



LED PRODUCT CATALOGUE
2022

CONTENTS

EUROPE
240V

NORTH AMERICA
120V



7
SMART LIGHTING



14
LOW VOLTAGE LAMP



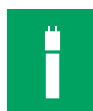
116
LOW VOLTAGE LAMP



21
LINE VOLTAGE LAMP



123
LINE VOLTAGE LAMP



49
TUBE



137
TUBE



72
INDOOR LUMINAIRE



141
INDOOR LUMINAIRE



101
OUTDOOR LUMINAIRE



150
OUTDOOR LUMINAIRE



110
STRIPLIGHT



SMART LIGHTING



LED SMART FILAMENT
P. 8 - 9



LED SMART THERMAL PLASTIC BULB
P. 10 - 11



LED SMART CEILING LIGHT
P. 12



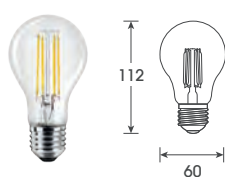
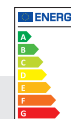
LED SMART STRIPLIGHT
P. 13



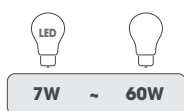
Features

- Extremely energy saving with low power consumption
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Good color rendition, Ra ≥ 80
- Overall light distribution
- Work with both mobile and most common smart home devices via Amazon Alexa and Google Home Assistant
- Control in a group or individually and customize your own lighting preferences
- Customize timer schedule to optimize energy efficiency
- Remote control the lamps from anywhere and anytime
- Tunable White from 2700K to 5000K
- Smooth dimming range from 1% to 100%

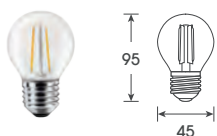
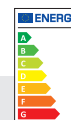
Smart Filament-LED A60



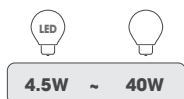
Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED-SMT A60 FIL-7W-G CL TW DIM	220 - 240V	7W	E27	2700K - 5000K	830lm	E



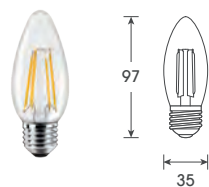
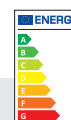
Smart Filament-LED Round



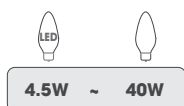
Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED-SMT G45 FIL-4.5W-G CL TW DIM	220 - 240V	4.5W	E27	2700K - 5000K	470lm	F



Smart Filament-LED Candle



Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED-SMT C35 FIL-4.5W-G CL TW DIM	220 - 240V	4.5W	E27	2700K - 5000K	470lm	F





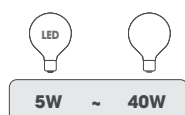
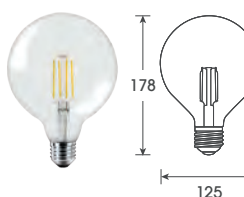
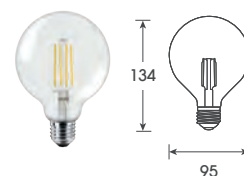
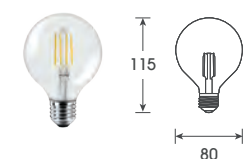
Features

- Extremely energy saving with low power consumption
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Good color rendition, Ra ≥ 80
- Overall light distribution
- Work with both mobile and most common smart home devices via Amazon Alexa and Google Home Assistant
- Control in a group or individually and customize your own lighting preferences
- Customize timer schedule to optimize energy efficiency
- Remote control the lamps from anywhere and anytime
- Tunable White from 2700K to 5000K
- Smooth dimming range from 1% to 100%

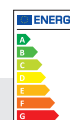
Smart Filament-LED Globe



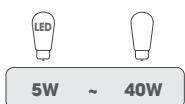
Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED-SMT G80 FIL-5W-G CL TW DIM	220 - 240V	5W	E27	2700K - 5000K	470lm	F
LED-SMT G95 FIL-5W-G CL TW DIM	220 - 240V	5W	E27	2700K - 5000K	470lm	F
LED-SMT G125 FIL-5W-G CL TW DIM	220 - 240V	5W	E27	2700K - 5000K	470lm	F



Smart Filament-LED ST64



Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED-SMT ST64 FIL-5W-G CL TW DIM	220 - 240V	5W	E27	2700K - 5000K	470lm	F

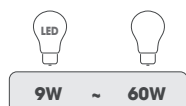
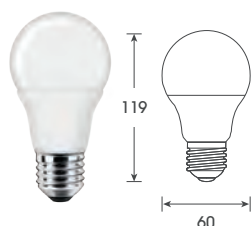




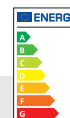
Features

- Extremely energy saving with low power consumption
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Good color rendition, Ra ≥80
- Work with both mobile and most common smart home devices via Amazon Alexa and Google Home Assistant
- Control in a group or individually and customize your own lighting preferences
- Customize timer schedule to optimize energy efficiency
- Remote control the lamps from anywhere and anytime
- Vivid and multiple color changing with over 16 million colors
- Tunable White from 2700K to 6500K
- Smooth dimming range from 1% to 100%

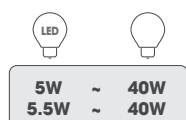
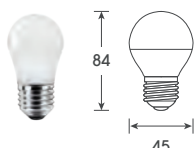
Smart Thermal Plastic Multi-LED A60



Model	Voltage	Wattage	Base	Color Temp	Lumen	ENERGY STAR
Tunable White LED-SMT TP A60 SMD-9W TW DIM	220 - 240V	9W	E27 / B22d	2700K - 6500K	805lm	F
Tunable White + RGB LED-SMT TP A60 SMD-9W TW RGB DIM	220 - 240V	9W	E27 / B22d	2700K - 6500K	805lm	F



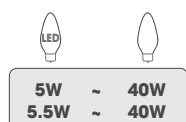
Smart Thermal Plastic Multi-LED Round



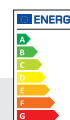
Model	Voltage	Wattage	Base	Color Temp	Lumen	ENERGY STAR
Tunable White LED-SMT TP G45 SMD-5.5W TW DIM	220 - 240V	5.5W	E27 / B22d	2700K - 6500K	470lm	F
Tunable White + RGB LED-SMT TP G45 SMD-5W TW RGB DIM	220 - 240V	5W	E27 / B22d	2700K - 6500K	470lm	F



Smart Thermal Plastic Multi-LED Candle



Model	Voltage	Wattage	Base	Color Temp	Lumen	ENERGY STAR
Tunable White LED-SMT TP C35 SMD-5.5W TW DIM	220 - 240V	5.5W	E14	2700K - 6500K	470lm	F
Tunable White + RGB LED-SMT TP C35 SMD-5W TW RGB DIM	220 - 240V	5W	E14	2700K - 6500K	470lm	F

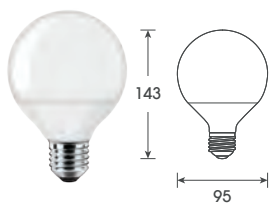
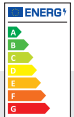




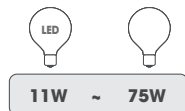
Features

- Extremely energy saving with low power consumption
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Good color rendition, Ra ≥80
- Work with both mobile and most common smart home devices via Amazon Alexa and Google Home Assistant
- Control in a group or individually and customize your own lighting preferences
- Customize timer schedule to optimize energy efficiency
- Remote control the lamps from anywhere and anytime
- Vivid and multiple color changing with over 16 million colors
- Tunable White from 2700K to 6500K
- Smooth dimming range from 1% to 100%

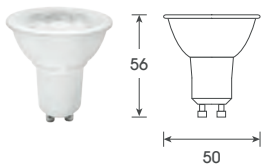
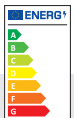
Smart Thermal Plastic Multi-LED G95



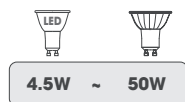
Model	Voltage	Wattage	Base	Color Temp	Lumen	
Tunable White LED-SMT TP G95 SMD-11W TW DIM	220 - 240V	11W	E27 / B22d	2700K - 6500K	1055lm	F
Tunable White + RGB LED-SMT TP G95 SMD-11W TW RGB DIM	220 - 240V	11W	E27 / B22d	2700K - 6500K	1055lm	F



Smart Thermal Plastic Multi-LED GU10



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen	
Tunable White LED-SMT TP GU10 SMD-4.5W TW DIM	220 - 240V	4.5W	GU10	45°	2700K - 6500K	345lm	F
Tunable White + RGB LED-SMT TP GU10 SMD-4.5W TW RGB DIM	220 - 240V	4.5W	GU10	45°	2700K - 6500K	345lm	F



LED Smart Ceiling Light NC201S-NC203S



Features

- 18W / 24W / 36W LED Smart Ceiling Light
- Extremely energy saving with low power consumption
- Work with both mobile and most common smart home devices via Amazon Alexa and Google Home Assistant
- Control in a group or individually and customize your own lighting preferences
- Customize timer schedule to optimize energy efficiency
- Remote control the lamps from anywhere and anytime
- Vivid and multiple color changing with over 16 million colors
- Tunable White from 2700K to 6500K
- Smooth dimming range from 1% to 100%
- Good color rendition, Ra ≥80

Materials / Finish

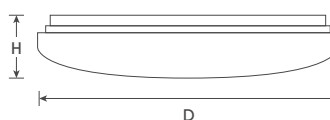
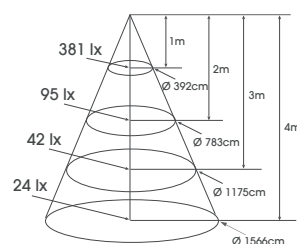
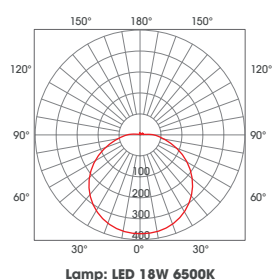
- Body: Sheet steel with white finish
- Diffuser: Opaque acrylic

Installation / Mounting

- Suitable for surface mounting
- Integral gear unit allows quick and easy installation

Standards

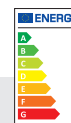
- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 20



(Unit: mm)	(D)	(H)
NC201S	Ø340	x 65
NC202S	Ø390	x 65
NC203S	Ø480	x 70

Tunable White

Model	Voltage	Wattage	Color Temp	Beam Angle	Lumen	ENERGY STAR
NC201S-18W/TW	220 - 240V	18W	2700K - 6500K	170°	1800lm	F
NC202S-24W/TW	220 - 240V	24W	2700K - 6500K	170°	2450lm	F
NC203S-36W/TW	220 - 240V	36W	2700K - 6500K	170°	3780lm	F



Tunable White + RGB

Model	Voltage	Wattage	Color Temp	Beam Angle	Lumen	ENERGY STAR
NC202S-24W/TW-RGB	220 - 240V	24W	2700K - 6500K	170°	1920lm	
NC203S-36W/TW-RGB	220 - 240V	36W	2700K - 6500K	170°	2880lm	



LED Smart Striplight RGB TW

Features

- Extremely energy saving with low power consumption
- High brightness, multi-functional for linear decoration
- Long average life 30000 hours
- Work with both mobile and most common smart home devices via Amazon Alexa and Google Home Assistant
- Control in a group or individually and customize your own lighting preferences
- Customize timer schedule to optimize energy efficiency
- Remote control the lamps from anywhere and anytime
- Vivid and multiple color changing with over 16 million colors
- Tunable White from 2700K to 6500K
- Smooth dimming range from 1% to 100%
- Low thermal output with no IR and harmful UV
- No mercury and hazardous substances
- Good color rendition, Ra ≥ 80

Materials / Finish

- Chips: SMD 2835

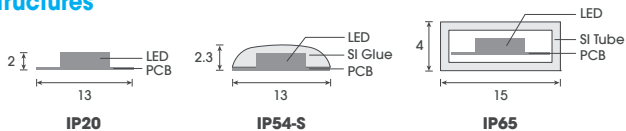
Installation / Mounting

- Easy to install with 3M adhesive tape, mounting brackets and profile

Standards

- EMC, RoHS
- Class III Electrical
- IP 20, IP 54, IP 65

IP Structures



Model	Voltage	Wattage	Color Temp	Lumen	PCB Width	Cutting Unit	No. of LEDs
LED 2835 8W 13-72 TW-RGB	12V DC	8W/m	2700K - 6500K, RGB	800lm/m	13mm	50mm/3LEDs	72 pcs/m



LOW VOLTAGE LAMP



LED G4/GY6.35
P. 15



LED A60
P. 16



LED MR11
P. 17



LED MR16
P. 18



LED AR111
P. 19



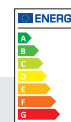
LED PAR
P. 20



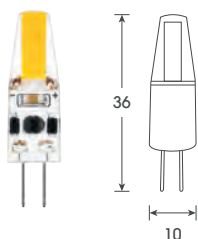
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, $R_a \geq 80$
- Ideal retrofit of traditional halogen lamps with compact size
- Suitable for operation with all magnetic transformers, LED drivers and most electronic ballasts

LED COB G4

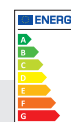


Model	Voltage	Wattage	Base	Color Temp	Lumen			ENERGY STAR
					3000K	4000K	6500K	
LED G4 COB-1W	12 - 24V AC / DC	1W	G4	3000K / 4000K / 6500K	100lm	103lm	105lm	F
LED G4 COB-2W	12 - 24V AC / DC	2W	G4	3000K / 4000K / 6500K	160lm	165lm	170lm	G

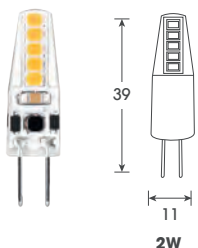


LED	~	LED
1W	~	12W
2W	~	18W

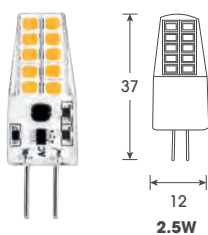
Multi-LED G4/GY6.35



Model	Voltage	Wattage	Base	Color Temp	Lumen			ENERGY STAR
					3000K	4000K	6500K	
LED G4 SMD-2W	12 - 24V AC / DC	2W	G4	3000K / 4000K / 6500K	220lm	230lm	235lm	F
LED G4 SMD-2.5W	12 - 24V AC / DC	2.5W	G4	3000K / 4000K / 6500K	260lm	270lm	280lm	F
LED GY6.35 SMD-2.5W	12 - 24V AC / DC	2.5W	GY6.35	3000K / 4000K / 6500K	260lm	270lm	280lm	F



LED	~	LED
2W	~	23W
2.5W	~	27W





Features

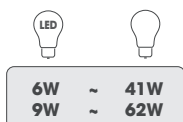
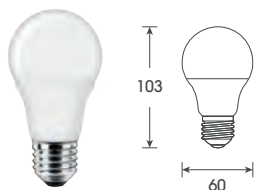
- Extremely energy saving with low power consumption
- Excellent thermal conductivity
- Good color rendition, $R_a \geq 80$
- Ideal retrofit of traditional incandescent light source in traffic signals, EM lighting and outdoor lighting with 25 times longer life
- Extra low voltage (ELV) safe against electric shock, especially in damp locations

Thermal Plastic Multi-LED A60 12V/24V



Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 4000K / 6500K
LED TP A60 SMD-6W	12V AC / DC	6W	E27 / B22d	3000K / 4000K / 6500K	470lm / 480lm / 490lm
LED TP A60 SMD-9W	12V AC / DC	9W	E27 / B22d	3000K / 4000K / 6500K	800lm / 825lm / 850lm
LED TP A60 SMD-6W	24V AC / DC	6W	E27 / B22d	3000K / 4000K / 6500K	470lm / 480lm / 490lm
LED TP A60 SMD-9W	24V AC / DC	9W	E27 / B22d	3000K / 4000K / 6500K	800lm / 825lm / 850lm

Ecodesign and Energy Labelling Regulations exempted

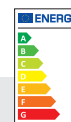




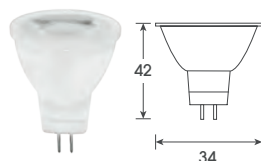
Features

- Extremely energy saving with low power consumption
- Aesthetic reflector optics
- Good color rendition, Ra ≥80
- Ideal retrofit of traditional MR11 with identical size
- Broad compatibility with magnetic and 12V AC electronic transformers
- At least 20% loading of power rating is required for 12V AC electronic transformers

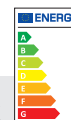
Thermal Plastic Multi-LED MR11



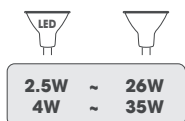
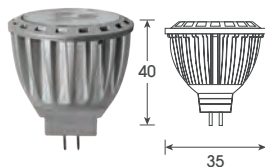
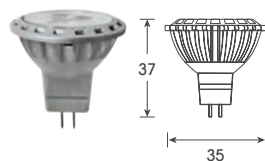
Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED TP MR11 SMD-4W	12V AC / DC	4W	GU4	38° / 60°	3000K / 4000K / 6500K	280lm / 290lm / 300lm	G



LED HP MR11



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED MR11 HP-2.5W	12V AC / DC	2.5W	GU4	30°	3000K / 4000K / 6500K	220lm / 235lm / 250lm	F
LED MR11 HP-4W	12V AC / DC	4W	GU4	30°	3000K / 4000K / 6500K	320lm / 335lm / 350lm	F

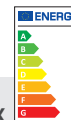




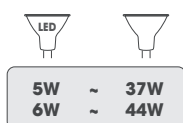
Features

- Extremely energy saving with low power consumption
- Aesthetic reflector optics
- Good color rendition, Ra ≥ 80
- Ideal retrofit of traditional MR16 with identical size
- Broad compatibility with magnetic and 12V AC electronic transformers

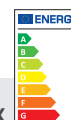
Thermal Plastic LED COB MR16



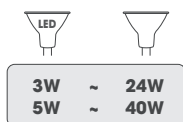
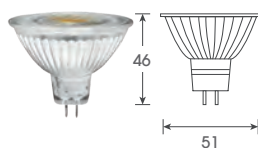
Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED TP MR16 COB-5W	12V AC / DC	5W	GU5.3	38°	3000K / 4000K / 6500K	380lm / 390lm / 400lm	G
LED TP MR16 COB-6W	12V AC / DC	6W	GU5.3	38°	3000K / 4000K / 6500K	500lm / 510lm / 520lm	F



Glass LED COB MR16



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED G MR16 COB-3W	12V AC / DC	3W	GU5.3	30° / 60°	3000K / 4000K / 6500K	240lm / 245lm / 250lm	F
LED G MR16 COB-5W	12V AC / DC	5W	GU5.3	30° / 60°	3000K / 4000K / 6500K	420lm / 435lm / 450lm	F

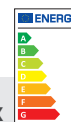




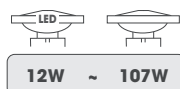
Features

- Extremely energy saving with low power consumption
- Excellent thermal conductivity
- Good color rendition, Ra ≥ 80
- Ideal retrofit solution for spot lighting applications in retail industry
- Broad compatibility with magnetic and 12V AC electronic transformers

Thermal Plastic LED COB AR111

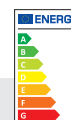


Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED TP AR111 COB-12W	12V AC / DC	12W	G53	10° / 24° / 45°	3000K / 4000K / 6500K	900lm / 925lm / 950lm	G

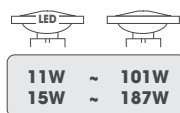
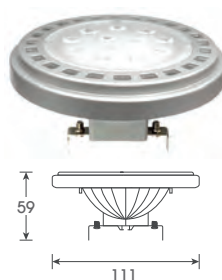


12W ~ 107W

LED HP AR111



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED AR111 HP-11W	12V AC / DC	11W	G53	30°	3000K / 4000K / 6500K	885lm / 895lm / 910lm	F
LED AR111 HP-15W	12V AC / DC	15W	G53	30°	3000K / 4000K / 6500K	1340lm / 1410lm / 1485lm	F



11W ~ 101W
15W ~ 187W





Glass LED COB PAR20/PAR30/PAR38 12-24V

Features

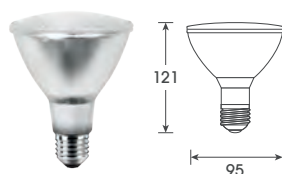
- Extremely energy saving with low power consumption
- Full glass reflector
- Frontal lens in total silicon sealing, suitable for pool and fountain use and outdoor condition
- Good color rendition, $R_a \geq 80$



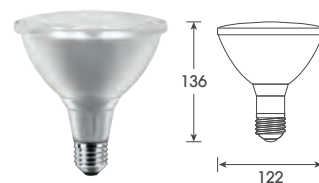
PAR20



PAR30S



PAR30L



PAR38

Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	ENERGY STAR
LED G PAR20 COB-8W	12 - 24V AC / DC	8W	E27	60°	3000K / 4000K / 6500K	600lm / 620lm / 640lm	G
LED G PAR30S COB-10W	12 - 24V AC / DC	10W	E27	60°	3000K / 4000K / 6500K	750lm / 775lm / 800lm	G
LED G PAR30L COB-10W	12 - 24V AC / DC	10W	E27	60°	3000K / 4000K / 6500K	750lm / 775lm / 800lm	G
LED G PAR38 COB-12W	12 - 24V AC / DC	12W	E27	60°	3000K / 4000K / 6500K	980lm / 1005lm / 1030lm	F



8W	~	82W
10W	~	93W
12W	~	119W





LINE VOLTAGE LAMP



LED FILAMENT
P. 22 - 27



LED DECORATIVE FILAMENT
P. 28 - 31



LED DECORATIVE CROWN SILVER
P. 32



LED DECORATIVE COLOR
P. 33 - 34



LED GX53
P. 35



LED THERMAL PLASTIC BULB
P. 36 - 37



LED G9
P. 38 - 39



LED T25 / ST26
P. 40



LED T38 / T41
P. 41



LED HIGH POWER LAMP
P. 42



LED GU10
P. 43



LED PAR
P. 44 - 46



LED R39/R50/R63/R80
P. 47



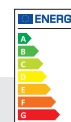
LED TUBULAR STRIPLIGHT
P. 48

Filament-LED A60/A70 Clear/Opal



Features

- Extremely energy saving with low power consumption
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Overall light distribution
- Good color rendition, $R_a \geq 80$



Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED A60 FIL-4W-G CL	220 - 240V	4W	E27 / B22d	2700K	470lm	E
LED A60 FIL-6.5W-G CL	220 - 240V	6.5W	E27 / B22d	2700K	800lm	E
LED A60 FIL-8.5W-G CL	220 - 240V	8.5W	E27 / B22d	2700K	1050lm	E
LED A70 FIL-12W-G CL	220 - 240V	12W	E27 / B22d	2700K	1520lm	E
LED A60 FIL-4.5W-G CL DIM	220 - 240V	4.5W	E27 / B22d	2700K	470lm	F
LED A60 FIL-8W-G CL DIM	220 - 240V	8W	E27 / B22d	2700K	800lm	F
LED A70 FIL-12W-G CL DIM	220 - 240V	12W	E27 / B22d	2700K	1520lm	E
LED A60 FIL-4W-G OP	220 - 240V	4W	E27 / B22d	2700K	470lm	E
LED A60 FIL-7W-G OP	220 - 240V	7W	E27 / B22d	2700K	780lm	E
LED A60 FIL-4W-G OP DIM	220 - 240V	4W	E27 / B22d	2700K	470lm	E
LED A60 FIL-7W-G OP DIM	220 - 240V	7W	E27 / B22d	2700K	780lm	E



4W	~	40W
4.5W	~	40W
6.5W	~	59W
7W	~	58W

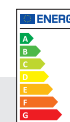
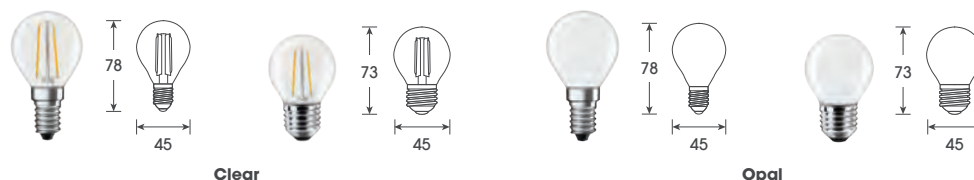
8W	~	59W
8.5W	~	74W
12W	~	99W

Filament-LED Round Clear/Opal



Features

- Extremely energy saving with low power consumption
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Overall light distribution
- Good color rendition, $R_a \geq 80$



Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED G45 FIL-2.5W-G CL	220 - 240V	2.5W	E14 / B15d / E27 / B22d	2700K	250lm	F
LED G45 FIL-4W-G CL	220 - 240V	4W	E14 / B15d / E27 / B22d	2700K	470lm	E
LED G45 FIL-4.5W-G CL DIM	220 - 240V	4.5W	E14 / B15d / E27 / B22d	2700K	470lm	F
LED G45 FIL-2W-G OP	220 - 240V	2W	E14 / B15d / E27 / B22d	2700K	250lm	E
LED G45 FIL-4W-G OP	220 - 240V	4W	E14 / B15d / E27 / B22d	2700K	450lm	E
LED G45 FIL-4W-G OP DIM	220 - 240V	4W	E14 / B15d / E27 / B22d	2700K	450lm	E

LED	~	25W
4W	~	40W
4.5W	~	40W



Filament-LED Candle Clear/Opal

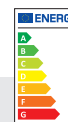
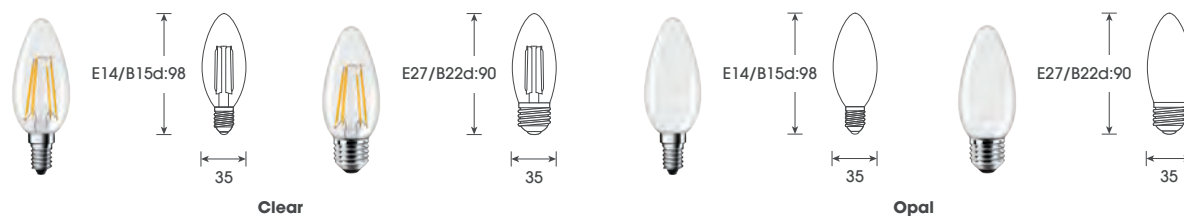


Features

- Extremely energy saving with low power consumption
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Overall light distribution
- Good color rendition, $R_a \geq 80$

EUROPE

LINE VOLTAGE LAMP



Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED C35 FIL-2.5W-G CL	220 - 240V	2.5W	E14 / B15d / E27 / B22d	2700K	250lm	F
LED C35 FIL-4W-G CL	220 - 240V	4W	E14 / B15d / E27 / B22d	2700K	470lm	E
LED C35 FIL-4.5W-G CL DIM	220 - 240V	4.5W	E14 / B15d / E27 / B22d	2700K	470lm	F
LED C35 FIL-2W-G OP	220 - 240V	2W	E14 / B15d / E27 / B22d	2700K	250lm	E
LED C35 FIL-4W-G OP	220 - 240V	4W	E14 / B15d / E27 / B22d	2700K	470lm	E
LED C35 FIL-4W-G OP DIM	220 - 240V	4W	E14 / B15d / E27 / B22d	2700K	470lm	E



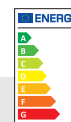
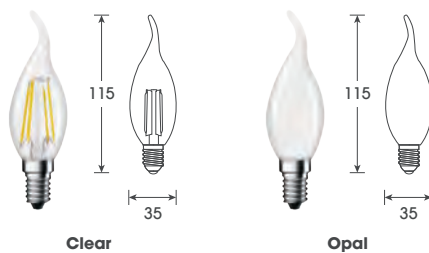
2W	~	25W
2.5W	~	25W
4W	~	40W
4.5W	~	40W

Filament-LED Turntip Clear/Opal



Features

- Extremely energy saving with low power consumption
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Overall light distribution
- Good color rendition, $R_a \geq 80$



Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED Turntip FIL-2W-G CL	220 - 240V	2W	E14 / B15d	2700K	250lm	E
LED Turntip FIL-4W-G CL	220 - 240V	4W	E14 / B15d	2700K	470lm	E
LED Turntip FIL-4W-G CL DIM	220 - 240V	4W	E14 / B15d	2700K	470lm	E
LED Turntip FIL-2W-G OP	220 - 240V	2W	E14 / B15d	2700K	250lm	E
LED Turntip FIL-4W-G OP	220 - 240V	4W	E14 / B15d	2700K	470lm	E
LED Turntip FIL-4W-G OP DIM	220 - 240V	4W	E14 / B15d	2700K	470lm	E



2W ~ 25W
4W ~ 40W



Filament-LED Globe

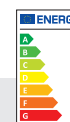
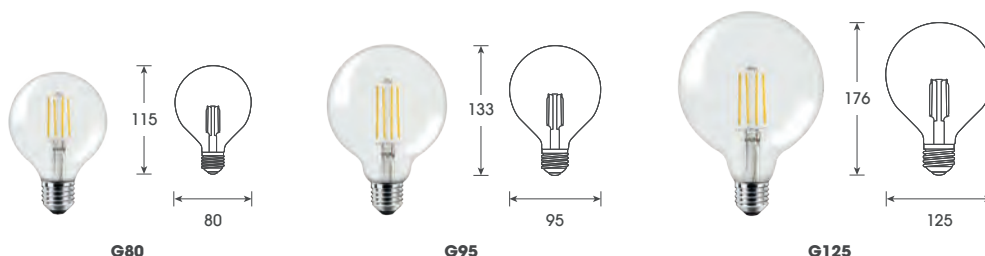


Features

- Extremely energy saving with low power consumption
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Overall light distribution
- Good color rendition, Ra ≥ 80

EUROPE

LINE VOLTAGE LAMP



Model	Voltage	Wattage	Base	Color Temp	Filament Length	Lumen	
LED G80 FIL-4W-G CL	220 - 240V	4W	E27 / B22d	2700K	50mm	470lm	E
LED G80 FIL-6.5W-G CL	220 - 240V	6.5W	E27 / B22d	2700K	50mm	800lm	E
LED G80 FIL-8.5W-G CL	220 - 240V	8.5W	E27 / B22d	2700K	50mm	1050lm	E
LED G95 FIL-4W-G CL	220 - 240V	4W	E27 / B22d	2700K	50mm	470lm	E
LED G95 FIL-6.5W-G CL	220 - 240V	6.5W	E27 / B22d	2700K	50mm	800lm	E
LED G95 FIL-8.5W-G CL	220 - 240V	8.5W	E27 / B22d	2700K	50mm	1050lm	E
LED G95 FIL-12W-G CL	220 - 240V	12W	E27 / B22d	2700K	68mm	1520lm	E
LED G125 FIL-4W-G CL	220 - 240V	4W	E27 / B22d	2700K	50mm	470lm	E
LED G125 FIL-6.5W-G CL	220 - 240V	6.5W	E27 / B22d	2700K	50mm	800lm	E
LED G125 FIL-8.5W-G CL	220 - 240V	8.5W	E27 / B22d	2700K	50mm	1050lm	E
LED G125 FIL-12W-G CL	220 - 240V	12W	E27 / B22d	2700K	68mm	1520lm	E
LED G80 FIL-4.5W-G CL DIM	220 - 240V	4.5W	E27 / B22d	2700K	50mm	470lm	F
LED G80 FIL-8W-G CL DIM	220 - 240V	8W	E27 / B22d	2700K	50mm	800lm	F
LED G95 FIL-4.5W-G CL DIM	220 - 240V	4.5W	E27 / B22d	2700K	50mm	470lm	F
LED G95 FIL-8W-G CL DIM	220 - 240V	8W	E27 / B22d	2700K	50mm	800lm	F
LED G95 FIL-12W-G CL DIM	220 - 240V	12W	E27 / B22d	2700K	68mm	1520lm	E
LED G125 FIL-4.5W-G CL DIM	220 - 240V	4.5W	E27 / B22d	2700K	50mm	470lm	F
LED G125 FIL-8W-G CL DIM	220 - 240V	8W	E27 / B22d	2700K	50mm	800lm	F
LED G125 FIL-12W-G CL DIM	220 - 240V	12W	E27 / B22d	2700K	68mm	1520lm	E



4W ~ 40W
 4.5W ~ 40W
 6.5W ~ 59W
 8W ~ 59W

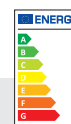
8.5W ~ 74W
 12W ~ 99W

Filament-LED Globe Opal



Features

- Extremely energy saving with low power consumption
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Overall light distribution
- Good color rendition, $R_a \geq 80$



Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED G80 FIL-4W-G OP	220 - 240V	4W	E27 / B22d	2700K	470lm	E
LED G80 FIL-7W-G OP	220 - 240V	7W	E27 / B22d	2700K	780lm	E
LED G80 FIL-8W-G OP	220 - 240V	8W	E27 / B22d	2700K	1050lm	E
LED G80 FIL-10W-G OP	220 - 240V	10W	E27 / B22d	2700K	1200lm	E
LED G95 FIL-4W-G OP	220 - 240V	4W	E27 / B22d	2700K	470lm	E
LED G95 FIL-7W-G OP	220 - 240V	7W	E27 / B22d	2700K	780lm	E
LED G95 FIL-8W-G OP	220 - 240V	8W	E27 / B22d	2700K	1050lm	E
LED G95 FIL-10W-G OP	220 - 240V	10W	E27 / B22d	2700K	1200lm	E
LED G125 FIL-4W-G OP	220 - 240V	4W	E27 / B22d	2700K	470lm	E
LED G125 FIL-7W-G OP	220 - 240V	7W	E27 / B22d	2700K	780lm	E
LED G125 FIL-8W-G OP	220 - 240V	8W	E27 / B22d	2700K	1050lm	E
LED G125 FIL-10W-G OP	220 - 240V	10W	E27 / B22d	2700K	1200lm	E
LED G80 FIL-4W-G OP DIM	220 - 240V	4W	E27 / B22d	2700K	470lm	E
LED G80 FIL-7W-G OP DIM	220 - 240V	7W	E27 / B22d	2700K	780lm	E
LED G80 FIL-8W-G OP DIM	220 - 240V	8W	E27 / B22d	2700K	1050lm	E
LED G80 FIL-10W-G OP DIM	220 - 240V	10W	E27 / B22d	2700K	1200lm	E
LED G95 FIL-4W-G OP DIM	220 - 240V	4W	E27 / B22d	2700K	470lm	E
LED G95 FIL-7W-G OP DIM	220 - 240V	7W	E27 / B22d	2700K	780lm	E
LED G95 FIL-8W-G OP DIM	220 - 240V	8W	E27 / B22d	2700K	1050lm	E
LED G95 FIL-10W-G OP DIM	220 - 240V	10W	E27 / B22d	2700K	1200lm	E
LED G125 FIL-4W-G OP DIM	220 - 240V	4W	E27 / B22d	2700K	470lm	E
LED G125 FIL-7W-G OP DIM	220 - 240V	7W	E27 / B22d	2700K	780lm	E
LED G125 FIL-8W-G OP DIM	220 - 240V	8W	E27 / B22d	2700K	1050lm	E
LED G125 FIL-10W-G OP DIM	220 - 240V	10W	E27 / B22d	2700K	1200lm	E

		
4W	~	40W
7W	~	58W
8W	~	74W
10W	~	82W



Long Filament-LED Globe Amber

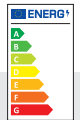
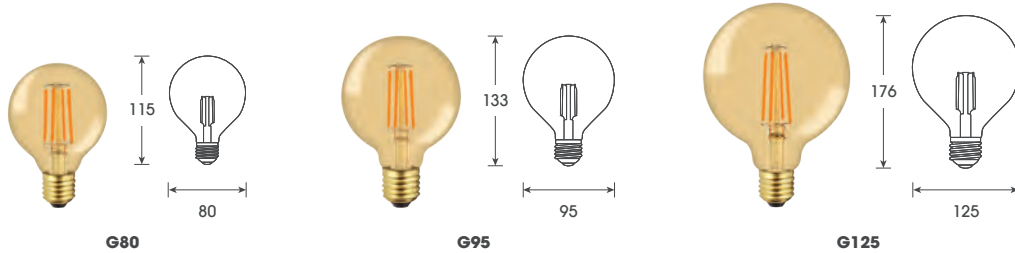


Features

- Extremely energy saving with low power consumption
- Filament-like LED gives perfect light effect in all directions
- Special Warm Tone for decorative purposes
- Overall light distribution
- Good color rendition, $R_a \geq 80$

EUROPE

LINE VOLTAGE LAMP



Model	Voltage	Wattage	Base	Color Temp	Filament Length	Lumen	
LED G80 L-FIL-4W-G WT	220 - 240V	4W	E27 / B22d	2200K	50mm	360lm	F
LED G80 L-FIL-6.5W-G WT	220 - 240V	6.5W	E27 / B22d	2200K	50mm	650lm	F
LED G80 L-FIL-8.5W-G WT	220 - 240V	8.5W	E27 / B22d	2200K	50mm	800lm	F
LED G95 L-FIL-4W-G WT	220 - 240V	4W	E27 / B22d	2200K	50mm	360lm	F
LED G95 L-FIL-6.5W-G WT	220 - 240V	6.5W	E27 / B22d	2200K	50mm	650lm	F
LED G95 L-FIL-8.5W-G WT	220 - 240V	8.5W	E27 / B22d	2200K	50mm	800lm	F
LED G95 L-FIL-12W-G WT	220 - 240V	12W	E27 / B22d	2200K	68mm	1200lm	F
LED G125 L-FIL-4W-G WT	220 - 240V	4W	E27 / B22d	2200K	50mm	360lm	F
LED G125 L-FIL-6.5W-G WT	220 - 240V	6.5W	E27 / B22d	2200K	50mm	650lm	F
LED G125 L-FIL-8.5W-G WT	220 - 240V	8.5W	E27 / B22d	2200K	50mm	800lm	F
LED G125 L-FIL-12W-G WT	220 - 240V	12W	E27 / B22d	2200K	68mm	1200lm	F
LED G80 L-FIL-4.5W-G WT DIM	220 - 240V	4.5W	E27 / B22d	2200K	50mm	360lm	G
LED G80 L-FIL-8W-G WT DIM	220 - 240V	8W	E27 / B22d	2200K	50mm	720lm	F
LED G95 L-FIL-4.5W-G WT DIM	220 - 240V	4.5W	E27 / B22d	2200K	50mm	360lm	G
LED G95 L-FIL-8W-G WT DIM	220 - 240V	8W	E27 / B22d	2200K	50mm	720lm	F
LED G95 L-FIL-12W-G WT DIM	220 - 240V	12W	E27 / B22d	2200K	68mm	1200lm	F
LED G125 L-FIL-4.5W-G WT DIM	220 - 240V	4.5W	E27 / B22d	2200K	50mm	360lm	G
LED G125 L-FIL-8W-G WT DIM	220 - 240V	8W	E27 / B22d	2200K	50mm	720lm	F
LED G125 L-FIL-12W-G WT DIM	220 - 240V	12W	E27 / B22d	2200K	68mm	1200lm	F



4W ~ 40W
4.5W ~ 40W
6.5W ~ 60W
8W ~ 60W

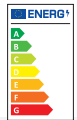
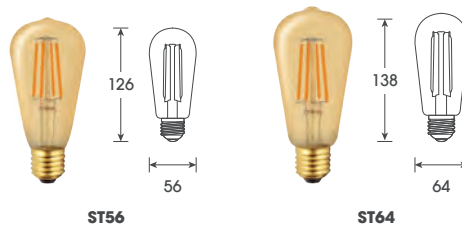
8.5W ~ 75W
12W ~ 100W

Long Filament-LED ST56/ST64 Amber



Features

- Extremely energy saving with low power consumption
- Filament-like LED gives perfect light effect in all directions
- Special Warm Tone for decorative purposes
- Overall light distribution
- Good color rendition, $R_a \geq 80$



Model	Voltage	Wattage	Base	Color Temp	Filament Length	Lumen	
LED ST56 L-FIL-4W-G WT	220 - 240V	4W	E27 / B22d	2200K	50mm	360lm	F
LED ST56 L-FIL-6.5W-G WT	220 - 240V	6.5W	E27 / B22d	2200K	50mm	650lm	F
LED ST56 L-FIL-8.5W-G WT	220 - 240V	8.5W	E27 / B22d	2200K	50mm	800lm	F
LED ST64 L-FIL-4W-G WT	220 - 240V	4W	E27 / B22d	2200K	50mm	360lm	F
LED ST64 L-FIL-6.5W-G WT	220 - 240V	6.5W	E27 / B22d	2200K	50mm	650lm	F
LED ST64 L-FIL-8.5W-G WT	220 - 240V	8.5W	E27 / B22d	2200K	50mm	800lm	F
LED ST64 L-FIL-12W-G WT	220 - 240V	12W	E27 / B22d	2200K	68mm	1200lm	F
LED ST56 L-FIL-4.5W-G WT DIM	220 - 240V	4.5W	E27 / B22d	2200K	50mm	360lm	G
LED ST56 L-FIL-8W-G WT DIM	220 - 240V	8W	E27 / B22d	2200K	50mm	720lm	F
LED ST64 L-FIL-4.5W-G WT DIM	220 - 240V	4.5W	E27 / B22d	2200K	50mm	360lm	G
LED ST64 L-FIL-8W-G WT DIM	220 - 240V	8W	E27 / B22d	2200K	50mm	720lm	F
LED ST64 L-FIL-12W-G WT DIM	220 - 240V	12W	E27 / B22d	2200K	68mm	1200lm	F



4W	~	40W
4.5W	~	40W
6.5W	~	60W
8W	~	60W

8.5W	~	75W
12W	~	100W

Spiral Filament-LED ST64/Globe Amber



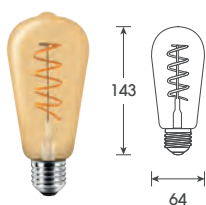
Features

- Extremely energy saving with low power consumption
- Filament-like LED gives perfect light effect in all directions
- Special Warm Tone for decorative purposes
- Overall light distribution
- Good color rendition, $R_a \geq 80$

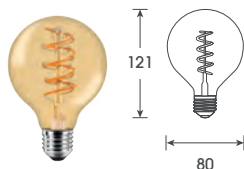
EUROPE



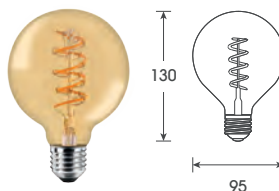
LINE VOLTAGE LAMP



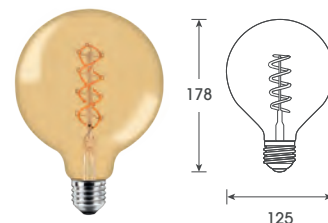
ST64



G80



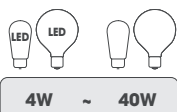
G95



G125



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED ST64 S-FIL-4W-G WT DIM	220 - 240V	4W	E27 / B22d	1800K	200lm
LED G80 S-FIL-4W-G WT DIM	220 - 240V	4W	E27 / B22d	1800K	200lm
LED G95 S-FIL-4W-G WT DIM	220 - 240V	4W	E27 / B22d	1800K	200lm
LED G125 S-FIL-4W-G WT DIM	220 - 240V	4W	E27 / B22d	1800K	200lm



Ecodesign and Energy Labelling Regulations exempted



Features

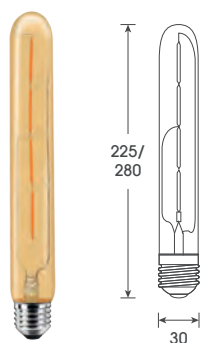
- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥80
- Filament-like LED gives perfect light effect in all directions
- Special Warm Tone for decorative purposes

Filament-LED T30 Amber



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED T30 FIL-4W-G WT	220 - 240V	4W	E27 / B22d	1800K	350lm
LED T30 FIL-6W-G WT	220 - 240V	6W	E27 / B22d	1800K	500lm
LED T30 FIL-7W-G WT	220 - 240V	7W	E27 / B22d	1800K	700lm

Ecodesign and Energy Labelling Regulations exempted



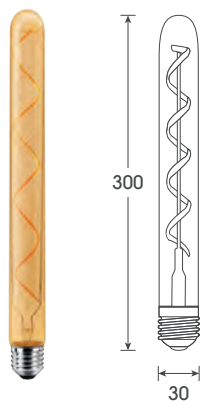
LED	~	LED
4W	~	15W
6W	~	40W
7W	~	60W

Spiral Filament-LED T30 Amber



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED T30 S-FIL-4W-G WT DIM	220 - 240V	4W	E27 / B22d	1800K	200lm

Ecodesign and Energy Labelling Regulations exempted



LED	~	LED
4W	~	40W



Filament-LED Round/A60/A70/Globe Crown Silver



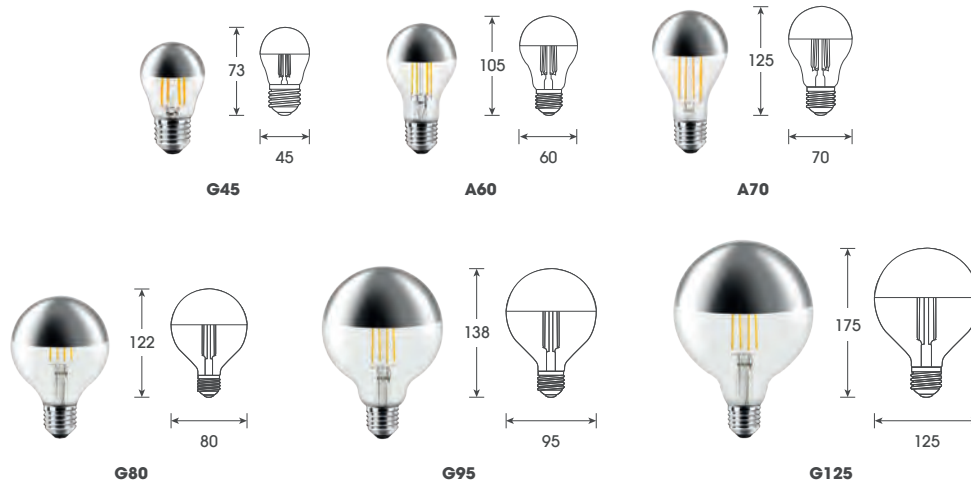
Features

- Extremely energy saving with low power consumption
- Anti-glare silver coating reflects light backward for indirect lighting
- Specially designed for wall lighting luminaires with attractive mirror reflection effect
- Ideal retrofit of incandescent crown silver lamps with same appearance / performance / dimensions
- Excellent decorative display for stylish design and shop lighting
- Good color rendition, $R_a \geq 80$

EUROPE



LINE VOLTAGE LAMP



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED G45 FIL-2W-G CS	220 - 240V	2W	E27 / B22d	2700K	180lm
LED G45 FIL-4W-G CS	220 - 240V	4W	E27 / B22d	2700K	360lm
LED A60 FIL-4W-G CS	220 - 240V	4W	E27 / B22d	2700K	360lm
LED A60 FIL-6W-G CS	220 - 240V	6W	E27 / B22d	2700K	460lm
LED A70 FIL-6W-G CS	220 - 240V	6W	E27 / B22d	2700K	460lm
LED A70 FIL-8W-G CS	220 - 240V	8W	E27 / B22d	2700K	600lm
LED G80 FIL-4W-G CS	220 - 240V	4W	E27 / B22d	2700K	360lm
LED G80 FIL-6W-G CS	220 - 240V	6W	E27 / B22d	2700K	460lm
LED G80 FIL-8W-G CS	220 - 240V	8W	E27 / B22d	2700K	600lm
LED G95 FIL-4W-G CS	220 - 240V	4W	E27 / B22d	2700K	360lm
LED G95 FIL-6W-G CS	220 - 240V	6W	E27 / B22d	2700K	460lm
LED G95 FIL-8W-G CS	220 - 240V	8W	E27 / B22d	2700K	600lm
LED G125 FIL-4W-G CS	220 - 240V	4W	E27 / B22d	2700K	360lm
LED G125 FIL-6W-G CS	220 - 240V	6W	E27 / B22d	2700K	460lm
LED G125 FIL-8W-G CS	220 - 240V	8W	E27 / B22d	2700K	600lm

Ecodesign and Energy Labelling Regulations exempted

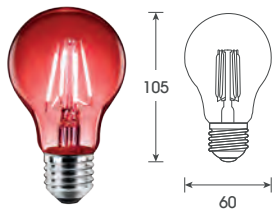
LED	LED	LED	LED	LED	LED
2W	~	25W			
4W	~	40W			
6W	~	60W			
8W	~	75W			



Features

- Extremely energy saving with low power consumption
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Color filament gives vivid light for decorative purposes
- Overall light distribution

Color Filament-LED A60



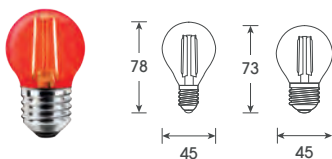
Model	Voltage	Wattage	Base	Color
LED A60 RD-FIL-4W-G CL	220 - 240V	4W	E27 / B22d	Red
LED A60 OG-FIL-4W-G CL	220 - 240V	4W	E27 / B22d	Orange
LED A60 YL-FIL-4W-G CL	220 - 240V	4W	E27 / B22d	Yellow
LED A60 GR-FIL-4W-G CL	220 - 240V	4W	E27 / B22d	Green
LED A60 BL-FIL-4W-G CL	220 - 240V	4W	E27 / B22d	Blue
LED A60 PP-FIL-4W-G CL	220 - 240V	4W	E27 / B22d	Purple
LED A60 PK-FIL-4W-G CL	220 - 240V	4W	E27 / B22d	Pink



4W ~ 25W

Ecodesign and Energy Labelling Regulations exempted

Color Filament-LED Round



Model	Voltage	Wattage	Base	Color
LED G45 RD-FIL-4W-G CL	220 - 240V	4W	E14 / B15d / E27 / B22d	Red
LED G45 OG-FIL-4W-G CL	220 - 240V	4W	E14 / B15d / E27 / B22d	Orange
LED G45 YL-FIL-4W-G CL	220 - 240V	4W	E14 / B15d / E27 / B22d	Yellow
LED G45 GR-FIL-4W-G CL	220 - 240V	4W	E14 / B15d / E27 / B22d	Green
LED G45 BL-FIL-4W-G CL	220 - 240V	4W	E14 / B15d / E27 / B22d	Blue
LED G45 PP-FIL-4W-G CL	220 - 240V	4W	E14 / B15d / E27 / B22d	Purple
LED G45 PK-FIL-4W-G CL	220 - 240V	4W	E14 / B15d / E27 / B22d	Pink



4W ~ 25W

Ecodesign and Energy Labelling Regulations exempted





Features

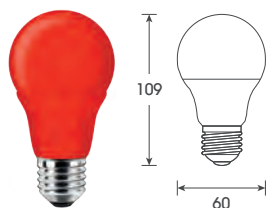
- Extremely energy saving with low power consumption
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Attractive color finishing for decorative purposes
- Overall light distribution

EUROPE



LINE VOLTAGE LAMP

Thermal Plastic Multi-LED A60 Color



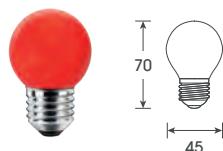
Model	Voltage	Wattage	Base	Color
LED TP A60 SMD-5W RD	220 - 240V	5W	E27 / B22d	Red
LED TP A60 SMD-5W YL	220 - 240V	5W	E27 / B22d	Yellow
LED TP A60 SMD-5W GR	220 - 240V	5W	E27 / B22d	Green
LED TP A60 SMD-5W BL	220 - 240V	5W	E27 / B22d	Blue



5W ~ 25W

Ecodesign and Energy Labelling Regulations exempted

Multi-LED Round Color



Model	Voltage	Wattage	Base	Color
LED G45 SMD-1W RD	220 - 240V	1W	E27 / B22d	Red
LED G45 SMD-1W OG	220 - 240V	1W	E27 / B22d	Orange
LED G45 SMD-1W YL	220 - 240V	1W	E27 / B22d	Yellow
LED G45 SMD-1W GR	220 - 240V	1W	E27 / B22d	Green
LED G45 SMD-1W BL	220 - 240V	1W	E27 / B22d	Blue
LED G45 SMD-1W PP	220 - 240V	1W	E27 / B22d	Purple
LED G45 SMD-1W PK	220 - 240V	1W	E27 / B22d	Pink



1W ~ 15W

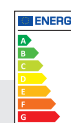
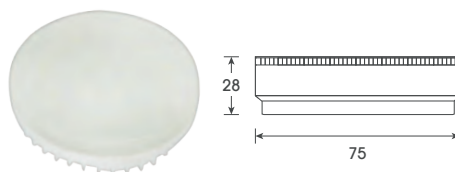
Ecodesign and Energy Labelling Regulations exempted

Multi-LED GX53



Features

- Extremely energy saving with low power consumption
- Instant full light, no warm up time is required
- Ideal retrofit of CFL with compact size
- No mercury and hazardous substances
- Good color rendition, $R_a \geq 80$



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED GX53 SMD-5W	220 - 240V	5W	GX53-1	180°	3000K / 4000K / 6500K	450lm / 460lm / 470lm	F
LED GX53 SMD-6W	220 - 240V	6W	GX53-1	180°	3000K / 4000K / 6500K	540lm / 550lm / 560lm	F

LED

CFL

5W ~ 40% more light than 7W CFL GX53
 6W ~ 90% more light than 7W CFL GX53

EUROPE



LINE VOLTAGE LAMP



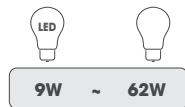
Features

- Extremely energy saving with low power consumption
- Excellent thermal conductivity
- Good color rendition, Ra ≥80
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions

Thermal Plastic Multi-LED A60 Sensor



Model	Voltage	Wattage	Base	Color Temp	Lumen			ENERG ⁺
					3000K	4000K	6500K	
LED TP A60 SMD-9W SR	220 - 240V	9W	E27 / B22d	3000K / 4000K / 6500K	820lm	835lm	850lm	F



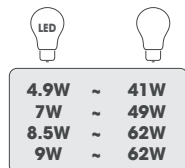
With daylight sensor to control ON (<0.1 lux)/OFF (>10 lux) for outdoor lighting by detecting sunlight lux level in IR spectrum



Thermal Plastic Multi-LED A60



Model	Voltage	Wattage	Base	Color Temp	Lumen			ENERG ⁺
					3000K	4000K	6500K	
LED TP A60 SMD-4.9W	220 - 240V	4.9W	E27 / B22d	3000K / 4000K / 6500K	470lm	480lm	490lm	G
LED TP A60 SMD-7W	220 - 240V	7W	E27 / B22d	3000K / 4000K / 6500K	600lm	615lm	630lm	F
LED TP A60 SMD-8.5W	220 - 240V	8.5W	E27 / B22d	3000K / 4000K / 6500K	805lm	825lm	850lm	F
LED TP A60 SMD-11W	220 - 240V	11W	E27 / B22d	3000K / 4000K / 6500K	1050lm	1075lm	1100lm	F
LED TP A60 SMD-14W	220 - 240V	14W	E27 / B22d	3000K / 4000K / 6500K	1520lm	1525lm	1530lm	F
LED TP A60 SMD-7W DIM	220 - 240V	7W	E27 / B22d	3000K / 4000K / 6500K	600lm	615lm	630lm	F
LED TP A60 SMD-9W DIM	220 - 240V	9W	E27 / B22d	3000K / 4000K / 6500K	800lm	825lm	850lm	F
LED TP A60 SMD-11W DIM	220 - 240V	11W	E27 / B22d	3000K / 4000K / 6500K	1050lm	1075lm	1100lm	F
LED TP A60 SMD-13W DIM	220 - 240V	13W	E27 / B22d	3000K / 4000K / 6500K	1400lm	1410lm	1420lm	F

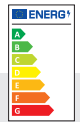
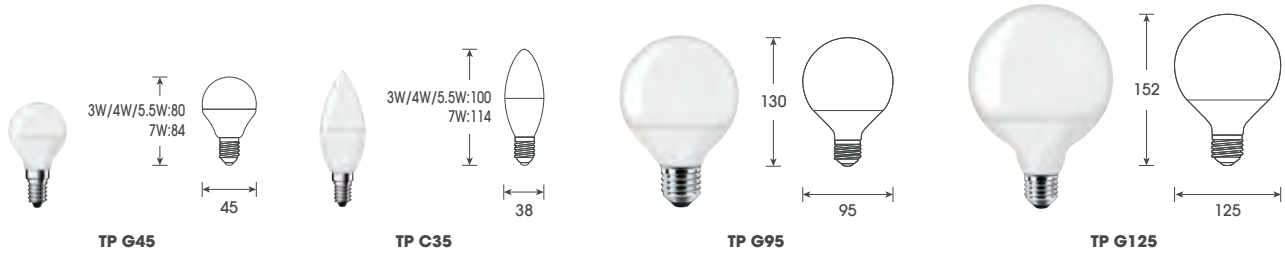




Thermal Plastic Multi-LED Round/Candle/Globe

Features

- Extremely energy saving with low power consumption
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Excellent thermal conductivity
- Good color rendition, $R_a \geq 80$



Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 4000K / 6500K	
LED TP G45 SMD-3W	220 - 240V	3W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	255lm / 270lm / 290lm	F
LED TP G45 SMD-4W	220 - 240V	4W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	300lm / 315lm / 330lm	G
LED TP G45 SMD-5.5W	220 - 240V	5.5W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	470lm / 475lm / 480lm	F
LED TP G45 SMD-7W	220 - 240V	7W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	780lm / 790lm / 805lm	E
LED TP G45 SMD-4W DIM	220 - 240V	4W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	300lm / 315lm / 330lm	G
LED TP G45 SMD-5.5W DIM	220 - 240V	5.5W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	470lm / 475lm / 480lm	F
LED TP C35 SMD-3W	220 - 240V	3W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	255lm / 270lm / 290lm	F
LED TP C35 SMD-4W	220 - 240V	4W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	300lm / 315lm / 330lm	G
LED TP C35 SMD-5.5W	220 - 240V	5.5W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	470lm / 475lm / 480lm	F
LED TP C35 SMD-7W	220 - 240V	7W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	780lm / 790lm / 805lm	E
LED TP C35 SMD-4W DIM	220 - 240V	4W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	300lm / 315lm / 330lm	G
LED TP C35 SMD-5W DIM	220 - 240V	5W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	470lm / 475lm / 480lm	F
LED TP G95 SMD-12W	220 - 240V	12W	E27 / B22d	3000K / 4000K / 6500K	1200lm / 1230lm / 1260lm	F
LED TP G125 SMD-16W	220 - 240V	16W	E27 / B22d	3000K / 4000K / 6500K	1600lm / 1640lm / 1680lm	F
LED TP G95 SMD-12W DIM	220 - 240V	12W	E27 / B22d	3000K / 4000K / 6500K	1080lm / 1105lm / 1130lm	F
LED TP G125 SMD-16W DIM	220 - 240V	16W	E27 / B22d	3000K / 4000K / 6500K	1440lm / 1475lm / 1510lm	F

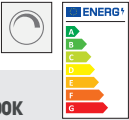
LED	LED	LED	LED
3W	~	27W	
4W	~	30W	
5W	~	40W	
5.5W	~	40W	
7W	~	59W	
12W	~	85W	
16W	~	108W	



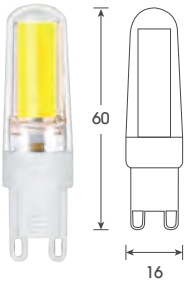
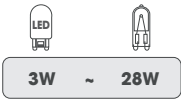
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥80
- Ideal retrofit of traditional G9 with same appearance / performance / dimensions
- Lamp weight <12g comply with IEC G9 requirement
- Universal burning position

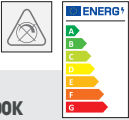
Ceramic LED COB G9



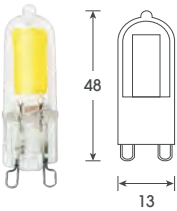
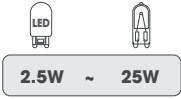
Model	Voltage	Wattage	Base	Color Temp	Lumen			
					3000K / 4000K / 6500K	3000K / 4000K / 6500K	3000K / 4000K / 6500K	
LED C G9 COB-3W DIM	220 - 240V	3W	G9	3000K / 4000K / 6500K	260 lm / 280 lm / 300 lm			F



LED COB G9



Model	Voltage	Wattage	Base	Color Temp	Lumen			
					3000K / 4000K / 6500K	3000K / 4000K / 6500K	3000K / 4000K / 6500K	
LED G9 COB-2.5W	220 - 240V	2.5W	G9	3000K / 4000K / 6500K	220 lm / 240 lm / 260 lm			F

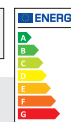




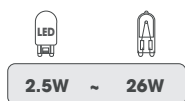
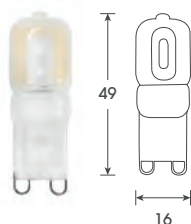
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥ 80
- Ideal retrofit of traditional G9 with same appearance / performance / dimensions
- Lamp weight <12g comply with IEC G9 requirement
- Universal burning position

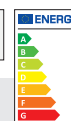
Thermal Plastic Multi-LED G9



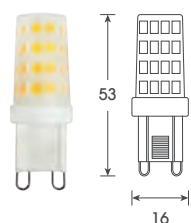
Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 4000K / 6500K	
LED TP G9 SMD-2.5W	220 - 240V	2.5W	G9	3000K / 4000K / 6500K	220 lm / 250 lm / 270 lm	F



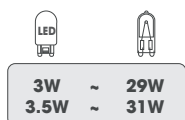
Ceramic Multi-LED G9



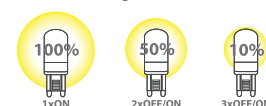
Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 4000K / 6500K	
LED C G9 SMD-3.5W	220 - 240V	3.5W	G9	3000K / 4000K / 6500K	320 lm / 330 lm / 340 lm	F
LED C G9 SMD-3W DIM	220 - 240V	3W	G9	3000K / 4000K / 6500K	240 lm / 245 lm / 250 lm	G
LED C G9 SMD-3W STEP-DIM	220 - 240V	3W	G9	3000K / 4000K / 6500K	300 lm / 305 lm / 310 lm	F



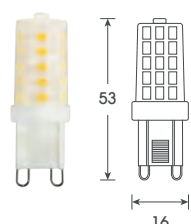
3.5W



Step Dimming



Step dimming option with 100%, 50% and 10% adjustable lumen output



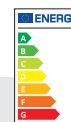
3W



Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Operation temperature -20°C to 60°C
- Good color rendition, Ra ≥80
- Full glass version ideal retrofit of Incandescent Pygmy and traditional lamps with same appearance / performance / dimensions
- Suitable for Refrigerator light, Cooker hood light and Night light

Filament-LED T25



Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED T25 FIL-1.4W-G CL	220 - 240V	1.4W	E14 / B15d	2700K	140lm	F
LED T25 FIL-2.6W-G CL	220 - 240V	2.6W	E14 / B15d	2700K	280lm	F
LED T25 FIL-4W-G CL	220 - 240V	4W	E14	2700K	400lm	F

LED	
1.4W ~ 15W	
2.6W ~ 25W	
4W ~ 40W	

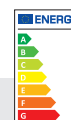


1.4W / 2.6W



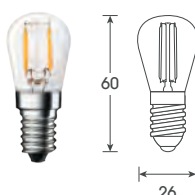
4W

Filament-LED ST26



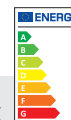
Model	Voltage	Wattage	Base	Color Temp	Lumen	
LED ST26 FIL-1.4W-G CL	220 - 240V	1.4W	E14 / B15d	2700K	140lm	F
LED ST26 FIL-2.6W-G CL	220 - 240V	2.6W	E14 / B15d	2700K	280lm	F

LED	
1.4W ~ 15W	
2.6W ~ 25W	



26

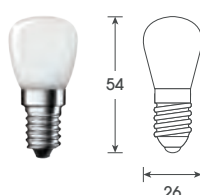
Multi-LED ST26 Opal



Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 4000K / 6500K	
LED ST26 SMD-0.7W OP	220 - 240V	0.7W	E14 / B15d	3000K / 4000K / 6500K	50 lm / 54 lm / 58 lm	G
LED ST26 SMD-1.2W OP	220 - 240V	1.2W	E14 / B15d	3000K / 4000K / 6500K	70 lm / 75 lm / 80 lm	G

LED	
0.7W/1.2W ~	Replacing most popular 15W-25W incandescent pygmy lamps

Opal white bulb finish gives soft comfort light



26

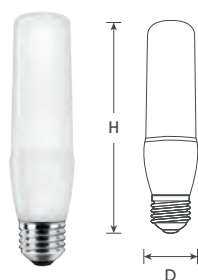
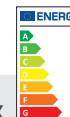




Features

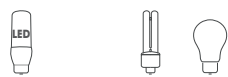
- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥80
- No mercury and hazardous substances
- Excellent thermal conductivity

Thermal Plastic Multi-LED T38/T41



(Unit : mm)	(D)	(H)
T38 7W	Ø38 x	108
T38 9W	Ø38 x	108
T38 12W	Ø38 x	153
T41 8W	Ø41 x	130
T41 13W	Ø41 x	170

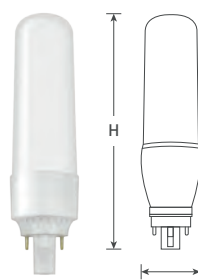
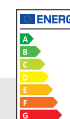
Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 4000K / 6500K	
LED TP T38 SMD-7W	220 - 240V	7W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	600lm / 620lm / 650lm	F
LED TP T38 SMD-9W	220 - 240V	9W	E14 / B15d / E27 / B22d	3000K / 4000K / 6500K	820lm / 850lm / 880lm	F
LED TP T38 SMD-12W	220 - 240V	12W	E27 / B22d	3000K / 4000K / 6500K	1180lm / 1210lm / 1250lm	F
LED TP T41 SMD-8W HO	220 - 240V	8W	E27 / B22d	3000K / 4000K / 6500K	720lm / 750lm / 800lm	F
LED TP T41 SMD-13W HO	220 - 240V	13W	E27 / B22d	3000K / 4000K / 6500K	1280lm / 1310lm / 1350lm	F



T38 7W	~	11W / 50W
T38 9W	~	15W / 60W
T38 12W	~	20W / 100W
T41 8W	~	15W / 75W
T41 13W	~	20W / 100W

2.5 times the life of electronic energy saving lamp
25 times the life of incandescent filament bulb
Ideal retrofit of electronic energy saving lamp

Thermal Plastic Multi-LED T38/T41



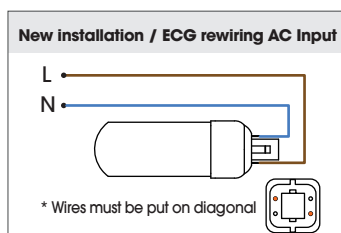
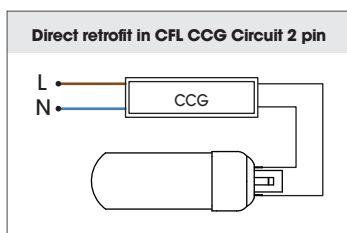
(Unit : mm)	(D)	(H)
T38 7W	Ø38 x	106
T38 9W	Ø38 x	106
T38 12W	Ø38 x	151
T41 8W	Ø41 x	122
T41 13W	Ø41 x	160

Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 4000K / 6500K	
LED TP T38 SMD-7W	100 - 240V	7W	G24	3000K / 4000K / 6500K	600lm / 620lm / 650lm	F
LED TP T38 SMD-9W	100 - 240V	9W	G24	3000K / 4000K / 6500K	820lm / 850lm / 880lm	F
LED TP T38 SMD-12W	100 - 240V	12W	G24	3000K / 4000K / 6500K	1180lm / 1210lm / 1250lm	F
LED TP T41 SMD-8W HO	100 - 240V	8W	G24	3000K / 4000K / 6500K	720lm / 750lm / 800lm	F
LED TP T41 SMD-13W HO	100 - 240V	13W	G24	3000K / 4000K / 6500K	1280lm / 1310lm / 1350lm	F



T38 7W	~	10W
T38 9W	~	13W
T38 12W	~	18W
T41 8W	~	13W
T41 13W	~	18W

>2.5 times the life of Compact Fluorescent Lamp (CFL)
Ideal retrofit of CFL with >30% power savings
Direct retrofit for G24 2-pin CFL in CCG circuit without re-wiring work
Applicable for new installation with direct AC connection

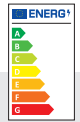




Features

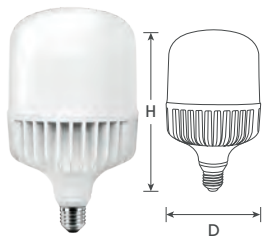
- Extremely energy saving with low power consumption
- Instant full light
- Good color rendition, Ra ≥80
- Ideal retrofit of high wattage traditional lamps
- Widely used for indoor, commercial and low / high bay lighting
- No mercury and hazardous substances

Multi-LED T70-T150



Model	Voltage	Wattage	Base	Color Temp	Lumen			
					3000K / 4000K / 6500K			
LED T70 SMD-15W	90 - 265V	15W	E27	3000K / 4000K / 6500K	1500lm / 1550lm / 1600lm			F
LED T80 SMD-20W	90 - 265V	20W	E27	3000K / 4000K / 6500K	2050lm / 2100lm / 2150lm			F
LED T90 SMD-28W	90 - 265V	28W	E27	3000K / 4000K / 6500K	3000lm / 3050lm / 3070lm			F
LED T120 SMD-40W	90 - 265V	40W	E27	3000K / 4000K / 6500K	4300lm / 4350lm / 4380lm			F
LED T120 SMD-50W	90 - 265V	50W	E27	3000K / 4000K / 6500K	5400lm / 5450lm / 5480lm			F
LED T135 SMD-75W	90 - 265V	75W	E40	3000K / 4000K / 6500K	8250lm / 8300lm / 8350lm			E
LED T150 SMD-95W	90 - 265V	95W	E40	3000K / 4000K / 6500K	10500lm / 10550lm / 10600lm			E

Excellent thermal management by aluminium housing



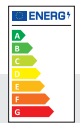
(Unit : mm)	(D)	(H)
15W	Ø70 x	124
20W	Ø81 x	156
28W	Ø90 x	150
40W	Ø120 x	210
50W	Ø120 x	220
75W	Ø135 x	254
95W	Ø150 x	273



15W ~ 25W
20W ~ 30W
28W ~ 40W
40W ~ 60W

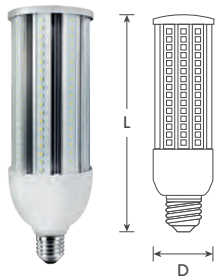
50W ~ 75W
75W ~ 120W
95W ~ 150W

LED HP Corn Lamp

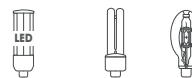


Model	Voltage	Wattage	Base	Color Temp	Lumen			
					3000K / 4000K / 6500K			
LED HPL SMD-20W	100 - 277V	20W	E27 / E40	3000K / 4000K / 6500K	2300lm / 2350lm / 2400lm			E
LED HPL SMD-24W	100 - 277V	24W	E27 / E40	3000K / 4000K / 6500K	2700lm / 2750lm / 2800lm			E
LED HPL SMD-36W	100 - 277V	36W	E27 / E40	3000K / 4000K / 6500K	4200lm / 4250lm / 4300lm			E
LED HPL SMD-45W	100 - 277V	45W	E27 / E40	3000K / 4000K / 6500K	5200lm / 5300lm / 5400lm			E
LED HPL SMD-54W	100 - 277V	54W	E27 / E40	3000K / 4000K / 6500K	6300lm / 6400lm / 6500lm			E
LED HPL SMD-60W	100 - 277V	60W	E27 / E40	3000K / 4000K / 6500K	6600lm / 6800lm / 7000lm			E
LED HPL SMD-80W	100 - 277V	80W	E27 / E40	3000K / 4000K / 6500K	9000lm / 9300lm / 9600lm			E
LED HPL SMD-100W	100 - 277V	100W	E27 / E40	3000K / 4000K / 6500K	11000lm / 11500lm / 12000lm			E
LED HPL SMD-120W	100 - 277V	120W	E27 / E40	3000K / 4000K / 6500K	13500lm / 13950lm / 14400lm			E
LED HPL SMD-150W	100 - 277V	150W	E27 / E40	3000K / 4000K / 6500K	17000lm / 17500lm / 18000lm			E

Double insulated driver with silicone sealant



(Unit : mm)	(D)	(H) E27 / E40
20W	Ø60 x	178 / 206
24W	Ø60 x	207 / 226
36W	Ø90 x	210 / 220
45W	Ø90 x	235 / 245
54W	Ø90 x	260 / 270
60W	Ø90 x	260 / 270
80W	Ø105 x	290 / 300
100W	Ø105 x	290 / 300
120W	Ø105 x	320 / 330
150W	Ø105 x	320 / 330



20W ~ 40W / 70W
24W ~ 45W / 70W
36W ~ 75W / 70W
45W ~ 100W / 70W
54W ~ 100W / 100W

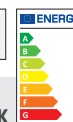
60W ~ 120W / 100W
80W ~ 100W
100W ~ 150W
120W ~ 150W
150W ~ 250W



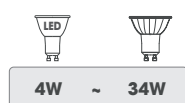
Features

- Extremely energy saving with low power consumption
- Excellent thermal conductivity
- Good color rendition, Ra ≥80
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Aesthetic reflector optics

Thermal Plastic Multi-LED MR11 GU10

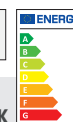


Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED TP MR11 GU10 SMD-4W	220 - 240V	4W	GU10	30°	3000K / 4000K / 6500K	300lm / 320lm / 340lm	F

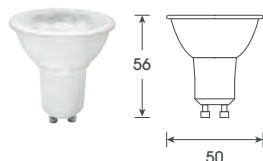


4W ~ 34W

Thermal Plastic LED COB GU10

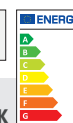


Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED TP GU10 COB-5W	220 - 240V	5W	GU10	38°	3000K / 4000K / 6500K	380lm / 390lm / 400lm	F
LED TP GU10 COB-6W	220 - 240V	6W	GU10	38°	3000K / 4000K / 6500K	500lm / 510lm / 520lm	F
LED TP GU10 COB-7W	220 - 240V	7W	GU10	38°	3000K / 4000K / 6500K	580lm / 590lm / 600lm	F
LED TP GU10 COB-5.5W DIM	220 - 240V	5.5W	GU10	38°	3000K / 4000K / 6500K	500lm / 510lm / 520lm	F
LED TP GU10 COB-6.5W DIM	220 - 240V	6.5W	GU10	38°	3000K / 4000K / 6500K	580lm / 590lm / 600lm	F



5W ~ 57W
5.5W ~ 72W
6W ~ 72W
6.5W ~ 83W
7W ~ 83W

Glass LED COB GU10



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED G GU10 COB-3.5W	220 - 240V	3.5W	GU10	38°	3000K / 4000K / 6500K	280lm / 290lm / 300lm	F
LED G GU10 COB-4.5W	220 - 240V	4.5W	GU10	38°	3000K / 4000K / 6500K	380lm / 390lm / 400lm	F
LED G GU10 COB-5.5W	220 - 240V	5.5W	GU10	38°	3000K / 4000K / 6500K	480lm / 490lm / 500lm	F
LED G GU10 COB-4.5W DIM	220 - 240V	4.5W	GU10	38°	3000K / 4000K / 6500K	380lm / 390lm / 400lm	F
LED G GU10 COB-5.5W DIM	220 - 240V	5.5W	GU10	38°	3000K / 4000K / 6500K	480lm / 490lm / 500lm	F



3.5W ~ 44W
4.5W ~ 57W
5.5W ~ 70W

Glass body finishing



LED COB PAR20/PAR30/PAR38



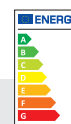
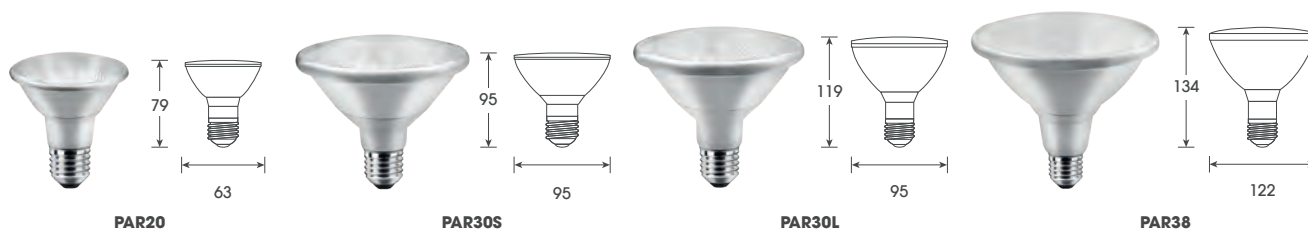
Features

- Extremely energy saving with low power consumption
- Aluminium housing for excellent thermal conduction
- Ideal retrofit of traditional and halogen lamps
- No mercury and hazardous substances
- Good color rendition, $R_a \geq 80$

EUROPE



LINE VOLTAGE LAMP



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED PAR20 COB-6W	220 - 240V	6W	E27	25° / 40° / 60°	3000K / 4000K / 6500K	500lm / 515lm / 530lm	F
LED PAR30S COB-10W	220 - 240V	10W	E27	25° / 40° / 60°	3000K / 4000K / 6500K	800lm / 820lm / 840lm	F
LED PAR30S COB-12W	220 - 240V	12W	E27	25° / 40° / 60°	3000K / 4000K / 6500K	1000lm / 1030lm / 1050lm	F
LED PAR30L COB-10W	220 - 240V	10W	E27	25° / 40° / 60°	3000K / 4000K / 6500K	800lm / 820lm / 840lm	F
LED PAR30L COB-12W	220 - 240V	12W	E27	25° / 40° / 60°	3000K / 4000K / 6500K	1000lm / 1030lm / 1050lm	F
LED PAR38 COB-15W	220 - 240V	15W	E27	25° / 40° / 60°	3000K / 4000K / 6500K	1200lm / 1250lm / 1300lm	F
LED PAR38 COB-17W	220 - 240V	17W	E27	25° / 40° / 60°	3000K / 4000K / 6500K	1400lm / 1450lm / 1500lm	F



6W	~	70W
10W	~	97W
12W	~	120W
15W	~	152W
17W	~	177W

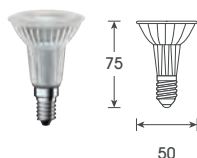




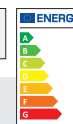
Glass LED COB PAR16/PAR20/PAR30/PAR38

Features

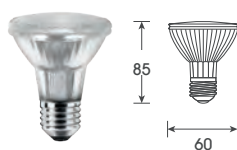
- Extremely energy saving with low power consumption
- Full glass reflector
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Frontal lens in total silicon sealing suitable for outdoor use condition
- Good color rendition, $R_a \geq 80$



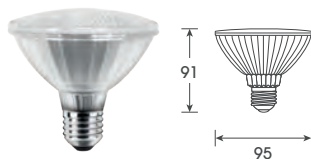
PAR16



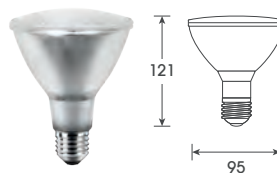
Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED G PAR16 COB-5W DIM	220 - 240V	5W	E14	30°	3000K / 4000K / 6500K	390 lm / 400 lm / 415 lm	F



PAR20



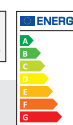
PAR30S



PAR30L



PAR38



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K	
LED G PAR20 COB-6W	90 - 265V	6W	E27	50°	3000K / 4000K / 6500K	450lm / 465lm / 480lm	F
LED G PAR30S COB-10W	90 - 265V	10W	E27	50°	3000K / 4000K / 6500K	800lm / 825lm / 850lm	F
LED G PAR30L COB-10W	90 - 265V	10W	E27	50°	3000K / 4000K / 6500K	800lm / 825lm / 850lm	F
LED G PAR38 COB-15W	90 - 265V	15W	E27	50°	3000K / 4000K / 6500K	1130lm / 1165lm / 1200lm	F



5W	~	59W
6W	~	64W
10W	~	98W
15W	~	140W

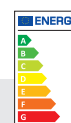


LED COB PAR36/ES111



Features

- Extremely energy saving with low power consumption
- Step dimming option with 100%, 50% and 25% adjustable lumen output
- Ideal retrofit of PAR36/ES111 halogen lighting, same glass body finishing and identical size
- No mercury and hazardous substances
- Good color rendition, Ra ≥ 80



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen			
						3000K	4000K	6500K	
LED PAR36/ES111 COB-6W	220 - 240V	6W	GU10	30° / 60°	3000K / 4000K / 6500K	455lm	470lm	490lm	F
LED PAR36/ES111 COB-8W	220 - 240V	8W	GU10	30° / 60°	3000K / 4000K / 6500K	700lm	720lm	740lm	F
LED PAR36/ES111 COB-10W	220 - 240V	10W	GU10	30° / 60°	3000K / 4000K / 6500K	825lm	850lm	875lm	F
LED PAR36/ES111 COB-6W DIM	220 - 240V	6W	GU10	30° / 60°	3000K / 4000K / 6500K	400lm	420lm	440lm	G
LED PAR36/ES111 COB-6W STEP-DIM	220 - 240V	6W	GU10	30° / 60°	3000K / 4000K / 6500K	400lm	420lm	440lm	G
LED PAR36/ES111 COB-8W STEP-DIM	220 - 240V	8W	GU10	30° / 60°	3000K / 4000K / 6500K	600lm	620lm	640lm	F
LED PAR36/ES111 COB-10W STEP-DIM	220 - 240V	10W	GU10	30° / 60°	3000K / 4000K / 6500K	750lm	780lm	800lm	F



Step Dimming

6W	~	59W
8W	~	88W
10W	~	106W



1xON

2xOFF/ON

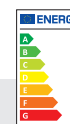
3xOFF/ON

Thermal Plastic Multi-LED R39/R50/R63/R80



Features

- Extremely energy saving with low power consumption
- Excellent thermal conductivity
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions
- No mercury and hazardous substances
- Good color rendition, $R_a \geq 80$



Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 4000K / 6500K	
LED TP R39 SMD-4.5W	220 - 240V	4.5W	E14	3000K / 4000K / 6500K	325lm / 335lm / 345lm	G
LED TP R50 SMD-6W*	220 - 240V	6W	E14	3000K / 4000K / 6500K	470lm / 480lm / 490lm	G
LED TP R63 SMD-8.5W	220 - 240V	8.5W	E27	3000K / 4000K / 6500K	805lm / 815lm / 830lm	F
LED TP R80 SMD-10W	220 - 240V	10W	E27	3000K / 4000K / 6500K	940lm / 950lm / 960lm	F



4.5W	~	31W
6W	~	88W
8.5W	~	130W
10W	~	127W

*LED R50 6W in $R_a 84$

EUROPE



LINE VOLTAGE LAMP

Multi-LED Tubular Striplight



Features

- Extremely energy saving with low power consumption
- Housing: PC
- Ideal retrofit of traditional incandescent striplights
- Direct AC input with integrated driver
- No mercury and hazardous substances
- 120V is available on request
- Good color rendition, Ra ≥ 80

EUROPE



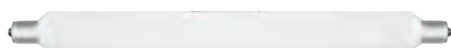
LINE VOLTAGE LAMP



T9 S14s Base



T9 S14d Base



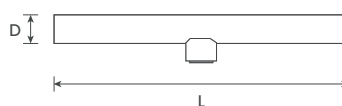
T8 S15 Base



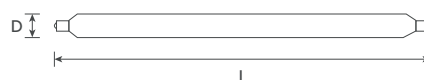
T12 S19 Base



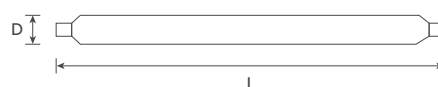
T9 S14s Base



T9 S14d Base

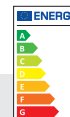


T8 S15 Base



T12 S19 Base

Model	Voltage	Wattage	Base	Beam Angle	Diameter D	Length L	Color Temp	Lumen	ENERGY
LED TP S14s T9 5W	220 - 240V	5W	S14s	270°	Ø30mm	300mm	2700K	450lm	G
LED TP S14s T9 8W	220 - 240V	8W	S14s	270°	Ø30mm	500mm	2700K	750lm	F
LED TP S14s T9 5W DIM	220 - 240V	5W	S14s	270°	Ø30mm	300mm	2700K	450lm	G
LED TP S14s T9 8W DIM	220 - 240V	8W	S14s	270°	Ø30mm	500mm	2700K	750lm	F
LED TP S14d T9 5W	220 - 240V	5W	S14d	270°	Ø30mm	300mm	2700K	450lm	G
LED TP S14d T9 8W	220 - 240V	8W	S14d	270°	Ø30mm	500mm	2700K	750lm	F
LED TP S14d T9 5W DIM	220 - 240V	5W	S14d	270°	Ø30mm	300mm	2700K	450lm	G
LED TP S14d T9 8W DIM	220 - 240V	8W	S14d	270°	Ø30mm	500mm	2700K	750lm	F
LED TP S15 T8 4W	220 - 240V	4W	S15	300°	Ø26mm	221mm	2700K	350lm	G
LED TP S15 T8 6W	220 - 240V	6W	S15	300°	Ø26mm	284mm	2700K	550lm	G
LED TP S15 T8 4W DIM	220 - 240V	4W	S15	300°	Ø26mm	221mm	2700K	350lm	G
LED TP S15 T8 6W DIM	220 - 240V	6W	S15	300°	Ø26mm	284mm	2700K	550lm	G
LED TP S19 T12 7W	220 - 240V	7W	S19	300°	Ø38mm	310mm	2700K	600lm	F
LED TP S19 T12 7W DIM	220 - 240V	7W	S19	300°	Ø38mm	310mm	2700K	600lm	F



T9 S14s Base



5W ~ 35W
8W ~ 60W

T9 S14d Base



5W ~ 35W
8W ~ 60W

T8 S15 Base /
T12 S19 Base

4W ~ 30W
6W ~ 60W
7W ~ 60W



TUBE



LED T5
P. 50 - 54



LED T8
P. 55 - 61



LED T5 DECORATIVE COLOR
P. 62 - 63



LED T8 SPECIAL COLOR
P. 64 - 69



LED PLL
P. 70 - 71

LED T5 HE ECG



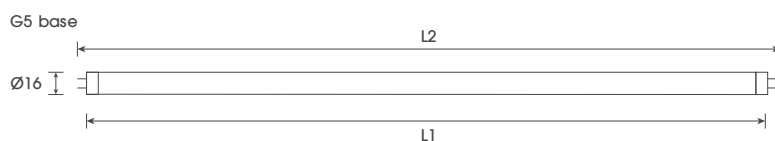
Features

- Energy saving with low power consumption
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Full glass body
- Good color rendition, Ra ≥ 80



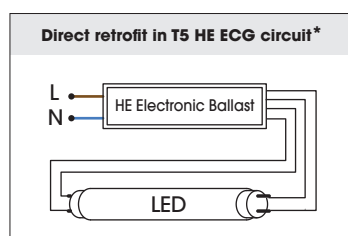
- No Re-wiring*
- Broad compatibility with ballasts

LED	HE
8W	~ 14W
12W	~ 21W
16W	~ 28W
20W	~ 35W



Model	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	ENERGY
LED F8T5/E/830/600	8W	3000K	270°	14W HE ECG	549mm / 563mm	110lm/W	880lm	F
LED F8T5/E/840/600	8W	4000K	270°	14W HE ECG	549mm / 563mm	115lm/W	920lm	F
LED F8T5/E/865/600	8W	6500K	270°	14W HE ECG	549mm / 563mm	120lm/W	960lm	E
LED F12T5/E/830/900	12W	3000K	270°	21W HE ECG	849mm / 863mm	110lm/W	1320lm	F
LED F12T5/E/840/900	12W	4000K	270°	21W HE ECG	849mm / 863mm	115lm/W	1380lm	F
LED F12T5/E/865/900	12W	6500K	270°	21W HE ECG	849mm / 863mm	120lm/W	1440lm	E
LED F16T5/E/830/1200	16W	3000K	270°	28W HE ECG	1149mm / 1163mm	110lm/W	1760lm	F
LED F16T5/E/840/1200	16W	4000K	270°	28W HE ECG	1149mm / 1163mm	115lm/W	1840lm	F
LED F16T5/E/865/1200	16W	6500K	270°	28W HE ECG	1149mm / 1163mm	120lm/W	1920lm	E
LED F20T5/E/830/1500	20W	3000K	270°	35W HE ECG	1449mm / 1463mm	110lm/W	2200lm	F
LED F20T5/E/840/1500	20W	4000K	270°	35W HE ECG	1449mm / 1463mm	115lm/W	2300lm	F
LED F20T5/E/865/1500	20W	6500K	270°	35W HE ECG	1449mm / 1463mm	120lm/W	2400lm	E

Actual performance may vary depending on ballast output



* Comply to EN62776

- Suitable for direct retrofit to 1x, 2x HE electronic ballast
- Compatible with T5 Fluorescent Emergency Kit
- Compatibility with 3x, 4x T5 fluo. HE electronic ballast depending on brand / model

LED T5 HO ECG



Features

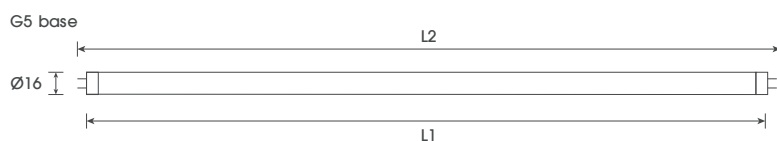
- Energy saving with low power consumption
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Full glass body
- Good color rendition, Ra ≥ 80



- No Re-wiring*
- Broad compatibility with ballasts

EUROPE

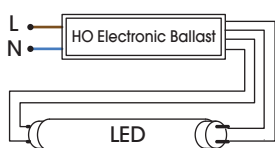
TUBE



Model	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	ENERG ⁺
LED F27T5/E/830/1200/HO/L	27W	3000K	270°	54W HO ECG	1149mm / 1163mm	130lm/W	3500lm	E
LED F27T5/E/840/1200/HO/L	27W	4000K	270°	54W HO ECG	1149mm / 1163mm	135lm/W	3650lm	E
LED F27T5/E/865/1200/HO/L	27W	6500K	270°	54W HO ECG	1149mm / 1163mm	139lm/W	3750lm	E
LED F27T5/E/830/1500/HO/L	27W	3000K	270°	49W HO ECG	1449mm / 1463mm	130lm/W	3500lm	E
LED F27T5/E/840/1500/HO/L	27W	4000K	270°	49W HO ECG	1449mm / 1463mm	135lm/W	3650lm	E
LED F27T5/E/865/1500/HO/L	27W	6500K	270°	49W HO ECG	1449mm / 1463mm	139lm/W	3750lm	E

Actual performance may vary depending on ballast output

Direct retrofit in T5 HO ECG circuit*



- Suitable for direct retrofit to 1x, 2x HO electronic ballast
- Compatible with T5 Fluorescent Emergency Kit
- Compatibility with 3x, 4x T5 fluo. HO electronic ballast depending on brand / model

* Comply to EN62776

LED T5 AC

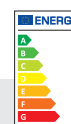
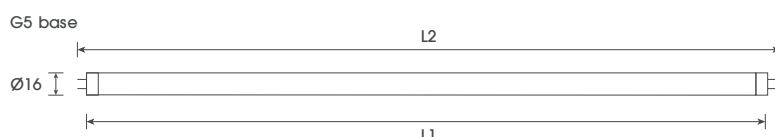


Features

- Energy saving with low power consumption
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Full glass body
- Voltage: 220-240Vac, 50/60Hz, Power Factor: 0.7
- Good color rendition, Ra ≥ 80

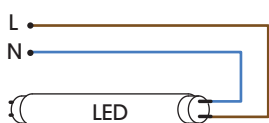


AC Input

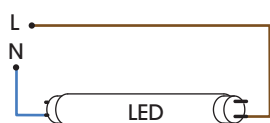


Model	Voltage	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	
LED F8T5/AC/830/600	220 - 240V	8W	3000K	270°	AC	549mm / 563mm	110lm/W	880lm	E
LED F8T5/AC/840/600	220 - 240V	8W	4000K	270°	AC	549mm / 563mm	115lm/W	920lm	E
LED F8T5/AC/865/600	220 - 240V	8W	6500K	270°	AC	549mm / 563mm	120lm/W	960lm	E
LED F12T5/AC/830/900	220 - 240V	12W	3000K	270°	AC	849mm / 863mm	110lm/W	1320lm	E
LED F12T5/AC/840/900	220 - 240V	12W	4000K	270°	AC	849mm / 863mm	115lm/W	1380lm	E
LED F12T5/AC/865/900	220 - 240V	12W	6500K	270°	AC	849mm / 863mm	120lm/W	1440lm	E
LED F16T5/AC/830/1200	220 - 240V	16W	3000K	270°	AC	1149mm / 1163mm	110lm/W	1760lm	E
LED F16T5/AC/840/1200	220 - 240V	16W	4000K	270°	AC	1149mm / 1163mm	115lm/W	1840lm	E
LED F16T5/AC/865/1200	220 - 240V	16W	6500K	270°	AC	1149mm / 1163mm	120lm/W	1920lm	E
LED F20T5/AC/830/1500	220 - 240V	20W	3000K	270°	AC	1449mm / 1463mm	110lm/W	2200lm	E
LED F20T5/AC/840/1500	220 - 240V	20W	4000K	270°	AC	1449mm / 1463mm	115lm/W	2300lm	E
LED F20T5/AC/865/1500	220 - 240V	20W	6500K	270°	AC	1449mm / 1463mm	120lm/W	2400lm	E

AC Input (Single End Version)



AC Input (Double End Version)



Direct 220 - 240V AC input. Integral LED driver

LED T5 AC HPF



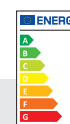
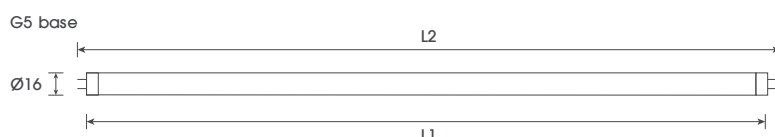
Features

- Energy saving with low power consumption
- High efficacy up to 155lm/W
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Full glass body
- Voltage: 120-240Vac, 50/60Hz, Power Factor: 0.9
- Good color rendition, Ra $\geq$ 80



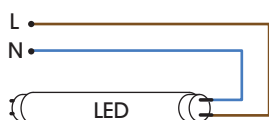
EUROPE

TUBE

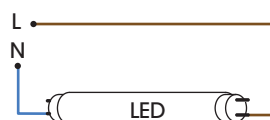


Model	Voltage	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	
HE Version									
LED F8T5/AC/830/600/L	120 - 240V	8W	3000K	270°	AC	549mm / 563mm	145lm/W	1160lm	D
LED F8T5/AC/840/600/L	120 - 240V	8W	4000K	270°	AC	549mm / 563mm	150lm/W	1200lm	D
LED F8T5/AC/865/600/L	120 - 240V	8W	6500K	270°	AC	549mm / 563mm	155lm/W	1240lm	D
LED F12T5/AC/830/900/L	120 - 240V	12W	3000K	270°	AC	849mm / 863mm	145lm/W	1740lm	D
LED F12T5/AC/840/900/L	120 - 240V	12W	4000K	270°	AC	849mm / 863mm	150lm/W	1800lm	D
LED F12T5/AC/865/900/L	120 - 240V	12W	6500K	270°	AC	849mm / 863mm	155lm/W	1860lm	D
LED F14T5/AC/830/1200/L	120 - 240V	14W	3000K	270°	AC	1149mm / 1163mm	145lm/W	2030lm	D
LED F14T5/AC/840/1200/L	120 - 240V	14W	4000K	270°	AC	1149mm / 1163mm	150lm/W	2100lm	D
LED F14T5/AC/865/1200/L	120 - 240V	14W	6500K	270°	AC	1149mm / 1163mm	155lm/W	2170lm	D
LED F20T5/AC/830/1500/L	120 - 240V	20W	3000K	270°	AC	1449mm / 1463mm	145lm/W	2900lm	D
LED F20T5/AC/840/1500/L	120 - 240V	20W	4000K	270°	AC	1449mm / 1463mm	150lm/W	3000lm	D
LED F20T5/AC/865/1500/L	120 - 240V	20W	6500K	270°	AC	1449mm / 1463mm	155lm/W	3100lm	D
HO Version									
LED F14T5/AC/830/600/L	120 - 240V	14W	3000K	270°	AC	549mm / 563mm	145lm/W	2030lm	D
LED F14T5/AC/840/600/L	120 - 240V	14W	4000K	270°	AC	549mm / 563mm	150lm/W	2100lm	D
LED F14T5/AC/865/600/L	120 - 240V	14W	6500K	270°	AC	549mm / 563mm	155lm/W	2170lm	D
LED F20T5/AC/830/900/L	120 - 240V	20W	3000K	270°	AC	849mm / 863mm	145lm/W	2900lm	D
LED F20T5/AC/840/900/L	120 - 240V	20W	4000K	270°	AC	849mm / 863mm	150lm/W	3000lm	D
LED F20T5/AC/865/900/L	120 - 240V	20W	6500K	270°	AC	849mm / 863mm	155lm/W	3100lm	D
LED F25T5/AC/830/1200/L	120 - 240V	25W	3000K	270°	AC	1149mm / 1163mm	145lm/W	3630lm	D
LED F25T5/AC/840/1200/L	120 - 240V	25W	4000K	270°	AC	1149mm / 1163mm	150lm/W	3750lm	D
LED F25T5/AC/865/1200/L	120 - 240V	25W	6500K	270°	AC	1149mm / 1163mm	155lm/W	3880lm	D
LED F25T5/AC/830/1500/L	120 - 240V	25W	3000K	270°	AC	1449mm / 1463mm	145lm/W	3630lm	D
LED F25T5/AC/840/1500/L	120 - 240V	25W	4000K	270°	AC	1449mm / 1463mm	150lm/W	3750lm	D
LED F25T5/AC/865/1500/L	120 - 240V	25W	6500K	270°	AC	1449mm / 1463mm	155lm/W	3880lm	D

AC Input (Single End Version)



AC Input (Double End Version)



Direct 120 - 240V AC input. Integral LED driver

LED T5 Global CC

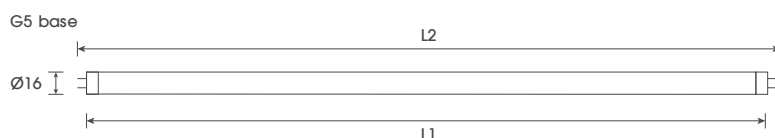


Features

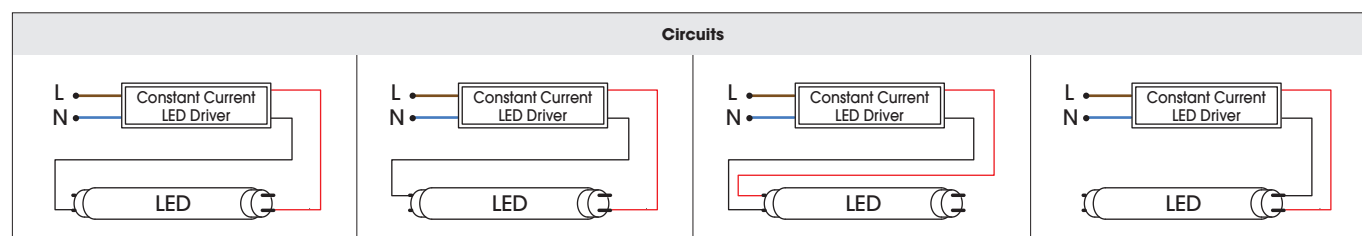
- Two pins connection allows flexible wiring for light up and bi-directional tube installation
- Auto-correcting polarity protection
- 12 types of wiring combination in one tube
- External constant current driver (UL Type C)
- High efficacy up to 150lm/W
- Wattage and lumen can be adjusted by a driver with lower output current
- Suitable for LED emergency lighting
- Remote driver allows for superior heat dissipation performance and longer average lifetime
- Dimming and control system integration is possible based on selected driver model
- No mercury and hazardous substances
- Energy saving with low power consumption
- Smooth operation even at low temperatures
- Full glass body
- Good color rendition, Ra ≥ 80



Dimming Options



Model	Wattage	Current	Voltage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	ENERGY
LED F4T5/CC/830/300	4W	C.C.350mA	9 - 13V	3000K	270°	UL Type C	288mm / 302mm	125lm/W	500lm	E
LED F4T5/CC/840/300	4W	C.C.350mA	9 - 13V	4000K	270°	UL Type C	288mm / 302mm	130lm/W	520lm	E
LED F4T5/CC/865/300	4W	C.C.350mA	9 - 13V	6500K	270°	UL Type C	288mm / 302mm	130lm/W	520lm	E
LED F8T5/CC/830/600	8W	C.C.350mA	21 - 25V	3000K	270°	UL Type C	549mm / 563mm	140lm/W	1120lm	E
LED F8T5/CC/840/600	8W	C.C.350mA	21 - 25V	4000K	270°	UL Type C	549mm / 563mm	150lm/W	1200lm	D
LED F8T5/CC/865/600	8W	C.C.350mA	21 - 25V	6500K	270°	UL Type C	549mm / 563mm	150lm/W	1200lm	D
LED F12T5/CC/830/900	12W	C.C.350mA	31 - 37V	3000K	270°	UL Type C	849mm / 863mm	140lm/W	1680lm	E
LED F12T5/CC/840/900	12W	C.C.350mA	31 - 37V	4000K	270°	UL Type C	849mm / 863mm	150lm/W	1800lm	D
LED F12T5/CC/865/900	12W	C.C.350mA	31 - 37V	6500K	270°	UL Type C	849mm / 863mm	150lm/W	1800lm	D
LED F16T5/CC/830/1200	16W	C.C.350mA	42 - 48V	3000K	270°	UL Type C	1149mm / 1163mm	140lm/W	2240lm	E
LED F16T5/CC/840/1200	16W	C.C.350mA	42 - 48V	4000K	270°	UL Type C	1149mm / 1163mm	150lm/W	2400lm	D
LED F16T5/CC/865/1200	16W	C.C.350mA	42 - 48V	6500K	270°	UL Type C	1149mm / 1163mm	150lm/W	2400lm	D
LED F20T5/CC/830/1500	20W	C.C.500mA	36 - 44V	3000K	270°	UL Type C	1449mm / 1463mm	140lm/W	2800lm	E
LED F20T5/CC/840/1500	20W	C.C.500mA	36 - 44V	4000K	270°	UL Type C	1449mm / 1463mm	150lm/W	3000lm	D
LED F20T5/CC/865/1500	20W	C.C.500mA	36 - 44V	6500K	270°	UL Type C	1449mm / 1463mm	150lm/W	3000lm	D
LED F28T5/CC/830/1500	28W	C.C.700mA	38 - 42V	3000K	270°	UL Type C	1449mm / 1463mm	114lm/W	3200lm	F
LED F28T5/CC/840/1500	28W	C.C.700mA	38 - 42V	4000K	270°	UL Type C	1449mm / 1463mm	121lm/W	3400lm	E
LED F28T5/CC/865/1500	28W	C.C.700mA	38 - 42V	6500K	270°	UL Type C	1449mm / 1463mm	121lm/W	3400lm	E



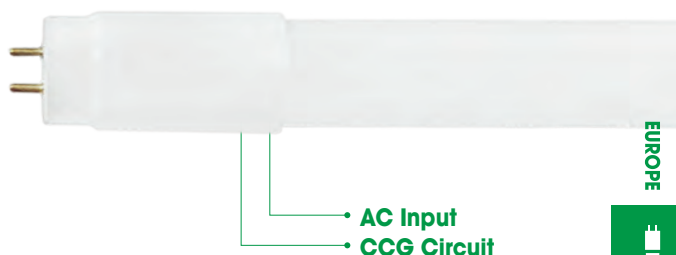
* Comply to EN62776

LED T8 Type A/B/SE



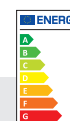
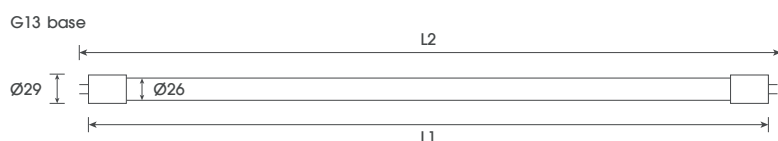
Features

- Energy saving with low power consumption
- Perfect retrofit traditional lamps with no change on dimensions
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Type A/B is for direct retrofit of magnetic ballast circuit
- Full glass body
- Voltage: 220-240Vac, 50/60Hz, Power Factor: 0.9
- High efficacy up to 140lm/W
- Good color rendition, Ra $\geq$ 80

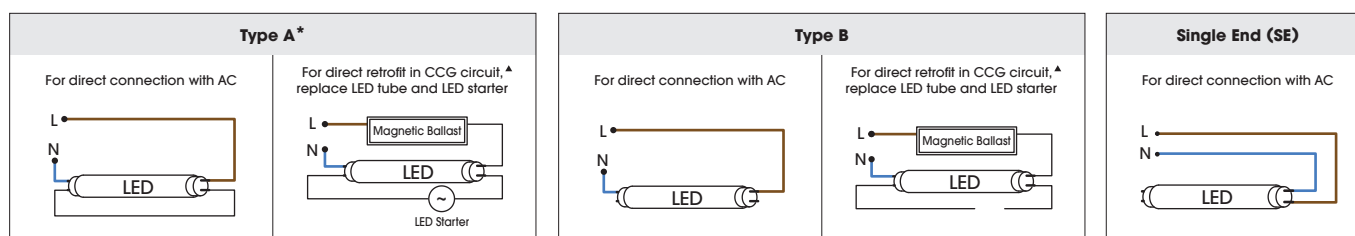


EUROPE

TUBE



Model	Voltage	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	
LED F10T8/830/G/600	220 - 240V	10W	3000K	280°	A / B / SE	588mm / 602mm	95lm/W	950lm	F
LED F10T8/840/G/600	220 - 240V	10W	4000K	280°	A / B / SE	588mm / 602mm	98lm/W	975lm	F
LED F10T8/865/G/600	220 - 240V	10W	6500K	280°	A / B / SE	588mm / 602mm	100lm/W	1000lm	F
LED F14T8/830/G/900	220 - 240V	14W	3000K	280°	A / B / SE	894mm / 906mm	100lm/W	1400lm	F
LED F14T8/840/G/900	220 - 240V	14W	4000K	280°	A / B / SE	894mm / 906mm	105lm/W	1475lm	F
LED F14T8/865/G/900	220 - 240V	14W	6500K	280°	A / B / SE	894mm / 906mm	111lm/W	1550lm	E
LED F20T8/830/G/1200	220 - 240V	20W	3000K	280°	A / B / SE	1198mm / 1212mm	105lm/W	2100lm	F
LED F20T8/840/G/1200	220 - 240V	20W	4000K	280°	A / B / SE	1198mm / 1212mm	108lm/W	2150lm	F
LED F20T8/865/G/1200	220 - 240V	20W	6500K	280°	A / B / SE	1198mm / 1212mm	110lm/W	2200lm	E
LED F24T8/830/G/1500	220 - 240V	24W	3000K	280°	A / B / SE	1500mm / 1513mm	105lm/W	2520lm	F
LED F24T8/840/G/1500	220 - 240V	24W	4000K	280°	A / B / SE	1500mm / 1513mm	108lm/W	2580lm	F
LED F24T8/865/G/1500	220 - 240V	24W	6500K	280°	A / B / SE	1500mm / 1513mm	110lm/W	2640lm	E
LED F30T8/830/G/1800	220 - 240V	30W	3000K	280°	A / B / SE	1800mm / 1813mm	108lm/W	3240lm	F
LED F30T8/840/G/1800	220 - 240V	30W	4000K	280°	A / B / SE	1800mm / 1813mm	112lm/W	3345lm	E
LED F30T8/865/G/1800	220 - 240V	30W	6500K	280°	A / B / SE	1800mm / 1813mm	115lm/W	3450lm	E



* Comply to EN62776

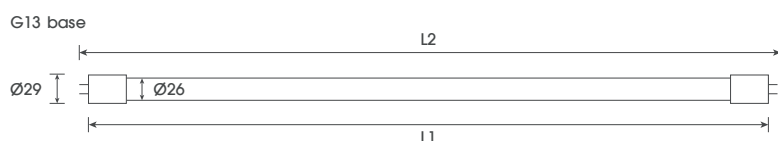
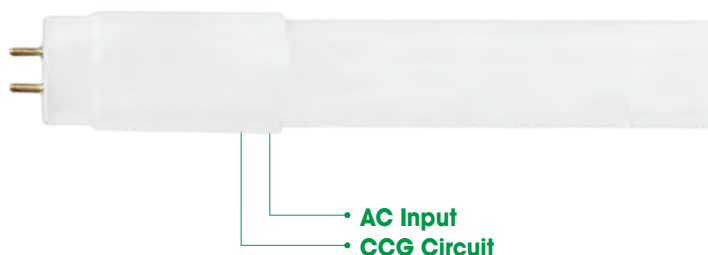
▲ Recommend to remove the parallel capacitor (if any) to achieve HPF

LED T8 HO Type A / B / SE

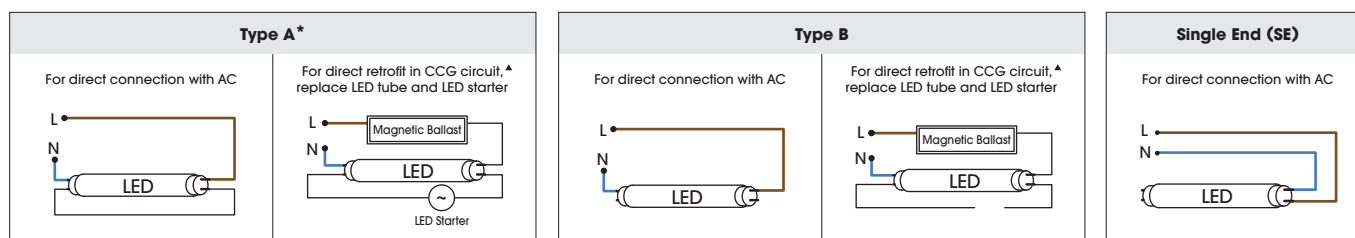


Features

- Energy saving with low power consumption
- Perfect retrofit traditional lamps with no change on dimensions
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Type A/B is for direct retrofit of magnetic ballast circuit
- High efficacy up to 136lm/W
- Full glass body
- Voltage: 220-240Vac, 50/60Hz, Power Factor: 0.9
- Good color rendition, Ra ≥ 80



Model	Voltage	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	
LED F9T8/830/G/600	220 - 240V	9W	3000K	280°	A / B / SE	588mm / 602mm	128lm/W	1150lm	E
LED F9T8/840/G/600	220 - 240V	9W	4000K	280°	A / B / SE	588mm / 602mm	132lm/W	1190lm	E
LED F9T8/865/G/600	220 - 240V	9W	6500K	280°	A / B / SE	588mm / 602mm	136lm/W	1220lm	D
LED F14T8/830/G/900	220 - 240V	14W	3000K	280°	A / B / SE	894mm / 906mm	130lm/W	1820lm	E
LED F14T8/840/G/900	220 - 240V	14W	4000K	280°	A / B / SE	894mm / 906mm	133lm/W	1860lm	E
LED F14T8/865/G/900	220 - 240V	14W	6500K	280°	A / B / SE	894mm / 906mm	135lm/W	1890lm	D
LED F22T8/830/G/1200	220 - 240V	22W	3000K	280°	A / B / SE	1198mm / 1212mm	115lm/W	2530lm	E
LED F22T8/840/G/1200	220 - 240V	22W	4000K	280°	A / B / SE	1198mm / 1212mm	118lm/W	2590lm	E
LED F22T8/865/G/1200	220 - 240V	22W	6500K	280°	A / B / SE	1198mm / 1212mm	120lm/W	2640lm	E
LED F32T8/830/G/1500	220 - 240V	32W	3000K	280°	A / B / SE	1500mm / 1513mm	116lm/W	3700lm	E
LED F32T8/840/G/1500	220 - 240V	32W	4000K	280°	A / B / SE	1500mm / 1513mm	118lm/W	3770lm	E
LED F32T8/865/G/1500	220 - 240V	32W	6500K	280°	A / B / SE	1500mm / 1513mm	120lm/W	3840lm	E



* Comply to EN62776

▲ Recommend to remove the parallel capacitor (if any) to achieve HPF

LED T8 SENSOR Type A / B / SE

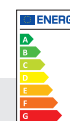
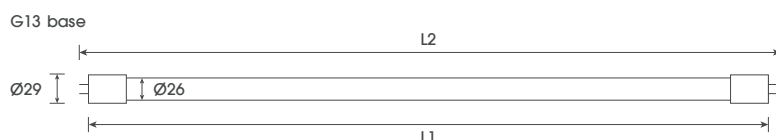
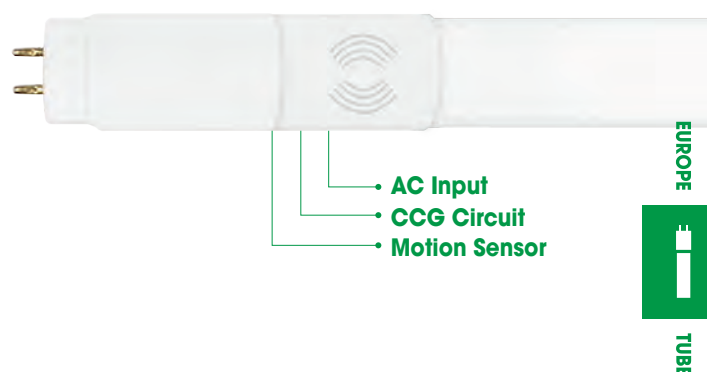


Features

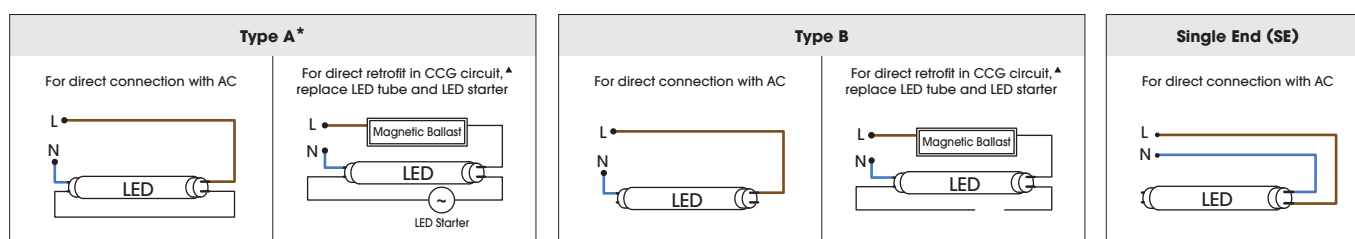
- Energy saving with low power consumption
- Perfect retrofit traditional lamps with no change on dimensions
- Motion sensing suitable for long distance detection environment
- Standby time and standby power can be adjusted according to customer requirements
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Type A/B is for direct retrofit of magnetic ballast circuit
- Full glass body
- Voltage: 100-240Vac, 50/60Hz, Power Factor: 0.9
- Good color rendition, Ra ≥ 80

Sensor Specifications

- Sensor type: Microwave radar
- Sensor distance: 1-10m
- Standby time: 30s (2-60s available upon request)
- Standby power: 4W (0.2-4W available upon request)
- Standby luminous flux: 500lm (0-500lm available upon request)
- Sensor detection angle: 120°



Model	Voltage	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	ENERGY STAR
LED F9T8/830/G/S/600	100 - 240V	9W	3000K	280°	A / B / SE	588mm / 602mm	110lm/W	990lm	E
LED F9T8/840/G/S/600	100 - 240V	9W	4000K	280°	A / B / SE	588mm / 602mm	116lm/W	1040lm	E
LED F9T8/865/G/S/600	100 - 240V	9W	6500K	280°	A / B / SE	588mm / 602mm	120lm/W	1080lm	E
LED F14T8/830/G/S/900	100 - 240V	14W	3000K	280°	A / B / SE	894mm / 906mm	110lm/W	1540lm	E
LED F14T8/840/G/S/900	100 - 240V	14W	4000K	280°	A / B / SE	894mm / 906mm	115lm/W	1610lm	E
LED F14T8/865/G/S/900	100 - 240V	14W	6500K	280°	A / B / SE	894mm / 906mm	120lm/W	1680lm	E
LED F22T8/830/G/S/1200	100 - 240V	22W	3000K	280°	A / B / SE	1198mm / 1212mm	110lm/W	2420lm	E
LED F22T8/840/G/S/1200	100 - 240V	22W	4000K	280°	A / B / SE	1198mm / 1212mm	115lm/W	2530lm	E
LED F22T8/865/G/S/1200	100 - 240V	22W	6500K	280°	A / B / SE	1198mm / 1212mm	120lm/W	2640lm	E
LED F24T8/830/G/S/1500	100 - 240V	24W	3000K	280°	A / B / SE	1500mm / 1513mm	110lm/W	2640lm	E
LED F24T8/840/G/S/1500	100 - 240V	24W	4000K	280°	A / B / SE	1500mm / 1513mm	115lm/W	2760lm	E
LED F24T8/865/G/S/1500	100 - 240V	24W	6500K	280°	A / B / SE	1500mm / 1513mm	120lm/W	2880lm	E



* Comply to EN62776

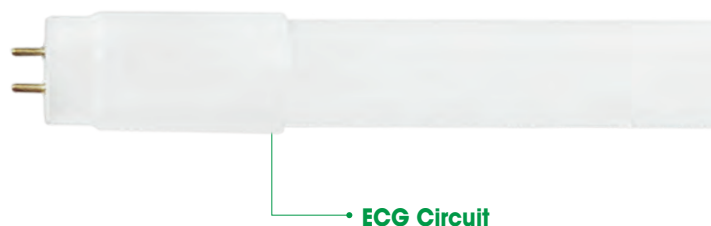
▲ Recommend to remove the parallel capacitor (if any) to achieve HPP

LED T8 ECG



Features

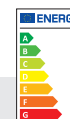
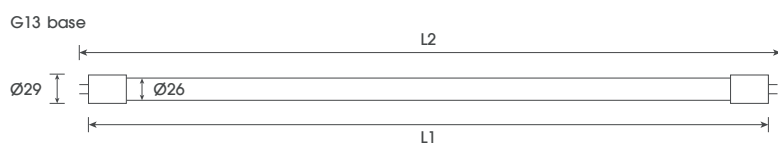
- Energy saving with low power consumption
- Perfect retrofit traditional lamps with no change on dimensions
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Direct retrofit for electronic ballast circuit
- Full glass body
- Good color rendition, Ra ≥ 80



EUROPE

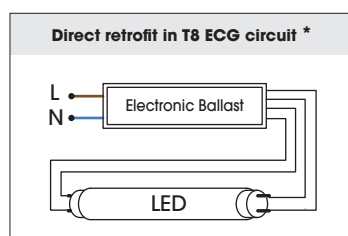
TUBE

TUBE



Model	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	ENERGY
LED F9T8/E/830/G/600	9W	3000K	280°	18W ECG	588mm / 602mm	127lm/W	1140lm	E
LED F9T8/E/840/G/600	9W	4000K	280°	18W ECG	588mm / 602mm	130lm/W	1170lm	E
LED F9T8/E/865/G/600	9W	6500K	280°	18W ECG	588mm / 602mm	133lm/W	1200lm	E
LED F14T8/E/830/G/900	14W	3000K	280°	30W ECG	894mm / 906mm	125lm/W	1750lm	E
LED F14T8/E/840/G/900	14W	4000K	280°	30W ECG	894mm / 906mm	129lm/W	1800lm	E
LED F14T8/E/865/G/900	14W	6500K	280°	30W ECG	894mm / 906mm	132lm/W	1850lm	E
LED F18T8/E/830/G/1200	18W	3000K	280°	36W ECG	1198mm / 1212mm	129lm/W	2330lm	E
LED F18T8/E/840/G/1200	18W	4000K	280°	36W ECG	1198mm / 1212mm	133lm/W	2390lm	E
LED F18T8/E/865/G/1200	18W	6500K	280°	36W ECG	1198mm / 1212mm	136lm/W	2450lm	E
LED F24T8/E/830/G/1500	24W	3000K	280°	58W ECG	1500mm / 1513mm	127lm/W	3040lm	E
LED F24T8/E/840/G/1500	24W	4000K	280°	58W ECG	1500mm / 1513mm	130lm/W	3120lm	E
LED F24T8/E/865/G/1500	24W	6500K	280°	58W ECG	1500mm / 1513mm	133lm/W	3200lm	E

Actual performance may vary depending on ballast output



* Comply to EN62776

LED T8 AC EM Type A / B / SE



Features

- Energy saving with low power consumption
- Perfect retrofit traditional lamps with no change on dimensions
- Re-wiring is required for replacement of specialized emergency kit
- Type A/B is suitable for both direct AC input and LED emergency lighting
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Full glass body
- Good color rendition, Ra ≥ 80

Emergency Driver Battery Kit

- 2-in-1 LED Test switch and indicator light



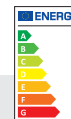
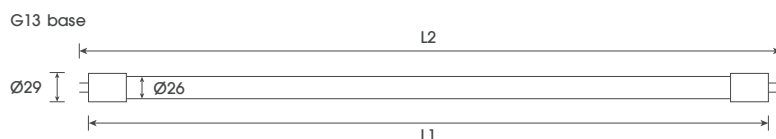
Input Wattage: 5W
 Input Voltage: 120 - 240V
 Imax: 200mA

Output Wattage: 5W max.
 Output Current: Load dependent
 Output Voltage: 40 - 250V DC

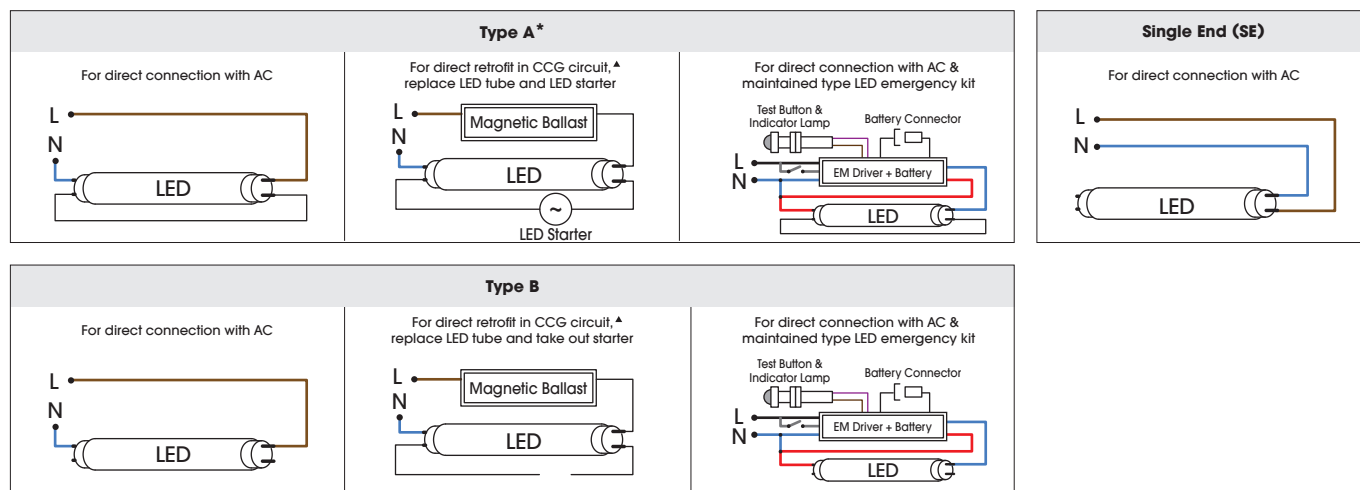


3W 3hr 4W 2hr 5W 1hr

Operation Temperature: 0 - 50°C
 Battery Voltage & Capacity: 14.4V 850mAh NiMH
 Charging time: 24 hours
 Emergency Starting Time: <0.5s



Model	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	
LED F9T8/EM/830/G/600	9W	3000K	280°	A / B / SE	588mm / 602mm	135lm/W	1220lm	D
LED F9T8/EM/840/G/600	9W	4000K	280°	A / B / SE	588mm / 602mm	138lm/W	1240lm	D
LED F9T8/EM/865/G/600	9W	6500K	280°	A / B / SE	588mm / 602mm	140lm/W	1260lm	D
LED F18T8/EM/830/G/1200	18W	3000K	280°	A / B / SE	1198mm / 1212mm	135lm/W	2430lm	D
LED F18T8/EM/840/G/1200	18W	4000K	280°	A / B / SE	1198mm / 1212mm	138lm/W	2480lm	D
LED F18T8/EM/865/G/1200	18W	6500K	280°	A / B / SE	1198mm / 1212mm	140lm/W	2520lm	D
LED F24T8/EM/830/G/1500	24W	3000K	280°	A / B / SE	1500mm / 1513mm	135lm/W	3240lm	D
LED F24T8/EM/840/G/1500	24W	4000K	280°	A / B / SE	1500mm / 1513mm	138lm/W	3310lm	D
LED F24T8/EM/865/G/1500	24W	6500K	280°	A / B / SE	1500mm / 1513mm	140lm/W	3360lm	D



* Comply to EN62776

▲ Recommend to remove the parallel capacitor (if any) to achieve HPF

LED T8 Type C

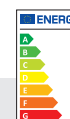
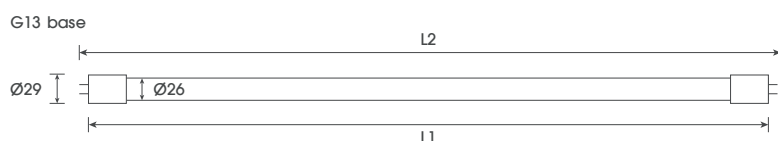


Features

- Energy saving with low power consumption
- Perfect retrofit traditional lamps with no re-wiring
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Compatible with T8 fluorescent emergency kit
- Housing: Aluminium + PC
- Good color rendition, Ra ≥ 80

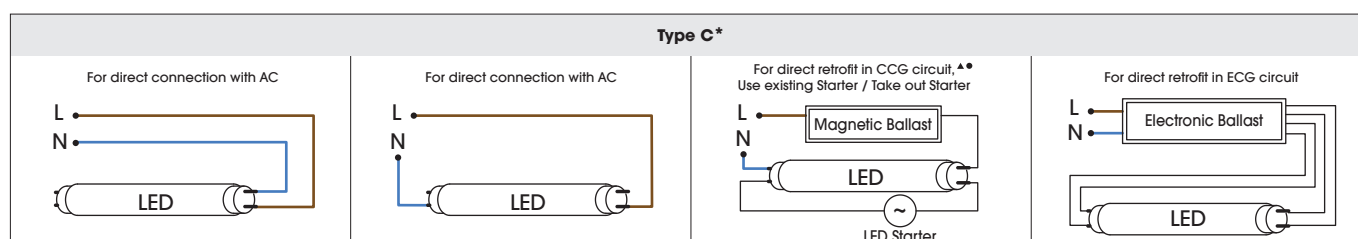


- No Re-wiring*
- AC Input
- CCG & ECG Circuit



Model	Voltage	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	
LED F10T8/C/830/600	110 - 240V	10W	3000K	160°	Type C	590mm / 604mm	100lm/W	1000lm	F
LED F10T8/C/840/600	110 - 240V	10W	4000K	160°	Type C	590mm / 604mm	105lm/W	1050lm	F
LED F10T8/C/865/600	110 - 240V	10W	6500K	160°	Type C	590mm / 604mm	110lm/W	1100lm	E
LED F18T8/C/830/1200	110 - 240V	18W	3000K	160°	Type C	1200mm / 1213mm	101lm/W	1820lm	F
LED F18T8/C/840/1200	110 - 240V	18W	4000K	160°	Type C	1200mm / 1213mm	105lm/W	1890lm	F
LED F18T8/C/865/1200	110 - 240V	18W	6500K	160°	Type C	1200mm / 1213mm	110lm/W	1980lm	E
LED F24T8/C/830/1500	110 - 240V	24W	3000K	160°	Type C	1500mm / 1513mm	104lm/W	2500lm	F
LED F24T8/C/840/1500	110 - 240V	24W	4000K	160°	Type C	1500mm / 1513mm	106lm/W	2550lm	F
LED F24T8/C/865/1500	110 - 240V	24W	6500K	160°	Type C	1500mm / 1513mm	110lm/W	2640lm	E

Actual performance may vary depending on ballast output



* Comply to EN62776

• Tandem circuit is not applicable

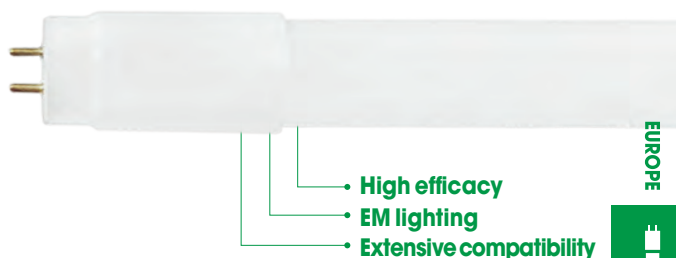
▲ Recommend to remove the parallel capacitor (If any) to achieve HPF

LED T8 Global CC



Features

- Two pins connection allows flexible wiring for light up and bi-directional tube installation
- Auto-correcting polarity protection
- 12 types of wiring combination in one tube
- External constant current driver (UL Type C)
- High efficacy up to 134lm/W
- Wattage and lumen can be adjusted by a driver with lower output current
- Suitable for LED emergency lighting
- Remote driver allows for superior heat dissipation performance and longer average lifetime
- Dimming and control system integration is possible based on selected driver model
- No mercury and hazardous substances
- Energy saving with low power consumption
- Smooth operation even at low temperatures
- Full glass body
- Good color rendition, Ra ≥80



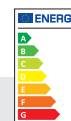
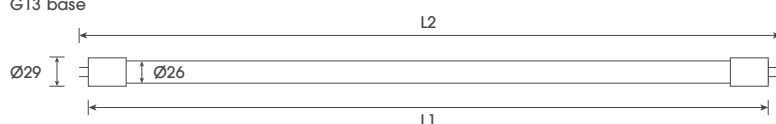
EUROPE

TUBE

Dimming Options

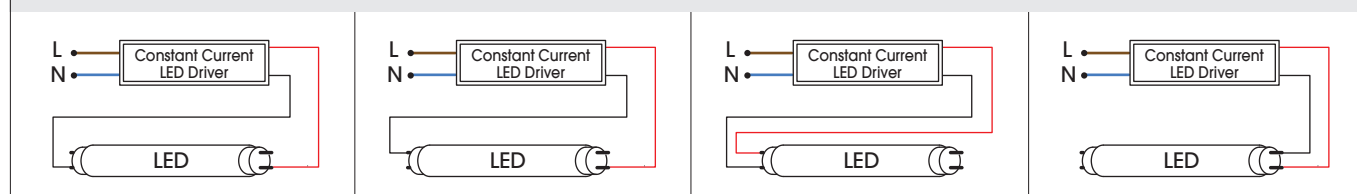


G13 base



Model	Wattage	Current	Voltage	Color Temp	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen	Energy Star
LED F13T8/830/G/CC/600	13W	C.C.700mA	17 - 22V	3000K	280°	UL Type C	588mm / 602mm	115lm/W	1500lm	F
LED F13T8/840/G/CC/600	13W	C.C.700mA	17 - 22V	4000K	280°	UL Type C	588mm / 602mm	123lm/W	1600lm	E
LED F13T8/850/G/CC/600	13W	C.C.700mA	17 - 22V	5000K	280°	UL Type C	588mm / 602mm	131lm/W	1700lm	E
LED F13T8/865/G/CC/600	13W	C.C.700mA	17 - 22V	6500K	280°	UL Type C	588mm / 602mm	131lm/W	1700lm	E
LED F19T8/830/G/CC/900	19W	C.C.700mA	25 - 30V	3000K	280°	UL Type C	894mm / 906mm	116lm/W	2200lm	F
LED F19T8/840/G/CC/900	19W	C.C.700mA	25 - 30V	4000K	280°	UL Type C	894mm / 906mm	121lm/W	2300lm	E
LED F19T8/850/G/CC/900	19W	C.C.700mA	25 - 30V	5000K	280°	UL Type C	894mm / 906mm	126lm/W	2400lm	E
LED F19T8/865/G/CC/900	19W	C.C.700mA	25 - 30V	6500K	280°	UL Type C	894mm / 906mm	126lm/W	2400lm	E
LED F31T8/830/G/CC/1200	31W	C.C.1050mA	28 - 33V	3000K	280°	UL Type C	1198mm / 1212mm	123lm/W	3800lm	E
LED F31T8/840/G/CC/1200	31W	C.C.1050mA	28 - 33V	4000K	280°	UL Type C	1198mm / 1212mm	126lm/W	3900lm	E
LED F31T8/850/G/CC/1200	31W	C.C.1050mA	28 - 33V	5000K	280°	UL Type C	1198mm / 1212mm	129lm/W	4000lm	E
LED F31T8/865/G/CC/1200	31W	C.C.1050mA	28 - 33V	6500K	280°	UL Type C	1198mm / 1212mm	129lm/W	4000lm	E
LED F41T8/830/G/CC/1500	41W	C.C.1050mA	36 - 41V	3000K	280°	UL Type C	1500mm / 1513mm	129lm/W	5300lm	E
LED F41T8/840/G/CC/1500	41W	C.C.1050mA	36 - 41V	4000K	280°	UL Type C	1500mm / 1513mm	132lm/W	5400lm	E
LED F41T8/850/G/CC/1500	41W	C.C.1050mA	36 - 41V	5000K	280°	UL Type C	1500mm / 1513mm	134lm/W	5500lm	E
LED F41T8/865/G/CC/1500	41W	C.C.1050mA	36 - 41V	6500K	280°	UL Type C	1500mm / 1513mm	134lm/W	5500lm	E
LED F41T8/830/G/CC/1500/2	41W	C.C.1400mA	27 - 31V	3000K	280°	UL Type C	1500mm / 1513mm	129lm/W	5300lm	E
LED F41T8/840/G/CC/1500/2	41W	C.C.1400mA	27 - 31V	4000K	280°	UL Type C	1500mm / 1513mm	132lm/W	5400lm	E
LED F41T8/850/G/CC/1500/2	41W	C.C.1400mA	27 - 31V	5000K	280°	UL Type C	1500mm / 1513mm	134lm/W	5500lm	E
LED F41T8/865/G/CC/1500/2	41W	C.C.1400mA	27 - 31V	6500K	280°	UL Type C	1500mm / 1513mm	134lm/W	5500lm	E

Circuits

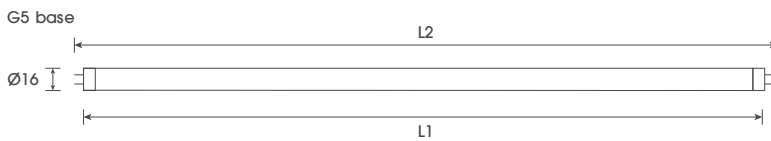
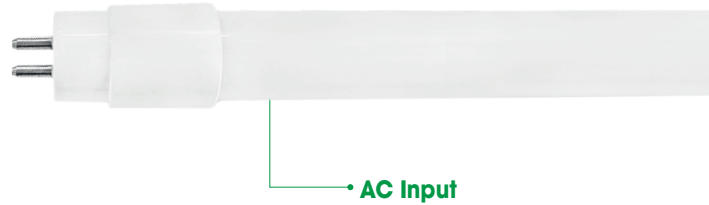


LED T5 Decorative Color AC

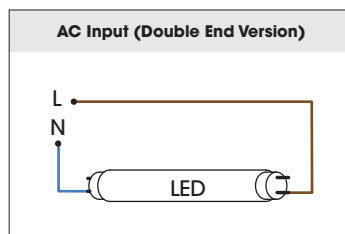
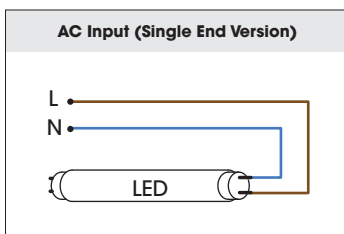


Features

- Energy saving with low power consumption
- Vivid colors in red / green / yellow / blue for decorative purposes
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Full glass body
- Voltage: 120-240Vac, 50/60Hz, Power Factor: 0.6



Model	Voltage	Wattage	Color	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen
LED F8T5/AC/RED/600	120 - 240V	8W	Red	270°	AC	549mm / 563mm	18lm/W	140lm
LED F8T5/AC/GREEN/600	120 - 240V	8W	Green	270°	AC	549mm / 563mm	78lm/W	620lm
LED F8T5/AC/YELLOW/600	120 - 240V	8W	Yellow	270°	AC	549mm / 563mm	20lm/W	160lm
LED F8T5/AC/BLUE/600	120 - 240V	8W	Blue	270°	AC	549mm / 563mm	16lm/W	130lm
LED F12T5/AC/RED/900	120 - 240V	12W	Red	270°	AC	849mm / 863mm	18lm/W	210lm
LED F12T5/AC/GREEN/900	120 - 240V	12W	Green	270°	AC	849mm / 863mm	78lm/W	930lm
LED F12T5/AC/YELLOW/900	120 - 240V	12W	Yellow	270°	AC	849mm / 863mm	20lm/W	240lm
LED F12T5/AC/BLUE/900	120 - 240V	12W	Blue	270°	AC	849mm / 863mm	16lm/W	190lm
LED F16T5/AC/RED/1200	120 - 240V	16W	Red	270°	AC	1149mm / 1163mm	18lm/W	280lm
LED F16T5/AC/GREEN/1200	120 - 240V	16W	Green	270°	AC	1149mm / 1163mm	75lm/W	1200lm
LED F16T5/AC/YELLOW/1200	120 - 240V	16W	Yellow	270°	AC	1149mm / 1163mm	20lm/W	320lm
LED F16T5/AC/BLUE/1200	120 - 240V	16W	Blue	270°	AC	1149mm / 1163mm	16lm/W	260lm
LED F20T5/AC/RED/1500	120 - 240V	20W	Red	270°	AC	1449mm / 1463mm	18lm/W	350lm
LED F20T5/AC/GREEN/1500	120 - 240V	20W	Green	270°	AC	1449mm / 1463mm	78lm/W	1560lm
LED F20T5/AC/YELLOW/1500	120 - 240V	20W	Yellow	270°	AC	1449mm / 1463mm	20lm/W	400lm
LED F20T5/AC/BLUE/1500	120 - 240V	20W	Blue	270°	AC	1449mm / 1463mm	16lm/W	320lm



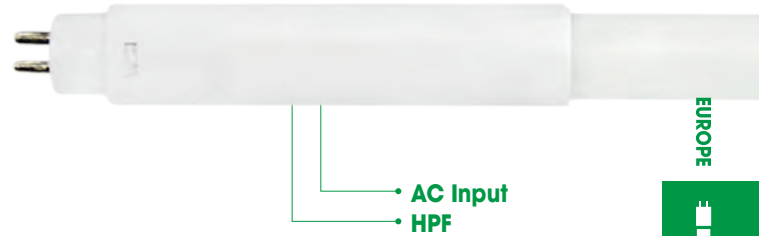
Direct 120 - 240V AC input. Integral LED driver.

LED T5 Decorative Color AC HPF



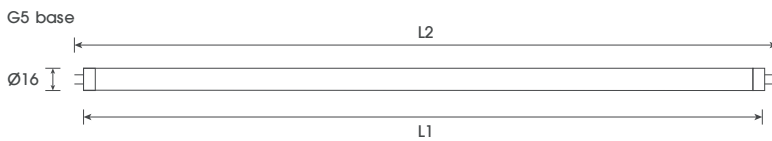
Features

- Energy saving with low power consumption
- Vivid colors in red / green / yellow / blue for decorative purposes
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Full glass body
- Voltage: 120-240Vac, 50/60Hz, Power Factor: 0.9

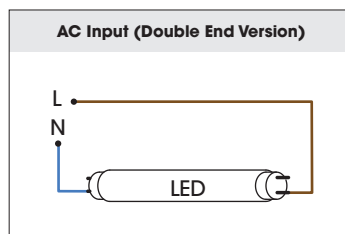
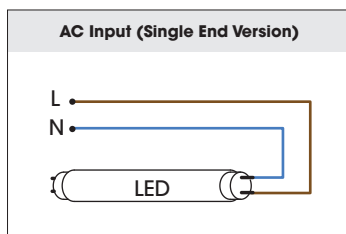


EUROPE

TUBE



Model	Voltage	Wattage	Color	Beam Angle	Type	Length L1 / L2	Efficacy	Lumen
LED F14T5/AC/RED/600/L	120 - 240V	14W	Red	270°	AC	549mm / 563mm	18lm/W	250lm
LED F14T5/AC/GREEN/600/L	120 - 240V	14W	Green	270°	AC	549mm / 563mm	79lm/W	1100lm
LED F14T5/AC/YELLOW/600/L	120 - 240V	14W	Yellow	270°	AC	549mm / 563mm	20lm/W	280lm
LED F14T5/AC/BLUE/600/L	120 - 240V	14W	Blue	270°	AC	549mm / 563mm	17lm/W	230lm
LED F20T5/AC/RED/900/L	120 - 240V	20W	Red	270°	AC	849mm / 863mm	18lm/W	360lm
LED F20T5/AC/GREEN/900/L	120 - 240V	20W	Green	270°	AC	849mm / 863mm	80lm/W	1600lm
LED F20T5/AC/YELLOW/900/L	120 - 240V	20W	Yellow	270°	AC	849mm / 863mm	20lm/W	400lm
LED F20T5/AC/BLUE/900/L	120 - 240V	20W	Blue	270°	AC	849mm / 863mm	17lm/W	350lm
LED F25T5/AC/RED/1200/L	120 - 240V	25W	Red	270°	AC	1149mm / 1163mm	18lm/W	450lm
LED F25T5/AC/GREEN/1200/L	120 - 240V	25W	Green	270°	AC	1149mm / 1163mm	80lm/W	2000lm
LED F25T5/AC/YELLOW/1200/L	120 - 240V	25W	Yellow	270°	AC	1149mm / 1163mm	20lm/W	500lm
LED F25T5/AC/BLUE/1200/L	120 - 240V	25W	Blue	270°	AC	1149mm / 1163mm	17lm/W	430lm
LED F25T5/AC/RED/1500/L	120 - 240V	25W	Red	270°	AC	1449mm / 1463mm	18lm/W	450lm
LED F25T5/AC/GREEN/1500/L	120 - 240V	25W	Green	270°	AC	1449mm / 1463mm	80lm/W	2000lm
LED F25T5/AC/YELLOW/1500/L	120 - 240V	25W	Yellow	270°	AC	1449mm / 1463mm	20lm/W	500lm
LED F25T5/AC/BLUE/1500/L	120 - 240V	25W	Blue	270°	AC	1449mm / 1463mm	17lm/W	430lm



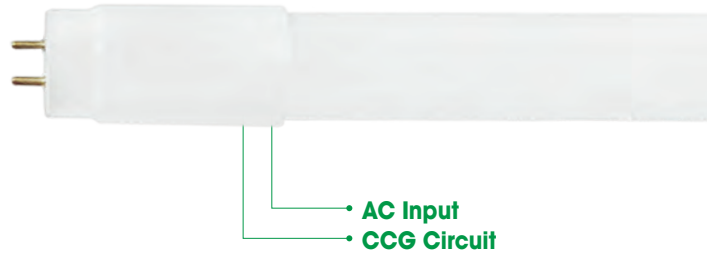
Direct 120 - 240V AC input. Integral LED driver.

LED T8 SPECIAL COLOR Type A/B/SE

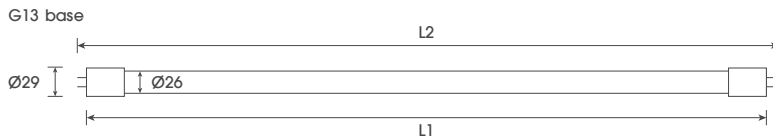


Features

- Energy saving with low power consumption
- Perfect retrofit traditional lamps with no change on dimensions
- Red enhancement for natural color display
- Food tube for better fresh food appearance and discoloration prevention
- Yellow tube for special lighting in lithographic and printing industry
- Agricultural tube emits optimal purple color to speed up photosynthesis
- Aquarium tube in blue and red color spectrum enhances the coral growth
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Type A/B is for direct retrofit of magnetic ballast circuit
- Full glass body
- Voltage: 110-277Vac, 50/60Hz, Power Factor: 0.9



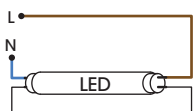
Special Color



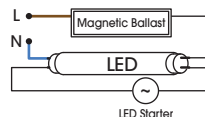
Model	Voltage	Wattage	Color	Color Temp	Ra	Beam Angle	Type	Length L1 / L2	Lumen
LED F10T8/827/G/600/YE	110 - 277V	10W	Yellow Enhancement	2700K	>80	280°	A / B / SE	588mm / 602mm	900lm
LED F10T8/836/G/600/RE	110 - 277V	10W	Red Enhancement	3600K	>80	280°	A / B / SE	588mm / 602mm	1000lm
LED F10T8/925/G/600/FM	110 - 277V	10W	Fresh Meat	2500K	>90	280°	A / B / SE	588mm / 602mm	540lm
LED F10T8/880/G/600/WE	110 - 277V	10W	White Enhancement	8000K	>80	280°	A / B / SE	588mm / 602mm	1100lm
LED F10T8/627/G/600/YL	110 - 277V	10W	Yellow	2740K	>60	280°	A / B / SE	588mm / 602mm	1200lm
LED F10T8/213/G/600/AG	110 - 277V	10W	Agricultural (Purple)	1300K	>20	280°	A / B / SE	588mm / 602mm	300lm
LED F10T8/210/G/600/AQ	110 - 277V	10W	Aquarium (Blue + White)	16000-20000K	>20	280°	A / B / SE	588mm / 602mm	330lm
LED F14T8/827/G/900/YE	110 - 277V	14W	Yellow Enhancement	2700K	>80	280°	A / B / SE	894mm / 906mm	1150lm
LED F14T8/836/G/900/RE	110 - 277V	14W	Red Enhancement	3600K	>80	280°	A / B / SE	894mm / 906mm	1250lm
LED F14T8/925/G/900/FM	110 - 277V	14W	Fresh Meat	2500K	>90	280°	A / B / SE	894mm / 906mm	850lm
LED F14T8/880/G/900/WE	110 - 277V	14W	White Enhancement	8000K	>80	280°	A / B / SE	894mm / 906mm	1350lm
LED F14T8/627/G/900/YL	110 - 277V	14W	Yellow	2740K	>60	280°	A / B / SE	894mm / 906mm	1600lm
LED F14T8/213/G/900/AG	110 - 277V	14W	Agricultural (Purple)	1300K	>20	280°	A / B / SE	894mm / 906mm	400lm
LED F14T8/210/G/900/AQ	110 - 277V	14W	Aquarium (Blue + White)	16000-20000K	>20	280°	A / B / SE	894mm / 906mm	470lm
LED F22T8/827/G/1200/YE	110 - 277V	22W	Yellow Enhancement	2700K	>80	280°	A / B / SE	1198mm / 1212mm	1850lm
LED F22T8/836/G/1200/RE	110 - 277V	22W	Red Enhancement	3600K	>80	280°	A / B / SE	1198mm / 1212mm	2050lm
LED F22T8/925/G/1200/FM	110 - 277V	22W	Fresh Meat	2500K	>90	280°	A / B / SE	1198mm / 1212mm	1550lm
LED F22T8/880/G/1200/WE	110 - 277V	22W	White Enhancement	8000K	>80	280°	A / B / SE	1198mm / 1212mm	2250lm
LED F22T8/627/G/1200/YL	110 - 277V	22W	Yellow	2740K	>60	280°	A / B / SE	1198mm / 1212mm	2400lm
LED F22T8/213/G/1200/AG	110 - 277V	22W	Agricultural (Purple)	1300K	>20	280°	A / B / SE	1198mm / 1212mm	600lm
LED F22T8/210/G/1200/AQ	110 - 277V	22W	Aquarium (Blue + White)	16000-20000K	>20	280°	A / B / SE	1198mm / 1212mm	750lm
LED F24T8/827/G/1500/YE	110 - 277V	24W	Yellow Enhancement	2700K	>80	280°	A / B / SE	1500mm / 1513mm	1950lm
LED F24T8/836/G/1500/RE	110 - 277V	24W	Red Enhancement	3600K	>80	280°	A / B / SE	1500mm / 1513mm	2150lm
LED F24T8/925/G/1500/FM	110 - 277V	24W	Fresh Meat	2500K	>90	280°	A / B / SE	1500mm / 1513mm	1700lm
LED F24T8/880/G/1500/WE	110 - 277V	24W	White Enhancement	8000K	>80	280°	A / B / SE	1500mm / 1513mm	2350lm
LED F24T8/627/G/1500/YL	110 - 277V	24W	Yellow	2740K	>60	280°	A / B / SE	1500mm / 1513mm	2600lm
LED F24T8/213/G/1500/AG	110 - 277V	24W	Agricultural (Purple)	1300K	>20	280°	A / B / SE	1500mm / 1513mm	650lm
LED F24T8/210/G/1500/AQ	110 - 277V	24W	Aquarium (Blue + White)	16000-20000K	>20	280°	A / B / SE	1500mm / 1513mm	820lm

Type A*

For direct connection with AC

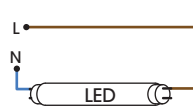


For direct retrofit in CCG circuit,* replace LED tube and LED starter

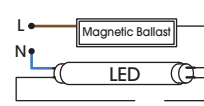


Type B

For direct connection with AC

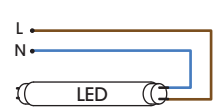


For direct retrofit in CCG circuit,* replace LED tube and LED starter



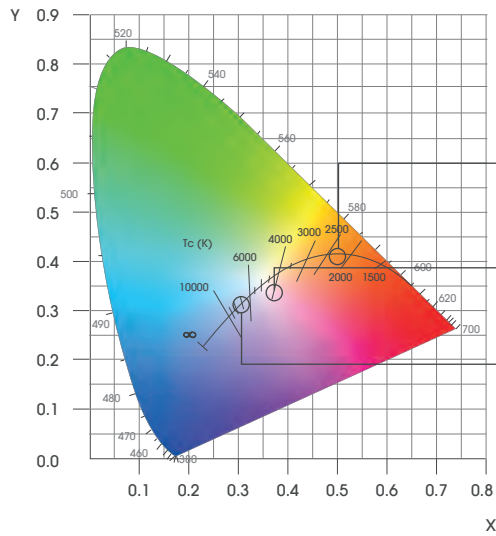
Single End (SE)

For direct connection with AC



* Comply to EN62776

* Recommend to remove the parallel capacitor (if any) to achieve HPF



Colors of LED Food Display Tube

Yellow Enhancement

LED F22T8/827/G/1200/YE

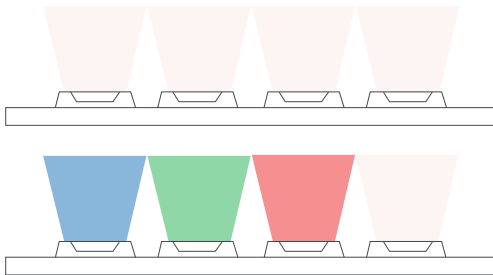
Red Enhancement

LED F22T8/836/G/1200/RE

White Enhancement

LED F22T8/880/G/1200/WE

EUROPE
TUBE



Customization of Special Color Spectrum

We can customize a special color spectrum of LED T8 based on the sample provisions, via the methods below:

1. Special mixed phosphor powder
2. Combination of red, blue, green and white color chips in specific ratio
3. Special color spectra for food display

Yellow Enhancement

Red Enhancement

White Enhancement



Food Display

- To enhance the appearance of fresh food
- Prevent discoloration





Order Code: LED F22T8/827/G/1200/YE
Ref.: Sylvania Food Star Bread

Yellow Enhancement

Bread, Vegetables & Fruits



Order Code: LED F22T8/836/G/1200/RE
Ref.: Osram NATURA 76

Red Enhancement

Meat & Red Fish Meat



Order Code: LED F22T8/880/G/1200/WE
Ref.: Osram LUMILUX SKYWHITE 880

White Enhancement

White Fish Meat



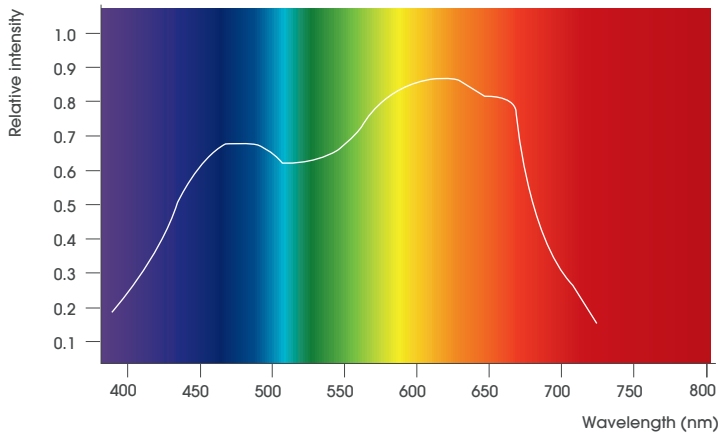
	Light Color	Yellow Enhancement LED F22T8/827/G/1200/YE	Red Enhancement LED F22T8/836/G/1200/RE	White Enhancement LED F22T8/880/G/1200/WE
Food				
Meat				
Bread				
Vegetables / Fruits				
Fish				



LED T8 Agricultural

- Emits optimal light color to promote plant growth and photosynthesis
- Blue and red light have the greatest impact on plant growth
- Blue light enhances vegetative leaf growth
- Red light enhances flower and fruit growth
- Green light is the least effective

Photosynthetic reaction of plants in different wavelengths of visible light spectrum



EUROPE
TUBE



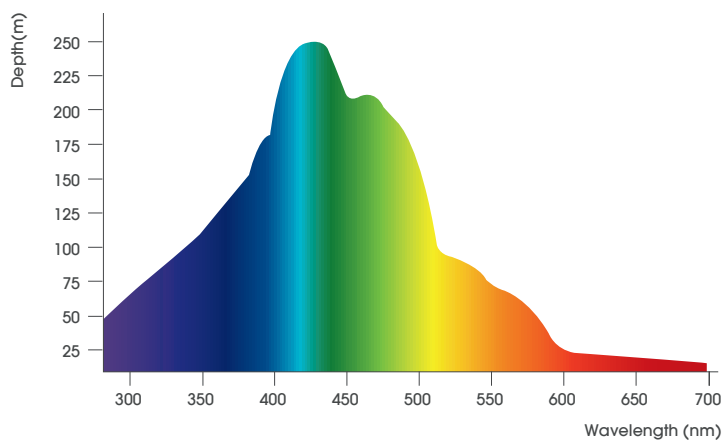
Wavelength	Influence on Plant Growth
Strong UV-C light 200-280nm	Significantly reduces quantum yield and rate of photosynthesis
UV-B light 280-315nm	Results in plant fading
UV-A light 315-380nm	Little effect on plant growth
Start of visible light 380-400nm	Chlorophyll starts absorption
Blue spectrum light 400-520nm	Chlorophyll absorbs strongly in this wavelength, which consists of blue and purple lights. The blue spectrum is effective on photosynthesis, responsible for plant leaf growth
Green spectrum light 520-610nm	Weak light absorption of chlorophyll in this wavelength
Red spectrum light 610-720nm	Optimal light absorption of chlorophyll, increase photosynthesis and encourage flowering and fruit production
Infrared light 720-1000nm	Little light absorption



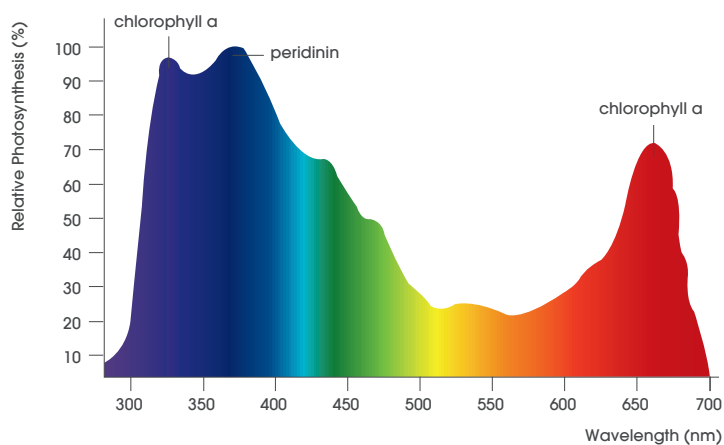
LED T8 Aquarium

- Positive effects of blue and red color spectra on coral growth
- Blue light keeps coral healthy
- Red light enhances photosynthesis

Light Penetration in Seawater at Different Wavelengths



Coral Photosynthetic Action Spectrum



Wavelength

Influence on Coral Growth

Blue spectrum light
400-500nm

Chlorophyll absorbs strongly in this wavelength. It is the most important spike as blue spectrum light has the best light penetration in water, especially for keeping healthy of the corals which inhabit in relatively deeper aquatic region

Red spectrum light
600-670nm

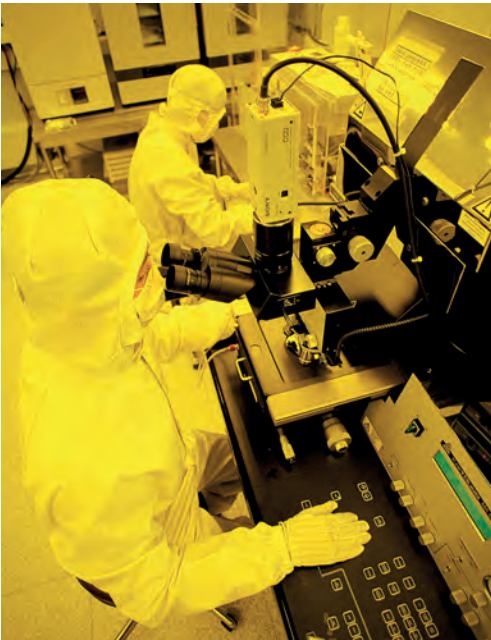
Strongest light absorption of chlorophyll, helps to enhance the photosynthetic process, but red spectrum light has relatively lower penetration ability in water



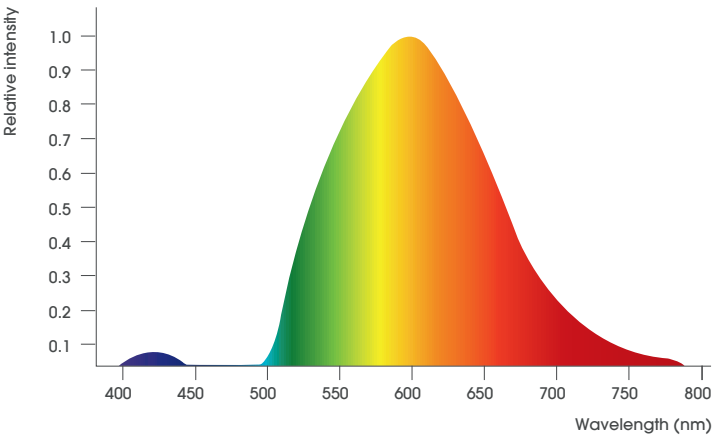


LED T8 Yellow Enhancement

- Protection of blue light sensitive products
- Use in working environment against blue light



Light spectrum distribution of Yellow enhancement tube



Wavelength	UV-filter
Yellow spectrum light 550-600nm	Special lighting for lithographic and printing industry Protect products from exposure to blue and UV light



LED PLL ECG



Features

- Energy saving with low power consumption
- Ideal retrofit of PLL fluorescent lamp
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Compatible with most common electronic ballasts
- Refer to the ballast compatibility list
- Full glass body
- Good color rendition, $R_a \geq 80$

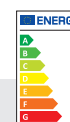
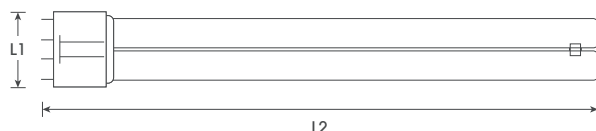


- No Re-wiring
- Broad compatibility with ballasts



9W	~	18W
14W	~	24W
18W	~	36W
22W	~	40W
25W	~	55W

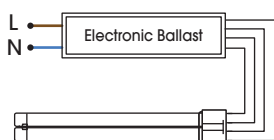
2G11 base



Model	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Lumen	ENERGY STAR
LED F9PLL/E/830/G	9W	3000K	280°	ECG	43mm / 217mm	950lm	F
LED F9PLL/E/840/G	9W	4000K	280°	ECG	43mm / 217mm	950lm	F
LED F9PLL/E/850/G	9W	5000K	280°	ECG	43mm / 217mm	950lm	F
LED F9PLL/E/865/G	9W	6500K	280°	ECG	43mm / 217mm	950lm	F
LED F14PLL/E/830/G	14W	3000K	280°	ECG	43mm / 317mm	1500lm	F
LED F14PLL/E/840/G	14W	4000K	280°	ECG	43mm / 317mm	1500lm	F
LED F14PLL/E/850/G	14W	5000K	280°	ECG	43mm / 317mm	1500lm	F
LED F14PLL/E/865/G	14W	6500K	280°	ECG	43mm / 317mm	1500lm	F
LED F18PLL/E/830/G	18W	3000K	280°	ECG	43mm / 411mm	1980lm	F
LED F18PLL/E/840/G	18W	4000K	280°	ECG	43mm / 411mm	1980lm	F
LED F18PLL/E/850/G	18W	5000K	280°	ECG	43mm / 411mm	1980lm	F
LED F18PLL/E/865/G	18W	6500K	280°	ECG	43mm / 411mm	1980lm	F
LED F22PLL/E/830/G	22W	3000K	280°	ECG	43mm / 533mm	2460lm	F
LED F22PLL/E/840/G	22W	4000K	280°	ECG	43mm / 533mm	2460lm	F
LED F22PLL/E/850/G	22W	5000K	280°	ECG	43mm / 533mm	2460lm	F
LED F22PLL/E/865/G	22W	6500K	280°	ECG	43mm / 533mm	2460lm	F
LED F25PLL/E/830/G	25W	3000K	280°	ECG	43mm / 533mm	2820lm	F
LED F25PLL/E/840/G	25W	4000K	280°	ECG	43mm / 533mm	2820lm	F
LED F25PLL/E/850/G	25W	5000K	280°	ECG	43mm / 533mm	2820lm	F
LED F25PLL/E/865/G	25W	6500K	280°	ECG	43mm / 533mm	2820lm	F

Actual performance may vary depending on ballast output

Direct retrofit in PLL ECG circuit



Suitable for direct retrofit to 1x, 2x electronic ballast

LED PLL AC



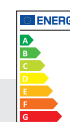
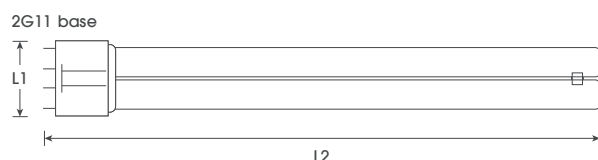
Features

- Energy saving with low power consumption
- Replace PLL fluorescent lamp with rewiring
- Smooth operation even at low temperatures
- No mercury and hazardous substances
- Full glass body
- Voltage: 220-240Vac, 50/60Hz, Power Factor: 0.9
- Good color rendition, Ra ≥ 80



AC Input

9W	~	18W
14W	~	24W
18W	~	36W
22W	~	40W
24W	~	55W



Model	Voltage	Wattage	Color Temp	Beam Angle	Type	Length L1 / L2	Lumen	ENERGY STAR
LED F9PLL/AC/830/G	220 - 240V	9W	3000K	280°	AC	43mm / 217mm	950lm	F
LED F9PLL/AC/840/G	220 - 240V	9W	4000K	280°	AC	43mm / 217mm	950lm	F
LED F9PLL/AC/850/G	220 - 240V	9W	5000K	280°	AC	43mm / 217mm	950lm	F
LED F9PLL/AC/865/G	220 - 240V	9W	6500K	280°	AC	43mm / 217mm	950lm	F
LED F14PLL/AC/830/G	220 - 240V	14W	3000K	280°	AC	43mm / 317mm	1500lm	F
LED F14PLL/AC/840/G	220 - 240V	14W	4000K	280°	AC	43mm / 317mm	1500lm	F
LED F14PLL/AC/850/G	220 - 240V	14W	5000K	280°	AC	43mm / 317mm	1500lm	F
LED F14PLL/AC/865/G	220 - 240V	14W	6500K	280°	AC	43mm / 317mm	1500lm	F
LED F18PLL/AC/830/G	220 - 240V	18W	3000K	280°	AC	43mm / 411mm	1980lm	F
LED F18PLL/AC/840/G	220 - 240V	18W	4000K	280°	AC	43mm / 411mm	1980lm	F
LED F18PLL/AC/850/G	220 - 240V	18W	5000K	280°	AC	43mm / 411mm	1980lm	F
LED F18PLL/AC/865/G	220 - 240V	18W	6500K	280°	AC	43mm / 411mm	1980lm	F
LED F22PLL/AC/830/G	220 - 240V	22W	3000K	280°	AC	43mm / 533mm	2460lm	F
LED F22PLL/AC/840/G	220 - 240V	22W	4000K	280°	AC	43mm / 533mm	2460lm	F
LED F22PLL/AC/850/G	220 - 240V	22W	5000K	280°	AC	43mm / 533mm	2460lm	F
LED F22PLL/AC/865/G	220 - 240V	22W	6500K	280°	AC	43mm / 533mm	2460lm	F
LED F24PLL/AC/830/G	220 - 240V	24W	3000K	280°	AC	43mm / 533mm	2490lm	F
LED F24PLL/AC/840/G	220 - 240V	24W	4000K	280°	AC	43mm / 533mm	2490lm	F
LED F24PLL/AC/850/G	220 - 240V	24W	5000K	280°	AC	43mm / 533mm	2490lm	F
LED F24PLL/AC/865/G	220 - 240V	24W	6500K	280°	AC	43mm / 533mm	2490lm	F

AC Input (New Installation)



Direct 220 - 240V AC input. Integral LED driver

EUROPE

TUBE



INDOOR LUMINAIRE



LED BATTEN
P. 73



LED SPOTLIGHT
P. 74 - 75



LED DOWNLIGHT
P. 76 - 88



LED CEILING LIGHT
P. 89 - 93



LED PANEL
P. 94 - 95



LED TRACKLIGHT
P. 96 - 97



LED HIGHBAY
P. 98 - 100

LED Seamless T5 Batten



Features

- Energy saving with low power consumption
- Long average life 25000 hours
- Low thermal output with no IR and harmful UV
- No mercury and hazardous substances
- Seamless design
- Good color rendition, Ra $\geq$ 80

Materials / Finish

- Body: White PC
- Diffuser: Opal
- End Cap: Plastic

Installation / Mounting

- Quick installation with two mounting clips
- Linear plug and play connection at both ends

Standards

- Designed and manufactured to comply with international standard EN60598
- Class II Electrical
- IP 20



Seamless design

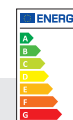
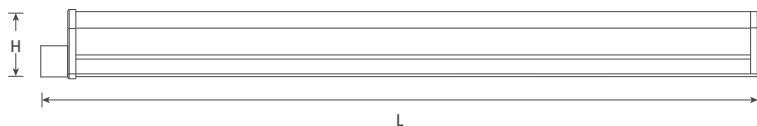


Optional Switch

Accessories



	(Unit : mm)	(L)	(W)	(H)	Max. no. of luminaires interconnected
4W		308 x	22.5 x	36	30
7W		582 x	22.5 x	36	15
10W		882 x	22.5 x	36	10
14W		1182 x	22.5 x	36	8



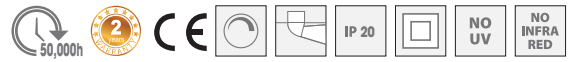
Model	Voltage	Luminaire Wattage	Color Temp	Beam Angle	Luminaire Lumen	
NF1004-3-ALB004-01	220 - 240V	4W	3000K	130°	340lm	F
NF1004-3-ALD004-01	220 - 240V	4W	4000K	130°	380lm	F
NF1004-3-ALG004-01	220 - 240V	4W	6500K	130°	400lm	E
NF1004-3-ALB007-01	220 - 240V	7W	3000K	130°	650lm	F
NF1004-3-ALD007-01	220 - 240V	7W	4000K	130°	700lm	E
NF1004-3-ALG007-01	220 - 240V	7W	6500K	130°	720lm	E
NF1004-3-ALB010-01	220 - 240V	10W	3000K	130°	950lm	F
NF1004-3-ALD010-01	220 - 240V	10W	4000K	130°	1000lm	E
NF1004-3-ALG010-01	220 - 240V	10W	6500K	130°	1050lm	E
NF1004-3-ALB014-01	220 - 240V	14W	3000K	130°	1350lm	F
NF1004-3-ALD014-01	220 - 240V	14W	4000K	130°	1400lm	E
NF1004-3-ALG014-01	220 - 240V	14W	6500K	130°	1450lm	E

EUROPE



INDOOR LUMINAIRE

LED Spotlight NS161E - NS162E



Features

- 30W / 40W LED Spotlight
- Adjustable tilting angle of 0°-60° vertically and 350° horizontally
- Ideal replacement for HID lighting fixtures up to 70W
- Dimmable as option
- Good color rendition, Ra ≥80

Materials / Finish

- Body: Die cast aluminium
- Reflector: Anodised faceted aluminium
- Diffuser: Toughened glass

Installation / Mounting

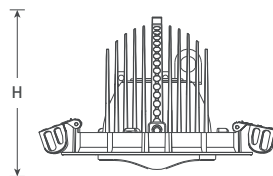
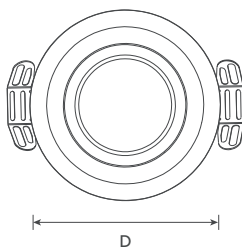
- Quick recessed installation with two spring clips
- Suitable for ceiling thickness between 5 and 15mm
- Remote gear unit allows flexible and easy installation
- Cut out dimensions Ø142mm / Ø175mm



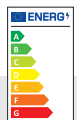
Standards

- Designed and manufactured to comply international standard EN60598
- Class II Electrical
- IP 20

Dimming Options



(Unit : mm)	(D)	(H)	Cut Out Dimensions
NS161E	Ø152 x	122	Ø142
NS162E	Ø186 x	151	Ø175



Model	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	ENERGY STAR
NS161E-30W/830	30W	C.C. 700mA	3000K	24° / 40° / 60°	2600lm	F
NS161E-30W/840	30W	C.C. 700mA	4000K	24° / 40° / 60°	2700lm	F
NS161E-30W/865	30W	C.C. 700mA	6500K	24° / 40° / 60°	2800lm	F
NS162E-40W/830	40W	C.C. 900mA	3000K	24° / 40° / 60°	3500lm	F
NS162E-40W/840	40W	C.C. 900mA	4000K	24° / 40° / 60°	3600lm	F
NS162E-40W/865	40W	C.C. 900mA	6500K	24° / 40° / 60°	3700lm	F



LED Spotlight NS171E - NS172E



Features

- 40W / 55W LED Spotlight
- Adjustable tilting angle of 0°-80° vertically and 350° horizontally
- Ideal replacement for HID lighting fixtures up to 70W
- Dimmable as option
- Good color rendition, Ra ≥ 80

Materials / Finish

- Body: Die cast aluminium
- Reflector: Anodised faceted aluminium
- Diffuser: Toughened glass

Installation / Mounting

- Quick recessed installation with two spring clips
- Suitable for ceiling thickness between 5 and 15mm
- Remote gear unit allows flexible and easy installation
- Cut out dimensions 225x135mm

Standards

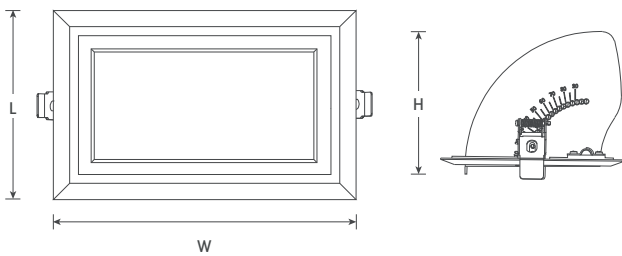
- Designed and manufactured to comply international standard EN60598
- Class II Electrical
- IP 20



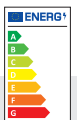
NS171E



NS172E



(Unit : mm)	(L)	(W)	(H)	Cut Out Dimensions
NS171E	150 x	240 x	107	225 x 135
NS172E	150 x	240 x	107	225 x 135



Model	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	ENERGY STAR
NS171E-40W/830	40W	C.C. 900mA	3000K	60°	3800lm	F
NS171E-40W/840	40W	C.C. 900mA	4000K	60°	3900lm	F
NS171E-40W/865	40W	C.C. 900mA	6500K	60°	4000lm	F
NS172E-55W/830	55W	C.C. 1300mA	3000K	60°	5900lm	E
NS172E-55W/840	55W	C.C. 1300mA	4000K	60°	6000lm	E
NS172E-55W/865	55W	C.C. 1300mA	6500K	60°	6100lm	E

EUROPE



INDOOR LUMINAIRE

LED Downlight ND381E - ND386E



Features

- 3W / 6W / 9W / 12W / 18W / 24W LED Downlight
- Recessed square, uniform distribution
- Comfort glare-free diffuser
- Ideal replacement up to 2x26W compact fluo. downlight
- Integral driver
- Good color rendition, Ra ≥ 80

Materials / Finish

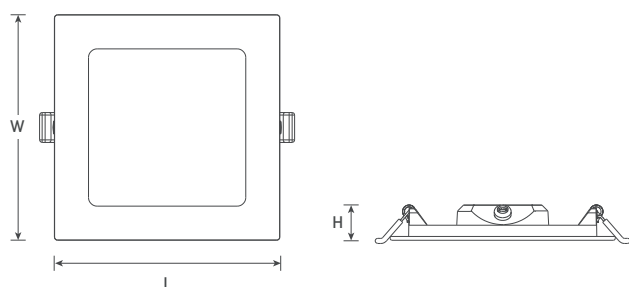
- Body: Die cast aluminium with white finish
- Trim: Die cast aluminium, UV protected
- Diffuser: Frosted PS, UV protected

Installation / Mounting

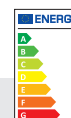
- Quick installation with mounting bracket
- Suitable for recessed mounting
- Integral gear unit allows quick and easy installation
- Cut out dimensions 75x75mm / 115x115mm / 130x130mm / 155x155mm / 185x185mm / 250x250mm

Standards

- Designed and manufactured to comply with international standard EN60598
- Class II Electrical
- IP 20



(Unit : mm)	(L)	(W)	(H)	Cut Out Dimensions
ND381E	90 x	90 x	21	75 x 75
ND382E	128 x	128 x	23	115 x 115
ND383E	147 x	147 x	23	130 x 130
ND384E	170 x	170 x	23	155 x 155
ND385E	202 x	202 x	23	185 x 185
ND386E	270 x	270 x	28	250 x 250



Model	Voltage	Luminaire Wattage	Color Temp	Beam Angle	Luminaire Lumen	ENERGY
ND381E-3W/830	220 - 240V	3W	3000K	120°	160lm	G
ND381E-3W/840	220 - 240V	3W	4000K	120°	170lm	G
ND381E-3W/865	220 - 240V	3W	6500K	120°	180lm	G
ND382E-6W/830	220 - 240V	6W	3000K	120°	450lm	G
ND382E-6W/840	220 - 240V	6W	4000K	120°	475lm	F
ND382E-6W/865	220 - 240V	6W	6500K	120°	500lm	F
ND383E-9W/830	220 - 240V	9W	3000K	120°	800lm	F
ND383E-9W/840	220 - 240V	9W	4000K	120°	825lm	F
ND383E-9W/865	220 - 240V	9W	6500K	120°	850lm	F
ND384E-12W/830	220 - 240V	12W	3000K	120°	1000lm	F
ND384E-12W/840	220 - 240V	12W	4000K	120°	1100lm	F
ND384E-12W/865	220 - 240V	12W	6500K	120°	1200lm	E
ND385E-18W/830	220 - 240V	18W	3000K	120°	1750lm	F
ND385E-18W/840	220 - 240V	18W	4000K	120°	1800lm	E
ND385E-18W/865	220 - 240V	18W	6500K	120°	1850lm	E
ND386E-24W/830	220 - 240V	24W	3000K	120°	2300lm	F
ND386E-24W/840	220 - 240V	24W	4000K	120°	2400lm	E
ND386E-24W/865	220 - 240V	24W	6500K	120°	2500lm	E



LED Downlight ND391E - ND397E



Features

- 3W / 6W / 9W / 12W / 16W / 18W / 24W LED Downlight
- Recessed round, uniform distribution
- Comfort glare-free diffuser
- Ideal replacement up to 2x26W compact fluo. downlight
- Integral driver
- Good color rendition, Ra ≥ 80

Materials / Finish

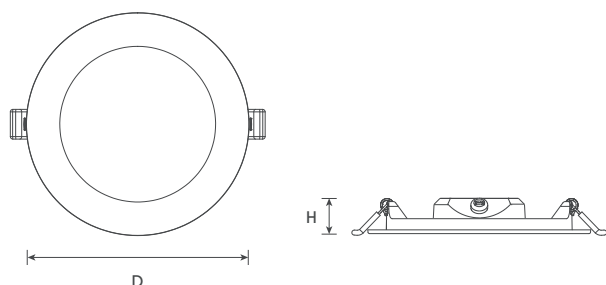
- Body: Die cast aluminium with white finish
- Trim: Die cast aluminium, UV protected
- Diffuser: Frosted PS, UV protected

Installation / Mounting

- Quick installation with mounting bracket
- Suitable for recessed mounting
- Integral gear unit allows quick and easy installation
- Cut out dimensions $\varnothing 75\text{mm}$ / $\varnothing 115\text{mm}$ / $\varnothing 130\text{mm}$ / $\varnothing 155\text{mm}$ / $\varnothing 185\text{mm}$ / $\varnothing 210\text{mm}$ / $\varnothing 280\text{mm}$

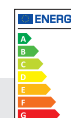
Standards

- Designed and manufactured to comply with international standard EN60598
- Class II Electrical
- IP 20



(Unit : mm)	(D)	(H)	Cut Out Dimensions
ND391E	$\varnothing 85$	x 23	$\varnothing 75$
ND392E	$\varnothing 128$	x 23	$\varnothing 115$
ND393E	$\varnothing 146$	x 23	$\varnothing 130$
ND394E	$\varnothing 170$	x 23	$\varnothing 155$
ND395E	$\varnothing 198$	x 23	$\varnothing 185$
ND396E	$\varnothing 229$	x 23	$\varnothing 210$
ND397E	$\varnothing 298$	x 24	$\varnothing 280$

Model	Voltage	Luminaire Wattage	Color Temp	Beam Angle	Luminaire Lumen	ENERGY
ND391E-3W/830	220 - 240V	3W	3000K	120°	160lm	G
ND391E-3W/840	220 - 240V	3W	4000K	120°	170lm	G
ND391E-3W/865	220 - 240V	3W	6500K	120°	180lm	G
ND392E-6W/830	220 - 240V	6W	3000K	120°	450lm	G
ND392E-6W/840	220 - 240V	6W	4000K	120°	475lm	F
ND392E-6W/865	220 - 240V	6W	6500K	120°	500lm	F
ND393E-9W/830	220 - 240V	9W	3000K	120°	800lm	F
ND393E-9W/840	220 - 240V	9W	4000K	120°	825lm	F
ND393E-9W/865	220 - 240V	9W	6500K	120°	850lm	F
ND394E-12W/830	220 - 240V	12W	3000K	120°	1000lm	F
ND394E-12W/840	220 - 240V	12W	4000K	120°	1100lm	F
ND394E-12W/865	220 - 240V	12W	6500K	120°	1200lm	E
ND395E-16W/830	220 - 240V	16W	3000K	120°	1400lm	F
ND395E-16W/840	220 - 240V	16W	4000K	120°	1500lm	F
ND395E-16W/865	220 - 240V	16W	6500K	120°	1600lm	E
ND396E-18W/830	220 - 240V	18W	3000K	120°	1750lm	F
ND396E-18W/840	220 - 240V	18W	4000K	120°	1800lm	E
ND396E-18W/865	220 - 240V	18W	6500K	120°	1850lm	E
ND397E-24W/830	220 - 240V	24W	3000K	120°	2300lm	F
ND397E-24W/840	220 - 240V	24W	4000K	120°	2400lm	E
ND397E-24W/865	220 - 240V	24W	6500K	120°	2500lm	E



EUROPE



INDOOR LUMINAIRE

LED Downlight ND204E - ND207E



Features

- 9W / 11W / 15W / 20W / 22W LED Downlight
- Recessed round, uniform distribution
- Comfort glare-free diffuser
- Ideal replacement up to 2x26W compact fluo. downlight*
- Good color rendition, Ra ≥80

Materials / Finish

- Body: Die cast aluminium with white finish
- Trim: Die cast aluminium, UV protected
- Diffuser: Frosted PC, UV protected

Installation / Mounting

- Metal box with Ø20mm knockout facilitates conduit mounting
- Quick installation with mounting bracket
- Suitable for recessed mounting
- Integral gear unit allows quick and easy installation
- Cut out dimensions Ø120mm / Ø155mm / Ø175mm

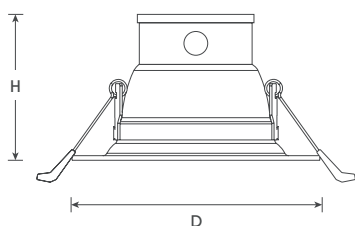
Standards

- Designed and manufactured to comply with international standard EN60598
- Class I Electrical
- IP 20

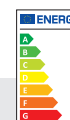


*

	Light source					Luminaire	
	Wattage (W)	Number of Lamp(s)	System Wattage (W)	Lumen Output (lm)	Efficacy (lm/W)	Lumen Output (lm)	Efficacy (lm/W)
LED	18	1	20	2010	100	1555	77.8
CFL	18	2	40	2400	60	1200	30



(Unit : mm)	(D)	(H)	Cut Out Dimensions
ND204E	Ø145 x	83	Ø120
ND205E	Ø195 x	98	Ø155
ND207E	Ø220 x	108	Ø175



Model	Luminaire Wattage	Color Temp	Beam Angle	Luminaire Lumen	ENERGY STAR
ND204E-9W/830	9W	3000K	60°	760lm	F
ND204E-9W/840	9W	4000K	60°	760lm	F
ND204E-9W/865	9W	6500K	60°	760lm	F
ND204E-11W/830	11W	3000K	60°	900lm	F
ND204E-11W/840	11W	4000K	60°	900lm	F
ND204E-11W/865	11W	6500K	60°	900lm	F
ND205E-15W/830	15W	3000K	60°	1180lm	F
ND205E-15W/840	15W	4000K	60°	1180lm	F
ND205E-15W/865	15W	6500K	60°	1180lm	F
ND205E-20W/830	20W	3000K	60°	1555lm	F
ND205E-20W/840	20W	4000K	60°	1555lm	F
ND205E-20W/865	20W	6500K	60°	1555lm	F
ND207E-22W/830	22W	3000K	60°	1730lm	F
ND207E-22W/840	22W	4000K	60°	1730lm	F
ND207E-22W/865	22W	6500K	60°	1730lm	F



LED Downlight ND204X - ND207X



Features

- 8W / 13W / 14W / 21W / 24W LED Downlight
- Recessed round, uniform distribution
- Comfort glare-free diffuser
- Ideal replacement up to 2x26W compact fluo. downlight
- Wattage and lumen can be adjusted by a driver with lower output current
- Suitable for LED emergency lighting
- Feasible to integrate with dimming and control system
- Good color rendition, Ra ≥80

Materials / Finish

- Body: Die cast aluminium with white finish
- Trim: Die cast aluminium, UV protected
- Diffuser: Frosted PC, UV protected

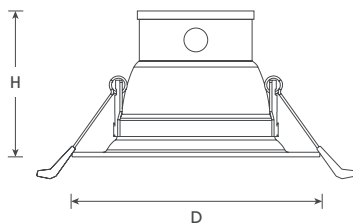
Installation / Mounting

- Metal box with Ø20mm knockout facilitates conduit mounting
- Quick installation with mounting bracket
- Suitable for recessed mounting
- Remote gear unit allows flexible and easy installation
- Cut out dimensions Ø120mm / Ø155mm / Ø175mm

Standards

- Designed and manufactured to comply with international standard EN60598
- Class III Electrical
- IP 20

Dimming Options



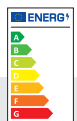
(Unit : mm)	(D)	(H)	Cut Out Dimensions
ND204X	Ø145 x 83		Ø120
ND205X	Ø195 x 98		Ø155
ND207X	Ø220 x 108		Ø175



- EM lighting
- Dimming and control system integration

EUROPE

INDOOR LUMINAIRE



Model	Light Source Wattage	Current	Voltage	Color Temp	Beam Angle	Luminaire Lumen	ENERGY
ND204X-8W/830	8W	C.C. 350mA	21 - 27V	3000K	60°	640lm	G
ND204X-8W/840	8W	C.C. 350mA	21 - 27V	4000K	60°	640lm	G
ND204X-8W/865	8W	C.C. 350mA	21 - 27V	6500K	60°	640lm	G
ND204X-13W/830	13W	C.C. 350mA	33 - 40V	3000K	60°	1040lm	G
ND204X-13W/840	13W	C.C. 350mA	33 - 40V	4000K	60°	1040lm	G
ND204X-13W/865	13W	C.C. 350mA	33 - 40V	6500K	60°	1040lm	G
ND205X-14W/830	14W	C.C. 350mA	36 - 43V	3000K	60°	1120lm	G
ND205X-14W/840	14W	C.C. 350mA	36 - 43V	4000K	60°	1120lm	G
ND205X-14W/865	14W	C.C. 350mA	36 - 43V	6500K	60°	1120lm	G
ND205X-21W/830	21W	C.C. 500mA	40 - 46V	3000K	60°	1760lm	F
ND205X-21W/840	21W	C.C. 500mA	40 - 46V	4000K	60°	1760lm	F
ND205X-21W/865	21W	C.C. 500mA	40 - 46V	6500K	60°	1760lm	F
ND207X-24W/830	24W	C.C. 700mA	32 - 38V	3000K	60°	2040lm	F
ND207X-24W/840	24W	C.C. 700mA	32 - 38V	4000K	60°	2040lm	F
ND207X-24W/865	24W	C.C. 700mA	32 - 38V	6500K	60°	2040lm	F

LED Downlight ND204S - ND207S



Features

- 9W / 10W / 11W / 15W / 20W LED Downlight
- Selectable wattage and CCT via dip-switch
- Recessed round, uniform distribution
- Comfort glare-free diffuser
- Ideal replacement up to 2x26W compact fluo. downlight*
- Good color rendition, Ra ≥ 80

Materials / Finish

- Body: Die cast aluminium with white finish
- Trim: Die cast aluminium, UV protected
- Diffuser: Frosted PC, UV protected

Installation / Mounting

- Metal box with Ø20mm knockout facilitates conduit mounting
- Quick installation with mounting bracket
- Suitable for recessed mounting
- Integral gear unit allows quick and easy installation
- Cut out dimensions Ø120mm / Ø155mm / Ø175mm

Standards

- Designed and manufactured to comply with international standard EN60598
- Class I Electrical
- IP 20

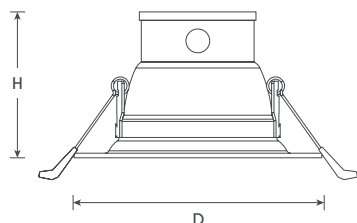


- Switchable Watt & CCT
- Inventory cost saving

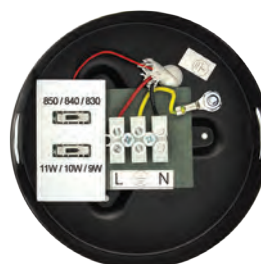
*

	Light source					Luminaire	
	Wattage (W)	Number of Lamp(s)	System Wattage (W)	Lumen Output (lm)	Efficacy (lm/W)	Lumen Output (lm)	Efficacy (lm/W)
LED	18	1	20	2010	100	1560	86.7
CFL	18	2	40	2400	60	1200	30

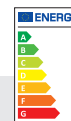
Dip-switch



(Unit : mm)	(D)	(H)	Cut Out Dimensions
ND204S	Ø145 x	83	Ø120
ND205S	Ø195 x	98	Ø155
ND207S	Ø220 x	108	Ø175



Model	Voltage	Luminaire Wattage	Color Temp	Beam Angle	Luminaire Lumen	ENERGY
ND204S-11W/8XX	220 - 240V	9W / 10W / 11W	3000K / 4000K / 5000K	60°	785lm / 830lm / 900lm	F
ND205S-20W/8XX	220 - 240V	10W / 15W / 20W	3000K / 4000K / 5000K	60°	830lm / 1180lm / 1560lm	F
ND207S-20W/8XX	220 - 240V	10W / 15W / 20W	3000K / 4000K / 5000K	60°	830lm / 1180lm / 1560lm	F



LED Downlight ND271E - ND273E



Features

- 9W LED Downlight
- Adjustable tilting angle of $\pm 30^\circ$ vertically
- Recessed round, uniform distribution
- Twist-lock changeable LED module for inventory cost saving
- Ideal replacement up to 100W halogen downlight
- Good color rendition, $Ra \geq 80 / 90$

Materials / Finish

- Body: Die cast aluminium
- Trim: Die cast aluminium
- Reflector: High purity, anodized aluminium

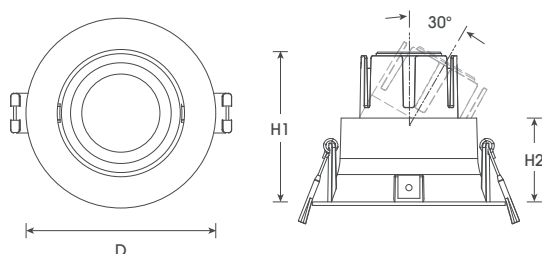
Installation / Mounting

- Quick installation with mounting bracket
- Suitable for recessed mount
- Remote gear unit allows flexible and easy installation
- Cut out dimensions $\varnothing 75\text{mm} / \varnothing 95\text{mm}$

Standards

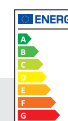
- Designed and manufactured to comply with international standard EN60598
- Class II Electrical
- IP 20

Dimming Options



(Unit : mm)	(D)	(H1)	(H2)	Cut Out Dimensions
ND271E	$\varnothing 85$	x 54	x 17	$\varnothing 75$
ND272E	$\varnothing 104$	x 72	x 35	$\varnothing 95$
ND273E	$\varnothing 108$	x 86	x 49	$\varnothing 95$

Model	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	ENERGY
ND271E-9W/830	9W	C.C. 200mA	3000K	20° / 30° / 38° / 50°	760lm	F
ND271E-9W/840	9W	C.C. 200mA	4000K	20° / 30° / 38° / 50°	830lm	F
ND271E-9W/865	9W	C.C. 200mA	6500K	20° / 30° / 38° / 50°	920lm	E
ND272E-9W/830	9W	C.C. 200mA	3000K	20° / 30° / 38° / 50°	760lm	F
ND272E-9W/840	9W	C.C. 200mA	4000K	20° / 30° / 38° / 50°	830lm	F
ND272E-9W/865	9W	C.C. 200mA	6500K	20° / 30° / 38° / 50°	920lm	E
ND273E-9W/830	9W	C.C. 200mA	3000K	20° / 30° / 38° / 50°	760lm	F
ND273E-9W/840	9W	C.C. 200mA	4000K	20° / 30° / 38° / 50°	830lm	F
ND273E-9W/865	9W	C.C. 200mA	6500K	20° / 30° / 38° / 50°	920lm	E



EUROPE



INDOOR LUMINAIRE

LED Downlight ND281E - ND283E



Features

- 15W LED Downlight
- Recessed round, uniform distribution
- Twist-lock changeable LED module for inventory cost saving
- Ideal replacement up to 100W halogen downlight
- Adjustable tilting angle of $\pm 30^\circ$ vertically
- Good color rendition, $Ra \geq 80 / 90$

Materials / Finish

- Body: Die cast aluminium
- Trim: Die cast aluminium
- Reflector: High purity, anodized aluminium

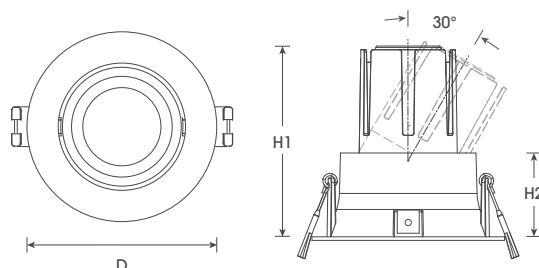
Installation / Mounting

- Quick installation with mounting bracket
- Suitable for recessed mount
- Remote gear unit allows flexible and easy installation
- Cut out dimensions $\varnothing 75\text{mm} / \varnothing 95\text{mm}$

Standards

- Designed and manufactured to comply with international standard EN60598
- Class II Electrical
- IP 20

Dimming Options

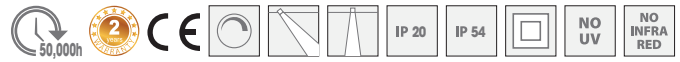


(Unit : mm)	(D)	(H1)	(H2)	Cut Out Dimensions
ND281E	$\varnothing 85$	x 77	x 17	$\varnothing 75$
ND282E	$\varnothing 104$	x 95	x 35	$\varnothing 95$
ND283E	$\varnothing 108$	x 109	x 49	$\varnothing 95$

Model	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	ENERGY STAR
ND281E-15W/830	15W	C.C. 350mA	3000K	20° / 30° / 38° / 50°	1215lm	F
ND281E-15W/840	15W	C.C. 350mA	4000K	20° / 30° / 38° / 50°	1270lm	F
ND281E-15W/865	15W	C.C. 350mA	6500K	20° / 30° / 38° / 50°	1320lm	F
ND282E-15W/830	15W	C.C. 350mA	3000K	20° / 30° / 38° / 50°	1215lm	F
ND282E-15W/840	15W	C.C. 350mA	4000K	20° / 30° / 38° / 50°	1270lm	F
ND282E-15W/865	15W	C.C. 350mA	6500K	20° / 30° / 38° / 50°	1320lm	F
ND283E-15W/830	15W	C.C. 350mA	3000K	20° / 30° / 38° / 50°	1215lm	F
ND283E-15W/840	15W	C.C. 350mA	4000K	20° / 30° / 38° / 50°	1270lm	F
ND283E-15W/865	15W	C.C. 350mA	6500K	20° / 30° / 38° / 50°	1320lm	F



LED Downlight ND291E - ND299E



Features

- 9W LED Downlight
- Recessed round, uniform distribution
- Twist-lock changeable LED module for inventory cost saving
- Ideal replacement up to 100W halogen downlight
- Adjustable tilting angle of $\pm 23^\circ$ vertically (ND293E, ND294E, ND296E, ND297E, ND298E)
- Good color rendition, $R_a \geq 80$ / 90

Materials / Finish

- Body: Die cast aluminium
- Trim: Die cast aluminium
- Reflector: High purity, anodized aluminium

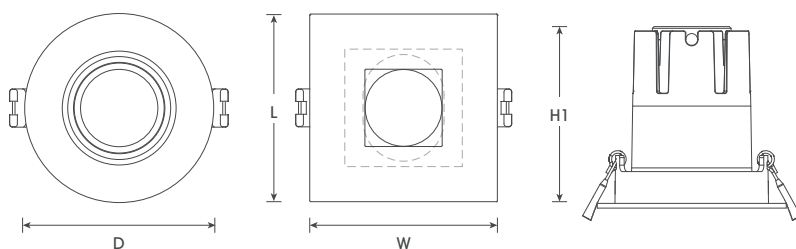
Installation / Mounting

- Quick installation with mounting bracket
- Suitable for recessed mount
- Remote gear unit allows flexible and easy installation
- Cut out dimensions $\varnothing 75\text{mm}$, $75 \times 75\text{mm}$

Standards

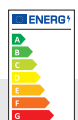
- Designed and manufactured to comply with international standard EN60598
- Class II Electrical
- IP 20, IP 54

Dimming Options



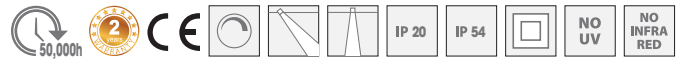
(Unit : mm)	(D)	(H1)	(H2)	Cut Out Dimensions
ND291E	$\varnothing 88$ x	85 x	48	$\varnothing 75$
ND292E	$\varnothing 88$ x	85 x	48	$\varnothing 75$
ND293E	$\varnothing 88$ x	85 x	48	$\varnothing 75$
ND294E	$\varnothing 88$ x	85 x	48	$\varnothing 75$
ND297E	$\varnothing 88$ x	101 x	64	$\varnothing 75$
ND298E	$\varnothing 88$ x	105 x	68	$\varnothing 75$

(Unit : mm)	(L)	(W)	(H1)	(H2)	Cut Out Dimensions
ND295E	88 x	88 x	85 x	48	$\varnothing 75$
ND296E	88 x	88 x	85 x	48	$\varnothing 75$
ND299E	88 x	88 x	85 x	48	75×75



Model	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	
ND291E-9W/8XX	9W	C.C. 200mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	760lm / 830lm / 920lm	F
ND292E-9W/8XX	9W	C.C. 200mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	760lm / 830lm / 920lm	F
ND293E-9W/8XX	9W	C.C. 200mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	760lm / 830lm / 920lm	E
ND294E-9W/8XX	9W	C.C. 200mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	760lm / 830lm / 920lm	F
ND295E-9W/8XX	9W	C.C. 200mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	760lm / 830lm / 920lm	F
ND296E-9W/8XX	9W	C.C. 200mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	760lm / 830lm / 920lm	E
ND297E-9W/8XX	9W	C.C. 200mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	760lm / 830lm / 920lm	F
ND298E-9W/8XX	9W	C.C. 200mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	760lm / 830lm / 920lm	F
ND299E-9W/8XX	9W	C.C. 200mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	760lm / 830lm / 920lm	E

LED Downlight ND301E - ND309E



Features

- 15W LED Downlight
- Recessed round, uniform distribution
- Twist-lock changeable LED module for inventory cost saving
- Ideal replacement up to 100W halogen downlight
- Adjustable tilting angle of $\pm 23^\circ$ vertically (ND303E, ND304E, ND306E, ND307E, ND308E)
- Good color rendition, $R_a \geq 80$ / 90

Materials / Finish

- Body: Die cast aluminium
- Trim: Die cast aluminium
- Reflector: High purity, anodized aluminium

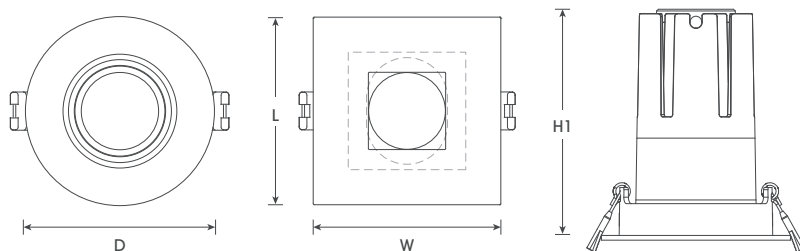
Installation / Mounting

- Quick installation with mounting bracket
- Suitable for recessed mount
- Remote gear unit allows flexible and easy installation
- Cut out dimensions $\varnothing 75\text{mm}$, $75 \times 75\text{mm}$

Standards

- Designed and manufactured to comply with international standard EN60598
- Class II Electrical
- IP 20, IP 54

Dimming Options



(Unit : mm)	(D)	(H1)	(H2)	Cut Out Dimensions
ND301E	$\varnothing 88$ x	108 x	48	$\varnothing 75$
ND302E	$\varnothing 88$ x	108 x	48	$\varnothing 75$
ND303E	$\varnothing 88$ x	108 x	48	$\varnothing 75$
ND304E	$\varnothing 88$ x	108 x	48	$\varnothing 75$
ND307E	$\varnothing 88$ x	124 x	64	$\varnothing 75$
ND308E	$\varnothing 88$ x	124 x	68	$\varnothing 75$

(Unit : mm)	(L)	(W)	(H1)	(H2)	Cut Out Dimensions
ND305E	88 x	88 x	108 x	48	$\varnothing 75$
ND306E	88 x	88 x	108 x	48	$\varnothing 75$
ND309E	88 x	88 x	108 x	48	75×75



Model	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	
ND301E-15W/8XX	15W	C.C. 350mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	1215lm / 1270lm / 1320lm	F
ND302E-15W/8XX	15W	C.C. 350mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	1215lm / 1270lm / 1320lm	F
ND303E-15W/8XX	15W	C.C. 350mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	1215lm / 1270lm / 1320lm	F
ND304E-15W/8XX	15W	C.C. 350mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	1215lm / 1270lm / 1320lm	F
ND305E-15W/8XX	15W	C.C. 350mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	1215lm / 1270lm / 1320lm	F
ND306E-15W/8XX	15W	C.C. 350mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	1215lm / 1270lm / 1320lm	F
ND307E-15W/8XX	15W	C.C. 350mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	1215lm / 1270lm / 1320lm	F
ND308E-15W/8XX	15W	C.C. 350mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	1215lm / 1270lm / 1320lm	F
ND309E-15W/8XX	15W	C.C. 350mA	3000K / 4000K / 6500K	20° / 30° / 38° / 50°	1215lm / 1270lm / 1320lm	F

LED Downlight ND361E - ND364E



Features

- 15W / 24W / 32W / 41W LED Downlight
- Recessed round, uniform distribution
- Ideal replacement up to 70W HID downlight
- Special color spectrum for aquarium, agriculture and food display available on request
- Good color rendition, Ra $\geq$ 80
- Dimmable as option

Materials / Finish

- Body: Die cast aluminium
- Trim: Die cast aluminium
- Reflector: High purity, anodized aluminium

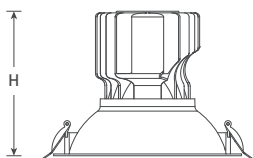
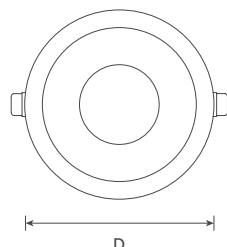
Installation / Mounting

- Quick installation with mounting bracket
- Suitable for recessed mount
- Remote gear unit allows flexible and easy installation
- Cut out dimensions Ø90mm / Ø125mm / Ø170mm / Ø200mm

Standards

- Designed and manufactured to comply with international standard EN60598
- Class II Electrical
- IP 20

Dimming Options



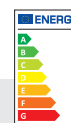
(Unit : mm)	(D)	(H)	Cut Out Dimensions
ND361E	Ø105	x 90	Ø90
ND362E	Ø138	x 127	Ø125
ND363E	Ø190	x 148	Ø170
ND364E	Ø230	x 172	Ø200



EUROPE



INDOOR LUMINAIRE



Model	Voltage	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	
ND361E-15W/830	220 - 240V	15W	DC 36±2V C.C. 350mA	3000K	15° / 24° / 38°	1200lm	F
ND361E-15W/840	220 - 240V	15W	DC 36±2V C.C. 350mA	4000K	15° / 24° / 38°	1250lm	F
ND361E-15W/850	220 - 240V	15W	DC 36±2V C.C. 350mA	5000K	15° / 24° / 38°	1300lm	F
ND362E-24W/830	220 - 240V	24W	DC 36±2V C.C. 600mA	3000K	15° / 24° / 38°	2150lm	F
ND362E-24W/840	220 - 240V	24W	DC 36±2V C.C. 600mA	4000K	15° / 24° / 38°	2200lm	F
ND362E-24W/850	220 - 240V	24W	DC 36±2V C.C. 600mA	5000K	15° / 24° / 38°	2250lm	F
ND363E-32W/830	220 - 240V	32W	DC 36±2V C.C. 800mA	3000K	15° / 24° / 38°	2950lm	F
ND363E-32W/840	220 - 240V	32W	DC 36±2V C.C. 800mA	4000K	15° / 24° / 38°	3000lm	F
ND363E-32W/850	220 - 240V	32W	DC 36±2V C.C. 800mA	5000K	15° / 24° / 38°	3050lm	F
ND364E-41W/830	220 - 240V	41W	DC 36±2V C.C. 1050mA	3000K	15° / 24° / 38°	3850lm	F
ND364E-41W/840	220 - 240V	41W	DC 36±2V C.C. 1050mA	4000K	15° / 24° / 38°	3900lm	F
ND364E-41W/850	220 - 240V	41W	DC 36±2V C.C. 1050mA	5000K	15° / 24° / 38°	3950lm	F

LED Downlight ND371E - ND374E



Features

- 15W / 24W / 32W / 41W LED Downlight
- Recessed round, uniform distribution
- Ideal replacement up to 70W HID downlight
- Special color spectrum for aquarium, agriculture and food display available on request
- Adjustable tilting angle of 0°-30° vertically
- Good color rendition, Ra ≥80
- Dimmable as option

Materials / Finish

- Body: Die cast aluminium
- Trim: Die cast aluminium

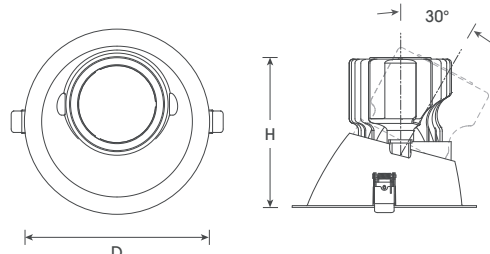
Installation / Mounting

- Quick installation with mounting bracket
- Suitable for recessed mount
- Remote gear unit allows flexible and easy installation
- Cut out dimensions Ø100mm / Ø125mm / Ø170mm / Ø210mm

Standards

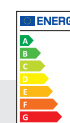
- Designed and manufactured to comply with international standard EN60598
- Class II Electrical
- IP 20

Dimming Options



(Unit : mm)	(D)	(H)	Cut Out Dimensions
ND371E	Ø115	x 96	Ø100
ND372E	Ø138	x 124	Ø125
ND373E	Ø190	x 152	Ø170
ND374E	Ø230	x 187	Ø210

Model	Voltage	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	ENERG ⁺
ND371E-15W/830	220 - 240V	15W	DC 36±2V C.C. 350mA	3000K	15° / 24° / 38°	1200lm	F
ND371E-15W/840	220 - 240V	15W	DC 36±2V C.C. 350mA	4000K	15° / 24° / 38°	1250lm	F
ND371E-15W/850	220 - 240V	15W	DC 36±2V C.C. 350mA	5000K	15° / 24° / 38°	1300lm	F
ND372E-24W/830	220 - 240V	24W	DC 36±2V C.C. 600mA	3000K	15° / 24° / 38°	2150lm	F
ND372E-24W/840	220 - 240V	24W	DC 36±2V C.C. 600mA	4000K	15° / 24° / 38°	2200lm	F
ND372E-24W/850	220 - 240V	24W	DC 36±2V C.C. 600mA	5000K	15° / 24° / 38°	2250lm	F
ND373E-32W/830	220 - 240V	32W	DC 36±2V C.C. 800mA	3000K	15° / 24° / 38°	2950lm	F
ND373E-32W/840	220 - 240V	32W	DC 36±2V C.C. 800mA	4000K	15° / 24° / 38°	3000lm	F
ND373E-32W/850	220 - 240V	32W	DC 36±2V C.C. 800mA	5000K	15° / 24° / 38°	3050lm	F
ND374E-41W/830	220 - 240V	41W	DC 36±2V C.C. 1050mA	3000K	15° / 24° / 38°	3850lm	F
ND374E-41W/840	220 - 240V	41W	DC 36±2V C.C. 1050mA	4000K	15° / 24° / 38°	3900lm	F
ND374E-41W/850	220 - 240V	41W	DC 36±2V C.C. 1050mA	5000K	15° / 24° / 38°	3950lm	F



LED Downlight ND341E - ND345E



Features

- 9W / 15W / 20W / 28W / 32W LED Downlight
- Recessed round, uniform distribution
- Ideal replacement up to 70W HID downlight
- Good color rendition, Ra ≥80
- Dimmable as option

Materials / Finish

- Body: Die cast aluminium
- Trim: Die cast aluminium
- Reflector: High purity, anodized aluminium
- Diffuser: Clear Glass

Installation / Mounting

- Quick installation with mounting bracket
- Suitable for recessed mount
- Remote gear unit allows flexible and easy installation
- Cut out dimensions Ø90mm / Ø125mm / Ø145mm / Ø165mm / Ø200mm

Standards

- Designed and manufactured to comply with international standard EN60598
- Class II Electrical
- IP 20

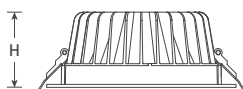
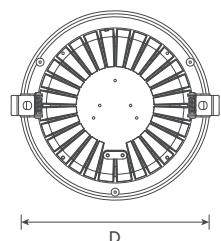
Dimming Options



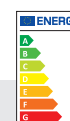
EUROPE



INDOOR LUMINAIRE



(Unit : mm)	(D)	(H)	Cut Out Dimensions
ND341E	Ø110 x 42	Ø90	
ND342E	Ø140 x 53	Ø125	
ND343E	Ø162 x 64	Ø145	
ND344E	Ø190 x 76	Ø165	
ND345E	Ø230 x 88	Ø200	



Model	Voltage	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	ENERGY STAR
ND341E-9W/830	220 - 240V	9W	DC 36±2V C.C. 200mA	3000K	40° / 60°	810lm	F
ND341E-9W/840	220 - 240V	9W	DC 36±2V C.C. 200mA	4000K	40° / 60°	860lm	F
ND341E-9W/850	220 - 240V	9W	DC 36±2V C.C. 200mA	5000K	40° / 60°	910lm	E
ND342E-15W/830	220 - 240V	15W	DC 36±2V C.C. 350mA	3000K	40° / 60°	1350lm	F
ND342E-15W/840	220 - 240V	15W	DC 36±2V C.C. 350mA	4000K	40° / 60°	1400lm	F
ND342E-15W/850	220 - 240V	15W	DC 36±2V C.C. 350mA	5000K	40° / 60°	1450lm	E
ND343E-20W/830	220 - 240V	20W	DC 36±2V C.C. 500mA	3000K	40° / 60°	1800lm	F
ND343E-20W/840	220 - 240V	20W	DC 36±2V C.C. 500mA	4000K	40° / 60°	1850lm	F
ND343E-20W/850	220 - 240V	20W	DC 36±2V C.C. 500mA	5000K	40° / 60°	1900lm	F
ND344E-28W/830	220 - 240V	28W	DC 36±2V C.C. 700mA	3000K	40° / 60°	2520lm	F
ND344E-28W/840	220 - 240V	28W	DC 36±2V C.C. 700mA	4000K	40° / 60°	2570lm	F
ND344E-28W/850	220 - 240V	28W	DC 36±2V C.C. 700mA	5000K	40° / 60°	2620lm	F
ND345E-32W/830	220 - 240V	32W	DC 36±2V C.C. 800mA	3000K	40° / 60°	2880lm	F
ND345E-32W/840	220 - 240V	32W	DC 36±2V C.C. 800mA	4000K	40° / 60°	2930lm	F
ND345E-32W/850	220 - 240V	32W	DC 36±2V C.C. 800mA	5000K	40° / 60°	2980lm	F

LED Downlight ND351E - ND355E



Features

- 9W / 15W / 18W / 23W / 29W LED Downlight
- Recessed round, uniform distribution
- Ideal replacement up to 70W HID downlight
- Good color rendition, $R_a \geq 80$
- Dimmable as option

Materials / Finish

- Body: Die cast aluminium
- Trim: Die cast aluminium
- Reflector: High purity, anodized aluminium
- Diffuser: Frosted PC, UV protected

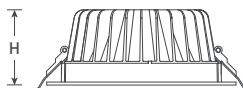
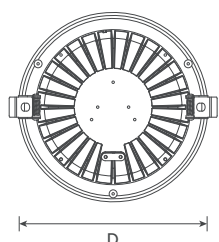
Installation / Mounting

- Quick installation with mounting bracket
- Suitable for recessed mount
- Remote gear unit allows flexible and easy installation
- Cut out dimensions Ø90mm / Ø125mm / Ø145mm / Ø165mm / Ø200mm

Standards

- Designed and manufactured to comply with international standard EN60598
- Class II Electrical
- IP 20

Dimming Options



(Unit : mm)	(D)	(H)	Cut Out Dimensions
ND351E	Ø110	x 42	Ø90
ND352E	Ø140	x 53	Ø125
ND353E	Ø162	x 64	Ø145
ND354E	Ø190	x 76	Ø165
ND355E	Ø230	x 88	Ø200

Model	Voltage	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	ENERGY
ND351E-9W/830	220 - 240V	9W	DC 36±2V C.C. 350mA	3000K	90°	765lm	F
ND351E-9W/840	220 - 240V	9W	DC 36±2V C.C. 350mA	4000K	90°	810lm	F
ND351E-9W/850	220 - 240V	9W	DC 36±2V C.C. 350mA	5000K	90°	855lm	F
ND352E-15W/830	220 - 240V	15W	DC 36±2V C.C. 350mA	3000K	90°	1275lm	F
ND352E-15W/840	220 - 240V	15W	DC 36±2V C.C. 350mA	4000K	90°	1350lm	F
ND352E-15W/850	220 - 240V	15W	DC 36±2V C.C. 350mA	5000K	90°	1450lm	E
ND353E-18W/830	220 - 240V	18W	DC 36±2V C.C. 350mA	3000K	90°	1530lm	F
ND353E-18W/840	220 - 240V	18W	DC 36±2V C.C. 350mA	4000K	90°	1620lm	F
ND353E-18W/850	220 - 240V	18W	DC 36±2V C.C. 350mA	5000K	90°	1710lm	F
ND354E-23W/830	220 - 240V	23W	DC 36±2V C.C. 350mA	3000K	90°	1955lm	F
ND354E-23W/840	220 - 240V	23W	DC 36±2V C.C. 350mA	4000K	90°	2070lm	F
ND354E-23W/850	220 - 240V	23W	DC 36±2V C.C. 350mA	5000K	90°	2185lm	F
ND355E-29W/830	220 - 240V	29W	DC 36±2V C.C. 700mA	3000K	90°	2465lm	F
ND355E-29W/840	220 - 240V	29W	DC 36±2V C.C. 700mA	4000K	90°	2610lm	F
ND355E-29W/850	220 - 240V	29W	DC 36±2V C.C. 700mA	5000K	90°	2755lm	F



LED Ceiling Light NC151E - NC154E



Features

- 6W / 12W / 18W / 24W LED Ceiling Light
- Uniform distribution with opal diffuser
- Comfort glare-free light
- Good color rendition, Ra ≥80

Materials / Finish

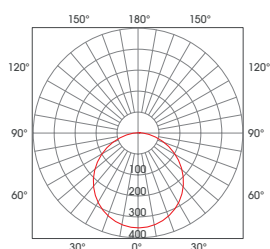
- Body: Sheet steel with white finish
- Diffuser: Opaque acrylic

Installation / Mounting

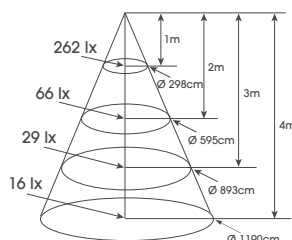
- Suitable for surface mounting
- Integral gear unit allows quick and easy installation

Standards

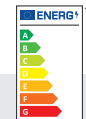
- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 20



Lamp: LED 12W 3000K



(Unit : mm)	(D)	(H)
NC151E	Ø120	x 32
NC152E	Ø170	x 32
NC153E	Ø220	x 32
NC154E	Ø300	x 32



Model	Voltage	Luminaire Wattage	Luminaire Lumen	Color Temp	Beam Angle	Light Source Wattage	Light Source Lumen	ENERGY STAR
NC151E-6W/830	220 - 240V	6W	410lm	3000K	120°	5.4W	470lm	G
NC151E-6W/840	220 - 240V	6W	430lm	4000K	120°	5.4W	480lm	G
NC151E-6W/865	220 - 240V	6W	450lm	6500K	120°	5.4W	480lm	G
NC152E-12W/830	220 - 240V	12W	900lm	3000K	120°	10.8W	1120lm	F
NC152E-12W/840	220 - 240V	12W	950lm	4000K	120°	10.8W	1200lm	F
NC152E-12W/865	220 - 240V	12W	1000lm	6500K	120°	10.8W	1200lm	F
NC153E-18W/830	220 - 240V	18W	1450lm	3000K	120°	16.2W	1765lm	F
NC153E-18W/840	220 - 240V	18W	1550lm	4000K	120°	16.2W	1800lm	F
NC153E-18W/865	220 - 240V	18W	1650lm	6500K	120°	16.2W	1800lm	F
NC154E-24W/830	220 - 240V	24W	2100lm	3000K	120°	21.6W	2415lm	F
NC154E-24W/840	220 - 240V	24W	2200lm	4000K	120°	21.6W	2520lm	F
NC154E-24W/865	220 - 240V	24W	2300lm	6500K	120°	21.6W	2520lm	F

*Energy efficiency class based on light source lumen

EUROPE



INDOOR LUMINAIRE

LED Ceiling Light NC161E - NC164E



Features

- 6W / 12W / 18W / 24W LED Ceiling Light
- Uniform distribution with opal diffuser
- Comfort glare-free light
- Good color rendition, $R_a \geq 80$

Materials / Finish

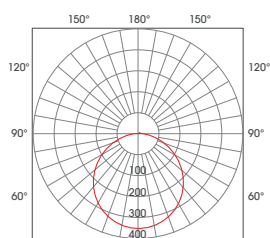
- Body: Sheet steel with white finish
- Diffuser: Opaque acrylic

Installation / Mounting

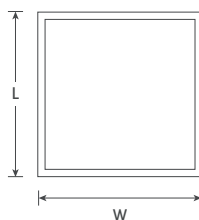
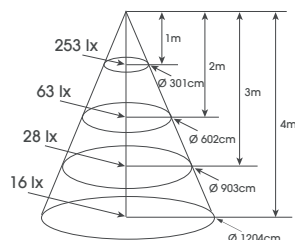
- Suitable for surface mounting
- Integral gear unit allows quick and easy installation

Standards

- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 20



Lamp: LED 12W 6500K



(Unit : mm)	(L)	(W)	(H)
NC161E	120 x	120 x	32
NC162E	170 x	170 x	32
NC163E	220 x	220 x	32
NC164E	300 x	300 x	32



Model	Voltage	Luminaire Wattage	Luminaire Lumen	Color Temp	Beam Angle	Light Source Wattage	Light Source Lumen	Energy Efficiency Class
NC161E-6W/830	220 - 240V	6W	410lm	3000K	120°	5.4W	470lm	G
NC161E-6W/840	220 - 240V	6W	430lm	4000K	120°	5.4W	480lm	G
NC161E-6W/865	220 - 240V	6W	450lm	6500K	120°	5.4W	480lm	G
NC162E-12W/830	220 - 240V	12W	900lm	3000K	120°	10.8W	1120lm	F
NC162E-12W/840	220 - 240V	12W	950lm	4000K	120°	10.8W	1200lm	F
NC162E-12W/865	220 - 240V	12W	1000lm	6500K	120°	10.8W	1200lm	F
NC163E-18W/830	220 - 240V	18W	1450lm	3000K	120°	16.2W	1765lm	F
NC163E-18W/840	220 - 240V	18W	1550lm	4000K	120°	16.2W	1800lm	F
NC163E-18W/865	220 - 240V	18W	1650lm	6500K	120°	16.2W	1800lm	F
NC164E-24W/830	220 - 240V	24W	2100lm	3000K	120°	21.6W	2415lm	F
NC164E-24W/840	220 - 240V	24W	2200lm	4000K	120°	21.6W	2520lm	F
NC164E-24W/865	220 - 240V	24W	2300lm	6500K	120°	21.6W	2520lm	F

*Energy efficiency class based on light source lumen



LED Ceiling Light NC171E - NC175E



Features

- 14W / 20W / 24W / 32W / 42W LED Ceiling Light
- Uniform distribution with opal diffuser
- Comfort glare-free light
- Good color rendition, Ra ≥80

Materials / Finish

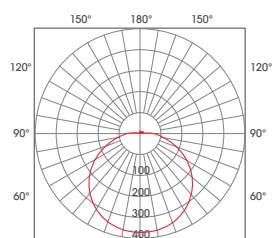
- Body: Sheet steel with white finish
- Diffuser: Opaque acrylic

Installation / Mounting

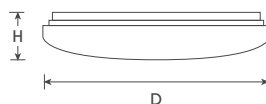
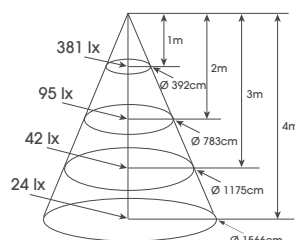
- Suitable for surface mounting
- Integral gear unit allows quick and easy installation

Standards

- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 20



Lamp: LED 20W 6500K



(Unit : mm) (D) (H)

NC171E	Ø257	x 65
NC172E	Ø290	x 65
NC173E	Ø340	x 65
NC174E	Ø390	x 65
NC175E	Ø480	x 70



Model	Voltage	Luminaire Wattage	Luminaire Lumen	Color Temp	Beam Angle	Light Source Lumen	ENERGY STAR
NC171E-14W/830	220 - 240V	14W	950lm	3000K	170°	1300lm	F
NC171E-14W/840	220 - 240V	14W	1000lm	4000K	170°	1380lm	F
NC171E-14W/865	220 - 240V	14W	1050lm	6500K	170°	1450lm	F
NC172E-20W/830	220 - 240V	20W	1350lm	3000K	170°	2050lm	F
NC172E-20W/840	220 - 240V	20W	1400lm	4000K	170°	2100lm	F
NC172E-20W/865	220 - 240V	20W	1450lm	6500K	170°	2150lm	F
NC173E-24W/830	220 - 240V	24W	1800lm	3000K	170°	2500lm	F
NC173E-24W/840	220 - 240V	24W	1900lm	4000K	170°	2550lm	F
NC173E-24W/865	220 - 240V	24W	2000lm	6500K	170°	2600lm	F
NC174E-32W/830	220 - 240V	32W	2400lm	3000K	170°	3380lm	F
NC174E-32W/840	220 - 240V	32W	2500lm	4000K	170°	3450lm	F
NC174E-32W/865	220 - 240V	32W	2600lm	6500K	170°	3500lm	F
NC175E-42W/830	220 - 240V	42W	3000lm	3000K	170°	4490lm	F
NC175E-42W/840	220 - 240V	42W	3100lm	4000K	170°	4550lm	F
NC175E-42W/865	220 - 240V	42W	3200lm	6500K	170°	4600lm	F

*Energy efficiency class based on light source lumen

EUROPE



INDOOR LUMINAIRE

LED Ceiling Light NC181E - NC183E



Features

- 20W / 32W / 42W LED Ceiling Light
- Uniform distribution with opal diffuser
- Comfort glare-free light
- Good color rendition, Ra ≥ 80

Materials / Finish

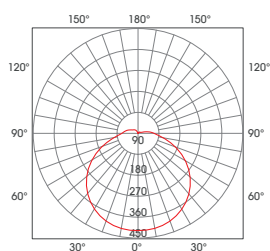
- Body: Sheet steel with white finish
- Diffuser: Opaque acrylic

Installation / Mounting

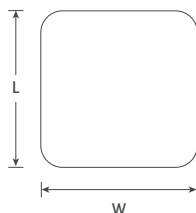
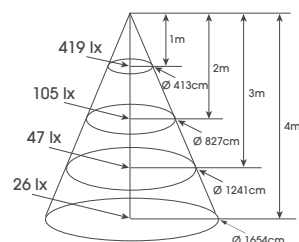
- Suitable for surface mounting
- Integral gear unit allows quick and easy installation

Standards

- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 20



Lamp: LED 20W 6500K



(Unit : mm)	(L)	(W)	(H)
NC181E	280 x	280 x	65
NC182E	330 x	330 x	65
NC183E	430 x	430 x	65



Model	Voltage	Luminaire Wattage	Luminaire Lumen	Color Temp	Beam Angle	Light Source Lumen	
NC181E-20W/830	220 - 240V	20W	1600lm	3000K	170°	2050lm	F
NC181E-20W/840	220 - 240V	20W	1650lm	4000K	170°	2100lm	F
NC181E-20W/865	220 - 240V	20W	1700lm	6500K	170°	2150lm	F
NC182E-32W/830	220 - 240V	32W	2560lm	3000K	170°	3380lm	F
NC182E-32W/840	220 - 240V	32W	2660lm	4000K	170°	3450lm	F
NC182E-32W/865	220 - 240V	32W	2760lm	6500K	170°	3500lm	F
NC183E-42W/830	220 - 240V	42W	3150lm	3000K	170°	4490lm	F
NC183E-42W/840	220 - 240V	42W	3300lm	4000K	170°	4550lm	F
NC183E-42W/865	220 - 240V	42W	3450lm	6500K	170°	4600lm	F

*Energy efficiency class based on light source lumen



LED Ceiling Light NC101E - NC103E



Features

- 14W / 18W / 24W LED Ceiling Light
- Uniform distribution with opal diffuser
- Comfort glare-free light
- Good color rendition, Ra ≥ 80

Materials / Finish

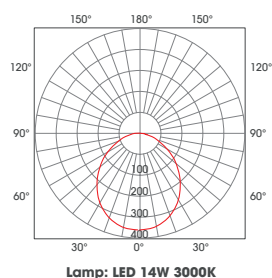
- Body: Sheet steel with white finish
- Diffuser: Opaque acrylic

Installation / Mounting

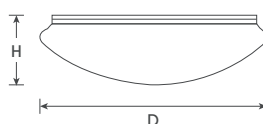
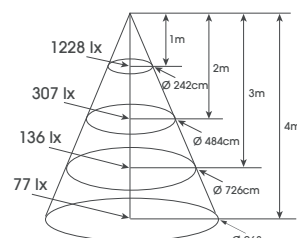
- Suitable for surface mounting
- Integral gear unit allows quick and easy installation

Standards

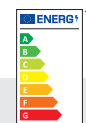
- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 20, IP44



Lamp: LED 14W 3000K



(Unit : mm)	(D)	(H)
NC101E	Ø260	x 100
NC102E	Ø340	x 105
NC103E	Ø380	x 110



Model	Voltage	Luminaire Wattage	Luminaire Lumen	Color Temp	Beam Angle	Light Source Lumen	ENERGY STAR
NC101E-14W/830	220 - 240V	14W	900lm	3000K	170°	1300lm	F
NC101E-14W/840	220 - 240V	14W	950lm	4000K	170°	1380lm	F
NC101E-14W/865	220 - 240V	14W	1000lm	6500K	170°	1450lm	F
NC102E-18W/830	220 - 240V	18W	1150lm	3000K	170°	1830lm	F
NC102E-18W/840	220 - 240V	18W	1200lm	4000K	170°	1880lm	F
NC102E-18W/865	220 - 240V	18W	1250lm	6500K	170°	1930lm	F
NC103E-24W/830	220 - 240V	24W	1650lm	3000K	170°	2500lm	F
NC103E-24W/840	220 - 240V	24W	1790lm	4000K	170°	2550lm	F
NC103E-24W/865	220 - 240V	24W	1930lm	6500K	170°	2600lm	F

*Energy efficiency class based on light source lumen

EUROPE



INDOOR LUMINAIRE

LED Panel ND5012 - ND5015



Features

- 20W / 40W / 75W LED Panel
- Frosted PC diffuser provide uniform distribution
- Comfort glare-free light
- Good color rendition, Ra ≥ 80

Materials / Finish

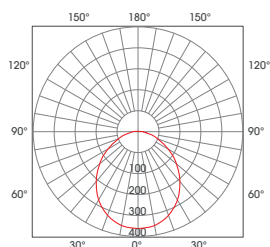
- Body: Aluminium frame with white finish
- Diffuser: Frosted PC
- White color

Installation / Mounting

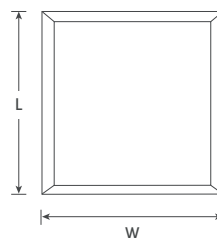
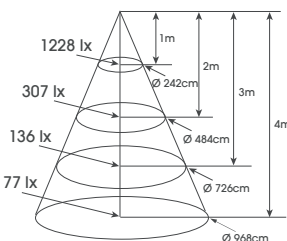
- Quick installation with mounting bracket
- Suitable for recessed mount
- Integral gear unit allows quick and easy installation

Standards

- Designed and manufactured to comply international standard EN60598
- Class II Electrical
- IP 20



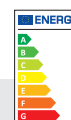
Lamp: LED 40W 4000K



(Unit : mm)	(L)	(W)
ND5015	295 x	295
ND5012	595 x	595



(Unit : mm)	(L)	(W)
ND5013	295 x	1195
ND5014	595 x	1195



Model	Voltage	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	
ND5015-3-ALB020-01	220 - 240V	20W	480mA	3000K	150°	1800lm	F
ND5015-3-ALD020-01	220 - 240V	20W	480mA	4000K	150°	1900lm	F
ND5015-3-ALG020-01	220 - 240V	20W	480mA	6500K	150°	2000lm	F
ND5012-3-ALB040-01	220 - 240V	40W	960mA	3000K	150°	3800lm	F
ND5012-3-ALD040-01	220 - 240V	40W	960mA	4000K	150°	3900lm	F
ND5012-3-ALG040-01	220 - 240V	40W	960mA	6500K	150°	4000lm	F
ND5013-3-ALB040-01	220 - 240V	40W	960mA	3000K	150°	3800lm	F
ND5013-3-ALD040-01	220 - 240V	40W	960mA	4000K	150°	3900lm	F
ND5013-3-ALG040-01	220 - 240V	40W	960mA	6500K	150°	4000lm	F
ND5014-3-ALB075-01	220 - 240V	75W	1700mA	3000K	150°	7000lm	F
ND5014-3-ALD075-01	220 - 240V	75W	1700mA	4000K	150°	7100lm	F
ND5014-3-ALG075-01	220 - 240V	75W	1700mA	6500K	150°	7200lm	F



LED Panel NP141E - NP147E



Features

- 20W / 40W / 45W / 50W / 55W / 60W / 90W LED Panel
- Frosted PC diffuser provide uniform distribution
- Comfort glare-free light
- Good color rendition, Ra ≥ 80

Materials / Finish

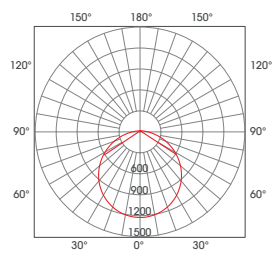
- Body: Sheet steel housing with white finish
- Diffuser: Frosted PC
- White color

Installation / Mounting

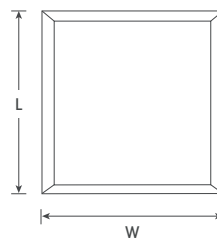
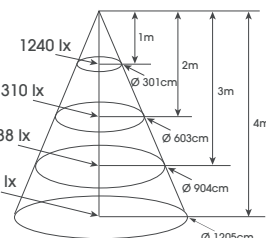
- Quick installation with mounting bracket
- Suitable for recessed mount
- Integral gear unit allows quick and easy installation

Standards

- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 20



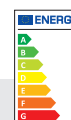
Lamp: LED 50W 6500K



(Unit : mm)	(L)	(W)	Thickness of LED panel
NP141E	300 x	300 x	35
NP142E	600 x	600 x	35
NP144E	600 x	600 x	35
NP146E	600 x	600 x	35



(Unit : mm)	(L)	(W)	Thickness of LED panel
NP143E	300 x	1200 x	35
NP145E	300 x	1200 x	35
NP147E	300 x	1200 x	35



Model	Voltage	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	Energy Efficiency
NP141E-20W/830	220 - 240V	20W	174mA	3000K	160°	1590lm	F
NP141E-20W/840	220 - 240V	20W	174mA	4000K	160°	1640lm	F
NP141E-20W/865	220 - 240V	20W	174mA	6500K	160°	1685lm	F
NP142E-40W/830	220 - 240V	40W	193mA	3000K	160°	3600lm	F
NP142E-40W/840	220 - 240V	40W	193mA	4000K	160°	3700lm	F
NP142E-40W/865	220 - 240V	40W	193mA	6500K	160°	3800lm	F
NP143E-45W/830	220 - 240V	45W	217mA	3000K	160°	3770lm	F
NP143E-45W/840	220 - 240V	45W	217mA	4000K	160°	3810lm	F
NP143E-45W/865	220 - 240V	45W	217mA	6500K	160°	3855lm	F
NP144E-50W/830	220 - 240V	50W	242mA	3000K	160°	4210lm	F
NP144E-50W/840	220 - 240V	50W	242mA	4000K	160°	4315lm	F
NP144E-50W/865	220 - 240V	50W	242mA	6500K	160°	4420lm	F
NP145E-55W/830	220 - 240V	55W	266mA	3000K	160°	4640lm	F
NP145E-55W/840	220 - 240V	55W	266mA	4000K	160°	4680lm	F
NP145E-55W/865	220 - 240V	55W	266mA	6500K	160°	4800lm	F
NP146E-60W/830	220 - 240V	60W	290mA	3000K	160°	5105lm	F
NP146E-60W/840	220 - 240V	60W	290mA	4000K	160°	5210lm	F
NP146E-60W/865	220 - 240V	60W	290mA	6500K	160°	5315lm	F
NP147E-90W/830	220 - 240V	90W	435mA	3000K	160°	7695lm	F
NP147E-90W/840	220 - 240V	90W	435mA	4000K	160°	7820lm	F
NP147E-90W/865	220 - 240V	90W	435mA	6500K	160°	7950lm	F

EUROPE



INDOOR LUMINAIRE

LED Tracklight NK111E - NK114E



Features

- 10W / 20W / 30W / 40W LED Tracklight
- Precise beam control by aluminium reflector
- Adjustable head spot lighting
- Comfort glare-free light
- Good color rendition, Ra ≥80

Materials / Finish

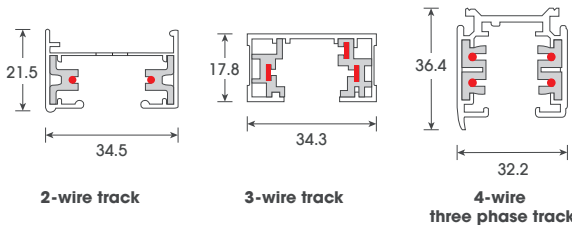
- Body: Die cast aluminium
- Reflector: Anodised faceted aluminium
- Diffuser: Toughened glass
- Choice of White and Black color

Installation / Mounting

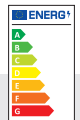
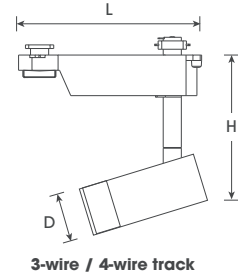
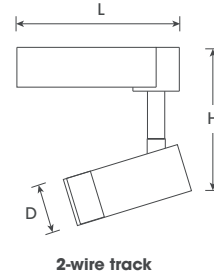
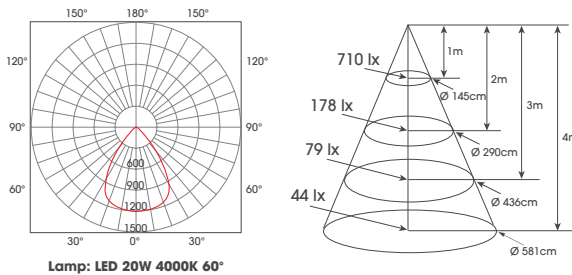
- Suitable for 2-wire, 3-wire track, 4-wire three phase track
- Flexible and easy installation

Standards

- Designed and manufactured to comply international standard EN60598
- Class II Electrical
- IP 20



(Unit : mm)	(D)	(L)	(H)	(Unit : mm)	(D)	(L)	(H)	3 wire / 4 wire
NK111E	Ø67	x 106	x 230	NK111E	Ø67	x 106	x 230 / 255	
NK112E	Ø88	x 106	x 243	NK112E	Ø88	x 106	x 243 / 268	
NK113E	Ø101	x 106	x 270	NK113E	Ø101	x 106	x 270 / 295	
NK114E	Ø101	x 106	x 270	NK114E	Ø101	x 106	x 270 / 295	



Model	Voltage	Luminaire Wattage	Color Temp	Beam Angle	Luminaire Lumen	Energy Class
NK111E-10W/830	220 - 240V	10W	3000K	20° / 40° / 60°	700lm	G
NK111E-10W/840	220 - 240V	10W	4000K	20° / 40° / 60°	750lm	F
NK111E-10W/865	220 - 240V	10W	6500K	20° / 40° / 60°	800lm	F
NK112E-20W/830	220 - 240V	20W	3000K	20° / 40° / 60°	1560lm	F
NK112E-20W/840	220 - 240V	20W	4000K	20° / 40° / 60°	1600lm	F
NK112E-20W/865	220 - 240V	20W	6500K	20° / 40° / 60°	1640lm	F
NK113E-30W/830	220 - 240V	30W	3000K	20° / 40° / 60°	2425lm	F
NK113E-30W/840	220 - 240V	30W	4000K	20° / 40° / 60°	2475lm	F
NK113E-30W/865	220 - 240V	30W	6500K	20° / 40° / 60°	2530lm	F
NK114E-40W/830	220 - 240V	40W	3000K	20° / 40° / 60°	3300lm	F
NK114E-40W/840	220 - 240V	40W	4000K	20° / 40° / 60°	3400lm	F
NK114E-40W/865	220 - 240V	40W	6500K	20° / 40° / 60°	3505lm	F

LED Tracklight NK121E - NK123E



Features

- 10W / 20W / 30W LED Tracklight
- Precise beam control by aluminium reflector
- Adjustable head spot lighting
- Comfort glare-free light
- Good color rendition, Ra ≥ 80

Materials / Finish

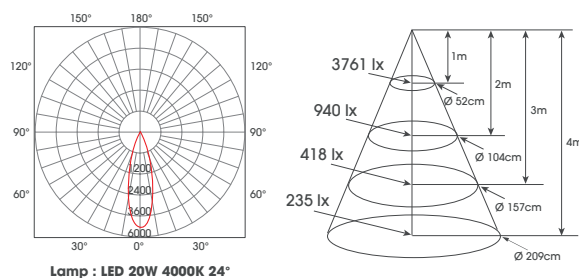
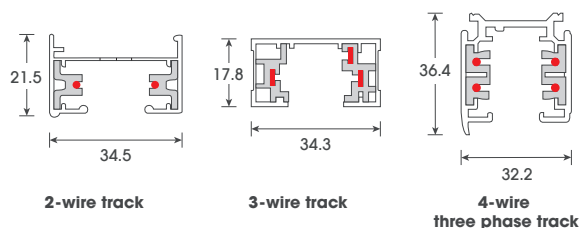
- Body: Die cast aluminium
- Reflector: Anodised faceted aluminium
- Diffuser: Toughened glass
- Anti-glare: Honey comb
- Choice of White, Plated Chrome / Black / Gold color

Installation / Mounting

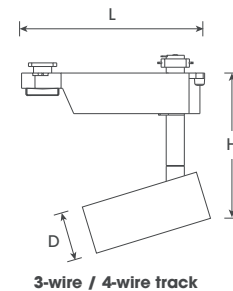
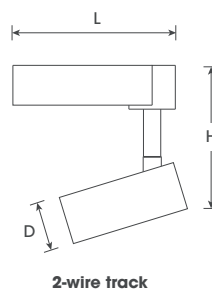
- Suitable for 2-wire, 3-wire track, 4-wire three phase track
- Flexible and easy installation

Standards

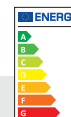
- Designed and manufactured to comply international standard EN60598
- Class II Electrical
- IP 20



(Unit : mm)	(D)	(L)	(H)	(Unit : mm)	(D)	(L)	(H) 3wire / 4wire
NK121E	Ø55	x 83	x 215	NK121E	Ø55	x 83	x 215 / 240
NK122E	Ø74	x 83	x 235	NK122E	Ø74	x 83	x 235 / 260
NK123E	Ø90	x 83	x 266	NK123E	Ø90	x 83	x 266 / 291



Model	Voltage	Luminaire Wattage	Color Temp	Beam Angle	Luminaire Lumen	ENERGY
NK121E-10W/830	220 - 240V	10W	3000K	12° / 24°	800lm	F
NK121E-10W/840	220 - 240V	10W	4000K	12° / 24°	850lm	F
NK121E-10W/865	220 - 240V	10W	6500K	12° / 24°	900lm	F
NK122E-20W/830	220 - 240V	20W	3000K	12° / 24°	1600lm	F
NK122E-20W/840	220 - 240V	20W	4000K	12° / 24°	1700lm	F
NK122E-20W/865	220 - 240V	20W	6500K	12° / 24°	1800lm	F
NK123E-30W/830	220 - 240V	30W	3000K	12° / 24° / 38° / 45°	2500lm	F
NK123E-30W/840	220 - 240V	30W	4000K	12° / 24° / 38° / 45°	2600lm	F
NK123E-30W/865	220 - 240V	30W	6500K	12° / 24° / 38° / 45°	2700lm	F



LED Highbay NH1020 - NH1024



Features

- 60W / 80W / 100W / 150W / 200W LED Highbay
- Uniformity distribution in high ceiling application
- Separately packed reflectors for cost saving logistics
- 125° beam angle for large open area coverage
- Good color rendition, Ra ≥ 70

Materials / Finish

- Body: Die cast aluminium
- Lens: PC
- Reflector (optional): PC / Aluminium
- Chips: Lumileds 3030
- Driver: Meanwell / Sosen



Installation / Mounting

- Pendant mount by chain
- Easy assembly of reflector by screw fixation

Standards

- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IK 09, IP 65

Dimming Options



Reflector Options



ALU 60°
Ø372 x 149mm



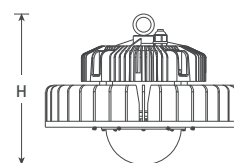
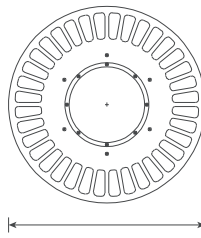
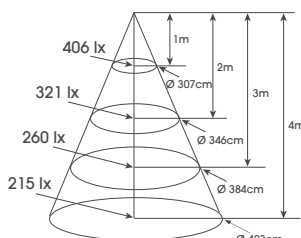
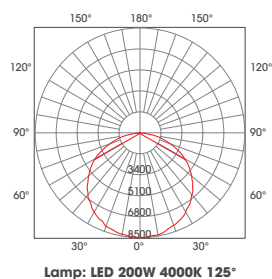
ALU 90°
Ø455 x 130mm



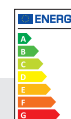
ALU 120°
Ø505 x 125mm



PC 60°
Ø415 x 270mm



(Unit : mm)	(D)	(H)
NH1020	Ø180 x	157
NH1021	Ø230 x	224
NH1022	Ø230 x	224
NH1023	Ø260 x	234
NH1024	Ø300 x	250



Model	Voltage	Luminaire Wattage	Color Temp	Beam Angle	Luminaire Lumen	
NH1020-3-ALB060-02	90 - 305V	60W	3000K	125°	6800lm	E
NH1020-3-ALD060-02	90 - 305V	60W	4000K	125°	7200lm	E
NH1020-3-ALG060-02	90 - 305V	60W	6500K	125°	7500lm	D
NH1021-3-ALB080-02	90 - 305V	80W	3000K	125°	9000lm	E
NH1021-3-ALD080-02	90 - 305V	80W	4000K	125°	9800lm	D
NH1021-3-ALG080-02	90 - 305V	80W	6500K	125°	10400lm	D
NH1022-3-ALB100-02	90 - 305V	100W	3000K	125°	11400lm	E
NH1022-3-ALD100-02	90 - 305V	100W	4000K	125°	12200lm	D
NH1022-3-ALG100-02	90 - 305V	100W	6500K	125°	13000lm	D
NH1023-3-ALB150-02	90 - 305V	150W	3000K	125°	17500lm	E
NH1023-3-ALD150-02	90 - 305V	150W	4000K	125°	18500lm	D
NH1023-3-ALG150-02	90 - 305V	150W	6500K	125°	19500lm	D
NH1024-3-ALB200-02	90 - 305V	200W	3000K	125°	24000lm	E
NH1024-3-ALD200-02	90 - 305V	200W	4000K	125°	25000lm	D
NH1024-3-ALG200-02	90 - 305V	200W	6500K	125°	26000lm	D

LED Highbay NH151E - NH154E



Features

- 100W / 150W / 200W / 240W LED Highbay
- Uniformity distribution in high ceiling application
- 120° beam angles for large open area coverage
- Good color rendition, Ra ≥80

Materials / Finish

- Body: Die cast aluminium
- Lens: PC
- Reflector (optional): PC / Aluminium
- Black color

Installation / Mounting

- Pendant mount by chain
- Easy assembly of reflector by screw fixation

Standards

- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 65



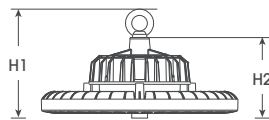
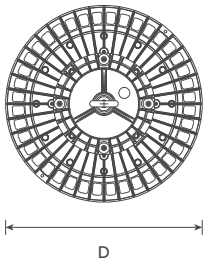
Reflector Options



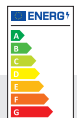
PC 60°
 100W: Ø311 x 166.5mm
 150W: Ø308 x 120mm
 200W: Ø410 x 210.5mm
 240W: Ø410 x 210.5mm



ALU 90°
 100W: Ø340 x 115mm
 150W: Ø370 x 130mm
 200W: Ø430 x 135mm
 240W: Ø430 x 135mm



(Unit : mm)	(D)	(H1)	(H2)
NH151E	250 x	139 x	103
NH152E	250 x	139 x	103
NH153E	250 x	151 x	115
NH154E	300 x	161 x	125



Model	Voltage	Luminaire Wattage	Color Temp	Beam Angle	Luminaire Lumen	ENERGY
NH151E-100W/830	100 - 277V	100W	3000K	120°	14000lm	D
NH151E-100W/840	100 - 277V	100W	4000K	120°	14500lm	C
NH151E-100W/865	100 - 277V	100W	6500K	120°	15000lm	C
NH152E-150W/830	100 - 277V	150W	3000K	120°	21000lm	D
NH152E-150W/840	100 - 277V	150W	4000K	120°	21750lm	C
NH152E-150W/865	100 - 277V	150W	6500K	120°	22500lm	C
NH153E-200W/830	100 - 277V	200W	3000K	120°	28000lm	D
NH153E-200W/840	100 - 277V	200W	4000K	120°	29000lm	C
NH153E-200W/865	100 - 277V	200W	6500K	120°	30000lm	C
NH154E-240W/830	100 - 277V	240W	3000K	120°	33600lm	D
NH154E-240W/840	100 - 277V	240W	4000K	120°	34800lm	C
NH154E-240W/865	100 - 277V	240W	6500K	120°	36000lm	C

EUROPE



INDOOR LUMINAIRE

LED Highbay NH141E - NH144E



Features

- 50W / 100W / 150W / 200W LED Linear Highbay
- Uniformity distribution in high ceiling application
- Good color rendition, Ra ≥ 80

Materials / Finish

- Body: Die cast aluminium and external aluminium profile
- Lens: PC
- Chips: Philips Lumileds 3030
- Driver: Meanwell / Sosen
- End cap: Choice of black and red color

Installation / Mounting

- Pendant mount by stainless steel wire $\varnothing 1.2 \times 300\text{mm L} / 1000\text{mm L} / 2000\text{mm L}$ or fixed installation by bracket 120mm height
- Easy assembly by screw fixation

Standards

- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 65



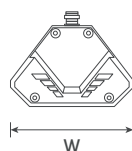
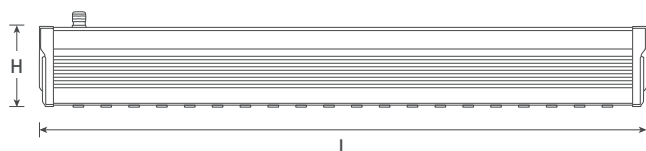
Accessories



Bracket

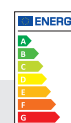


Chain



(Unit : mm)	(L)	(W)	(H)
NH141E	278	x 135	x 90
NH142E	529	x 135	x 90
NH143E	780	x 135	x 90
NH144E	1131	x 135	x 90

Model	Voltage	Luminaire Wattage	Color Temp	Beam Angle	Luminaire Lumen	ENERGY
NH141E-50W/830	100 - 277V	50W	3000K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	5750lm	E
NH141E-50W/840	100 - 277V	50W	4000K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	6000lm	E
NH141E-50W/865	100 - 277V	50W	6500K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	6250lm	D
NH142E-100W/830	100 - 277V	100W	3000K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	11500lm	E
NH142E-100W/840	100 - 277V	100W	4000K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	12000lm	E
NH142E-100W/865	100 - 277V	100W	6500K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	12500lm	D
NH143E-150W/830	100 - 277V	150W	3000K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	17250lm	E
NH143E-150W/840	100 - 277V	150W	4000K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	18000lm	E
NH143E-150W/865	100 - 277V	150W	6500K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	18750lm	D
NH144E-200W/830	100 - 277V	200W	3000K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	23000lm	E
NH144E-200W/840	100 - 277V	200W	4000K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	24000lm	E
NH144E-200W/865	100 - 277V	200W	6500K	30° / 60° / 90° / 80° x 150° / 30° x 70° / 60° x 90°	25000lm	D





OUTDOOR LUMINAIRE

EUROPE



OUTDOOR LUMINAIRE



LED FLOODLIGHT
P. 102 - 106

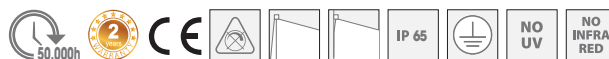


LED WALLWASHER
P. 107



LED ROADLIGHT
P. 108 - 109

LED Floodlight UF121E - UF126E



Features

- 10W / 30W / 50W / 100W / 200W / 300W LED Floodlight
- Polyester powder finish for excellent corrosion and UV resistance
- Designed for excellent thermal transfer to extend component life
- Uniform design with six construction sizes
- Good heat dissipation performance
- Good color rendition, Ra ≥ 80

Materials / Finish

- Body: Sturdy die cast aluminium housing with anodised steel bracket and extruded silicone rubber gasket
- Diffuser: Toughened glass
- Choice of White and Black color

Installation / Mounting

- Suitable for mast mounting and wall mounting

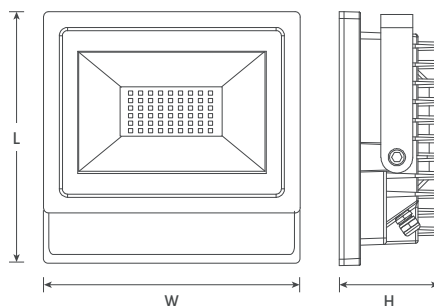
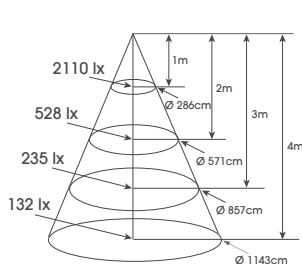
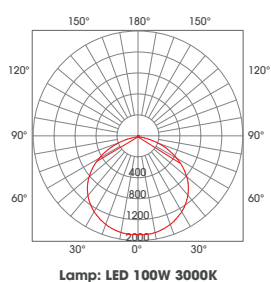
Standards

- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 65

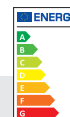


EUROPE

OUTDOOR LUMINAIRE

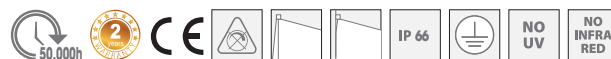


(Unit : mm)	(L)	(W)	(H)
UF121E	84 x	103 x	21.5
UF122E	122 x	159.5 x	26
UF123E	159.5 x	205.5 x	33
UF124E	210 x	270 x	33
UF125E	280 x	380 x	36
UF126E	335 x	445 x	45



Model	Voltage	Luminaire Wattage	Color Temp	Beam Angle	Luminaire Lumen	
UF121E-10W/830	180 - 265V	10W	3000K	110°	750lm	G
UF121E-10W/840	180 - 265V	10W	4000K	110°	800lm	F
UF121E-10W/865	180 - 265V	10W	6500K	110°	850lm	F
UF122E-30W/830	180 - 265V	30W	3000K	110°	2475lm	F
UF122E-30W/840	180 - 265V	30W	4000K	110°	2525lm	F
UF122E-30W/865	180 - 265V	30W	6500K	110°	2580lm	F
UF123E-50W/830	180 - 265V	50W	3000K	110°	4210lm	F
UF123E-50W/840	180 - 265V	50W	4000K	110°	4315lm	F
UF123E-50W/865	180 - 265V	50W	6500K	110°	4420lm	F
UF124E-100W/830	180 - 265V	100W	3000K	110°	8580lm	F
UF124E-100W/840	180 - 265V	100W	4000K	110°	8685lm	F
UF124E-100W/865	180 - 265V	100W	6500K	110°	8790lm	F
UF125E-200W/830	180 - 265V	200W	3000K	110°	17370lm	F
UF125E-200W/840	180 - 265V	200W	4000K	110°	17685lm	F
UF125E-200W/865	180 - 265V	200W	6500K	110°	18105lm	F
UF126E-300W/830	180 - 265V	300W	3000K	110°	26105lm	F
UF126E-300W/840	180 - 265V	300W	4000K	110°	26315lm	F
UF126E-300W/865	180 - 265V	300W	6500K	110°	26525lm	F

LED Floodlight UF151E - UF155E



Features

- 30W / 50W / 100W / 150W / 200W LED Floodlight
- Polyester powder finish for excellent corrosion and UV resistance
- Designed for excellent thermal transfer to extend component life
- Uniform design with five construction sizes
- Good heat dissipation performance
- Good color rendition, Ra ≥ 80

Materials / Finish

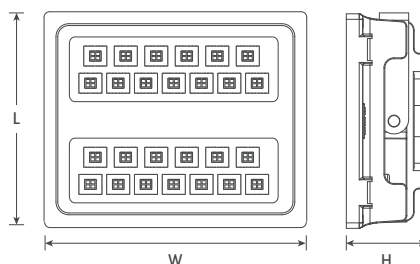
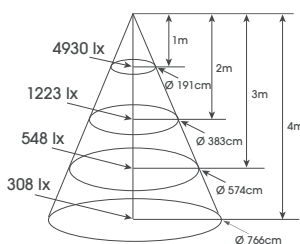
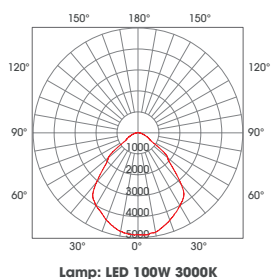
- Body: Sturdy die cast aluminium housing with anodised steel bracket and extruded silicone rubber gasket
- Diffuser: Toughened glass
- Black color

Installation / Mounting

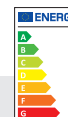
- Suitable for mast mounting and wall mounting
- Field replaceable for LED driver

Standards

- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 66



(Unit : mm)	(L)	(W)	(H)
UF151E	117 x	143 x	67
UF152E	143 x	191 x	67
UF153E	212 x	262 x	74
UF154E	275 x	342 x	51
UF155E	299 x	389 x	51



Model	Voltage	Luminaire Wattage	Driver	Color Temp	Beam Angle	Luminaire Lumen	
UF151E-30W/830	220 - 240V	30W	145mA	3000K	85° x 95°	2700lm	F
UF151E-30W/840	220 - 240V	30W	145mA	4000K	85° x 95°	2850lm	F
UF151E-30W/865	220 - 240V	30W	145mA	6500K	85° x 95°	3000lm	E
UF152E-50W/830	220 - 240V	50W	242mA	3000K	85° x 95°	4500lm	F
UF152E-50W/840	220 - 240V	50W	242mA	4000K	85° x 95°	4750lm	F
UF152E-50W/865	220 - 240V	50W	242mA	6500K	85° x 95°	5000lm	E
UF153E-100W/830	220 - 240V	100W	483mA	3000K	85° x 95°	9000lm	F
UF153E-100W/840	220 - 240V	100W	483mA	4000K	85° x 95°	9500lm	F
UF153E-100W/865	220 - 240V	100W	483mA	6500K	85° x 95°	10000lm	E
UF154E-150W/830	220 - 240V	150W	725mA	3000K	85° x 95°	13500lm	F
UF154E-150W/840	220 - 240V	150W	725mA	4000K	85° x 95°	14250lm	F
UF154E-150W/865	220 - 240V	150W	725mA	6500K	85° x 95°	15000lm	E
UF155E-200W/830	220 - 240V	200W	966mA	3000K	85° x 95°	18000lm	F
UF155E-200W/840	220 - 240V	200W	966mA	4000K	85° x 95°	19000lm	F
UF155E-200W/865	220 - 240V	200W	966mA	6500K	85° x 95°	20000lm	E





LED Professional Floodlight FLS FLM FLL

Features

- Maximum 105W / 250W / 450W LED Floodlight Pro
- Maximum 140W / 420W / 730W LED Floodlight Plus
- Ultra-thin streamline housing design to minimize wind exposure surface
- Excellent thermal management by NTC overheat protection, available in Pro version
- Auto cut off mains by knife switch for safety maintenance, available in Pro version
- 3 dimming options: AstroDIM/ StepDIM/ MainsDIM
- 16 types of advance optical solutions in different applications
- Good color rendition, Ra ≥ 70 / 80

Materials / Finish

- Body: Sturdy die cast aluminium housing with anodised steel bracket and extruded silicone rubber gasket
- Diffuser: Tempered glass
- Black color

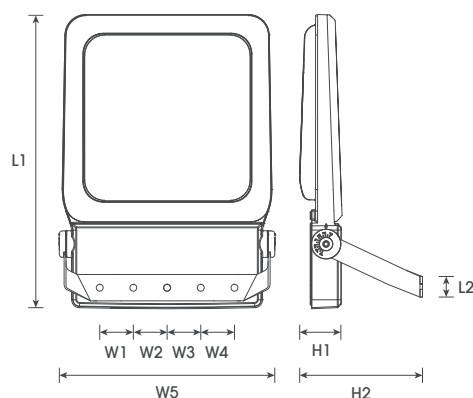
Installation / Mounting

- Suitable for mast mounting and wall mounting
- Field replaceable for LED driver

Standards

- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IK 08, IP 66

Dimming Options



(Unit : mm)	(L1)	(L2)	(W1)	(W2)	(W3)	(W4)	(W5)	(H1)	(H2)
FLS Pro	446	x 40	x -	x 51	x 51	x -	x 325	x 67	x 228
FLM Pro	622	x 50	x 64	x 51	x 51	x 64	x 453	x 74	x 293
FLL Pro	759	x 50	x -	x 80	x 80	x -	x 679	x 91	x 350
FLS Plus	446	x 40	x -	x 51	x 51	x -	x 325	x 67	x 228
FLM Plus	622	x 50	x 64	x 51	x 51	x 64	x 453	x 74	x 293
FLL Plus	759	x 50	x -	x 80	x 80	x -	x 679	x 91	x 350

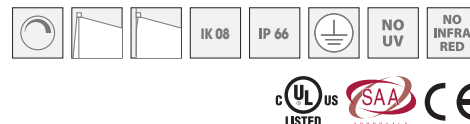
Model Number Reference

FLSSE-105W-740-01-3

Fixture Type	Housing Size	Surge Protection	Driver	Wattage	CRI	CCT	Optics	Receptacle
FL = Floodlight	S = Small	S = 10kV	E = Non DIM	105W = 105W	7 = Ra 70	30 = 3000K	01 = 01	3 = 3 pins
	M = Medium	X = 3kV	A = AstroDIM	250W = 250W	8 = Ra 80	40 = 4000K	02 = 02	5 = 5 pins
	L = Large		S = StepDIM	450W = 450W		50 = 5000K	03 = 03	7 = 7 pins
			M = MainsDIM				04 = 04	X = No receptacle
			D = DALI				05 = 05	
							06 = 06	
							07 = 07	
							08 = 08	
							09 = 09	
							10 = 10	
							11 = 11	
							12 = 12	
							13 = 13	
							14 = 14	
							15 = 15	
							16 = 16	
								XX = No lens



LED Professional Floodlight FLS FLM FLL



FLS



FLM



FLL

Specifications

	FLS Pro	FLM Pro	FLL Pro
System W	Max 105W	Max 250W	Max 450W
Voltage		100 - 277V~ / 220 - 240V~	
Lumen @3000K, ta=30°C Ra 80	11600lm	27500lm	49500lm
Lumen @4000K, ta=30°C Ra 80	12100lm	28800lm	51800lm
Lumen @5000K, ta=30°C Ra 80	12600lm	30000lm	54000lm
Energy Efficiency Class @ 830/840/850	E / E / D	E / E / D	E / E / D
CRI		70 / 80	
Optics		01-16 / Flood	
Dimming Option		Non DIM / AstroDIM / StepDim / Mains Dim / DALI	
Receptacle		3 pins / 5 pins / 7 pins / No receptacle	
Surge Protection		3kV / 10kV	
Thermal Protection		NTC	
Auto Cut Off Mains		Yes	
Temperature Range		-25°C ~ +45°C	
Service Life 100,000h, L80/B10	ta ≤31°C	ta ≤32°C	ta ≤30°C
Service Life 85,000h, L80/B10	ta ≤34°C	ta ≤35°C	ta ≤33°C
Service Life 50,000h, L80/B10	ta ≤44°C	ta ≤45°C	ta ≤43°C
Inclination		±160°	
HID Floodlight Equivalent	Up to 250W HID	Up to 400W HID	Up to 1000W HID
Weight	8.39kg	15.58kg	31.16kg
Windage Area	0.145m²	0.282m²	0.515m²
Standard		IEC 60598-1, IEC 60598-2-5	

	FLS Plus	FLM Plus	FLL Plus
System W	Max 140W	Max 420W	Max 730W
Voltage		100 - 277V~ / 220 - 240V~	
Lumen @3000K, ta=30°C Ra 80	16800lm	50400lm	87600lm
Lumen @4000K, ta=30°C Ra 80	17500lm	52500lm	91250lm
Lumen @5000K, ta=30°C Ra 80	18200lm	54600lm	94900lm
Energy Efficiency Class @ 830/840/850	D	D	D
CRI		70 / 80	
Optics		IESNA Type I, II, III, IV, V	
Dimming Option		Non DIM / 1-10V	
Receptacle		3 pins / 5 pins / 7 pins / No receptacle	
Surge Protection		3kV / 6kV	
Temperature Range		-25°C ~ +39°C	
Service Life 50,000h, L80/B10	ta ≤34°C	ta ≤39°C	ta ≤35°C
Inclination		±160°	
HID Floodlight Equivalent	Up to 250W HID	Up to 600W HID	Up to 1000W HID
Weight	8.33kg	16.94kg	32.36kg
Windage Area	0.145m²	0.282m²	0.515m²
Standard		IEC 60598-1, IEC 60598-2-5	



LED Solar Floodlight UF171S-UF175S



Features

- Solar-powered and Eco-friendly with ZERO electricity cost
- Tempered glass solar panel and die-cast aluminium housing withstanding severe weather conditions
- Remote control to adjust operation time and brightness level
- Embedded with Daylight Sensor
- Plug and play power cord, easy installation
- Built-in Lithium iron phosphate battery, discharge time from 5 - 6 hours
- Good color rendition, $Ra \geq 80$

Materials / Finish

- Body: Sturdy die cast aluminium housing with anodised steel bracket and extruded silicone rubber gasket
- Diffuser: Toughened glass
- Grey color

Installation / Mounting

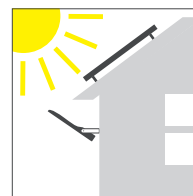
- Suitable for mast mounting and wall mounting

Standards

- Designed and manufactured to comply international standard EN60598
- Class I Electrical
- IP 65



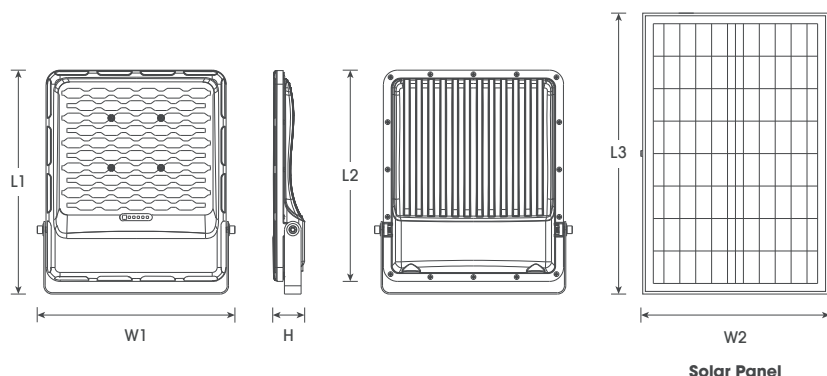
Daylight Harvesting Control



Solar recharge during daytime



Light up at night



(Unit : mm)	(L1)		(L2)		(W1)		(H)	Solar Panel Size	
								(L3)	(W2)
UF171S	228	x	190	x	207	x	43	235	x 350
UF172S	274	x	231	x	251	x	43	290	x 350
UF173S	324	x	281	x	286	x	46	450	x 350
UF174S	369	x	326	x	326	x	51	600	x 350
UF175S	415	x	371	x	396	x	51	670	x 445



Model	Color Temp	Beam Angle	Lumen	Battery Capacity
UF171S-830	3000K	90°	300lm	5AH 3.2V
UF171S-840	4000K	90°	300lm	5AH 3.2V
UF171S-865	6500K	90°	300lm	5AH 3.2V
UF172S-830	3000K	90°	600lm	10AH 3.2V
UF172S-840	4000K	90°	600lm	10AH 3.2V
UF172S-865	6500K	90°	600lm	10AH 3.2V
UF173S-830	3000K	90°	890lm	15AH 3.2V
UF173S-840	4000K	90°	890lm	15AH 3.2V
UF173S-865	6500K	90°	890lm	15AH 3.2V
UF174S-830	3000K	90°	1440lm	25AH 3.2V
UF174S-840	4000K	90°	1440lm	25AH 3.2V
UF174S-865	6500K	90°	1440lm	25AH 3.2V
UF175S-830	3000K	90°	1700lm	30AH 3.2V
UF175S-840	4000K	90°	1700lm	30AH 3.2V
UF175S-865	6500K	90°	1700lm	30AH 3.2V



LED Wallwasher WW1 - WW4



Features

- 14W / 27W / 39W / 51W LED Linear Wallwasher
- 11 types advance optical solutions are available
- Individual SPD in series connection with L-L 10kV and L-Peak 20kV protection except 300mm length model with L-L 2kV
- Integral driver
- Optional glare shield
- Guarantees functionality in dusty and humid environment
- Good color rendition, Ra ≥ 80

Materials / Finish

- Housing: Extruded aluminium, anodized in metallic grey
- End cap: Die cast aluminium, powder coated in grey
- Glass: Tempered glass

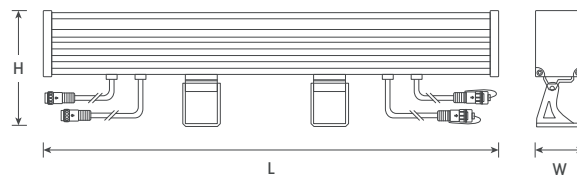
Installation / Mounting

- Quick installation with $\pm 90^\circ$ adjustable mounting bracket
- Integral gear unit allows quick and easy installation

Standards

- Designed and manufactured to comply with international standard EN60598
- Class I Electrical
- IP 66, IP 67

Dimming Options



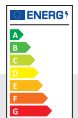
	(Unit : mm)	(L)	(W)	(H)	Max no. of fixture on 10A circuit breaker
WW1E	300 x 59 x 148				60
WW2E	600 x 59 x 148				40
WW3E	900 x 59 x 148				30
WW4E	1200 x 59 x 148				20

Model Number Reference

WW1E-14W/830-0010-G

Model	Length	Driver	Wattage	CRI	Color Temp	Optics	Glare Shield
WW	1 = 300mm	E = Non DIM	14W = 14W	8	30 = 3000K	0010 = 10	G = Glare shield
	2 = 600mm	V = 1-10V DIM	27W = 27W		40 = 4000K	0015 = 15	X = No shield
	3 = 900mm		39W = 39W		65 = 6500K	0025 = 25	
	4 = 1200mm		51W = 51W			0030 = 30	
						0040 = 40	
						0060 = 60	
						1030 = 10 x 30	
						1045 = 10 x 45	
						1065 = 10 x 65	
						1070 = 10 x 70	
						2065 = 20 x 65	

Model	Voltage	Luminaire Wattage	Color Temp	Luminaire Lumen	ENERGY CLASS
WW1E-14W/830-XXXX-G	100 - 240V	14W	3000K	1190lm	F
WW1E-14W/840-XXXX-G	100 - 240V	14W	4000K	1260lm	F
WW1E-14W/865-XXXX-G	100 - 240V	14W	6500K	1330lm	F
WW2E-27W/830-XXXX-G	100 - 240V	27W	3000K	2300lm	F
WW2E-27W/840-XXXX-G	100 - 240V	27W	4000K	2430lm	F
WW2E-27W/865-XXXX-G	100 - 240V	27W	6500K	2570lm	F
WW3E-39W/830-XXXX-G	100 - 240V	39W	3000K	3320lm	F
WW3E-39W/840-XXXX-G	100 - 240V	39W	4000K	3510lm	F
WW3E-39W/865-XXXX-G	100 - 240V	39W	6500K	3710lm	F
WW4E-51W/830-XXXX-G	100 - 240V	51W	3000K	4340lm	F
WW4E-51W/840-XXXX-G	100 - 240V	51W	4000K	4590lm	F
WW4E-51W/865-XXXX-G	100 - 240V	51W	6500K	4850lm	F



LED Roadlight UR111E - UR113E



Features

- 65W / 150W / 250W LED Roadlight
- Wide beam angles for large open area coverage
- Asymmetric optic design with uniform distribution
- Integral driver
- Excellent heat dissipation and long life span for low maintenance cost

Materials / Finish

- Body: Die cast aluminium
- Lens: PC
- Diffuser: Toughened glass
- Light grey color

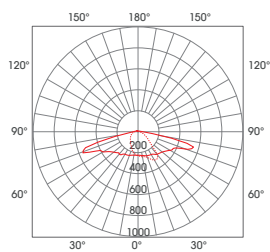
Installation / Mounting

- Mounting bracket for side entry or post top installation
- +/-15° adjustable for side entry installation
- +/-15° adjustable for post top installation
- Suitable for Ø60mm spigot

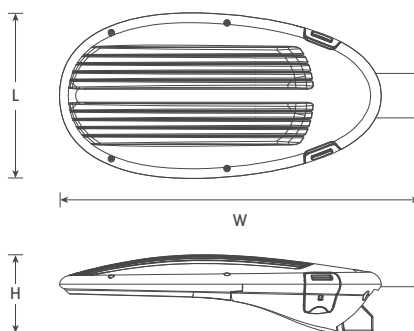
Standards

- Designed and manufactured to comply with international standard EN60598
- Class I Electrical
- IK 09, IP 66

Optional receptacle and photocell



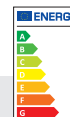
Lamp: LED 150W 3000K



+/-15° adjustable for side entry installation

+/-15° adjustable for post top installation

(Unit : mm)	(L)	(W)	(H)	Weight
UR111E	260	x 520	x 115	5 kg
UR112E	340	x 665	x 160	9.5 kg
UR113E	398	x 790	x 173	13 kg



Model	Voltage	Luminaire Wattage	Color Temp	Luminaire Lumen	
UR111E-65W/830	220 - 240V	65W	3000K	6800lm	E
UR111E-65W/840	220 - 240V	65W	4000K	7100lm	E
UR111E-65W/860	220 - 240V	65W	6000K	7500lm	E
UR112E-150W/830	220 - 240V	150W	3000K	15700lm	E
UR112E-150W/840	220 - 240V	150W	4000K	16500lm	E
UR112E-150W/860	220 - 240V	150W	6000K	17300lm	E
UR113E-250W/830	220 - 240V	250W	3000K	26200lm	E
UR113E-250W/840	220 - 240V	250W	4000K	27500lm	E
UR113E-250W/860	220 - 240V	250W	6000K	28700lm	E

LED Roadlight UR111E - UR113E



UR111E

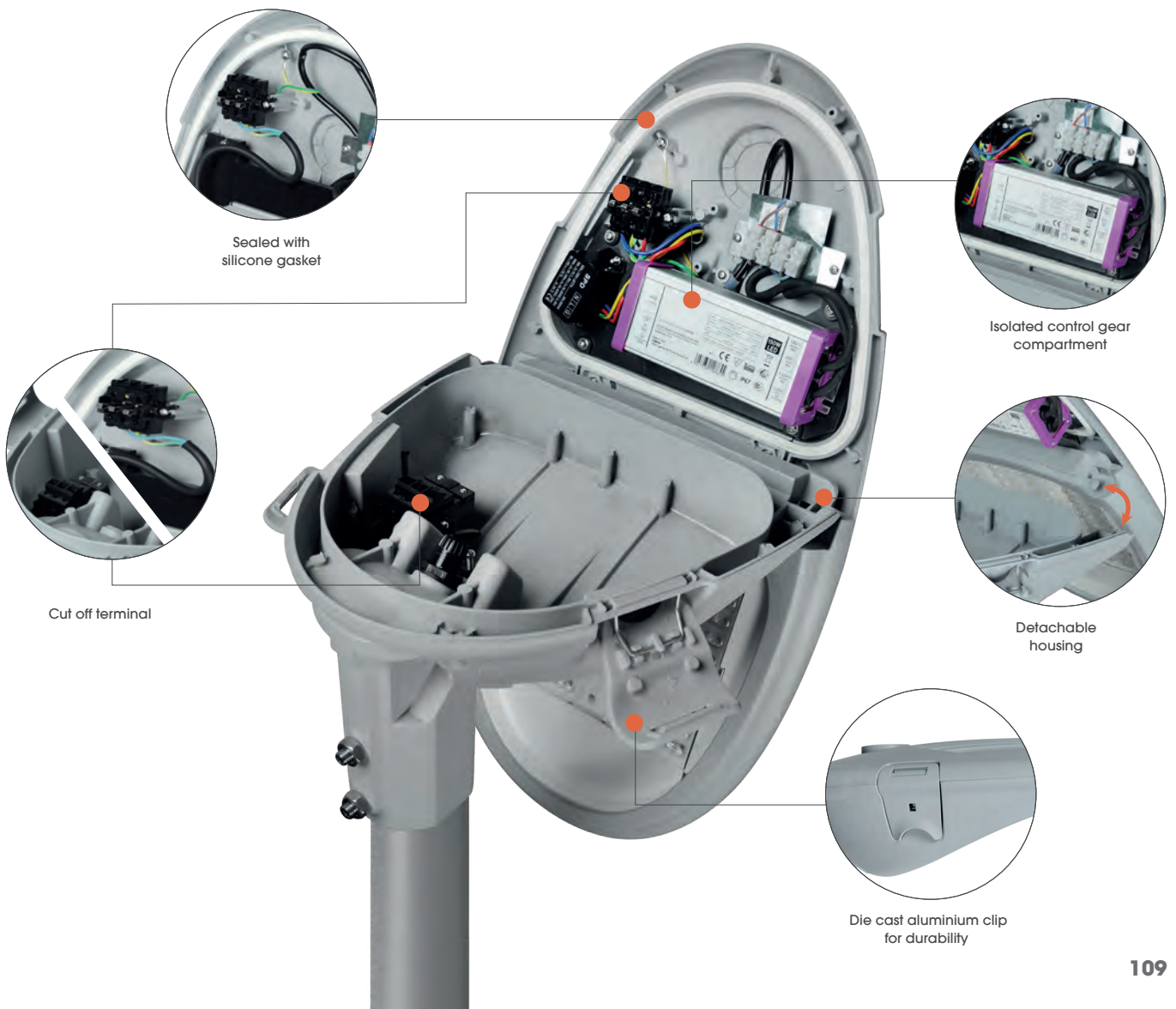
UR112E

UR113E

EUROPE



OUTDOOR LUMINAIRE





STRIPLIGHT



LED STRIPLIGHT 2016
P. 111



LED STRIPLIGHT 2016 SUPER SLIM
P. 112



LED STRIPLIGHT 2835
P. 113



LED STRIPLIGHT TUNABLE WHITE
P. 114



LED STRIPLIGHT RGB
P. 115

LED Striplight 2016



Features

- Extremely energy saving with low power consumption
- High brightness, multi-functional for linear decoration
- Long average life 30000 hours
- Low thermal output with no IR and harmful UV
- No mercury and hazardous substances
- Dimmable as option
- Good color rendition, $R_a \geq 90$

Materials / Finish

- Chips: SMD 2016

Installation / Mounting

- Easy to install with 3M adhesive tape, mounting brackets and profile

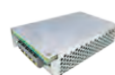
Standards

- EMC, RoHS
- Class III Electrical
- IP 20, IP 65, IP 67

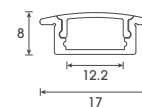
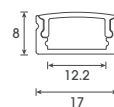
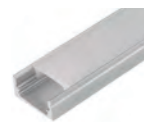
Connectors



LED Driver Controllers

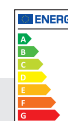
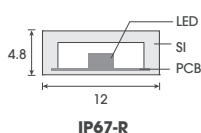
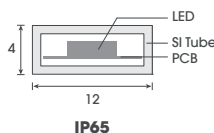
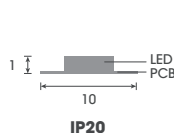


Profiles



* Extra profiles and accessories need to order separately.

IP Structures



Model	Voltage	Wattage	Color Temp	PCB Width	Cutting Unit	No. of LEDs	Lumen	
LED 2016 9.36W 5-140 930	24V DC	9.36W/m	3000K	5mm	50mm/7LEDs	140 pcs/m	895lm/m	F
LED 2016 9.36W 5-140 940	24V DC	9.36W/m	4000K	5mm	50mm/7LEDs	140 pcs/m	950lm/m	F
LED 2016 9.36W 5-140 965	24V DC	9.36W/m	6500K	5mm	50mm/7LEDs	140 pcs/m	980lm/m	F
LED 2016 14.3W 5-210 930	24V DC	14.3W/m	3000K	5mm	33.3mm/7LEDs	210 pcs/m	1290lm/m	G
LED 2016 14.3W 5-210 940	24V DC	14.3W/m	4000K	5mm	33.3mm/7LEDs	210 pcs/m	1425lm/m	F
LED 2016 14.3W 5-210 965	24V DC	14.3W/m	6500K	5mm	33.3mm/7LEDs	210 pcs/m	1450lm/m	F

Package Content : 5m per reel

LED Striplight 2016 Super Slim



Features

- Extremely energy saving with low power consumption
- High brightness, multi-functional for linear decoration
- Long average life 30000 hours
- Low thermal output with no IR and harmful UV
- No mercury and hazardous substances
- Dimmable as option
- Good color rendition, $R_a \geq 90$

Materials / Finish

- Chips: SMD 2016

Installation / Mounting

- Easy to install with 3M adhesive tape, mounting brackets and profile

Standards

- EMC, RoHS
- Class III Electrical
- IP 20, IP 65, IP 67

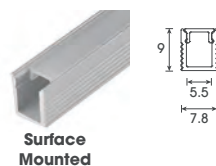
Connectors



LED Driver Controllers

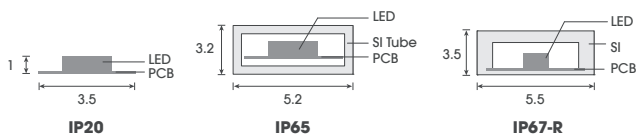


Profiles



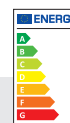
* Extra profiles and accessories need to order separately.

IP Structures



Model	Voltage	Wattage	Color Temp	PCB Width	Cutting Unit	No. of LEDs	Lumen	ENERGY STAR
LED 2016 9.36W 3.5-140 930	24V DC	9.36W/m	3000K	3.5mm	50mm/7LEDs	140 pcs/m	865lm/m	F
LED 2016 9.36W 3.5-140 940	24V DC	9.36W/m	4000K	3.5mm	50mm/7LEDs	140 pcs/m	940lm/m	F
LED 2016 9.36W 3.5-140 965	24V DC	9.36W/m	6500K	3.5mm	50mm/7LEDs	140 pcs/m	950lm/m	F

Package Content : 5m per reel



LED Striplight 2835



Features

- Extremely energy saving with low power consumption
- High brightness, multi-functional for linear decoration
- Long average life 30000 hours
- Low thermal output with no IR and harmful UV
- No mercury and hazardous substances
- Dimmable as option
- Good color rendition, $R_a \geq 80$

Materials / Finish

- Chips: SMD 2835

Installation / Mounting

- Easy to install with 3M adhesive tape, mounting brackets and profile

Standards

- EMC, RoHS
- Class III Electrical
- IP 20, IP 65, IP 67

Connectors



2 Pin Quick Connector



Strip-to-Wire



Strip-to-Strip

* 33.6W exclusive of 2 Pin Quick Connector, Strip-to-wire and Strip-to-Strip Connectors



'I' Type Fast Plug

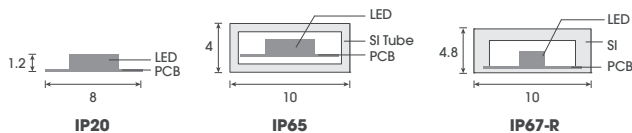


'T' Type Fast Plug

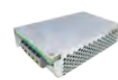


Wire-to-Wire Fast Plug

IP Structures



LED Driver Controllers



LED Driver



LED Dimmer (With Remote Control Device)

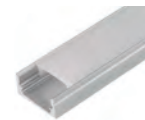


LED Manual Controller

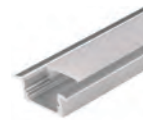
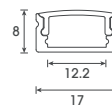


LED Remote Controller

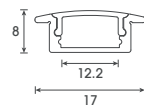
Profiles



Surface Mounted



Recessed



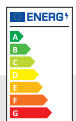
* Extra profiles and accessories need to order separately.

EUROPE

STRIPLIGHT

Model	Voltage	Wattage	Color Temp	PCB Width	Cutting Unit	No. of LEDs	Lumen	ENERGY
LED 2835 4.6W 8-70 830	24V DC	4.6W/m	3000K	8mm	100mm/7LEDs	70 pcs/m	555lm/m	E
LED 2835 4.6W 8-70 840	24V DC	4.6W/m	4000K	8mm	100mm/7LEDs	70 pcs/m	570lm/m	E
LED 2835 4.6W 8-70 865	24V DC	4.6W/m	6500K	8mm	100mm/7LEDs	70 pcs/m	580lm/m	E
LED 2835 7.2W 8-70 830	24V DC	7.2W/m	3000K	8mm	100mm/7LEDs	70 pcs/m	810lm/m	F
LED 2835 7.2W 8-70 840	24V DC	7.2W/m	4000K	8mm	100mm/7LEDs	70 pcs/m	830lm/m	F
LED 2835 7.2W 8-70 865	24V DC	7.2W/m	6500K	8mm	100mm/7LEDs	70 pcs/m	850lm/m	F
LED 2835 14.2W 8-210 830	24V DC	14.2W/m	3000K	8mm	33.3mm/7LEDs	210 pcs/m	1670lm/m	F
LED 2835 14.2W 8-210 840	24V DC	14.2W/m	4000K	8mm	33.3mm/7LEDs	210 pcs/m	1700lm/m	E
LED 2835 14.2W 8-210 865	24V DC	14.2W/m	6500K	8mm	33.3mm/7LEDs	210 pcs/m	1730lm/m	E

Package Content : 5m per reel



LED Striplight Tunable White



Features

- Extremely energy saving with low power consumption
- High brightness, multi-functional for linear decoration
- Long average life 30000 hours
- Tunable White from 2500K to 6000K
- Low thermal output with no IR and harmful UV
- No mercury and hazardous substances
- Dimmable as option
- Good color rendition, $R_a \geq 90$

Materials / Finish

- Chips: SMD 2016

Installation / Mounting

- Easy to install with 3M adhesive tape, mounting brackets and profile

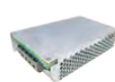
Standards

- EMC, RoHS
- Class III Electrical
- IP 20, IP 65, IP 67

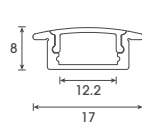
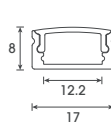
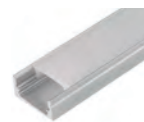
Connectors



LED Driver Controllers

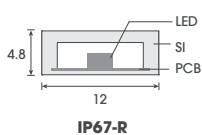
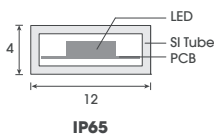
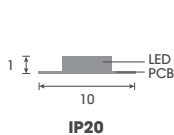


Profiles



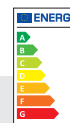
* Extra profiles and accessories need to order separately.

IP Structures



Model	Voltage	Wattage	Color Temp	PCB Width	Cutting Unit	No. of LEDs	Lumen	ENERGY STAR
LED 2016 9.16W 10-120 TW	24V DC	9.16W/m	2500 - 6000K	10mm	100mm/12LEDs	120 pcs/m	720lm/m	G

Package Content : 5m per reel



LED Striplight RGB



Features

- Extremely energy saving with low power consumption
- High brightness, multi-functional for linear decoration
- Long average life 30000 hours
- Vivid and multiple color effects
- Low thermal output with no IR and harmful UV
- No mercury and hazardous substances
- Dimmable as option
- Good color rendition, Ra ≥ 80

Materials / Finish

- Chips: SMD 5050

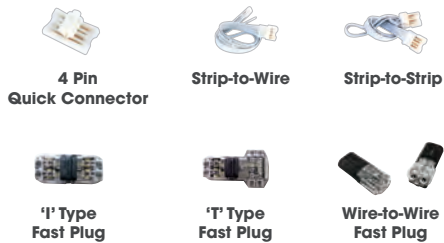
Installation / Mounting

- Easy to install with 3M adhesive tape, mounting brackets and profile

Standards

- EMC, RoHS
- Class III Electrical
- IP 20, IP 54, IP 65, IP 67, IP 68

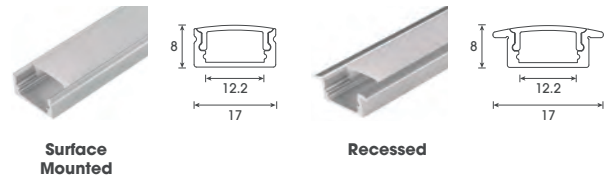
Connectors



LED Driver Controllers

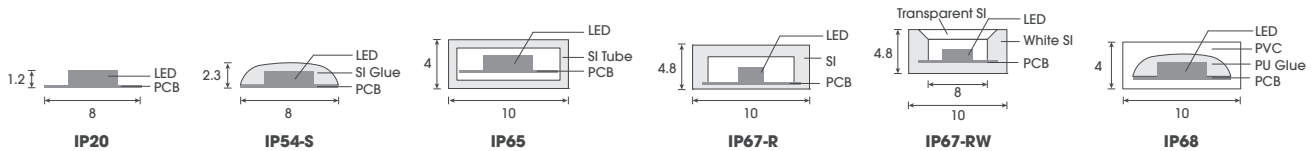


Profiles



* Extra profiles and accessories need to order separately.

IP Structures



Model	Voltage	Wattage	Color Temp	PCB Width	Cutting Unit (12V / 24V)	No. of LEDs	Lumen
LED 5050 7.2W 10-30 RGB	12V DC	7.2W/m	RGB	10mm	100mm/3LEDs	30 pcs/m	300lm/m
LED 5050 14.4W 10-60 RGB	12V / 24V DC	14.4W/m	RGB	10mm	50mm/3LEDs / 100mm/6LEDs	60 pcs/m	600lm/m

Package Content : 5m per reel

Once the strip light is cut, IP68 is no longer guaranteed.



LOW VOLTAGE LAMP



LED CAPSULE
P. 117



LED A19
P. 118



LED FILAMENT
P. 119



LED MR11
P. 120



LED MR16
P. 121



LED GU7
P. 122



LED PAR
P. 122

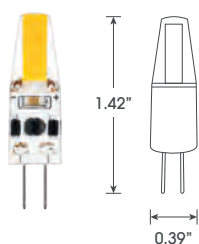




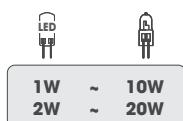
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, $R_a \geq 80$
- Ideal retrofit of traditional halogen lamps with compact size
- Suitable for operation with all magnetic transformers, LED drivers and most electronic ballasts

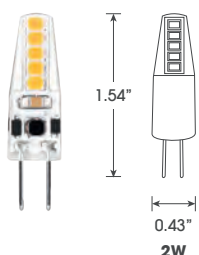
LED COB G4



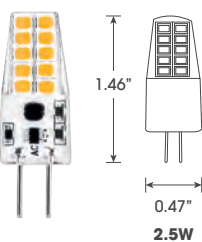
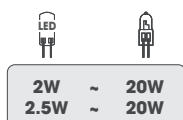
Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 4000K / 6500K
LED NA G4 COB-1W	12 - 24V AC / DC	1W	G4	3000K / 4000K / 6500K	100lm / 103lm / 105lm
LED NA G4 COB-2W	12 - 24V AC / DC	2W	G4	3000K / 4000K / 6500K	160lm / 165lm / 170lm



Multi-LED G4/GY6.35



Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 4000K / 6500K
LED NA G4 SMD-2W	12 - 24V AC / DC	2W	G4	3000K / 4000K / 6500K	220lm / 230lm / 235lm
LED NA G4 SMD-2.5W	12 - 24V AC / DC	2.5W	G4	3000K / 4000K / 6500K	260lm / 270lm / 280lm
LED NA GY6.35 SMD-2.5W	12 - 24V AC / DC	2.5W	GY6.35	3000K / 4000K / 6500K	260lm / 270lm / 280lm

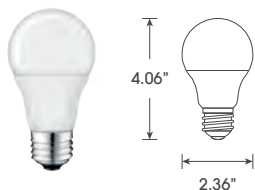




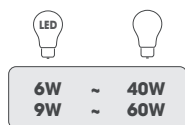
Features

- Extremely energy saving with low power consumption
- Excellent thermal conductivity
- Good color rendition, Ra ≥ 80
- Ideal retrofit of traditional incandescent light source in traffic signals, EM lighting and outdoor lighting with 25 times longer life
- Extra low voltage (ELV) safe against electric shock, especially in damp locations

Thermal Plastic Multi-LED A19 12V/24V



Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 4000K / 6500K
LED NA TP A19 SMD-6W	12V AC / DC	6W	E26	3000K / 4000K / 6500K	470lm / 480lm / 490lm
LED NA TP A19 SMD-9W	12V AC / DC	9W	E26	3000K / 4000K / 6500K	800lm / 825lm / 850lm
LED NA TP A19 SMD-6W	24V AC / DC	6W	E26	3000K / 4000K / 6500K	470lm / 480lm / 490lm
LED NA TP A19 SMD-9W	24V AC / DC	9W	E26	3000K / 4000K / 6500K	800lm / 825lm / 850lm

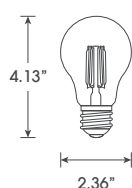




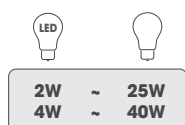
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥ 80
- Ideal retrofit of traditional incandescent light source in traffic signals, EM lighting and outdoor lighting with 25 times longer life
- Extra low voltage (ELV) safe against electric shock, especially in damp locations

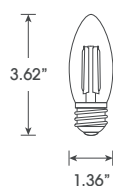
Filament-LED A19 12V/24V



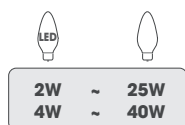
Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA A19 FIL-2W-G CL	12V AC / DC	2W	E26	2700K	200lm
LED NA A19 FIL-4W-G CL	24V AC / DC	4W	E26	2700K	400lm



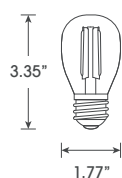
Filament-LED B10 12V/24V



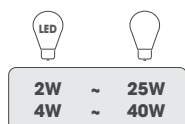
Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA B10 FIL-2W-G CL	12V AC / DC	2W	E12	2700K	200lm
LED NA B10 FIL-4W-G CL	12V AC / DC	4W	E26	2700K	400lm
LED NA B10 FIL-2W-G CL	24V AC / DC	2W	E12	2700K	200lm
LED NA B10 FIL-4W-G CL	24V AC / DC	4W	E26	2700K	400lm



Filament-LED S14 12V/24V



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA S14 FIL-2W-G CL	12V AC / DC	2W	E26	2700K	200lm
LED NA S14 FIL-4W-G CL	12V AC / DC	4W	E26	2700K	400lm
LED NA S14 FIL-2W-G CL	24V AC / DC	2W	E26	2700K	200lm
LED NA S14 FIL-4W-G CL	24V AC / DC	4W	E26	2700K	400lm

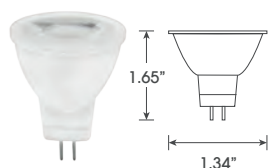




Features

- Extremely energy saving with low power consumption
- Aesthetic reflector optics
- Good color rendition, $R_a \geq 80$
- Ideal retrofit of traditional MR11 with identical size
- Broad compatibility with magnetic and 12V AC electronic transformers
- At least 20% loading of power rating is required for 12V AC electronic transformers

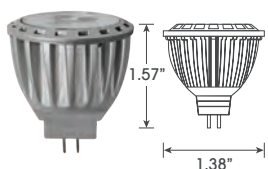
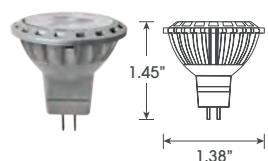
Thermal Plastic Multi-LED MR11



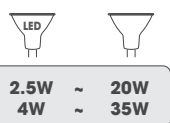
Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K
LED NA TP MR11 SMD-4W	12V AC / DC	4W	GU4	38° / 60°	3000K / 4000K / 6500K	280lm / 290lm / 300lm



LED HP MR11



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K
LED NA MR11 HP-2.5W	12V AC / DC	2.5W	GU4	30°	3000K / 4000K / 6500K	220lm / 235lm / 250lm
LED NA MR11 HP-4W	12V AC / DC	4W	GU4	30°	3000K / 4000K / 6500K	320lm / 335lm / 350lm





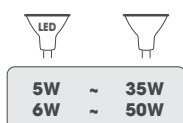
Features

- Extremely energy saving with low power consumption
- Aesthetic reflector optics
- Good color rendition, Ra ≥ 80
- Ideal retrofit of traditional MR16 with identical size
- Broad compatibility with magnetic and 12V AC electronic transformers

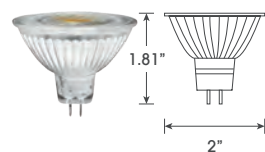
Thermal Plastic LED COB MR16



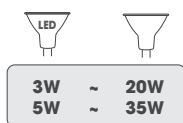
Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K
LED NA TP MR16 COB-5W	12V AC / DC	5W	GU5.3	38°	3000K / 4000K / 6500K	380lm / 390lm / 400lm
LED NA TP MR16 COB-6W	12V AC / DC	6W	GU5.3	38°	3000K / 4000K / 6500K	500lm / 510lm / 520lm



Glass LED COB MR16



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K
LED NA G MR16 COB-3W	12V AC / DC	3W	GU5.3	30° / 60°	3000K / 4000K / 6500K	240lm / 245lm / 250lm
LED NA G MR16 COB-5W	12V AC / DC	5W	GU5.3	30° / 60°	3000K / 4000K / 6500K	420lm / 435lm / 450lm

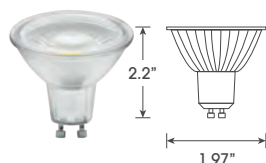




Features

- Extremely energy saving with low power consumption
- Broad compatibility with magnetic and 12V electronic transformers
- Good color rendition, $R_a \geq 80$
- Ideal retrofit solution for GU7 halogen lighting
- Same glass body finishing and identical size
- No mercury and hazardous substances

Glass LED COB GU7



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen
LED NA G GU7 COB-4W	12V AC / DC	4W	GU7	36°	3000K	300lm



LED PAR



Features

- Extremely energy saving with low power consumption
- Full glass reflector
- Good color rendition, $R_a \geq 80$
- Frontal lens in total silicon sealing, suitable for pool and fountain use and outdoor condition

Glass LED COB PAR20/PAR30/PAR38 12-24V

Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen 3000K / 4000K / 6500K
LED NA G PAR20 COB-8W	12 - 24V AC / DC	8W	E26	60°	3000K / 4000K / 6500K	600lm / 620lm / 640lm
LED NA G PAR30S COB-10W	12 - 24V AC / DC	10W	E26	60°	3000K / 4000K / 6500K	750lm / 775lm / 800lm
LED NA G PAR30L COB-10W	12 - 24V AC / DC	10W	E26	60°	3000K / 4000K / 6500K	750lm / 775lm / 800lm
LED NA G PAR38 COB-12W	12 - 24V AC / DC	12W	E26	60°	3000K / 4000K / 6500K	980lm / 1005lm / 1030lm



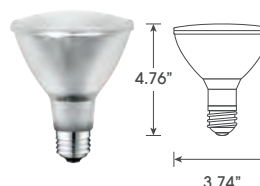
PAR20



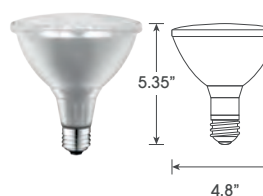
8W ~ 50W
10W ~ 100W
12W ~ 120W



PAR30S



PAR30L



PAR38



LINE VOLTAGE LAMP



LED FILAMENT
P. 124 - 128



LED DECORATIVE FILAMENT
P. 129 - 131



LED DECORATIVE COLOR
P. 132



LED THERMAL PLASTIC BULB
P. 133 - 134



LED G9
P. 134



LED GU10
P. 135



LED BR30
P. 136



LED PAR
P. 136

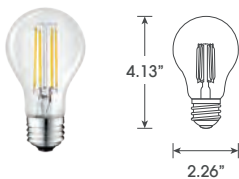




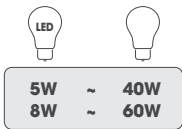
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥90
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- California Energy Commission (CEC) Title 20 / 24 compliant
- CCT 4000K is also available

Filament-LED A19

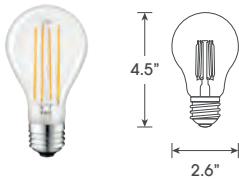


Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA A19 FIL-5W-G CL DIM	120V	5W	E26	2700K	450lm
LED NA A19 FIL-8W-G CL DIM	120V	8W	E26	2700K	800lm

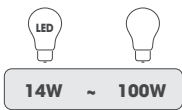


5W is complied with Title 20 only

Filament-LED A21



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA A21 FIL-14W-G CL DIM	120V	14W	E26	2700K	1600lm

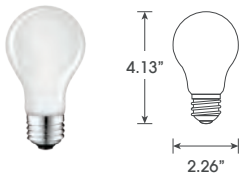




Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥90
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- California Energy Commission (CEC) Title 20 / 24 compliant
- CCT 4000K is also available

Filament-LED A19 Opal

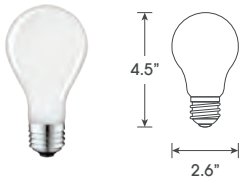


Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA A19 FIL-5W-G OP DIM	120V	5W	E26	2700K	450lm
LED NA A19 FIL-8W-G OP DIM	120V	8W	E26	2700K	800lm

	
5W ~ 40W	
8W ~ 60W	

5W is complied with Title 20 only

Filament-LED A21 Opal



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA A21 FIL-14W-G OP DIM	120V	14W	E26	2700K	1600lm

	
14W ~ 100W	

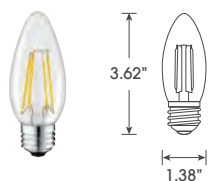




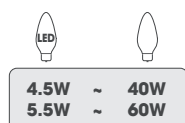
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥ 90
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- California Energy Commission (CEC) Title 20 compliant
- CCT 4000K is also available

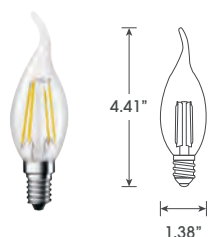
Filament-LED B11



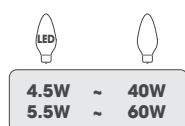
Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA B11 FIL-4.5W-G CL DIM	120V	4.5W	E12 / E26	2700K	360lm
LED NA B11 FIL-5.5W-G CL DIM	120V	5.5W	E12 / E26	2700K	500lm



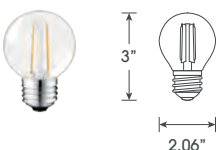
Filament-LED CA10



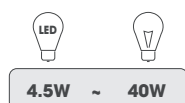
Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA CA10 FIL-4.5W-G CL DIM	120V	4.5W	E12 / E26	2700K	360lm
LED NA CA10 FIL-5.5W-G CL DIM	120V	5.5W	E12 / E26	2700K	500lm



Filament-LED G16.5



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA G16.5 FIL-4.5W-G CL DIM	120V	4.5W	E12 / E26	2700K	360lm

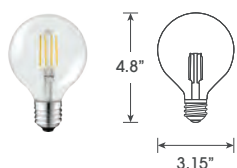




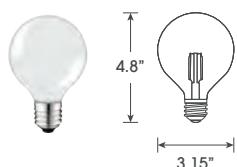
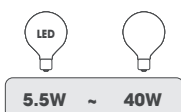
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥ 90
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- California Energy Commission (CEC) Title 20 / 24 compliant
- CCT 4000K is also available

Filament-LED G25



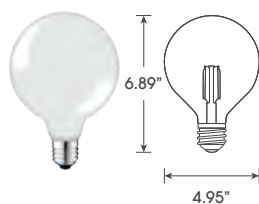
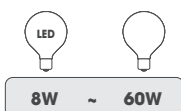
Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA G25 L-FIL-5.5W-G CL DIM	120V	5.5W	E26	2700K	500lm
LED NA G25 L-FIL-5.5W-G OP DIM	120V	5.5W	E26	2700K	500lm



Filament-LED G40



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA G40 L-FIL-8W-G CL DIM	120V	8W	E26	2700K	800lm
LED NA G40 L-FIL-8W-G OP DIM	120V	8W	E26	2700K	800lm

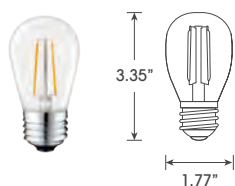




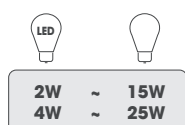
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥ 80
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- CCT 4000K is also available

Filament-LED S14



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA S14 FIL-2W-G CL DIM	120V	2W	E26	2700K	170lm
LED NA S14 FIL-4W-G CL DIM	120V	4W	E26	2700K	350lm

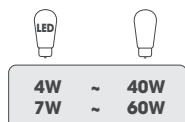


Filament-LED ST18/ST20



ST18

Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA ST18 L-FIL-4W-G CL DIM	120V	4W	E26	2100K	300lm
LED NA ST18 L-FIL-7W-G CL DIM	120V	7W	E26	2100K	600lm
LED NA ST20 L-FIL-4W-G CL DIM	120V	4W	E26	2100K	300lm
LED NA ST20 L-FIL-7W-G CL DIM	120V	7W	E26	2100K	600lm



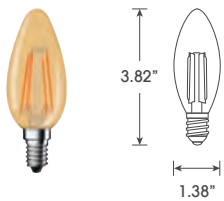
ST20



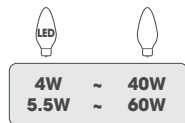
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥80
- Filament-like LED gives perfect light effect in all directions
- Special Warm Tone for decorative purposes

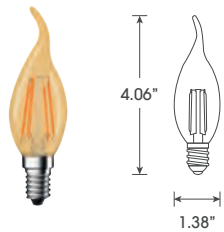
Filament-LED B11 Amber



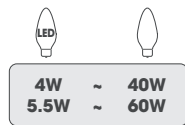
Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA B11 FIL-4W-G WT DIM	120V	4W	E12	2400K	400lm
LED NA B11 FIL-5.5W-G WT DIM	120V	5.5W	E12	2400K	550lm



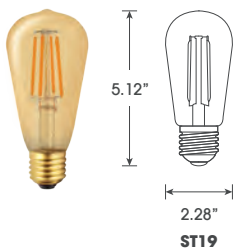
Filament-LED CA11 Amber



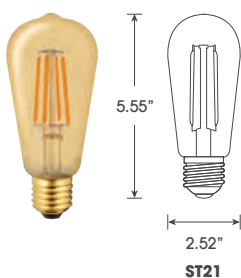
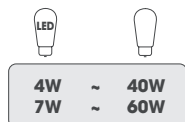
Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA CA11 FIL-4W-G WT DIM	120V	4W	E12	2400K	400lm
LED NA CA11 FIL-5.5W-G WT DIM	120V	5.5W	E12	2400K	550lm



Filament-LED ST19/ST21 Amber



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA ST19 L-FIL-4W-G WT DIM	120V	4W	E26	2400K	450lm
LED NA ST19 L-FIL-7W-G WT DIM	120V	7W	E26	2400K	800lm
LED NA ST21 L-FIL-4W-G WT DIM	120V	4W	E26	2400K	450lm
LED NA ST21 L-FIL-7W-G WT DIM	120V	7W	E26	2400K	800lm

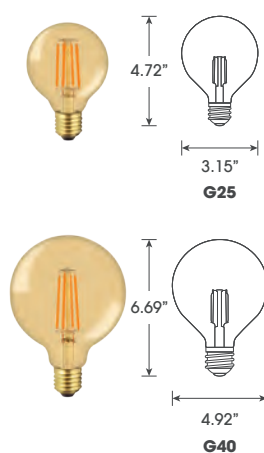




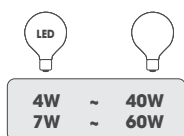
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥80
- Filament-like LED gives perfect light effect in all directions
- Special Warm Tone for decorative purposes

Filament-LED Globe Amber

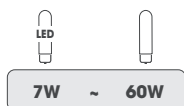


Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA G25 FIL-4W-G WT DIM	120V	4W	E26	2400K	400lm
LED NA G25 FIL-7W-G WT DIM	120V	7W	E26	2400K	750lm
LED NA G40 FIL-4W-G WT DIM	120V	4W	E26	2400K	400lm
LED NA G40 FIL-7W-G WT DIM	120V	7W	E26	2400K	750lm



Filament-LED T10L Amber

Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA T10L FIL-7W-G WT DIM	120V	7W	E26	2400K	780lm

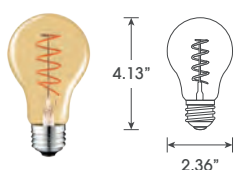




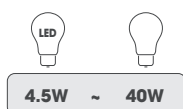
Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥ 80
- Filament-like LED in aesthetic spiral shape gives perfect light effect in all directions
- Special Warm Tone for decorative purposes

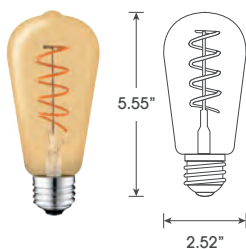
Spiral Filament-LED A19 Amber



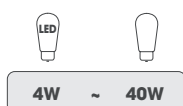
Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA A19 S-FIL-4.5W-G WT DIM	120V	4.5W	E26	2400K	400lm



Spiral Filament-LED ST21 Amber



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA ST21 S-FIL-4W-G WT DIM	120V	4W	E26	2400K	330lm

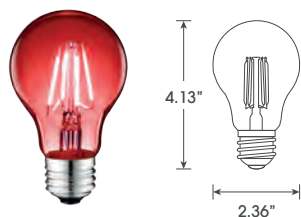




Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Full glass version ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Color filament gives vivid light for decorative purposes

Color Filament-LED A19

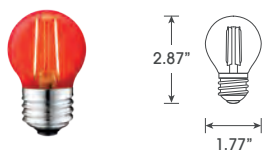


Model	Voltage	Wattage	Base	Color
LED NA A19 RD-FIL-4W-G CL	120V	4W	E26	Red
LED NA A19 OG-FIL-4W-G CL	120V	4W	E26	Orange
LED NA A19 YL-FIL-4W-G CL	120V	4W	E26	Yellow
LED NA A19 GR-FIL-4W-G CL	120V	4W	E26	Green
LED NA A19 BL-FIL-4W-G CL	120V	4W	E26	Blue
LED NA A19 PP-FIL-4W-G CL	120V	4W	E26	Purple
LED NA A19 PK-FIL-4W-G CL	120V	4W	E26	Pink



4W ~ 25W

Color Filament-LED G14



Model	Voltage	Wattage	Base	Color
LED NA G14 RD-FIL-4W-G CL	120V	4W	E26	Red
LED NA G14 OG-FIL-4W-G CL	120V	4W	E26	Orange
LED NA G14 YL-FIL-4W-G CL	120V	4W	E26	Yellow
LED NA G14 GR-FIL-4W-G CL	120V	4W	E26	Green
LED NA G14 BL-FIL-4W-G CL	120V	4W	E26	Blue
LED NA G14 PP-FIL-4W-G CL	120V	4W	E26	Purple
LED NA G14 PK-FIL-4W-G CL	120V	4W	E26	Pink



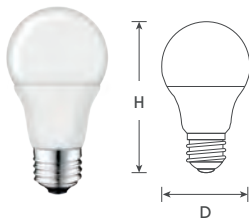
4W ~ 25W



Features

- Extremely energy saving with low power consumption
- Excellent thermal conductivity
- Good color rendition, Ra ≥80
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Energy star for dimmable version only

Thermal Plastic Multi-LED A19

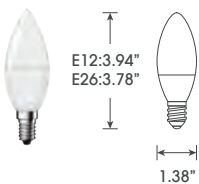


(Unit : inch)	(D)	(H)
5.5W	Ø2.36"	x 4.29"
9W	Ø2.36"	x 4.41"
9.5W	Ø2.36"	x 4.41"
12W	Ø2.36"	x 4.41"
12.5W	Ø2.36"	x 4.41"
14W	Ø2.36"	x 4.57"
15W	Ø2.36"	x 4.57"

Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA TP A19 SMD-5.5W	120V	5.5W	E26	3000K	450lm
LED NA TP A19 SMD-9W	120V	9W	E26	3000K	800lm
LED NA TP A19 SMD-12W	120V	12W	E26	3000K	1050lm
LED NA TP A19 SMD-14W	120V	14W	E26	3000K	1500lm
LED NA TP A19 SMD-5.5W DIM	120V	5.5W	E26	3000K	450lm
LED NA TP A19 SMD-9.5W DIM	120V	9.5W	E26	3000K	800lm
LED NA TP A19 SMD-12.5W DIM	120V	12.5W	E26	3000K	1100lm
LED NA TP A19 SMD-15W DIM	120V	15W	E26	3000K	1600lm

5.5W ~ 40W	12.5W ~ 75W
9W ~ 60W	14W ~ 100W
9.5W ~ 60W	15W ~ 100W
12W ~ 75W	

Thermal Plastic Multi-LED B11



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA TP B11 SMD-3W	120V	3W	E12 / E26	3000K	250lm
LED NA TP B11 SMD-4W	120V	4W	E12 / E26	3000K	350lm
LED NA TP B11 SMD-5W	120V	5W	E12 / E26	3000K	470lm

3W ~ 25W
4W ~ 40W
5W ~ 60W



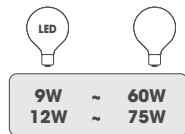
Features

- Extremely energy saving with low power consumption
- Excellent thermal conductivity
- Good color rendition, Ra ≥80
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions

Thermal Plastic Multi-LED Globe



Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA TP G30 SMD-9W	120V	9W	E26	3000K	800lm
LED NA TP G40 SMD-12W	120V	12W	E26	3000K	1100lm



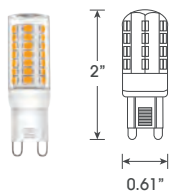
LED G9



Features

- Extremely energy saving with low power consumption
- Overall light distribution
- Good color rendition, Ra ≥80
- Ideal retrofit of traditional G9 with same appearance / performance / dimensions
- Lamp weight <12g comply with IEC G9 requirement
- Universal burning position

Multi-LED G9



Model	Voltage	Wattage	Base	Color Temp	Lumen 3000K / 6000K
LED NA G9 SMD-2.6W DIM	120V	2.6W	G9	3000K / 6000K	260lm / 275lm

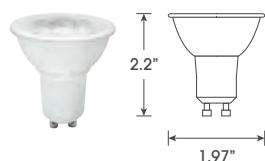




Features

- Extremely energy saving with low power consumption
- Excellent thermal conductivity
- Good color rendition, Ra ≥ 80 / 90
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions
- 5.5W and 6.5W-California Energy Commission (CEC) Title 20 compliant
- Aesthetic reflector optics

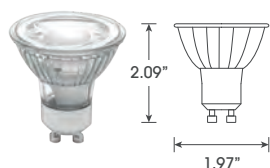
Thermal Plastic LED COB GU10



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen
LED NA TP GU10 COB-4W DIM	120V	4W	GU10	40°	3000K	280lm
LED NA TP GU10 COB-5.5W DIM	120V	5.5W	GU10	40°	3000K	400lm
LED NA TP GU10 COB-6.5W DIM	120V	6.5W	GU10	40°	3000K	500lm

LED	~	35W
4W	~	50W
5.5W	~	60W
6.5W	~	

Glass LED COB GU10



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen
LED NA G GU10 COB-4W DIM	120V	4W	GU10	40°	3000K	280lm
LED NA G GU10 COB-5.5W DIM	120V	5.5W	GU10	40°	3000K	400lm
LED NA G GU10 COB-6.5W DIM	120V	6.5W	GU10	40°	3000K	500lm

LED	~	35W
4W	~	50W
5.5W	~	60W
6.5W	~	

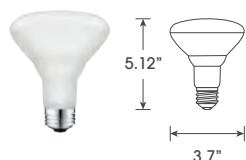




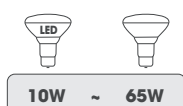
Features

- Extremely energy saving with low power consumption
- Excellent thermal conductivity
- Good color rendition, Ra ≥80
- Ideal retrofit of traditional lamps with same appearance / performance / dimensions
- Aesthetic reflector optics

Thermal Plastic Multi-LED BR30



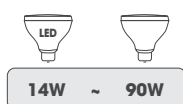
Model	Voltage	Wattage	Base	Color Temp	Lumen
LED NA TP BR30 SMD-10W DIM	120V	10W	E26	3000K	700lm



Glass LED COB PAR38



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen
LED NA G PAR38 COB-14W DIM	120V	14W	E26	60°	3000K	1100lm



Frontal glass heat dissipation technology
Special coating on glass reflector for backward heat filtering
Frontal lens in total silicon sealing, suitable for outdoor use condition

Thermal Plastic LED COB PAR20/PAR30/PAR38



Model	Voltage	Wattage	Base	Beam Angle	Color Temp	Lumen
LED NA TP PAR20 COB-7W DIM	120V	7W	E26	40°	3000K	500lm
LED NA TP PAR30S COB-13W DIM	120V	13W	E26	40°	3000K	1000lm
LED NA TP PAR30L COB-13W DIM	120V	13W	E26	40°	3000K	1000lm
LED NA TP PAR38 COB-15W DIM	120V	15W	E26	40°	3000K	1500lm



PAR20



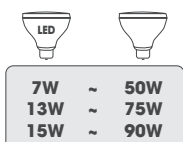
PAR30S



PAR30L



PAR38





TUBE



LED T8 UL Type A
P. 138



LED T8 UL Type B
P. 139



LED T8 UL Type A + B
P. 140

LED T8 UL Type A

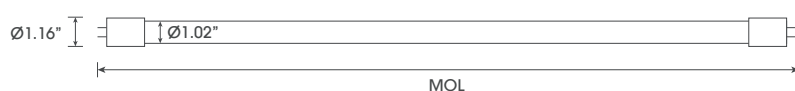


Features

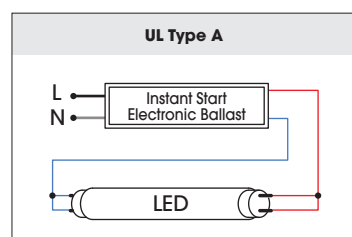
- Energy saving with low power consumption
- Perfect retrofit traditional lamps for INSTANT START circuit
- 220° beam angle allows fixture to maintain original light distribution by parabolic reflector
- Smooth operation even at low temperatures down to -20°C
- No mercury and hazardous substances
- Compatible with most common instant start electronic ballasts (Refer to the ballast compatibility list)
- No re-wiring cost
- Full glass body
- Voltage: 120Vac, 50/60Hz, Power Factor: 0.9
- Good color rendition, Ra ≥80



G13 base



Model	Voltage	Wattage	Color Temp	Beam Angle	Type	Length MOL	Efficacy	Lumen
LED F9T8/830/G/NA/IS	120V	9W	3000K	220°	UL Type A	23.7"	111lm/W	1000lm
LED F9T8/835/G/NA/IS	120V	9W	3500K	220°	UL Type A	23.7"	111lm/W	1000lm
LED F9T8/840/G/NA/IS	120V	9W	4000K	220°	UL Type A	23.7"	122lm/W	1100lm
LED F9T8/850/G/NA/IS	120V	9W	5000K	220°	UL Type A	23.7"	122lm/W	1100lm
LED F13T8/830/G/NA/IS	120V	13W	3000K	220°	UL Type A	35.4"	85lm/W	1100lm
LED F13T8/835/G/NA/IS	120V	13W	3500K	220°	UL Type A	35.4"	85lm/W	1100lm
LED F13T8/840/G/NA/IS	120V	13W	4000K	220°	UL Type A	35.4"	92lm/W	1200lm
LED F13T8/850/G/NA/IS	120V	13W	5000K	220°	UL Type A	35.4"	92lm/W	1200lm
LED F18T8/830/G/NA/IS	120V	18W	3000K	220°	UL Type A	47.7"	111lm/W	2000lm
LED F18T8/835/G/NA/IS	120V	18W	3500K	220°	UL Type A	47.7"	111lm/W	2000lm
LED F18T8/840/G/NA/IS	120V	18W	4000K	220°	UL Type A	47.7"	122lm/W	2200lm
LED F18T8/850/G/NA/IS	120V	18W	5000K	220°	UL Type A	47.7"	122lm/W	2000lm

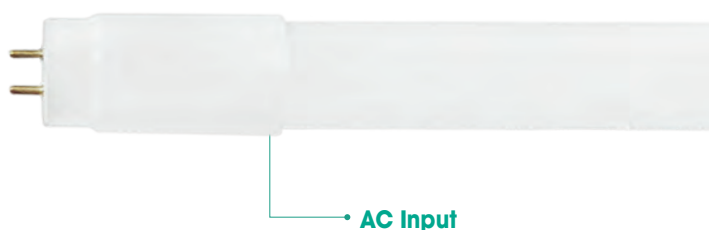




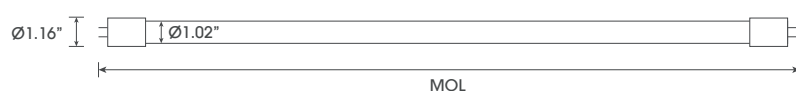
LED T8 UL Type B

Features

- Energy saving with low power consumption
- Perfect retrofit traditional lamps with higher system efficacy
- 220° beam angle allows fixture to maintain original light distribution by parabolic reflector
- Smooth operation even at low temperatures down to -20°C
- No mercury and hazardous substances
- Full glass body
- Voltage: 120Vac, 50/60Hz, Power Factor: 0.9
- Good color rendition, Ra $\geq$ 80

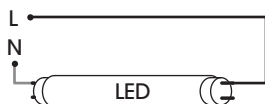


G13 base



Model	Voltage	Wattage	Color Temp	Beam Angle	Type	Length MOL	Efficacy	Lumen
LED F9T8/830/G/NA/AC/24	120 - 277V	9W	3000K	220°	UL Type B	23.7"	111lm/W	1000lm
LED F9T8/835/G/NA/AC/24	120 - 277V	9W	3500K	220°	UL Type B	23.7"	111lm/W	1000lm
LED F9T8/840/G/NA/AC/24	120 - 277V	9W	4000K	220°	UL Type B	23.7"	122lm/W	1100lm
LED F9T8/850/G/NA/AC/24	120 - 277V	9W	5000K	220°	UL Type B	23.7"	122lm/W	1100lm
LED F14T8/830/G/NA/AC/48	120 - 277V	14W	3000K	220°	UL Type B	47.7"	114lm/W	1600lm
LED F14T8/835/G/NA/AC/48	120 - 277V	14W	3500K	220°	UL Type B	47.7"	114lm/W	1600lm
LED F14T8/840/G/NA/AC/48	120 - 277V	14W	4000K	220°	UL Type B	47.7"	125lm/W	1750lm
LED F14T8/850/G/NA/AC/48	120 - 277V	14W	5000K	220°	UL Type B	47.7"	125lm/W	1750lm
LED F17T8/830/G/NA/AC/48	120 - 277V	17W	3000K	220°	UL Type B	47.7"	112lm/W	1900lm
LED F17T8/835/G/NA/AC/48	120 - 277V	17W	3500K	220°	UL Type B	47.7"	112lm/W	1900lm
LED F17T8/840/G/NA/AC/48	120 - 277V	17W	4000K	220°	UL Type B	47.7"	124lm/W	2100lm
LED F17T8/850/G/NA/AC/48	120 - 277V	17W	5000K	220°	UL Type B	47.7"	124lm/W	2100lm

UL Type B

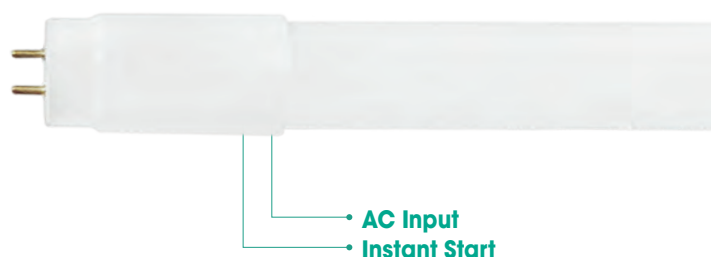




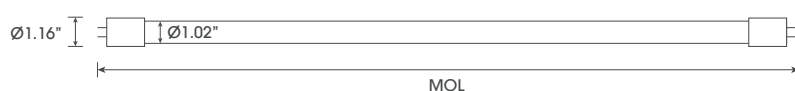
LED T8 UL Type A + B

Features

- Energy saving with low power consumption
- Perfect retrofit traditional lamps for INSTANT START circuit with no change on dimensions plus direct AC connection
- 220° beam angle allows fixture to maintain original light distribution by parabolic reflector
- Smooth operation even at low temperatures down to -20°C
- No mercury and hazardous substances
- Compatible with most common instant start electronic ballasts (Refer to the ballast compatibility list)
- No re-wiring cost for electronic instant start circuit
- Full glass body
- Voltage: 120Vac, 50/60Hz, Power Factor: 0.9
- Good color rendition, Ra ≥ 80

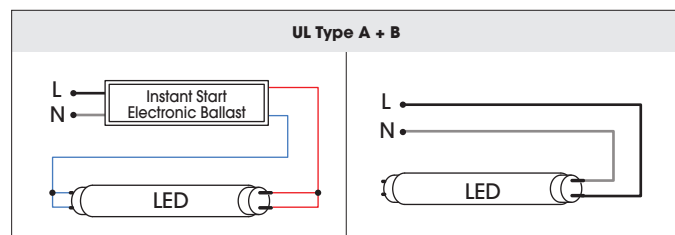


G13 base



Model	Voltage	Wattage	Color Temp	Beam Angle	Type	Length MOL	Efficacy	Lumen
LED F9T8/830/G/NA/ISAC/24	120 - 277V	9W	3000K	220°	UL Type A+B	23.7"	111lm/W	1000lm
LED F9T8/835/G/NA/ISAC/24	120 - 277V	9W	3500K	220°	UL Type A+B	23.7"	111lm/W	1000lm
LED F9T8/840/G/NA/ISAC/24	120 - 277V	9W	4000K	220°	UL Type A+B	23.7"	122lm/W	1100lm
LED F9T8/850/G/NA/ISAC/24	120 - 277V	9W	5000K	220°	UL Type A+B	23.7"	122lm/W	1100lm
LED F14T8/830/G/NA/ISAC/48	120 - 277V	14W	3000K	220°	UL Type A+B	47.7"	114lm/W	1600lm
LED F14T8/835/G/NA/ISAC/48	120 - 277V	14W	3500K	220°	UL Type A+B	47.7"	114lm/W	1600lm
LED F14T8/840/G/NA/ISAC/48	120 - 277V	14W	4000K	220°	UL Type A+B	47.7"	125lm/W	1750lm
LED F14T8/850/G/NA/ISAC/48	120 - 277V	14W	5000K	220°	UL Type A+B	47.7"	125lm/W	1750lm
LED F17T8/830/G/NA/ISAC/48	120 - 277V	17W	3000K	220°	UL Type A+B	47.7"	112lm/W	1900lm
LED F17T8/835/G/NA/ISAC/48	120 - 277V	17W	3500K	220°	UL Type A+B	47.7"	112lm/W	1900lm
LED F17T8/840/G/NA/ISAC/48	120 - 277V	17W	4000K	220°	UL Type A+B	47.7"	124lm/W	2100lm
LED F17T8/850/G/NA/ISAC/48	120 - 277V	17W	5000K	220°	UL Type A+B	47.7"	124lm/W	2100lm
LED F18T8/830/G/NA/ISAC/48	120 - 277V	18W	3000K	220°	UL Type A+B	47.7"	111lm/W	2000lm
LED F18T8/835/G/NA/ISAC/48	120 - 277V	18W	3500K	220°	UL Type A+B	47.7"	111lm/W	2000lm
LED F18T8/840/G/NA/ISAC/48	120 - 277V	18W	4000K	220°	UL Type A+B	47.7"	122lm/W	2200lm
LED F18T8/850/G/NA/ISAC/48	120 - 277V	18W	5000K	220°	UL Type A+B	47.7"	122lm/W	2200lm

UL Type A + B

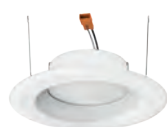




INDOOR LUMINAIRE



LED SHOP LIGHT
P. 142 - 145



LED DOWNLIGHT
P. 146 - 147



LED HIGHBAY
P. 148 - 149





LED Shop Light NL251E

Features

- 42W LED Shop Light
- Suitable to use in factories, offices, banks, shopping centers, subways, schools and other places
- Enclosed with reflector
- Applicable in damp location
- Long average life 50000 hours
- Good color rendition, Ra $\geq$ 80

Materials / Finish

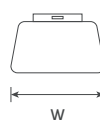
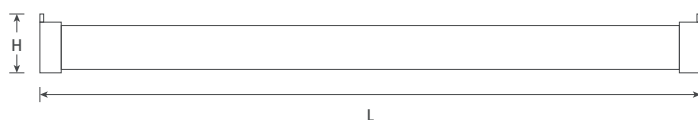
- Body: Powder coating iron
- Reflector: White powder coated, sheet steel

Installation / Mounting

- Suitable for suspended or surface mounted
- Integral gear unit allows quick and easy installation

Standards

- ETL



(Unit : inch)	(L)	(W)	(H)	Max. no. of luminaires interconnected
NL251E	48 x	5.4 x	2.24	4

Model	Voltage	Wattage	Color Temp	Beam Angle	Lumen
NL251E-42W/840	120V	42W	4000K	120°	3600lm





LED Shop Light NL261E

Features

- 42W LED Shop Light
- Suitable to use in factories, offices, banks, shopping centers, subways, schools and other places
- Enclosed with reflector
- Applicable in damp location
- Long average life 50000 hours
- Good color rendition, Ra ≥80

Materials / Finish

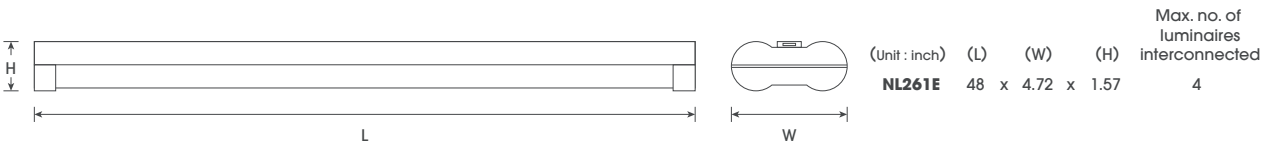
- Body: Powder coating iron
- Reflector: White powder coated, sheet steel

Installation / Mounting

- Suitable for suspended or surface mounted
- Integral gear unit allows quick and easy installation

Standards

- ETL



Model	Voltage	Wattage	Color Temp	Beam Angle	Lumen
NL261E-42W/840	100-277V	42W	4000K	120°	4000lm





LED Shop Light NL271E

Features

- 42W LED Shop Light
- Suitable to use in factories, offices, banks, shopping centers, subways, schools and other places
- Applicable in damp location
- Long average life 50000 hours
- Good color rendition, Ra $\geq$ 80

Materials / Finish

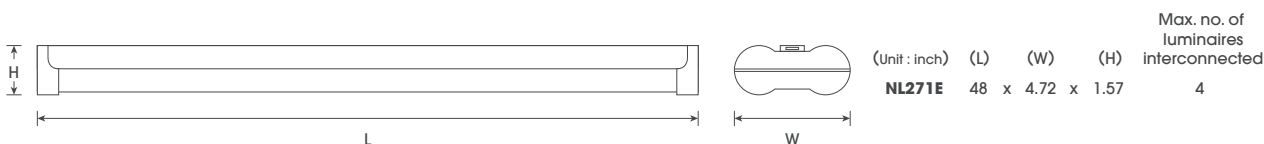
- Body: Powder coating iron

Installation / Mounting

- Suitable for suspended or surface mounted
- Integral gear unit allows quick and easy installation

Standards

- ETL



Model	Voltage	Wattage	Color Temp	Lumen
NL271E-42W/840	100-277V	42W	4000K	4000lm





LED Shop Light NL281E

Features

- 42W LED Shop Light
- Suitable to use in factories, offices, banks, shopping centers, subways, schools and other places
- Enclosed with reflector
- Applicable in damp location
- Long average life 50000 hours
- Good color rendition, Ra ≥80

Materials / Finish

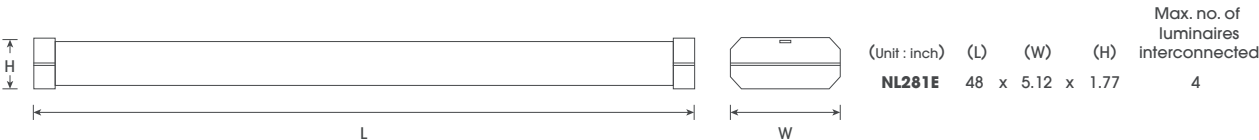
- Body: Powder coating iron

Installation / Mounting

- Suitable for suspended or surface mounted
- Integral gear unit allows quick and easy installation

Standards

- ETL



Model	Voltage	Wattage	Color Temp	Lumen
NL281E-42W/840	120V	42W	4000K	4000lm



LED Downlight ND311T - ND312T



Features

- 8.7W / 10W / 12W / 15W LED Dimmable Downlight
- Recessed round, uniform distribution
- Comfort glare-free diffuser
- California Energy Commission (CEC) Title 24 compliant
- TRIAC dimmable
- Good color rendition, Ra ≥80 / 90

Materials / Finish

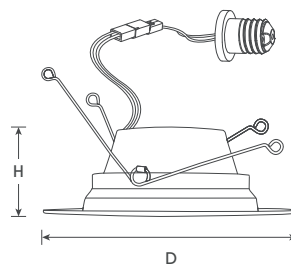
- Body: Sheet steel with white finish
- Trim: Sheet steel with white finish
- Diffuser: Opal PC, UV protected

Installation / Mounting

- Quick installation with mounting bracket and E26 base
- Suitable for 4 in / 5 in / 6 in recessed can
- Integral gear unit allows quick and easy installation

Standards

- CEC Title 24
- UL



(Unit : inch)	(D)		(H)
8.7W	Ø5.12/7.36	x	1.89/1.97
10W	Ø7.36	x	1.97
12W	Ø7.36	x	1.97
15W	Ø7.36	x	1.97

Model	Voltage	Wattage	Color Temp	Beam Angle	Recessed Can	Lumen
ND311T-8.7W/830	120V	8.7W	3000K	90°	4"	700lm
ND311T-8.7W/840	120V	8.7W	4000K	90°	4"	700lm
ND311T-8.7W/850	120V	8.7W	5000K	90°	4"	700lm
ND312T-8.7W/830	120V	8.7W	3000K	95°	5" / 6"	700lm
ND312T-8.7W/840	120V	8.7W	4000K	95°	5" / 6"	700lm
ND312T-8.7W/850	120V	8.7W	5000K	95°	5" / 6"	700lm
ND312T-10W/830	120V	10W	3000K	95°	5" / 6"	800lm
ND312T-10W/840	120V	10W	4000K	95°	5" / 6"	800lm
ND312T-10W/850	120V	10W	5000K	95°	5" / 6"	800lm
ND312T-12W/830	120V	12W	3000K	95°	5" / 6"	1000lm
ND312T-12W/840	120V	12W	4000K	95°	5" / 6"	1000lm
ND312T-12W/850	120V	12W	5000K	95°	5" / 6"	1000lm
ND312T-15W/830	120V	15W	3000K	95°	5" / 6"	1200lm
ND312T-15W/840	120V	15W	4000K	95°	5" / 6"	1200lm
ND312T-15W/850	120V	15W	5000K	95°	5" / 6"	1200lm
Title 24						
ND311T-8.7W/930	120V	8.7W	3000K	90°	4"	700lm
ND311T-8.7W/940	120V	8.7W	4000K	90°	4"	700lm
ND311T-8.7W/950	120V	8.7W	5000K	90°	4"	700lm
ND312T-8.7W/930	120V	8.7W	3000K	95°	5" / 6"	700lm
ND312T-8.7W/940	120V	8.7W	4000K	95°	5" / 6"	700lm
ND312T-8.7W/950	120V	8.7W	5000K	95°	5" / 6"	700lm
ND312T-10W/930	120V	10W	3000K	95°	5" / 6"	800lm
ND312T-10W/940	120V	10W	4000K	95°	5" / 6"	800lm
ND312T-10W/950	120V	10W	5000K	95°	5" / 6"	800lm
ND312T-12W/930	120V	12W	3000K	95°	5" / 6"	1000lm
ND312T-12W/940	120V	12W	4000K	95°	5" / 6"	1000lm
ND312T-12W/950	120V	12W	5000K	95°	5" / 6"	1000lm

LED Downlight ND321T - ND322T



Features

- 8.7W / 10W / 12W / 15W LED Dimmable Downlight
- Recessed round, uniform distribution
- Selectable CCT 3000K / 4000K / 5000K
- Comfort glare-free diffuser
- California Energy Commission (CEC) Title 24 compliant
- TRIAC dimmable
- Good color rendition, Ra $\geq$ 80 / 90

Materials / Finish

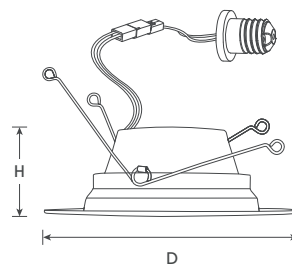
- Body: Sheet steel with white finish
- Trim: Sheet steel with white finish
- Diffuser: Opal PC, UV protected

Installation / Mounting

- Quick installation with mounting bracket and E26 base
- Suitable for 4 in / 5 in / 6 in recessed can
- Integral gear unit allows quick and easy installation

Standards

- CEC Title 24
- UL



(Unit : inch)	(D)		(H)
8.7W	Ø5.12/7.36	x	1.89/1.97
10W	Ø5.12/7.36	x	1.89/1.97
12W	Ø7.36	x	1.97
15W	Ø7.36	x	1.97

Model	Voltage	Wattage	Color Temp	Beam Angle	Recessed Can	Lumen
ND321T-8.7W/8XX	120V	8.7W	3000K / 4000K / 5000K	90°	4"	700lm
ND322T-8.7W/8XX	120V	8.7W	3000K / 4000K / 5000K	95°	5" / 6"	700lm
ND322T-10W/8XX	120V	10W	3000K / 4000K / 5000K	95°	5" / 6"	800lm
ND322T-12W/8XX	120V	12W	3000K / 4000K / 5000K	95°	5" / 6"	1000lm
ND322T-15W/8XX	120V	15W	3000K / 4000K / 5000K	95°	5" / 6"	1200lm
Title 24						
ND321T-8.7W/9XX	120V	8.7W	3000K / 4000K / 5000K	90°	4"	700lm
ND321T-10W/9XX	120V	10W	3000K / 4000K / 5000K	90°	4"	800lm
ND322T-8.7W/9XX	120V	8.7W	3000K / 4000K / 5000K	95°	5" / 6"	700lm
ND322T-10W/9XX	120V	10W	3000K / 4000K / 5000K	95°	5" / 6"	800lm



LED Highbay NH1020 - NH1024



Features

- 60W / 80W / 100W / 150W / 200W LED Highbay
- 125° beam angle for large open area coverage
- Uniformity distribution in high ceiling application
- Separately packed reflectors for cost saving logistics
- Good color rendition, Ra ≥70

Materials / Finish

- Body: Die cast aluminium
- Lens: PC
- Reflector (optional): PC / Aluminium
- Chips: Lumileds 3030
- Driver: Meanwell / Sosen

Installation / Mounting

- Pendant mount by chain
- Easy assembly of reflector by screw fixation

Standards

- UL, FCC, DLC

Dimming Options



Reflector Options



ALU 60°
Ø14.65" x 5.87"



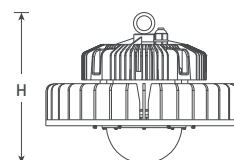
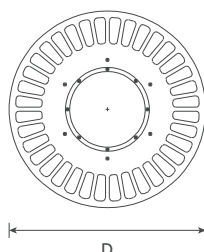
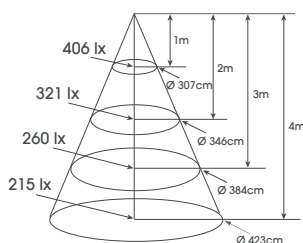
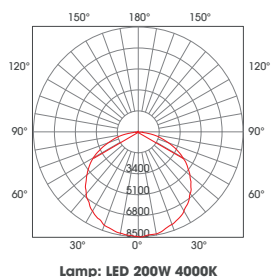
ALU 90°
Ø17.91" x 5.12"



ALU 120°
Ø19.88" x 4.92"



PC 60°
Ø16.34" x 10.63"



(Unit : inch)	(D)	(H)
NH1020	Ø7.09 x	6.18
NH1021	Ø9.06 x	8.82
NH1022	Ø9.06 x	8.82
NH1023	Ø10.24 x	9.21
NH1024	Ø11.80 x	9.84

Model	Voltage	Wattage	Color Temp	Beam Angle	Lumen
NH1020-3-ALB060-02	90 - 305V	60W	3000K	125°	6800lm
NH1020-3-ALD060-02	90 - 305V	60W	4000K	125°	7200lm
NH1020-3-ALG060-02	90 - 305V	60W	6500K	125°	7500lm
NH1021-3-ALB080-02	90 - 305V	80W	3000K	125°	9000lm
NH1021-3-ALD080-02	90 - 305V	80W	4000K	125°	9800lm
NH1021-3-ALG080-02	90 - 305V	80W	6500K	125°	10400lm
NH1022-3-ALB100-02	90 - 305V	100W	3000K	125°	11400lm
NH1022-3-ALD100-02	90 - 305V	100W	4000K	125°	12200lm
NH1022-3-ALG100-02	90 - 305V	100W	6500K	125°	13000lm
NH1023-3-ALB150-02	90 - 305V	150W	3000K	125°	17500lm
NH1023-3-ALD150-02	90 - 305V	150W	4000K	125°	18500lm
NH1023-3-ALG150-02	90 - 305V	150W	6500K	125°	19500lm
NH1024-3-ALB200-02	90 - 305V	200W	3000K	125°	24000lm
NH1024-3-ALD200-02	90 - 305V	200W	4000K	125°	25000lm
NH1024-3-ALG200-02	90 - 305V	200W	6500K	125°	26000lm





LED Highbay NH151E - NH154E

Features

- 100W / 150W / 200W / 240W LED Highbay
- 120° beam angles for large open area coverage
- Uniformity distribution in high ceiling application
- Good color rendition, Ra ≥80

Materials / Finish

- Body: Die cast aluminium
- Lens: PC
- Reflector (optional): PC / Aluminium
- Black color

Installation / Mounting

- Pendant mount by chain
- Easy assembly of reflector by screw fixation

Standards

- ETL



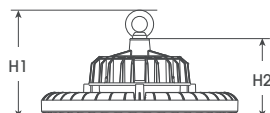
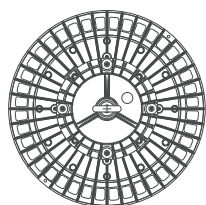
Reflector Options



PC 60°
 100W: Ø12.20" x 6.56"
 150W: Ø12.13" x 4.72"
 200W: Ø16.14" x 8.29"
 240W: Ø16.14" x 8.29"



ALU 90°
 100W: Ø13.39" x 4.53"
 150W: Ø14.57" x 5.12"
 200W: Ø16.93" x 5.31"
 240W: Ø16.93" x 5.31"



(Unit : inch)	(D)	(H1)	(H2)
NH151E	9.84 x	5.47 x	4.06
NH152E	9.84 x	5.47 x	4.06
NH153E	9.84 x	5.94 x	4.53
NH154E	11.81 x	6.34 x	4.92

D

Model	Voltage	Wattage	Color Temp	Beam Angle	Lumen
NH151E-100W/830	100 - 277V	100W	3000K	120°	14000lm
NH151E-100W/840	100 - 277V	100W	4000K	120°	15000lm
NH151E-100W/865	100 - 277V	100W	6500K	120°	15500lm
NH152E-150W/830	100 - 277V	150W	3000K	120°	21000lm
NH152E-150W/840	100 - 277V	150W	4000K	120°	21750lm
NH152E-150W/865	100 - 277V	150W	6500K	120°	22500lm
NH153E-200W/830	100 - 277V	200W	3000K	120°	28000lm
NH153E-200W/840	100 - 277V	200W	4000K	120°	29000lm
NH153E-200W/865	100 - 277V	200W	6500K	120°	30000lm
NH154E-240W/830	100 - 277V	240W	3000K	120°	33600lm
NH154E-240W/840	100 - 277V	240W	4000K	120°	34800lm
NH154E-240W/865	100 - 277V	240W	6500K	120°	36000lm





OUTDOOR LUMINAIRE



LED CANOPY
P. 151



LED WALL PACK
P. 152



LED SHOEBOX
P. 153



LED Canopy UC101E - UC102E



Features

- 35W / 70W LED Canopy
- High efficacy >115lm/W
- Uniform light output
- Trapezoid radiating fin structure
- Good color rendition, Ra ≥70

Materials / Finish

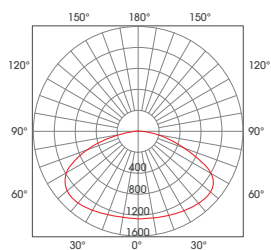
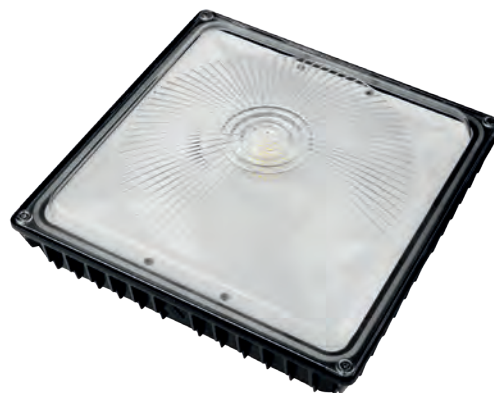
- Body: Die cast aluminium housing with anti-corrosive and thermostable finish
- Diffuser: PC
- Chips: Lumileds 3030
- Black color

Installation / Mounting

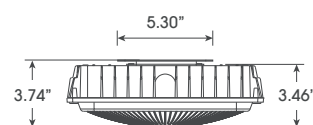
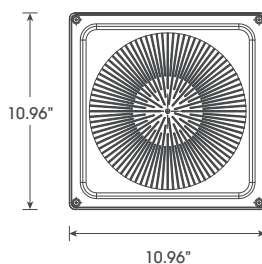
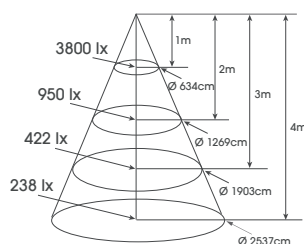
- Quick Installation with user friendly mounting bracket
- Stainless steel safety cable for double security

Standards

- UL, FCC, DLC



Lamp: LED 70W 3000K



Model	Voltage	Wattage	Color Temp	Beam Angle	Lumen
UC101E-35W/730	120V	35W	3000K	145°	3800lm
UC101E-35W/740	120V	35W	4000K	145°	4000lm
UC101E-35W/750	120V	35W	5000K	145°	4200lm
UC102E-70W/730	120V	70W	3000K	145°	7800lm
UC102E-70W/740	120V	70W	4000K	145°	8000lm
UC102E-70W/750	120V	70W	5000K	145°	8200lm



LED Wall Pack UF231E - UF235E



Features

- 30W / 60W / 75W / 100W / 120W LED Wall Pack
- Fixture surface especially treated with antisatic, thermostable and anti-corrosive paint
- High efficacy >110lm/W
- Uniform light output
- Good color rendition, Ra ≥80

Materials / Finish

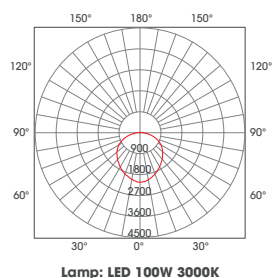
- Body: Die cast aluminium housing with anti-corrosive and thermostable finish
- Chips: Lumileds
- Grey color

Installation / Mounting

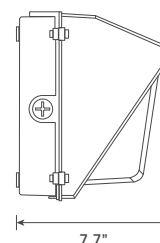
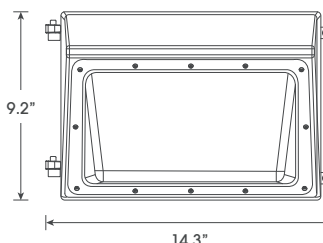
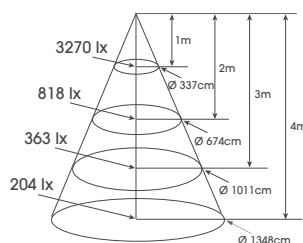
- Quick Installation with user friendly mounting bracket

Standards

- UL, FCC, DLC



Lamp: LED 100W 3000K



Model	Voltage	Wattage	Color Temp	Beam Angle	Lumen
UF231E-30W/830	90 - 305V	30W	3000K	120°	3150lm
UF231E-30W/840	90 - 305V	30W	4000K	120°	3200lm
UF231E-30W/850	90 - 305V	30W	5000K	120°	3300lm
UF232E-60W/830	90 - 305V	60W	3000K	120°	6450lm
UF232E-60W/840	90 - 305V	60W	4000K	120°	6500lm
UF232E-60W/850	90 - 305V	60W	5000K	120°	6600lm
UF233E-75W/830	90 - 305V	75W	3000K	120°	8000lm
UF233E-75W/840	90 - 305V	75W	4000K	120°	8100lm
UF233E-75W/850	90 - 305V	75W	5000K	120°	8250lm
UF234E-100W/830	90 - 305V	100W	3000K	120°	10000lm
UF234E-100W/840	90 - 305V	100W	4000K	120°	10500lm
UF234E-100W/850	90 - 305V	100W	5000K	120°	11000lm
UF235E-120W/830	90 - 305V	120W	3000K	120°	12500lm
UF235E-120W/840	90 - 305V	120W	4000K	120°	13000lm
UF235E-120W/850	90 - 305V	120W	5000K	120°	13200lm



LED Shoebox UF111E - UF114E



Features

- 100W / 150W / 200W / 300W LED Shoebox
- High efficacy >160lm/W
- Uniform light output
- Perform as street light, tunnel light, highbay, wall pack, floodlight
- Good color rendition, Ra ≥80

Materials / Finish

- Body: Die cast aluminium housing
- Chips: Samsung
- Black color

Installation / Mounting

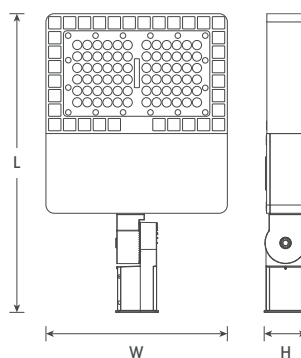
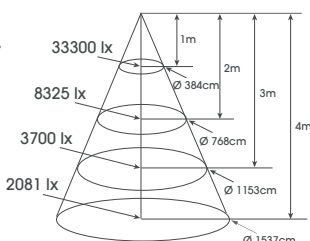
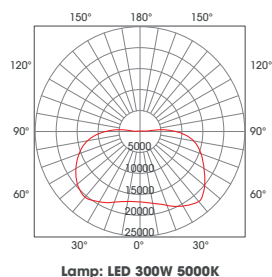
- Flexible installation wall mounted with various accessories available

Standards

- UL, FCC, DLC



Accessories



(Unit : inch)	(L)	(W)	(H)
UF111E	23.5	x 13	x 3.46
UF112E	23.5	x 13	x 3.46
UF113E	31	x 13	x 3.46
UF114E	31	x 13	x 3.46

Model	Voltage	Wattage	Color Temp	Beam Angle	Lumen
UF111E-100W/830	90 - 305V	100W	3000K	125 x 46°	15000lm
UF111E-100W/840	90 - 305V	100W	4000K	125 x 46°	15500lm
UF111E-100W/850	90 - 305V	100W	5000K	125 x 46°	16000lm
UF112E-150W/830	90 - 305V	150W	3000K	125 x 46°	22500lm
UF112E-150W/840	90 - 305V	150W	4000K	125 x 46°	23250lm
UF112E-150W/850	90 - 305V	150W	5000K	125 x 46°	24000lm
UF113E-200W/830	90 - 305V	200W	3000K	125 x 46°	30000lm
UF113E-200W/840	90 - 305V	200W	4000K	125 x 46°	31000lm
UF113E-200W/850	90 - 305V	200W	5000K	125 x 46°	32000lm
UF114E-300W/830	90 - 305V	300W	3000K	125 x 46°	45000lm
UF114E-300W/840	90 - 305V	300W	4000K	125 x 46°	46500lm
UF114E-300W/850	90 - 305V	300W	5000K	125 x 46°	48000lm



Average Life mentioned in this catalogue in hours is the time between the start of their use and the moment when for 50% of a population of light sources the light output has gradually degraded to a value below 70% of the initial luminous flux. This is also referred to as the L70B50 lifetime. (*The rated average life is not necessarily the average of all individual lamp lives. It may only be used for comparison, since operating conditions in practice may differ from the specified conditions used in life testing.)

Luminous Flux is the measure of the perceived power of light. It reflects the varying sensitivity of

the human eye to different wavelengths of light. Luminous flux is often used as an objective measure of the useful power emitted by a light source.

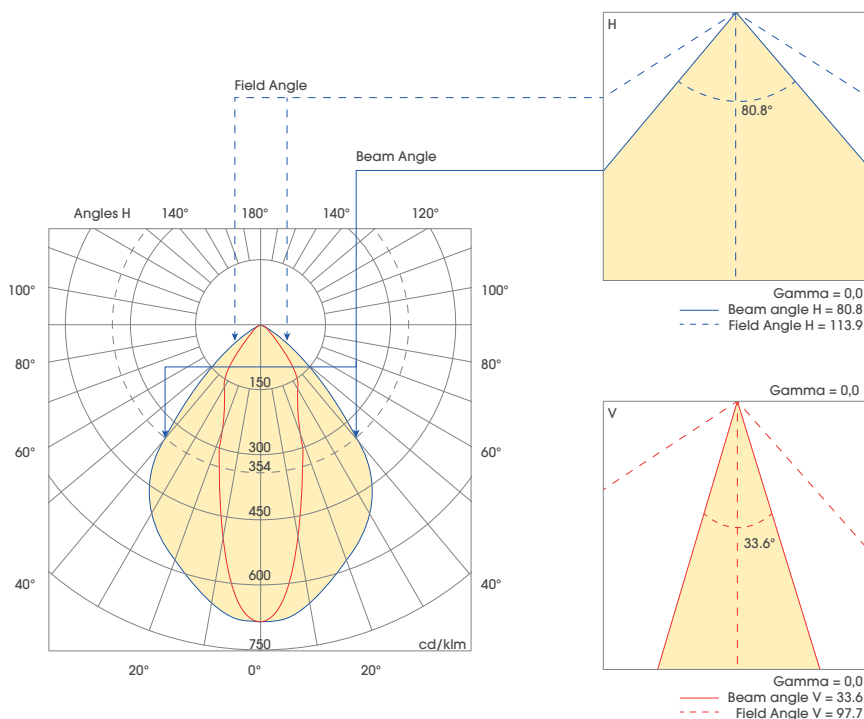
Unit of luminous flux is lumen (lm). One lumen is defined as the luminous flux of light produced by a light source that emits one candela of luminous intensity over a solid angle of one steradian.

Luminous Intensity is a measure of the wavelength-weighted power emitted by a light source in a particular direction per unit solid angle, based on the luminosity function, a standardized

model of the sensitivity of the human eye. The unit of luminous intensity is the candela (cd).

Illuminance is the total luminous flux incident on a surface, per unit area. It is a measure of how much the incident light illuminates the surface, wavelength-weighted by the luminosity function to correlate with human brightness perception. Illuminance is measured in lux (lx) or lumens per square metre ($\text{cd} \cdot \text{sr} \cdot \text{m}^{-2}$).

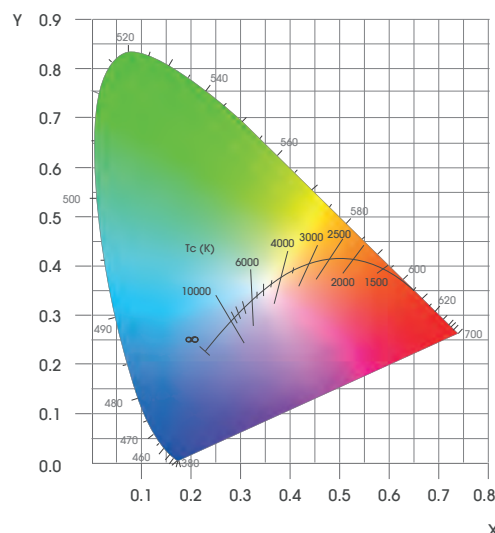
Diagram of Beam Angle and Field Angle



Beam Angle is a technical definition of the precise width of the amount of light being emitted by a specific light source. There are several types of beam angle definitions: very narrow spot, narrow spot, spot, narrow flood, flood, wide flood and very wide flood.

To calculate Beam Angle, Field Angle in VH photometries : The beam angle is the opening in degrees width at 50% of the maximum intensity. The field angle is the opening in degrees at 10% of the maximum intensity.

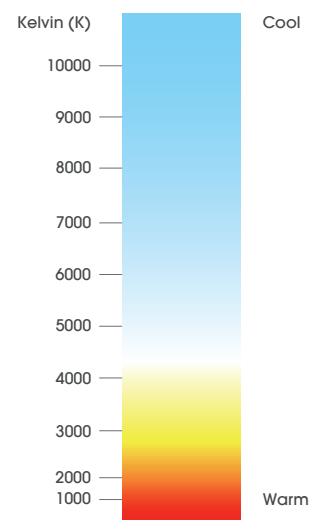
CIE CHROMATICITY Diagram



Color Temperature also called correlated color temperature is a characteristic of visible light that has important applications in lighting and other fields. The color temperature of a light source is the temperature of an ideal black body radiator that radiates light of comparable hue to that of the light source. Color temperature is conventionally stated in the unit of absolute temperature, the kelvin, having the unit symbol (K).

Color temperatures over 5000K are called cool colors (blueish white), while color temperatures between 2700 and 3000K are called warm colors (yellowish white through red).

Temperature of Light Diagram



Color Rendering Index (CRI) is a quantitative measure of the ability of a light source to reproduce the colors of various objects faithfully in comparison with an ideal or natural light source. Light sources with a high CRI are desirable in color-critical applications such as photography and cinematography.



Low CRI



High CRI

IP Ratings

Degree of protection to BS EN60529/DIN 0470

The IP classification system designates the degree of protection provided by an enclosure against solid objects or water ingress.

Table I shows degrees of protection against solid objects, Table II shows degrees of protection against water.

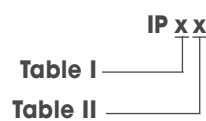


Table I (1st characteristic numeral)

Degree of Protection against solid objects

Digit

0

Non-protected.

1

Protected against a solid object greater than 50mm, such as a hand.

2

Protected against a solid object greater than 12.5mm, such as a finger.

3

Protected against a solid object greater than 2.5mm, such as wire or a tool.

4

Protected against a solid object greater than 1.0mm, such as wire or thin strips.

5

Dust-protected.
Prevents ingress of dust sufficient to cause harm.

6

Dust tight.
No ingress of dust.

Table II (2nd characteristic numeral)

Degree of Protection against water

Digit

0

Non-protected.

1

Protected against dripping water.

2

Protected against dripping water when tilted up to 15°.

3

Protected against spraying water at an angle of up to 60°.

4

Protected against splashing water from any direction.

5

Protected against jets of water from any direction.

6

Protected against heavy seas or powerful jets of water.
Prevents ingress sufficient to cause harm.

7

Protected against the effects of temporary immersion in water.

8

Protected against the effects of continuous immersion in water.



LED PRODUCT CATALOGUE 2022

Emitter Energy Inc.
12517 Calderwood St. Raleigh, NC 27614
P. 919.435.1405
F. 919.554.3892
e. slyman@emitterenergy.com
<http://www.emitterenergy.com>