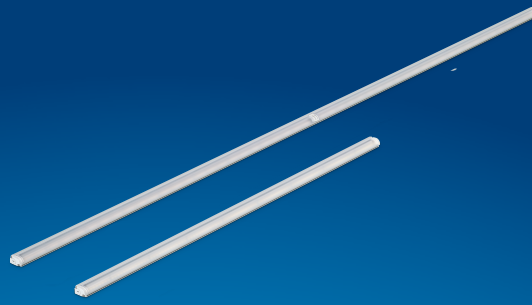


PHILIPS

InteGrade

LED

InteGrade engine UB
value G3



Datasheet

InteGrade LED system

Compact linear LED lighting for ultimate shopping experience

Key features and benefits

- State-of-art Efficacy up to 115 lm/W
- Uniform light distribution due to its breakthrough optical design
- Natural merchandise color with specially formulated CRI90 LEDs
- Food version featuring a single color line of light
- Miniaturized slim design for aesthetic integration
- Continuous line of light to eliminate undesirable hot spots, glare, reflections
- Long life-time: >50,000 hours
- Maximum design flexibility with extensive range of engine lengths, color temperatures and accessories
- True System proposition with Xitanium Constant Voltage LED power drivers
- Five year system warranty
- Dimmable

February 2019



Ordering data

Commercial product name	EOC	12NC	Box quantity
InteGrade engine UB Va 855mm 930 G3	8718696 758311 00	9290 016 03706	24
InteGrade engine UB Va 855mm 940 G3	8718696 759059 00	9290 016 03906	24
InteGrade engine UB Va 855mm WWR G3	8718696 759073 00	9290 016 04106	24
InteGrade engine UB Va 1150mm 930 G3	8718696 759493 00	9290 016 03806	24
InteGrade engine UB Va 1150mm 940 G3	8718696 759592 00	9290 016 04006	24
InteGrade engine UB Va 1150mm WWR G3	8718696 759615 00	9290 016 04206	24

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _a (ambient temperature)	25	30	30	°C

* Nominal value at which typical performance is specified

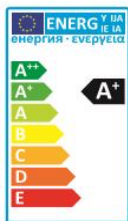
** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value

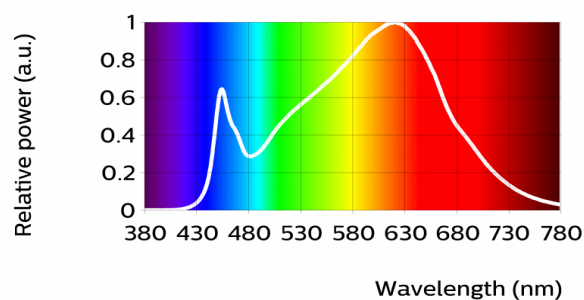
Optical characteristics - table per color (CCT)

InteGrade engine UB Va 855mm 930 G3

Parameter	Min	Typ	Max	Unit
Luminous flux	712	890	1068	lm
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			5	SDCM
CRI	90			
Radiation angle		27		deg
Photobiological safety			RG1 unlimited	

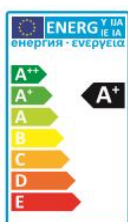


Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

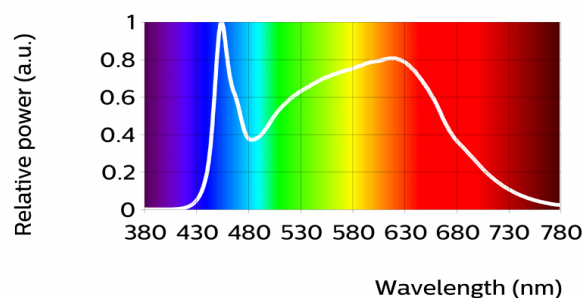


InteGrade engine UB Va 855mm 940 G3

Parameter	Min	Typ	Max	Unit
Luminous flux	776	970	1164	lm
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.379)		-
Color consistency			5	SDCM
CRI	90			
Radiation angle		27		deg
Photobiological safety			RG1 unlimited	

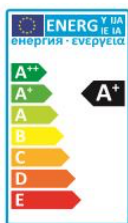


Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

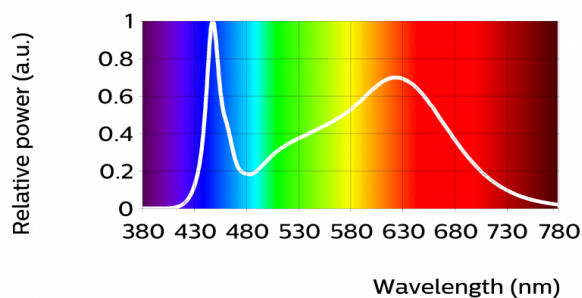


InteGrade engine UB Va 855mm WWR G3

Parameter	Min	Typ	Max	Unit
Luminous flux	560	700	840	lm
Color coordinates (CIEx, CIEy)		(0.386, 0.330)		-
Color consistency			5	SDCM
CRI	90			
Radiation angle		27		deg
Photobiological safety			RG1 unlimited	

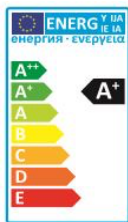


Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

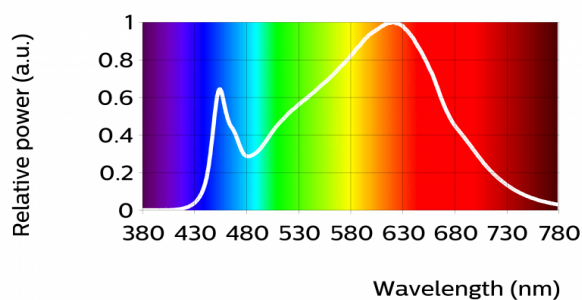


InteGrade engine UB Va 1150mm 930 G3

Parameter	Min	Typ	Max	Unit
Luminous flux	960	1200	1440	lm
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			5	SDCM
CRI	90			
Radiation angle		27		deg
Photobiological safety			RG1 unlimited	

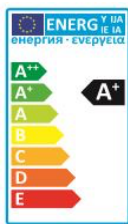


Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

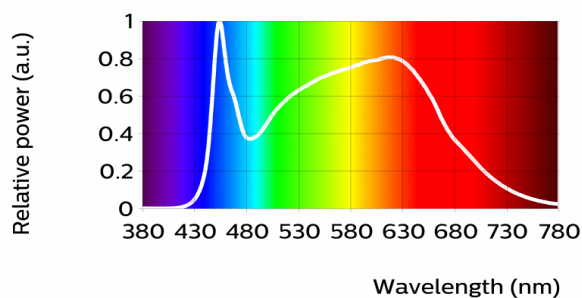


InteGrade engine UB Va 1150mm 940 G3

Parameter	Min	Typ	Max	Unit
Luminous flux	1040	1300	1560	lm
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.379)		-
Color consistency			5	SDCM
CRI	90			
Radiation angle		27		deg
Photobiological safety			RG1 unlimited	

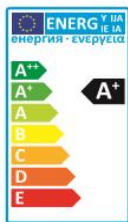


Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5

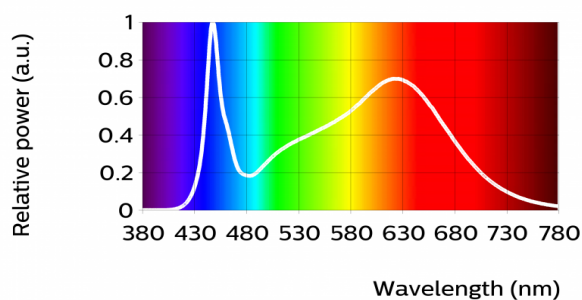


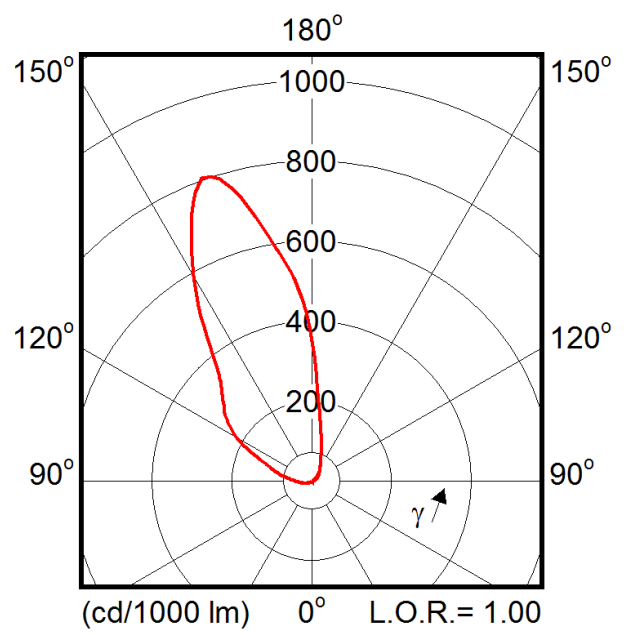
InteGrade engine UB Va 1150mm WWR G3

Parameter	Min	Typ	Max	Unit
Luminous flux	720	900	1080	lm
Color coordinates (CIEx, CIEy)		(0.386, 0.330)		-
Color consistency			5	SDCM
CRI	90			
Radiation angle		27		deg
Photobiological safety			RG1 unlimited	



Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5





Electrical characteristics

InteGrade engine UB Va 855mm 930 G3

InteGrade engine UB Va 855mm 940 G3

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		9.4		W = kWh/1000h
Number of modules in series per chain			4	
Measurement precision for power +/- 3.3%				

InteGrade engine UB Va 1150mm 930 G3

InteGrade engine UB Va 1150mm 940 G3

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		13.0		W = kWh/1000h
Number of modules in series per chain			3	
Measurement precision for power +/- 3.3%				

InteGrade engine UB Va 855mm WWR G3

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		7.8		W = kWh/1000h
Number of modules in series per chain			4	
Measurement precision for power +/- 3.3%				

InteGrade engine UB Va 1150mm WWR G3

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		10.4		W = kWh/1000h
Number of modules in series per chain			3	
Measurement precision for power +/- 3.3%				

Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80		
		B50	B20	B10	B50	B20	B10
	Ta -20°C	>75	>75	>75	>75	>75	>75
	Ta 5°C	>75	>75	>75	65	64	64
	Ta 30°C	>75	75	74	47	46	46

Lifetime

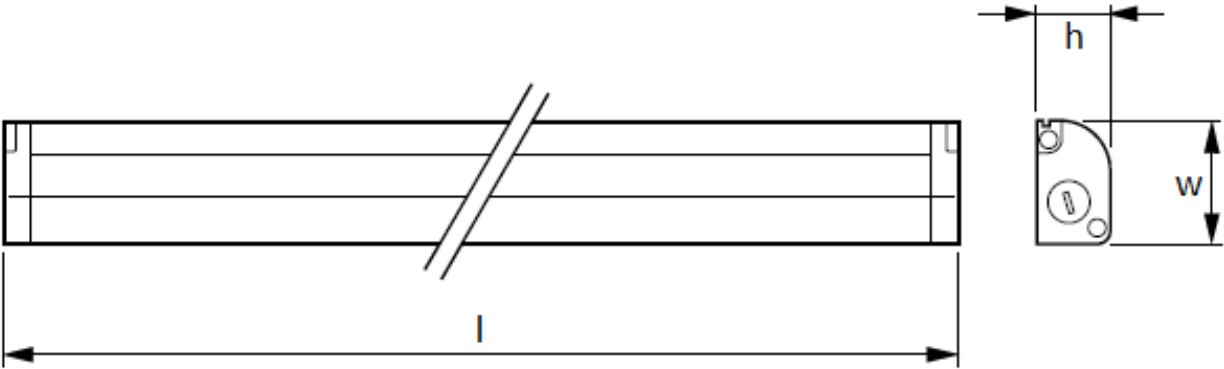
Parameter	Value	Unit
M70F50 nominal	78000	hours
M70F50 life	74000	hours

Switching cycles in accordance to EU 1194/2012: >15000.

Mechanical characteristics

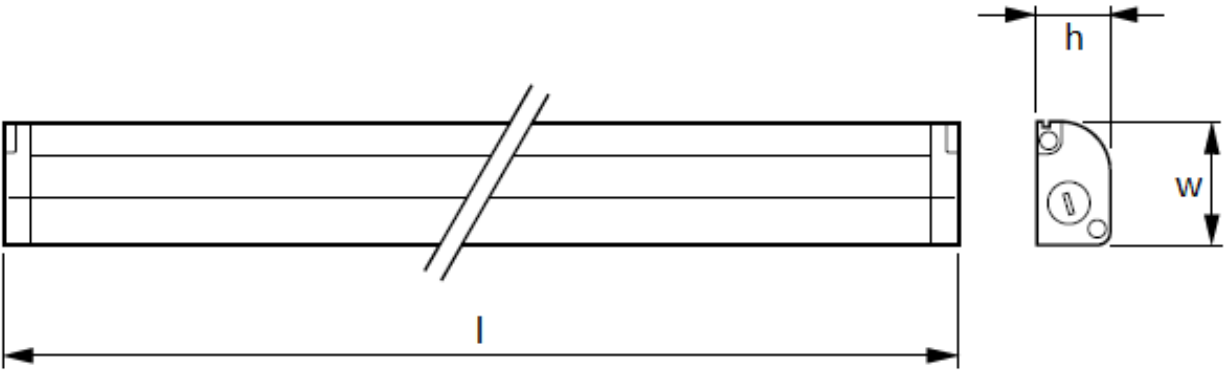
InteGrade engine UB Va 855mm 930 G3
InteGrade engine UB Va 855mm 940 G3
InteGrade engine UB Va 855mm WWR G3

Parameter	Min	Typ	Max	Unit
Length	851	855	859	mm
Width	18.2	18.5	18.7	mm
Height	10.5	11	13.5	mm
Product mass		184		gram



InteGrade engine UB Va 1150mm 930 G3
InteGrade engine UB Va 1150mm 940 G3
InteGrade engine UB Va 1150mm WWR G3

Parameter	Min	Typ	Max	Unit
Length	1146	1150	1154	mm
Width	18.2	18.5	18.7	mm
Height	10.5	11	13.5	mm
Product mass		247		gram



Absolute ratings

Parameter	Min	Max	Unit
ESD (direct contact)		4	kV
ESD (air)		8	kV
Ambient temperature	-30	30	°C
Storage temperature	-30	60	°C

Application information

Certificates and Standards

IEC/EN 62031

IEC/EN 62471

Relevant clauses of IEC/EN 60335-1

Annex BB of IEC/EN 60335-2-89

Annex CC of IEC/EN 60335-2-24

CSA C22.2 No.9

UL 2108

NSF (allows usage in the vicinity of Food)

ENEC

Environmental

RoHS/REACH

Application

IP rating	No IP-rating, fit for use in coolers and freezers
Overheating protection	No protection
Luminaire class	IEC Class III if connected to a SELV driver
Dimming	Yes

The InteGrade system is certified with the household standard compliant SELV Philips LED Power drivers.

Notes

Special colors; Modules with WWR and XR color are special purpose modules for refrigerated cabinets, not for general lighting.



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06/02/2019