3917	4123	27	145	153	B1-U2-G1	B1-U2-G1
			1050	5665	5964	40.5	140	147	B1-U2-G1	B1-U2-G1
	GF04		350	2688	2829	17.5	154	162	B2-U2-G2	B2-U2-G2
			525	3962	4171	26.5	150	157	B1-U2-G1	B1-U2-G1
			700	5186	5459	35	148	156	B1-U2-G1	B1-U2-G1
			1050	7268	7651	53	137	144	B1-U2-G1	B1-U2-G1
	GF06		350	3917	4123	26	151	159	B2-U2-G2	B2-U2-G2
			525	5762	6065	38.5	150	158	B1-U2-G1	B1-U2-G1
			700	7307	7691	51.5	142	149	B1-U2-G1	B1-U2-G1
			1050	9894	10415	78.5	126	133	B2-U2-G2	B2-U2-G2

Type II S

The measured data for the lighting fixture is based on the standard configuration of GMR ENLIGHTS products (CRI 70) at an ambient temperature of 77°F (25°C). Other currents are available in 50mA steps, ranging from 200mA up to 1050mA, where applicable.

Feature availability may vary based on product configuration. Upon request, additional color temperature options beyond the standard 3000K and 4000K listed in the table, as well as alternative CRI selections, are available.

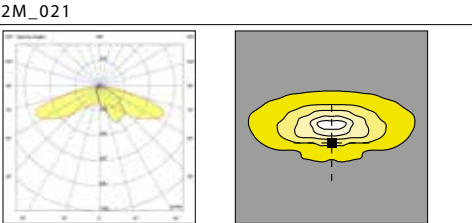


Optic	LED Module		Driver Current [mA]	Lumen Output [lm]		Wattage [W]	Efficacy [lm/W]		B.U.G. Rating	
				3000 K	4000 K		3000 K	4000 K	3000 K	4000 K
018	GF03		350	2055	2163	13.5	152	160	B1-U0-G1	B1-U0-G1
			525	3012	3171	20.5	147	155	B1-U0-G1	B1-U0-G1
			700	3917	4123	27	145	153	B1-U0-G1	B1-U0-G1
			1050	5665	5964	40.5	140	147	B1-U0-G1	B1-U0-G1
	GF04		350	2688	2829	17.5	154	162	B2-U0-G2	B2-U0-G2
			525	3962	4171	26.5	150	157	B1-U0-G1	B1-U0-G1
			700	5186	5459	35	148	156	B1-U0-G1	B1-U0-G1
			1050	7268	7651	53	137	144	B1-U0-G1	B1-U0-G1
	GF06		350	3917	4123	26	151	159	B2-U0-G2	B2-U0-G2
			525	5762	6065	38.5	150	158	B1-U0-G1	B1-U0-G1
			700	7307	7691	51.5	142	149	B1-U0-G1	B1-U0-G1
			1050	9894	10415	78.5	126	133	B2-U0-G2	B2-U0-G2
019	GF03		350	2055	2163	13.5	152	160	B2-U0-G2	B2-U0-G2
			525	3012	3171	20.5	147	155	B1-U0-G1	B1-U0-G1
			700	3917	4123	27	145	153	B1-U0-G1	B1-U0-G1
			1050	5665	5964	40.5	140	147	B1-U0-G1	B1-U0-G1
	GF04		350	2688	2829	17.5	154	162	B2-U0-G2	B2-U0-G2
			525	3962	4171	26.5	150	157	B1-U0-G1	B1-U0-G1
			700	5186	5459	35	148	156	B1-U0-G1	B1-U0-G1
			1050	7268	7651	53	137	144	B1-U0-G1	B2-U0-G2
	GF06		350	3917	4123	26	151	159	B2-U0-G2	B2-U0-G2
			525	5762	6065	38.5	150	158	B1-U0-G1	B1-U0-G1
			700	7307	7691	51.5	142	149	B2-U0-G2	B2-U0-G2
			1050	9894	10415	78.5	126	133	B2-U0-G2	B2-U0-G2

Type II M

The measured data for the lighting fixture is based on the standard configuration of GMR ENLIGHTS products (CRI 70) at an ambient temperature of 77°F (25°C). Other currents are available in 50mA steps, ranging from 200mA up to 1050mA, where applicable.

Feature availability may vary based on product configuration. Upon request, additional color temperature options beyond the standard 3000K and 4000K listed in the table, as well as alternative CRI selections, are available.

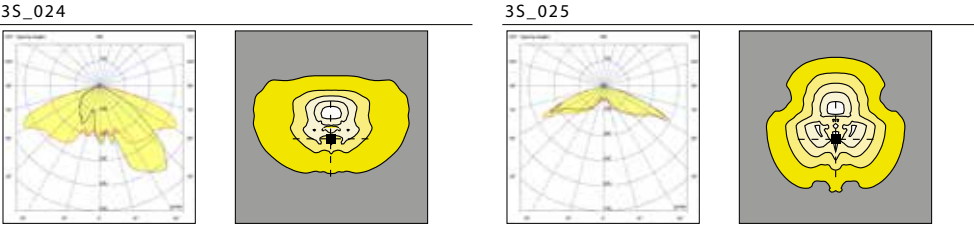


Optic	LED Module		Driver Current [mA]	Lumen Output [lm]		Wattage [W]	Efficacy [lm/W]		B.U.G. Rating	
				3000 K	4000 K		3000 K	4000 K	3000 K	4000 K
021	GF03		350	2055	2163	13.5	152	160	B1-U0-G1	B2-U0-G2
			525	3012	3171	20.5	147	155	B1-U0-G1	B1-U0-G1
			700	3917	4123	27	145	153	B1-U0-G1	B1-U0-G1
			1050	5665	5964	40.5	140	147	B1-U0-G1	B1-U0-G1
	GF04		350	2688	2829	17.5	154	162	B2-U0-G2	B2-U0-G2
			525	3962	4171	26.5	150	157	B1-U0-G1	B1-U0-G1
			700	5186	5459	35	148	156	B1-U0-G1	B1-U0-G1
			1050	7268	7651	53	137	144	B1-U0-G1	B1-U0-G1
	GF06		350	3917	4123	26	151	159	B2-U0-G2	B2-U0-G2
			525	5762	6065	38.5	150	158	B1-U0-G1	B1-U0-G1
			700	7307	7691	51.5	142	149	B1-U0-G1	B2-U0-G2
			1050	9894	10415	78.5	126	133	B2-U0-G2	B2-U0-G2

Type III S

The measured data for the lighting fixture is based on the standard configuration of GMR ENLIGHTS products (CRI 70) at an ambient temperature of 77°F (25°C). Other currents are available in 50mA steps, ranging from 200mA up to 1050mA, where applicable.

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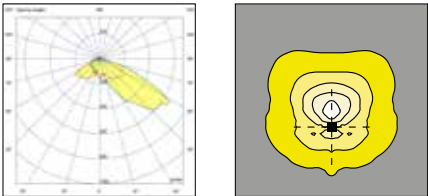
Optic	LED Module		Driver Current [mA]	Lumen Output [lm]		Wattage [W]	Efficacy [lm/W]		B.U.G. Rating	
				3000 K	4000 K		3000 K	4000 K	3000 K	4000 K
024	GF03		350	2055	2163	13.5	152	160	B2-U0-G2	B2-U0-G2
			525	3012	3171	20.5	147	155	B1-U0-G1	B1-U0-G1
			700	3917	4123	27	145	153	B1-U0-G1	B1-U0-G1
			1050	5665	5964	40.5	140	147	B1-U0-G1	B1-U0-G1
	GF04		350	2688	2829	17.5	154	162	B2-U0-G2	B2-U0-G2
			525	3962	4171	26.5	150	157	B1-U0-G1	B1-U0-G1
			700	5186	5459	35	148	156	B1-U0-G1	B1-U0-G1
			1050	7268	7651	53	137	144	B2-U0-G2	B2-U0-G2
	GF06		350	3917	4123	26	151	159	B3-U0-G3	B3-U0-G3
			525	5762	6065	38.5	150	158	B1-U0-G1	B1-U0-G1
			700	7307	7691	51.5	142	149	B2-U0-G2	B2-U0-G2
			1050	9894	10415	78.5	126	133	B2-U0-G2	B2-U0-G2
025	GF03		350	2055	2163	13.5	152	160	B3-U0-G3	B3-U0-G3
			525	3012	3171	20.5	147	155	B1-U0-G1	B1-U0-G1
			700	3917	4123	27	145	153	B2-U0-G2	B2-U0-G2
			1050	5665	5964	40.5	140	147	B2-U0-G2	B2-U0-G2
	GF04		350	2688	2829	17.5	154	162	B3-U0-G3	B3-U0-G3
			525	3962	4171	26.5	150	157	B2-U0-G2	B2-U0-G2
			700	5186	5459	35	148	156	B2-U0-G2	B2-U0-G2
			1050	7268	7651	53	137	144	B3-U0-G3	B3-U0-G3
	GF06		350	3917	4123	26	151	159	B3-U0-G3	B3-U0-G3
			525	5762	6065	38.5	150	158	B2-U0-G2	B2-U0-G2
			700	7307	7691	51.5	142	149	B3-U0-G3	B3-U0-G3
			1050	9894	10415	78.5	126	133	B3-U0-G3	B3-U0-G3

Type IV VS

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4VS_022

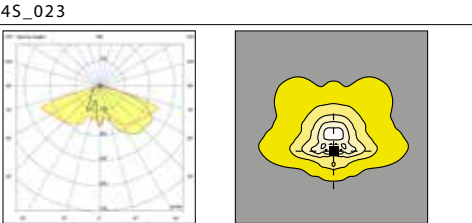


Optic	LED Module		Driver Current [mA]	Lumen Output [lm]		Wattage [W]	Efficacy [lm/W]		B.U.G. Rating	
				3000 K	4000 K		3000 K	4000 K	3000 K	4000 K
022	GF03		350	2055	2163	13.5	152	160	B1-U0-G1	B1-U0-G1
			525	3012	3171	20.5	147	155	B1-U0-G1	B1-U0-G1
			700	3917	4123	27	145	153	B1-U0-G1	B1-U0-G1
			1050	5665	5964	40.5	140	147	B1-U0-G1	B1-U0-G1
	GF04		350	2688	2829	17.5	154	162	B1-U0-G1	B1-U0-G2
			525	3962	4171	26.5	150	157	B1-U0-G1	B1-U0-G1
			700	5186	5459	35	148	156	B1-U0-G1	B1-U0-G1
			1050	7268	7651	53	137	144	B1-U0-G1	B1-U0-G1
	GF06		350	3917	4123	26	151	159	B2-U0-G2	B2-U0-G2
			525	5762	6065	38.5	150	158	B1-U0-G1	B1-U0-G1
			700	7307	7691	51.5	142	149	B1-U0-G1	B1-U0-G1
			1050	9894	10415	78.5	126	133	B1-U0-G1	B2-U0-G2

Type IV S

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Optic	LED Module		Driver Current [mA]	Lumen Output [lm]		Wattage [W]	Efficacy [lm/W]		B.U.G. Rating	
				3000 K	4000 K		3000 K	4000 K	3000 K	4000 K
023	GF03		350	2055	2163	13.5	152	160	B1-U0-G1	B1-U0-G1
			525	3012	3171	20.5	147	155	B1-U0-G1	B1-U0-G1
			700	3917	4123	27	145	153	B1-U0-G1	B1-U0-G1
			1050	5665	5964	40.5	140	147	B1-U0-G1	B1-U0-G1
	GF04		350	2688	2829	17.5	154	162	B1-U0-G2	B2-U0-G2
			525	3962	4171	26.5	150	157	B1-U0-G1	B1-U0-G1
			700	5186	5459	35	148	156	B1-U0-G1	B1-U0-G1
			1050	7268	7651	53	137	144	B1-U0-G1	B1-U0-G1
	GF06		350	3917	4123	26	151	159	B2-U0-G2	B2-U0-G2
			525	5762	6065	38.5	150	158	B1-U0-G1	B1-U0-G1
			700	7307	7691	51.5	142	149	B1-U0-G1	B1-U0-G1
			1050	9894	10415	78.5	126	133	B1-U0-G2	B2-U0-G2

Example: L-GRA S_K_GF04_730_03S_D0350_1AZ0_S

	Family	LED Module	CRI	Color Temperature CCT	Optic	Options	Driver Current*	Protection Class	Mounting Type	Diffuser	Finish
L	GRAS_I GRANADA I	GF03 Glass Free 12 LED	7 CRI 70	22 2200K	01S TYPE I	A ON/OFF - No communication interface	0350 350mA	1 CL1	D Upright	Q0 Transparent (only GF)	S Standard
		GF04 Glass Free 16 LED	8 CRI 80	27 2700K	02S TYPE II	M Intelligent dimming with integrated VM Virtual Midnight on the driver	0525 525mA	3 CL1 + SPD	G Pole-TOP Fixing Ø ¾" Gas	Q1 Frosted (only GF)	C Custom
	GRAS_K GRANADA K	GF06 Glass Free 24 LED		30 3000K	02M TYPE II	B Dimming through 1-10V interface	0700 700mA			V0 Glass	
				40 4000K	03S TYPE III	N Provision with NEMA Socket ON/OFF (Power Interruption)	1050 1050mA			Z0 NO Diffuser	
					04S TYPE IV	E Provision with NEMA Socket with 1/10V (1-10V Dimming)					
					4VS TYPE IV	H Provision with NEMA Socket with 1/10V (1-10V Dimming) and VM Enabling					

*Other currents are available in 50mA steps, ranging from 200mA up to 1050mA, where applicable.

Functions

Standard functionality

CONSTANT CURRENT

During production, the fixture is pre-set with a fixed constant current selected from the standard settings listed in the tables on page 3. Upon request, it is also possible to configure a custom current, in 50mA steps, ranging from 200mA to 1050mA where applicable

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.

On request functionality

NEMA | Nema Socket (7 PIN)

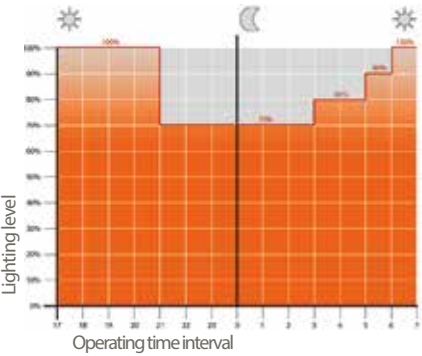
The Nema Socket is a 7 PIN connector/socket with IP66 rating, that is fitted on the fixture to make it interfaceable with various ANSI C136 compliant devices and remote-control gear.

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.

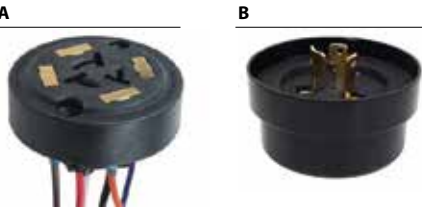
PHOTOCONTROL SENSOR

The product can be equipped with a photocontrol sensor, which is installed directly on the luminaire. This sensor automatically controls the lighting based on ambient light levels, ensuring energy-efficient operation. The installation should consider the height and surroundings for optimal performance.

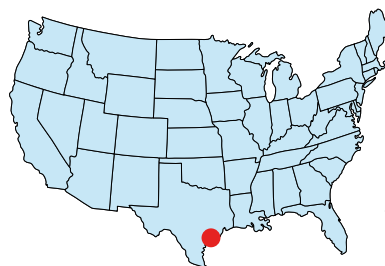
Example of 4-step adjustment with virtual midnight



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



Contacts



GMR Enlight's USA
Robert Maxwell

5353 Fannin St # 1401
Houston, TX 77004

Tel. 713-240-2190

robert.maxwell@gmrenlights.com



GMR ENLIGHTS s.r.l

Legal headquarters:
Strada Provinciale Specchia - Alessano, 68 • 73040 (LE)

Administrative and operational headquarters:
Via Grande n°226 • 47032 Bertinoro (FC)

T +39 0543 462611
F +39 0543 449111

sales@gmrenlights.com
www.gmrenlights.com