

PHILIPS

Retail display lighting

InteGrade high flux



Lighting products, brightening faces

High flux LED lighting for chiller doors and canopies



Product visibility enhances the shopping experience

Product visibility helps grab a customer's attention. With our new Philips InteGrade high flux family we let the merchandize shine through the glass door. Products on display in a bright, high-quality light remain attractive even when behind a glass door. And when the light source is miniaturized and placed out of sight, it ensures attention is focused exclusively on the displayed products.

Illumination beyond your imagination

The new InteGrade high flux family LED lighting makes merchandize really shine, and takes product visibility to the ultimate level.



“The high light output, dedicated optics and uniform light of InteGrade high flux LED engines **ensure ultimate product visibility**”



Introducing high flux for retail display lighting

Breathtaking performance

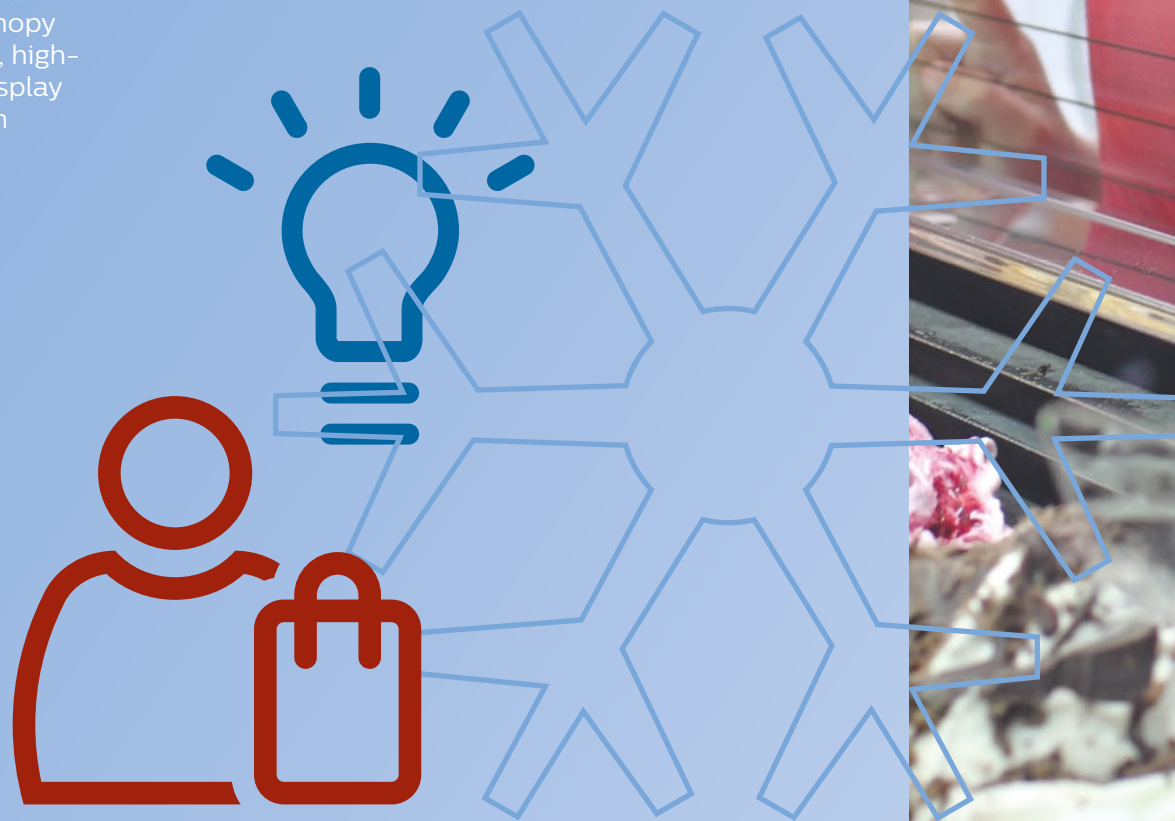
InteGrade high flux LED engines are suitable for chillers with doors and canopy lighting. The high lumen and lux level in combination with superb optics ensure they have exceptionally uniform light distribution, and deliver a continuous line of light without undesirable hot spots, glare or reflections. Product colors look natural and enhance the visual display of the merchandise.

Take canopy lighting to the next level

When horizontally integrated in a canopy installation, uniform light from the InteGrade high flux LED engines reaches right down to the lowest shelf. Chillers can be illuminated with only canopy lighting. Thanks to its bright, high-quality light, products on display remain attractive even when behind a full glass door.

Take door lighting to the next level

In chiller door applications, the superb lumen performance and high lux levels grab the customer's attention even when behind glass. The whole area is evenly illuminated, with no dark spots in the middle of the door. In fact, the light helps make the doors less visible, which is known to be a subconscious barrier for shoppers. And the miniaturized slim design enables aesthetic integration while also maximizing attention on the displayed products.





Step up to LED

In contrast to conventional fluorescent lighting, that leaves a darker area in coolers or freezers where it matters most, InteGrade LEDs and optics ensure that light is uniformly distributed over the whole area. There are no hot spots or warm-up time either. Fluorescent lighting also generates heat, which makes extra work for refrigeration systems. In turn, low temperatures reduce the effectiveness of fluorescent lighting. The two systems work against each other, which costs energy. The cool running and high energy efficiency of Philips LED lighting overcomes these drawbacks.

Use Philips LED solutions in refrigeration units to:

- Enhance visibility and attractiveness of products and contribute to the shopping experience.
- Meet wider corporate responsibility goals by reducing overall energy costs.
- Reduce maintenance costs thanks to longer life and fewer lamp changes.
- Shrink carbon footprint as LEDs contain no mercury or lead.

Breathtaking performance, unlimited design flexibility and an exceptionally long life

Maximum design flexibility and hassle-free installation

The ultra-thin InteGrade LED engines are easily integrated into display cabinets due to plug-and-play simplicity. Thanks to the extensive range of engine lengths, color temperatures and accessories, InteGrade LED engines maximize design flexibility with the modular approach. This design flexibility enables you to create a vast variety of stylish, modern refrigeration systems that match the needs of today's stores and supermarkets.

Fewer components needed

The standard engine lengths of 140, 575 and 1150 mm correspond with the common sizes for most applications. This reduces the

number of components you need per installation. And you can assemble custom length light-lines by combining modules. Design simplicity is assured with a range of mounting profiles, mounting clips, power cables and Philips Constant Voltage LED drivers. The accessories fit together for hassle-free installation.

Light where you want it

When mounted, the light source itself is virtually out of sight, so they don't draw attention away from merchandize. The unique optic system is optimized for doors and canopies, and ensures exceptional light distribution where it's needed. It also produces a continuous line of light without undesirable hot spots, glare or

reflections on the merchandize. The result is brighter, more uniform product illumination, both horizontally and vertically, ensuring ultimate product visibility.

Exceptionally long lifetime

Lifetime is an exceptional 50,000 hours. Philips LEDs have minimal output degradation and color shift over time, so the light stays consistent throughout the long service life. Note that InteGrade LED high flux engines are not standalone engines and they might need to be integrated with a heatsink for thermal management to achieve the specified lifetime. The cabinet framework can be used for heatsinking. Our design-in service is available to support you.



The best of both worlds

InteGrade high flux is now available in premium white to combine the best of both worlds: high flux with premium white takes the product attractiveness to the ultimate level, and stimulates the desire to buy.

Key benefits of InteGrade high flux

Breathtaking performance

- Superb lumen and lux levels grab customers' attention even from behind a glass door.
- Exceptionally uniform light distribution right down to the lowest shelf.
- Premium white versions deliver enhanced whites and astonishingly rich colors while also offering superior light quality thanks to a typical CRI 93.
- Continuous line of light without undesirable hot spots, glare or reflections.
- 50,000 hours lifetime when integrated with a heatsink.

Maximum design flexibility

- Miniaturized design for aesthetic integration and focusing attention on displayed products.
- Extensive range of engine lengths, color temperatures and accessories.

True system proposition

- System release with Philips Constant Voltage LED drivers.
- Five year system warranty.



Philips InteGrade LED products

InteGrade LED system high flux

InteGrade LED engines have been designed to match the most common application lengths, reducing the number of components needed per installation; yet maintaining the outstanding flexibility that its modular approach offers, enabling the creation of odd size lighting solutions to match every project specification. Thanks to a range of engine lengths, accessories and Philips Constant Voltage LED drivers the InteGrade LED system high flux offers maximum design flexibility and plug-and-play simplicity to enable a vast variety of innovative systems with style, modernity and functionality according the needs of the stores.

Note that InteGrade high flux engines are not standalone engines and they might need be integrated with a heatsink for thermal management to achieve 50 khrs lifetime. The cabinet framework can be used for that. Our Design in service is available to support you.

For canopy and chillers with doors InteGrade engine high flux gen 3 Product specification

Product name	Power consumption	Lumen	Color Rendering Index	Correlated Color Temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	(12NC)
InteGrade engine HF 140mm WWR G3	4,4	375	90		9290 016 22706
InteGrade engine HF 575mm WWR G3	17,5	1500	90		9290 016 22806
InteGrade engine HF 1150mm WWR G3	35,1	3000	90		9290 016 22906

* Correlated color temperature within 5 SDCM range

InteGrade engine high flux premium white gen 3 Product specification

Product name	Power consumption	Lumen	Color Rendering Index	Correlated Color Temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	(12NC)
InteGrade engine HF 140mm 930 PW G3	4,4	400	93	3000	9290 016 05606
InteGrade engine HF 575mm 930 PW G3	17,5	1575	93	3000	9290 016 05706
InteGrade engine HF 1150mm 930 PW G3	34,9	3150	93	3000	9290 016 05806
InteGrade engine HF 140mm 940 PW G3	4	400	93	4000	9290 016 05906
InteGrade engine HF 575mm 940 PW G3	16,1	1575	93	4000	9290 016 06006
InteGrade engine HF 1150mm 940 PW G3	32,2	3150	93	4000	9290 016 06106

*Correlated color temperature within 5 SDCM range

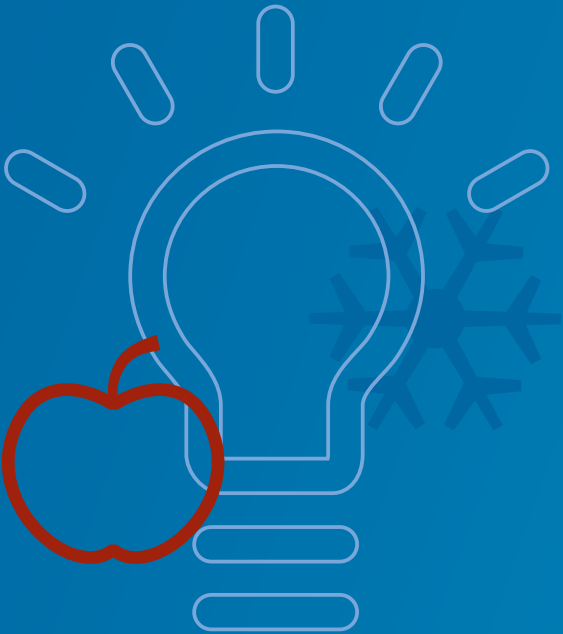
Plug and play Philips constant voltage driver list	Product code
	(12NC)
LED transformer 60W 24VDC 120V PP	929002106080
LED transformer 60W 24VDC 220-240V PP	929002106280
LED transformer 100W 24VDC 120V PP	929002106180
LED transformer 100W 24VDC 220-240V PP	929002106380
LED transformer 150W 24VDC 220-240V PP	929002106480

Non-plug and play Philips constant voltage drivers	Product code
	(12NC)
LED power driver 20W 24VDC 100-240V	929000654006
LED power driver 80W 24VDC 120-240V	929001669406
LED power driver 100W 24VDC 120-240V	929001669506
LED power driver 150W 24VDC 120-240V	929002101980
LED power driver 240W 24VDC 120-240V	929002102080
LED transformer 20W 24VDC 120-277V	929002105580
LED transformer 40W 24VDC 120-277V	929002105680
LED transformer 60W 24VDC 120-277V	929002105780
LED transformer 60W 24VDC 220-240V	913710032267
LED transformer 100W 24VDC 120-277V	929002105880
LED transformer 120W 24VDC 220-240V	913710032567
LED transformer 150W 24VDC 220-240V	929002105980
Xitanium 77W 100-277V 3.2A XI077C320V024FNS1M *	929001708113
Xitanium 100W 100-277V 4.1A XI100C410V024FNS1M*	929000771913
LED driver outdoor 100W 100-240V 24V**	929000485303

* Only for NAM region

** Only for Japan

Accessories	Product code
	(12NC)
InteGrade power cable 1m(39") black	929000641014
InteGrade power cable 2.5m(98") black	929000641114
InteGrade cable 1m(39") black angle	929000644614
InteGrade power cable 1m(39") white	929000645614
InteGrade power cable 2.5m(98") white	929000644514
InteGrade cable 1m(39") white angle	929000644714
InteGrade engine lock inline	929000643713
InteGrade connector	929000959106





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