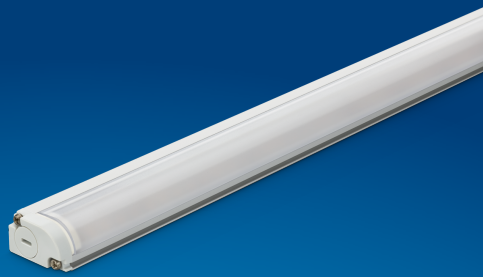


PHILIPS

InteGrade

LED

InteGrade engine Va Rose
G4



Datasheet

Key features and benefits

- Wide range of lengths for modularity and easy installation on different size cabinets
- Miniaturized slim design for aesthetic integration
- Premium color consistency up to 3 SDCM over lifetime
- Natural merchandise color with specially formulated LEDs with min 87 CRI
- Modules performing up to 143 lm/W meeting SLR (Single Lighting Regulation)
- Unique tailored spectra, Rose, for outstanding red color meat type merchandize attractiveness
- Maximum design flexibility with extensive range of engine lengths and compatible with G4 accessories
- Correlated Color temperature Rose typ. 2200K
- True System proposition with five-year system warranty with Philips LED Power Drivers
- Reduced power consumption for energy saving
- Long lifetime: 100,000 hours
- Dimmable

December 2022



Ordering data

Commercial product name	EOC	12NC	EPREL registration #	Box quantity
InteGrade engine Va 140mm Rose G4	8720169 173002 00	9290 034 27606	1407669	24
InteGrade engine Va 855mm Rose G4	8720169 173026 00	9290 034 27706	1407670	24
InteGrade engine Va 1150mm Rose G4	8720169 173040 00	9290 034 27806	1407671	24

Key Specifications at Nominal conditions

Name	12NC	Power (W)	Luminous Flux (lm)	CRI
InteGrade engine Va 140mm Rose G4	9290 034 27606	0.64	67	87
InteGrade engine Va 855mm Rose G4	9290 034 27706	3.96	436	87
InteGrade engine Va 1150mm Rose G4	9290 034 27806	5.40	603	87

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _a (ambient temperature)	5	30	50	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

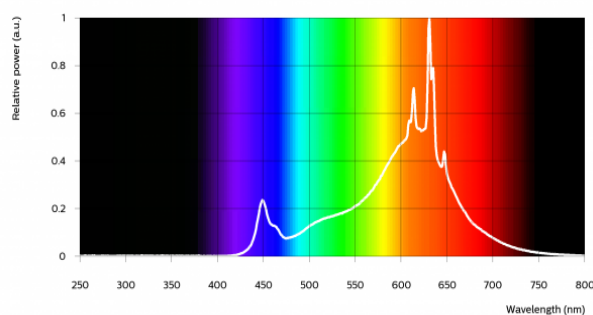
*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

InteGrade engine Va 140mm Rose G4

Parameter	Min	Typ	Max	Unit
Luminous flux	65	67	86	lm
Efficacy	101	105	135	lm/W
Correlated color temperature (CCT)		2200		K
Color coordinates (CIEx, CIEy)		(0.479, 0.384)		-
Color consistency			3	SDCM
CRI	87			
R9	40			
Photometric code		822/359		
Photobiological safety			RG1 unlimited	

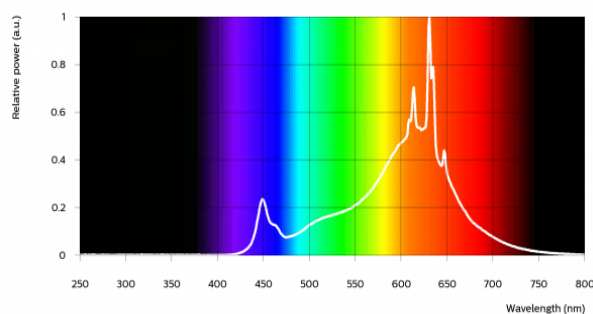
Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .



InteGrade engine Va 855mm Rose G4

Parameter	Min	Typ	Max	Unit
Luminous flux	419	436	558	lm
Efficacy	106	110	141	lm/W
Correlated color temperature (CCT)		2200		K
Color coordinates (CIEx, CIEy)		(0.479, 0.384)		-
Color consistency			3	SDCM
CRI	87			
R9	40			
Photometric code		822/359		
Photobiological safety			RG1 unlimited	

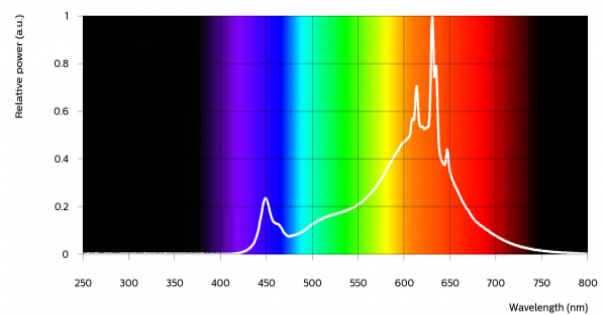
Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .



InteGrade engine Va 1150mm Rose G4

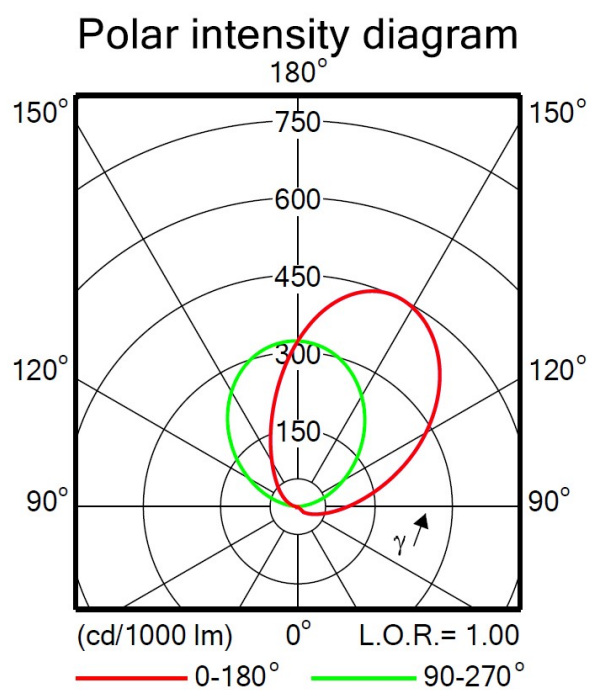
Parameter	Min	Typ	Max	Unit
Luminous flux	579	603	772	lm
Efficacy	107	112	143	lm/W
Correlated color temperature (CCT)		2200		K
Color coordinates (CIEx, CIEy)		(0.479, 0.384)		-
Color consistency			3	SDCM
CRI	87			
R9	40			
Photometric code		822/359		
Photobiological safety			RG1 unlimited	

Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .



Beam shape

Light distribution, scaled to cd per 1000lm



Electrical characteristics

InteGrade engine Va 140mm Rose G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		0.64		W = kWh/1000h
Number of modules per chain			50	

Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%

InteGrade engine Va 855mm Rose G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		3.96		W = kWh/1000h
Number of modules per chain			8	

Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%

InteGrade engine Va 1150mm Rose G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		5.40		W = kWh/1000h
Number of modules per chain			6	

Measurement precision for Vf +/- 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	>100	>100	>100	>100	>100	>100
	Ta 5°C	>100	>100	>100	>100	>100	>100
	Ta 30°C	>100	>100	>100	>100	>100	>100

Lifetime

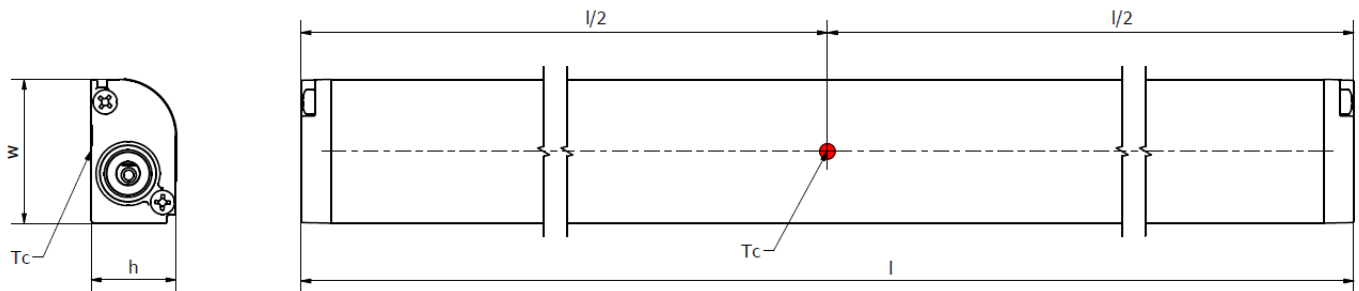
Parameter	Value	Unit
M70F50 nominal	100000	hours
M70F50 life	100000	hours

Mechanical characteristics

InteGrade engine Va 140mm Rose G4

Parameter	Min	Typ	Max	Unit
Length	136	140	144	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	mm
Product mass		30		gram

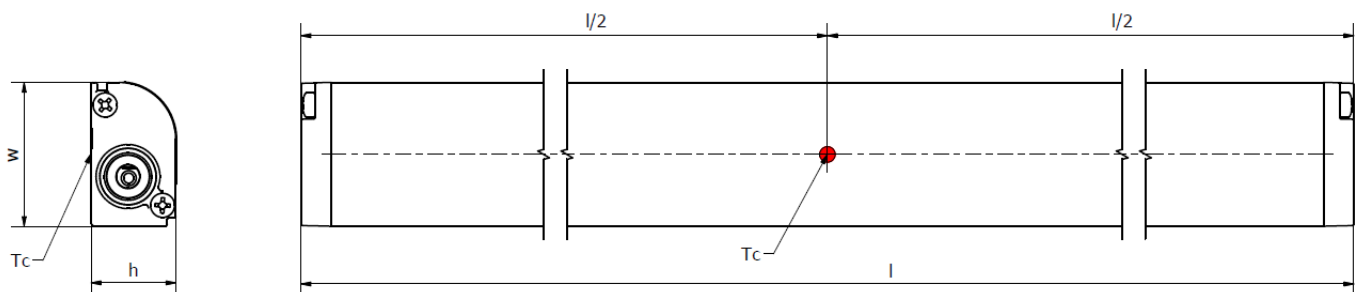
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Va 855mm Rose G4

Parameter	Min	Typ	Max	Unit
Length	851	855	859	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	mm
Product mass		180		gram

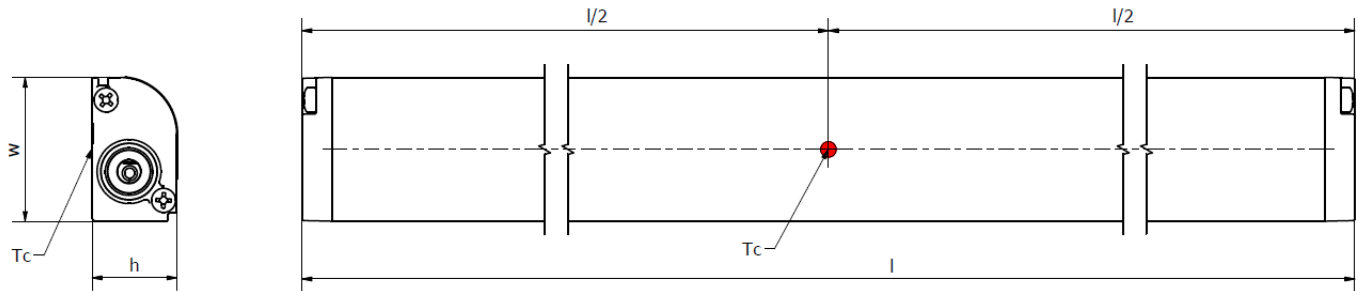
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Va 1150mm Rose G4

Parameter	Min	Typ	Max	Unit
Length	1146	1150	1154	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	mm
Product mass		230		gram

Thermal expansion from -30°C to +30°C is included in the tolerances



Absolute ratings

Parameter	Min	Max	Unit
Case temperature (Tc-max)		70	°C
Ambient temperature	-30	50	°C

Application information

Certificates and Standards

IEC/EN 62031

Relevant clauses of IEC/EN 60335-1

Annex BB of IEC/EN 60335-2-89

Annex CC of IEC/EN 60335-2-24

Application

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

Do not use in highly polluted areas. Surface mounting only.



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06/12/2022