



The Right Fit

Philips InteGrade LED Engine System – compact linear LED lighting for maximum freedom of design

The InteGrade LED engine system is a sustainable and energy-efficient way¹ to create an enjoyable shopping experience for customers. The system can be used for shelf and linear accent lighting. With the dedicated InteGrade connectors it is easy to create longer light-lines. Thanks to the system's compact dimensions, it can be aesthetically integrated into the store interior.

The unique asymmetrical optics direct the light to where you want it, thus making optimum use of the light and energy. The products or background you want lit will be presented uniformly, while reducing glare and dark spots. Our LEDs have minimal output degradation and color shift, so the light remains consistent throughout their long service life. InteGrade LED is, quite simply, an ideal solution for high-quality lighting without flicker or color differences. Mounting accessories, cables and LED power driver are available separately.

Key Benefits

Excellent Total Cost of Ownership

- Energy savings of up to 65%¹

Aesthetic integration of LED lighting, enables seamless light lines with uniform light distribution

- Supurb asymmetrical optics

Easy to Install

- InteGrade cabling allows connection to own connector system

Philips 5-year limited system warranty²

- InteGrade LED engine in combination with Philips cables and Xitanium power driver

Applications

- Shelf Lighting:

- Supermarkets
- Retail
- Libraries
- Museums



PHILIPS

InteGrade LED engine system

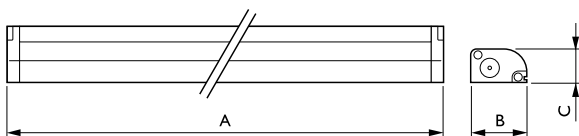
The InteGrade LED engine system consists of different components which are designed and marketed together, as we believe good system design is crucial to effective functioning of the system, and it also facilitates an easy design-in. The system includes InteGrade LED engines, Xitanium drivers and mounting accessories

Specifications

- The rated average life of the engines, in combination with a Philips LED power driver, is B50L70 at 50,000 hours (70% lumen maintenance). This rated average life is based on engineering data testing and probability analysis.
- Operating temperature (performance) min -30 °C / max +30 °C
- Storage temperature min -30 °C / max +60 °C
- Housing color: aluminum
- Safety Extra Low Voltage (SELV); safety is ensured even if wiring or units become damaged (only when a SELV rated power supply is used).
- Compliance and approval: ENEC³, UL⁴, CE⁵, RoHS⁶ and EU directive 2002/95/EC
- The engines are suitable for the described applications on condition of typical use in damp and dry locations.

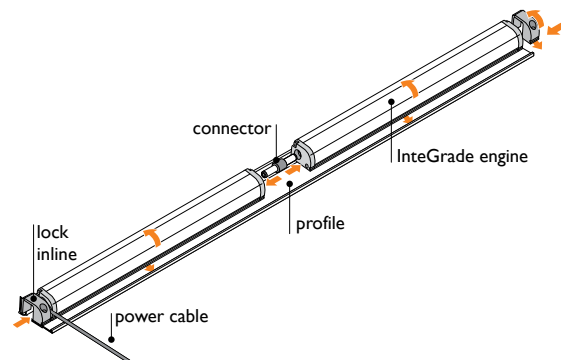
Dimensions InteGrade LED engines

InteGrade LED engines	Dimensions (Inches)		
	A	B	C
InteGrade engine value 140mm (6")	5.5	0.7	0.4
InteGrade engine value 575mm (23")	22.6	0.7	0.2



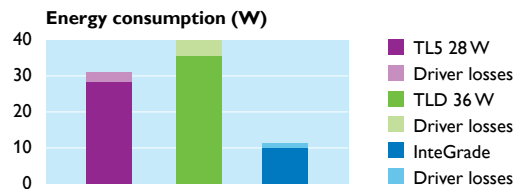
Installation advice

We advise you to consult our website for the latest up-to-date information and important detailed installation instructions. See www.philips.com/ledrefrigeration.

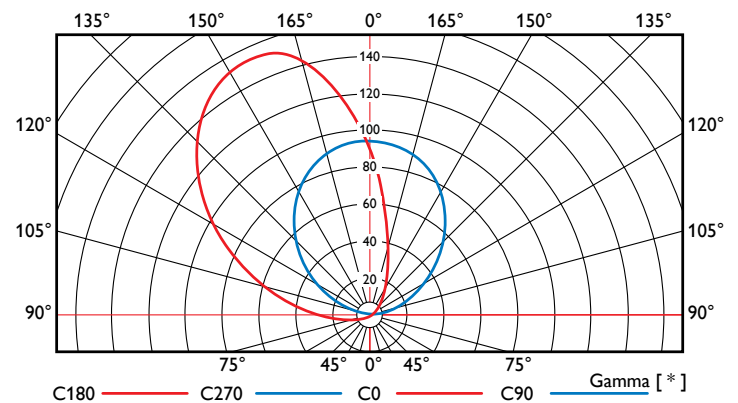


Energy savings

Energy savings are a major benefit of the InteGrade LED engines compared to TL5 and TL-D systems.



Light distribution diagram



1 When comparing energy consumption of two InteGrade engine value 575mm(23") 830 with a Philips 28W T5 lamp (28W).
 2 Contact your local Philips Sales Representative for complete warranty details.
 3 The above mentioned product has been certified on the basis of a test type according to the standard EN 62031:2008; EN 6247:2008.
 4. Indicates that the LEDs are components recognized with UL and complies with UL8750 Standard for LEDs.

5. CE Declaration of conformity for Safety and Electromagnetic compatibility. Council Directive 2006/95/EC and Council Directive 2004/108/EC respectively.
 6. Restrictions on Hazardous Substances (RoHS) is a European directive (2002/95/EC) designed to limit the content of 6 substances [lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE)] in electrical and electronic products. For products used in North America compliance to RoHS is voluntary and self-certified.

Xtanium LED power driver

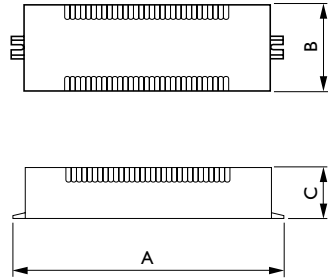
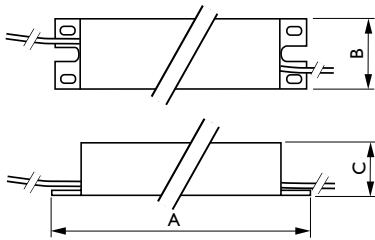
We have developed Xtanium Constant Voltage LED power drivers of 20 and 80W 24V which are ideal for powering the InteGrade LED engines, see ordering table at the last pages. To allow for variance in the installation, we recommend you do not load the power driver beyond 90% of its rated maximum power. Please refer to the wiring diagram in the installation guide for more details.



Xtanium Constant Voltage Outdoor driver 80W



Xtanium Constant Voltage Outdoor driver 20W



Dimensions Xtanium LED power driver

LED power driver	Dimensions (inches)		
	A	B	C
Xtanium Constant Voltage Outdoor LED Power Driver 20W - 24V	5.9	1.5	1.1
Xtanium Constant Voltage Outdoor LED Power Driver 80W - 24V H	9.5	1.7	1.2

Accessories

Power cables

The power cables are available in different lengths and colors (black and white). They are easy to connect to the engines and the driver. Specific details can be found in the design-in guide available on our website.

Mounting clips, connector and lock

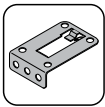
There are two mounting clips available:

- Shelf arm mounting clip
- Under shelf mounting clip

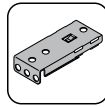
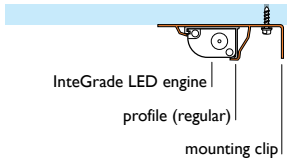
These clips can be easily clicked onto the InteGrade mounting profile. The connector is used to electrically connect two LED engines. The lock fixes the engine in its profile.

Mounting clips, connector and lock

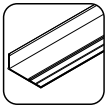
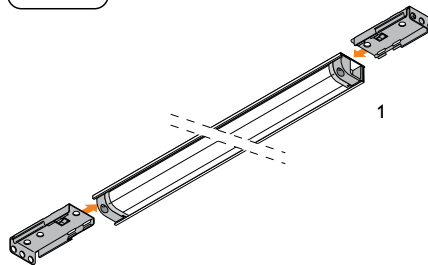
The InteGrade profiles are made of satinated aluminum. There are two versions: one regular type which can be combined with the under shelf or shelf arm mounting clip, for concealed integration below shelves or other surfaces; and one (F style) that can be screwed directly onto a surface – this profile is not only easy to install but also appealing to look at when installed visibly below a surface.



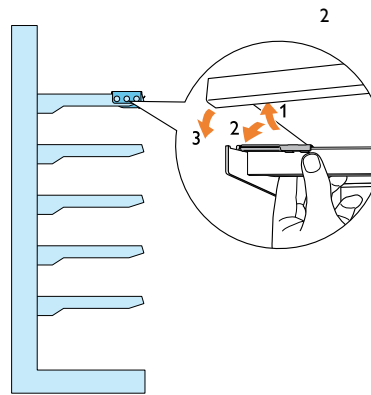
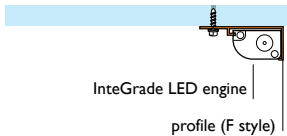
Installation of a LED engine with regular profile and mountingclip



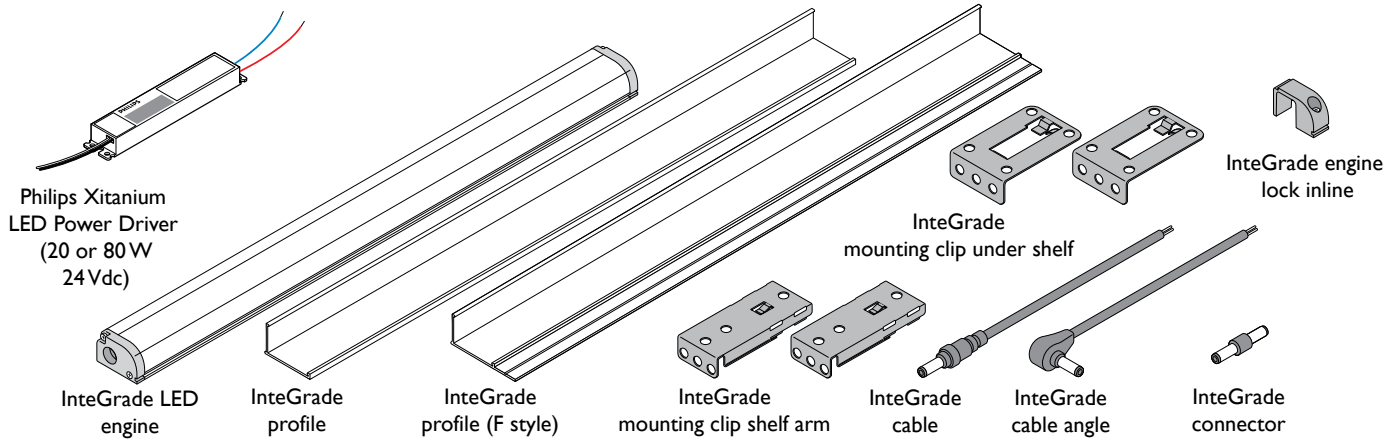
Installation example with mounting clip shelf arm



Installation of a LED engine with a InteGrade profile F style (no mounting clip needed)



Ordering details



InteGrade LED engines⁷

	Color Temp (K) ⁸	Wattage (W) ⁹	Approx. Lumens ^{10,11}	CRI ¹²	Ordering Code
Eco plus range (Minimized power)					
InteGrade engine eco 140mm(6") 865	6500	1	80	85	929000640713
InteGrade engine eco 575mm(23") 865	6500	4	330	85	929000640613
Value plus range (regular lumen output)					
InteGrade engine value 140mm(6") 827	2700	1.2	100	85	929000861813
InteGrade engine value 140mm(6") 830	3000	1.2	100	85	929000646113
InteGrade engine value 140mm(6") 835	3500	1.2	100	85	929000655313
InteGrade engine value 140mm(6") 840	4100	1.2	100	85	929000646213
InteGrade engine value 575mm(23") 827	2700	5	400	85	929000861713
InteGrade engine value 575mm(23") 830	3000	5	400	85	929000646313
InteGrade engine value 575mm(23") 835	3500	5	400	85	929000655413
InteGrade engine value 575mm(23") 840	4100	5	400	85	929000646413
Vision plus range (high lumen output)					
InteGrade engine vision 140mm (6") 830	3000	2	170	85	929000865813
InteGrade engine vision 140mm (6") 835	3500	2	170	85	929000866613
InteGrade engine vision 140mm (6") 840	4100	2	170	85	929000866013
InteGrade engine vision 575mm (23") 830	3000	10	750	85	929000865713
InteGrade engine vision 575mm (23") 835	3500	10	750	85	929000866513
InteGrade engine vision 575mm (23") 840	4100	10	750	85	929000865913

7. Current Specification subject to change, for the latest specifications please contact your local Philips sales representative

8. Correlated Color Temperature with 6 SDCM range

9. Power consumption per engine may vary +/- 20%

10. Photometric testing consistent with LM79

11. 100% of all production units fall between +/-20% of listed values

12. All CRI are 80 or above

InteGrade LED engine system drivers, cables, connectors and accessories

	Ordering Code	Minimum Order Quantity
Profiles		
InteGrade profile 875mm(34")	929000643413	48
InteGrade profile 1175mm(46")	929000643313	48
InteGrade profile 2000mm(79") F style	929000654313	24
InteGrade profile 2000mm(79")	929000654413	24
InteGrade power cables - to connect engine to driver		
InteGrade power cable 1m(39") black	929000641014	24
InteGrade power cable 2.5m(98") black	929000641114	24
InteGrade cable 1m(39") black angle	929000644614	24
InteGrade cable 2.5m(98") black angle	929000644814	24
InteGrade power cable 1m(39") white	929000645614	24
InteGrade power cable 2.5m(98") white	929000644514	24
InteGrade cable 1m(39") white angle	929000644714	24
InteGrade cable 2.5m(98") white angle	929000644914	24
InteGrade Jumper cable (engine to engine)		
InteGrade spacer cable 0.5m (20") black	929000645014	24
InteGrade spacer cable 0.5m (20") white	929000645114	24
Lock-inline – fix engine in profile		
InteGrade engine lock inline	929000643713	100
Connector – connect engine to engine		
InteGrade connector	929000640913	500
Mounting clips		
InteGrade mounting clip shelf arm	929000643803	100
InteGrade mounting clip under shelf	929000643903	100
Power driver		
Xitanium Constant Voltage Outdoor LED Power Driver 20W - 24V	929000654006	10
Xitanium Constant Voltage Outdoor LED Power Driver 80W - 24V H	929000653906	10



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